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Joint plat

*Flat gaskets*

Flachdichtungen

*Juntas planas*

Guarnizioni piatte

*Juntas planas*



2

Joint divers

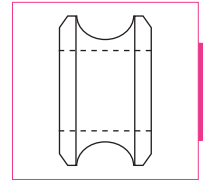
*Miscellaneous gaskets*

Unterschiedliche Dichtungen

*Juntas diversas*

Guarnizioni varie

*Juntas diversas*



15

Joint rond

*Round gaskets*

Runddichtungen

*Juntas redondas*

Guarnizioni tonde

*Juntas redondas*



6

Joint rouge

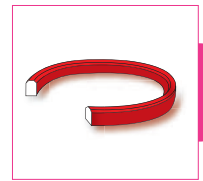
*Red gaskets*

Rote Dichtungen

*Juntas rojas*

Guarnizioni rosse

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20

Joint mini O-Ring

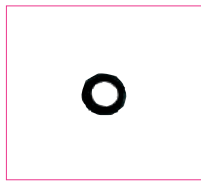
*Mini O-Ring gaskets*

Mini O-Ring Dichtungen

*Juntas mini O-Ring*

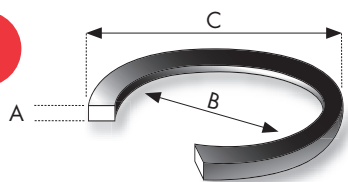
Guarnizioni mini O-Ring

*Juntas mini O-Ring*



13

**2**  
pcs



Joint plat; sachet de 2 pièces.

Flat gasket; bag of 2 pieces.

Flachdichtung; Beutel von 2 Stück.

Junta plana; bolsita de 2 piezas.

Guarnizione piatta; bustina da 2 pezzi.

Junta plana; saquinho de 2 peças.

| MSA        | A mm | B Ø mm | C Ø mm |
|------------|------|--------|--------|
| 43.050-101 | 0.50 | 15.40  | 16.80  |
| 43.050-102 | 0.50 | 15.70  | 16.90  |
| 43.050-103 | 0.60 | 16.00  | 17.20  |
| 43.050-104 | 0.50 | 17.00  | 18.20  |
| 43.050-105 | 0.50 | 17.80  | 18.70  |
| 43.050-106 | 0.50 | 17.80  | 19.50  |
| 43.050-107 | 0.50 | 18.20  | 19.70  |
| 43.050-108 | 0.50 | 19.20  | 20.30  |
| 43.050-109 | 0.50 | 19.50  | 20.60  |
| 43.050-110 | 0.50 | 19.80  | 20.80  |
| 43.050-111 | 0.50 | 19.80  | 21.30  |
| 43.050-112 | 0.50 | 20.00  | 21.60  |
| 43.050-113 | 0.50 | 20.70  | 21.90  |
| 43.050-114 | 0.50 | 21.00  | 22.20  |
| 43.050-115 | 0.50 | 21.00  | 22.50  |
| 43.050-116 | 0.50 | 21.90  | 23.50  |
| 43.050-118 | 0.50 | 22.00  | 24.00  |
| 43.050-120 | 0.50 | 22.10  | 24.90  |
| 43.050-117 | 0.50 | 22.30  | 23.70  |
| 43.050-119 | 0.50 | 22.80  | 24.50  |
| 43.050-121 | 0.50 | 23.40  | 25.20  |
| 43.050-122 | 0.50 | 24.00  | 25.20  |
| 43.050-123 | 0.50 | 24.00  | 25.50  |
| 43.050-124 | 0.50 | 25.10  | 26.50  |
| 43.050-125 | 0.50 | 26.00  | 27.40  |
| 43.050-126 | 0.50 | 26.10  | 27.70  |
| 43.050-127 | 0.50 | 26.50  | 28.20  |
| 43.050-128 | 0.50 | 26.50  | 28.50  |
| 43.050-129 | 0.50 | 26.90  | 28.60  |
| 43.050-130 | 0.50 | 27.25  | 28.75  |
| 43.050-131 | 0.50 | 27.60  | 29.00  |

| MSA        | A mm | B Ø mm | C Ø mm |
|------------|------|--------|--------|
| 43.050-133 | 0.50 | 27.80  | 30.00  |
| 43.050-132 | 0.50 | 28.00  | 29.50  |
| 43.050-135 | 0.50 | 28.50  | 30.40  |
| 43.050-134 | 0.50 | 28.80  | 30.20  |
| 43.050-136 | 0.50 | 29.00  | 30.50  |
| 43.050-138 | 0.50 | 29.30  | 31.30  |
| 43.050-137 | 0.50 | 29.50  | 31.00  |
| 43.050-139 | 0.50 | 30.00  | 31.50  |
| 43.050-140 | 0.50 | 30.00  | 32.00  |
| 43.050-142 | 0.50 | 30.00  | 32.50  |
| 43.050-148 | 0.50 | 30.00  | 33.70  |
| 43.050-141 | 0.50 | 30.50  | 32.30  |
| 43.050-143 | 0.50 | 31.00  | 33.00  |
| 43.050-145 | 0.50 | 31.40  | 33.20  |
| 43.050-146 | 0.50 | 31.50  | 33.30  |
| 43.050-147 | 0.50 | 31.50  | 33.50  |
| 43.050-149 | 0.50 | 31.50  | 33.80  |
| 43.050-144 | 0.50 | 31.60  | 33.00  |
| 43.050-153 | 0.50 | 31.80  | 34.20  |
| 43.050-150 | 0.50 | 32.00  | 33.80  |
| 43.050-156 | 0.50 | 32.00  | 35.00  |
| 43.050-151 | 0.50 | 32.20  | 34.00  |
| 43.050-152 | 0.50 | 32.40  | 34.00  |
| 43.050-155 | 0.50 | 32.50  | 34.30  |
| 43.050-154 | 0.50 | 32.80  | 34.20  |
| 43.050-157 | 0.50 | 33.20  | 35.20  |
| 43.050-158 | 0.50 | 33.50  | 35.50  |
| 43.050-159 | 0.50 | 34.10  | 35.80  |
| 43.050-160 | 0.50 | 35.00  | 37.00  |

**Kg 0.001**



**2**  
pcs

| MSA         | N°/No.      |
|-------------|-------------|
| 43.050-2920 | FH-2920-B01 |
| 43.050-2980 | FH-2980-B01 |

**Kg 0.001**

Joint plat type Seiko; sachet de 2 pièces.

Flat gasket Seiko type; bag of 2 pieces.

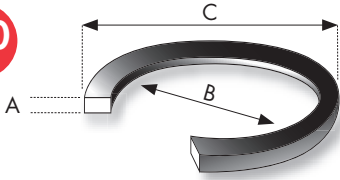
Flachdichtung Seiko Typ; Beutel von 2 Stück.

Junta plana tipo Seiko; bolsita de 2 piezas.

Guarnizione piatta tipo Seiko; bustina da 2 pezzi.

Junta plana tipo Seiko; saquinho de 2 peças.

**100**  
pcs



Joint plat; sachet de 100 pièces.

Flat gasket; bag of 100 pieces.

Flachdichtung; Beutel von 100 Stück.

Junta plana; bolsa de 100 piezas.

Guarnizione piatta; bustina da 100 pezzi.

Junta plana; saquinho de 100 peças.

| MSA        | A mm | B Ø mm | C Ø mm |
|------------|------|--------|--------|
| 43.002-101 | 0.50 | 15.40  | 16.80  |
| 43.002-102 | 0.50 | 15.70  | 16.90  |
| 43.002-103 | 0.60 | 16.00  | 17.20  |
| 43.002-104 | 0.50 | 17.00  | 18.20  |
| 43.002-105 | 0.50 | 17.80  | 18.70  |
| 43.002-106 | 0.50 | 17.80  | 19.50  |
| 43.002-107 | 0.50 | 18.20  | 19.70  |
| 43.002-108 | 0.50 | 19.20  | 20.30  |
| 43.002-109 | 0.50 | 19.50  | 20.60  |
| 43.002-110 | 0.50 | 19.80  | 20.80  |
| 43.002-111 | 0.50 | 19.80  | 21.30  |
| 43.002-112 | 0.50 | 20.00  | 21.60  |
| 43.002-113 | 0.50 | 20.70  | 21.90  |
| 43.002-114 | 0.50 | 21.00  | 22.20  |
| 43.002-115 | 0.50 | 21.00  | 22.50  |
| 43.002-116 | 0.50 | 21.90  | 23.50  |
| 43.002-118 | 0.50 | 22.00  | 24.00  |
| 43.002-120 | 0.50 | 22.10  | 24.90  |
| 43.002-117 | 0.50 | 22.30  | 23.70  |
| 43.002-119 | 0.50 | 22.80  | 24.50  |
| 43.002-121 | 0.50 | 23.40  | 25.20  |
| 43.002-122 | 0.50 | 24.00  | 25.20  |
| 43.002-123 | 0.50 | 24.00  | 25.50  |
| 43.002-124 | 0.50 | 25.10  | 26.50  |
| 43.002-125 | 0.50 | 26.00  | 27.40  |
| 43.002-126 | 0.50 | 26.10  | 27.70  |
| 43.002-127 | 0.50 | 26.50  | 28.20  |
| 43.002-128 | 0.50 | 26.50  | 28.50  |
| 43.002-129 | 0.50 | 26.90  | 28.60  |
| 43.002-130 | 0.50 | 27.25  | 28.75  |
| 43.002-131 | 0.50 | 27.60  | 29.00  |

| MSA        | A mm | B Ø mm | C Ø mm |
|------------|------|--------|--------|
| 43.002-133 | 0.50 | 27.80  | 30.00  |
| 43.002-132 | 0.50 | 28.00  | 29.50  |
| 43.002-135 | 0.50 | 28.50  | 30.40  |
| 43.002-134 | 0.50 | 28.80  | 30.20  |
| 43.002-136 | 0.50 | 29.00  | 30.50  |
| 43.002-161 | 0.50 | 29.00  | 30.70  |
| 43.002-138 | 0.50 | 29.30  | 31.30  |
| 43.002-137 | 0.50 | 29.50  | 31.00  |
| 43.002-139 | 0.50 | 30.00  | 31.50  |
| 43.002-140 | 0.50 | 30.00  | 32.00  |
| 43.002-142 | 0.50 | 30.00  | 32.50  |
| 43.002-148 | 0.50 | 30.00  | 33.70  |
| 43.002-141 | 0.50 | 30.50  | 32.30  |
| 43.002-143 | 0.50 | 31.00  | 33.00  |
| 43.002-145 | 0.50 | 31.40  | 33.20  |
| 43.002-146 | 0.50 | 31.50  | 33.30  |
| 43.002-147 | 0.50 | 31.50  | 33.50  |
| 43.002-149 | 0.50 | 31.50  | 33.80  |
| 43.002-144 | 0.50 | 31.60  | 33.00  |
| 43.002-153 | 0.50 | 31.80  | 34.20  |
| 43.002-150 | 0.50 | 32.00  | 33.80  |
| 43.002-156 | 0.50 | 32.00  | 35.00  |
| 43.002-151 | 0.50 | 32.20  | 34.00  |
| 43.002-152 | 0.50 | 32.40  | 34.00  |
| 43.002-155 | 0.50 | 32.50  | 34.30  |
| 43.002-154 | 0.50 | 32.80  | 34.20  |
| 43.002-157 | 0.50 | 33.20  | 35.20  |
| 43.002-158 | 0.50 | 33.50  | 35.50  |
| 43.002-159 | 0.50 | 34.10  | 35.80  |
| 43.002-160 | 0.50 | 35.00  | 37.00  |

**Kg 0.005**

**50**  
pcs



Assortiment de joints plats; sachet de 50 pièces.  
 Assortment of flat gaskets; bag of 50 pieces.  
 Sortiment von Flachdichtungen; Beutel von 50 Stück.  
 Surtido de juntas planas; bolsita de 50 piezas.  
 Assortimento di guarnizioni piate; bustina da 50 pezzi.  
 Sortido de juntas planas; saquinho de 50 peças.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 43.030 | 50x | 0.004 |

**100**  
pcs



Assortiment de joints plats; sachet de 100 pièces.  
 Assortment of flat gaskets; bag of 100 pieces.  
 Sortiment von Flachdichtungen; Beutel von 100 Stück.  
 Surtido de juntas planas; bolsita de 100 piezas.  
 Assortimento di guarnizioni piate; bustina da 100 pezzi.  
 Sortido de juntas planas; saquinho de 100 peças.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 43.031 | 100x | 0.006 |



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 43.521 | 240x | 0.252 |

Assortiment de joints plats; boîte en bois avec 120 sachets (2 joints/sachet).

Assortment of flat gaskets; wooden box with 120 bags (2 gaskets/bag).

Sortiment von Flachdichtungen; Holzkasten mit 120 Beutel (2 Dichtungen/Beutel).

Surtido de juntas planas; caja de madera con 120 bolsitas (2 juntas/bolsita).

Assortimento di guarnizioni piate; scatola di legno con 120 bustine (2 guarnizioni/bustina).

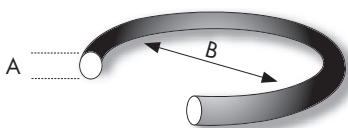
Sortido de juntas planas; caixa de madeira com 120 saquinhos (2 juntas/saquinho).

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**

**60 modèles - models - Modelle - modelos - modelli - modelos**

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**2**  
 pcs



Joint rond; sachet de 2 pièces.

Round gasket; bag of 2 pieces.

Runddichtung; Beutel von 2 Stück.

Junta redonda; bolsita de 2 piezas.

Guarnizione tonda; bustina da 2 pezzi.

Junta redonda; saquinho de 2 peças.

| MSA        | A Ø mm | B Ø mm | MSA        | A Ø mm | B Ø mm | MSA        | A Ø mm | B Ø mm |
|------------|--------|--------|------------|--------|--------|------------|--------|--------|
| 43.041-446 | 0.30   | 30.30  | 43.041-435 | 0.50   | 27.20  | 43.040-021 | 0.65   | 26.70  |
| 43.041-404 | 0.35   | 16.50  | 43.041-437 | 0.50   | 27.60  | 43.040-014 | 0.70   | 22.10  |
| 43.041-408 | 0.35   | 17.50  | 43.041-439 | 0.50   | 28.30  | 43.040-025 | 0.70   | 27.60  |
| 43.041-410 | 0.35   | 18.00  | 43.041-440 | 0.50   | 28.50  | 43.040-046 | 0.70   | 31.80  |
| 43.041-417 | 0.35   | 20.50  | 43.041-442 | 0.50   | 29.00  | 43.040-033 | 0.75   | 29.30  |
| 43.041-433 | 0.35   | 26.50  | 43.041-443 | 0.50   | 29.30  | 43.040-050 | 0.75   | 32.50  |
| 43.041-401 | 0.40   | 15.00  | 43.041-444 | 0.50   | 29.60  | 43.040-010 | 0.80   | 19.40  |
| 43.041-402 | 0.40   | 15.50  | 43.041-445 | 0.50   | 29.80  | 43.040-013 | 0.80   | 21.00  |
| 43.041-403 | 0.40   | 15.80  | 43.041-449 | 0.50   | 31.00  | 43.040-015 | 0.80   | 22.10  |
| 43.041-406 | 0.40   | 17.00  | 43.041-452 | 0.50   | 31.80  | 43.040-017 | 0.80   | 22.90  |
| 43.041-409 | 0.40   | 17.70  | 43.041-453 | 0.50   | 32.00  | 43.040-019 | 0.80   | 25.20  |
| 43.041-412 | 0.40   | 19.20  | 43.041-454 | 0.50   | 32.40  | 43.040-064 | 0.80   | 26.00  |
| 43.041-413 | 0.40   | 19.60  | 43.041-455 | 0.50   | 33.00  | 43.040-027 | 0.80   | 28.00  |
| 43.041-414 | 0.40   | 20.00  | 43.040-001 | 0.60   | 15.90  | 43.040-031 | 0.80   | 28.70  |
| 43.041-416 | 0.40   | 20.40  | 43.040-002 | 0.60   | 16.50  | 43.040-037 | 0.80   | 30.00  |
| 43.041-418 | 0.40   | 21.00  | 43.040-003 | 0.60   | 17.00  | 43.040-039 | 0.80   | 30.50  |
| 43.041-421 | 0.40   | 21.80  | 43.040-006 | 0.60   | 18.30  | 43.040-042 | 0.80   | 31.00  |
| 43.041-424 | 0.40   | 23.00  | 43.040-008 | 0.60   | 19.40  | 43.040-045 | 0.80   | 31.50  |
| 43.041-461 | 0.40   | 24.00  | 43.040-011 | 0.60   | 20.00  | 43.040-047 | 0.80   | 31.80  |
| 43.041-462 | 0.40   | 26.00  | 43.041-423 | 0.60   | 22.10  | 43.040-048 | 0.80   | 32.00  |
| 43.041-438 | 0.40   | 28.00  | 43.040-063 | 0.60   | 24.00  | 43.040-049 | 0.80   | 32.15  |
| 43.041-441 | 0.40   | 28.90  | 43.040-020 | 0.60   | 26.40  | 43.040-051 | 0.80   | 32.40  |
| 43.041-451 | 0.40   | 31.50  | 43.040-068 | 0.60   | 27.00  | 43.040-078 | 0.80   | 33.00  |
| 43.041-426 | 0.42   | 23.50  | 43.041-436 | 0.60   | 27.50  | 43.040-079 | 0.80   | 33.50  |
| 43.041-430 | 0.42   | 25.30  | 43.040-024 | 0.60   | 27.70  | 43.040-080 | 0.80   | 34.00  |
| 43.041-407 | 0.45   | 17.30  | 43.040-067 | 0.60   | 28.00  | 43.040-081 | 0.80   | 34.50  |
| 43.041-448 | 0.45   | 30.60  | 43.040-065 | 0.60   | 28.50  | 43.041-458 | 0.80   | 35.00  |
| 43.041-405 | 0.50   | 16.50  | 43.040-029 | 0.60   | 28.90  | 43.040-082 | 0.80   | 35.50  |
| 43.040-004 | 0.50   | 17.60  | 43.040-035 | 0.60   | 30.00  | 43.040-083 | 0.80   | 36.00  |
| 43.040-005 | 0.50   | 18.00  | 43.041-447 | 0.60   | 30.50  | 43.040-084 | 0.80   | 36.50  |
| 43.041-411 | 0.50   | 18.50  | 43.041-450 | 0.60   | 31.20  | 43.040-085 | 0.80   | 37.00  |
| 43.040-007 | 0.50   | 19.20  | 43.041-456 | 0.60   | 33.50  | 43.040-086 | 0.80   | 37.50  |
| 43.040-009 | 0.50   | 19.80  | 43.041-457 | 0.60   | 34.00  | 43.040-087 | 0.80   | 38.00  |
| 43.041-415 | 0.50   | 20.00  | 43.041-459 | 0.60   | 36.00  | 43.040-088 | 0.80   | 38.50  |
| 43.041-419 | 0.50   | 21.00  | 43.041-460 | 0.60   | 38.30  | 43.040-089 | 0.80   | 39.50  |
| 43.041-420 | 0.50   | 21.50  | 43.040-069 | 0.60   | 38.70  | 43.040-090 | 0.80   | 41.50  |
| 43.041-422 | 0.50   | 22.00  | 43.040-070 | 0.60   | 39.00  | 43.040-091 | 0.80   | 43.00  |
| 43.041-425 | 0.50   | 23.00  | 43.040-071 | 0.60   | 39.50  | 43.040-092 | 0.80   | 44.00  |
| 43.041-427 | 0.50   | 24.00  | 43.040-072 | 0.60   | 40.50  | 43.040-093 | 0.80   | 45.00  |
| 43.041-428 | 0.50   | 24.60  | 43.040-073 | 0.60   | 41.00  | 43.040-023 | 0.85   | 26.90  |
| 43.041-429 | 0.50   | 25.00  | 43.040-074 | 0.60   | 42.50  | 43.040-041 | 0.85   | 30.80  |
| 43.041-431 | 0.50   | 25.70  | 43.040-075 | 0.60   | 43.00  | 43.040-012 | 0.90   | 20.60  |
| 43.041-432 | 0.50   | 26.00  | 43.040-076 | 0.60   | 45.80  | 43.040-040 | 0.90   | 30.70  |
| 43.041-434 | 0.50   | 26.80  | 43.040-077 | 0.60   | 47.50  | 43.040-055 | 0.90   | 32.20  |

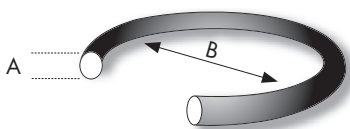
| MSA        | A Ø mm      | B Ø mm |
|------------|-------------|--------|
| 43.040-057 | <b>0.90</b> | 33.90  |
| 43.040-016 | <b>1.00</b> | 22.00  |
| 43.040-018 | <b>1.00</b> | 23.00  |
| 43.040-022 | <b>1.00</b> | 26.25  |
| 43.040-026 | <b>1.00</b> | 27.50  |
| 43.040-028 | <b>1.00</b> | 28.00  |
| 43.040-030 | <b>1.00</b> | 28.25  |
| 43.040-032 | <b>1.00</b> | 28.40  |
| 43.040-034 | <b>1.00</b> | 29.00  |
| 43.040-036 | <b>1.00</b> | 29.30  |
| 43.040-038 | <b>1.00</b> | 29.75  |
| 43.040-061 | <b>1.00</b> | 30.00  |
| 43.040-043 | <b>1.00</b> | 30.75  |
| 43.040-044 | <b>1.00</b> | 31.00  |
| 43.040-066 | <b>1.00</b> | 31.50  |

| MSA        | A Ø mm      | B Ø mm |
|------------|-------------|--------|
| 43.040-052 | <b>1.00</b> | 32.00  |
| 43.040-053 | <b>1.00</b> | 32.50  |
| 43.040-062 | <b>1.00</b> | 33.00  |
| 43.040-058 | <b>1.00</b> | 33.75  |
| 43.040-060 | <b>1.00</b> | 35.30  |
| 43.040-094 | <b>1.00</b> | 36.00  |
| 43.040-095 | <b>1.00</b> | 39.00  |
| 43.040-096 | <b>1.00</b> | 41.50  |
| 43.040-097 | <b>1.00</b> | 43.00  |
| 43.040-098 | <b>1.00</b> | 46.00  |
| 43.040-099 | <b>1.00</b> | 50.00  |
| 43.040-054 | <b>1.05</b> | 32.40  |
| 43.040-059 | <b>1.50</b> | 34.00  |
| 43.040-056 | <b>1.80</b> | 31.60  |

**Kg 0.001**



**100**  
pcs



Joint rond ; sachet de 100 pièces.

Round gasket ; bag of 100 pieces.

Runddichtung ; Beutel von 100 Stück.

Junta redonda ; bolsita de 100 piezas.

Guarnizione tonda ; bustina da 100 pezzi.

Junta redonda ; saquinho de 100 peças.

| MSA        | A Ø mm | B Ø mm | MSA        | A Ø mm | B Ø mm | MSA        | A Ø mm | B Ø mm |
|------------|--------|--------|------------|--------|--------|------------|--------|--------|
| 43.001-446 | 0.30   | 30.30  | 43.001-435 | 0.50   | 27.20  | 43.001-021 | 0.65   | 26.70  |
| 43.001-404 | 0.35   | 16.50  | 43.001-437 | 0.50   | 27.60  | 43.001-014 | 0.70   | 22.10  |
| 43.001-408 | 0.35   | 17.50  | 43.001-439 | 0.50   | 28.30  | 43.001-025 | 0.70   | 27.60  |
| 43.001-410 | 0.35   | 18.00  | 43.001-440 | 0.50   | 28.50  | 43.001-046 | 0.70   | 31.80  |
| 43.001-417 | 0.35   | 20.50  | 43.001-442 | 0.50   | 29.00  | 43.001-033 | 0.75   | 29.30  |
| 43.001-433 | 0.35   | 26.50  | 43.001-443 | 0.50   | 29.30  | 43.001-050 | 0.75   | 32.50  |
| 43.001-401 | 0.40   | 15.00  | 43.001-444 | 0.50   | 29.60  | 43.001-010 | 0.80   | 19.40  |
| 43.001-402 | 0.40   | 15.50  | 43.001-445 | 0.50   | 29.80  | 43.001-013 | 0.80   | 21.00  |
| 43.001-403 | 0.40   | 15.80  | 43.001-449 | 0.50   | 31.00  | 43.001-015 | 0.80   | 22.10  |
| 43.001-406 | 0.40   | 17.00  | 43.001-452 | 0.50   | 31.80  | 43.001-017 | 0.80   | 22.90  |
| 43.001-409 | 0.40   | 17.70  | 43.001-453 | 0.50   | 32.00  | 43.001-019 | 0.80   | 25.20  |
| 43.001-412 | 0.40   | 19.20  | 43.001-454 | 0.50   | 32.40  | 43.001-064 | 0.80   | 26.00  |
| 43.001-413 | 0.40   | 19.60  | 43.001-455 | 0.50   | 33.00  | 43.001-027 | 0.80   | 28.00  |
| 43.001-414 | 0.40   | 20.00  | 43.001-001 | 0.60   | 15.90  | 43.001-031 | 0.80   | 28.70  |
| 43.001-416 | 0.40   | 20.40  | 43.001-002 | 0.60   | 16.50  | 43.001-037 | 0.80   | 30.00  |
| 43.001-418 | 0.40   | 21.00  | 43.001-003 | 0.60   | 17.00  | 43.001-039 | 0.80   | 30.50  |
| 43.001-421 | 0.40   | 21.80  | 43.001-006 | 0.60   | 18.30  | 43.001-042 | 0.80   | 31.00  |
| 43.001-424 | 0.40   | 23.00  | 43.001-008 | 0.60   | 19.40  | 43.001-045 | 0.80   | 31.50  |
| 43.001-461 | 0.40   | 24.00  | 43.001-011 | 0.60   | 20.00  | 43.001-047 | 0.80   | 31.80  |
| 43.001-462 | 0.40   | 26.00  | 43.001-423 | 0.60   | 22.10  | 43.001-048 | 0.80   | 32.00  |
| 43.001-438 | 0.40   | 28.00  | 43.001-063 | 0.60   | 24.00  | 43.001-049 | 0.80   | 32.15  |
| 43.001-441 | 0.40   | 28.90  | 43.001-020 | 0.60   | 26.40  | 43.001-051 | 0.80   | 32.40  |
| 43.001-451 | 0.40   | 31.50  | 43.001-068 | 0.60   | 27.00  | 43.001-078 | 0.80   | 33.00  |
| 43.001-426 | 0.42   | 23.50  | 43.001-436 | 0.60   | 27.50  | 43.001-079 | 0.80   | 33.50  |
| 43.001-430 | 0.42   | 25.36  | 43.001-024 | 0.60   | 27.70  | 43.001-080 | 0.80   | 34.00  |
| 43.001-407 | 0.45   | 17.30  | 43.001-067 | 0.60   | 28.00  | 43.001-081 | 0.80   | 34.50  |
| 43.001-448 | 0.45   | 30.60  | 43.001-065 | 0.60   | 28.50  | 43.001-458 | 0.80   | 35.00  |
| 43.001-405 | 0.50   | 16.50  | 43.001-029 | 0.60   | 28.90  | 43.001-082 | 0.80   | 35.50  |
| 43.001-004 | 0.50   | 17.60  | 43.001-035 | 0.60   | 30.00  | 43.001-083 | 0.80   | 36.00  |
| 43.001-005 | 0.50   | 18.00  | 43.001-447 | 0.60   | 30.50  | 43.001-084 | 0.80   | 36.50  |
| 43.001-411 | 0.50   | 18.50  | 43.001-450 | 0.60   | 31.20  | 43.001-085 | 0.80   | 37.00  |
| 43.001-007 | 0.50   | 19.20  | 43.001-456 | 0.60   | 33.50  | 43.001-086 | 0.80   | 37.50  |
| 43.001-009 | 0.50   | 19.80  | 43.001-457 | 0.60   | 34.00  | 43.001-087 | 0.80   | 38.00  |
| 43.001-415 | 0.50   | 20.00  | 43.001-459 | 0.60   | 36.00  | 43.001-088 | 0.80   | 38.50  |
| 43.001-419 | 0.50   | 21.00  | 43.001-460 | 0.60   | 38.30  | 43.001-089 | 0.80   | 39.50  |
| 43.001-420 | 0.50   | 21.50  | 43.001-069 | 0.60   | 38.70  | 43.001-090 | 0.80   | 41.50  |
| 43.001-422 | 0.50   | 22.00  | 43.001-070 | 0.60   | 39.00  | 43.001-091 | 0.80   | 43.00  |
| 43.001-425 | 0.50   | 23.00  | 43.001-071 | 0.60   | 39.50  | 43.001-092 | 0.80   | 44.00  |
| 43.001-427 | 0.50   | 24.00  | 43.001-072 | 0.60   | 40.50  | 43.001-093 | 0.80   | 45.00  |
| 43.001-428 | 0.50   | 24.60  | 43.001-073 | 0.60   | 41.00  | 43.001-023 | 0.85   | 26.90  |
| 43.001-429 | 0.50   | 25.00  | 43.001-074 | 0.60   | 42.50  | 43.001-041 | 0.85   | 30.80  |
| 43.001-431 | 0.50   | 25.70  | 43.001-075 | 0.60   | 43.00  | 43.001-012 | 0.90   | 20.60  |
| 43.001-432 | 0.50   | 26.00  | 43.001-076 | 0.60   | 45.80  | 43.001-040 | 0.90   | 30.70  |
| 43.001-434 | 0.50   | 26.80  | 43.001-077 | 0.60   | 47.50  | 43.001-055 | 0.90   | 32.20  |

| MSA        | A Ø mm | B Ø mm |
|------------|--------|--------|
| 43.001-057 | 0.90   | 33.90  |
| 43.001-016 | 1.00   | 22.00  |
| 43.001-018 | 1.00   | 23.00  |
| 43.001-022 | 1.00   | 26.25  |
| 43.001-026 | 1.00   | 27.50  |
| 43.001-028 | 1.00   | 28.00  |
| 43.001-030 | 1.00   | 28.25  |
| 43.001-032 | 1.00   | 28.40  |
| 43.001-034 | 1.00   | 29.00  |
| 43.001-036 | 1.00   | 29.30  |
| 43.001-038 | 1.00   | 29.75  |
| 43.001-061 | 1.00   | 30.00  |
| 43.001-043 | 1.00   | 30.75  |
| 43.001-044 | 1.00   | 31.00  |
| 43.001-066 | 1.00   | 31.50  |

| MSA        | A Ø mm | B Ø mm |
|------------|--------|--------|
| 43.001-052 | 1.00   | 32.00  |
| 43.001-053 | 1.00   | 32.50  |
| 43.001-062 | 1.00   | 33.00  |
| 43.001-058 | 1.00   | 33.75  |
| 43.001-060 | 1.00   | 35.30  |
| 43.001-094 | 1.00   | 36.00  |
| 43.001-095 | 1.00   | 39.00  |
| 43.001-096 | 1.00   | 41.50  |
| 43.001-097 | 1.00   | 43.00  |
| 43.001-098 | 1.00   | 46.00  |
| 43.001-099 | 1.00   | 50.00  |
| 43.001-054 | 1.05   | 32.40  |
| 43.001-059 | 1.50   | 34.00  |
| 43.001-056 | 1.80   | 31.60  |

**Kg 0.003**

25  
pcs



Assortiment de joints ronds, section  $\varnothing$  0.30...0.45 mm ; sachet de 25 pièces.  
 Assortment of round gaskets, section  $\varnothing$  0.30...0.45 mm ; bag of 25 pieces.  
 Sortiment von Runddichtungen, Querschnitt  $\varnothing$  0.30...0.45 mm ; Beutel von 25 Stück.  
 Surtido de juntas redondas, sección  $\varnothing$  0.30...0.45 mm ; bolsita de 25 piezas.  
 Assortimento di guarnizioni tonde, sezione  $\varnothing$  0.30...0.45 mm ; bustina da 25 pezzi.  
 Sortido de juntas redondas, secção  $\varnothing$  0.30...0.45 mm ; saquinho de 25 peças.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 43.043 | 25x | 0.003 |

50  
pcs



Assortiment de joints ronds, section  $\varnothing$  0.50 et 0.60 mm ; sachet de 50 pièces.  
 Assortment of round gaskets, section  $\varnothing$  0.50 and 0.60 mm ; bag of 50 pieces.  
 Sortiment von Runddichtungen, Querschnitt  $\varnothing$  0.50 und 0.60 mm ; Beutel von 50 Stück.  
 Surtido de juntas redondas, sección  $\varnothing$  0.50 y 0.60 mm ; bolsita de 50 piezas.  
 Assortimento di guarnizioni tonde, sezione  $\varnothing$  0.50 e 0.60 mm ; bustina da 50 pezzi.  
 Sortido de juntas redondas, secção  $\varnothing$  0.50 e 0.60 mm ; saquinho de 50 peças.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 43.044 | 50x | 0.004 |

100  
pcs



Assortiment de joints ronds, section  $\varnothing$  0.65...1.80 mm ; sachet de 100 pièces.  
 Assortment of round gaskets, section  $\varnothing$  0.65...1.80 mm ; bag of 100 pieces.  
 Sortiment von Runddichtungen, Querschnitt  $\varnothing$  0.65...1.80 mm ; Beutel von 100 Stück.  
 Surtido de juntas redondas, sección  $\varnothing$  0.65...1.80 mm ; bolsita de 100 piezas.  
 Assortimento di guarnizioni tonde, sezione  $\varnothing$  0.65...1.80 mm ; bustina da 100 pezzi.  
 Sortido de juntas redondas, secção  $\varnothing$  0.65...1.80 mm ; saquinho de 100 peças.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 43.045 | 100x | 0.006 |



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 43.511 | 322x | 0.280 |

Assortiment de joints ronds ; boîte en bois avec 161 sachets (2 joints/sachet).

Assortment of round gaskets ; wooden box with 161 bags (2 gaskets/bag).

Sortiment von Runddichtungen ; Holzkasten mit 161 Beutel (2 Dichtungen/Beutel).

Surtido de juntas redondas ; caja de madera con 161 bolsitas (2 juntas/bolsita).

Assortimento di guarnizioni tonde ; scatola di legno con 161 bustine (2 guarnizioni/bustina).

Sortido de juntas redondas ; caixa de madeira com 161 saquinhos (2 juntas/saquinho).

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**161 modèles - models - Modelle - modelos - modelli - modelos**

**1x MSA43.040-001...-099**

**1x MSA43.041-401...-462**

**50**  
pcs



Assortiment de joints ronds, pour trappes de piles ; sachet de 50 pièces.

Assortiment of round gaskets, for battery covers ; bag of 50 pieces.

Sortiment von Runddichtungen, für Batteriedeckel ; Beutel von 50 Stück.

Sortido de juntas redondas, para tapas de baterías ; bolsita de 50 piezas.

Assortimento di guarnizioni tonde, per tappi delle batterie ; bustina da 50 pezzi.

Sortido de juntas redondas, para tampas de pilhas ; saquinho de 50 peças.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 43.060 | 50x | 0.003 |

**50**  
pcs



Assortiment de joints ronds, pour couronnes et poussoirs ; sachet de 50 pièces.

Assortiment of round gaskets, for crowns and pushers ; bag of 50 pieces.

Sortiment von Runddichtungen, für Kronen und Drücker ; Beutel von 50 Stück.

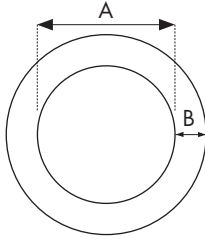
Sortido de juntas redondas, para coronas y pulsadores ; bolsita de 50 piezas.

Assortimento di guarnizioni tonde, per corone e pulsanti ; bustina da 50 pezzi.

Sortido de juntas redondas, para coroaas e botões ; saquinho de 50 peças.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 43.070 | 50x | 0.002 |

**100**  
pcs



Joint mini O-Ring ; sachet de 100 pièces.

Mini O-Ring gasket ; bag of 100 pieces.

Mini O-Ring Dichtung ; Beutel von 100 Stück.

Junta mini O-Ring ; bolsita de 100 piezas.

Guarnizione mini O-Ring ; bustina da 100 pezzi.

Junta mini O-Ring ; saquinho de 100 peças.

| MSA        | A Ø mm | B Ø mm |
|------------|--------|--------|
| 43.080-001 | 0.50   | 0.30   |
| 43.080-002 | 0.50   | 0.40   |
| 43.080-003 | 0.50   | 0.50   |
| 43.080-004 | 0.60   | 0.35   |
| 43.080-005 | 0.60   | 0.40   |
| 43.080-006 | 0.60   | 0.50   |
| 43.080-007 | 0.60   | 0.55   |
| 43.080-008 | 0.60   | 0.65   |
| 43.080-009 | 0.70   | 0.40   |
| 43.080-010 | 0.70   | 0.50   |
| 43.080-011 | 0.70   | 0.60   |
| 43.080-012 | 0.80   | 0.40   |
| 43.080-013 | 0.80   | 0.50   |
| 43.080-014 | 0.80   | 0.60   |
| 43.080-041 | 0.85   | 0.40   |
| 43.080-036 | 0.90   | 0.40   |
| 43.080-035 | 0.95   | 0.50   |
| 43.080-015 | 1.00   | 0.40   |
| 43.080-016 | 1.00   | 0.50   |
| 43.080-017 | 1.00   | 0.60   |
| 43.080-018 | 1.20   | 0.40   |

| MSA        | A Ø mm | B Ø mm |
|------------|--------|--------|
| 43.080-019 | 1.20   | 0.60   |
| 43.080-020 | 1.30   | 0.40   |
| 43.080-021 | 1.30   | 0.50   |
| 43.080-022 | 1.40   | 0.40   |
| 43.080-023 | 1.40   | 0.50   |
| 43.080-024 | 1.40   | 0.60   |
| 43.080-042 | 1.40   | 0.70   |
| 43.080-025 | 1.50   | 0.50   |
| 43.080-026 | 1.50   | 0.75   |
| 43.080-037 | 1.60   | 0.40   |
| 43.080-027 | 1.60   | 0.50   |
| 43.080-038 | 1.60   | 0.60   |
| 43.080-028 | 1.60   | 0.70   |
| 43.080-039 | 1.70   | 0.50   |
| 43.080-040 | 1.70   | 0.60   |
| 43.080-029 | 1.80   | 0.40   |
| 43.080-030 | 1.80   | 0.60   |
| 43.080-031 | 1.80   | 0.80   |
| 43.080-032 | 2.00   | 0.50   |
| 43.080-033 | 2.00   | 0.60   |
| 43.080-034 | 2.50   | 0.65   |

**Kg 0.003**



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.226 | 170x | 0.035 |

Assortiment de joints mini O-Ring, Ø int. 0.50...1.00 mm.  
 Assortment of mini O-Ring gaskets, Ø int. 0.50...1.00 mm.  
 Sortiment von mini O-Ring Dichtungen, Ø inn. 0.50...1.00 mm.  
 Surtido de juntas mini O-Ring, Ø int. 0.50...1.00 mm.  
 Assortimento di guarnizioni mini O-Ring, Ø int. 0.50...1.00 mm.  
 Sortido de juntas mini O-Ring, Ø int. 0.50...1.00 mm.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**17 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA43.080-001 /-002 /-003 /-004 /-005 /-006 /-007 /-008**  
**/-009 /-010 /-011 /-012 /-013 /-014 /-015 /-016 /-017**



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.227 | 170x | 0.035 |

Assortiment de joints mini O-Ring, Ø int. 1.20...2.50 mm.  
 Assortment of mini O-Ring gaskets, Ø int. 1.20...2.50 mm.  
 Sortiment von mini O-Ring Dichtungen, Ø inn. 1.20...2.50 mm.  
 Surtido de juntas mini O-Ring, Ø int. 1.20...2.50 mm.  
 Assortimento di guarnizioni mini O-Ring, Ø int. 1.20...2.50 mm.  
 Sortido de juntas mini O-Ring, Ø int. 1.20...2.50 mm.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**17 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA43.080-018 /-019 /-020 /-021 /-022 /-023 /-024 /-025**  
**/-026 /-027 /-028 /-029 /-030 /-031 /-032 /-033 /-034**



| MSA      | 1/1 | Ø int./ext. mm | Tube      |
|----------|-----|----------------|-----------|
| 65.003-A | o   | 0.70 x 1.40    | MSA65.003 |
| 65.004-A | o   | 0.70 x 1.40    | MSA65.004 |
| 65.001-A | o   | 0.75 x 1.50    | MSA65.001 |
| 65.002-A | o   | 0.80 x 1.70    | MSA65.002 |
| 65.005-A | o   | 0.80 x 1.70    | MSA65.005 |
| 65.006-A | o   | 0.80 x 1.70    | MSA65.006 |

Kg 0.001

Joint rond pour tubes MSA65.00x.

*Round gasket for tubes MSA65.00x.*

Runddichtung für Röhre MSA65.00x.

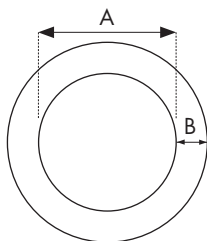
*Junta redonda para tubos MSA65.00x.*

Guarnizione tonda per tubi MSA65.00x.

*Junta redonda para tubos MSA65.00x.*



100  
pcs



| MSA    | A Ø x B Ø mm | N°/No.    | Kg    |
|--------|--------------|-----------|-------|
| 43.018 | 2.00 x 0.50  | 088NS0435 | 0.080 |
| 43.019 | 3.20 x 0.60  | 088NS0436 | 0.080 |

Joint O'Ring; sachet de 100 pièces.

*O'Ring gasket; bag of 100 pieces.*

O'Ring Dichtung; Beutel von 100 Stück.

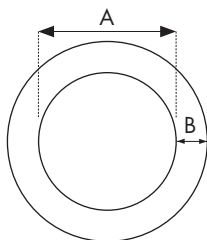
*Junta O'Ring; bolsita de 100 piezas.*

Guarnizione O'Ring; bustina da 100 pezzi.

*Junta O'Ring; saquinho de 100 peças.*



1000  
pcs



| MSA    | A Ø x B Ø mm | Kg    |
|--------|--------------|-------|
| 43.032 | 2.50 x 0.60  | 0.080 |

Joint O'Ring; sachet de 1'000 pièces.

*O'Ring gasket; bag of 1'000 pieces.*

O'Ring Dichtung; Beutel von 1'000 Stück.

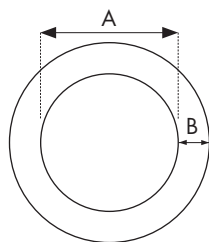
*Junta O'Ring; bolsita de 1'000 piezas.*

Guarnizione O'Ring; bustina da 1'000 pezzi.

*Junta O'Ring; saquinho de 1'000 peças.*



10  
pcs



| MSA    | A Ø x B Ø mm | Kg    |
|--------|--------------|-------|
| 43.003 | 0.70 x 0.50  | 0.001 |

Joint rond pour tubes (intérieur) ; sachet de 10 pièces.  
 Round gasket for tubes (interior) ; bag of 10 pieces.  
 Runddichtung für Röhre (Innen) ; Beutel von 10 Stück.  
 Junta redonda para tubos (interior) ; bolsita de 10 piezas.  
 Guarnizione tonda per tubi (interno) ; bustina da 10 pezzi.  
 Junta redonda para tubos (interior) ; saquinho de 10 peças.

| MSA       | 1/1 | Ø int./ext. mm (section) | Pour couronne/<br>For crown |
|-----------|-----|--------------------------|-----------------------------|
| MSA43.100 | ○   | 1.60 x 3.00 (0.70)       | Type 5.30                   |
| MSA43.101 | ○   | 1.80 x 3.40 (0.80)       | Type 6.00                   |
| MSA43.102 | ○   | 2.00 x 3.40 (0.70)       | Type 7.00                   |
| MSA43.103 | ○   | 2.20 x 3.60 (0.70)       | Type 7.03                   |
| MSA43.104 | ○   | 4.00 x 5.00 (0.50)       | Type 7.03                   |

Kg 0.001

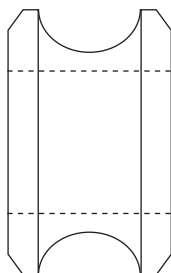
Joint rond pour tubes à vis.  
 Round gasket for screw-on tubes.  
 Runddichtung für Schraubröhre.  
 Junta redonda para tubos de rosca.  
 Guarnizione tonda per tubi a vite.  
 Junta redonda para tubos de rosca.

| MSA       | 1/1 | Ø int./ext. mm (section) |
|-----------|-----|--------------------------|
| MSA43.150 | ○   | 1.20 x 2.00 (0.40)       |
| MSA43.140 | ○   | 2.60 x 3.80 (0.60)       |

Kg 0.001

Joint rond pour couronnes à vis.  
 Round gasket for screw-on crowns.  
 Runddichtung für Schraubkronen.  
 Junta redonda para coronas de rosca.  
 Guarnizione tonda per corone a vite.  
 Junta redonda para coroa de rosca.

10  
pcs



Joint pour tube spécial MSA47.101 (voir page 6-4) ; sachet de 10 pièces.

Gasket for special tube MSA47.101 (see page 6-4) ; bag of 10 pieces.

Dichtung für spezieller Rohr MSA47.101 (siehe Seite 6-4) ; Beutel von 10 Stück.

Junta para tubo especial MSA47.101 (ver página 6-4) ; bolsita de 10 piezas.

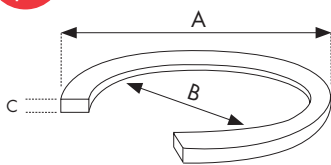
Guarnizione per tubo speciale MSA47.101 (vedere pagina 6-4) ; bustina da 10 pezzi.

Junta para tubo especial MSA47.101 (ver página 6-4) ; saquinho de 10 peças.

| MSA    | 1/1 | Ø int./ext. mm | Kg    |
|--------|-----|----------------|-------|
| 43.006 | ○   | 1.50 x 2.80    | 0.001 |



10  
pcs



Joint plat pour couronnes à vis (intérieur) ; sachet de 10 pièces.

Flat gasket for screw-on crowns (interior) ; bag of 10 pieces.

Flachdichtung für Schraubkronen (Innen) ; Beutel von 10 Stück.

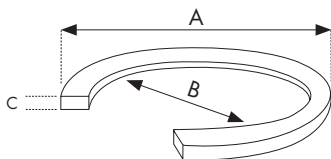
Junta plana para coronas de rosca (interior) ; bolsita de 10 piezas.

Guarnizione piatta per corone a vite (interno) ; bustina da 10 pezzi.

Junta plana para coroas de rosca (interior) ; saquinho de 10 peças.

| MSA    | 1/1 | A Ø x B Ø x C mm   |
|--------|-----|--------------------|
| 43.005 | ○   | 3.50 x 2.50 x 0.30 |
| 43.004 | ○   | 4.00 x 2.80 x 0.35 |

Kg 0.001



| MSA       | 1/1 | A Ø x B Ø x C mm   | Pour couronne/<br>For crown |
|-----------|-----|--------------------|-----------------------------|
| MSA43.120 | ○   | 3.60 x 2.80 x 0.40 | Type 5.30                   |
| MSA43.121 | ○   | 4.00 x 2.40 x 0.30 | Type 6.00                   |
| MSA43.122 | ○   | 4.60 x 2.60 x 0.30 | Type 7.00                   |

Kg 0.001

Joint plat pour couronnes à vis.

Flat gasket for screw-on crowns.

Flachdichtung für Schraubkronen.

Junta plana para coronas de rosca.

Guarnizione piatta per corone a vite.

Junta plana para coroas de rosca.

|   |  |   |  |  |  |
|---|--|---|--|--|--|
| MSA 43.100<br>TUBE<br>GASKET<br>Ø 5.30<br>5 pcs   | MSA 43.120<br>CROWN<br>GASKET<br>Ø 9.30<br>5 pcs | MSA 43.101<br>TUBE<br>GASKET<br>Ø 6.00<br>5 pcs | MSA 43.121<br>CROWN<br>GASKET<br>Ø 6.00<br>5 pcs | MSA 43.102<br>TUBE<br>GASKET<br>Ø 7.00<br>5 pcs  | MSA 43.122<br>CROWN<br>GASKET<br>Ø 7.00<br>5 pcs |
| JOINTS RONDS/PLATS POUR TUBES/CORONNES À VIS<br>POLYIMPLAT GASKETS FOR TUBES/CROWNS WITH SCREWS<br>UNTERSCHIEDLICHE RUND- UND FLACHDICHTUNGEN FÜR RÖHREN UND SCHRAUBKRONEN<br>GUARNIZIONI TONDE/PIATTE PER TUBI E CORONE A VITE |  |   |  |  | MSA 99.131<br>60 pcs                             |
| MSA 43.104<br>OUTSIDE<br>TUBE<br>GASKET<br>Ø 7.00<br>5 pcs  | MSA 43.103<br>TUBE<br>GASKET<br>Ø 7.00<br>5 pcs  | MSA 43.100<br>TUBE<br>GASKET<br>Ø 7.00<br>5 pcs | MSA 43.101<br>TUBE<br>GASKET<br>Ø 7.00<br>5 pcs  | MSA 43.140<br>CROWN<br>GASKET<br>Ø 2.60<br>5 pcs | MSA 43.130<br>CROWN<br>GASKET<br>Ø 1.20<br>5 pcs |

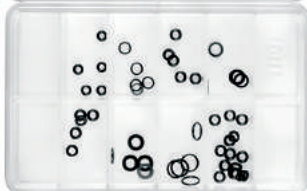


Assortiment de joints plats et ronds pour tubes et couronnes à vis.  
 Assortment of flat and round gaskets for tubes and screw-on crowns.  
 Sortiment von Flach- und Runddichtungen für Röhre und Schraubkronen.  
 Surtido de juntas planas y redondas para tubos y coronas de rosca.  
 Assortimento di guarnizioni piatte e tonde per tubi e corone a vite.  
 Sortido de juntas planas e redondas para tubos e coroas de rosca.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA43.100 /.101 /.102 /.104 /.120 /.121 /.122 /.140 /.150**  
**15x MSA43.103**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.131 | 60x | 0.025 |

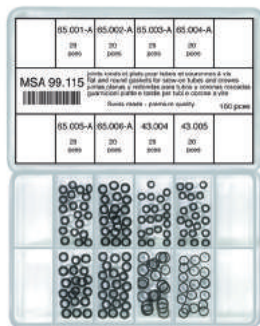
|   |  |  |  |                      |
|---|--|--|--|----------------------|
| MSA 43.100<br>TUBE<br>GASKET<br>Ø 5.30<br>5 pcs   | MSA 43.120<br>CROWN<br>GASKET<br>Ø 9.30<br>5 pcs | MSA 43.101<br>TUBE<br>GASKET<br>Ø 6.00<br>5 pcs            | MSA 43.121<br>CROWN<br>GASKET<br>Ø 6.00<br>5 pcs |                      |
| JOINTS RONDS/PLATS POUR TUBES/CORONNES À VIS<br>POLYIMPLAT GASKETS FOR TUBES/CROWNS WITH SCREWS<br>UNTERSCHIEDLICHE RUND- UND FLACHDICHTUNGEN FÜR RÖHREN UND SCHRAUBKRONEN<br>GUARNIZIONI TONDE/PIATTE PER TUBI E CORONE A VITE |  |  |  | MSA 99.136<br>50 pcs |
| MSA 43.102<br>TUBE<br>GASKET<br>Ø 7.00<br>5 pcs   | MSA 43.122<br>CROWN<br>GASKET<br>Ø 7.00<br>5 pcs | MSA 43.104<br>OUTSIDE<br>TUBE<br>GASKET<br>Ø 7.00<br>5 pcs | MSA 43.103<br>TUBE<br>GASKET<br>Ø 7.00<br>15 pcs |                      |



Assortiment de joints plats et ronds pour tubes et couronnes à vis.  
 Assortment of flat and round gaskets for tubes and screw-on crowns.  
 Sortiment von Flach- und Runddichtungen für Röhre und Schraubkronen.  
 Surtido de juntas planas y redondas para tubos y coronas de rosca.  
 Assortimento di guarnizioni piatte e tonde per tubi e corone a vite.  
 Sortido de juntas planas e redondas para tubos e coroas de rosca.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA43.100 /.101 /.102 /.104 /.120 /.121 /.122**  
**15x MSA43.103**

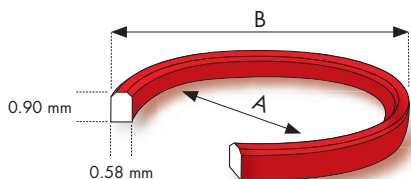
| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.136 | 50x | 0.025 |



Assortiment de joints plats et ronds pour tubes et couronnes à vis.  
*Assortment of flat and round gaskets for tubes and screw-on crowns.*  
 Sortiment von Flach- und Runddichtungen für Röhre und Schraubkronen.  
*Sortido de juntas planas y redondas para tubos y coronas de rosca.*  
 Assortimento di guarnizioni piatte e tonde per tubi e corone a vite.  
*Sortido de juntas planas e redondas para tubos e coroas de rosca.*

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8 modèles - models - Modelle - modelos - modelli - modelos**  
**20x MSA43.004 /.005 /65.001-A /.002-A /.003-A /.004-A**  
**/.005-A /.006-A**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.115 | 160x | 0.149 |



Joint rouge.  
 Red gasket.  
 Rote Dichtung.  
 Junta roja.  
 Guarnizione rossa.  
 Junta vermelha.

| MSA        | A Ø mm | B Ø mm |
|------------|--------|--------|
| 43.052-796 | 14.84  | 16.00  |
| 43.052-797 | 15.34  | 16.50  |
| 43.052-798 | 15.84  | 17.00  |
| 43.052-799 | 16.34  | 17.50  |
| 43.052-800 | 16.84  | 18.00  |
| 43.052-801 | 17.34  | 18.50  |
| 43.052-802 | 17.84  | 19.00  |
| 43.052-803 | 18.34  | 19.50  |
| 43.052-804 | 18.84  | 20.00  |
| 43.052-805 | 19.34  | 20.50  |
| 43.052-806 | 19.84  | 21.00  |
| 43.052-807 | 20.34  | 21.50  |
| 43.052-808 | 20.84  | 22.00  |
| 43.052-809 | 21.34  | 22.50  |
| 43.052-810 | 21.84  | 23.00  |
| 43.052-811 | 22.34  | 23.50  |
| 43.052-812 | 22.84  | 24.00  |
| 43.052-813 | 23.34  | 24.50  |
| 43.052-814 | 23.84  | 25.00  |
| 43.052-815 | 24.34  | 25.50  |

| MSA         | A Ø mm | B Ø mm |
|-------------|--------|--------|
| 43.052-816  | 24.84  | 26.00  |
| 43.052-817  | 25.34  | 26.50  |
| 43.052-818  | 25.84  | 27.00  |
| 43.052-819  | 26.34  | 27.50  |
| 43.052-820  | 26.84  | 28.00  |
| 43.052-821  | 27.34  | 28.50  |
| 43.052-822  | 27.84  | 29.00  |
| 43.052-823  | 28.34  | 29.50  |
| 43.052-824  | 28.84  | 30.00  |
| 43.052-825  | 29.34  | 30.50  |
| 43.052-826  | 29.84  | 31.00  |
| 43.052-827  | 30.34  | 31.50  |
| 43.052-828  | 30.84  | 32.00  |
| 43.052-829  | 31.34  | 32.50  |
| 43.052-830  | 31.84  | 33.00  |
| 43.052-831  | 32.34  | 33.50  |
| 43.052-832  | 32.84  | 34.00  |
| 43.052-832A | 33.05  | 34.00  |
| 43.052-833  | 33.34  | 34.50  |
| 43.052-834  | 33.84  | 35.00  |

| MSA        | A Ø mm | B Ø mm |
|------------|--------|--------|
| 43.052-835 | 34.34  | 35.50  |
| 43.052-836 | 34.84  | 36.00  |
| 43.052-837 | 35.34  | 36.50  |
| 43.052-838 | 35.84  | 37.00  |
| 43.052-839 | 36.34  | 37.50  |
| 43.052-840 | 36.84  | 38.00  |
| 43.052-841 | 37.34  | 38.50  |
| 43.052-842 | 37.84  | 39.00  |
| 43.052-843 | 38.34  | 39.50  |
| 43.052-844 | 38.84  | 40.00  |
| 43.052-845 | 39.34  | 40.50  |
| 43.052-846 | 39.84  | 41.00  |
| 43.052-847 | 40.34  | 41.50  |
| 43.052-848 | 40.84  | 42.00  |
| 43.052-849 | 41.34  | 42.50  |
| 43.052-850 | 41.84  | 43.00  |
| 43.052-851 | 42.34  | 43.50  |
| 43.052-852 | 42.84  | 44.00  |

**Kg 0.001**



Assortiment de joints rouges ; boîte en bois avec 58 sachets (1 joint/sachet).

Assortment of red gaskets ; wooden box with 58 bags (1 gasket/bag).

Sortiment von roten Dichtungen ; Holzkasten mit 58 Beutel (1 Dichtung/Beutel).

Surtido de juntas rojas ; caja de madera con 58 bolsitas (1 junta/bolsita).

Assortimento di guarnizioni rosse ; scatola di legno con 58 bustine (1 guarnizione/bustina).

Sortido de juntas vermelhas ; caixa de madeira com 58 saquinhos (1 junta/saquinho).

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 43.532 | 58x | 0.215 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**

**58 modèles - models - Modelle - modelos - modelli - modelos**

**1x MSA43.052-796 /-797 /-798 /-799 /-800 /-801 /-802 /-803 /-804 /-805 /-806 /-807 /-808 /-809 /-810 /-811 /-812 /-813 /-814 /-815 /-816 /-817 /-818 /-819 /-820 /-821 /-822 /-823 /-824 /-825 /-826 /-827 /-828 /-829 /-830 /-831 /-832 /-832-A /-833 /-834 /-835 /-836 /-837 /-838 /-839 /-840 /-841 /-842 /-843 /-844 /-845 /-846 /-847 /-848 /-849 /-850 /-851 /-852**



**Voir le chapitre des VERRES pour les joints en Hytrel et Zytel, page 11-15.**

**See the chapter of CRYSTALS for Hytrel and Zytel gaskets, page 11-15.**

**Siehe das Kapitel der GLÄSER für die Dichtungen aus Hytrel und Zytel, Seite 11-15.**

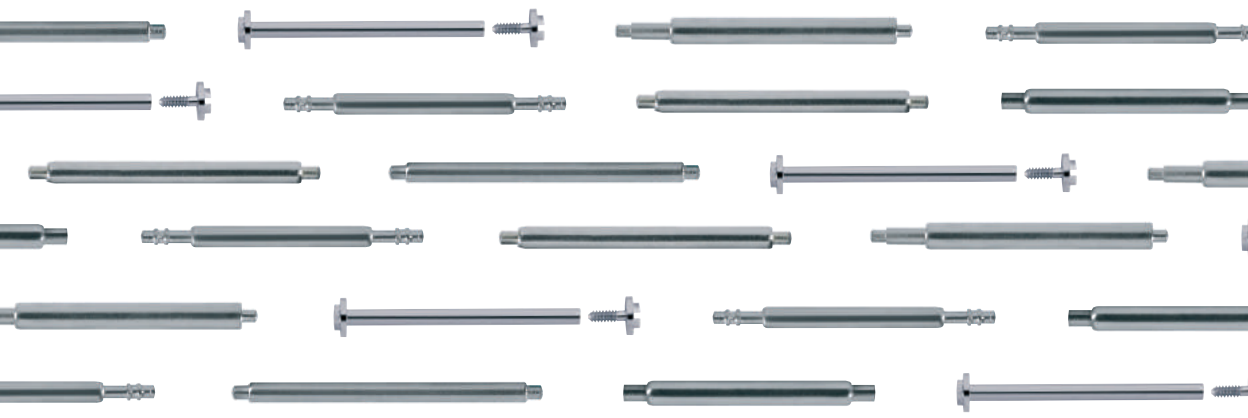
**Ver el capítulo de los CRISTALES para las juntas en Hytrel y Zytel, página 11-15.**

**Vedere il capitolo dei VETRI per le guarnizioni in Hytrel e Zytel, pagina 11-15.**

**Ver o capítulo dos VIDROS para as juntas em Hytrel e Zytel, página 11-15.**



A series of horizontal dotted lines spanning the width of the page, providing a template for handwritten notes.



BARRETTES SPRING BARS FEDERSTEGE PASADORES ANSE PINOS

Barrettes de sécurité  
*Flanged spring bars*  
 Doppel-Ansatz Federstege  
*Pasadores de seguridad*  
 Anse di sicurezza  
*Pinos de segurança*



4

Barrettes universelles  
*Universal spring bars*  
 Universelle Federstege  
*Pasadores universales*  
 Anse universali  
*Pinos universais*

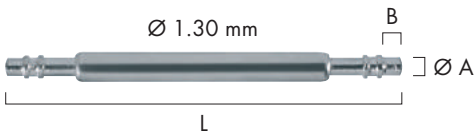


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Barrettes simples  
*Regular spring bars*  
 Einfache Federstege  
*Pasadores sencillos*  
 Anse semplici  
*Pinos simples*



29



- L = distance des entre-cornes.
- L = distance between the lugs.
- L = Bügelabstand.
- L = distancia entre las asas.
- L = distanza tra le anse.
- L = distância entre as asas.

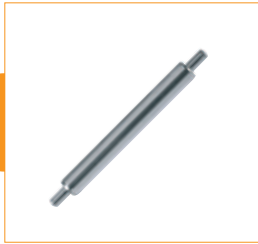


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Barrettes pour fermoirs  
 Spring bars for clasps  
 Federstege für Schliessen  
 Pasadores para cierres  
 Anse per chiusure  
 Pinos para fechos

41



Barrettes spéciales  
 Special spring bars  
 Spezielle Federstege  
 Pasadores especiales  
 Anse speciali  
 Pinos especiais

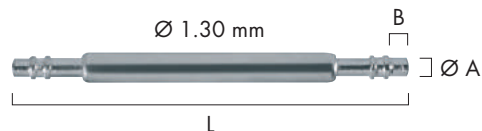
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Barrettes femelles  
 Female bars  
 Weibliche Stege  
 Pasadores hembra  
 Anse femmina  
 Pinos fêmeos



- L = distance des entre-cornes.
- L = distance between the lugs.
- L = Bügelabstand.
- L = distancia entre las asas.
- L = distanza tra le anse.
- L = distância entre as asas.



Barrettes à pression  
*Press-in bars*  
 Druckstege  
 Pasadores de presión  
 Anse a pressione  
 Pinos de pressão

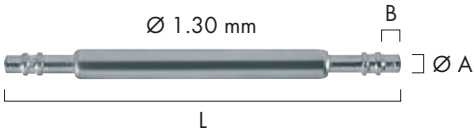


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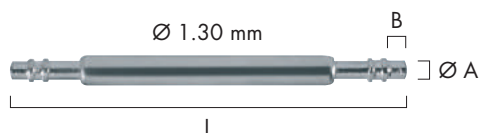
Barrettes à vis  
*Screw-on bars*  
 Schraubstege  
 Pasadores de rosca  
 Anse a vite  
 Pinos de rosca



55



- L = distance des entre-cornes.
- L = distance between the lugs.
- L = Bügelabstand.
- L = distancia entre las asas.
- L = distanza tra le anse.
- L = distância entre as asas.



Barrette double sécurité; acier inoxydable.  
 Double flanged spring bar; stainless steel.  
 Doppel-Ansatz Federsteg; Edelstahl.  
 Pasador doble seguridad; acero inoxidable.  
 Ansa doppia sicurezza; acciaio inossidabile.  
 Pino dupla segurança; aço inoxidável.

100  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.300-06 | 6    | 0.80 x 0.80 | 0.005 |
| 46.300-07 | 7    | 0.80 x 0.80 | 0.005 |
| 46.300-08 | 8    | 0.80 x 0.80 | 0.006 |
| 46.300-09 | 9    | 0.80 x 0.80 | 0.006 |
| 46.300-10 | 10   | 0.80 x 0.80 | 0.007 |
| 46.300-11 | 11   | 0.80 x 0.80 | 0.008 |
| 46.300-12 | 12   | 0.80 x 0.80 | 0.008 |
| 46.300-13 | 13   | 0.80 x 0.80 | 0.009 |
| 46.300-14 | 14   | 0.80 x 0.80 | 0.010 |
| 46.300-15 | 15   | 0.80 x 0.80 | 0.010 |
| 46.300-16 | 16   | 0.80 x 0.80 | 0.010 |
| 46.300-17 | 17   | 0.80 x 0.80 | 0.012 |
| 46.300-18 | 18   | 0.80 x 0.80 | 0.012 |
| 46.300-19 | 19   | 0.80 x 0.80 | 0.012 |
| 46.300-20 | 20   | 0.80 x 0.80 | 0.013 |

10  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.301-06 | 6    | 0.80 x 0.80 | 0.001 |
| 46.301-07 | 7    | 0.80 x 0.80 | 0.001 |
| 46.301-08 | 8    | 0.80 x 0.80 | 0.001 |
| 46.301-09 | 9    | 0.80 x 0.80 | 0.001 |
| 46.301-10 | 10   | 0.80 x 0.80 | 0.001 |
| 46.301-11 | 11   | 0.80 x 0.80 | 0.002 |
| 46.301-12 | 12   | 0.80 x 0.80 | 0.002 |
| 46.301-13 | 13   | 0.80 x 0.80 | 0.002 |
| 46.301-14 | 14   | 0.80 x 0.80 | 0.002 |
| 46.301-15 | 15   | 0.80 x 0.80 | 0.002 |
| 46.301-16 | 16   | 0.80 x 0.80 | 0.002 |
| 46.301-17 | 17   | 0.80 x 0.80 | 0.002 |
| 46.301-18 | 18   | 0.80 x 0.80 | 0.002 |
| 46.301-19 | 19   | 0.80 x 0.80 | 0.002 |
| 46.301-20 | 20   | 0.80 x 0.80 | 0.002 |



Ø 1.30 mm



Assortiment de barrettes double sécurité ; acier inoxydable.  
 Assortment of double flanged spring bars ; stainless steel.  
 Sortiment von Doppel-Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores doble seguridad ; acero inoxidable.  
 Assortimento di anse doppia sicurezza ; acciaio inossidabile.  
 Sortido de pinos dupla segurança ; aço inoxidável.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.027 | 100x | 0.036 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.300-06 /-08 /-10 /-12 /-14 /-15 /-16 /-17 /-18 /-20**



Ø 1.30 mm



Assortiment de barrettes double sécurité ; acier inoxydable.  
 Assortment of double flanged spring bars ; stainless steel.  
 Sortiment von Doppel-Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores doble seguridad ; acero inoxidable.  
 Assortimento di anse doppia sicurezza ; acciaio inossidabile.  
 Sortido de pinos dupla segurança ; aço inoxidável.

| MSA    | Qt.    | Kg    |
|--------|--------|-------|
| 99.058 | 1'000x | 0.389 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo**  
**Contenuto - Conteúdo :**  
**15 modèles - models - Modelle - modelos - modelli - modelos**  
**1x MSA15.003**  
**50x MSA46.300-06 /-07 /-08 /-09 /-10 /-11**  
**/-13 /-15 /-17 /-19**  
**100x MSA46.300-12 /-14 /-16 /-18 /-20**



Barrette double sécurité ; acier inoxydable.  
 Double flanged spring bar ; stainless steel.  
 Doppel-Ansatz Federsteg ; Edelstahl.  
 Pasador doble seguridad ; acero inoxidable.  
 Ansa doppia sicurezza ; acciaio inossidabile.  
 Pino dupla segurança ; aço inoxidável.

100  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.310-07 | 7    | 0.80 x 0.80 | 0.007 |
| 46.310-08 | 8    | 0.80 x 0.80 | 0.007 |
| 46.310-09 | 9    | 0.80 x 0.80 | 0.008 |
| 46.310-10 | 10   | 0.80 x 0.80 | 0.009 |
| 46.310-11 | 11   | 0.80 x 0.80 | 0.009 |
| 46.310-12 | 12   | 0.80 x 0.80 | 0.010 |
| 46.310-13 | 13   | 0.80 x 0.80 | 0.012 |
| 46.310-14 | 14   | 0.80 x 0.80 | 0.012 |
| 46.310-15 | 15   | 0.80 x 0.80 | 0.013 |
| 46.310-16 | 16   | 0.80 x 0.80 | 0.013 |
| 46.310-17 | 17   | 0.80 x 0.80 | 0.014 |
| 46.310-18 | 18   | 0.80 x 0.80 | 0.015 |
| 46.310-19 | 19   | 0.80 x 0.80 | 0.015 |
| 46.310-20 | 20   | 0.80 x 0.80 | 0.016 |
| 46.310-21 | 21   | 0.80 x 0.80 | 0.016 |
| 46.310-22 | 22   | 0.80 x 0.80 | 0.017 |
| 46.310-23 | 23   | 0.80 x 0.80 | 0.018 |
| 46.310-24 | 24   | 0.80 x 0.80 | 0.018 |

10  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.311-07 | 7    | 0.80 x 0.80 | 0.001 |
| 46.311-08 | 8    | 0.80 x 0.80 | 0.001 |
| 46.311-09 | 9    | 0.80 x 0.80 | 0.001 |
| 46.311-10 | 10   | 0.80 x 0.80 | 0.002 |
| 46.311-11 | 11   | 0.80 x 0.80 | 0.002 |
| 46.311-12 | 12   | 0.80 x 0.80 | 0.002 |
| 46.311-13 | 13   | 0.80 x 0.80 | 0.002 |
| 46.311-14 | 14   | 0.80 x 0.80 | 0.002 |
| 46.311-15 | 15   | 0.80 x 0.80 | 0.002 |
| 46.311-16 | 16   | 0.80 x 0.80 | 0.002 |
| 46.311-17 | 17   | 0.80 x 0.80 | 0.002 |
| 46.311-18 | 18   | 0.80 x 0.80 | 0.002 |
| 46.311-19 | 19   | 0.80 x 0.80 | 0.002 |
| 46.311-20 | 20   | 0.80 x 0.80 | 0.002 |
| 46.311-21 | 21   | 0.80 x 0.80 | 0.002 |
| 46.311-22 | 22   | 0.80 x 0.80 | 0.002 |
| 46.311-23 | 23   | 0.80 x 0.80 | 0.003 |
| 46.311-24 | 24   | 0.80 x 0.80 | 0.003 |



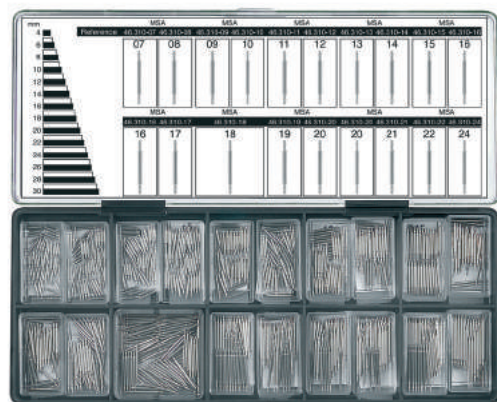
| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.155 | 100x | 0.041 |

Ø 1.50 mm



Assortiment de barrettes double sécurité ; acier inoxydable.  
 Assortment of double flanged spring bars ; stainless steel.  
 Sortiment von Doppel-Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores doble seguridad ; acero inoxidable.  
 Assortimento di anse doppia sicurezza ; acciaio inossidabile.  
 Sortido de pinos dupla segurança ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.310-10 /-12 /-14 /-16 /-17 /-18 /-19 /-20 /-22 /-24**



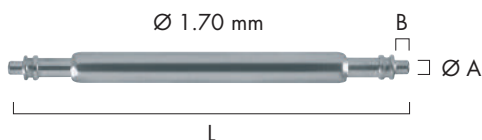
| MSA    | Qt.    | Kg    |
|--------|--------|-------|
| 99.060 | 1'000x | 0.444 |

Ø 1.50 mm



Assortiment de barrettes double sécurité ; acier inoxydable.  
 Assortment of double flanged spring bars ; stainless steel.  
 Sortiment von Doppel-Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores doble seguridad ; acero inoxidable.  
 Assortimento di anse doppia sicurezza ; acciaio inossidabile.  
 Sortido de pinos dupla segurança ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**Contento - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**17 modèles - models - Modelle - modelos - modelli - modelos**  
**1x MSA15.003**  
**50x MSA46.310-07 /-08 /-09 /-10 /-11 /-12**  
**/-13 /-14 /-15 /-17 /-19 /-21 /-22 /-24**  
**100x MSA46.310-16 /-18 /-20**

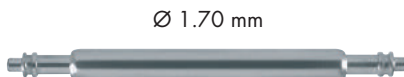


Barrette double sécurité; acier inoxydable.  
 Double flanged spring bar; stainless steel.  
 Doppel-Ansatz Federsteg; Edelstahl.  
 Pasador doble seguridad; acero inoxidable.  
 Ansa doppia sicurezza; acciaio inossidabile.  
 Pino dupla segurança; aço inoxidável.

100  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.315-18 | 18   | 0.80 x 0.80 | 0.019 |
| 46.315-19 | 19   | 0.80 x 0.80 | 0.020 |
| 46.315-20 | 20   | 0.80 x 0.80 | 0.020 |
| 46.315-21 | 21   | 0.80 x 0.80 | 0.022 |

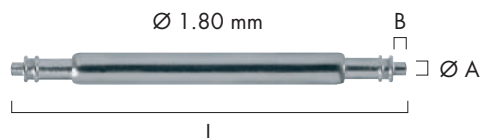
| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.315-22 | 22   | 0.80 x 0.80 | 0.022 |
| 46.315-23 | 23   | 0.80 x 0.80 | 0.022 |
| 46.315-24 | 24   | 0.80 x 0.80 | 0.023 |



Assortiment de barrettes double sécurité; acier inoxydable.  
 Assortment of double flanged spring bars; stainless steel.  
 Sortiment von Doppel-Ansatz Federsteg; Edelstahl.  
 Surtido de pasadores doble seguridad; acero inoxidable.  
 Assortimento di anse doppia sicurezza; acciaio inossidabile.  
 Sortido de pinos dupla segurança; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.154 | 60x | 0.040 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**6 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.315-18 /-20 /-21 /-22 /-23 /-24**



Barrette double sécurité ; acier inoxydable.  
*Double flanged spring bar ; stainless steel.*  
 Doppel-Ansatz Federsteg ; Edelstahl.  
*Pasador doble seguridad ; acero inoxidable.*  
 Ansa doppia sicurezza ; acciaio inossidabile.  
*Pino dupla segurança ; aço inoxidável.*

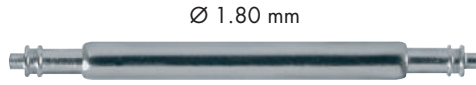
100  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.320-08 | 8    | 0.80 x 0.80 | 0.010 |
| 46.320-10 | 10   | 0.80 x 0.80 | 0.013 |
| 46.320-11 | 11   | 0.80 x 0.80 | 0.013 |
| 46.320-12 | 12   | 0.80 x 0.80 | 0.014 |
| 46.320-13 | 13   | 0.80 x 0.80 | 0.017 |
| 46.320-14 | 14   | 0.80 x 0.80 | 0.017 |
| 46.320-15 | 15   | 0.80 x 0.80 | 0.018 |
| 46.320-16 | 16   | 0.80 x 0.80 | 0.018 |
| 46.320-17 | 17   | 0.80 x 0.80 | 0.020 |
| 46.320-18 | 18   | 0.80 x 0.80 | 0.021 |
| 46.320-19 | 19   | 0.80 x 0.80 | 0.021 |
| 46.320-20 | 20   | 0.80 x 0.80 | 0.022 |
| 46.320-21 | 21   | 0.80 x 0.80 | 0.023 |
| 46.320-22 | 22   | 0.80 x 0.80 | 0.024 |
| 46.320-23 | 23   | 0.80 x 0.80 | 0.024 |
| 46.320-24 | 24   | 0.80 x 0.80 | 0.025 |
| 46.320-26 | 26   | 0.80 x 0.80 | 0.026 |
| 46.320-28 | 28   | 0.80 x 0.80 | 0.028 |
| 46.320-30 | 30   | 0.80 x 0.80 | 0.029 |
| 46.320-32 | 32   | 0.80 x 0.80 | 0.029 |
| 46.320-34 | 34   | 0.80 x 0.80 | 0.032 |
| 46.320-36 | 36   | 0.80 x 0.80 | 0.033 |
| 46.320-38 | 38   | 0.80 x 0.80 | 0.034 |

10  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.321-08 | 8    | 0.80 x 0.80 | 0.002 |
| 46.321-10 | 10   | 0.80 x 0.80 | 0.002 |
| 46.321-11 | 11   | 0.80 x 0.80 | 0.002 |
| 46.321-12 | 12   | 0.80 x 0.80 | 0.002 |
| 46.321-13 | 13   | 0.80 x 0.80 | 0.002 |
| 46.321-14 | 14   | 0.80 x 0.80 | 0.002 |
| 46.321-15 | 15   | 0.80 x 0.80 | 0.003 |
| 46.321-16 | 16   | 0.80 x 0.80 | 0.003 |
| 46.321-17 | 17   | 0.80 x 0.80 | 0.003 |
| 46.321-18 | 18   | 0.80 x 0.80 | 0.003 |
| 46.321-19 | 19   | 0.80 x 0.80 | 0.003 |
| 46.321-20 | 20   | 0.80 x 0.80 | 0.003 |
| 46.321-21 | 21   | 0.80 x 0.80 | 0.003 |
| 46.321-22 | 22   | 0.80 x 0.80 | 0.003 |
| 46.321-23 | 23   | 0.80 x 0.80 | 0.003 |
| 46.321-24 | 24   | 0.80 x 0.80 | 0.003 |
| 46.321-26 | 26   | 0.80 x 0.80 | 0.004 |
| 46.321-28 | 28   | 0.80 x 0.80 | 0.004 |
| 46.321-30 | 30   | 0.80 x 0.80 | 0.004 |
| 46.321-32 | 32   | 0.80 x 0.80 | 0.004 |
| 46.321-34 | 34   | 0.80 x 0.80 | 0.004 |
| 46.321-36 | 36   | 0.80 x 0.80 | 0.004 |
| 46.321-38 | 38   | 0.80 x 0.80 | 0.004 |

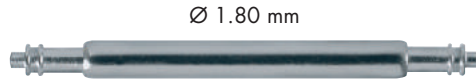




Assortiment de barrettes double sécurité ; acier inoxydable.  
 Assortment of double flanged spring bars ; stainless steel.  
 Sortiment von Doppel-Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores doble seguridad ; acero inoxidable.  
 Assortimento di anse doppia sicurezza ; acciaio inossidabile.  
 Sortido de pinos dupla segurança ; aço inoxidável.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.031 | 100x | 0.047 |

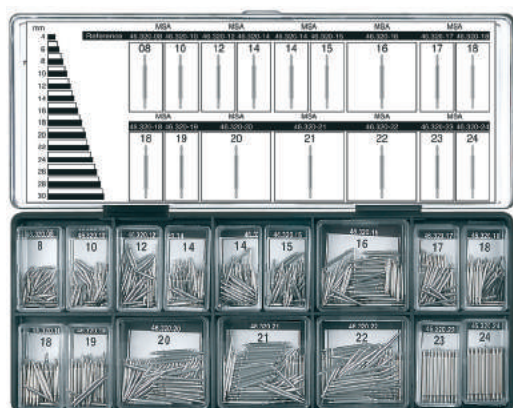
**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.320-12 /-14 /-16 /-17 /-18 /-19 /-20 /-21 /-22 /-24**



Assortiment de barrettes double sécurité ; acier inoxydable.  
 Assortment of double flanged spring bars ; stainless steel.  
 Sortiment von Doppel-Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores doble seguridad ; acero inoxidable.  
 Assortimento di anse doppia sicurezza ; acciaio inossidabile.  
 Sortido de pinos dupla segurança ; aço inoxidável.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.156 | 100x | 0.054 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.320-20 /-22 /-24 /-26 /-28 /-30 /-32 /-34 /-36 /-38**



| MSA    | Qt.    | Kg    |
|--------|--------|-------|
| 99.062 | 1'000x | 0.494 |

Ø 1.80 mm



Assortiment de barrettes double sécurité ; acier inoxydable.  
 Assortment of double flanged spring bars ; stainless steel.  
 Sortiment von Doppel-Ansatz Federstege ; Edelstahl.  
 Sortido de pasadores doble seguridad ; acero inoxidable.  
 Assortimento di anse doppia sicurezza ; acciaio inossidabile.  
 Sortido de pinos dupla segurança ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido**  
**Contenuto - Conteúdo :**

**14 modèles - models - Modelle - modelos**  
**modelli - modelos**

**50x MSA46.320-08 /-10 /-12 /-15 /-17 /-19**  
**/-23 /-24**

**100x MSA46.320-14 /-16 /-18 /-20 /-21 /-22**



| MSA    | Qt.   | Kg    |
|--------|-------|-------|
| 99.157 | 1000x | 0.580 |

Ø 1.80 mm



Assortiment de barrettes double sécurité ; acier inoxydable.  
 Assortment of double flanged spring bars ; stainless steel.  
 Sortiment von Doppel-Ansatz Federstege ; Edelstahl.  
 Sortido de pasadores doble seguridad ; acero inoxidable.  
 Assortimento di anse doppia sicurezza ; acciaio inossidabile.  
 Sortido de pinos dupla segurança ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido**  
**Contenuto - Conteúdo :**

**10 modèles - models - Modelle - modelos**  
**modelli - modelos**

**100x MSA46.320-22 /-23 /-24 /-26 /-28 /-30**  
**/-32 /-34 /-36 /-38**

Ø 1.30 – 1.50 – 1.80 mm



Assortiment de barrettes double sécurité ; acier inoxydable.  
 Assortiment of double flanged spring bars ; stainless steel.  
 Sortiment von Doppel-Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores doble seguridad ; acero inoxidable.  
 Assortimento di anse doppia sicurezza ; acciaio inossidabile.  
 Sortido de pinos dupla segurança ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido**  
**Contenuto - Conteúdo :**

- 40 modèles - models - Modelle - modelos**
- modelli - modelos**
- 1x MSA15.003**
- 10x MSA46.300-07 /-09 /-11 /-13 /-15 ;**
- 46.310-13 /-15 /-17 /-19 /-21 /-24 ; 46.320-15**
- 17 /-19 /-21 /-23 /-24**
- 20x MSA46.300-06 /-08 /-10 /-12 /-14 /-16**
- ; 46.310-08 /-10 /-12 /-14 /-16 /-20 /-22 ;**
- 46.320-08 /-10 /-12 /-14 /-16 /-20 /-22**
- 40x MSA46.300-18 ; 46.310-18 ; 46.320-18**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.064 | 690x | 0.438 |

Ø 1.30 – 1.50 – 1.80 mm

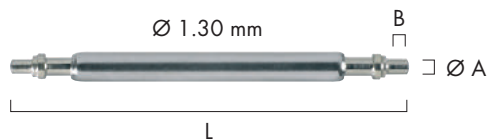


Assortiment de barrettes double sécurité ; acier inoxydable.  
 Assortiment of double flanged spring bars ; stainless steel.  
 Sortiment von Doppel-Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores doble seguridad ; acero inoxidable.  
 Assortimento di anse doppia sicurezza ; acciaio inossidabile.  
 Sortido de pinos dupla segurança ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido**  
**Contenuto - Conteúdo :**

- 32 modèles - models - Modelle - modelos**
- modelli - modelos**
- 10x MSA46.300-12 /-14 /-15 ; 46.310-12 /-14**
- /-15 /-23 /-24**
- 20x MSA46.300-16 /-17 /-18 /-19 /-20 ;**
- 46.310-16 /-17 /-18 /-19 /-20 /-21 /-22 ;**
- 46.320-16 /-18 /-20 /-22**
- 30x MSA46.320-24 /-26 /-28 /-30 /-32 /-34**
- /-36 /-38**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.158 | 640x | 0.434 |



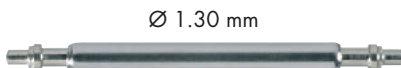
Barrette de sécurité ; acier inoxydable.  
 Flanged spring bar ; stainless steel.  
 Ansatz Federsteg ; Edelstahl.  
 Pasador de seguridad ; acero inoxidable.  
 Ansa di sicurezza ; acciaio inossidabile.  
 Pino de segurança ; aço inoxidável.

100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.201-06.0 | 6    | 0.70 x 0.70 | 0.004 |
| 46.201-06.5 | 6.5  | 0.70 x 0.70 | 0.004 |
| 46.201-07.0 | 7    | 0.70 x 0.70 | 0.005 |
| 46.201-07.5 | 7.5  | 0.70 x 0.70 | 0.005 |
| 46.201-08.0 | 8    | 0.70 x 0.70 | 0.006 |
| 46.201-08.5 | 8.5  | 0.70 x 0.70 | 0.006 |
| 46.201-09.0 | 9    | 0.70 x 0.80 | 0.007 |
| 46.201-10.0 | 10   | 0.70 x 1.00 | 0.008 |
| 46.201-11.0 | 11   | 0.70 x 1.00 | 0.008 |
| 46.201-12.0 | 12   | 0.70 x 1.00 | 0.008 |
| 46.201-13.0 | 13   | 0.70 x 1.00 | 0.009 |
| 46.201-14.0 | 14   | 0.70 x 1.00 | 0.009 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.201-15.0 | 15   | 0.70 x 1.00 | 0.010 |
| 46.201-16.0 | 16   | 0.70 x 1.00 | 0.011 |
| 46.201-17.0 | 17   | 0.70 x 1.00 | 0.012 |
| 46.201-18.0 | 18   | 0.70 x 1.00 | 0.013 |
| 46.201-19.0 | 19   | 0.70 x 1.00 | 0.014 |
| 46.201-20.0 | 20   | 0.70 x 1.00 | 0.014 |
| 46.201-21.0 | 21   | 0.70 x 1.00 | 0.015 |
| 46.201-22.0 | 22   | 0.70 x 1.00 | 0.015 |
| 46.201-23.0 | 23   | 0.70 x 1.00 | 0.016 |
| 46.201-24.0 | 24   | 0.70 x 1.00 | 0.016 |
| 46.201-25.0 | 25   | 0.70 x 1.00 | 0.016 |
| 46.201-26.0 | 26   | 0.70 x 1.00 | 0.017 |

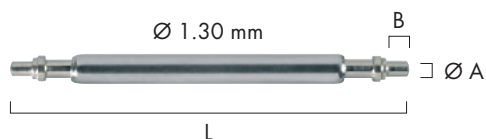
|   |                 |                 |                 |                 |                 |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| MSA 46.201 08.0   | MSA 46.201 10.0 | MSA 46.201 12.0 | MSA 46.201 14.0 | MSA 46.201 16.0 | MSA 46.201 18.0 |
| Barrettes de sécurité ac.inox<br>Flanged spring bars st. steel<br>Pasadores de seguridad ac.inox<br>Anse di sicurezza acc.inox<br>MSA 99.159 60 pcs |                 |                 |                 |                 |                 |
| MSA 46.201 19.0   | MSA 46.201 20.0 | MSA 46.201 22.0 | MSA 46.201 24.0 | MSA 46.201 25.0 | MSA 46.201 26.0 |



Assortiment de barrettes de sécurité ; acier inoxydable.  
 Assortment of flanged spring bars ; stainless steel.  
 Sortiment von Ansatz Federsteg ; Edelstahl.  
 Surtido de pasadores de seguridad ; acero inoxidable.  
 Assortimento di anse di sicurezza ; acciaio inossidabile.  
 Sortido de pinos de segurança ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.159 | 60x | 0.044 |

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**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.201-08.0 /-10.0 /-12.0 /-14.0 /-16.0 /-18.0 /-19.0**  
**/-20.0 /-22.0 /-24.0 /-25.0 /-26.0**

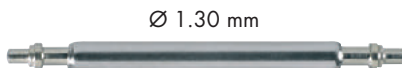


Barrette de sécurité ; maillechort.  
 Flanged spring bar ; nickel silver.  
 Ansatz Federsteg ; Neusilber.  
 Pasador de seguridad ; alpaca.  
 Ansa di sicurezza ; argenteone.  
 Pino de segurança ; níquel prateado.



| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.200-06.0 | 6    | 0.70 x 0.70 | 0.014 |
| 46.200-07.0 | 7    | 0.70 x 0.70 | 0.014 |
| 46.200-08.0 | 8    | 0.70 x 0.70 | 0.014 |
| 46.200-09.0 | 9    | 0.70 x 0.80 | 0.014 |
| 46.200-10.0 | 10   | 0.70 x 1.00 | 0.014 |
| 46.200-11.0 | 11   | 0.70 x 1.00 | 0.014 |
| 46.200-12.0 | 12   | 0.70 x 1.00 | 0.014 |
| 46.200-13.0 | 13   | 0.70 x 1.00 | 0.014 |
| 46.200-14.0 | 14   | 0.70 x 1.00 | 0.014 |
| 46.200-15.0 | 15   | 0.70 x 1.00 | 0.014 |

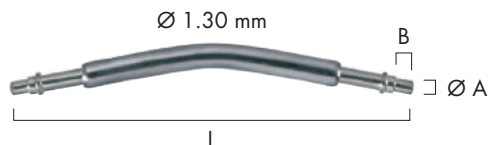
| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.200-16.0 | 16   | 0.70 x 1.00 | 0.014 |
| 46.200-17.0 | 17   | 0.70 x 1.00 | 0.014 |
| 46.200-18.0 | 18   | 0.70 x 1.00 | 0.014 |
| 46.200-19.0 | 19   | 0.70 x 1.00 | 0.014 |
| 46.200-20.0 | 20   | 0.70 x 1.00 | 0.014 |
| 46.200-21.0 | 21   | 0.70 x 1.00 | 0.014 |
| 46.200-22.0 | 22   | 0.70 x 1.00 | 0.014 |
| 46.200-23.0 | 23   | 0.70 x 1.00 | 0.014 |
| 46.200-24.0 | 24   | 0.70 x 1.00 | 0.014 |



Assortiment de barrettes de sécurité ; maillechort.  
 Assortment of flanged spring bars ; nickel silver.  
 Sortiment von Ansatz Federsteg ; Neusilber.  
 Surtido de pasadores de seguridad ; alpaca.  
 Assortimento di anse di sicurezza ; argenteone.  
 Sortido de pinos de segurança ; níquel prateado.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.099 | 60x | 0.033 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.200-06.0 /-07.0 /-08.0 /-09.0 /-10.0 /-12.0 /-13.0**  
**/-14.0 /-15.0 /-16.0 /-18.0 /-20.0**



Barrette de sécurité courbée; maillechort.  
 Curved flanged spring bar; nickel silver.  
 Gebogener Ansatz Federsteg; Neusilber.  
 Pasador de seguridad curvado; alpaca.  
 Ansa di sicurezza curva; argentine.  
 Pinos de segurança curvados; níquel prateado.

100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.272-10.0 | 10   | 0.70 x 1.00 | 0.014 |
| 46.272-12.0 | 12   | 0.70 x 1.00 | 0.014 |
| 46.272-13.0 | 13   | 0.70 x 1.00 | 0.014 |
| 46.272-14.0 | 14   | 0.70 x 1.00 | 0.014 |
| 46.272-15.0 | 15   | 0.70 x 1.00 | 0.014 |
| 46.272-16.0 | 16   | 0.70 x 1.00 | 0.014 |
| 46.272-17.0 | 17   | 0.70 x 1.00 | 0.014 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.272-18.0 | 18   | 0.70 x 1.00 | 0.014 |
| 46.272-19.0 | 19   | 0.70 x 1.00 | 0.014 |
| 46.272-20.0 | 20   | 0.70 x 1.00 | 0.014 |
| 46.272-21.0 | 21   | 0.70 x 1.00 | 0.014 |
| 46.272-22.0 | 22   | 0.70 x 1.00 | 0.014 |
| 46.272-24.0 | 24   | 0.70 x 1.00 | 0.014 |



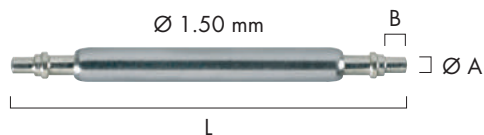
Ø 1.30 mm



Assortiment de barrettes de sécurité courbées; maillechort.  
 Assortiment of curved flanged spring bars; nickel silver.  
 Sortiment von gebogene Ansatz Federsteg; Neusilber.  
 Surtido de pasadores de seguridad curvados; alpaca.  
 Assortimento di anse di sicurezza curve; argentine.  
 Sortido de pinos de segurança curvados; níquel prateado.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.104 | 60x | 0.036 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**6x MSA46.272-12.0 /-14.0 /-16.0 /-17.0 /-18.0 /-19.0 /-20.0**  
**/-21.0 /-22.0 /-24.0**



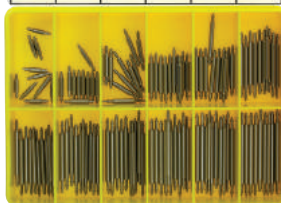
Barrette de sécurité ; acier inoxydable.  
 Flanged spring bar ; stainless steel.  
 Ansatz Federsteg ; Edelstahl.  
 Pasador de seguridad ; acero inoxidable.  
 Ansa di sicurezza ; acciaio inossidabile.  
 Pino de segurança ; aço inoxidável.

100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.211-06.0 | 6    | 0.70 x 0.70 | 0.006 |
| 46.211-07.0 | 7    | 0.70 x 0.70 | 0.007 |
| 46.211-08.0 | 8    | 0.70 x 0.70 | 0.008 |
| 46.211-09.0 | 9    | 0.75 x 0.80 | 0.009 |
| 46.211-10.0 | 10   | 0.75 x 1.00 | 0.010 |
| 46.211-11.0 | 11   | 0.75 x 1.00 | 0.011 |
| 46.211-12.0 | 12   | 0.75 x 1.00 | 0.012 |
| 46.211-13.0 | 13   | 0.75 x 1.00 | 0.012 |
| 46.211-14.0 | 14   | 0.75 x 1.00 | 0.012 |
| 46.211-15.0 | 15   | 0.75 x 1.00 | 0.015 |
| 46.211-16.0 | 16   | 0.75 x 1.00 | 0.015 |
| 46.211-17.0 | 17   | 0.75 x 1.00 | 0.016 |
| 46.211-18.0 | 18   | 0.75 x 1.00 | 0.017 |
| 46.211-19.0 | 19   | 0.75 x 1.00 | 0.018 |
| 46.211-20.0 | 20   | 0.75 x 1.00 | 0.019 |
| 46.211-21.0 | 21   | 0.75 x 1.00 | 0.019 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.211-22.0 | 22   | 0.75 x 1.00 | 0.020 |
| 46.211-23.0 | 23   | 0.75 x 1.00 | 0.021 |
| 46.211-24.0 | 24   | 0.75 x 1.00 | 0.021 |
| 46.211-25.0 | 25   | 0.75 x 1.00 | 0.023 |
| 46.211-26.0 | 26   | 0.75 x 1.00 | 0.024 |
| 46.211-27.0 | 27   | 0.75 x 1.00 | 0.024 |
| 46.211-28.0 | 28   | 0.75 x 1.00 | 0.025 |
| 46.211-29.0 | 29   | 0.75 x 1.00 | 0.025 |
| 46.211-30.0 | 30   | 0.75 x 1.00 | 0.026 |
| 46.211-31.0 | 31   | 0.75 x 1.00 | 0.026 |
| 46.211-32.0 | 32   | 0.75 x 1.00 | 0.028 |
| 46.211-33.0 | 33   | 0.75 x 1.00 | 0.028 |
| 46.211-34.0 | 34   | 0.75 x 1.00 | 0.029 |
| 46.211-35.0 | 35   | 0.75 x 1.00 | 0.029 |
| 46.211-36.0 | 36   | 0.75 x 1.00 | 0.032 |
| 46.211-38.0 | 38   | 0.75 x 1.00 | 0.033 |

|               |               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|---------------|
| MSA<br>46.211 | MSA<br>46.211 | MSA<br>46.211 | MSA<br>46.211 | MSA<br>46.211 | MSA<br>46.211 |
| 06.0          | 08.0          | 10.0          | 12.0          | 14.0          | 16.0          |



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.197 | 120x | 0.054 |

Ø 1.50 mm



Assortiment de barrettes de sécurité ; acier inoxydable.  
 Assortment of flanged spring bars ; stainless steel.  
 Sortiment von Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores de seguridad ; acero inoxidable.  
 Assortimento di anse di sicurezza ; acciaio inossidabile.  
 Sortido de pinos de segurança ; aço inoxidável.

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**12 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.211-06.0 /-08.0 /-10.0 /-12.0 /-14.0 /-16.0 /-17.0**  
**/-18.0 /-19.0 /-20.0 /-21.0 /-22.0**

|   |  |           |
|---|--|-----------|
| Assortiment MSA 99.142  |  | 100 pcs   |
| barrettes de sécurité<br>flanged spring bars<br>pasadores de seguridad<br>anse di sicurezza |  | Ø 1.50 mm |



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.142 | 100x | 0.052 |

Ø 1.50 mm



Assortiment de barrettes de sécurité ; acier inoxydable.  
 Assortment of flanged spring bars ; stainless steel.  
 Sortiment von Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores de seguridad ; acero inoxidable.  
 Assortimento di anse di sicurezza ; acciaio inossidabile.  
 Sortido de pinos de segurança ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.211-23.0 /-24.0 /-25.0 /-26.0 /-27.0 /-28.0 /-29.0**  
**/-30.0 /-31.0 /-32.0**

|   |  |           |
|---|--|-----------|
| Assortiment MSA 99.198  |  | 100 pcs   |
| barrettes de sécurité ac. inox<br>flanged spring bars st. steel<br>pasadores de seguridad ac. inox<br>anse di sicurezza acc. inossid. |  | Ø 1.50 mm |



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.198 | 100x | 0.054 |

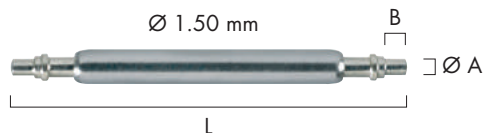
Ø 1.50 mm



Assortiment de barrettes de sécurité ; acier inoxydable.  
 Assortment of flanged spring bars ; stainless steel.  
 Sortiment von Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores de seguridad ; acero inoxidable.  
 Assortimento di anse di sicurezza ; acciaio inossidabile.  
 Sortido de pinos de segurança ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.211-24.0 /-25.0 /-26.0 /-28.0 /-30.0 /-32.0 /-33.0**  
**/-34.0 /-36.0 /-38.0**



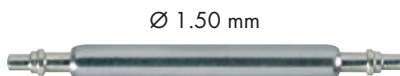


Barrette de sécurité ; maillechort.  
 Flanged spring bar ; nickel silver.  
 Ansatz Federsteg ; Neusilber.  
 Pasador de seguridad ; alpaca.  
 Ansa di sicurezza ; argenteone.  
 Pino de segurança ; níquel prateado.

100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.210-06.0 | 6    | 0.70 x 0.70 | 0.018 |
| 46.210-07.0 | 7    | 0.70 x 0.70 | 0.018 |
| 46.210-08.0 | 8    | 0.70 x 0.70 | 0.018 |
| 46.210-09.0 | 9    | 0.75 x 0.80 | 0.018 |
| 46.210-10.0 | 10   | 0.75 x 1.00 | 0.018 |
| 46.210-11.0 | 11   | 0.75 x 1.00 | 0.018 |
| 46.210-12.0 | 12   | 0.75 x 1.00 | 0.018 |
| 46.210-13.0 | 13   | 0.75 x 1.00 | 0.018 |
| 46.210-14.0 | 14   | 0.75 x 1.00 | 0.018 |
| 46.210-15.0 | 15   | 0.75 x 1.00 | 0.018 |

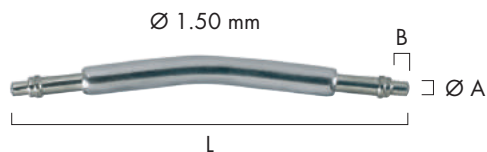
| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.210-16.0 | 16   | 0.75 x 1.00 | 0.018 |
| 46.210-17.0 | 17   | 0.75 x 1.00 | 0.018 |
| 46.210-18.0 | 18   | 0.75 x 1.00 | 0.018 |
| 46.210-19.0 | 19   | 0.75 x 1.00 | 0.018 |
| 46.210-20.0 | 20   | 0.75 x 1.00 | 0.018 |
| 46.210-21.0 | 21   | 0.75 x 1.00 | 0.018 |
| 46.210-22.0 | 22   | 0.75 x 1.00 | 0.018 |
| 46.210-23.0 | 23   | 0.75 x 1.00 | 0.018 |
| 46.210-24.0 | 24   | 0.75 x 1.00 | 0.018 |



Assortiment de barrettes de sécurité ; maillechort.  
 Assortment of flanged spring bars ; nickel silver.  
 Sortiment von Ansatz Federsteg ; Neusilber.  
 Surtido de pasadores de seguridad ; alpaca.  
 Assortimento di anse di sicurezza ; argenteone.  
 Sortido de pinos de segurança ; níquel prateado.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.100 | 60x | 0.038 |

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**6x MSA46.210-08.0 /-10.0 /-12.0 /-13.0 /-14.0 /-15.0 /-16.0**  
**/-18.0 /-20.0 /-22.0**

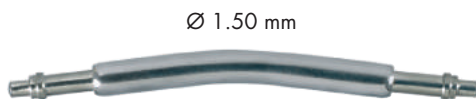


Barrette de sécurité courbée ; maillechort.  
 Curved flanged spring bar ; nickel silver.  
 Gebogener Ansatz Federsteg ; Neusilber.  
 Pasador de seguridad curvado ; alpaca.  
 Ansa di sicurezza curva ; argenteo.  
 Pino de segurança curvado ; níquel prateado.

100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.271-10.0 | 10   | 0.75 x 1.00 | 0.018 |
| 46.271-11.0 | 11   | 0.75 x 1.00 | 0.018 |
| 46.271-12.0 | 12   | 0.75 x 1.00 | 0.018 |
| 46.271-13.0 | 13   | 0.75 x 1.00 | 0.018 |
| 46.271-14.0 | 14   | 0.75 x 1.00 | 0.018 |
| 46.271-15.0 | 15   | 0.75 x 1.00 | 0.018 |
| 46.271-16.0 | 16   | 0.75 x 1.00 | 0.018 |

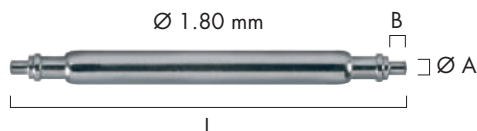
| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.271-17.0 | 17   | 0.75 x 1.00 | 0.018 |
| 46.271-18.0 | 18   | 0.75 x 1.00 | 0.018 |
| 46.271-19.0 | 19   | 0.75 x 1.00 | 0.018 |
| 46.271-20.0 | 20   | 0.75 x 1.00 | 0.018 |
| 46.271-21.0 | 21   | 0.75 x 1.00 | 0.018 |
| 46.271-22.0 | 22   | 0.75 x 1.00 | 0.018 |



Assortiment de barrettes de sécurité courbées ; maillechort.  
 Assortment of curved flanged spring bars ; nickel silver.  
 Sortiment von gebogene Ansatz Federsteg ; Neusilber.  
 Surtido de pasadores de seguridad curvados ; alpaca.  
 Assortimento di anse di sicurezza curve ; argenteo.  
 Sortido de pinos de segurança curvados ; níquel prateado.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.103 | 60x | 0.038 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**6x MSA46.271-10.0 /-12.0 /-13.0 /-14.0 /-15.0 /-16.0 /-17.0**  
**/-18.0 /-20.0 /-22.0**

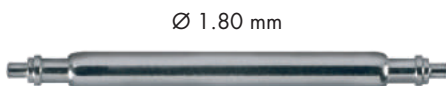


Barrette de sécurité; acier inoxydable.  
 Flanged spring bar; stainless steel.  
 Ansatz Federsteg; Edelstahl.  
 Pasador de seguridad; acero inoxidable.  
 Ansa di sicurezza; acciaio inossidabile.  
 Pino de segurança; aço inoxidável.

100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.220-09.0 | 9    | 0.90 x 1.00 | 0.024 |
| 46.220-10.0 | 10   | 0.90 x 1.00 | 0.024 |
| 46.220-11.0 | 11   | 0.90 x 1.00 | 0.024 |
| 46.220-12.0 | 12   | 0.90 x 1.00 | 0.024 |
| 46.220-13.0 | 13   | 0.90 x 1.00 | 0.024 |
| 46.220-14.0 | 14   | 0.90 x 1.00 | 0.024 |
| 46.220-15.0 | 15   | 0.90 x 1.00 | 0.024 |
| 46.220-16.0 | 16   | 0.90 x 1.00 | 0.024 |
| 46.220-17.0 | 17   | 0.90 x 1.00 | 0.024 |
| 46.220-18.0 | 18   | 0.90 x 1.00 | 0.024 |
| 46.220-19.0 | 19   | 0.90 x 1.00 | 0.024 |
| 46.220-20.0 | 20   | 0.90 x 1.00 | 0.024 |
| 46.220-21.0 | 21   | 0.90 x 1.00 | 0.024 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.220-22.0 | 22   | 0.90 x 1.00 | 0.024 |
| 46.220-23.0 | 23   | 0.90 x 1.00 | 0.024 |
| 46.220-24.0 | 24   | 0.90 x 1.00 | 0.024 |
| 46.220-25.0 | 25   | 0.90 x 1.00 | 0.024 |
| 46.220-26.0 | 26   | 0.90 x 1.00 | 0.024 |
| 46.220-28.0 | 28   | 0.90 x 1.00 | 0.024 |
| 46.220-30.0 | 30   | 0.90 x 1.00 | 0.024 |
| 46.220-32.0 | 32   | 0.90 x 1.00 | 0.024 |
| 46.220-34.0 | 34   | 0.90 x 1.00 | 0.024 |
| 46.220-36.0 | 36   | 0.90 x 1.00 | 0.024 |
| 46.220-37.0 | 37   | 0.90 x 1.00 | 0.024 |
| 46.220-38.0 | 38   | 0.90 x 1.00 | 0.024 |



Assortiment de barrettes de sécurité; acier inoxydable.  
 Assortment of flanged spring bars; stainless steel.  
 Sortiment von Ansatz Federsteg; Edelstahl.  
 Surtido de pasadores de seguridad; acero inoxidable.  
 Assortimento di anse di sicurezza; acciaio inossidabile.  
 Sortido de pinos de segurança; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.101 | 60x | 0.042 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**6x MSA46.220-12.0 /-14.0 /-16.0 /-17.0 /-18.0 /-19.0 /-20.0**  
**/-21.0 /-22.0 /-24.0**



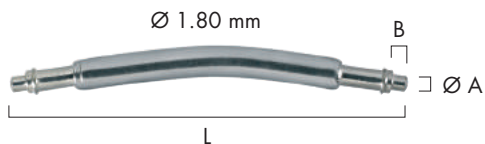
Ø 1.80 mm



Assortiment de barrettes de sécurité ; acier inoxydable.  
 Assortment of flanged spring bars ; stainless steel.  
 Sortiment von Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores de seguridad ; acero inoxidable.  
 Assortimento di anse di sicurezza ; acciaio inossidabile.  
 Sortido de pinos de segurança ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**6x MSA46.220-22.0 /-24.0 /-25.0 /-26.0 /-28.0 /-30.0 /-32.0**  
**/-34.0 /-36.0 /-38.0**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.196 | 60x | 0.048 |

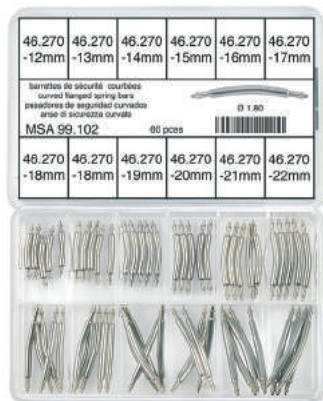


Barrette de sécurité courbée ; maillechort.  
 Curved flanged spring bar ; nickel silver.  
 Gebogener Ansatz Federsteg ; Neusilber.  
 Pasador de seguridad curvado ; alpaca.  
 Ansa di sicurezza curva ; argenteone.  
 Pino de segurança curvado ; níquel prateado.

100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.270-10.0 | 10   | 0.90 x 1.00 | 0.025 |
| 46.270-11.0 | 11   | 0.90 x 1.00 | 0.025 |
| 46.270-12.0 | 12   | 0.90 x 1.00 | 0.025 |
| 46.270-13.0 | 13   | 0.90 x 1.00 | 0.025 |
| 46.270-14.0 | 14   | 0.90 x 1.00 | 0.025 |
| 46.270-15.0 | 15   | 0.90 x 1.00 | 0.025 |
| 46.270-16.0 | 16   | 0.90 x 1.00 | 0.025 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.270-17.0 | 17   | 0.90 x 1.00 | 0.025 |
| 46.270-18.0 | 18   | 0.90 x 1.00 | 0.025 |
| 46.270-19.0 | 19   | 0.90 x 1.00 | 0.025 |
| 46.270-20.0 | 20   | 0.90 x 1.00 | 0.025 |
| 46.270-21.0 | 21   | 0.90 x 1.00 | 0.025 |
| 46.270-22.0 | 22   | 0.90 x 1.00 | 0.025 |
| 46.270-24.0 | 24   | 0.90 x 1.00 | 0.025 |



Ø 1.80 mm



Assortiment de barrettes de sécurité courbées ; maillechort.  
 Assortiment of curved flanged spring bars ; nickel silver.  
 Sortiment von gebogene Ansatz Federsteg ; Neusilber.  
 Surtido de pasadores de seguridad curvados ; alpaca.  
 Assortimento di anse di sicurezza curve ; argenteone.  
 Sortido de pinos de segurança curvados ; níquel prateado.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.102 | 60x | 0.040 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**11 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.270-12.0 /-13.0 /-14.0 /-15.0 /-16.0 /-17.0 /-19.0**  
**/-20.0 /-21.0 /-22.0**  
**10x MSA46.270-18.0**



Barrette de sécurité ; acier inoxydable.  
 Flanged spring bar ; stainless steel.  
 Ansatz Federsteg ; Edelstahl.  
 Pasador de seguridad ; acero inoxidable.  
 Ansa di sicurezza ; acciaio inossidabile.  
 Pino de segurança ; aço inoxidável.

100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.221-10.0 | 10   | 1.00 x 1.00 | 0.017 |
| 46.221-11.0 | 11   | 1.00 x 1.00 | 0.018 |
| 46.221-12.0 | 12   | 1.00 x 1.00 | 0.019 |
| 46.221-13.0 | 13   | 1.00 x 1.00 | 0.020 |
| 46.221-14.0 | 14   | 1.00 x 1.00 | 0.021 |
| 46.221-15.0 | 15   | 1.00 x 1.00 | 0.023 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.221-16.0 | 16   | 1.00 x 1.00 | 0.024 |
| 46.221-17.0 | 17   | 1.00 x 1.00 | 0.026 |
| 46.221-18.0 | 18   | 1.00 x 1.00 | 0.027 |
| 46.221-19.0 | 19   | 1.00 x 1.00 | 0.027 |
| 46.221-20.0 | 20   | 1.00 x 1.00 | 0.028 |



Ø 2.00 mm



Assortiment de barrettes de sécurité ; acier inoxydable.  
 Assortment of flanged spring bars ; stainless steel.  
 Sortiment von Ansatz Federsteg ; Edelstahl.  
 Surtido de pasadores de seguridad ; acero inoxidable.  
 Assortimento di anse di sicurezza ; acciaio inossidabile.  
 Sortido de pinos de segurança ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.125 | 50x | 0.025 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**11 modèles - models - Modelle - modelos - modelli - modelos**  
**4x MSA46.221-10.0 /-11.0 /-12.0 /-13.0 /-14.0 /-15.0 /-17.0**  
**/-19.0**  
**6x MSA46.221-16.0 /-18.0 /-20.0**



Barrette de sécurité télescopique ; acier inoxydable.

*Telescopic flanged spring bar ; stainless steel.*

Teleskopischer Ansatz Federsteg ; Edelstahl.

*Pasador de seguridad telescópico ; acero inoxidable.*

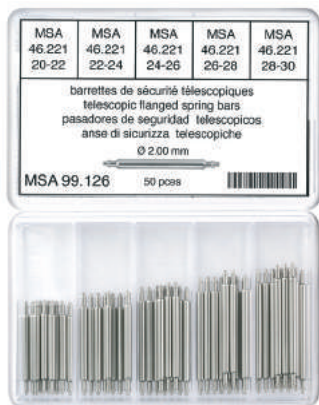
Ansa di sicurezza telescopica ; acciaio inossidabile.

*Pino de segurança telescópico ; aço inoxidável.*

100  
pcs

| MSA         | L mm         | Ø A x B mm  | Kg    |
|-------------|--------------|-------------|-------|
| 46.221-2022 | <b>20-22</b> | 1.00 x 1.00 | 0.030 |
| 46.221-2224 | <b>22-24</b> | 1.00 x 1.00 | 0.034 |
| 46.221-2426 | <b>24-26</b> | 1.00 x 1.00 | 0.036 |
| 46.221-2628 | <b>26-28</b> | 1.00 x 1.00 | 0.038 |
| 46.221-2830 | <b>28-30</b> | 1.00 x 1.00 | 0.040 |
| 46.221-3032 | <b>30-32</b> | 1.00 x 1.00 | 0.043 |

| MSA         | L mm         | Ø A x B mm  | Kg    |
|-------------|--------------|-------------|-------|
| 46.221-3234 | <b>32-34</b> | 1.00 x 1.00 | 0.044 |
| 46.221-3436 | <b>34-36</b> | 1.00 x 1.00 | 0.046 |
| 46.221-3638 | <b>36-38</b> | 1.00 x 1.00 | 0.048 |
| 46.221-3840 | <b>38-40</b> | 1.00 x 1.00 | 0.049 |
| 46.221-4042 | <b>40-42</b> | 1.00 x 1.00 | 0.051 |



Ø 2.00 mm



Assortiment de barrettes de sécurité télescopiques ; acier inoxydable.  
 Assortiment of telescopic flanged spring bars ; stainless steel.  
 Sortiment von teleskopische Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores de seguridad telescópicos ; acero inoxidable.  
 Assortimento di anse di sicurezza telescopiche ; acciaio inossidabile.  
 Sortido de pinos de segurança telescópicos ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.126 | 50x | 0.024 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.221-2022 /-2224 /-2426 /-2628 /-2830**



Ø 2.00 mm

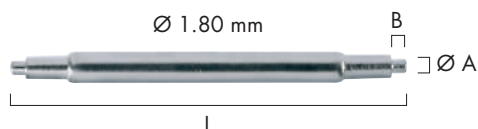


Assortiment de barrettes de sécurité télescopiques ; acier inoxydable.  
 Assortiment of telescopic flanged spring bars ; stainless steel.  
 Sortiment von teleskopische Ansatz Federstege ; Edelstahl.  
 Surtido de pasadores de seguridad telescópicos ; acero inoxidable.  
 Assortimento di anse di sicurezza telescopiche ; acciaio inossidabile.  
 Sortido de pinos de segurança telescópicos ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.141 | 36x | 0.028 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**6 modèles - models - Modelle - modelos - modelli - modelos**  
**6x MSA46.221-3032 /-3234 /-3436 /-3638 /-3840 /-4042**





Barrette universelle télescopique ; acier inoxydable.  
 Telescopic universal spring bar ; stainless steel.  
 Teleskopischer universeller Federsteg ; Edelstahl.  
 Pasador universal telescópico ; acero inoxidable.  
 Ansa universale telescopica ; acciaio inossidabile.  
 Pino universal telescópico ; aço inoxidável.

100  
pcs

| MSA         | L mm  | Ø A x B mm  | Kg    |
|-------------|-------|-------------|-------|
| 46.600-0710 | 7-10  | 0.80 x 1.00 | 0.020 |
| 46.600-0812 | 8-12  | 0.80 x 1.00 | 0.020 |
| 46.600-0914 | 9-14  | 0.80 x 1.00 | 0.020 |
| 46.600-1318 | 13-18 | 0.80 x 1.00 | 0.020 |
| 46.600-1521 | 15-21 | 0.80 x 1.00 | 0.020 |
| 46.600-1723 | 17-23 | 0.80 x 1.00 | 0.020 |

| MSA         | L mm  | Ø A x B mm  | Kg    |
|-------------|-------|-------------|-------|
| 46.600-1824 | 18-24 | 0.80 x 1.00 | 0.020 |
| 46.600-2026 | 20-26 | 0.80 x 1.00 | 0.020 |
| 46.600-2430 | 24-30 | 0.80 x 1.00 | 0.020 |
| 46.600-2834 | 28-34 | 0.80 x 1.00 | 0.020 |
| 46.600-3238 | 32-38 | 0.80 x 1.00 | 0.020 |



Ø 1.80 mm



Assortiment de barrettes universelles télescopiques ; acier inoxydable.  
 Assortment of telescopic universal spring bars ; stainless steel.  
 Sortiment von teleskopische universelle Federsteg ; Edelstahl.  
 Surtido de pasadores universales telescópicos ; acero inoxidable.  
 Assortimento di anse universali telescopiche ; acciaio inossidabile.  
 Sortido de pinos universais telescópicos ; aço inoxidável.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.199 | 100x | 0.050 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.600-0812 /-0914 /-1318 /-1521 /-1723 /-1824**  
**/-2026 /-2430 /-2834 /-3238**

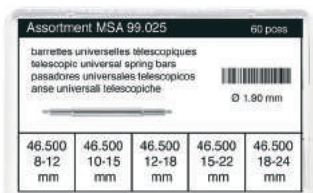


Barrette universelle télescopique ; maillechort.  
 Universal telescopic spring bar ; nickel silver.  
 Teleskopischer universeller Federsteg ; Neusilber.  
 Pasador universal telescópico ; alpaca.  
 Ansa universale telescopica ; argentine.  
 Pino universal telescópico ; níquel plateado.



| MSA         | L mm         | Ø A x B mm  | Kg    |
|-------------|--------------|-------------|-------|
| 46.500-0812 | <b>8-12</b>  | 0.75 x 1.00 | 0.023 |
| 46.500-1015 | <b>10-15</b> | 0.75 x 1.00 | 0.023 |
| 46.500-1218 | <b>12-18</b> | 0.80 x 1.50 | 0.023 |
| 46.500-1522 | <b>15-22</b> | 0.80 x 1.50 | 0.023 |
| 46.500-1824 | <b>18-24</b> | 0.80 x 1.50 | 0.023 |

| MSA         | L mm         | Ø A x B mm  | Kg    |
|-------------|--------------|-------------|-------|
| 46.500-2027 | <b>20-27</b> | 0.80 x 1.50 | 0.023 |
| 46.500-2330 | <b>23-30</b> | 0.80 x 1.50 | 0.023 |
| 46.500-2532 | <b>25-32</b> | 0.80 x 1.50 | 0.023 |
| 46.500-3037 | <b>30-37</b> | 0.80 x 1.50 | 0.023 |



Ø 1.90 mm



Assortiment de barrettes universelles télescopiques ; maillechort.  
*Assortiment of universal telescopic spring bars ; nickel silver.*  
 Sortiment von teleskopische universelle Federstege ; Neusilber.  
*Surtido de pasadores universales telescópicos ; alpaca.*  
 Assortimento di anse universali telescopiche ; argentone.  
*Sortido de pinos universais telescópicos ; níquel prateado.*

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.025 | 60x | 0.037 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**12x MSA46.500-0812 /-1015 /-1218 /-1522 /-1824**



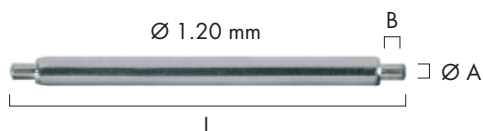
Ø 1.90 mm



Assortiment de barrettes universelles télescopiques ; maillechort.  
*Assortiment of universal telescopic spring bars ; nickel silver.*  
 Sortiment von teleskopische universelle Federstege ; Neusilber.  
*Surtido de pasadores universales telescópicos ; alpaca.*  
 Assortimento di anse universali telescopiche ; argentone.  
*Sortido de pinos universais telescópicos ; níquel prateado.*

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.219 | 60x | 0.045 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**12x MSA46.500-1824 /-2027 /-2330 /-2532 /-3037**

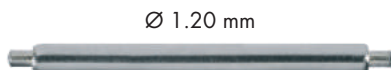
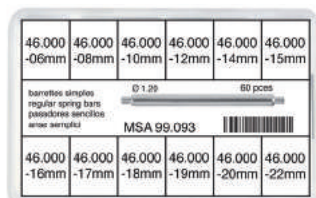


Barrette simple ; maillechort.  
 Regular spring bar ; nickel silver.  
 Einfacher Federsteg ; Neusilber.  
 Pasador sencillo ; alpaca.  
 Ansa semplice ; argentone.  
 Pino simples ; níquel plateado.

100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.000-05.0 | 5    | 0.70 x 0.80 | 0.010 |
| 46.000-05.5 | 5.5  | 0.70 x 0.80 | 0.010 |
| 46.000-06.0 | 6    | 0.70 x 1.00 | 0.010 |
| 46.000-06.5 | 6.5  | 0.70 x 1.00 | 0.010 |
| 46.000-07.0 | 7    | 0.70 x 1.00 | 0.010 |
| 46.000-07.5 | 7.5  | 0.70 x 1.00 | 0.010 |
| 46.000-08.0 | 8    | 0.70 x 1.00 | 0.010 |
| 46.000-08.5 | 8.5  | 0.70 x 1.00 | 0.010 |
| 46.000-09.0 | 9    | 0.70 x 1.00 | 0.010 |
| 46.000-10.0 | 10   | 0.70 x 1.00 | 0.010 |
| 46.000-11.0 | 11   | 0.70 x 1.00 | 0.010 |
| 46.000-12.0 | 12   | 0.70 x 1.00 | 0.010 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.000-13.0 | 13   | 0.70 x 1.00 | 0.010 |
| 46.000-14.0 | 14   | 0.70 x 1.00 | 0.010 |
| 46.000-15.0 | 15   | 0.70 x 1.00 | 0.010 |
| 46.000-16.0 | 16   | 0.70 x 1.00 | 0.010 |
| 46.000-17.0 | 17   | 0.70 x 1.00 | 0.010 |
| 46.000-18.0 | 18   | 0.70 x 1.00 | 0.010 |
| 46.000-19.0 | 19   | 0.70 x 1.00 | 0.010 |
| 46.000-20.0 | 20   | 0.70 x 1.00 | 0.010 |
| 46.000-21.0 | 21   | 0.70 x 1.00 | 0.010 |
| 46.000-22.0 | 22   | 0.70 x 1.00 | 0.010 |
| 46.000-23.0 | 23   | 0.70 x 1.00 | 0.010 |
| 46.000-24.0 | 24   | 0.70 x 1.00 | 0.010 |



Assortiment de barrettes simples ; maillechort.  
 Assortiment of regular spring bars ; nickel silver.  
 Sortiment von einfache Federsteg ; Neusilber.  
 Surtido de pasadores sencillos ; alpaca.  
 Assortimento di anse semplici ; argentone.  
 Sortido de pinos simples ; níquel plateado.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.093 | 60x | 0.031 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.000-06.0 /-08.0 /-10.0 /-12.0 /-14.0 /-15.0 /-16.0**  
**/-17.0 /-18.0 /-19.0 /-20.0 /-22.0**

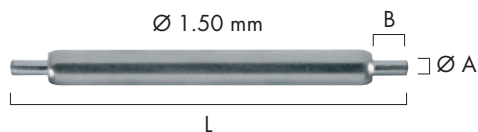


Barrette simple ; maillechort.  
*Regular spring bar ; nickel silver.*  
 Einfacher Federsteg ; Neusilber.  
*Pasador sencillo ; alpaca.*  
 Ansa semplice ; argenteone.  
*Pino simples ; níquel prateado.*



| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.005-05.0 | 5    | 0.70 x 0.80 | 0.011 |
| 46.005-06.0 | 6    | 0.70 x 1.00 | 0.011 |
| 46.005-07.0 | 7    | 0.70 x 1.00 | 0.011 |
| 46.005-08.0 | 8    | 0.70 x 1.00 | 0.011 |
| 46.005-09.0 | 9    | 0.70 x 1.00 | 0.011 |
| 46.005-10.0 | 10   | 0.70 x 1.00 | 0.011 |
| 46.005-11.0 | 11   | 0.70 x 1.00 | 0.011 |
| 46.005-12.0 | 12   | 0.70 x 1.00 | 0.011 |
| 46.005-13.0 | 13   | 0.70 x 1.00 | 0.011 |
| 46.005-14.0 | 14   | 0.70 x 1.00 | 0.011 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.005-15.0 | 15   | 0.70 x 1.00 | 0.011 |
| 46.005-16.0 | 16   | 0.70 x 1.00 | 0.011 |
| 46.005-17.0 | 17   | 0.70 x 1.00 | 0.011 |
| 46.005-18.0 | 18   | 0.70 x 1.00 | 0.011 |
| 46.005-19.0 | 19   | 0.70 x 1.00 | 0.011 |
| 46.005-20.0 | 20   | 0.70 x 1.00 | 0.011 |
| 46.005-21.0 | 21   | 0.70 x 1.00 | 0.011 |
| 46.005-22.0 | 22   | 0.70 x 1.00 | 0.011 |
| 46.005-23.0 | 23   | 0.70 x 1.00 | 0.011 |
| 46.005-24.0 | 24   | 0.70 x 1.00 | 0.011 |

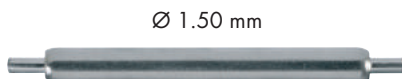
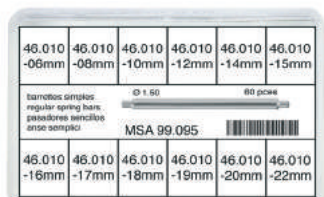


Barrette simple ; maillechort.  
 Regular spring bar ; nickel silver.  
 Einfacher Federsteg ; Neusilber.  
 Pasador sencillo ; alpaca.  
 Ansa semplice ; argenteone.  
 Pino simples ; níquel plateado.

100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.010-05.0 | 5    | 0.70 x 0.80 | 0.015 |
| 46.010-06.0 | 6    | 0.70 x 0.80 | 0.015 |
| 46.010-07.0 | 7    | 0.70 x 0.80 | 0.015 |
| 46.010-08.0 | 8    | 0.70 x 0.80 | 0.015 |
| 46.010-09.0 | 9    | 0.70 x 1.00 | 0.015 |
| 46.010-10.0 | 10   | 0.75 x 1.50 | 0.015 |
| 46.010-11.0 | 11   | 0.75 x 1.50 | 0.015 |
| 46.010-12.0 | 12   | 0.75 x 1.50 | 0.015 |
| 46.010-13.0 | 13   | 0.75 x 1.50 | 0.015 |
| 46.010-14.0 | 14   | 0.75 x 1.50 | 0.015 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.010-15.0 | 15   | 0.75 x 1.50 | 0.015 |
| 46.010-16.0 | 16   | 0.75 x 1.50 | 0.015 |
| 46.010-17.0 | 17   | 0.75 x 1.50 | 0.015 |
| 46.010-18.0 | 18   | 0.75 x 1.50 | 0.015 |
| 46.010-19.0 | 19   | 0.75 x 1.50 | 0.015 |
| 46.010-20.0 | 20   | 0.75 x 1.50 | 0.015 |
| 46.010-21.0 | 21   | 0.75 x 1.50 | 0.015 |
| 46.010-22.0 | 22   | 0.75 x 1.50 | 0.015 |
| 46.010-23.0 | 23   | 0.75 x 1.50 | 0.015 |



Assortiment de barrettes simples ; maillechort.  
 Assortiment of regular spring bars ; nickel silver.  
 Sortiment von einfache Federsteg ; Neusilber.  
 Surtido de pasadores sencillos ; alpaca.  
 Assortimento di anse semplici ; argenteone.  
 Sortido de pinos simples ; níquel plateado.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.095 | 60x | 0.034 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.010-06.0 /-08.0 /-10.0 /-12.0 /-14.0 /-15.0 /-16.0**  
**/-17.0 /-18.0 /-19.0 /-20.0 /-22.0**



Barrette simple ; maillechort.  
*Regular spring bar ; nickel silver.*  
 Einfacher Federsteg ; Neusilber.  
*Pasador sencillo ; alpaca.*  
 Ansa semplice ; argenteone.  
*Pino simples ; níquel plateado.*



| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.020-09.0 | 9    | 0.90 x 1.00 | 0.021 |
| 46.020-10.0 | 10   | 0.80 x 1.50 | 0.021 |
| 46.020-11.0 | 11   | 0.80 x 1.50 | 0.021 |
| 46.020-12.0 | 12   | 0.90 x 2.00 | 0.021 |
| 46.020-13.0 | 13   | 0.90 x 2.00 | 0.021 |
| 46.020-14.0 | 14   | 0.90 x 2.00 | 0.021 |
| 46.020-15.0 | 15   | 0.90 x 2.00 | 0.021 |
| 46.020-16.0 | 16   | 0.90 x 2.00 | 0.021 |
| 46.020-17.0 | 17   | 0.90 x 2.00 | 0.021 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.020-18.0 | 18   | 0.90 x 2.00 | 0.021 |
| 46.020-19.0 | 19   | 0.90 x 2.00 | 0.021 |
| 46.020-20.0 | 20   | 0.90 x 2.00 | 0.021 |
| 46.020-21.0 | 21   | 0.90 x 2.00 | 0.021 |
| 46.020-22.0 | 22   | 0.90 x 2.00 | 0.021 |
| 46.020-23.0 | 23   | 0.90 x 2.00 | 0.021 |
| 46.020-24.0 | 24   | 0.90 x 2.00 | 0.021 |
| 46.020-36.0 | 36   | 0.90 x 2.00 | 0.021 |



Ø 1.80 mm



Assortiment de barrettes simples ; maillechort.  
*Assortiment of regular spring bars ; nickel silver.*  
 Sortiment von einfache Federsteg ; Neusilber.  
*Surtido de pasadores sencillos ; alpaca.*  
 Assortimento di anse semplici ; argenteone.  
*Sortido de pinos simples ; níquel plateado.*

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.096 | 60x | 0.040 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**6x MSA46.020-10.0 /-12.0 /-14.0 /-16.0 /-17.0 /-18.0 /-19.0**  
**/-20.0 /-22.0 /-24.0**



Barrette simple ; acier inoxydable.  
 Regular spring bar ; stainless steel.  
 Einfacher Federsteg ; Edelstahl.  
 Pasador sencillo ; acero inoxidable.  
 Ansa semplice ; acciaio inossidabile.  
 Pino simples ; aço inoxidável.

100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.021-10.0 | 10   | 0.80 x 1.50 | 0.014 |
| 46.021-11.0 | 11   | 0.80 x 1.50 | 0.015 |
| 46.021-12.0 | 12   | 0.90 x 2.00 | 0.017 |
| 46.021-13.0 | 13   | 0.90 x 2.00 | 0.018 |
| 46.021-14.0 | 14   | 0.90 x 2.00 | 0.019 |
| 46.021-15.0 | 15   | 0.90 x 2.00 | 0.020 |
| 46.021-16.0 | 16   | 0.90 x 2.00 | 0.022 |
| 46.021-17.0 | 17   | 0.90 x 2.00 | 0.023 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.021-18.0 | 18   | 0.90 x 2.00 | 0.023 |
| 46.021-19.0 | 19   | 0.90 x 2.00 | 0.024 |
| 46.021-20.0 | 20   | 0.90 x 2.00 | 0.025 |
| 46.021-21.0 | 21   | 0.90 x 2.00 | 0.026 |
| 46.021-22.0 | 22   | 0.90 x 2.00 | 0.027 |
| 46.021-23.0 | 23   | 0.90 x 2.00 | 0.028 |
| 46.021-24.0 | 24   | 0.90 x 2.00 | 0.029 |



Ø 1.80 mm



Assortiment de barrettes simples ; acier inoxydable.  
 Assortiment of regular spring bars ; stainless steel.  
 Sortiment von einfache Federsteg ; Edelstahl.  
 Surtido de pasadores sencillos ; acero inoxidable.  
 Assortimento di anse semplici ; acciaio inossidabile.  
 Sortido de pinos simples ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.144 | 50x | 0.038 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.021-10.0 /-12.0 /-14.0 /-16.0 /-17.0 /-18.0 /-19.0**  
**/-20.0 /-22.0 /-24.0**





Barrette simple ; acier inoxydable.  
 Regular spring bar ; stainless steel.  
 Einfacher Federsteg ; Edelstahl.  
 Pasador sencillo ; acero inoxidable.  
 Ansa semplice ; acciaio inossidabile.  
 Pino simples ; aço inoxidável.

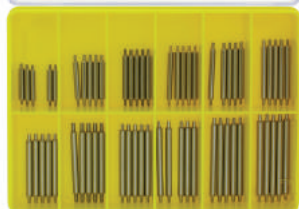
100  
pcs

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.022-10.0 | 10   | 0.80 x 1.50 | 0.019 |
| 46.022-11.0 | 11   | 0.80 x 1.50 | 0.020 |
| 46.022-12.0 | 12   | 0.90 x 2.00 | 0.021 |
| 46.022-13.0 | 13   | 0.90 x 2.00 | 0.022 |
| 46.022-14.0 | 14   | 0.90 x 2.00 | 0.023 |
| 46.022-15.0 | 15   | 0.90 x 2.00 | 0.024 |
| 46.022-16.0 | 16   | 0.90 x 2.00 | 0.025 |
| 46.022-17.0 | 17   | 0.90 x 2.00 | 0.026 |

| MSA         | L mm | Ø A x B mm  | Kg    |
|-------------|------|-------------|-------|
| 46.022-18.0 | 18   | 0.90 x 2.00 | 0.027 |
| 46.022-19.0 | 19   | 0.90 x 2.00 | 0.028 |
| 46.022-20.0 | 20   | 0.90 x 2.00 | 0.029 |
| 46.022-21.0 | 21   | 0.90 x 2.00 | 0.030 |
| 46.022-22.0 | 22   | 0.90 x 2.00 | 0.031 |
| 46.022-23.0 | 23   | 0.90 x 2.00 | 0.032 |
| 46.022-24.0 | 24   | 0.90 x 2.00 | 0.034 |



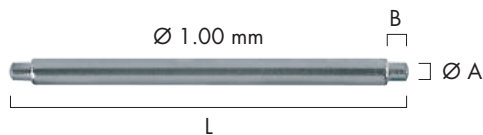
Ø 2.00 mm



Assortiment de barrettes simples ; acier inoxydable.  
 Assortiment of regular spring bars ; stainless steel.  
 Sortiment von einfache Federstege ; Edelstahl.  
 Surtido de pasadores sencillos ; acero inoxidable.  
 Assortimento di anse semplici ; acciaio inossidabile.  
 Sortido de pinos simples ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.194 | 60x | 0.052 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.022-10.0 /-12.0 /-14.0 /-15.0 /-16.0 /-17.0 /-18.0**  
**/-20.0 /-21.0 /-22.0 /-23.0 /-24.0**



Barrette pour fermoir ; acier inoxydable.

Spring bar for clasp ; stainless steel.

Federsteg für Schliess ; Edelstahl.

Pasador para cierre ; acero inoxidable.

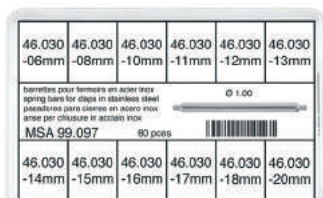
Ansa per chiusura ; acciaio inossidabile.

Pino para fecho ; aço inoxidável.

100  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.030-06 | 6    | 0.70 x 0.70 | 0.006 |
| 46.030-07 | 7    | 0.70 x 0.70 | 0.006 |
| 46.030-08 | 8    | 0.70 x 0.70 | 0.006 |
| 46.030-09 | 9    | 0.70 x 0.70 | 0.006 |
| 46.030-10 | 10   | 0.70 x 0.70 | 0.006 |
| 46.030-11 | 11   | 0.70 x 0.70 | 0.006 |
| 46.030-12 | 12   | 0.70 x 0.70 | 0.006 |
| 46.030-13 | 13   | 0.70 x 0.70 | 0.006 |

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.030-14 | 14   | 0.70 x 0.70 | 0.006 |
| 46.030-15 | 15   | 0.70 x 0.70 | 0.006 |
| 46.030-16 | 16   | 0.70 x 0.70 | 0.006 |
| 46.030-17 | 17   | 0.70 x 0.70 | 0.006 |
| 46.030-18 | 18   | 0.70 x 0.70 | 0.006 |
| 46.030-19 | 19   | 0.70 x 0.70 | 0.006 |
| 46.030-20 | 20   | 0.70 x 0.70 | 0.006 |



Ø 1.00 mm



Assortiment de barrettes pour fermoirs ; acier inoxydable.

Assortiment of spring bars for clasps ; stainless steel.

Sortiment von Federstege für Schliessen ; Edelstahl.

Surtido de pasadores para cierres ; acero inoxidable.

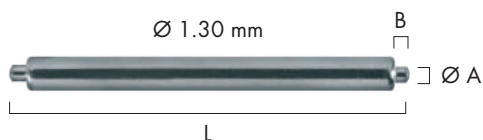
Assortimento di anse per chiusure ; acciaio inossidabile.

Sortido de pinos para fechos ; aço inoxidável.



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.097 | 60x | 0.028 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.030-06 /-08 /-10 /-11 /-12 /-13 /-14 /-15 /-16 /-17**  
**/-18 /-20**

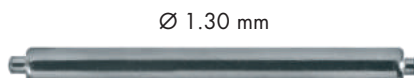


Barrette pour fermoir ; acier inoxydable.  
 Spring bar for clasp ; stainless steel.  
 Federsteg für Schliess ; Edelstahl.  
 Pasador para cierre ; acero inoxidable.  
 Ansa per chiusura ; acciaio inossidabile.  
 Pino para fecho ; aço inoxidável.

100  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.700-06 | 6    | 0.80 x 1.20 | 0.010 |
| 46.700-07 | 7    | 0.80 x 1.20 | 0.010 |
| 46.700-08 | 8    | 0.80 x 1.20 | 0.010 |
| 46.700-09 | 9    | 0.80 x 1.20 | 0.010 |
| 46.700-10 | 10   | 0.80 x 1.20 | 0.010 |
| 46.700-11 | 11   | 0.80 x 1.20 | 0.010 |
| 46.700-12 | 12   | 0.80 x 1.20 | 0.010 |
| 46.700-13 | 13   | 0.80 x 1.20 | 0.010 |

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.700-14 | 14   | 0.80 x 1.20 | 0.010 |
| 46.700-15 | 15   | 0.80 x 1.20 | 0.010 |
| 46.700-16 | 16   | 0.80 x 1.20 | 0.010 |
| 46.700-17 | 17   | 0.80 x 1.20 | 0.010 |
| 46.700-18 | 18   | 0.80 x 1.20 | 0.010 |
| 46.700-19 | 19   | 0.80 x 1.20 | 0.010 |
| 46.700-20 | 20   | 0.80 x 1.20 | 0.010 |



Assortiment de barrettes pour fermoirs ; acier inoxydable.  
 Assortment of spring bars for clasps ; stainless steel.  
 Sortiment von Federstege für Schliessen ; Edelstahl.  
 Surtido de pasadores para cierres ; acero inoxidable.  
 Assortimento di anse per chiusura ; acciaio inossidabile.  
 Sortido de pinos para fechos ; aço inoxidável.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.036 | 100x | 0.038 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.700-06 /-08 /-09 /-10 /-12 /-14 /-16 /-17 /-18 /-20**



Barrette pour fermoir, mesure spéciale ; acier inoxydable.  
 Spring bar for clasp, special size ; stainless steel.  
 Federsteg für Schliess, Sondermassnahm ; Edelstahl.  
 Pasador para cierre, medida especial ; acero inoxidable.  
 Ansa per chiusura, misura speciale ; acciaio inossidabile.  
 Pino para fecho, medida especial ; aço inoxidável.

100  
pcs

| MSA       | L mm  | Ø A x B mm  | Kg    |
|-----------|-------|-------------|-------|
| 46.040-10 | 10.90 | 0.80 x 0.60 | 0.017 |
| 46.040-12 | 12.90 | 0.80 x 0.60 | 0.017 |
| 46.040-14 | 14.90 | 0.80 x 0.60 | 0.017 |
| 46.040-15 | 15.90 | 0.80 x 0.60 | 0.017 |

| MSA       | L mm  | Ø A x B mm  | Kg    |
|-----------|-------|-------------|-------|
| 46.040-16 | 16.90 | 0.80 x 0.60 | 0.017 |
| 46.040-17 | 17.90 | 0.80 x 0.60 | 0.017 |
| 46.040-19 | 19.90 | 0.80 x 0.60 | 0.017 |



Ø 1.50 mm



Assortiment de barrettes pour fermoirs, mesures spéciales ; acier inoxydable.  
 Assortment of spring bars for clasps, special sizes ; stainless steel.  
 Sortiment von Federstege für Schliessen, Sondermassnahmen ; Edelstahl.  
 Surtido de pasadores para cierres, medidas especiales ; acero inoxidable.  
 Assortimento di anse per chiusure, misure speciali ; acciaio inossidabile.  
 Sortido de pinos para fechos, medidas especiais ; aço inoxidável.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.192 | 100x | 0.044 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**7 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.040-10 /-14 /-15 /-17**  
**20x MSA46.040-12 /-16 /-19**



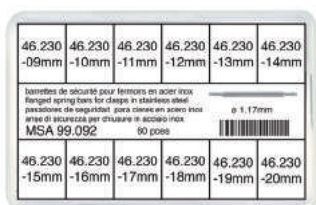
Barrette de sécurité pour fermoir ; acier inoxydable.  
 Flanged spring bar for clasp ; stainless steel.  
 Ansatz Federsteg für Schliess ; Edelstahl.  
 Pasador de seguridad para cierre ; acero inoxidable.  
 Ansa di sicurezza per chiusura ; acciaio inossidabile.  
 Pino de segurança para fecho ; aço inoxidável.

100  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.230-09 | 9    | 0.70 x 0.75 | 0.010 |
| 46.230-10 | 10   | 0.70 x 0.75 | 0.010 |
| 46.230-11 | 11   | 0.70 x 0.75 | 0.010 |
| 46.230-12 | 12   | 0.70 x 0.75 | 0.010 |
| 46.230-13 | 13   | 0.70 x 0.75 | 0.010 |
| 46.230-14 | 14   | 0.70 x 0.75 | 0.010 |
| 46.230-15 | 15   | 0.70 x 0.75 | 0.010 |
| 46.230-16 | 16   | 0.70 x 0.75 | 0.010 |
| 46.230-17 | 17   | 0.70 x 0.75 | 0.010 |
| 46.230-18 | 18   | 0.70 x 0.75 | 0.010 |
| 46.230-19 | 19   | 0.70 x 0.75 | 0.010 |
| 46.230-20 | 20   | 0.70 x 0.75 | 0.010 |

10  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.231-09 | 9    | 0.70 x 0.75 | 0.001 |
| 46.231-10 | 10   | 0.70 x 0.75 | 0.001 |
| 46.231-11 | 11   | 0.70 x 0.75 | 0.001 |
| 46.231-12 | 12   | 0.70 x 0.75 | 0.001 |
| 46.231-13 | 13   | 0.70 x 0.75 | 0.001 |
| 46.231-14 | 14   | 0.70 x 0.75 | 0.001 |
| 46.231-15 | 15   | 0.70 x 0.75 | 0.002 |
| 46.231-16 | 16   | 0.70 x 0.75 | 0.002 |
| 46.231-17 | 17   | 0.70 x 0.75 | 0.002 |
| 46.231-18 | 18   | 0.70 x 0.75 | 0.002 |
| 46.231-19 | 19   | 0.70 x 0.75 | 0.002 |
| 46.231-20 | 20   | 0.70 x 0.75 | 0.002 |



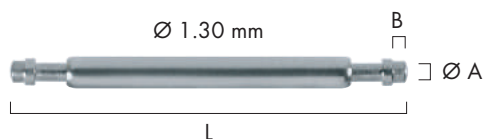
Ø 1.17 mm



Assortiment de barrettes de sécurité pour fermoirs ; acier inoxydable.  
 Assortment of flanged spring bars for clasps ; stainless steel.  
 Sortiment von Ansatz Federsteg für Schliessen ; Edelstahl.  
 Surtido de pasadores de seguridad para cierres ; acero inoxidable.  
 Assortimento di anse di sicurezza per chiusure ; acciaio inossidabile.  
 Sortido de pinos de segurança para fechos ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.092 | 60x | 0.030 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.230-09 /-10 /-11 /-12 /-13 /-14 /-15 /-16 /-17 /-18**  
**/-19 /-20**

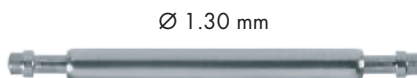
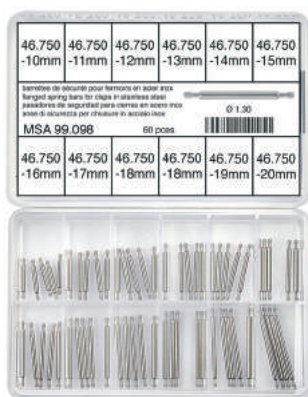


Barrette de sécurité pour fermoir ; acier inoxydable.  
 Flanged spring bar for clasp ; stainless steel.  
 Ansatz Federsteg für Schliess ; Edelstahl.  
 Pasador de seguridad para cierre ; acero inoxidable.  
 Ansa di sicurezza per chiusura ; acciaio inossidabile.  
 Pino de segurança para fecho ; aço inoxidável.

100  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.750-08 | 8    | 0.90 x 0.60 | 0.012 |
| 46.750-09 | 9    | 0.90 x 0.60 | 0.012 |
| 46.750-10 | 10   | 0.90 x 0.60 | 0.012 |
| 46.750-11 | 11   | 0.90 x 0.60 | 0.012 |
| 46.750-12 | 12   | 0.90 x 0.60 | 0.012 |
| 46.750-13 | 13   | 0.90 x 0.60 | 0.012 |
| 46.750-14 | 14   | 0.90 x 0.60 | 0.012 |
| 46.750-15 | 15   | 0.90 x 0.60 | 0.012 |
| 46.750-16 | 16   | 0.90 x 0.60 | 0.012 |

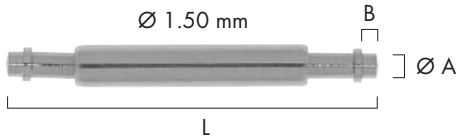
| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.750-17 | 17   | 0.90 x 0.60 | 0.012 |
| 46.750-18 | 18   | 0.90 x 0.60 | 0.012 |
| 46.750-19 | 19   | 0.90 x 0.60 | 0.012 |
| 46.750-20 | 20   | 0.90 x 0.60 | 0.012 |
| 46.750-21 | 21   | 0.90 x 0.60 | 0.012 |
| 46.750-22 | 22   | 0.90 x 0.60 | 0.012 |
| 46.750-23 | 23   | 0.90 x 0.60 | 0.012 |
| 46.750-24 | 24   | 0.90 x 0.60 | 0.012 |



Assortiment de barrettes de sécurité pour fermoirs ; acier inoxydable.  
 Assortment of flanged spring bars for clasps ; stainless steel.  
 Sortiment von Ansatz Federstege für Schliessen ; Edelstahl.  
 Surtido de pasadores de seguridad para cierres ; acero inoxidable.  
 Assortimento di anse di sicurezza per chiusure ; acciaio inossidabile.  
 Sortido de pinos de segurança para fechos ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.098 | 60x | 0.032 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**11 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.750-10 /-11 /-12 /-13 /-14 /-15 /-16 /-17 /-19 /-20**  
**10x MSA46.750-18**



Barrette de sécurité pour fermoir ; acier inoxydable.  
 Flanged spring bar for clasp ; stainless steel.  
 Ansatz Federsteg für Schliess ; Edelstahl.  
 Pasador de seguridad para cierre ; acero inoxidable.  
 Ansa di sicurezza per chiusura ; acciaio inossidabile.  
 Pino de segurança para fecho ; aço inoxidável.

100  
pcs

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.751-10 | 10   | 0.90 x 0.60 | 0.010 |
| 46.751-11 | 11   | 0.90 x 0.60 | 0.012 |
| 46.751-12 | 12   | 0.90 x 0.60 | 0.012 |
| 46.751-13 | 13   | 0.90 x 0.60 | 0.013 |
| 46.751-14 | 14   | 0.90 x 0.60 | 0.014 |
| 46.751-15 | 15   | 0.90 x 0.60 | 0.015 |

| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.751-16 | 16   | 0.90 x 0.60 | 0.016 |
| 46.751-17 | 17   | 0.90 x 0.60 | 0.017 |
| 46.751-18 | 18   | 0.90 x 0.60 | 0.017 |
| 46.751-19 | 19   | 0.90 x 0.60 | 0.018 |
| 46.751-20 | 20   | 0.90 x 0.60 | 0.019 |



Ø 1.50 mm

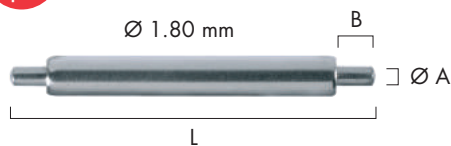


Assortiment de barrettes de sécurité pour fermoirs ; acier inoxydable.  
 Assortment of flanged spring bars for clasps ; stainless steel.  
 Sortiment von Ansatz Federsteg für Schliessen ; Edelstahl.  
 Surtido de pasadores de seguridad para cierres ; acero inoxidable.  
 Assortimento di anse di sicurezza per chiusure ; acciaio inossidabile.  
 Sortido de pinos de segurança para fechos ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.152 | 60x | 0.033 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**11 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.751-10 /-11 /-12 /-13 /-14 /-15 /-16 /-17 /-19 /-20**  
**10x MSA46.751-18**

10  
pcs



| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.051-13 | 13   | 0.88 x 1.60 | 0.003 |

Barrette spéciale forte ; acier inoxydable.  
*Special strong spring bar ; stainless steel.*  
 Spezieller starker Federsteg ; Edelstahl.  
*Pasador especiale fuerte ; acero inoxidable.*  
 Ansa speciale forte ; acciaio inossidabile.  
*Pino especial forte ; aço inoxidável.*

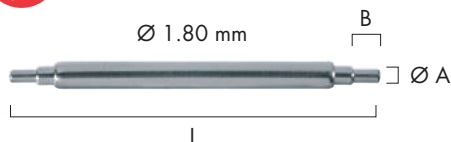
10  
pcs



| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.050-20 | 20   | 1.20 x 2.80 | 0.004 |

Barrette spéciale forte ; acier inoxydable.  
*Special strong spring bar ; stainless steel.*  
 Spezieller starker Federsteg ; Edelstahl.  
*Pasador especiale fuerte ; acero inoxidable.*  
 Ansa speciale forte ; acciaio inossidabile.  
*Pino especial forte ; aço inoxidável.*

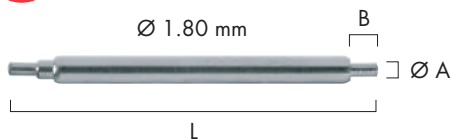
10  
pcs



| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.053-13 | 13   | 0.88 x 1.65 | 0.003 |
| 46.053-17 | 17   | 0.88 x 2.00 | 0.003 |
| 46.053-19 | 19   | 0.88 x 2.00 | 0.003 |
| 46.053-20 | 20   | 0.88 x 2.00 | 0.003 |

Barrette télescopique spéciale forte ; acier inoxydable.  
*Telescopic special strong spring bar ; stainless steel.*  
 Teleskopischer spezieller starker Federsteg ; Edelstahl.  
*Pasador telescópico especial fuerte ; acero inoxidable.*  
 Ansa telescopica speciale forte ; acciaio inossidabile.  
*Pino telescópico especial forte ; aço inoxidável.*

10  
pcs

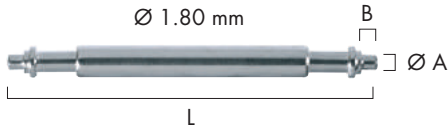


| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.054-20 | 20   | 0.88 x 2.00 | 0.003 |

Barrette spéciale forte, 1 côté télescopique ; acier inoxydable.  
*Special strong spring bar, 1 telescopic side ; stainless steel.*  
 Spezieller starker Federsteg, 1 teleskopischer Seite ; Edelstahl.  
*Pasador especiale fuerte, 1 lado telescópico ; acero inoxidable.*  
 Ansa speciale forte, 1 lato telescopico ; acciaio inossidabile.  
*Pino especial forte, 1 lado telescópico ; aço inoxidável.*



10  
pcs



| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.052-13 | 13   | 0.88 x 1.00 | 0.003 |
| 46.052-14 | 14   | 0.88 x 1.00 | 0.003 |
| 46.052-15 | 15   | 0.88 x 1.00 | 0.003 |
| 46.052-16 | 16   | 0.88 x 1.00 | 0.003 |
| 46.052-17 | 17   | 0.88 x 1.00 | 0.003 |
| 46.052-18 | 18   | 0.88 x 1.00 | 0.003 |
| 46.052-19 | 19   | 0.88 x 1.00 | 0.003 |
| 46.052-20 | 20   | 0.88 x 1.00 | 0.003 |
| 46.052-21 | 21   | 0.88 x 1.00 | 0.003 |
| 46.052-22 | 22   | 0.88 x 1.00 | 0.003 |

Barrette de sécurité spéciale forte ; acier inoxydable.

*Flanged special strong spring bar ; stainless steel.*

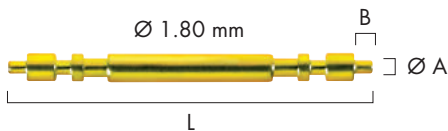
Doppel-Ansatz spezieller starker Federsteg ; Edelstahl.

*Pasador de seguridad especial fuerte ; acero inoxidable.*

Ansa di sicurezza speciale forte ; acciaio inossidabile.

*Pino de segurança especial forte ; aço inoxidável.*

10  
pcs



| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.056-20 | 20   | 0.88 x 1.00 | 0.004 |

Barrette double sécurité spéciale forte, dorée ; acier inoxydable.

*Double flanged special strong spring bar, gilt ; stainless steel.*

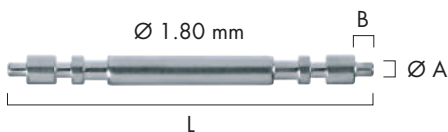
Doppel-Ansatz spezieller starker Federsteg, vergoldet ; Edelstahl.

*Pasador doble seguridad especial fuerte, dorado ; acero inoxidable.*

Ansa doppia sicurezza speciale forte, dorata ; acciaio inossidabile.

*Pino dupla segurança especial forte, dourado ; aço inoxidável.*

10  
pcs



| MSA       | L mm | Ø A x B mm  | Kg    |
|-----------|------|-------------|-------|
| 46.055-20 | 20   | 0.88 x 1.00 | 0.004 |

Barrette double sécurité spéciale forte ; acier inoxydable.

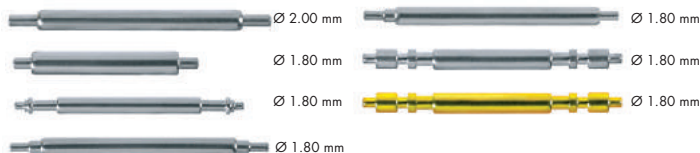
*Double flanged special strong spring bar ; stainless steel.*

Doppel-Ansatz spezieller starker Federsteg ; Edelstahl.

*Pasador doble seguridad especial fuerte ; acero inoxidable.*

Ansa doppia sicurezza speciale forte ; acciaio inossidabile.

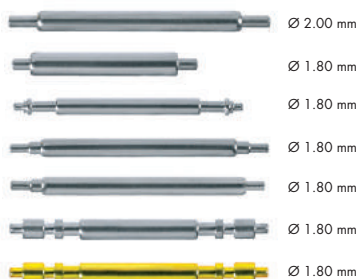
*Pino dupla segurança especial forte ; aço inoxidável.*



Assortiment de barrettes spéciales fortes, couleur acier et dorées ; acier inoxydable.  
 Assortment of special strong spring bars, steel colour and gilt ; stainless steel.  
 Sortiment von spezielle starke Federstege, Stahlfarbe und vergoldene ; Edelstahl.  
 Surtido de pasadores especiales fuertes, color acero y dorados ; acero inoxidable.  
 Assortimento di anse speciali forti, colore acciaio e dorate ; acciaio inossidabile.  
 Sortido de pinos especiais fortes, cor aço e dourados ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**4x MSA46.050-20 /.051-13 /.052-13 /.052-17 /.052-19 /.052-20 /.053-19 /.054-20 /.055-20 /.056-20**

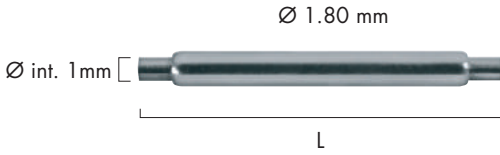
| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.120 | 40x | 0.038 |



Assortiment de fournitures diverses.  
 Assortment of miscellaneous watch parts.  
 Sortiment von unterschiedliche Furnituren.  
 Surtido de repuestos diversos.  
 Assortimento di forniture diverse.  
 Sortido de furnituras diversas.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.119 | 104x | 0.370 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**51 modèles - models - Modelle - modelos - modelli - modelos**  
**1x MSA03.655 /.665-01 /.665-02 /.665-03 /.665-04 /.665-05 /.665-06**  
**2x MSA43.004 /.005**  
**2x MSA61.207 /.707**  
**2x MSA65.001 /.001-A /.002 /.002-A /.003 /.003-A /.004 /.004-A /.005 /.005-A /.006 /.006-A**  
**2x RX0405.1210 /.2030 /.2035 /.2130 /.3030 /.3035 /.3135**  
**1x RX0770.1220 /.1530 /.2030 /.2130 /.3035 /.3135 /.520 /.620 /.720**  
**2x RX0770.3000**  
**4x MSA46.050-20 /.051-13 /.052-13 /.052-17 /.052-19 /.052-20 /.053-19 /.054-20 /.055-20**  
**/.056-20**

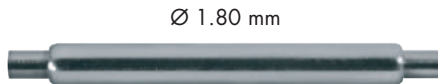
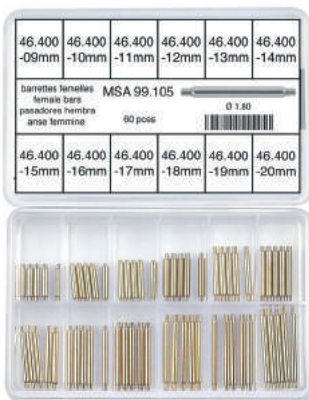


Barrette femelle ; maillechort.  
 Female bar ; nickel silver.  
 Weiblicher Steg ; Neusilber.  
 Pasador hembra ; alpaca.  
 Ansa femmina ; argenteone.  
 Pino fêmeo ; níquel prateado.

100  
pcs

| MSA         | L mm | Kg    |
|-------------|------|-------|
| 46.400-07.0 | 7    | 0.020 |
| 46.400-08.0 | 8    | 0.020 |
| 46.400-09.0 | 9    | 0.020 |
| 46.400-10.0 | 10   | 0.020 |
| 46.400-11.0 | 11   | 0.020 |
| 46.400-12.0 | 12   | 0.020 |
| 46.400-13.0 | 13   | 0.020 |
| 46.400-14.0 | 14   | 0.020 |
| 46.400-15.0 | 15   | 0.020 |

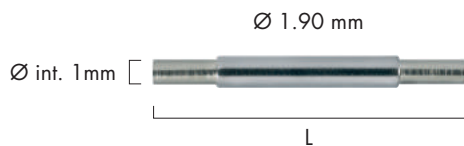
| MSA         | L mm | Kg    |
|-------------|------|-------|
| 46.400-16.0 | 16   | 0.020 |
| 46.400-17.0 | 17   | 0.020 |
| 46.400-18.0 | 18   | 0.020 |
| 46.400-19.0 | 19   | 0.020 |
| 46.400-20.0 | 20   | 0.020 |
| 46.400-21.0 | 21   | 0.020 |
| 46.400-22.0 | 22   | 0.020 |
| 46.400-23.0 | 23   | 0.020 |
| 46.400-24.0 | 24   | 0.020 |



Assortiment de barrettes femelles ; maillechort.  
 Assortiment of female bars ; nickel silver.  
 Sortiment von weibliche Stege ; Neusilber.  
 Surtido de pasadores hembra ; alpaca.  
 Assortimento di anse femmina ; argenteone.  
 Sortido de pinos fêmeos ; níquel prateado.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.105 | 60x | 0.037 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 5x MSA46.400-09 /-10 /-11 /-12 /-13 /-14 /-15 /-16 /-17 /-18  
 /-19 /-20**

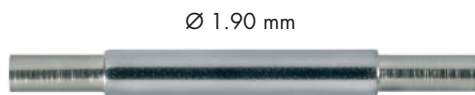
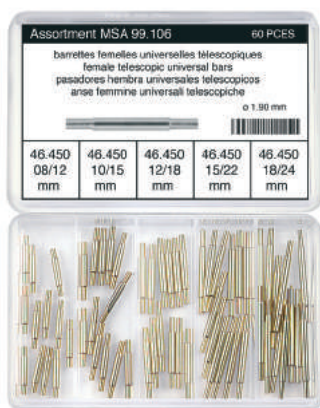


Barrette femelle universelle télescopique ; maillechort.  
 Female telescopic universal bar ; nickel silver.  
 Weiblicher teleskopischer universeller Steg ; Neusilber.  
 Pasador hembra universal telescópico ; alpaca.  
 Ansa femmina universale telescopica ; argentone.  
 Pino fêmeo universal telescópico ; níquel prateado.

100  
pcs

| MSA         | L mm  | Kg    |
|-------------|-------|-------|
| 46.450-0812 | 08-12 | 0.015 |
| 46.450-1015 | 10-15 | 0.015 |
| 46.450-1218 | 12-18 | 0.016 |

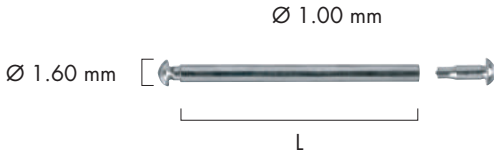
| MSA         | L mm  | Kg    |
|-------------|-------|-------|
| 46.450-1522 | 15-22 | 0.016 |
| 46.450-1824 | 18-24 | 0.018 |



Assortiment de barrettes femelles universelles télescopiques ; maillechort.  
 Assortment of female telescopic universal bars ; nickel silver.  
 Sortiment von weibliche teleskopische universelle Stege ; Neusilber.  
 Surtido de pasadores hembra universales telescópicos ; alpaca.  
 Assortimento di anse femmina universali telescopiche ; argentone.  
 Sortido de pinos fêmeos universais telescópicos ; níquel prateado.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.106 | 60x | 0.033 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**12x MSA46.450-0812 /-1015 /-1218 /-1522 /-1824**

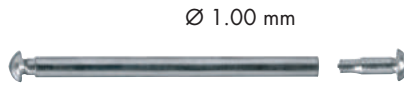


Barrette à pression ; acier inoxydable.  
 Press-in bar ; stainless steel.  
 Drucksteg ; Edelstahl.  
 Pasador de presión ; acero inoxidable.  
 Ansa a pressione ; acciaio inossidabile.  
 Pino de pressão ; aço inoxidável.

10  
pcs

| MSA       | L mm | Kg    |
|-----------|------|-------|
| 46.380-10 | 10   | 0.002 |
| 46.380-12 | 12   | 0.002 |
| 46.380-14 | 14   | 0.002 |
| 46.380-15 | 15   | 0.002 |
| 46.380-16 | 16   | 0.002 |
| 46.380-17 | 17   | 0.002 |
| 46.380-18 | 18   | 0.002 |
| 46.380-19 | 19   | 0.002 |
| 46.380-20 | 20   | 0.002 |
| 46.380-21 | 21   | 0.002 |

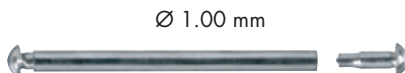
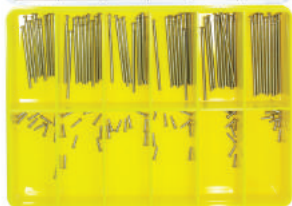
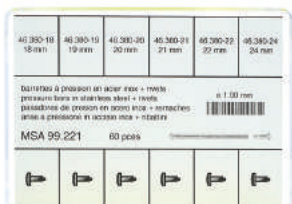
| MSA       | L mm | Kg    |
|-----------|------|-------|
| 46.380-22 | 22   | 0.002 |
| 46.380-23 | 23   | 0.002 |
| 46.380-24 | 24   | 0.002 |
| 46.380-25 | 25   | 0.002 |
| 46.380-26 | 26   | 0.002 |
| 46.380-27 | 27   | 0.002 |
| 46.380-28 | 28   | 0.002 |
| 46.380-29 | 29   | 0.002 |
| 46.380-30 | 30   | 0.002 |



Assortiment de barrettes à pression ; acier inoxydable.  
 Assortment of press-in bars ; stainless steel.  
 Sortiment von Druckstegen ; Edelstahl.  
 Surtido de pasadores de presión ; acero inoxidable.  
 Assortimento di anse a pressione ; acciaio inossidabile.  
 Sortido de pinos de pressão ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.220 | 60x | 0.029 |

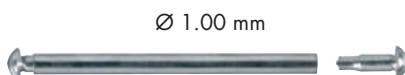
**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**6 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.380-10 /-12 /-14 /-16 /-18 /-20**



Assortiment de barrettes à pression ; acier inoxydable.  
*Assortiment of press-in bars ; stainless steel.*  
 Sortiment von Druckstege ; Edelstahl.  
*Surtido de pasadores de presión ; acero inoxidable.*  
 Assortimento di anse a pressione ; acciaio inossidabile.  
*Sortido de pinos de pressão ; aço inoxidável.*

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.221 | 60x | 0.042 |

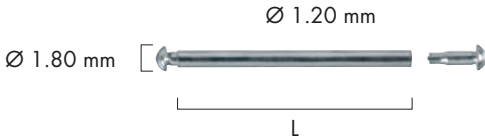
**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**6 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.380-18 /-19 /-20 /-21 /-22 /-24**



Assortiment de barrettes à pression ; acier inoxydable.  
*Assortiment of press-in bars ; stainless steel.*  
 Sortiment von Druckstege ; Edelstahl.  
*Surtido de pasadores de presión ; acero inoxidable.*  
 Assortimento di anse a pressione ; acciaio inossidabile.  
*Sortido de pinos de pressão ; aço inoxidável.*

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.222 | 100x | 0.037 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.380-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30**



Barrette à pression ; acier inoxydable.

Press-in bar ; stainless steel.

Drucksteg ; Edelstahl.

Pasador de presión ; acero inoxidable.

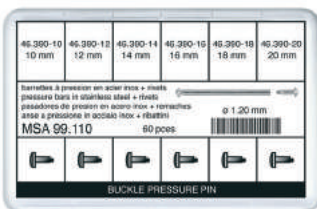
Ansa a pressione ; acciaio inossidabile.

Pino de pressão ; aço inoxidável.

10  
pcs

| MSA       | L mm | Kg    |
|-----------|------|-------|
| 46.390-10 | 10   | 0.002 |
| 46.390-12 | 12   | 0.002 |
| 46.390-14 | 14   | 0.002 |
| 46.390-15 | 15   | 0.002 |
| 46.390-16 | 16   | 0.002 |
| 46.390-17 | 17   | 0.002 |
| 46.390-18 | 18   | 0.002 |
| 46.390-19 | 19   | 0.002 |
| 46.390-20 | 20   | 0.002 |
| 46.390-21 | 21   | 0.002 |

| MSA       | L mm | Kg    |
|-----------|------|-------|
| 46.390-22 | 22   | 0.002 |
| 46.390-23 | 23   | 0.002 |
| 46.390-24 | 24   | 0.002 |
| 46.390-25 | 25   | 0.002 |
| 46.390-26 | 26   | 0.002 |
| 46.390-27 | 27   | 0.002 |
| 46.390-28 | 28   | 0.002 |
| 46.390-29 | 29   | 0.002 |
| 46.390-30 | 30   | 0.002 |



Assortiment de barrettes à pression ; acier inoxydable.

Assortment of press-in bars ; stainless steel.

Sortiment von Drucksteg ; Edelstahl.

Surtido de pasadores de presión ; acero inoxidable.

Assortimento di anse a pressione ; acciaio inossidabile.

Sortido de pinos de pressão ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.110 | 60x | 0.037 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**6 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.390-10 /-12 /-14 /-16 /-18 /-20**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.190 | 60x | 0.035 |



Assortiment de barrettes à pression ; acier inoxydable.  
 Assortment of press-in bars ; stainless steel.  
 Sortiment von Druckstege ; Edelstahl.  
 Surtido de pasadores de presión ; acero inoxidable.  
 Assortimento di anse a pressione ; acciaio inossidabile.  
 Sortido de pinos de pressão ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**6 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.390-18 /-19 /-20 /-21 /-22 /-24**



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.191 | 100x | 0.040 |



Assortiment de barrettes à pression ; acier inoxydable.  
 Assortment of press-in bars ; stainless steel.  
 Sortiment von Druckstege ; Edelstahl.  
 Surtido de pasadores de presión ; acero inoxidable.  
 Assortimento di anse a pressione ; acciaio inossidabile.  
 Sortido de pinos de pressão ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.390-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30**



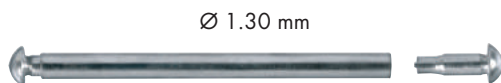


Barrette à pression ; acier inoxydable.  
 Press-in bar ; stainless steel.  
 Drucksteg ; Edelstahl.  
 Pasador de presión ; acero inoxidable.  
 Ansa a pressione ; acciaio inossidabile.  
 Pino de pressão ; aço inoxidável.

10  
pcs

| MSA       | L mm | Kg    |
|-----------|------|-------|
| 46.370-18 | 18   | 0.002 |
| 46.370-20 | 20   | 0.002 |
| 46.370-22 | 22   | 0.002 |
| 46.370-24 | 24   | 0.002 |
| 46.370-26 | 26   | 0.002 |
| 46.370-28 | 28   | 0.002 |

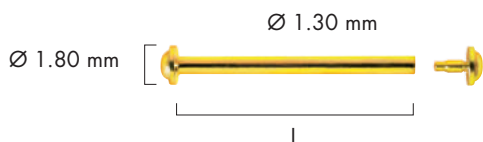
| MSA       | L mm | Kg    |
|-----------|------|-------|
| 46.370-30 | 30   | 0.002 |
| 46.370-31 | 31   | 0.002 |
| 46.370-32 | 32   | 0.002 |
| 46.370-33 | 33   | 0.002 |
| 46.370-34 | 34   | 0.002 |
| 46.370-35 | 35   | 0.002 |



Assortiment de barrettes à pression ; acier inoxydable.  
 Assortment of press-in bars ; stainless steel.  
 Sortiment von Druckstegen ; Edelstahl.  
 Surtido de pasadores de presión ; acero inoxidable.  
 Assortimento di anse a pressione ; acciaio inossidabile.  
 Sortido de pinos de pressão ; aço inoxidável.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.225 | 100x | 0.042 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.370-18 /-20 /-22 /-24 /-26 /-28 /-30 /-32 /-34 /-35**

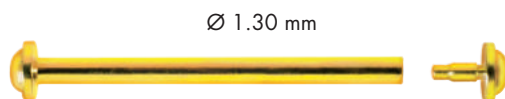


Barrette à pression, dorée ; acier inoxydable.  
 Press-in bar, gilt ; stainless steel.  
 Drucksteg, vergoldet ; Edelstahl.  
 Pasador de presión, dorado ; acero inoxidable.  
 Ansa a pressione, dorata ; acciaio inossidabile.  
 Pino de pressão, dourado ; aço inoxidável.

100  
pcs

| MSA       | L mm | Kg    |
|-----------|------|-------|
| 46.805-12 | 12   | 0.023 |
| 46.805-14 | 14   | 0.023 |
| 46.805-16 | 16   | 0.023 |

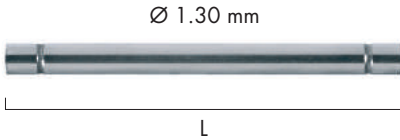
| MSA       | L mm | Kg    |
|-----------|------|-------|
| 46.805-18 | 18   | 0.023 |
| 46.805-20 | 20   | 0.023 |



Assortiment de barrettes à pression, dorées ; acier inoxydable.  
 Assortiment of press-in bars, gilt ; stainless steel.  
 Sortiment von Druckstegen, vergoldet ; Edelstahl.  
 Surtido de pasadores de presión, dorados ; acero inoxidable.  
 Assortimento di anse a pressione, dorate ; acciaio inossidabile.  
 Sortido de pinos de pressão, dourados ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.057 | 60x | 0.038 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.805-12 /-14 /-16 /-20**  
**20x MSA46.805-18**



Tube pour barrettes à pression ; acier inoxydable.  
 Tube for press-in bars ; stainless steel.  
 Rohr für Druckstege ; Edelstahl.  
 Tubo para pasadores de presión ; acero inoxidable.  
 Tubo per anse a pressione ; acciaio inossidabile.  
 Tubo para pinos de pressão ; aço inoxidável.

| MSA       | L mm | Kg    |
|-----------|------|-------|
| 46.910-10 | 10   | 0.001 |
| 46.910-12 | 12   | 0.001 |
| 46.910-14 | 14   | 0.001 |
| 46.910-15 | 15   | 0.001 |
| 46.910-16 | 16   | 0.001 |

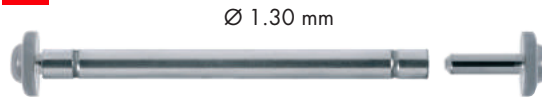
| MSA       | L mm | Kg    |
|-----------|------|-------|
| 46.910-17 | 17   | 0.001 |
| 46.910-18 | 18   | 0.001 |
| 46.910-20 | 20   | 0.001 |
| 46.910-21 | 21   | 0.001 |



Rivet pour barrettes à pression ; laiton plaqué or 2N18 1 µ et laiton palladium 1 µ.  
 Rivet for press-in bars ; brass gold-plated 2N18 1 µ and palladium brass 1 µ.  
 Niete für Druckstege ; Messing vergoldet 2N18 1 µ und Messing Palladium 1 µ.  
 Remache para pasadores de presión ; latón dorado 2N18 1 µ y latón paladio 1 µ.  
 Ribattino per anse a pressione ; ottone placcato oro 2N18 1 µ e ottone palladio 1 µ.  
 Rebite para pinos de pressão ; latão banhado a ouro 2N18 1 µ e latão paládio 1 µ.

| MSA    | Laiton plaqué/Brass gold-plated | Dimension/Size mm             | MSA    | Laiton palladium/Palladium brass |
|--------|---------------------------------|-------------------------------|--------|----------------------------------|
| 46.911 |                                 | Ø 2.50x1.15 / M 1.00 / L 4.80 | 46.912 |                                  |
| 46.913 |                                 | Ø 3.00x1.15 / M 1.00 / L 4.80 | 46.914 |                                  |

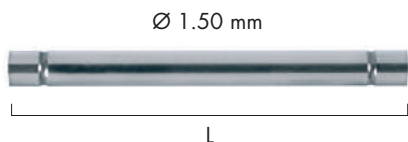
**Kg 0.001** 1/1



Assortiment de barrettes à pression ; acier inoxydable.  
 Assortment of press-in bars ; stainless steel.  
 Sortiment von Druckstege ; Edelstahl.  
 Surtido de pasadores de presión ; acero inoxidable.  
 Assortimento di anse a pressione ; acciaio inossidabile.  
 Sortido de pinos de pressão ; aço inoxidável.

| MSA    | Qt.       | Kg    |
|--------|-----------|-------|
| 99.053 | 16x + 32x | 0.073 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8+4 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA46.910-10 /-12 /-14 /-15 /-16 /-17 /-18 /-20**  
**8x MSA46.911 /.912 /.913 /.914**



Tube pour barrettes à pression ; acier inoxydable.

*Tube for press-in bars ; stainless steel.*

Rohr für Druckfederstege ; Edelstahl.

*Tubo para pasadores de presión ; acero inoxidable.*

Tubo per anse a pressione ; acciaio inossidabile.

*Tubo para pinos de pressão ; aço inoxidável.*

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.920-10 | 10                 | 0.001 |
| 46.920-12 | 12                 | 0.001 |
| 46.920-14 | 14                 | 0.001 |
| 46.920-15 | 15                 | 0.001 |

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.920-16 | 16                 | 0.001 |
| 46.920-17 | 17                 | 0.001 |
| 46.920-18 | 18                 | 0.001 |
| 46.920-20 | 20                 | 0.001 |



Rivet pour barrettes à pression ; laiton MS58 et laiton palladium 1 µ.

*Rivet for press-in bars ; brass MS58 and palladium brass 1 µ.*

Niete für Druckfederstege ; Messing MS58 und Messing Palladium 1 µ.

*Remache para pasadores de presión ; latón MS58 y latón paladio 1 µ.*

Ribattino per anse a pressione ; ottone MS58 e ottone palladio 1 µ.

*Rebite para pinos de pressão ; latão MS58 e latão paládio 1 µ.*

| MSA    | Laiton plaqué/Brass gold-plated | Dimension/Size mm             | MSA    | Laiton palladium/ Palladium brass |
|--------|---------------------------------|-------------------------------|--------|-----------------------------------|
| 46.921 |                                 | Ø 3.00x1.15 / M 1.00 / L 5.00 | 46.922 |                                   |
| 46.923 |                                 | Ø 3.50x1.15 / M 1.00 / L 5.20 | 46.924 |                                   |

Kg 0.001 1/1

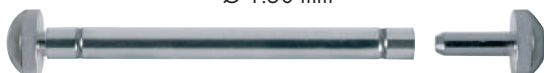
BARRETTES À PRESSION | PRESS-IN BARS |  
 DRUCKSTEGE | PASADORES DE PRESIÓN |  
 ANSE A PRESSIONE | PINOS DE PRESSÃO |



| MSA    | Qt.       | Kg    |
|--------|-----------|-------|
| 99.054 | 16x + 32x | 0.073 |



Ø 1.50 mm



Assortiment de barrettes à pression ; acier inoxydable.

Assortiment of press-in bars ; stainless steel.

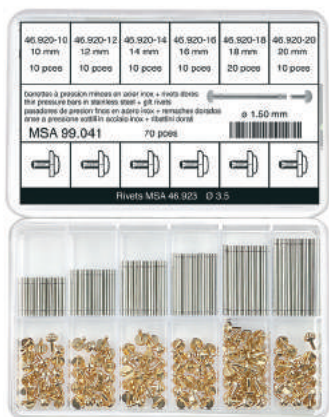
Sortiment von Druckstege ; Edelstahl.

Sortido de pasadores de presión ; acero inoxidable.

Assortimento di anse a pressione ; acciaio inossidabile.

Sortido de pinos de pressão ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8+4 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA46.920-10 /-12 /-14 /-15 /-16 /-17 /-18 /-20**  
**8x MSA46.921 /.922 /.923 /.924**



| MSA    | Qt.        | Kg    |
|--------|------------|-------|
| 99.041 | 70x + 140x | 0.235 |



Ø 1.50 mm



Assortiment de barrettes à pression ; acier inoxydable.

Assortiment of press-in bars ; stainless steel.

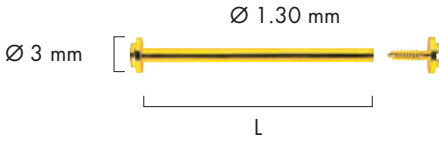
Sortiment von Druckstege ; Edelstahl.

Sortido de pasadores de presión ; acero inoxidable.

Assortimento di anse a pressione ; acciaio inossidabile.

Sortido de pinos de pressão ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**6+1 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.920-10 /-12 /-14 /-16 /-20**  
**20x MSA46.920-18**  
**140x MSA46.923**



Barrette à vis dorée ; laiton.  
 Gilded screw-on bar ; brass.  
 Vergoldenem Schraubsteg ; Messing.  
 Pasador de rosca dorado ; latón.  
 Ansa a vite dorata ; ottone.  
 Pino de rosca dourado ; latão.

10  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.800-12 | 12                 | 0.003 |
| 46.800-14 | 14                 | 0.003 |
| 46.800-16 | 16                 | 0.003 |

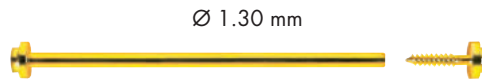
| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.800-18 | 18                 | 0.003 |
| 46.800-20 | 20                 | 0.003 |

100  
pcs



Vis pour barrettes à vis dorées ; laiton.  
 Screw for gilded screw-on bars ; brass.  
 Schraube für vergoldene Schraubsteg ; Messing.  
 Tornillo para pasadores de rosca dorados ; latón.  
 Vite per anse a vite dorate ; ottone.  
 Parafuso para pinos de rosca dourados ; latão.

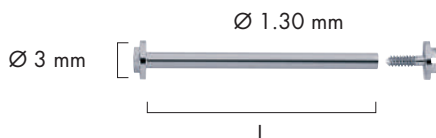
| MSA      | Kg    |
|----------|-------|
| 46.800-V | 0.006 |



Assortiment de barrettes à vis dorées ; laiton.  
 Assortment of gilded screw-on bars ; brass.  
 Sortiment von vergoldene Schraubsteg ; Messing.  
 Surtido de pasadores de rosca dorados ; latón.  
 Assortimento di anse a vite dorate ; ottone.  
 Sortido de pinos de rosca dourados ; latão.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.002 | 60x | 0.043 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.800-12 /-14 /-16 /-20**  
**20x MSA46.800-18**



Barrette à vis chromée ; laiton.  
 Chromed screw-on bar ; brass.  
 Verchromtem Schraubsteg ; Messing.  
 Pasador de rosca cromado ; latón.  
 Ansa a vite cromata ; ottone.  
 Pino de rosca cromado ; latão.

10  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.801-12 | 12                 | 0.003 |
| 46.801-14 | 14                 | 0.003 |
| 46.801-16 | 16                 | 0.003 |

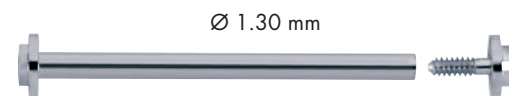
| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.801-18 | 18                 | 0.003 |
| 46.801-20 | 20                 | 0.003 |

100  
pcs



Vis pour barrettes à vis chromées ; laiton.  
 Screw for chromed screw-on bars ; brass.  
 Schraube für verchromte Schraubsteg ; Messing.  
 Tornillo para pasadores de rosca cromados ; latón.  
 Vite per anse a vite cromate ; ottone.  
 Parafuso para pinos de rosca cromados ; latão.

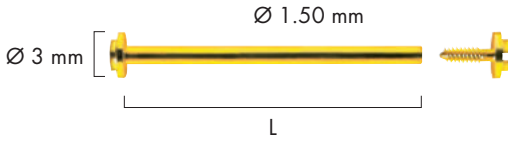
| MSA      | Kg    |
|----------|-------|
| 46.801-V | 0.005 |



Assortiment de barrettes à vis chromées ; laiton.  
 Assortment of chromed screw-on bars ; brass.  
 Sortiment von verchromte Schraubsteg ; Messing.  
 Surtido de pasadores de rosca cromados ; latón.  
 Assortimento di anse a vite cromate ; ottone.  
 Sortido de pinos de rosca cromados ; latão.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.108 | 60x | 0.043 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.801-12 /-14 /-16 /-20**  
**20x MSA46.801-18**

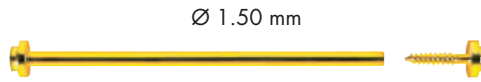


Barrette à vis dorée ; laiton.  
 Gilded screw-on bar ; brass.  
 Vergoldenem Schraubsteg ; Messing.  
 Pasador de rosca dorado ; latón.  
 Ansa a vite dorata ; ottone.  
 Pino de rosca dourado ; latão.

10  
 pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.802-12 | 12                 | 0.003 |
| 46.802-14 | 14                 | 0.003 |
| 46.802-16 | 16                 | 0.004 |

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.802-18 | 18                 | 0.004 |
| 46.802-20 | 20                 | 0.004 |

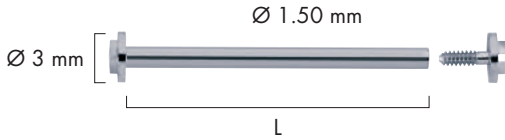


Assortiment de barrettes à vis dorées ; laiton.  
 Assortment of gilded screw-on bars ; brass.  
 Sortiment von vergoldene Schraubsteg ; Messing.  
 Surtido de pasadores de rosca dorados ; latón.  
 Assortimento di anse a vite dorate ; ottone.  
 Sortido de pinos de rosca dourados ; latão.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.217 | 60x | 0.043 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.802-12 /-14 /-16 /-20**  
**20x MSA46.802-18**



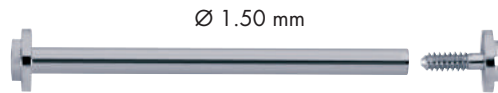


Barrette à vis chromée ; laiton.  
 Chromed screw-on bar ; brass.  
 Verchromtem Schraubsteg ; Messing.  
 Pasador de rosca cromado ; latón.  
 Ansa a vite cromata ; ottone.  
 Pino de rosca cromado ; latão.

10  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.803-12 | 12                 | 0.003 |
| 46.803-14 | 14                 | 0.003 |
| 46.803-16 | 16                 | 0.004 |

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.803-18 | 18                 | 0.004 |
| 46.803-20 | 20                 | 0.004 |



Assortiment de barrettes à vis chromées ; laiton.  
 Assortiment of chromed screw-on bars ; brass.  
 Sortiment von verchromte Schraubsteg ; Messing.  
 Surtido de pasadores de rosca cromados ; latón.  
 Assortimento di anse a vite cromate ; ottone.  
 Sortido de pinos de rosca cromados ; latão.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.216 | 60x | 0.043 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.803-12 /-14 /-16 /-20**  
**20x MSA46.803-18**



Tube pour barrettes à vis ; maillechort.  
 Tube for screw-on bars ; nickel silver.  
 Rohr für Schraubstege ; Neusilber.  
 Tubo para pasadores de rosca ; alpaca.  
 Tubo per anse a vite ; argentone.  
 Tubo para pinos de rosca ; níquel prateado.

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.810-10 | 10                 | 0.001 |
| 46.810-12 | 12                 | 0.001 |
| 46.810-14 | 14                 | 0.001 |
| 46.810-15 | 15                 | 0.001 |

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.810-16 | 16                 | 0.001 |
| 46.810-17 | 17                 | 0.001 |
| 46.810-18 | 18                 | 0.001 |
| 46.810-20 | 20                 | 0.001 |



Vis pour barrettes à vis ; laiton plaqué or 2N18 1 µ et laiton palladium 1 µ.  
 Screw for screw-on bars ; brass gold-plated 2N18 1 µ and palladium brass 1 µ.  
 Schraube für Schraubstege ; Messing vergoldet 2N18 1 µ und Messing Palladium 1 µ.  
 Tornillo para pasadores de rosca ; latón dorado 2N18 1 µ y latón paladio 1 µ.  
 Vite per anse a vite ; ottone placcato oro 2N18 1 µ e ottone palladio 1 µ.  
 Parafuso para pinos de rosca ; latão banhado a ouro 2N18 1 µ e latão paládio 1 µ.

| MSA    | Laiton plaqué/Brass gold-plated | Dimension/Size mm             | MSA    | Laiton palladium/ Palladium brass |
|--------|---------------------------------|-------------------------------|--------|-----------------------------------|
| 46.811 |                                 | Ø 3.00x1.15 / M 0.80 / L 3.60 | 46.812 |                                   |
| 46.813 |                                 | Ø 3.50x1.15 / M 0.80 / L 3.60 | 46.814 |                                   |

Kg 0.001 1/1

|   |                 |                 |                 |                                |                                 |
|---|-----------------|-----------------|-----------------|--------------------------------|---------------------------------|
| 46.810<br>-10mm   | 46.810<br>-12mm | 46.810<br>-14mm | 46.810<br>-15mm | 46.811<br>Ø 3.8 mm<br>Gold pl. | 46.812<br>Ø 3.0 mm<br>Palladium |
| 16 barrettes à vis + 32 vis<br>16 screw-on bars + 32 screws<br>16 pasadores rosca + 32 tornillos<br>16 anse a vite + 32 vite<br>MSA 99.055 48 pcs |                 |                 |                 |                                |                                 |
| 46.810<br>-16mm   | 46.810<br>-17mm | 46.810<br>-18mm | 46.810<br>-20mm | 46.813<br>Ø 3.5 mm<br>Gold pl. | 46.814<br>Ø 3.5 mm<br>Palladium |



Ø 1.30 mm

Assortiment de barrettes à vis ; maillechort.

Assortiment of screw-on bars ; nickel silver.

Sortiment von Schraubstege ; Neusilber.

Sortido de pasadores de rosca ; alpaca.

Assortimento di anse a vite ; argenteone.

Sortido de pinos de rosca ; níquel plateado.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8+4 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA46.810-10 /-12 /-14 /-15 /-16 /-17 /-18 /-20**  
**8x MSA46.811 /.812 /.813 /.814**

| MSA    | Qt.       | Kg    |
|--------|-----------|-------|
| 99.055 | 16x + 32x | 0.073 |

|   |                 |                 |                 |                                |                                 |
|---|-----------------|-----------------|-----------------|--------------------------------|---------------------------------|
| 46.810<br>-10mm   | 46.810<br>-12mm | 46.810<br>-14mm | 46.810<br>-15mm | 46.811<br>Ø 3.8 mm<br>Gold pl. | 46.812<br>Ø 3.0 mm<br>Palladium |
| 80 barrettes à vis nitros + 160 vis<br>80 screw-on bars + 160 screws<br>80 pasadores rosca + 160 tornillos<br>80 anse a vite + 160 vite<br>MSA 99.059 240 pcs |                 |                 |                 |                                |                                 |
| 46.810<br>-16mm   | 46.810<br>-17mm | 46.810<br>-18mm | 46.810<br>-20mm | 46.813<br>Ø 3.5 mm<br>Gold pl. | 46.814<br>Ø 3.5 mm<br>Palladium |



Ø 1.30 mm

Assortiment de barrettes à vis ; maillechort.

Assortiment of screw-on bars ; nickel silver.

Sortiment von Schraubstege ; Neusilber.

Sortido de pasadores de rosca ; alpaca.

Assortimento di anse a vite ; argenteone.

Sortido de pinos de rosca ; níquel plateado.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8+4 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.810-10 /-12 /-14 /-15 /-16 /-17 /-18 /-20**  
**40x MSA46.811 /.812 /.813 /.814**

| MSA    | Qt.        | Kg    |
|--------|------------|-------|
| 99.059 | 80x + 160x | 0.265 |



Tube pour barrettes à vis ; maillechort.  
 Tube for screw-on bars ; nickel silver.  
 Rohr für Schraubstege ; Neusilber.  
 Tubo para pasadores de rosca ; alpaca.  
 Tubo per anse a vite ; argentone.  
 Tubo para pinos de rosca ; níquel prateado.

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.820-10 | 10                 | 0.002 |
| 46.820-12 | 12                 | 0.002 |
| 46.820-14 | 14                 | 0.002 |
| 46.820-15 | 15                 | 0.002 |
| 46.820-16 | 16                 | 0.002 |


| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.820-17 | 17                 | 0.002 |
| 46.820-18 | 18                 | 0.002 |
| 46.820-20 | 20                 | 0.002 |
| 46.820-22 | 22                 | 0.002 |
| 46.820-24 | 24                 | 0.002 |

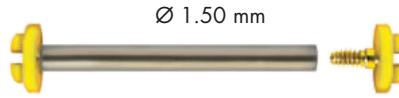


Vis pour barrettes à vis ; laiton plaqué or 2N18 1 µ et laiton palladium 1 µ.  
 Screw for screw-on bars ; brass gold-plated 2N18 1 µ and palladium brass 1 µ.  
 Schraube für Schraubstege ; Messing vergoldet 2N18 1 µ und Messing Palladium 1 µ.  
 Tornillo para pasadores de rosca ; latón dorado 2N18 1 µ y latón paladio 1 µ.  
 Vite per anse a vite ; ottone placcato oro 2N18 1 µ e ottone palladio 1 µ.  
 Parafuso para pinos de rosca ; latão banhado a ouro 2N18 1 µ e latão paládio 1 µ.

| MSA    | Laiton plaqué/Brass gold-plated | Dimension/Size mm             | MSA    | Laiton palladium/ Palladium brass |
|--------|---------------------------------|-------------------------------|--------|-----------------------------------|
| 46.821 |                                 | Ø 3.20x1.15 / M 1.00 / L 3.60 | 46.822 |                                   |
| 46.823 |                                 | Ø 3.70x1.15 / M 1.00 / L 4.00 | 46.824 |                                   |

Kg 0.001 1/1

|   |                 |                 |                 |                                |                                 |
|---|-----------------|-----------------|-----------------|--------------------------------|---------------------------------|
| 46.820<br>-10mm   | 46.820<br>-12mm | 46.820<br>-14mm | 46.820<br>-15mm | 46.821<br>Ø 3,2 mm<br>Gold pl. | 46.822<br>Ø 3,2 mm<br>Palladium |
| 16 barrettes à vis + 32 vis<br>16 screw-on bars + 32 screws<br>16 pasadores rosca + 32 tornillos<br>16 anse a vite + 32 viti<br>MSA 99.056 48 pcs<br> Ø 1.50mm |                 |                 |                 |                                |                                 |
| 46.820<br>-10mm   | 46.820<br>-17mm | 46.820<br>-18mm | 46.820<br>-20mm | 46.823<br>Ø 3,7 mm<br>Gold pl. | 46.824<br>Ø 3,7 mm<br>Palladium |



Ø 1.50 mm

Assortiment de barrettes à vis ; maillechort.  
 Assortiment of screw-on bars ; nickel silver.  
 Sortiment von Schraubstege ; Neusilber.  
 Surtido de pasadores de rosca ; alpaca.  
 Assortimento di anse a vite ; argenteone.  
 Sortido de pinos de rosca ; níquel plateado.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8+4 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA46.820-10 /-12 /-14 /-15 /-16 /-17 /-18 /-20**  
**8x MSA46.821 /.822 /.823 /.824**

| MSA    | Qt.       | Kg    |
|--------|-----------|-------|
| 99.056 | 16x + 32x | 0.089 |

|  |                 |                 |                 |                                |                                 |
|--|-----------------|-----------------|-----------------|--------------------------------|---------------------------------|
| 46.820<br>-10mm  | 46.820<br>-12mm | 46.820<br>-14mm | 46.820<br>-15mm | 46.821<br>Ø 3,2 mm<br>Gold pl. | 46.822<br>Ø 3,2 mm<br>Palladium |
| 80 barrettes à vis microp + 160 vis<br>80 fine screw-on bars + 160 screws<br>80 pasadores rosca finos + 160 tornillos<br>80 anse a vite sottili + 160 viti<br>MSA 99.061 240 pcs<br> Ø 1.50mm |                 |                 |                 |                                |                                 |
| 46.820<br>-16mm  | 46.820<br>-17mm | 46.820<br>-18mm | 46.820<br>-20mm | 46.823<br>Ø 3,7 mm<br>Gold pl. | 46.824<br>Ø 3,7 mm<br>Palladium |

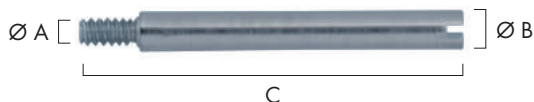


Ø 1.50 mm

Assortiment de barrettes à vis ; maillechort.  
 Assortiment of screw-on bars ; nickel silver.  
 Sortiment von Schraubstege ; Neusilber.  
 Surtido de pasadores de rosca ; alpaca.  
 Assortimento di anse a vite ; argenteone.  
 Sortido de pinos de rosca ; níquel plateado.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8+4 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.820-10 /-12 /-14 /-15 /-16 /-17 /-18 /-20**  
**40x MSA46.821 /.822 /.823 /.824**

| MSA    | Qt.        | Kg    |
|--------|------------|-------|
| 99.061 | 80x + 160x | 0.345 |



Barrette à vis ; acier inoxydable.  
 Screw-on bar ; stainless steel.  
 Schraubsteg ; Edelstahl.  
 Pasador de rosca ; acero inoxidable.  
 Ansa a vite ; acciaio inossidabile.  
 Pino de rosca ; aço inoxidável.

| MSA         | Ø A mm | Ø B mm | C mm  | Kg    |
|-------------|--------|--------|-------|-------|
| 46.39709508 | 0.80   | 0.950  | 8.80  | 0.001 |
| 46.39712010 | 1.20   | 1.200  | 10.00 | 0.001 |
| 46.39712015 | 1.20   | 1.200  | 15.50 | 0.001 |
| 46.39713012 | 1.00   | 1.300  | 12.10 | 0.001 |

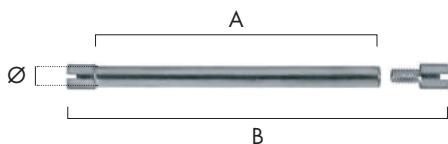
| MSA         | Ø A mm | Ø B mm | C mm  | Kg    |
|-------------|--------|--------|-------|-------|
| 46.39714010 | 1.40   | 1.400  | 10.00 | 0.001 |
| 46.39716014 | 1.20   | 1.600  | 14.40 | 0.001 |
| 46.39716814 | 1.40   | 1.685  | 14.00 | 0.001 |
| 46.39716815 | 1.40   | 1.685  | 15.50 | 0.001 |



Assortiment de barrettes à vis ; acier inoxydable.  
 Assortment of screw-on bars ; stainless steel.  
 Sortiment von Schraubstege ; Edelstahl.  
 Surtido de pasadores de rosca ; acero inoxidable.  
 Assortimento di anse a vite ; acciaio inossidabile.  
 Sortido de pinos de rosca ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.109 | 16x | 0.044 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA46.39709508 /.39712010 /.39712015 /.39713012**  
**/.39714010 /.39716014 /.39716814 /.39716815**



Barrette à vis extra-large + vis ; acier inoxydable.  
 Extra large screw-on bar + screw ; stainless steel.  
 Extra breiter Schraubsteg + Schraube ; Edelstahl.  
 Pasador de rosca extra-ancho + tornillo ; acero inoxidable.  
 Ansa a vite super lunga + vite ; acciaio inossidabile.  
 Pino de rosca extra-largo + parafuso ; aço inoxidável.

10  
pcs

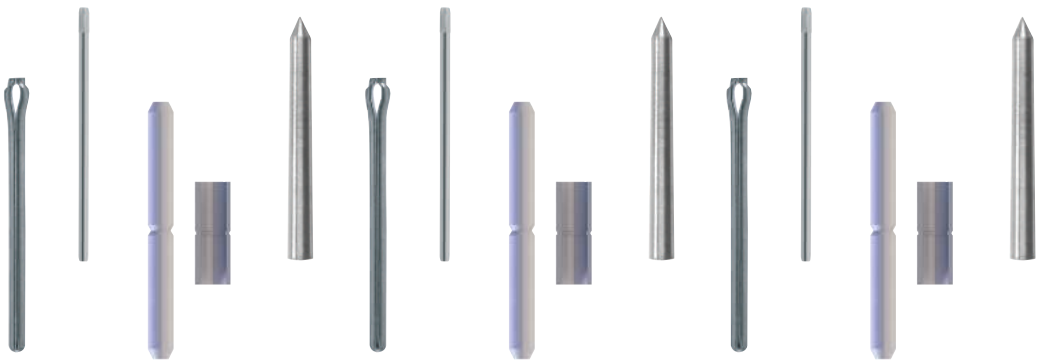
| MSA    | 1/1 | Ø mm | A mm  | B mm  | Kg    |
|--------|-----|------|-------|-------|-------|
| 46.391 |     | 1.40 | 26.70 | 30.20 | 0.005 |
| 46.392 |     | 1.50 | 23.00 | 27.50 | 0.005 |
| 46.393 |     | 1.50 | 25.60 | 30.50 | 0.005 |
| 46.394 |     | 1.70 | 24.00 | 28.80 | 0.006 |
| 46.396 |     | 1.70 | 25.00 | 30.00 | 0.006 |
| 46.395 |     | 1.80 | 25.40 | 30.50 | 0.007 |



Assortiment de barrettes à vis extra-larges ; acier inoxydable.  
 Assortment of extra large screw-on bars ; stainless steel.  
 Sortiment von extra breite Schraubstege ; Edelstahl.  
 Surtido de pasadores de rosca extra-anchos ; acero inoxidable.  
 Assortimento di anse a vite super lunghe ; acciaio inossidabile.  
 Sortido de pinos de rosca extra-largos ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.195 | 60x | 0.056 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**6 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.391 /.392 /.393 /.394 /.395 /.396**



GOUPILLES PINS STIFTEN GRUPILLAS COPIGLIE CAVILHAS

Goupilles fendues

*Open-end pins*

Splinte

*Grupillas hendidas*

Copiglie spaccate

*Cavilhas rachadas*



2

Goupilles moletées

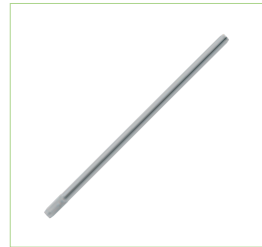
*Knurled pins*

Gerändelten Stiften

*Grupillas moleteadas*

Copiglie zigriante

*Cavilhas serrilhadas*



12

Tubes et goupilles avec encoche

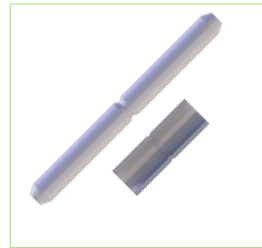
*Tubes and pins with notch*

Röhre und Stiften mit Kerbe

*Tubos y grupillas con muesca*

Tubi e copiglie con tacca

*Tubos e cavilhas com entalhe*



20

Goupilles coniques

*Conical pins*

Konische Stiften

*Grupillas cónicas*

Copiglie coniche

*Cavilhas cônicas*



22





Goupille fendue ; acier inoxydable.

Open-end pin ; stainless steel.

Splint ; Edelstahl.

Grupilla hendida ; acero inoxidable.

Copiglia spaccata ; acciaio inossidabile.

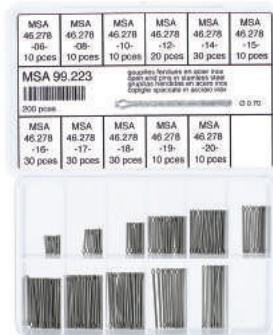
Cavilha rachada ; aço inoxidável.

**100**  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.278-04 | 4                  | 0.002 |
| 46.278-06 | 6                  | 0.003 |
| 46.278-08 | 8                  | 0.003 |
| 46.278-10 | 10                 | 0.004 |
| 46.278-12 | 12                 | 0.004 |
| 46.278-14 | 14                 | 0.005 |
| 46.278-15 | 15                 | 0.005 |
| 46.278-16 | 16                 | 0.006 |
| 46.278-17 | 17                 | 0.006 |
| 46.278-18 | 18                 | 0.007 |
| 46.278-19 | 19                 | 0.007 |
| 46.278-20 | 20                 | 0.007 |
| 46.278-21 | 21                 | 0.007 |
| 46.278-22 | 22                 | 0.007 |
| 46.278-23 | 23                 | 0.008 |
| 46.278-24 | 24                 | 0.009 |
| 46.278-25 | 25                 | 0.009 |
| 46.278-26 | 26                 | 0.009 |
| 46.278-27 | 27                 | 0.009 |
| 46.278-28 | 28                 | 0.009 |
| 46.278-29 | 29                 | 0.010 |
| 46.278-30 | 30                 | 0.011 |

**10**  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.288-04 | 4                  | 0.001 |
| 46.288-06 | 6                  | 0.001 |
| 46.288-08 | 8                  | 0.001 |
| 46.288-10 | 10                 | 0.001 |
| 46.288-12 | 12                 | 0.001 |
| 46.288-14 | 14                 | 0.001 |
| 46.288-15 | 15                 | 0.001 |
| 46.288-16 | 16                 | 0.001 |
| 46.288-17 | 17                 | 0.001 |
| 46.288-18 | 18                 | 0.001 |
| 46.288-19 | 19                 | 0.001 |
| 46.288-20 | 20                 | 0.001 |
| 46.288-21 | 21                 | 0.001 |
| 46.288-22 | 22                 | 0.001 |
| 46.288-23 | 23                 | 0.001 |
| 46.288-24 | 24                 | 0.001 |
| 46.288-25 | 25                 | 0.001 |
| 46.288-26 | 26                 | 0.001 |
| 46.288-27 | 27                 | 0.001 |
| 46.288-28 | 28                 | 0.001 |
| 46.288-29 | 29                 | 0.001 |
| 46.288-30 | 30                 | 0.001 |



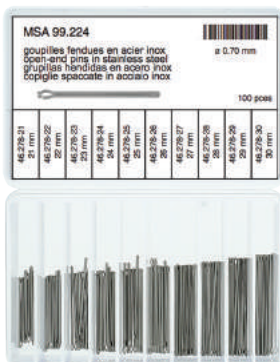
Ø 0.70 mm



Assortiment de goupilles fendues ; acier inoxydable.  
 Assortment of open-end pins ; stainless steel.  
 Sortiment von Splinte ; Edelstahl.  
 Surtido de grupillas hendidas ; acero inoxidable.  
 Assortimento di copiglie spaccate ; acciaio inossidabile.  
 Sortido de cavilhas rachadas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**11 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.278-06 /-08 /-10 /-15 /-19 /-20**  
**20x MSA46.278-12**  
**30x MSA46.278-14 /-16 /-17 /-18**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.223 | 200x | 0.034 |



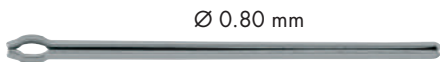
Ø 0.70 mm



Assortiment de goupilles fendues ; acier inoxydable.  
 Assortment of open-end pins ; stainless steel.  
 Sortiment von Splinte ; Edelstahl.  
 Surtido de grupillas hendidas ; acero inoxidable.  
 Assortimento di copiglie spaccate ; acciaio inossidabile.  
 Sortido de cavilhas rachadas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.278-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.224 | 100x | 0.036 |



Goupille fendue ; acier inoxydable.

Open-end pin ; stainless steel.

Splint ; Edelstahl.

Grupilla hendida ; acero inoxidable.

Copiglia spaccata ; acciaio inossidabile.

Cavilha rachada ; aço inoxidável.

100  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.279-04 | 4                  | 0.003 |
| 46.279-06 | 6                  | 0.004 |
| 46.279-08 | 8                  | 0.004 |
| 46.279-10 | 10                 | 0.005 |
| 46.279-12 | 12                 | 0.005 |
| 46.279-14 | 14                 | 0.006 |
| 46.279-15 | 15                 | 0.006 |
| 46.279-16 | 16                 | 0.007 |
| 46.279-17 | 17                 | 0.007 |
| 46.279-18 | 18                 | 0.008 |
| 46.279-19 | 19                 | 0.008 |
| 46.279-20 | 20                 | 0.008 |
| 46.279-21 | 21                 | 0.008 |
| 46.279-22 | 22                 | 0.008 |
| 46.279-23 | 23                 | 0.009 |
| 46.279-24 | 24                 | 0.010 |
| 46.279-25 | 25                 | 0.010 |
| 46.279-26 | 26                 | 0.010 |
| 46.279-27 | 27                 | 0.010 |
| 46.279-28 | 28                 | 0.010 |
| 46.279-29 | 29                 | 0.011 |
| 46.279-30 | 30                 | 0.012 |

10  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.289-04 | 4                  | 0.001 |
| 46.289-06 | 6                  | 0.001 |
| 46.289-08 | 8                  | 0.001 |
| 46.289-10 | 10                 | 0.001 |
| 46.289-12 | 12                 | 0.001 |
| 46.289-14 | 14                 | 0.001 |
| 46.289-15 | 15                 | 0.001 |
| 46.289-16 | 16                 | 0.001 |
| 46.289-17 | 17                 | 0.001 |
| 46.289-18 | 18                 | 0.001 |
| 46.289-19 | 19                 | 0.001 |
| 46.289-20 | 20                 | 0.002 |
| 46.289-21 | 21                 | 0.002 |
| 46.289-22 | 22                 | 0.002 |
| 46.289-23 | 23                 | 0.002 |
| 46.289-24 | 24                 | 0.002 |
| 46.289-25 | 25                 | 0.002 |
| 46.289-26 | 26                 | 0.002 |
| 46.289-27 | 27                 | 0.002 |
| 46.289-28 | 28                 | 0.002 |
| 46.289-29 | 29                 | 0.002 |
| 46.289-30 | 30                 | 0.002 |



Ø 0.80 mm



Assortiment de goupilles fendues ; acier inoxydable.

Assortiment of open-end pins ; stainless steel.

Sortiment von Splinte ; Edelstahl.

Surtido de grupillas hendidas ; acero inoxidable.

Assortimento di copiglie spaccate ; acciaio inossidabile.

Sortido de cavilhas rachadas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**11 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.279-06 /-08 /-10 /-15 /-19 /-20**  
**20x MSA46.279-12**  
**30x MSA46.279-14 /-16 /-17 /-18**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.137 | 200x | 0.040 |



Ø 0.80 mm



Assortiment de goupilles fendues ; acier inoxydable.

Assortiment of open-end pins ; stainless steel.

Sortiment von Splinte ; Edelstahl.

Surtido de grupillas hendidas ; acero inoxidable.

Assortimento di copiglie spaccate ; acciaio inossidabile.

Sortido de cavilhas rachadas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.279-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.145 | 100x | 0.035 |



Ø 0.90 mm

Goupille fendue ; acier inoxydable.

Open-end pin ; stainless steel.

Splint ; Edelstahl.

Grupilla hendida ; acero inoxidable.

Copiglia spaccata ; acciaio inossidabile.

Cavilha rachada ; aço inoxidável.

100  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.280-04 | 4                  | 0.003 |
| 46.280-06 | 6                  | 0.004 |
| 46.280-08 | 8                  | 0.004 |
| 46.280-10 | 10                 | 0.005 |
| 46.280-12 | 12                 | 0.005 |
| 46.280-14 | 14                 | 0.006 |
| 46.280-15 | 15                 | 0.006 |
| 46.280-16 | 16                 | 0.007 |
| 46.280-17 | 17                 | 0.007 |
| 46.280-18 | 18                 | 0.008 |
| 46.280-19 | 19                 | 0.008 |
| 46.280-20 | 20                 | 0.008 |
| 46.280-21 | 21                 | 0.008 |
| 46.280-22 | 22                 | 0.008 |
| 46.280-23 | 23                 | 0.009 |
| 46.280-24 | 24                 | 0.010 |
| 46.280-25 | 25                 | 0.010 |
| 46.280-26 | 26                 | 0.010 |
| 46.280-27 | 27                 | 0.010 |
| 46.280-28 | 28                 | 0.010 |
| 46.280-29 | 29                 | 0.011 |
| 46.280-30 | 30                 | 0.012 |

10  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.290-04 | 4                  | 0.001 |
| 46.290-06 | 6                  | 0.001 |
| 46.290-08 | 8                  | 0.001 |
| 46.290-10 | 10                 | 0.001 |
| 46.290-12 | 12                 | 0.001 |
| 46.290-14 | 14                 | 0.001 |
| 46.290-15 | 15                 | 0.001 |
| 46.290-16 | 16                 | 0.001 |
| 46.290-17 | 17                 | 0.001 |
| 46.290-18 | 18                 | 0.001 |
| 46.290-19 | 19                 | 0.001 |
| 46.290-20 | 20                 | 0.002 |
| 46.290-21 | 21                 | 0.002 |
| 46.290-22 | 22                 | 0.002 |
| 46.290-23 | 23                 | 0.002 |
| 46.290-24 | 24                 | 0.002 |
| 46.290-25 | 25                 | 0.002 |
| 46.290-26 | 26                 | 0.002 |
| 46.290-27 | 27                 | 0.002 |
| 46.290-28 | 28                 | 0.002 |
| 46.290-29 | 29                 | 0.002 |
| 46.290-30 | 30                 | 0.002 |

|  |                                  |                                  |                                  |                                  |                                  |
|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| MSA<br>46.280<br>-06-<br>10 pces   | MSA<br>46.280<br>-08-<br>10 pces | MSA<br>46.280<br>-10-<br>10 pces | MSA<br>46.280<br>-12-<br>20 pces | MSA<br>46.280<br>-14-<br>30 pces | MSA<br>46.280<br>-15-<br>10 pces |
| MSA 99.048<br>200 pces<br>goupilles fendues en acier inox<br>Open-end pins in stainless steel<br>grupillas hendidas en acero inox<br>Copiglie spaccate in acciaio inox<br>Ø 0.90 |                                  |                                  |                                  |                                  |                                  |
| MSA<br>46.280<br>-15-<br>30 pces   | MSA<br>46.280<br>-17-<br>30 pces | MSA<br>46.280<br>-18-<br>30 pces | MSA<br>46.280<br>-19-<br>10 pces | MSA<br>46.280<br>-20-<br>10 pces |                                  |



Ø 0.90 mm



Assortiment de goupilles fendues ; acier inoxydable.

Assortment of open-end pins ; stainless steel.

Sortiment von Splinte ; Edelstahl.

Surtido de grupillas hendidas ; acero inoxidable.

Assortimento di copiglie spaccate ; acciaio inossidabile.

Sortido de cavilhas rachadas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**

**11 modèles - models - Modelle - modelos - modelli - modelos**

**10x MSA46.280-06 /-08 /-10 /-15 /-19 /-20**

**20x MSA46.280-12**

**30x MSA46.280-14 /-16 /-17 /-18**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.048 | 200x | 0.041 |

|  |  |           |
|--|--|-----------|
| Assortiment MSA 99.146   |  | 100 pces  |
| Goupilles fendues, acier inox<br>Open-end pins, stain. steel<br>Grupillas hendidas, acero inox<br>Copiglie spaccate, acciaio inox  |  | Ø 0.90 mm |
| 46.280-21<br>21 mm<br>46.280-22<br>22 mm<br>46.280-23<br>23 mm<br>46.280-24<br>24 mm<br>46.280-25<br>25 mm<br>46.280-26<br>26 mm<br>46.280-27<br>27 mm<br>46.280-28<br>28 mm<br>46.280-29<br>29 mm<br>46.280-30<br>30 mm |  |           |



Ø 0.90 mm



Assortiment de goupilles fendues ; acier inoxydable.

Assortment of open-end pins ; stainless steel.

Sortiment von Splinte ; Edelstahl.

Surtido de grupillas hendidas ; acero inoxidable.

Assortimento di copiglie spaccate ; acciaio inossidabile.

Sortido de cavilhas rachadas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**

**10 modèles - models - Modelle - modelos - modelli - modelos**

**10x MSA46.280-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.146 | 100x | 0.028 |

Ø 1.00 mm



Goupille fendue ; acier inoxydable.

Open-end pin ; stainless steel.

Splint ; Edelstahl.

Grupilla hendida ; acero inoxidable.

Copiglia spaccata ; acciaio inossidabile.

Cavilha rachada ; aço inoxidável.

100  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.281-04 | 4                  | 0.004 |
| 46.281-06 | 6                  | 0.006 |
| 46.281-08 | 8                  | 0.007 |
| 46.281-10 | 10                 | 0.010 |
| 46.281-12 | 12                 | 0.011 |
| 46.281-14 | 14                 | 0.013 |
| 46.281-15 | 15                 | 0.014 |
| 46.281-16 | 16                 | 0.015 |
| 46.281-17 | 17                 | 0.015 |
| 46.281-18 | 18                 | 0.017 |
| 46.281-19 | 19                 | 0.017 |
| 46.281-20 | 20                 | 0.018 |
| 46.281-21 | 21                 | 0.019 |
| 46.281-22 | 22                 | 0.020 |
| 46.281-23 | 23                 | 0.020 |
| 46.281-24 | 24                 | 0.021 |
| 46.281-25 | 25                 | 0.022 |
| 46.281-26 | 26                 | 0.024 |
| 46.281-27 | 27                 | 0.024 |
| 46.281-28 | 28                 | 0.025 |
| 46.281-29 | 29                 | 0.026 |
| 46.281-30 | 30                 | 0.027 |

10  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.291-04 | 4                  | 0.001 |
| 46.291-06 | 6                  | 0.001 |
| 46.291-08 | 8                  | 0.001 |
| 46.291-10 | 10                 | 0.001 |
| 46.291-12 | 12                 | 0.001 |
| 46.291-14 | 14                 | 0.001 |
| 46.291-15 | 15                 | 0.001 |
| 46.291-16 | 16                 | 0.002 |
| 46.291-17 | 17                 | 0.002 |
| 46.291-18 | 18                 | 0.002 |
| 46.291-19 | 19                 | 0.002 |
| 46.291-20 | 20                 | 0.002 |
| 46.291-21 | 21                 | 0.002 |
| 46.291-22 | 22                 | 0.002 |
| 46.291-23 | 23                 | 0.002 |
| 46.291-24 | 24                 | 0.002 |
| 46.291-25 | 25                 | 0.002 |
| 46.291-26 | 26                 | 0.003 |
| 46.291-27 | 27                 | 0.003 |
| 46.291-28 | 28                 | 0.003 |
| 46.291-29 | 29                 | 0.003 |
| 46.291-30 | 30                 | 0.003 |



Ø 1.00 mm



Assortiment de goupilles fendues ; acier inoxydable.

Assortment of open-end pins ; stainless steel.

Sortiment von Splinte ; Edelstahl.

Sortido de grupillas hendidas ; acero inoxidable.

Assortimento di copiglie spaccate ; acciaio inossidabile.

Sortido de cavilhas rachadas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**11 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.281-06 /-08 /-10 /-15 /-19 /-20**  
**20x MSA46.281-12**  
**30x MSA46.281-14 /-16 /-17 /-18**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.049 | 200x | 0.045 |



Ø 1.00 mm



Assortiment de goupilles fendues ; acier inoxydable.

Assortment of open-end pins ; stainless steel.

Sortiment von Splinte ; Edelstahl.

Sortido de grupillas hendidas ; acero inoxidable.

Assortimento di copiglie spaccate ; acciaio inossidabile.

Sortido de cavilhas rachadas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**11 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.281-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.147 | 100x | 0.028 |



Ø 1.20 mm



Goupille fendue ; acier inoxydable.

Open-end pin ; stainless steel.

Splint ; Edelstahl.

Grupilla hendida ; acero inoxidable.

Copiglia spaccata ; acciaio inossidabile.

Cavilha rachada ; aço inoxidável.

100  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.282-04 | 4                  | 0.004 |
| 46.282-06 | 6                  | 0.006 |
| 46.282-08 | 8                  | 0.007 |
| 46.282-10 | 10                 | 0.010 |
| 46.282-12 | 12                 | 0.011 |
| 46.282-14 | 14                 | 0.013 |
| 46.282-15 | 15                 | 0.014 |
| 46.282-16 | 16                 | 0.015 |
| 46.282-17 | 17                 | 0.015 |
| 46.282-18 | 18                 | 0.017 |
| 46.282-19 | 19                 | 0.017 |
| 46.282-20 | 20                 | 0.018 |
| 46.282-21 | 21                 | 0.019 |
| 46.282-22 | 22                 | 0.020 |
| 46.282-23 | 23                 | 0.020 |
| 46.282-24 | 24                 | 0.021 |
| 46.282-25 | 25                 | 0.022 |
| 46.282-26 | 26                 | 0.024 |
| 46.282-27 | 27                 | 0.024 |
| 46.282-28 | 28                 | 0.025 |
| 46.282-29 | 29                 | 0.026 |
| 46.282-30 | 30                 | 0.027 |

10  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.292-04 | 4                  | 0.001 |
| 46.292-06 | 6                  | 0.001 |
| 46.292-08 | 8                  | 0.001 |
| 46.292-10 | 10                 | 0.001 |
| 46.292-12 | 12                 | 0.001 |
| 46.292-14 | 14                 | 0.001 |
| 46.292-15 | 15                 | 0.001 |
| 46.292-16 | 16                 | 0.002 |
| 46.292-17 | 17                 | 0.002 |
| 46.292-18 | 18                 | 0.002 |
| 46.292-19 | 19                 | 0.002 |
| 46.292-20 | 20                 | 0.002 |
| 46.292-21 | 21                 | 0.002 |
| 46.292-22 | 22                 | 0.002 |
| 46.292-23 | 23                 | 0.002 |
| 46.292-24 | 24                 | 0.002 |
| 46.292-25 | 25                 | 0.002 |
| 46.292-26 | 26                 | 0.003 |
| 46.292-27 | 27                 | 0.003 |
| 46.292-28 | 28                 | 0.003 |
| 46.292-29 | 29                 | 0.003 |
| 46.292-30 | 30                 | 0.003 |



Ø 1.20 mm



Assortiment de goupilles fendues ; acier inoxydable.  
 Assortment of open-end pins ; stainless steel.  
 Sortiment von Splinte ; Edelstahl.  
 Surtido de grupillas hendidas ; acero inoxidable.  
 Assortimento di copiglie spaccate ; acciaio inossidabile.  
 Sortido de cavilhas rachadas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**11 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.282-06 /-08 /-10 /-15 /-19 /-20**  
**20x MSA46.282-12**  
**30x MSA46.282-14 /-16 /-17 /-18**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.081 | 200x | 0.051 |



Ø 1.20 mm

Assortiment de goupilles fendues ; acier inoxydable.  
 Assortment of open-end pins ; stainless steel.  
 Sortiment von Splinte ; Edelstahl.  
 Surtido de grupillas hendidas ; acero inoxidable.  
 Assortimento di copiglie spaccate ; acciaio inossidabile.  
 Sortido de cavilhas rachadas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.282-21 /-22 /-23 /-24 /-25 /-26 /-27 /-28 /-29 /-30**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.148 | 100x | 0.050 |

Ø 0.90 mm



Goupille moletée; acier inoxydable.

*Knurled pin; stainless steel.*

Gerändelter Stift; Edelstahl.

*Grupilla moleteada; acero inoxidable.*

Copiglia zigrinata; acciaio inossidabile.

*Cavilha serrilhada; aço inoxidável.*

**100**  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.283-06 | 6                  | 0.004 |
| 46.283-08 | 8                  | 0.005 |
| 46.283-10 | 10                 | 0.007 |
| 46.283-12 | 12                 | 0.009 |
| 46.283-14 | 14                 | 0.010 |
| 46.283-16 | 16                 | 0.011 |
| 46.283-17 | 17                 | 0.012 |
| 46.283-18 | 18                 | 0.013 |
| 46.283-19 | 19                 | 0.014 |
| 46.283-20 | 20                 | 0.014 |
| 46.283-21 | 21                 | 0.015 |
| 46.283-22 | 22                 | 0.016 |
| 46.283-24 | 24                 | 0.018 |
| 46.283-26 | 26                 | 0.019 |
| 46.283-28 | 28                 | 0.021 |
| 46.283-30 | 30                 | 0.022 |

**10**  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.293-06 | 6                  | 0.001 |
| 46.293-08 | 8                  | 0.001 |
| 46.293-10 | 10                 | 0.001 |
| 46.293-12 | 12                 | 0.001 |
| 46.293-14 | 14                 | 0.001 |
| 46.293-16 | 16                 | 0.001 |
| 46.293-17 | 17                 | 0.001 |
| 46.293-18 | 18                 | 0.001 |
| 46.293-19 | 19                 | 0.001 |
| 46.293-20 | 20                 | 0.001 |
| 46.293-21 | 21                 | 0.001 |
| 46.293-22 | 22                 | 0.001 |
| 46.293-24 | 24                 | 0.001 |
| 46.293-26 | 26                 | 0.001 |
| 46.293-28 | 28                 | 0.001 |
| 46.293-30 | 30                 | 0.001 |

|   |                           |                           |                           |                           |                           |
|---|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 46.283<br>-06mm<br>10 pcs   | 46.283<br>-08mm<br>10 pcs | 46.283<br>-10mm<br>10 pcs | 46.283<br>-12mm<br>16 pcs | 46.283<br>-14mm<br>10 pcs | 46.283<br>-16mm<br>30 pcs |
| goupilles moletées en acier inox<br>knurled pins in stainless steel<br>grupillas moleteadas en acero inox<br>copiglie zigrinate in acciaio inox |                           |                           |                           |                           |                           |
| Ø 0.90  |                           |                           |                           |                           |                           |
| MSA 99.133  |                           |                           |                           |                           |                           |
| 200 pcs   |                           |                           |                           |                           |                           |
| 46.283<br>-17mm<br>10 pcs   | 46.283<br>-18mm<br>40 pcs | 46.283<br>-19mm<br>10 pcs | 46.283<br>-20mm<br>40 pcs | 46.283<br>-21mm<br>10 pcs | 46.283<br>-22mm<br>10 pcs |



Ø 0.90 mm

Assortiment de goupilles moletées; acier inoxydable.

Assortment of knurled pins; stainless steel.

Sortiment von gerändelten Stiften; Edelstahl.

Surtido de grupillas moleteadas; acero inoxidable.

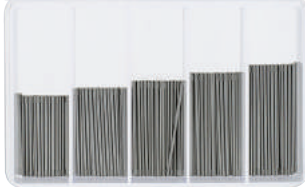
Assortimento di copiglie zigrinate; acciaio inossidabile.

Sortido de cavilhas serrilhadas; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.283-06 /-08 /-10 /-12 /-14 /-17 /-19 /-21 /-22**  
**30x MSA46.283-16**  
**40x MSA46.283-18 /-20**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.133 | 200x | 0.027 |

|   |                      |                      |                      |                      |
|---|----------------------|----------------------|----------------------|----------------------|
| MSA<br>46.283<br>-22  | MSA<br>46.283<br>-24 | MSA<br>46.283<br>-26 | MSA<br>46.283<br>-28 | MSA<br>46.283<br>-30 |
| goupilles moletées en acier inox<br>knurled pins in stainless steel<br>grupillas moleteadas en acero inox<br>copiglie zigrinate in acciaio inox |                      |                      |                      |                      |
| Ø 0.90 mm   |                      |                      |                      |                      |
| MSA 99.210  |                      |                      |                      |                      |
| 200 pcs   |                      |                      |                      |                      |



Ø 0.90 mm

Assortiment de goupilles moletées; acier inoxydable.

Assortment of knurled pins; stainless steel.

Sortiment von gerändelten Stiften; Edelstahl.

Surtido de grupillas moleteadas; acero inoxidable.

Assortimento di copiglie zigrinate; acciaio inossidabile.

Sortido de cavilhas serrilhadas; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**40x MSA46.283-22 /-24 /-26 /-28 /-30**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.210 | 200x | 0.050 |

Ø 1.00 mm



Goupille moletée; acier inoxydable.

*Knurled pin; stainless steel.*

Gerändelter Stift; Edelstahl.

*Grupilla moleteada; acero inoxidable.*

Copiglia zigrinata; acciaio inossidabile.

*Cavilha serrilhada; aço inoxidável.*

**100**  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.284-06 | 6                  | 0.004 |
| 46.284-08 | 8                  | 0.005 |
| 46.284-10 | 10                 | 0.007 |
| 46.284-12 | 12                 | 0.009 |
| 46.284-14 | 14                 | 0.010 |
| 46.284-16 | 16                 | 0.011 |
| 46.284-17 | 17                 | 0.012 |
| 46.284-18 | 18                 | 0.013 |
| 46.284-19 | 19                 | 0.014 |
| 46.284-20 | 20                 | 0.014 |
| 46.284-21 | 21                 | 0.015 |
| 46.284-22 | 22                 | 0.016 |
| 46.284-24 | 24                 | 0.018 |
| 46.284-26 | 26                 | 0.019 |
| 46.284-28 | 28                 | 0.021 |
| 46.284-30 | 30                 | 0.022 |

**10**  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.294-06 | 6                  | 0.001 |
| 46.294-08 | 8                  | 0.001 |
| 46.294-10 | 10                 | 0.001 |
| 46.294-12 | 12                 | 0.001 |
| 46.294-14 | 14                 | 0.001 |
| 46.294-16 | 16                 | 0.001 |
| 46.294-17 | 17                 | 0.001 |
| 46.294-18 | 18                 | 0.001 |
| 46.294-19 | 19                 | 0.001 |
| 46.294-20 | 20                 | 0.001 |
| 46.294-21 | 21                 | 0.001 |
| 46.294-22 | 22                 | 0.001 |
| 46.294-24 | 24                 | 0.001 |
| 46.294-26 | 26                 | 0.001 |
| 46.294-28 | 28                 | 0.001 |
| 46.294-30 | 30                 | 0.001 |

|  |                           |                           |                           |                           |                           |
|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| 46.284<br>-06mm<br>10 pcs  | 46.284<br>-08mm<br>10 pcs | 46.284<br>-10mm<br>10 pcs | 46.284<br>-12mm<br>10 pcs | 46.284<br>-14mm<br>10 pcs | 46.284<br>-18mm<br>30 pcs |
| goupilles molétées en acier inox<br>knurled pins in stainless steel<br>grupillas moleteadas en acero inox<br>copiglie zigrinate in acciaio inox<br>Ø 1.00<br>MSA 99.134<br>200 pcs |                           |                           |                           |                           |                           |
| 46.284<br>-17mm<br>10 pcs  | 46.284<br>-18mm<br>40 pcs | 46.284<br>-19mm<br>10 pcs | 46.284<br>-20mm<br>40 pcs | 46.284<br>-21mm<br>10 pcs | 46.284<br>-22mm<br>10 pcs |



Ø 1.00 mm

Assortiment de goupilles molétées; acier inoxydable.

Assortment of knurled pins; stainless steel.

Sortiment von gerändelten Stiften; Edelstahl.

Surtido de grupillas moleteadas; acero inoxidable.

Assortimento di copiglie zigrinate; acciaio inossidabile.

Sortido de cavilhas serrilhadas; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.284-06 /-08 /-10 /-12 /-14 /-17 /-19 /-21 /-22**  
**30x MSA46.284-16**  
**40x MSA46.284-18 /-20**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.134 | 200x | 0.027 |

|   |                      |                      |                      |                      |
|---|----------------------|----------------------|----------------------|----------------------|
| MSA<br>46.284<br>-22  | MSA<br>46.284<br>-24 | MSA<br>46.284<br>-26 | MSA<br>46.284<br>-28 | MSA<br>46.284<br>-30 |
| goupilles molétées en acier inox<br>knurled pins in stainless steel<br>grupillas moleteadas en acero inox<br>copiglie zigrinate in acciaio inox<br>Ø 1.00 mm<br>MSA 99.211<br>200 pcs |                      |                      |                      |                      |



Ø 1.00 mm

Assortiment de goupilles molétées; acier inoxydable.

Assortment of knurled pins; stainless steel.

Sortiment von gerändelten Stiften; Edelstahl.

Surtido de grupillas moleteadas; acero inoxidable.

Assortimento di copiglie zigrinate; acciaio inossidabile.

Sortido de cavilhas serrilhadas; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**40x MSA46.284-22 /-24 /-26 /-28 /-30**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.211 | 200x | 0.056 |

Ø 1.10 mm



Goupille moletée; acier inoxydable.

*Knurled pin; stainless steel.*

Gerändelter Stift; Edelstahl.

*Grupilla moleteada; acero inoxidable.*

Copiglia zigrinata; acciaio inossidabile.

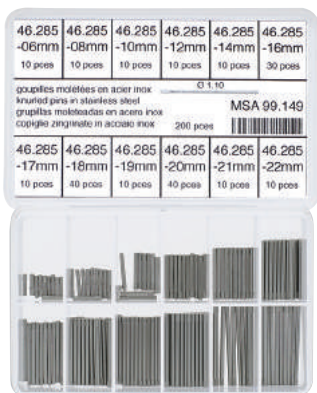
*Cavilha serrilhada; aço inoxidável.*

**100**  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.285-06 | 6                  | 0.005 |
| 46.285-08 | 8                  | 0.006 |
| 46.285-10 | 10                 | 0.008 |
| 46.285-12 | 12                 | 0.010 |
| 46.285-14 | 14                 | 0.011 |
| 46.285-16 | 16                 | 0.012 |
| 46.285-17 | 17                 | 0.013 |
| 46.285-18 | 18                 | 0.014 |
| 46.285-19 | 19                 | 0.015 |
| 46.285-20 | 20                 | 0.015 |
| 46.285-21 | 21                 | 0.016 |
| 46.285-22 | 22                 | 0.017 |
| 46.285-24 | 24                 | 0.019 |
| 46.285-26 | 26                 | 0.020 |
| 46.285-28 | 28                 | 0.022 |
| 46.285-30 | 30                 | 0.023 |

**10**  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.295-06 | 6                  | 0.001 |
| 46.295-08 | 8                  | 0.001 |
| 46.295-10 | 10                 | 0.001 |
| 46.295-12 | 12                 | 0.001 |
| 46.295-14 | 14                 | 0.001 |
| 46.295-16 | 16                 | 0.001 |
| 46.295-17 | 17                 | 0.001 |
| 46.295-18 | 18                 | 0.001 |
| 46.295-19 | 19                 | 0.001 |
| 46.295-20 | 20                 | 0.001 |
| 46.295-21 | 21                 | 0.001 |
| 46.295-22 | 22                 | 0.001 |
| 46.295-24 | 24                 | 0.001 |
| 46.295-26 | 26                 | 0.001 |
| 46.295-28 | 28                 | 0.001 |
| 46.295-30 | 30                 | 0.001 |



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.149 | 200x | 0.050 |

Ø 1.10 mm

Assortiment de goupilles moletées; acier inoxydable.  
 Assortment of knurled pins; stainless steel.  
 Sortiment von gerändelten Stiften; Edelstahl.  
 Surtido de grupillas moleteadas; acero inoxidable.  
 Assortimento di copiglie zigrinate; acciaio inossidabile.  
 Sortido de cavilhas serrilhadas; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.285-06 /-08 /-10 /-12 /-14 /-17 /-19 /-21 /-22**  
**30x MSA46.285-16**  
**40x MSA46.285-18 /-20**



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.212 | 200x | 0.063 |

Ø 1.10 mm

Assortiment de goupilles moletées; acier inoxydable.  
 Assortment of knurled pins; stainless steel.  
 Sortiment von gerändelten Stiften; Edelstahl.  
 Surtido de grupillas moleteadas; acero inoxidable.  
 Assortimento di copiglie zigrinate; acciaio inossidabile.  
 Sortido de cavilhas serrilhadas; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**40x MSA46.285-22 /-24 /-26 /-28 /-30**



Ø 1.20 mm



Goupille moletée; acier inoxydable.

*Knurled pin; stainless steel.*

Gerändelter Stift; Edelstahl.

*Grupilla moleteada; acero inoxidable.*

Copiglia zigrinata; acciaio inossidabile.

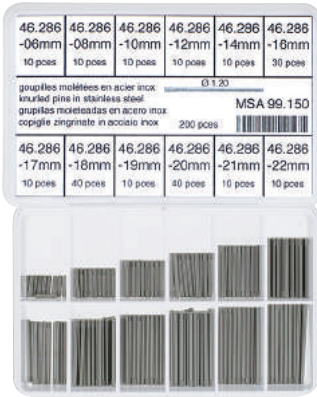
*Cavilha serrilhada; aço inoxidável.*

**100**  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.286-06 | 6                  | 0.006 |
| 46.286-08 | 8                  | 0.008 |
| 46.286-10 | 10                 | 0.009 |
| 46.286-12 | 12                 | 0.011 |
| 46.286-14 | 14                 | 0.013 |
| 46.286-16 | 16                 | 0.015 |
| 46.286-17 | 17                 | 0.015 |
| 46.286-18 | 18                 | 0.017 |
| 46.286-19 | 19                 | 0.017 |
| 46.286-20 | 20                 | 0.018 |
| 46.286-21 | 21                 | 0.019 |
| 46.286-22 | 22                 | 0.020 |
| 46.286-24 | 24                 | 0.021 |
| 46.286-26 | 26                 | 0.023 |
| 46.286-28 | 28                 | 0.025 |
| 46.286-30 | 30                 | 0.027 |

**10**  
pcs

| MSA       | Longueur/Length mm | Kg    |
|-----------|--------------------|-------|
| 46.296-06 | 6                  | 0.001 |
| 46.296-08 | 8                  | 0.001 |
| 46.296-10 | 10                 | 0.001 |
| 46.296-12 | 12                 | 0.001 |
| 46.296-14 | 14                 | 0.001 |
| 46.296-16 | 16                 | 0.001 |
| 46.296-17 | 17                 | 0.001 |
| 46.296-18 | 18                 | 0.001 |
| 46.296-19 | 19                 | 0.001 |
| 46.296-20 | 20                 | 0.001 |
| 46.296-21 | 21                 | 0.001 |
| 46.296-22 | 22                 | 0.001 |
| 46.296-24 | 24                 | 0.001 |
| 46.296-26 | 26                 | 0.001 |
| 46.296-28 | 28                 | 0.001 |
| 46.296-30 | 30                 | 0.001 |

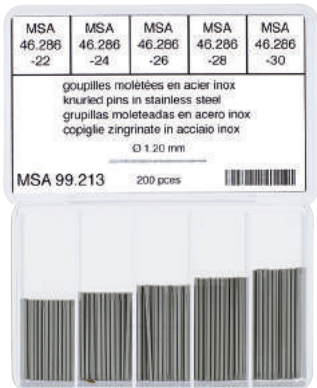


| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.150 | 200x | 0.054 |

Ø 1.20 mm

Assortiment de goupilles moletées; acier inoxydable.  
 Assortment of knurled pins; stainless steel.  
 Sortiment von gerändelten Stiften; Edelstahl.  
 Surtido de grupillas moleteadas; acero inoxidable.  
 Assortimento di copiglie zigrinate; acciaio inossidabile.  
 Sortido de cavilhas serrilhadas; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA46.286-06 /-08 /-10 /-12 /-14 /-17 /-19 /-21 /-22**  
**30x MSA46.286-16**  
**40x MSA46.286-18 /-20**

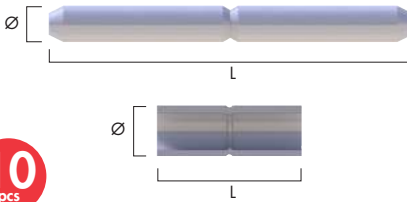


| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.213 | 200x | 0.070 |

Ø 1.20 mm

Assortiment de goupilles moletées; acier inoxydable.  
 Assortment of knurled pins; stainless steel.  
 Sortiment von gerändelten Stiften; Edelstahl.  
 Surtido de grupillas moleteadas; acero inoxidable.  
 Assortimento di copiglie zigrinate; acciaio inossidabile.  
 Sortido de cavilhas serrilhadas; aço inoxidável.

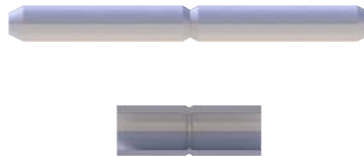
**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**5 modèles - models - Modelle - modelos - modelli - modelos**  
**40x MSA46.286-22 /-24 /-26 /-28 /-30**



10  
pcs

| MSA       | Tube/Tube<br>L x Ø mm | Goupille/Pin<br>L x Ø mm | Kg    |
|-----------|-----------------------|--------------------------|-------|
| 46.815-10 | 12 x 1.00             | 30 x 0.70                | 0.003 |
| 46.815-11 | 12 x 1.10             | 30 x 0.80                | 0.003 |
| 46.815-12 | 12 x 1.20             | 30 x 0.90                | 0.003 |
| 46.815-13 | 12 x 1.30             | 30 x 1.00                | 0.003 |
| 46.815-15 | 12 x 1.50             | 30 x 1.10                | 0.003 |
| 46.815-16 | 12 x 1.60             | 30 x 1.20                | 0.003 |
| 46.815-17 | 12 x 1.70             | 30 x 1.30                | 0.003 |
| 46.815-18 | 12 x 1.80             | 30 x 1.40                | 0.003 |

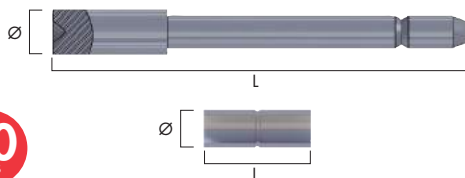
Tube et goupille avec **encoche centrale** ; acier inoxydable.  
 Tube and pin with **central notch** ; stainless steel.  
 Rohr und Stift mit **zentraler Kerbe** ; Edelstahl.  
 Tubo y grupilla con **muesca central** ; acero inoxidable.  
 Tubo e copiglia con **tacca centrale** ; acciaio inossidabile.  
 Tubo e cavilha com **entalhe central** ; aço inoxidável.



Assortiment de tubes et goupilles avec **encoche centrale** ; acier inoxydable.  
 Assortment of tubes and pins with **central notch** ; stainless steel.  
 Sortiment von Röhre und Stiften mit **zentraler Kerbe** ; Edelstahl.  
 Surtido de tubos y grupillas con **muesca central** ; acero inoxidable.  
 Assortimento di tubi e copiglie con **tacca centrale** ; acciaio inossidabile.  
 Sortido de tubos e cavilhas com **entalhe central** ; aço inoxidável.

| MSA    | Qt.       | Kg    |
|--------|-----------|-------|
| 99.251 | 40x + 40x | 0.040 |

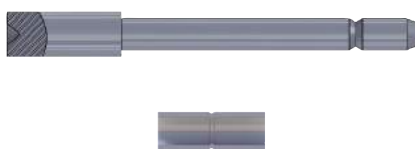
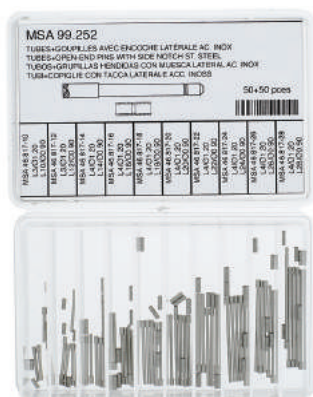
**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA46.815-10 /-11 /-12 /-13 /-15 /-16 /-17 /-18**



Tube et goupille avec **encoche latérale** ; acier inoxydable.  
 Tube and pin with **side notch** ; stainless steel.  
 Rohr und Stift mit **seiten Kerbe** ; Edelstahl.  
 Tubo y grupilla con **muesca lateral** ; acero inoxidable.  
 Tubo e copiglia con **tacca laterale** ; acciaio inossidabile.  
 Tubo e cavilha com **entalhe lateral** ; aço inoxidável.

| MSA       | Tube/Tube<br>L x Ø mm | Goupille/Pin<br>L x Ø mm | Kg    |
|-----------|-----------------------|--------------------------|-------|
| 46.817-08 | 3 x 1.20              | 8 x 0.90                 | 0.004 |
| 46.817-09 | 3 x 1.20              | 9 x 0.90                 | 0.004 |
| 46.817-10 | 3 x 1.20              | 10 x 0.90                | 0.004 |
| 46.817-11 | 3 x 1.20              | 11 x 0.90                | 0.004 |
| 46.817-12 | 3 x 1.20              | 12 x 0.90                | 0.004 |
| 46.817-13 | 3 x 1.20              | 13 x 0.90                | 0.004 |
| 46.817-14 | 4 x 1.20              | 14 x 0.90                | 0.004 |
| 46.817-15 | 4 x 1.20              | 15 x 0.90                | 0.004 |
| 46.817-16 | 4 x 1.20              | 16 x 0.90                | 0.004 |
| 46.817-17 | 4 x 1.20              | 17 x 0.90                | 0.004 |
| 46.817-18 | 4 x 1.20              | 18 x 0.90                | 0.004 |
| 46.817-19 | 4 x 1.20              | 19 x 0.90                | 0.004 |

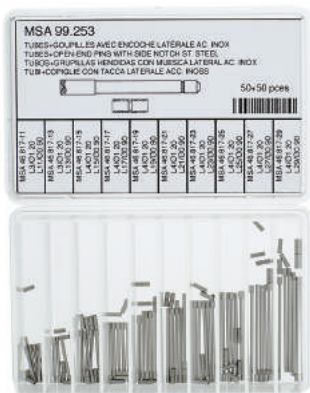
| MSA       | Tube/Tube<br>L x Ø mm | Goupille/Pin<br>L x Ø mm | Kg    |
|-----------|-----------------------|--------------------------|-------|
| 46.817-20 | 4 x 1.20              | 20 x 0.90                | 0.004 |
| 46.817-21 | 4 x 1.20              | 21 x 0.90                | 0.004 |
| 46.817-22 | 4 x 1.20              | 22 x 0.90                | 0.004 |
| 46.817-23 | 4 x 1.20              | 23 x 0.90                | 0.004 |
| 46.817-24 | 4 x 1.20              | 24 x 0.90                | 0.004 |
| 46.817-25 | 4 x 1.20              | 25 x 0.90                | 0.004 |
| 46.817-26 | 4 x 1.20              | 26 x 0.90                | 0.004 |
| 46.817-27 | 4 x 1.20              | 27 x 0.90                | 0.004 |
| 46.817-28 | 4 x 1.20              | 28 x 0.90                | 0.004 |
| 46.817-29 | 4 x 1.20              | 29 x 0.90                | 0.004 |
| 46.817-30 | 4 x 1.20              | 30 x 0.90                | 0.004 |



Assortiment de tubes et goupilles avec **encoche latérale** ; acier inoxydable.  
 Assortment of tubes and pins with **side notch** ; stainless steel.  
 Sortiment von Röhre und Stiften mit **seiten Kerbe** ; Edelstahl.  
 Surtido de tubos y grupillas con **muesca lateral** ; acero inoxidable.  
 Assortimento di tubi e copiglie con **tacca laterale** ; acciaio inossidabile.  
 Sortido de tubos e cavilhas com **entalhe lateral** ; aço inoxidável.

| MSA    | Qt.       | Kg    |
|--------|-----------|-------|
| 99.252 | 50x + 50x | 0.050 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 10 modèles - models - Modelle - modelos - modelli - modelos  
 5x MSA46.817-10 /-12 /-14 /-16 /-18 /-20 /-22 /-24 /-26 /-28**



Assortiment de tubes et goupilles avec **encoche latérale** ; acier inoxydable.  
 Assortment of tubes and pins with **side notch** ; stainless steel.  
 Sortiment von Röhre und Stiften mit **seiten Kerbe** ; Edelstahl.  
 Surtido de tubos y grupillas con **muesca lateral** ; acero inoxidable.  
 Assortimento di tubi e copiglie con **tacca laterale** ; acciaio inossidabile.  
 Sortido de tubos e cavilhas com **entalhe lateral** ; aço inoxidável.

| MSA    | Qt.       | Kg    |
|--------|-----------|-------|
| 99.253 | 50x + 50x | 0.050 |



Assortiment de goupilles coniques ; laiton.  
 Assortment of conical pins ; brass.  
 Sortiment von konische Stiften ; Messing.  
 Surtido de grupillas cónicas ; latón.  
 Assortimento di copiglie coniche ; ottone.  
 Sortido de cavilhas cónicas ; latão.

| PERF   | Qt.  | Kg    |
|--------|------|-------|
| 48.000 | 100x | 0.027 |



Assortiment de goupilles coniques ; acier.  
 Assortment of conical pins ; steel.  
 Sortiment von konische Stiften ; Stahl.  
 Surtido de grupillas cónicas ; acero.  
 Assortimento di copiglie coniche ; acciaio.  
 Sortido de cavilhas cónicas ; aço.

| PERF   | Qt.  | Kg    |
|--------|------|-------|
| 48.001 | 100x | 0.026 |



AIGUILLES HANDS ZEIGER AGUJAS LANCETTE PONTEIROS

Aiguilles pour montres

*Hands for watches*

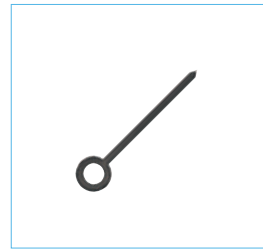
Zeiger für Uhren

*Agujas para relojes*

Lancette per orologi

*Ponteiros para relógios*

*(Laiton - Brass - Messing - Latón - Ottone - Latão)*



2

Aiguilles pour montres anciennes

*Hands for old watches*

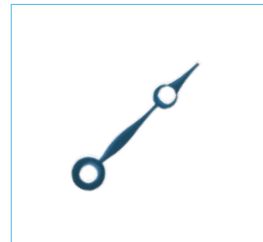
Zeiger für alte Uhren

*Agujas para relojes antiguos*

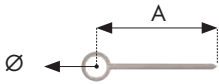
Lancette per orologi antichi

*Ponteiros para relógios antigos*

*(Laiton - Brass - Messing - Latón - Ottone - Latão)*



14



10  
pcs

Aiguille pour montres emballées sur carte ; couleur nickel, jaune et noire.  
 Hand for watches packed on card ; nickel colour, yellow and black.  
 Zeiger für Uhren auf Karte verpackt ; Nickel-Farbe, gelb und schwarz.  
 Aguja para relojes embaladas en tarjeta ; color níquel, amarilla y negra.  
 Lancetta per orologi imballate su carta ; colore nichel, gialla e nera.  
 Ponteiro para relógios embalados num cartão ; cor níquel, amarelo e preto.

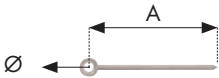
**Heures - Hours - Stunden - Horas - Ore - Horas:**

| MSA    | Nickel/<br>Nickel | Ø<br>mm | A<br>mm | MSA    | Jaune/<br>Yellow | MSA    | Noir/<br>Black |
|--------|-------------------|---------|---------|--------|------------------|--------|----------------|
| 45.200 | ○                 | 0.80    | 8.5     | 45.600 | ○                | 45.900 | ○              |
| 45.201 | ○                 | 0.90    | 8.5     | 45.601 | ○                | 45.901 | ○              |
| 45.202 | ○                 | 1.00    | 8.5     | 45.602 | ○                | 45.902 | ○              |
| 45.203 | ○                 | 1.10    | 8.5     | 45.603 | ○                | 45.903 | ○              |
| 45.206 | ○                 | 1.20    | 6.0     | 45.606 | ○                | 45.906 | ○              |
| 45.205 | ○                 | 1.20    | 7.5     | 45.605 | ○                | 45.905 | ○              |
| 45.204 | ○                 | 1.20    | 8.5     | 45.604 | ○                | 45.904 | ○              |
| 45.207 | ○                 | 1.30    | 8.5     | 45.607 | ○                | 45.907 | ○              |
| 45.208 | ○                 | 1.50    | 8.5     | 45.608 | ○                | 45.908 | ○              |

Kg 0.004

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**Minutes - Minutes - Minuten - Minutos - Minuti - Minutos:**



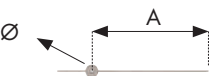
10  
pcs

| MSA    | Nickel/<br>Nickel | Ø<br>mm | A<br>mm | MSA    | Jaune/<br>Yellow | MSA    | Noir/<br>Black |
|--------|-------------------|---------|---------|--------|------------------|--------|----------------|
| 45.300 | ○                 | 0.40    | 12.5    | 45.700 | ○                | 45.500 | ○              |
| 45.301 | ○                 | 0.50    | 12.5    | 45.701 | ○                | 45.501 | ○              |
| 45.302 | ○                 | 0.55    | 12.5    | 45.702 | ○                | 45.502 | ○              |
| 45.303 | ○                 | 0.60    | 12.5    | 45.703 | ○                | 45.503 | ○              |
| 45.309 | ○                 | 0.65    | 12.5    | 45.709 | ○                | 45.509 | ○              |
| 45.306 | ○                 | 0.70    | 8.5     | 45.706 | ○                | 45.506 | ○              |
| 45.305 | ○                 | 0.70    | 10.5    | 45.705 | ○                | 45.505 | ○              |
| 45.304 | ○                 | 0.70    | 12.5    | 45.704 | ○                | 45.504 | ○              |
| 45.307 | ○                 | 0.80    | 12.5    | 45.707 | ○                | 45.507 | ○              |
| 45.308 | ○                 | 0.90    | 12.5    | 45.708 | ○                | 45.508 | ○              |

Kg 0.004

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**Seconde au centre - Centre second - Zentrumsekunden - Segundero central -  
 Secondi al centro - Segundo ao centro:**

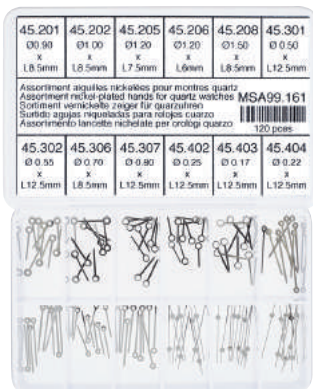


10  
pcs

| MSA    | Nickel/<br>Nickel | Ø<br>mm | A<br>mm | MSA    | Jaune/<br>Yellow | MSA    | Noir/<br>Black |
|--------|-------------------|---------|---------|--------|------------------|--------|----------------|
| 45.403 | ●                 | 0.17    | 12.5    | 45.803 | ●                | 45.853 | ●              |
| 45.400 | ●                 | 0.18    | 12.5    | 45.800 | ●                | 45.850 | ●              |
| 45.401 | ●                 | 0.20    | 12.5    | 45.801 | ●                | 45.851 | ●              |
| 45.404 | ●                 | 0.22    | 12.5    | 45.804 | ●                | 45.854 | ●              |
| 45.402 | ●                 | 0.25    | 12.5    | 45.802 | ●                | 45.852 | ●              |

Kg 0.004

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Assortiment d'aiguilles couleur nickel pour montres ; heures, minutes et secondes au centre.

Assortment of nickel colour hands for watches ; hours, minutes and centre seconds.

Sortiment von Nickel-Farbe Zeiger für Uhren ; Stunden, Minuten und Zentrumsekunden.

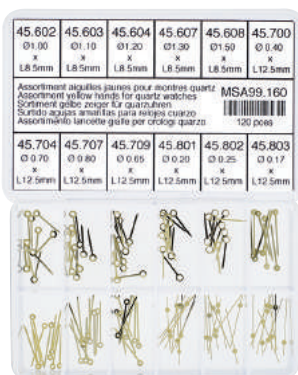
Sortido de agujas color níquel para relojes ; horas, minutos y segunderos centrales.

Assortimento di lancette colore nichel per orologi ; ore, minuti e secondi al centro.

Sortido de ponteiros cor níquel para relógios ; horas, minutos e segundos ao centro.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA45.201 (Ø 0.90 mm) /.202 (1.00) /.205 (1.20) /.206**  
**(1.20) /.208 (1.50) /.301 (0.50) /.302 (0.55) /.306 (0.70) /.307**  
**(0.80) /.402 (0.25) /.403 (0.17) /.404 (0.22)**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.161 | 120x | 0.026 |



Assortiment d'aiguilles jaunes pour montres ; heures, minutes et secondes au centre.

Assortment of yellow hands for watches ; hours, minutes and centre seconds.

Sortiment von gelbe Zeiger für Uhren ; Stunden, Minuten und Zentrumsekunden.

Sortido de agujas amarillas para relojes ; horas, minutos y segunderos centrales.

Assortimento di lancette gialle per orologi ; ore, minuti e secondi al centro.

Sortido de ponteiros amarelos para relógios ; horas, minutos e segundos ao centro.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA45.602 (Ø 1.00 mm) /.603 (1.10) /.604 (1.20) /.607**  
**(1.30) /.608 (1.50) /.700 (0.40) /.704 (0.70) /.707 (0.80) /.709**  
**(0.65) /.801 (0.20) /.802 (0.25) /.803 (0.17)**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.160 | 120x | 0.026 |

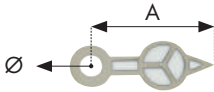




Assortiment d'aiguilles noires pour montres ; heures, minutes et secondes au centre.  
 Assortiment of black hands for watches ; hours, minutes and centre seconds.  
 Sortiment von schwarze Zeiger für Uhren ; Stunden, Minuten und Zentrumsekunden.  
 Surtido de agujas negras para relojes ; horas, minutos y segunderos centrales.  
 Assortimento di lancette nere per orologi ; ore, minuti e secondi al centro.  
 Sortido de ponteiros pretos para relógios ; horas, minutos e segundos ao centro.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.162 | 120x | 0.026 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA45.500 (Ø 0.40 mm) /.501 (0.50) /.505 (0.70) /.508**  
**(0.90) /.509 (0.65) /.850 (0.18) /.852 (0.25) /.853 (0.17) /.900**  
**(0.80) /.901 (0.90) /.902 (1.00) /.904 (1.20)**



10 pcs

Aiguille lumineuse pour montres emballées sur carte ; couleur nickel et jaune.  
 Luminous hand for watches packed on card ; nickel colour and yellow.  
 Leuchtzeiger für Uhren auf Karte verpackt ; Nickel-Farbe und gelb.  
 Aguja luminosa para relojes embaladas en tarjeta ; color níquel y amarilla.  
 Lancetta luminosa per orologi imballate su carta ; colore nichel e gialla.  
 Ponteiro luminoso para relógios embalados num cartão ; cor níquel e amarelo.

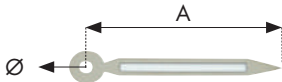
**Heures - Hours - Stunden - Horas - Ore - Horas :**

| MSA    | Nickel/Nickel | Ø mm | A mm | MSA    | Jaune/Yellow |
|--------|---------------|------|------|--------|--------------|
| 45.223 |               | 1.00 | 6    | 45.623 |              |
| 45.224 |               | 1.00 | 8    | 45.624 |              |
| 45.225 |               | 1.10 | 6    | 45.625 |              |
| 45.226 |               | 1.10 | 8    | 45.626 |              |
| 45.227 |               | 1.20 | 6    | 45.627 |              |
| 45.228 |               | 1.20 | 8    | 45.628 |              |
| 45.229 |               | 1.20 | 10   | 45.629 |              |
| 45.230 |               | 1.50 | 8    | 45.630 |              |
| 45.231 |               | 1.50 | 10   | 45.631 |              |
| 45.232 |               | 2.00 | 8    | 45.632 |              |
| 45.233 |               | 2.00 | 10   | 45.633 |              |

Kg 0.004

1/1

**Minutes - Minutes - Minuten - Minutos - Minuti - Minutos:**



10 pcs

| MSA    | Nickel/Nickel | Ø mm | A mm | MSA    | Jaune/Yellow |
|--------|---------------|------|------|--------|--------------|
| 45.323 |               | 0.55 | 9    | 45.723 |              |
| 45.324 |               | 0.55 | 12   | 45.724 |              |
| 45.325 |               | 0.60 | 9    | 45.725 |              |
| 45.326 |               | 0.60 | 12   | 45.726 |              |
| 45.334 |               | 0.65 | 12   | 45.734 |              |
| 45.327 |               | 0.70 | 9    | 45.727 |              |
| 45.328 |               | 0.70 | 12.5 | 45.728 |              |
| 45.329 |               | 0.70 | 15   | 45.729 |              |
| 45.330 |               | 0.90 | 12.5 | 45.730 |              |
| 45.331 |               | 0.90 | 15   | 45.731 |              |
| 45.332 |               | 1.20 | 12.5 | 45.732 |              |
| 45.333 |               | 1.20 | 15   | 45.733 |              |

Kg 0.004

1/1

**Secondes - Seconds - Sekunden - Segundos - Secondi - Segundos:**

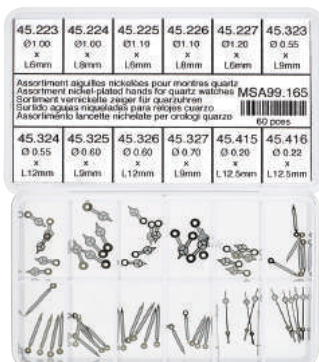


10 pcs

| MSA    | Nickel/Nickel | Ø mm | A mm | MSA    | Jaune/Yellow |
|--------|---------------|------|------|--------|--------------|
| 45.414 |               | 0.18 | 12.5 | 45.814 |              |
| 45.415 |               | 0.20 | 12.5 | 45.815 |              |
| 45.416 |               | 0.22 | 12.5 | 45.816 |              |
| 45.417 |               | 0.22 | 15   | 45.817 |              |
| 45.418 |               | 0.23 | 12.5 | 45.818 |              |
| 45.419 |               | 0.23 | 15   | 45.819 |              |
| 45.420 |               | 0.25 | 12.5 | 45.820 |              |
| 45.421 |               | 0.25 | 15   | 45.821 |              |

Kg 0.004

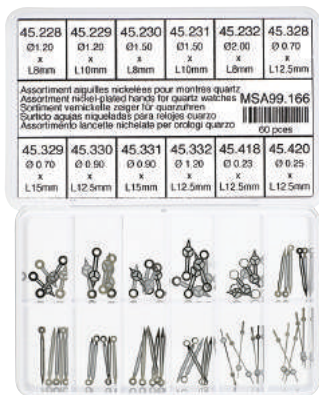
1/1



Assortiment d'aiguilles lumineuses couleur nickel pour montres ; heures, minutes et secondes.  
 Assortment of nickel colour luminous hands for watches ; hours, minutes and seconds.  
 Sortiment von Nickel-Farbe Leuchtzeiger für Uhren ; Stunden, Minuten und Sekunden.  
 Sortido de agujas luminosas color níquel para relojes ; horas, minutos y segundos.  
 Assortimento di lancette luminose colore nichel per orologi ; ore, minuti e secondi.  
 Sortido de ponteiros luminosos cor níquel para relógios ; horas, minutos e segundos.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.223 (Ø 1.00 mm) /.224 (1.00) /.225 (1.10) /.226**  
**(1.10) /.227 (1.20) /.323 (0.55) /.324 (0.55) /.325 (0.60) /.326**  
**(0.60) /.327 (0.70) /.415 (0.20) /.416 (0.22)**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.165 | 60x | 0.026 |



Assortiment d'aiguilles lumineuses couleur nickel pour montres ; heures, minutes et secondes.  
 Assortment of nickel colour luminous hands for watches ; hours, minutes and seconds.  
 Sortiment von Nickel-Farbe Leuchtzeiger für Uhren ; Stunden, Minuten und Sekunden.  
 Sortido de agujas luminosas color níquel para relojes ; horas, minutos y segundos.  
 Assortimento di lancette luminose colore nichel per orologi ; ore, minuti e secondi.  
 Sortido de ponteiros luminosos cor níquel para relógios ; horas, minutos e segundos.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.228 (Ø 1.20 mm) /.229 (1.20) /.230 (1.50) /.231**  
**(1.50) /.232 (2.00) /.328 (0.70) /.329 (0.70) /.330 (0.90) /.331**  
**(0.90) /.332 (1.20) /.418 (0.23) /.420 (0.25)**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.166 | 60x | 0.026 |



Assortiment d'aiguilles lumineuses jaunes pour montres ; heures, minutes et secondes.  
 Assortment of yellow luminous hands for watches ; hours, minutes and seconds.  
 Sortiment von gelbe Leuchtzeiger für Uhren ; Stunden, Minuten und Sekunden.  
 Sortido de agujas luminosas amarillas para relojes ; horas, minutos y segundos.  
 Assortimento di lancette luminose gialle per orologi ; ore, minuti e secondi.  
 Sortido de ponteiros luminosos amarelos para relógios ; horas, minutos e segundos.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.623 (Ø 1.00 mm) /.624 (1.00) /.625 (1.10) /.626**  
**(1.10) /.627 (1.20) /.723 (0.55) /.724 (0.55) /.725 (0.60) /.726**  
**(0.60) /.727 (0.70) /.815 (0.20) /.816 (0.22)**

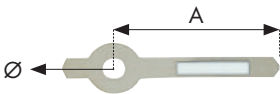
| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.163 | 60x | 0.026 |



Assortiment d'aiguilles lumineuses jaunes pour montres ; heures, minutes et secondes.  
 Assortment of yellow luminous hands for watches ; hours, minutes and seconds.  
 Sortiment von gelbe Leuchtzeiger für Uhren ; Stunden, Minuten und Sekunden.  
 Sortido de agujas luminosas amarillas para relojes ; horas, minutos y segundos.  
 Assortimento di lancette luminose gialle per orologi ; ore, minuti e secondi.  
 Sortido de ponteiros luminosos amarelos para relógios ; horas, minutos e segundos.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.628 (Ø 1.20 mm) /.629 (1.20) /.630 (1.50) /.631**  
**(1.50) /.632 (2.00) /.728 (0.70) /.729 (0.70) /.730 (0.90) /.731**  
**(0.90) /.732 (1.20) /.818 (0.23) /.820 (0.25)**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.164 | 60x | 0.026 |



10 pcs

Aiguille lumineuse pour montres emballées sur carte ; couleur nickel et jaune.

Luminous hand for watches packed on card ; nickel colour and yellow.

Leuchtzeiger für Uhren auf Karte verpackt ; Nickel-Farbe und gelb.

Aguja luminosa para relojes embaladas en tarjeta ; color níquel y amarilla.

Lancetta luminosa per orologi imballate su carta ; colore nichel e gialla.

Ponteiro luminoso para relógios embalados num cartão ; cor níquel e amarelo.

**Heures - Hours - Stunden - Horas - Ore - Horas:**

| MSA    | Nickel/Nickel | Ø mm | A mm | MSA    | Jaune/Yellow |
|--------|---------------|------|------|--------|--------------|
| 45.210 |               | 1.00 | 6    | 45.610 |              |
| 45.211 |               | 1.00 | 8    | 45.611 |              |
| 45.212 |               | 1.10 | 6    | 45.612 |              |
| 45.213 |               | 1.10 | 8    | 45.613 |              |
| 45.214 |               | 1.20 | 6    | 45.614 |              |
| 45.215 |               | 1.20 | 8    | 45.615 |              |
| 45.216 |               | 1.20 | 10   | 45.616 |              |
| 45.217 |               | 1.50 | 8    | 45.617 |              |
| 45.218 |               | 1.50 | 10   | 45.618 |              |
| 45.221 |               | 2.00 | 8    | 45.621 |              |
| 45.219 |               | 2.00 | 8.5  | 45.619 |              |
| 45.220 |               | 2.00 | 10   | 45.620 |              |

Kg 0.004 1/1

**Minutes - Minutes - Minuten - Minutos - Minuti - Minutos:**



10 pcs

| MSA    | Nickel/Nickel | Ø mm | A mm | MSA    | Jaune/Yellow |
|--------|---------------|------|------|--------|--------------|
| 45.310 |               | 0.55 | 9    | 45.710 |              |
| 45.311 |               | 0.55 | 12   | 45.711 |              |
| 45.312 |               | 0.60 | 9    | 45.712 |              |
| 45.313 |               | 0.60 | 12   | 45.713 |              |
| 45.335 |               | 0.65 | 12   | 45.735 |              |
| 45.314 |               | 0.70 | 9    | 45.714 |              |
| 45.315 |               | 0.70 | 12.5 | 45.715 |              |
| 45.316 |               | 0.70 | 15   | 45.716 |              |
| 45.317 |               | 0.90 | 12.5 | 45.717 |              |
| 45.318 |               | 0.90 | 15   | 45.718 |              |
| 45.319 |               | 1.20 | 12.5 | 45.719 |              |
| 45.320 |               | 1.20 | 15   | 45.720 |              |
| 45.321 |               | 1.50 | 12.5 | 45.721 |              |
| 45.322 |               | 1.50 | 15   | 45.722 |              |

Kg 0.004 1/1

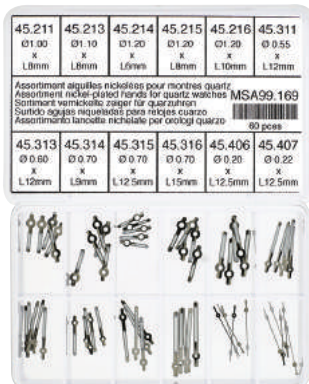
**Seconds - Seconds - Sekunden - Segunderos - Secondi - Segundos:**



10 pcs

| MSA    | Nickel/Nickel | Ø mm | A mm | MSA    | Jaune/Yellow |
|--------|---------------|------|------|--------|--------------|
| 45.405 |               | 0.18 | 12.5 | 45.805 |              |
| 45.406 |               | 0.20 | 12.5 | 45.806 |              |
| 45.407 |               | 0.22 | 12.5 | 45.807 |              |
| 45.408 |               | 0.22 | 15   | 45.808 |              |
| 45.409 |               | 0.23 | 12.5 | 45.809 |              |
| 45.410 |               | 0.23 | 15   | 45.810 |              |
| 45.411 |               | 0.25 | 12.5 | 45.811 |              |
| 45.412 |               | 0.25 | 15   | 45.812 |              |
| 45.413 |               | 0.27 | 12.5 | 45.813 |              |

Kg 0.004 1/1



Assortiment d'aiguilles lumineuses couleur nickel pour montres ; heures, minutes et secondes.

Assortiment of nickel colour luminous hands for watches ; hours, minutes and seconds.

Sortiment von Nickel-Farbe Leuchtzeiger für Uhren ; Stunden, Minuten und Sekunden.

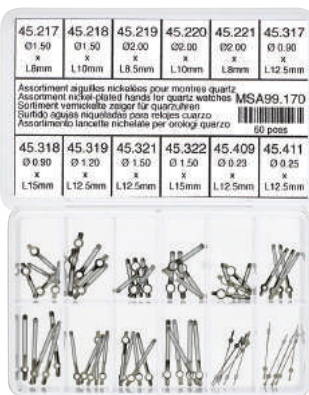
Surtido de agujas luminosas color níquel para relojes ; horas, minutos y segundos.

Assortimento di lancette luminose colore nichel per orologi ; ore, minuti e secondi.

Sortido de ponteiros luminosos cor níquel para relógios ; horas, minutos e segundos.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.211 (Ø 1.00 mm) /.213 (1.10) /.214 (1.20) /.215**  
**(1.20) /.216 (1.20) /.311 (0.55) /.313 (0.60) /.314 (0.70) /.315**  
**(0.70) /.316 (0.70) /.406 (0.20) /.407 (0.22)**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.169 | 60x | 0.026 |



Assortiment d'aiguilles lumineuses couleur nickel pour montres ; heures, minutes et secondes.

Assortiment of nickel colour luminous hands for watches ; hours, minutes and seconds.

Sortiment von Nickel-Farbe Leuchtzeiger für Uhren ; Stunden, Minuten und Sekunden.

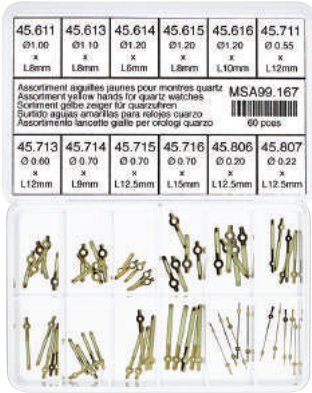
Surtido de agujas luminosas color níquel para relojes ; horas, minutos y segundos.

Assortimento di lancette luminose colore nichel per orologi ; ore, minuti e secondi.

Sortido de ponteiros luminosos cor níquel para relógios ; horas, minutos e segundos.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.217 (Ø 1.50 mm) /.218 (1.50) /.219 (2.00) /.220**  
**(2.00) /.221 (2.00) /.317 (0.90) /.318 (0.90) /.319 (1.20) /.321**  
**(1.50) /.322 (1.50) /.409 (0.23) /.411 (0.25)**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.170 | 60x | 0.026 |



Assortiment d'aiguilles lumineuses jaunes pour montres ; heures, minutes et secondes.  
 Assortment of yellow luminous hands for watches ; hours, minutes and seconds.  
 Sortiment von gelbe Leuchtzeiger für Uhren ; Stunden, Minuten und Sekunden.  
 Surtido de agujas luminosas amarillas para relojes ; horas, minutos y segundos.  
 Assortimento di lancette luminose gialle per orologi ; ore, minuti e secondi.  
 Sortido de ponteiros luminosos amarelos para relógios ; horas, minutos e segundos.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.611 (Ø 1.50 mm) /.613 (1.10) /.614 (1.20) /.615**  
**(1.20) /.616 (1.20) /.711 (0.55) /.713 (0.60) /.714 (0.70) /.715**  
**(0.70) /.716 (0.70) /.806 (0.20) /.807 (0.22)**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.167 | 60x | 0.026 |



Assortiment d'aiguilles lumineuses jaunes pour montres ; heures, minutes et secondes.  
 Assortment of yellow luminous hands for watches ; hours, minutes and seconds.  
 Sortiment von gelbe Leuchtzeiger für Uhren ; Stunden, Minuten und Sekunden.  
 Surtido de agujas luminosas amarillas para relojes ; horas, minutos y segundos.  
 Assortimento di lancette luminose gialle per orologi ; ore, minuti e secondi.  
 Sortido de ponteiros luminosos amarelos para relógios ; horas, minutos e segundos.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.617 (Ø 1.50 mm) /.618 (1.50) /.619 (2.00) /.620**  
**(2.00) /.621 (2.00) /.717 (0.90) /.718 (0.90) /.719 (1.20) /.721**  
**(1.50) /.722 (1.50) /.809 (0.23) /.811 (0.25)**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.168 | 60x | 0.026 |



Aiguille de compteur pour montres emballées sur carte ; couleur nickel, jaune et noire.

Counter hand for watches packed on card ; nickel colour, yellow and black.

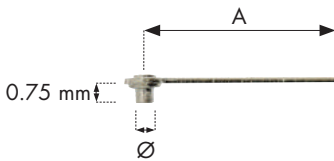
Zählzeiger für Uhren auf Karte verpackt ; Nickel-Farbe, gelb und schwarz.

Aguja de contador para relojes embaladas en tarjeta ; color níquel, amarilla y negra.

Lancetta del contatore per orologi imballate su carta ; colore nichel, gialla e nera.

Ponteiro de contador para relógios embalados num cartão ; cor níquel, amarelo e preto.

10 pcs



**Compteur - Counter - Zähler - Contador - Contatore - Contador:**

| MSA    | Nickel/<br>Nickel | Ø<br>mm | A<br>mm | MSA    | Jaune/<br>Yellow | MSA    | Noir/<br>Black |
|--------|-------------------|---------|---------|--------|------------------|--------|----------------|
| 45.040 | ●—                | 0.17    | 6       | 45.150 | ●—               | 45.170 | ●—             |
| 45.041 | ●—                | 0.18    | 6       | 45.151 | ●—               | 45.171 | ●—             |
| 45.042 | ●—                | 0.20    | 6       | 45.152 | ●—               | 45.172 | ●—             |
| 45.043 | ●—                | 0.21    | 6       | 45.153 | ●—               | 45.173 | ●—             |
| 45.044 | ●—                | 0.22    | 6       | 45.154 | ●—               | 45.174 | ●—             |
| 45.045 | ●—                | 0.23    | 6       | 45.155 | ●—               | 45.175 | ●—             |
| 45.046 | ●—                | 0.25    | 6       | 45.156 | ●—               | 45.176 | ●—             |
| 45.047 | ●—                | 0.28    | 6       | 45.157 | ●—               | 45.177 | ●—             |
| 45.048 | ●—                | 0.30    | 6       | 45.158 | ●—               | 45.178 | ●—             |

Kg 0.004

1/1

**Compteur - Counter - Zähler - Contador - Contatore - Contador:**

| MSA    | Nickel/<br>Nickel | Ø<br>mm | A<br>mm | MSA    | Jaune/<br>Yellow | MSA    | Noir/<br>Black |
|--------|-------------------|---------|---------|--------|------------------|--------|----------------|
| 45.240 | ●—                | 0.17    | 6       | 45.180 | ●—               | 45.250 | ●—             |
| 45.241 | ●—                | 0.18    | 6       | 45.181 | ●—               | 45.251 | ●—             |
| 45.242 | ●—                | 0.20    | 6       | 45.182 | ●—               | 45.252 | ●—             |
| 45.243 | ●—                | 0.21    | 6       | 45.183 | ●—               | 45.253 | ●—             |
| 45.244 | ●—                | 0.22    | 6       | 45.184 | ●—               | 45.254 | ●—             |
| 45.245 | ●—                | 0.23    | 6       | 45.185 | ●—               | 45.255 | ●—             |
| 45.246 | ●—                | 0.25    | 6       | 45.186 | ●—               | 45.256 | ●—             |
| 45.247 | ●—                | 0.28    | 6       | 45.187 | ●—               | 45.257 | ●—             |
| 45.248 | ●—                | 0.30    | 6       | 45.188 | ●—               | 45.258 | ●—             |

Kg 0.004

1/1





| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.173 | 90x | 0.035 |



**Canon - Pipe - Rohr - Cañón - Cannotto - Canhão : 0.75 mm**

Assortiment d'aiguilles de compteur pour montres ; couleur nickel et jaunes.  
 Assortiment of counter hands for watches ; nickel colour and yellow.  
 Sortiment von Zählzeiger für Uhren ; Nickel-Farbe und gelbe.  
 Surtido de agujas de contador para relojes ; color níquel y amarillas.  
 Assortimento di lancette del contatore per orologi ; colore nichel e gialle.  
 Sortido de ponteiros de contador para relógios ; cor níquel e amarelos.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**18 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.040 (Ø 0.17 mm) /.041 (0.18) /.042 (0.20) /.043**  
**(0.21) /.044 (0.22) /.045 (0.23) /.046 (0.25) /.047 (0.28) /.048**  
**(0.30) /.150 (Ø 0.17 mm) /.151 (0.18) /.152 (0.20) /.153 (0.21)**  
**/.154 (0.22) /.155 (0.23) /.156 (0.25) /.157 (0.28) /.158 (0.30)**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.174 | 90x | 0.035 |



**Canon - Pipe - Rohr - Cañón - Cannotto - Canhão : 1.40 mm**

Assortiment d'aiguilles de compteur pour montres ; couleur nickel et jaunes.  
 Assortiment of counter hands for watches ; nickel colour and yellow.  
 Sortiment von Zählzeiger für Uhren ; Nickel-Farbe und gelbe.  
 Surtido de agujas de contador para relojes ; color níquel y amarillas.  
 Assortimento di lancette del contatore per orologi ; colore nichel e gialle.  
 Sortido de ponteiros de contador para relógios ; cor níquel e amarelos.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**18 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.240 (Ø 0.17 mm) /.241 (0.18) /.242 (0.20) /.243**  
**(0.21) /.244 (0.22) /.245 (0.23) /.246 (0.25) /.247 (0.28) /.248**  
**(0.30) /.180 (Ø 0.17 mm) /.181 (0.18) /.182 (0.20) /.183 (0.21)**  
**/.184 (0.22) /.185 (0.23) /.186 (0.25) /.187 (0.28) /.188 (0.30)**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.175 | 90x | 0.035 |



Canon - Pipe - Rohr - Cañón - Cannotto - Canhão : 0.75 mm



Canon - Pipe - Rohr - Cañón - Cannotto - Canhão : 1.40 mm

Assortiment d'aiguilles de compteur noires pour montres.

Assortiment of black counter hands for watches.

Sortiment von schwarze Zählzeiger für Uhren.

Surtido de agujas de contador negras para relojes.

Assortimento di lancette del contatore nere per orologi.

Sortido de ponteiros de contador pretos para relógios.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**

**18 modèles - models - Modelle - modelos - modelli - modelos**  
**0.75 mm : 5x MSA45.170 (Ø 0.17 mm) /.171 (0.18) /.172 (0.20)**  
**/.173 (0.21) /.174 (0.22) /.175 (0.23) /.176 (0.25) /.177 (0.28)**  
**/.178 (0.30)**

**1.40 mm : 5x MSA45.250 (Ø 0.17 mm) /.251 (0.18) /.252 (0.20)**  
**/.253 (0.21) /.254 (0.22) /.255 (0.23) /.256 (0.25) /.257 (0.28)**  
**/.258 (0.30)**



Aiguille bleue pour montres de poche anciennes emballées sur carte ; heures, minutes et petites secondes.

Blue hand for old pocket watches packed on card ; hours, minutes and small seconds.

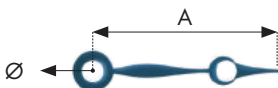
Blauer Zeiger für alte Taschenuhren auf Karte verpackt ; Stunden, Minuten und kleine Sekunden.

Aguja azul para relojes de bolsillo antiguos embaladas en tarjeta ; horas, minutos y pequeños segundos.

Lancetta blu per orologi da tasca antichi imballate su carta ; ore, minuti e piccoli secondi.

Ponteiro azul para relógios de bolso antigos embalados num cartão ; horas, minutos e pequenos segundos.

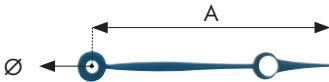
10  
pcs



**Heures - Hours - Stunden - Horas - Ore - Horas:**

| MSA    | 1/1 | Ø mm | A mm |
|--------|-----|------|------|
| 45.105 |     | 1.60 | 15   |
| 45.106 |     | 1.75 | 15   |
| 45.107 |     | 1.90 | 15   |
| 45.108 |     | 2.00 | 15   |

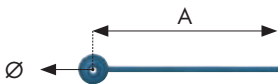
Kg 0.004



**Minutes - Minutes - Minuten - Minutos - Minuti - Minutos:**

| MSA    | 1/1 | Ø mm | A mm |
|--------|-----|------|------|
| 45.101 |     | 0.90 | 19.5 |
| 45.102 |     | 1.00 | 19.5 |
| 45.103 |     | 1.15 | 19.5 |
| 45.104 |     | 1.25 | 19.5 |

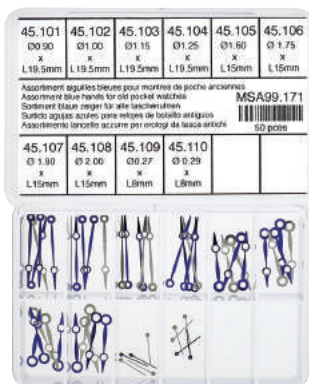
Kg 0.004



**Petites secondes - Small seconds - Kleine Sekunden - Pequeños segundos - Piccoli secondi - Pequenos segundos:**

| MSA    | 1/1 | Ø mm | A mm |
|--------|-----|------|------|
| 45.109 |     | 0.27 | 8.0  |
| 45.110 |     | 0.29 | 8.0  |

Kg 0.004



Assortiment d'aiguilles bleues pour montres de poche anciennes; heures, minutes et petites secondes.

Assortiment of blue hands for old pocket watches ; hours, minutes and small seconds.

Sortiment von blaue Zeiger für alte Taschenuhren ; Stunden, Minuten und kleine Sekunden.

Surtido de agujas azules para relojes de bolsillo antiguos ; horas, minutos y pequeños segundos.

Assortimento di lancette azzurre per orologi da tasca antichi ; ore, minuti e piccoli secondi.

Sortido de ponteiros azuis para relógios de bolso antigos ; horas, minutos e pequenos segundos.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.101 (Ø 0.90 mm) /.102 (1.00) /.103 (1.15) /.104**  
**(1.25) /.105 (1.60) /.106 (1.75) /.107 (1.90) /.108 (2.00) /.109**  
**(0.27) /.110 (0.29)**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.171 | 50x | 0.026 |



Aiguille rose de forme Dague pour montres anciennes emballées sur carte ; heures, minutes et secondes au centre.

*Dagger-shaped pink hand for old watches packed on card ; hours, minutes and centre seconds.*

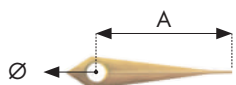
Rosa Zeiger in Dolch-Form für alte Uhren auf Karte verpackt ; Stunden, Minuten und Zentrumsekunden.

*Aguja rosada de forma Daga para relojes antiguos embaladas en tarjeta ; horas, minutos y segundos centrales.*

Lancetta rosa di forma Daga per orologi antichi imballate su carta ; ore, minuti e secondi al centro.

*Ponteiro cor-de-rosa de forma Adaga para relógios antigos embalados num cartão ; horas, minutos e segundos ao centro.*

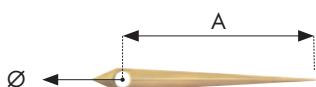
**10**  
pcs



**Heures - Hours - Stunden - Horas - Ore - Horas:**

| MSA    | 1/1 | Ø mm | A mm |
|--------|-----|------|------|
| 45.126 |     | 1.20 | 9    |
| 45.127 |     | 1.30 | 9    |
| 45.128 |     | 1.35 | 9    |
| 45.129 |     | 1.40 | 9    |
| 45.130 |     | 1.50 | 9    |

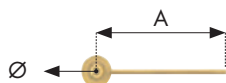
Kg 0.004



**Minutes - Minutes - Minuten - Minutos - Minuti - Minutos:**

| MSA    | 1/1 | Ø mm | A mm |
|--------|-----|------|------|
| 45.121 |     | 0.70 | 13.5 |
| 45.122 |     | 0.75 | 13.5 |
| 45.123 |     | 0.80 | 13.5 |
| 45.124 |     | 0.85 | 13.5 |
| 45.125 |     | 0.90 | 13.5 |

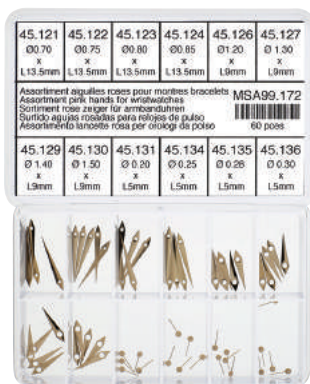
Kg 0.004



**Seconde au centre - Centre second - Zentrumsekunden - Segundero central - Secondi al centro - Segundo ao centro:**

| MSA    | 1/1 | Ø mm | A mm |
|--------|-----|------|------|
| 45.131 |     | 0.20 | 5    |
| 45.132 |     | 0.22 | 5    |
| 45.133 |     | 0.23 | 5    |
| 45.134 |     | 0.25 | 5    |
| 45.135 |     | 0.28 | 5    |
| 45.136 |     | 0.30 | 5    |

Kg 0.004



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.172 | 60x | 0.026 |



Assortiment d'aiguilles roses de forme Dague pour montres anciennes ; heures, minutes et secondes au centre.

Assortiment of Dagger-shaped pink hands for old watches ; hours, minutes and centre seconds.

Sortiment von Rose Zeiger in Dolch-Form für alte Uhren ; Stunden, Minuten und Zentrumsekunden.

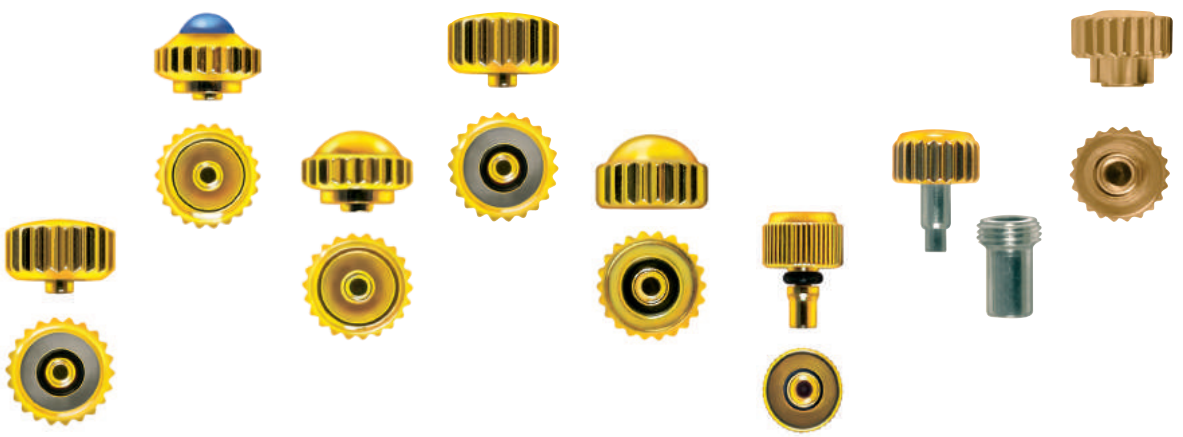
Surtido de agujas rosadas de forma Daga para relojes antiguos ; horas, minutos y segundos centrales.

Assortimento di lancette rosa di forma Daga per orologi antichi ; ore, minuti e secondi al centro.

Sortido de ponteiros cor-de-rosa de forma Adaga para relógios antigos ; horas, minutos e segundos ao centro.

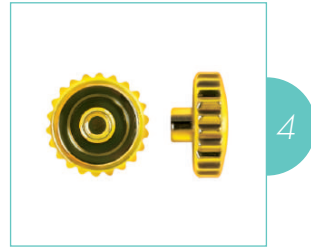
**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA45.121 (Ø 0.70 mm) /.122 (0.75) /.123 (0.80) /.124**  
**(0.85) /.126 (1.20) /.127 (1.30) /.129 (1.40) /.130 (1.50) /.131**  
**(0.20) /.134 (0.25) /.135 (0.28) /.136 (0.30)**





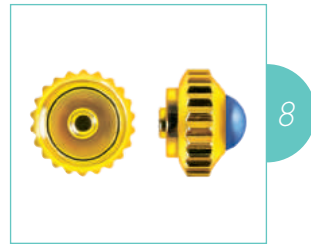
COURONNES CROWNS KRONEN CORONAS CORONE COROAS

Couronnes simples  
*Regular crowns*  
 Einfache Kronen  
*Coronas sencillas*  
 Corone semplici  
*Coroas simples*



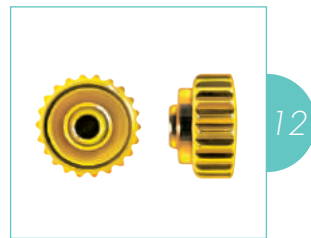
4

Couronnes antipoussière  
*Dustproof crowns*  
 Staubgeschützte Kronen  
*Coronas antipolvo*  
 Corone antipolvere  
*Coroas anti-poeira*



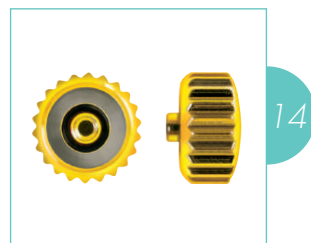
8

Couronnes antipoussière demi-boule  
*Dustproof domed crowns*  
 Staubgeschützte Halbkugelkronen  
*Coronas antipolvo media bola*  
 Corone antipolvere demiboule  
*Coroas anti-poeira meia bola*



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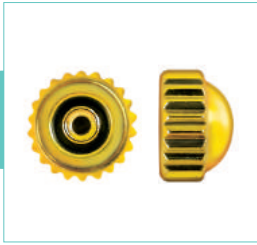
Couronnes étanches  
*Waterproof crowns*  
 Wasserdichte Kronen  
*Coronas herméticas*  
 Corone impermeabili  
*Coroas estanques*



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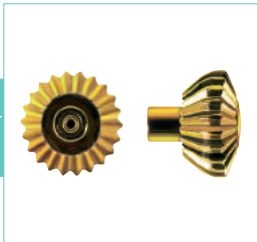
Couronnes étanches demi-boule  
*Waterproof domed crowns*  
Wasserdichte Halbkugel Kronen  
*Coronas herméticas media bola*  
Corone impermeabili demiboule  
*Coroas estanques meia bola*

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Couronnes japonaises  
*Japanese crowns*  
Japanische Kronen  
*Coronas japonesas*  
Corone giapponesi  
*Coroas japonesas*

47



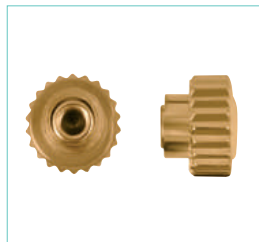
Couronnes pour montres de poche  
*Pocket watches crowns*  
Kronen für Taschenuhren  
*Coronas para relojes de bolsillo*  
Corone per orologi da tasca  
*Coroas para relógios de bolso*

Couronnes à vis  
*Screw-on crowns*  
Schraubkronen  
*Coronas de rosca*  
Corone a vite  
*Coroas de rosca*



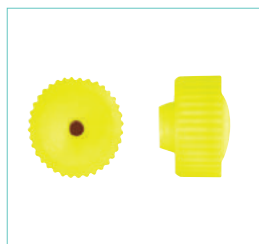
51

Couronnes de marque  
*Brand crowns*  
Markenkronen  
*Coronas de marca*  
Corone di marca  
*Coroas de marca*



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Couronnes de travail  
*Working crowns*  
Arbeitskronen  
*Coronas de trabajo*  
Corone di lavoro  
*Coroas de trabalho*



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Couronne simple couleur acier et jaune, **canon court** ; acier inoxydable.  
 Steel colour and yellow regular crown, **short pipe** ; stainless steel.  
 Stahlfarbe und gelbe einfache Krone, **kurzes Rohr** ; Edelstahl.  
 Corona sencilla color acero y amarilla, **cañón corto** ; acero inoxidable.  
 Corona semplice colore acciaio e gialla, **cannotto corto** ; acciaio inossidabile.  
 Coroa simples cor aço e amarela, **canhão curto** ; aço inoxidável.

| MSA         | Couleur acier/Steel colour  | Ø mm | Ø Tar./Tap. mm | MSA         | Jaune/Yellow  |
|-------------|---|------|----------------|-------------|---|
| 82.001-070* |   | 2.50 | 0.70           | 82.201-070* |   |
| 82.001-080* |    | 2.50 | 0.80           | 82.201-080* |    |
| 82.001-090* |   | 2.50 | 0.90           | 82.201-090  |   |
| 82.002-070  |   | 3.00 | 0.70           | 82.202-070* |   |
| 82.002-080  |    | 3.00 | 0.80           | 82.202-080  |    |
| 82.002-090  |   | 3.00 | 0.90           | 82.202-090  |   |
| 82.003-070  |   | 3.50 | 0.70           | 82.203-070* |   |
| 82.003-080  |    | 3.50 | 0.80           | 82.203-080* |    |
| 82.003-090  |   | 3.50 | 0.90           | 82.203-090  |   |
| 82.004-090  |    | 3.80 | 0.90           | 82.204-090  |    |
| 82.005-090  |   | 4.00 | 0.90           | 82.205-090  |   |
| 82.006-090  |  | 4.50 | 0.90           | 82.206-090  |  |
| 82.007-090  |  | 5.00 | 0.90           | 82.207-090  |  |
| -           |   | 5.50 | 0.70           | 82.208-070* |   |
| 82.008-090  |  | 5.50 | 0.90           | 82.208-090  |  |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock

1/1

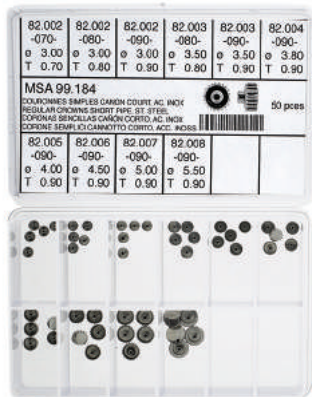


Couronne simple, **canon court** ; laiton nickelé.  
 Regular crown, **short pipe** ; nickel-plated brass.  
 Einfache Krone, **kurzes Rohr** ; vernickeltem Messing.  
 Corona sencilla, **cañón corto** ; latón niquelado.  
 Corona semplice, **cannotto corto** ; ottone nichelato.  
 Coroa simples, **canhão curto** ; latão niquelado.

| MSA        | 1/1   | Ø mm | Ø T mm |
|------------|---|------|--------|
| 82.009-120 |  | 5.00 | 1.20   |

Kg 0.001

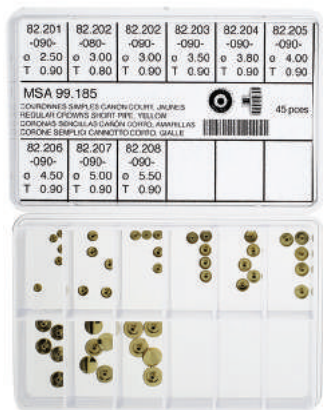
1/1



Assortiment de couronnes simples couleur acier, **canon court** ; acier inoxydable.  
 Assortment of steel colour regular crowns, **short pipe** ; stainless steel.  
 Sortiment von Stahlfarbe einfache Kronen, **kurzes Rohr** ; Edelstahl.  
 Surtido de coronas sencillas color acero, **cañón corto** ; acero inoxidable.  
 Assortimento di corone semplici colore acciaio, **cannotto corto** ; acciaio inossidabile.  
 Sortido de coroas simples cor aço, **canhão curto** ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.184 | 50x | 0.028 |

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**10 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA82.002-070 /.002-080 /.002-090 /.003-080 /.003-090**  
**/.004-090 /.005-090 /.006-090 /.007-090 /.008-090**



















Assortiment de couronnes simples jaunes, **canon court** ; acier inoxydable.  
 Assortment of yellow regular crowns, **short pipe** ; stainless steel.  
 Sortiment von gelbe einfache Kronen, **kurzes Rohr** ; Edelstahl.  
 Surtido de coronas sencillas amarillas, **cañón corto** ; acero inoxidable.  
 Assortimento di corone semplici gialle, **cannotto corto** ; acciaio inossidabile.  
 Sortido de coroas simples amarelas, **canhão curto** ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.185 | 45x | 0.028 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**9 modèles - models - Modelle - modelos - modelli - modelos**  
**5x MSA82.201-090 /.202-080 /.202-090 /.203-090 /.204-090**  
**/.205-090 /.206-090 /.207-090 /.208-090**



Couronne simple couleur acier et jaune, **canon long** ; acier inoxydable.  
 Steel colour and yellow regular crown, **long pipe** ; stainless steel.  
 Stahlfarbe und gelbe einfache Krone, **langes Rohr** ; Edelstahl.  
 Corona sencilla color acero y amarilla, **cañón largo** ; acero inoxidable.  
 Corona semplice colore acciaio e gialla, **cannotto lungo** ; acciaio inossidabile.  
 Coroa simples cor aço e amarela, **canhão longo** ; aço inoxidável.

| MSA         | Couleur acier/Steel colour  | Ø mm | Ø Tar./Tap. mm | MSA         | Jaune/Yellow  |
|-------------|---|------|----------------|-------------|---|
| 82.051-070* |   | 2.50 | 0.70           | 82.251-070* |   |
| 82.051-080* |    | 2.50 | 0.80           | 82.251-080* |    |
| 82.051-090  |   | 2.50 | 0.90           | 82.251-090  |   |
| 82.052-070* |   | 3.00 | 0.70           | 82.252-070* |   |
| 82.052-080* |    | 3.00 | 0.80           | 82.252-080* |    |
| 82.052-090  |   | 3.00 | 0.90           | 82.252-090  |   |
| 82.053-070* |   | 3.50 | 0.70           | 82.253-070* |   |
| 82.053-080* |    | 3.50 | 0.80           | 82.253-080* |    |
| 82.053-090  |   | 3.50 | 0.90           | 82.253-090  |   |
| 82.054-090  |    | 3.80 | 0.90           | 82.254-090  |    |
| 82.055-090  |   | 4.00 | 0.90           | 82.255-090  |   |
| 82.056-090  |  | 4.50 | 0.90           | 82.256-090  |  |
| 82.057-090  |  | 5.00 | 0.90           | 82.257-090  |  |
| 82.058-090  |  | 5.50 | 0.90           | 82.258-090  |  |

Kg 0.001

\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock

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|   |                                     |                                     |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 82.051<br>-090-<br>ø 2.50<br>T 0.90   | 82.052<br>+090-<br>ø 3.00<br>T 0.90 | 82.053<br>-090-<br>ø 3.50<br>T 0.90 | 82.054<br>-090-<br>ø 3.80<br>T 0.90 | 82.055<br>-090-<br>ø 4.00<br>T 0.90 | 82.056<br>-090-<br>ø 4.50<br>T 0.90 |
| MSA 99.182<br>COURONNES SIMPLES CANON LONG, AC. INOX.<br>REGULAR CROWN LONG PIPE, ST. STEEL<br>CORONAS SENCILLAS CANON LARGO, AC. INOX.<br>CORONE SEMPLICI CANNOTTO LUNGO, ACC. INOSSI.<br>COROAS SIMPLES CANHÃO LONGO, AÇO INOXIDÁVEL. |                                     |                                     |                                     |                                     |                                     |
| 82.057<br>-090-<br>ø 5.00<br>T 0.90   | 82.058<br>-090-<br>ø 5.50<br>T 0.90 |                                     |                                     |                                     |                                     |



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.182 | 40x | 0.028 |

Assortiment de couronnes simples couleur acier, **canon long** ; acier inoxydable.

Assortiment of steel colour regular crowns, **long pipe** ; stainless steel.

Sortiment von Stahlfarbe einfache Kronen, **langes Rohr** ; Edelstahl.

Surtido de coronas sencillas en acero inoxidable, **cañón largo** ; color acero.

Assortimento di corone semplici in acciaio inossidabile, **cannotto lungo** ; colore acciaio.

Sortido de coroas simples em aço inoxidável, **canhão longo** ; cor aço.

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8 modèles - models - Modelle - modelos - modelli - modelos  
5x MSA82.051-090 /.052-090 /.053-090 /.054-090 /.055-090  
/.056-090 /.057-090 /.058-090**

|  |                                     |                                     |                                     |                                     |                                     |
|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 82.251<br>-090-<br>ø 2.50<br>T 0.90  | 82.252<br>-090-<br>ø 3.00<br>T 0.90 | 82.253<br>-090-<br>ø 3.50<br>T 0.90 | 82.254<br>-090-<br>ø 3.80<br>T 0.90 | 82.255<br>-090-<br>ø 4.00<br>T 0.90 | 82.256<br>-090-<br>ø 4.50<br>T 0.90 |
| MSA 99.181<br>COURONNES SIMPLES CANON LONG JAUNES<br>REGULAR CROWNS LONG PIPE, YELLOW<br>CORONAS SENCILLAS CANON LARGO, AMARILLAS<br>CORONE SEMPLICI CANNOTTO LUNGO, GIALLE<br>COROAS SIMPLES CANHÃO LONGO, AMARELAS |                                     |                                     |                                     |                                     |                                     |
| 82.257<br>-090-<br>ø 5.00<br>T 0.90  | 82.258<br>-090-<br>ø 5.50<br>T 0.90 |                                     |                                     |                                     |                                     |



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.181 | 40x | 0.028 |

Assortiment de couronnes simples jaunes, **canon long** ; acier inoxydable.

Assortiment of yellow regular crowns, **long pipe** ; stainless steel.

Sortiment von gelbe einfache Kronen, **langes Rohr** ; Edelstahl.

Surtido de coronas sencillas amarillas, **cañón largo** ; acero inoxidable.

Assortimento di corone semplici gialle, **cannotto lungo** ; acciaio inossidabile.

Sortido de coroas simples amarelas, **canhão longo** ; aço inoxidável.

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8 modèles - models - Modelle - modelos - modelli - modelos  
5x MSA82.251-090 /.252-090 /.253-090 /.254-090 /.255-090  
/.256-090 /.257-090 /.258-090**

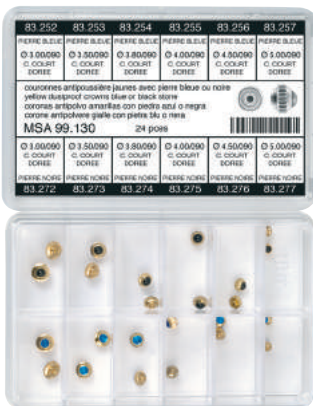


Couronne antipoussière jaune avec pierre bleue ou noire ; acier inoxydable.  
 Yellow dustproof crown with blue or black stone ; stainless steel.  
 Gelbe staubgeschützte Krone mit blauem oder schwarzem Stein ; Edelstahl.  
 Corona antipolvo amarilla con piedra azul o negra ; acero inoxidable.  
 Corona antipolvere gialla con pietra blu o nera ; acciaio inossidabile.  
 Coroa anti-poeira amarela com pedra azul ou preta ; aço inoxidável.

| MSA        | Pierre bleue/Blue stone | Ø mm | Ø Tar./Tap. mm | MSA        | Pierre noire/Black stone |
|------------|-------------------------|------|----------------|------------|--------------------------|
| 83.252-090 |                         | 3.00 | 0.90           | 83.272-090 |                          |
| 83.253-090 |                         | 3.50 | 0.90           | 83.273-090 |                          |
| 83.254-090 |                         | 3.80 | 0.90           | 83.274-090 |                          |
| 83.255-090 |                         | 4.00 | 0.90           | 83.275-090 |                          |
| 83.256-090 |                         | 4.50 | 0.90           | 83.276-090 |                          |
| 83.257-090 |                         | 5.00 | 0.90           | 83.277-090 |                          |

Kg 0.001

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Assortiment de couronnes antipoussière jaunes avec pierre bleue ou noire ; acier inoxydable.  
 Assortment of yellow dustproof crowns with blue or black stone ; stainless steel.  
 Sortiment von gelbe staubgeschützte Kronen mit blauem oder schwarzem Stein ; Edelstahl.  
 Surtido de coronas antipolvo amarillas con piedra azul o negra ; acero inoxidable.  
 Assortimento di corone antipolvere gialle con pietra blu o nera ; acciaio inossidabile.  
 Sortido de coroas anti-poeira amarelas com pedra azul ou preta ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.130 | 24x | 0.025 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA83.252-090 /.253-090 /.254-090 /.255-090 /.256-090**  
**/.257-090 /.272-090 /.273-090 /.274-090 /.275-090 /.276-090**  
**/.277-090**



Couronne antipoussière couleur acier et jaune avec pierre bleue ou bleu foncé ; acier inoxydable.

*Steel colour and yellow dustproof crown with blue or dark blue stone ; stainless steel.*

Stahlfarbe und gelbe staubgeschützte Krone mit blauem oder dunkelblauem Stein ; Edelstahl.

*Corona antipolvo color acero y amarilla con piedra azul o azul oscuro ; acero inoxidable.*

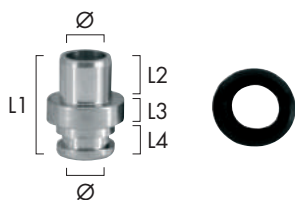
Corona antipolvere colore acciaio e gialla con pietra blu o blu scuro ; acciaio inossidabile.

*Coroa anti-poeira cor aço e amarela com pedra azul ou azul escuro ; aço inoxidável.*

| MSA    | Couleur acier/Steel colour | Ø mm | Ø Tar./Tap. mm | Pierre/Stone         | MSA    | Jaune/Yellow |
|--------|----------------------------|------|----------------|----------------------|--------|--------------|
| 83.403 |                            | 4.25 | 0.90           | Bleu/Blue            | -      | -            |
| 83.401 |                            | 4.35 | 0.90           | Bleu foncé/Dark blue | 83.451 |              |
| 83.405 |                            | 4.45 | 0.90           | Bleu/Blue            | 83.453 |              |
| 83.402 |                            | 4.45 | 0.90           | Bleu foncé/Dark blue | 83.452 |              |
| 83.404 |                            | 4.75 | 0.90           | Bleu/Blue            | -      | -            |

Kg 0.001

1/1



Tube spécial en acier inoxydable pour couronnes, avec joint MSA43.006.

*Stainless steel special crown tube, with gasket MSA43.006.*

Spezieller Rohr aus Edelstahl für Kronen, mit Dichtung MSA43.006.

*Tubo especial en acero inoxidable para coronas, con junta MSA43.006.*

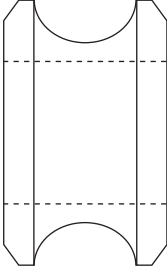
Tubo speciale in acciaio inossidabile per corone, con guarnizione MSA43.006.

*Tubo especial em aço inoxidável para coroas, com junta MSA43.006.*

| MSA    | Ø int. mm | L1 mm | L2 mm | L3 mm | L4 mm | Kg    |
|--------|-----------|-------|-------|-------|-------|-------|
| 47.101 | 1.27      | 2.50  | 1.00  | 0.29  | 1.21  | 0.001 |

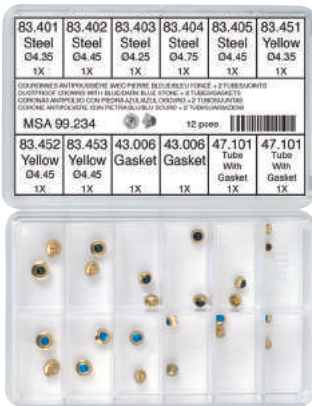


**10**  
pcs



Joint pour tube spécial en acier inoxydable MSA47.101 ; sachet de 10 pièces.  
 Gasket for stainless steel special tube MSA47.101 ; bag of 10 pieces.  
 Dichtung für spezieller Rohr aus Edelstahl MSA47.101 ; Beutel von 10 Stück.  
 Junta para tubo especial en acero inoxidable MSA47.101 ; bolsita de 10 piezas.  
 Guarnizione per tubo speciale in acciaio inossidabile MSA47.101 ; bustina da 10 pezzi.  
 Junta para tubo especial em aço inoxidável MSA47.101 ; saquinho de 10 peças.

| MSA    | 1/1 | Ø int./ext. mm | Kg    |
|--------|-----|----------------|-------|
| 43.006 | ○   | 1.50 x 2.80    | 0.001 |















Assortiment de couronnes antipoussière couleur acier et jaunes avec pierre bleue ou bleu foncé, 2 tubes et 2 joints ; acier inoxydable.  
 Assortment of steel colour and yellow dustproof crowns with blue or dark blue stone, 2 tubes and 2 gaskets ; stainless steel.  
 Sortiment von Stahlfarbe und gelbe staubgeschützte Kronen mit blauem oder dunkelblauem Stein, 2 Röhre und 2 Dichtungen ; Edelstahl.  
 Surtido de coronas antipolvo color acero y amarillas con piedra azul o azul oscuro, 2 tubos y 2 juntas ; acero inoxidable.  
 Assortimento di corone antipolvere colore acciaio e gialle con pietra blu o blu scuro, 2 tubi e 2 guarnizioni ; acciaio inossidabile.  
 Sortido de coroas anti-poeira cor aço e amarelas com pedra azul ou azul escuro, 2 tubos e 2 juntas ; aço inoxidável.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.234 | 8x  | 0.025 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8 modèles - models - Modelle - modelos - modelli - modelos**  
**1xMSA83.401 /.402 /.403 /.404 /.405 /.451 /.452 /.453**  
**2x MSA43.006 /47.101**

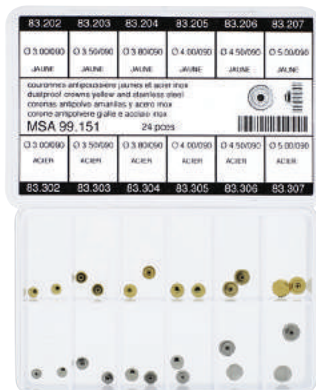


Couronne antipoussière couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow dustproof crown ; stainless steel.  
 Stahlfarbe und gelbe staubgeschützte Krone ; Edelstahl.  
 Corona antipolvo color acero y amarilla ; acero inoxidable.  
 Corona antipolvere colore acciaio e gialla ; acciaio inossidabile.  
 Coroa anti-poeira cor aço e amarela ; aço inoxidável.

| MSA        | Couleur acier/Steel colour  | Ø mm | Ø Tar./Tap. mm | MSA        | Jaune/Yellow  |
|------------|---|------|----------------|------------|---|
| 83.302-090 |  | 3.00 | 0.90           | 83.202-090 |  |
| 83.303-090 |  | 3.50 | 0.90           | 83.203-090 |  |
| 83.304-090 |  | 3.80 | 0.90           | 83.204-090 |  |
| 83.305-090 |  | 4.00 | 0.90           | 83.205-090 |  |
| 83.306-090 |  | 4.50 | 0.90           | 83.206-090 |  |
| 83.307-090 |  | 5.00 | 0.90           | 83.207-090 |  |

Kg 0.001

1/1



Assortiment de couronnes antipoussière couleur acier et jaunes ; acier inoxydable.  
 Assortment of steel colour and yellow dustproof crowns ; stainless steel.  
 Sortiment von Stahlfarbe und gelbe staubgeschützte Kronen ; Edelstahl.  
 Surtido de coronas antipolvo color acero y amarillas ; acero inoxidable.  
 Assortimento di corone antipolvere colore acciaio e gialle ; acciaio inossidabile.  
 Sortido de coroas anti-poeira cor aço e amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA83.202-090 /.203-090 /.204-090 /.205-090 /.206-090**  
**/.207-090 /.302-090 /.303-090 /.304-090 /.305-090 /.306-090**  
**/.307-090**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.151 | 24x | 0.028 |

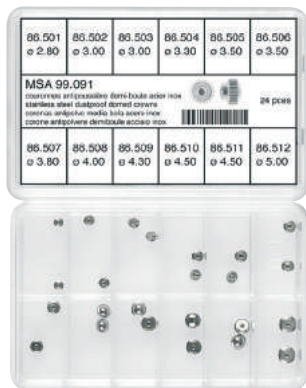


Couronne antipoussière couleur acier et jaune ; acier inoxydable.  
*Steel colour and yellow dustproof crown ; stainless steel.*  
 Stahlfarbe und gelbe staubgeschützte Krone ; Edelstahl.  
*Corona antipolvo color acero y amarilla ; acero inoxidable.*  
 Corona antipolvere colore acciaio e gialla ; acciaio inossidabile.  
*Coroa anti-poeira cor aço e amarela ; aço inoxidável.*

| MSA    | Couleur acier/Steel colour | Ø mm                  | Ø Tar./Tap. mm | MSA    | Jaune/Yellow |
|--------|----------------------------|-----------------------|----------------|--------|--------------|
| 86.501 |                            | <b>2.80</b>           | 0.90           | 86.001 |              |
| 86.502 |                            | <b>3.00 Bas/Low</b>   | 0.90           | 86.002 |              |
| 86.503 |                            | <b>3.00 Haut/High</b> | 0.90           | 86.003 |              |
| 86.504 |                            | <b>3.30</b>           | 0.90           | 86.004 |              |
| 86.505 |                            | <b>3.50 Bas/Low</b>   | 0.90           | 86.005 |              |
| 86.506 |                            | <b>3.50 Haut/High</b> | 0.90           | 86.006 |              |
| 86.507 |                            | <b>3.80</b>           | 0.90           | 86.007 |              |
| 86.508 |                            | <b>4.00</b>           | 0.90           | 86.008 |              |
| 86.509 |                            | <b>4.30</b>           | 0.90           | 86.009 |              |
| 86.510 |                            | <b>4.50 Bas/Low</b>   | 0.90           | 86.010 |              |
| 86.511 |                            | <b>4.50 Haut/High</b> | 0.90           | 86.011 |              |
| 86.512 |                            | <b>5.00</b>           | 0.90           | 86.012 |              |

Kg 0.001

1/1



Assortiment de couronnes antipoussière couleur acier ; acier inoxydable.  
 Assortment of steel colour dustproof crowns ; stainless steel.  
 Sortiment von Stahlfarbe staubgeschützte Kronen ; Edelstahl.  
 Surtido de coronas antipolvo color acero ; acero inoxidable.  
 Assortimento di corone antipolvere colore acciaio ; acciaio inossidabile.  
 Sortido de coroas anti-poeira cor aço ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA86.501 /.502 /.503 /.504 /.505 /.506 /.507 /.508 /.509**  
**/.510 /.511 /.512**

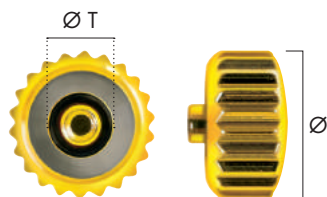
| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.091 | 24x | 0.049 |

































Assortiment de couronnes antipoussière jaunes ; acier inoxydable.  
 Assortment of yellow dustproof crowns ; stainless steel.  
 Sortiment von gelbe staubgeschützte Kronen ; Edelstahl.  
 Surtido de coronas antipolvo amarillas ; acero inoxidable.  
 Assortimento di corone antipolvere gialle ; acciaio inossidabile.  
 Sortido de coroas anti-poeira amarelas ; aço inoxidável






















**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA86.001 /.002 /.003 /.004 /.005 /.006 /.007 /.008 /.009**  
**/.010 /.011 /.012**






























| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.090 | 24x | 0.049 |

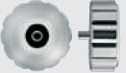












Couronne étanche couleur acier et jaune, **canon court** ; acier inoxydable.  
 Steel colour and yellow waterproof crown, **short pipe** ; stainless steel.  
 Stahlfarbe und gelbe wasserdichte Krone, **kurzes Rohr** ; Edelstahl.  
 Corona hermética color acero y amarilla, **cañón corto** ; acero inoxidable.  
 Corona impermeabile colore acciaio e gialla, **canotto corto** ; acciaio inossidabile.  
 Coroa estanque cor aço e amarela, **canhão curto** ; aço inoxidável.

| MSA        | Couleur acier/Steel colour  | Ø mm | Ø T mm | Ø Tar./Tap. mm | MSA         | Jaune/Noir<br>Yellow/Black  |
|------------|---|------|--------|----------------|-------------|---|
| 84.302-070 |   | 3.00 | 1.60   | 0.70           | 84.202-070  |   |
| 84.302-080 |    | 3.00 | 1.60   | 0.80           | 84.202-080  |    |
| 84.302-090 |   | 3.00 | 1.60   | 0.90           | 84.202-090  |   |
| 84.401-090 |    | 3.00 | 1.60   | 0.90           | 84.501-090  |    |
| 84.312-070 |   | 3.00 | 1.80   | 0.70           | 84.212-070  |   |
| 84.312-080 |    | 3.00 | 1.80   | 0.80           | 84.212-080  |    |
| 84.312-090 |   | 3.00 | 1.80   | 0.90           | 84.212-090  |   |
| 84.411-090 |    | 3.00 | 1.80   | 0.90           | 84.511-090  |    |
| 84.303-070 |   | 3.50 | 1.60   | 0.70           | 84.203-070  |   |
| 84.303-080 |    | 3.50 | 1.60   | 0.80           | 84.203-080  |    |
| 84.303-090 |   | 3.50 | 1.60   | 0.90           | 84.203-090  |   |
| 84.402-090 |    | 3.50 | 1.60   | 0.90           | 84.502-090  |    |
| 84.313-070 |   | 3.50 | 1.80   | 0.70           | 84.213-070  |   |
| 84.313-080 |  | 3.50 | 1.80   | 0.80           | 84.213-080  |  |
| 84.313-090 |   | 3.50 | 1.80   | 0.90           | 84.213-090  |   |
| 84.412-090 |  | 3.50 | 1.80   | 0.90           | 84.512-090  |  |
| 84.323-070 |   | 3.50 | 2.00   | 0.70           | 84.223-070  |   |
| 84.323-080 |  | 3.50 | 2.00   | 0.80           | 84.223-080  |  |
| 84.323-090 |   | 3.50 | 2.00   | 0.90           | 84.223-090  |   |
| 84.304-070 |   | 3.80 | 1.60   | 0.70           | 84.204-070  |   |
| 84.304-080 |  | 3.80 | 1.60   | 0.80           | 84.204-080  |  |
| 84.304-090 |   | 3.80 | 1.60   | 0.90           | 84.204-090  |   |
| 84.324-070 |   | 3.80 | 2.00   | 0.70           | 84.224-070* |   |
| 84.324-080 |  | 3.80 | 2.00   | 0.80           | 84.224-080  |  |
| 84.324-090 |   | 3.80 | 2.00   | 0.90           | 84.224-090  |   |
| 84.403-090 |  | 4.00 | 1.60   | 0.90           | 84.503-090  |  |
| 84.413-090 |  | 4.00 | 1.80   | 0.90           | 84.513-090  |  |
| 84.325-070 |   | 4.00 | 2.00   | 0.70           | 84.225-070  |   |
| 84.325-080 |  | 4.00 | 2.00   | 0.80           | 84.225-080  |  |
| 84.325-090 |   | 4.00 | 2.00   | 0.90           | 84.225-090  |   |
| 84.335-070 |   | 4.00 | 2.50   | 0.70           | 84.235-070* |   |
| 84.335-080 |  | 4.00 | 2.50   | 0.80           | 84.235-080* |  |
| 84.335-090 |   | 4.00 | 2.50   | 0.90           | 84.235-090  |   |

| MSA        | Couleur acier/Steel colour  | Ø mm | Ø T mm | Ø Tar./Tap. mm | MSA        | Jaune/Noir<br>Yellow/Black  |
|------------|---|------|--------|----------------|------------|---|
| 84.404-090 |    | 4.50 | 1.60   | 0.90           | 84.504-090 |    |
| 84.414-090 |    | 4.50 | 1.80   | 0.90           | 84.514-090 |    |
| 84.326-090 |    | 4.50 | 2.00   | 0.90           | 84.226-090 |    |
| 84.421-090 |    | 4.50 | 2.00   | 0.90           | -          | -   |
| 84.336-090 |    | 4.50 | 2.50   | 0.90           | 84.236-090 |    |
| 84.441-090 |    | 4.50 | 2.50   | 0.90           | -          | -   |
| 84.405-090 |    | 5.00 | 1.60   | 0.90           | 84.505-090 |    |
| 84.415-090 |    | 5.00 | 1.80   | 0.90           | 84.515-090 |    |
| 84.327-090 |    | 5.00 | 2.00   | 0.90           | 84.227-090 |    |
| 84.422-090 |    | 5.00 | 2.00   | 0.90           | -          | -   |
| 84.337-090 |    | 5.00 | 2.50   | 0.90           | 84.237-090 |    |
| 84.442-090 |    | 5.00 | 2.50   | 0.90           | -          | -   |
| 84.406-090 |    | 5.50 | 1.60   | 0.90           | 84.506-090 |    |
| 84.416-090 |    | 5.50 | 1.80   | 0.90           | 84.516-090 |    |
| 84.423-090 |    | 5.50 | 2.00   | 0.90           | -          | -   |
| 84.339-090 |   | 5.50 | 2.50   | 0.90           | 84.239-090 |   |
| 84.443-090 |  | 5.50 | 2.50   | 0.90           | -          | -   |
| 84.424-090 |  | 6.00 | 2.00   | 0.90           | -          | -   |
| 84.340-090 |  | 6.00 | 2.50   | 0.90           | -          | -   |
| 84.444-090 |  | 6.00 | 2.50   | 0.90           | -          | -   |
| 84.453-090 |  | 6.00 | 3.00   | 0.90           | 84.465-090 |  |
| 84.475-090 |  | 6.00 | 3.50   | 0.90           | 84.485-090 |  |
| 84.425-090 |  | 6.50 | 2.00   | 0.90           | -          | -   |
| 84.445-090 |  | 6.50 | 2.50   | 0.90           | -          | -   |
| 84.454-090 |  | 6.50 | 3.00   | 0.90           | 84.466-090 |  |
| 84.476-090 |  | 6.50 | 3.50   | 0.90           | 84.486-090 |  |
| 84.426-090 |  | 7.00 | 2.00   | 0.90           | -          | -   |
| 84.446-090 |  | 7.00 | 2.50   | 0.90           | -          | -   |

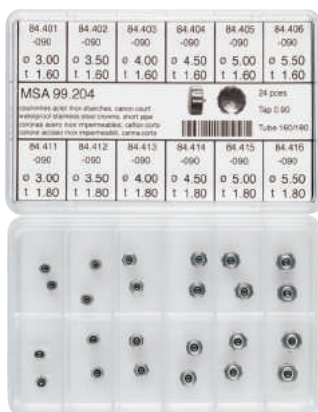
| MSA        | Couleur acier/Steel colour  | Ø mm | Ø T mm | Ø Tar./Tap. mm | MSA        | Jaune/Noir<br>Yellow/Black  |
|------------|---|------|--------|----------------|------------|---|
| 84.455-090 |    | 7.00 | 3.00   | 0.90           | 84.467-090 |    |
| 84.477-090 |    | 7.00 | 3.50   | 0.90           | 84.487-090 |    |
| 84.427-090 |    | 7.50 | 2.00   | 0.90           | -          | -   |
| 84.447-090 |    | 7.50 | 2.50   | 0.90           | -          | -   |
| 84.456-090 |    | 7.50 | 3.00   | 0.90           | 84.468-090 |    |
| 84.478-090 |    | 7.50 | 3.50   | 0.90           | 84.488-090 |    |
| 84.428-090 |    | 8.00 | 2.00   | 0.90           | -          | -   |
| 84.448-090 |    | 8.00 | 2.50   | 0.90           | -          | -   |
| 84.457-090 |    | 8.00 | 3.00   | 0.90           | 84.469-090 |    |
| 84.479-090 |    | 8.00 | 3.50   | 0.90           | 84.489-090 |    |
| 84.429-090 |   | 8.50 | 2.00   | 0.90           | -          | -   |
| 84.449-090 |  | 8.50 | 2.50   | 0.90           | -          | -   |
| 84.458-090 |  | 8.50 | 3.00   | 0.90           | 84.470-090 |  |
| 84.480-090 |  | 8.50 | 3.50   | 0.90           | 84.490-090 |  |
| 84.430-090 |  | 9.00 | 2.00   | 0.90           | -          | -   |
| 84.450-090 |  | 9.00 | 2.50   | 0.90           | -          | -   |
| 84.459-090 |  | 9.00 | 3.00   | 0.90           | 84.471-090 |  |
| 84.481-090 |  | 9.00 | 3.50   | 0.90           | 84.491-090 |  |
| 84.431-090 |  | 9.50 | 2.00   | 0.90           | -          | -   |

| MSA        | Couleur acier/Steel colour  | Ø mm  | Ø T mm | Ø Tar./Tap. mm | MSA        | Jaune/Noir<br>Yellow/Black  |
|------------|---|-------|--------|----------------|------------|---|
| 84.451-090 |  | 9.50  | 2.50   | 0.90           | -          | -   |
| 84.460-090 |  | 9.50  | 3.00   | 0.90           | 84.472-090 |  |
| 84.482-090 |  | 9.50  | 3.50   | 0.90           | 84.492-090 |  |
| 84.432-090 |  | 10.00 | 2.00   | 0.90           | -          | -   |
| 84.452-090 |  | 10.00 | 2.50   | 0.90           | -          | -   |
| 84.461-090 |  | 10.00 | 3.00   | 0.90           | 84.473-090 |  |
| 84.483-090 |  | 10.00 | 3.50   | 0.90           | 84.493-090 |  |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock

1/1





| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.204 | 24x | 0.031 |

Ø T 1.60 - 1.80 mm

Assortiment de couronnes étanches couleur acier, **canon court** ; acier inoxydable.

Assortiment of steel colour waterproof crowns, **short pipe** ; stainless steel.

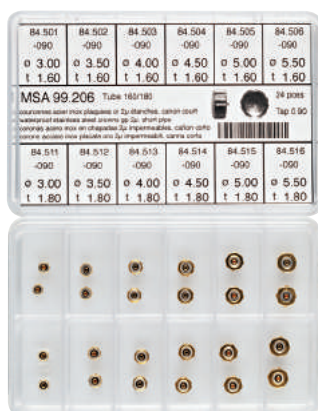
Sortiment von Stahlfarbe wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.

Surtido de coronas herméticas color acero, **cañón corto** ; acero inoxidable.

Assortimento di corone impermeabili colore acciaio, **canotto corto** ; acciaio inossidabile.

Sortido de coroas estanques cor aço, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.401-090 /.402-090 /.403-090 /.404-090 /.405-090  
 /.406-090 /.411-090 /.412-090 /.413-090 /.414-090 /.415-090  
 /.416-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.206 | 24x | 0.031 |

Ø T 1.60 - 1.80 mm

Assortiment de couronnes étanches jaunes, **canon court** ; acier inoxydable.

Assortiment of yellow waterproof crowns, **short pipe** ; stainless steel.

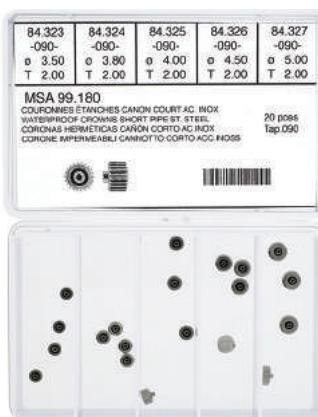
Sortiment von gelbe wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.

Surtido de coronas herméticas amarillas, **cañón corto** ; acero inoxidable.

Assortimento di corone impermeabili gialle, **canotto corto** ; acciaio inossidabile.

Sortido de coroas estanques amarelas, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.501-090 /.502-090 /.503-090 /.504-090 /.505-090  
 /.506-090 /.511-090 /.512-090 /.513-090 /.514-090 /.515-090  
 /.516-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.180 | 20x | 0.027 |

Ø T 2.00 mm

Assortiment de couronnes étanches couleur acier, **canon court** ; acier inoxydable.

Assortiment of steel colour waterproof crowns, **short pipe** ; stainless steel.

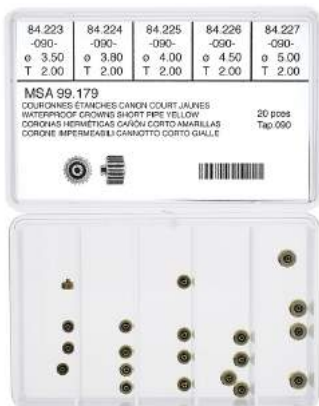
Sortiment von Stahlfarbe wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.

Surtido de coronas herméticas color acero, **cañón corto** ; acero inoxidable.

Assortimento di corone impermeabili colore acciaio, **canotto corto** ; acciaio inossidabile.

Sortido de coroas estanques cor aço, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 5 modèles - models - Modelle - modelos - modelli - modelos  
 4x MSA84.323-090 /.324-090 /.325-090 /.326-090 /.327-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.179 | 20x | 0.027 |

Ø T 2.00 mm

Assortiment de couronnes étanches jaunes, **canon court** ; acier inoxydable.

Assortiment of yellow waterproof crowns, **short pipe** ; stainless steel.

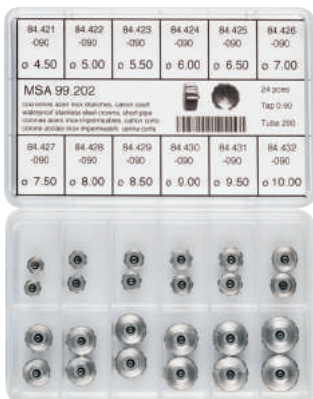
Sortiment von gelbe wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.

Surtido de coronas herméticas amarillas, **cañón corto** ; acero inoxidable.

Assortimento di corone impermeabili gialle, **canotto corto** ; acciaio inossidabile.

Sortido de coroas estanques amarelas, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 5 modèles - models - Modelle - modelos - modelli - modelos  
 4x MSA84.223-090 /.224-090 /.225-090 /.226-090 /.227-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.202 | 24x | 0.025 |

Ø T 2.00 mm

Assortiment de couronnes étanches couleur acier, **canon court** ; acier inoxydable.

Assortiment of steel colour waterproof crowns, **short pipe** ; stainless steel.

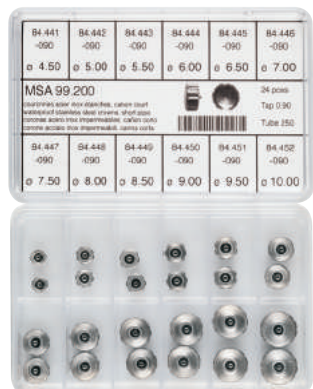
Sortiment von Stahlfarbe wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.

Surtido de coronas herméticas color acero, **cañón corto** ; acero inoxidable.

Assortimento di corone impermeabili colore acciaio, **canotto corto** ; acciaio inossidabile.

Sortido de coroas estanques cor aço, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.421-090 /.422-090 /.423-090 /.424-090 /.425-090  
 /.426-090 /.427-090 /.428-090 /.429-090 /.430-090 /.431-090  
 /.432-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.200 | 24x | 0.025 |

Ø T 2.50 mm

Assortiment de couronnes étanches couleur acier, **canon court** ; acier inoxydable.

Assortiment of steel colour waterproof crowns, **short pipe** ; stainless steel.

Sortiment von Stahlfarbe wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.

Surtido de coronas herméticas color acero, **cañón corto** ; acero inoxidable.

Assortimento di corone impermeabili colore acciaio, **canotto corto** ; acciaio inossidabile.

Sortido de coroas estanques cor aço, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.441-090 /.442-090 /.443-090 /.444-090 /.445-090  
 /.446-090 /.447-090 /.448-090 /.449-090 /.450-090 /.451-090  
 /.452-090**

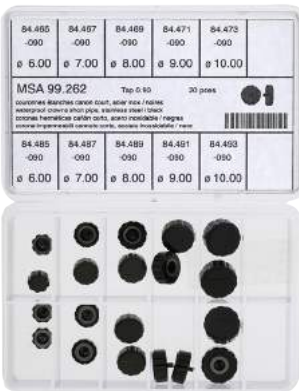


| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.261 | 20x | 0.051 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches couleur acier, **canon court** ; acier inoxydable.  
 Assortiment of steel colour waterproof crowns, **short pipe** ; stainless steel.  
 Sortiment von Stahlfarbe wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.  
 Surtido de coronas herméticas color acero, **cañón corto** ; acero inoxidable.  
 Assortimento di corone impermeabili colore acciaio, **cannotto corto** ; acciaio inossidabile.  
 Sortido de coroas estanques cor aço, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 10 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.453-090 /.455-090 /.457-090 /.459-090 /.461-090  
 /.475-090 /.477-090 /.479-090 /.481-090 /.483-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.262 | 20x | 0.051 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches noires, **canon court** ; acier inoxydable.  
 Assortiment of black waterproof crowns, **short pipe** ; stainless steel.  
 Sortiment von schwarzen wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.  
 Surtido de coronas herméticas negras, **cañón corto** ; acero inoxidable.  
 Assortimento di corone impermeabili nere, **cannotto corto** ; acciaio inossidabile.  
 Sortido de coroas estanques pretas, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 10 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.465-090 /.467-090 /.469-090 /.471-090 /.473-090  
 /.485-090 /.487-090 /.489-090 /.491-090 /.493-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.265 | 16x | 0.044 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches couleur acier, **canon court** ; acier inoxydable.  
 Assortiment of steel colour waterproof crowns, **short pipe** ; stainless steel.  
 Sortiment von Stahlfarbe wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.  
 Surtido de coronas herméticas color acero, **cañón corto** ; acero inoxidable.  
 Assortimento di corone impermeabili colore acciaio, **cannotto corto** ; acciaio inossidabile.  
 Sortido de coroas estanques cor aço, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 8 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.454-090 /.456-090 /.458-090 /.460-090 /.476-090  
 /.478-090 /.480-090 /.482-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.266 | 16x | 0.044 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches noires, **canon court** ; acier inoxydable.

Assortiment of black waterproof crowns, **short pipe** ; stainless steel.

Sortiment von schwarzen wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.

Surtido de coronas herméticas negras, **cañón corto** ; acero inoxidable.

Assortimento di corone impermeabili nere, **canotto corto** ; acciaio inossidabile.

Sortido de coroas estanques pretas, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 8 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.466-090 /.468-090 /.470-090 /.472-090 /.486-090  
 /.488-090 /.490-090 /.492-090**



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.269 | 144x | 0.488 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches couleur acier, **canons courts et longs** ; acier inoxydable.

Assortiment of steel colour waterproof crowns, **short and long pipes** ; stainless steel.

Sortiment von Stahlfarbe wasserdichte Kronen, **kurzen und langen Rohre** ; Edelstahl.

Surtido de coronas herméticas color acero, **cañones cortos y largos** ; acciaio inossidabile.

Assortimento di corone impermeabili colore acciaio, **cannotti corti e lunghi** ; acciaio inossidabile.

Sortido de coroas estanques cor aço, **canhões curtos e longos** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 36 modèles - models - Modelle - modelos - modelli - modelos  
 4x MSA84.453-090 /.454-090 /.455-090 /.456-090 /.457-090  
 /.458-090 /.459-090 /.460-090 /.461-090 /.475-090 /.476-090  
 /.477-090 /.478-090 /.479-090 /.480-090 /.481-090 /.482-090  
 /.483-090 /.660-090 /.661-090 /.662-090 /.663-090 /.664-090  
 /.665-090 /.666-090 /.667-090 /.668-090 /.680-090 /.681-090  
 /.682-090 /.683-090 /.684-090 /.685-090 /.686-090 /.687-090  
 /.688-090**



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.270 | 144x | 0.488 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches noires, **canons courts et longs** ; acier inoxydable.

Assortiment of black waterproof crowns, **short and long pipes** ; stainless steel.

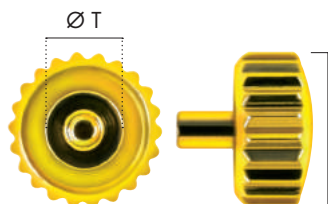
Sortiment von schwarzen wasserdichte Kronen, **kurzen und langen Rohre** ; Edelstahl.

Surtido de coronas herméticas negras, **cañones cortos y largos** ; acciaio inossidabile.

Assortimento di corone impermeabili nere, **cannotti corti e lunghi** ; acciaio inossidabile.


















































Sortido de coroas estanques pretas, **canhões curtos e longos** ; aço inoxidável.

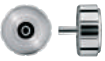





























**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 36 modèles - models - Modelle - modelos - modelli - modelos  
 4x MSA84.465-090 /.466-090 /.467-090 /.468-090 /.469-090  
 /.470-090 /.471-090 /.472-090 /.473-090 /.485-090 /.486-090  
 /.487-090 /.488-090 /.489-090 /.490-090 /.491-090 /.492-090  
 /.493-090 /.670-090 /.671-090 /.672-090 /.673-090 /.674-090  
 /.675-090 /.676-090 /.677-090 /.678-090 /.690-090 /.691-090  
 /.692-090 /.693-090 /.694-090 /.695-090 /.696-090 /.697-090  
 /.698-090**

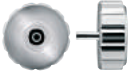













Couronne étanche couleur acier et jaune, **canon long** ; acier inoxydable.  
 Steel colour and yellow waterproof crown, **long pipe** ; stainless steel.  
 Stahlfarbe und gelbe wasserdichte Krone, **langes Rohr** ; Edelstahl.  
 Corona hermética color acero y amarilla, **cañón largo** ; acero inoxidable.  
 Corona impermeabile colore acciaio e gialla, **cannotto lungo** ; acciaio inossidabile.  
 Coroa estanque cor aço e amarela, **canhão longo** ; aço inoxidável.

| MSA         | Couleur acier/Steel colour | Ø mm | Ø T mm | Ø Tar./Top. mm | MSA         | Jaune/Noir<br>Yellow/Black |
|-------------|----------------------------|------|--------|----------------|-------------|----------------------------|
| 84.352-070  |                            | 3.00 | 1.60   | 0.70           | 84.252-070  |                            |
| 84.352-080* |                            | 3.00 | 1.60   | 0.80           | 84.252-080  |                            |
| 84.352-090  |                            | 3.00 | 1.60   | 0.90           | 84.252-090  |                            |
| 84.601-090  |                            | 3.00 | 1.60   | 0.90           | 84.701-090  |                            |
| 84.362-070  |                            | 3.00 | 1.80   | 0.70           | 84.262-070  |                            |
| 84.362-080* |                            | 3.00 | 1.80   | 0.80           | 84.262-080  |                            |
| 84.362-090  |                            | 3.00 | 1.80   | 0.90           | 84.262-090  |                            |
| 84.611-090  |                            | 3.00 | 1.80   | 0.90           | 84.711-090  |                            |
| 84.618-090  |                            | 3.00 | 2.00   | 0.90           | 84.720-090  |                            |
| 84.353-070  |                            | 3.50 | 1.60   | 0.70           | 84.253-070  |                            |
| 84.353-080* |                            | 3.50 | 1.60   | 0.80           | 84.253-080  |                            |
| 84.353-090  |                            | 3.50 | 1.60   | 0.90           | 84.253-090  |                            |
| 84.602-090  |                            | 3.50 | 1.60   | 0.90           | 84.702-090  |                            |
| 84.363-070  |                            | 3.50 | 1.80   | 0.70           | 84.263-070* |                            |
| 84.363-080* |                            | 3.50 | 1.80   | 0.80           | 84.263-080* |                            |
| 84.363-090  |                            | 3.50 | 1.80   | 0.90           | 84.263-090  |                            |
| 84.612-090  |                            | 3.50 | 1.80   | 0.90           | 84.712-090  |                            |
| 84.373-070  |                            | 3.50 | 2.00   | 0.70           | 84.273-070  |                            |
| 84.373-080  |                            | 3.50 | 2.00   | 0.80           | 84.273-080  |                            |
| 84.373-090  |                            | 3.50 | 2.00   | 0.90           | 84.273-090  |                            |
| 84.619-090  |                            | 3.50 | 2.00   | 0.90           | 84.721-090  |                            |
| 84.374-070* |                            | 3.80 | 2.00   | 0.70           | 84.274-070* |                            |
| 84.374-080* |                            | 3.80 | 2.00   | 0.80           | 84.274-080  |                            |
| 84.374-090  |                            | 3.80 | 2.00   | 0.90           | 84.274-090  |                            |
| 84.603-090  |                            | 4.00 | 1.60   | 0.90           | 84.703-090  |                            |
| 84.613-090  |                            | 4.00 | 1.80   | 0.90           | 84.713-090  |                            |
| 84.375-070* |                            | 4.00 | 2.00   | 0.70           | 84.275-070* |                            |
| -           |                            | 4.00 | 2.00   | 0.80           | 84.275-080* |                            |
| 84.375-090  |                            | 4.00 | 2.00   | 0.90           | 84.275-090  |                            |
| 84.620-090  |                            | 4.00 | 2.00   | 0.90           | 84.722-090  |                            |

| MSA         | Couleur acier/Steel colour  | Ø mm | Ø T mm | Ø Tar./Tap. mm | MSA         | Jaune/Noir<br>Yellow/Black  |
|-------------|---|------|--------|----------------|-------------|---|
| 84.385-070* |    | 4.00 | 2.50   | 0.70           | 84.285-070* |    |
| 84.385-080* |    | 4.00 | 2.50   | 0.80           | -           |    |
| 84.385-090  |    | 4.00 | 2.50   | 0.90           | 84.285-090  |    |
| 84.604-090  |    | 4.50 | 1.60   | 0.90           | 84.704-090  |    |
| 84.614-090  |    | 4.50 | 1.80   | 0.90           | 84.714-090  |    |
| 84.376-090  |    | 4.50 | 2.00   | 0.90           | 84.276-090  |    |
| 84.621-090  |    | 4.50 | 2.00   | 0.90           | 84.723-090  |    |
| 84.386-090  |    | 4.50 | 2.50   | 0.90           | 84.286-090  |    |
| 84.641-090  |    | 4.50 | 2.50   | 0.90           | -           | -   |
| 84.605-090  |    | 5.00 | 1.60   | 0.90           | 84.705-090  |    |
| 84.615-090  |    | 5.00 | 1.80   | 0.90           | 84.715-090  |    |
| 84.377-090  |    | 5.00 | 2.00   | 0.90           | 84.277-090  |    |
| 84.622-090  |    | 5.00 | 2.00   | 0.90           | 84.724-090  |    |
| 84.387-090  |    | 5.00 | 2.50   | 0.90           | 84.287-090  |    |
| 84.642-090  |    | 5.00 | 2.50   | 0.90           | -           | -   |
| 84.606-090  |    | 5.50 | 1.60   | 0.90           | 84.706-090  |    |
| 84.616-090  |   | 5.50 | 1.80   | 0.90           | 84.716-090  |   |
| 84.623-090  |  | 5.50 | 2.00   | 0.90           | 84.725-090  |  |
| 84.389-090  |  | 5.50 | 2.50   | 0.90           | 84.289-090  |  |
| 84.643-090  |  | 5.50 | 2.50   | 0.90           | -           | -   |
| 84.624-090  |  | 6.00 | 2.00   | 0.90           | -           | -   |
| 84.644-090  |  | 6.00 | 2.50   | 0.90           | -           | -   |
| 84.660-090  |  | 6.00 | 3.00   | 0.90           | 84.670-090  |  |
| 84.680-090  |  | 6.00 | 3.50   | 0.90           | 84.690-090  |  |
| 84.625-090  |  | 6.50 | 2.00   | 0.90           | -           | -   |
| 84.645-090  |  | 6.50 | 2.50   | 0.90           | -           | -   |
| 84.661-090  |  | 6.50 | 3.00   | 0.90           | 84.671-090  |  |
| 84.681-090  |  | 6.50 | 3.50   | 0.90           | 84.691-090  |  |

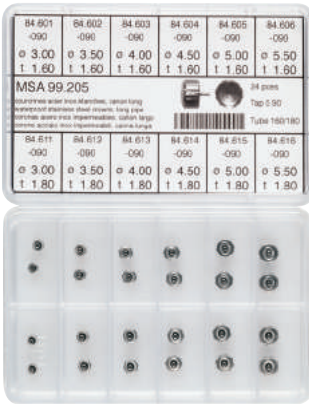
| MSA        | Couleur acier/Steel colour  | Ø mm | Ø T mm | Ø Tar./Tap. mm | MSA        | Jaune/Noir<br>Yellow/Black  |
|------------|---|------|--------|----------------|------------|---|
| 84.626-090 |    | 7.00 | 2.00   | 0.90           | -          | -   |
| 84.646-090 |    | 7.00 | 2.50   | 0.90           | -          | -   |
| 84.662-090 |    | 7.00 | 3.00   | 0.90           | 84.672-090 |    |
| 84.682-090 |    | 7.00 | 3.50   | 0.90           | 84.692-090 |    |
| 84.627-090 |    | 7.50 | 2.00   | 0.90           | -          | -   |
| 84.647-090 |    | 7.50 | 2.50   | 0.90           | -          | -   |
| 84.663-090 |    | 7.50 | 3.00   | 0.90           | 84.673-090 |    |
| 84.683-090 |    | 7.50 | 3.50   | 0.90           | 84.693-090 |    |
| 84.628-090 |    | 8.00 | 2.00   | 0.90           | -          | -   |
| 84.648-090 |    | 8.00 | 2.50   | 0.90           | -          | -   |
| 84.664-090 |   | 8.00 | 3.00   | 0.90           | 84.674-090 |   |
| 84.684-090 |  | 8.00 | 3.50   | 0.90           | 84.694-090 |  |
| 84.629-090 |  | 8.50 | 2.00   | 0.90           | -          | -   |
| 84.649-090 |  | 8.50 | 2.50   | 0.90           | -          | -   |
| 84.665-090 |  | 8.50 | 3.00   | 0.90           | 84.675-090 |  |
| 84.685-090 |  | 8.50 | 3.50   | 0.90           | 84.695-090 |  |
| 84.630-090 |  | 9.00 | 2.00   | 0.90           | -          | -   |
| 84.650-090 |  | 9.00 | 2.50   | 0.90           | -          | -   |
| 84.666-090 |  | 9.00 | 3.00   | 0.90           | 84.676-090 |  |
| 84.686-090 |  | 9.00 | 3.50   | 0.90           | 84.696-090 |  |

| MSA        | Couleur acier/Steel colour  | Ø mm  | Ø T mm | Ø Tar./Tap. mm | MSA        | Jaune/Noir<br>Yellow/Black  |
|------------|---|-------|--------|----------------|------------|---|
| 84.631-090 |  | 9.50  | 2.00   | 0.90           | -          | -   |
| 84.651-090 |  | 9.50  | 2.50   | 0.90           | -          | -   |
| 84.667-090 |  | 9.50  | 3.00   | 0.90           | 84.677-090 |  |
| 84.687-090 |  | 9.50  | 3.50   | 0.90           | 84.697-090 |  |
| 84.632-090 |  | 10.00 | 2.00   | 0.90           | -          | -   |
| 84.652-090 |  | 10.00 | 2.50   | 0.90           | -          | -   |
| 84.668-090 |  | 10.00 | 3.00   | 0.90           | 84.678-090 |  |
| 84.688-090 |  | 10.00 | 3.50   | 0.90           | 84.698-090 |  |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock

1/1



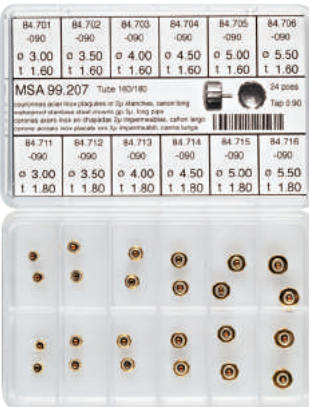


| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.205 | 24x | 0.031 |

Ø T 1.60 - 1.80 mm

Assortiment de couronnes étanches couleur acier, **canon long** ; acier inoxydable.  
 Assortiment of steel colour waterproof crowns, **long pipe** ; stainless steel.  
 Sortiment von Stahlfarbe wasserdichte Kronen, **langes Rohr** ; Edelstahl.  
 Sortido de coronas herméticas color acero, **cañón largo** ; acciaio inossidabile.  
 Assortimento di corone impermeabili colore acciaio, **cannotto lungo** ; acciaio inossidabile.  
 Sortido de coroas estanques cor aço, **canhão longo** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.601-090 /.602-090 /.603-090 /.604-090 /.605-090  
 /.606-090 /.611-090 /.612-090 /.613-090 /.614-090 /.615-090  
 /.616-090**

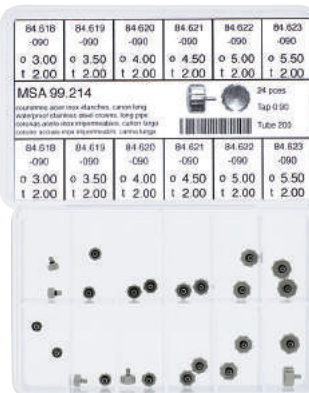


| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.207 | 24x | 0.031 |

Ø T 1.60 - 1.80 mm

Assortiment de couronnes étanches jaunes, **canon long** ; acier inoxydable.  
 Assortiment of yellow waterproof crowns, **long pipe** ; stainless steel.  
 Sortiment von gelbe wasserdichte Kronen, **langes Rohr** , Edelstahl.  
 Sortido de coronas herméticas amarillas, **cañón largo** ; acero inoxidable.  
 Assortimento di corone impermeabili gialle, **cannotto lungo** ; acciaio inossidabile.  
 Sortido de coroas estanques amarelas, **canhão longo** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.701-090 /.702-090 /.703-090 /.704-090 /.705-090  
 /.706-090 /.711-090 /.712-090 /.713-090 /.714-090 /.715-090  
 /.716-090**

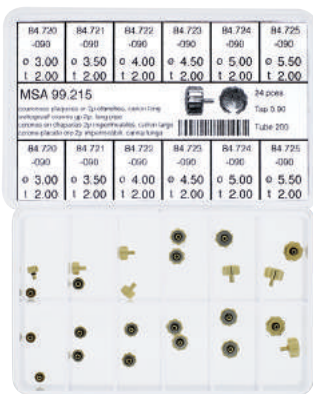


| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.214 | 24x | 0.030 |

Ø T 2.00 mm

Assortiment de couronnes étanches couleur acier, **canon long** ; acier inoxydable.  
 Assortiment of steel colour waterproof crowns, **long pipe** ; stainless steel.  
 Sortiment von Stahlfarbe wasserdichte Kronen, **langes Rohr** ; Edelstahl.  
 Sortido de coronas herméticas color acero, **cañón largo** ; acciaio inossidabile.  
 Assortimento di corone impermeabili colore acciaio, **cannotto lungo** ; acciaio inossidabile.  
 Sortido de coroas estanques cor aço, **canhão longo** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 6 modèles - models - Modelle - modelos - modelli - modelos  
 4x MSA84.618-090 /.619-090 /.620-090 /.621-090  
 /.622-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.215 | 24x | 0.030 |

Ø T 2.00 mm

Assortiment de couronnes étanches jaunes, **canon long** ; acier inoxydable.

Assortiment of yellow waterproof crowns, **long pipe** ; stainless steel.

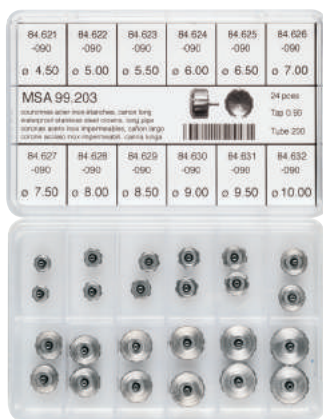
Sortiment von gelbe wasserdichte Kronen, **langes Rohr** , Edelstahl.

Surtido de coronas herméticas amarillas, **cañón largo** ; acero inoxidable.

Assortimento di corone impermeabili gialle, **canotto lungo** ; acciaio inossidabile.

Sortido de coroas estanques amarelas, **canhão longo** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 6 modèles - models - Modelle - modelos - modelli - modelos  
 4x MSA84.720-090 /.721-090 /.722-090 /.723-090 /.724-090  
 /.725-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.203 | 24x | 0.025 |

Ø T 2.00 mm

Assortiment de couronnes étanches couleur acier, **canon long** ; acier inoxydable.

Assortiment of steel colour waterproof crowns, **long pipe** ; stainless steel.

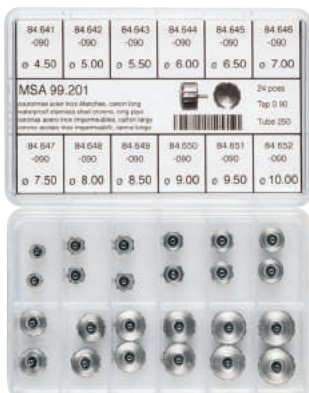
Sortiment von Stahlfarbe wasserdichte Kronen, **langes Rohr** ; Edelstahl.

Surtido de coronas herméticas color acero, **cañón largo** ; acciaio inossidabile.

Assortimento di corone impermeabili colore acciaio, **canotto lungo** ; acciaio inossidabile.

Sortido de coroas estanques cor aço, **canhão longo** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.621-090 /.622-090 /.623-090 /.624-090 /.625-090  
 /.626-090 /.627-090 /.628-090 /.629-090 /.630-090 /.631-090  
 /.632-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.201 | 24x | 0.025 |

Ø T 2.50 mm

Assortiment de couronnes étanches couleur acier, **canon long** ; acier inoxydable.

Assortiment of steel colour waterproof crowns, **long pipe** ; stainless steel.

Sortiment von Stahlfarbe wasserdichte Kronen, **langes Rohr** ; Edelstahl.

Surtido de coronas herméticas color acero, **cañón largo** ; acciaio inossidabile.

Assortimento di corone impermeabili colore acciaio, **canotto lungo** ; acciaio inossidabile.

Sortido de coroas estanques cor aço, **canhão longo** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.641-090 /.642-090 /.643-090 /.644-090 /.645-090  
 /.646-090 /.647-090 /.648-090 /.649-090 /.650-090 /.651-090  
 /.652-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.263 | 20x | 0.051 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches couleur acier, **canon court** ; acier inoxydable.

Assortiment of steel colour waterproof crowns, **short pipe** ; stainless steel.

Sortiment von Stahlfarbe wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.

Surtido de coronas herméticas color acero, **cañón corto** ; acero inoxidable.

Assortimento di corone impermeabili colore acciaio, **canotto corto** ; acciaio inossidabile.

Sortido de coroas estanques cor aço, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 10 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.660-090 /.662-090 /.664-090 /.666-090 /.668-090  
 /.680-090 /.682-090 /.684-090 /.686-090 /.688-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.264 | 20x | 0.052 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches noires, **canon court** ; acier inoxydable.

Assortiment of black waterproof crowns, **short pipe** ; stainless steel.

Sortiment von schwarzen wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.

Surtido de coronas herméticas negras, **cañón corto** ; acero inoxidable.

Assortimento di corone impermeabili nere, **canotto corto** ; acciaio inossidabile.

Sortido de coroas estanques pretas, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 10 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.670-090 /.672-090 /.674-090 /.676-090 /.678-090  
 /.690-090 /.692-090 /.694-090 /.696-090 /.698-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.267 | 16x | 0.044 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches couleur acier, **canon court** ; acier inoxydable.

Assortiment of steel colour waterproof crowns, **short pipe** ; stainless steel.

Sortiment von Stahlfarbe wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.

Surtido de coronas herméticas color acero, **cañón corto** ; acero inoxidable.

Assortimento di corone impermeabili colore acciaio, **canotto corto** ; acciaio inossidabile.

Sortido de coroas estanques cor aço, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 8 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.661-090 /.663-090 /.665-090 /.667-090 /.681-090  
 /.683-090 /.685-090 /.687-090**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.268 | 16x | 0.044 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches noires, **canon court** ; acier inoxydable.

Assortiment of black waterproof crowns, **short pipe** ; stainless steel.

Sortiment von schwarzen wasserdichte Kronen, **kurzes Rohr** ; Edelstahl.

Surtido de coronas herméticas negras, **cañón corto** ; acero inoxidable.

Assortimento di corone impermeabili nere, **cannotto corto** ; acciaio inossidabile.

Sortido de coroas estanques pretas, **canhão curto** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 8 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA84.671-090 /.673-090 /.675-090 /.677-090 /.691-090  
 /.693-090 /.695-090 /.697-090**



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.269 | 144x | 0.488 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches couleur acier, **canons courts et longs** ; acier inoxydable.

Assortiment of steel colour waterproof crowns, **short and long pipes** ; stainless steel.

Sortiment von Stahlfarbe wasserdichte Kronen, **kurzen und langen Rohre** ; Edelstahl.

Surtido de coronas herméticas color acero, **cañones cortos y largos** ; acciaio inossidabile.

Assortimento di corone impermeabili colore acciaio, **cannotti corti e lunghi** ; acciaio inossidabile.

Sortido de coroas estanques cor aço, **canhões curtos e longos** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 36 modèles - models - Modelle - modelos - modelli - modelos  
 4x MSA84.453-090 /.454-090 /.455-090 /.456-090 /.457-090  
 /.458-090 /.459-090 /.460-090 /.461-090 /.475-090 /.476-090  
 /.477-090 /.478-090 /.479-090 /.480-090 /.481-090 /.482-090  
 /.483-090 /.660-090 /.661-090 /.662-090 /.663-090 /.664-090  
 /.665-090 /.666-090 /.667-090 /.668-090 /.680-090 /.681-090  
 /.682-090 /.683-090 /.684-090 /.685-090 /.686-090 /.687-090  
 /.688-090**



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.270 | 144x | 0.488 |

Ø T 3.00 - 3.50 mm

Assortiment de couronnes étanches noires, **canons courts et longs** ; acier inoxydable.

Assortiment of black waterproof crowns, **short and long pipes** ; stainless steel.

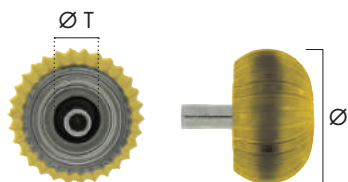
Sortiment von schwarzen wasserdichte Kronen, **kurzen und langen Rohre** ; Edelstahl.

Surtido de coronas herméticas negras, **cañones cortos y largos** ; acciaio inossidabile.

































Assortimento di corone impermeabili nere, **cannotti corti e lunghi** ; acciaio inossidabile.

Sortido de coroas estanques pretas, **canhões curtos e longos** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 36 modèles - models - Modelle - modelos - modelli - modelos  
 4x MSA84.465-090 /.466-090 /.467-090 /.468-090 /.469-090  
 /.470-090 /.471-090 /.472-090 /.473-090 /.485-090 /.486-090  
 /.487-090 /.488-090 /.489-090 /.490-090 /.491-090 /.492-090  
 /.493-090 /.670-090 /.671-090 /.672-090 /.673-090 /.674-090  
 /.675-090 /.676-090 /.677-090 /.678-090 /.690-090 /.691-090  
 /.692-090 /.693-090 /.694-090 /.695-090 /.696-090 /.697-090  
 /.698-090**



Couronne étanche type Pumpkin couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow waterproof crown Pumpkin type ; stainless steel.  
 Stahlfarbe und gelbe wasserdichte Krone Pumpkin Typ ; Edelstahl.  
 Corona hermética tipo Pumpkin color acero y amarilla ; acero inoxidable.  
 Corona impermeabile tipo Pumpkin colore acciaio e gialla ; acciaio inossidabile.  
 Coroa estanque tipo Pumpkin cor aço e amarela ; aço inoxidável.

| MSA        | Couleur acier /<br>Steel colour   | Ø mm | Hauteur tête /<br>Head height mm | Ø T mm | Longueur canon /<br>Pipe length mm | Ø Tar. /<br>Tap. mm | MSA        | Jaune /<br>Yellow   |
|------------|---|------|----------------------------------|--------|------------------------------------|---------------------|------------|---|
| 84.810-090 |       | 3.50 | 2.20                             | 1.80   | 2.00                               | 0.90                | 84.910-090 |     |
| 84.811-090 |       | 3.50 | 2.20                             | 2.00   | 2.00                               | 0.90                | 84.911-090 |     |
| 84.812-090 |       | 4.00 | 2.50                             | 1.80   | 2.00                               | 0.90                | 84.912-090 |     |
| 84.813-090 |       | 4.00 | 2.50                             | 2.00   | 2.00                               | 0.90                | 84.913-090 |     |
| 84.814-090 |       | 4.00 | 2.50                             | 2.50   | 2.00                               | 0.90                | 84.914-090 |     |
| 84.815-090 |       | 4.50 | 2.60                             | 1.80   | 2.00                               | 0.90                | 84.915-090 |     |
| 84.816-090 |       | 4.50 | 2.60                             | 2.00   | 2.00                               | 0.90                | 84.916-090 |     |
| 84.817-090 |       | 4.50 | 2.60                             | 2.50   | 2.00                               | 0.90                | 84.917-090 |     |
| 84.818-090 |       | 5.00 | 3.00                             | 1.80   | 2.50                               | 0.90                | 84.918-090 |     |
| 84.819-090 |       | 5.00 | 3.00                             | 2.00   | 2.50                               | 0.90                | 84.919-090 |     |
| 84.820-090 |       | 5.00 | 3.00                             | 2.50   | 2.50                               | 0.90                | 84.920-090 |     |
| 84.821-090 |       | 5.50 | 3.00                             | 1.80   | 2.50                               | 0.90                | 84.921-090 |     |
| 84.822-090 |       | 5.50 | 3.00                             | 2.00   | 2.50                               | 0.90                | 84.922-090 |     |
| 84.823-090 |     | 5.50 | 3.00                             | 2.50   | 2.50                               | 0.90                | 84.923-090 |   |
| 84.824-090 |   | 6.00 | 3.30                             | 2.00   | 3.00                               | 0.90                | -          | -   |
| 84.825-090 |   | 6.00 | 3.30                             | 2.50   | 3.00                               | 0.90                | -          | -   |
| 84.826-090 |   | 6.50 | 3.50                             | 2.00   | 3.00                               | 0.90                | -          | -   |
| 84.827-090 |   | 6.50 | 3.50                             | 2.50   | 3.00                               | 0.90                | -          | -   |
| 84.828-090 |   | 7.00 | 4.00                             | 2.00   | 3.00                               | 0.90                | -          | -   |
| 84.829-090 |   | 7.00 | 4.00                             | 2.50   | 3.00                               | 0.90                | -          | -   |
| 84.830-090 |   | 7.50 | 4.50                             | 2.00   | 3.00                               | 0.90                | -          | -   |
| 84.831-090 |   | 7.50 | 4.50                             | 2.50   | 3.00                               | 0.90                | -          | -   |
| 84.832-090 |   | 8.00 | 4.50                             | 2.00   | 3.00                               | 0.90                | -          | -   |
| 84.833-090 |   | 8.00 | 4.50                             | 2.50   | 3.00                               | 0.90                | -          | -   |

Kg 0.001

1/1

|         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
| 84.810  | 84.811  | 84.812  | 84.813  | 84.815  | 84.816  |
| ø 3,50  | ø 3,50  | ø 4,00  | ø 4,00  | ø 4,50  | ø 4,50  |
| h 2,20  | h 2,20  | h 2,50  | h 2,50  | h 2,60  | h 2,60  |
| øT 1,80 | øT 2,00 | øT 1,80 | øT 2,00 | øT 1,80 | øT 2,00 |

MSA 99.257



Assortiment de couronnes étanches type Pumpkin couleur acier ; acier inoxydable.  
 Assortment of steel colour waterproof crowns Pumpkin type ; stainless steel.  
 Sortiment von Stahlfarbe wasserdichte Kronen Pumpkin Typ ; Edelstahl.  
 Surtido de coronas herméticas tipo Pumpkin color acero ; acero inoxidable.  
 Assortimento di corone impermeabili tipo Pumpkin colore acciaio ; acciaio inossidabile.  
 Sortido de coroas estanques tipo Pumpkin cor aço ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA84.810-090 / .811-090 / .812-090 / .813/090 / .815-090**  
**/.816-090 / .818-090 / .819-090 / .821.090 / .822-090 / .824-090**  
**/.826-090**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.257 | 24x | 0.031 |

|         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
| 84.910  | 84.911  | 84.912  | 84.913  | 84.915  | 84.916  |
| ø 3,50  | ø 3,50  | ø 4,00  | ø 4,00  | ø 4,50  | ø 4,50  |
| h 2,20  | h 2,20  | h 2,50  | h 2,50  | h 2,60  | h 2,60  |
| øT 1,80 | øT 2,00 | øT 1,80 | øT 2,00 | øT 1,80 | øT 2,00 |

MSA 99.258



Assortiment de couronnes étanches type Pumpkin jaunes ; acier inoxydable.  
 Assortment of yellow waterproof crowns Pumpkin type ; stainless steel.  
 Sortiment von gelbe wasserdichte Kronen Pumpkin Typ ; Edelstahl.  
 Surtido de coronas herméticas tipo Pumpkin amarillas ; acero inoxidable.  
 Assortimento di corone impermeabili tipo Pumpkin gialle ; acciaio inossidabile.  
 Sortido de coroas estanques tipo Pumpkin amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA84.910-090 / .911-090 / .912-090 / .913/090 / .915-090**  
**/.916-090 / .918-090 / .919-090 / .920.090 / .921-090 / .922-090**  
**/.923-090**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.258 | 24x | 0.031 |

|         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
| 84.814  | 84.817  | 84.820  | 84.823  | 84.825  | 84.827  |
| ø 4,00  | ø 4,50  | ø 5,00  | ø 5,50  | ø 6,00  | ø 6,50  |
| h 2,50  | h 2,60  | h 3,00  | h 3,00  | h 3,50  | h 3,50  |
| øT 2,50 | øT 2,50 | øT 2,50 | øT 2,50 | øT 2,50 | øT 2,50 |

MSA 99.259



Assortiment de couronnes étanches type Pumpkin couleur acier ; acier inoxydable.  
 Assortment of steel colour waterproof crowns Pumpkin type ; stainless steel.  
 Sortiment von Stahlfarbe wasserdichte Kronen Pumpkin Typ ; Edelstahl.  
 Surtido de coronas herméticas tipo Pumpkin color acero ; acero inoxidable.  
 Assortimento di corone impermeabili tipo Pumpkin colore acciaio ; acciaio inossidabile.  
 Sortido de coroas estanques tipo Pumpkin cor aço ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA84.814-090 / .817-090 / .820-090 / .823/090 / .825-090**  
**/.827-090 / .828-090 / .829-090 / .830.090 / .831-090 / .832-090**  
**/.833-090**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.259 | 24x | 0.031 |



Couronne étanche avec canon coupé à ras et double joint couleur acier et jaune ; acier inoxydable.

*Steel colour and yellow waterproof crown with short cut pipe and double gasket ; stainless steel.*

Stahlfarbe und gelbe wasserdichte Krone mit kurzes geschnitten Rohr und Doppel Dichtung ; Edelstahl.

*Corona hermética con cañón cortado raso y doble junta color acero y amarilla ; acero inoxidable.*

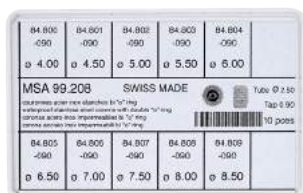
Corona impermeabile con canotto tagliato raso e doppia guarnizione colore acciaio e gialla ; acciaio inossidabile.

*Coroa estanque com canhão cortado raso e dupla junta cor aço e amarela ; aço inoxidável.*

| MSA         | Couleur acier/Steel colour | Ø mm | Ø T mm | Ø Tar./Tap. mm | MSA         | Jaune/Yellow |
|-------------|----------------------------|------|--------|----------------|-------------|--------------|
| 84.800-090* |                            | 4.00 | 2.50   | 0.90           | 84.900-090* |              |
| 84.801-090* |                            | 4.50 | 2.50   | 0.90           | 84.901-090* |              |
| 84.802-090* |                            | 5.00 | 2.50   | 0.90           | 84.902-090* |              |
| -           | -                          | 5.50 | 2.50   | 0.90           | 84.903-090* |              |
| 84.804-090* |                            | 6.00 | 2.50   | 0.90           | 84.904-090* |              |
| -           | -                          | 6.50 | 2.50   | 0.90           | 84.905-090* |              |
| -           | -                          | 7.00 | 2.50   | 0.90           | 84.906-090* |              |
| 84.807-090* |                            | 7.50 | 2.50   | 0.90           | 84.907-090* |              |
| 84.808-090* |                            | 8.00 | 2.50   | 0.90           | 84.908-090* |              |
| 84.809-090* |                            | 8.50 | 2.50   | 0.90           | 84.909-090* |              |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock

1/1



| MSA     | Qt. | Kg    |
|---------|-----|-------|
| 99.208* | 10x | 0.031 |

Assortiment de couronnes étanches avec canon coupé à ras et double joint couleur acier ; acier inoxydable.

Assortment of steel colour waterproof crown with short cut pipe and double gasket ; stainless steel.

Sortiment von Stahlfarbe wasserdichte Kronen mit kurzes geschnitten Rohr und Doppel Dichtung ; Edelstahl.

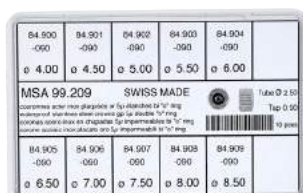
Surtido de coronas herméticas con cañón cortado raso y doble junta color acero ; acero inoxidable.

Assortimento di corone impermeabili con canotto tagliato raso e doppia guarnizione colore acciaio ; acciaio inossidabile.

Surtido de coroas estanques com canhão cortado raso e dupla junta cor aço ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 10 modèles - models - Modelle - modelos - modelli - modelos  
 1x MSA84.800-090 / .801-090 / .802-090 / .803/090 / .804-090  
 / .805-090 / .806-090 / .807-090 / .808.090 / .809-090**

\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock



| MSA     | Qt. | Kg    |
|---------|-----|-------|
| 99.209* | 10x | 0.031 |

Assortiment de couronnes étanches avec canon coupé à ras et double joint jaunes ; acier inoxydable.

Assortment of yellow waterproof crown with short cut pipe and double gasket ; stainless steel.

Sortiment von gelbe wasserdichte Kronen mit kurzes geschnitten Rohr und Doppel Dichtung ; Edelstahl.

Surtido de coronas herméticas con cañón cortado raso y doble junta amarillas ; acero inoxidable.

Assortimento di corone impermeabili con canotto tagliato raso e doppia guarnizione gialle ; acciaio inossidabile.

Surtido de coroas estanques com canhão cortado raso e dupla junta amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 10 modèles - models - Modelle - modelos - modelli - modelos  
 1x MSA84.900-090 / .901-090 / .902-090 / .903/090 / .904-090  
 / .905-090 / .906-090 / .907-090 / .908.090 / .909-090**





















\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock





Couronne étanche demi-boule couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow waterproof domed crown ; stainless steel.  
 Stahlfarbe und gelbe wasserdichte Halbkugel Krone ; Edelstahl.  
 Corona hermética media bola color acero y amarilla ; acero inoxidable.  
 Corona impermeabile demiboule colore acciaio e gialla ; acciaio inossidabile.  
 Coroa estanque meia bola cor aço e amarela ; aço inoxidável.

| MSA        | Couleur acier/Steel colour | Ø mm | Ø T mm | Ø Tar./Tap. mm | Dôme/Dome | MSA        | Jaune/Yellow |
|------------|----------------------------|------|--------|----------------|-----------|------------|--------------|
| 80.501-070 |                            | 2.80 | 1.60   | 0.70           | -         | 80.001-070 |              |
| 80.501-080 |                            | 2.80 | 1.60   | 0.80           | -         | 80.001-080 |              |
| 80.501     |                            | 2.80 | 1.60   | 0.90           | -         | 80.001     |              |
| 80.502-070 |                            | 3.00 | 1.60   | 0.70           | Bas/Low   | 80.002-070 |              |
| 80.502-080 |                            | 3.00 | 1.60   | 0.80           | Bas/Low   | 80.002-080 |              |
| 80.502     |                            | 3.00 | 1.60   | 0.90           | Bas/Low   | 80.002     |              |
| 80.503-070 |                            | 3.00 | 1.60   | 0.70           | Haut/High | 80.003-070 |              |
| 80.503-080 |                            | 3.00 | 1.60   | 0.80           | Haut/High | 80.003-080 |              |
| 80.503     |                            | 3.00 | 1.60   | 0.90           | Haut/High | 80.003     |              |
| 80.507-070 |                            | 3.00 | 1.80   | 0.70           | -         | 80.007-070 |              |
| 80.507-080 |                            | 3.00 | 1.80   | 0.80           | -         | 80.007-080 |              |
| 80.507     |                            | 3.00 | 1.80   | 0.90           | -         | 80.007     |              |
| 80.513-070 |                            | 3.25 | 2.00   | 0.70           | -         | 80.013-070 |              |
| 80.513-080 |                            | 3.25 | 2.00   | 0.80           | -         | 80.013-080 |              |
| 80.513     |                            | 3.25 | 2.00   | 0.90           | -         | 80.013     |              |
| 80.504-070 |                            | 3.50 | 1.60   | 0.70           | Bas/Low   | 80.004-070 |              |
| 80.504-080 |                            | 3.50 | 1.60   | 0.80           | Bas/Low   | 80.004-080 |              |
| 80.504     |                            | 3.50 | 1.60   | 0.90           | Bas/Low   | 80.004     |              |
| 80.505-070 |                            | 3.50 | 1.60   | 0.70           | Haut/High | 80.005-070 |              |
| 80.505-080 |                            | 3.50 | 1.60   | 0.80           | Haut/High | 80.005-080 |              |
| 80.505     |                            | 3.50 | 1.60   | 0.90           | Haut/High | 80.005     |              |
| 80.508-070 |                            | 3.50 | 1.80   | 0.70           | -         | 80.008-070 |              |
| 80.508-080 |                            | 3.50 | 1.80   | 0.80           | -         | 80.008-080 |              |
| 80.508     |                            | 3.50 | 1.80   | 0.90           | -         | 80.008     |              |
| 80.510-070 |                            | 3.50 | 2.00   | 0.70           | Bas/Low   | 80.010-070 |              |
| 80.510-080 |                            | 3.50 | 2.00   | 0.80           | Bas/Low   | 80.010-080 |              |
| 80.510     |                            | 3.50 | 2.00   | 0.90           | Bas/Low   | 80.010     |              |
| 80.511-070 |                            | 3.50 | 2.00   | 0.70           | Haut/High | 80.011-070 |              |
| 80.511-080 |                            | 3.50 | 2.00   | 0.80           | Haut/High | 80.011-080 |              |
| 80.511     |                            | 3.50 | 2.00   | 0.90           | Haut/High | 80.011     |              |
| 80.512-070 |                            | 3.75 | 2.00   | 0.70           | -         | 80.012-070 |              |
| 80.512-080 |                            | 3.75 | 2.00   | 0.80           | -         | 80.012-080 |              |
| 80.512     |                            | 3.75 | 2.00   | 0.90           | -         | 80.012     |              |
| 80.506-070 |                            | 4.00 | 1.60   | 0.70           | -         | 80.006-070 |              |
| 80.506-080 |                            | 4.00 | 1.60   | 0.80           | -         | 80.006-080 |              |
| 80.506     |                            | 4.00 | 1.60   | 0.90           | -         | 80.006     |              |

| MSA        | Couleur acier/Steel colour  | Ø mm | Ø T mm | Ø Tar./Tap. mm | Dôme/Dome | MSA        | Jaune/Yellow  |
|------------|---|------|--------|----------------|-----------|------------|---|
| 80.509-070 |    | 4.00 | 1.80   | 0.70           | -         | 80.009-070 |    |
| 80.509-080 |   | 4.00 | 1.80   | 0.80           | -         | 80.009-080 |   |
| 80.509     |   | 4.00 | 1.80   | 0.90           | -         | 80.009     |   |
| 80.514-070 |    | 4.00 | 2.00   | 0.70           | -         | 80.014-070 |    |
| 80.514-080 |   | 4.00 | 2.00   | 0.80           | -         | 80.014-080 |   |
| 80.514     |   | 4.00 | 2.00   | 0.90           | -         | 80.014     |   |
| 80.515-070 |    | 4.50 | 2.00   | 0.70           | -         | 80.015-070 |    |
| 80.515-080 |   | 4.50 | 2.00   | 0.80           | -         | 80.015-080 |   |
| 80.515     |   | 4.50 | 2.00   | 0.90           | -         | 80.015     |   |
| 80.517-070 |    | 4.50 | 2.50   | 0.70           | -         | 80.017-070 |    |
| 80.517-080 |   | 4.50 | 2.50   | 0.80           | -         | 80.017-080 |   |
| 80.517     |   | 4.50 | 2.50   | 0.90           | -         | 80.017     |   |
| 80.516-070 |    | 5.00 | 2.00   | 0.70           | -         | 80.016-070 |    |
| 80.516-080 |   | 5.00 | 2.00   | 0.80           | -         | 80.016-080 |   |
| 80.516     |   | 5.00 | 2.00   | 0.90           | -         | 80.016     |   |
| 80.518-070 |    | 5.00 | 2.50   | 0.70           | -         | 80.018-070 |    |
| 80.518-080 |   | 5.00 | 2.50   | 0.80           | -         | 80.018-080 |   |
| 80.518     |   | 5.00 | 2.50   | 0.90           | -         | 80.018     |   |
| 80.519     |    | 5.50 | 2.00   | 0.90           | -         | 80.019     |    |
| 80.520     |    | 5.50 | 2.50   | 0.90           | -         | 80.020     |    |
| 80.521     |  | 6.00 | 2.00   | 0.90           | -         | 80.021     |  |
| 80.522     |  | 6.00 | 2.50   | 0.90           | -         | 80.022     |  |

Kg 0.001

1/1

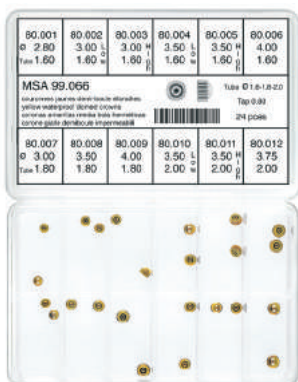


**Ø taraudage/tap/Gewinde/rosca/maschiatura/rosca 0.70 mm  
 Ø T 2.00 - 2.50 mm**

Assortiment de couronnes étanches demi-boule couleur acier et jaunes ; acier inoxydable.  
 Assortiment of steel colour and yellow waterproof domed crowns ; stainless steel.  
 Sortiment von Stahlfarbe und gelbe wasserdichte Halbkugel Kronen ; Edelstahl.  
 Surtido de coronas herméticas media bola color acero y amarillas ; acero inoxidable.  
 Assortimento di corone impermeabili demiboule colore acciaio e gialle ; acciaio inossidabile.  
 Sortido de coroas estanques meia bola cor aço e amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA80.013-070 /.014-070 /.015-070 /.016-070 /.017-070  
 /.018-070 /.513-070 /.514-070 /.515-070 /.516-070 /.517-070  
 /.518-070**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.072 | 24x | 0.049 |

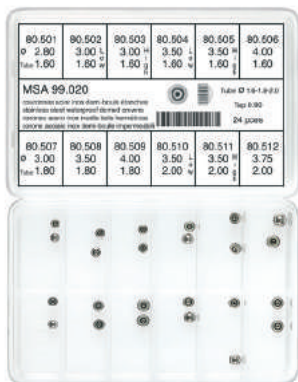


**Ø taraudage/tap/Gewinde/rosca/maschiatura/rosca 0.80 mm  
 Ø T 1.60 - 1.80 - 2.00 mm**

Assortiment de couronnes étanches demi-boule jaunes ; acier inoxydable.  
 Assortiment of yellow waterproof domed crowns ; stainless steel.  
 Sortiment von gelbe wasserdichte Halbkugel Kronen ; Edelstahl.  
 Surtido de coronas herméticas media bola amarillas ; acero inoxidable.  
 Assortimento di corone impermeabili demiboule gialle ; acciaio inossidabile.  
 Sortido de coroas estanques meia bola amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA80.001-080 /.002-080 /.003-080 /.004-080 /.005-080  
 /.006-080 /.007-080 /.008-080 /.009-080 /.010-080 /.011-080  
 /.012-080**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.066 | 24x | 0.049 |



**Ø taraudage/tap/Gewinde/rosca/maschiatura/rosca 0.90 mm**  
**Ø T 1.60 - 1.80 - 2.00 mm**

Assortiment de couronnes étanches demi-boule couleur acier ; acier inoxydable.  
 Assortment of steel colour waterproof domed crowns ; stainless steel.  
 Sortiment von Stahlfarbe wasserdichte Halbkugel Kronen ; Edelstahl.  
 Surtido de coronas herméticas media bola color acero ; acero inoxidable.  
 Assortimento di corone impermeabili demiboule colore acciaio ; acciaio inossidabile.  
 Sortido de coroas estanques meia bola cor aço ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA80.501 /.502 /.503 /.504 /.505 /.506 /.507 /.508 /.509**  
**/.510 /.511 /.512**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.020 | 24x | 0.049 |

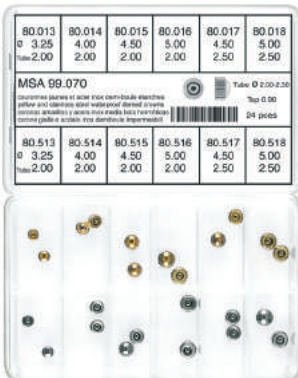


**Ø taraudage/tap/Gewinde/rosca/maschiatura/rosca 0.90 mm**  
**Ø T 1.60 - 1.80 - 2.00 mm**

Assortiment de couronnes étanches demi-boule jaunes ; acier inoxydable.  
 Assortment of yellow waterproof domed crowns ; stainless steel.  
 Sortiment von gelbe wasserdichte Halbkugel Kronen ; Edelstahl.  
 Surtido de coronas herméticas media bola amarillas ; acero inoxidable.  
 Assortimento di corone impermeabili demiboule gialle ; acciaio inossidabile.  
 Sortido de coroas estanques meia bola amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA80.001 /.002 /.003 /.004 /.005 /.006 /.007 /.008 /.009**  
**/.010 /.011 /.012**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.019 | 24x | 0.049 |

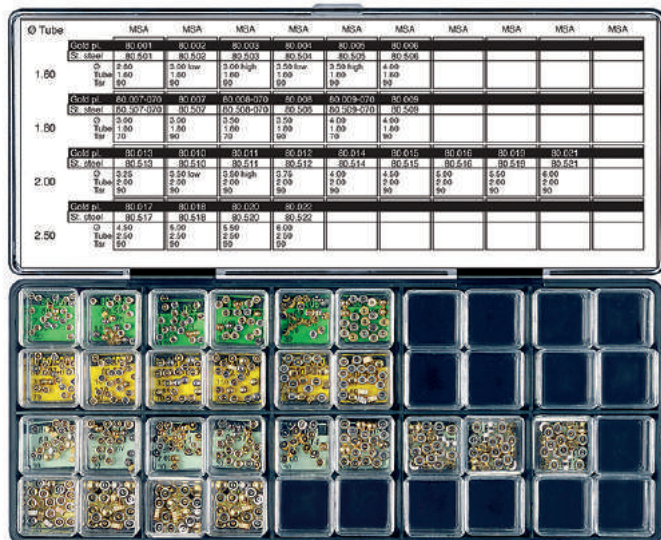


**Ø taraudage/tap/Gewinde/rosca/maschiatura/rosca 0.90 mm**  
**Ø T 2.00 - 2.50 mm**

Assortiment de couronnes étanches demi-boule couleur acier et jaunes ; acier inoxydable.  
 Assortment of steel colour and yellow waterproof domed crowns ; stainless steel.  
 Sortiment von Stahlfarbe und gelbe wasserdichte Halbkugel Kronen ; Edelstahl.  
 Surtido de coronas herméticas media bola color acero y amarillas ; acero inoxidable.  
 Assortimento di corone impermeabili demiboule colore acciaio e gialle ; acciaio inossidabile.  
 Sortido de coroas estanques meia bola cor aço e amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA80.013 /.014 /.015 /.016 /.017 /.018 /.513 /.514 /.515**  
**/.516 /.517 /.518**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.070 | 24x | 0.049 |



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.254 | 500x | 0.750 |

**Ø taraudage/tap/Gewinde/rosca/maschiatura/rosca 0.70 - 0.90 mm**  
**Ø T 1.60 - 1.80 - 2.00 - 2.50 mm**

Assortiment de couronnes étanches demi-boule, 125 couleur acier et 375 jaunes ; acier inoxydable.

Assortiment of waterproof domed crowns, 125 steel colour and 375 yellow ; stainless steel.

Sortiment von wasserdichte Halbkugel Kronen, 125 Stahlfarbe und 375 gelbe ; Edelstahl.

Surtido de coronas herméticas media bola, 125 color acero y 375 amarillas ; acero inoxidable.

Assortimento di corone impermeabili demiboule, 125 colore acciaio e 375 gialle ; acciaio inossidabile.

Sortido de coroas estanques meia bola, 125 cor aço e 375 amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Conteúdo :**

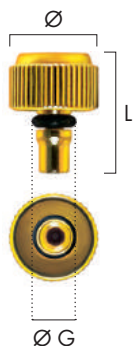
**50 modèles - models - Modelle - modelos - modelli - modelos**

**15x MSA80.001 /.002 /.003 /.004 /.005 /.006 /.007 /.007-070 /.008 /.008-070 /.009 /.009-070**

**/.010 /.011 /.012 /.013 /.014 /.015 /.016 /.017 /.018 /.019 /.020 /.021 /.022**

**5x MSA80.501 /.502 /.503 /.504 /.505 /.506 /.507 /.507-070 /.508 /.508-070 /.509 /.509-070**

**/.510 /.511 /.512 /.513 /.514 /.515 /.516 /.517 /.518 /.519 /.520 /.521 /.522**



Couronne japonaise couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow Japanese crown ; stainless steel.  
 Stahlfarbe und gelbe Japanische Krone ; Edelstahl.  
 Corona japonesa color acero y amarilla ; acero inoxidable.  
 Corona giapponese colore acciaio e gialla ; acciaio inossidabile.  
 Coroa japonesa cor aço e amarela ; aço inoxidável.

| MSA    | Couleur acier /<br>Steel colour | N°/No.                 | Ø<br>mm | Ø G<br>mm | Ø Tar./Tap.<br>mm | Longueur /<br>Length mm | MSA     | Jaune /<br>Yellow | N°/No.    |
|--------|---------------------------------|------------------------|---------|-----------|-------------------|-------------------------|---------|-------------------|-----------|
| -      | -                               | -                      | 3.00    | 1.50      | 0.70              | 2.20                    | 81.002  |                   | 506-D502B |
| -      | -                               | -                      | 3.50    | 1.50      | 0.90              | 4.10                    | 81.001  |                   | 506-B782B |
| 81.504 |                                 | 506-2251<br>506-225XU  | 3.50    | 1.80      | 0.70              | 2.10                    | 81.004  |                   | 506-2254  |
| -      | -                               | -                      | 3.50    | 1.80      | 0.90              | 4.70                    | 81.008* |                   | 506-4494  |
| -      | -                               | -                      | 3.75    | 1.80      | 0.90              | 5.10                    | 81.009  |                   | 506-3814  |
| 81.507 |                                 | 506-2101<br>506-2100-A | 4.00    | 1.80      | 0.90              | 2.50                    | 81.007  |                   | 506-2104  |
| 81.506 |                                 | 506-2881<br>506-2880-A | 4.00    | 1.80      | 0.90              | 2.70                    | 81.006  |                   | 506-2884  |

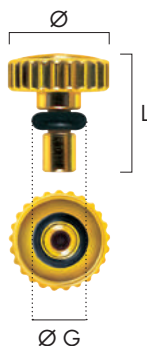
**Kg 0.001** \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.111 | 20x | 0.074 |

Assortiment de couronnes japonaises couleur acier et jaunes ; acier inoxydable.  
 Assortiment of steel colour and yellow Japanese crowns ; stainless steel.  
 Sortiment von Stahlfarbe und gelbe Japanische Kronen ; Edelstahl.  
 Surtido de coronas japonesas color acero y amarillas ; acero inoxidable.  
 Assortimento di corone giapponesi colore acciaio e gialle ; acciaio inossidabile.  
 Sortido de coroas japonesas cor aço e amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**10 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA81.001 / .002 / .004 / .006 / .007 / .008 / .009 / .504 / .506 / .507**

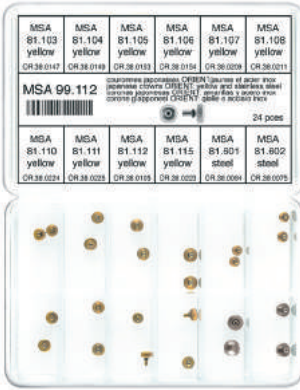


Couronne japonaise couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow Japanese crown ; stainless steel.  
 Stahlfarbe und gelbe Japanische Krone ; Edelstahl.  
 Corona japonesa color acero y amarilla ; acero inoxidable.  
 Corona giapponese colore acciaio e gialla ; acciaio inossidabile.  
 Coroa japonesa cor aço e amarela ; aço inoxidável.

| MSA     | Couleur acier/<br>Steel colour | N°/No.   | Ø<br>mm | Ø G<br>mm | Ø Tar./Tap.<br>mm | Longueur/<br>Length mm | MSA    | Jaune/<br>Yellow | N°/No.     |
|---------|--------------------------------|----------|---------|-----------|-------------------|------------------------|--------|------------------|------------|
| -       | -                              | -        | 3.00    | 1.30      | 0.60              | 3.75                   | 81.108 |                  | 38-0211NGP |
| -       | -                              | -        | 3.00    | 1.30      | 0.60              | 3.95                   | 81.112 |                  | 38-0105NGP |
| -       | -                              | -        | 3.00    | 1.30      | 0.60              | 4.15                   | 81.107 |                  | 38-0209NGP |
| 81.614  |                                | 38-0239S | 3.00    | 1.40      | 0.80              | 3.95                   | 81.114 |                  | 38-0239NGP |
| -       | -                              | -        | 3.00    | 1.50      | 0.60              | 2.55                   | 81.109 |                  | 38-0216NGP |
| -       | -                              | -        | 3.50    | 1.30      | 0.60              | 4.15                   | 81.111 |                  | 38-0225NGP |
| -       | -                              | -        | 3.50    | 1.40      | 0.80              | 3.60                   | 81.103 |                  | 38-0147NGP |
| -       | -                              | -        | 3.50    | 1.40      | 0.80              | 3.95                   | 81.105 |                  | 38-0153NGP |
| -       | -                              | -        | 3.50    | 1.40      | 0.80              | 4.15                   | 81.104 |                  | 38-0149NGP |
| -       | -                              | -        | 3.50    | 1.50      | 0.60              | 2.55                   | 81.110 |                  | 38-0224NGP |
| 81.615  |                                | 38-0223S | 3.50    | 1.50      | 0.90              | 3.60                   | 81.115 |                  | 38-0223NGP |
| 81.613* |                                | 38-0157S | 3.50    | 1.70      | 0.80              | 2.40                   | 81.113 |                  | 38-0157NGP |
| 81.606* |                                | 38-0154S | 4.00    | 1.50      | 0.80              | 4.00                   | 81.106 |                  | 38-0154NGP |
| 81.602  |                                | 38-0075S | 4.00    | 2.10      | 0.90              | 4.85                   | 81.102 |                  | 38-0075NGP |
| 81.601  |                                | 38-0064S | 4.50    | 1.80      | 0.90              | 2.50                   | 81.101 |                  | 38-0064NGP |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock

1/1



Assortiment de couronnes japonaises couleur acier et jaunes ; acier inoxydable.

Assortiment of steel colour and yellow Japanese crowns ; stainless steel.

Sortiment von Stahlfarbe und gelbe Japanische Kronen ; Edelstahl.

Surtido de coronas japonesas color acero y amarillas ; acero inoxidable.

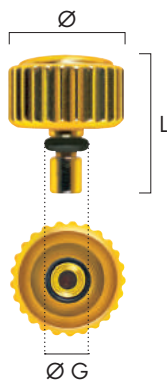
Assortimento di corone giapponesi colore acciaio e gialle ; acciaio inossidabile.

Sortido de coroas japonesas cor aço e amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA81.103 /.104 /.105 /.106 /.107 /.108 /.110 /.111 /.112**  
**/.115 /.601 /.602**












































| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.112 | 24x | 0.049 |





































Couronne japonaise couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow Japanese crown ; stainless steel.  
 Stahlfarbe und gelbe Japanische Krone ; Edelstahl.  
 Corona japonesa color acero y amarilla ; acero inoxidable.  
 Corona giapponese colore acciaio e gialla ; acciaio inossidabile.  
 Coroa japonesa cor aço e amarela ; aço inoxidável.

| MSA     | Couleur acier /<br>Steel colour | N°/No.     | Ø<br>mm | Ø G<br>mm | Ø Tar./Tap.<br>mm | Longueur/<br>Length mm | MSA     | Jaune/<br>Yellow | N°/No.     |
|---------|---------------------------------|------------|---------|-----------|-------------------|------------------------|---------|------------------|------------|
| -       | -                               | -          | 2.50    | 1.00      | 0.60              | 3.35                   | 81.201  |                  | 25M04NA1   |
| -       | -                               | -          | 3.00    | 1.00      | 0.60              | 3.00                   | 81.206  |                  | 30M82NA1   |
| 81.707  |                                 | 30M68NS1   | 3.00    | 1.00      | 0.60              | 3.10                   | 81.207  |                  | 30M68NF1   |
| 81.708  |                                 | 30M98NS1   | 3.00    | 1.00      | 0.60              | 3.25                   | 81.208  |                  | 30M98NA1   |
| -       | -                               | -          | 3.00    | 1.00      | 0.60              | 3.45                   | 81.246  |                  | 30MA2NA1   |
| -       | -                               | -          | 3.00    | 1.00      | 0.60              | 3.65                   | 81.265  |                  | 6M30A3NNG1 |
| -       | -                               | -          | 3.00    | 1.10      | 0.80              | 4.25                   | 81.275* |                  | 30M89NN1   |
| 81.704  |                                 | 30M08NS1   | 3.00    | 1.30      | 0.80              | 3.55                   | 81.204  |                  | 30M08NA1   |
| -       | -                               | -          | 3.00    | 1.30      | 0.80              | 3.60                   | 81.245  |                  | 30MA6NA1   |
| -       | -                               | -          | 3.00    | 1.30      | 0.80              | 4.00                   | 81.258  |                  | 8M30A0NNG2 |
| -       | -                               | -          | 3.00    | 1.50      | 0.60              | 2.20                   | 81.244  |                  | 30NA9NN1   |
| 81.702* |                                 | 30E02NS1   | 3.00    | 1.50      | 0.80              | 2.55                   | 81.202* |                  | 30E02NF1   |
| 81.705  |                                 | 30M22NS1   | 3.00    | 1.50      | 0.80              | 3.90                   | 81.205  |                  | 30M22NA1   |
| -       | -                               | -          | 3.20    | 1.00      | 0.60              | 3.15                   | 81.241  |                  | 32M63NN1   |
| 81.709  |                                 | 32M29NS1   | 3.20    | 1.00      | 0.60              | 3.25                   | 81.209  |                  | 32M29NN1   |
| 81.710  |                                 | 32N23NS1   | 3.20    | 1.40      | 0.60              | 2.10                   | 81.210  |                  | 32N23NN1   |
| -       | -                               | -          | 3.20    | 1.40      | 0.80              | 3.75                   | 81.243  |                  | 32M01NN1   |
| 81.712  |                                 | 35D15NS1   | 3.50    | -         | 0.80              | 2.00                   | 81.212  |                  | 35D15NN1   |
| 81.711  |                                 | 35D03NS1   | 3.50    | -         | 0.90              | 2.00                   | 81.211  |                  | 35D03NN1   |
| -       | -                               | -          | 3.50    | 1.00      | 0.60              | 3.00                   | 81.262  |                  | 35MK6NA1   |
| -       | -                               | -          | 3.50    | 1.00      | 0.60              | 3.05                   | 81.248* |                  | 35MX7NN1   |
| 81.742  |                                 | 8M35A9SNW0 | 3.50    | 1.00      | 0.80              | 3.75                   | -       | -                | -          |

| MSA     | Couleur acier/<br>Steel colour  | N°/No.     | Ø<br>mm | Ø G<br>mm | Ø Tar./Tap.<br>mm | Longueur/<br>Length mm | MSA     | Jaune/<br>Yellow   | N°/No.     |
|---------|---|------------|---------|-----------|-------------------|------------------------|---------|--|------------|
| 81.719  |    | 35M94NS1   | 3.50    | 1.30      | 0.80              | 3.00                   | 81.219  |    | 35M94NA1   |
| 81.721  |    | 35M98NS1   | 3.50    | 1.30      | 0.80              | 3.30                   | 81.221  |    | 35M98NA1   |
| -       | -   | -          | 3.50    | 1.30      | 0.80              | 3.35                   | 81.224  |    | 35MR6NF1   |
| -       | -   | -          | 3.50    | 1.30      | 0.80              | 3.70                   | 81.264  |    | 8M35A7NNG0 |
| -       | -   | -          | 3.50    | 1.30      | 0.80              | 3.75                   | 81.252  |    | 8M35A9NNG0 |
| 81.725  |    | 35MR8NS1   | 3.50    | 1.30      | 0.80              | 3.85                   | 81.225  |    | 35MR8NF1   |
| 81.750  |    | 8M35A0SNW1 | 3.50    | 1.30      | 0.80              | 4.00                   | 81.250  |    | 8M35A0NNG1 |
| -       | -   | -          | 3.50    | 1.30      | 0.80              | 4.00                   | 81.251  |    | 8M35A0NNG2 |
| -       | -   | -          | 3.50    | 1.30      | 0.80              | 4.00                   | 81.259  |    | 8M35A0BNG1 |
| -       | -   | -          | 3.50    | 1.30      | 0.80              | 4.00                   | 81.260  |    | 8M35B4NNG1 |
| -       | -   | -          | 3.50    | 1.30      | 0.80              | 4.10                   | 81.228  |    | 35MV3NN1   |
| -       | -   | -          | 3.50    | 1.30      | 0.80              | 4.25                   | 81.271* |    | 35MK3NN1   |
| -       | -   | -          | 3.50    | 1.30      | 0.80              | 4.85                   | 81.254* |    | 35MX2NF1   |
| -       | -   | -          | 3.50    | 1.40      | 0.80              | 2.25                   | 81.247* |    | 35E43NN1   |
| -       | -   | -          | 3.50    | 1.40      | 0.80              | 4.00                   | 81.216  |    | 35M81NN1   |
| -       | -   | -          | 3.50    | 1.40      | 0.80              | 4.00                   | 81.220* |   | 35M97NN1   |
| 81.717  |  | 35M82NS1   | 3.50    | 1.40      | 0.80              | 4.10                   | 81.217  |  | 35M82NA1   |
| 81.727  |  | 35MU6NC1   | 3.50    | 1.40      | 0.80              | 4.35                   | 81.227  |  | 35MU6NF1   |
| 81.726  |  | 35MS4NC1   | 3.50    | 1.40      | 0.80              | 4.90                   | 81.226  |  | 35MS4NF1   |
| 81.713  |  | 35E09NS1   | 3.50    | -         | 0.80              | 2.45                   | 81.213  |  | 35E09NN1   |
| 81.772* |  | 35MRONC1   | 3.50    | 1.50      | 0.80              | 4.85                   | -       | -  | -          |
| 81.722  |  | 35ME9NS1   | 3.50    | 1.70      | 0.80              | 2.75                   | 81.222  |  | 35ME9NN1   |
| -       | -   | -          | 3.50    | 1.70      | 0.80              | 3.25                   | 81.223  |  | 35MJ3NN1   |
| -       | -   | -          | 3.50    | 1.80      | 0.60              | 4.75                   | 81.214  |  | 35M18NA1   |
| 81.715  |  | 35M68NS1   | 3.50    | 1.80      | 0.90              | 4.70                   | 81.215  |  | 35M68NA1   |
| 81.718  |  | 35M90NS1   | 3.50    | 1.80      | 0.90              | 4.85                   | 81.218  |  | 35M90NA1   |
| 81.744  |  | 40MK5NS1   | 4.00    | 1.00      | 0.90              | 4.80                   | -       | -  | -          |
| -       | -   | -          | 4.00    | 1.30      | 0.80              | 4.80                   | 81.253  |  | 8M40A0NNG1 |
| 81.761  |  | 8M40A0SNW1 | 4.00    | 1.30      | 0.80              | 4.80                   | -       | -  | -          |
| -       | -   | -          | 4.00    | 1.30      | 0.80              | 4.80                   | 81.263  |  | 8M40A0NNG3 |
| 81.766  |  | 9M40B3SNW0 | 4.00    | 1.30      | 0.80              | 5.00                   | 81.266  |  | 9M40B3SNG0 |

| MSA    | Couleur acier/<br>Steel colour  | N°/No.     | Ø<br>mm | Ø G<br>mm | Ø Tar./Tap.<br>mm | Longueur/<br>Length mm | MSA     | Jaune/<br>Yellow  | N°/No.       |
|--------|---|------------|---------|-----------|-------------------|------------------------|---------|---|--------------|
| -      | -   | -          | 4.00    | 1.50      | 0.80              | 3.80                   | 81.256* |    | 40M92NA1     |
| -      | -   | -          | 4.00    | 1.50      | 0.80              | 3.95                   | 81.257* |    | 40MJ3NA1     |
| -      | -   | -          | 4.00    | 1.50      | 0.80              | 4.40                   | 81.236  |    | 40MH1NN1     |
| 81.731 |    | 40MD4NS1   | 4.00    | 1.50      | 0.80              | 4.75                   | 81.231  |    | 40MD4NA1     |
| -      | -   | -          | 4.00    | 1.50      | 0.80              | 4.80                   | 81.255* |    | 40M78NA1/NF1 |
| -      | -   | -          | 4.00    | 1.50      | 0.80              | 5.10                   | 81.249  |    | 40M82NA1     |
| -      | -   | -          | 4.00    | 1.80      | 0.80              | 4.20                   | 81.278  |    | 40M97NA1     |
| 81.735 |    | 40MC5NS1   | 4.00    | 1.80      | 0.90              | 4.45                   | 81.235  |    | 40MC5NN1     |
| -      | -   | -          | 4.00    | 1.80      | 0.90              | 4.55                   | 81.239  |    | 40ML9NN1     |
| 81.734 |    | 40M76NS1   | 4.00    | 1.80      | 0.90              | 4.70                   | 81.234  |    | 40M76NA1     |
| 81.737 |    | 40MK1NS1   | 4.00    | 1.80      | 0.90              | 5.00                   | 81.237  |    | 40MK1NN1     |
| -      | -   | -          | 4.00    | 2.00      | 0.90              | 4.00                   | 81.238  |    | 40ML5NN1     |
| 81.729 |    | 40M54NS1   | 4.00    | 2.00      | 1.00              | 4.80                   | 81.229  |    | 40M54NA1     |
| 81.730 |    | 40M58NS1   | 4.00    | 2.00      | 1.00              | 5.00                   | 81.230  |    | 40M58NA1     |
| -      | -   | -          | 4.00    | 2.20      | 0.90              | 5.00                   | 81.233  |    | 40M71NA1     |
| -      | -   | -          | 4.00    | 2.20      | 0.90              | 5.25                   | 81.232  |   | 40M69NN1     |
| 81.738 |  | 40ML5NS1   | 4.00    | 2.20      | 0.90              | 4.05                   | -       | -   | -            |
| 81.774 |  | 9M40B5SNW0 | 4.00    | 2.40      | 0.80              | 4.30                   | -       | -   | -            |
| 81.743 |  | 9M45F3SNS0 | 4.50    | 1.10      | 0.90              | 4.60                   | -       | -   | -            |
| 81.777 |  | 45M47NS1   | 4.50    | 1.30      | 0.80              | 5.25                   | -       | -   | -            |
| 81.773 |  | 45E41NS1   | 4.50    | 1.50      | 0.80              | 4.95                   | -       | -   | -            |
| -      | -   | -          | 4.50    | 1.80      | 0.80              | 5.30                   | 81.276  |  | 45M47NN1     |
| 81.745 |  | 45M60NS1   | 4.50    | 1.85      | 0.80              | 5.75                   | -       | -   | -            |
| 81.740 |  | 45M30NS1   | 4.50    | 2.00      | 1.00              | 5.80                   | 81.240  |  | 45M30NA1     |
| 81.741 |  | 8K45C1TNW0 | 4.50    | 2.15      | 0.80              | 6.20                   | -       | -   | -            |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock

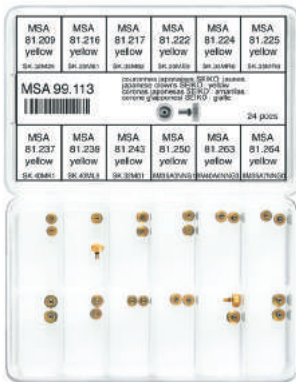
1/1



Assortiment de couronnes japonaises couleur acier ; acier inoxydable.  
*Assortment of steel colour Japanese crowns ; stainless steel.*  
 Sortiment von Stahlfarbe Japanische Kronen ; Edelstahl.  
*Surtido de coronas japonesas color acero ; acero inoxidable.*  
 Assortimento di corone giapponesi colore acciaio ; acciaio inossidabile.  
*Sortido de coroas japonesas cor aço ; aço inoxidável.*

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.114 | 24x | 0.049 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA81.705 /.709 /.717 /.719 /.721 /.722 /.725 /.730 /.734**  
**/.735 /.737 /.761**



Assortiment de couronnes japonaises jaunes ; acier inoxydable.  
*Assortment of yellow Japanese crowns ; stainless steel.*  
 Sortiment von gelbe Japanische Kronen ; Edelstahl.  
*Surtido de coronas japonesas amarillas ; acero inoxidable.*  
 Assortimento di corone giapponesi gialle ; acciaio inossidabile.  
*Sortido de coroas japonesas amarelas ; aço inoxidável.*

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.113 | 24x | 0.049 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA81.209 /.216 /.217 /.222 /.224 /.225 /.237 /.239 /.243**  
**/.250 /.263 /.264**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.260 | 80x | 0.340 |

Assortiment de couronnes japonaises couleur acier et jaunes ; acier inoxydable.

Assortiment of steel colour and yellow Japanese crowns ; stainless steel.

Sortiment von Stahlfarbe und gelbe Japanische Kronen ; Edelstahl.

Surtido de coronas japonesas color acero y amarillas ; acero inoxidable.

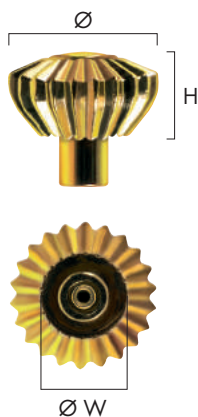
Assortimento di corone giapponesi colore acciaio e gialle ; acciaio inossidabile.

Sortido de coroaas japonesas cor aço e amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Conteúdo :**

**40 modèles - models - Modelle - modelos - modelli - modelos**

**2x MSA81.001 / .101 / .108 / .201 / .206 / .208 / .209 / .216 / .217 / .222 / .224 / .225 / .229 / .237 / .239 / .243 / .250 / .263 / .264 / .602 / .615 / .705 / .709 / .717 / .721 / .722 / .725 / .729 / .730 / .731 / .737 / .739 / .740 / .741 / .742 / .743 / .744 / .745 / .761 / .773**



Couronne pour montres de poche couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow pocket watches crown ; stainless steel.

Stahlfarbe und gelbe Krone für Taschenuhren ; Edelstahl.

Corona para relojes de bolsillo color acero y amarilla ; acero inoxidable.

Corona per orologi da tasca colore acciaio e gialla ; acciaio inossidabile.

Coroa para relógios de bolso cor aço e amarela ; aço inoxidável.

| MSA         | Couleur acier /<br>Steel colour | Ø<br>mm | Ø W<br>mm | Ø Tar./<br>Tap. mm | H<br>mm | MSA        | Jaune/Yellow |
|-------------|---------------------------------|---------|-----------|--------------------|---------|------------|--------------|
| 63.550*     |                                 | 3.80    | 2.20      | 0.90               | 1.85    | 63.050*    |              |
| 63.501*     |                                 | 4.00    | 2.30      | 0.90               | 2.00    | 63.001     |              |
| 63.551*     |                                 | 4.00    | 2.80      | 0.90               | 2.80    | 63.051*    |              |
| 63.552*     |                                 | 4.50    | 2.80      | 0.90               | 2.50    | 63.052     |              |
| 63.553*     |                                 | 4.50    | 3.00      | 0.90               | 2.90    | 63.053     |              |
| 63.554*     |                                 | 5.00    | 2.80      | 0.90               | 3.00    | 63.054     |              |
| 63.502      |                                 | 5.00    | 3.00      | 0.90               | 2.70    | 63.002     |              |
| 63.555      |                                 | 6.00    | 3.05      | 0.90               | 2.90    | 63.055     |              |
| 63.555-100* |                                 | 6.00    | 3.05      | 1.00               | 2.90    | -          | -            |
| 63.503      |                                 | 6.00    | 3.30      | 0.90               | 3.20    | 63.003     |              |
| 63.503-140* |                                 | 6.00    | 3.30      | 1.40               | 3.20    | -          | -            |
| 63.504      |                                 | 6.50    | 3.50      | 0.90               | 3.60    | 63.004     |              |
| 63.504-120* |                                 | 6.50    | 3.50      | 1.20               | 3.60    | -          | -            |
| 63.557      |                                 | 7.00    | 3.05      | 0.90               | 4.00    | 63.057     |              |
| 63.557-120  |                                 | 7.00    | 3.05      | 1.20               | 4.00    | -          | -            |
| 63.505      |                                 | 7.25    | 4.00      | 0.90               | 3.90    | 63.005     |              |
| 63.505-120  |                                 | 7.25    | 4.00      | 1.20               | 3.90    | 63.005-120 |              |
| 63.505-140  |                                 | 7.25    | 4.00      | 1.40               | 3.90    | -          | -            |

| MSA         | Couleur acier/<br>Steel colour | Ø<br>mm | Ø W<br>mm | Ø Tar./<br>Tap. mm | H<br>mm | MSA        | Jaune/Yellow |
|-------------|--------------------------------|---------|-----------|--------------------|---------|------------|--------------|
| 63.558-090  |                                | 8.00    | 4.20      | 0.90               | 4.50    | 63.058*    |              |
| 63.558-110* |                                | 8.00    | 4.20      | 1.10               | 4.50    | -          | -            |
| 63.558-120  |                                | 8.00    | 4.20      | 1.20               | 4.50    | -          | -            |
| 63.558-140  |                                | 8.00    | 4.20      | 1.40               | 4.50    | -          | -            |
| 63.506      |                                | 8.25    | 4.20      | 0.90               | 4.50    | 63.006     |              |
| 63.506-120  |                                | 8.25    | 4.20      | 1.20               | 4.50    | 63.006-120 |              |
| 63.506-140  |                                | 8.25    | 4.20      | 1.40               | 4.50    | -          | -            |
| 63.559-090  |                                | 9.00    | 4.60      | 0.90               | 4.60    | 63.059     |              |
| 63.559-140  |                                | 9.00    | 4.60      | 1.40               | 4.60    | -          | -            |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.255 | 36x | 0.030 |

Assortiment de couronnes pour montres de poche couleur acier et jaunes ; acier inoxydable.

Assortiment of steel colour and yellow pocket watches crowns ; stainless steel.

Sortiment von Stahlfarbe und gelbe Kronen für Taschenuhren ; Edelstahl.

Surtido de coronas para relojes de bolsillo color acero y amarillas ; acero inoxidable.

Assortimento di corone per orologi da tasca colore acciaio e gialle ; acciaio inossidabile.

Sortido de coroas para relógios de bolso cor aço e amarelas ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**18 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA63.002 / .003 / .004 / .005 / .005-120 / .006 / .006-120**  
**/.054 / .059 / .503 / .504 / .505 / .505-120 / .506 / .506-120 / .506-**  
**140 / .557 / .559-140**



Couronne pour montres de poche avec poussoir couleur acier et jaune ; acier inoxydable.

*Steel colour and yellow pocket watches crown with pusher ; stainless steel.*

Stahlfarbe und gelbe Krone für Taschenuhren mit Drucker ; Edelstahl.

*Corona para relojes de bolsillo con pulsador color acero y amarilla ; acero inoxidable.*

Corona per orologi da tasca con pulsante colore acciaio e gialla ; acciaio inossidabile.

*Coroa para relógios de bolso com botão cor aço e amarela ; aço inoxidável.*

| MSA        | Couleur acier/<br>Steel colour | Ø<br>mm | Ø W<br>mm | Ø Tar./<br>Tap. mm | H<br>mm | MSA        | Jaune/Yellow |
|------------|--------------------------------|---------|-----------|--------------------|---------|------------|--------------|
| 63.650     |                                | 4.00    | 2.80      | 0.90               | 2.35    | 63.150     |              |
| 63.600     |                                | 4.00    | 2.80      | 0.90               | 2.40    | 63.100     |              |
| 63.700     |                                | 4.00    | 2.80      | 0.90               | 2.50    | 63.200     |              |
| 63.701     |                                | 4.50    | 2.80      | 0.90               | 2.80    | 63.201     |              |
| 63.601     |                                | 4.50    | 3.20      | 0.90               | 2.70    | 63.101     |              |
| 63.702*    |                                | 5.00    | 2.80      | 0.90               | 2.95    | 63.202     |              |
| 63.651     |                                | 5.00    | 3.05      | 0.90               | 2.70    | 63.151     |              |
| 63.652     |                                | 5.00    | 3.10      | 0.90               | 2.40    | 63.152     |              |
| 63.602     |                                | 5.00    | 4.00      | 0.90               | 3.00    | 63.102     |              |
| 63.703     |                                | 6.00    | 4.20      | 0.90               | 3.40    | 63.203     |              |
| 63.704     |                                | 6.10    | 3.00      | 0.90               | 3.20    | 63.204     |              |
| 63.653     |                                | 6.50    | 4.00      | 0.90               | 3.20    | 63.153     |              |
| 63.705     |                                | 7.00    | 4.25      | 0.90               | 4.00    | 63.205     |              |
| 63.654     |                                | 7.25    | 4.10      | 0.90               | 3.90    | 63.154     |              |
| 63.654-120 |                                | 7.25    | 4.10      | 1.20               | 3.90    | -          | -            |
| 63.706     |                                | 8.00    | 5.00      | 0.90               | 4.50    | 63.206     |              |
| 63.655     |                                | 8.25    | 4.25      | 0.90               | 4.35    | 63.155     |              |
| 63.655-120 |                                | 8.25    | 4.25      | 1.20               | 4.35    | 63.155-120 |              |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock

1/1





Assortiment de couronnes pour montres de poche avec poussoir couleur acier et jaunes ; acier inoxydable.

*Assortment of steel colour and yellow pocket watches crowns with pusher ; stainless steel.*

Sortiment von Stahlfarbe und gelbe Kronen für Taschenuhren mit Drucker ; Edelstahl.

*Surtido de coronas para relojes de bolsillo con pulsador color acero y amarillas ; acero inoxidable.*

Assortimento di corone per orologi da tasca con pulsante colore acciaio e gialle ; acciaio inossidabile.

*Sortido de coroas para relógios de bolso com botão cor aço e amarelas ; aço inoxidável.*

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**18 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA63.100 /.101 /.102 /.151 /.152 /.153 /.154 /.155 /.204**  
**/.600 /.602 /.652 /.653 /.654 /.655 /.655-120 /.704 /.706**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.256 | 36x | 0.030 |



Couronne à vis couleur acier et jaune avec tube et joint, **vissage externe** ; acier inoxydable.

Steel colour and yellow screw-on crown with tube and gasket, **outside screwing** ; stainless steel.

Stahlfarbe und gelbe Schraubkrone mit Rohr und Dichtung, **aussen Gewinde** ; Edelstahl.

Corona de rosca color acero y amarilla con tubo y junta, **rosca externa** ; acero inoxidable.

Corona a vite colore acciaio e gialla con tubo e guarnizione, **filettatura esterna** ; acciaio inossidabile.

Coroa de rosca cor aço e amarela com tubo e junta, **rosca externa** ; aço inoxidável.

| MSA      | Couleur acier/<br>Steel colour | Ø mm | Ø M mm | Ø T mm | Ø Tar./Tap. mm | MSA      | Jaune/Yellow |
|----------|--------------------------------|------|--------|--------|----------------|----------|--------------|
| 60.534   |                                | 3.50 | 2.85   | 1.60   | 0.90           | -        | -            |
| -        | -                              | 3.50 | 2.90   | 2.00   | 0.90           | 60.037*  |              |
| 60.530   |                                | 3.50 | 3.00   | 1.90   | 0.90           | 60.030   |              |
| 60.522   |                                | 3.50 | 3.00   | 1.90   | 0.90           | 60.022   |              |
| 60.501   |                                | 3.75 | 3.00   | 2.00   | 0.90           | 60.001   |              |
| 60.533   |                                | 4.00 | 2.85   | 2.00   | 0.90           | 60.033*  |              |
| 60.502   |                                | 4.00 | 3.00   | 2.00   | 0.90           | 60.002   |              |
| 60.503   |                                | 4.00 | 3.00   | 2.00   | 0.90           | 60.003   |              |
| 60.504   |                                | 4.50 | 3.00   | 2.00   | 0.90           | 60.004   |              |
| 60.505   |                                | 4.50 | 3.00   | 2.00   | 0.90           | 60.005   |              |
| -        | -                              | 4.50 | 3.40   | 1.80   | 0.90           | 60.029*  |              |
| -        | -                              | 4.50 | 3.40   | 2.00   | 0.90           | 60.032*  |              |
| 60.526   |                                | 4.50 | 3.50   | 2.50   | 0.90           | 60.026   |              |
| 60.525   |                                | 4.75 | 3.50   | 2.50   | 0.90           | 60.025   |              |
| -        | -                              | 4.75 | Type P | 2.50   | 0.90           | 60.045   |              |
| 60.506   |                                | 5.00 | 3.00   | 2.20   | 0.90           | 60.006   |              |
| 60.507   |                                | 5.00 | 3.00   | 2.20   | 0.90           | 60.007   |              |
| -        | -                              | 5.00 | 3.40   | 2.20   | 0.90           | 60.035*  |              |
| 60.514   |                                | 5.00 | 3.50   | 2.50   | 0.90           | 60.014   |              |
| 60.513   |                                | 5.25 | 4.00   | 2.70   | 0.90           | 60.013   |              |
| 60.518** |                                | 5.25 | Type B | -      | 0.90           | 60.018** |              |
| 60.519** |                                | 5.25 | Type B | -      | 1.20           | 60.019** |              |
| 60.515   |                                | 5.30 | 4.00   | 2.80   | 0.90           | 60.015   |              |
| 60.515-S |                                | 5.30 | 4.00   | 2.50   | 0.90           | 60.015-S |              |

| MSA      | Couleur acier/<br>Steel colour | Ø mm | Ø M mm | Ø T mm | Ø Tar./Tap. mm | MSA      | Jaune/Yellow |
|----------|--------------------------------|------|--------|--------|----------------|----------|--------------|
| 60.508   |                                | 5.50 | 3.00   | 2.20   | 0.90           | 60.008   |              |
| 60.509   |                                | 6.00 | 3.00   | 2.20   | 0.90           | 60.009   |              |
| 60.510   |                                | 6.00 | 3.50   | 2.50   | 0.90           | 60.010   |              |
| 60.528   |                                | 6.00 | 4.00   | 2.70   | 0.90           | 60.028   |              |
| 60.516   |                                | 6.00 | 4.40   | 2.90   | 0.90           | 60.016   |              |
| 60.516-5 |                                | 6.00 | 4.40   | 3.00   | 0.90           | 60.016-5 |              |
| 60.517   |                                | 6.00 | 4.50   | 3.00   | 0.90           | 60.017*  |              |
| 60.527   |                                | 6.50 | 4.50   | 3.00   | 0.90           | 60.027*  |              |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock

1/1

\*\* Sans tube / Without tube / Ohne Rohr / Sin tubo / Senza tubo / Sem tubo



Couronne à vis couleur acier et jaune avec tube en maillechort et joint,  
**vissage externe** ; acier inoxydable.

Steel colour and yellow screw-on crown with nickel silver tube and gasket,  
**outside screwing** ; stainless steel.

Stahlfarbe und gelbe Schraubkrone mit Rohr aus Neusilber und Dichtung,  
**aussen Gewinde** ; Edelstahl.

Corona de rosca color acero y amarilla con tubo en alapaca y junta,  
**rosca externa** ; acero inoxidable.

Corona a vite colore acciaio e gialla con tubo in argentone e guarnizione,  
**filettatura esterna** ; acciaio inossidabile.

Coroa de rosca cor aço e amarela com tubo em níquel prateado e junta,  
**rosca externa** ; aço inoxidável.

| MSA          | Couleur acier/<br>Steel colour | Ø mm | Ø M1 mm | Ø M2 mm | Ø Tar./Tap. mm | MSA          | Jaune/Yellow |
|--------------|--------------------------------|------|---------|---------|----------------|--------------|--------------|
| 60.515-T (1) |                                | 5.30 | 4.00    | 2.50    | 0.90           | 60.015-T (2) |              |
| 60.516-T (3) |                                | 6.00 | 4.40    | 3.00    | 0.90           | 60.016-T (4) |              |

Kg 0.001

1/1

(1) 1x MSA60.515 + 1x MSA65.003

(2) 1x MSA60.015 + 1x MSA65.003

(3) 1x MSA60.516 + 1x MSA65.005

(4) 1x MSA60.016 + 1x MSA65.005



Assortiment de couronnes à vis couleur acier et jaunes avec tube et joint, **vissage externe** ; acier inoxydable.

Assortiment of steel colour and yellow screw-on crowns with tube and gasket, **outside screwing** ; stainless steel.

Sortiment von Stahlfarbe und gelbe Schraubkronen mit Rohr und Dichtung, **aussen Gewinde** ; Edelstahl.

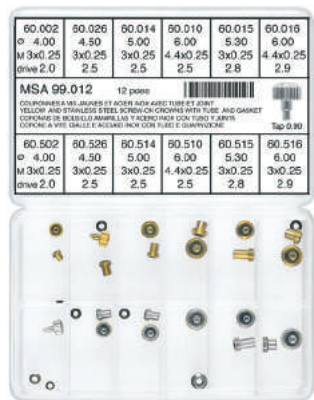
Surtido de coronas de rosca color acero y amarillas con tubo y junta, **rosca externa** ; acero inoxidable.

Assortimento di corone a vite colore acciaio e gialle con tubo e guarnizione, **filettatura esterna** ; acciaio inossidabile.

Sortido de coroas de rosca cor aço e amarelas com tubo e junta, **rosca externa** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**1x MSA60.002 /.003 /.004 /.016 /.022 /.502 /.503 /.504 /.505**  
**/.506 /.516 /.522**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.011 | 12x | 0.025 |



Assortiment de couronnes à vis couleur acier et jaunes avec tube et joint, **vissage externe** ; acier inoxydable.

Assortiment of steel colour and yellow screw-on crowns with tube and gasket, **outside screwing** ; stainless steel.

Sortiment von Stahlfarbe und gelbe Schraubkronen mit Rohr und Dichtung, **aussen Gewinde** ; Edelstahl.

Surtido de coronas de rosca color acero y amarillas con tubo y junta, **rosca externa** ; acero inoxidable.

Assortimento di corone a vite colore acciaio e gialle con tubo e guarnizione, **filettatura esterna** ; acciaio inossidabile.

Sortido de coroas de rosca cor aço e amarelas com tubo e junta, **rosca externa** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**1x MSA60.002 /.010 /.014 /.015 /.016 /.026 /.502 /.510 /.514**  
**/.515 /.516 /.526**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.012 | 12x | 0.025 |



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.047 | 76x | 0.336 |

Assortiment de 76 couronnes à vis couleur acier et jaunes avec tubes et joints + 4 tubes spéciaux, **vissage externe** ; acier inoxydable.

Assortiment of 76 steel colour and yellow screw-on crowns with tubes and gaskets + 4 special tubes, **outside screwing** ; stainless steel.

Sortiment von 76 Stahlfarbe und gelbe Schraubkronen mit Röhre und Dichtungen + 4 spezielle Röhre, **aussen Gewinde** ; Edelstahl.

Surtido de 76 coronas de rosca color acero y amarillas con tubos y juntas + 4 tubos especiales, **rosca externa** ; acero inoxidable.

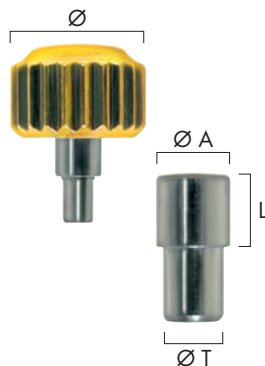
Assortimento di 76 corone a vite colore acciaio e gialle con tubi e guarnizioni + 4 tubi speciali, **filettatura esterna** ; acciaio inossidabile.

Sortido de 76 coroaes de rosca cor aço e amarelas com tubos e juntas + 4 tubos especiais, **rosca externa** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Conteúdo :**

**2x modèles - models - Modelle - modelli - modelli**

**2x MSA60.001 / .002 / .003 / .004 / .005 / .006 / .007 / .008 / .009 / .010 / .013 / .014 / .015 / .016 / .022 / .025 / .026 / .028 / .030 / .501 / .502 / .503 / .504 / .505 / .506 / .507 / .508 / .509 / .510 / .513 / .514 / .515 / .516 / .522 / .525 / .526 / .528 / .530**  
**2x MSA65.001 / .002**



Couronne à vis couleur acier, noire et jaune avec tube et joint, **vissage interne** ; acier inoxydable.

Steel colour, black and yellow screw-on crown with tube and gasket, **inside screwing** ; stainless steel.

Stahlfarbe, schwarze und gelbe Schraubkrone mit Rohr und Dichtung, **innen Gewinde** ; Edelstahl.

Corona de rosca color acero, negra y amarilla con tubo y junta, **rosca interna** ; acero inoxidable.

Corona a vite colore acciaio, nera e gialla con tubo e guarnizione, **filettatura interna** ; acciaio inossidabile.

Coroa de rosca cor aço, preta e amarela com tubo e junta, **rosca interna** ; aço inoxidável.

| MSA    | Couleur acier / Steel colour | Ø mm | Ø T mm | Ø Tar. / Tap. mm | Ø A mm | L mm | MSA    | Noir/Black | MSA    | Jaune/Yellow |
|--------|------------------------------|------|--------|------------------|--------|------|--------|------------|--------|--------------|
| 60.524 |                              | 4.50 | 1.80   | 0.90             | 2.60   | 1.80 | -      | -          | 60.024 |              |
| 60.523 |                              | 5.00 | 1.80   | 0.90             | 2.60   | 1.80 | 60.323 |            | 60.023 |              |
| 60.511 |                              | 5.00 | 2.50   | 0.90             | 3.00   | 3.00 | -      | -          | 60.011 |              |
| 60.512 |                              | 5.50 | 2.50   | 0.90             | 3.00   | 2.90 | -      | -          | 60.012 |              |
| 60.520 |                              | 6.00 | 2.50   | 0.90             | 3.20   | 2.70 | 60.320 |            | -      | -            |
| 60.521 |                              | 6.50 | 2.50   | 0.90             | 3.20   | 2.70 | -      | -          | 60.021 |              |

Kg 0.001

1/1



Assortiment de couronnes à vis couleur acier, noires et jaunes avec tube et joint, **vissage interne** ; acier inoxydable.

Assortiment of steel colour, black and yellow screw-on crowns with tube and gasket, **inside screwing** ; stainless steel.

Sortiment von Stahlfarbe, schwarze und gelbe Schraubkronen mit Rohr und Dichtung, **innen Gewinde** ; Edelstahl.

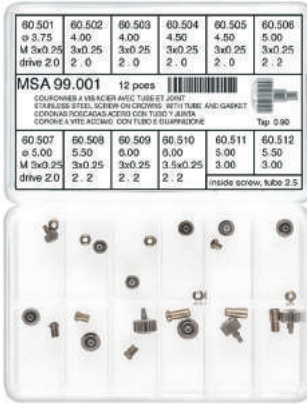
Surtido de coronas de rosca color acero, negras y amarillas con tubo y junta, **rosca interna** ; acero inoxidable.

Assortimento di corone a vite colore acciaio, nere e gialle con tubo e guarnizione, **filettatura interna** ; acciaio inossidabile.

Sortido de coroas de rosca cor aço, pretas e amarelas com tubo e junta, **rosca interna** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**1x MSA60.011 /.012 /.023 /.024 /.320 /.323 /.511 /.512 /.520**  
**/.521 /.523 /.524**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.073 | 12x | 0.025 |



Assortiment de couronnes à vis couleur acier avec tubes et joints, **vissage externe (10x) et interne (2x)**; acier inoxydable.

Assortiment of steel colour screw-on crowns with tubes and gaskets, **outside (10x) and inside (2x) screwing**; stainless steel.

Sortiment von Stahlfarbe Schraubkronen mit Röhre und Dichtungen, **aussen (10x) und innen (2x) Gewinde**; Edelstahl.

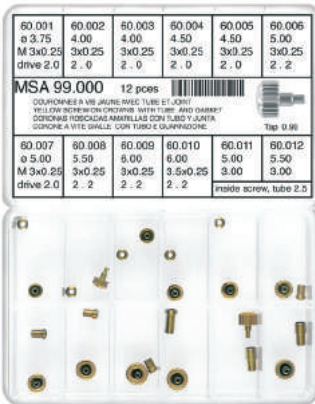
Surtido de coronas de rosca color acero con tubos y juntas, **rosca externa (10x) y interna (2x)**; acero inoxidable.

Assortimento di corone a vite colore acciaio con tubi e guarnizioni, **filettatura esterna (10x) e interna (2x)**; acciaio inossidabile.

Sortido de coroas de rosca cor aço com tubos e juntas, **rosca externa (10x) e interna (2x)**; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 1x MSA60.501 /.502 /.503 /.504 /.505 /.506 /.507 /.508 /.509  
 /.510 /.511 /.512**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.001 | 12x | 0.025 |



Assortiment de couronnes à vis jaunes avec tubes et joints, **vissage externe (10x) et interne (2x)**; acier inoxydable.

Assortiment of yellow screw-on crowns with tubes and gaskets, **outside (10x) and inside (2x) screwing**; stainless steel.

Sortiment von gelbe Schraubkronen mit Röhre und Dichtungen, **aussen (10x) und innen (2x) Gewinde**; Edelstahl.

Surtido de coronas de rosca amarillas con tubos y juntas, **rosca externa (10x) y interna (2x)**; acero inoxidable.

Assortimento di corone a vite gialle con tubi e guarnizioni, **filettatura esterna (10x) e interna (2x)**; acciaio inossidabile.

Sortido de coroas de rosca amarelas com tubos e juntas, **rosca externa (10x) e interna (2x)**; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 1x MSA60.001 /.002 /.003 /.004 /.005 /.006 /.007 /.008 /.009  
 /.010 /.011 /.012**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.000 | 12x | 0.026 |



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.023 | 76x | 0.336 |

Assortiment de 76 couronnes à vis couleur acier, noires et jaunes avec tubes et joints + 4 tubes spéciaux, **vissage externe** (62x) et **interne** (14x) ; acier inoxydable.

Assortiment of 76 steel colour, black and yellow screw-on crowns with tubes and gaskets + 4 special tubes, **outside** (62x) and **inside** (14x) **screwing** ; stainless steel.

Sortiment von 76 Stahlfarbe, schwarze und gelbe Schraubkronen mit Röhre und Dichtungen + 4 spezielle Röhre, **aussen** (62x) und **innen** (14x) **Gewinde** ; Edelstahl.

Surtido de 76 coronas de rosca color acero, negras y amarillas con tubos y juntas + 4 tubos especiales, **rosca externa** (62x) y **interna** (14x) ; acero inoxidable.

Assortimento di 76 corone a vite colore acciaio, nere e gialle con tubi e guarnizioni + 4 tubi speciali, **filettatura esterna** (62x) e **interna** (14x) ; acciaio inossidabile.

Sortido de 76 coroas de rosca cor aço, pretas e amarelas com tubos e juntas + 4 tubos especiais, **rosca externa** (62x) e **interna** (14x) ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**

**39 modèles - models - Modelle - modelos - modelli - modelos**

**1x MSA60.019 /.519**

**2x MSA60.001 /.002 /.003 /.004 /.005 /.006 /.007 /.008 /.009 /.010 /.011 /.012 /.013 /.014  
 /.015 /.016 /.022 /.323 /.501 /.502 /.503 /.504 /.505 /.506 /.507 /.508 /.509 /.510 /.511 /.512  
 /.513 /.514 /.515 /.516 /.520 /.521 /.522**

**2x MSA65.001 /.002**





Couronne à vis couleur acier et jaune sans tube ; acier inoxydable.  
 Steel colour and yellow screw-on crown without tube ; stainless steel.  
 Stahlfarbe und gelbe Schraubkrone ohne Rohr ; Edelstahl.  
 Corona de rosca color acero y amarilla sin tubo ; acero inoxidable.  
 Corona a vite colore acciaio e gialla senza tubo ; acciaio inossidabile.  
 Coroa de rosca cor aço e amarela sem tubo ; aço inoxidável.

| MSA     | Couleur acier/Steel colour | Ø mm | Ø Tar./Tap. mm | Type   | MSA     | Jaune/Yellow |
|---------|----------------------------|------|----------------|--------|---------|--------------|
| 60.551* |                            | 3.50 | 0.90           | Type P | -       | -            |
| -       | -                          | 4.75 | 0.90           | Type Z | 60.055* |              |
| -       | -                          | 5.25 | 0.90           | Type C | 60.065* |              |

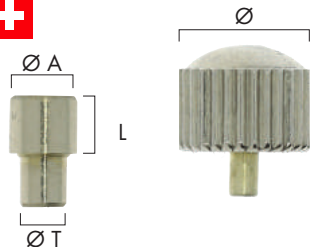
Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



Couronne à vis jaune avec tube et joint, **vissage interne** ; acier inoxydable.  
 Yellow screw-on crown with tube and gasket, **inside screwing** ; stainless steel.  
 Gelbe Schraubkrone mit Rohr und Dichtung, **innen Gewinde** ; Edelstahl.  
 Corona de rosca amarilla con tubo y junta, **rosca interna** ; acero inoxidable.  
 Corona a vite gialla con tubo e guarnizione, **filettatura interna** ; acciaio inossidabile.  
 Coroa de rosca amarela com tubo e junta, **rosca interna** ; aço inoxidável.

| MSA     | Jaune/Yellow | Ø mm | Ø T mm | Ø Tar./Tap. mm | Ø A mm | L mm | Type   |
|---------|--------------|------|--------|----------------|--------|------|--------|
| 60.056* |              | 3.50 | 2.00   | 0.90           | 2.60   | 1.90 | Type Z |

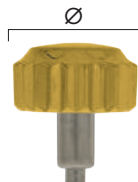
Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



Couronne à vis couleur acier avec tube, **vissage interne** ; acier inoxydable.  
Steel colour screw-on crown with tube, **inside screwing** ; stainless steel.  
Stahlfarbe Schraubkrone mit Rohr, **innen Gewinde** ; Edelstahl.  
Corona de rosca color acero con tubo, **rosca interna** ; acero inoxidable.  
Corona a vite colore acciaio con tubo, **filettatura interna** ; acciaio inossidabile.  
Coroa de rosca cor aço com tubo, **rosca interna** ; aço inoxidável.

| MSA     | Couleur acier/Steel colour | Ø mm | Ø T mm | Ø Tar./Tap. mm | Ø A mm | L mm |
|---------|----------------------------|------|--------|----------------|--------|------|
| 60.548* |                            | 6.00 | 2.20   | 0.90           | 3.20   | 2.90 |

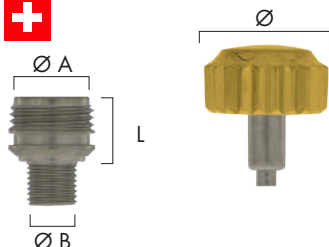
Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



Couronne à vis couleur acier et jaune avec joint ; acier inoxydable.  
Steel colour and yellow screw-on crown with gasket ; stainless steel.  
Stahlfarbe und gelbe Schraubkrone mit Dichtung ; Edelstahl.  
Corona de rosca color acero y amarilla con junta ; acero inoxidable.  
Corona a vite colore acciaio e gialla con guarnizione ; acciaio inossidabile.  
Coroa de rosca cor aço e amarela com junta ; aço inoxidável.

| MSA     | Couleur acier/Steel colour | Ø mm | Ø T mm | Ø Tar./Tap mm | MSA     | Jaune/Yellow |
|---------|----------------------------|------|--------|---------------|---------|--------------|
| 60.567* |                            | 7.10 | 5.00   | 0.90          | 60.067* |              |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



Couronne à vis couleur acier et jaune avec tube et joint, **vissage externe** ;  
acier inoxydable.  
Steel colour and yellow screw-on crown with tube and gasket, **outside  
screwing** ; stainless steel.  
Stahlfarbe und gelbe Schraubkrone mit Rohr und Dichtung, **aussen Gewinde**  
; Edelstahl.  
Corona de rosca color acero y amarilla con tubo y junta, **rosca externa** ;  
acero inoxidable.  
Corona a vite colore acciaio e gialla con tubo e guarnizione, **filettatura esterna** ;  
acciaio inossidabile.  
Coroa de rosca cor aço e amarela com tubo e junta, **rosca externa** ; aço  
inoxidável.

| MSA       | Couleur acier/Steel colour | Ø mm | Ø T mm | Ø Tar./Tap. mm | Ø A mm | Ø B mm | L mm | MSA       | Jaune/ Yellow |
|-----------|----------------------------|------|--------|----------------|--------|--------|------|-----------|---------------|
| 60.567-T* |                            | 7.10 | 5.00   | 0.90           | 5.00   | 3.00   | 3.70 | 60.067-T* |               |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



Couronne à vis couleur acier et jaune avec tube et joint, **vissage externe** ; acier inoxydable.

Steel colour and yellow screw-on crown with tube and gasket, **outside screwing** ; stainless steel.







Stahlfarbe und gelbe Schraubkrone mit Rohr und Dichtung, **aussen Gewinde** ; Edelstahl.

Corona de rosca color acero y amarilla con tubo y junta, **rosca externa** ; acero inoxidable.

Corona a vite colore acciaio e gialla con tubo e guarnizione, **filettatura esterna** ; acciaio inossidabile.

Coroa de rosca cor aço e amarela com tubo e junta, **rosca externa** ; aço inoxidável.

| MSA    | Couleur acier /<br>Steel colour | Ø mm | Ø M mm | Ø T mm | Ø Tar./Tap. mm | MSA    | Jaune/Yellow |
|--------|---------------------------------|------|--------|--------|----------------|--------|--------------|
| 60.700 |                                 | 3.50 | 3.00   | 1.90   | 0.90           | 60.600 |              |
| 60.701 |                                 | 3.75 | 3.00   | 2.00   | 0.90           | 60.601 |              |
| 60.702 |                                 | 4.00 | 3.00   | 2.00   | 0.90           | 60.602 |              |
| 60.703 |                                 | 4.50 | 3.00   | 2.00   | 0.90           | 60.603 |              |
| 60.704 |                                 | 4.50 | 3.50   | 2.50   | 0.90           | 60.604 |              |
| 60.705 |                                 | 4.75 | 3.50   | 2.50   | 0.90           | 60.605 |              |
| 60.706 |                                 | 4.75 | 4.00   | 2.50   | 0.90           | 60.606 |              |
| 60.707 |                                 | 5.00 | 3.00   | 2.00   | 0.90           | 60.607 |              |
| 60.708 |                                 | 5.30 | 4.00   | 2.80   | 0.90           | 60.608 |              |
| 60.709 |                                 | 5.50 | 3.50   | 2.50   | 0.90           | 60.609 |              |
| 60.710 |                                 | 6.00 | 3.50   | 2.50   | 0.90           | 60.610 |              |
| 60.711 |                                 | 6.00 | 4.00   | 2.70   | 0.90           | 60.611 |              |
| 60.712 |                                 | 6.50 | 4.00   | 2.70   | 0.90           | 60.612 |              |
| 60.713 |                                 | 7.00 | 4.00   | 2.70   | 0.90           | 60.613 |              |
| 60.714 |                                 | 7.00 | 4.50   | 2.30   | 0.90           | 60.614 |              |
| 60.715 |                                 | 7.00 | 4.50   | 2.50   | 0.90           | 60.615 |              |

| MSA    | Couleur acier /<br>Steel colour   | Ø mm  | Ø M mm | Ø T mm | Ø Tar./Tap. mm | MSA | Jaune/Yellow |
|--------|---|-------|--------|--------|----------------|-----|--------------|
| 60.716 |  | 7.50  | 4.50   | 2.50   | 0.90           | -   | -            |
| 60.717 |  | 8.00  | 5.00   | 2.80   | 0.90           | -   | -            |
| 60.718 |  | 8.50  | 5.00   | 3.00   | 0.90           | -   | -            |
| 60.719 |  | 9.00  | 5.00   | 3.00   | 0.90           | -   | -            |
| 60.720 |  | 9.50  | 5.00   | 3.00   | 0.90           | -   | -            |
| 60.721 |  | 10.00 | 5.00   | 3.00   | 0.90           | -   | -            |

Kg 0.001

1/1



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.243 | 12x | 0.025 |

Assortiment de couronnes à vis couleur acier avec tubes et joints, **vissage externe** ; acier inoxydable.

Assortiment of steel colour screw-on crowns with tubes and gaskets, **outside screwing** ; stainless steel.

Sortiment von Stahlfarbe Schraubkronen mit Röhre und Dichtungen, **aussen Gewinde** ; Edelstahl.

Surtido de coronas de rosca color acero con tubos y juntas, **rosca externa** ; acero inoxidable.

Assortimento di corone a vite colore acciaio con tubi e guarnizioni, **filettatura esterna** ; acciaio inossidabile.

Sortido de coroas de rosca cor aço com tubos e juntas, **rosca externa** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo : 6 modèles - models - Modelle - modelos - modelli - modelos 2x MSA60.700 /.701 /.702 /.703 /.707 /.708**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.244 | 12x | 0.025 |

Assortiment de couronnes à vis jaunes avec tubes et joints, **vissage externe** ; acier inoxydable.

Assortiment of yellow screw-on crowns with tubes and gaskets, **outside screwing** ; stainless steel.

Sortiment von gelbe Schraubkronen mit Röhre und Dichtungen, **aussen Gewinde** ; Edelstahl.

Surtido de coronas de rosca amarillas con tubos y juntas, **rosca externa** ; acero inoxidable.

Assortimento di corone a vite gialle con tubi e guarnizioni, **filettatura esterna** ; acciaio inossidabile.

Sortido de coroas de rosca amarelas com tubos e juntas, **rosca externa** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo : 6 modèles - models - Modelle - modelos - modelli - modelos 2x MSA60.600 /.601 /.602 /.603 /.607 /.608**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.245 | 12x | 0.025 |

Assortiment de couronnes à vis couleur acier et jaunes avec tubes et joints, **vissage externe** ; acier inoxydable.

Assortiment of steel colour and yellow screw-on crowns with tubes and gaskets, **outside screwing** ; stainless steel.

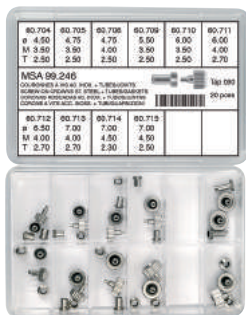
Sortiment von Stahlfarbe und gelbe Schraubkronen mit Röhre und Dichtungen, **aussen Gewinde** ; Edelstahl.

Surtido de coronas de rosca color acero y amarillas con tubos y juntas, **rosca externa** ; acero inoxidable.

Assortimento di corone a vite colore acciaio e gialle con tubi e guarnizioni, **filettatura esterna** ; acciaio inossidabile.

Sortido de coroas de rosca cor aço e amarelas com tubos e juntas, **rosca externa** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo : 12 modèles - models - Modelle - modelos - modelli - modelos 1x MSA60.600 /.601 /.602 /.603 /.607 /.608 /.700 /.701 /.702 /.703 /.707 /.708**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.246 | 20x | 0.045 |

Assortiment de couronnes à vis couleur acier avec tubes et joints, **vissage externe** ; acier inoxydable.

Assortiment of steel colour screw-on crowns with tubes and gaskets, **outside screwing** ; stainless steel.

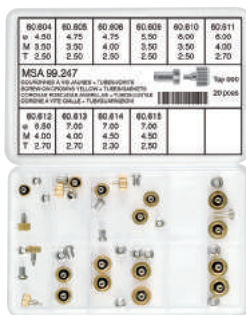
Sortiment von Stahlfarbe Schraubkronen mit Röhre und Dichtungen, **aussen Gewinde** ; Edelstahl.

Surtido de coronas de rosca color acero con tubos y juntas, **rosca externa** ; acero inoxidable.

Assortimento di corone a vite colore acciaio con tubi e guarnizioni, **filettatura esterna** ; acciaio inossidabile.

Sortido de coroas de rosca cor aço com tubos e juntas, **rosca externa** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo : 10 modèles - models - Modelle - modelos - modelli - modelos 2x MSA60.704 /.705 /.706 /.709 /.710 /.711 /.712 /.713 /.714 /.715**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.247 | 20x | 0.045 |

Assortiment de couronnes à vis jaunes avec tubes et joints, **vissage externe** ; acier inoxydable.

Assortiment of yellow screw-on crowns with tubes and gaskets, **outside screwing** ; stainless steel.

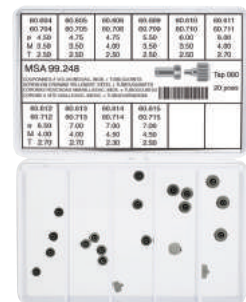
Sortiment von gelbe Schraubkronen mit Röhre und Dichtungen, **aussen Gewinde** ; Edelstahl.

Surtido de coronas de rosca amarillas con tubos y juntas, **rosca externa** ; acero inoxidable.

Assortimento di corone a vite gialle con tubi e guarnizioni, **filettatura esterna** ; acciaio inossidabile.

Sortido de coroas de rosca amarelas com tubos e juntas, **rosca externa** ; aço inoxidável

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo : 10 modèles - models - Modelle - modelos - modelli - modelos 2x MSA60.604 /.605 /.606 /.609 /.610 /.611 /.612 /.613 /.614**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.248 | 20x | 0.045 |

Assortiment de couronnes à vis couleur acier et jaunes avec tubes et joints, **vissage externe** ; acier inoxydable.

Assortiment of steel colour and yellow screw-on crowns with tubes and gaskets, **outside screwing** ; stainless steel.

Sortiment von Stahlfarbe und gelbe Schraubkronen mit Röhre und Dichtungen, **aussen Gewinde** ; Edelstahl.

Surtido de coronas de rosca color acero y amarillas con tubos y juntas, **rosca externa** ; acero inoxidable.

Assortimento di corone a vite colore acciaio e gialle con tubi e guarnizioni, **filettatura esterna** ; acciaio inossidabile.

Sortido de coroas de rosca cor aço e amarelas com tubos e juntas, **rosca externa** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo : 20 modèles - models - Modelle - modelos - modelli - modelos 1x MSA60.604 /.605 /.606 /.609 /.610 /.611 /.612 /.613 /.614 /.615 /.704 /.705 /.706 /.709 /.710 /.711 /.712 /.713 /.714 /.715**

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 60.710 | 60.711 | 60.712 | 60.713 | 60.714 | 60.715 |
| ø 4.50 | 6.00   | 8.50   | 7.00   | 7.00   | 7.00   |
| M 3.50 | 4.00   | 4.00   | 4.00   | 4.50   | 4.50   |
| T 2.50 | 2.70   | 2.70   | 2.70   | 2.30   | 2.50   |

MSA 99.249

CONTENIDO A VISAJE TIPOLENT AL ACER  
CONTENUTO A VITE TIPOLENT AL ACER  
CONTENIDO A VITE TIPOLENT AL ACER  
CONTENUTO A VITE TIPOLENT AL ACER

Tap 090  
24 PCS/6



Assortiment de couronnes à vis couleur acier avec tubes et joints, **vissage externe** ; acier inoxydable.

Assortiment of steel colour screw-on crowns with tubes and gaskets, **outside screwing** ; stainless steel.

Sortiment von Stahlfarbe Schraubkronen mit Röhre und Dichtungen, **aussen Gewinde** ; Edelstahl.

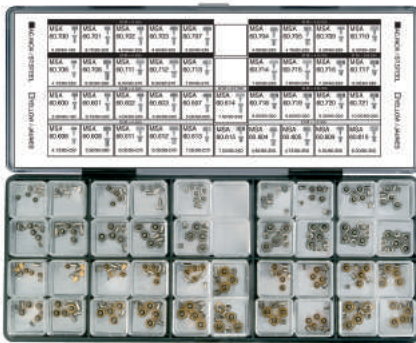
Surtido de coronas de rosca color acero con tubos y juntas, **rosca externa** ; acero inoxidable.

Assortimento di corone a vite colore acciaio con tubi e guarnizioni, **filettatura esterna** ; acciaio inossidabile.

Sortido de coroas de rosca cor aço com tubos e juntas, **rosca externa** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA60.710 /.711 /.712 /.713 /.714 /.715 /.716 /.717 /.718**  
**/.719 /.720 /.721**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.249 | 24x | 0.050 |



| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.250 | 152x | 0.490 |

Assortiment de couronnes à vis couleur acier et jaunes avec tubes et joints, **vissage externe** ; acier inoxydable.

Assortiment of steel colour and yellow screw-on crowns with tubes and gaskets, **outside screwing** ; stainless steel.

Sortiment von Stahlfarbe und gelbe Schraubkronen mit Röhre und Dichtungen, **aussen Gewinde** ; Edelstahl.

Surtido de coronas de rosca color acero y amarillas con tubos y juntas, **rosca externa** ; acero inoxidable.

Assortimento di corone a vite colore acciaio e gialle con tubi e guarnizioni, **filettatura esterna** ; acciaio inossidabile.

Sortido de coroas de rosca cor aço e amarelas com tubos e juntas, **rosca externa** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**38 modèles - models - Modelle - modelos - modelli - modelos**  
**4x MSA60.600 /.601 /.602 /.603 /.604 /.605 /.606 /.607 /.608 /.609 /.610 /.611 /.612 /.613**  
**/.614 /.615 /.700 /.701 /.702 /.703 /.704 /.705 /.706 /.707 /.708 /.709 /.710 /.711 /.712 /.713**  
**/.714 /.715 /.716 /.717 /.718 /.719 /.720 /.721**



Couronne à vis couleur acier et jaune avec tube et joint, **vissage externe** ; palladium.

*Steel colour and yellow screw-on crown with tube and gasket, **outside screwing** ; palladium.*

Stahlfarbe und gelbe Schraubkrone mit Rohr und Dichtung, **aussen Gewinde** ; Palladium.

*Corona de rosca color acero y amarilla con tubo y junta, **rosca externa** ; paladio.*

Corona a vite colore acciaio e gialla con tubo e guarnizione, **filettatura esterna** ; palladio.

*Coroa de rosca cor aço e amarela com tubo e junta, **rosca externa** ; paládio.*

| MSA     | Couleur acier / Steel colour | Ø mm | Ø M mm | Ø T mm | Ø Tar./Tap. mm | MSA     | Jaune/Yellow |
|---------|------------------------------|------|--------|--------|----------------|---------|--------------|
| 60.901* |                              | 3.75 | 3.00   | 2.00   | 0.90           | -       | -            |
| 60.902* |                              | 4.00 | 3.00   | 2.00   | 0.90           | 60.802* |              |
| 60.904* |                              | 4.50 | 3.00   | 2.00   | 0.90           | 60.804* |              |
| 60.926* |                              | 4.50 | 3.50   | 2.50   | 0.90           | 60.826* |              |
| -       | -                            | 4.75 | 3.50   | 2.50   | 0.90           | 60.825* |              |
| -       | -                            | 4.75 | 4.00   | 2.50   | 0.90           | 60.845* |              |
| 60.906* |                              | 5.00 | 3.00   | 2.20   | 0.90           | 60.806* |              |
| 60.915* |                              | 5.30 | 4.00   | 2.80   | 0.90           | 60.815* |              |
| -       | -                            | 5.50 | 3.50   | 2.50   | 0.90           | 60.860* |              |
| -       | -                            | 6.00 | 3.50   | 2.50   | 0.90           | 60.810* |              |
| -       | -                            | 6.00 | 4.00   | 2.70   | 0.90           | 60.828* |              |
| 60.961* |                              | 6.50 | 4.00   | 2.70   | 0.90           | 60.861* |              |
| -       | -                            | 7.00 | 4.00   | 2.70   | 0.90           | 60.862* |              |
| -       | -                            | 7.00 | 4.50   | 2.30   | 0.90           | 60.864* |              |
| -       | -                            | 7.00 | 4.50   | 2.50   | 0.90           | 60.863* |              |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock

1/1





### Type ZE

Couronne antipoussière couleur acier, jaune et rose ; acier inoxydable.  
 Steel colour, yellow and pink dustproof crown ; stainless steel.  
 Stahlfarbe, gelbe und rosa staubgeschützter Krone ; Edelstahl.  
 Corona antipolvo color acero, amarilla y rosada ; acero inoxidable.  
 Corona antipolvere colore acciaio, gialla e rosa ; acciaio inossidabile.  
 Coroa anti-poeira cor aço, amarela e cor de rosa ; aço inoxidável.

| MSA    | Couleur acier/Steel colour | ∅ mm | ∅ Tar./Tap. mm | MSA    | Jaune/Yellow | MSA    | Rose/Pink |
|--------|----------------------------|------|----------------|--------|--------------|--------|-----------|
| -      | -                          | 3.00 | 0.90           | 85.001 |              | -      | -         |
| 85.042 |                            | 3.50 | 0.90           | 85.002 |              | 85.082 |           |
| 85.043 |                            | 3.75 | 0.90           | 85.003 |              | -      | -         |
| 85.044 |                            | 4.00 | 0.90           | 85.004 |              | 85.084 |           |
| -      | -                          | 4.00 | 1.00           | 85.007 |              | -      | -         |
| 85.045 |                            | 4.50 | 0.90           | 85.005 |              | 85.085 |           |
| -      | -                          | 4.50 | 1.00           | 85.008 |              | 85.088 |           |
| 85.046 |                            | 5.00 | 0.90           | 85.006 |              | 85.086 |           |
| -      | -                          | 5.00 | 1.00           | 85.009 |              | 85.089 |           |

Kg 0.001

1/1



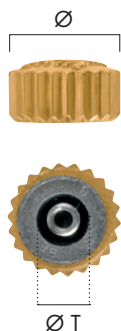
### Type ZE

Couronne chrono couleur acier, jaune et rose ; acier inoxydable.  
 Steel colour, yellow and pink chrono crown ; stainless steel.  
 Stahlfarbe, gelbe und rosa Chrono Krone ; Edelstahl.  
 Corona crono color acero, amarilla y rosada ; acero inoxidable.  
 Corona crono colore acciaio, gialla e rosa ; acciaio inossidabile.  
 Coroa crono cor aço, amarela e cor de rosa ; aço inoxidável.

| MSA    | Couleur acier/Steel colour | ∅ mm | ∅ Tar./Tap. mm | MSA    | Jaune/Yellow | MSA    | Rose/Pink |
|--------|----------------------------|------|----------------|--------|--------------|--------|-----------|
| 85.050 |                            | 5.70 | 1.20           | 85.010 |              | 85.090 |           |

Kg 0.001

1/1



### Type ZE

Couronne étanche couleur acier, jaune et rose ; acier inoxydable.  
 Steel colour, yellow and pink waterproof crown ; stainless steel.  
 Stahlfarbe, gelbe und rosa wasserdichter Krone ; Edelstahl.  
 Corona hermética color acero, amarilla y rosada ; acero inoxidable.  
 Corona impermeabile colore acciaio, gialla e rosa ; acciaio inossidabile.  
 Coroa estanque cor aço, amarela e cor de rosa ; aço inoxidável.

| MSA    | Couleur acier /<br>Steel colour | Ø<br>mm | Ø T<br>mm | Ø Tar./<br>Tap. mm | MSA    | Jaune/<br>Yellow | MSA    | Rose/<br>Pink |
|--------|---------------------------------|---------|-----------|--------------------|--------|------------------|--------|---------------|
| -      | -                               | 3.50    | 2.00      | 0.90               | 85.011 |                  | -      | -             |
| 85.052 |                                 | 4.00    | 2.00      | 0.90               | 85.012 |                  | 85.092 |               |
| 85.053 |                                 | 4.50    | 2.00      | 0.90               | 85.013 |                  | 85.093 |               |
| 85.054 |                                 | 4.50    | 2.50      | 0.90               | 85.014 |                  | 85.094 |               |
| 85.055 |                                 | 5.00    | 2.00      | 0.90               | 85.015 |                  | 85.095 |               |
| 85.056 |                                 | 5.00    | 2.50      | 0.90               | 85.016 |                  | 85.096 |               |
| 85.057 |                                 | 5.00    | 2.50      | 1.00               | -      | -                | -      | -             |

Kg 0.001

1/1



### Type MID

Couronne + tigeon couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow crown + pivot-shank ; stainless steel.  
 Stahlfarbe und gelbe Krone + Tigeon ; Edelstahl.  
 Corona + tijita color acero y amarilla ; acero inoxidable.  
 Corona + albero a strappo colore acciaio e gialla ; acciaio inossidabile.  
 Coroa + tiginha cor aço e amarela ; aço inoxidável.

| MSA           | Couleur acier/Steel colour | Ø mm                   | Ø Tar./Tap. mm | MSA | Jaune/Yellow |
|---------------|----------------------------|------------------------|----------------|-----|--------------|
| 85.401*       |                            | 4.25                   | 0.90           | -   | -            |
| 56.500-8479** |                            | Longueur/Length : 3 mm |                |     |              |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock

\*\* Tigeon femelle / Female pivot-shank / Muttertigion / Tijita hembra / Albero a strappo femmine / Tiginha fêmea



### Type LG

Couronne antipoussière couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow dustproof crown ; stainless steel.  
 Stahlfarbe und gelbe staubgeschützter Krone ; Edelstahl.  
 Corona antipolvo color acero y amarilla ; acero inoxidable.  
 Corona antipolvere colore acciaio e gialla ; acciaio inossidabile.  
 Coroa anti-poeira cor aço e amarela ; aço inoxidável.

| MSA     | Couleur acier/Steel colour | Ø mm | Ø Tar./Tap. mm | Dôme/Dome                       | MSA     | Jaune/Yellow |
|---------|----------------------------|------|----------------|---------------------------------|---------|--------------|
| -       | -                          | 3.25 | 0.90           | Bas/Low                         | 85.101* |              |
| 85.202* |                            | 3.50 | 0.90           | Bas/Low                         | 85.102* |              |
| 85.203* |                            | 3.50 | 0.90           | -                               | 85.103* |              |
| 85.204* |                            | 3.75 | 0.90           | Bas/Low                         | -       | -            |
| 85.205* |                            | 3.75 | 0.90           | -                               | -       | -            |
| 85.206* |                            | 3.75 | 0.90           | Haut/High                       | 85.106* |              |
| 85.207* |                            | 4.00 | 0.90           | Bas/Low<br>Canon long/Long pipe | 85.107* |              |
| 85.209* |                            | 4.00 | 0.90           | -                               | 85.109* |              |
| -       | -                          | 4.00 | 0.90           | Haut/High                       | 85.110* |              |
| 85.211* |                            | 4.25 | 0.90           | -                               | -       | -            |
| -       | -                          | 4.50 | 0.90           | Bas/Low                         | 85.112* |              |
| -       | -                          | 5.00 | 0.90           | Bas/Low                         | 85.115* |              |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



### Type LG

Couronne simple couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow regular crown ; stainless steel.  
 Stahlfarbe und gelbe einfache Krone ; Edelstahl.  
 Corona sencilla color acero y amarilla ; acero inoxidable.  
 Corona semplice colore acciaio e gialla ; acciaio inossidabile.  
 Coroa simples cor aço e amarela ; aço inoxidável.

| MSA     | Couleur acier/Steel colour | Ø mm | Ø Tar./Tap. mm | Dôme/Dome | MSA     | Jaune/Yellow |
|---------|----------------------------|------|----------------|-----------|---------|--------------|
| 85.216* |                            | 3.00 | 0.80           | -         | 85.116* |              |
| -       | -                          | 3.00 | 0.90           | -         | 85.117* |              |
| 85.218* |                            | 4.00 | 0.90           | -         | 85.118* |              |
| -       | -                          | 4.50 | 0.90           | -         | 85.119* |              |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



### Type LG

Couronne étanche couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow waterproof crown ; stainless steel.  
 Stahlfarbe und gelbe wasserdichter Krone ; Edelstahl.  
 Corona hermética color acero y amarilla ; acero inoxidable.  
 Corona impermeabile colore acciaio e gialla ; acciaio inossidabile.  
 Coroa estanque cor aço e amarela ; aço inoxidável.

| MSA     | Couleur acier/Steel colour | Ø mm | Ø T mm | Ø Tar./Tap. mm | Dôme/Dome                         | MSA     | Jaune/Yellow |
|---------|----------------------------|------|--------|----------------|-----------------------------------|---------|--------------|
| -       | -                          | 3.75 | 2.00   | 0.90           | -                                 | 85.122* |              |
| -       | -                          | 4.00 | 2.00   | 0.90           | Bas/Low<br>Canon long/Long pipe   | 85.123* |              |
| -       | -                          | 4.00 | 2.00   | 0.90           | Bas/Low                           | 85.124* |              |
| 85.226* |                            | 4.00 | 2.00   | 0.90           | Haut/High<br>Canon long/Long pipe | -       | -            |
| 85.229* |                            | 4.50 | 2.00   | 0.90           | Bas/Low<br>Canon long/Long pipe   | -       | -            |
| 85.230* |                            | 4.50 | 2.00   | 0.90           | -                                 | 85.130* |              |
| -       | -                          | 4.50 | 2.00   | 0.90           | Haut/High<br>Canon long/Long pipe | 85.131* |              |
| -       | -                          | 4.50 | 2.00   | 1.00           | Haut/High                         | 85.137* |              |
| -       | -                          | 5.00 | 2.00   | 0.90           | Bas/Low                           | 85.133* |              |
| 85.234* |                            | 5.00 | 2.00   | 0.90           | -                                 | 85.134* |              |
| 85.236* |                            | 5.00 | 2.00   | 1.00           | Haut/High                         | -       | -            |
| 85.238* |                            | 5.50 | 2.50   | 1.20           | Haut/High                         | -       | -            |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



### Type LG

Couronne à vis couleur acier ; acier inoxydable.  
 Steel colour screw-on crown ; stainless steel.  
 Stahlfarbe Schraubkrone ; Edelstahl.  
 Corona de rosca color acero ; acero inoxidable.  
 Corona a vite colore acciaio ; acciaio inossidabile.  
 Coroa de rosca cor aço ; aço inoxidável.

| MSA     | Couleur acier/Steel colour | Ø mm | Ø Tar./Tap. mm | MSA | Jaune/Yellow |
|---------|----------------------------|------|----------------|-----|--------------|
| 85.240* |                            | 4.50 | 0.90           | -   | -            |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



### Type OM

Couronne antipoussière jaune et rose ; acier inoxydable.  
 Yellow and pink dustproof crown ; stainless steel.  
 Gelbe und rosa staubgeschützter Krone ; Edelstahl.  
 Corona antipolvo amarilla y rosada ; acero inoxidable.  
 Corona antipolvere gialla e rosa ; acciaio inossidabile.  
 Coroa anti-poeira amarela e cor de rosa ; aço inoxidável.

| MSA | Couleur acier/Steel colour | Ø mm | Ø Tar./Tap. mm | Hauteur/Height mm | MSA     | Jaune/Yellow | MSA     | Rose/Pink |
|-----|----------------------------|------|----------------|-------------------|---------|--------------|---------|-----------|
| -   | -                          | 3.75 | 0.90           | 1.60              | 85.603* |              | 85.703* |           |
| -   | -                          | 4.50 | 0.90           | 1.60              | 85.606* |              | -       | -         |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento 1/1 del stock / Fino ad esaurimento dello stock / Até esgotamento do stock



### Type OM

Couronne étanche couleur acier et jaune ; acier inoxydable.  
 Steel colour and yellow waterproof crown ; stainless steel.  
 Stahlfarbe und gelbe wasserdichter Krone ; Edelstahl.  
 Corona hermética color acero y amarilla ; acero inoxidable.  
 Corona impermeabile colore acciaio e gialla ; acciaio inossidabile.  
 Coroa estanque cor aço e amarela ; aço inoxidável.




| MSA     | Couleur acier/Steel colour | Ø mm | Ø T mm | Ø Tar./Tap. mm | Hauteur/Height mm | MSA     | Jaune/Yellow |
|---------|----------------------------|------|--------|----------------|-------------------|---------|--------------|
| -       | -                          | 3.75 | 2.00   | 0.90           | 3.80              | 85.611* |              |
| -       | -                          | 4.00 | 2.00   | 0.90           | 2.70              | 85.614* |              |
| -       | -                          | 4.10 | 2.00   | 0.90           | 2.00              | 85.619* |              |
| -       | -                          | 4.50 | 2.00   | 0.90           | 2.70              | 85.618* |              |
| 85.520* |                            | 4.75 | 2.00   | 0.90           | 2.80              | -       | -            |
| -       | -                          | 5.50 | 2.50   | 0.90           | 3.70              | 85.627* |              |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento 1/1 del stock / Fino ad esaurimento dello stock / Até esgotamento do stock



1000  
pcs

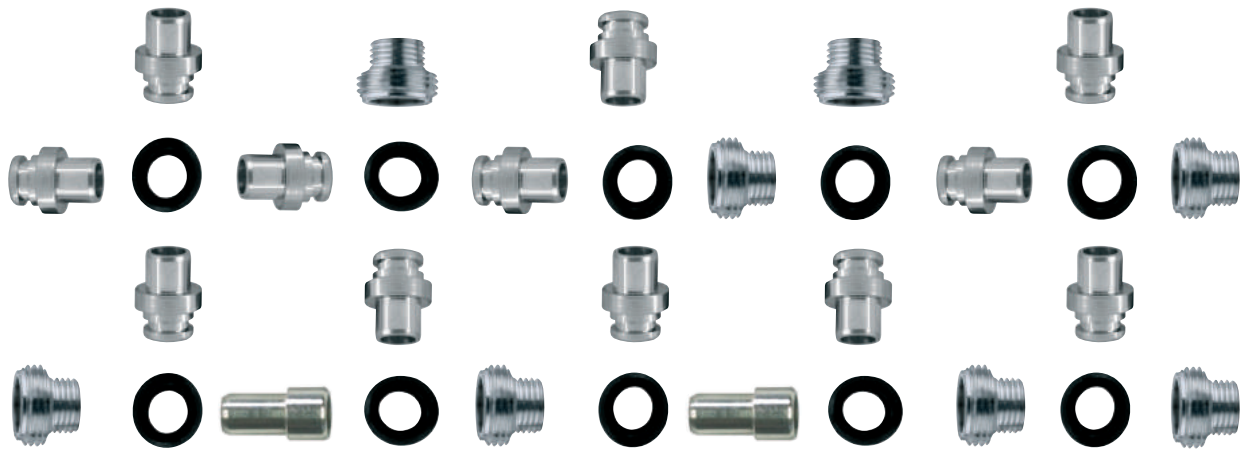
Couronne de travail ; blanche et jaune.  
 Working crown ; white and yellow.  
 Arbeitskrone ; weisse und gelbe.  
 Corona de trabajo ; blanca y amarilla.  
 Corona di lavoro ; bianca e gialla.  
 Coroa de trabalho ; branca e amarela.

| MSA        | 1/1   | Ø mm | Ø Tar./Tap. mm | Kg    |
|------------|---|------|----------------|-------|
| 87.000-070 |  | 5.00 | 0.70           | 0.060 |
| 87.000-080 |  | 5.00 | 0.80           | 0.060 |
| 87.000-090 |  | 5.00 | 0.90           | 0.060 |
| 87.000-120 |  | 5.00 | 1.20           | 0.060 |

Kg 0.001

1/1





TUBES TUBES RÖHRE TUBOS TUBI TUBOS

Tubes pour boîtes et couronnes  
*Tubes for cases and crowns*  
 Röhre für Gehäuse und Kronen  
*Tubos para cajas y coronas*  
 Tubi per casse e corone  
*Tubos para caixas e coroas*

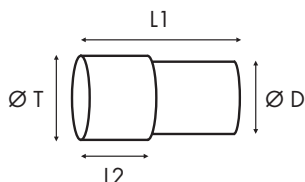


Tubes pour couronnes à vis et joints  
*Tubes for screw-on crowns and gaskets*  
 Röhre für Schraubkronen und Dichtungen  
*Tubos para coronas de rosca y juntas*  
 Tubi per corone a vite e guarnizioni  
*Tubos para coroas de rosca e juntas*





**100**  
pcs



Tube en acier inoxydable pour boîtes étanches.

*Stainless steel tube for waterproof cases.*

Rohr aus Edelstahl für wasserdichte Gehäuse.

*Tubo en acero inoxidable para cajas herméticas.*

Tube in acciaio inossidabile per casse impermeabili.

*Tube em aço inoxidável para caixas estanques.*

| MSA        | Ø T mm | Ø D mm | L1 mm | L2 mm | Kg    |
|------------|--------|--------|-------|-------|-------|
| 47.003-25A | 1.30   | -      | 2.00  | -     | 0.001 |
| 47.003-34  | 1.50   | 1.40   | 2.40  | 1.20  | 0.001 |
| 47.003-35  | 1.50   | 1.40   | 2.50  | 1.20  | 0.001 |
| 47.003-27  | 1.60   | 1.50   | 2.20  | 1.20  | 0.001 |
| 47.003-29  | 1.60   | 1.50   | 2.30  | 1.20  | 0.002 |
| 47.003-30  | 1.60   | 1.50   | 2.40  | 1.20  | 0.002 |
| 47.003-26  | 1.60   | 1.50   | 2.50  | 1.20  | 0.002 |
| 47.003-33  | 1.60   | 1.50   | 2.60  | 1.40  | 0.002 |
| 47.003-28  | 1.60   | 1.50   | 2.70  | 1.20  | 0.002 |
| 47.003-31  | 1.60   | 1.50   | 2.70  | 1.40  | 0.002 |
| 47.003-32  | 1.60   | 1.50   | 3.00  | 1.40  | 0.002 |
| 47.003-36A | 1.80   | 1.60   | 2.80  | 1.50  | 0.002 |
| 47.003-13  | 2.00   | 1.80   | 2.40  | 1.15  | 0.003 |
| 47.003-15  | 2.00   | 1.80   | 2.40  | 1.50  | 0.003 |
| 47.003-14  | 2.00   | 1.80   | 2.80  | 1.15  | 0.003 |
| 47.003-16  | 2.00   | 1.80   | 3.30  | 1.50  | 0.003 |
| 47.003-17  | 2.00   | 1.80   | 3.90  | 1.50  | 0.004 |
| 47.003-18  | 2.00   | 1.80   | 4.50  | 1.50  | 0.004 |
| 47.003-21  | 2.00   | 1.90   | 3.00  | 1.50  | 0.004 |
| 47.003-19  | 2.00   | 1.90   | 3.30  | 1.15  | 0.004 |
| 47.003-22  | 2.00   | 1.90   | 3.60  | 1.50  | 0.004 |
| 47.003-20  | 2.00   | 1.90   | 3.80  | 1.15  | 0.004 |
| 47.003-23  | 2.00   | 1.90   | 4.20  | 1.50  | 0.005 |
| 47.003-24  | 2.00   | 1.90   | 4.80  | 1.50  | 0.005 |

| MSA       | Ø T mm | Ø D mm | L1 mm | L2 mm | Kg    |
|-----------|--------|--------|-------|-------|-------|
| 47.003-01 | 2.50   | 1.90   | 3.20  | 1.90  | 0.005 |
| 47.003-02 | 2.50   | 1.90   | 3.85  | 1.90  | 0.005 |
| 47.003-03 | 2.50   | 1.90   | 4.95  | 1.90  | 0.006 |
| 47.003-04 | 2.50   | 1.90   | 5.05  | 1.90  | 0.006 |
| 47.003-05 | 2.50   | 2.00   | 3.55  | 1.90  | 0.006 |
| 47.003-06 | 2.50   | 2.00   | 4.25  | 1.90  | 0.006 |
| 47.003-07 | 2.50   | 2.00   | 4.45  | 1.90  | 0.006 |
| 47.003-08 | 2.50   | 2.00   | 4.75  | 1.90  | 0.006 |
| 47.003-09 | 2.50   | 2.20   | 3.20  | 1.90  | 0.006 |
| 47.003-10 | 2.50   | 2.20   | 3.50  | 1.90  | 0.006 |
| 47.003-11 | 2.50   | 2.20   | 4.05  | 1.90  | 0.007 |
| 47.003-12 | 2.50   | 2.20   | 4.35  | 1.90  | 0.008 |
| 47.003-37 | 3.00   | 1.90   | 3.20  | 1.90  | 0.010 |
| 47.003-38 | 3.00   | 1.90   | 3.85  | 1.90  | 0.010 |
| 47.003-39 | 3.00   | 2.00   | 4.95  | 2.20  | 0.010 |
| 47.003-40 | 3.00   | 2.00   | 5.50  | 2.20  | 0.010 |
| 47.003-41 | 3.00   | 2.50   | 3.85  | 2.50  | 0.010 |
| 47.003-42 | 3.00   | 2.50   | 5.50  | 2.50  | 0.010 |
| 47.003-43 | 3.50   | 2.00   | 3.90  | 1.90  | 0.010 |
| 47.003-44 | 3.50   | 2.00   | 4.95  | 1.90  | 0.010 |
| 47.003-45 | 3.50   | 2.50   | 5.20  | 2.20  | 0.010 |
| 47.003-46 | 3.50   | 2.50   | 5.50  | 2.20  | 0.010 |
| 47.003-47 | 3.50   | 3.00   | 1.60  | 2.50  | 0.010 |
| 47.003-48 | 3.50   | 3.00   | 6.50  | 2.50  | 0.010 |



Ø T 1.30 - 1.50 - 1.60 - 1.80 mm

Assortiment de tubes en acier inoxydable pour boîtes étanches.  
 Assortment of stainless steel tubes for waterproof cases.  
 Sortiment von Röhre aus Edelstahl für wasserdichte Gehäuse.  
 Surtido de tubos en acero inoxidable para cajas herméticas.  
 Assortimento di tubi in acciaio inossidabile per casse impermeabili.  
 Sortido de tubos em aço inoxidável para caixas estanques.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**12x MSA47.003-25A /-26 /-27 /-28 /-29 /-30 /-31 /-32 /-33**  
**/-34 /-35 /-36A**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 47.002 | 144x | 0.029 |



Ø T 2.00 mm

Assortiment de tubes en acier inoxydable pour boîtes étanches.  
 Assortment of stainless steel tubes for waterproof cases.  
 Sortiment von Röhre aus Edelstahl für wasserdichte Gehäuse.  
 Surtido de tubos en acero inoxidable para cajas herméticas.  
 Assortimento di tubi in acciaio inossidabile per casse impermeabili.  
 Sortido de tubos em aço inoxidável para caixas estanques.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**12x MSA47.003-13 /-14 /-15 /-16 /-17 /-18 /-19 /-20 /-21 /-22**  
**/-23 /-24**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 47.001 | 144x | 0.033 |



Ø T 2.50 mm

Assortiment de tubes en acier inoxydable pour boîtes étanches.  
 Assortment of stainless steel tubes for waterproof cases.  
 Sortiment von Röhre aus Edelstahl für wasserdichte Gehäuse.  
 Surtido de tubos en acero inoxidable para cajas herméticas.  
 Assortimento di tubi in acciaio inossidabile per casse impermeabili.  
 Sortido de tubos em aço inoxidável para caixas estanques.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**12x MSA47.003-01 /-02 /-03 /-04 /-05 /-06 /-07 /-08 /-09 /-10**  
**/-11 /-12**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 47.000 | 144x | 0.036 |



Ø T 3.00 - 3.50 mm

Assortiment de tubes en acier inoxydable pour boîtes étanches.

Assortment of stainless steel tubes for waterproof cases.

Sortiment von Röhre aus Edelstahl für wasserdichte Gehäuse.

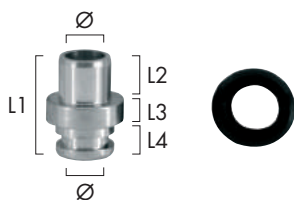
Sortido de tubos en acero inoxidable para cajas herméticas.

Assortimento di tubi in acciaio inossidabile per casse impermeabili.

Sortido de tubos em aço inoxidável para caixas estanques.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**12x MSA47.003-37 /-38 /-39 /-40 /-41 /-42 /-43 /-44 /-45 /-46**  
**/-47 /-48**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 47.005 | 144x | 0.033 |



Tube spécial en acier inoxydable pour couronnes, avec joint MSA43.006.

*Stainless steel special crown tube, with gasket MSA43.006.*

Spezieller Rohr aus Edelstahl für Kronen, mit Dichtung MSA43.006.

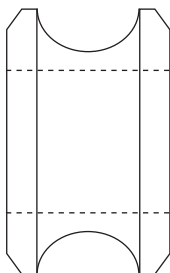
*Tubo especial en acero inoxidable para coronas, con junta MSA43.006.*

Tubo speciale in acciaio inossidabile per corone, con guarnizione MSA43.006.

*Tubo especial em aço inoxidável para coroas, com junta MSA43.006.*

| MSA    | Ø int. mm | L1 mm | L2 mm | L3 mm | L4 mm | Kg    |
|--------|-----------|-------|-------|-------|-------|-------|
| 47.101 | 1.27      | 2.50  | 1.00  | 0.29  | 1.21  | 0.001 |

**10**  
pcs



Joint pour tube spécial en acier inoxydable MSA47.101 ; sachet de 10 pièces.

*Gasket for stainless steel special tube MSA47.101 ; bag of 10 pieces.*

Dichtung für spezieller Rohr aus Edelstahl MSA47.101 ; Beutel von 10 Stück.

*Junta para tubo especial en acero inoxidable MSA47.101 ; bolsita de 10 piezas.*

Guarnizione per tubo speciale in acciaio inossidabile MSA47.101 ; bustina da 10 pezzi.

*Junta para tubo especial em aço inoxidável MSA47.101 ; saquinho de 10 peças.*

| MSA    | 1/1 | Ø int./ext. mm | Kg    |
|--------|-----|----------------|-------|
| 43.006 | ○   | 1.50 x 2.80    | 0.001 |



**Voir le chapitre complet des JOINTS, , pages 1-1...1-22.**

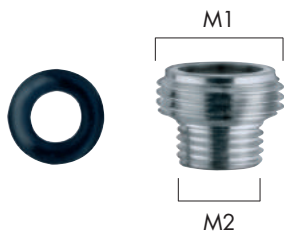
**See the complete chapter of GASKETS, pages 1-1...1-22.**

**Siehe das vollständige Kapitel der DICHTUNGEN, Seiten 1-1...1-22.**

**Ver el capítulo completo de las JUNTAS, páginas 1-1...1-22.**

**Vedere il capitolo completo delle GUARNIZIONI, pagine 1-1...1-22.**

**Ver o capítulo completo das JUNTAS, páginas 1-1...1-22.**



Tube en maillechort avec joint pour couronne à vis.  
*Nickel silver tube with gasket for screw-on crown.*  
 Rohr aus Neusilber mit Dichtung für Schraubkrone.  
*Tube en alpaca con junta para corona de rosca.*  
 Tubo in argentone con guarnizione per corona a vite.  
*Tube em níquel prateado com junta para coroa de rosca.*

| MSA     | 1/1 | Type       | Ø M1 mm | Ø M2 mm | Forme/Shape |
|---------|-----|------------|---------|---------|-------------|
| 65.001  |     | Dame/Lady  | 4.00    | 2.50    |             |
| 65.003  |     | Dame/Lady  | 4.00    | 2.50    |             |
| 65.004  |     | Dame/Lady  | 4.00    | 2.50    |             |
| 65.002  |     | Homme/Gent | 4.40    | 3.00    |             |
| 65.005  |     | Homme/Gent | 4.40    | 3.00    |             |
| 65.006  |     | Homme/Gent | 4.40    | 3.00    |             |
| 65.007* |     | Homme/Gent | 5.00    | 3.00    |             |
| 65.008  |     | Homme/Gent | 5.00    | 3.00    |             |

**Kg 0.001**

\* *Livré avec 3 joints ; 1x MSA43.104 et 2x MSA43.103 / Delivered with 3 gaskets ; 1x MSA43.104 and 2x MSA43.103*  
*Mit 3 Dichtungen geliefert ; 1x MSA43.104 und 2x MSA43.103 / Suministrado con 3 juntas ; 1x MSA43.104 y 2x MSA43.103*  
*Consegnato con 3 guarnizioni ; 1x MSA43.104 e 2x MSA43.103 / Entregue com 3 juntas ; 1x MSA43.104 e 2x MSA43.103*

| MSA      | 1/1 | Ø int./ext. mm | Tube      |
|----------|-----|----------------|-----------|
| 65.003-A |     | 0.70 x 1.40    | MSA65.003 |
| 65.004-A |     | 0.70 x 1.40    | MSA65.004 |
| 65.001-A |     | 0.75 x 1.50    | MSA65.001 |
| 65.002-A |     | 0.80 x 1.70    | MSA65.002 |
| 65.005-A |     | 0.80 x 1.70    | MSA65.005 |
| 65.006-A |     | 0.80 x 1.70    | MSA65.006 |

**Kg 0.001**








Joint rond pour tubes MSA65.00x.  
*Round gasket for tubes MSA65.00x.*  
 Runddichtung für Röhre MSA65.00x.  
*Junta redonda para tubos MSA65.00x.*  
 Guarnizione tonda per tubi MSA65.00x.  
*Junta redonda para tubos MSA65.00x.*

| MSA      | 1/1 | Ø ext. mm |
|----------|-----|-----------|
| 65.004-R |     | 3         |

**Kg 0.001**



Rondelle pour tubes MSA65.004.  
*Washer for tubes MSA65.004.*  
 Scheibe für Röhre MSA65.004.  
*Arandela para tubos MSA65.004.*  
 Rondella per tubi MSA65.004.  
*Rodela para tubos MSA65.004.*

| MSA       | 1/1   | Ø int./ext. mm<br>(section) | Pour couronne/<br>For crown |
|-----------|---|-----------------------------|-----------------------------|
| MSA43.100 |  | 1.60 x 3.00 (0.70)          | Type 5.30                   |
| MSA43.101 |  | 1.80 x 3.40 (0.80)          | Type 6.00                   |
| MSA43.102 |  | 2.00 x 3.40 (0.70)          | Type 7.00                   |
| MSA43.103 |  | 2.20 x 3.60 (0.70)          | Type 7.03 In                |
| MSA43.104 |  | 4.00 x 5.00 (0.50)          | Type 7.03 Out               |

Kg 0.001

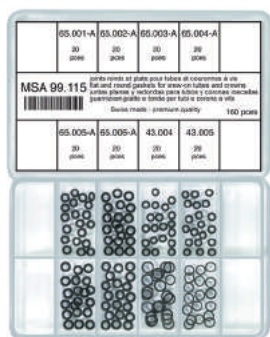
Joint rond pour tubes à vis.  
 Round gasket for screw-on tubes.  
 Runddichtung für Schraubröhre.  
 Junta redonda para tubos de rosca.  
 Guarnizione tonda per tubi a vite.  
 Junta redonda para tubos de rosca.



Assortiment de tubes en maillechort avec joints pour couronnes à vis.  
 Assortment of nickel silver tubes with gaskets for screw-on crowns.  
 Sortiment von Röhre aus Neusilber mit Dichtungen für Schraubkronen.  
 Surtido de tubos en plata alemana con juntas para coronas de rosca.  
 Assortimento di tubi in alpacca con guarnizioni per corone a vite.  
 Sortido de tubos em níquel prateado com juntas para coroas de rosca.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.218 | 14x | 0.029 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**7 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA65.001 /.002 /.003 /.004 /.005 /.006 /.007**



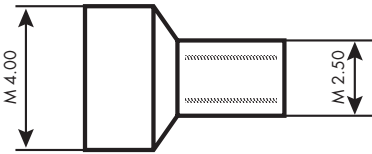
Assortiment de joints plats et ronds pour tubes et couronnes à vis.  
 Assortment of flat and round gaskets for screw-on tubes and crowns.  
 Sortiment von Flach- und Runddichtungen für Schraubröhre und -kronen.  
 Surtido de juntas planas y redondas para tubos y coronas de rosca.  
 Assortimento di guarnizioni piatte e tonde per tubi e corone a vite.  
 Sortido de juntas planas e redondas para tubos e coroas de rosca.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.115 | 160x | 0.025 |

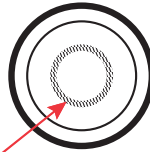
**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**8 modèles - models - Modelle - modelos - modelli - modelos**  
**20x MSA43.004 /.005 /65.001-A /.002-A /.003-A /.004-A**  
**/.005-A /.006-A**

**Outils Tools Werkzeuge**  
**Útiles Utensili Ferramentas**

**MSA 65.001** Lady 5.30

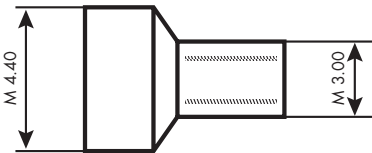


**MSA 03.665-01**

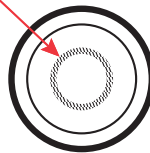


Fluted\*

**MSA 65.002** Gent 6.00

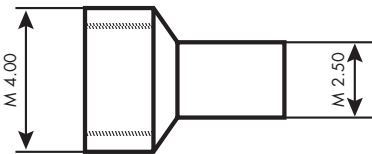


**MSA 03.665-02**

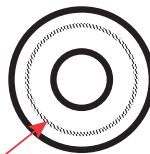


Montre ancienne avec tube ancien.  
 Old watch with old tube.  
 Alte Uhr mit altem Rohr.  
 Reloj antiguo con tubo antiguo.  
 Orologio antico con tubo antico.  
 Relógio antigo com tubo antigo.

**MSA 65.003** Lady 5.30

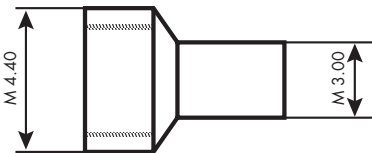


**MSA 03.665-03**

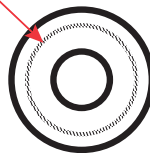


Fluted\*

**MSA 65.005** Gent 6.00

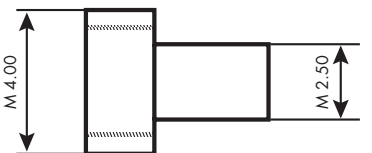


**MSA 03.665-05**

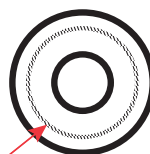


Montre ancienne avec tube nouveau.  
 Old watch with new tube.  
 Alte Uhr mit neuem Rohr.  
 Reloj antiguo con tubo nuevo.  
 Orologio antico con tubo nuovo.  
 Relógio antigo com tubo novo.

**MSA 65.004** Lady 5.30

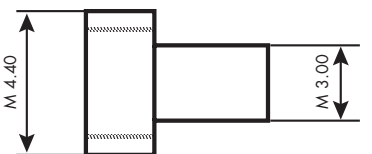


**MSA 03.665-04**

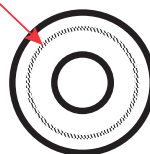


Fluted\*

**MSA 65.006** Gent 6.00



**MSA 03.665-06**



Montre nouvelle avec tube nouveau.  
 New watch with new tube.  
 Neue Uhr mit neuem Rohr.  
 Reloj nuevo con tubo nuevo.  
 Orologio nuovo con tubo nuovo.  
 Relógio novo com tubo novo.

\*Fluted : cannelé - geriffelt - estriado - zigrinato - estriado



POUSOIRS    PUSHERS    DRÜCKER    PULSADORES    PULSANTI    BOTÕES

Poussoirs à chasser  
*Press-in pushers*  
 Drücker zum einpressen  
*Pulsadores a presión*  
 Pulsanti a pressione  
*Botões de pressão*



2

Poussoirs à visser  
*Screw-on pushers*  
 Drücker zum schrauben  
*Pulsadores de rosca*  
 Pulsanti a vite  
*Botões de rosca*



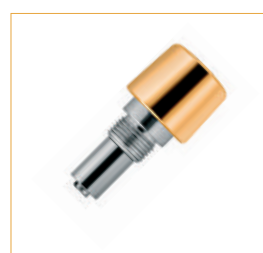
10

Poussoirs rectangulaires  
*Rectangular pushers*  
 Rechteckiger Drücker  
*Pulsadores rectangulares*  
 Pulsanti rettangolari  
*Botões rectangulares*



11

Poussoirs spéciaux  
*Special pushers*  
 Spezielle Drücker  
*Pulsadores especiales*  
 Pulsanti speciali  
*Botões especiais*



12





Poussoir à chasser étanche couleur acier, jaune et rose, **forme cylindrique** ; acier inoxydable.

Steel colour, yellow and pink waterproof press-in pusher, **cylindrical shape** ; stainless steel.

Stahlfarbe, gelber und rosa wasserdichter Drücker zum einpressen, **zylindrische Form** ; Edelstahl.

Pulsador a presión hermético color acero, amarillo y rosado, **forma cilíndrica** ; acero inoxidable.

Pulsante impermeabile a pressione colore acciaio, giallo e rosa, **forma cilindrica** ; acciaio inossidabile.

Botão à pressão estanque cor aço, amarelo e cor de rosa, **forma cilíndrica** ; aço inoxidável.


| MSA    | Couleur acier /<br>Steel colour | Ø mm | Ø T mm | L mm | MSA    | Jaune/<br>Yellow | MSA    | Rose/<br>Pink |
|--------|---------------------------------|------|--------|------|--------|------------------|--------|---------------|
| 61.401 |                                 | 2.30 | 1.80   | 5.50 | 61.801 |                  | -      | -             |
| 61.402 |                                 | 3.00 | 2.00   | 5.50 | 61.802 |                  | -      | -             |
| 61.405 |                                 | 3.00 | 2.20   | 5.00 | 61.805 |                  | -      | -             |
| 61.403 |                                 | 3.50 | 2.00   | 6.00 | 61.803 |                  | -      | -             |
| 61.406 |                                 | 3.50 | 2.50   | 5.00 | 61.806 |                  | -      | -             |
| 61.407 |                                 | 3.50 | 2.50   | 6.00 | 61.807 |                  | -      | -             |
| -      | -                               | 4.00 | 1.50   | 6.10 | -      | -                | 61.908 |               |
| 61.404 |                                 | 4.00 | 2.00   | 5.00 | 61.804 |                  | -      | -             |
| 61.408 |                                 | 4.00 | 2.50   | 6.00 | 61.808 |                  | -      | -             |
| 61.410 |                                 | 4.00 | 2.60   | 6.50 | 61.810 |                  | -      | -             |
| 61.409 |                                 | 4.50 | 2.50   | 6.50 | 61.809 |                  | -      | -             |
| 61.413 |                                 | 5.00 | 2.50   | 6.50 | 61.813 |                  | -      | -             |
| 61.414 |                                 | 5.50 | 2.60   | 6.70 | 61.814 |                  | -      | -             |
| 61.415 |                                 | 6.00 | 2.60   | 6.70 | 61.815 |                  | -      | -             |

Kg 0.001

1/1

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 61.402 | 61.403 | 61.404 | 61.405 | 61.406 | 61.407 |
| ø 3.00 | 3.50   | 4.00   | 3.00   | 3.50   | 3.50   |
| ø 2.00 | 2.00   | 2.00   | 2.20   | 2.50   | 2.50   |
| L 5.50 | 6.00   | 5.00   | 5.00   | 5.00   | 6.00   |

ASSORTIMENT DE POUSSOIRS À CHASSER ÉTANCHES FORME CYLINDRIQUE, ACIER INOXYDABLE.  
 ASSORTMENT OF WATERPROOF PRESS-IN PUSHERS, CYLINDRICAL SHAPE, STAINLESS STEEL.  
 SURTIDO DE PULSADORES A PRESIÓN HERMÉTICOS FORMA CILÍNDRICA, ACERO INOXIDABLE.  
 ASSORTIMENTO DI PULSANTI IMPERMEABILI A PRESSIONE COLORE ACCIAIO, FORMA CILINDRICA.

MSA 99.232  24 pieces

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 61.408 | 61.409 | 61.410 | 61.413 | 61.414 | 61.415 |
| ø 4.00 | 4.50   | 4.00   | 5.00   | 5.50   | 6.00   |
| ø 2.50 | 2.50   | 2.60   | 2.50   | 2.60   | 2.60   |
| L 6.00 | 6.50   | 6.50   | 6.50   | 6.70   | 6.70   |



Assortiment de pousoirs à chasser étanches couleur acier, **forme cylindrique** ; acier inoxydable.

Assortment of steel colour waterproof press-in pushers, **cylindrical shape** ; stainless steel.

Sortiment von Stahlfarbe wasserdichte Drücker zum einpressen, **zylindrische Form** ; Edelstahl.

Surtido de pulsadores a presión herméticos color acero, **forma cilíndrica** ; acero inoxidable.

Assortimento di pulsanti impermeabili a pressione colore acciaio, **forma cilíndrica** ; acciaio inossidabile.


Sortido de botões à pressão estanques cor aço, **forma cilíndrica** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA61.402 / .403 / .404 / .405 / .406 / .407 / .408 / .409 / .410  
 / .413 / .414 / .415**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.232 | 24x | 0.034 |

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 61.802 | 61.803 | 61.804 | 61.805 | 61.806 | 61.807 |
| ø 3.00 | 3.50   | 4.00   | 3.00   | 3.50   | 3.50   |
| ø 2.00 | 2.00   | 2.00   | 2.20   | 2.50   | 2.50   |
| L 5.50 | 6.00   | 5.00   | 5.00   | 5.00   | 6.00   |

ASSORTIMENT DE POUSSOIRS À CHASSER ÉTANCHES FORME CYLINDRIQUE, JAUNE.  
 ASSORTMENT OF WATERPROOF PRESS-IN PUSHERS, CYLINDRICAL SHAPE, YELLOW.  
 SURTIDO DE PULSADORES A PRESIÓN HERMÉTICOS FORMA CILÍNDRICA, AMARILLO.  
 ASSORTIMENTO DI PULSANTI IMPERMEABILI A PRESSIONE COLORE GIALLO.

MSA 99.233  24 pieces

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 61.808 | 61.809 | 61.810 | 61.813 | 61.814 | 61.815 |
| ø 4.00 | 4.50   | 4.00   | 5.00   | 5.50   | 6.00   |
| ø 2.50 | 2.50   | 2.60   | 2.50   | 2.60   | 2.60   |
| L 6.00 | 6.50   | 6.50   | 6.50   | 6.70   | 6.70   |



Assortiment de pousoirs à chasser étanches jaunes, **forme cylindrique** ; acier inoxydable.

Assortment of yellow waterproof press-in pushers, **cylindrical shape** ; stainless steel.

Sortiment von gelbe wasserdichte Drücker zum einpressen, **zylindrische Form** ; Edelstahl.

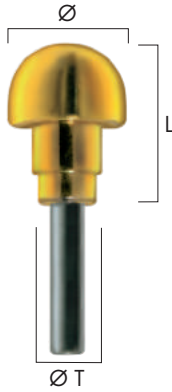
Surtido de pulsadores a presión herméticos amarillos, **forma cilíndrica** ; acero inoxidable.

Assortimento di pulsanti impermeabili a pressione gialli, **forma cilíndrica** ; acciaio inossidabile.

Sortido de botões à pressão estanques amarelos, **forma cilíndrica** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA61.802 / .803 / .804 / .805 / .806 / .807 / .808 / .809 / .810  
 / .813 / .814 / .815**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.233 | 24x | 0.034 |



Poussoir à chasser étanche couleur acier et jaune, **forme demi-boule** ; acier inoxydable.

Steel colour and yellow waterproof press-in pusher, **domed shape** ; stainless steel.

Stahlfarbe und gelber wasserdichter Drücker zum einpressen, **Halbkugel Form** ; Edelstahl.

Pulsador a presión hermético color acero y amarillo, **forma media bola** ; acero inoxidable.

Pulsante impermeabile a pressione colore acciaio e giallo, **forma demiboule** ; acciaio inossidabile.

Botão de pressão estanque cor aço e amarelo, **forma meia bola** ; aço inoxidável.

| MSA    | Couleur acier/Steel colour | Ø mm | Ø T mm | L mm | MSA    | Jaune/Yellow |
|--------|----------------------------|------|--------|------|--------|--------------|
| 61.601 |                            | 3.00 | 1.80   | 4.30 | 61.101 |              |
| 61.602 |                            | 3.00 | 2.00   | 4.80 | 61.102 |              |
| 61.603 |                            | 3.00 | 2.00   | 5.00 | 61.103 |              |
| 61.604 |                            | 3.00 | 2.00   | 5.10 | 61.104 |              |
| 61.605 |                            | 3.00 | 2.00   | 5.25 | 61.105 |              |
| 61.606 |                            | 3.00 | 2.00   | 5.60 | 61.106 |              |
| 61.607 |                            | 3.50 | 2.00   | 5.20 | 61.107 |              |
| 61.608 |                            | 3.50 | 2.00   | 5.60 | 61.108 |              |
| 61.609 |                            | 3.50 | 2.00   | 6.10 | 61.109 |              |
| 61.654 |                            | 3.50 | 2.20   | 5.50 | 61.154 |              |
| 61.655 |                            | 3.50 | 2.50   | 5.20 | 61.155 |              |
| 61.651 |                            | 4.00 | 2.00   | 4.90 | 61.151 |              |
| 61.652 |                            | 4.00 | 2.00   | 5.40 | 61.152 |              |
| 61.653 |                            | 4.00 | 2.00   | 5.90 | 61.153 |              |
| 61.656 |                            | 4.00 | 2.50   | 5.70 | 61.156 |              |
| 61.657 |                            | 4.00 | 2.50   | 6.20 | 61.157 |              |
| 61.658 |                            | 4.00 | 2.50   | 7.30 | 61.158 |              |
| 61.659 |                            | 5.00 | 2.50   | 8.30 | 61.159 |              |
| 61.660 |                            | 5.50 | 2.60   | 7.00 | 61.160 |              |
| 61.661 |                            | 6.00 | 2.60   | 7.60 | 61.161 |              |

Kg 0.001

1/1



Assortiment de poussoirs à chasser étanches couleur acier, **forme demi-boule** ; acier inoxydable.

Assortment of steel colour waterproof press-in pushers, **domed shape** ; stainless steel.

Sortiment von Stahlfarbe wasserdichte Drücker zum einpressen, **Halbkugel Form** ; Edelstahl.

Surtido de pulsadores a presión herméticos color acero, **forma media bola** ; acero inoxidable.

Assortimento di pulsanti impermeabili a pressione colore acciaio, **forma demiboule** ; acciaio inossidabile.

Sortido de botões de pressão estanques cor aço, **forma meia bola** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
18 modèles - models - Modelle - modelos - modelli - modelos  
2x MSA61.602 /.604 /.605 /.606 /.607 /.608 /.609 /.651 /.652  
/.653 /.654 /.655 /.656 /.657 /.658 /.659 /.660 /.661**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.230 | 36x | 0.046 |



Assortiment de poussoirs à chasser étanches jaunes, **forme demi-boule** ; acier inoxydable.

Assortment of yellow waterproof press-in pushers, **domed shape** ; stainless steel.

Sortiment von gelbe wasserdichte Drücker zum einpressen, **Halbkugel Form** ; Edelstahl.

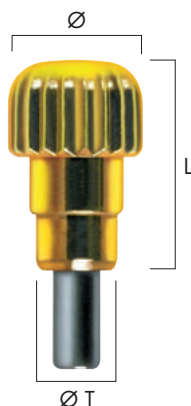
Surtido de pulsadores a presión herméticos amarillos, **forma media bola** ; acero inoxidable.

Assortimento di pulsanti impermeabili a pressione gialli, **forma demiboule** ; acciaio inossidabile.

Sortido de botões de pressão estanques amarelos, **forma meia bola** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
18 modèles - models - Modelle - modelos - modelli - modelos  
2x MSA61.102 /.104 /.105 /.106 /.107 /.108 /.109 /.151 /.152  
/.153 /.154 /.155 /.156 /.157 /.158 /.159 /.160 /.161**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.231 | 36x | 0.047 |



Poussoir à chasser étanche couleur acier et jaune, **forme antique** ; acier inoxydable.

Steel colour and yellow wyaterproof press-in pusher, **antique shape** ; stainless steel.

Stahlfarbe und gelber wasserdichter Drücker zum einpressen, **Antiker Form** ; Edelstahl.

Pulsador a presión hermético color acero y amarillo, **forma antigua** ; acero inoxidable.

Pulsante a pressione impermeabile colore acciaio e giallo, **forma antica** ; acciaio inossidabile.

Botão de pressão estanque cor aço e amarelo, **forma antiga** ; aço inoxidável.

| MSA    | Couleur acier/Steel colour | Ø mm | Ø T mm | L mm | MSA    | Jaune/Yellow |
|--------|----------------------------|------|--------|------|--------|--------------|
| 61.501 |                            | 3.50 | 2.00   | 5.20 | 61.001 |              |
| 61.502 |                            | 3.50 | 2.00   | 6.20 | 61.002 |              |
| 61.503 |                            | 4.00 | 2.00   | 5.50 | 61.003 |              |
| 61.504 |                            | 4.00 | 2.00   | 5.70 | 61.004 |              |
| 61.505 |                            | 4.00 | 2.20   | 5.70 | 61.005 |              |
| 61.506 |                            | 4.00 | 2.20   | 6.00 | 61.006 |              |
| 61.507 |                            | 4.00 | 2.20   | 6.70 | 61.007 |              |
| 61.508 |                            | 4.00 | 2.50   | 6.20 | 61.008 |              |
| 61.509 |                            | 4.00 | 2.50   | 6.30 | 61.009 |              |
| 61.510 |                            | 4.00 | 2.50   | 6.60 | 61.010 |              |
| 61.511 |                            | 4.00 | 2.50   | 7.10 | 61.011 |              |
| 61.512 |                            | 4.00 | 2.50   | 7.20 | 61.012 |              |
| 61.513 |                            | 4.50 | 2.50   | 6.00 | 61.013 |              |
| 61.514 |                            | 5.00 | 2.60   | 6.50 | 61.014 |              |
| 61.515 |                            | 5.50 | 2.60   | 7.00 | 61.015 |              |
| 61.516 |                            | 6.00 | 2.60   | 7.20 | 61.016 |              |

Kg 0.001

1/1



Assortiment de poussoirs à chasser étanches couleur acier, **forme antique** ; acier inoxydable.

Assortment of steel colour waterproof press-in pushers, **antique shape** ; stainless steel.

Sortiment von Stahlfarbe wasserdichte Drücker zum einpressen, **Antiker Form** ; Edelstahl.

Surtido de pulsadores a presión herméticos color acero, **forma antigua** ; acero inoxidable.

Assortimento di pulsanti a pressione impermeabili colore acciaio, **forma antica** ; acciaio inossidabile.

Sortido de botões de pressão estanques cor aço, **forma antiga** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo : 16 modèles - models - Modelle - modelos - modelli - modelos 2x MSA61.501 /.502 /.503 /.504 /.505 /.506 /.507 /.508 /.509 /.510 /.511 /.512 /.513 /.514 /.515 /.516**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.236 | 32x | 0.046 |



Assortiment de poussoirs à chasser étanches jaunes, **forme antique** ; acier inoxydable.

Assortment of yellow waterproof press-in pushers, **antique shape** ; stainless steel.

Sortiment von gelbe wasserdichte Drücker zum einpressen, **Antiker Form** ; Edelstahl.

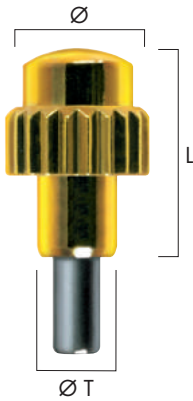
Surtido de pulsadores a presión herméticos amarillos, **forma antigua** ; acero inoxidable.

Assortimento di pulsanti a pressione impermeabili gialli, **forma antica** ; acciaio inossidabile.

Sortido de botões de pressão estanques amarelos, **forma antiga** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo : 16 modèles - models - Modelle - modelos - modelli - modelos 2x MSA61.001 /.002 /.003 /.004 /.005 /.006 /.007 /.008 /.009 /.010 /.011 /.012 /.013 /.014 /.015 /.016**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.237 | 32x | 0.047 |



Poussoir à chasser étanche couleur acier et jaune, **forme cannelée** ; acier inoxydable.














Steel colour and yellow waterproof press-in pusher, **fluted shape** ; stainless steel.

Stahlfarbe und gelber wasserdichter Drücker zum einpressen, **geriffelter Form** ; Edelstahl.

Pulsador a presión hermético color acero y amarillo, **forma estriada** ; acero inoxidable.

Pulsante a pressione impermeabile colore acciaio e giallo, **forma zigrinata** ; acciaio inossidabile.

Botão de pressão estanque cor aço e amarelo, **forma estriada** ; aço inoxidável.


| MSA    | Couleur acier/Steel colour  | Ø mm | Ø T mm | L mm | MSA    | Jaune/Yellow  |
|--------|---|------|--------|------|--------|---|
| 61.552 |    | 4.50 | 2.40   | 5.20 | 61.052 |    |
| 61.553 |    | 4.50 | 2.50   | 6.30 | 61.053 |    |
| 61.554 |    | 4.50 | 2.50   | 6.50 | 61.054 |    |
| 61.555 |    | 4.50 | 2.50   | 7.00 | 61.055 |    |
| 61.556 |   | 5.00 | 2.50   | 5.70 | 61.056 |   |
| 61.557 |  | 5.00 | 2.50   | 6.60 | 61.057 |  |
| 61.558 |  | 5.00 | 2.50   | 7.10 | 61.058 |  |
| 61.559 |  | 5.00 | 3.00   | 8.30 | 61.059 |  |
| 61.551 |  | 5.50 | 2.30   | 6.70 | 61.051 |  |
| 61.560 |  | 6.00 | 2.60   | 7.20 | 61.060 |  |

Kg 0.001

1/1

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 61.551 | 61.552 | 61.553 | 61.554 | 61.555 | 61.556 |
| ø 5.50 | 4.50   | 4.50   | 4.50   | 4.50   | 5.00   |
| ø 2.30 | 2.40   | 2.50   | 2.50   | 2.50   | 2.50   |
| L 6.70 | 5.20   | 6.30   | 6.50   | 7.00   | 5.70   |

ASSORTIMENT DE POUSSOIRS À CHASSER ÉTANCHES FORME CANNELÉE, ACIÉ INOX.  
ASSORTMENT OF WATERPROOF PRESS-IN PUSHERS FLUTED SHAPE, ST. STEEL.  
SORTIMENT VON STAHLFARBE WASSERDICHTE DRÜCKER ZUM EINPRESSEN, GERIFFELTER FORM ; EDELSTAHL.  
ASSORTIMENTO DI PULSANTI A PRESSIONE IMPERMEABILI FORMA ZIGRINATA, ACCIAIO INOSSIDABILE.

MSA 99.239  20 pieces



Assortiment de pousoirs à chasser étanches couleur acier, **forme cannelée** ; acier inoxydable.

Assortment of steel colour waterproof press-in pushers, **fluted shape** ; stainless steel.

Sortiment von Stahlfarbe wasserdichte Drücker zum einpressen, **geriffelter Form** ; Edelstahl.

Surtido de pulsadores a presión herméticos color acero, **forma estriada** ; acero inoxidable.

Assortimento di pulsanti a pressione impermeabili colore acciaio, **forma zigrinata** ; acciaio inossidabile.


Sortido de botões de pressão estanques cor aço, **forma estriada** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo : 10 modèles - models - Modelle - modelos - modelli - modelos 2x MSA61.551 /.552 /.553 /.554 /.555 /.556 /.557 /.558 /.559 /.560**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.239 | 20x | 0.033 |

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 61.051 | 61.052 | 61.053 | 61.054 | 61.055 | 61.056 |
| ø 5.50 | 4.50   | 4.50   | 4.50   | 4.50   | 5.00   |
| ø 2.30 | 2.40   | 2.50   | 2.50   | 2.50   | 2.50   |
| L 6.70 | 5.20   | 6.30   | 6.50   | 7.00   | 5.70   |

ASSORTIMENT DE POUSSOIRS À CHASSER ÉTANCHES FORME CANNELÉE, JAUNES  
ASSORTMENT OF WATERPROOF PRESS-IN PUSHERS FLUTED SHAPE, YELLOW  
SORTIMENT VON GELBE WASSERDICHTE DRÜCKER ZUM EINPRESSEN, GERIFFELTER FORM ; EDELSTAHL.  
ASSORTIMENTO DI PULSANTI A PRESSIONE IMPERMEABILI FORMA ZIGRINATA, ACCIAIO INOSSIDABILE.

MSA 99.238  20 pieces



Assortiment de pousoirs à chasser étanches jaunes, **forme cannelée** ; acier inoxydable.

Assortment of yellow waterproof press-in pushers, **fluted shape** ; stainless steel.

Sortiment von gelbe wasserdichte Drücker zum einpressen, **geriffelter Form** ; Edelstahl.

Surtido de pulsadores a presión herméticos amarillos, **forma estriada** ; acero inoxidable.

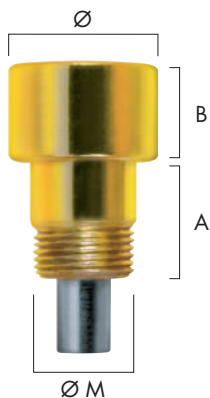
Assortimento di pulsanti a pressione impermeabili gialli, **forma zigrinata** ; acciaio inossidabile.

Sortido de botões de pressão estanques amarelos, **forma estriada** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo : 10 modèles - models - Modelle - modelos - modelli - modelos 2x MSA61.051 /.052 /.053 /.054 /.055 /.056 /.057 /.058 /.059 /.060**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.238 | 20x | 0.034 |





Poussoir à visser étanche couleur acier, jaune et noir, **formes cylindrique, antique et cannelée** ; acier inoxydable.

Steel colour, yellow and black waterproof screw-on pusher, **cylindrical, antique and fluted shapes** ; stainless steel.

Stahlfarbe, gelber und schwarzer wasserdichter Schraubdrücker, **zylindrische, Antik und geriffelte Formen** ; Edelstahl.

Pulsador de rosca hermético color acero, amarillo y negro, **formas cilíndrica, antigua y estriada** ; acero inoxidable.

Pulsante a vite impermeabile colore acciaio, giallo e nero, **forme cilindrica, antica e zigrinata** ; acciaio inossidabile.

Botão de rosca estanque cor aço, amarelo e preto, **formas cilíndrica, antiga e estriada** ; aço inoxidável.

| MSA    | Couleur acier / Steel colour | Ø x Ø M mm  | A + B mm    | Forme / Shape             | MSA     | Jaune / Yellow | MSA    | Noir / Black |
|--------|------------------------------|-------------|-------------|---------------------------|---------|----------------|--------|--------------|
| 61.701 |                              | 4.00 x 2.50 | 3.20 + 2.70 | Cylindrique / Cylindrical | 61.201  |                | 61.301 |              |
| 61.703 |                              | 4.00 x 2.50 | 3.15 + 2.80 | Antique / Antique         | 61.203  |                | -      | -            |
| 61.704 |                              | 4.00 x 2.80 | 4.50 + 3.20 | Cylindrique / Cylindrical | 61.204  |                | -      | -            |
| 61.702 |                              | 4.40 x 2.50 | 3.00 + 2.80 | Cylindrique / Cylindrical | 61.202  |                | -      | -            |
| 61.705 |                              | 4.50 x 2.80 | 2.90 + 2.70 | Cylindrique / Cylindrical | -       | -              | -      | -            |
| 61.706 |                              | 5.00 x 2.80 | 3.00 + 2.70 | Cylindrique / Cylindrical | 61.206* |                | -      | -            |
| 61.707 |                              | 5.50 x 2.50 | 3.20 + 4.05 | Cannelée / Fluted         | 61.207  |                | -      | -            |

Kg 0.001 \* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock 1/1



|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 61.201 | 61.202 | 61.203 | 61.204 | 61.207 | 61.701 |
| ø 4.00 | 4.40   | 4.00   | 4.00   | 5.50   | 4.00   |
| ø 2.50 | 2.50   | 2.50   | 2.80   | 2.50   | 2.50   |
| ø 2.20 | ø 2.20 | ø 2.20 | ø 2.20 | ø 2.20 | ø 2.20 |

HOLDFORM 4 ANSOPT-FORMEN DE PUSHERS CILINDRICI, ANTICA E CANNELEE AD. ACCIAIO INOSSIDABILE. WEISSFARBEN, GELB UND SCHWARZ WASSERDICHT DRÜCKER ZUM SCHRAUBEN. ZYLINDRISCH, ANTIK UND GERIFFELTE FORMEN. EDELSTAHL. PULSADORES ROSCA HERMÉTICO COLOR ACERO Y AMARILLOS. PULSANTI A VITE IMPERMEABILI COLORE ACCIAIO, GIALLO E NERO. BOTÕES DE ROSCA ESTANQUE COR AÇO E AMARELOS.

MSA 99 235 24 pcs

|        |        |        |        |        |        |
|--------|--------|--------|--------|--------|--------|
| 61.702 | 61.703 | 61.704 | 61.705 | 61.706 | 61.707 |
| ø 4.40 | 4.00   | 4.00   | 4.50   | 5.00   | 5.50   |
| ø 2.50 | 2.50   | 2.80   | 2.80   | 2.80   | 2.50   |
| ø 2.20 | ø 2.20 | ø 2.20 | ø 2.20 | ø 2.20 | ø 2.20 |



Assortiment de poussoirs à visser étanches couleur acier et jaunes, **formes cylindrique, antique et cannelée** ; acier inoxydable.

Assortiment of steel colour and yellow waterproof screw-on pushers, **cylindrical, antique and fluted shapes** ; stainless steel.

Sortiment von Stahlfarbe und gelbe wasserdichte Schraubdrücker, **zylindrische, Antik und geriffelte Formen** ; Edelstahl.

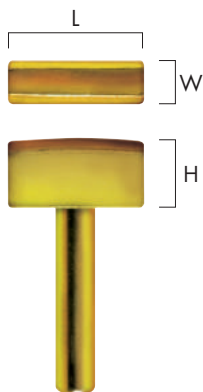
Surtido de pulsadores de rosca herméticos color acero y amarillos, **formas cilíndrica, antigua y estriada** ; acero inoxidable.

Assortimento di pulsanti a vite impermeabili colore acciaio e gialli, **forme cilindrica, antica e zigrinata** ; acciaio inossidabile.

Sortido de botões de rosca estanques cor aço e amarelos, **formas cilíndrica, antiga e estriada** ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos  
 2x MSA61.201 / .202 / .203 / .204 / .207 / .701 / .702 / .703 / .704  
 / .705 / .706 / .707**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.235 | 24x | 0.035 |



Poussoir rectangulaire couleur acier, jaune et rose.  
 Steel colour, yellow and pink rectangular pusher.  
 Stahlfarbe, gelber und rosa rechteckiger Drücker.  
 Pulsador rectangular color acero, amarillo y rosado.  
 Pulsante rettangolare colore acciaio, giallo e rosa.  
 Botão rectangular cor aço, amarelo e cor de rosa.

| MSA    | Couleur acier/<br>Steel colour | L mm | W mm | H mm | MSA    | Jaune/<br>Yellow | MSA    | Rose/<br>Pink |
|--------|--------------------------------|------|------|------|--------|------------------|--------|---------------|
| 61.411 |                                | 5.00 | 1.60 | 2.50 | 61.811 |                  | 61.911 |               |
| -      | -                              | 5.00 | 2.00 | 2.00 | -      | -                | 61.912 |               |
| -      | -                              | 5.00 | 2.00 | 2.50 | 61.816 |                  | -      | -             |
| 61.412 |                                | 5.00 | 2.00 | 3.30 | 61.812 |                  | -      | -             |

Kg 0.001

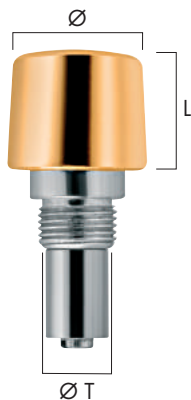
1/1



Assortiment de poussoirs rectangulaires couleur acier, jaunes et roses.  
 Assortment of steel colour, yellow and pink rectangular pushers.  
 Sortiment von Stahlfarbe, gelbe und rosa rechteckiger Drücker.  
 Surtido de pulsadores rectangulares color acero, amarillos e rosados.  
 Assortimento di pulsanti rettangolari colore acciaio, gialli e rosa.  
 Sortido de botões rectangulares cor aço, amarelos e cor de rosa.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.193 | 12x | 0.031 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**6 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA61.411 /.412 /.811 /.812 /.911 /.912**



Poussoir spécial.  
 Special pusher.  
 Spezieller Drücker.  
 Pulsador especial.  
 Pulsante speciale.  
 Botão especial.

| MSA    | N°/No. | 1/1 | Ø mm | L mm | Ø T mm |
|--------|--------|-----|------|------|--------|
| 61.341 | 003    |     | 4.00 | 2.90 | 2.90   |
| 61.342 | 034    |     | 4.00 | 2.90 | 2.90   |
| 61.329 | 018SRD |     | 4.00 | 3.00 | 2.40   |
| 61.328 | 018S   |     | 4.00 | 3.20 | 2.40   |
| 61.314 | 005    |     | 4.00 | 3.30 | 2.90   |
| 61.327 | 017Y   |     | 4.00 | 3.40 | 2.40   |
| 61.331 | 020S   |     | 4.00 | 3.80 | 2.90   |
| 61.310 | 001    |     | 4.20 | 2.90 | 2.40   |
| 61.311 | 002    |     | 4.20 | 3.60 | 2.90   |
| 61.334 | 024    |     | 4.30 | 2.50 | 2.90   |
| 61.333 | 023    |     | 4.40 | 2.60 | 2.90   |
| 61.343 | 035    |     | 4.40 | 2.60 | 2.90   |
| 61.344 | 036    |     | 4.40 | 3.40 | 2.90   |
| 61.339 | 031    |     | 4.40 | 3.60 | 2.90   |
| 61.324 | 014Y   |     | 4.50 | 2.80 | 3.00   |
| 61.316 | 007    |     | 4.50 | 2.90 | 2.90   |
| 61.323 | 014    |     | 4.50 | 2.90 | 2.90   |

| MSA    | N°/No. | 1/1 | Ø mm           | L mm | Ø T mm |
|--------|--------|-----|----------------|------|--------|
| 61.335 | 026    |     | 4.50           | 2.90 | 2.90   |
| 61.336 | 027    |     | 4.50           | 2.90 | 2.90   |
| 61.325 | 015    |     | 4.50           | 2.70 | 2.70   |
| 61.322 | 013    |     | 4.70           | 3.10 | 2.45   |
| 61.332 | 021S   |     | 4.70           | 3.60 | 2.40   |
| 61.312 | 003    |     | 4.80           | 4.20 | 3.60   |
| 61.326 | 016    |     | 5.00           | 2.90 | 2.90   |
| 61.319 | 010    |     | 5.00           | 3.40 | 2.90   |
| 61.340 | 032    |     | 5.00           | 3.60 | 2.90   |
| 61.345 | 037    |     | 5.00           | 3.60 | 2.90   |
| 61.313 | 004    |     | 5.15           | 3.50 | 2.50   |
| 61.318 | 009    |     | 5.50           | 4.00 | 2.90   |
| 61.315 | 006    |     | 5.50 x<br>4.00 | 3.00 | 2.90   |
| 61.337 | 029    |     | 6.00 x<br>4.00 | 3.00 | 2.40   |
| 61.338 | 030    |     | 6.00 x<br>4.00 | 3.00 | 2.40   |
| 61.317 | 008    |     | 7.80 x<br>3.65 | 3.05 | 2.50   |
| 61.320 | 011    |     | 7.80 x<br>3.70 | 3.10 | 2.90   |

Kg 0.001



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.229 | 70x | 0.200 |

Assortiment de poussoirs spéciaux.  
 Assortiment of special pushers.  
 Sortiment von spezielle Drücker.  
 Surtido de pulsadores especiales.  
 Assortimento di pulsanti speciali.  
 Sortido de botões especiais.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**35 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA61.310 /311 /312 /313 /314 /315 /316 /317 /318**  
**/319 /320 /321 /322 /323 /324 /325 /326 /327 /328**  
**/329 /331 /332 /333 /334 /335 /336 /337 /338 /339**  
**/340 /341 /342 /343 /344 /345**



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.143 | 70x | 0.025 |

Assortiment de clips pour ressorts de poussoirs.  
 Assortiment of clips pusher springs.  
 Sortiment von Klipps für Drückfeder.  
 Surtido de clips para muelles de pulsadores.  
 Assortimento di clip per molle di pulsanti.  
 Sortido de clips para molas de botões.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**7 modèles - models - Modelle - modelos - modelli - modelos**  
**10x CT390.0043 /0068 /0069 /S81400669 /S83200219 /**  
**S83200273**



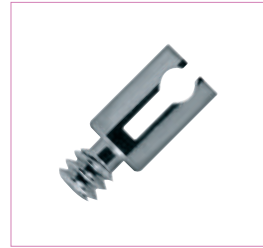
RALLONGEURS, TIGES ET QUARTZ EXTENDERS, STEMS AND QUARTZ  
VERLÄNGERUNGEN, WELLEN UND QUARZ ALARGADORES, TIJAS Y CUARZOS  
PROLUNGHE, ALBERI E QUARZI ACRESCENTADORES, TIGES E QUARTZOS

Rallongeurs de tiges  
*Stem extenders*  
Aufzugwellen-Verlängerungen  
*Alargadores de tijas*  
Prolunghe per alberi di carica  
*Acrescentadores de tiges*



2

Tigerons  
*Pivot-shank*  
Tigerons  
*Tijitas*  
Alberi a strappo  
*Tiginhas*



4

Tiges de remontoir  
*Winding stems*  
Aufzugwellen  
*Tijas de remontuar*  
Alberi di carica  
*Tiges de dar corda*



5

Quartz pour circuits électroniques  
*Quartz for electronic circuits*  
Quarz für E-Blöcke  
*Cuarzo para circuitos electrónicos*  
Quarzo per circuiti elettronici  
*Quarzo para circuitos electrónicos*



8

100  
pcs



Rallongeur de tiges ; acier inoxydable.

Stem extender ; stainless steel.

Aufzugwellen-Verlängerung ; Edelstahl.

Alargador de tijas ; acero inoxidable.

Prolunga per alberi di carica ; acciaio inossidabile.

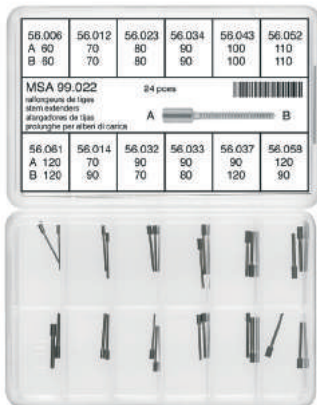
Acrescentador de tiges ; aço inoxidável.

| MSA      | Ø int. mm | Ø ext. mm | Kg    |
|----------|-----------|-----------|-------|
| 56.000   | 0.50      | 0.50      | 0.010 |
| 56.001   | 0.50      | 0.60      | 0.010 |
| 56.002   | 0.50      | 0.70      | 0.010 |
| 56.003   | 0.50      | 0.80      | 0.010 |
| 56.004   | 0.50      | 0.90      | 0.010 |
| 56.005   | 0.60      | 0.50      | 0.010 |
| 56.006   | 0.60      | 0.60      | 0.010 |
| 56.007   | 0.60      | 0.70      | 0.010 |
| 56.008   | 0.60      | 0.80      | 0.010 |
| 56.009   | 0.60      | 0.90      | 0.010 |
| 56.010   | 0.70      | 0.50      | 0.010 |
| 56.011   | 0.70      | 0.60      | 0.010 |
| 56.012   | 0.70      | 0.70      | 0.010 |
| 56.013   | 0.70      | 0.80      | 0.010 |
| 56.014   | 0.70      | 0.90      | 0.010 |
| 56.015*  | 0.70      | 1.00      | 0.010 |
| 56.016   | 0.70      | 1.10      | 0.010 |
| 56.017*  | 0.70      | 1.20      | 0.010 |
| 56.018   | 0.70      | 1.30      | 0.010 |
| 56.020*  | 0.80      | 0.50      | 0.010 |
| 56.021   | 0.80      | 0.60      | 0.010 |
| 56.022   | 0.80      | 0.70      | 0.010 |
| 56.023   | 0.80      | 0.80      | 0.010 |
| 56.024   | 0.80      | 0.90      | 0.010 |
| 56.025*  | 0.80      | 1.00      | 0.010 |
| 56.026*  | 0.80      | 1.10      | 0.010 |
| 56.027   | 0.80      | 1.20      | 0.010 |
| 56.028   | 0.80      | 1.30      | 0.010 |
| 56.029   | 0.80      | 1.40      | 0.010 |
| 56.030   | 0.90      | 0.50      | 0.010 |
| 56.031   | 0.90      | 0.60      | 0.010 |
| 56.032   | 0.90      | 0.70      | 0.010 |
| 56.033   | 0.90      | 0.80      | 0.010 |
| 56.034   | 0.90      | 0.90      | 0.010 |
| 56.080** | 0.90      | 0.90      | 0.010 |
| 56.035   | 0.90      | 1.00      | 0.010 |
| 56.036   | 0.90      | 1.10      | 0.010 |
| 56.037   | 0.90      | 1.20      | 0.010 |
| 56.039*  | 0.90      | 1.40      | 0.010 |

| MSA     | Ø int. mm | Ø ext. mm | Kg    |
|---------|-----------|-----------|-------|
| 56.040  | 1.00      | 0.70      | 0.010 |
| 56.041* | 1.00      | 0.80      | 0.010 |
| 56.042  | 1.00      | 0.90      | 0.010 |
| 56.043  | 1.00      | 1.00      | 0.010 |
| 56.044* | 1.00      | 1.10      | 0.010 |
| 56.045  | 1.00      | 1.20      | 0.010 |
| 56.046  | 1.00      | 1.30      | 0.010 |
| 56.047  | 1.00      | 1.40      | 0.010 |
| 56.048  | 1.10      | 0.70      | 0.010 |
| 56.049  | 1.10      | 0.80      | 0.010 |
| 56.050  | 1.10      | 0.90      | 0.010 |
| 56.051* | 1.10      | 1.00      | 0.010 |
| 56.052  | 1.10      | 1.10      | 0.010 |
| 56.054  | 1.10      | 1.30      | 0.010 |
| 56.055  | 1.10      | 1.40      | 0.010 |
| 56.056  | 1.20      | 0.70      | 0.010 |
| 56.057  | 1.20      | 0.80      | 0.010 |
| 56.058  | 1.20      | 0.90      | 0.010 |
| 56.059  | 1.20      | 1.00      | 0.010 |
| 56.060  | 1.20      | 1.10      | 0.010 |
| 56.061  | 1.20      | 1.20      | 0.010 |
| 56.062  | 1.20      | 1.30      | 0.010 |
| 56.063  | 1.20      | 1.40      | 0.010 |
| 56.064  | 1.30      | 0.70      | 0.010 |
| 56.065  | 1.30      | 0.80      | 0.010 |
| 56.066  | 1.30      | 0.90      | 0.010 |
| 56.067  | 1.30      | 1.00      | 0.010 |
| 56.068  | 1.30      | 1.10      | 0.010 |
| 56.069  | 1.30      | 1.20      | 0.010 |
| 56.071  | 1.30      | 1.40      | 0.010 |
| 56.072  | 1.40      | 0.70      | 0.010 |
| 56.073  | 1.40      | 0.80      | 0.010 |
| 56.074  | 1.40      | 0.90      | 0.010 |
| 56.075  | 1.40      | 1.00      | 0.010 |
| 56.076  | 1.40      | 1.10      | 0.010 |
| 56.077  | 1.40      | 1.20      | 0.010 |
| 56.078* | 1.40      | 1.30      | 0.010 |
| 56.079  | 1.40      | 1.40      | 0.010 |

\*\* MSA56.080 : corps/body 1.20 mm

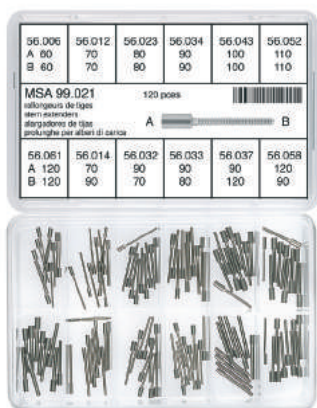
\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock



Assortiment de rallongeurs de tiges ; acier inoxydable.  
 Assortiment of stem extenders ; stainless steel.  
 Sortiment von Aufzugswellen-Verlängerungen ; Edelstahl.  
 Surtido de alargadores de tijas ; acero inoxidable.  
 Assortimento di prolunghe per alberi di carica ; acciaio inossidabile.  
 Sortido de acrescentadores de tiges ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA56.006 /.012 /.014 /.023 /.032 /.033 /.034 /.037 /.043**  
**/.052 /.058 /.061**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.022 | 24x | 0.026 |



Assortiment de rallongeurs de tiges ; acier inoxydable.  
 Assortiment of stem extenders ; stainless steel.  
 Sortiment von Aufzugswellen-Verlängerungen ; Edelstahl.  
 Surtido de alargadores de tijas ; acero inoxidable.  
 Assortimento di prolunghe per alberi di carica ; acciaio inossidabile.  
 Sortido de acrescentadores de tiges ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA56.006 /.012 /.014 /.023 /.032 /.033 /.034 /.037**  
**/.043 /.052 /.058 /.061**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.021 | 120x | 0.031 |





Tigeron femelle ; acier inoxydable.  
*Female pivot-shank ; stainless steel.*  
 Muttertigeron ; Edelstahl.  
*Tijita hembra ; acero inoxidable.*  
 Albero a strappo femmina ; acciaio inossidabile.  
*Tiginha fêmea ; aço inoxidável.*

| MSA         | Longueur/Length mm | Kg    |
|-------------|--------------------|-------|
| 56.500-8479 | 3                  | 0.001 |



Tigeron femelle ; acier inoxydable.  
*Female pivot-shank ; stainless steel.*  
 Muttertigeron ; Edelstahl.  
*Tijita hembra ; acero inoxidable.*  
 Albero a strappo femmina ; acciaio inossidabile.  
*Tiginha fêmea ; aço inoxidável.*

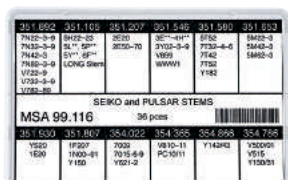


Assortiment de tiges de remontoir **Ronda**.  
 Assortment of **Ronda** winding stems.  
 Sortiment von **Ronda** Aufzugwellen.  
 Surtido tijas de remontuar **Ronda**.  
 Assortimento di alberi di carica **Ronda**.  
 Sortido de tiges de dar corda **Ronda**.

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.123 | 36x | 0.025 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**

| Réf./Item no.   | Calibres                                      | Dimension/Size mm            |
|-----------------|---|------------------------------|
| 0.03x MSA56.034 | Rallongeur de tige / Stem extender            | Ø int. 0.90 x Ø ext. 0.90 mm |
| 3x RL3000.131   | 702 - 706 - 708 - 715 - 772 - 777 - 782 - 788 | Ø 0.90 x L 17 mm             |
| 3x RL3000.132   | 751 - 753 - 756 - 762 - 763                   | Ø 0.90 x L 17 mm             |
| 3x RL3000.133   | 702 - 706 - 708 - 772 - 778 - 782 - 788       | Ø 0.90 x L 17 mm             |
| 3x RL3000.142   | 732   | Ø 0.70 x L 17 mm             |
| 3x RL3000.146   | 732   | Ø 0.80 x L 17 mm             |
| 3x RL3000.151   | 702 - 706 - 708 - 772 - 778 - 782 - 788       | Ø 0.90 x L 25 mm             |
| 3x RL3000.155   | 312 - 315 - 712 - 715                         | Ø 0.90 x L 20 mm             |
| 3x RL3000.160   | 1060 - 1062 - 1069                            | Ø 0.90 x L 16 mm             |
| 3x RL3000.161   | 1060 - 1062 - 1069                            | Ø 0.90 x L 16 mm             |
| 3x RL3000.164   | 502 - 509 - 512 - 519                         | Ø 0.90 x L 20 mm             |
| 3x RL3000.168   | 582 - 585                                     | Ø 0.90 x L 17 mm             |



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.116 | 36x | 0.025 |

Assortiment de tiges de remontoir **Seiko**.

Assortiment of **Seiko** winding stems.

Sortiment von **Seiko** Aufzugwellen.

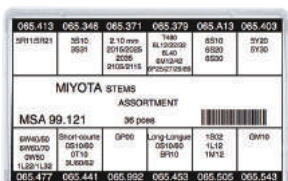
Surtido tijas de remontuar **Seiko**.

Assortimento di alberi di carica **Seiko**.

Sortido de tiges de dar corda **Seiko**.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos**

| Réf./Item no. | Calibres   |
|---------------|--|
| 3x S0351105   | 5H22 - 5H23 - 5L** - 5P** - 5Y** - 6F**  |
| 3x S0351207   | 2E20 - 2E50 - 2E70   |
| 3x S0351546   | 3E** - 3Y02 - 3Y03 - 3Y09 - 4H** - V899 - WWW1   |
| 3x S0351580   | 5T52 - 7T32 - 7T34 - 7T36 - 7T42 - 7T52 - Y182   |
| 3x S0351653   | 5M22 - 5M23 - 5M42 - 5M43 - 5M62 - 5M63  |
| 3x S0351807   | 1F207 - 1N00 - 1N01 - Y150<br>7N22 - 7N23 - 7N29 - 7N32 - 7N33 - 7N39 - 7N42<br>7N43 - 7N82 - 7N83 - 7N89 - V722 - V729 - V733<br>V739 - V782 - V789 |
| 3x S0351930   | 1E20 - Y520  |
| 3x S0354022   | 7009 - 7015 - 7016 - 7019 - Y621 - Y622  |
| 3x S0354365   | PC10 - PC11 - V810 - V811  |
| 3x S0354786   | V500 - V501 - V515 - Y130 - Y131   |
| 3x S0354866   | Y142 - Y143  |



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.121 | 36x | 0.025 |

Assortiment de tiges de remontoir **Miyota**.

Assortiment of **Miyota** winding stems.

Sortiment von **Miyota** Aufzugwellen.

Surtido tijas de remontuar **Miyota**.

Assortimento di alberi di carica **Miyota**.

Sortido de tiges de dar corda **Miyota**.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 12 modèles - models - Modelle - modelos - modelli - modelos**

| Réf./Item no. | Calibres   |
|---------------|--|
| 3x MY065.346  | 3510 - 3531  |
| 3x MY065.371  | 2015 - 2025 - 2035 - 2105 - 2115<br>6L12 - 6L22 - 6L32 - 6L40 - 6M12 - 6M42 - 6P2 - 6P27<br>6P29 - 6P89 - T480 |
| 3x MY065.379  | 4T13 - 4T48 - 4T74 - 4U13 - 4U74   |
| 3x MY065.397  | 5Y20 - 5Y30  |
| 3x MY065.413  | 5R11 - 5R21  |
| 3x MY065.419  | 0W50 - 6W40 - 6W50 - 6W60 - 6W70   |
| 3x MY065.441  | 0S10 - 0S60 - 0T10 - 3U60 - 3U62   |
| 3x MY065.444  | CS00 - T200 - T205 - T240 - T250   |
| 3x MY065.453  | 0S10 - 0S60 - BR10   |
| 3x MY065.505  | 1L12 - 1M12 - 1S02   |
| 3x MY065.543  | GM10   |



Quartz pour circuits électroniques.

Quartz for electronic circuits.

Quarz für E-Blöcke.

Cuarzo para circuitos electrónicos.

Quarzo per circuiti elettronici.

Quartzo para circuitos electrónicos.

| MSA     | 1/1   | Ø mm | Longueur/Lenght mm | Kg    |
|---------|---|------|--------------------|-------|
| 57.003* |  | 3.00 | 8                  | 0.001 |

\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock





FOURNITURES PARTS FURNITUREN FORNITURAS FORNITURE FORNITURAS

Pieds de cadran  
*Dial feet*  
 Zifferblattfüsse  
*Pies de esfera*  
 Piedini di quadrante  
*Pés de mostrador*



2

Vis pour fonds de boîtes  
*Screws for case backs*  
 Schrauben für Gehäuseböden  
*Tornillos para fondos de cajas*  
 Viti per fondo cassa  
*Parafusos para fundos de caixas*



3

Vis pour lunettes  
*Screws for spectacles*  
 Schrauben für Brillen  
*Tornillos para gafas*  
 Viti per occhiali  
*Parafusos para óculos*



6

10  
pcs



Pied de cadran à coller, **longueur 3 mm** ; sachet de 10 pièces.

Adhesive dial foot, **length 3 mm** ; bag of 10 pieces.

Klebezifferblattfuss, **Länge 3 mm** ; Beutel mit 10 Stück.

Pie de esfera para pegar, **longitud 3 mm** ; bolsita de 10 piezas.

Piedino di quadrante da incollare, **lunghezza 3 mm** ; bustina di 10 pezzi.

Pé de mostrador para colar, **comprimento 3 mm** ; saquinho de 10 peças.

| MSA        | A x B x C mm              |
|------------|---------------------------|
| 71.011-064 | 2.50 x 0.10 x <b>0.64</b> |
| 71.011-069 | 2.50 x 0.10 x <b>0.69</b> |
| 71.011-074 | 2.50 x 0.10 x <b>0.74</b> |
| 71.011-079 | 2.50 x 0.10 x <b>0.79</b> |
| 71.011-094 | 2.50 x 0.10 x <b>0.94</b> |
| 71.011-104 | 2.50 x 0.10 x <b>1.04</b> |

Kg 0.001



Utiliser MSA26.534 (Loctite 496) pour coller les pieds de cadran.

Use MSA26.534 (496 Loctite) to stick the dial feet.

MSA26.534 (Loctite 496) benutzen, um die Zifferblattfüsse zu kleben.

Utilizar MSA26.534 (Loctite 496) para pegarse los pies de esfera.

Utilizzare MSA26.534 (Loctite 496) per incollare i piedini di quadrante.

Utilizar MSA26.534 (Loctite 496) para colar os pés de mostrador.



Assortiment de pieds de cadran à coller, **longueur 3 mm**.

Assortment of adhesive dial feet, **length 3 mm**.

Sortiment von Klebezifferblattfüsse, **Länge 3 mm**.

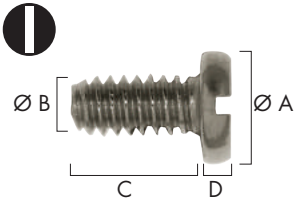
Surtido de pies de esfera para pegar, **longitud 3 mm**.

Assortimento di piedini di quadrante da incollare, **lunghezza 3 mm**.

Sortido de pés de mostrador para colar, **comprimento 3 mm**.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**6 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA71.011-064 /-069 /-074 /-079 /-094 /-104**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.153 | 60x | 0.025 |



10  
pcs

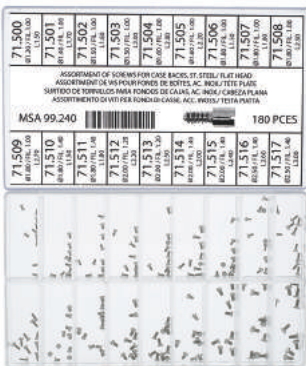
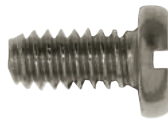
| MSA    | A x B x C x D mm          |
|--------|---------------------------|
| 71.500 | 1.20 x 1.00 x 1.50 x 0.70 |
| 71.501 | 1.40 x 1.00 x 1.70 x 0.70 |
| 71.502 | 1.50 x 1.00 x 1.60 x 0.70 |
| 71.503 | 1.50 x 1.00 x 2.00 x 0.70 |
| 71.504 | 1.60 x 1.00 x 2.00 x 0.70 |
| 71.505 | 1.60 x 1.00 x 2.20 x 0.70 |
| 71.506 | 1.80 x 1.00 x 1.50 x 0.70 |
| 71.507 | 1.80 x 1.00 x 1.80 x 0.70 |
| 71.508 | 1.80 x 1.00 x 2.50 x 0.70 |
| 71.509 | 1.80 x 1.00 x 2.70 x 0.70 |
| 71.510 | 1.80 x 1.40 x 1.50 x 0.70 |
| 71.511 | 1.80 x 1.40 x 1.80 x 0.70 |
| 71.512 | 2.00 x 1.20 x 2.20 x 0.70 |
| 71.513 | 2.00 x 1.20 x 2.50 x 0.70 |
| 71.514 | 2.00 x 1.40 x 2.00 x 0.70 |
| 71.515 | 2.00 x 1.40 x 2.40 x 0.70 |
| 71.516 | 2.50 x 1.40 x 2.60 x 0.70 |
| 71.517 | 2.50 x 1.40 x 3.00 x 0.70 |

Kg 0.001

Vis pour fonds de boîtes en acier inoxydable avec tête plate ; sachet de 10 pièces.  
 Stainless steel screw for case backs with flat head ; bag of 10 pieces.

Edelstahl Schraube für Gehäuseböden mit flachem Kopf ; Beutel mit 10 Stück.  
 Tornillo para fondos de cajas en acero inoxidable con cabeza plana ; bolsita de 10 piezas.

Vite per fondo cassa in acciaio inossidabile con testa piatta ; bustina di 10 pezzi.  
 Parafuso para fundos de caixas em aço inoxidável com cabeça plana ; saquinho de 10 peças.



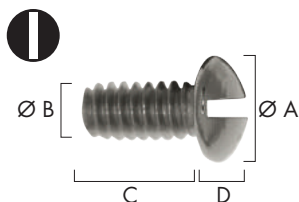
Assortiment de vis pour fonds de boîtes avec tête plate ; acier inoxydable.  
 Assortment of screws for case backs with flat head ; stainless steel.

Sortiment von Schrauben für Gehäuseböden mit flachem Kopf ; Edelstahl.  
 Surtido de tornillos para fondos de cajas con cabeza plana ; acero inoxidable.  
 Assortimento di viti per fondo cassa con testa piatta ; acciaio inossidabile.  
 Sortido de parafusos para fundos de caixas com cabeça plana ; aço inoxidável.

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.240 | 180x | 0.042 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**18 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA71.500 / .501 / .502 / .503 / .504 / .505 / .506 / .507**  
**/.508 / .509 / .510 / .511 / .512 / .513 / .514 / .515 / .516 / .517**





10  
pcs

| MSA    | A x B x C x D mm          |
|--------|---------------------------|
| 71.600 | 2.20 x 1.20 x 2.80 x 0.80 |
| 71.601 | 2.20 x 1.20 x 3.00 x 0.80 |
| 71.602 | 2.20 x 1.40 x 2.60 x 0.80 |
| 71.603 | 2.20 x 1.40 x 2.80 x 0.80 |
| 71.604 | 2.30 x 1.20 x 3.30 x 0.80 |
| 71.605 | 2.30 x 1.20 x 3.60 x 0.80 |
| 71.606 | 2.30 x 1.40 x 3.00 x 0.80 |
| 71.607 | 2.30 x 1.40 x 3.40 x 0.80 |
| 71.608 | 2.50 x 1.20 x 2.80 x 0.80 |
| 71.609 | 2.50 x 1.20 x 3.20 x 0.80 |
| 71.610 | 2.50 x 1.40 x 2.60 x 0.80 |
| 71.611 | 2.50 x 1.40 x 3.00 x 0.80 |
| 71.612 | 2.70 x 1.20 x 3.20 x 0.80 |
| 71.613 | 2.70 x 1.20 x 3.60 x 0.80 |
| 71.614 | 2.70 x 1.40 x 3.00 x 0.80 |
| 71.615 | 2.70 x 1.40 x 3.30 x 0.80 |
| 71.616 | 2.90 x 1.20 x 3.60 x 0.80 |
| 71.617 | 2.90 x 1.40 x 3.30 x 0.80 |

Kg 0.001

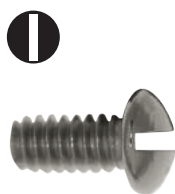
Vis pour fonds de boîtes en acier inoxydable avec tête bombée ; sachet de 10 pièces.  
 Stainless steel screw for case backs with rounded head ; bag of 10 pieces.

Edelstahl Schraube für Gehäuseböden mit gewölbtem Kopf ; Beutel mit 10 Stück.

Tornillo para fondos de cajas en acero inoxidable con cabeza bombeada ; bolsita de 10 piezas.

Vite per fondo cassa in acciaio inossidabile con testa bombata ; bustina di 10 pezzi.

Parafuso para fundos de caixas em aço inoxidável com cabeça oval ; saquinho de 10 peças.



Assortiment de vis pour fonds de boîtes avec tête bombée ; acier inoxydable.

Assortment of screws for case backs with rounded head ; stainless steel.

Sortiment von Schrauben für Gehäuseböden mit gewölbtem Kopf ; Edelstahl.

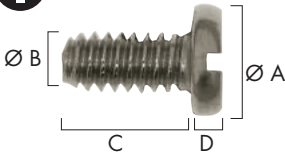
Surtido de tornillos para fondos de cajas con cabeza bombeada ; acero inoxidable.

Assortimento di viti per fondo cassa con testa bombata ; acciaio inossidabile.

Sortido de parafusos para fundos de caixas com cabeça oval ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**18 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA71.600 /.601 /.602 /.603 /.604 /.605 /.606 /.607**  
**/.608 /.609 /.610 /.611 /.612 /.613 /.614 /.615 /.616 /.617**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.241 | 180x | 0.039 |



10  
pcs

| MSA    | A x B x C x D mm          |
|--------|---------------------------|
| 71.700 | 1.40 x 1.00 x 1.50 x 0.70 |
| 71.701 | 1.50 x 1.20 x 1.60 x 0.70 |
| 71.702 | 1.50 x 1.20 x 2.00 x 0.70 |
| 71.703 | 1.60 x 1.00 x 2.00 x 0.70 |
| 71.704 | 1.60 x 1.00 x 2.20 x 0.70 |
| 71.705 | 1.80 x 1.00 x 2.50 x 0.70 |
| 71.706 | 1.80 x 1.00 x 2.70 x 0.70 |
| 71.707 | 2.00 x 1.20 x 2.40 x 0.70 |
| 71.708 | 2.00 x 1.40 x 1.80 x 0.70 |
| 71.709 | 2.00 x 1.40 x 2.20 x 0.70 |
| 71.710 | 2.20 x 1.20 x 2.80 x 0.70 |
| 71.711 | 2.20 x 1.40 x 3.00 x 0.70 |
| 71.712 | 2.20 x 1.40 x 3.30 x 0.70 |
| 71.713 | 2.30 x 1.20 x 3.60 x 0.70 |
| 71.714 | 2.50 x 1.20 x 3.20 x 0.70 |
| 71.715 | 2.50 x 1.30 x 2.80 x 0.70 |
| 71.716 | 2.50 x 1.40 x 2.60 x 0.70 |

Kg 0.001

Vis pour fonds de boîtes en acier inoxydable avec tête cruciforme ; sachet de 10 pièces.

*Stainless steel screw for case backs with Phillips head ; bag of 10 pieces.*

Edelstahl Schraube für Gehäuseböden mit Kreuzschlitzkopf ; Beutel mit 10 Stück.

*Tornillo para fondos de cajas en acero inoxidable con cabeza cruciforme ; bolsita de 10 piezas.*

Vite per fondo cassa in acciaio inossidabile con testa cruciforme ; bustina di 10 pezzi.

*Parafuso para fundos de caixas em aço inoxidável com cabeça cruciforme ; saquinho de 10 peças.*



Assortiment de vis pour fonds de boîtes avec tête cruciforme ; acier inoxydable.

*Assortment of screws for case backs with Phillips head ; stainless steel.*

Sortiment von Schrauben für Gehäuseböden mit Kreuzschlitzkopf ; Edelstahl.

*Surtido de tornillos para fondos de cajas con cabeza cruciforme ; acero inoxidable.*

Assortimento di viti per fondo cassa con testa cruciforme ; acciaio inossidabile.

*Sortido de parafusos para fundos de caixas com cabeça cruciforme ; aço inoxidável.*

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**17 modèles - models - Modelle - modelos - modelli - modelos**  
**10x MSA71.700 /.701 /.702 /.703 /.704 /.705 /.706 /.707**  
**/.708 /.709 /.710 /.711 /.712 /.713 /.714 /.715 /.716**

| MSA    | Qt.  | Kg    |
|--------|------|-------|
| 99.242 | 170x | 0.039 |



Assortiment de vis pour lunettes.  
*Assortment of screws for spectacles.*  
Sortiment von Schrauben für Brillen.  
*Surtido de tornillos para gafas.*  
Assortimento di viti per occhiali.  
*Sortido de parafusos para óculos.*

| MSA     | Qt.  | Kg    |
|---------|------|-------|
| 71.800* | 200x | 0.017 |

*\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock*

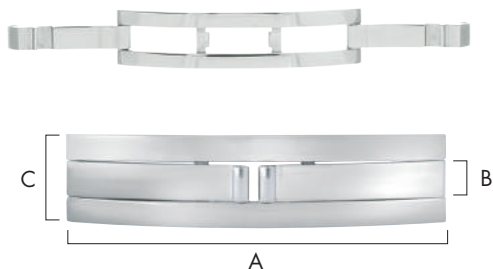


FERMOIRS CLASPS SCHLIESSEN CIERRES CHIUSURE FECHOS








Fermoirs pour bracelets  
*Clasps for straps*  
Schliessen für Armbänder  
*Cierres para correas*  
Chiusure per cinturini  
*Fechos para pulseiras*



2



Fermeoir déployant ; acier inoxydable.  
 Folding clasp ; stainless steel.  
 Faltschliesse ; Edelstahl.  
 Cierre desplegable ; acero inoxidable.  
 Chiusura pieghevole ; acciaio inossidabile.  
 Fecho desdobrável ; aço inoxidável.

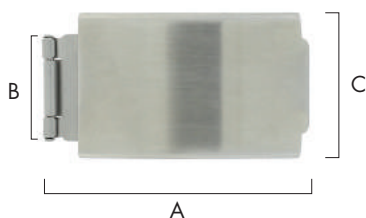
| MSA    | 1/1   | A mm  | B mm | C mm | Kg    |
|--------|---|-------|------|------|-------|
| 51.005 |    | 35.50 | 3.50 | 8    | 0.004 |
| 51.007 |    | 35.50 | 4    | 7    | 0.004 |
| 51.001 |    | 36.00 | 4.50 | 9    | 0.005 |
| 51.003 |    | 38.00 | 7    | 10   | 0.005 |
| 51.004 |   | 40.50 | 4    | 10   | 0.006 |
| 51.002 |  | 40.50 | 7    | 10   | 0.005 |
| 51.000 |  | 41.00 | 6    | 10   | 0.007 |



| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.138 | 8x  | 0.065 |

Assortiment de 8 fermeoirs déployants ; acier inoxydable.  
 Assortment of 8 folding clasps ; stainless steel.  
 Sortiment von 8 Faltschliessen ; Edelstahl.  
 Surtido de 8 cierres desplegadas ; acero inoxidable.  
 Assortimento di 8 chiusure pieghevoli ; acciaio inossidabile.  
 Sortido de 8 fechos desdobráveis ; aço inoxidável.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**6 modèles - models - Modelle - modelos - modelli - modelos**  
**1x MSA51.002 /.003 /.004 /.005**  
**2x MSA51.000 /.001**



Fermeoir déployant ; acier inoxydable.

*Folding clasp ; stainless steel.*

Faltschliesse ; Edelstahl.

*Cierre desplegable ; acero inoxidable.*

Chiusura pieghevole ; acciaio inossidabile.

*Fecho desdobrável ; aço inoxidável.*

| MSA        | A mm  | B mm  | C mm  | Bracelets/Straps mm | Kg    |
|------------|-------|-------|-------|---------------------|-------|
| 51.025-10  | 38.00 | 9.00  | 10.00 | 10                  | 0.005 |
| 51.025-12  | 38.50 | 10.00 | 12.00 | 12                  | 0.005 |
| 51.025-14  | 37.50 | 12.00 | 14.00 | 14                  | 0.005 |
| 51.025-16  | 39.00 | 13.50 | 16.00 | 16                  | 0.005 |
| 51.025-22B | 40.00 | 22.00 | 22.00 | 22                  | 0.008 |



Fermeoir déployant ; acier inoxydable.

*Folding clasp ; stainless steel.*

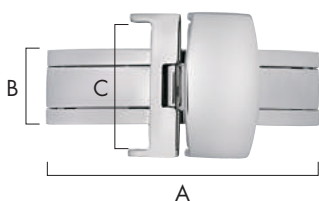
Faltschliesse ; Edelstahl.

*Cierre desplegable ; acero inoxidable.*

Chiusura pieghevole ; acciaio inossidabile.

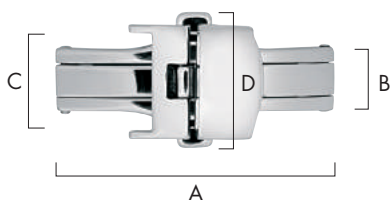
*Fecho desdobrável ; aço inoxidável.*

| MSA        | A mm  | B mm  | C mm  | Bracelets/Straps mm | Kg    |
|------------|-------|-------|-------|---------------------|-------|
| 51.025-16A | 38.50 | 14.50 | 16.00 | 16                  | 0.005 |
| 51.025-18A | 38.50 | 14.50 | 18.00 | 18                  | 0.005 |
| 51.025-18  | 38.50 | 15.50 | 18.00 | 18                  | 0.005 |
| 51.025-20  | 39.00 | 14.50 | 20.00 | 20                  | 0.005 |
| 51.025-20A | 39.00 | 17.50 | 20.00 | 20                  | 0.006 |
| 51.025-22  | 38.00 | 16.00 | 22.00 | 22                  | 0.006 |



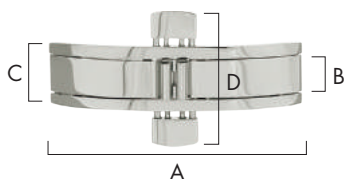
Fermeoir déployant ; acier inoxydable.  
 Folding clasp ; stainless steel.  
 Faltschliesse ; Edelstahl.  
 Cierre desplegable ; acero inoxidable.  
 Chiusura pieghevole ; acciaio inossidabile.  
 Fecho desdobrável ; aço inoxidável.

| MSA       | A mm  | B mm  | C mm  | Bracelets/Straps mm | Kg    |
|-----------|-------|-------|-------|---------------------|-------|
| 51.008-10 | 35.50 | 8.00  | 10.00 | 10                  | 0.007 |
| 51.008-12 | 36.00 | 8.00  | 12.00 | 12                  | 0.008 |
| 51.008-14 | 36.00 | 8.00  | 14.00 | 14                  | 0.010 |
| 51.008-16 | 40.00 | 11.00 | 16.00 | 16                  | 0.012 |
| 51.008-18 | 40.00 | 11.00 | 18.00 | 18                  | 0.012 |
| 51.008-20 | 40.00 | 11.00 | 20.00 | 20                  | 0.012 |
| 51.008-22 | 40.00 | 11.00 | 22.00 | 22                  | 0.012 |
| 51.008-24 | 40.00 | 11.00 | 24.00 | 24                  | 0.012 |



Fermeoir déployant avec boutons à pression ; acier inoxydable.  
 Folding clasp with push buttons ; stainless steel.  
 Faltschliesse mit Druckknöpfen ; Edelstahl.  
 Cierre desplegable con botones a presión ; acero inoxidable.  
 Chiusura pieghevole con bottoni a pressione ; acciaio inossidabile.  
 Fecho desdobrável com botões de pressão ; aço inoxidável.

| MSA       | A mm | B mm | C mm  | D mm  | Bracelets/Straps mm | Kg    |
|-----------|------|------|-------|-------|---------------------|-------|
| 51.010-B  | 36   | 8    | 12.00 | 17.00 | 12                  | 0.011 |
| 51.010-14 | 39   | 11   | 14.00 | 18.00 | 14                  | 0.012 |
| 51.010-16 | 39   | 11   | 16.00 | 22.00 | 16                  | 0.013 |
| 51.010-18 | 39   | 11   | 18.00 | 24.00 | 18                  | 0.014 |
| 51.010-20 | 39   | 11   | 20.00 | 26.00 | 20                  | 0.014 |
| 51.010-22 | 39   | 11   | 22.00 | 27.00 | 22                  | 0.015 |
| 51.010-24 | 39   | 11   | 24.00 | 28.00 | 24                  | 0.015 |



Fermeoir déployant avec boutons à pression ; acier inoxydable.

*Folding clasp with push buttons ; stainless steel.*

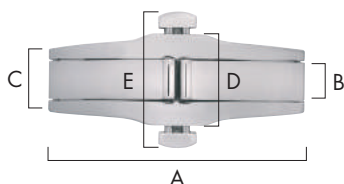
Faltschliesse mit Druckknöpfen ; Edelstahl.

*Cierre desplegable con botones a presión ; acero inoxidable.*

Chiusura pieghevole con bottoni a pressione ; acciaio inossidabile.

*Fecho desdobrável com botões de pressão ; aço inoxidável.*

| MSA    | A mm         | B mm | C mm  | D mm  | Kg    |
|--------|--------------|------|-------|-------|-------|
| 51.017 | <b>36.00</b> | 4.00 | 8.00  | 18.00 | 0.005 |
| 51.020 | <b>40.00</b> | 6.00 | 10.00 | 22.00 | 0.007 |



Fermeoir déployant avec boutons à pression ; acier inoxydable.

*Folding clasp with push buttons ; stainless steel.*

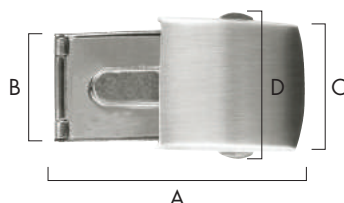
Faltschliesse mit Druckknöpfen ; Edelstahl.

*Cierre desplegable con botones a presión ; acero inoxidable.*

Chiusura pieghevole con bottoni a pressione ; acciaio inossidabile.

*Fecho desdobrável com botões de pressão ; aço inoxidável.*

| MSA       | A mm         | B mm | C mm  | D mm  | E mm  | Kg    |
|-----------|--------------|------|-------|-------|-------|-------|
| 51.018    | <b>35.50</b> | 4.50 | 8.00  | 11.00 | 18.00 | 0.006 |
| 51.009-15 | <b>36.00</b> | 4.00 | 8.00  | 10.00 | 16.00 | 0.006 |
| 51.019    | <b>37.00</b> | 4.50 | 8.00  | 10.00 | 16.00 | 0.006 |
| 51.021    | <b>40.00</b> | 6.00 | 11.00 | 14.00 | 21.00 | 0.010 |
| 51.009-20 | <b>40.00</b> | 7.00 | 11.00 | 14.00 | 21.00 | 0.009 |
| 51.022    | <b>40.00</b> | 7.00 | 11.00 | 16.00 | 23.00 | 0.009 |



Fermeoir déployant avec boutons à pression ; acier inoxydable.

*Folding clasp with push buttons ; stainless steel.*

Faltschliesse mit Druckknöpfen ; Edelstahl.

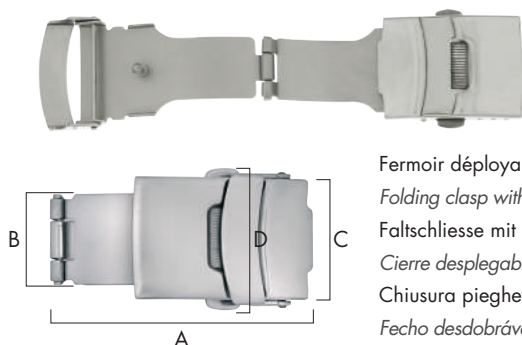
*Cierre desplegable con botones a presión ; acero inoxidable.*

Chiusura pieghevole con bottoni a pressione ; acciaio inossidabile.

*Fecho desdobrável com botões de pressão ; aço inoxidável.*

| MSA       | A mm  | B mm  | C mm  | D mm  | Bracelets/Straps mm | Kg    |
|-----------|-------|-------|-------|-------|---------------------|-------|
| 51.023-12 | 34.00 | 10.00 | 12.00 | 17.00 | <b>12</b>           | 0.005 |
| 51.023-14 | 42.00 | 12.00 | 14.00 | 18.00 | <b>14</b>           | 0.005 |
| 51.023-16 | 42.00 | 14.00 | 16.00 | 20.00 | <b>16</b>           | 0.006 |
| 51.023-18 | 41.50 | 12.00 | 18.00 | 22.00 | <b>18</b>           | 0.006 |
| 51.023-20 | 42.50 | 14.00 | 20.00 | 25.00 | <b>20</b>           | 0.008 |
| 51.023-22 | 42.00 | 20.00 | 22.00 | 26.00 | <b>22</b>           | 0.008 |





Fermeoir déployant avec boutons à pression ; acier inoxydable.

*Folding clasp with push buttons ; stainless steel.*

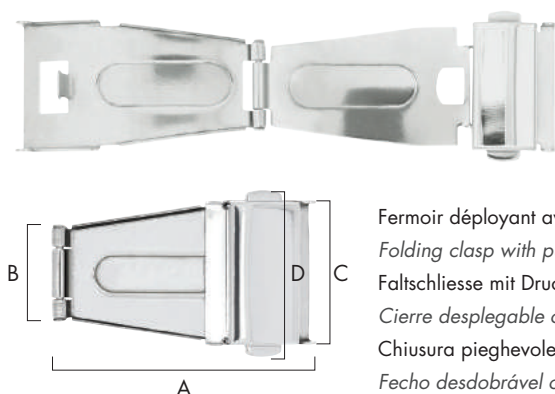
Faltschliesse mit Druckknöpfen ; Edelstahl.

*Cierre desplegable con botones a presión ; acero inoxidable.*

Chiusura pieghevole con bottoni a pressione ; acciaio inossidabile.

*Fecho desdobrável com botões de pressão ; aço inoxidável.*

| MSA       | A mm  | B mm  | C mm  | D mm  | Bracelets/Straps mm | Kg    |
|-----------|-------|-------|-------|-------|---------------------|-------|
| 51.011-12 | 40.00 | 9.00  | 12.00 | 17.00 | 12                  | 0.011 |
| 51.011-14 | 40.00 | 11.00 | 14.00 | 19.00 | 14                  | 0.012 |
| 51.011-16 | 40.00 | 13.00 | 16.00 | 21.00 | 16                  | 0.013 |
| 51.011-18 | 40.00 | 13.00 | 18.00 | 23.00 | 18                  | 0.015 |
| 51.011-20 | 40.00 | 13.00 | 20.00 | 25.00 | 20                  | 0.017 |
| 51.011-22 | 40.00 | 17.00 | 22.00 | 27.00 | 22                  | 0.019 |
| 51.011-24 | 44.00 | 17.00 | 24.00 | 29.00 | 24                  | 0.020 |



Fermeoir déployant avec boutons à pression ; acier inoxydable.

*Folding clasp with push buttons ; stainless steel.*

Faltschliesse mit Druckknöpfen ; Edelstahl.

*Cierre desplegable con botones a presión ; acero inoxidable.*

Chiusura pieghevole con bottoni a pressione ; acciaio inossidabile.

*Fecho desdobrável com botões de pressão ; aço inoxidável.*

| MSA       | A mm  | B mm  | C mm  | D mm  | Bracelets/Straps mm | Kg    |
|-----------|-------|-------|-------|-------|---------------------|-------|
| 51.012-10 | 35.00 | 9.50  | 10.00 | 14.00 | 10                  | 0.005 |
| 51.012-12 | 30.00 | 8.00  | 12.00 | 16.00 | 12                  | 0.005 |
| 51.012-14 | 35.00 | 11.00 | 14.00 | 18.00 | 14                  | 0.006 |
| 51.012-15 | 35.00 | 11.00 | 15.00 | 18.00 | 15                  | 0.006 |
| 51.012-16 | 36.5  | 12.00 | 16.00 | 19.00 | 16                  | 0.006 |
| 51.012-17 | 32.00 | 11.00 | 17.00 | 21.00 | 17                  | 0.006 |
| 51.012-18 | 37.00 | 12.00 | 18.00 | 22.00 | 18                  | 0.007 |
| 51.012-19 | 37.00 | 12.00 | 19.00 | 22.00 | 19                  | 0.007 |
| 51.012-20 | 37.50 | 14.00 | 20.00 | 23.00 | 20                  | 0.007 |
| 51.012-22 | 36.50 | 14.00 | 22.00 | 25.00 | 22                  | 0.009 |
| 51.012-24 | 36.50 | 16.00 | 24.00 | 27.00 | 24                  | 0.009 |



Fermeoir déployant ; acier inoxydable.

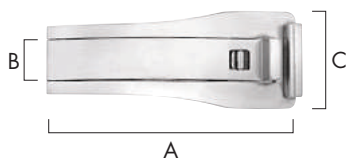
*Folding clasp ; stainless steel.*

Faltschliesse ; Edelstahl.

*Cierre desplegable ; acero inoxidable.*

Chiusura pieghevole ; acciaio inossidabile.

*Fecho desdobrável ; aço inoxidável.*



| MSA       | A mm  | B mm | C mm  | Kg    |
|-----------|-------|------|-------|-------|
| 51.006-B  | 33.00 | 4.00 | 9.00  | 0.004 |
| 51.006-10 | 36.00 | 6.00 | 14.00 | 0.006 |



| MSA       | Bracelets/Straps mm | Kg    |
|-----------|---------------------|-------|
| 51.015-03 | 3                   | 0.001 |
| 51.015-04 | 4                   | 0.001 |
| 51.015-05 | 5                   | 0.002 |
| 51.015-06 | 6                   | 0.002 |
| 51.015-07 | 7                   | 0.002 |
| 51.015-08 | 8                   | 0.002 |
| 51.015-09 | 9                   | 0.002 |
| 51.015-10 | 10                  | 0.003 |

| MSA       | Bracelets/Straps mm | Kg    |
|-----------|---------------------|-------|
| 51.015-11 | 11                  | 0.003 |
| 51.015-12 | 12                  | 0.003 |
| 51.015-13 | 13                  | 0.003 |
| 51.015-14 | 14                  | 0.003 |
| 51.015-15 | 15                  | 0.004 |
| 51.015-16 | 16                  | 0.004 |
| 51.015-17 | 17                  | 0.004 |

Fermeur simple couleur acier ; acier.  
*Steel colour simple clasp ; steel.*  
 Stahlfarbe einfacher Schliesse ; Stahl.  
*Cierre simple color acero ; acero.*  
 Chiusura semplice colore acciaio ;  
 acciaio.  
*Fecho simples cor aço ; aço.*



| MSA       | Bracelets/Straps mm | Kg    |
|-----------|---------------------|-------|
| 51.016-03 | 3                   | 0.001 |
| 51.016-04 | 4                   | 0.001 |
| 51.016-05 | 5                   | 0.001 |
| 51.016-06 | 6                   | 0.002 |
| 51.016-07 | 7                   | 0.002 |
| 51.016-08 | 8                   | 0.002 |
| 51.016-09 | 9                   | 0.002 |
| 51.016-10 | 10                  | 0.002 |

| MSA       | Bracelets/Straps mm | Kg    |
|-----------|---------------------|-------|
| 51.016-11 | 11                  | 0.003 |
| 51.016-12 | 12                  | 0.003 |
| 51.016-13 | 13                  | 0.003 |
| 51.016-14 | 14                  | 0.003 |
| 51.016-15 | 15                  | 0.003 |
| 51.016-16 | 16                  | 0.004 |
| 51.016-17 | 17                  | 0.004 |

Fermeur simple jaune ; acier.  
*Yellow simple clasp ; steel.*  
 Gelber einfacher Schliesse ; Stahl.  
*Cierre simple amarillo ; acero.*  
 Chiusura semplice gialla ; acciaio.  
*Fecho simples amarelo ; aço.*



| MSA        | Bracelets/Straps mm | Kg    |
|------------|---------------------|-------|
| 51.013-03* | 3                   | 0.001 |
| 51.013-04* | 4                   | 0.001 |
| 51.013-05* | 5                   | 0.002 |
| 51.013-06* | 6                   | 0.002 |
| 51.013-07* | 7                   | 0.002 |
| 51.013-08* | 8                   | 0.002 |

| MSA        | Bracelets/Straps mm | Kg    |
|------------|---------------------|-------|
| 51.013-10* | 10                  | 0.003 |
| 51.013-11* | 11                  | 0.003 |
| 51.013-12* | 12                  | 0.003 |
| 51.013-13* | 13                  | 0.003 |
| 51.013-14* | 14                  | 0.003 |
| 51.013-15* | 15                  | 0.004 |

Fermeur simple couleur acier ; acier.  
*Steel colour simple clasp ; steel.*  
Stahlfarbe einfacher Schliesse ; Stahl.  
*Cierre simple color acero ; acero.*  
Chiusura semplice colore acciaio ;  
acciaio.  
*Fecho simples cor aço ; aço.*

\* *Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock*



| MSA        | Bracelets/Straps mm | Kg    |
|------------|---------------------|-------|
| 51.014-04* | 4                   | 0.001 |
| 51.014-05* | 5                   | 0.001 |
| 51.014-06* | 6                   | 0.002 |
| 51.014-07* | 7                   | 0.002 |
| 51.014-08* | 8                   | 0.002 |
| 51.014-10* | 10                  | 0.002 |

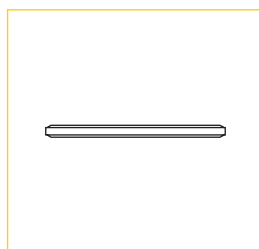
| MSA        | Bracelets/Straps mm | Kg    |
|------------|---------------------|-------|
| 51.014-11* | 11                  | 0.003 |
| 51.014-12* | 12                  | 0.003 |
| 51.014-13* | 13                  | 0.003 |
| 51.014-14* | 14                  | 0.003 |
| 51.014-15* | 15                  | 0.003 |

Fermeur simple jaune ; acier.  
*Yellow simple clasp ; steel.*  
Gelber einfacher Schliesse ; Stahl.  
*Cierre simple amarillo ; acero.*  
Chiusura semplice gialla ; acciaio.  
*Fecho simples amarelo ; aço.*

\* *Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock*

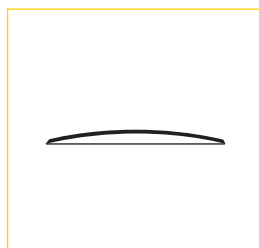


Verres minéraux  
*Mineral crystals*  
Mineralgläsern  
*Cristales minerales*  
Vetri minerali  
*Vidros minerais*



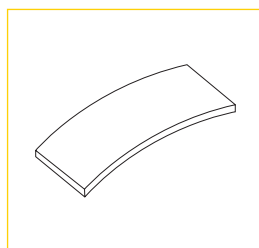
3

Verres saphir  
*Sapphire crystals*  
Saphirgläsern  
*Cristales zafiro*  
Vetri zaffiro  
*Vidros safira*



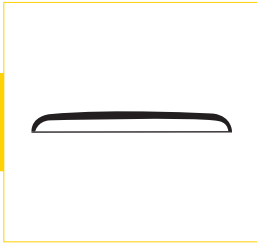
9

Plaques minérales  
*Mineral sheets*  
Mineralplatten  
*Placas minerales*  
Lastrine minerali  
*Placas minerais*



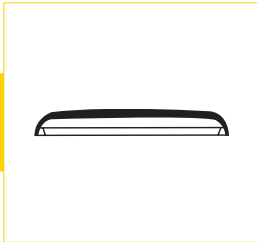
10

12



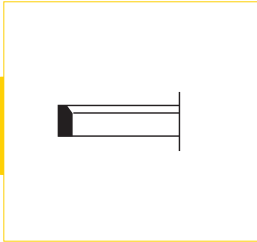
Verres plexiglas  
*Plexiglas crystals*  
Gläsern aus Plexiglas  
*Cristales plexiglás*  
Vetri plexiglas  
*Vidros plexiglas*

14



Verres ronds avec bague de tension  
*Round crystals with tension ring*  
Runde Gläsern mit Spannungsring  
*Cristales redondos con aro de tensión*  
Vetri rotondi con ghiera di tensione  
*Vidros redondos com aro de tensão*

15



Joints pour verres  
*Gaskets for crystals*  
Dichtungen für Gläsern  
*Juntas para cristales*  
Guarnizioni per vetri  
*Juntas para vidros*

17



Verres divers  
*Miscellaneous crystals*  
Unterschiedliche Gläsern  
*Cristales diversos*  
Vetri vari  
*Vidros diversos*

Verre minéral plat trempé ; épaisseur entre 0.70 et 0.80 mm.  
 Tempered flat mineral crystal ; thickness between 0.70 and 0.80 mm.  
 Gehärtetes flaches Mineralglas ; Dicke zwischen 0.70 und 0.80 mm.  
 Cristal mineral plano templado ; espesor entre 0.70 y 0.80 mm.  
 Vetro minerale piatto temperato ; spessore tra 0.70 e 0.80 mm.  
 Vidro mineral plano temperado ; espessura entre 0.70 e 0.80 mm.



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MUM120    | 12.00 |
| ...           | ...   |
| VLX.MUM340    | 34.00 |

**Incréments 0.10 mm du Ø 12.00 au Ø 34.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 12.00 to Ø 34.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 12.00 bis Ø 34.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 12.00 al Ø 34.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 12.00 al Ø 34.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 12.00 ao Ø 34.00 mm (precisar o diâmetro na encomenda).**

Verre minéral plat trempé ; épaisseur entre 1.00 et 1.10 mm.  
 Tempered flat mineral crystal ; thickness between 1.00 and 1.10 mm.  
 Gehärtetes flaches Mineralglas ; Dicke zwischen 1.00 und 1.10 mm.  
 Cristal mineral plano templado ; espesor entre 1.00 y 1.10 mm.  
 Vetro minerale piatto temperato ; spessore tra 1.00 e 1.10 mm.  
 Vidro mineral plano temperado ; espessura entre 1.00 e 1.10 mm.



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MMS130    | 13.00 |
| ...           | ...   |
| VLX.MMS460    | 46.00 |

**Incréments 0.10 mm du Ø 13.00 au Ø 46.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 13.00 to Ø 46.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 13.00 bis Ø 46.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 13.00 al Ø 46.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 13.00 al Ø 46.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 13.00 ao Ø 46.00 mm (precisar o diâmetro na encomenda).**



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MMS/J1140 | 14.00 |
| ...           | ...   |
| VLX.MMS/J1340 | 34.00 |
| VLX.MMS/J1345 | 34.50 |
| VLX.MMS/J1350 | 35.00 |
| VLX.MMS/J1355 | 35.50 |
| VLX.MMS/J1360 | 36.00 |
| VLX.MMS/J1365 | 36.50 |
| VLX.MMS/J1370 | 37.00 |
| VLX.MMS/J1375 | 37.50 |
| VLX.MMS/J1380 | 38.00 |
| VLX.MMS/J1385 | 38.50 |
| VLX.MMS/J1390 | 39.00 |
| VLX.MMS/J1395 | 39.50 |
| VLX.MMS/J1400 | 40.00 |

Verre minéral plat trempé, avec joint "I" ; épaisseur entre 1.00 et 1.10 mm.  
 Tempered flat mineral crystal, with "I" gasket ; thickness between 1.00 and 1.10 mm.  
 Gehärtetes flaches Mineralglas, mit "I" Dichtung ; Dicke zwischen 1.00 und 1.10 mm.  
 Cristal mineral plano templado, con junta "I" ; espesor entre 1.00 y 1.10 mm.  
 Vetro minerale piatto temperato, con guarnizione "I" ; spessore tra 1.00 e 1.10 mm.  
 Vidro mineral plano temperado, com junta "I" ; espessura entre 1.00 e 1.10 mm.

**Incréments 0.10 mm du Ø 14.00 au Ø 34.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 14.00 to Ø 34.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 14.00 bis Ø 34.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 14.00 al Ø 34.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 14.00 al Ø 34.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 14.00 ao Ø 34.00 mm (precisar o diâmetro na encomenda).**





Verre minéral plat trempé ; épaisseur 1.50 mm.  
 Tempered flat mineral crystal ; thickness 1.50 mm.  
 Gehärtetes flaches Mineralglas ; Dicke 1.50 mm.  
 Cristal mineral plano templado ; espesor 1.50 mm.  
 Vetro minerale piatto temperato ; spessore 1.50 mm.  
 Vidro mineral plano temperado ; espessura 1.50 mm.

**Incrémenter 0.10 mm du Ø 18.00 au Ø 37.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 18.00 to Ø 37.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 18.00 bis Ø 37.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 18.00 al Ø 37.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 18.00 al Ø 37.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 18.00 ao Ø 37.00 mm (precisar o diâmetro na encomenda).**

| Réf./Item no. | Ø mm  | Réf./Item no. | Ø mm  | Réf./Item no. | Ø mm  |
|---------------|-------|---------------|-------|---------------|-------|
| VLX.MME180    | 18.00 | VLX.MME388    | 38.80 | VLX.MME420    | 42.00 |
| ...           | ...   | VLX.MME390    | 39.00 | VLX.MME425    | 42.50 |
| VLX.MME370    | 37.00 | VLX.MME393    | 39.30 | VLX.MME430    | 43.00 |
| VLX.MME373    | 37.30 | VLX.MME395    | 39.50 | VLX.MME435    | 43.50 |
| VLX.MME375    | 37.50 | VLX.MME398    | 39.80 | VLX.MME440    | 44.00 |
| VLX.MME378    | 37.80 | VLX.MME400    | 40.00 | VLX.MME445    | 44.50 |
| VLX.MME380    | 38.00 | VLX.MME405    | 40.50 | VLX.MME450    | 45.00 |
| VLX.MME383    | 38.30 | VLX.MME410    | 41.00 |               |       |
| VLX.MME385    | 38.50 | VLX.MME415    | 41.50 |               |       |



Verre minéral plat trempé ; épaisseur 2.00 mm.  
 Tempered flat mineral crystal ; thickness 2.00 mm.  
 Gehärtetes flaches Mineralglas ; Dicke 2.00 mm.  
 Cristal mineral plano templado ; espesor 2.00 mm.  
 Vetro minerale piatto temperato ; spessore 2.00 mm.  
 Vidro mineral plano temperado ; espessura 2.00 mm.

**Incrémenter 0.10 mm du Ø 16.50 au Ø 39.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 16.50 to Ø 39.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 16.50 bis Ø 39.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 16.50 al Ø 39.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 16.50 al Ø 39.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 16.50 ao Ø 39.00 mm (precisar o diâmetro na encomenda).**

| Réf./Item no. | Ø mm  | Réf./Item no. | Ø mm  | Réf./Item no. | Ø mm  |
|---------------|-------|---------------|-------|---------------|-------|
| VLX.MNP155    | 15.50 | VLX.MNP398    | 39.80 | VLX.MNP430    | 43.00 |
| VLX.MNP160    | 16.00 | VLX.MNP400    | 40.00 | VLX.MNP435    | 43.50 |
| VLX.MNP165    | 16.50 | VLX.MNP405    | 40.50 | VLX.MNP440    | 44.00 |
| ...           | ...   | VLX.MNP410    | 41.00 | VLX.MNP445    | 44.50 |
| VLX.MNP390    | 39.00 | VLX.MNP415    | 41.50 | VLX.MNP450    | 45.00 |
| VLX.MNP393    | 39.30 | VLX.MNP420    | 42.00 |               |       |
| VLX.MNP395    | 39.50 | VLX.MNP425    | 42.50 |               |       |



Verre minéral plat trempé, avec joint plat "L" ; épaisseur du verre 2.00 mm.  
 Tempered flat mineral crystal, with "L" flat gasket ; crystal thickness 2.00 mm.  
 Gehärtetes flaches Mineralglas, mit "L" Flachdichtung ; Glasdicke 2.00 mm.  
 Cristal mineral plano templado, con junta plana "L" ; espesor del cristal 2.00 mm.  
 Vetro minerale piatto temperato, con guarnizione piatta "L" ; spessore del vetro 2.00 mm.  
 Vidro mineral plano temperado, com junta plana "L" ; espessura do vidro 2.00 mm.

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MNR/PJ176 | 17.60 |
| ...           | ...   |
| VLX.MNR/PJ371 | 37.10 |

**Incrémenter 0.10 mm du Ø 17.60 au Ø 37.10 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 17.60 to Ø 37.10 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 17.60 bis Ø 37.10 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 17.60 al Ø 37.10 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 17.60 al Ø 37.10 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 17.60 ao Ø 37.10 mm (precisar o diâmetro na encomenda).**



Verre minéral plat trempé ; épaisseur 2.50 mm.  
 Tempered flat mineral crystal ; thickness 2.50 mm.  
 Gehärtetes flaches Mineralglas ; Dicke 2.50 mm.  
 Cristal mineral plano templado ; espesor 2.50 mm.  
 Vetro minerale piatto temperato ; spessore 2.50 mm.  
 Vidro mineral plano temperado ; espessura 2.50 mm.

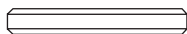
**Incrémenter 0.10 mm du Ø 17.50 au Ø 34.50 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 17.50 to Ø 34.50 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 17.50 bis Ø 34.50 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 17.50 al Ø 34.50 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 17.50 al Ø 34.50 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 17.50 ao Ø 34.50 mm (precisar o diâmetro na encomenda).**

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MSE175    | 17.50 |
| ...           | ...   |
| VLX.MSE345    | 34.50 |
| VLX.MSE350    | 35.00 |
| VLX.MSE355    | 35.50 |
| VLX.MSE360    | 36.00 |
| VLX.MSE365    | 36.50 |
| VLX.MSE370    | 37.00 |

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MSE375    | 37.50 |
| VLX.MSE380    | 38.00 |
| VLX.MSE385    | 38.50 |
| VLX.MSE390    | 39.00 |
| VLX.MSE395    | 39.50 |
| VLX.MSE400    | 40.00 |
| VLX.MSE405    | 40.50 |
| VLX.MSE410    | 41.00 |

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MSE415    | 41.50 |
| VLX.MSE420    | 42.00 |
| VLX.MSE425    | 42.50 |
| VLX.MSE430    | 43.00 |
| VLX.MSE435    | 43.50 |
| VLX.MSE440    | 44.00 |
| VLX.MSE445    | 44.50 |
| VLX.MSE450    | 45.00 |

Verre minéral plat trempé ; épaisseur 3.00 mm.  
 Tempered flat mineral crystal ; thickness 3.00 mm.  
 Gehärtetes flaches Mineralglas ; Dicke 3.00 mm.  
 Cristal mineral plano templado ; espesor 3.00 mm.  
 Vetro minerale piatto temperato ; spessore 3.00 mm.  
 Vidro mineral plano temperado ; espessura 3.00 mm.



**Incréments 0.10 mm du Ø 25.00 au Ø 34.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 25.00 to Ø 34.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 25.00 bis Ø 34.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 25.00 al Ø 34.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 25.00 al Ø 34.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 25.00 ao Ø 34.00 mm (precisar o diâmetro na encomenda).**

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MTE250    | 25.00 |
| ...           | ...   |
| VLX.MTE340    | 34.00 |
| VLX.MTE345    | 34.50 |
| VLX.MTE350    | 35.00 |
| VLX.MTE355    | 35.50 |
| VLX.MTE360    | 36.00 |
| VLX.MTE365    | 36.50 |
| VLX.MTE370    | 37.00 |

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MTE375    | 37.50 |
| VLX.MTE380    | 38.00 |
| VLX.MTE385    | 38.50 |
| VLX.MTE390    | 39.00 |
| VLX.MTE395    | 39.50 |
| VLX.MTE400    | 40.00 |
| VLX.MTE405    | 40.50 |
| VLX.MTE410    | 41.00 |
| VLX.MTE415    | 41.50 |

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MTE420    | 42.00 |
| VLX.MTE425    | 42.50 |
| VLX.MTE430    | 43.00 |
| VLX.MTE435    | 43.50 |
| VLX.MTE440    | 44.00 |
| VLX.MTE445    | 44.50 |
| VLX.MTE450    | 45.00 |



Verre minéral bombé trempé ; épaisseur entre 0.80 et 0.90 mm.  
 Tempered domed mineral crystal ; thickness between 0.80 and 0.90 mm.  
 Gehärtetes gewölbtes Mineralglas ; Dicke zwischen 0.80 und 0.90 mm.  
 Cristal mineral bombeado templado ; espesor entre 0.80 y 0.90 mm.  
 Vetro minerale bombato temperato ; spessore tra 0.80 e 0.90 mm.  
 Vidro mineral encurvado temperado ; espessura entre 0.80 e 0.90 mm.

**Incréments 0.10 mm du Ø 14.00 au Ø 34.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 14.00 to Ø 34.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 14.00 bis Ø 34.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 14.00 al Ø 34.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 14.00 al Ø 34.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 14.00 ao Ø 34.00 mm (precisar o diâmetro na encomenda).**

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MMB140    | 14.00 |
| ...           | ...   |
| VLX.MMB340    | 34.00 |

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MMB342    | 34.20 |
| ...           | ...   |
| VLX.MMB398    | 39.80 |

**Incréments 0.20 mm du Ø 34.20 au Ø 39.80 mm (préciser le diamètre lors de la commande).**  
**Increment 0.20 mm from Ø 34.20 to Ø 39.80 mm (specify the diameter when ordering).**  
**Inkrementieren 0.20 mm von Ø 34.20 bis Ø 39.80 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.20 mm del Ø 34.20 al Ø 39.80 mm (precisar el diámetro en el pedido).**  
**Incremento 0.20 mm dal Ø 34.20 al Ø 39.80 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.20 mm do Ø 34.20 ao Ø 39.80 mm (precisar o diâmetro na encomenda).**

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MMB345    | 34.50 |
| ...           | ...   |
| VLX.MMB400    | 40.00 |

**Incréments 0.50 mm du Ø 34.50 au Ø 40.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.50 mm from Ø 34.50 to Ø 40.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.50 mm von Ø 34.50 bis Ø 40.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.50 mm del Ø 34.50 al Ø 40.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.50 mm dal Ø 34.50 al Ø 40.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.50 mm do Ø 34.50 ao Ø 40.00 mm (precisar o diâmetro na encomenda).**



Verre minéral bombé trempé ; épaisseur 2.00 mm.

*Tempered domed mineral crystal ; thickness 2.00 mm.*

Gehärtetes gewölbtes Mineralglas ; Dicke 2.00 mm.

*Cristal mineral bombeado templado ; espesor 2.00 mm.*

Vetro minerale bombato temperato ; spessore 2.00 mm.

*Vidro mineral encurvado temperado ; espessura 2.00 mm.*

**Incrémenter 0.10 mm du Ø 24.00 au Ø 33.00 mm (préciser le diamètre lors de la commande).**

**Increment 0.10 mm from Ø 24.00 to Ø 33.00 mm (specify the diameter when ordering).**

**Inkrementieren 0.10 mm von Ø 24.00 bis Ø 33.00 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.10 mm del Ø 24.00 al Ø 33.00 mm (precisar el diámetro en el pedido).**

**Incremento 0.10 mm dal Ø 24.00 al Ø 33.00 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.10 mm do Ø 24.00 ao Ø 33.00 mm (precisar o diâmetro na encomenda).**

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MBE240    | 24.00 |
| ...           | ...   |
| VLX.MBE330    | 33.00 |
| VLX.MBE335    | 33.50 |
| VLX.MBE340    | 34.00 |
| VLX.MBE345    | 34.50 |
| VLX.MBE350    | 35.00 |
| VLX.MBE355    | 35.50 |

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MBE360    | 36.00 |
| VLX.MBE365    | 36.50 |
| VLX.MBE370    | 37.00 |
| VLX.MBE375    | 37.50 |
| VLX.MBE380    | 38.00 |
| VLX.MBE385    | 38.50 |
| VLX.MBE390    | 39.00 |
| VLX.MBE395    | 39.50 |

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MBE400    | 40.00 |
| VLX.MBE405    | 40.50 |
| VLX.MBE410    | 41.00 |
| VLX.MBE415    | 41.50 |
| VLX.MBE420    | 42.00 |
| VLX.MBE425    | 42.50 |
| VLX.MBE430    | 43.00 |



Verre minéral bombé trempé ; épaisseur entre 1.10 et 1.20 mm.

*Tempered domed mineral crystal ; thickness between 1.10 and 1.20 mm.*

Gehärtetes gewölbtes Mineralglas ; Dicke zwischen 1.10 und 1.20 mm.

*Cristal mineral bombeado templado ; espesor entre 1.10 y 1.20 mm.*

Vetro minerale bombato temperato ; spessore tra 1.10 e 1.20 mm.

*Vidro mineral encurvado temperado ; espessura entre 1.10 e 1.20 mm.*

**Incrémenter 0.10 mm du Ø 18.00 au Ø 39.50 mm (préciser le diamètre lors de la commande).**

**Increment 0.10 mm from Ø 18.00 to Ø 39.50 mm (specify the diameter when ordering).**

**Inkrementieren 0.10 mm von Ø 18.00 bis Ø 39.50 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.10 mm del Ø 18.00 al Ø 39.50 mm (precisar el diámetro en el pedido).**

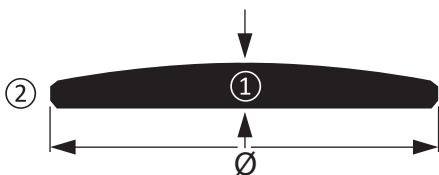
**Incremento 0.10 mm dal Ø 18.00 al Ø 39.50 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.10 mm do Ø 18.00 ao Ø 39.50 mm (precisar o diâmetro na encomenda).**

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MSB180    | 18.00 |
| ...           | ...   |
| VLX.MSB395    | 39.50 |
| VLX.MSB400    | 40.00 |

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MSB405    | 40.50 |
| VLX.MSB410    | 41.00 |
| VLX.MSB415    | 41.50 |
| VLX.MSB420    | 42.00 |

| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MSB425    | 42.50 |
| VLX.MSB430    | 43.00 |



Verre minéral, type loupe.  
 Mineral crystal, lens type.  
 Mineralglas, Lupe Typ.  
 Cristal mineral, tipo lupa.  
 Vetro minerale, tipo lente.  
 Vidro mineral, tipo lente.

| Réf./Item no.  | Ø mm  | 1 mm | 2 mm |
|----------------|-------|------|------|
| VLX.XMF155/725 | 15.50 | 2.10 | 1.60 |
| VLX.XMF180/703 | 18.00 | 2.10 | 1.50 |
| VLX.XMF185/726 | 18.50 | 2.30 | 1.60 |
| VLX.XMF190/729 | 19.00 | 2.50 | 1.60 |
| VLX.XMF195/730 | 19.50 | 2.50 | 1.60 |
| VLX.XMF200/716 | 20.00 | 2.50 | 1.25 |
| VLX.XMF205/731 | 20.50 | 3.00 | 1.50 |
| VLX.XMF210/727 | 21.00 | 2.50 | 1.60 |
| VLX.XMF210/735 | 21.00 | 4.40 | 2.40 |
| VLX.XMF215/734 | 21.50 | 2.10 | 1.50 |
| VLX.XMF220/728 | 22.00 | 2.50 | 1.60 |
| VLX.XMF250/732 | 25.00 | 2.50 | 1.60 |
| VLX.XMF256/714 | 25.60 | 2.50 | 1.50 |
| VLX.XMF260/736 | 26.00 | 3.20 | 2.00 |
| VLX.XMF264/713 | 26.40 | 2.50 | 1.50 |
| VLX.XMF265/737 | 26.50 | 3.20 | 2.00 |
| VLX.XMF266/715 | 26.60 | 2.50 | 1.50 |
| VLX.XMF268/742 | 26.80 | 3.20 | 1.60 |
| VLX.XMF270/700 | 27.00 | 2.50 | 1.50 |
| VLX.XMF273/743 | 27.30 | 3.20 | 1.60 |
| VLX.XMF275/701 | 27.50 | 2.40 | 1.60 |
| VLX.XMF278/744 | 27.80 | 3.20 | 1.60 |
| VLX.XMF280/705 | 28.00 | 2.50 | 1.50 |
| VLX.XMF283/745 | 28.30 | 3.20 | 1.60 |

| Réf./Item no.  | Ø mm  | 1 mm | 2 mm |
|----------------|-------|------|------|
| VLX.XMF285/706 | 28.50 | 2.50 | 1.50 |
| VLX.XMF288/746 | 28.80 | 3.20 | 1.60 |
| VLX.XMF290/605 | 29.00 | 4.40 | 3.50 |
| VLX.XMF290/707 | 29.00 | 2.50 | 1.50 |
| VLX.XMF290/723 | 29.00 | 4.40 | 2.00 |
| VLX.XMF293/747 | 29.30 | 3.20 | 1.60 |
| VLX.XMF295/708 | 29.50 | 2.50 | 1.60 |
| VLX.XMF296/738 | 29.60 | 3.20 | 2.00 |
| VLX.XMF298/712 | 29.80 | 2.50 | 1.60 |
| VLX.XMF298/721 | 29.80 | 4.00 | 3.20 |
| VLX.XMF299/613 | 29.90 | 5.50 | 3.50 |
| VLX.XMF300/709 | 30.00 | 2.50 | 1.60 |
| VLX.XMF303/748 | 30.30 | 3.20 | 1.60 |
| VLX.XMF305/710 | 30.50 | 2.50 | 1.60 |
| VLX.XMF308/749 | 30.80 | 3.20 | 1.60 |
| VLX.XMF310/711 | 31.00 | 2.50 | 1.60 |
| VLX.XMF313/750 | 31.30 | 3.20 | 1.60 |
| VLX.XMF315/702 | 31.50 | 3.60 | 2.50 |
| VLX.XMF315/718 | 31.50 | 2.50 | 1.20 |
| VLX.XMF320/615 | 32.00 | 3.60 | 2.50 |
| VLX.XMF320/719 | 32.00 | 2.50 | 1.30 |
| VLX.XMF323/616 | 32.30 | 3.20 | 2.00 |
| VLX.XMF325/720 | 32.50 | 2.50 | 1.30 |
| VLX.XMF330/739 | 33.00 | 2.50 | 1.80 |

| Réf./Item no.  | Ø mm  | 1 mm | 2 mm |
|----------------|-------|------|------|
| VLX.XMF335/740 | 33.50 | 2.50 | 1.80 |
| VLX.XMF340/741 | 34.00 | 2.50 | 1.80 |
| VLX.XMF345/722 | 34.50 | 4.40 | 2.70 |
| VLX.XMF350/704 | 35.00 | 2.70 | 1.90 |
| VLX.XMF350/717 | 35.00 | 3.60 | 1.20 |
| VLX.XMF355/606 | 35.50 | 4.00 | 2.00 |
| VLX.XMF360/733 | 36.00 | 3.50 | 2.30 |
| VLX.XMF365/607 | 36.50 | 4.00 | 2.00 |
| VLX.XMF365/612 | 36.50 | 2.50 | 1.50 |
| VLX.XMF370/600 | 37.00 | 3.40 | 1.60 |
| VLX.XMF375/601 | 37.50 | 3.40 | 1.60 |
| VLX.XMF380/602 | 38.00 | 3.40 | 1.60 |
| VLX.XMF385/608 | 38.50 | 4.00 | 2.00 |
| VLX.XMF390/609 | 39.00 | 4.00 | 2.00 |
| VLX.XMF394/618 | 39.40 | 2.40 | 1.00 |
| VLX.XMF395/614 | 39.50 | 4.00 | 2.00 |
| VLX.XMF400/603 | 40.00 | 4.00 | 2.00 |
| VLX.XMF405/610 | 40.50 | 4.00 | 2.20 |
| VLX.XMF410/611 | 41.00 | 4.00 | 2.00 |
| VLX.XMF411/619 | 41.10 | 2.70 | 1.30 |
| VLX.XMF450/604 | 45.00 | 3.60 | 1.60 |
| VLX.XMF500/617 | 50.00 | 3.60 | 1.50 |

Loupe pour verres minéraux.  
 Lens for mineral crystals.  
 Lupe für Mineralgläsern.  
 Lupa para cristales minerales.  
 Lente per vetri minerali.  
 Lupa para vidros minerais.

| Réf./Item no. | Dimensions/Size mm |
|---------------|--------------------|
| VLX.ML4.5X3.6 | 4.50 x 3.60        |
| VLX.ML5.9X4.7 | 5.90 x 4.70        |
| VLX.ML7.5X6.3 | 7.50 x 6.30        |



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.SRV120    | 12.00 |
| VLX.SRV125    | 12.50 |
| VLX.SRV130    | 13.00 |
| VLX.SRV135    | 13.50 |
| VLX.SRV140    | 14.00 |
| VLX.SRV145    | 14.50 |
| VLX.SRV150    | 15.00 |
| VLX.SRV155    | 15.50 |
| VLX.SRV160    | 16.00 |
| VLX.SRV165    | 16.50 |
| VLX.SRV170    | 17.00 |
| ...           | ...   |
| VLX.SRV210    | 21.00 |

Verre saphir plat ; épaisseur 0.80 mm.  
 Flat sapphire crystal ; thickness 0.80 mm.  
 Flaches Saphirglas ; Dicke 0.80 mm.  
 Cristal zafiro plano ; espesor 0.80 mm.  
 Vetro zaffiro piatto ; spessore 0.80 mm.  
 Vidro safira plano ; espessura 0.80 mm.

**Incrémenter 0.10 mm du Ø 17.00 au Ø 21.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 17.00 to Ø 21.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 17.00 bis Ø 21.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 17.00 al Ø 21.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 17.00 al Ø 21.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 17.00 ao Ø 21.00 mm (precisar o diâmetro na encomenda).**



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.SRV211    | 21.10 |
| ...           | ...   |
| VLX.SRV320    | 32.00 |
| VLX.SRV325    | 32.50 |
| VLX.SRV330    | 33.00 |
| VLX.SRV335    | 33.50 |

Verre saphir plat ; épaisseur 0.90 mm.  
 Flat sapphire crystal ; thickness 0.90 mm.  
 Flaches Saphirglas ; Dicke 0.90 mm.  
 Cristal zafiro plano ; espesor 0.90 mm.  
 Vetro zaffiro piatto ; spessore 0.90 mm.  
 Vidro safira plano ; espessura 0.90 mm.

**Incrémenter 0.10 mm du Ø 21.10 au Ø 32.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 21.10 to Ø 32.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 21.10 bis Ø 32.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 21.10 al Ø 32.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 21.10 al Ø 32.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 21.10 ao Ø 32.00 mm (precisar o diâmetro na encomenda).**



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.SRM260    | 26.00 |
| ...           | ...   |
| VLX.SRM320    | 32.00 |
| VLX.SRM325    | 32.50 |
| VLX.SRM330    | 33.00 |
| VLX.SRM335    | 33.50 |

Verre saphir plat ; épaisseur 1.40 mm.  
 Flat sapphire crystal ; thickness 1.40 mm.  
 Flaches Saphirglas ; Dicke 1.40 mm.  
 Cristal zafiro plano ; espesor 1.40 mm.  
 Vetro zaffiro piatto ; spessore 1.40 mm.  
 Vidro safira plano ; espessura 1.40 mm.

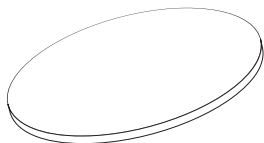
**Incrémenter 0.10 mm du Ø 26.00 au Ø 32.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 26.00 to Ø 32.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 26.00 bis Ø 32.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 26.00 al Ø 32.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 26.00 al Ø 32.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 26.00 ao Ø 32.00 mm (precisar o diâmetro na encomenda).**



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.SRD260    | 26.00 |
| ...           | ...   |
| VLX.SRD320    | 32.00 |
| VLX.SRD325    | 32.50 |
| VLX.SRD330    | 33.00 |
| VLX.SRD335    | 33.50 |

Verre saphir bombé ; épaisseur 0.90 mm.  
 Domed sapphire crystal ; thickness 0.90 mm.  
 Gewölbtes Saphirglas ; Dicke 0.90 mm.  
 Cristal zafiro bombeado ; espesor 0.90 mm.  
 Vetro zaffiro bombato ; spessore 0.90 mm.  
 Vidro safira encurvado ; espessura 0.90 mm.

**Incrémenter 0.10 mm du Ø 26.00 au Ø 32.00 mm (préciser le diamètre lors de la commande).**  
**Increment 0.10 mm from Ø 26.00 to Ø 32.00 mm (specify the diameter when ordering).**  
**Inkrementieren 0.10 mm von Ø 26.00 bis Ø 32.00 mm (bei der Bestellung, den Durchmesser angeben).**  
**Incrementar 0.10 mm del Ø 26.00 al Ø 32.00 mm (precisar el diámetro en el pedido).**  
**Incremento 0.10 mm dal Ø 26.00 al Ø 32.00 mm (specificare il diametro al momento dell'ordine).**  
**Incrementar 0.10 mm do Ø 26.00 ao Ø 32.00 mm (precisar o diâmetro na encomenda).**

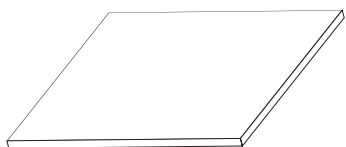


Plaque minérale plate trempée, forme ronde.  
 Tempered flat mineral sheet, round shape.  
 Gehärtete flache Mineralplatte, Runder Form.  
 Placa mineral plana templada, forma redonda.  
 Lastrina minerale piatta temperata, forma rotonda.  
 Placa mineral plana temperada, forma redonda.

| Réf./Item no. | Ø mm | Épaisseur / Thickness mm |
|---------------|------|--------------------------|
| VLX.MPL15X07  | 15   | 0.70                     |
| VLX.MPL15X09  | 15   | 0.90                     |
| VLX.MPL15X11  | 15   | 1.10                     |
| VLX.MPL20X07  | 20   | 0.70                     |
| VLX.MPL20X09  | 20   | 0.90                     |
| VLX.MPL20X11  | 20   | 1.10                     |
| VLX.MPL25X07  | 25   | 0.70                     |
| VLX.MPL25X09  | 25   | 0.90                     |
| VLX.MPL25X11  | 25   | 1.10                     |
| VLX.MPL30X07  | 30   | 0.70                     |
| VLX.MPL30X09  | 30   | 0.90                     |

| Réf./Item no. | Ø mm | Épaisseur / Thickness mm |
|---------------|------|--------------------------|
| VLX.MPL30X11  | 30   | 1.10                     |
| VLX.MPL30X13  | 30   | 1.30                     |
| VLX.MPL35X07  | 35   | 0.70                     |
| VLX.MPL35X09  | 35   | 0.90                     |
| VLX.MPL35X11  | 35   | 1.10                     |
| VLX.MPL35X13  | 35   | 1.30                     |
| VLX.MPL40X07  | 40   | 0.70                     |
| VLX.MPL40X09  | 40   | 0.90                     |
| VLX.MPL40X11  | 40   | 1.10                     |
| VLX.MPL40X13  | 40   | 1.30                     |
| VLX.MPL40X15  | 40   | 1.50                     |

| Réf./Item no.   | Ø mm | Épaisseur / Thickness mm |
|-----------------|------|--------------------------|
| VLX.MPL40X18    | 40   | 1.80                     |
| VLX.MPL/SP40X25 | 40   | 2.50                     |
| VLX.MPL/SP40X30 | 40   | 3.00                     |
| VLX.MPL45X09    | 45   | 0.90                     |
| VLX.MPL45X11    | 45   | 1.10                     |
| VLX.MPL45X13    | 45   | 1.30                     |
| VLX.MPL/SP50X09 | 50   | 0.90                     |
| VLX.MPL/SP50X25 | 50   | 2.50                     |
| VLX.MPL/SP55X11 | 55   | 1.10                     |
| VLX.MPL/SP55X16 | 55   | 1.65                     |
| VLX.MPL/SP55X20 | 55   | 2.00                     |

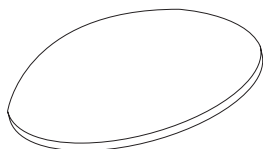


Plaque minérale plate trempée, forme carrée.  
 Tempered flat mineral sheet, square shape.  
 Gehärtete flache Mineralplatte, Viereckiger Form.  
 Placa mineral plana templada, forma cuadrada.  
 Lastrina minerale piatta temperata, forma quadrata.  
 Placa mineral plana temperada, forma quadrada.

| Réf./Item no.   | Dim./ Size mm | Épaisseur / Thickness mm |
|-----------------|---------------|--------------------------|
| VLX.MPL15X15X07 | 15 x 15       | 0.70                     |
| VLX.MPL15X15X09 | 15 x 15       | 0.90                     |
| VLX.MPL15X15X11 | 15 x 15       | 1.10                     |
| VLX.MPL20X20X07 | 20 x 20       | 0.70                     |
| VLX.MPL20X20X09 | 20 x 20       | 0.90                     |
| VLX.MPL20X20X11 | 20 x 20       | 1.10                     |
| VLX.MPL25X25X07 | 25 x 25       | 0.70                     |
| VLX.MPL25X25X09 | 25 x 25       | 0.90                     |

| Réf./Item no.   | Dim./ Size mm | Épaisseur / Thickness mm |
|-----------------|---------------|--------------------------|
| VLX.MPL25X25X11 | 25 x 25       | 1.10                     |
| VLX.MPL25X25X13 | 25 x 25       | 1.30                     |
| VLX.MPL30X30X07 | 30 x 30       | 0.70                     |
| VLX.MPL30X30X09 | 30 x 30       | 0.90                     |
| VLX.MPL30X30X11 | 30 x 30       | 1.10                     |
| VLX.MPL30X30X13 | 30 x 30       | 1.30                     |
| VLX.MPL35X35X07 | 35 x 35       | 0.70                     |
| VLX.MPL35X35X09 | 35 x 35       | 0.90                     |

| Réf./Item no.   | Dim./ Size mm | Épaisseur / Thickness mm |
|-----------------|---------------|--------------------------|
| VLX.MPL35X35X11 | 35 x 35       | 1.10                     |
| VLX.MPL35X35X13 | 35 x 35       | 1.30                     |
| VLX.MPL35X35X15 | 35 x 35       | 1.50                     |
| VLX.MPL35X35X18 | 35 x 35       | 1.80                     |
| VLX.MPL40X40X09 | 40 x 40       | 0.90                     |
| VLX.MPL40X40X11 | 40 x 40       | 1.10                     |
| VLX.MPL40X40X13 | 40 x 40       | 1.30                     |



Plaque minérale bombée trempée, forme ronde.

*Tempered domed mineral sheet, round shape.*

Gehärtete gewölbte Mineralplatten, Runder Form.

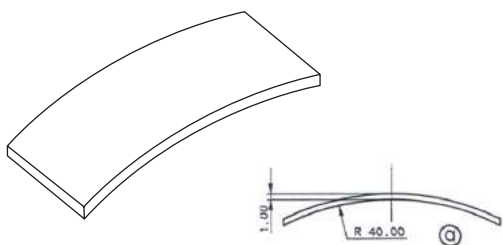
*Placa mineral bombeada templada, forma redonda.*

Lastrina minerale bombata temperata, forma rotonda.

*Placa mineral encurvada temperada, forma redonda.*

| Réf./Item no.     | Ø mm | Épaisseur/Thickness mm |
|-------------------|------|------------------------|
| VLX.MPL/B22X07    | 22   | 0.70                   |
| VLX.MPL/B35X09    | 35   | 0.90                   |
| VLX.MPL/B/SP35X15 | 35   | 1.50                   |
| VLX.MPL/B/SP36X20 | 36   | 2.00                   |

| Réf./Item no.     | Ø mm | Épaisseur/Thickness mm |
|-------------------|------|------------------------|
| VLX.MPL/B/SP40X09 | 40   | 0.90                   |
| VLX.MPL/B/SP45X12 | 45   | 1.20                   |
| VLX.MPL/B/SP50X11 | 50   | 1.10                   |



Plaque minérale galbée trempée, forme rectangulaire.

*Tempered curved mineral sheet, rectangular shape.*

Gehärtete gerundete Mineralplatte, Rechteckiger Form.

*Placa mineral curvada templada, forma rectangular.*

Lastrina minerale curvata temperata, forma rettangolare.

*Placa mineral curvada temperada, forma rectangular.*

| Réf./Item no.        | Dimensions/<br>Size mm | Galbe/<br>Curve R |
|----------------------|------------------------|-------------------|
| VLX.MPL/G220X160X40  | 22 x 16                | 40                |
| VLX.MPL/G220X160X50  | 22 x 16                | 50                |
| VLX.MPL/G220X160X60  | 22 x 16                | 60                |
| VLX.MPL/G220X160X70  | 22 x 16                | 70                |
| VLX.MPL/G220X160X80  | 22 x 16                | 80                |
| VLX.MPL/G220X160X100 | 22 x 16                | 100               |
| VLX.MPL/G300X200X40  | 30 x 20                | 40                |
| VLX.MPL/G300X200X50  | 30 x 20                | 50                |
| VLX.MPL/G300X200X60  | 30 x 20                | 60                |
| VLX.MPL/G300X200X70  | 30 x 20                | 70                |
| VLX.MPL/G300X200X80  | 30 x 20                | 80                |
| VLX.MPL/G300X200X100 | 30 x 20                | 100               |
| VLX.MPL/G350X250X30  | 35 x 25                | 30                |
| VLX.MPL/G350X250X40  | 35 x 25                | 40                |
| VLX.MPL/G350X250X50  | 35 x 25                | 50                |
| VLX.MPL/G350X250X60  | 35 x 25                | 60                |
| VLX.MPL/G350X250X70  | 35 x 25                | 70                |

| Réf./Item no.           | Dimensions/<br>Size mm | Galbe/<br>Curve R |
|-------------------------|------------------------|-------------------|
| VLX.MPL/G350X250X80     | 35 x 25                | 80                |
| VLX.MPL/G350X250X100    | 35 x 25                | 100               |
| VLX.MPL/G370X280X40     | 37 x 28                | 40                |
| VLX.MPL/G370X280X50     | 37 x 28                | 50                |
| VLX.MPL/G370X280X60     | 37 x 28                | 60                |
| VLX.MPL/G370X280X70     | 37 x 28                | 70                |
| VLX.MPL/G370X280X80     | 37 x 28                | 80                |
| VLX.MPL/G370X280X100    | 37 x 28                | 100               |
| VLX.MPL/G/SP280X370X60  | 28 x 37                | 60                |
| VLX.MPL/G/SP430X320X60  | 43 x 32                | 60                |
| VLX.MPL/G/SP430X320X80  | 43 x 32                | 80                |
| VLX.MPL/G/SP430X320X100 | 43 x 32                | 100               |
| VLX.MPL/G/SP450X320X40  | 45 x 32                | 40                |
| VLX.MPL/G/SP500X400X60  | 50 x 40                | 60                |
| VLX.MPL/G/SP500X400X80  | 50 x 40                | 80                |
| VLX.MPL/G/SP500X400X100 | 50 x 40                | 100               |





| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.NML90     | 9.00  |
| ...           | ...   |
| VLX.NML380    | 38.00 |
| VLX.NML382    | 38.20 |
| ...           | ...   |
| VLX.NML700    | 70.00 |

Verre en plexiglas normalisé, à poser sous tension.

*Snap-in standardized plexiglas crystal.*

Normalisiertes Glas aus Plexiglas, unter Spannung einzustellen.

*Cristal en plexiglás normalizado, para colocar bajo tensión.*

Vetro in plexiglas normalizzato, da incassare a pressione.

*Vidro em plexiglas normalizado, para colocar à pressão.*

**Incrémenter 0.10 mm du Ø 9.00 au Ø 38.00 mm (préciser le diamètre lors de la commande).**

**Increment 0.10 mm from Ø 9.00 to Ø 38.00 mm (specify the diameter when ordering).**

**Inkrementieren 0.10 mm von Ø 9.00 bis Ø 38.00 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.10 mm del Ø 9.00 al Ø 38.00 mm (precisar el diámetro en el pedido).**

**Incremento 0.10 mm dal Ø 9.00 al Ø 38.00 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.10 mm do Ø 9.00 ao Ø 38.00 mm (precisar o diâmetro na encomenda).**

**Incrémenter 0.20 mm du Ø 38.20 au Ø 70.00 mm (préciser le diamètre lors de la commande).**

**Increment 0.20 mm from Ø 38.20 to Ø 70.00 mm (specify the diameter when ordering).**

**Inkrementieren 0.20 mm von Ø 38.20 bis Ø 70.00 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.20 mm del Ø 38.20 al Ø 70.00 mm (precisar el diámetro en el pedido).**

**Incremento 0.20 mm dal Ø 38.20 al Ø 70.00 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.20 mm do Ø 38.20 ao Ø 70.00 mm (precisar o diâmetro na encomenda).**



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.ETC120*   | 12.00 |
| ...*          | ...   |
| VLX.ETC380*   | 38.00 |

\*Selon disponibilité / Upon availability  
 Nach Verfügbarkeit / Según disponibilidad  
 Se disponibile / Se disponível

Verre en plexiglas étanche, à poser sous tension.

*Snap-in waterproof plexiglas crystal.*

Wasserdichtes Glas aus Plexiglas, unter Spannung einzustellen.

*Cristal en plexiglás hermético, para colocar bajo tensión.*

Vetro in plexiglas impermeabile, da incassare a pressione.

*Vidro em plexiglas estanque, para colocar à pressão.*

**Incrémenter 0.10 mm du Ø 12.00 au Ø 38.00 mm (Préciser le diamètre lors de la commande).**

**Increment 0.10 mm from Ø 12.00 to Ø 38.00 mm (specify the diameter when ordering).**

**Inkrementieren 0.10 mm von Ø 12.00 bis Ø 38.00 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.10 mm del Ø 12.00 al Ø 38.00 mm (precisar el diámetro en el pedido).**

**Incremento 0.10 mm dal Ø 12.00 al Ø 38.00 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.10 mm do Ø 12.00 ao Ø 38.00 mm (precisar o diâmetro na encomenda).**



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MDN90     | 9.00  |
| ...           | ...   |
| VLX.MDN380    | 38.00 |

Verre en plexiglas moderne, à poser sous tension.

*Snap-in modern plexiglas crystal.*

Modernes Glas aus Plexiglas, unter Spannung einzustellen.

*Cristal en plexiglás moderno, para colocar bajo tensión.*

Vetro in plexiglas moderno, da incassare a pressione.

*Vidro em plexiglas moderno, para colocar à pressão.*

**Incrémenter 0.10 mm du Ø 9.00 au Ø 38.00 mm (préciser le diamètre lors de la commande).**

**Increment 0.10 mm from Ø 9.00 to Ø 38.00 mm (specify the diameter when ordering).**

**Inkrementieren 0.10 mm von Ø 9.00 bis Ø 38.00 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.10 mm del Ø 9.00 al Ø 38.00 mm (precisar el diámetro en el pedido).**

**Incremento 0.10 mm dal Ø 9.00 al Ø 38.00 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.10 mm do Ø 9.00 ao Ø 38.00 mm (precisar o diâmetro na encomenda).**



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.NMB100    | 10.00 |
| ...           | ...   |
| VLX.NMB500    | 50.00 |

Verre en plexiglas "normabas", à poser sous tension.

*Snap-in "normabas" plexiglas crystal.*

"Normabas" Glas aus Plexiglas, unter Spannung einzustellen.

*Cristal en plexiglás "normabas", para colocar bajo tensión.*

Vetro in plexiglas "normabas", da incassare a pressione.

*Vidro em plexiglas "normabas", para colocar à pressão.*

**Incrémenter 0.20 mm du Ø 10.00 au Ø 50.00 mm (préciser le diamètre lors de la commande).**

**Increment 0.20 mm from Ø 10.00 to Ø 50.00 mm (specify the diameter when ordering).**

**Inkrementieren 0.20 mm von Ø 10.00 bis Ø 50.00 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.20 mm del Ø 10.00 al Ø 50.00 mm (precisar el diámetro en el pedido).**

**Incremento 0.20 mm dal Ø 10.00 al Ø 50.00 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.20 mm do Ø 10.00 ao Ø 50.00 mm (precisar o diâmetro na encomenda).**



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MCV164    | 16.40 |
| ...           | ...   |
| VLX.MCV500    | 50.00 |

Verre en plexiglas de forme semi-concave, à poser sous tension.

*Snap-in half concave shape plexiglas crystal.*

Halbkonkav-Form Glas aus Plexiglas, unter Spannung einzustellen.

*Cristal en plexiglás de forma mitad cóncava, para colocar bajo tensión.*

Vetro in plexiglas di forma mezza concava, da incassare a pressione.

*Vidro em plexiglas de forma meia cóncava, para colocar à pressão.*

**Incrémenter 0.20 mm du Ø 16.40 au Ø 50.00 mm (préciser le diamètre lors de la commande).**

**Increment 0.20 mm from Ø 16.40 to Ø 50.00 mm (specify the diameter when ordering).**

**Inkrementieren 0.20 mm von Ø 16.40 bis Ø 50.00 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.20 mm del Ø 16.40 al Ø 50.00 mm (precisar el diámetro en el pedido).**

**Incremento 0.20 mm dal Ø 16.40 al Ø 50.00 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.20 mm do Ø 16.40 ao Ø 50.00 mm (precisar o diâmetro na encomenda).**



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.SVN200    | 20.00 |
| ...           | ...   |
| VLX.SVN500    | 50.00 |

Verre en plexiglas de forme savonnette, à poser sous tension.

*Snap-in hunter shape plexiglas crystal.*

Savonnette-Form Glas aus Plexiglas, unter Spannung einzustellen.

*Cristal en plexiglás de forma saboneta, para colocar bajo tensión.*

Vetro in plexiglas di forma saponetta, da incassare a pressione.

*Vidro em plexiglas de forma sabonete, para colocar à pressão.*

**Incrémenter 0.20 mm du Ø 20.00 au Ø 50.00 mm (préciser le diamètre lors de la commande).**

**Increment 0.20 mm from Ø 20.00 to Ø 50.00 mm (specify the diameter when ordering).**

**Inkrementieren 0.20 mm von Ø 20.00 bis Ø 50.00 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.20 mm del Ø 20.00 al Ø 50.00 mm (precisar el diámetro en el pedido).**

**Incremento 0.20 mm dal Ø 20.00 al Ø 50.00 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.20 mm do Ø 20.00 ao Ø 50.00 mm (precisar o diâmetro na encomenda).**



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MTL/C141  | 14.10 |
| ...           | ...   |
| VLX.MTL/C373  | 37.30 |

Verre rond en plexiglas avec bague de tension chromée.

Round plexiglas crystal with chromed tension ring.

Rundes Glas aus Plexiglas mit verchromtem Spannungsring.

Cristal redondo en plexiglás con aro de tensión cromado.

Vetro rotondo in plexiglas con ghiera di tensione cromata.

Vidro redondo em plexiglas com aro de tensão cromado.

**Incrémenter 0.10 mm du Ø 14.10 au Ø 37.30 mm (préciser le diamètre lors de la commande).**

**Increment 0.10 mm from Ø 14.10 to Ø 37.30 mm (specify the diameter when ordering).**

**Inkrementieren 0.10 mm von Ø 14.10 bis Ø 37.30 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.10 mm del Ø 14.10 al Ø 37.30 mm (precisar el diámetro en el pedido).**

**Incremento 0.10 mm dal Ø 14.10 al Ø 37.30 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.10 mm do Ø 14.10 ao Ø 37.30 mm (precisar o diâmetro na encomenda).**



| Réf./Item no. | Ø mm  |
|---------------|-------|
| VLX.MTL/D141  | 14.10 |
| ...           | ...   |
| VLX.MTL/D373  | 37.30 |

Verre rond en plexiglas avec bague de tension dorée.

Round plexiglas crystal with gilt tension ring.

Rundes Glas aus Plexiglas mit vergoldetem Spannungsring.

Cristal redondo en plexiglás con aro de tensión dorado.

Vetro rotondo in plexiglas con ghiera di tensione dorata.

Vidro redondo em plexiglas com aro de tensão dourado.

**Incrémenter 0.10 mm du Ø 14.10 au Ø 37.30 mm (préciser le diamètre lors de la commande).**

**Increment 0.10 mm from Ø 14.10 to Ø 37.30 mm (specify the diameter when ordering).**

**Inkrementieren 0.10 mm von Ø 14.10 bis Ø 37.30 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.10 mm del Ø 14.10 al Ø 37.30 mm (precisar el diámetro en el pedido).**

**Incremento 0.10 mm dal Ø 14.10 al Ø 37.30 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.10 mm do Ø 14.10 ao Ø 37.30 mm (precisar o diâmetro na encomenda).**

» Joints/Gaskets "I"



| Réf./Item no.     | Ø mm  |
|-------------------|-------|
| VLX.JOINT/I140X08 | 14.00 |
| ...               | ...   |
| VLX.JOINT/I340X08 | 34.00 |

| Réf./Item no.     | Ø mm  |
|-------------------|-------|
| VLX.JOINT/I342X08 | 34.20 |
| ...               | ...   |
| VLX.JOINT/I400X08 | 40.00 |

| Réf./Item no.     | Ø mm  |
|-------------------|-------|
| VLX.JOINT/I345X08 | 34.50 |
| VLX.JOINT/I355X08 | 35.50 |
| VLX.JOINT/I365X08 | 36.50 |
| VLX.JOINT/I375X08 | 37.50 |
| VLX.JOINT/I385X08 | 38.50 |
| VLX.JOINT/I395X08 | 39.50 |

**Plastic Hytrel**

Joint "I" pour verres minéraux minces ; hauteur 0.80 mm, épaisseur 0.35 mm.

"I" gasket for thin mineral crystals ; height 0.80 mm, thickness 0.35 mm.

"I" Dichtung für dünne Mineralgläsern ; Höhe 0.80 mm, Dicke 0.35 mm.

Junta "I" para vidrios minerales finos ; altura 0.80 mm, espesor 0.35 mm.

Guarnizione "I" per vetri minerali sottili ; altezza 0.80 mm, spessore 0.35 mm.

Junta "I" para vidros minerais finos ; altura 0.80 mm, espessura 0.35 mm.

**Incrémenter 0.10 mm du Ø 14.00 au Ø 34.00 mm (préciser le diamètre lors de la commande).**

**Increment 0.10 mm from Ø 14.00 to Ø 34.00 mm (specify the diameter when ordering).**

**Inkrementieren 0.10 mm von Ø 14.00 bis Ø 34.00 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.10 mm del Ø 14.00 al Ø 34.00 mm (precisar el diámetro en el pedido).**

**Incremento 0.10 mm dal Ø 14.00 al Ø 34.00 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.10 mm do Ø 14.00 ao Ø 34.00 mm (precisar o diâmetro na encomenda).**

**Incrémenter 0.20 mm du Ø 34.20 au Ø 40.00 mm (préciser le diamètre lors de la commande).**

**Increment 0.20 mm from Ø 34.20 to Ø 40.00 mm (specify the diameter when ordering).**

**Inkrementieren 0.20 mm von Ø 34.20 bis Ø 40.00 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.20 mm del Ø 34.20 al Ø 40.00 mm (precisar el diámetro en el pedido).**

**Incremento 0.20 mm dal Ø 34.20 al Ø 40.00 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.20 mm do Ø 34.20 ao Ø 40.00 mm (precisar o diâmetro na encomenda).**

» Joints/Gaskets "I"



| Réf./Item no.     | Ø mm  |
|-------------------|-------|
| VLX.JOINT/I250X12 | 25.00 |
| ...               | ...   |
| VLX.JOINT/I327X12 | 32.70 |
| VLX.JOINT/I330X12 | 33.00 |
| VLX.JOINT/I335X12 | 33.50 |
| VLX.JOINT/I340X12 | 34.00 |
| VLX.JOINT/I345X12 | 34.50 |

**Plastic Hytrel**

Joint "I" pour verres minéraux épais ; hauteur 1.20 mm, épaisseur 0.40 mm.

"I" gasket for thick mineral crystals ; height 1.20 mm, thickness 0.40 mm.

"I" Dichtung für dicke Mineralgläsern ; Höhe 1.20 mm, Dicke 0.40 mm.

Junta "I" para vidrios minerales gruesos ; altura 1.20 mm, espesor 0.40 mm.

Guarnizione "I" per vetri minerali spessi ; altezza 1.20 mm, spessore 0.40 mm.

Junta "I" para vidros minerais espessos ; altura 1.20 mm, espessura 0.40 mm.

**Incrémenter 0.10 mm du Ø 25.00 au Ø 32.70 mm (préciser le diamètre lors de la commande).**

**Increment 0.10 mm from Ø 25.00 to Ø 32.70 mm (specify the diameter when ordering).**

**Inkrementieren 0.10 mm von Ø 25.00 bis Ø 32.70 mm (bei der Bestellung, den Durchmesser angeben).**

**Incrementar 0.10 mm del Ø 25.00 al Ø 32.70 mm (precisar el diámetro en el pedido).**

**Incremento 0.10 mm dal Ø 25.00 al Ø 32.70 mm (specificare il diametro al momento dell'ordine).**

**Incrementar 0.10 mm do Ø 25.00 ao Ø 32.70 mm (precisar o diâmetro na encomenda).**

| Réf./Item no.     | Ø mm  | Réf./Item no.     | Ø mm  |
|-------------------|-------|-------------------|-------|
| VLX.JOINT/I350X12 | 35.00 | VLX.JOINT/I380X12 | 38.00 |
| VLX.JOINT/I355X12 | 35.50 | VLX.JOINT/I385X12 | 38.50 |
| VLX.JOINT/I360X12 | 36.00 | VLX.JOINT/I390X12 | 39.00 |
| VLX.JOINT/I365X12 | 36.50 | VLX.JOINT/I395X12 | 39.50 |
| VLX.JOINT/I370X12 | 37.00 | VLX.JOINT/I400X12 | 40.00 |
| VLX.JOINT/I375X12 | 37.50 | VLX.JOINT/I405X12 | 40.50 |

» **Joints/Gaskets "L"**

**Zytel (polyamide nylon)**



Joint "L" pour verres minéraux épais.

"L" gasket for thick mineral crystals.

"L" Dichtung für dicke Mineralgläsern.

Junta "L" para vidrios minerales gruesos.

Guarnizione "L" per vetri minerali spessi.

Junta "L" para vidros minerais espessos.

| Réf./Item no.  | Ø mm  | Réf./Item no.  | Ø mm  | Réf./Item no.  | Ø mm  |
|----------------|-------|----------------|-------|----------------|-------|
| VLX.JOINT/L175 | 17.50 | VLX.JOINT/L240 | 24.00 | VLX.JOINT/L305 | 30.50 |
| VLX.JOINT/L180 | 18.00 | VLX.JOINT/L245 | 24.50 | VLX.JOINT/L310 | 31.00 |
| VLX.JOINT/L185 | 18.50 | VLX.JOINT/L250 | 25.00 | VLX.JOINT/L315 | 31.50 |
| VLX.JOINT/L190 | 19.00 | VLX.JOINT/L255 | 25.50 | VLX.JOINT/L320 | 32.00 |
| VLX.JOINT/L195 | 19.50 | VLX.JOINT/L260 | 26.00 | VLX.JOINT/L325 | 32.50 |
| VLX.JOINT/L200 | 20.00 | VLX.JOINT/L265 | 26.50 | VLX.JOINT/L330 | 33.00 |
| VLX.JOINT/L205 | 20.50 | VLX.JOINT/L270 | 27.00 | VLX.JOINT/L335 | 33.50 |
| VLX.JOINT/L210 | 21.00 | VLX.JOINT/L275 | 27.50 | VLX.JOINT/L340 | 34.00 |
| VLX.JOINT/L215 | 21.50 | VLX.JOINT/L280 | 28.00 | VLX.JOINT/L345 | 34.50 |
| VLX.JOINT/L220 | 22.00 | VLX.JOINT/L285 | 28.50 | VLX.JOINT/L350 | 35.00 |
| VLX.JOINT/L225 | 22.50 | VLX.JOINT/L290 | 29.00 | VLX.JOINT/L355 | 35.50 |
| VLX.JOINT/L230 | 23.00 | VLX.JOINT/L295 | 29.50 | VLX.JOINT/L360 | 36.00 |
| VLX.JOINT/L235 | 23.50 | VLX.JOINT/L300 | 30.00 | VLX.JOINT/L365 | 36.50 |



Verre en plastique.

Plastic crystal.

Plastikglas.

Cristal en plástico.

Vetro di plastica.

Vidro de plástico.

| MSA    | Avec loupe/<br>With lens | N°/<br>No. | Ø<br>ext. mm | Épaisseur/<br>Thickness mm | Hauteur/<br>Height mm |
|--------|--------------------------|------------|--------------|----------------------------|-----------------------|
| 50.300 | -                        | 003        | 20.00        | 1.30                       | 3.00                  |
| 50.307 | -                        | 012        | 29.30        | 1.95                       | 3.80                  |
| 50.309 | -                        | 013        | 29.40        | 1.60                       | 3.50                  |
| 50.329 | -                        | 015        | 29.20        | 1.60                       | 3.10                  |
| 50.315 | -                        | 019        | 30.20        | 3.00                       | 5.40                  |
| 50.320 | -                        | 021        | 30.60        | 1.80                       | 4.10                  |
| 50.322 | -                        | 022        | 31.00        | 1.85                       | 3.70                  |
| 50.312 | -                        | 030        | 25.50        | 1.40                       | 3.60                  |
| 50.314 | -                        | 039        | 30.20        | 3.85                       | 6.30                  |
| 50.328 | Oui/Yes                  | 101        | 21.45        | 1.60                       | 3.70                  |
| 50.304 | Oui/Yes                  | 104        | 25.40        | 1.45                       | 3.30                  |
| 50.331 | Oui/Yes                  | 107        | 28.00        | 1.45                       | 3.60                  |
| 50.306 | Oui/Yes                  | 108        | 29.30        | 2.00                       | 3.70                  |
| 50.310 | Oui/Yes                  | 112        | 29.20        | 1.80                       | 4.00                  |
| 50.318 | Oui/Yes                  | 114        | 30.60        | 1.60                       | 3.70                  |
| 50.316 | Oui/Yes                  | 116        | 30.20        | 1.95                       | 5.00                  |

| MSA    | Avec loupe/<br>With lens | N°/<br>No. | Ø<br>ext. mm | Épaisseur/<br>Thickness mm | Hauteur/<br>Height mm |
|--------|--------------------------|------------|--------------|----------------------------|-----------------------|
| 50.311 | Oui/Yes                  | 117        | 29.40        | 1.80                       | 4.20                  |
| 50.319 | Oui/Yes                  | 118        | 30.60        | 1.50                       | 4.30                  |
| 50.324 | Oui/Yes                  | 121        | 21.10        | 1.55                       | 4.10                  |
| 50.308 | Oui/Yes                  | 123        | 29.20        | 1.50                       | 3.70                  |
| 50.332 | Oui/Yes                  | 124        | 33.00        | 1.60                       | 3.50                  |
| 50.330 | Oui/Yes                  | 126        | 33.00        | 1.60                       | 3.50                  |
| 50.317 | Oui/Yes                  | 127        | 30.30        | 3.00                       | 5.50                  |
| 50.302 | Oui/Yes                  | 129        | 20.50        | 1.50                       | 2.90                  |
| 50.326 | Oui/Yes                  | 130        | 33.20        | 1.65                       | 3.90                  |
| 50.321 | Oui/Yes                  | 135        | 30.50        | 1.90                       | 4.10                  |
| 50.325 | Oui/Yes                  | 143        | 29.35        | 1.60                       | 3.10                  |
| 50.327 | Oui/Yes                  | 144        | 30.30        | 3.80                       | 5.10                  |
| 50.313 | Oui/Yes                  | 145        | 29.60        | 1.85                       | 4.00                  |
| 50.305 | -                        | P12        | 29.10        | 1.85                       | 3.60                  |
| 50.303 | Oui/Yes                  | P101       | 20.00        | 1.45                       | 3.20                  |
| 50.323 | Oui/Yes                  | P124       | 30.60        | 1.45                       | 3.80                  |



Verre saphir, livré avec 1 joint.

Sapphire crystal, delivered with 1 gasket.

Saphirglas, mit 1 Dichtung geliefert.

Cristal zafiro, entregado con 1 junta.

Vetro zaffiro, consegnato con 1 guarnizione.

Vidro safira, entregue com 1 junta.

| MSA         | Avec loupe/With lens | Ø ext. mm | Épaisseur/Thickness mm | Hauteur/Height mm | Joint/Gasket              |
|-------------|----------------------|-----------|------------------------|-------------------|---------------------------|
| 50.S25192   | -                    | 19.90     | 1.50                   | -                 | 43.S25192 (Ht. 1.80 mm)   |
| 50.S25206   | -                    | 21.30     | 1.45                   | 2.75              | 43.S25206C (Ht. 1.90 mm)  |
| 50.S25206C  | Oui/Yes              | 21.30     | 1.65                   | 1.65              | 43.S25206C (Ht. 1.90 mm)  |
| 50.S25246   | -                    | 25.60     | 1.65                   | 2.85              | 43.S25246 (Ht. 2.45 mm)   |
| 50.S25246C  | Oui/Yes              | 25.30     | 1.65                   | 1.65              | 43.S25246 (Ht. 2.45 mm)   |
| -           | -                    | -         | -                      | -                 | 43.S25285 (Ht. 2.80 mm)   |
| 50.S25286   | -                    | 29.70     | 1.95                   | 3.20              | 43.S25286 (Ht. 2.20 mm)   |
| 50.S25286C  | Oui/Yes              | 29.50     | 2.00                   | 2.00              | 43.S25286 (Ht. 2.20 mm)   |
| 50.S25295   | -                    | 30.40     | 2.00                   | 2.00              | 43.S25295C1 (Ht. 2.30 mm) |
| 50.S25295C1 | Oui/Yes              | 30.40     | 2.00                   | 2.00              | 43.S25295C1 (Ht. 2.30 mm) |
| 50.S25295C2 | Oui/Yes              | 30.40     | 2.00                   | 2.00              | 43.S25295C2 (Ht. 2.70 mm) |
| 50.S25315C  | Oui/Yes              | 32.40     | 1.75                   | 1.75              | 43.S25315C (Ht. 2.80 mm)  |





BAGUES DE LUNETTES    BEZEL INSERTS    GLASREIFRINGE  
ANILLOS DE LUNETAS    GHIERE DI LUNETTE    ANILHAS DE AROS

Bagues de lunettes

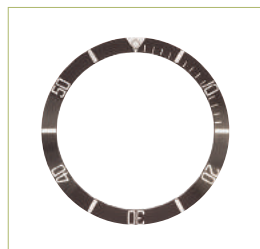
*Bezel inserts*

Glasreifringe

Anillos de lunetas

Ghiere di lunette

Anilhas de aros





Bague de lunettes.  
 Bezel insert.

Glasreifring.  
 Anillo de lunetas.

Ghiera di lunette.  
 Anilha de aros.

**MSA79.116710-N/A**

Ø ext./int. mm  
 37.80/30.60

**Ceramic**



**MSA79.16800-GRN/C**

Ø ext./int. mm  
 37.68/30.68

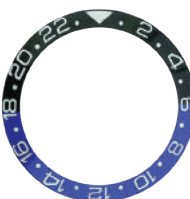
**Ceramic**



**MSA79.116710-NB/A**

Ø ext./int. mm  
 37.80/30.60

**Ceramic**



**MSA79.16808-1/C**

Ø ext./int. mm  
 37.72/30.11

**Ceramic**



**MSA79.16700-1/C**

Ø ext./int. mm  
 37.68/30.59

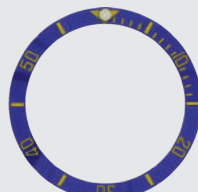
**Ceramic**



**MSA79.16808-2/C**

Ø ext./int. mm  
 37.68/30.56

**Ceramic**



**MSA79.16718-1/C**

Ø ext./int. mm  
 37.66/30.50

**Ceramic**



**MSA79.16800-1/C**

Ø ext./int. mm  
 37.68/30.60

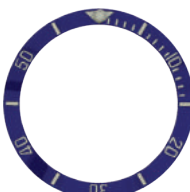
**Ceramic**



**MSA79.16800-BLU/C**

Ø ext./int. mm  
 37.68/30.68

**Ceramic**



Bague de lunettes.  
 Bezel insert.

Glasreifring.  
 Anillo de lunetas.

Ghiera di lunette.  
 Anilha de aros.

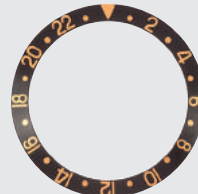
**MSA79.14060-81**

Ø ext./int. mm  
 36.50/29.61



**MSA79.16718-1**

Ø ext./int. mm  
 37.66/30.50



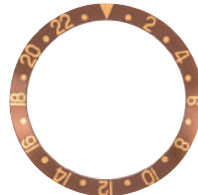
**MSA79.16660-81**

Ø ext./int. mm  
 36.57/29.62



**MSA79.16718-3**

Ø ext./int. mm  
 37.69/30.57



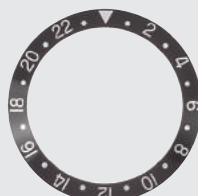
**MSA79.16700-1**

Ø ext./int. mm  
 37.68/30.59



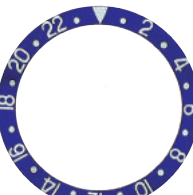
**MSA79.16750-1**

Ø ext./int. mm  
 37.74/30.15



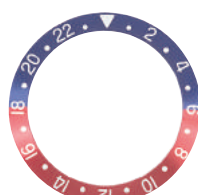
**MSA79.16700-2**

Ø ext./int. mm  
 37.69/30.56



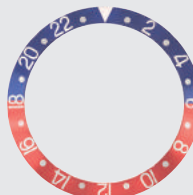
**MSA79.16750-6**

Ø ext./int. mm  
 37.73/30.12



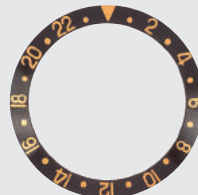
**MSA79.16700-6**

Ø ext./int. mm  
 37.69/30.56



**MSA79.16753-1**

Ø ext./int. mm  
 37.75/30.13



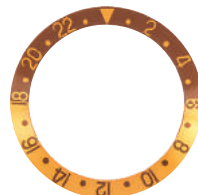
**MSA79.16713-5**

Ø ext./int. mm  
 37.75/30.54



**MSA79.16753-5**

Ø ext./int. mm  
 37.72/30.16



Bague de lunettes.  
 Bezel insert.

Glasreifring.  
 Anillo de lunetas.

Ghiera di lunette.  
 Anilha de aros.

**MSA79.16758-3**

Ø ext./int. mm  
 37.65/30.25



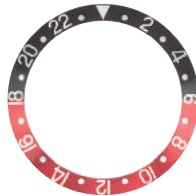
**MSA79.16800-2**

Ø ext./int. mm  
 37.68/30.60



**MSA79.16760-7**

Ø ext./int. mm  
 37.72/30.56



**MSA79.16800-GRN**

Ø ext./int. mm  
 37.68/30.68



**MSA79.1680-1**

Ø ext./int. mm  
 36.49/30.29



**MSA79.16808-1**

Ø ext./int. mm  
 37.72/30.11



**MSA79.1680-2**

Ø ext./int. mm  
 36.58/30.20



**MSA79.16808-2**

Ø ext./int. mm  
 37.68/30.56



**MSA79.1680-GRN**

Ø ext./int. mm  
 36.35/30.15



**MSA79.5513-1**

Ø ext./int. mm  
 36.49/30.29



**MSA79.16800-1**

Ø ext./int. mm  
 37.68/30.60



**MSA79.5513-1G**

Ø ext./int. mm  
 36.58/30.29



Bague de lunettes.  
 Bezel insert.

Glasreifring.  
 Anillo de lunetas.

Ghiera di lunette.  
 Anilha de aros.

**MSA79.5513-2**

Ø ext./int. mm  
 36.49/30.29



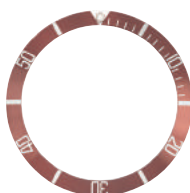
**MSA79.B531**

Ø ext./int. mm  
 38.29/30.16



**MSA79.5513-7**

Ø ext./int. mm  
 36.53/30.29



**MSA79.CARRE/1**

Ø ext./int. mm  
 40.80/35.15



**MSA79.CARRE/2**

Ø ext./int. mm  
 40.80/35.15



Bague de lunettes.  
 Bezel insert.

Glasreifring.  
 Anillo de lunetas.

Ghiera di lunette.  
 Anilha de aros.

**MSA79.PL01**

Ø ext./int. mm  
 40.90/32.80



**MSA79.SM06**

Ø ext./int. mm  
 38.00/30.70



**MSA79.SM01**

Ø ext./int. mm  
 38.05/30.65



**MSA79.SM07**

Ø ext./int. mm  
 38.00/30.70



**MSA79.SM02**

Ø ext./int. mm  
 38.05/30.65



**MSA79.SM08**

Ø ext./int. mm  
 38.00/30.70



**MSA79.SM03**

Ø ext./int. mm  
 33.10/26.10



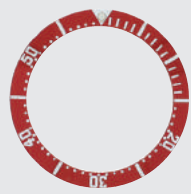
**MSA79.SM09**

Ø ext./int. mm  
 38.00/30.70



**MSA79.SM04**

Ø ext./int. mm  
 38.00/30.70



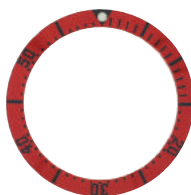
**MSA79.SM10**

Ø ext./int. mm  
 38.00/30.70



**MSA79.SM05**

Ø ext./int. mm  
 38.00/30.70



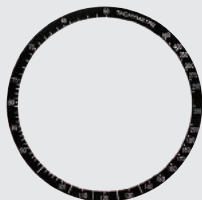
Bague de lunettes.  
*Bezel insert.*

Glasreifring.  
*Anillo de lunetas.*

Ghiera di lunette.  
*Anilha de aros.*

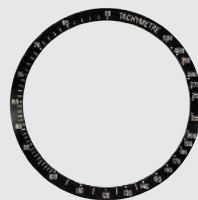
**MSA79.SP01**

**Ø ext./int. mm**  
38.50/33.90



**MSA79.SP03**

**Ø ext./int. mm**  
36.50/30.90



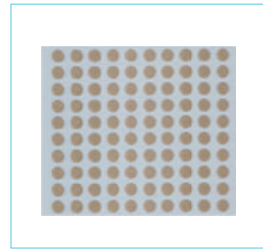
**MSA79.SP02**

**Ø ext./int. mm**  
38.10/30.30





Etiquettes autocollantes  
*Self-adhesive labels*  
Selbstklebende Etiketten  
*Etiquetas autoadhesivas*  
Etichette autoadesive  
*Etiquetas autocolantes*



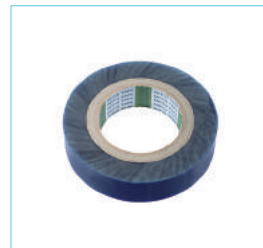
2

Etiquettes électrostatiques  
*Electrostatic labels*  
Elektrostatische Etiketten  
*Etiquetas electrostáticas*  
Adesivi elettrostatici  
*Etiquetas electrostáticas*



4

Films de protection  
*Protective films*  
Schutzfilme  
*Films de protección*  
Pellicola di protezione  
*Filmes de protecção*



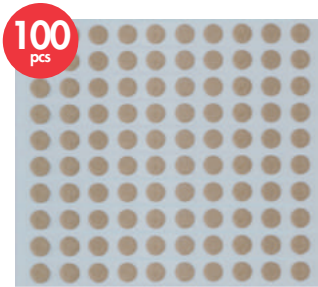
6

Rubans adhésifs en polyimide  
*Adhesive ribbons in polyimide*  
Klebebänder aus Polyimid  
*Cintas adhesivas en poliimida*  
Nastri adesivi in poliimide  
*Fitas adesivas em poliimida*



6





| MSA    | Ø mm | Kg    |
|--------|------|-------|
| 70.001 | 3    | 0.001 |

Autocollant rond pour cadrans ; sachet de 100 pièces.  
 Round self-adhesive sticker for dials ; bag of 100 pieces.  
 Runder Aufkleber für Zifferblättern ; Beutel mit 100 Stück.  
 Autoadhesivo redondo para esferas ; bolsita de 100 piezas.  
 Adesivo tondo per quadranti ; bustina da 100 pezzi.  
 Autocolante redondo para mostradores ; saquinho de 100 peças.



| MSA    | Dimensions/Size mm | Kg    |
|--------|--------------------|-------|
| 70.005 | 3 x 3              | 0.001 |

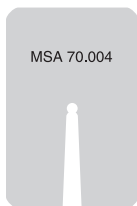
Autocollant carré pour cadrans ; sachet de 100 pièces.  
 Square self-adhesive sticker for dials ; bag of 100 pieces.  
 Viereckiger Aufkleber für Zifferblättern ; Beutel mit 100 Stück.  
 Autoadhesivo cuadrado para esferas ; bolsita de 100 piezas.  
 Adesivo quadrato per quadranti ; bustina da 100 pezzi.  
 Autocolante quadrado para mostradores ; saquinho de 100 peças.

\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock



| MSA    | Dimensions/Size mm | Kg    |
|--------|--------------------|-------|
| 70.002 | 12 x 2             | 0.002 |

Autocollant rectangulaire pour cadrans ; sachet de 100 pièces.  
 Rectangular self-adhesive sticker for dials ; bag of 100 pieces.  
 Rechteckiger Aufkleber für Zifferblättern ; Beutel mit 100 Stück.  
 Autoadhesivo rectangular para esferas ; bolsita de 100 piezas.  
 Adesivo rettangolare per quadranti ; bustina da 100 pezzi.  
 Autocolante rectangular para mostradores ; saquinho de 100 peças.



| MSA    | Dimensions/Size mm | Kg    |
|--------|--------------------|-------|
| 70.004 | 25 x 38 x 0.15     | 0.001 |

Protège cadran en matière synthétique, à utiliser lors de l'extraction des aiguilles.  
 Dial protection of synthetic material, used during hands removing.  
 Zifferblattschutz aus Kunststoff, verwendet während Zeiger Abhebung.  
 Protector de esfera en materia sintética, utilizar durante la extracción de agujas.  
 Protezione per quadrante in materia sintetica, da utilizzare durante l'estrazione delle lancette.  
 Protector de mostrador em matéria sintética, a utilizar durante a extracção das agulhas.



Etiquette autocollante de protection avec marque rouge et onglet non gommé pour les fonds de boîte ; sachet de 100 pièces.

*Protection self-adhesive label with red mark and adhesive free lip for watch case backs ; bag of 100 pieces.*

Selbstklebende Schutzetikette mit rotem Zeichen und klebfreiem Gehrung für Uhrgehäuseböden ; Beutel mit 100 Stück.

*Etiqueta autoadhesiva de protección con marca roja y uñeta sin adhesivo para fondos de cajas ; bolsita de 100 piezas.*

Adesivo di protezione con segno rosso e linguetta senza adesivo per fondo di cassa ; bustina da 100 pezzi.

*Etiqueta autocolante de protecção com marca vermelha e onglete sem adesivo para fundos de caixas ; saquinho de 100 peças.*

| MSA        | Ø mm | Kg    |
|------------|------|-------|
| 70.006-10* | 10   | 0.007 |
| 70.006-12* | 12   | 0.008 |
| 70.006-16  | 16   | 0.009 |
| 70.006-17  | 17   | 0.009 |
| 70.006-18  | 18   | 0.011 |
| 70.006-19  | 19   | 0.012 |
| 70.006-20  | 20   | 0.012 |
| 70.006-22  | 22   | 0.013 |

| MSA       | Ø mm | Kg    |
|-----------|------|-------|
| 70.006-24 | 24   | 0.015 |
| 70.006-25 | 25   | 0.016 |
| 70.006-26 | 26   | 0.016 |
| 70.006-27 | 27   | 0.017 |
| 70.006-28 | 28   | 0.018 |
| 70.006-30 | 30   | 0.020 |
| 70.006-32 | 32   | 0.024 |
| 70.006-34 | 34   | 0.026 |

| MSA       | Ø mm | Kg    |
|-----------|------|-------|
| 70.006-36 | 36   | 0.031 |
| 70.006-38 | 38   | 0.032 |
| 70.006-40 | 40   | 0.034 |
| 70.006-42 | 42   | 0.036 |
| 70.006-45 | 45   | 0.042 |
| 70.006-50 | 50   | 0.053 |
| 70.006-55 | 55   | 0.066 |
| 70.006-60 | 60   | 0.082 |

\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock



Etiquette autocollante de protection avec marque rouge et onglet non gommé pour les fonds de boîte ; rouleau de 1'000 pièces.

*Protection self-adhesive label with red mark and adhesive free lip for watch case backs ; roll of 1'000 pieces.*

Selbstklebende Schutzetikette mit rotem Zeichen und klebfreiem Gehrung für Uhrgehäuseböden ; Rolle mit 1'000 Stück.

*Etiqueta autoadhesiva de protección con marca roja y uñeta sin adhesivo para fondos de cajas ; rollo de 1'000 piezas.*

Adesivo di protezione con segno rosso e linguetta senza adesivo per fondo di cassa ; rotolo da 1'000 pezzi.

*Etiqueta autocolante de protecção com marca vermelha e onglete sem adesivo para fundos de caixas ; rolo de 1'000 peças.*

| MSA        | Ø mm | Kg    |
|------------|------|-------|
| 70.016-10* | 10   | 0.054 |
| 70.016-16  | 16   | 0.085 |
| 70.016-17  | 17   | 0.091 |
| 70.016-18  | 18   | 0.098 |
| 70.016-19  | 19   | 0.100 |
| 70.016-20  | 20   | 0.111 |
| 70.016-22  | 22   | 0.120 |
| 70.016-24  | 24   | 0.135 |

| MSA       | Ø mm | Kg    |
|-----------|------|-------|
| 70.016-25 | 25   | 0.145 |
| 70.016-26 | 26   | 0.149 |
| 70.016-27 | 27   | 0.156 |
| 70.016-28 | 28   | 0.193 |
| 70.016-30 | 30   | 0.206 |
| 70.016-32 | 32   | 0.230 |
| 70.016-34 | 34   | 0.251 |
| 70.016-36 | 36   | 0.301 |

| MSA       | Ø mm | Kg    |
|-----------|------|-------|
| 70.016-38 | 38   | 0.303 |
| 70.016-40 | 40   | 0.322 |
| 70.016-42 | 42   | 0.355 |
| 70.016-45 | 45   | 0.460 |
| 70.016-50 | 50   | 0.575 |
| 70.016-55 | 55   | 0.718 |
| 70.016-60 | 60   | 0.898 |

\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock



Etiquette électrostatique de protection ; sachet de 100 pièces.

*Electrostatic protection label ; bag of 100 pieces.*

Elektrostatische Schutzetikette ; Beutel mit 100 Stück.

*Etiqueta electrostática de protección ; bolsita de 100 piezas.*

Adesivo elettrostatico di protezione ; bustina da 100 pezzi.

*Etiqueta electrostática de protecção ; saquinho de 100 peças.*

| MSA        | Ø mm | Kg    |
|------------|------|-------|
| 70.003-15* | 15   | 0.009 |
| 70.003-16* | 16   | 0.009 |
| 70.003-18* | 18   | 0.010 |
| 70.003-20  | 20   | 0.011 |
| 70.003-22  | 22   | 0.015 |
| 70.003-24  | 24   | 0.019 |
| 70.003-25  | 25   | 0.020 |

| MSA       | Ø mm | Kg    |
|-----------|------|-------|
| 70.003-26 | 26   | 0.022 |
| 70.003-28 | 28   | 0.024 |
| 70.003-30 | 30   | 0.026 |
| 70.003-32 | 32   | 0.029 |
| 70.003-34 | 34   | 0.032 |
| 70.003-36 | 36   | 0.035 |
| 70.003-38 | 38   | 0.042 |

| MSA       | Ø mm | Kg    |
|-----------|------|-------|
| 70.003-40 | 40   | 0.047 |
| 70.003-42 | 42   | 0.053 |
| 70.003-45 | 45   | 0.060 |
| 70.003-50 | 50   | 0.075 |
| 70.003-55 | 55   | 0.094 |
| 70.003-60 | 60   | 0.118 |

\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
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Etiquette électrostatique de protection ; rouleau de 1'000 pièces.

*Electrostatic protection label ; roll of 1'000 pieces.*

Elektrostatische Schutzetikette ; Rolle mit 1'000 Stück.

*Etiqueta electrostática de protección ; rollo de 1'000 piezas.*

Adesivo elettrostatico di protezione ; rotolo da 1'000 pezzi.

*Etiqueta electrostática de protecção ; rolo de 1'000 peças.*

| MSA        | Ø mm | Kg    |
|------------|------|-------|
| 70.013-15* | 15   | 0.086 |
| 70.013-16* | 16   | 0.079 |
| 70.013-18* | 18   | 0.100 |
| 70.013-20  | 20   | 0.127 |
| 70.013-22  | 22   | 0.082 |
| 70.013-24  | 24   | 0.098 |
| 70.013-25  | 25   | 0.186 |

| MSA        | Ø mm | Kg    |
|------------|------|-------|
| 70.013-26  | 26   | 0.178 |
| 70.013-27* | 27   | 0.206 |
| 70.013-28  | 28   | 0.211 |
| 70.013-30  | 30   | 0.253 |
| 70.013-32  | 32   | 0.308 |
| 70.013-34  | 34   | 0.346 |
| 70.013-36  | 36   | 0.201 |

| MSA       | Ø mm | Kg    |
|-----------|------|-------|
| 70.013-38 | 38   | 0.410 |
| 70.013-40 | 40   | 0.460 |
| 70.013-42 | 42   | 0.520 |
| 70.013-45 | 45   | 0.620 |
| 70.013-50 | 50   | 0.775 |
| 70.013-55 | 55   | 0.968 |
| 70.013-60 | 60   | 1.210 |

\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
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| MSA        | Largeur/Width mm | Longueur/Length m | Kg    |
|------------|------------------|-------------------|-------|
| 70.008-150 | 150              | 10                | 0.590 |

Bande électrostatique de protection ; rouleau de 10 mètres.

*Electrostatic protection tape ; roll of 10 metres.*

Elektrostatiches Schutzband ; Rolle von 10 Metern.

*Cinta electrostática de protección ; rollo de 10 metros.*

Striscia elettrostatica di protezione ; rotolo da 10 metri.

*Fita electrostática de protecção ; rolo de 10 metros.*



Etiquette électrostatique de protection ; sachet de 100 pièces.  
*Electrostatic protection label ; bag of 100 pieces.*  
 Elektrostatische Schutzetikette ; Beutel mit 100 Stück.  
*Etiqueta electrostática de protección ; bolsita de 100 piezas.*  
 Adesivo elettrostatico di protezione ; bustina da 100 pezzi.  
*Etiqueta electrostática de protecção ; saquinho de 100 peças.*

| MSA       | Dimensions/Size mm | Kg    |
|-----------|--------------------|-------|
| 70.008-60 | 60 x 60            | 0.117 |



Etiquette électrostatique de protection ; rouleau de 1'000 pièces.  
*Electrostatic protection label ; roll of 1'000 pieces.*  
 Elektrostatische Schutzetikette ; Rolle mit 1'000 Stück.  
*Etiqueta electrostática de protección ; rollo de 1'000 piezas.*  
 Adesivo elettrostatico di protezione ; rotolo da 1'000 pezzi.  
*Etiqueta electrostática de protecção ; rolo de 1'000 peças.*

| MSA         | Dimensions/Size mm | Kg    |
|-------------|--------------------|-------|
| 70.008-60-A | 60 x 60            | 0.117 |
| 70.008-70*  | 70 x 50            | 1.095 |

\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat /  
 Hasta agotamiento del stock / Fino ad esaurimento dello stock / Até esgotamento do stock



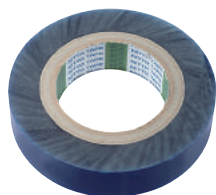
Feuille électrostatique de protection ; format A4.  
*Electrostatic protection sheet ; A4 size.*  
 Elektrostatische Schutzblatt ; A4 Format.  
*Hoja electrostática de protección ; formato A4.*  
 Foglio elettrostatico di protezione ; formato A4.  
*Folha electrostática de protecção ; formato A4.*

| MSA       | Dimensions/Size mm | Kg    |
|-----------|--------------------|-------|
| 70.008-A4 | 297 x 210          | 0.023 |



Bande électrostatique de protection ; rouleau de 25 ou 50 mètres.  
*Electrostatic protection tape ; roll of 25 or 50 metres.*  
 Elektrostatiches Schutzband ; Rolle von 25 oder 50 Metern.  
*Cinta electrostática de protección ; rollo de 25 ó 50 metros.*  
 Striscia elettrostatica di protezione ; rotolo da 25 o 50 metri.  
*Fita electrostática de protecção ; rolo de 25 ou 50 metros.*

| MSA        | Largeur/Width mm | Longueur/Length m | Épaisseur/Thickness mm | Kg    |
|------------|------------------|-------------------|------------------------|-------|
| 70.009-050 | 50               | 50                | 0.07                   | 0.250 |
| 70.009-100 | 100              | 50                | 0.12                   | 0.650 |
| 70.009-150 | 150              | 50                | 0.14                   | 1.200 |
| 70.009-200 | 200              | 25                | 0.15                   | 0.800 |



Film PVC de protection légèrement adhésif, épaisseur 75 µm ; rouleau de 100 mètres.

Protective PVC film softly adhesive, thickness 75 µm ; roll of 100 meters.

PVC Schutzfolie leicht selbstklebend, Dicke 75 µm ; Rolle von 100 Metern.

Película PVC de protección ligeramente adhesiva, espesor 75 µm ; rollo de 100 metros.

Pellicola PVC di protezione leggermente adesiva, spessore 75 µm ; rotolo da 100 metri.

Película PVC de protecção ligeiramente adesiva, espessura 75 µm ; rolo de 100 metros.

| MSA        | Largeur/Width mm | Couleur/Colour | Kg    | MSA         | Largeur/Width mm | Couleur/Colour | Kg    |
|------------|------------------|----------------|-------|-------------|------------------|----------------|-------|
| 70.010-4   | 4                | Bleu/Blue      | 0.046 | 70.010-30   | 30               | Bleu/Blue      | 0.345 |
| 70.010-5   | 5                | Bleu/Blue      | 0.058 | 70.010-35   | 35               | Bleu/Blue      | 0.403 |
| 70.010-5/W | 5                | Transparent    | 0.058 | 70.010-40   | 40               | Bleu/Blue      | 0.460 |
| 70.010-6   | 6                | Bleu/Blue      | 0.069 | 70.010-40/W | 40               | Transparent    | 0.460 |
| 70.010-8   | 8                | Bleu/Blue      | 0.092 | 70.010-45   | 45               | Bleu/Blue      | 0.518 |
| 70.010-10  | 10               | Bleu/Blue      | 0.115 | 70.010-50   | 50               | Bleu/Blue      | 0.575 |
| 70.010-12  | 12               | Bleu/Blue      | 0.138 | 70.010-50/W | 50               | Transparent    | 0.575 |
| 70.010-14  | 14               | Bleu/Blue      | 0.161 | 70.010-55   | 55               | Bleu/Blue      | 0.633 |
| 70.010-15  | 15               | Bleu/Blue      | 0.173 | 70.010-60   | 60               | Bleu/Blue      | 0.690 |
| 70.010-20  | 20               | Bleu/Blue      | 0.230 | 70.010-65   | 65               | Bleu/Blue      | 0.748 |
| 70.010-25  | 25               | Bleu/Blue      | 0.288 | 70.010-65/W | 65               | Transparent    | 0.748 |

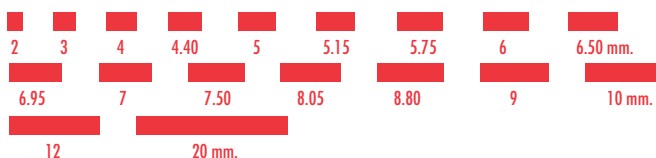
Toutes les largeurs sont disponibles en bleu ou transparent (autres largeurs sur demande) / All widths are available in blue or transparent (other widths on request)

Alle Breiten sind in blau oder transparent verfügbar (weitere Breiten auf Anfrage) / Todas las anchuras son disponibles en azul y transparente (otras anchuras sobre pedido)

Tutte le larghezze sono disponibili in blu e trasparente (altre larghezze su richiesta) / Todas as larguras são disponíveis azul e transparente (outras larguras sob pedido)



Largeur - Width - Breite - Anchura - Larghezza - Largura mm.



Ruban spécial en polyimide Kapton pour bracelets et boîtes de montre ; rouleau de 33 mètres.

Special ribbon in Kapton polyimide for bracelets and watch cases ; roll of 33 meters.

Spezialklebeband aus Kapton Polyimid für Armbänder und Uhrgehäuse ; Rolle von 33 Metern.

Cinta especial en poliimida Kapton para brazaletes y cajas de reloj ; rollo de 33 metros.

Nastro speciale in poliimmide Kapton per cinturini e casse di orologio ; rotolo da 33 metri.

Fita especial em poliimida Kapton para braceletes e caixas de relógio ; rolo de 33 metros.

| MSA         | Largeur/Width mm | Kg    | MSA         | Largeur/Width mm | Kg    |
|-------------|------------------|-------|-------------|------------------|-------|
| 70.007-02   | 2.00             | 0.008 | 70.007-6.95 | 6.95             | 0.024 |
| 70.007-03   | 3.00             | 0.010 | 70.007-07   | 7.00             | 0.025 |
| 70.007-04   | 4.00             | 0.014 | 70.007-07.5 | 7.50             | 0.027 |
| 70.007-04.4 | 4.40             | 0.015 | 70.007-8.05 | 8.05             | 0.028 |
| 70.007-05   | 5.00             | 0.017 | 70.007-08.8 | 8.80             | 0.030 |
| 70.007-5.15 | 5.15             | 0.017 | 70.007-09   | 9.00             | 0.032 |
| 70.007-5.75 | 5.75             | 0.020 | 70.007-10   | 10.00            | 0.035 |
| 70.007-06   | 6.00             | 0.021 | 70.007-12   | 12.00            | 0.042 |
| 70.007-06.5 | 6.50             | 0.023 | 70.007-20   | 20.00            | 0.069 |



KITS POUR L'ASSEMBLAGE DE MONTRES    WATCH ASSEMBLY KITS    KITS FÜR UHRENMONTAGE  
KITS PARA EL MONTAJE DE RELOJES    KIT PER L'ASSEMBLAGGIO DI OROLOGI    KITS PARA A MONTAGEM DE RELÓGIOS

Boîtes de montre, cadrans, aiguilles,  
mouvements et bracelets en cuir

*Watch cases, dials, hands, movements  
and leather straps*

Uhrgehäuse, Zifferblättern, Zeiger,  
Werke und Lederarmbänder

*Cajas de reloj, esferas, agujas,  
movimientos y correas de cuero*

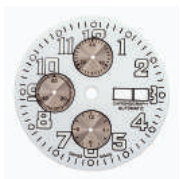
Casse di orologio, quadranti, lancette,  
movimenti e cinturini di cuoio

*Caixas de relógio, mostradores, ponteiros,  
movimentos e pulseiras de cuuro*



2

**Faites votre montre**  
**Make your watch**



### Calibre Valjoux 7750 - SW 500

| MSA        | Composants/Components                                | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal   | Fond/Back                         | Bracelets/Straps   | Kg    |
|------------|--|-------|----------------------|-----------------|-----------------------------------|--------------------|-------|
| 66.011     | Boîte titane/Titanium case                           | 41.00 | 20                   | Saphir/Sapphire | Verre minéral/<br>Mineral crystal | Voir/See page 14-5 | 0.066 |
| 66.013     | Cadran blanc/White dial                              | 33.50 | -                    | -               | -                                 | -                  | 0.003 |
| 66.015     | Cadran bleu index/Blue index dial                    | 33.50 | -                    | -               | -                                 | -                  | 0.003 |
| 66.016     | Cadran noir/Black dial                               | 33.50 | -                    | -               | -                                 | -                  | 0.003 |
| 66.017     | Jeu d'aiguilles lumineuses/<br>Set of luminous hands | -     | -                    | -               | -                                 | -                  | -     |
| ETAMP.7750 | Mouvement/Movement                                   | -     | -                    | -               | -                                 | -                  | -     |
| SWM.500    | Mouvement/Movement                                   | -     | -                    | -               | -                                 | -                  | -     |

Boîte de montre en titane avec fond transparent, cadrans (blanc, bleu ou noir), aiguilles et mouvements.

*Titanium watch case with look through back, dials (white, blue or black), hands and movements.*

Titan Uhrgehäuse mit durchsichtigem Boden, Zifferblättern (weiss, blau oder schwarz), Zeiger und Uhrwerke.

*Caja de reloj en titanio con fondo transparente, esferas (blanca, azul o negra), agujas y movimientos.*

Cassa di orologio in titanio con fondo trasparente, quadranti (bianco, blu o nero), lancette e movimenti.

*Caixa de relógio em titânio com fundo transparente, mostradores (branco, azul ou preto), ponteiros e movimentos.*



### Calibre ETA 2824-2 - SW 200-1

| MSA          | Composants/Components                                | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal   | Fond/Back                         | Bracelets/Straps   | Kg    |
|--------------|--|-------|----------------------|-----------------|-----------------------------------|--------------------|-------|
| 66.020       | Boîte acier/Steel case                               | 37.00 | 20                   | Minéral/Mineral | Verre minéral/<br>Mineral crystal | Voir/See page 14-5 | 0.035 |
| 66.023       | Cadran blanc/White dial                              | 31.50 | -                    | -               | -                                 | -                  | 0.003 |
| 66.026       | Cadran noir/Black dial                               | 31.50 | -                    | -               | -                                 | -                  | 0.003 |
| 66.027       | Jeu d'aiguilles lumineuses/<br>Set of luminous hands | -     | -                    | -               | -                                 | -                  | -     |
| 66.029       | Jeu d'aiguilles noires/<br>Set of black hands        | -     | -                    | -               | -                                 | -                  | -     |
| ETAMP.2824-2 | Mouvement/Movement                                   | -     | -                    | -               | -                                 | -                  | -     |
| SWM.200-1    | Mouvement/Movement                                   | -     | -                    | -               | -                                 | -                  | -     |

Boîte de montre en acier avec fond transparent, cadrans (blanc ou noir), aiguilles et mouvements.

*Steel watch case with look through back, dials (white or black), hands and movements.*

Stahl Uhrgehäuse mit durchsichtigem Boden, Zifferblättern (weiss oder schwarz), Zeiger und Uhrwerke.

*Caja de reloj en acero con fondo transparente, esferas (blanca o negra), agujas y movimientos.*

Cassa di orologio di acciaio con fondo trasparente, quadranti (bianco o nero), lancette e movimenti.

*Caixa de relógio em aço com fundo transparente, mostradores (branco ou preto), ponteiros e movimentos.*



**Calibre Unitas 6497 (seconde à 9H/second at 9H) - Unitas 6498 (seconde à 6H/second at 6H)**

| MSA          | Composants/Components                                    | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal    | Fond/Back                     | Bracelets/Straps   | Kg    |
|--------------|--|-------|----------------------|------------------|-------------------------------|--------------------|-------|
| 66.030       | Boîte acier/Steel case                                   | 48.00 | 22                   | Saphir/Sapphire  | Verre minéral/Mineral crystal | Voir/See page 14-5 | 0.047 |
| 66.033       | Cadran argenté (9H)/Silver dial (9H)                     | 42.50 | -                    | -                | -                             | -                  | 0.003 |
| 66.034       | Cadran argenté (6H)/Silver dial (6H)                     | 42.50 | -                    | -                | -                             | -                  | 0.003 |
| 66.035       | Cadran noir (9H)/Black dial (9H)                         | 42.50 | -                    | -                | -                             | -                  | 0.003 |
| 66.036       | Cadran noir (6H)/Black dial (6H)                         | 42.50 | -                    | -                | -                             | -                  | 0.003 |
| 66.038       | Jeu d'aiguilles rhodiées/<br>Set of rhodium-plated hands | -     | Hrs.<br>L. 14 mm     | Min.<br>L. 19 mm | Sec.<br>L. 5 mm               | -                  | -     |
| 66.039       | Jeu d'aiguilles noires/<br>Set of black hands            | -     | Hrs.<br>L. 14 mm     | Min.<br>L. 19 mm | Sec.<br>L. 5 mm               | -                  | -     |
| ETAMP.6497-1 | Mouvement/Movement                                       | -     | -                    | -                | -                             | -                  | -     |
| ETAMP.6498-1 | Mouvement/Movement                                       | -     | -                    | -                | -                             | -                  | -     |

Boîte de montre en acier (PVD noir) avec fond transparent, cadrans (couleur argent ou noir), aiguilles et mouvements.

Steel watch case (black PVD) with look through back, dials (silver colour or black), hands and movements.

Stahl Uhrgehäuse (schwarzem PVD) mit durchsichtigem Boden, Zifferblättern (Silber-Farbe oder schwarz), Zeiger und Uhrwerke.

Caja de reloj en acero (PVD negro) con fondo transparente, esferas (color plata o negra), agujas y movimientos.

Cassa di orologio di acciaio (PVD nero) con fondo trasparente, quadranti (colore argento o nero), lancette e movimenti.

Caixa de relógio em aço (PVD preto) com fundo transparente, mostradores (cor prata ou preto), ponteiros e movimentos.



**Calibre Unitas 6497 (seconde à 9H/second at 9H) - Unitas 6498 (seconde à 6H/second at 6H)**

| MSA          | Composants/Components                                    | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal    | Fond/Back                     | Bracelets/Straps   | Kg    |
|--------------|--|-------|----------------------|------------------|-------------------------------|--------------------|-------|
| 66.040       | Boîte acier/Steel case                                   | 45.00 | 22                   | Saphir/Sapphire  | Verre minéral/Mineral crystal | Voir/See page 14-5 | 0.046 |
| 66.043       | Cadran argenté (9H)/Silver dial (9H)                     | 37.00 | -                    | -                | -                             | -                  | 0.003 |
| 66.044       | Cadran argenté (6H)/Silver dial (6H)                     | 37.00 | -                    | -                | -                             | -                  | 0.003 |
| 66.045       | Cadran noir (9H)/Black dial (9H)                         | 37.00 | -                    | -                | -                             | -                  | 0.003 |
| 66.046       | Cadran noir (6H)/Black dial (6H)                         | 37.00 | -                    | -                | -                             | -                  | 0.003 |
| 66.048       | Jeu d'aiguilles rhodiées/<br>Set of rhodium-plated hands | -     | Hrs.<br>L. 11 mm     | Min.<br>L. 15 mm | Sec.<br>L. 4 mm               | -                  | -     |
| 66.049       | Jeu d'aiguilles noires/<br>Set of black hands            | -     | Hrs.<br>L. 11 mm     | Min.<br>L. 15 mm | Sec.<br>L. 4 mm               | -                  | -     |
| ETAMP.6497-1 | Mouvement/Movement                                       | -     | -                    | -                | -                             | -                  | -     |
| ETAMP.6498-1 | Mouvement/Movement                                       | -     | -                    | -                | -                             | -                  | -     |

Boîte de montre en acier avec fond transparent, cadrans (couleur argent ou noir), aiguilles et mouvements.

Steel watch case with look through back, dials (silver colour or black), hands and movements.

Stahl Uhrgehäuse mit durchsichtigem Boden, Zifferblättern (Silber-Farbe oder schwarz), Zeiger und Uhrwerke.

Caja de reloj en acero con fondo transparente, esferas (color plata o negra), agujas y movimientos.

Cassa di orologio di acciaio con fondo trasparente, quadranti (colore argento o nero), lancette e movimenti.

Caixa de relógio em aço com fundo transparente, mostradores (cor prata ou preto), ponteiros e movimentos.





**Calibre ETA 2892-A2 - SW 300-1**

| MSA           | Composants/Components                                    | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal   | Fond/Back                         | Bracelets/Straps   | Kg    |
|---------------|--|-------|----------------------|-----------------|-----------------------------------|--------------------|-------|
| 66.060        | Boîte acier/Steel case                                   | 41.00 | 20                   | Saphir/Sapphire | Verre minéral/<br>Mineral crystal | Voir/See page 14-5 | 0.042 |
| 66.064        | Cadran argenté/Silver dial                               | 34.30 | -                    | -               | -                                 | -                  | 0.003 |
| 66.066        | Cadran noir/Black dial                                   | 34.30 | -                    | -               | -                                 | -                  | 0.003 |
| 66.068        | Jeu d'aiguilles rhodiées/<br>Set of rhodium-plated hands | -     | -                    | -               | -                                 | -                  | -     |
| 66.069        | Jeu d'aiguilles noires/<br>Set of black hands            | -     | -                    | -               | -                                 | -                  | -     |
| ETAMP.2892-A2 | Mouvement/Movement                                       | -     | -                    | -               | -                                 | -                  | -     |
| SWM.300-1     | Mouvement/Movement                                       | -     | -                    | -               | -                                 | -                  | -     |

Boîte de montre en acier avec fond transparent, cadrans (couleur argent ou noir), aiguilles et mouvements.

Steel watch case with look through back, dials (silver colour or black), hands and movements.

Stahl Uhrgehäuse mit durchsichtigem Boden, Zifferblättern (Silber-Farbe oder schwarz), Zeiger und Uhrwerke.

Caja de reloj en acero con fondo transparente, esferas (color plata o negra), agujas y movimientos.

Cassa di orologio di acciaio con fondo trasparente, quadranti (colore argento o nero), lancette e movimenti.

Caixa de relógio em aço com fundo transparente, mostradores (cor prata ou preto), ponteiros e movimentos.



**Calibre Valjoux 7750 - SW 500**

| MSA        | Composants/Components                                | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal   | Fond/Back                         | Bracelets/Straps   | Kg    |
|------------|--|-------|----------------------|-----------------|-----------------------------------|--------------------|-------|
| 66.070 (1) | Boîte acier/Steel case                               | 45.30 | 22                   | Saphir/Sapphire | Verre minéral/<br>Mineral crystal | Voir/See page 14-5 | 0.071 |
| 66.010 (2) | Boîte acier/Steel case                               | 41.00 | 20                   | Minéral/Mineral | Verre minéral/<br>Mineral crystal | Voir/See page 14-5 | 0.066 |
| 66.073     | Cadran blanc/White dial                              | 37.00 | -                    | -               | -                                 | -                  | 0.004 |
| 66.076     | Cadran noir/Black dial                               | 37.00 | -                    | -               | -                                 | -                  | 0.004 |
| 66.017     | Jeu d'aiguilles lumineuses/<br>Set of luminous hands | -     | -                    | -               | -                                 | -                  | -     |
| ETAMP.7750 | Mouvement/Movement                                   | -     | -                    | -               | -                                 | -                  | -     |
| SWM.500    | Mouvement/Movement                                   | -     | -                    | -               | -                                 | -                  | -     |

Boîte de montre en acier avec fond transparent, cadrans (blanc ou noir), aiguilles et mouvements.

Steel watch case with look through back, dials (white or black), hands and movements.

Stahl Uhrgehäuse mit durchsichtigem Boden, Zifferblättern (weiss oder schwarz), Zeiger und Uhrwerke.

Caja de reloj en acero con fondo transparente, esferas (blanca o negra), agujas y movimientos.

Cassa di orologio di acciaio con fondo trasparente, quadranti (bianco o nero), lancette e movimenti.

Caixa de relógio em aço com fundo transparente, mostradores (branco ou preto), ponteiros e movimentos.



| MSA    | Largeur/Width mm | Couleur/Colour | Kg    |
|--------|------------------|----------------|-------|
| 66.200 | 20               | Noir/Black     | 0.015 |
| 66.201 | 20               | Bleu/Blue      | 0.015 |
| 66.202 | 20               | Brun/Brown     | 0.015 |
| 66.203 | 20               | Gris/Grey      | 0.015 |
| 66.204 | 20               | Blanc/White    | 0.015 |
| 66.210 | 22               | Noir/Black     | 0.015 |
| 66.211 | 22               | Bleu/Blue      | 0.015 |
| 66.212 | 22               | Brun/Brown     | 0.015 |
| 66.213 | 22               | Gris/Grey      | 0.015 |
| 66.214 | 22               | Blanc/White    | 0.015 |

Bracelet en cuir avec fermoir standard ; noir, bleu, brun, gris ou blanc.

*Leather strap with standard clasp ; black, blue, brown, grey or white.*

Lederarmband mit Standard Schliesse ; schwarz, blau, braun, grau oder weiss.

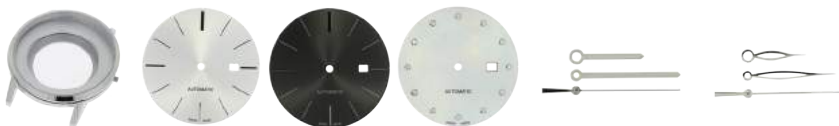
*Correa de cuero con cierre estándar ; negro, azul, castaño, gris o blanco.*

Cinturino di cuoio con chiusura standard ; nero, blu, bruno, grigio o bianco.

*Pulseira de couro com fecho standard ; preto, azul, castanho, cinzento ou branco.*

**i** **Voir les chapitres complets des BARRETTES et FERMOIRS, pages 2-xx et 10-xx.**  
**See the complete chapters of SPRING BARS and CLASPS, pages 2-xx and 10-xx.**  
**Siehe die vollständigen Kapiteln der FEDERSTEGE und SCHLIESSEN, Seiten 2-xx und 10-xx.**  
**Ver los capítulos completos de los PASADORES y CIERRES, páginas 2-xx y 10-xx.**  
**Vedere i capitoli completi delle ANSE e CHIUSURE, pagine 2-xx e 10-xx.**  
**Ver os capítulos completos dos PINOS e FECHOS, páginas 2-xx e 10-xx.**





**Calibre 2824 - SW 200**

| MSA          | Composants/Components  | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal    | Fond/Back                         | Bracelets/Straps    | Kg    |
|--------------|--|-------|----------------------|------------------|-----------------------------------|---------------------|-------|
| 66.087       | Boîte acier/Steel case   | 40.00 | 22                   | Saphir/Sapphire  | Verre minéral/<br>Mineral crystal | Voir/See page 14-10 | 0.045 |
| 66.082       | Cadran argenté/Silver dial                                     | 37    | -                    | -                | -                                 | -                   | 0.004 |
| 66.081       | Cadran noir/Black dial   | 37    | -                    | -                | -                                 | -                   | 0.004 |
| 66.083       | Cadran nacré avec pierres/<br>Mother-of-pearl dial with stones | 37    | -                    | -                | -                                 | -                   | 0.004 |
| 66.084       | Jeu d'aiguilles/<br>Set of hands                               | -     | Hrs.<br>L. 12 mm     | Min.<br>L. 17 mm | Sec.<br>L. 17 mm                  | -                   | -     |
| 66.085       | Jeu d'aiguilles feuille/<br>Set of hands leaf                  | -     | Hrs.<br>L. 10 mm     | Min.<br>L. 15 mm | Sec.<br>L. 15 mm                  | -                   | -     |
| ETAMP.2824-2 | Mouvement/Movement   | -     | -                    | -                | -                                 | -                   | -     |
| SWM.200-1    | Mouvement/Movement   | -     | -                    | -                | -                                 | -                   | -     |

Boîte de montre en acier avec fond transparent, cadrans (couleur argent, noir ou nacré), aiguilles et mouvements.

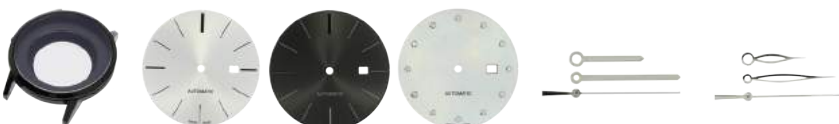
*Steel watch case with look through back, dials (silver colour, black or mother-of-pearl), hands and movements.*

Stahl Uhrgehäuse mit durchsichtigem Boden, Zifferblättern (Silberfarbiger, schwarz oder Perlmutter), Zeiger und Uhrwerke.

*Caja de reloj en acero con fondo transparente, esferas (color plata, negra o nacarada), agujas y movimientos.*

Cassa di orologio di acciaio con fondo trasparente, quadranti (colore argento, nero o madreperlaceo), lancette e movimenti.

*Caixa de relógio em aço com fundo transparente, mostradores (cor prata, preto ou mãe-de-pérola), ponteiros e movimentos.*



**Calibre 2824 - SW 200**

| MSA          | Composants/Components  | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal    | Fond/Back                         | Bracelets/Straps    | Kg    |
|--------------|--|-------|----------------------|------------------|-----------------------------------|---------------------|-------|
| 66.080       | Boîte acier/Steel case   | 40.00 | 22                   | Saphir/Sapphire  | Verre minéral/<br>Mineral crystal | Voir/See page 14-10 | 0.045 |
| 66.082       | Cadran argenté/Silver dial                                     | 37    | -                    | -                | -                                 | -                   | 0.004 |
| 66.081       | Cadran noir/Black dial   | 37    | -                    | -                | -                                 | -                   | 0.004 |
| 66.083       | Cadran nacré avec pierres/<br>Mother-of-pearl dial with stones | 37    | -                    | -                | -                                 | -                   | 0.004 |
| 66.084       | Jeu d'aiguilles/<br>Set of hands                               | -     | Hrs.<br>L. 12 mm     | Min.<br>L. 17 mm | Sec.<br>L. 17 mm                  | -                   | -     |
| 66.085       | Jeu d'aiguilles feuille/<br>Set of hands leaf                  | -     | Hrs.<br>L. 10 mm     | Min.<br>L. 15 mm | Sec.<br>L. 15 mm                  | -                   | -     |
| ETAMP.2824-2 | Mouvement/Movement   | -     | -                    | -                | -                                 | -                   | -     |
| SWM.200-1    | Mouvement/Movement   | -     | -                    | -                | -                                 | -                   | -     |

Boîte de montre en acier (PVD noir) avec fond transparent, cadrans (couleur argent, noir ou nacré), aiguilles et mouvements.

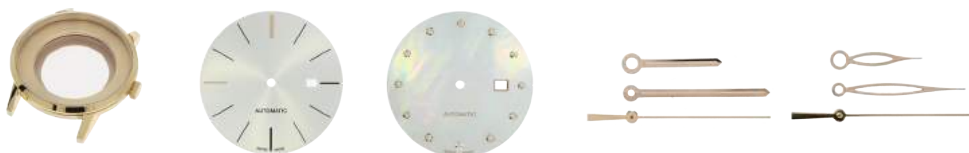
*Steel watch case (black PVD) with look through back, dials (silver colour, black or mother-of-pearl), hands and movements.*

Stahl Uhrgehäuse (schwarzem PVD) mit durchsichtigem Boden, Zifferblättern (Silberfarbiger, schwarz oder Perlmutter), Zeiger und Uhrwerke.

*Caja de reloj en acero (PVD negra) con fondo transparente, esferas (color plata, negra o nacarada), agujas y movimientos.*

Cassa di orologio di acciaio (PVD nero) con fondo trasparente, quadranti (colore argento, nero o madreperlaceo), lancette e movimenti.

*Caixa de relógio em aço (PVD preto) com fundo transparente, mostradores (cor prata, preto ou mãe-de-pérola), ponteiros e movimentos.*



**Calibre 2824 - SW 200**

| MSA          | Composants/Components  | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal    | Fond/Back                         | Bracelets/Straps    | Kg    |
|--------------|--|-------|----------------------|------------------|-----------------------------------|---------------------|-------|
| 66.090       | Boîte acier/Steel case   | 40.00 | 22                   | Saphir/Sapphire  | Verre minéral/<br>Mineral crystal | Voir/See page 14-10 | 0.045 |
| 66.091       | Cadran argenté/Silver dial   | 37    | -                    | -                | -                                 | -                   | 0.004 |
| 66.093       | Cadran nacré avec pierres 5N/<br>Mother-of-pearl dial with stones 5N | 37    | -                    | -                | -                                 | -                   | 0.004 |
| 66.094       | Jeu d'aiguilles 5N/<br>Set of hands 5N                               | -     | Hrs.<br>L. 12 mm     | Min.<br>L. 17 mm | Sec.<br>L. 17 mm                  | -                   | -     |
| 66.095       | Jeu d'aiguilles feuille 5N/<br>Set of hands leaf 5N                  | -     | Hrs.<br>L. 10 mm     | Min.<br>L. 15 mm | Sec.<br>L. 15 mm                  | -                   | -     |
| ETAMP.2824-2 | Mouvement/Movement   | -     | -                    | -                | -                                 | -                   | -     |
| SWM.200-1    | Mouvement/Movement   | -     | -                    | -                | -                                 | -                   | -     |

Boîte de montre en acier (5N) avec fond transparent, cadrans (couleur argent ou nacré), aiguilles et mouvements.

Steel watch case (5N) with look through back, dials (silver colour or mother-of-pearl), hands and movements.

Stahl Uhrgehäuse (5N) mit durchsichtigem Boden, Zifferblättern (Silber-Farbe oder Perlmutter), Zeiger und Uhrwerke.

Caja de reloj en acero (5N) con fondo transparente, esferas (color plata o nacarada), agujas y movimientos.

Cassa di orologio di acciaio (5N) con fondo trasparente, quadranti (colore argento o madreperlaceo), lancette e movimenti.

Caixa de relógio em aço (5N) com fundo transparente, mostradores (cor prata ou mãe-de-pérola), ponteiros e movimentos.



**Calibre Valjoux 7750 - SW 500**

| MSA        | Composants/Components                         | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal    | Fond/Back                         | Bracelets/Straps      | Kg    |
|------------|---|-------|----------------------|------------------|-----------------------------------|-----------------------|-------|
| 66.108     | Boîte acier/Steel case                        | 44.00 | 22                   | Saphir/Sapphire  | Verre minéral/<br>Mineral crystal | Voir/See page 14-10   | 0.095 |
| 66.109     | Cadran argenté/Silver dial                    | 34.50 | -                    | -                | -                                 | -                     | 0.005 |
| 66.107     | Cadran noir/Black dial                        | 34.50 | -                    | -                | -                                 | -                     | 0.005 |
| 66.101     | Cadran noir (12-6)/<br>Black dial (12-6)      | 34.50 | -                    | -                | -                                 | -                     | 0.005 |
| 66.102     | Jeu d'aiguilles noires/<br>Set of black hands | -     | Hrs.<br>L. 10 mm     | Min.<br>L. 17 mm | Sec.<br>L. 17 mm                  | Counters<br>L. 6-4 mm | -     |
| ETAMP.7750 | Mouvement/Movement                            | -     | -                    | -                | -                                 | -                     | -     |
| SWM.500    | Mouvement/Movement                            | -     | -                    | -                | -                                 | -                     | -     |

Boîte de montre en acier avec réhaut couleur argent et fond transparent, cadrans (couleur argent ou noir), aiguilles et mouvements.

Steel watch case with silver colour flange and look through back, dials (silver colour or black), hands and movements.

Stahl Uhrgehäuse mit Stahlfarbiger Höhenring und durchsichtigem Boden, Zifferblättern (Silber-Farbe oder schwarz), Zeiger und Uhrwerke.

Caja de reloj en acero con realce color plata y fondo transparente, esferas (color plata o negra), agujas y movimientos.

Cassa di orologio di acciaio con incassatura colore argento e fondo trasparente, quadranti (colore argento o nero), lancette e movimenti.

Caixa de relógio em aço com anel rotativo cor prata e fundo transparente, mostradores (cor prata ou preto), ponteiros e movimentos.



### Calibre Valjoux 7750 - SW 500

| MSA        | Composants/Components                         | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal    | Fond/Back                         | Bracelets/Straps      | Kg    |
|------------|---|-------|----------------------|------------------|-----------------------------------|-----------------------|-------|
| 66.100     | Boîte acier/Steel case                        | 44.00 | 22                   | Saphir/Sapphire  | Verre minéral/<br>Mineral crystal | Voir/See page 14-10   | 0.095 |
| 66.109     | Cadran argenté/Silver dial                    | 34.50 | -                    | -                | -                                 | -                     | 0.005 |
| 66.107     | Cadran noir/Black dial                        | 34.50 | -                    | -                | -                                 | -                     | 0.005 |
| 66.101     | Cadran noir (12-6)/<br>Black dial (12-6)      | 34.50 | -                    | -                | -                                 | -                     | 0.005 |
| 66.102     | Jeu d'aiguilles noires/<br>Set of black hands | -     | Hrs.<br>L. 10 mm     | Min.<br>L. 17 mm | Sec.<br>L. 17 mm                  | Counters<br>L. 6-4 mm | -     |
| ETAMP.7750 | Mouvement/Movement                            | -     | -                    | -                | -                                 | -                     | -     |
| SWM.500    | Mouvement/Movement                            | -     | -                    | -                | -                                 | -                     | -     |

Boîte de montre en acier avec réhaut noir et fond transparent, cadrans (couleur argent ou noir), aiguilles et mouvements.

Steel watch case with black flange and look through back, dials (silver colour or black), hands and movements.

Stahl Uhrgehäuse mit schwarzer Höhenring und durchsichtigem Boden, Zifferblättern (Silber-Farbe oder schwarz), Zeiger und Uhrwerke.

Caja de reloj en acero con realce negro y fondo transparente, esferas (color plata o negra), agujas y movimientos.

Cassa di orologio di acciaio con incassatura nera e fondo trasparente, quadranti (colore argento o nero), lancette e movimenti.

Caixa de relógio em aço com anel rotativo preto e fundo transparente, mostradores (cor prata ou preto), ponteiros e movimentos.



### Calibre Valjoux 7750 - SW 500

| MSA        | Composants/Components                         | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal    | Fond/Back                         | Bracelets/Straps      | Kg    |
|------------|---|-------|----------------------|------------------|-----------------------------------|-----------------------|-------|
| 66.106     | Boîte acier/Steel case                        | 44.00 | 22                   | Saphir/Sapphire  | Verre minéral/<br>Mineral crystal | Voir/See page 14-10   | 0.095 |
| 66.109     | Cadran argenté/Silver dial                    | 34.50 | -                    | -                | -                                 | -                     | 0.005 |
| 66.107     | Cadran noir/Black dial                        | 34.50 | -                    | -                | -                                 | -                     | 0.005 |
| 66.101     | Cadran noir (12-6)/<br>Black dial (12-6)      | 34.50 | -                    | -                | -                                 | -                     | 0.005 |
| 66.102     | Jeu d'aiguilles noires/<br>Set of black hands | -     | Hrs.<br>L. 10 mm     | Min.<br>L. 17 mm | Sec.<br>L. 17 mm                  | Counters<br>L. 6-4 mm | -     |
| ETAMP.7750 | Mouvement/Movement                            | -     | -                    | -                | -                                 | -                     | -     |
| SWM.500    | Mouvement/Movement                            | -     | -                    | -                | -                                 | -                     | -     |

Boîte de montre en acier (PVD noir) avec réhaut noir et fond transparent, cadrans (couleur argent ou noir), aiguilles et mouvements.

Steel watch case (black PVD) with black flange and look through back, dials (silver colour or black), hands and movements.

Stahl Uhrgehäuse (schwarzem PVD) mit schwarzer Höhenring und durchsichtigem Boden, Zifferblättern (Silber-Farbe oder schwarz), Zeiger und Uhrwerke.

Caja de reloj en acero (PVD negro) con realce negro y fondo transparente, esferas (color plata o negra), agujas y movimientos.

Cassa di orologio di acciaio (PVD nero) con incassatura nera e fondo trasparente, quadranti (colore argento o nero), lancette e movimenti.

Caixa de relógio em aço (PVD preto) com anel rotativo preto e fundo transparente, mostradores (cor prata ou preto), ponteiros e movimentos.



### Calibre Valjoux 7751

| MSA        | Composants/Components                         | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal    | Fond/Back                         | Bracelets/Straps        | Kg    |
|------------|---|-------|----------------------|------------------|-----------------------------------|-------------------------|-------|
| 66.114     | Boîte acier/Steel case                        | 44.00 | 22                   | Saphir/Sapphire  | Verre minéral/<br>Mineral crystal | Voir/See page 14-10     | 0.095 |
| 66.113     | Cadran argenté/Silver dial                    | 34.50 | -                    | -                | -                                 | -                       | 0.005 |
| 66.111     | Cadran noir/Black dial                        | 34.50 | -                    | -                | -                                 | -                       | 0.005 |
| 66.112     | Jeu d'aiguilles noires/<br>Set of black hands | -     | Hrs.<br>L. 10 mm     | Min.<br>L. 17 mm | Sec.+Red<br>L. 17 mm              | Counters<br>L. 6-4-3 mm | -     |
| ETAMP.7751 | Mouvement/Movement                            | -     | -                    | -                | -                                 | -                       | -     |

Boîte de montre en acier avec réhaut couleur argent et fond transparent, cadrans (couleur argent ou noir), aiguilles et mouvements.

Steel watch case with silver colour flange and look through back, dials (silver colour or black), hands and movements.

Stahl Uhrgehäuse mit Stahlfarbiger Höhenring und durchsichtigem Boden, Zifferblättern (Silber-Farbe oder schwarz), Zeiger und Uhrwerke.

Caja de reloj en acero con realce color plata y fondo transparente, esferas (color plata o negra), agujas y movimientos.

Cassa di orologio di acciaio con incassatura colore argento e fondo trasparente, quadranti (colore argento o nero), lancette e movimenti.

Caixa de relógio em aço com anel rotativo cor prata e fundo transparente, mostradores (cor prata ou preto), ponteiros e movimentos.



### Calibre Valjoux 7751

| MSA        | Composants/Components                         | Ø mm  | Entre-cornes/Lugs mm | Verre/Crystal    | Fond/Back                         | Bracelets/Straps        | Kg    |
|------------|---|-------|----------------------|------------------|-----------------------------------|-------------------------|-------|
| 66.110     | Boîte acier/Steel case                        | 44.00 | 22                   | Saphir/Sapphire  | Verre minéral/<br>Mineral crystal | Voir/See page 14-10     | 0.095 |
| 66.113     | Cadran argenté/Silver dial                    | 34.50 | -                    | -                | -                                 | -                       | 0.005 |
| 66.111     | Cadran noir/Black dial                        | 34.50 | -                    | -                | -                                 | -                       | 0.005 |
| 66.112     | Jeu d'aiguilles noires/<br>Set of black hands | -     | Hrs.<br>L. 10 mm     | Min.<br>L. 17 mm | Sec.+Red<br>L. 17 mm              | Counters<br>L. 6-4-3 mm | -     |
| ETAMP.7751 | Mouvement/Movement                            | -     | -                    | -                | -                                 | -                       | -     |

Boîte de montre en acier avec réhaut noir et fond transparent, cadrans (couleur argent ou noir), aiguilles et mouvements.

Steel watch case with black flange and look through back, dials (silver colour or black), hands and movements.

Stahl Uhrgehäuse mit schwarzer Höhenring und durchsichtigem Boden, Zifferblättern (Silber-Farbe oder schwarz), Zeiger und Uhrwerke.

Caja de reloj en acero con realce negro y fondo transparente, esferas (color plata o negra), agujas y movimientos.

Cassa di orologio di acciaio con incassatura nera e fondo trasparente, quadranti (colore argento o nero), lancette e movimenti.

Caixa de relógio em aço com anel rotativo preto e fundo transparente, mostradores (cor prata ou preto), ponteiros e movimentos.



| MSA    | Largeur/<br>Width mm | Couleur/Colour | Couture/Sewing | Kg    |
|--------|----------------------|----------------|----------------|-------|
| 66.086 | 22                   | Noir/Black     | Blanche/White  | 0.015 |
| 66.096 | 22                   | Brun/Brown     | Brun/Brown     | 0.007 |
| 66.103 | 22                   | Noir/Black     | Noir/Black     | 0.008 |
| 66.104 | 20                   | Gris/Grey      | Blanche/White  | 0.012 |

Bracelet en cuir avec fermoir standard ; noir, brun ou gris.

*Leather strap with standard clasp ; black, brown or grey.*

Lederarmband mit Standard Schliesse ; schwarz, braun oder grau.

*Correa de cuero con cierre estándar ; negro, castaño o gris.*

Cinturino di cuoio con chiusura standard ; nero, bruno o grigio.

*Pulseira de couro com fecho standard ; preto, castanho ou cinzento.*



| MSA    | Largeur/Width mm | Kg    |
|--------|------------------|-------|
| 66.105 | 22               | 0.121 |

Bracelet en métal.

*Metal bracelet.*

Armband aus Metall.

*Pulseira en metal.*

Braccialeto in metallo.

*Bracelete de metal.*



PENDULERIE  
PENDULERÍA

CLOCK PARTS  
PENDOLERIA

PENDELUHR  
PÊNDULARIA

Clés pour pendules  
*Clock keys*  
Schlüssel für Pendeluhr  
*Llaves para péndulos*  
Chiavi per pendoli  
*Chaves para pêndulos*



2

Suspensions pour pendules  
*Pendulum suspensions*  
Pendelfedern  
*Suspensiones para péndulos*  
Sospensioni per pendoli  
*Suspensões para pêndulos*



6

Clés pour montres de poche  
*Pocket watches keys*  
Schlüssel für Taschenuhren  
*Llaves para relojes de bolsillo*  
Chiavi per orologi da tasca  
*Chaves para relógios de bolso*



3

Suspensions pour pendules 400 jours  
*Suspensions for 400-day-clocks*  
Pendelfedern für Jahruhrpendel  
*Suspensiones para péndulos 400 días*  
Sospensioni per pendoli 400 giorni  
*Suspensões para pêndulos 400 dias*



11

Goupilles coniques  
*Conical pins*  
Konische Stifte  
*Grupillas cónicas*  
Copiglie coniche  
*Cavilhas cônicas*



4

Chiffres pour pendules  
*Pendulum numerals*  
Pendelziffern  
*Números para péndulos*  
Numeri per pendoli  
*Números para pêndulos*



13

Gouttes et rondelles  
*Hand-collets and washers*  
Scheibchen  
*Gotas y arandelas*  
Gocce e rondelle  
*Gotas e rodela*



5



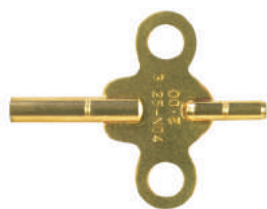


Clé pour pendules.  
*Clock key.*  
 Schlüssel für Pendeluhren.  
*Llave para péndulos.*  
 Chiave per pendoli.  
*Chave para pêndulos.*

| PERF   | N°/No.      | mm   | Kg    |
|--------|-------------|------|-------|
| 44.000 | <b>0000</b> | 1.50 | 0.008 |
| 44.001 | <b>000</b>  | 1.75 | 0.008 |
| 44.002 | <b>00</b>   | 2.00 | 0.008 |
| 44.003 | <b>0</b>    | 2.25 | 0.008 |
| 44.004 | <b>1</b>    | 2.50 | 0.008 |
| 44.005 | <b>2</b>    | 2.75 | 0.008 |
| 44.006 | <b>3</b>    | 3.00 | 0.008 |

| PERF   | N°/No.    | mm   | Kg    |
|--------|-----------|------|-------|
| 44.007 | <b>4</b>  | 3.25 | 0.015 |
| 44.008 | <b>5</b>  | 3.50 | 0.015 |
| 44.009 | <b>6</b>  | 3.75 | 0.016 |
| 44.010 | <b>7</b>  | 4.00 | 0.020 |
| 44.011 | <b>8</b>  | 4.25 | 0.020 |
| 44.012 | <b>9</b>  | 4.50 | 0.020 |
| 44.013 | <b>10</b> | 4.75 | 0.024 |

| PERF   | N°/No.    | mm   | Kg    |
|--------|-----------|------|-------|
| 44.014 | <b>11</b> | 5.00 | 0.024 |
| 44.015 | <b>12</b> | 5.25 | 0.025 |
| 44.016 | <b>13</b> | 5.50 | 0.031 |
| 44.017 | <b>14</b> | 5.75 | 0.031 |
| 44.018 | <b>15</b> | 6.00 | 0.031 |



Clé double pour pendules.  
*Clock double key.*  
 Doppelschlüssel für Pendeluhren.  
*Llave doble para péndulos.*  
 Chiave doppia per pendoli.  
*Chave dupla para pêndulos.*

| PERF   | mm               | Kg    |
|--------|------------------|-------|
| 44.020 | <b>1.75-2.00</b> | 0.012 |
| 44.021 | <b>1.75-2.25</b> | 0.013 |
| 44.022 | <b>1.75-2.50</b> | 0.013 |
| 44.023 | <b>2.50-2.00</b> | 0.013 |
| 44.024 | <b>2.75-2.00</b> | 0.013 |
| 44.025 | <b>3.00-1.95</b> | 0.020 |

| PERF   | mm               | Kg    |
|--------|------------------|-------|
| 44.026 | <b>3.25-2.00</b> | 0.016 |
| 44.027 | <b>3.50-2.00</b> | 0.016 |
| 44.028 | <b>3.75-2.00</b> | 0.015 |
| 44.029 | <b>4.00-2.00</b> | 0.015 |
| 44.030 | <b>4.25-2.00</b> | 0.017 |
| 44.031 | <b>4.50-2.00</b> | 0.018 |

| PERF   | mm               | Kg    |
|--------|------------------|-------|
| 44.032 | <b>4.75-2.00</b> | 0.019 |
| 44.033 | <b>5.00-2.00</b> | 0.019 |
| 44.034 | <b>5.25-2.00</b> | 0.019 |
| 44.035 | <b>5.50-2.00</b> | 0.022 |
| 44.036 | <b>5.75-2.00</b> | 0.022 |



Clé à 5 branches pour pendules.  
*Five arm clock key.*  
 Schlüssel mit 5 Arme für Pendeluhren.  
*Llave a 5 brazos para péndulos.*  
 Chiave a 5 braccia per pendoli.  
*Chave de 5 braços para pêndulos.*

| PERF   | N°/No.             | mm                       | Kg    |
|--------|--------------------|--------------------------|-------|
| 44.050 | <b>2-4-6-8-10</b>  | 2.75-3.25-3.75-4.25-4.75 | 0.048 |
| 44.051 | <b>3-5-7-9-11</b>  | 3.00-3.50-4.00-4.50-5.00 | 0.052 |
| 44.052 | <b>4-6-8-10-12</b> | 3.25-3.75-4.25-4.75-5.25 | 0.052 |



Clé pour pendules ; laiton.

*Clock key ; brass.*

Schlüssel für Pendeluhren ; Messing.

*Llave para péndulos ; latón.*

Chiave per pendoli ; ottone.

*Chave para pêndulos ; latão.*

| PERF   | N°/No.   | mm   | Kg    |
|--------|----------|------|-------|
| 44.090 | <b>5</b> | 3.50 | 0.006 |
| 44.091 | <b>6</b> | 3.75 | 0.006 |
| 44.092 | <b>7</b> | 4.00 | 0.006 |
| 44.093 | <b>8</b> | 4.25 | 0.006 |
| 44.094 | <b>9</b> | 4.50 | 0.006 |

| PERF   | N°/No.    | mm   | Kg    |
|--------|-----------|------|-------|
| 44.095 | <b>10</b> | 4.75 | 0.006 |
| 44.096 | <b>11</b> | 5.00 | 0.006 |
| 44.097 | <b>12</b> | 5.25 | 0.006 |
| 44.098 | <b>13</b> | 5.50 | 0.006 |
| 44.099 | <b>14</b> | 5.75 | 0.006 |

| PERF   | N°/No.    | mm   | Kg           |
|--------|-----------|------|--------------|
| 44.100 | <b>15</b> | 6.00 | <b>0.006</b> |
| 44.101 | <b>16</b> | 6.25 | <b>0.006</b> |
| 44.102 | <b>17</b> | 6.50 | <b>0.006</b> |
| 44.103 | <b>18</b> | 6.75 | <b>0.006</b> |
| 44.104 | <b>19</b> | 7.00 | <b>0.006</b> |



Clé à 5 branches pour montres de poche ; laiton.

*Five arm pocket watches key ; brass.*

Schlüssel mit 5 Arme für Taschenuhren ; Messing.

*Llave a 5 brazos para relojes de bolsillo ; latón.*

Chiave a 5 braccia per orologi da tasca ; ottone.

*Chave de 5 braços para relógios de bolso ; latão.*

| PERF   | N°/No.            | mm                       | Kg    |
|--------|-------------------|--------------------------|-------|
| 44.250 | <b>3-5-7-9-11</b> | 1.65-1.50-1.30-1.15-1.00 | 0.012 |
| 44.251 | <b>2-4-6-8-10</b> | 1.75-1.60-1.40-1.20-1.05 | 0.012 |



Clé pour montres de poche, branche carrée ; acier trempé.

*Pocket watches key, square arm ; tempered steel.*

Schlüssel für Taschenuhren, viereckiger Arm ; gehärtet Edelstahl.

*Llave para relojes de bolsillo, brazo cuadrado ; acero templado.*

Chiave per orologi da tasca, braccio quadrato ; acciaio temperato.

*Chave para relógios de bolso, braço quadrado ; aço temperado.*

| PERF   | N°/No.    | mm   | Kg    |
|--------|-----------|------|-------|
| 44.200 | <b>00</b> | 2.00 | 0.002 |
| 44.201 | <b>0</b>  | 1.90 | 0.002 |
| 44.202 | <b>1</b>  | 1.80 | 0.002 |
| 44.203 | <b>2</b>  | 1.75 | 0.002 |
| 44.204 | <b>3</b>  | 1.65 | 0.002 |

| PERF   | N°/No.   | mm   | Kg    |
|--------|----------|------|-------|
| 44.205 | <b>4</b> | 1.60 | 0.002 |
| 44.206 | <b>5</b> | 1.50 | 0.002 |
| 44.207 | <b>6</b> | 1.40 | 0.002 |
| 44.208 | <b>7</b> | 1.30 | 0.002 |
| 44.209 | <b>8</b> | 1.20 | 0.002 |

| PERF   | N°/No.    | mm   | Kg    |
|--------|-----------|------|-------|
| 44.210 | <b>9</b>  | 1.15 | 0.002 |
| 44.211 | <b>10</b> | 1.05 | 0.002 |
| 44.212 | <b>11</b> | 1.00 | 0.002 |
| 44.213 | <b>12</b> | 0.95 | 0.002 |



Assortiment de goupilles coniques; laiton.  
 Assortment of conical pins; brass.  
 Sortiment von konische Stifte; Messing.  
 Surtido de grupillas cónicas; latón.  
 Assortimento di copiglie coniche; ottone.  
 Sortido de cavilhas cónicas; latão.

| PERF   | Qt.  | Kg    |
|--------|------|-------|
| 48.000 | 100x | 0.027 |



Assortiment de goupilles coniques; acier.  
 Assortment of conical pins; steel.  
 Sortiment von konische Stifte; Stahl.  
 Surtido de grupillas cónicas; acero.  
 Assortimento di copiglie coniche; acciaio.  
 Sortido de cavilhas cónicas; aço.

| PERF   | Qt.  | Kg    |
|--------|------|-------|
| 48.001 | 100x | 0.026 |



Assortiment de gouttes; laiton.  
 Assortment of hand-collets; brass.  
 Sortiment von Scheibchen; Messing.  
 Surtido de gotas; latón.  
 Assortimento di gocce; ottone.  
 Sortido de gotas; latão.

| PERF   | Qt.  | Kg    |
|--------|------|-------|
| 48.100 | 144x | 0.031 |



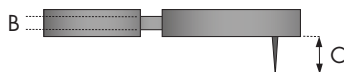
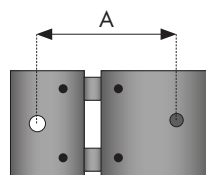
Assortiment de gouttes; acier.  
 Assortment of hand-collets; steel.  
 Sortiment von Scheibchen; Stahl.  
 Surtido de gotas; acero.  
 Assortimento di gocce; acciaio.  
 Sortido de gotas; aço.

| PERF   | Qt.  | Kg    |
|--------|------|-------|
| 48.101 | 144x | 0.031 |



Assortiment de rondelles; acier.  
 Assortment of washers; steel.  
 Sortiment von Scheiben; Stahl.  
 Surtido de arandelas; acero.  
 Assortimento di rondelle; acciaio.  
 Sortido de rodelas; aço.

| PERF   | Qt.  | Kg    |
|--------|------|-------|
| 48.200 | 144x | 0.035 |

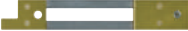


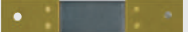




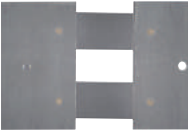

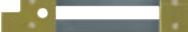



Suspension métallique pour pendule.  
*Metallic pendulum suspension.*  
 Metallpendelfeder.  
*Suspensión metálica para péndulo.*  
 Sospensione metallica per pendolo.  
*Suspensão metálica para pêndulo.*

| MSA      | 1/1 | N°/No. | A x B x C mm        | Kg    |
|----------|-----|--------|---------------------|-------|
| 55.018   |     | 18     | - x 0.10 x -        | 0.001 |
| 55.054-S |     | 54 S   | 9.00 x 0.04 x 5.50  | 0.003 |
| 55.001   |     | 1      | 10.50 x 0.04 x 6.80 | 0.001 |
| 55.035   |     | 35     | 10.50 x 0.04 x 6.80 | 0.001 |
| 55.009   |     | 9      | 10.50 x 0.05 x 6.80 | 0.001 |
| 55.019   |     | 19     | 10.50 x 0.06 x 6.80 | 0.001 |
| 55.002   |     | 2      | 11.50 x 0.04 x 6.80 | 0.001 |
| 55.024   |     | 24     | 11.50 x 0.05 x -    | 0.001 |
| 55.037   |     | 37     | 12.00 x 0.04 x 6.80 | 0.001 |
| 55.300   |     | 300    | 12.50 x 0.04 x 6.80 | 0.001 |
| 55.016   |     | 16     | 12.50 x 0.05 x -    | 0.001 |
| 55.023   |     | 23     | 12.50 x 0.05 x -    | 0.001 |
| 55.003   |     | 3      | 12.50 x 0.05 x 6.80 | 0.001 |
| 55.010   |     | 10     | 12.50 x 0.05 x 6.80 | 0.001 |

| MSA    | 1/1   | N°/No. | A x B x C mm        | Kg    |
|--------|---|--------|---------------------|-------|
| 55.036 |    | 36     | 12.50 x 0.05 x 6.80 | 0.001 |
| 55.038 |    | 38     | 12.50 x 0.05 x 6.80 | 0.001 |
| 55.307 |    | 307    | 12.50 x 0.05 x 6.80 | 0.001 |
| 55.017 |    | 17     | 13.00 x 0.04 x 6.80 | 0.001 |
| 55.202 |    | 202    | 13.00 x 0.04 x 6.80 | 0.001 |
| 55.020 |    | 20     | 13.00 x 0.06 x 6.80 | 0.001 |
| 55.008 |    | 8      | 13.50 x 0.04 x 6.80 | 0.001 |
| 55.004 |    | 4      | 13.50 x 0.05 x 6.80 | 0.001 |
| 55.022 |   | 22     | 14.00 x 0.05 x -    | 0.001 |
| 55.005 |  | 5      | 14.50 x 0.05 x 6.80 | 0.001 |
| 55.015 |  | 15     | 14.50 x 0.05 x 6.80 | 0.001 |
| 55.130 |  | 130    | 14.50 x 0.05 x 6.80 | 0.008 |
| 55.014 |  | 14     | 15.00 x 0.05 x 6.80 | 0.001 |
| 55.201 |  | 201    | 15.00 x 0.05 x 6.80 | 0.001 |
| 55.026 |  | 26     | 15.50 x 0.05 x -    | 0.001 |
| 55.006 |  | 6      | 15.50 x 0.06 x 6.80 | 0.001 |
| 55.048 |  | 48     | 15.50 x 0.06 x 7.80 | 0.003 |

| MSA    | 1/1   | N°/No. | A x B x C mm        | Kg    |
|--------|---|--------|---------------------|-------|
| 55.303 |    | 303    | 15.50 x 0.07 x 7.80 | 0.001 |
| 55.304 |    | 304    | 15.50 x 0.10 x 7.80 | 0.001 |
| 55.128 |    | 128    | 16.00 x 0.05 x 6.80 | 0.001 |
| 55.021 |    | 21     | 16.00 x 0.06 x 6.80 | 0.001 |
| 55.311 |    | 311    | 16.50 x 0.05 x 6.80 | 0.008 |
| 55.007 |    | 7      | 16.50 x 0.06 x 6.80 | 0.001 |
| 55.012 |    | 12     | 17.00 x 0.05 x 6.80 | 0.001 |
| 55.039 |    | 39     | 17.00 x 0.05 x 6.80 | 0.001 |
| 55.025 |   | 25     | 17.00 x 0.05 x -    | 0.001 |
| 55.027 |  | 27     | 17.50 x 0.04 x 6.80 | 0.001 |
| 55.301 |  | 301    | 17.50 x 0.06 x 8.00 | 0.001 |
| 55.132 |  | 132    | 18.00 x 0.05 x 6.80 | 0.001 |
| 55.045 |  | 45     | 18.00 x 0.06 x 7.80 | 0.002 |
| 55.047 |  | 47     | 18.00 x 0.06 x 7.80 | 0.002 |
| 55.308 |  | 308    | 18.00 x 0.10 x -    | 0.001 |
| 55.028 |  | 28     | 18.50 x 0.05 x 6.80 | 0.001 |



| MSA    | 1/1   | N°/No. | A x B x C mm        | Kg    |
|--------|---|--------|---------------------|-------|
| 55.131 |    | 131    | 18.50 x 0.06 x 6.80 | 0.008 |
| 55.013 |    | 13     | 19.00 x 0.05 x 6.80 | 0.001 |
| 55.102 |    | 102    | 19.00 x 0.50        | 0.001 |
| 55.029 |    | 29     | 19.50 x 0.05 x 6.80 | 0.001 |
| 55.046 |    | 46     | 19.50 x 0.06 x 7.80 | 0.002 |
| 55.049 |    | 49     | 19.50 x 0.06 x 7.80 | 0.001 |
| 55.312 |    | 312    | 20.00 x 0.06 x 6.80 | 0.008 |
| 55.043 |   | 43     | 20.00 x 0.07 x 7.80 | 0.001 |
| 55.041 |  | 41     | 20.50 x 0.07 x 7.80 | 0.003 |
| 55.042 |  | 42     | 20.50 x 0.07 x 7.80 | 0.002 |
| 55.313 |  | 313    | 23.00 x 0.07 x 6.80 | 0.008 |
| 55.040 |  | 40     | 26.00 x 0.07 x 6.80 | 0.003 |

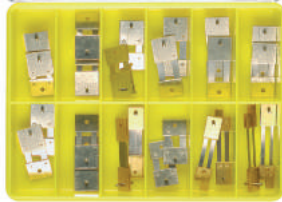


Suspension en plastique pour pendule.  
 Plastic pendulum suspension.

Kunststoffpendelfeder.  
 Suspensión de plástico para péndulo.

Sospensione in plastica per pendolo.  
 Suspensão de plástico para pêndulo.

| MSA    | 1/1   | N°/No. | A x B x C mm     | Kg    |
|--------|---|--------|------------------|-------|
| 55.295 |  | 295    | 19.00 x 0.10 x - | 0.001 |
| 55.296 |  | 296    | 32.00 x 0.10 x - | 0.001 |



Assortiment de suspensions en métal pour pendule.

Assortment of pendulum metal suspensions.

Sortiment von metallische Pendelfedern.

Surtido de suspensiones en metal para péndulo.

Assortimento di sospensioni di metallo per pendolo.

Sortido de suspensões em metal para pêndulo.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**2x MSA55.001 /.002 /.003 /.006 /.007 /.008 /.010 /.017 /.027**  
**/.035 /.311 /.312**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.013 | 24x | 0.057 |



Assortiment de suspensions en métal pour pendule.

Assortment of pendulum metal suspensions.

Sortiment von metallische Pendelfedern.

Surtido de suspensiones en metal para péndulo.

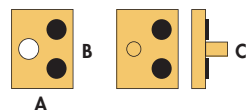
Assortimento di sospensioni di metallo per pendolo.

Sortido de suspensões em metal para pêndulo.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :**  
**12 modèles - models - Modelle - modelos - modelli - modelos**  
**3x MSA55.001 /.002 /.003 /.006 /.007 /.008 /.010 /.017 /.027**  
**/.035 /.311 /.312**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.014 | 36x | 0.067 |

| MSA    | N°/No. | A x B mm    | C mm          | Description                 | Kg    |
|--------|--------|-------------|---------------|-----------------------------|-------|
| 55.901 | 1      | 7.40 x 8.10 | -             | Dessus/Upper part Gr. 1     | 0.001 |
| 55.902 | 2      | 7.40 x 8.10 | Ø 1.00 x 7.85 | Dessous/Bottom part Gr. 1   | 0.001 |
| 55.903 | 3      | 6.00 x 8.00 | -             | Dessus/Upper part Gr. 2     | 0.001 |
| 55.904 | 4      | 6.00 x 8.00 | Ø 1.00 x 7.85 | Dessous/Bottom part Gr. 2   | 0.001 |
| 55.905 | 5      | 5.15 x 5.90 | -             | Dessus/Upper part Gr. 3     | 0.001 |
| 55.906 | 6      | 5.15 x 5.90 | Ø 1.00 x 6.00 | Dessous/Bottom part Gr. 3   | 0.001 |
| 55.907 | 7      | -           | -             | Jeu/Set MSA55.901+MSA55.902 | 0.002 |
| 55.908 | 8      | -           | -             | Jeu/Set MSA55.903+MSA55.904 | 0.002 |
| 55.909 | 9      | -           | -             | Jeu/Set MSA55.905+MSA55.906 | 0.002 |



Plaque supérieure et inférieure pour pendule 400 jours.

*Upper and bottom fitting for 400-day-clock.*

Ober- und Unterbeschlag für Jahresuhrpendel.

*Placa superior e inferior para pêndulo 400 días.*

Lastra superiore e inferiore per pendolo 400 giorni.

*Placa superior e inferior para pêndulo 400 dias.*



Assortiment de plaques supérieures et inférieures pour pendule 400 jours.

*Assortment of upper and bottom fittings for 400-day-clock.*

Sortiment von Ober- und Unterbeschläge für Jahresuhrpendel.

*Surtido de placas superiores e inferiores para pêndulo 400 días.*

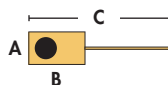
Assortimento di lastre superiori e inferiori per pendolo 400 giorni.

*Sortido de placas superiores e inferiores para pêndulo 400 dias.*

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 55.921 | 6x  | 0.020 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 6 modèles - models - Modelle - modelos - modelli - modelos  
 1x MSA55.901 /.902 /.903 /.904 /.905 /.906**

| MSA    | N°/No. | A x B x C mm        | Kg    |
|--------|--------|---------------------|-------|
| 55.910 | EH     | 3.00 x 5.70 x 12.20 | 0.001 |
| 55.911 | EK     | 3.00 x 5.70 x 8.80  | 0.001 |
| 55.912 | EN     | 3.00 x 5.70 x 14.00 | 0.001 |
| 55.913 | G1     | 4.00 x 5.70 x 16.50 | 0.001 |
| 55.914 | G2     | 4.00 x 5.90 x 14.00 | 0.001 |
| 55.915 | MK     | 3.65 x 5.70 x 13.60 | 0.001 |



Entraîneur pour pendule 400 jours.

*Actuator for 400-day-clock.*

Mitnehmer für Jahresuhrpendel.

*Arrastre para pêndulo 400 días.*

Conduttore per pendolo 400 giorni.

*Arrastador para pêndulo 400 dias.*



Assortiment d'entraîneurs pour pendule 400 jours.

*Assortment of actuators for 400-day-clock.*

Sortiment von Mitnehmern für Jahresuhrpendel.

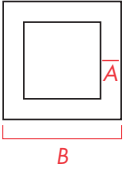
*Surtido de arrastres para pêndulo 400 días.*

Assortimento di conduttori per pendolo 400 giorni.

*Sortido de arrastadores para pêndulo 400 dias.*

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 55.920 | 6x  | 0.020 |

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 6 modèles - models - Modelle - modelos - modelli - modelos  
 1x MSA55.910 /.911 /.912 /.913 /.914 /.915**



| MSA    | N°/No. | A x B x C mm       | Kg    |
|--------|--------|--------------------|-------|
| 55.930 | 04     | 0.050 x 0.60 x 160 | 0.001 |
| 55.931 | 06     | 0.060 x 0.60 x 160 | 0.001 |
| 55.932 | 07     | 0.066 x 0.60 x 160 | 0.001 |
| 55.933 | 08     | 0.070 x 0.60 x 160 | 0.001 |
| 55.934 | 09     | 0.075 x 0.60 x 160 | 0.001 |
| 55.935 | 10     | 0.080 x 0.60 x 160 | 0.001 |
| 55.936 | 11     | 0.085 x 0.60 x 160 | 0.001 |
| 55.937 | 12     | 0.090 x 0.60 x 160 | 0.001 |
| 55.938 | 13     | 0.095 x 0.60 x 160 | 0.001 |
| 55.939 | 14     | 0.100 x 0.60 x 160 | 0.001 |

*A : Epaisseur - Thickness - Dicke - Grosor - Spessore - Espessura.  
 B : Largeur - Width - Breite - Anchura - Larghezza - Largura.  
 C : Longueur - Length - Länge - Longitud - Lunghezza - Comprimento.*

Fil de suspension pour pendule 400 jours, forme carrée.  
 Suspension spring wire for 400-day-clock, square shape.  
 Drehpendelfederndraht für Jahresuhrpendel, viereckige Form.  
 Hilo de suspensión para péndulo 400 días, forma cuadrada.  
 Filo di sospensione per pendolo 400 giorni, forma quadrata.  
 Fio de suspensão para pêndulo 400 dias, forma quadrada.



Assortiment de fils de suspension pour pendule 400 jours.  
 Assortment of suspension spring wires for 400-day-clock.  
 Sortiment von Drehpendelfederndrähte für Jahresuhrpendel.  
 Surtido de hilos de suspensión para péndulo 400 días.  
 Assortimento di fili di sospensione per pendolo 400 giorni.  
 Sortido de fios de suspensão para pêndulo 400 dias.

**Contenu - Contents - Inhalt - Contenido - Contenuto - Conteúdo :  
 10 modèles - models - Modelle - modelos - modelli - modelos  
 1x MSA55.930 /.931 /.932 /.933 /.934 /.935 /.936 /.937 /.938  
 /.939**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 55.940 | 10x | 0.015 |



| MSA    | Hauteur/Height | Kg    |
|--------|----------------|-------|
| 55.601 | 10 mm / 3/8"   | 0.002 |
| 55.602 | 13 mm / 1/2"   | 0.004 |
| 55.603 | 16 mm / 5/8"   | 0.006 |
| 55.604 | 21 mm / 13/16" | 0.006 |
| 55.605 | 25 mm / 1"     | 0.009 |

Chiffres autocollants pour pendule ; 1 à 12.

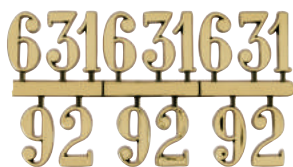
*Self-adhesive pendulum numerals ; 1 to 12.*

Aufklebende Pendelziffern ; 1 bis 12.

*Números autoadhesivos para péndulo ; 1 hasta 12.*

Numeri autoadesivi per pendolo ; 1 a 12.

*Números autocolantes para pêndulo ; 1 a 12.*



| MSA    | Hauteur/Height | Kg    |
|--------|----------------|-------|
| 55.611 | 10 mm / 3/8"   | 0.003 |
| 55.612 | 13 mm / 1/2"   | 0.003 |
| 55.613 | 16 mm / 5/8"   | 0.005 |
| 55.614 | 21 mm / 13/16" | 0.007 |
| 55.615 | 25 mm / 1"     | 0.008 |

Chiffres autocollants pour pendule ; 3, 6, 9 et 12.

*Self-adhesive pendulum numerals ; 3, 6, 9 and 12.*

Aufklebende Pendelziffern ; 3, 6, 9 und 12.

*Números autoadhesivos para péndulo ; 3, 6, 9 y 12.*

Numeri autoadesivi per pendolo ; 3, 6, 9 e 12.

*Números autocolantes para pêndulo ; 3, 6, 9 e 12.*



| MSA    | Hauteur/Height | Kg    |
|--------|----------------|-------|
| 55.621 | 16 mm / 5/8"   | 0.003 |
| 55.622 | 19 mm / 3/4"   | 0.004 |
| 55.623 | 25 mm / 1"     | 0.005 |

Chiffres autocollants pour pendule ; 3, 6, 9, 12 et index.

*Self-adhesive pendulum numerals ; 3, 6, 9, 12 and indexes.*

Aufklebende Pendelziffern ; 3, 6, 9, 12 und Indexzeichen.

*Números autoadhesivos para péndulo ; 3, 6, 9, 12 y índices.*

Numeri autoadesivi per pendolo ; 3, 6, 9, 12 e indici.

*Números autocolantes para pêndulo ; 3, 6, 9, 12 e índices.*



| MSA    | Hauteur/Height | Kg    |
|--------|----------------|-------|
| 55.631 | 16 mm / 5/8"   | 0.003 |
| 55.632 | 19 mm / 3/4"   | 0.004 |
| 55.633 | 25 mm / 1"     | 0.007 |

Chiffres autocollants pour pendule ; 3, 6, 9, 12 et index.

*Self-adhesive pendulum numerals ; 3, 6, 9, 12 and indexes.*

Aufklebende Pendelziffern ; 3, 6, 9, 12 und Indexzeichen.

*Números autoadhesivos para péndulo ; 3, 6, 9, 12 y índices.*

Numeri autoadesivi per pendolo ; 3, 6, 9, 12 e indici.

*Números autocolantes para pêndulo ; 3, 6, 9, 12 e índices.*



| MSA    | Hauteur/Height | Kg    |
|--------|----------------|-------|
| 55.651 | 10 mm / 3/8"   | 0.002 |
| 55.652 | 13 mm / 1/2"   | 0.004 |
| 55.653 | 16 mm / 5/8"   | 0.005 |
| 55.654 | 21 mm / 13/16" | 0.008 |
| 55.655 | 25 mm / 1"     | 0.010 |

Chiffres autocollants pour pendule ; I à XII.

*Self-adhesive pendulum numerals ; I to XII.*

Aufklebende Pendelziffern ; I bis XII.

*Números autoadhesivos para péndulo ; I hasta XII.*

Numeri autoadesivi per pendolo ; I a XII.

*Números autocolantes para pêndulo ; I a XII.*



| MSA    | Hauteur/Height | Kg    |
|--------|----------------|-------|
| 55.661 | 10 mm / 3/8"   | 0.002 |
| 55.662 | 13 mm / 1/2"   | 0.004 |
| 55.663 | 16 mm / 5/8"   | 0.004 |
| 55.664 | 21 mm / 13/16" | 0.007 |
| 55.665 | 25 mm / 1"     | 0.014 |

Chiffres autocollants pour pendule ; III, VI, IX et XII.

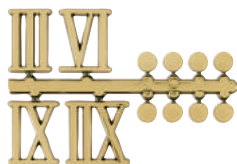
*Self-adhesive pendulum numerals ; III, VI, IX and XII.*

Aufklebende Pendelziffern ; III, VI, IX und XII.

*Números autoadhesivos para péndulo ; III, VI, IX y XII.*

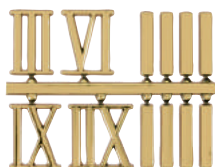
Numeri autoadesivi per pendolo ; III, VI, IX e XII.

*Números autocolantes para pêndulo ; III, VI, IX e XII.*



Chiffres autocollants pour pendule ; III, VI, IX, XII et index.  
 Self-adhesive pendulum numerals ; III, VI, IX, XII and indexes.

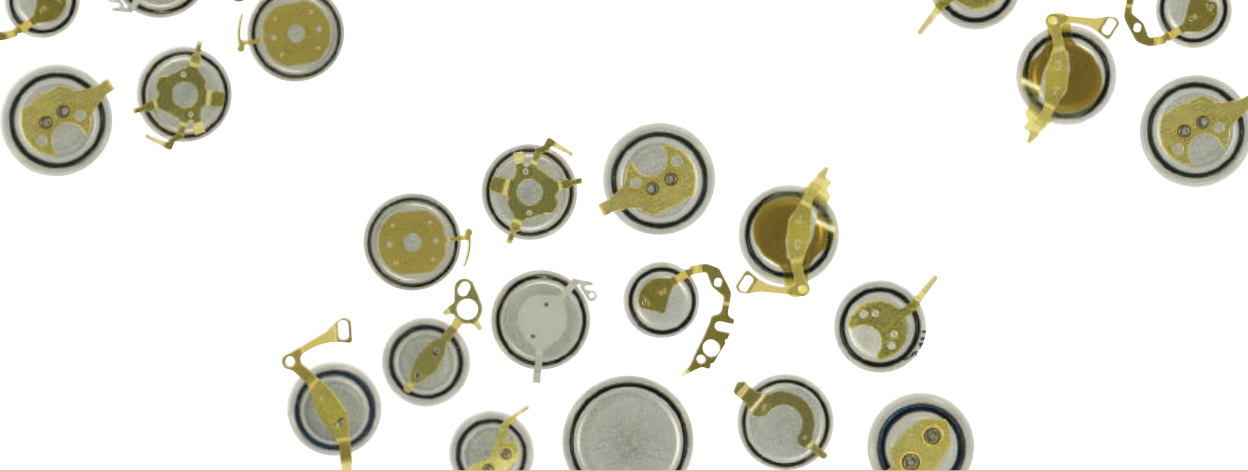
| MSA    | Hauteur/Height | Kg    | Aufklebende Pendelziffern ; III, VI, IX, XII und Indexzeichen.   |
|--------|----------------|-------|--|
| 55.671 | 16 mm / 5/8"   | 0.004 | Números autoadhesivos para péndulo ; III, VI, IX, XII y índices. |
| 55.672 | 19 mm / 3/4"   | 0.004 | Numeri autoadesivi per pendolo ; III, VI, IX, XII e indici.      |
| 55.673 | 25 mm / 1"     | 0.006 | Números autocolantes para pêndulo ; III, VI, IX, XII e índices.  |



Chiffres autocollants pour pendule ; III, VI, IX, XII et index.  
 Self-adhesive pendulum numerals ; III, VI, IX, XII and indices.

| MSA    | Hauteur/Height | Kg    | Selbstklebende Pendelziffern ; III, VI, IX, XII und Indexzeichen. |
|--------|----------------|-------|---|
| 55.681 | 16 mm / 5/8"   | 0.004 | Números autoadhesivos para péndulo ; III, VI, IX, XII y índices.  |
| 55.682 | 19 mm / 3/4"   | 0.005 | Numeri autoadesivi per pendolo ; III, VI, IX, XII e indici.       |
| 55.683 | 25 mm / 1"     | 0.007 | Números autocolantes para pêndulo ; III, VI, IX, XII e índices.   |





PILES BATTERIES BATTERIEN  
 BATERÍAS BATTERIE PILHAS

Piles

Batteries

Batterien

Baterías

Batterie

Pilhas



2

Adaptateurs de pile

Battery adapters

Batterieadapter

Adaptadores de batería

Adattatori per batterie

Adaptadores de pilha



5

Accumulateurs

Capacitors

Akkumulatoren

Acumuladores

Accumulatori

Acumuladores



6

Assortiments de brides de fixation de pile

Assortments of battery clamps

Sortimente von Batteriehalterfedern

Surtidos de bridas de fijación de batería

Assortimenti di bride di fissaggio della batteria

Sortidos de bridas de fixação de pilha



10





Pile type bouton Energizer® 0% mercure.  
Energizer® button type battery 0% mercury.  
Energizer® Knopf-Typ Batterie 0% Quecksilber.  
Batería tipo botón Energizer® 0% mercurio.  
Batteria tipo bottone Energizer® 0% mercurio.  
Pilha tipo botão Energizer® 0% mercúrio.

| Réf./Item | N°/Nr.    |
|-----------|-----------|
| PILE301   | 301/386   |
| PILE303   | 303/357   |
| PILE309   | → PILE393 |
| PILE314   | 314/315   |
| PILE317   | 317       |
| PILE319   | 319       |
| PILE321   | 321       |
| PILE329   | 329       |
| PILE335   | 335       |
| PILE337   | 337       |
| PILE341   | 341       |
| PILE344   | 344/350   |
| PILE346   | 346       |
| PILE350   | → PILE344 |

| Réf./Item | N°/Nr.    |
|-----------|-----------|
| PILE357   | → PILE303 |
| PILE361   | → PILE362 |
| PILE362   | 362/361   |
| PILE363   | → PILE364 |
| PILE364   | 364/363   |
| PILE365   | 365/366   |
| PILE366   | → PILE365 |
| PILE370   | → PILE371 |
| PILE371   | 371/370   |
| PILE373   | 373       |
| PILE376   | → PILE377 |
| PILE377   | 377/376   |
| PILE379   | 379       |
| PILE380   | → PILE394 |

| Réf./Item | N°/Nr.    |
|-----------|-----------|
| PILE384   | → PILE392 |
| PILE386   | → PILE301 |
| PILE389   | 389/390   |
| PILE390   | → PILE389 |
| PILE391   | 391/381   |
| PILE392   | 392/384   |
| PILE393   | 393/309   |
| PILE394   | 394/380   |
| PILE395   | 395/399   |
| PILE396   | 396/397   |
| PILE399   | → PILE395 |



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Horotec SA ist der Energizer® Exklusivvertreter für die Schweizer Uhrindustrie.

Horotec SA è il rappresentante esclusivo Energizer® per l'industria orologiera svizzera.

Pile type bouton Energizer® 0% mercure.  
Energizer® Knopf-Typ Batterie 0% Quecksilber.  
Batteria tipo bottone Energizer® 0% mercurio.

| Réf./Item  | N°/Nr. |
|------------|--------|
| PILE317VPO | 317    |
| PILE321VPO | 321    |
| PILE335VPO | 335    |
| PILE341VPO | 341    |

| Réf./Item      | N°/Nr.  |
|----------------|---------|
| PILE362/361VPO | 362/361 |
| PILE364/363VPO | 364/363 |
| PILE371/370VPO | 371/370 |
| PILE377/376VPO | 377/376 |

| Réf./Item      | N°/Nr.  |
|----------------|---------|
| PILE379VPO     | 379     |
| PILE394/380VPO | 394/380 |
| PILE395/399VPO | 395/399 |
| PILE397/396VPO | 397/396 |

Livraison sur plateau (commande minimum : 500 pièces par référence).

Lieferung auf Platte (Mindestauftrag : 500 Stück per Referenz).

Consegna su piattello (Ordine minimo : 500 pezzi per referenza).



Pile lithium Energizer®.  
Energizer® lithium battery.  
Energizer® Lithium-Batterie.  
Batería de litio Energizer®.  
Batteria di litio Energizer®.  
Pilha de lítio Energizer®.

| Réf./Item     | N°/Nr. |
|---------------|--------|
| PILEBR1225    | BR1225 |
| PILEBR2325*** | BR2325 |
| PILECR1025    | CR1025 |
| PILECR1216    | CR1216 |
| PILECR1220    | CR1220 |

| Réf./Item   | N°/Nr.     |
|-------------|------------|
| PILECR1616  | CR1616     |
| PILECR1620  | CR1620     |
| PILECR1632  | CR1632     |
| PILECR2     | CR2        |
| PILECR2-12* | CR2, FSB-2 |

| Réf./Item     | N°/Nr. |
|---------------|--------|
| PILECR2025*** | CR2025 |
| PILECR2032-2* | CR2032 |
| PILECR2320**  | CR2320 |
| PILECR2430-2* | CR2430 |
| PILECR2450-2* | CR2450 |

\* Blister 2 pces

\*\* Renata

\*\*\* Jusqu'à épuisement des stocks / Will be discontinued after end of stock / Solange Vorrat / Hasta agotamiento del stock  
Fino ad esaurimento dello stock / Até esgotamento do stock



Pile lithium Leclanché®.  
Leclanché® lithium battery.  
Leclanché® Lithium-Batterie.  
Batería de litio Leclanché®.  
Batteria di litio Leclanché®.  
Pilha de lítio Leclanché®.

| Réf./Item   | N°/Nr.          |
|-------------|-----------------|
| PILELS14250 | LS14250 - 3.6 V |
| PILELS14500 | LS14500 - 3.6 V |
| PILELS33600 | LS33600 - 3.6 V |



Pile Energizer®.  
Energizer® battery.  
Energizer® Batterie.  
Batería Energizer®.  
Batteria Energizer®.  
Pilha Energizer®.

| Réf./Item       | N°/Nr.          | Emballage/Packaging |
|-----------------|-----------------|---------------------|
| PILE10          | AC10E/10/PR70   | Blister 8 pcs       |
| PILE123         | 123/CR17345     | Blister 1 pce       |
| PILE13          | AC13E/13/PR48   | Blister 8 pcs       |
| PILE312         | AC312E/312/PR41 | Blister 8 pcs       |
| PILE6LR61VRAC12 | 6LR61/6AM6      | Vrac/Bulk 12 pcs    |
| PILEA23         | A23/E23A        | Blister 1 pce       |
| PILEA27/2       | A27             | Blister 2 pcs       |
| PILEA544        | A544/4LR44      | Blister 2 pcs       |
| PILEE11A        | E11A/A11        | Blister 1 pce       |
| PILEEPX625      | EPX625G/LR9     | Blister 1 pce       |
| PILEEPX76       | EPX76/SR44      | Blister 2 pcs       |
| PILEER3S1/2AA*  | ER3S 1/2 AA     | -                   |
| PILEHR03        | AAA HR03 850    | Blister 2 pcs       |
| PILEHR14        | HR14            | Blister 2 pcs       |
| PILEHR6         | AA HR6 2450     | Blister 4 pcs       |
| PILELR91        | AA/LR91/FR6     | Blister 2 pcs       |
| PILELR92        | AAA/LR92/FR03   | Blister 2 pcs       |
| PILELR03        | AAA/LR03        | Blister 4 pcs       |
| PILELR03VP      | AAA/LR03        | Carton 615 pcs      |

\* Leclanché

| Réf./Item      | N°/Nr.            | Emballage/Packaging |
|----------------|-------------------|---------------------|
| PILELR03VRAC10 | AAA LR03/AM4      | Vrac/Bulk 10 pcs    |
| PILELR1        | LR1/E90           | Blister 1 pce       |
| PILELR14       | LR14              | Blister 2 pcs       |
| PILELR14VRAC12 | LR14/AM2          | Vrac/Bulk 12 pcs    |
| PILELR1VRAC576 | LR1               | Vrac/Bulk 576 pcs   |
| PILELR20       | LR20              | Blister 2 pcs       |
| PILELR20VRAC12 | LR20/AM1          | Vrac/Bulk 12 pcs    |
| PILELR43       | LR43/186          | Blister 2 pcs       |
| PILELR44       | LR44/A76          | Blister 2 pcs       |
| PILELR54       | LR54/189          | Blister 2 pcs       |
| PILELR6        | LR6               | Blister 4 pcs       |
| PILELR61       | AAAA/LR61/AM5/E96 | Blister 2 pcs       |
| PILELR6VP      | AA/LR6/AM3        | Carton 325 pcs      |
| PILELR6VRAC10  | AA LR6/AM3        | Vrac/Bulk 10 pcs    |



Adaptateur de pile pour réveil Cartier (pile EPX625G).  
 Battery adapter for alarm clock Cartier (battery EPX625G).  
 Batterieadapter für Cartier-Wecker (Batterie EPX625G).  
 Adaptador de batería para despertador Cartier (Batería EPX625G).  
 Adattatore per batteria per sveglia Cartier (batteria EPX625G).  
 Adaptador de pilha para despertador Cartier (pilha EPX625G).

| Réf./Item no. | Dimensions/Size mm | Kg    |
|---------------|--------------------|-------|
| PIL.001       | Ø 16.00 x 10.80    | 0.007 |












Adaptateur en POM pour pile 388, remplacée par la pile 329.  
 Adapter made of POM for battery 388, replaced by the battery 329.  
 Adapter aus POM für Batterie 388, ersetzt bei der Batterie 329.  
 Adaptador en POM para batería 388, sustituida por la batería 329.  
 Adattatore in POM per batteria 388, sostituita dalla batteria 329.  
 Adaptador em POM para pilha 388, substituída pela pilha 329.

| Réf./Item | Ø ext. x Ø int. mm | Epaisseur/Thickness mm | Kg    |
|-----------|--------------------|------------------------|-------|
| PIL.002   | 8.50 x 7.60        | 2.25                   | 0.001 |



Accumulateur Seiko®.  
 Seiko® capacitor.  
 Seiko® Akkumulator.  
 Acumulador Seiko®.  
 Accumulatore Seiko®.  
 Acumulador Seiko®.

| Réf./Item | Pile/Battery  | Calibres   |
|-----------|---|--|
| S302265U  |  CTL920  | S760A  |
| S302324L  |  MT920   | 5D22 - 5D44  |
| S302324M  |  MT920   | 7B22 - 7B24 - 7B25 - 7B26 - 7B32 - 7B37 - 7B42<br>7B52           |
| S302324P  |  MT920   | V121 - V122  |
| S302324R  |  MT920   | 7M12A - 7M22A - 7M42A  |
| S302324T  |  MT920 | 7L22 - YT57B   |
| S302324X  |  MT920 | 5J21A - 5J22A - 5J23A - 5J32                                     |
| S302324Y  |  MT920 | 5K22A - 5K25A - 5K2JA - V142A - V145A - V14JA<br>VS32            |
| S302334T  |  MT920 | V172 - V174 - V175   |
| S302344Z  |  TC920 | 5M62A - 5M63A - 5M65A  |
| S30235MZ  |  TC920 | 5M22A - 5M23A - 5M25A - 5M42 - 5M43 - 5M47<br>5M54 - YT57 - YT58 |

| Réf./Item |   | Pile/Battery | Calibres             |
|-----------|---|--------------|----------------------|
| S302624X  |    | -            | V137                 |
| S302726T  |    | MT516        | V110A                |
| S302726Y  |    | MT516        | 1M20A                |
| S302726Z  |    | MT516        | 4M61 - 4M71          |
| S302729N  |    | MT616        | 3M62A                |
| S302729Y  |    | MT616        | V181 - V182          |
| S30273MZ  |   | MT616        | 3M21A - 3M22A - MT35 |
| S30274MZ  |  | MT616        | 3M62                 |
| S3029109  |  | MT616        | 5Y75                 |



Accumulateur Citizen®.  
 Citizen® capacitor.  
 Citizen® Akkumulator.  
 Acumulador Citizen®.  
 Accumulatore Citizen®.  
 Acumulador Citizen®.

| Réf./Item |   | Pile/Battery | Calibres   |
|-----------|---|--------------|--|
| CT295.28  |   | MT621        | 8510 - 8627  |
| CT295.29  |   | MT920        | 0850A - 0855A - 0870A - 0875A  |
| CT295.31  |   | MT1620       | 9447 - 9448 - 9455 - 9457  |
| CT295.33  |   | MT621        | 8511A - 8512A - 8515A - 862A - 8626A - 8628A<br>8629A - 8651 - 8730  |
| CT295.34  |   | MT920        | 7820A - 7870A - 7872A - 7875A - 7877A  |
| CT295.37  | - | -            | → CT295.55   |
| CT295.38  |   | MT920        | C601 - C605 - C615   |
| CT295.39  |   | MT920        | 5080   |
| CT295.40  | - | -            | → CT295.56   |
| CT295.41  |   | MT616        | A310A - A315A  |
| CT295.44  |   | MT1620       | A160 - A270 - C690   |
| CT295.45  | - | -            | → CT295.63   |
| CT295.46  | - | -            | → CT295.61   |
| CT295.50  | - | -            | → CT295.55   |
| CT295.51  |   | MT621        | E000M - E001M - E010M - E011M - E030M - E031M<br>E068M - E100M - E101M - E110M - E111M - E168M<br>E410G - G430M - G431M - G530G - H500M - H501M<br>H570M - H571M |

| Réf./Item |   | Pile/Battery | Calibres  |
|-----------|---|--------------|---|
| CT295.53  |    | US2025       | D600  |
| CT295.55  |    | MT621        | A114A - A119A - A134A - A234 - A234A - A239A<br>BP10 - F810M - F910M - 8S11                                       |
| CT295.56  |    | MT920        | 7W71 - 7821A - 7828A - 7871A - 7873 - 7876<br>7878 - 7879 - A730-G - B510 - B690 - B800M<br>B810M - B870M - B873M |
| CT295.60  |    | MT621        | B232M - B236M - B237M - BP10  |
| CT295.61  | -   | -            | → CT295.76  |
| CT295.63* |    | MT621        | B230M - B234M - B235M   |
| CT295.67  |    | MT416F       | G620M - G670M - G671M - J620M   |
| CT295.69  |    | CTL920       | E600M - E610M - E670M - G900M   |
| CT295.758 |   | CTL920       | E310M - E690M - U200 - U700 - U706  |
| CT295.76  |  | MT516        | B023M - B033M - B035M - B036M - H335M<br>H338M - H360M - H380M - J015M - J165M                                    |
| CT295.763 |  | MT516        | J015M - J165M   |

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 Fino ad esaurimento dello stock / Até esgotamento do stock





Assortiment de brides de fixation de pile ; **Miyota.**

Assortment of battery clamps ; **Miyota.**

Sortiment von Batteriehaltefeder ; **Miyota.**

Surtido de bridas de fijación de batería ; **Miyota.**

Assortimento di bride di fissaggio della batteria ; **Miyota.**

Sortido de bridas de fixação de pilha ; **Miyota.**

| MSA    | Qt. | Kg    |
|--------|-----|-------|
| 99.077 | 33x | 0.025 |

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**11 modèles - models - Modelle - modelos - modelli - modelos**

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| 3x MY231.153  | 3S10 - 3S31 - 3S70   |
| 3x MY231.163  | 5S00 - 5S10 - 6L12 - 6L15 - 6L30 - 6M15 - 6M17                             |
| 3x MY231.1634 | 6P29 - 6P89 - 6P90   |
| 3x MY231.174  | 5Y20 - 5Y26 - 5Y30 - 5Y36  |
| 3x MY231.182  | 5R20 - 5R21 - 5R - 5R31 - 5R32 - 5R37                                      |
| 3x MY231.183  | 6T50 - 6T60 - 6T65 - 6T66  |
| 3x MY231.345  | 0S10 - 0S20 - 0S30 - 0S31 - 0S40 - 0S60 - 0S70 - 0610                      |
| 3x MY231.347  | T200 - T205 - T240 - T241 - T250   |
| 3x MY231.368  | 1L02 - 1L12 - 1L22 - 1L32 - 1L40 - 1L45 - 1S13 - 9T13 - 9T15 - 9T22 - 9T33 |
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