CUTTING DATA

	Description	Tensile str. RM (MPa)*	B*	Cutting speed	Working feed rate (fz)					
				(Vc)	Series and	bore diamet	er			
					A 6.50- 7.00	B 7.50- 8.50	C 9.00- 11.50	D 10.50- 11.50	E/F/G 12.00– 21.00	
P0	Low-carbon steel, long-chipping, C <0.25%	<530	Α	40-70	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
P1	Low-carbon steel, short-chipping, C <0.25%	<530	А	40-70	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
P2	Steel with carbon content C >0.25%	>530	A	40-70	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
P3	Alloy steel and tool steel, C >0.25%	600-850	A	30-50	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
P4	Alloy steel and tool steel, C >0.25%	850-1400	A	30–50	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
P5	Ferritic, martensitic and stainless PH steel	600-900	A	15-30	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
P6	High-strength ferritic, martensitic and PH stainless steel	900–1350	A	15-30	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
M1	Austenitic stainless steel	<600	A	10-20	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
M2	High-strength austenitic stainless steel	600-800	A	10-20	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
М3	Duplex stainless steel	<800	A	40-70	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
K1	Cast iron	125-500	A	50-90	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
К2	Ductile cast iron with up to medium strength	<600	A	40-70	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
К3	High-strength cast iron and bainitic cast iron	>600	A	40-70	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
N1	Wrought aluminium alloys	-	D	60–120	0.02-0.03	0.02-0.04	0.02-0.05	0.02-0.08	0.05-0.10	
N2	Aluminium alloys with low Si content	-	D	60–120	0.02-0.03	0.02-0.04	0.02-0.05	0.02-0.08	0.05-0.10	
N3	Aluminium alloys with high Si content	-	D	60–120	0.02-0.03	0.02-0.04	0.02-0.05	0.02-0.08	0.05-0.10	
N4	Copper, brass and zinc base	-	D	50-90	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
S1	Iron-based heat-resistant alloys	500-1200	A	10-20	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
S2	Cobalt-based heat-resistant alloys	1000-1450	A	10-20	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
S3	Nickel-based heat-resistant alloys	600-1700	A	10-20	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	
S4	Titanium and titanium alloys	900–1600	A	10-20	0.01-0.02	0.01-0.03	0.02-0.04	0.03-0.06	0.03-0.08	

BSF

* coating for blades



The cutting data listed are guide values! They depend on the amount of slope of the uneven surface. (e.g. high slope > low cutting value). For materials that are difficult to machine, we recommend applying cutting speeds that are at the lower end of the

range.

ACTIVATION SPEED

Counterbore ratio*	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3
* C-bore Ø : Bore Ø										
Bore diameter d										
Series A	1									
6.5	4500	4500	4500	3500	3500	3500	3000	3000	2500	2500
7.0	2500	2500	2500	2500	2500	2000	2000	2000	2000	2000
Sorios B										
7 5	4500	4500	4500	3500	3500	3000	3000	2500	2500	2500
7.5	2500	2500	2500	2500	2500	2000	2000	2000	2000	2000
0.0	2500	2500	2500	2500	2500	2000	2000	2000	1500	2000
0.0	2000	2000	2000	2000	2000	2000	2000	2000	1500	1500
Series C										
9.0	3500	3500	3500	3000	3000	2500	2500	2500	2500	2500
9.5	2500	2500	2500	2500	2000	2000	2000	2000	2000	2000
10.0	2000	2000	2000	2000	2000	2000	2000	2000	2000	1500
Series D										
10.5	5000	5000	5000	3500	3500	3500	3000	3000	2500	2500
11.0	3000	3000	3000	2500	2500	2500	2500	2500	2000	2000
11.5	2500	2500	2500	2000	2000	2000	2000	2000	2000	2000
Series E										
12.0	3500	3500	3500	2500	2500	2500	2500	2500	2000	2000
12.5 - 13.0	2500	2500	2500	2000	2000	2000	2000	1500	1500	1500
13.5 - 14.0	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
Series F										
14.5	3500	3500	3500	2500	2500	2500	2500	2500	2500	2000
15.0 - 15.5	3000	3000	3000	2500	2500	2500	2000	2000	2000	2000
16.0 - 17.0	2000	2000	2000	1500	1500	1500	1500	1500	1500	1500
Series G										
17.5 - 18.0	3500	3500	3500	2500	2500	2500	2000	2000	2000	1500
18.5 - 19.5	2000	2000	2000	1500	1500	1500	1500	1500	1500	1500
20.0 - 21.0	1500	1500	1500	1000	1000	1000	1000	1000	1000	1000

BSF PROCESS STEPS

APPLICATION AND PROGRAMMING EXAMPLE



	Ø11.0 mm
	C45
ð:	Ø24.0 mm
lepth:	8.0 mm

AL: Is:	BSF-D-1100/050-12.0 BSF-M-D-1A-12.0 22.5 mm 9.6 mm
Vc:	30 m/min.
fz:	0.05 mm/rev

ed:	Counterbore ratio 24.0: 11.0 = 2.18
	> 2000 rpm

