

Cooling	 
Tolerance	e8
Coating	TiSiN- α

HA

ETC

HPC





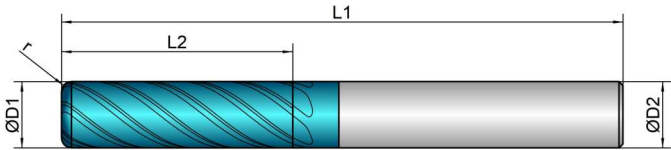




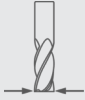
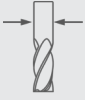
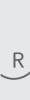
Expert



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										

	D1  mm ø	L2  mm	L1  mm	D2  mm ø	z  #	r  mm	 °
K202303							
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

Kühlung



Toleranz

e8

Beschichtung

TiSiN- α

HA

ETC

HPC



Expert



Werkstoff / Material	Festigkeit / strength (N/mm ²)		Vc m/min	Ø 0,1 - 2		Ø 3 - 4		Ø 5		Ø 6		Ø 8		Ø 10		Ø 12		Ø 16		Ø 20			
																							
				ae= 0,3xD	ae= 0,05xD	ae= 0,3xD	ae= 0,05xD	ae= 0,3xD	ae= 0,05xD	ae= 0,3xD	ae= 0,05xD	ae= 0,3xD	ae= 0,05xD	ae= 0,3xD	ae= 0,05xD	ae= 0,3xD	ae= 0,05xD	ae= 0,3xD	ae= 0,05xD	ae= 0,3xD	ae= 0,05xD	ae= 0,3xD	ae= 0,05xD
				ap= L _{2max}	ap= 0,05xD	ap= L _{2max}	ap= 0,05xD	ap= L _{2max}	ap= 0,05xD	ap= L _{2max}	ap= 0,05xD	ap= L _{2max}	ap= 0,05xD	ap= L _{2max}	ap= 0,05xD	ap= L _{2max}	ap= 0,05xD	ap= L _{2max}	ap= 0,05xD	ap= L _{2max}	ap= 0,05xD	ap= L _{2max}	ap= 0,05xD
				fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)	fz (mm/Z)
Stahl / Steel	< 850																						
Stahl / Steel	< 1100																						
Stahl / Steel	< 1400		160							0,04	0,022	0,05	0,028	0,057	0,033	0,065	0,04	0,08	0,055	0,08	0,06		
Gehärteter Stahl / Hardness Steel	< 55HRC		160							0,02	0,018	0,025	0,022	0,025	0,022	0,035	0,032	0,035	0,032	0,035	0,032		
Gehärteter Stahl / Hardness Steel	< 60HRC		130							0,02	0,018	0,025	0,022	0,025	0,022	0,035	0,032	0,035	0,032	0,035	0,032		
Gehärteter Stahl / Hardness Steel	< 67HRC		85							0,018	0,016	0,023	0,02	0,023	0,02	0,033	0,03	0,032	0,03	0,032	0,03		
Gehärteter Stahl / Hardness Steel	≤ 70HRC		60							0,015	0,013	0,02	0,017	0,02	0,017	0,03	0,027	0,029	0,027	0,029	0,027		
INOX	< 700																						
INOX	< 850																						
Guss / Castings																							
Aluminium / Al																							
Kupfer / Cooper																							
Kunststoffe / Plastics																							
Inconel																							
Titan / Titanium																							
Grafit / Graphite																							
GFK / CFK																							

Bitte beachten, hierbei handelt es sich lediglich um Richtwerte! / Caution, these are only guide values!