

## Parts Description

### ***Fine adjustment Vernier (4):***

The pressure can be finely adjusted by turning the Vernier, rotate clockwise or anticlockwise to increase or decrease the pressure respectively.

### ***Pressure Release Valve (3):***

Use pressure release valve to release or to reduce the pressure in the system with minimum degree of rotation in anticlockwise direction. A gentle tight (minimal force) is sufficient to seal the system.

### ***Pressure / Vacuum Selector Knob (5):***

Before switch over the mode, make sure that the pressure release valve **(3)** is open. To change the mode, turn the knob to clockwise direction for Pressure and anticlockwise direction for Vacuum.

***NOTE: Do not leave the selector (5) in mid position as the system does not create pressure/vacuum.***

### ***Knurling Thumb Nut (2):***

To adjust the maximum output pressure of the system, turn the knurling thumb nuts (2) to increase or decrease the stroke length so that the pressure is controlled.

## Specification

Medium	: Dry Air
Range	: -0.90 to 40 Bar
Test connection port	: ¼" BSP (F)
Resolution / Sensitivity	: Up to 1 mbar
Fine Adjustment	: Vernier
Weight	: ~1.0 kg
Dimension	: 230 mm (H) x 65 mm (W) x 130mm (D)

## OPERATING MANUAL

# Taishio

## PNEUMATIC HAND PUMP TS 40P



# Taishio

[www.taishio.com](http://www.taishio.com)

## Introduction

The pneumatic hand pump creates both pressure & vacuum, this hand pump can be used along with analog and digital instruments for calibration and testing purpose, being compact in nature, the hand pump can be portable.

## Standard Accessories

- Flexible hose with swivel adaptor (1/4" BSP - F)
- User manual
- For detail refer catalogue

## Safety Instructions

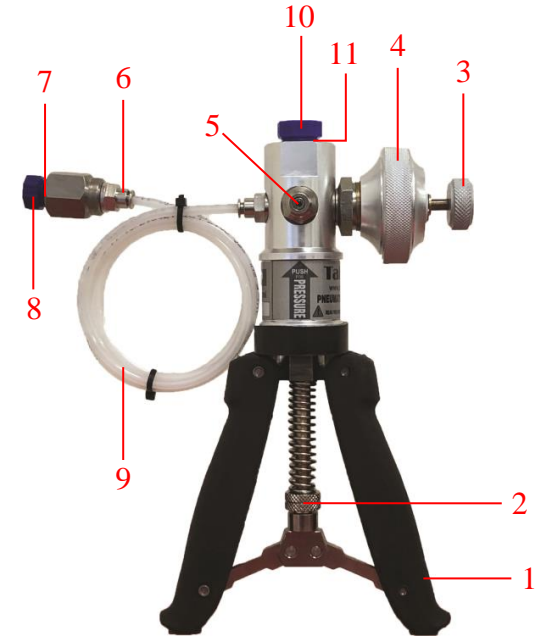
- Do not give any external force to the hand pump and its pressure build up element.
- Pressure relief valve must be open condition when the pump not in use.
- Do not attempt to over tighten the other fittings to the pump as it could lead to damage of sealed joints.
- Do not remove instrument, hose and connector when pump under pressure.
- Do not use hand pump if it is defective, it may create personnel injuries.
- Do not build up pressure without pressure measuring instrument.
- ☞ Allow the pressure to settle for 1-2 mins before taking the reading due to thermodynamic effects, setting of seals and expansion of flexible hose

## Installation & Operation

### **“Read safety instruction before use”**

1. Connect master instrument to the pressure port **(10)**.
  2. Connect the test instrument to the pressure port **(6)**.
  3. Open the fine adjustment valve **(4)** in anticlockwise direction until red mark appears.
  4. Ensure the pressure release valve **(3)** needle tightened in clock wise direction.
  5. Pressure / vacuum calibration can be selected by Pressure / Vacuum selector **(5)**.
  6. Generate pressure / vacuum by squeezing handles (1) together. **Ensure that the handles are fully squeezed together on each stroke to achieve max pressure / vacuum output.**
  7. The output pressure / vacuum can be adjusted with the fine adjustment valve (4) for a precise pressure / vacuum adjustment.
  8. After calibration, completely release the pressure / vacuum by twist off the vent-valve **(Release valve)** gradually in anticlockwise direction.
  9. For vacuum, turn the pressure/vacuum selector knob to anticlockwise direction and repeat the steps 1 to 8.
- (Note: Release pressure, before selecting vacuum mode).*
10. Disconnect both test and master instrument from pump.

## Parts Identification



1. Pump Handles
2. Knurling thumb nut
3. Pressure release valve
4. Fine adjustment valve
5. Pressure / Vacuum selector
6. Quick-fit's connectors. 1/4" BSP-F swivel adaptor
7. Nylon Washer 1/4"
8. Plastic Plug
9. Flexible hose to item under test
10. Pressure port – 3/8" BSP Female connection to connect master instruments
11. Nylon Washer 3/8"