



**DUNHAM AIR COLLET CLOSER
MODEL DACCOMLNB
ASSEMBLY AND OPERATING INSTRUCTIONS**

Specification:

Maximum pull force: 2388 lbs. @ 120 P.S.I. (19.9 X line pressure)
Maximum push force: 1202 lbs. @ 120 P.S.I. (16.2 X line pressure)
Maximum stroke : 5/16"
Maximum RPM : 4500 (continuous)
 6000 (intermittent)
Largest diameter: 6.18"
Length : 7.90" open
 7.59" closed
Weight : 14 lbs 11 oz.
Through hole : 1.06"

Compressed air requirements:

Actuation: Variable to 120 P.S.I.; clean, dry air required
Cooling: 15 P.S.I.; clean, lubricated

Lubrication: Mobil "DTE" Light (or equivalent)

Description:

This Dunham air powered rotary actuator operates at up to 4500 RPM, even when powered with maximum air pressure. Special consideration has been given to enhance its durability; this includes hardened wear surfaces, complete sealing of rotating components, and urethane wipers. The bearings are shielded. Positive air pressure moves throughout the actuator, and the drawtube mount acts as a seal.

The air actuator is designed to mount to rotating devices, most commonly spindles. The unit will provide a push or pull force capable of opening or closing collets, fixtures, and short stroke power chucks.

Installation:

1) Installing closer in spindle pulley:

Insert main bearing mount (item #6) on collet closer into pulley. Screw conical Torx set screws (3) into pulley aligning with the mating sockets in main bearing mount. Tighten the screws evenly and alternately until fully secure. Over tightening one screw before others could result in concentricity problems. See step #3.

continued

2) Installing Drawtube to Actuator:

Using spanner wrench remove lock nut from piston mount preventing rotation with standard spanner wrench. Slide drawtube assembly through air closer and spindle. Reinstall finger tight. Drawtube installation is now complete.

3) Checking Actuator Concentricity:

Reduce air pressure supplied to forward port of actuator to 15 P.S.I. Using a dial indicator reach to indicator point. Rotate spindle slowly to measure the rise and fall of this portion of the actuator. If actuator is in good alignment with the spindle, the indicator should measure .0005"-.0010" concentricity. Retighten three set screws securely.

4) Attached Oil-Mist Lubrication:

To operate actuator to full potential, attaching the oil-mist lubricator assembly is required. The unit supplied must be mounted close to actuator while providing easy access to the oil reservoir. Attach oil-mist to ports. A shut off valve **MUST** be used to turn off air supplied to oil-mist assembly when not in use.

FAILURE TO USE THIS LUBRICATION MAY RESULT IN UNIT FAILURE. The air regulator should be adjusted to 15 P.S.I. The Norgren "Type L07 Lubricator" should be adjusted to supply 1 drop every 40 seconds. The reservoir should be replenished with Mobil "DTE" light (or equivalent) as required. A small amount of grease is displaced out of the bearings by the rotation and the oil-mist lubricator; this should be considered normal.

Operating Instructions:

Inserting Collet:

- 1) Remove lock nut. Insert collet in spindle. Rotate drawtube with spanner wrench until collet is engaged to desired position for proper gripping of workpiece.
- 2) Reinstall lock nut and tighten with spanner wrench holding with standard spanner wrench.
- 3) If proper collet action is not achieved, remove lock nut and rotate drawtube and retighten lock nut.

How to control holding force:

- 1) By using the regulator and gage, start with air pressure of 40 lbs.; increase pressure gradually until part is held sufficiently for machining operation.
- 2) The Dunham Air Actuator permits even gripping pressure although workpiece may have diameter variation. Holding force can be adjusted for any type of machining by increasing or decreasing the air pressure.

Maintenance:

- 1) Little or no maintenance is required. Bearings are self lubricating. All components such as bearings, "O" ring seals and retaining rings are standard.

Installing an air cleaner and lubricator in line is advisable, but not essential.

*****SAFETY*****

The purchaser or end user of this retrofit unit is fully responsible for the fabrication and application of special protective guarding to cover this unit's moving parts. Drawtube cutoff must be performed as instructed above. Oil must be available for the oil-mist system.

FAILURE TO COMPLETE THE PROPER INSTALLATION AS INSTRUCTED ABOVE CAN RESULT IN OPERATOR INJURY OR PREMATURE WEAR ON THE UNIT.

MANUALS/AIR COLLET CLOSER INSTRUCTIONS MODEL DACCOMLNB