

Hard metal end mill.



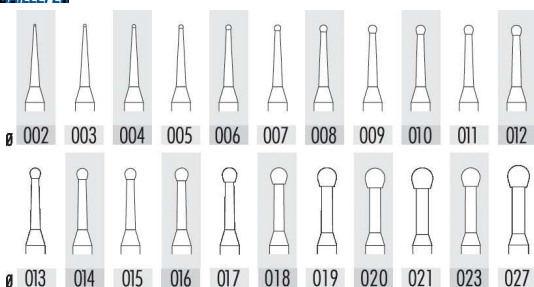
MSA	Total length	Kg
22.558-270	25 mm (5 mm)	0.001

Hard metal end mill for dial feet.
- Shank \varnothing 3.00 ; cutting \varnothing 2.70 mm.

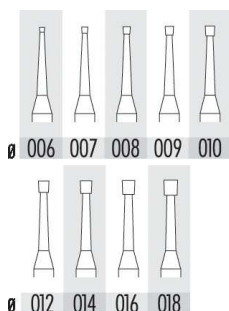
Tungsten carbide burs, shank \varnothing 2.35 mm.

Order example : MSA22.400-xxxx
(Extensions 3 digits = \varnothing head mm)

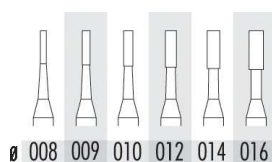
MSA22.400-002 = \varnothing head 0.20 mm
MSA22.400-027 = \varnothing head 2.70 mm



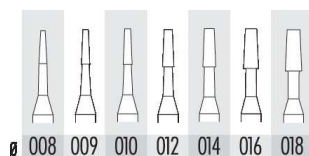
MSA	Type	Shape	\varnothing head	Kg
22.400-002	123	Round	0.20 mm	0.001
...
22.400-027	123	Round	2.70 mm	0.001



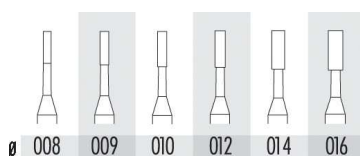
MSA	Type	Shape	\varnothing head	Kg
22.401-006	124	Inverted cone	0.60 mm	0.001
...
22.401-018	124	Inverted cone	1.80 mm	0.001



MSA	Type	Shape	\varnothing head	Kg
22.404-008	129	Cylindrical	0.80 mm	0.001
...
22.404-016	129	Cylindrical	1.60 mm	0.001



MSA	Type	Shape	\varnothing head	Kg
22.405-008	130	Cone	0.80 mm	0.001
...
22.405-018	130	Cone	1.80 mm	0.001



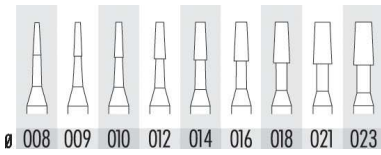
MSA	Type	Shape	\varnothing head	Kg
22.407-008	137	Cylindrical	0.80 mm	0.001
...
22.407-016	137	Cylindrical	1.60 mm	0.001



END MILLS

Order example : MSA22.400-xxxx
(Extensions 3 digits = Ø head mm)

MSA22.400-008 = Ø head 0.80 mm
MSA22.400-023 = Ø head 2.30 mm



MSA	Type	Shape	Ø head	Kg
22.408-008	138	Cone	0.80 mm	0.001
...
22.408-023	138	Cone	2.30 mm	0.001

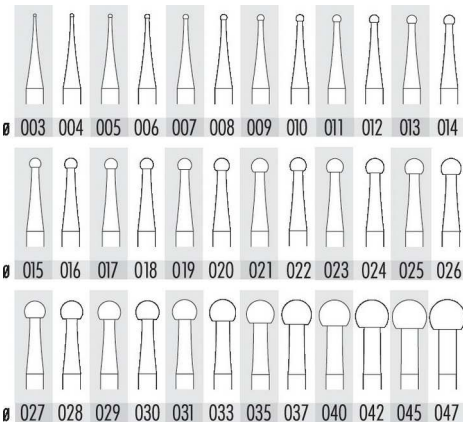


MSA	Type	Length	Ø head	Kg
22.450	Standard	12.20 mm	6 mm	0.002
22.450-F	Fine	12.20 mm	6 mm	0.002

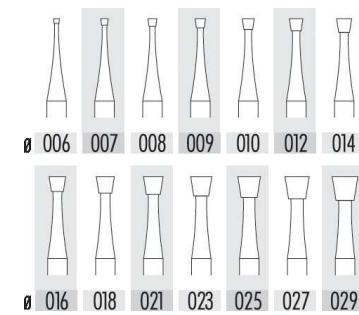
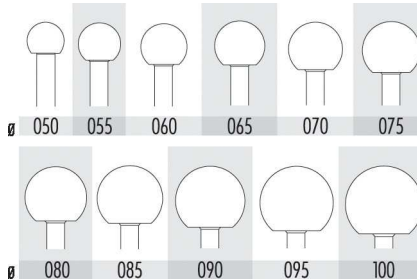
Tool steel burs, shank Ø 2.35 mm.

Order example : MSA22.300-xxxx
(Extensions 3 digits = Ø head mm)

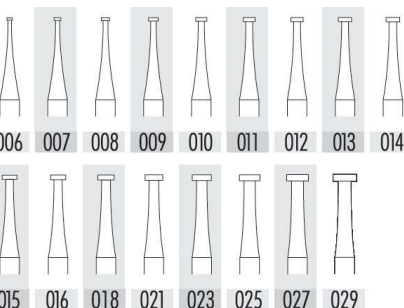
MSA22.300-003 = Ø head 0.30 mm
MSA22.300-100 = Ø head 10.00 mm



MSA	Type	Shape	Ø head	Kg
22.300-003	23	Round	0.30 mm	0.001
...
22.300-100	23	Round	10.00 mm	0.001

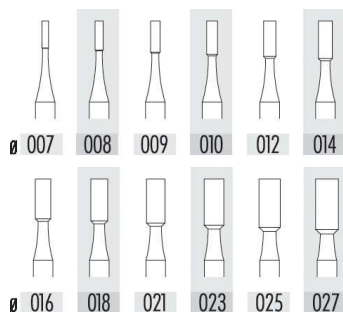


MSA	Type	Shape	Ø head	Kg
22.301-006	24	Inverted cone	0.60 mm	0.001
...
22.301-029	24	Inverted cone	2.90 mm	0.001

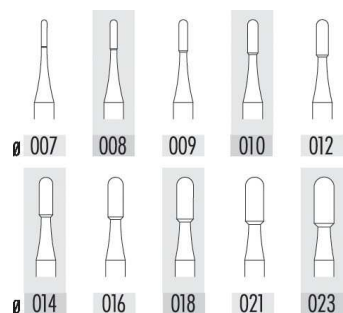


MSA	Type	Shape	Ø head	Kg
22.302-006	25	Wheel	0.60 mm	0.001
...
22.302-029	25	Wheel	2.90 mm	0.001

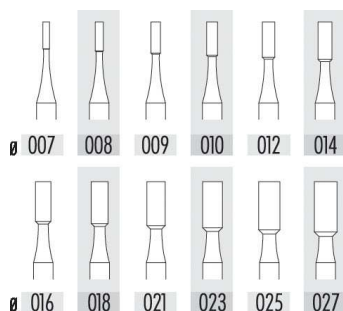




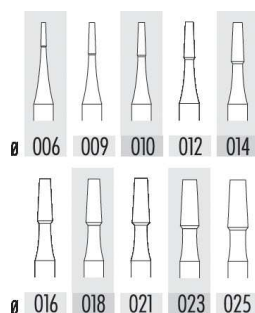
MSA	Type	Shape	Ø head	Kg
22.303-007	26	Cylindrical	0.70 mm	0.001
...
22.303-027	26	Cylindrical	2.70 mm	0.001



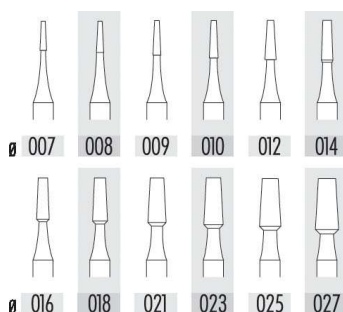
MSA	Type	Shape	Ø head	Kg
22.304-007	28	Cylindrical	0.70 mm	0.001
...
22.304-023	28	Cylindrical	2.30 mm	0.001



MSA	Type	Shape	Ø head	Kg
22.312-007	29	Cylindrical	0.70 mm	0.001
...
22.312-027	29	Cylindrical	2.70 mm	0.001



MSA	Type	Shape	Ø head	Kg
22.305-009	30	Cone	0.90 mm	0.001
...
22.305-025	30	Cone	2.50 mm	0.001



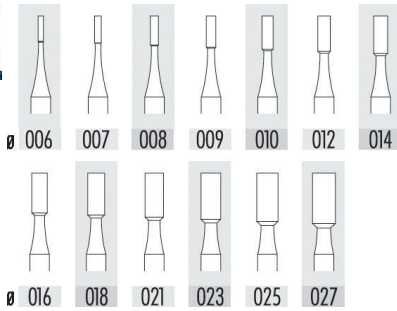
MSA	Type	Shape	Ø head	Kg
22.313-007	31	Cone	0.70 mm	0.001
...
22.313-027	31	Cone	2.70 mm	0.001



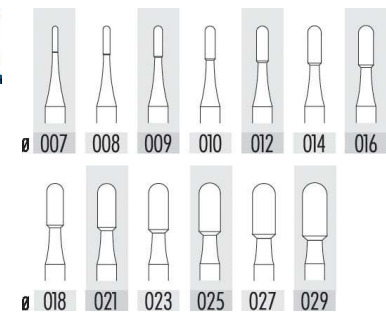
END MILLS

Order example : MSA22.306-xxxx
(Extensions 3 digits = Ø head mm)

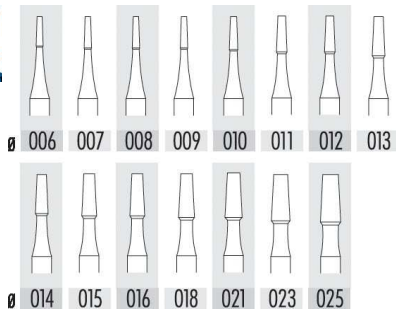
MSA22.306-006 = Ø head 0.60 mm
MSA22.308-027 = Ø head 2.70 mm



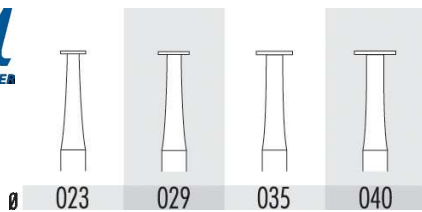
MSA	Type	Shape	Ø head	Kg
22.306-006	34	Cylindrical	0.60 mm	0.001
...
22.306-027	34	Cylindrical	2.70 mm	0.001



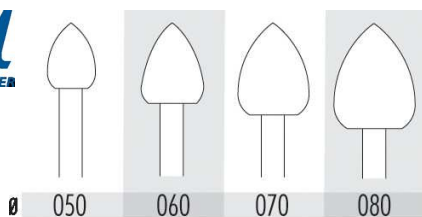
MSA	Type	Shape	Ø head	Kg
22.308-007	36	Cylindrical	0.70 mm	0.001
...
22.308-029	36	Cylindrical	2.90 mm	0.001



MSA	Type	Shape	Ø head	Kg
22.309-006	38	Cone	0.60 mm	0.001
...
22.309-025	38	Cone	2.50 mm	0.001

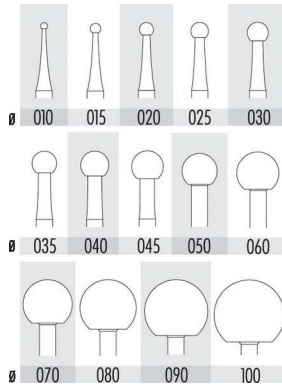


MSA	Type	Shape	Ø head	Kg
22.311-023	45	Wheel	2.30 mm	0.001
...
22.311-040	45	Wheel	4.00 mm	0.001

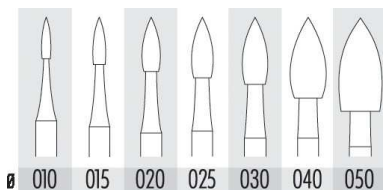


MSA	Type	Shape	Ø head	Kg
22.211-050	83	Bud	5.00 mm	0.001
...
22.211-080	83	Bud	8.00 mm	0.001

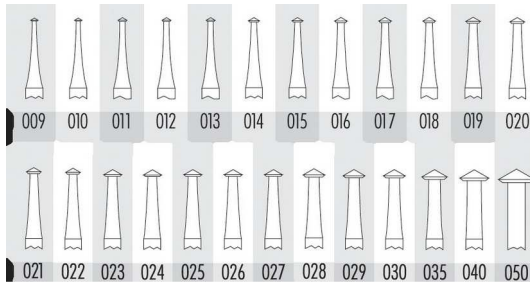




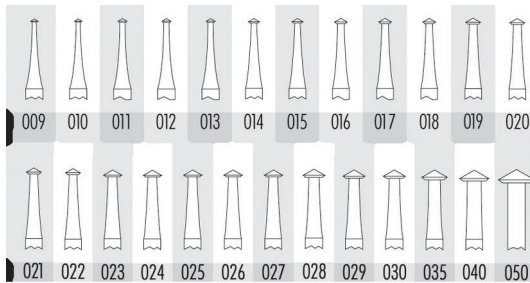
MSA	Type	Shape	Ø head	Kg
22.100-010	A	Fine round	1.00 mm	0.001
...
22.100-100	A	Fine round	10.00 mm	0.001



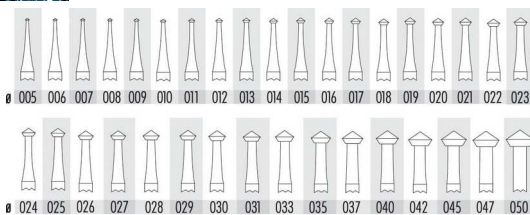
MSA	Type	Shape	Ø head	Kg
22.102-010	G	Fine flame	1.00 mm	0.001
...
22.102-050	G	Fine flame	5.00 mm	0.001



MSA	Type	Shape	Ø head	Kg
22.103-009	H	Double cone 120°	0.90 mm	0.001
...
22.103-050	H	Double cone 120°	5.00 mm	0.001



MSA	Type	Shape	Ø head	Kg
22.121-005	HB	Double cone 70°	0.50 mm	0.001
...
22.121-037	HB	Double cone 70°	3.70 mm	0.001



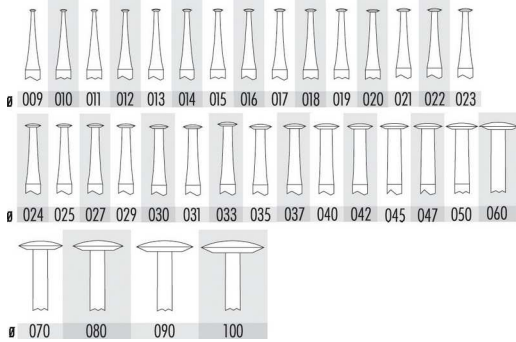
MSA	Type	Shape	Ø head	Kg
22.104-005	HD	Double cone 90°	0.50 mm	0.001
...
22.104-050	HD	Double cone 90°	5.00 mm	0.001



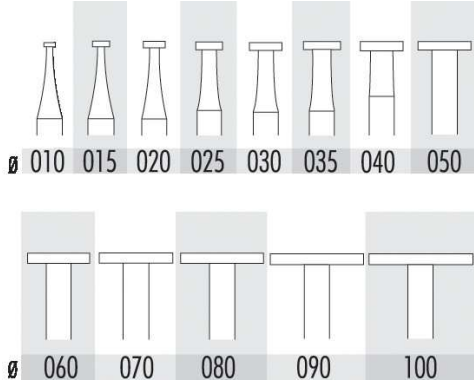
END MILLS

Order example : MSA22.105-xxxx
(Extensions 3 digits = Ø head mm)

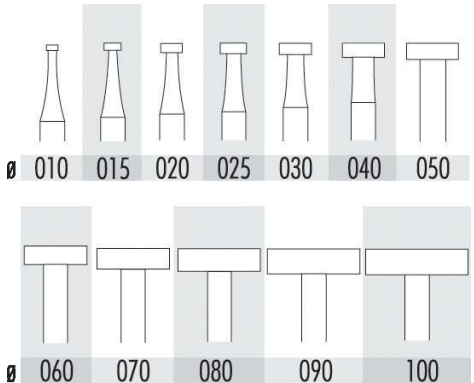
MSA22.105-009 = Ø head 0.90 mm
MSA22.105-100 = Ø head 10.00 mm



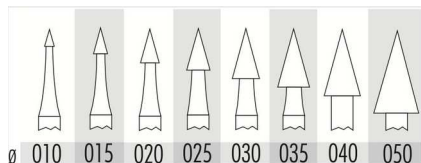
MSA	Type	Shape	Ø head	Kg
22.105-009	HH	Lens	0.90 mm	0.001
...
22.105-100	HH	Lens	10.00 mm	0.001



MSA	Type	Shape	Ø head	Kg
22.107-010	K	Wheel	1.00 mm	0.001
...
22.107-100	K	Wheel	10.00 mm	0.001

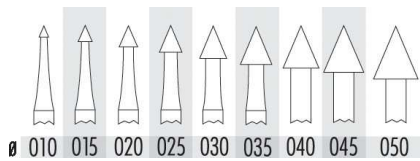


MSA	Type	Shape	Ø head	Kg
22.110-010	KK	Wheel	1.00 mm	0.001
...
22.110-100	KK	Wheel	10.00 mm	0.001

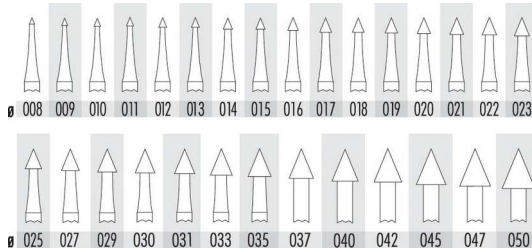


MSA	Type	Shape	Ø head	Kg
22.112-010	N	Cone 30°	1.00 mm	0.001
...
22.112-050	N	Cone 30°	5.00 mm	0.001

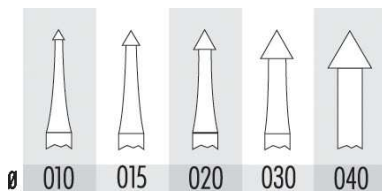




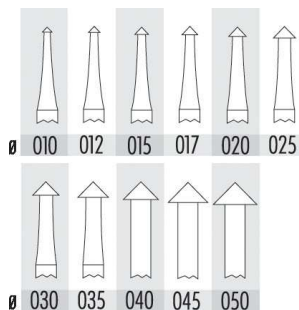
MSA	Type	Shape	Ø head	Kg
22.113-010	NN (fine)	Cone 45°	1.00 mm	0.001
...
22.113-050	NN (fine)	Cone 45°	5.00 mm	0.001



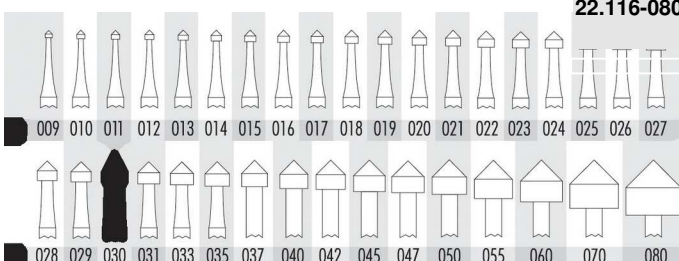
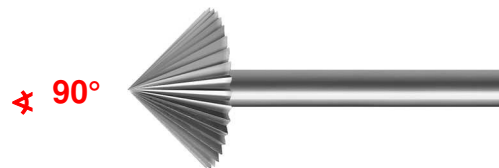
MSA	Type	Shape	Ø head	Kg
22.123-008	NN (coarse)	Cone 45°	0.80 mm	0.001
...
22.123-050	NN (coarse)	Cone 45°	5.00 mm	0.001



MSA	Type	Shape	Ø head	Kg
22.114-010	O	Cone 60°	1.00 mm	0.001
...
22.114-040	O	Cone 60°	4.00 mm	0.001



MSA	Type	Shape	Ø head	Kg
22.115-010	P	Cone 90°	1.00 mm	0.001
...
22.115-050	P	Cone 90°	5.00 mm	0.001



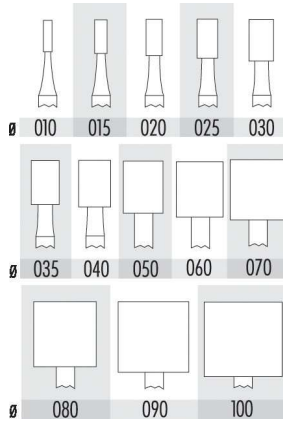
MSA	Type	Shape	Ø head	Kg
22.116-009	Q	Cylindrical sharpened	0.90 mm	0.001
...
22.116-080	Q	Cylindrical sharpened	8.00 mm	0.001



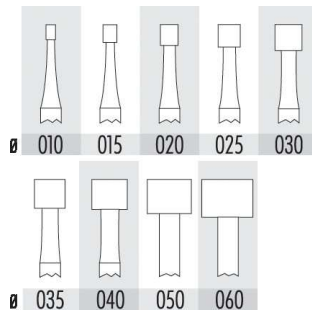
END MILLS

Order example : MSA22.117-xxxx
(Extensions 3 digits = Ø head mm)

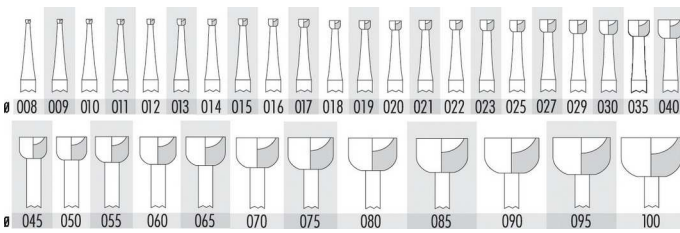
MSA22.117-010 = Ø head 0.10 mm
MSA22.117-100 = Ø head 10.00 mm



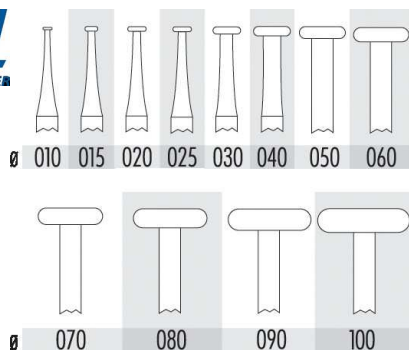
MSA	Type	Shape	Ø head	Kg
22.117-010	R	Cylindrical	1.00 mm	0.001
...
22.117-100	R	Cylindrical	10.00 mm	0.001



MSA	Type	Shape	Ø head	Kg
22.122-010	RR	Cylindrical	1.00 mm	0.001
...	0.001
22.122-060	RR	Cylindrical	6.00 mm	0.001



MSA	Type	Shape	Ø head	Kg
22.119-008	S	Cup	0.80 mm	0.001
...
22.119-100	S	Cup	10.00 mm	0.001



MSA	Type	Shape	Ø head	Kg
22.118-010	Y	Beveled wheel	1.00 mm	0.001
...	0.001
22.118-100	Y	Beveled wheel	10.00 mm	0.001

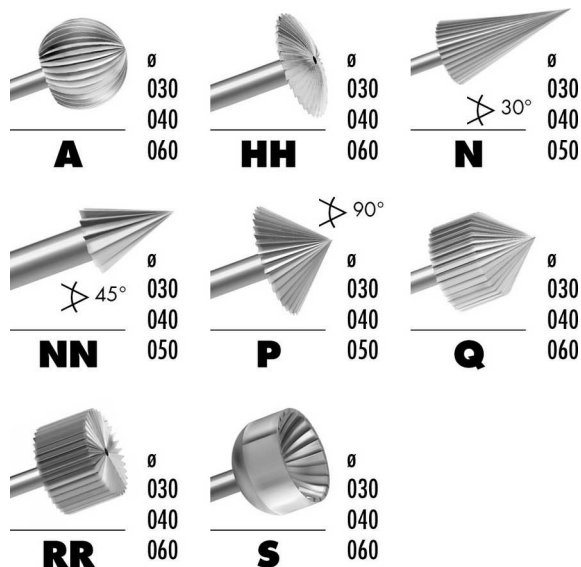


Assortments of 24 tool steel burs, delivered in a plastic box.



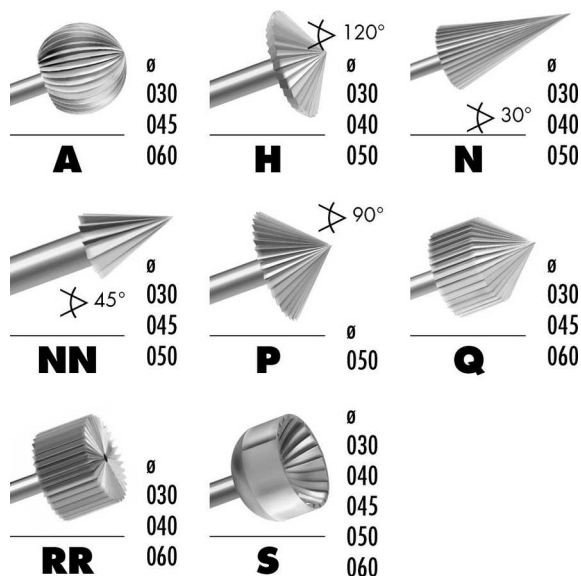
ASSORTMENT

MSA	Type	Ø shank	Kg
22.500	1235	2.35 mm	0.090



ASSORTMENT

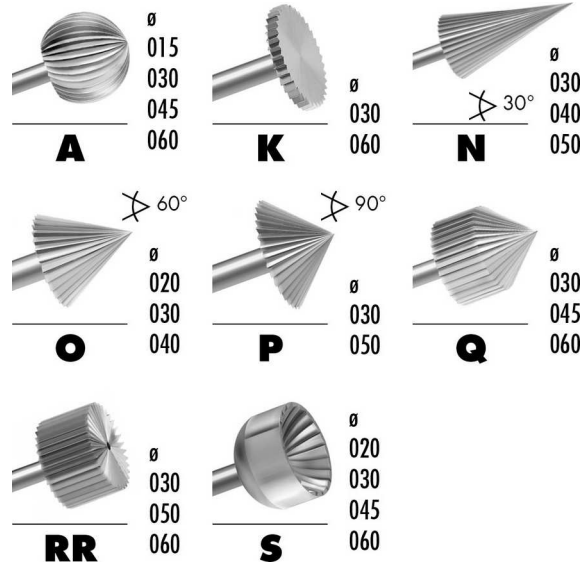
MSA	Type	Ø shank	Kg
22.510	3235	2.35 mm	0.090





ASSORTMENT

MSA	Type	Ø shank	Kg
22.515	4235	2.35 mm	0.090



ASSORTMENT

MSA	Type	Ø shank	Kg
22.520	8235	2.35 mm	0.090

