

Notes on safe operation

The maximum speed must be reduced if longer, overhanging or heavy tools and extensions are used. The amount of reduction can be individually determined and is the operators responsibility.

In case of special designs, deviation indications on the drawings must be considered (The ID marked on the toolholder has to match the one on the drawing.)

- If the minimum clamping depth is not met, there will be a loss of accuracy, the maximum admissible torque will be reduced, and the toolholder might be damaged.
- The balancing quality might change due to the use of long, overhanging or heavy tools and extensions. The amount of change has to be individually adjusted to the application, and is the operator's responsibility.
- Tool clamping and toolholder insertion into the DIN mounting of the machine interface must always be performed by technically trained personnel. Therefore, please consider the technical data of the machine interface.
- The vent screw of the hydraulic system is protected with a pin or resin. **Don't remove it!**
- The use of shanks with recesses influences the balancing grade and run-out accuracy of the whole system.

Clamping / Unclamping

The tool shank must be burr-free and free of dirt. The clamping screw must be turned in manually with an Allen key to the limit stop. Tightening torque: 10-12 Nm (Ø 16: 11-13 Nm).

Never actuate the actuation screw with a power screwdriver! Do not combine several extensions. The clamping screw is not secured against dropping out!

At more than 25°C the expansion tool should not be clamped without a tool or workpiece.

Usable shank types



Type A with straight cylindrical shaft.

* most recommended

(DIN 6535 HA and form A according to DIN 6535 part 1)

Type AB with one Weldon flat.

(DIN 1835 part 1 and DIN 6535 HB)

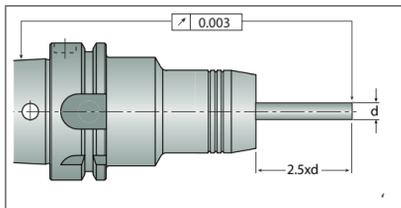
Type B with two Weldon flats.

(DIN 1835 part 1)

Type E with Whistle-Notch flat.

(DIN 1835 part 1 and DIN 6535 HE)

Run-Out Accuracy



Care, Storage and Maintenance

- To secure the clamping force, clean the clamping bore and groove after every tool change. Use a cleaning agent that contains solvents.
- Before storage, the whole surface of the Expansion Toolholder should be oiled slightly.
- Always stock the Hydraulic Expansion Toolholder in an unclamped position and protected against corrosion.
- Depending on environmental conditions, it may be necessary to adjust cleaning and lubrication of the actuation screw correspondingly, particularly in cases of a high number of clamping cycles, high operating temperature, abrasive dirt or swarf. For optimal lubrication of the actuation screw, we recommend the use of copper paste MOLYKOTE CU 7439 (100 g tube).
- Basic repairs should be performed at **ISCAR**

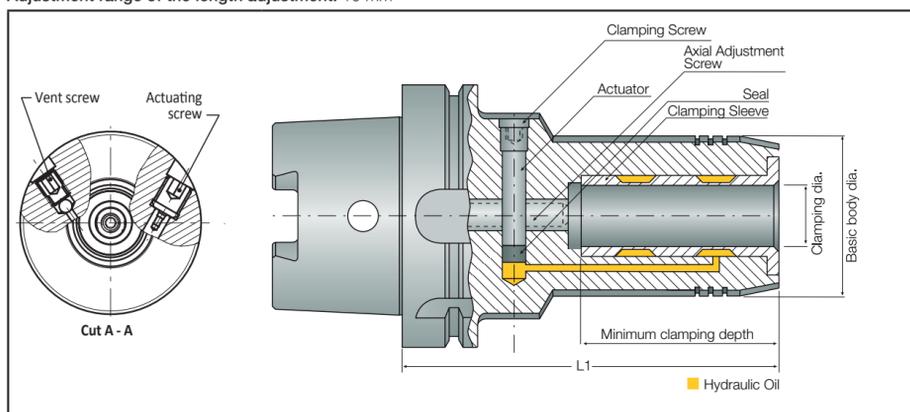
Technical data

| Clamping Ø | max. r.p.m. in min-1 | Admissible transmissible torque (Shank minimum size h_6 ; oiled shank) | Minimum clamping depth | Admissible radial force F at the toolholder at an overhang of 50 mm | Shank-Ø in mm |
|------------|----------------------|--|------------------------|---|---------------|
| | L_1 up to 125 mm | | | | |
| Ø 12 | 50000 | 110 Nm | 36 mm | 975 N | 12h6 |
| Ø 16 | 50000 | 350 Nm | 39 mm | 2115 N | 16h6 |
| Ø 20 | 50000 | 520 Nm | 41 mm | 2790 N | 20h6 |
| Ø 32 | 25000 | 900 Nm | 51 mm | 9750 N | 32h6 |

Operating temperature: 20-50°C

Max. coolant pressure: 80 bar

Adjustment range of the length adjustment: 10 mm



High torque transmission

- Best surface finish - no chatter marks
- Excellent vibration damping
- Runout accuracy <0.003 mm
- Fast tool change
- Suitable for all all types of shanks, including shanks with flat surfaces

Applications Milling

Suitable for difficult high-volume machining, with up to 2,000 Nm torque with Ø32 mm (in dry clamping conditions).

Reaming

Outstanding vibration damping for best workpiece surfaces and long-lasting runout for high dimensional accuracy.

Drilling

Excellent performance due to vibration damping and runout accuracy < 0.003 mm

Tapping

Ideal for tapping with its high torques and outstanding vibration damping.