



"UNPARALLELED PERFORMANCE AND SAFETY UNDER PRESSURE!"®

TestMaster®

Model 525 Series

Hydrostatic Test Tools



- 0.25 in. to 6.63 in. OD (6.4 mm to 168.4 mm OD)
- Collet grip and retractable seal on tube OD
- Air-piloted clamp and release
- Pressure-compensated grip



DESCRIPTION

The TestMaster® Model 525 Series Hydrostatic Test Tool allows production speed hydrostatic testing for tube mills and other applications where accurate, rapid testing is needed. The tool design employs an air-operated mechanism for positive preclamp and release of collets. Its tube seal retracts during tube loading and removal, greatly enhancing the seal life.

The pressure compensated design on the Model 525 Tool places the tube or pipe in tension, using internal pressure to increase grip on the tube OD. This design eliminates tube clamping devices along the tube length. One tool size will accommodate multiple wall thicknesses, while maintaining high fill rates.

The Model 525 Series Tool handles standard and metric tube, pipe, and fitting sizes from 0.25 in. to 6.63 in. (6.4 mm to 168.4 mm) in diameter. Special tube sizes and tool configurations will be considered upon request.

OPERATION

Connect the Model 525 Tool to the air and fluid lines. Apply air pressure to release port to open collets and retract tube seal. Insert the pipe either manually or automatically in a system until it is passes the tube seal. Redirect air pressure to clamp port, and the collets and tube seal will engage with the pipe OD. Apply fluid pressure to desired level, but do not exceed maximum operating pressure. After pressure cycle is complete, release all fluid pressure. Finally, release collets as before to remove pipe.

APPLICATION

The TestMaster® Model 525 Series Hydrostatic Test Tool is suitable for hydrostatic pressure testing and hydro-expansion on tubes and pipes with standard OD tolerances with working pressures up to 15,000 psi (1,034 bar). This tool conforms to military, nuclear, automotive, and aerospace testing specifications such as API, ASTM, ASME, ISO, DIN, and BS.

MATERIALS

Wetted Parts: Heat-treated, stainless steel

TOOL CONFIGURATION

Collet Grip: On tube OD

Gripping: Pressure-compensated
Seal: Retractable seal on tube OD

Mounting: Tapped holes in body

Actuation: Air-piloted clamp and release
Air Requirement: 80 - 100 psi (5.5 - 6.9 bar)

OPERATING CONDITIONS

Maximum Pressure: 15,000 psi (1,034 bar)

Temperature: 32° F to 120° F (0° C to 49° C)

Services: Water and oil

Tube OD Range: 0.25 in. to 6.63 in. (6.4 mm to 168.4 mm)
OD Tolerance: Standard tube and pipe tolerances

MAXIMUM PRESSURE 15,000 psi 1,034 bar TestMaster®

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FEATURES

- Full-flow, high pre fill rate
- Air-actuated collet release
- Patented retractable seal design and segmented collets
- Built-in tube end tolerances require no square cut ends
- Pressure-compensated design
- Tube size sets allow rapid changeover between tube sizes
- Low marking collet design
- Precision-machined from heat-treated stainless steel
- Compatible with NuQuip® Automatic Air-Bleed Valve

BENEFITS

Decreases cycle time

Ensures fast, easy chuck removal

Quick connection to plain end or upset tube or pipe

Lowers machining costs

Contains all high-pressure loads for safe operation

Reduces tooling expense

Prevents tube end collapse and eliminates scrap

Provides long, trouble-free service

Eliminates operator attendance during fill cycle

