

RECOMMENDED CUTTING CONDITIONS | Condições de corte recomendadas | Condiciones de corte recomendables

ISO	PSM	Material	HB (Brinell)	Vc (m/min)		Feed fz (mm/t)
				← Wear Resistance	Toughness →	
				PH6920	PH6125	
P	1	Unalloyed Steel	125-220	150-230	160-190	SP... 08T308
	2	Low-Alloyed Steel	220-280	140-220	140-180	
	3	High-Alloyed Steel	280-380	130-180	130-160	
M	4	SS - Ferritic / Martensitic	200-330	120-160	-	0,30-1,40
	5	SS - Austenitic	200-330	100-150	-	
	6	SS - Austenitic-ferritic (Duplex)	230-260	70-110	-	
K	7	Malleable Cast Iron	130-230	150-280	-	0,30-1,50
	8	Grey Cast Iron	180-245	130-230	-	
	9	Nodular Cast iron	160-250	80-190	-	

(Note 1) Cutting conditions $a_e/D_c=70\%$.

(Note 2) It's possible to occur vibrations in certain cases. Please reduce depth of cut and / or reduce cutting conditions in following cases:
 - When using long shank;
 - When using long tool overhang with arbor type;
 - When application has poor clamping rigidity or when using a low rigidity machine.

(Note 3) PH5... and PH5... can be used wet or dry. PH7... use only air.

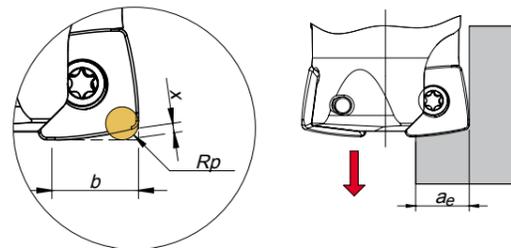
(Note 4) It's possible to occur vibrations in certain cases. Please reduce depth of cut and / or reduce cutting conditions in following cases:
 - When using long shank;
 - When using long tool overhang with arbor type;
 - When application has poor clamping rigidity or when using a low rigidity machine.

CHIP-BREAKER SELECTION GUIDE | Guia para aplicações do quebra- aparas | Guía para aplicación del rompevirutas

ISO	PSM	Material	HB (Brinell)	Chip-Breaker Application	
				1st choice	Difficult Operations
P	1	Unalloyed Steel	125-220	SPKT 08...	SPKW 08...
	2	Low-Alloyed Steel	220-280	SPKW 08...	-
	3	High-Alloyed Steel	280-380	SPKW 08...	-
M	4	SS - Ferritic / Martensitic	200-330	SPKT 08...	-
	5	SS - Austenitic	200-330	SPKT 08...	-
	6	SS - Austenitic-ferritic (Duplex)	230-260	SPKW 08...	SPKW 08...
K	7	Malleable Cast Iron	130-230	SPKT 08...	SPKW 08...
	8	Grey Cast Iron	180-245	SPKW 08...	-
	9	Nodular Cast iron	160-250	SPKW 08...	-

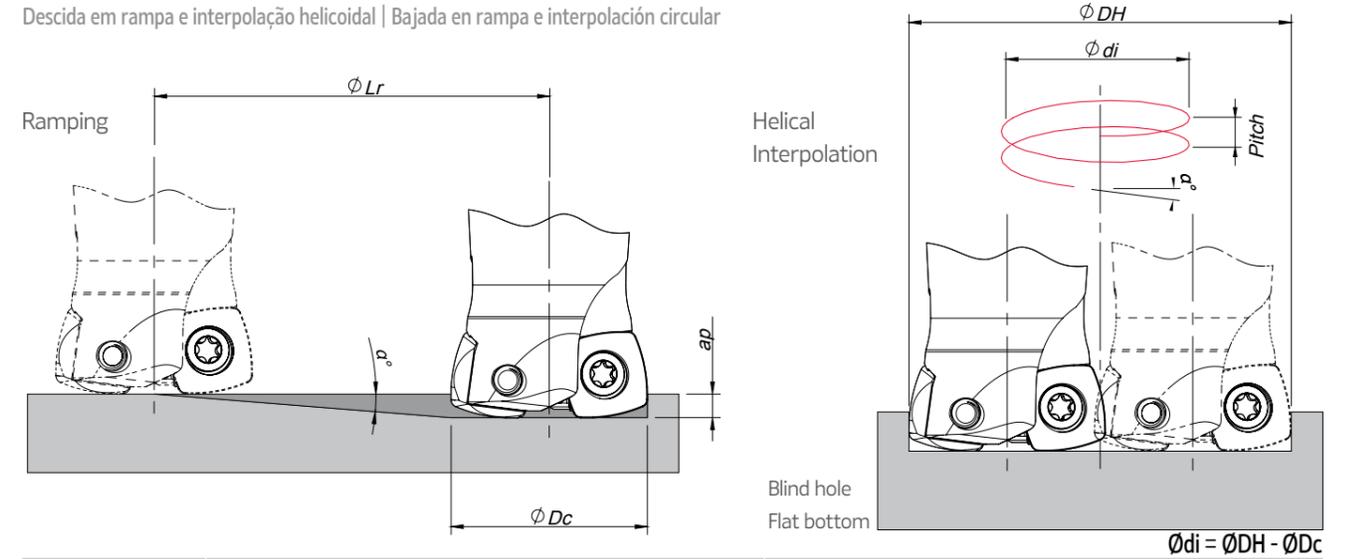
PROGRAMMING DATA | Dados para programação | Datos para la programación

Insert	Programming Data			
	Rp	X	b	a _e
SP... 08T3...	1,9	0,7	5,6	6,6



RAMPING AND HELICAL INTERPOLATION

Descida em rampa e interpolação helicoidal | Bajada en rampa e interpolación circular

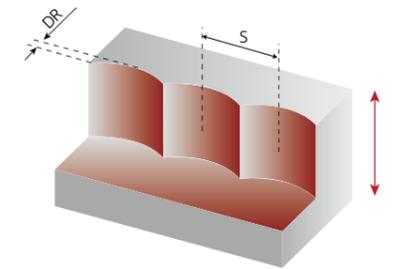


Dc	Ramping			Helical Interpolation		
	Max Ramp a°	Max ap	Min Lr	ØDHmin	ØDHmax	Max Pitch/Rev.
20	0,5	1,2	137,5	27,8	-	0,2
25	1	1,2	68,7	37,8	-	0,5
32	1,4	1,2	49,1	51,8	-	1,2
35	1,1	1,2	62,5	57,8	-	1,5
42	0,9	1,2	76,4	71,8	-	2,3
				-	82,0	1,9

Note: During helical interpolation do not exceed max Pitch.

PLUNGING | Mergulho | Plunge

L ≤ 3Dc	L > 3Dc	S max.
fz (mm/t)		$S_{max} = \sqrt{D_c \cdot D_r - D_r^2}$
0,08-0,15	0,05-0,10	



DR (mm)	S max and DR corresponding cutting diameter Dc (mm)				
	Dc (mm)				
	20	25	32	35	42
1,0	4,4	4,9	5,6	5,8	6,4
2,0	6,0	6,8	7,7	8,1	8,9
3,0	7,1	8,1	9,3	9,8	10,8
4,0	8,0	9,2	10,6	11,1	12,3
5,0	8,7	10,0	11,6	12,2	13,6
6,0	9,2	10,7	12,5	13,2	14,7

Note: Recommended for L ≤ 4 Dc for extra long tool this step and side cut must be reduced.