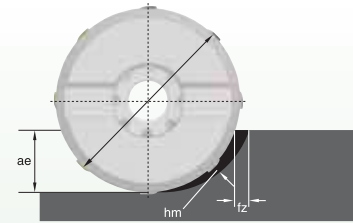


Selecting the Correct Cutting Values

1. fz depends on the Ap1 and ae values

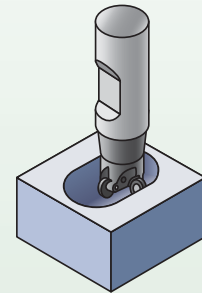
With round inserts, two factors can affect the hm: Ap1 and ae. fz has to be adjusted accordingly.



Recommended Starting Feed Rate Values (fz) Related to the Ap1 and ae Values:

ae engagement	10%	20%	30%	40%	50%	100%
Ap1 = 1mm	1,01mm	0,77mm	0,63mm	0,55mm	0,49mm	0,35mm
Ap1 = 2mm	0,77mm	0,55mm	0,45mm	0,39mm	0,35mm	0,24mm
Ap1 = 3mm	0,63mm	0,45mm	0,37mm	0,32mm	0,28mm	0,20mm
Ap1 = 4mm	0,55mm	0,39mm	0,32mm	0,27mm	0,24mm	0,17mm
Ap1 = 5mm	0,49mm	0,35mm	0,28mm	0,24mm	0,22mm	0,15mm
Ap1 = 6mm	0,45mm	0,32mm	0,26mm	0,22mm	0,20mm	0,14mm

Example application highlighted.



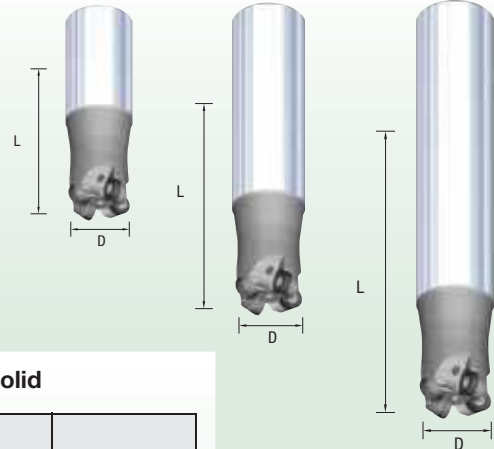
Example Cutting Conditions for RD..10... Insert in Pocketing, L/D ratio = 2 x D:

insert = RDPX12T3M0SN			TN2505			TN6525			TN6540		
			feed per tooth fz (mm)/ae>50%								
			min	med	max	min	med	max	min	med	max
Edge Geometry MM	ae>50%	Recommended starting Ap1 = 2mm	-	-	-	0,24mm	0,30mm	0,50mm	0,24mm	0,40mm	0,60mm
Edge Geometry MH	ae>50%	Recommended starting Ap1 = 2mm	0,24mm	0,30mm	0,50mm	0,24mm	0,40mm	0,65mm	0,24mm	0,50mm	0,70mm

2. Ap1 and vc corrections depend on L/D ratio

With increasing L/D ratios, or overhang, vibrations can occur due to reduced rigidity. To ensure successful application, it is recommended to adjust Ap1 and vc values according to the following table:

L/D ratio	% of Ap1 max to reduce	% of vc to reduce
<2	0%	0%
2<L/D<4	65-75%	10-15%
>4	80-95%	20-40%



Recommended Cutting Conditions • Helical Interpolation from Solid

cutter diameter	min hole diameter	max hole diameter (flat bottom)	Ap1 max per revolution	max ramp angle	Ap1 max when plunging
24	25,6mm	36mm	1,3mm	15°	3mm
32	40,6mm	52mm	5,3mm	12°	4,4mm
35	46,9mm	58mm	6mm	11°	3,9mm
40	57,4mm	68mm	6mm	9.3°	3,3mm
42	61,2mm	72mm	6mm	7.2°	3,5mm
50	77,4mm	88mm	6mm	6.1°	3,5mm
52	81,3mm	92mm	6mm	4.5°	3,2mm
63	102,4mm	114mm	6mm	4.5°	4,6mm
66	108,5mm	120mm	6mm	4.5°	4,4mm
80	136,5mm	148mm	6mm	3.5°	4,2mm
100	176,5mm	188mm	6mm	2.2°	4,2mm

