

"UNPARALLELED PERFORMANCE AND SAFETY UNDER PRESSURE!"[®]



SelectForm[®]
Model 450 Series
Swaging Tools

- Pressures up to 15,000 psi (1,034 bar)
- Adjustable stroke for variable expansion
- Rollerless technology
- Compact, balanced design
- Precision-machined stainless steel construction

DESCRIPTION

The patented SelectForm[®] Model 450 Series Swaging Tool is designed to swage a tube into a tube header by forming two beads, one on each side of the header, thus expanding and locking the tube into place. The amount of swaging is controlled by limiting the travel of the expanding die. The tool's integral stroke adjuster provides easy wrench adjustment of piston stroke. This lets the operator fine tune the amount of tube expansion.

This precision-machined tool ensures consistent performance when the fluid pressure is set just high enough to ensure that internal piston will repeatedly bottom out against stroke adjuster. By trial and error, depending on the material type and thickness, an optimal pressure and stroke setting may be determined.

The Model 450 Series Tool handles standard and metric tube, pipe, and fitting sizes from 0.62 in. to 3.50 in. (15.7 mm to 88.9 mm) in diameter. For each specific tube outside diameter, the tools can accommodate a range of wall thicknesses. Special tube sizes and tool configurations considered upon request.

OPERATION

Connect the tool to a suitable fluid pressure source. Verify the air connection is made to the rear of the tool for retraction of the die. Slide tool into tube end until predetermined stop is reached. Apply to desired pressure value, **but do not exceed maximum operating pressure**. Tool will automatically retract die segments from tube when pressurization is complete and pressure is reduced to 0 psi/bar in the service line. Remove the tool by pulling tool from the tube.

APPLICATION

The SelectForm[®] Model 450 Series Swaging Tool is a hydraulic-actuated tube-to-tube sheet swaging device with working pressures up to 15,000 psi (1,034 bar). This tool is suitable for a variety of applications including: tube-to-header, ferrule attachment, fitting attachment, tube-to-baffle plates, and piece-to-piece attachment.



TOOL CONFIGURATION

Extend: Water or oil pressure
Retract: 80 to 100 psi air (5.5 to 6.9 bar air)

OPERATING CONDITIONS

Maximum Pressure: 15,000 psi (1,034 bar)
Temperature: 32° F to 120° F (0° C to 49° C)
Tube OD Range: 0.62 in. to 3.50 in.
(15.7 mm to 88.9 mm)

MAXIMUM PRESSURE
15,000 psi
1,034 bar

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FEATURES

- Fast operation
- Adjustable stroke for variable expansion
- Hand-held or stationary models
- Rollerless technology
- Accurate and repeatable
- Compact, balanced design
- Precision-machined from heat-treated stainless steel
- Low maintenance

BENEFITS

Decreases cycle time
Controls the amount of swaging
Use in manual mode or automated systems
Reduces operator fatigue associated with rollers
Increases production throughput and eliminates scrap
Ease of use in limited space applications
Provides long, trouble-free service
Diminishes downtime and maintenance costs



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