

“UNPARALLELED PERFORMANCE AND SAFETY UNDER PRESSURE!”[®]



TestMaster[®]

Model LPHE Series Hydrostatic Test Tools

- Pressures up to 5,000 psi (345 bar)
- 0.13 in. to 3.00 in. OD (3.2 mm to 76.2 mm OD)
- Collet grip and seal on tube OD
- Manual lever operated model
- Single air-operated model
- Pressure-compensated grip

DESCRIPTION

The TestMaster[®] Model LPHE Series Hydrostatic Test Tools are specially designed to grip and provide positive sealing for plain end-tubing. The safety pre-grip of the clamping mechanisms assure a constant, positive grip during any work or operation cycle. Tools are available with manual lever operation or pneumatic actuation. The tool can be used with a variety of services including helium, water, oil, Skydrol, and other gases and liquids.

This precision-machined tool provides versatility for use in pressure testing applications. The compact, balanced design is particularly suited to space restricted work areas, such as aircraft hydraulic and fuel lines, or residential and commercial heating and cooling systems.

The Model LPHE Series Tool comes in standard and metric tube, pipe, and fitting sizes from 0.13 in. to 3.00 in. (3.2 mm to 76.2 mm) in diameter. Special tube sizes and tool configurations will be considered upon request.

OPERATION

Connect the Model LPHE to the pressure line. Retract collets (by spring or handle squeeze). Push tube end into tool until pressed against the tube stop. This instantly provides a complete seal. Engage collets (by handle release or air). Once collets are engaged, tool is ready for safe operation. Next, apply test pressure to desired level, **but do not exceed maximum operating pressure**. After pressure cycle is complete, retract collets as before and pull tool to remove from tube.

APPLICATION

The TestMaster[®] Model LPHE Series Hydrostatic Test Tool is a snap-on tool suitable for hydrostatic pressure testing, air underwater testing, and cleaning applications with working pressures up to 5,000 psi (345 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 and Seal: On tube OD

Gripping: Pressure-compensated

Lever Operated: Normally-closed spring clamp and manual lever grip release

Single Air-Operated: Normally-open spring release and air-piloted clamp

Air Requirement: 80 - 100 psi (5.5 - 6.9 bar)

OPERATING CONDITIONS

Maximum Pressure: 5,000 psi (345 bar)

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

Services: Helium, water, oil, Skydrol, and other gases and liquids

Tube OD Range: 0.13 in. to 3.00 in. (3.2 mm to 76.2 mm)

OD Tolerance: Standard tube tolerances

MAXIMUM PRESSURE
5,000 psi
345 bar

TestMaster®

Model LPHE Series

Hydrostatic Test Tools

Model LPHE Series Tool Specifications

Body Size	Tube OD Range				Overall Length		Body Diameter		Minimum Orifice		Minimum Tube Swallow		Standard 37° Flare Port
	Inches*		MM*										
	Min.	Max.	Min.	Max.	Inches	MM	Inches	MM	Inches	MM	Inches	MM	
1	0.13	0.50	3.2	12.7	4.25	108.0	1.25	31.8	0.19	4.8	0.82	20.9	3/8 Male
2	0.50	1.00	12.7	25.4	4.37	110.9	1.75	44.5	0.30	7.5	0.81	20.6	3/8 Male
3	1.00	1.50	25.4	38.1	4.57	116.1	2.38	60.3	0.39	9.9	1.06	27.0	1/2 Male
4	1.50	2.00	38.1	50.8	5.08	129.0	3.13	79.4	0.61	15.5	1.12	28.4	3/4 Male
5	2.00	3.00	50.8	76.2	5.69	144.5	4.13	104.8	0.61	15.5	1.35	34.3	3/4 Male

* Note: Tools are designed for a dedicated tube diameter and do not cover the entire range of tube diameters noted for each body size. A single tube OD must be specified for the collet set.

*Special Configurations Available Upon Request
Automatic Air-Bleed Valve Recommended for Optimal Performance*

FEATURES

- Full-flow, high pre fill rate
- Predetermined internal tube stops requires no measuring
- Low marking collet design
- Special collet design locking principle
- Lever collet release for fast chuck removal
- Pressure-compensated design
- Built-in tube end tolerances require no square cut ends
- Compact, balance design
- Precision-machined from heat-treated stainless steel
- Designed for test application
- Engineered to contain pressure
- Use with optional NuQuip® Automatic Air-Bleed Valve

BENEFITS

- Decreases cycle time
- Ensures proper tube depth engagement
- Prevents tube end collapse and eliminates scrap
- Accommodates shorter length tube or pipe
- Increases production throughput
- Contains all high-pressure loads for safe operation
- Efficient operation saves time
- Ease of use in limited space applications
- Provides long, trouble-free service
- Tools can be used with different test media
- No other fixtures are needed
- Eliminates operator attendance during fill cycle



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