

# DUNHAM COLLET CHUCKS (DRAWTUBE ACTIVATED) MODELS 5C, 2J, 16C, 3J FOR AMERICAN STANDARD AND CAMLOCK SPINDLES MOUNTING AND OPERATING INSTRUCTIONS

#### MOUNTING INSTRUCTIONS

- 1) Dunham Collet Chuck Assemblies are available for 5C, 2J, 16C and 3J Collets as well as many other Collet sizes, and are designed for use with American Standard, Camlock, Metric Flat Face and many other Spindle Nose configurations found on CNC and Manual Lathes.
- 2) Dunham Collet Chuck Assemblies are a 2 piece construction consisting of the Dunham Spindle Mounting Adapter and Dunham Collet Holder. The Dunham Spindle Mounting Adapter is designed and manufactured for direct and easy face mounting to and self centering on most lathe spindles. The Dunham Spindle Mounting Adapter typically features a 'pilot diameter' or other 'face mount' configuration to mate with the spindle face configuration of your machine. The Dunham Collet Holder face mounts to the Dunham Spindle Mounting Adapter; Dunham 5C, 2J, 16C and 3J Collet Holders are interchangeable on all Dunham Spindle Mounting Adapters.
- 3) The Dunham Spindle Mounting Adapter is equipped with 4 cross Set Screws that permit concentricity adjustment between the Dunham Collet Holder and the Dunham Spindle Mounting Adapter.
- 4) If you specified it, the Dunham Collet Chuck Assembly is also equipped with a Dunham Drawtube Adapter which functions as the coupling between your machine drawtube and the collet threads. With your machine drawtube in forward position mount the Dunham Drawtube Adapter to your drawtube threads until the Dunham Drawtube Adapter 'locks' (rotationally) on the drawtube. Then retract your machine drawtube to the back position (the Dunham drawtube adapter may 'bottom out' on the face of the spindle).
- 5) With the drawtube and Dunham Drawtube Adapter in retracted position, mount and secure the Dunham Collet Chuck Assembly to the front face of the spindle. The pilot diameter features of the Dunham Spindle Mounting Adapter will provide for the initial concentricity setting.
- 6) With an indicator on the female collet taper in the Dunham Collet Holder, slightly loosen the 6 face mount bolts that hold the Dunham Collet Holder to the Dunham Spindle Mounting Adapter; adjust the concentricity of the female collet taper using the 4 cross set screws. You will be able to achieve 'perfect' concentricity. Once you have adjusted the concentricity, re tighten the 6 face mount bolts.

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### **OPERATING INSTRUCTIONS**

# **Inserting Collet:**

- Make sure that Drawtube is in forward or released position; attach the Drawtube Adapter to the threads on the drawtube un lock the drawtube so that you can rotate the drawtube independently of the spindle and Dunham Collet Chuck.
- 2) Insert Collet in Dunham Collet Chuck; please note that a Dunham Collet Key is located in the Dunham Collet Holder (in 1 of the 4 cross holes in the OD of the flanged feature) and will engage with the keyway on your collet. Rotate Drawtube (engaging the collet threads with the collet until male taper of collet lightly engages with female taper of Dunham Collet Chuck.
- 3) Re Lock your drawtube so that the drawtube again rotates with the spindle. The locking of the drawtube to the spindle rotation prohibits the collet from unthreading itself from the drawtube.

## How to control holding force:

When using either Air or Hydraulic Cylinders (and Drawtubes), adjust the Cylinder pressure by using either the Air Regulator and Gage or Hydraulic Pressure setting to deliver an appropriate pull force to the drawtube and collet for your work holding application. We recommend an initial pressure setting of 'medium' for Hydraulic Cylinders or 80PSI incoming line pressure for most Air Cylinders; however, you must establish the appropriate pressure setting.

#### Maintenance:

1) Little or no maintenance is required. This Dunham Collet Chuck has no bearings. All components are standard. Call Dunham for ordering replacement parts.

## \*\*\*SAFETY\*\*\*

The purchaser or end user of this retrofit unit is fully responsible for the fabrication <u>and</u> application of special protective guarding to cover any moving parts. FAILURE TO COMPLETE THE PROPER INSTALLATION AS INSTRUCTED ABOVE CAN RESULT IN OPERATOR INJURY OR PREMATURE WEAR ON THE UNIT.