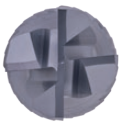
Cooling	
Tolerance	e8
Coating	BetaUni Iron

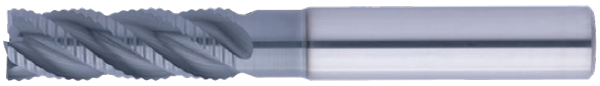
Strategy	HPC, UNI
Application	
Features	HA, ≠, 3xD

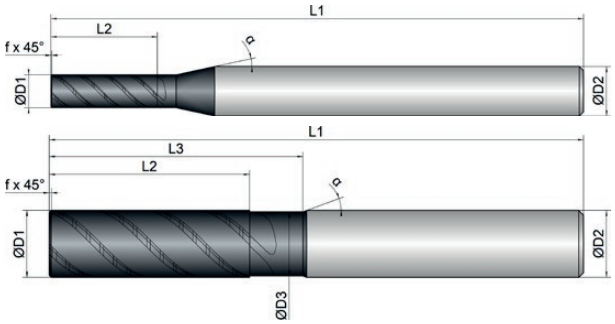
Basic

- Optimized chip chambers for a large chip volume
- Adapted roughing teeth for small chips

- For roughing under HPC conditions







Roughing

inappropriate — optimal

Finishing

inappropriate — optimal

BCU1-M02-0113	D1 mm ⌀	D3 mm ⌀	L2 mm	L3 mm	L1 mm	D2 mm ⌀	z #	45° mm	°	α °
4	4.0	0.0	13.0	0.0	65.0	6.0	4	0.10	45	12
5	5.0	0.0	16.0	0.0	65.0	6.0	4	0.20	45	12
6	6.0	5.6	18.0	24.0	65.0	6.0	4	0.20	45	20
8	8.0	7.6	24.0	30.0	70.0	8.0	4	0.20	45	20
10	10.0	9.6	30.0	38.0	80.0	10.0	4	0.32	45	20
12	12.0	11.4	36.0	46.0	93.0	12.0	4	0.32	45	20
16	16.0	15.4	48.0	58.0	110.0	16.0	4	0.32	45	20
20	20.0	19.4	60.0	74.0	126.0	20.0	4	0.50	45	20

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	Material	Strength (N/mm²)	Dimension	Ø4		Ø5		Ø6		Ø8		Ø10		Ø12	
			Infeed in mm	ae= 1xD ap= 1xD	ae= 0.3xD ap= 1xD	ae= 1xD ap= 1xD	ae= 0.3xD ap= 1xD	ae= 1xD ap= 1xD	ae= 0.3xD ap= 1xD	ae= 1xD ap= 1xD	ae= 0.3xD ap= 1xD	ae= 1xD ap= 1xD	ae= 0.3xD ap= 1xD	ae= 1xD ap= 1xD	ae= 0.3xD ap= 1xD
			Application												
			Feed (mm/Z)	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz	fz
P			**Vc (m/min)**												
1.1-1.3	Steel, unalloyed	<850	145	0.012	0.015	0.015	0.022	0.022	0.032	0.032	0.048	0.05	0.07	0.055	0.08
2.1-2.2	Steel, low-alloyed	<950	135	0.01	0.012	0.012	0.02	0.02	0.03	0.03	0.043	0.045	0.065	0.05	0.075
3.1-3.2	Steel, high-alloyed	<1100	125	0.008	0.01	0.01	0.018	0.018	0.025	0.025	0.04	0.042	0.06	0.045	0.07
K			**Vc (m/min)**												
1.1-1.2	Grey cast iron	<1000	160	0.01	0.012	0.012	0.02	0.02	0.03	0.03	0.043	0.045	0.065	0.05	0.075
M			**Vc (m/min)**												
1.1	Inox, ferritic/martensitic	<850	60		0.01		0.015		0.025		0.035		0.05		0.06
2.1	Inox, austenitic	<650	50		0.008		0.012		0.022		0.031		0.045		0.055
N			**Vc (m/min)**												
1.1-2.3	Alu, alloyed, casted	<600	320	0.02	0.035	0.035	0.04	0.04	0.06	0.06	0.08	0.08	0.1	0.1	0.12
3.1-3.3	Cooper, alloyed	<600	150	0.015	0.025	0.025	0.03	0.03	0.05	0.05	0.07	0.07	0.09	0.09	0.11
T			**Vc (m/min)**												
2.1-2.2	Titanium, pure, alloyed	<1000	35		0.01		0.015		0.025		0.035		0.045		0.055
S			**Vc (m/min)**												
1.1-1.3	Super alloys	<1450													

	Material	Strength (N/mm²)	Dimension	Ø16		Ø20	
			Infeed in mm	ae= 1xD ap= 1xD	ae= 0.3xD ap= 1xD	ae= 1xD ap= 1xD	ae= 0.3xD ap= 1xD
			Application				
			Feed (mm/Z)	fz	fz	fz	fz
P			**Vc (m/min)**				
1.1-1.3	Steel, unalloyed	<850	145	0.06	0.085	0.07	0.1
2.1-2.2	Steel, low-alloyed	<950	135	0.055	0.08	0.065	0.09
3.1-3.2	Steel, high-alloyed	<1100	125	0.05	0.075	0.06	0.08
K			**Vc (m/min)**				
1.1-1.2	Grey cast iron	<1000	160	0.055	0.08	0.065	0.09
M			**Vc (m/min)**				
1.1	Inox, ferritic/martensitic	<850	60		0.07		0.08
2.1	Inox, austenitic	<650	50		0.065		0.07
N			**Vc (m/min)**				
1.1-2.3	Alu, alloyed, casted	<600	320	0.11	0.13	0.12	0.14
3.1-3.3	Cooper, alloyed	<600	150	0.1	0.12	0.11	0.13
T			**Vc (m/min)**				
2.1-2.2	Titanium, pure, alloyed	<1000	35		0.065		0.07
S			**Vc (m/min)**				
1.1-1.3	Super alloys	<1450					

NOTE | The values marked in turquoise are side applications!