

# Magnum Pro

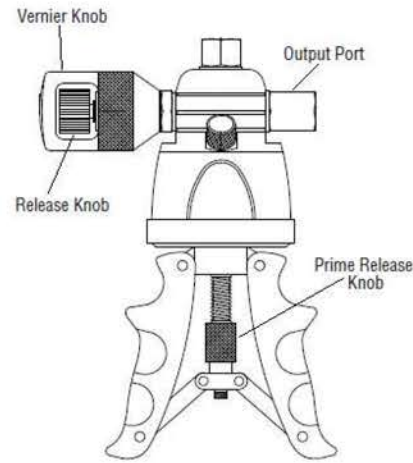
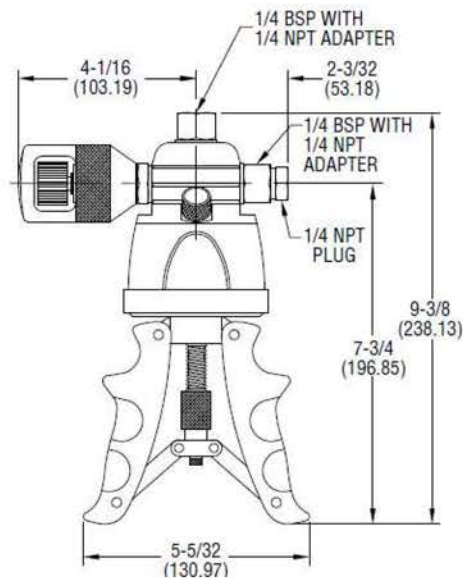
CALBRATION PUMPS



## M-10

### Hydraulic Calibration Hand Pump

Utilizes a fully adjustable stroke control to allow 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 over-sized check valves to provide smooth controlled operation.



## M-10 Hydraulic Calibration Hand Pump

### Specifications

**Accuracy:** 0.1%

**Range:** 0-10,000 psi (0-700 bar)

**Connections:** Gauge - 3/8" BPT, Process - 1/4" BSP (two 1/4" NPT adapters included).

**Materials:** Stainless steel fittings, polyurethane, anodized aluminum housing, plastic/rubber handles, PTFE, nitrile o-rings.

**Weight:** 3 lbs (1.36 kg)

**Warranty:** 2-year "quibble free" warranty.

Compatible with all gauges and calibrators. Made in the USA.

### Models

**M-10**.....

**M-10KT**.....

includes Pump, a black padded canvas case embroidered with orange thread, 3ft high pressure hose, fittings, 3 filters, test point, adaptor, and fluid bottle.

**M-10WIN**.....

includes everything in the M-10KT plus Winchester Engineering Model 1 Auto Ranging Digital Gauge™ w/ N.I.S.T. certification and versatile hook.

**M-10WIN-FIT**.....

includes everything in the M-10WIN plus FasTest universal quick connect kit and coupler for Swagelok tube fittings.

**M-10RK**.....

Rebuild Kit for M-10.

### Maintenance

No routine maintenance is required. A periodic check of system calibration is recommended, however. While the M-80 is field serviceable it is recommended it be returned to East Hills Instruments Europe if repair is needed. Be sure to include a brief description of the problem plus any relevant application notes.

### Operation

1. Remove the fill cap and fill reservoir to the recommended level with the appropriate fluid. Replace the cap.
2. Connect hose fittings and calibrators to the adapters. Connect the master instrument to the M-10 via the top port. Connect instrument under test to the flexible hose/gauge adapter
3. To prime the system, twist the knurled knob marked "Release". Squeeze the handles together and release. Twist 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.
4. 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.
5. Careful use of the release valve & fine control enable a controlled release of pressure, essential for calibration purposes.
6. 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 if further reduction is necessary.
7. If the fluid level in the reservoir falls considerably during use, a partial vacuum can be created in the reservoir which may affect pump performance. To avoid this, unscrew the fill cap to allow air to enter the reservoir.

### Points to Remember

- Do not exceed maximum pressure of 10,000 psi (700 bar).
- In order to use NPT fittings, the required NPT to BSP Parallel thread adapters need to be installed (adapters included).
- 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.