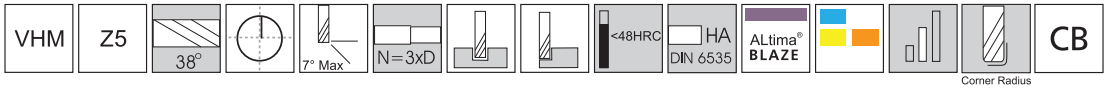
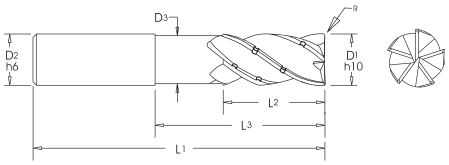
NEW PRODUCT

TuffCut® XT Series 278CBR N3

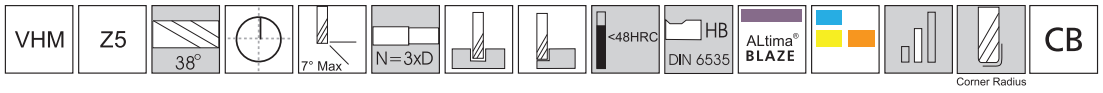


Close up of chipbreaker grind

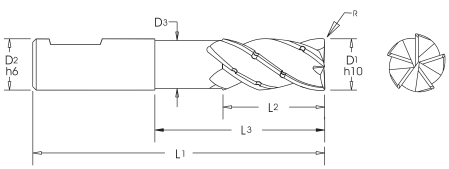


Cylindrical Shank (HA)

Tool No.	D1	D2	D3	L1	L2	L3	R
278CB 10N3-1.0RB	10.0	10.0	9.8	72.0	22.0	31.0	1.0
278CB 12N3-1.0RB	12.0	12.0	11.4	84.0	26.0	38.0	1.0
278CB 16N3-1.0RB	16.0	16.0	15.2	100.0	35.0	50.0	1.0



Close up of chipbreaker grind



Weldon Shank (HB)

Tool No.	D1	D2	D3	L1	L2	L3	R
278CB 10N3-1.0RBW	10.0	10.0	9.8	72.0	22.0	31.0	1.0
278CB 12N3-1.0RBW	12.0	12.0	11.4	84.0	26.0	38.0	1.0
278CB 16N3-1.0RBW	16.0	16.0	15.2	100.0	35.0	50.0	1.0

TuffCut® XT Series 279, 277 / R / NR / NR-W, 278 R / N3 / N4 / N5

Recommended cutting data Conditions de coupe recommandées | Empfohlene Schnittdaten | Dati di taglio Raccomandati | Zalecane Parametry

Workpiece Material Group		Material Type	Coolant			1 x D 0.5 x D	1 x D 1 x D	0.05 x D 2 x D	0.1 x D 2 x D	0.2 x D 2 x D	0.3 x D 1.5 x D	0.5 x D 1.5 x D
			Max	Air	MMS	Vc-M/Min						
Steels	P	Low Carbon	●	●	●	230	220	480	385	330	275	220
		Medium Carbon	●	●	●	200	185	345	275	255	220	185
		Alloy Steels	●	●	●	175	165	315	255	230	200	165
		Die/Tool Steels	●	●	●	145	130	275	220	187	145	130
Stainless Steels	M	Free Machining	●	X	○	120	110	205	165	130	115	110
		Austenitic	●	X	○	110	100	160	130	120	110	100
		Difficult Stainless	●	X	○	75	65	125	100	90	75	65
		PH Stainless	●	X	○	110	100	160	130	120	110	100
		Cobalt Chrome Alloys	●	X	○	75	65	125	100	90	75	65
		Duplex (22%)	●	X	○	75	65	125	100	90	75	65
		Super Duplex (25%)	●	X	○	55	45	75	60	55	50	45
Special Alloys	S	High Temp Alloys	●	X	X	35	28	55	45	40	35	28
			●	X	X	35	28	55	45	40	35	28
		Titanium Alloys	●	X	X	75	66	160	130	100	85	65
Cast Irons	K	Gray Cast Iron	●	○	○	200	175	495	395	265	210	175
		Ductile Cast Iron	●	○	○	185	165	370	300	210	185	165
		Malleable Iron	●	○	○	145	132	205	165	155	145	130
Hardened Steels	H	Hardened Steels 35 - 45 Rc	●	○	○	60	50	185	150	100	55	50
		Hardened Steels 45 - 55 Rc	●	○	○	50	45	155	125	85	50	45

● Preferred ○ Possible X Not Possible

Workpiece Material Group		Material Type	Tool Diameter								
			3mm	5mm	6mm	8mm	10mm	12mm	16mm	20mm	25mm
			fz-mm/tooth								
Steels	P	Profiling	0.030	0.050	0.06	0.080	0.100	0.120	0.160	0.200	0.250
		Slotting	0.015	0.025	0.03	0.040	0.050	0.060	0.080	0.100	0.125
Stainless Steels	M	Profiling	0.030	0.050	0.06	0.080	0.100	0.120	0.160	0.200	0.250
		Slotting	0.015	0.025	0.03	0.040	0.050	0.060	0.080	0.100	0.125
Special Alloys	S	Profiling	0.009	0.013	0.032	0.038	0.044	0.064	0.076	0.089	0.127
		Slotting	0.005	0.007	0.016	0.019	0.022	0.032	0.038	0.045	0.065
Titanium		Profiling	0.030	0.050	0.060	0.080	0.100	0.120	0.160	0.200	0.250
		Slotting	0.015	0.025	0.030	0.040	0.050	0.060	0.080	0.100	0.125
Cast Irons	K	Profiling	0.030	0.050	0.060	0.080	0.100	0.120	0.160	0.200	0.250
		Slotting	0.015	0.025	0.030	0.040	0.050	0.060	0.080	0.100	0.125
Hardened Steels	H	Profiling 35 - 45 Rc	0.016	0.023	0.057	0.069	0.080	0.114	0.137	0.160	0.229
		Slotting 35 - 45 Rc	0.010	0.015	0.025	0.035	0.045	0.065	0.070	0.075	0.100
		Profiling 45 - 55 Rc	0.010	0.015	0.041	0.051	0.058	0.084	0.102	0.119	0.170
		Slotting 45 - 55 Rc	0.008	0.011	0.020	0.030	0.040	0.050	0.055	0.080	0.090

During profile milling less than 50% of the cutter diameter radial width, the actual chip thickness at the cutting edge is less than the programmed chipload. The accompanying table shows the increase in tooth load by given raidal percentage engagement. Multiply your feed per tooth by the factor before finalising your table feed.

Radial Cut (Ae)	Chip thickness Compensation factor
30%	1.10
20%	1.20
15%	1.40
10%	1.80
7%	2.00
5%	2.30
1%	5.00

Note:

For N4 tools reduce above data by 10%
For N5 tools reduce above data by 30%

For N4 & N5 tools profile machining only!