

► Hydraulic chuck

- Features & advantages
 - Consistent gripping force
 - Excellent accuracy (Run-out : within 5μm)
 - Convenient and safe tool change using a clamping screw
 - Can use THC straight collets (Normal & coolant type)
- Application
 - Accurate machining
 - a) Fine milling, reaming, fine boring
 - Drilling: Small diameter using carbide drill
 - a) For Al or Cast iron
- Operation
 - Tool mounting
 - a) Insert the tool shank between Lmax and Lmin (Fig 1.) and then, turn the clamping screw clockwise until it can no longer rotate.
 - Tool releasing
 - a) To release the tool from the hydraulic chuck, turn the clamping screw in a counter clock-wise direction approximately 5 or 6 evolutions and remove the tool shank.
- Notice
 - a) Eliminate grease, coolant oil and any dirt from the internal bore of the hydraulic chuck and tool shank prior to mounting.
 - b) Ensure the minimum chucking length (Lmin) is maintained. (see Fig 1. & Table 1.)
 - c) Cylindrical tool shanks available in accordance with h6 tolerance (Table 2.) and Ra min =0.3μm (ground) and weldon shanks should be used in collet only.
 - d) Remove the end tool from the hydraulic chuck when not in use for long periods of time.
 - e) Do not turn the clamping screw prior to tool mounting in the hydraulic chuck.

* Please refer to the backface for information tables.

Figure 1. Tool structure

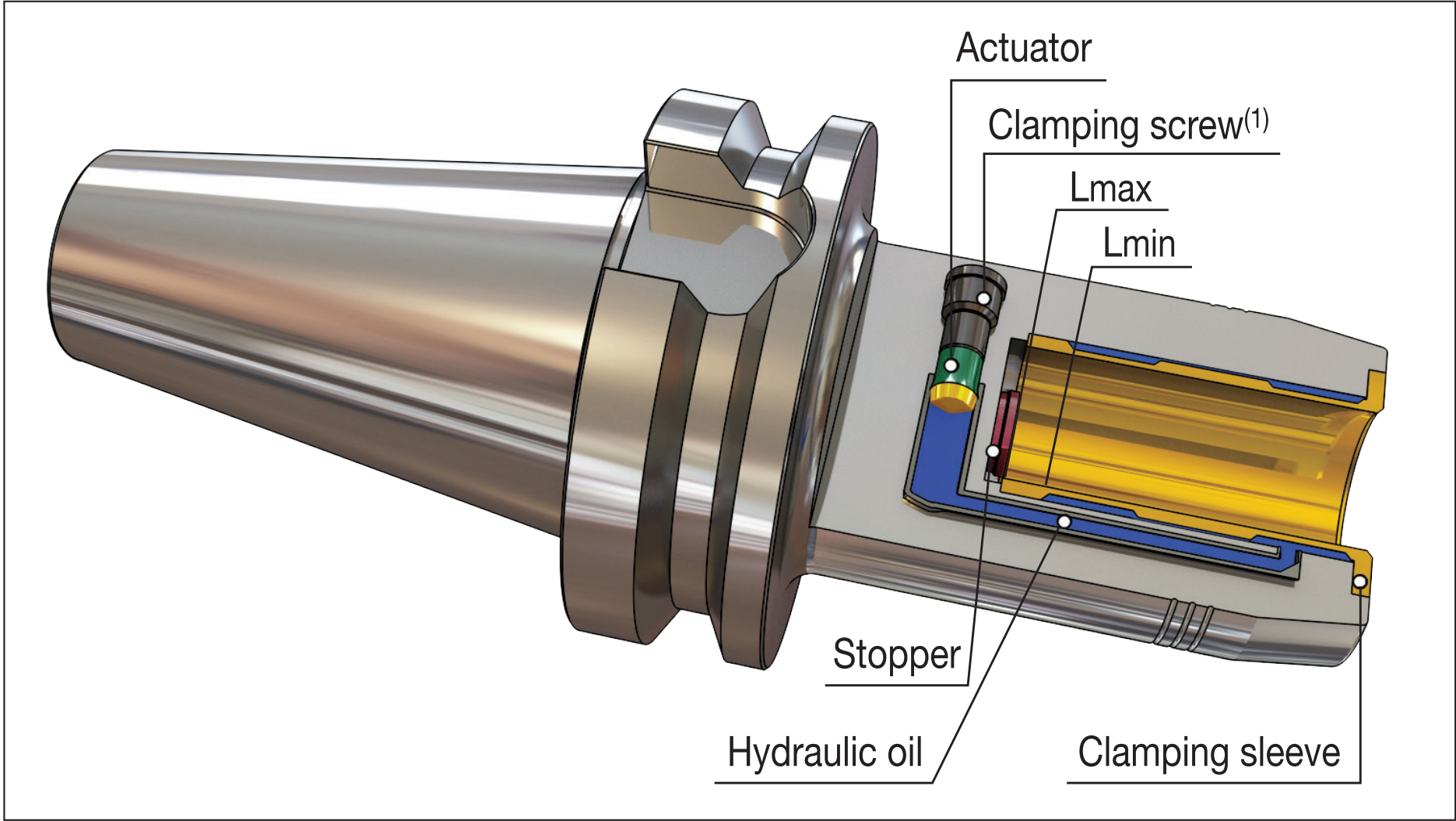


Table 1. Recommended minimum & maximum depth (L) of end tool insertion

Inner bore diameter Ø (mm)	Lmin (mm)	Lmax (mm)
6	27.5	37.5
8	27.5	37.5
10	32.5	42.5
12	37.5	47.5
14	37.5	47.5
16	42.5	52.5
20	42.5	52.5
25	51.0	61.0
32	55.0	65.0

Table 2. h6 tolerance range

Shank size Ø (mm)		h6 tolerance range (μm)
	3	0
		-6
3	6	0
		-8
6	10	0
		-9
10	18	0
		-11
18	30	0
		-13
30	50	0
		-16

Table 3. Clamping torque

Inner bore diameter Ø (mm)	Clamping torque (N•m)
6	10
8	25
10	40
12	65
14	90
16	120
20	240
25	260
32	450