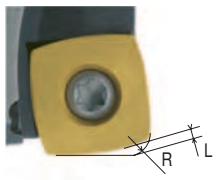
STELLRAM

CNC Program - Corner Radius Definition

The use of common CAD / CAM systems requires a round insert dimension to be known for cavity machining. This is available with 7792VX cutters as shown to the right and in the reference table.

For finish pass applications:

Wiper Facet for finishing use max. feed 0,80mm/Revolution



Programming Data (mm)			
Insert size (mm)	Radius	R	L
06	0,80	1,37	0,40
09	0,80	2,01	0,73
	1,20	2,27	0,67
12	0,80	2,50	1,02
	1,20	2,73	0,97
16	1,20	4,18	1,46

Calculation of the average chip thickness in relation with the D.O.C. (Axial)

Formula: Programme Feed Rate (f_z)

$$f_z = h_m \times \sqrt{\frac{d}{a_p}}$$

h_m = Average chip thickness
a_p = Depth of cut
f_z = Feed per tooth
d = Insert diameter 45mm

Theoretical Diameter for all high feed insert sizes = 45mm

Formula: Average Chip Thickness (h_m)

$$h_m = f_z \times \sqrt{\frac{a_p}{d}}$$

Calculation of the average chip thickness in relation with the a_e (Radial Engagement) if a_e is less than 50% of Dia.

Formula: Programme Feed Rate (f_z)

$$f_z = h_m \times \sqrt{\frac{d}{a_e}}$$

h_m = Average chip thickness
a_e = Radial engagement
f_z = Feed per tooth
d = Cutter diameter

Formula: Average Chip Thickness (h_m)

$$h_m = f_z \times \sqrt{\frac{a_e}{d}}$$