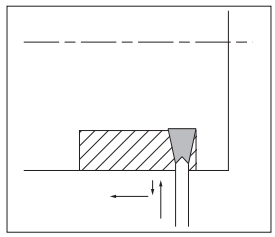
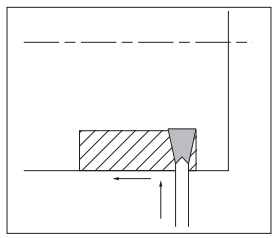
Guide for External Grooving

Point (Ⅰ) (Longitudinal turning after Grooving)

① Grooving Depth Over 0.5mm: At roughing (Refer to Fig.1)
Before Longitudinal turning, pull the tool back about 0.1mm after grooving, instead of Longitudinal turning 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)
Longitudinal turning subsequent to grooving is possible because shallow groove depths relate a small load on the cutting edge.
(Retention time is not necessary.)



Before Longitudinal turning, pull the tool back about 0.1mm after grooving (Grooving Depth Over 0.5mm: At roughing)
Fig.1



Logitudinal turning subsequent to grooving is possible because there is only a small force on the cutting edge.
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, ap over 0.5mm is recommended.)
Note: If the workpiece is not supported at the center, reduce the feed rate when grooving towards center

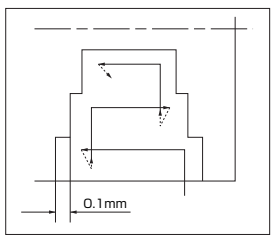


Fig.3

Guide for Face Grooving

〈Toolholder Selection〉

① Choose the best tool depending on the groove width.
The machining Dia. øD 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)

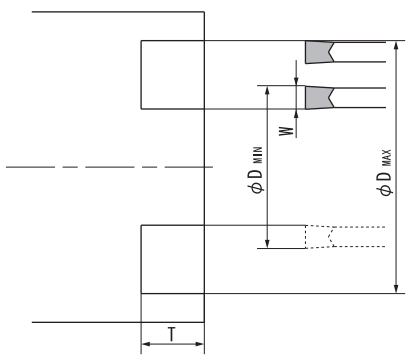


Fig.1

③ It is recommended to install the toolholder in the reverse position. (Fig.2)
This will provide smooth chip flow and chip clearance.

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

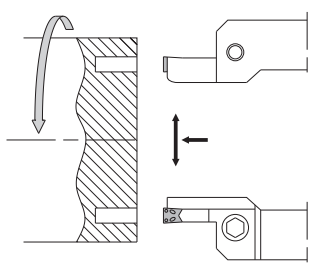


Fig.2 Toolholder's Hand and Rotation

〈Longitudinal turning Tips〉
Longitudinal turning direction should be from the outer diameter to the inner diameter as shown in Fig.3.
This improves chip evacuation.

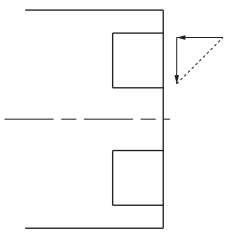


Fig.3