

Pneumatic Hand Pump - 23622P

OPERATING INSTRUCTIONS

Key:

1. 1/4" NPT female connection to take master instruments e.g. digital or analog gauges and Calibrators.
2. Fine adjustment valve.
3. Pressure release valve.
4. Pressure / Vacuum selector
5. Adjustable stroke for varying maximum pressure output (over pressure protection).
6. Knurled 'Quick-fit' connectors.
7. Flexible hose to item under test.
8. Pressure port - 1/4" NPT (female) to suit item under test.
9. Pump Handles.

Specification:

Output pressure: 0 to 600 psi / 0 to 40 bar (Adjustable)

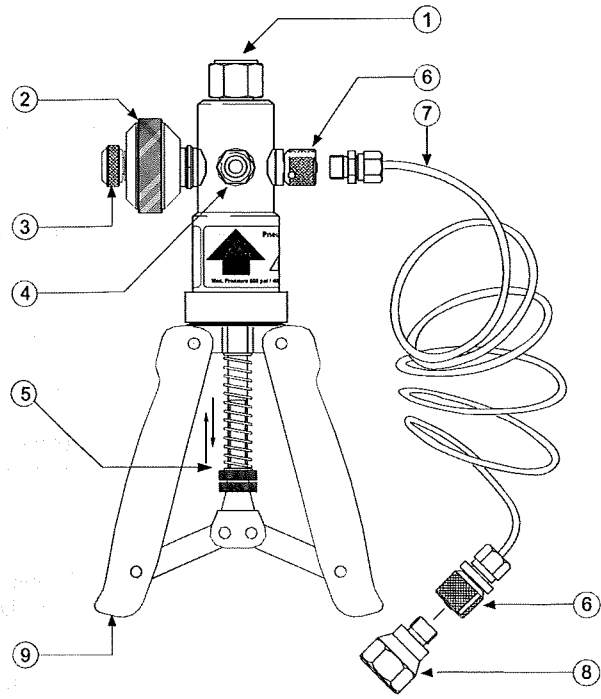
Output Vacuum: 0 to -14 psi / 0 to -0.96 bar

Materials: Bright nickel plated brass, clear anodized aluminum, Stainless Steel, Nylon.

Adjustment: Fine volumetric pressure / vacuum adjuster

Dimensions: 8.6" (L) x 4.1"(W) X 2.5" (D)

Weight: 1.4 lbs



The system is a portable dual source of vacuum and pressure. Each system incorporates a vacuum / pressure selector, a volume control for fine adjustment and adjustable stroke to provide over pressure protection.

RELEASE VALVE (3)

This can be used to reduce or release the pressure in the system. The rate of pressure reduction is dependent upon the degree of rotation when opening the valve. Minimal force is required to seal the system.

VOLUME CONTROL (2)

The pressure generated can be finely adjusted by turning the fine adjustment valve (2) either clockwise or anticlockwise to increase or decrease pressure accordingly.

OVER PRESSURE PROTECTION (5)

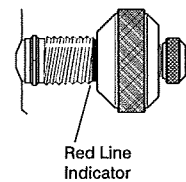
To adjust the maximum output pressure of the system turn the nuts (5) to increase or decrease the stroke length.

IMPORTANT

Under no circumstances should the fine adjustment valve (2) unscrewed beyond the red line indicator on the body.

PRESSURE/VACUUM SELECTION (4)

Press the selector (4) as indicated on the label to engage the desired mode. Ensure that the release valve (3) is fully closed (clockwise motion) prior to pumping.



NOTE

The system should only be used for pressurizing small volumes due to its small displacement.

If the system has not been used for a period of time, it could be difficult to operate on the first stroke.

The cylinder has been lightly greased on assembly but, if additional lubrication should ever be required, then apply a minimal amount to the inside of the cylinder.

Access is via the three retaining screws located under the black collar.

For seal replacement, refer to service kit (23623P) in optional accessories.

User Instructions : 23622P Pneumatic Hand Pump



WARNING: DO NOT CONNECT PUMP TO EXTERNAL PRESSURE SOURCE.

Guidelines for use:

1. Calibration / Comparison against analog gauge

- 1.1 Fit a Master Instrument to the top of the test system (1).
- 1.2 Connect item under test to pressure port (8) at the end of the flexible hose or directly to the body (6).
- 1.3 Screw fine adjustment valve (2) fully clockwise.
- 1.4 Screw fine adjustment valve (2) 4 - 6 full turns anticlockwise.
- 1.5 Screw pressure release valve (3) fully clockwise, tightening to ensure good seal.
- 1.6 Operate handles (9) until the pressure is close to that finally required. **Ensure handles are fully squeezed together on each stroke to achieve maximum pressure output.**
- 1.7 Wind the fine adjustment valve (2) clockwise to increase pressure or anticlockwise to decrease pressure until required pressure is reached.
Note: The pressure may settle for up to 30 seconds after increasing pressure due to thermodynamic effects, settling of seals and expansion of the flexible hose.
Caution: NEVER unscrew the fine adjustment valve (2) beyond the red line indicator.
- 1.8 Reductions in pressure can also be achieved by careful use of the pressure release valve (3).
- 1.9 Vacuum is achieved using the above procedure and having the changeover valve (4) pushed completely towards the vacuum position.

2. Use With High Resolution Pressure Calibrators

When used with instruments such as calibrators, the connections and use are as for gauges above, however the higher resolution available will amplify the visibility of the thermodynamic effects as mentioned in paragraph 1.7. These will settle to useable values within one minute of pressurization.

Note: On very high resolutions such as 1 mbar or 0.1 inches of water, small movements of the pipe may result in noticeable pressure changes.

3. Fault Investigation.

In the event that the system appears to lose pressure, identify the source of the leak changing seals if necessary. Ensure adaptors are tightened sufficiently and the pressure release valve (3) is tightened firmly.

Note: The connections to the hand held test system are sealed with 'o' ring or bonded seals and should not leak.

When testing for leaks it may be noticed that air is drawn in or expelled from around the changeover valve. This is normal and should cause no concern.

Ordering Codes for Pump & Optional Accessories:

- 23622P** Pneumatic Hand held pump.
23623P Service kit containing a set of seals, 'O' rings, retaining screws and allen key

Replacement hose and 1/4NPT pressure port available.