

# Installing B42 and B60 Dead-Length<sup>®</sup> Collet Chucks on Hardinge Talent<sup>®</sup> CNC Lathes

**IMPORTANT:** THE B42 AND B60 COLLET CHUCKS OPERATE IN A PUSH-TO-CLOSE MODE (like internal gripping with a power chuck). WHEN THE DRAWBAR IS FORWARD, THE COLLET WILL CLOSE ON THE WORK. AND WHEN THE DRAWBAR IS TO THE REAR, THE COLLET IS OPEN.

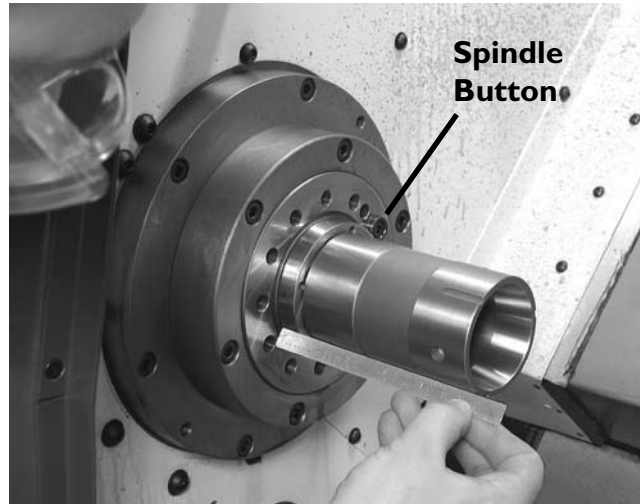
Remove your 3-Jaw Chuck following the manufacturer's instructions.

## 1. Installing the Sleeve

Check to be sure that the drawtube is in the rear position (collet open) as described above. Thread the sleeve into the machine spindle until the dimension from the face of the spindle to the end of the sleeve is approximate to the dimension shown below:

Dimension	Collet Chuck	Hardinge Lathe
5.130"	B42	Talent 6/45
5.425"	B60	Talent 8/52

Rotate the sleeve slightly to align one of the keyways at the end of the sleeve with the button on the spindle.



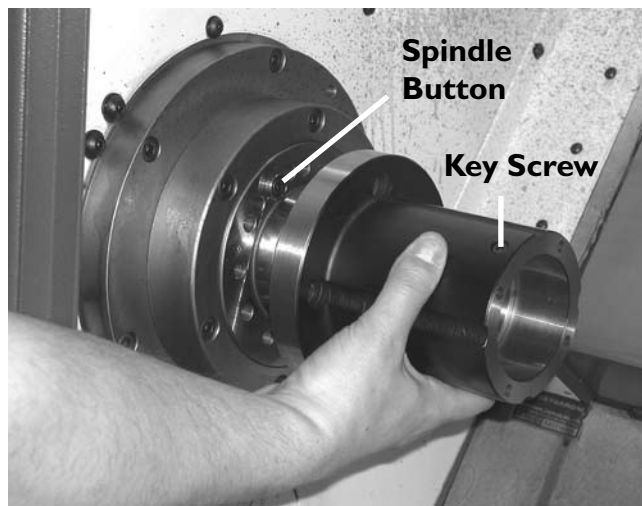
## 2. Installing the Mount

Slide the mount over the sleeve, while orienting the key-screw in the mount with the keyway in the sleeve that approximately lines up with the button on the spindle. Slide the mount back to contact the spindle face while rotating slightly as required to orient the button hole in the back of the mount with the button on the spindle.

**IMPORTANT:** DO NOT ACTUATE THE DRAWBAR TO THE FORWARD POSITION UNTIL THE COLLET AND CAP ARE IN PLACE. DOING THIS CAN SHEAR OFF THE END OF THE KEYSREW DUE TO OVERTRAVEL OF THE SLEEVE.

Thread the screws through the mount into the machine spindle and tighten according to the chart below:

Torque	Collet Chuck	Screws	Hardinge Lathe
40ft-lbs/54Nm	B42	M10	Talent 6/45
60ft-lbs/81Nm	B60	M12	Talent 8/52



Part No. BA-0009500-0118

### 3. Installing the Collet and Cap

(Collet not included in Collet Chuck Assembly)

Slide the cap over the pilot diameter of the collet with the screw hole counterbores facing outward.

Slide the collet and cap into the collet sleeve and push back until the back of the cap contacts the front face of the mount. Rotate if necessary to align the screw holes in the cap to the screw holes in the mount.

Thread the cap screws through the cap into the mount and tighten according to the chart below:

Torque	Collet Chuck	Screws	Hardinge Lathe
12 ft-lbs/16Nm	B42	M6	Talent 6/45
12 ft-lbs/16Nm	B60	M8	Talent 8/52



### 4. Installing the Rubber Chip Seal and Cover

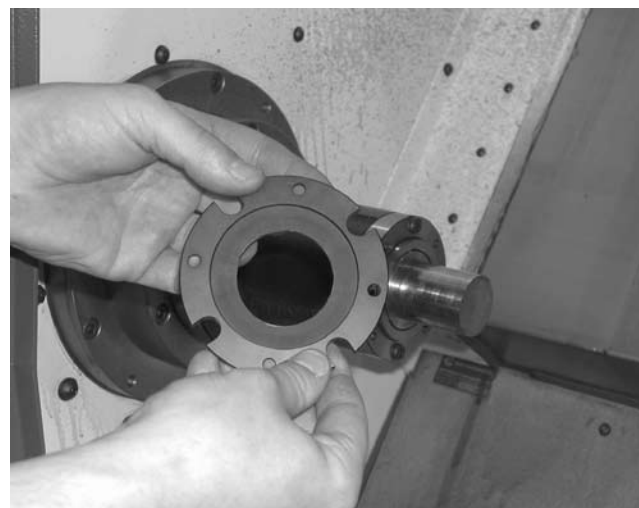
If chips get in the collet chuck in the area of the closing taper between the collet and closing sleeve, or between the front of the sleeve and the back of the cap, this can result in problems such as runout or sticking of the collet—collet fails to open when the drawbar is in the rear position.

#### Chip Control without Through-Hole Application

It is important to seal the collet chuck as well as possible to prevent chips from entering when doing 1<sup>st</sup> or 2<sup>nd</sup> operation work without through hole. This can be done by any or all of the following methods:

Use the thin rubber seal in front of the cap that is supplied with the assembly. The use of the rubber seal and cover on the front of the cap is optional for added protection against chips entering the collet chuck from the front. Do NOT use this seal for 2<sup>nd</sup> operation through-hole work because you need to allow chips to exit the front of the collet chuck.

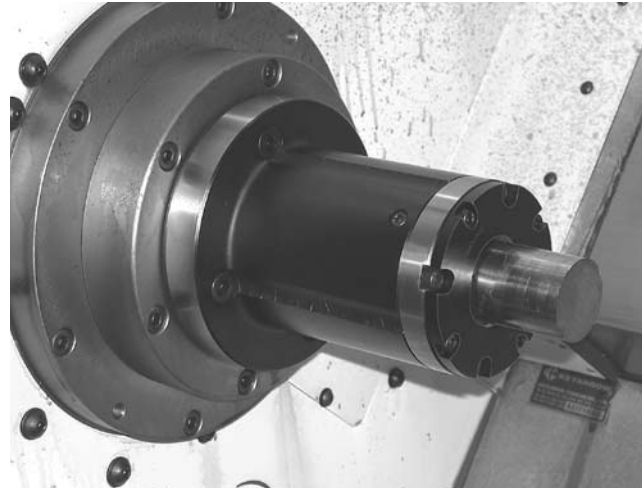
Cut a hole in the center of the rubber seal large enough to just let the bar stock through.



Put the rubber seal and cover on the front of the cap and secure with the seal screws, tightening according to the chart below.

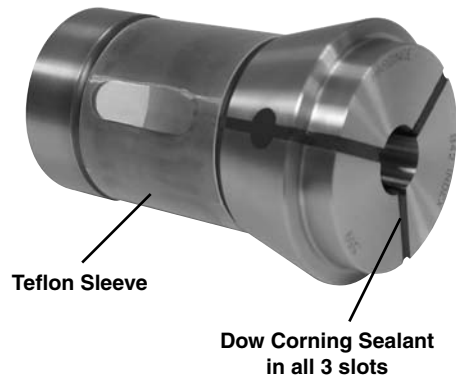
**Note:** It may be easier to get the rubber seal centered by using a short piece of the correct size bar stock gripped in the collet while installing the rubber seal and cover as we show here.

Torque	Collet Chuck	Screws	Hardinge Lathe
7 ft-lbs/10Nm	B42	M5	Talent 6/45
12 ft-lbs/16Nm	B60	M6	Talent 8/52



### Additional Suggestions for Chip Control without Through-Hole Application

- Use rubber collet slot seals cut to the proper length  
#7647000000000 for B42 collet chuck  
#7649000000000 for B60 collet chuck
- Use RTV sealant such as Dow Corning 832 to seal the splits in the collet. #CE-0010884-0832
- Use a heat-shrinkable Teflon Sleeve (#371900000012) to cover the slot windows on the B42 collet. Not available for B60 collet.



### Chip Control with Through-Hole Application

It is important to seal the outside of the collet to prevent chips from getting from the inside of the collet to the area of the closing taper between the collet and closing sleeve, or between the front of the sleeve and the back of the cap when doing 1<sup>st</sup> or 2<sup>nd</sup> operation work with through-hole. It is also important to provide some means for letting the chips flush out the front of the collet. This can be accomplished using the following methods:

- Through-spindle coolant with nozzles for proper direction (B42 only)
- Rubber collet slot seals cut a little short to allow an escape path for coolant and chips to exit the front of the collet

## 5. Installation of the Collet Chuck is now complete!

Place a length of stock or piece part in the collet and actuate the collet closed/open to check operation.

## B42 and B60 Collet Chuck Assembly—Part's List

**B42—Talent 6/45 Qty Part Number**

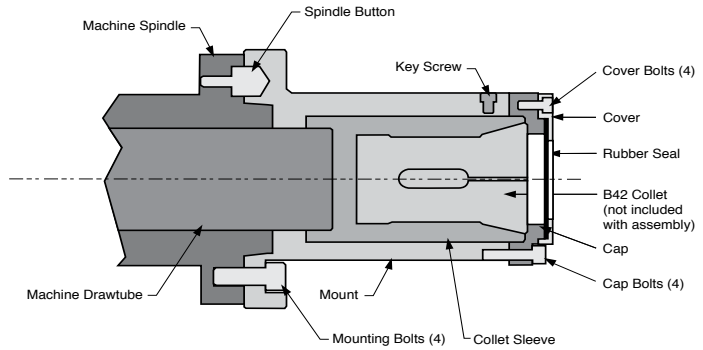
**Complete Assembly 1 7842-00-00-645000**

**Assembly Components:**

Sleeve	1	7842-00-00-645002
Keyscrew	1	7842-00-00-645003
Mount	1	7842-00-00-645001
Mounting Bolts	4	MS-0104019
Cap	1	7842-00-00-645006
Cap Bolts	4	MS-0103619
Rubber Seal	5	7842-00-00-645005
Cover	1	7842-00-00-645004
Cover Bolts	4	MS-0103516
Teflon Sleeve	3	3719-00-00-000012

**Optional Collets:**

Standard Collet 1 3719-



**B42 Collet Chuck**

**B60—Talent 8/52 Qty Part Number**

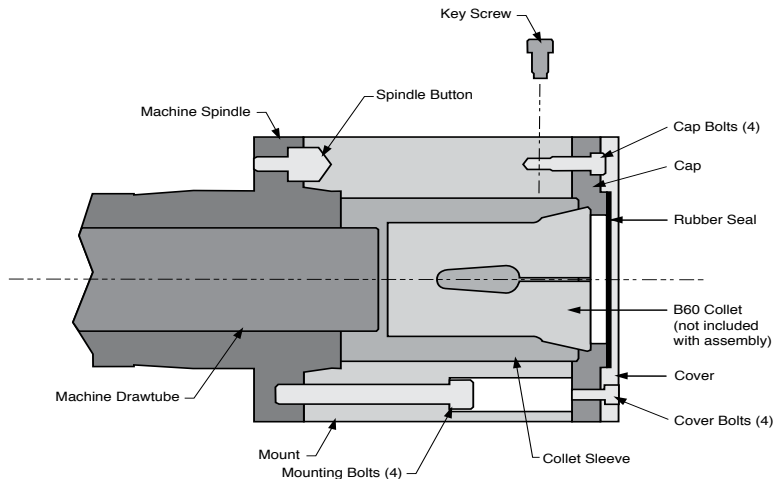
**Complete Assembly 1 7860-00-00-852000**

**Assembly Components:**

Sleeve	1	7860-00-00-852002
Keyscrew	1	7860-00-00-852003
Mount	1	7860-00-00-852001
Mounting Bolts	4	MS-0104231
Cap	1	7860-00-00-852006
Cap Bolts	4	MS-0103818
Rubber Seal	5	7860-00-00-852005
Cover	1	7860-00-00-852004
Cover Bolts	4	MS-0103617
Teflon Sleeve	3	N/A

**Optional Collets:**

Standard Collet 1 3725-



**B60 Collet Chuck**