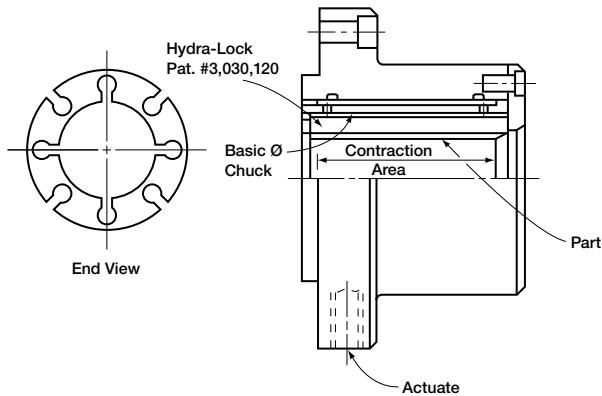


Self-Contained Contracting Chuck

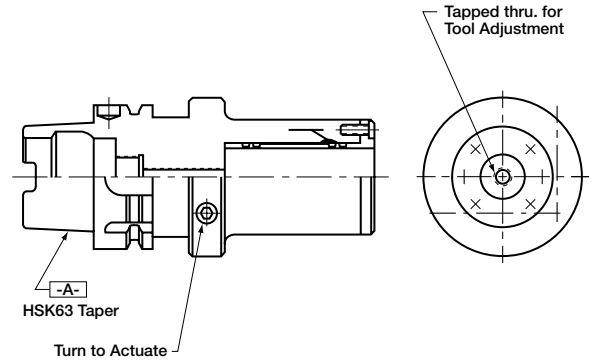


FEATURES:

Class: B
 Actuation: Manual. Self-contained hydraulic system.
 Mounting: Optional. Pilot shown spindle mounted.

Chuck utilizes patented, parallel, contracting wear-sleeve. Same chuck can handle numerous sizes with appropriate sleeves. This same type sleeve can be used on Hydra-Lock expanding arbors. Result – one arbor or chuck can service a family of similar parts.

HSK Hydraulic Toolholder

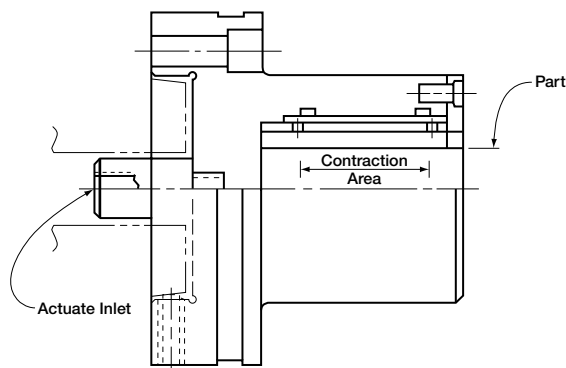


FEATURES:

Class: A
 Actuation: Manual
 Mounting: HSK

Pre-balanced to ISO G2.5 at 15,000 r.p.m. Grips the tool shank with 30,000 p.s.i. full length .0002 T.I.R., repeatability within .000050.

Contracting Precision Chuck

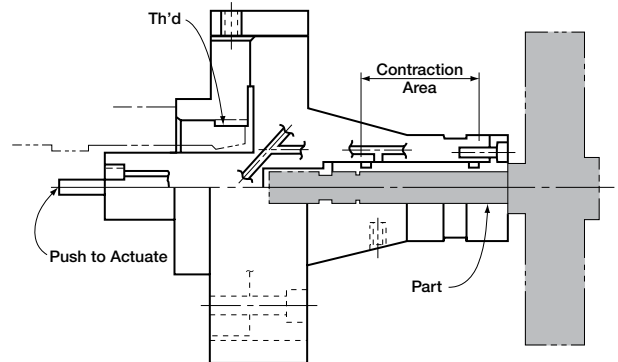


FEATURES:

Class: B
 Actuation: Direct pressure
 Mounting: Spindle mounted with adjustable tune-up screws.

Parallel work sleeves can be manufactured to accommodate parts of different configurations as shown on page 2.

Contracting High Precision Chuck



FEATURES:

Class: A
 Actuation: Push to actuate. Self-contained hydraulic system.
 Mounting: Adapter mounted direct to Hardinge Spindle with adjustable tune-up screws.
 Accuracy: Square and concentric within .000050 T.I.R.