



FOR IMMEDIATE RELEASE

Date

Full-Bore, Fixed-Length Collet Chucks Reduce Cycle Time.

The Lexair Full-Bore, Fixed-Length Collet Chuck is a self-contained, front actuated chuck. This mechanical design does not require a drawtube or hydraulic actuator, thereby allowing for the full use of the spindle bore available in the machine, up to 5.5" in diameter depending on the machine and collet chuck model. Many applications realize an increased through-hole capacity of 25% to 30% with the removal of the drawtube. This self-contained unit opens and closes in a couple of seconds, much faster than it takes for a hydraulic drawtube actuator. Faster chuck actuation reduces cycle time to increase productivity. Lexair Full-Bore, Fixed-Length Collet Chucks can be used with bar feeding or chucking on a main and/or sub spindle. Other applications include milling and rotary indexing. The collet chuck will mount to standard ANSI spindle nose machines.

How does it work? The grip is mechanical. Shop air is used only to open the chuck and release the part. The springs and wedging action of the piston, ramp, rollers, and pusher close the collet on the workpiece. The strong and dependable die springs hold the workpiece while it is being machined. The part remains clamped, even if air pressure is lost. Grip force remains constant, regardless of speed. As RPM increases, grip force does not change, allowing higher speeds to be used safely. Higher spindle speeds can be utilized since this collet chuck does not have heavy jaws like a 3-jaw chuck does. It also has a lower profile for increased tool clearance when compared to a 3-jaw chuck.

Lexair Full-Bore, Fixed-Length Collet Chucks are designed with concentricity adjustment for increased accuracy when using master collets with S-pads. It is possible to achieve collet concentricity of 0.0002" TIR or better. With a test bar in the collet, and an indicator

on the bar, the operator can adjust the collet concentricity by adjusting the four screws around the circumference of the chuck body. The collet remains true until the pads or the collet is changed out.

When using bar feed application the “open-on-the-fly” feature allows the Lexair Full-Bore, Fixed-Length Collet Chuck to open while rotating at speeds of less than 500rpm for no more than six seconds. This provides opportunity to advance the bar as soon as the collet opens to save seconds on each workpiece, adding up to more parts-per-hour! This feature also reduces wear on the machine.

The collet and bar, or workpiece, are not effected by the chuck open and close. This is because there is no drawtube to move the bar either forward or backward while operating the chuck. This is a fixed-length design that assures consistent part production.

Lexair Full-Bore, Fixed-Length Collet Chucks are available in sizes ranging from S20 up to S50. Solid S-style collets are available to grip parts ranging from 0.25” up to 5.50” in diameter, depending on the chuck model. S-master collets utilize changeable S-pads to grip parts from 0.25” up to 5.00” in diameter, depending on the chuck model.

Are you looking to reduce your cycle time or increase your bar capacity on your existing machine? Try switching from 3-jaw chucks to the Lexair Full-Bore, Fixed-Length Collet Chucks. Reduce actuation time, advance bar stock while the spindle is still rotating, increase the through-hole capacity of your machine and don't worry about accidents if you should happen to lose shop air. For more information about Full-Bore, Fixed-Length Collet Chucks, contact Lexair Inc. at 859-255-5001.

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