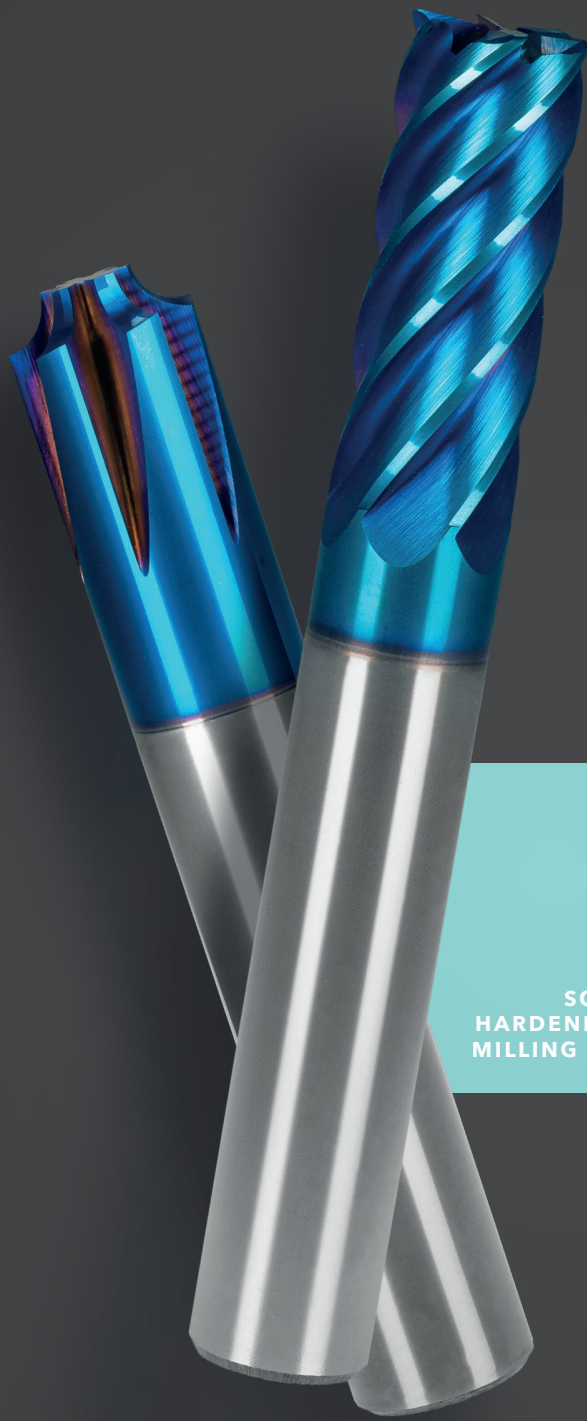


HOFMANN & VRATNY — SC MILLING CUTTERS EN

HARDENED STEEL



24
SC EXPERT
HARDENED STEEL
MILLING CUTTERS





HARDENED STEEL

3

PRODUCTION
SITES

43

YEARS OF
EXPERIENCE

120

MOTIVATED
EMPLOYEES

THE FAMOUS BLUE ORIGINAL.

The H&V Expert hard machining series has been specially designed and developed to meet the requirements of hardened steel. Specially selected carbide, proven geometries, coordinated edge preparation and the blue coating, which has been known for years, form the perfect synergy for safe machining of hardened steels up to 70HRC

QUALITY
PROCESS RELIABILITY
ECONOMIC EFFICIENCY

The milling cutters are suitable for steels <1400 N/mm, < 60 HRC, < 67 HRC and < 70 HRC. The extensive range of products also includes special series with unique geometry for maximum precision.



HELICAL PITCH

Extremely soft cut at up to 70 HRC.

GEOMETRY

Refined geometry for reliable chip disposal and consistently high process reliability.

MATERIAL

Solid carbide specially developed for hardened steels.

BROW

Radius and brow geometries optimized to prevent premature breakouts.

BLADES

Cutting edge preparation that has been tried and tested for decades and optimised to perfection.

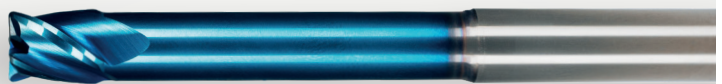
COATING

The original blue coating for hard machining, often imitated but never achieved.

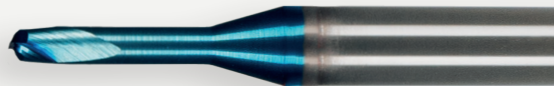


H&V EXPERTS FOR HARDENED STEEL

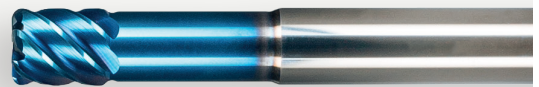
SC TORUS CUTTERS



K202233



K202082 | K202092
K202102 | K202112



K202253

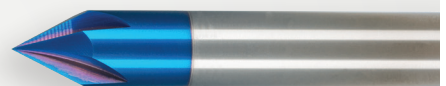


K202223

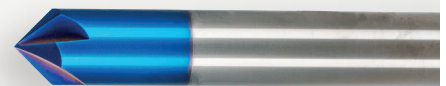


K202293 | K202303
K202307

SC CHAMFER CUTTERS

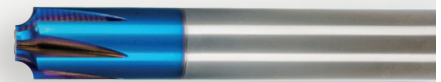


K205153 | K205154



K205163 | K205164

SC FORM CUTTERS

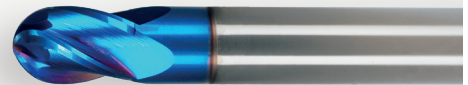


K204108

SC FULL RADIUS CUTTERS



K203206 | K203212



K203333

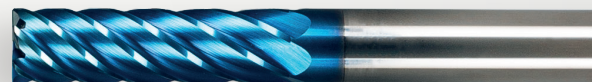


K203343

SC END MILL CUTTERS



K201122



K201533

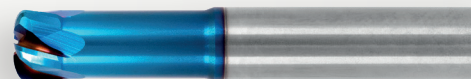


K201523

SC FACE TORUS CUTTERS



K207018




K207013

NUMBERING SYSTEM

ARTICLEGROUP

SC milling cutter - - - - -

Catalog item - - - - -



K 2 03 388

Product group - - - - -

Product name - - - - -

MILLING CUTTERS

Articlegroup - - - - -




K201673 - 16

Cutting diameter - - - - -

MILLING CUTTERS DISTINGUISHED BY LENGTH

Articlegroup - - - - -




K201123 - 2 X 8

Cutting diameter - - - - -

Distinction by length of cut or length of undercut - - - - -

MILLING CUTTERS WITH ADDITIONAL DISTINGUISHING FEATURE



Articlegroup - - - - -



K202223 - 8 / 3


Cutting diameter - - - - -


Distinction by corner radius or shank diameter - - - - -


Cooling	 
Tolerance	0-0,01
Coating	TiSiN- α

HA

HSC

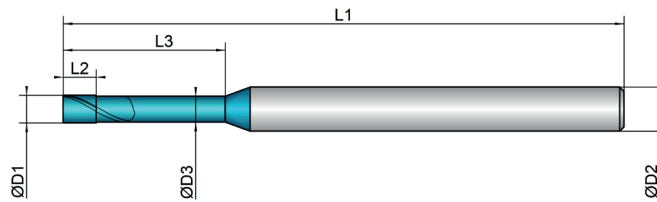





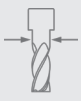

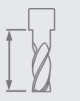

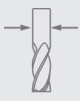







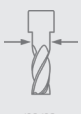



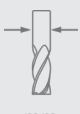


HA K201122


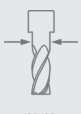



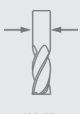




Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		200	150	100	60	45	90			145						


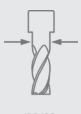



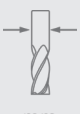


	D1  mm ø	D3  mm ø	L2  mm	L3  mm	L1  mm	D2  mm ø	z  #	 °
K201122								
0,2X0,5	0.2	0.18	0.3	0.5	45.0	4.0	2	30
0,2X1	0.2	0.18	0.3	1.0	45.0	4.0	2	30
0,2X1,5	0.2	0.18	0.3	1.5	45.0	4.0	2	30
0,3X1	0.3	0.28	0.4	1.0	45.0	4.0	2	30
0,3X2	0.3	0.28	0.4	2.0	45.0	4.0	2	30
0,3X3	0.3	0.28	0.4	3.0	45.0	4.0	2	30
0,3X6	0.3	0.28	0.4	6.0	45.0	4.0	2	30
0,3X9	0.3	0.28	0.4	9.0	45.0	4.0	2	30
0,4X2	0.4	0.38	0.6	2.0	45.0	4.0	2	30
0,4X3	0.4	0.38	0.6	3.0	45.0	4.0	2	30
0,4X4	0.4	0.38	0.6	4.0	45.0	4.0	2	30
0,4X5	0.4	0.38	0.6	5.0	45.0	4.0	2	30
0,4X8	0.4	0.38	0.6	8.0	45.0	4.0	2	30
0,4X12	0.4	0.38	0.6	12.0	45.0	4.0	2	30

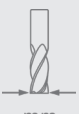


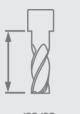

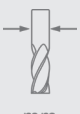


SC micro end mill cutter TiSiN HSC | K201122

K201122	 mm ∅	 mm ∅	 mm	 mm	 mm	 mm ∅	 #	 °
0,5X2	0.5	0.48	0.7	2.0	45.0	4.0	2	30
0,5X4	0.5	0.48	0.7	4.0	45.0	4.0	2	30
0,5X6	0.5	0.48	0.7	6.0	45.0	4.0	2	30
0,5X8	0.5	0.48	0.7	8.0	45.0	4.0	2	30
0,5X10	0.5	0.48	0.7	10.0	50.0	4.0	2	30
0,5X15	0.5	0.48	0.7	15.0	50.0	4.0	2	30
0,6X2	0.6	0.58	0.9	2.0	45.0	4.0	2	30
0,6X4	0.6	0.58	0.9	4.0	45.0	4.0	2	30
0,6X6	0.6	0.58	0.9	6.0	45.0	4.0	2	30
0,6X8	0.6	0.58	0.9	8.0	45.0	4.0	2	30
0,6X10	0.6	0.58	0.9	10.0	45.0	4.0	2	30
0,6X12	0.6	0.58	0.9	12.0	50.0	4.0	2	30
0,6X18	0.6	0.58	0.9	18.0	50.0	4.0	2	30
0,7X2	0.7	0.68	1.0	2.0	45.0	4.0	2	30
0,7X4	0.7	0.68	1.0	4.0	45.0	4.0	2	30
0,7X6	0.7	0.68	1.0	6.0	45.0	4.0	2	30
0,7X8	0.7	0.68	1.0	8.0	45.0	4.0	2	30
0,7X10	0.7	0.68	1.0	10.0	50.0	4.0	2	30
0,8X4	0.8	0.78	1.2	4.0	45.0	4.0	2	30
0,8X6	0.8	0.78	1.2	6.0	45.0	4.0	2	30
0,8X8	0.8	0.78	1.2	8.0	45.0	4.0	2	30
0,8X10	0.8	0.78	1.2	10.0	50.0	4.0	2	30
0,8X12	0.8	0.78	1.2	12.0	50.0	4.0	2	30
0,8X16	0.8	0.78	1.2	16.0	50.0	4.0	2	30
0,8X24	0.8	0.78	1.2	24.0	60.0	4.0	2	30
0,9X4	0.9	0.88	1.3	4.0	45.0	4.0	2	30
0,9X6	0.9	0.88	1.3	6.0	45.0	4.0	2	30
0,9X8	0.9	0.88	1.3	8.0	45.0	4.0	2	30
0,9X10	0.9	0.88	1.3	10.0	45.0	4.0	2	30
0,9X15	0.9	0.88	1.3	15.0	50.0	4.0	2	30

K201122	 mm ∅	 mm ∅	 mm	 mm	 mm	 mm ∅	 #	 °
1X4	1.0	0.95	1.5	4.0	45.0	4.0	2	30
1X6	1.0	0.95	1.5	6.0	45.0	4.0	2	30
1X8	1.0	0.95	1.5	8.0	45.0	4.0	2	30
1X10	1.0	0.95	1.5	10.0	45.0	4.0	2	30
1X12	1.0	0.95	1.5	12.0	45.0	4.0	2	30
1X14	1.0	0.95	1.5	14.0	45.0	4.0	2	30
1X16	1.0	0.95	1.5	16.0	50.0	4.0	2	30
1X20	1.0	0.95	1.5	20.0	54.0	4.0	2	30
1X25	1.0	0.95	1.5	25.0	70.0	4.0	2	30
1X30	1.0	0.95	1.5	30.0	70.0	4.0	2	30
1,2X6	1.2	1.14	1.8	6.0	45.0	4.0	2	30
1,2X8	1.2	1.14	1.8	8.0	45.0	4.0	2	30
1,2X10	1.2	1.14	1.8	10.0	45.0	4.0	2	30
1,2X12	1.2	1.14	1.8	12.0	45.0	4.0	2	30
1,2X16	1.2	1.14	1.8	16.0	50.0	4.0	2	30
1,2X20	1.2	1.14	1.8	20.0	60.0	4.0	2	30
1,4X6	1.4	1.34	2.1	6.0	45.0	4.0	2	30
1,4X8	1.4	1.34	2.1	8.0	45.0	4.0	2	30
1,4X10	1.4	1.34	2.1	10.0	45.0	4.0	2	30
1,4X12	1.4	1.34	2.1	12.0	45.0	4.0	2	30
1,4X14	1.4	1.34	2.1	14.0	45.0	4.0	2	30
1,4X16	1.4	1.34	2.1	16.0	50.0	4.0	2	30
1,4X22	1.4	1.34	2.1	22.0	54.0	4.0	2	30
1,5X6	1.5	1.44	2.3	6.0	45.0	4.0	2	30
1,5X8	1.5	1.44	2.3	8.0	45.0	4.0	2	30
1,5X10	1.5	1.44	2.3	10.0	45.0	4.0	2	30
1,5X12	1.5	1.44	2.3	12.0	45.0	4.0	2	30
1,5X14	1.5	1.44	2.3	14.0	50.0	4.0	2	30
1,5X16	1.5	1.44	2.3	16.0	50.0	4.0	2	30
1,5X18	1.5	1.44	2.3	18.0	54.0	4.0	2	30

SC micro end mill cutter TiSiN HSC | K201122

K201122	 mm ∅	 mm ∅	 mm	 mm	 mm	 mm ∅	 #	 °
1,5X20	1.5	1.44	2.3	20.0	54.0	4.0	2	30
1,5X25	1.5	1.44	2.3	25.0	70.0	4.0	2	30
1,5X30	1.5	1.44	2.3	30.0	70.0	4.0	2	30
1,5X35	1.5	1.44	2.3	35.0	70.0	4.0	2	30
1,5X40	1.5	1.44	2.3	40.0	80.0	4.0	2	30
1,5X45	1.5	1.44	2.3	45.0	80.0	4.0	2	30
1,6X6	1.6	1.51	2.4	6.0	45.0	4.0	2	30
1,6X8	1.6	1.51	2.4	8.0	45.0	4.0	2	30
1,6X10	1.6	1.51	2.4	10.0	45.0	4.0	2	30
1,6X12	1.6	1.51	2.4	12.0	45.0	4.0	2	30
1,6X14	1.6	1.51	2.4	14.0	50.0	4.0	2	30
1,6X16	1.6	1.51	2.4	16.0	50.0	4.0	2	30
1,6X18	1.6	1.51	2.4	18.0	54.0	4.0	2	30
1,6X20	1.6	1.51	2.4	20.0	54.0	4.0	2	30
1,6X26	1.6	1.51	2.4	26.0	60.0	4.0	2	30
1,8X6	1.8	1.71	2.7	6.0	45.0	4.0	2	30
1,8X8	1.8	1.71	2.7	8.0	45.0	4.0	2	30
1,8X10	1.8	1.71	2.7	10.0	45.0	4.0	2	30
1,8X12	1.8	1.71	2.7	12.0	45.0	4.0	2	30
1,8X14	1.8	1.71	2.7	14.0	50.0	4.0	2	30
1,8X16	1.8	1.71	2.7	16.0	50.0	4.0	2	30
1,8X18	1.8	1.71	2.7	18.0	54.0	4.0	2	30
1,8X20	1.8	1.71	2.7	20.0	54.0	4.0	2	30
1,8X25	1.8	1.71	2.7	25.0	60.0	4.0	2	30
2X6	2.0	1.91	3.0	6.0	45.0	4.0	2	30
2X8	2.0	1.91	3.0	8.0	45.0	4.0	2	30
2X10	2.0	1.91	3.0	10.0	45.0	4.0	2	30
2X12	2.0	1.91	3.0	12.0	45.0	4.0	2	30
2X14	2.0	1.91	3.0	14.0	50.0	4.0	2	30
2X16	2.0	1.91	3.0	16.0	50.0	4.0	2	30

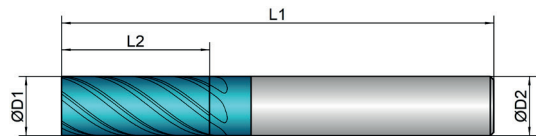
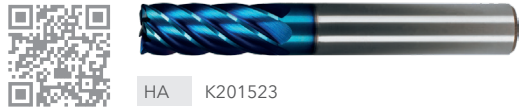
K201122	 mm ∅	 mm ∅	 mm	 mm	 mm	 mm ∅	 #	 °
2X18	2.0	1.91	3.0	18.0	54.0	4.0	2	30
2X20	2.0	1.91	3.0	20.0	54.0	4.0	2	30
2X25	2.0	1.91	3.0	25.0	60.0	4.0	2	30
2X30	2.0	1.91	3.0	30.0	70.0	4.0	2	30
2X35	2.0	1.91	3.0	35.0	80.0	4.0	2	30
2X40	2.0	1.91	3.0	40.0	90.0	4.0	2	30
2X50	2.0	1.91	3.0	50.0	100.0	4.0	2	30
2X60	2.0	1.91	3.0	60.0	110.0	4.0	2	30
2,5X8	2.5	2.41	3.7	8.0	45.0	4.0	2	30
2,5X10	2.5	2.41	3.7	10.0	45.0	4.0	2	30
2,5X12	2.5	2.41	3.7	12.0	45.0	4.0	2	30
2,5X14	2.5	2.41	3.7	14.0	50.0	4.0	2	30
2,5X16	2.5	2.41	3.7	16.0	50.0	4.0	2	30
2,5X18	2.5	2.41	3.7	18.0	54.0	4.0	2	30
2,5X20	2.5	2.41	3.7	20.0	54.0	4.0	2	30
2,5X25	2.5	2.41	3.7	25.0	60.0	4.0	2	30
2,5X30	2.5	2.41	3.7	30.0	70.0	4.0	2	30
2,5X40	2.5	2.41	3.7	40.0	90.0	4.0	2	30
2,5X50	2.5	2.41	3.7	50.0	100.0	4.0	2	30
3X8	3.0	2.92	4.5	8.0	45.0	4.0	2	30
3X12	3.0	2.92	4.5	12.0	45.0	4.0	2	30
3X16	3.0	2.92	4.5	16.0	50.0	4.0	2	30
3X20	3.0	2.92	4.5	20.0	54.0	4.0	2	30

SC end mill cutter TiSiN HPC | K201523

Cooling	
Tolerance	e8
Coating	TiSiN- α



HA HPC

Expert



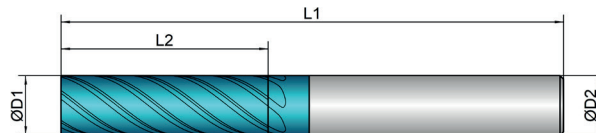
Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		180	175	150	105	90										

K201523	D1 mm ø	L2 mm	L1 mm	D2 mm ø	z #	 °
2X8	2.0	8.0	58.0	6.0	4	37.5
3X12	3.0	12.0	58.0	6.0	4	37.5
4X13	4.0	13.0	58.0	6.0	4	37.5
5X15	5.0	15.0	58.0	6.0	6	37.5
6X16	6.0	16.0	58.0	6.0	6	37.5
8X22	8.0	22.0	70.0	8.0	6	37.5
10X25	10.0	25.0	73.0	10.0	6	37.5
12X28	12.0	28.0	84.0	12.0	6	37.5
14X30	14.0	30.0	84.0	14.0	6	37.5
16X36	16.0	36.0	93.0	16.0	8	37.5
18X36	18.0	36.0	93.0	18.0	10	37.5
20X41	20.0	41.0	104.0	20.0	10	37.5







Cooling	 
Tolerance	e8
Coating	TiSiN- α



HA K201533



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		180	175	150	110	40										

K201533	D1  mm ø	L2  mm	L1  mm	D2  mm ø	z  #	 °
6X21	6.0	21.0	65.0	6.0	6	37.5
8X28	8.0	28.0	75.0	8.0	6	37.5
10X35	10.0	35.0	85.0	10.0	6	37.5
12X45	12.0	45.0	100.0	12.0	6	37.5
14X45	14.0	45.0	100.0	14.0	6	37.5
16X50	16.0	50.0	110.0	16.0	8	37.5
16X65	16.0	65.0	125.0	16.0	8	37.5
18X54	18.0	54.0	114.0	18.0	10	37.5
20X55	20.0	55.0	126.0	20.0	10	37.5
20X70	20.0	70.0	135.0	20.0	10	37.5
20X75	20.0	75.0	135.0	20.0	10	37.5
25X75	25.0	75.0	150.0	25.0	10	37.5

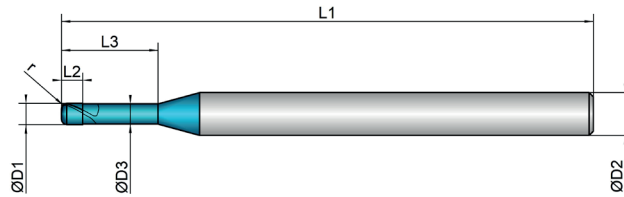
SC micro torus cutter TiSiN HSC | K202082

Cooling	
Tolerance	0-0,01
Coating	TiSiN- α

HA HSC












HA K202082



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
225	210	200	125	75	55	40	100		150							

	D1	D3	L2	L3	L1	D2	z	r	
K202082	mm Ø	mm Ø	mm	mm	mm	mm Ø	#	mm	°
0,4X1	0.4	0.38	0.4	1.0	50.0	4.0	2	0.10	30
0,4X1,5	0.4	0.38	0.4	1.5	50.0	4.0	2	0.10	30
0,4X2	0.4	0.38	0.4	2.0	50.0	4.0	2	0.10	30
0,4X3	0.4	0.38	0.4	3.0	50.0	4.0	2	0.10	30
0,4X4	0.4	0.38	0.4	4.0	50.0	4.0	2	0.10	30
0,5X1	0.5	0.48	0.5	1.0	50.0	4.0	2	0.10	30
0,5X2	0.5	0.48	0.5	2.0	50.0	4.0	2	0.10	30
0,5X3	0.5	0.48	0.5	3.0	50.0	4.0	2	0.10	30
0,5X4	0.5	0.48	0.5	4.0	50.0	4.0	2	0.10	30
0,5X5	0.5	0.48	0.5	5.0	50.0	4.0	2	0.10	30
0,5X6	0.5	0.48	0.5	6.0	50.0	4.0	2	0.10	30
0,6X2	0.6	0.58	0.6	2.0	50.0	4.0	2	0.10	30
0,6X3	0.6	0.58	0.6	3.0	50.0	4.0	2	0.10	30
0,6X4	0.6	0.58	0.6	4.0	50.0	4.0	2	0.10	30

K202082	 mm ∅	 mm ∅	 mm	 mm	 mm	 mm ∅	 #	 mm	 °
0,6X6	0.6	0.58	0.6	6.0	50.0	4.0	2	0.10	30
0,6X8	0.6	0.58	0.6	8.0	50.0	4.0	2	0.10	30
0,7X4	0.7	0.68	0.7	4.0	50.0	4.0	2	0.10	30
0,7X6	0.7	0.68	0.7	6.0	50.0	4.0	2	0.10	30
0,8X4	0.8	0.78	0.8	4.0	50.0	4.0	2	0.10	30
0,8X6	0.8	0.78	0.8	6.0	50.0	4.0	2	0.10	30
1X2	1.0	0.95	1.0	2.0	50.0	4.0	2	0.10	30
1X4	1.0	0.95	1.0	4.0	50.0	4.0	2	0.10	30
1X6	1.0	0.95	1.0	6.0	50.0	4.0	2	0.10	30
1X8	1.0	0.95	1.0	8.0	50.0	4.0	2	0.10	30
1X10	1.0	0.95	1.0	10.0	50.0	4.0	2	0.10	30
1X12	1.0	0.95	1.0	12.0	54.0	4.0	2	0.10	30
1X16	1.0	0.95	1.0	16.0	60.0	4.0	2	0.10	30
1X20	1.0	0.95	1.0	20.0	60.0	4.0	2	0.10	30
2X4	2.0	1.91	2.0	4.0	50.0	4.0	2	0.10	30
2X6	2.0	1.91	2.0	6.0	50.0	4.0	2	0.10	30
2X8	2.0	1.91	2.0	8.0	50.0	4.0	2	0.10	30
2X10	2.0	1.91	2.0	10.0	50.0	4.0	2	0.10	30
2X12	2.0	1.91	2.0	12.0	54.0	4.0	2	0.10	30
2X16	2.0	1.91	2.0	16.0	54.0	4.0	2	0.10	30
2X20	2.0	1.91	2.0	20.0	60.0	4.0	2	0.10	30
2X26	2.0	1.91	2.0	26.0	70.0	4.0	2	0.10	30

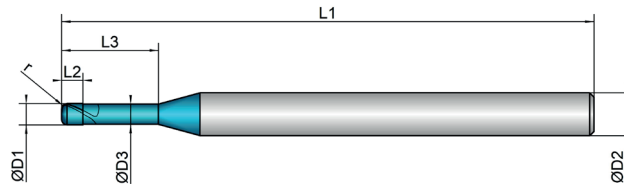
SC micro torus cutter TiSiN HSC | K202092

Cooling	
Tolerance	0-0,01
Coating	TiSiN- α

HA HSC












HA K202092



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
225	210	200	125	75	55	40	100									

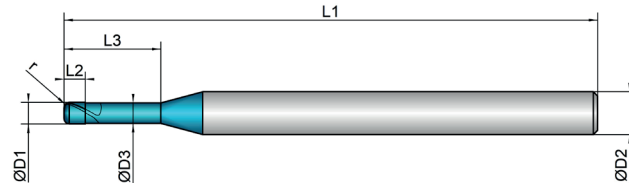
K202092	D1 mm ø	D3 mm ø	L2 mm	L3 mm	L1 mm	D2 mm ø	z #	r mm	 °
0,8X4	0.8	0.78	0.8	4.0	50.0	4.0	2	0.20	30
0,8X6	0.8	0.78	0.8	6.0	50.0	4.0	2	0.20	30
1X2	1.0	0.95	1.0	2.0	50.0	4.0	2	0.20	30
1X4	1.0	0.95	1.0	4.0	50.0	4.0	2	0.20	30
1X6	1.0	0.95	1.0	6.0	50.0	4.0	2	0.20	30
1X8	1.0	0.95	1.0	8.0	50.0	4.0	2	0.20	30
1X10	1.0	0.95	1.0	10.0	50.0	4.0	2	0.20	30
1X12	1.0	0.95	1.0	12.0	54.0	4.0	2	0.20	30
1X16	1.0	0.95	1.0	16.0	60.0	4.0	2	0.20	30
1X20	1.0	0.95	1.0	20.0	60.0	4.0	2	0.20	30
1,2X6	1.2	1.14	1.2	6.0	50.0	4.0	2	0.20	30
1,2X12	1.2	1.14	1.2	12.0	54.0	4.0	2	0.20	30

K202092	 mm ∅	 mm ∅	 mm	 mm	 mm	 mm ∅	 #	 mm	 °
1,2X20	1.2	1.14	1.2	20.0	60.0	4.0	2	0.20	30
1,5X4	1.5	1.44	1.5	4.0	50.0	4.0	2	0.20	30
1,5X6	1.5	1.44	1.5	6.0	50.0	4.0	2	0.20	30
1,5X8	1.5	1.44	1.5	8.0	50.0	4.0	2	0.20	30
1,5X10	1.5	1.44	1.5	10.0	50.0	4.0	2	0.20	30
1,5X12	1.5	1.44	1.5	12.0	54.0	4.0	2	0.20	30
1,5X16	1.5	1.44	1.5	16.0	54.0	4.0	2	0.20	30
1,5X20	1.5	1.44	1.5	20.0	60.0	4.0	2	0.20	30
2X4	2.0	1.91	2.0	4.0	50.0	4.0	2	0.20	30
2X6	2.0	1.91	2.0	6.0	50.0	4.0	2	0.20	30
2X8	2.0	1.91	2.0	8.0	50.0	4.0	2	0.20	30
2X10	2.0	1.91	2.0	10.0	50.0	4.0	2	0.20	30
2X12	2.0	1.91	2.0	12.0	54.0	4.0	2	0.20	30
2X16	2.0	1.91	2.0	16.0	54.0	4.0	2	0.20	30
2X20	2.0	1.91	2.0	20.0	60.0	4.0	2	0.20	30
2X26	2.0	1.91	2.0	26.0	70.0	4.0	2	0.20	30

SC micro torus cutter TiSiN HSC | K202102










Cooling	
Tolerance	0-0,01
Coating	TiSiN- α

HA HSC



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
225	210	200	125	75	55	40	100									

K202102	D1 mm ∅	D3 mm ∅	L2 mm	L3 mm	L1 mm	D2 mm ∅	z #	r mm	 °
1X2	1.0	0.95	1.0	2.0	50.0	4.0	2	0.30	30
1X4	1.0	0.95	1.0	4.0	50.0	4.0	2	0.30	30
1X6	1.0	0.95	1.0	6.0	50.0	4.0	2	0.30	30
1X8	1.0	0.95	1.0	8.0	50.0	4.0	2	0.30	30
1X10	1.0	0.95	1.0	10.0	50.0	4.0	2	0.30	30
1X12	1.0	0.95	1.0	12.0	54.0	4.0	2	0.30	30
1X16	1.0	0.95	1.0	16.0	60.0	4.0	2	0.30	30
1X20	1.0	0.95	1.0	20.0	60.0	4.0	2	0.30	30
1,2X6	1.2	1.14	1.2	6.0	50.0	4.0	2	0.30	30
1,2X12	1.2	1.14	1.2	12.0	54.0	4.0	2	0.30	30
1,2X20	1.2	1.14	1.2	20.0	60.0	4.0	2	0.30	30
1,5X4	1.5	1.44	1.5	4.0	50.0	4.0	2	0.30	30
1,5X6	1.5	1.44	1.5	6.0	50.0	4.0	2	0.30	30

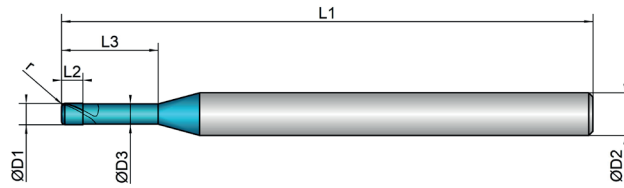
K202102	 mm ∅	 mm ∅	 mm	 mm	 mm	 mm ∅	 #	 mm	 °
1,5X8	1.5	1.44	1.5	8.0	50.0	4.0	2	0.30	30
1,5X10	1.5	1.44	1.5	10.0	50.0	4.0	2	0.30	30
1,5X12	1.5	1.44	1.5	12.0	54.0	4.0	2	0.30	30
1,5X16	1.5	1.44	1.5	16.0	54.0	4.0	2	0.30	30
1,5X20	1.5	1.44	1.5	20.0	60.0	4.0	2	0.30	30
2X4	2.0	1.91	2.0	4.0	50.0	4.0	2	0.30	30
2X6	2.0	1.91	2.0	6.0	50.0	4.0	2	0.30	30
2X8	2.0	1.91	2.0	8.0	50.0	4.0	2	0.30	30
2X10	2.0	1.91	2.0	10.0	50.0	4.0	2	0.30	30
2X12	2.0	1.91	2.0	12.0	54.0	4.0	2	0.30	30
2X16	2.0	1.91	2.0	16.0	54.0	4.0	2	0.30	30
2X20	2.0	1.91	2.0	20.0	60.0	4.0	2	0.30	30
2X26	2.0	1.91	2.0	26.0	70.0	4.0	2	0.30	30
2,5X10	2.5	2.41	2.5	10.0	50.0	4.0	2	0.30	30
2,5X12	2.5	2.41	2.5	12.0	60.0	4.0	2	0.30	30
2,5X30	2.5	2.41	2.5	30.0	70.0	4.0	2	0.30	30
3X10	3.0	2.92	4.5	10.0	50.0	4.0	2	0.30	30
3X12	3.0	2.92	4.5	12.0	50.0	4.0	2	0.30	30
3X30	3.0	2.92	4.5	30.0	70.0	4.0	2	0.30	30

SC micro torus cutter TiSiN HSC | K202112

Cooling	
Tolerance	0-0,01
Coating	TiSiN- α



HA K202112



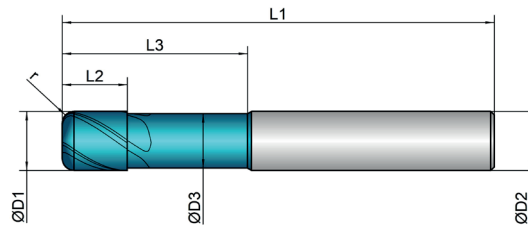
Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
225	210	200	125	75	55	40	100									

K202112	D1 mm ø	D3 mm ø	L2 mm	L3 mm	L1 mm	D2 mm ø	z #	r mm	 °
1,5X4	1.5	1.44	1.5	4.0	50.0	4.0	2	0.50	30
1,5X6	1.5	1.44	1.5	6.0	50.0	4.0	2	0.50	30
1,5X8	1.5	1.44	1.5	8.0	50.0	4.0	2	0.50	30
1,5X10	1.5	1.44	1.5	10.0	50.0	4.0	2	0.50	30
1,5X12	1.5	1.44	1.5	12.0	54.0	4.0	2	0.50	30
1,5X16	1.5	1.44	1.5	16.0	54.0	4.0	2	0.50	30
1,5X20	1.5	1.44	1.5	20.0	60.0	4.0	2	0.50	30
2X4	2.0	1.91	2.0	4.0	50.0	4.0	2	0.50	30
2X6	2.0	1.91	2.0	6.0	50.0	4.0	2	0.50	30
2X8	2.0	1.91	2.0	8.0	50.0	4.0	2	0.50	30
2X10	2.0	1.91	2.0	10.0	50.0	4.0	2	0.50	30
2X12	2.0	1.91	2.0	12.0	54.0	4.0	2	0.50	30
2X16	2.0	1.91	2.0	16.0	54.0	4.0	2	0.50	30
2X20	2.0	1.91	2.0	20.0	60.0	4.0	2	0.50	30
2X26	2.0	1.91	2.0	26.0	70.0	4.0	2	0.50	30
2,5X10	2.5	2.41	2.5	10.0	50.0	4.0	2	0.50	30
2,5X12	2.5	2.41	2.5	12.0	60.0	4.0	2	0.50	30
2,5X30	2.5	2.41	2.5	30.0	70.0	4.0	2	0.50	30
3X10	3.0	2.92	4.5	10.0	50.0	4.0	2	0.50	30
3X12	3.0	2.92	4.5	12.0	50.0	4.0	2	0.50	30
3X30	3.0	2.92	4.5	30.0	70.0	4.0	2	0.50	30

Cooling	
Tolerance	e8
Coating	TiSiN- α












HA K202223



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		210	175	155	120	90										

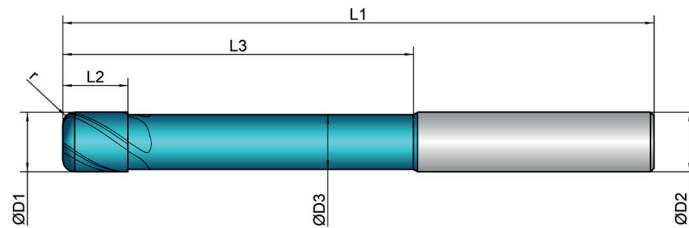
K202223	D1 mm ø	D3 mm ø	L2 mm	L3 mm	L1 mm	D2 mm ø	z #	r mm	 °
1/0,1	1.0	0.85	1.5	10.0	50.0	3.0	4	0.10	35
1/0,2	1.0	0.85	1.5	10.0	50.0	3.0	4	0.20	35
2/0,2	2.0	1.8	2.5	12.0	50.0	3.0	4	0.20	35
2/0,3	2.0	1.8	2.5	12.0	50.0	3.0	4	0.30	35
2/0,5	2.0	1.8	2.5	12.0	50.0	3.0	4	0.50	35
3/0,25	3.0	2.7	4.0	14.0	50.0	3.0	4	0.25	35
3/0,3	3.0	2.7	4.0	14.0	50.0	3.0	4	0.30	35
3/0,5	3.0	2.7	4.0	14.0	50.0	3.0	4	0.50	35
3/1	3.0	2.7	4.0	14.0	50.0	3.0	4	1.00	35
4/0,2	4.0	3.7	5.0	16.0	50.0	4.0	4	0.20	35
4/0,25	4.0	3.7	5.0	16.0	50.0	4.0	4	0.25	35
4/0,4	4.0	3.7	5.0	16.0	50.0	4.0	4	0.40	35
4/0,5	4.0	3.7	5.0	16.0	50.0	4.0	4	0.50	35
4/1	4.0	3.7	5.0	16.0	50.0	4.0	4	1.00	35
5/0,25	5.0	4.6	6.0	18.0	54.0	5.0	4	0.25	35
5/0,5	5.0	4.6	6.0	18.0	54.0	5.0	4	0.50	35

K202223	 mm ∅	 mm ∅	 mm	 mm	 mm	 mm ∅	 #	 mm	 °
5/1	5.0	4.6	6.0	18.0	54.0	5.0	4	1.00	35
6/0,25	6.0	5.5	7.0	21.0	58.0	6.0	4	0.25	35
6/0,5	6.0	5.5	7.0	21.0	58.0	6.0	4	0.50	35
6/0,8	6.0	5.5	7.0	21.0	58.0	6.0	4	0.80	35
6/1	6.0	5.5	7.0	21.0	58.0	6.0	4	1.00	35
6/1,5	6.0	5.5	7.0	21.0	58.0	6.0	4	1.50	35
6/2	6.0	5.5	7.0	21.0	58.0	6.0	4	2.00	35
8/0,25	8.0	7.4	9.0	27.0	64.0	8.0	4	0.25	35
8/0,5	8.0	7.4	9.0	27.0	64.0	8.0	4	0.50	35
8/0,8	8.0	7.4	9.0	27.0	64.0	8.0	4	0.80	35
8/1	8.0	7.4	9.0	27.0	64.0	8.0	4	1.00	35
8/1,5	8.0	7.4	9.0	27.0	64.0	8.0	4	1.50	35
8/2	8.0	7.4	9.0	27.0	64.0	8.0	4	2.00	35
8/2,5	8.0	7.4	9.0	27.0	64.0	8.0	4	2.50	35
8/3	8.0	7.4	9.0	27.0	64.0	8.0	4	3.00	35
10/0,25	10.0	9.2	11.0	32.0	73.0	10.0	4	0.25	35
10/0,5	10.0	9.2	11.0	32.0	73.0	10.0	4	0.50	35
10/0,8	10.0	9.2	11.0	32.0	73.0	10.0	4	0.80	35
10/1	10.0	9.2	11.0	32.0	73.0	10.0	4	1.00	35
10/1,5	10.0	9.2	11.0	32.0	73.0	10.0	4	1.50	35
10/2	10.0	9.2	11.0	32.0	73.0	10.0	4	2.00	35
10/3	10.0	9.2	11.0	32.0	73.0	10.0	4	3.00	35
10/3,5	10.0	9.2	11.0	32.0	73.0	10.0	4	3.50	35
12/0,5	12.0	9.2	12.0	38.0	84.0	12.0	4	0.50	35
12/1	12.0	9.2	12.0	38.0	84.0	12.0	4	1.00	35
12/1,5	12.0	9.2	12.0	38.0	84.0	12.0	4	1.50	35
12/2	12.0	9.2	12.0	38.0	84.0	12.0	4	2.00	35
12/3	12.0	9.2	12.0	38.0	84.0	12.0	4	3.00	35
16/1	16.0	15.0	16.0	44.0	93.0	16.0	4	1.00	35
16/2	16.0	15.0	16.0	44.0	93.0	16.0	4	2.00	35
16/3	16.0	15.0	16.0	44.0	93.0	16.0	4	3.00	35
20/1	20.0	18.5	20.0	55.0	104.0	20.0	4	1.00	35
20/2,5	20.0	18.5	20.0	55.0	104.0	20.0	4	2.50	35

Cooling	
Tolerance	e8
Coating	TiSiN- α












HA K202233



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		210	175	155	120	90										

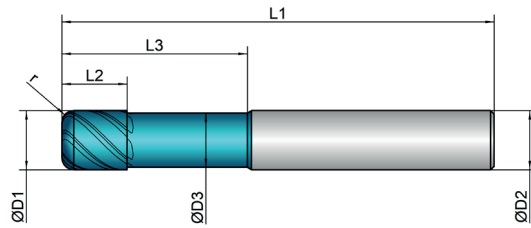
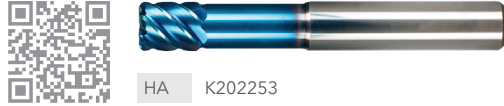
K202233	D1 mm Ø	D3 mm Ø	L2 mm	L3 mm	L1 mm	D2 mm Ø	z #	r mm	 °
1/0,1	1.0	0.85	1.5	20.0	75.0	3.0	4	0.10	35
1/0,2	1.0	0.85	1.5	20.0	75.0	3.0	4	0.20	35
2/0,2	2.0	1.8	2.5	25.0	75.0	3.0	4	0.20	35
2/0,3	2.0	1.8	2.5	25.0	75.0	3.0	4	0.30	35
2/0,5	2.0	1.8	2.5	25.0	75.0	3.0	4	0.50	35
3/0,25	3.0	2.7	4.0	32.0	75.0	3.0	4	0.25	35
3/0,3	3.0	2.7	4.0	32.0	75.0	3.0	4	0.30	35
3/0,5	3.0	2.7	4.0	32.0	75.0	3.0	4	0.50	35
3/1	3.0	2.7	4.0	32.0	75.0	3.0	4	1.00	35
4/0,2	4.0	3.7	5.0	36.0	75.0	4.0	4	0.20	35
4/0,25	4.0	3.7	5.0	36.0	75.0	4.0	4	0.25	35
4/0,4	4.0	3.7	5.0	36.0	75.0	4.0	4	0.40	35
4/0,5	4.0	3.7	5.0	36.0	75.0	4.0	4	0.50	35
4/1	4.0	3.7	5.0	36.0	75.0	4.0	4	1.00	35
5/0,25	5.0	4.6	6.0	40.0	75.0	5.0	4	0.25	35

SC torus cutter long TiAlN HSC / HPC | K202233

K202233	 mm ∅	 mm ∅	 mm	 mm	 mm	 mm ∅	 #	 mm	 °
5/0,5	5.0	4.6	6.0	40.0	75.0	5.0	4	0.50	35
5/1	5.0	4.6	6.0	40.0	75.0	5.0	4	1.00	35
6/0,25	6.0	5.5	7.0	44.0	80.0	6.0	4	0.25	35
6/0,5	6.0	5.5	7.0	44.0	80.0	6.0	4	0.50	35
6/1	6.0	5.5	7.0	44.0	80.0	6.0	4	1.00	35
6/1,5	6.0	5.5	7.0	44.0	80.0	6.0	4	1.50	35
8/0,25	8.0	7.4	9.0	54.0	100.0	8.0	4	0.25	35
8/0,5	8.0	7.4	9.0	54.0	100.0	8.0	4	0.50	35
8/0,8	8.0	7.4	9.0	54.0	100.0	8.0	4	0.80	35
8/1	8.0	7.4	9.0	54.0	100.0	8.0	4	1.00	35
8/1,5	8.0	7.4	9.0	54.0	100.0	8.0	4	1.50	35
8/2	8.0	7.4	9.0	54.0	100.0	8.0	4	2.00	35
8/3	8.0	7.4	9.0	54.0	100.0	8.0	4	3.00	35
10/0,25	10.0	9.2	11.0	60.0	100.0	10.0	4	0.25	35
10/0,5	10.0	9.2	11.0	60.0	100.0	10.0	4	0.50	35
10/0,8	10.0	9.2	11.0	60.0	100.0	10.0	4	0.80	35
10/1	10.0	9.2	11.0	60.0	100.0	10.0	4	1.00	35
10/1,5	10.0	9.2	11.0	60.0	100.0	10.0	4	1.50	35
10/2	10.0	9.2	11.0	60.0	100.0	10.0	4	2.00	35
10/3	10.0	9.2	11.0	60.0	100.0	10.0	4	3.00	35
12/0,5	12.0	11.0	12.0	75.0	120.0	12.0	4	0.50	35
12/1	12.0	11.0	12.0	75.0	120.0	12.0	4	1.00	35
12/1,5	12.0	11.0	12.0	75.0	120.0	12.0	4	1.50	35
12/2	12.0	11.0	12.0	75.0	120.0	12.0	4	2.00	35
12/3	12.0	11.0	12.0	75.0	120.0	12.0	4	3.00	35
16/1	16.0	15.0	16.0	92.0	150.0	16.0	4	1.00	35
16/2	16.0	15.0	16.0	92.0	150.0	16.0	4	2.00	35
16/3	16.0	15.0	16.0	92.0	150.0	16.0	4	3.00	35
20/1	20.0	18.5	20.0	92.0	150.0	20.0	4	1.00	35
20/2,5	20.0	18.5	20.0	92.0	150.0	20.0	4	2.50	35










Cooling	
Tolerance	e8
Coating	TiSiN- α

HA HPC



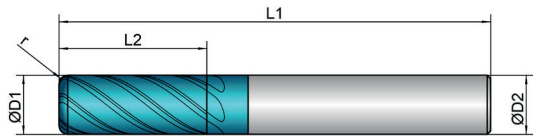
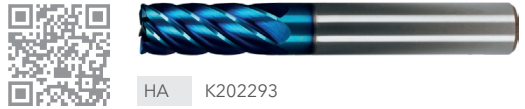
Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		205	175	160	100	65										

K202253	D1 mm Ø	D3 mm Ø	L2 mm	L3 mm	L1 mm	D2 mm Ø	z #	r mm	 °
3/0,3	3.0	2.7	4.0	14.0	50.0	3.0	4	0.30	45
3/0,5	3.0	2.7	4.0	14.0	50.0	3.0	4	0.50	45
3/1	3.0	2.7	4.0	14.0	50.0	3.0	4	1.00	45
4/0,4	4.0	3.7	5.0	16.0	50.0	4.0	4	0.40	45
4/0,5	4.0	3.7	5.0	16.0	50.0	4.0	4	0.50	45
4/1	4.0	3.7	5.0	16.0	50.0	4.0	4	1.00	45
5/0,5	5.0	4.6	6.0	18.0	54.0	5.0	4	0.50	45
5/1	5.0	4.6	6.0	18.0	54.0	5.0	4	1.00	45
6/0,5	6.0	5.5	7.0	21.0	58.0	6.0	6	0.50	45
6/0,8	6.0	5.5	7.0	21.0	58.0	6.0	6	0.80	45
6/1	6.0	5.5	7.0	21.0	58.0	6.0	6	1.00	45
6/1,5	6.0	5.5	7.0	21.0	58.0	6.0	6	1.50	45
8/0,5	8.0	7.4	9.0	27.0	64.0	8.0	6	0.50	45

K202253	 mm ∅	 mm ∅	 mm	 mm	 mm	 mm ∅	 #	 mm	 °
8/0,8	8.0	7.4	9.0	27.0	64.0	8.0	6	0.80	45
8/1	8.0	7.4	9.0	27.0	64.0	8.0	6	1.00	45
8/1,5	8.0	7.4	9.0	27.0	64.0	8.0	6	1.50	45
8/2	8.0	7.4	9.0	27.0	64.0	8.0	6	2.00	45
8/3	8.0	7.4	9.0	27.0	64.0	8.0	6	3.00	45
10/0,5	10.0	9.2	11.0	32.0	73.0	10.0	6	0.50	45
10/0,8	10.0	9.2	11.0	32.0	73.0	10.0	6	0.80	45
10/1	10.0	9.2	11.0	32.0	73.0	10.0	6	1.00	45
10/1,5	10.0	9.2	11.0	32.0	73.0	10.0	6	1.50	45
10/2	10.0	9.2	11.0	32.0	73.0	10.0	6	2.00	45
10/3	10.0	9.2	11.0	32.0	73.0	10.0	6	3.00	45
12/0,5	12.0	11.0	12.0	38.0	84.0	12.0	6	0.50	45
12/1	12.0	11.0	12.0	38.0	84.0	12.0	6	1.00	45
12/1,5	12.0	11.0	12.0	38.0	84.0	12.0	6	1.50	45
12/2	12.0	11.0	12.0	38.0	84.0	12.0	6	2.00	45
12/3	12.0	11.0	12.0	38.0	84.0	12.0	6	3.00	45
16/1	16.0	15.0	16.0	44.0	93.0	16.0	6	1.00	45
16/2	16.0	15.0	16.0	44.0	93.0	16.0	6	2.00	45
16/3	16.0	15.0	16.0	44.0	93.0	16.0	6	3.00	45
20/1	20.0	18.5	20.0	50.0	104.0	20.0	6	1.00	45
20/2,5	20.0	18.5	20.0	50.0	104.0	20.0	6	2.50	45

Cooling	
Tolerance	e8
Coating	TiSiN- α

HA ETC HPC



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		180	180	150	95	70										

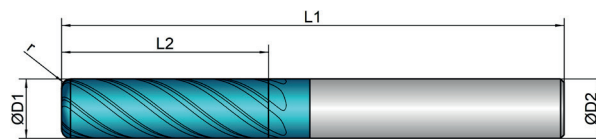
K202293	D1 mm ø	L2 mm	L1 mm	D2 mm ø	z #	r mm	 °
5/0,5	5.0	15.0	58.0	6.0	6	0.50	37.5
5/1	5.0	15.0	58.0	6.0	6	1.00	37.5
6/0,5	6.0	16.0	58.0	6.0	6	0.50	37.5
6/1	6.0	16.0	58.0	6.0	6	1.00	37.5
8/0,5	8.0	22.0	70.0	8.0	6	0.50	37.5
8/1	8.0	22.0	70.0	8.0	6	1.00	37.5
10/0,5	10.0	25.0	73.0	10.0	6	0.50	37.5
10/1	10.0	25.0	73.0	10.0	6	1.00	37.5
10/1,5	10.0	25.0	73.0	10.0	6	1.50	37.5
12/0,5	12.0	28.0	84.0	12.0	6	0.50	37.5
12/1	12.0	28.0	84.0	12.0	6	1.00	37.5
12/1,5	12.0	28.0	84.0	12.0	6	1.50	37.5
14/1	14.0	30.0	84.0	14.0	6	1.00	37.5
16/1	16.0	36.0	93.0	16.0	8	1.00	37.5
16/2	16.0	36.0	93.0	16.0	8	2.00	37.5
18/1	18.0	36.0	93.0	18.0	10	1.00	37.5
20/1	20.0	41.0	104.0	20.0	10	1.00	37.5
20/2	20.0	41.0	104.0	20.0	10	2.00	37.5

SC torus cutter long TiSiN HPC / ETC | K202303

Cooling	
Tolerance	e8
Coating	TiSiN- α





HA K202303



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		160	160	130	85	60										

K202303	D1 mm ø	L2 mm	L1 mm	D2 mm ø	z #	r mm	 °
6/0,5	6.0	21.0	65.0	6.0	6	0.50	37.5
6/1	6.0	21.0	65.0	6.0	6	1.00	37.5
8/0,5	8.0	28.0	75.0	8.0	6	0.50	37.5
8/1	8.0	28.0	75.0	8.0	6	1.00	37.5
10/0,5	10.0	35.0	85.0	10.0	6	0.50	37.5
10/1	10.0	35.0	85.0	10.0	6	1.00	37.5
10/1,5	10.0	35.0	85.0	10.0	6	1.50	37.5
12/0,5	12.0	45.0	100.0	12.0	6	0.50	37.5
12/1	12.0	45.0	100.0	12.0	6	1.00	37.5
12/1,5	12.0	45.0	100.0	12.0	6	1.50	37.5
14/1	14.0	45.0	100.0	14.0	6	1.00	37.5
16/1	16.0	50.0	110.0	16.0	8	1.00	37.5
16/2	16.0	50.0	110.0	16.0	8	2.00	37.5
18/1	18.0	54.0	114.0	18.0	10	1.00	37.5
20/1	20.0	55.0	126.0	20.0	10	1.00	37.5
20/2	20.0	55.0	126.0	20.0	10	2.00	37.5

Cooling	 
Tolerance	e8
Coating	TiSiN- α

HA

ETC

HPC



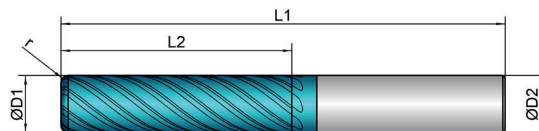














HA K202307



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		160	160	130	85	60										

K202307	D1  mm ∅	L2  mm	L1  mm	D2  mm ∅	z  #	r  mm	 °
16/1	16.0	65.0	125.0	16.0	8	1.00	37.5
16/2	16.0	65.0	125.0	16.0	8	2.00	37.5
20/1	20.0	70.0	135.0	20.0	10	1.00	37.5
20/2	20.0	70.0	135.0	20.0	10	2.00	37.5

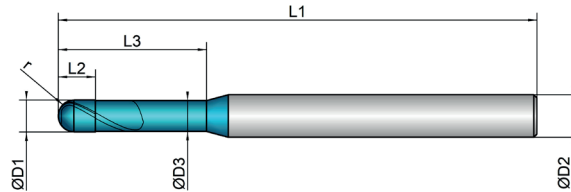
SC micro full radius cutter short TiSiN HSC | K203206

Cooling	
Tolerance	0-0,01
Coating	TiSiN- α

HA HSC












HA K203206


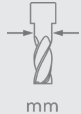









Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
220	210	195	125	75	60	45	100									

	D1	D3	L2	L3	L1	D2	z	r	
K203206	mm	mm	mm	mm	mm	mm	#	mm	°
0,2X0,3	0.2	0.17	0.16	0.3	45.0	4.0	2	0.10	30
0,2X0,5	0.2	0.17	0.16	0.5	45.0	4.0	2	0.10	30
0,2X0,75	0.2	0.17	0.16	0.75	45.0	4.0	2	0.10	30
0,2X1	0.2	0.17	0.16	1.0	45.0	4.0	2	0.10	30
0,2X1,25	0.2	0.17	0.16	1.25	45.0	4.0	2	0.10	30
0,2X1,5	0.2	0.17	0.16	1.5	45.0	4.0	2	0.10	30
0,2X1,75	0.2	0.17	0.16	1.75	45.0	4.0	2	0.10	30
0,2X2	0.2	0.17	0.16	2.0	45.0	4.0	2	0.10	30
0,2X2,5	0.2	0.17	0.16	2.5	45.0	4.0	2	0.10	30
0,2X3	0.2	0.17	0.16	3.0	45.0	4.0	2	0.10	30
0,3X0,5	0.3	0.27	0.24	0.5	45.0	4.0	2	0.15	30
0,3X0,75	0.3	0.27	0.24	0.75	45.0	4.0	2	0.15	30
0,3X1	0.3	0.27	0.24	1.0	45.0	4.0	2	0.15	30
0,3X1,25	0.3	0.27	0.24	1.25	45.0	4.0	2	0.15	30
0,3X1,5	0.3	0.27	0.24	1.5	45.0	4.0	2	0.15	30
0,4X0,5	0.4	0.34	0.32	0.5	45.0	4.0	2	0.20	30
0,4X0,75	0.4	0.34	0.32	0.75	45.0	4.0	2	0.20	30
0,4X1	0.4	0.34	0.32	1.0	45.0	4.0	2	0.20	30
0,4X1,5	0.4	0.34	0.32	1.5	45.0	4.0	2	0.20	30

K203206	 mm ø	 mm ø	 mm	 mm	 mm	 mm ø	 #	 mm	 °
0,4X2	0.4	0.34	0.32	2.0	45.0	4.0	2	0.20	30
0,4X2,5	0.4	0.34	0.32	2.5	45.0	4.0	2	0.20	30
0,4X3	0.4	0.34	0.32	3.0	45.0	4.0	2	0.20	30
0,4X3,5	0.4	0.34	0.32	3.5	45.0	4.0	2	0.20	30
0,4X4	0.4	0.34	0.32	4.0	45.0	4.0	2	0.20	30
0,4X4,5	0.4	0.34	0.32	4.5	45.0	4.0	2	0.20	30
0,4X5	0.4	0.34	0.32	5.0	45.0	4.0	2	0.20	30
0,4X5,5	0.4	0.34	0.32	5.5	45.0	4.0	2	0.20	30
0,4X6	0.4	0.34	0.32	6.0	45.0	4.0	2	0.20	30
0,5X1	0.5	0.47	0.4	1.0	45.0	4.0	2	0.25	30
0,5X1,5	0.5	0.47	0.4	1.5	45.0	4.0	2	0.25	30
0,5X2	0.5	0.47	0.4	2.0	45.0	4.0	2	0.25	30
0,5X2,5	0.5	0.47	0.4	2.5	45.0	4.0	2	0.25	30
0,5X3	0.5	0.47	0.4	3.0	45.0	4.0	2	0.25	30
0,5X3,5	0.5	0.47	0.4	3.5	45.0	4.0	2	0.25	30
0,5X4	0.5	0.47	0.4	4.0	45.0	4.0	2	0.25	30
0,5X4,5	0.5	0.47	0.4	4.5	45.0	4.0	2	0.25	30
0,5X5	0.5	0.47	0.4	5.0	45.0	4.0	2	0.25	30
0,5X5,5	0.5	0.47	0.4	5.5	45.0	4.0	2	0.25	30
0,5X6	0.5	0.47	0.4	6.0	45.0	4.0	2	0.25	30
0,5X7	0.5	0.47	0.4	7.0	45.0	4.0	2	0.25	30
0,5X8	0.5	0.47	0.4	8.0	45.0	4.0	2	0.25	30
0,5X9	0.5	0.47	0.4	9.0	45.0	4.0	2	0.25	30
0,6X1	0.6	0.57	0.48	1.0	45.0	4.0	2	0.30	30
0,6X2	0.6	0.57	0.48	2.0	45.0	4.0	2	0.30	30
0,6X3	0.6	0.57	0.48	3.0	45.0	4.0	2	0.30	30
0,6X4	0.6	0.57	0.48	4.0	45.0	4.0	2	0.30	30
0,6X5	0.6	0.57	0.48	5.0	45.0	4.0	2	0.30	30
0,6X6	0.6	0.57	0.48	6.0	45.0	4.0	2	0.30	30
0,6X8	0.6	0.57	0.48	8.0	45.0	4.0	2	0.30	30
0,8X2	0.8	0.77	0.64	2.0	45.0	4.0	2	0.40	30
0,8X3	0.8	0.77	0.64	3.0	45.0	4.0	2	0.40	30
0,8X4	0.8	0.77	0.64	4.0	45.0	4.0	2	0.40	30
0,8X5	0.8	0.77	0.64	5.0	45.0	4.0	2	0.40	30
0,8X6	0.8	0.77	0.64	6.0	45.0	4.0	2	0.40	30
0,8X7	0.8	0.77	0.64	7.0	45.0	4.0	2	0.40	30
0,8X8	0.8	0.77	0.64	8.0	45.0	4.0	2	0.40	30
0,8X9	0.8	0.77	0.64	9.0	45.0	4.0	2	0.40	30
1X2,5	1.0	0.96	0.8	2.5	45.0	4.0	2	0.50	30
1X3	1.0	0.96	0.8	3.0	45.0	4.0	2	0.50	30

SC micro full radius cutter short TiSiN HSC | K203206

K203206	 mm ∅	 mm ∅	 mm	 mm	 mm	 mm ∅	 #	 mm	 °
1X4	1.0	0.96	0.8	4.0	45.0	4.0	2	0.50	30
1X5	1.0	0.96	0.8	5.0	45.0	4.0	2	0.50	30
1X6	1.0	0.96	0.8	6.0	45.0	4.0	2	0.50	30
1X7	1.0	0.96	0.8	7.0	45.0	4.0	2	0.50	30
1X8	1.0	0.96	0.8	8.0	45.0	4.0	2	0.50	30
1X9	1.0	0.96	0.8	9.0	45.0	4.0	2	0.50	30
1X10	1.0	0.96	0.8	10.0	45.0	4.0	2	0.50	30
1X12	1.0	0.96	0.8	12.0	45.0	4.0	2	0.50	30
1,2X6	1.2	1.16	0.96	6.0	45.0	4.0	2	0.60	30
1,2X8	1.2	1.16	0.96	8.0	45.0	4.0	2	0.60	30
1,2X10	1.2	1.16	0.96	10.0	45.0	4.0	2	0.60	30
1,2X12	1.2	1.16	0.96	12.0	45.0	4.0	2	0.60	30
1,4X8	1.4	1.34	1.12	8.0	45.0	4.0	2	0.70	30
1,4X12	1.4	1.34	1.12	12.0	45.0	4.0	2	0.70	30
1,5X3	1.5	1.44	1.2	3.0	45.0	4.0	2	0.75	30
1,5X4	1.5	1.44	1.2	4.0	45.0	4.0	2	0.75	30
1,5X6	1.5	1.44	1.2	6.0	45.0	4.0	2	0.75	30
1,5X8	1.5	1.44	1.2	8.0	45.0	4.0	2	0.75	30
1,5X10	1.5	1.44	1.2	10.0	45.0	4.0	2	0.75	30
1,5X12	1.5	1.44	1.2	12.0	45.0	4.0	2	0.75	30
1,6X8	1.6	1.54	1.28	8.0	45.0	4.0	2	0.80	30
1,6X12	1.6	1.54	1.28	12.0	45.0	4.0	2	0.80	30
1,8X8	1.8	1.74	1.44	8.0	45.0	4.0	2	0.90	30
1,8X12	1.8	1.74	1.44	12.0	45.0	4.0	2	0.90	30
2X3	2.0	1.94	1.6	3.0	45.0	4.0	2	1.00	30
2X4	2.0	1.94	1.6	4.0	45.0	4.0	2	1.00	30
2X6	2.0	1.94	1.6	6.0	45.0	4.0	2	1.00	30
2X8	2.0	1.94	1.6	8.0	45.0	4.0	2	1.00	30
2X10	2.0	1.94	1.6	10.0	45.0	4.0	2	1.00	30
2X12	2.0	1.94	1.6	12.0	45.0	4.0	2	1.00	30
2,5X10	2.5	2.41	2.0	10.0	45.0	4.0	2	1.25	30
3X8	3.0	2.92	3.5	8.0	45.0	4.0	2	1.50	30
3X10	3.0	2.92	3.5	10.0	45.0	4.0	2	1.50	30
3X12	3.0	2.92	3.5	12.0	45.0	4.0	2	1.50	30
3X16	3.0	2.92	3.5	16.0	45.0	4.0	2	1.50	30

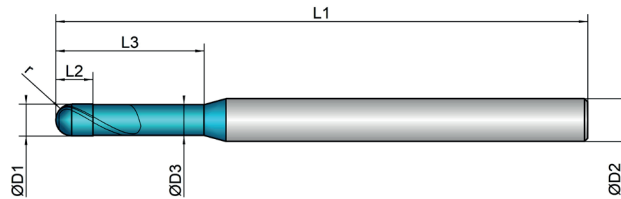
Cooling	
Tolerance	0-0,01
Coating	TiSiN- α

HA HSC

Expert




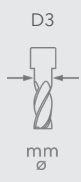

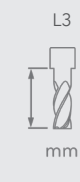





HA K203212




Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
220	210	195	125	75	60	45	100									

	D1	D3	L2	L3	L1	D2	z	r	
K203212									
	mm	mm	mm	mm	mm	mm	#	mm	°
0,3X1,75	0.3	0.27	0.24	1.75	50.0	4.0	2	0.15	30
0,3X2	0.3	0.27	0.24	2.0	50.0	4.0	2	0.15	30
0,3X2,25	0.3	0.27	0.24	2.25	50.0	4.0	2	0.15	30
0,3X2,5	0.3	0.27	0.24	2.5	50.0	4.0	2	0.15	30
0,3X2,75	0.3	0.27	0.24	2.75	50.0	4.0	2	0.15	30
0,3X3	0.3	0.27	0.24	3.0	50.0	4.0	2	0.15	30
0,3X3,5	0.3	0.27	0.24	3.5	50.0	4.0	2	0.15	30
0,3X4	0.3	0.27	0.24	4.0	50.0	4.0	2	0.15	30
0,3X4,5	0.3	0.27	0.24	4.5	50.0	4.0	2	0.15	30
0,5X10	0.5	0.47	0.4	10.0	50.0	4.0	2	0.25	30
0,6X10	0.6	0.57	0.48	10.0	50.0	4.0	2	0.30	30
0,6X12	0.6	0.57	0.48	12.0	50.0	4.0	2	0.30	30

SC micro full radius cutter long TiSiN HSC | K203212

K203212	 D1 mm ∅	 D3 mm ∅	 L2 mm	 L3 mm	 L1 mm	 D2 mm ∅	 z #	 r mm	 °
0,8X10	0.8	0.77	0.64	10.0	50.0	4.0	2	0.40	30
1X14	1.0	0.96	0.8	14.0	50.0	4.0	2	0.50	30
1X16	1.0	0.96	0.8	16.0	50.0	4.0	2	0.50	30
1,2X14	1.2	1.16	0.96	14.0	50.0	4.0	2	0.60	30
1,2X16	1.2	1.16	0.96	16.0	50.0	4.0	2	0.60	30
1,4X16	1.4	1.34	1.12	16.0	50.0	4.0	2	0.70	30
1,5X14	1.5	1.44	1.2	14.0	50.0	4.0	2	0.75	30
1,5X16	1.5	1.44	1.2	16.0	50.0	4.0	2	0.75	30
1,6X16	1.6	1.54	1.28	16.0	50.0	4.0	2	0.80	30
1,8X16	1.8	1.74	1.44	16.0	50.0	4.0	2	0.90	30
2X14	2.0	1.94	1.6	14.0	50.0	4.0	2	1.00	30
2X16	2.0	1.94	1.6	16.0	50.0	4.0	2	1.00	30
2,5X15	2.5	2.41	2.0	15.0	50.0	4.0	2	1.25	30
3X16	3.0	2.92	3.5	16.0	50.0	4.0	2	1.50	30


Cooling	 
Tolerance	f8
Coating	TiSiN- α

HA

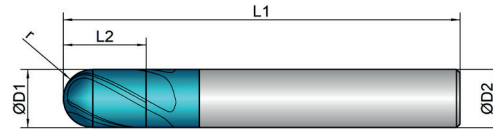
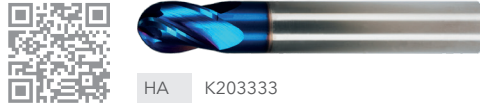
HSC

HPC






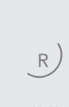







Expert



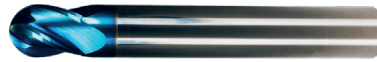
Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		200	175	155	110	85										

K203333	D1  mm ø	L2  mm	L1  mm	D2  mm ø	z  #	r  mm	 °
2/3	2.0	4.0	50.0	3.0	4	1.00	30
2/6	2.0	4.0	54.0	6.0	4	1.00	30
2,5/6	2.5	5.0	54.0	6.0	4	1.25	30
3/3	3.0	5.0	50.0	3.0	4	1.50	30
3/6	3.0	5.0	54.0	6.0	4	1.50	30
4/4	4.0	8.0	54.0	4.0	4	2.00	30
4/6	4.0	8.0	54.0	6.0	4	2.00	30
5/5	5.0	9.0	54.0	5.0	4	2.50	30
5/6	5.0	9.0	54.0	6.0	4	2.50	30
6/6	6.0	10.0	54.0	6.0	4	3.00	30
7/8	7.0	12.0	59.0	8.0	4	3.50	30
8/8	8.0	12.0	59.0	8.0	4	4.00	30
9/10	9.0	14.0	67.0	10.0	4	4.50	30
10/10	10.0	14.0	67.0	10.0	4	5.00	30
12/12	12.0	16.0	74.0	12.0	4	6.00	30
14/14	14.0	18.0	75.0	14.0	4	7.00	30
16/16	16.0	22.0	83.0	16.0	4	8.00	30
20/20	20.0	26.0	93.0	20.0	4	10.00	30

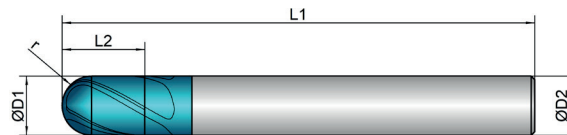
SC full radius cutter long TiAlN HPC / HSC | K203343

Cooling	 
Tolerance	f8
Coating	TiSiN- α








HA HSC HPC  



HA K203343



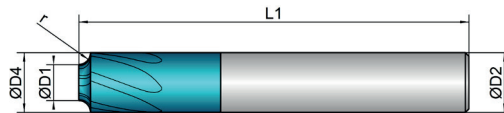
Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		200	175	155	110	85										

K203343	D1  mm ø	L2  mm	L1  mm	D2  mm ø	z  #	r  mm	 °
2/3	2.0	4.0	75.0	3.0	4	1.00	30
2/6	2.0	4.0	80.0	6.0	4	1.00	30
2,5/6	2.5	5.0	80.0	6.0	4	1.25	30
3/3	3.0	5.0	75.0	3.0	4	1.50	30
3/6	3.0	5.0	80.0	6.0	4	1.50	30
4/4	4.0	8.0	75.0	4.0	4	2.00	30
4/6	4.0	8.0	80.0	6.0	4	2.00	30
5/5	5.0	9.0	75.0	5.0	4	2.50	30
5/6	5.0	9.0	100.0	6.0	4	2.50	30
6/6	6.0	10.0	100.0	6.0	4	3.00	30
8/8	8.0	12.0	100.0	8.0	4	4.00	30
10/10	10.0	14.0	100.0	10.0	4	5.00	30
12/12	12.0	16.0	100.0	12.0	4	6.00	30
14/14	14.0	18.0	100.0	14.0	4	7.00	30
16/16	16.0	22.0	150.0	16.0	4	8.00	30
20/20	20.0	26.0	150.0	20.0	4	10.00	30

Cooling	
Tolerance	0-0,01
Coating	TiSiN- α





HA K204108

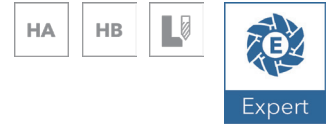


Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
			50	45	40	30	95									

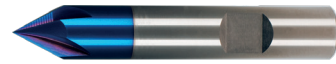
K204108	r R mm	D5 mm Ø	D4 mm Ø	L1 mm	D2 mm Ø	z #
3,6/0,2	0.20	3.6	4	50.0	4.0	6
3,4/0,3	0.30	3.4	4	50.0	4.0	6
3,2/0,4	0.40	3.2	4	50.0	4.0	6
3/0,5	0.50	3	4	50.0	4.0	6
4,8/0,6	0.60	4.8	6	50.0	6.0	6
4,4/0,8	0.80	4.4	6	50.0	6.0	6
4/1	1.00	4	6	50.0	6.0	6
5/1,5	1.50	5	8	55.0	10.0	6
6/2	2.00	6	10	66.0	10.0	6
7/2,5	2.50	7	12	73.0	12.0	6
6/3	3.00	6	12	73.0	12.0	6
9/3,5	3.50	9	16	80.0	16.0	6
8/4	4.00	8	16	80.0	16.0	6
7/4,5	4.50	7	16	80.0	16.0	6
10/5	5.00	10	20	93.0	20.0	6
8/6	6.00	8	20	93.0	20.0	6
9/8	8.00	9	25	100.0	25.0	6
5/10	10.00	5	25	100.0	25.0	6

SC deburrer 60° TiSiN | K205153 / K205154

Cooling	 
Tolerance	-
Coating	TiSiN- α



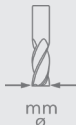



HA K205153





HB K205154



Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		65	50	45	40	35										

K205153	K205154	D1  mm Ø	L1  mm	D2  mm Ø	z  #
3	-	3.0	50.0	3.0	3
4	-	4.0	50.0	4.0	4
6	6	6.0	50.0	6.0	4
8	8	8.0	59.0	8.0	4
10	10	10.0	66.0	10.0	4
12	12	12.0	73.0	12.0	4

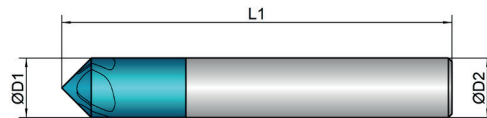
Cooling	 
Tolerance	-
Coating	TiSiN- α







HA K205163



HB K205164

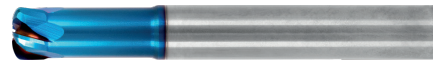


Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
		65	50	45	40	35										

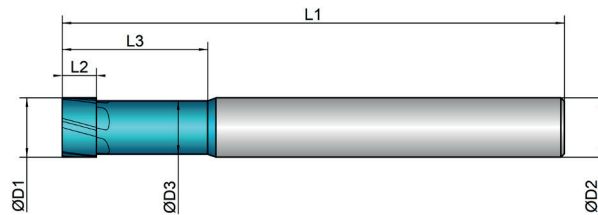
K205163	K205164	D1	L1	D2	z
		 mm ø	 mm	 mm ø	 #
3	-	3.0	50.0	3.0	3
4	-	4.0	50.0	4.0	4
6	6	6.0	50.0	6.0	4
8	8	8.0	59.0	8.0	4
10	10	10.0	66.0	10.0	4
12	12	12.0	73.0	12.0	4

SC face torus cutter TiSiN HSC | K207013

Cooling	
Tolerance	h9
Coating	TiSiN- α



HA K207013



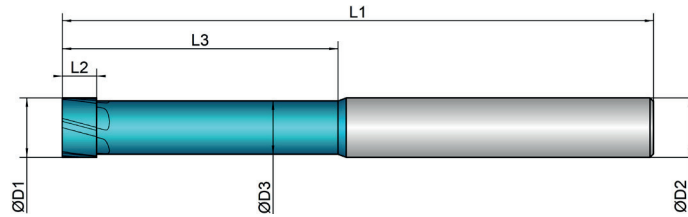
Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
			160	120	90											

K207013	D1 mm Ø	D3 mm Ø	L2 mm	L3 mm	L1 mm	D2 mm Ø	z #	mm	mm max	°
2	2.0	1.7	1.5	13.0	54.0	6.0	2	0.3	0.06	15
3	3.0	2.7	1.5	15.0	54.0	6.0	2	0.3	0.10	15
4	4.0	3.6	2.5	16.0	57.0	6.0	2	0.5	0.15	15
5	5.0	4.6	3.5	18.0	65.0	6.0	4	0.5	0.17	15
6	6.0	5.2	3.5	20.0	65.0	6.0	4	1.0	0.20	15
8	8.0	7.0	4.8	24.0	70.0	8.0	5	1.5	0.25	15
10	10.0	9.0	5.8	26.0	85.0	10.0	5	2.0	0.30	15
12	12.0	11.0	6.8	30.0	93.0	12.0	5	2.0	0.40	15
16	16.0	14.5	8.8	35.0	100.0	16.0	5	2.5	0.50	15

Cooling	
Tolerance	h9
Coating	TiSiN- α



HA K207018


















Steel			Hardened steel				Stainless steel (VA)	Castings	Non-ferrous materials				Inconel	Abrasive material		Titanium
< 850 N/mm	< 1100 N/mm	< 1400 N/mm	< 55 HRC	< 60 HRC	< 67 HRC	< 70 HRC			Al	Copper	Mg	Plastics		CFRP / GFRP	Graphite	
			140	100	80											
























K207018	D1 mm Ø	D3 mm Ø	L2 mm	L3 mm	L1 mm	D2 mm Ø	z #	mm	mm max	°
2	2.0	1.7	1.5	18.0	75.0	6.0	2	0.3	0.06	15
3	3.0	2.7	1.5	20.0	75.0	6.0	2	0.3	0.10	15
4	4.0	3.6	2.5	24.0	83.0	6.0	2	0.5	0.15	15
5	5.0	4.6	3.5	28.0	100.0	6.0	4	0.5	0.17	15
6	6.0	5.2	3.5	28.0	100.0	6.0	4	1.0	0.20	15
8	8.0	7.0	4.8	40.0	100.0	8.0	5	1.5	0.25	15
10	10.0	9.0	5.8	48.0	100.0	10.0	5	2.0	0.30	15
12	12.0	11.0	6.8	56.0	119.0	12.0	5	2.0	0.40	15
16	16.0	14.5	8.8	65.0	150.0	16.0	5	2.5	0.50	15

LEGEND






PROPERTIES

	Cutting diameter		Small cutting diameter		Large cutting diameter
	Undercut diameter		Length of cut		Tool bezel length
	Length of undercut		Total length		Shank diameter
	Number of cutting edges		Corner radius		Corner bezel
	Programming radius		Maximum cutting depth		Helical pitch

SPECIAL FEATURES

	No Weldon		Weldon HB		Extended Trochoidal Cutting
	High Speed Cutting		High Performance Cutting		Multi-Task Cutting
	Universal machining		Engraving		Unequal tooth pitch
	Coolant duct system		Multipass milling		Trimming
	Chip breaking		Full slot		Forward and backward deburring
	Serrated edge		Deburring		Corner rounding
	2xD		3xD		4xD
	5xD		Dynamic helical pitch		

COOLING

	Air-cooled		Dry		Oil
	Water ^{max}		Water ^{min}		

COATINGS

Our coatings are optimised in unison with the cutters' geometry by testing in both an extensive internal procedure and under the customer's real application conditions. The selection is perfectly matched to the respective field of application.

TiN- α	TiN Alpha	TiSiN- α	TiSiN Alpha	TiAlN- α	TiAlN Alpha
Diamond- α	Diamond Alpha	TAC- α	TAC Alpha	ZrCn- α	ZrCrN Alpha
TiCn- α	TiCN Alpha				

PRODUCT GROUPS

01	End mill cutter	02	Torus cutter	03	Full radius cutter
04	Form cutter	05	Chamfer cutter	06	Roughing cutter
07	Face torus cutter				

APPLICATION TABLE

The values given in the application table are only guidelines. These values depend largely on the individual application parameters.

ILLUSTRATIONS

All illustrated technical drawings and photographs are exemplary. Deviations from the original product in color and dimensions are possible.



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