

# MPG2-H™

## Manually Operated Pressure Generator Controller for Hydraulic Pressure

### Technical Data



MPG2-H is a compact, easy-to-use and economical system for manually generating and adjusting pressure from atmosphere to as high as 200 MPa (30 000 psi) in systems where precise pressure adjustment is required.

MPG2-H is very well suited for use as the pressure generating and controlling component in calibration and testing systems using a digital or analog pressure indicator as a reference. It is also ideal for working with oil operated piston gauges. MPG2-H is the standard choice for manual pressure generation and control in a DHI PG7302 high performance oil operated piston gauge system in which power assisted or automated pressure control is not needed.

The MPG2-H is for pressure up to 200 MPa (30 000 psi). The MPG2-H-HV is for larger test volumes with a maximum pressure of 100 MPa (15 000 psi).

MPG2 includes three different means of filling, priming, generating and adjusting pressure.

Filling and priming are accomplished with a syringe style priming pump built into the reservoir cover. The priming pump draws fluid directly from the reservoir and injects it through MPG2 and out

its test port, filling the test system and generating a low starting pressure.

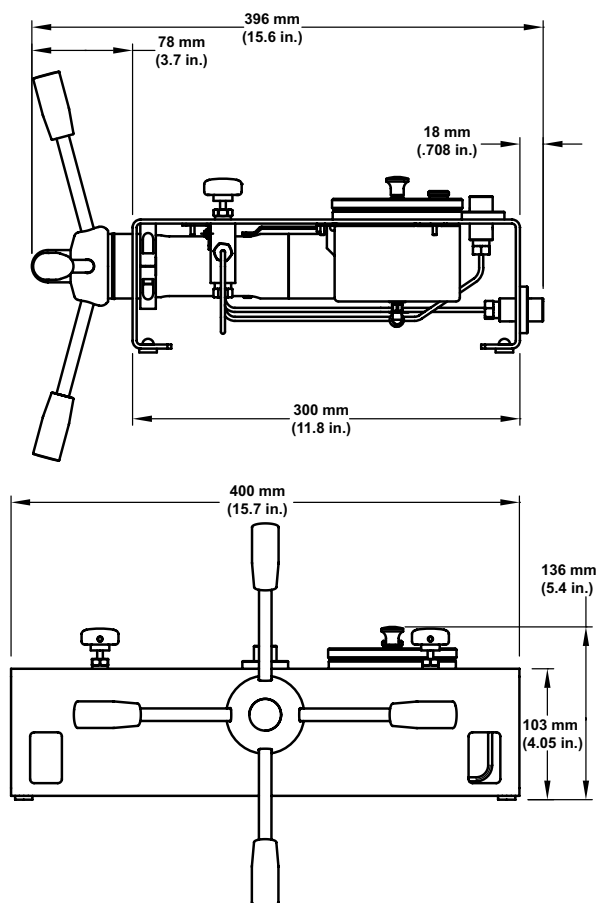
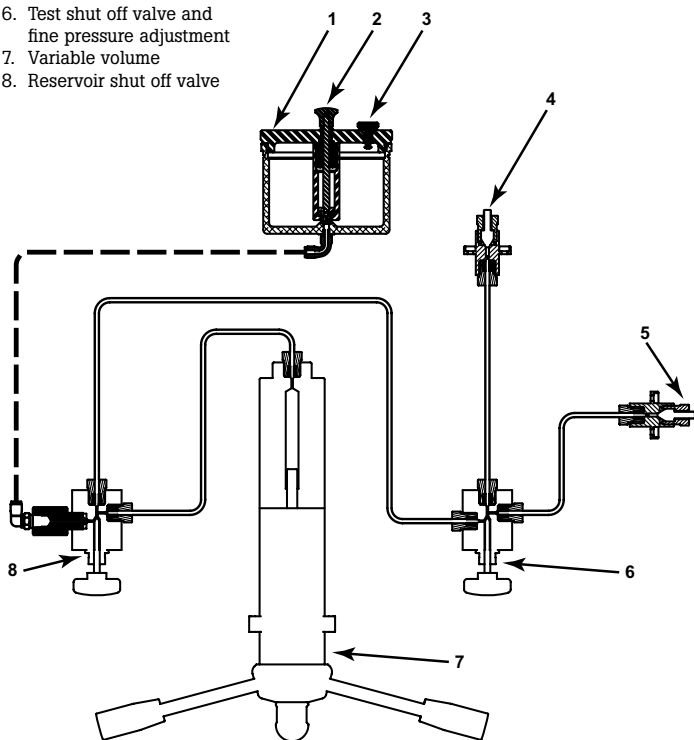
The main generating and adjusting element is a screw press variable volume. Operation of the variable volume is smooth and silent, requiring low torque even at the highest pressures. The screw threads through the handle so the handle rotates in the same position as the piston moves. Piston position is clearly indicated on the top of the MPG2 housing. The variable volume is able to set pressure very precisely (typically within 0.01 % of the set pressure). For extremely fine pressure adjustment (typically to within 0.001 % of the set pressure) the test shut off valve is used as a miniature variable volume.

Two test ports with standard, high pressure gland and collar fittings are provided to connect the MPG2 to the system into which pressure is to be set. The test ports are on the top and rear of the unit.

All the operating elements of MPG2 are integrated into a compact, protective housing. The individual MPG2 components are off-the-shelf assemblies that are easily accessed for repair or replacement.

## Hydraulic schematic and dimensions

1. Reservoir cover
2. Priming pump
3. Reservoir vent valve
4. TEST1 connection
5. TEST2 connection
6. Test shut off valve and fine pressure adjustment
7. Variable volume
8. Reservoir shut off valve



## Specifications

|                              | MPG2-H   | MPG2-H-HV            |
|------------------------------|--|----------------------|
| Maximum pressure             | 200 MPa (30 000 psi)   | 100 MPa (15 000 psi) |
| Variable volume displacement | 3 cc (0.18 cu in)  | 7 cc (0.45 cu in)    |
| Reservoir capacity           | 300 cc (18.3 cu in)  |                      |
| Test connections             | DH500 (equivalent to AE F250C, HIP HP4, etc.)                            |                      |
| Weight                       | 10 kg (22 lb)  |                      |
| Dimensions (W x H x D)       | 400 mm x 136 mm x 300 mm (15.7 in x 5.4 in x 11.8 in)                    |                      |
| Operating fluid              | Any non-corrosive oil, water, water/alcohol. Inquire about other fluids. |                      |

## Ordering information

### Model

**MPG2-H** Manual pressure generator complete with user's manual.

**MPG2-H-HV** Manual pressure generator complete with user's manual.

**Includes:** Manual

### Accessories

**Fluid, Sebacate Oil, 1 qt.**

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### Fluke Calibration

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Printed in U.S.A. 6/2010 3346326B B-EN-N

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