

Guide for Machining

Guide for External Machining

● Point (I) (Traversing after Grooving)

① Grooving Depth Over 0.5mm: At roughing (Refer to Fig.1)

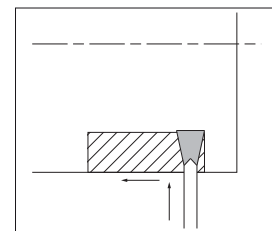
Before traversing, pull the tool back about 0.1mm after grooving, instead of traversing subsequent to grooving.

(Failure to pull the tool back before traverse cutting will result in an unbalanced load applied on only one side of the cutting edge.)

② Grooving Depth under 0.5mm: At finishing (Refer to Fig.2)

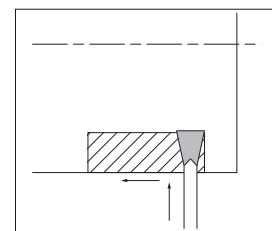
Traversing subsequent to grooving is possible because shallow groove depths relate a small load on the cutting edge.

(Dwell-motion is not necessary.)



Before traversing, pull the tool back about 0.1mm after grooving
(Grooving Depth Over 0.5mm: At roughing)

Fig.1



Traversing subsequent to grooving
(Grooving Depth under 0.5mm: At finishing)

Fig.2

● Point (II)

When widening the groove width, apply the "Step Turning" as shown in Fig.3.

The widened groove and side walls should be finished last.

(For better chip control, a_p over 0.5mm is recommended.)

Note: If the workpiece is not supported at the center, reduce the feed rate when grooving towards center

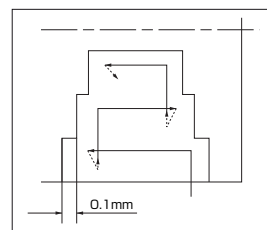


Fig.3

Guide for Face Grooving

〈Toolholder Selection〉

① Choose the best tool depending on the groove width.

The machining Dia. ϕD listed in the catalog indicates the depth of the first plunge of face grooving as shown in Fig.1.



② Confirm Grooving Depth (dimension T)



③ Toolholder's hand is recommended so as to be mounted in reverse. (Fig.2)

This will provide smooth chip flow and chip clearance.

〈Traversing Tips〉

Traversing direction should be from the outer diameter to the inner diameter as shown in Fig.3. This improves chip evacuation.

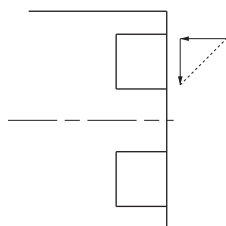


Fig.3

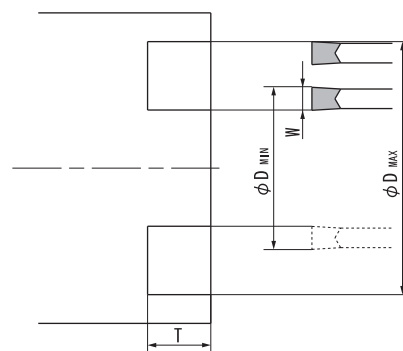


Fig.1

R-hand		L-hand	
Toolholder	(No Hand)	Toolholder	(No Hand)
Insert		Insert	

Fig.2 Toolholder's Hand and Rotation