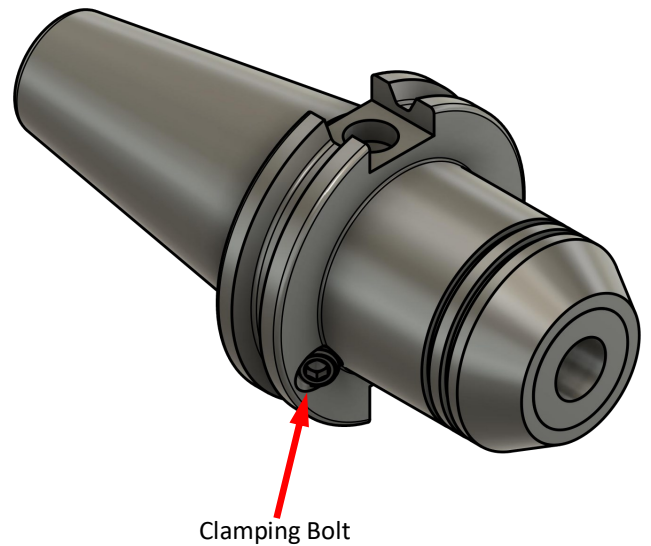




Thank you for purchasing the Pioneer Hydraulic Chuck.

We provide optimum processing performance by strict manufacturing and quality standards.

- Total system runout : TIR at  $\leq 3\mu$  at 3D
- Pre-Balanced for G2.5 @ 25,000 RPM
- Excellent vibration dampening
- Tool ready for use in less than 10 seconds
- Maximum clamping force and high precision runout, even after 20,000 tool changes



## Safety

- A. Please pay attention to read this instruction before using products. In order to assure proper function of the chuck, operating instructions must be adhered to.
- B. Safety instructions  
The RPM's must be reduced if extended, overhanging and/or heavy tools are used.  
The amount of reduction are individually determined and is the operators responsibility.
- C. The cutting tools may have sharp cutting edges, which may cause injuries. Suitable safety equipment is required prior to operation of the Hydraulic Holder.

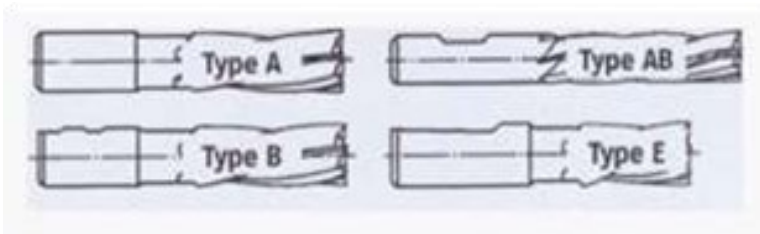
## Proper use

- A. PIONEER Hydraulic Chucks are suitable for clamping symmetrical tooling only. Observe our rules of environmental, and assembly regulations for proper operation.
- B. This product can only be used within the limits of the technical specifications. Proper use also includes compliance with the conditions specified by the manufacturer for operation.
- C. Tightening torque: 10nm (7.4ft/lbs) **Do Not Over Tighten!**  
Tighten the clamping bolt until the screw hits a solid stop. Double check to verify the tool cannot be turned by hand.  
*Do not operate the clamping bolt with an electric screwdriver or damage may occur.*
- D. The corresponding test bar or cutting tool shank must be inserted into the chuck to at least the minimum clamping depth for the purpose of controlling the clamping force (see chart on page 2). If your tool size is not listed please contact Pioneer.  
*If the insertion length is short, the lower side of the inner bore of the hydraulic chuck will be deformed and damage will occur.*
- E. The ambient temperature should be between 20 to 50 ° C (68 to 122 degree F)
- F. When the clamping force is not high enough, Hydraulic Chuck shouldn't be used any more. It can be returned for evaluation and possible repair to PIONEER.
- G. In case of use of PIONEER Hydraulic Collet (sleeve), the collet must be inserted to the face on chuck nose.  
*PIONEER Hydraulic Chuck and collet are optimally adjusted one with another and therefore achieve highest the run-out accuracy and the highest possible transmissible torque. Therefore, please always use PIONEER Hydraulic Collet.*

- H. If you use the product with unaccepted way, the holder will overheat and / or excessive damage to the product (best for semi-finishing and finishing applications).
- I. Never use heating machine or Shrink Machine.
- J. Do not remove the screw protected with epoxy or the chuck will not function.
- K. The projection length of the cutting tool is adjustable with the tool length adjusting bolt. Total adjustment range is 10mm. Do not use external preset systems to adjust the cutting tool projection or damage may occur.
- L. Do not use 2 piece shanks, the shank length to the minimum bore must be 1 solid shank.
- M. ISO h6 tool shank tolerances required or damage will occur.

## Clamping/Unclamping

- A. Insert a cutting tool shank that meets ISO h6 tolerance to minimum depth. Use preset screw to adjust projection of the cutting tool.
- B. The clamping bolt must be turned clockwise by hand with t-wrench until the screw stops.  
**DO NOT TORQUE past 10nm (7.4 ft/lbs)**
- C. Fastening of all types of tool shanks:  
We recommend the use of cylindrical tools for optimal performance and precision.  
All types of tools such as Weldon, Whistle Notch can be clamped 12mm (1/2") or larger. The tool must reach minimum clamping depth.  
10mm(3/8) and smaller tool shanks require a full diameter to minimum insertion depth for proper clamping or damage will occur.
- D. Loss of grip force will occur if tools with flats are used.



## Care, Storage and Maintenance

- A. For long life of the clamping system, the clamping bore and groove need to be cleaned after every tool change with a cleaning agent which containing solvents.
- B. Before storage, the whole surface of PIONEER Hydraulic Chuck should be lightly oiled.
- C. Always store PIONEER Hydraulic Chuck in unclamped position to prevent deformation of the inner bore of hydraulic chuck.
- D. Repair work should be done at PIONEER. Sorry parts are not available for self repair.
- E. Depending on the environmental conditions it may be necessary to adjust cleaning and lubrication of the actuation screw in case of a high number of clamping cycles, high operating temperature, abrasive environment.

Holder Size	Admissible Transmissible Torque (shank minimum size h6 to Minimum clamping depth)	Minimum Clamping Depth	Preset Adjustment
HC050 (12mm)	110Nm	36mm (1.42")	10mm (.39")
HC062 (16mm)	350Nm	39mm (1.54")	10mm (.39")
HC075 (20mm)	520Nm	41mm (1.61")	10mm (.39")
HC125 (32mm)	900Nm	51mm (2.00")	10mm (.39")