

Pneumatic Test Rig For Cold Air Valves

>PP400LH<



The test rig is developed to test valves and other non-rotating pneumatic components with cold air according to the ATA-chapters 21, 49 and 80.

It can be adapted for other valves and pneumatic components.

- > Easy mounting of UUTs. Preadaption on a trolley and movable clamping slide.
- > In order to protect the operator, the testing area (test room with test rig, limited operation via operating panel) is separated from the control console (outside the test room)
- > An effective, high-defined camera monitors incidents in the test room
- > Highly dynamic hydraulically operated flow control valves regulate inlet and outlet pressure
- > Fine adjustment of the vacuum circuit for low pressure tests

MISCELLANEOUS INFORMATION

- > The pressure measurement and regulation on the UUT is performed by a combination of pressure transducers with quick reaction time (for rough regulation) and high precision (precise adjustment)
- > The leakage measuring circuit is provided with parallel connected flow measurements as cascade of measuring sections
- > The freely rotatable operating arm is provided with two touch screens and freely configurable operating elements
- > The test stand resists the hydraulic medium and cleaning detergent due to a special varnish and anodized aluminium front panels
- > The LAN- connection enables maintenance of the TEST-FUCHS test rig software, test procedures, network printer and troubleshooting on the equipment
- > Calibration tasks can be easily and quickly performed by means of the TEST-FUCHS standard software

TECHNICAL DATA

<p>> Pneumatic supply (requirements):</p> <p>Pressure: 7bar (102bar), 10bar (145bar), 20bar (290psi) and 35bar (508psi)</p> <p>Quality: dry and oil-free, ISO 8573-1 ISO Code 1-4-2</p> <p>Temperature: max. 50°C (122°F)</p>	<p>> Dimensions and weight:</p> <p>Upstream and Downstream Unit</p> <p>Width: approx. 6,000mm (236in)</p> <p>Depth: approx. 1,500mm (59.1in)</p> <p>Height: approx. 2,400mm (94.5in)</p> <p>Weight: approx. 2,460kg (5,420lb)</p>
<p>> Hydraulic supply (requirements):</p> <p>Pressure: max. 150bar (2,180psi)</p> <p>Flow: max. 20l/min (5.28USgal/min)</p> <p>Medium: Aeroshell Fluid 41 Mil-H-5606A</p>	<p>Test trolley</p> <p>Width: approx. 950mm (37.4in)</p> <p>Depth: approx. 800mm (31.5in)</p> <p>Height: approx. 1,200mm (47.2in)</p>
<p>> Electrical supply (requirements):</p> <p>Mains connection: 3/N/PE AC 50Hz 400v</p> <p>Nominal current: 12A</p> <p>Nominal performance: 8.3kVA</p> <p>Prefuse: 16A GL</p>	<p>Camera</p> <p>Width: approx. 195mm (7.68in)</p> <p>Depth: approx. 240mm (9.45in)</p> <p>Height: approx. 280mm (11.0in)</p>
<p>> Other supplies (requirements):</p> <p>LAN for remote maintenance and network printer</p>	<p>> Operating conditions:</p> <p>Operating temperature: 5 to 35°C (41 to 95°F)</p> <p>Storage temperature: 0 to 55°C (32 to 131°F)</p> <p>Height: up to 1,000m (3,280ft) via MSL</p> <p>Rel. air humidity: 10 to 95% (non condensing)</p> <p>Altitude: in a non-ex-area</p>

OPTIONS

A wide range of options is available to fulfil our customers' requirements.
 e.g.: Adaption for numerous UUTs, requirement to the test program, dimensioning,...

>PP400LH<

TECHNICAL DATA

> Measurements:

AC- Measurements:

- (3 off) 0 to 6ARMS $\pm 0.5\%$ o.m.r.
- (3 off) 0 to 12ARMS $\pm 0.2\%$ o.m.r.
- (3 off) 0 to 354VRMS $\pm 0.2\%$ o.m.r.
- (3 off) 0 to 135VRMS $\pm 0.5\%$ o.m.r.
- (1 off) 50 to 900Hz $\pm 0.01\%$ o.f.s.

DC- Measurements:

- (1 off) -500 to +500mA $\pm 0.1\%$ o.f.s.
- (1 off) -12 to +12VDC $\pm 0.1\%$ o.f.s.
- (3 off) 0 to 6ADC $\pm 0.25\%$ o.f.s.
- (3 off) 0 to 40VDC $\pm 0.25\%$ o.f.s.

DMM- Measurements:

- (1 off) 50 to 1,000mA $\pm 0.3\%$ o.m.v.
- (1 off) 10 to 1,000V $\pm 0.3\%$ o.m.v.
- (2 off) 2 to 100mV $\pm 0.3\%$ o.m.v.
- (1 off) 10 to 100VACrms $\pm 0.4\%$ o.m.v.
- (1 off) 1 to 100V $\pm 0.3\%$ o.m.v.
- (1 off) 0.8 to 10mA $\pm 0.3\%$ o.m.v.
- (1 off) 1 to 10VACrms $\pm 0.4\%$ o.m.v.
- (1 off) 0.1 to 10V $\pm 0.3\%$ o.m.v.
- (1 off) 0.1 to 1VACrms $\pm 0.4\%$ o.m.v.
- (1 off) 0.01 to 1V $\pm 0.3\%$ o.m.v.
- (1 off) 75 to 750VACrms $\pm 0.4\%$ o.m.v.
- (1 off) 40 to 300,000Hz $\pm 0.01\%$ o.m.v.

LVDT- Measurements:

- (1 off) 0 to 27Vrms $\pm 0.1\%$ o.m.r.
- (2 off) 0 to 7VRMS $\pm 0.1\%$ o.m.r.

Flow:

- (1 off) 29.5 to 72.6kg/min (65 to 500lb/min)
 $\pm 3\%$ o.m.v.
- (1 off) 1.81 to 31.8kg/min (4 to 70lb/min)
 $\pm 3\%$ o.m.v.
- (1 off) 0.45 to 6.8kg/min (1 to 15lb/min)
 $\pm 3\%$ o.m.v.
- (1 off) 0.045 to 0.68kg/min (0.1 to 1.5lb/min)
 $\pm 3\%$ o.m.v.
- (1 off) 0.0045 to 0.068kg/min
(0.01 to 0.15lb/min)
 $\pm 3\%$ o.m.v.
- (1 off) 0.03 to 0.3kg/min (0.066 to 0.66lb/min)
 $\pm 3\%$ o.m.v.

Pressure:

- (4 off) 0 to 20.7bar (0 to 300psi)
 $\pm 0.5\%$ o.m.r.
- (4 off) 0 to 20.7bar (0 to 300psi)
 $\pm 0.1\%$ o.m.r.
- (4 off) 0 to 6.89bar (0 to 100psi)
 $\pm 0.5\%$ o.m.r.
- (3 off) 0 to 6.89bar (0 to 100psi)
 $\pm 0.1\%$ o.m.r.
- (1 off) 0 to 3.45bar (0 to 50psi)
 $\pm 0.2\%$ o.m.r.
- (2 off) 0 to 1.72bar (0 to 25psi)
 $\pm 0.5\%$ o.m.r.
- (1 off) 0 to 1.03bar (0 to 15psi)
 $\pm 0.2\%$ o.m.r.
- (1 off) 0 to 21bar abs. (0 to 305psi abs.)
- (1 off) 0 to 6.89bar abs. (0 to 100psi abs.)
 $\pm 0.2\%$ o.m.r.
- (1 off) 0 to 2.76bar abs. (0 to 40psi abs.)
 $\pm 0.5\%$ o.m.r.
- (1 off) 0 to 2.76bar abs. (0 to 40psi abs.)
 $\pm 0.25\%$ o.m.r.
- (1 off) 0 to 2.07bar abs. (0 to 30psi abs.)
 $\pm 0.5\%$ o.m.r.
- (3 off) 0 to 2.07bar abs. (0 to 30psi abs.)
 $\pm 0.2\%$ o.m.r.
- (1 off) 800 to 1100mbar (11,6 to 16psi abs.)
 $\pm 0.2\%$ o.m.r.

Differential Pressure:

- (1 off) -0.15 to +0.15bar (-2.2 to +2.2psi)
 $\pm 0.25\%$ o.m.r.
- (1 off) -0.31 to +0.31bar (-4.5 to +4.5psi)
 $\pm 0.25\%$ o.m.r.
- (1 off) 0 to 2.07bar (0 to 30psi)
 $\pm 0.5\%$ o.m.r.

Temperature:

- (1 off) -55 to +280°C (-67 to 536°F)
- (3 off) 10 to 50°C (50 to 122°F) $\pm 1\%$ o.f.s.
- (1 off) 0 to 40°C (32 to 104°F) $\pm 2^\circ\text{C}$

Air Humidity:

- (1 off) 0 to 100% r.H. $\pm 3\%$

Angle:

- (1 off) 0 to 360° $\pm 0.1^\circ$