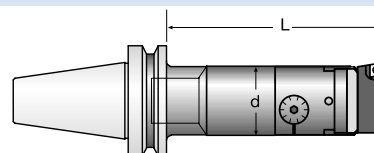


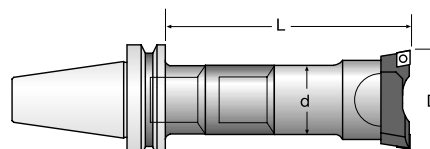
D'ANDREA® Modular tool system

- Please adjust these guideline values according to clamping operation and machine set-up!



Cutting data for micrometric boring bars

ISO	Materials group	Strength/ Hardness	Boring bars Dimensions L / d mm	Working conditions	Cutting speed Vc m/min	Feed f mm/rev		Indexable insert quality	Clamp depth ap mm
						r = 0.2 mm	r = 0.4 mm		
P	Carbon steel	≤ 200 HB	2.5	Good	200 - 300	0.05 - 0.08	0.07 - 0.1	Cermet DC 100 (T) LN 10 DP 300	0.1 - 0.25
			4	Normal	160 - 250	0.05 - 0.08	0.07 - 0.1		
			6.3	Difficult	70 - 100	0.05 - 0.08	-		
		> 200 HB	2.5	Good	160 - 250	0.05 - 0.08	0.07 - 0.1	Cermet DC 100 (T) LN 10	
			4	Normal	150 - 200	0.05 - 0.08	0.07 - 0.1		
			6.3	Difficult	70 -100	0.05 - 0.08	-		
M	Stainless steel	2.5	Good	120 - 160	0.05 - 0.08	0.07 - 0.1	DP 300 LN 10		
		4	Normal	100 - 140	0.05 - 0.08	0.07 - 0.1			
		6.3	Difficult	70 - 100	0.05 - 0.08	-			
K	Cast iron	2.5	Good	120 - 160	0.05 - 0.08	0.07 - 0.1	Cermet DC 100 (T) LN 10 DK 100		
		4	Normal	100 - 140	0.05 - 0.08	0.07 - 0.1			
		6.3	Difficult	70 - 100	0.05 - 0.08	-			
N	Aluminium	2.5	Good	300 - 400	0.05 - 0.08	0.07 - 0.1	DK 100 D20 MDC Diamant		
		4	Normal	250- 350	0.05 - 0.08	0.07 - 0.1			
		6.3	Difficult	100 - 150	0.05 - 0.08	-			
H	Hardened materials	> 50 HRc	2.5	Good	80-100	0.04 - 0.06	0.05 - 0.07	D25 CBN	
			4	Normal	50 - 100	0.04 - 0.06	0.05 - 0.07		



Cutting data for roughing operations with two-flute cutter boring bars

ISO	Materials group	Strength/ Hardness	Boring bars Dimensions L / d mm	Working conditions	Cutting speed Vc m/min			Feed f mm/rev		
					Ø < 38 mm	Ø 38-120 mm	Ø > 120 mm	r = 0.2 mm	r = 0.4 mm	r = 0.8 mm
P	Carbon steel	≤ 200 HB	2.5	Good	120-180	140 - 200	160 - 250	-	0.2 - 0.4	0.3 - 0.5
			4	Normal	100 - 160	120-180	140 - 200	-	0.2 - 0.4	0.3 - 0.5
			6.3	Difficult	70 - 100	70 - 100	70 - 100	0.15 - 0.3	0.2 - 0.4	-
		> 200 HB	2.5	Good	100 - 160	120-180	140 - 200	-	0.2 - 0.4	0.3 - 0.5
			4	Normal	80 - 140	100 - 160	120-180	-	0.2 - 0.4	0.3 - 0.5
			6.3	Difficult	60 - 90	70 - 100	70 - 100	0.15 - 0.3	0.2 - 0.4	-
M	Stainless steel		2.5	Good	80 - 110	90 - 120	100 - 140	-	0.2 - 0.4	0.3 - 0.5
			4	Normal	70 - 100	80 - 110	90 - 120	-	0.2 - 0.4	0.3 - 0.5
			6.3	Difficult	60 - 90	60 - 90	60 - 90	0.15 - 0.3	0.2 - 0.4	-
K	Cast iron		2.5	Good	90 - 120	100 - 140	120 - 160	-	0.2 - 0.4	0.3 - 0.5
			4	Normal	70 - 100	90 - 120	100 - 140	-	0.2 - 0.4	0.3 - 0.5
			6.3	Difficult	60 - 90	60 - 90	60 - 90	0.15 - 0.3	0.2 - 0.4	-
N	Aluminium		2.5	Good	160 - 250	200 - 300	250 - 350	-	0.3 - 0.5	0.4 - 0.6
			4	Normal	140 - 200	160 - 250	200 - 300	-	0.3 - 0.5	0.4 - 0.6
			6.3	Difficult	100 - 150	100 - 150	100 - 150	0.2 - 0.4	0.3 - 0.5	-

	Working area Ø mm	Max. clamp depth ap mm	
		Steel	Cast iron / aluminium
It is advisable to start with hole Ø B ≥ boring bars Ø d	18 - 28	1.5 - 2	2 - 2.5
	28 - 50	2 - 3	2.5 - 3.5
	50 - 68	3 - 4	3.5 - 5
	68 - 200	4 - 5	5 - 7
	200 - 500	5 - 6	6 - 8

	Twin-cutter boring with equal bore diameter
	Twin-cutter boring with different bore diameters Attention: For boring bars with different bore Ø the pre-feed must be reduced by half in accordance with the table!