



The M-10 Hydraulic Calibration Hand Pump utilizes a fully adjustable stroke control that allows for quick priming, easy pumping and fast pressure generation up to 10,000 psi (700 bar). The ergonomically engineered handles provide extra comfort, while the patented triple filtration system ensures pump operation in spite of dirty conditions. The shatterproof reservoir and stainless steel construction guarantee leak free operation. The pump has oversized check valves to provide smooth controlled operation.

# **SPECIFICATIONS**

Output Ranges:	0 – 10,000 psi (0 to 700 bar)
Gauge Connection:	3/8" BSP (1/4" NPT adapter included)
Process Connection:	1/4" BSP (1/4" NPT adapter included)
Materials:	Stainless steel fittings, polyurethane, anodized aluminum housing, plastic/rubber han-
	dles, PTFE, nitrile o-rings.
Weight:	3 lbs (1.36 kg)

# Weight:

# POINTS TO REMEMBER

- Do not exceed 10,000 psi (700 bar) as this is the M-10's maximum pressure.
- The M-10 has 3/8" and 1/4" BSP ports. In order to use NPT fittings, the required NPT to BSP Parallel thread adapters need to be installed (included BSP to NPT adapters)
- Do not use thread sealant paste or tape on the male adapters (Paste or tape may be used on female • adapters). Bonded washers (included) are required to insure a proper seal. To seal the adapters, simply hand-tighten and snug up with a wrench. Do not over-tighten.
- Use with distilled water or mineral-based hydraulic oil.

## **OPERATION**

- Remove the fill cap and fill reservoir to the recommended level with the appropriate fluid. Replace the cap. 1.
- 2. Connect hose fittings and calibrators to the adapters.
- Connect the master instrument to the M-10 via the top port. 3.
- Connect instrument under test to the flexible hose/gauge adapter. 4.
- To prime the system, twist the knurled knob marked "Release". Squeeze the handles together and release. Twist 5. the knob once again. Repeat as necessary until system is fully primed and low pressure is indicated on either the master or test instrument. This feature can be changed at any pressure.
- 6. Operate handle several times to build pressure. Please note that once pressure starts to rise, it will rise very rapidly. Be sure to not exceed the maximum operating pressure indicated on the face of the M-10.
- 7. Careful use of the release valve and fine control enable a controlled release of pressure, essential for calibration purposes.
- 8 To adjust the pressure relief valve, release the pressure and turn the valve counter clockwise 1/16 turn and then proceed to re-pressurize. Repeat the process if further reduction is necessary.
- If the fluid level in the reservoir fails considerably during use, a partial vacuum can be created in the reservoir 9. which may affect pump performance. To avoid this, simply allow air to enter the reservoir by partly unscrewing the fill cap.

## MAINTENANCE

No routine maintenance is required. A periodic check of system calibration is recommended, however. While the M-10 is field serviceable it is recommended it be returned to Meriam if repair is needed. Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization (RMA) number before shipping.

### WARRANTY/DISCLAIMER

Meriam warrants this unit to be free of defects in materials and workmanship for a period of twenty-five months from date of purchase. Meriam warranty adds an additional one month to the normal twenty-four month product warranty to cover handling and shipping time. This insures that all customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. Meriam Customer Service Department will issue a return goods authorization (RCA) number immediately upon phone or written request. If the product is found to be defective or upon examination by the Repair Department, the product will be repaired or replaced at no charge. This warranty also includes damage that may have occurred in the regular activities that the pump is designed for (including accidental dropping of the product, as it is designed to withstand considerable damage). Unauthorized repair attempts or modification of the product may result in voiding of the warranty, and should be avoided.

#### **RETURN REQUESTS / INQUIRIES**

Direct all warranty and repair requests/inquiries to the Meriam Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO MERIAM INSTRUMENTS, PURCHASER MUST OBTAIN A RETURN GOODS AUTHORIZATION (RGA) NUMBER FROM MERIAM CUSTOMER SERVICE DEPARTMENT IN ORDER TO AVOID PROCESSING DELAYS. The assigned RMA number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for any shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR WARRANTY RETURNS, please have the following information available BEFORE contacting Meriam;

- Purchase Order number under which the product was PUR-1. CHASED
- 2. Model and serial number of the product under warranty; and
- 3. Repair instructions and/or specific problems relative to the product.

FOR NON-WARRANTY REPAIRS, have the following information available BEFORE contacting Meriam for current repair charges:

- Purchase Order number to cover the COST of the repair. 1.
- 2. Model and serial number of the product; and
- Repair instructions and/or specific problems relative to the prod-3. uct

#### CONTACT INFORMATION

- Address: Meriam Instruments
  - 10920 Madison Ave Cleveland, OH 44102

Phone Number Fax Number: Website: E-Mail;

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