

# Pressure Gauge Test Equipment Comparison Pumps

Models **PH**  
**PS**

## Application

Comparison pumps are suitable for testing and calibrating pressure gauges and other pressure instruments with pressure ranges between -1-0 up to 0-2500 bar (also corresponding psi-ranges or others) by comparing the measuring results with those of pressure gauges with higher accuracy (see "Test Gauges", general information leaflet 2000).

## Construction

A piston spindle with handwheel (model -P) resp. with star handle (model -G) serves to build up the pressure and to regulate the test pressure.

The test instrument and the specimen gauge are connected to the comparison pump with stop valves via clamping sleeves.

**PH 60-P** is the suitable model for gaseous media (e.g. ambient air or compressed air), and for pressure ranges up to 60 bar. It is additionally provided with a double stop valve for external pressure connection respectively vacuum connection, and for bleeding the system.

## Plate Versions - P

<b>Model</b>	<b>PH 60-P</b>
• Medium	gaseous, e.g. ambient air
• Pressure ranges	-0.5 up to +4 bar <sup>1)</sup> without external pressure -1 up to +60 bar <sup>1)</sup> with external pressure, e.g. compressed air and/or external vacuum
• Instrument connections	2 stop valves, each with 2 clamping sleeves M 20 x 1.5 and ½" BSP
• All parts	installed on a basic plate made from grey enamelled cast aluminum
• Piston and spindle	Stainless steel

<b>Model</b>	<b>PH 60-P-O<sub>2</sub></b>
• As above, but	suitable for oxygen service wetted parts free of grease and oil
• Cylinder	blue enamelled

<b>Models</b>	<b>PS 60-P</b> <b>PS 600-P</b>
• Medium	low viscous oil (acid free) or water
• Pressure ranges	<b>PS 60-P:</b> 0 up to 60 bar <sup>1)</sup> <b>PS 600-P:</b> 0 up to 600 bar <sup>1)</sup>
• Instrument connections	2 stop valves, each with 2 clamping sleeves M 20 x 1.5 and ½" BSP
• Piston and spindle	stainless steel
• All parts	installed on a basic plate from grey enamelled cast aluminum

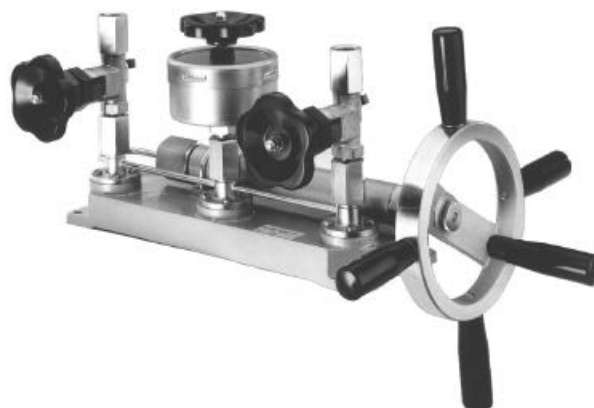
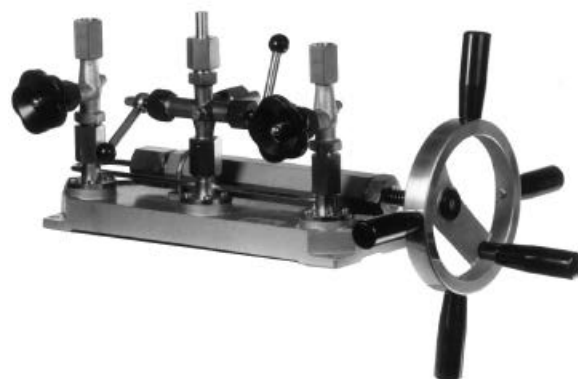
<b>Models</b>	<b>PS 60-P-O<sub>2</sub></b> <b>PS 600-P-O<sub>2</sub></b>
• As above, but	suitable for oxygen service
• Wetted parts	free of grease and oil
• Medium	distilled water
• Cylinder	blue enamelled

<sup>1)</sup> also corresponding psi ranges or other pressure units

Our models **PS** are designed for liquid media and available with pressure ranges 60, 600, 1000, and 2500 bar. These versions are equipped with a reservoir for the medium. Pressure gauge comparison pumps for liquid media are installed on a basic plate (code letter -P) and for pressure ranges 600, 1000 and 2500 bar they are mounted into a case similar to a case for dead weight testers (code letter -G). Comparison pumps in a case are better suited for continuous operations, e.g. in test shops, than those mounted on a plate. The case versions are also provided with filters to avoid contamination of the pump pipe system. We recommend to supply external compressed air up to max. 10 bar for a quick and easy filling of the system.

For comparison pumps in case version an external pressurised air supply (up to max. 10 bar) for fast filling of the system is recommended.

Special versions for testing pressure gauges to be used for oxygen service are available up to pressure range 0-1000 bar (compare below, model code ...-O<sub>2</sub>).



**ARMATURENBAU GmbH**  
Manometerstraße 5 • D-46487 Wesel - Ginderich  
Phone: +49 (0) 2803/9130-0 • Fax: +49 (0) 2803/1035  
armaturenbau.com • mail@armaturenbau.com



Subsidiary Company, Sales and Export East  
**MANOTHERM Beierfeld GmbH**  
Am Gewerbepark 9 • D-08340 Beierfeld  
Phone: +49 (0) 3774/58-0 • Fax: +49 (0) 3774/58-545  
manotherm.com • mail@manotherm.com

**10920**  
**01/13**

## Case Versions – G

### Models PS 600-G PS 1000-G

- Medium low viscous oil (acid free)
- Pressure ranges  
PS 600-G: 0 up to 600 bar<sup>1)</sup>  
PS 1000-G: 0 up to 1000 bar<sup>1)</sup>
- External compressed air supply recommended for easier filling of the system, but max. up to 10 bar
- Instrument connections 2 stop valves, each with 2 clamping sleeves M 20 x 1.5 and ½" BSP
- All parts set up in a grey enamelled cast aluminum case 350 x 550 x 270 mm (13.78 x 21.65 x 10.63"), with 3 mounting holes Ø 8.5 mm (.33")
- Weight approx. 26 kg (57.30 lb)



### Models PS 600-G-O<sub>2</sub> PS 1000-G-O<sub>2</sub>

- As above, but suitable for oxygen service
- Wetted parts free of grease and oil
- Medium distilled water
- Piston stainless steel

### Model PS 2500-G

- Medium low viscous oil (acid free)
- Pressure ranges 0 up to 2500 bar<sup>1)</sup>
- External compressed air supply recommended for easier filling of the system, but max. up to 10 bar
- Handpump built in;  
max. pressure by handpump: 1600 bar
- Instrument connections 2 stop valves, each with 2 clamping sleeves M 20 x 1,5 and ½" BSP
- All parts set up in a grey enamelled cast aluminum case 700 x 560 x 310 mm (27.56 x 22.05 x 12.21")
- Weight approx. 45 kg (99.20 lb)



<sup>1)</sup> also corresponding psi ranges or other pressure units