

Pneumatic Test Stand for High-Flow Components

>PP250LTCS<



The test stand is developed for universal testing of High-Flow Components (e.g. valves) and their parameters (pressure, temperature, flow and leakage) in accordance with ATA Chapter 36.

The test stand can be adapted to test different High-Flow Components with other parameters.

- > Quick and precise regulation of the required parameters by especially developed and manufactured high temperature valves
- > Temperature rise rates of $\sim 3^{\circ}\text{C/s}$ ($\sim 5.4^{\circ}\text{F/s}$) by a high-capacity electrical heater
- > Accessories include flowmeter measured distances (20ppm / 100ppm / 250ppm), dummy pipe, test cables and pressure measurement trackings
- > Quick and simple UUT mounting by vertically adjustable lifting tables and V-clamps

FIELDS OF APPLICATION

High-Flow Components (e.g. valves) with the following parameters

- > Pressure: max. 21.7bar (315psi)
- > Temperature: max. 520°C (968°F)
- > Flow: max. 113kg/min (250lb/min)

MISCELLANEOUS

- > Vacuum circuit, freely interconnectable pressure and differential pressure transducer, angle and temperature measurements
- > Controllable heater to regulate the required temperature for tests
- > Mobile outlet platform and heat expansion compensator to connect between the test stand and UUT
- > Integrated hydraulic power unit for the control pressure-supply
- > The ergonomic and vertically adjustable control console is operated outside of the testing area
- > Sound damper for sound absorption

TECHNICAL DATA

> Electrical supply (requirements):

Test stand

Mains connection: 480Y/277V 3 PHASE
3w 60Hz

Nominal current: 12A

Nominal power: 10kVA

Short circuit current: max. 50kA

Heater

Mains connection: 3/PE AC 60Hz 480V

Nominal current: 1500A

Nominal power: 1224kW

Back-up fuse: 2000A gG

> Compressed air supply (requirements):

Pressure: 9barg (130psig)

Temperature: max. 55°C (130°F)

> Supply high pressure high flow (requirements):

Flow: 1.89kg/s (250ppm)

Pressure: 20barg (290.1psig)

Temperature: max. 55°C (130°F)

> Supply low pressure high flow (requirements):

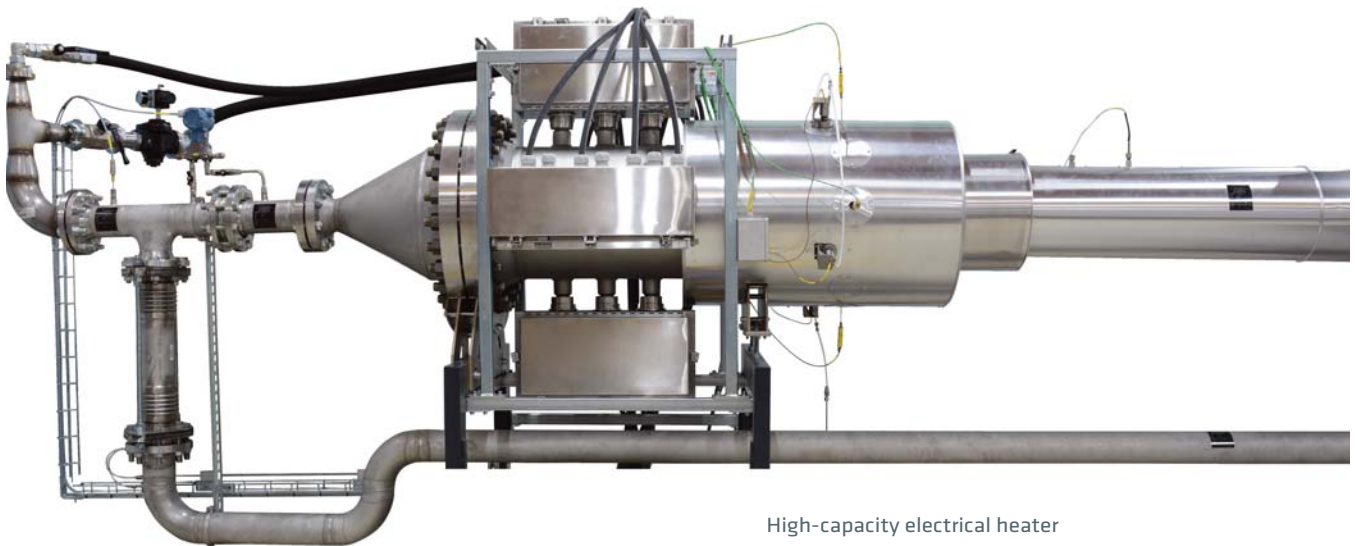
Flow: 1.89kg/s (250ppm)

Pressure: 10barg (145.0psig)

Temperature: max. 55°C (130°F)

TECHNICAL DATA

<p>> Vacuum circuit: Flow: max. 24Nm³/h (14.1scfm) Pressure: min. 100mbara (1.45psia)</p>	<p>> Dimensions and weight: <u>Test stand (incl. switch cabinet)</u> Length: 3,500mm (137.8in) Width: 1,600mm (63.0in) Height: 2,300mm (90.6in) (without setups) Weight: 3,300kg (7,275.2lb)</p>
<p>> Hydraulic control pressure: Flow: max. 20l/min (5.3USgpm) Pressure: 150bar (2,175.6psi)</p>	<p><u>Control console</u> Width: 1,750mm (68.9in) Depth: 800mm (31.5in) Height: 950mm (37.4in)</p>
<p>> Supply high flow cold air: Flow: 1.89kg/s (250ppm) Pressure: 20barg (290.1psig) Temperature: max. 55°C (130°F)</p>	<p><u>Control cabinet</u> Width: 570mm (22.4in) Depth: 750mm (29.5in) Height: 1,120mm (44.1in) Weight: 150kg (330.7lb)</p>
<p>> Supply high flow hot air: Flow: 1.89kg/s (250ppm) Pressure: 20barg (290.1psig) Temperature: max. 500°C (932°F)</p>	<p><u>Heater</u> Width: 5,000mm (196.8in) Depth: 1,250mm (49.2in) Height: 2,300mm (90.6in) Weight: 1,250kg (2,755.8lb)</p>
<p>> Operating conditions: Operating temperature: 10 to 35°C (50 to 95°F) Storage temperature: 0 to 60°C (32 to 140°F) Height: up to 1,000m (3,280ft) via MSL (mean sea level) Rel. air humidity: 10 to 95% (non-condensing) Installation: in a non-ex. area</p>	<p><u>Switch cabinet for heater</u> Width: 4,850mm (190.9in) Depth: 700mm (27.6in) Height: 2,100mm (82.7in) Weight: 1,850kg (4,078.5lb)</p>



High-capacity electrical heater

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MEASUREMENTS

<p>> Pressure: (21 pcs)</p> <p>0 to 10bar (0 to 145.0psi) ±0.5% of measuring range to 0 to 25bar (0 to 362.6psi) ±0.5% of measuring range</p> <p>0 to 1.3bar abs. (0 to 18.9psi abs.) ±0.5% of measuring range</p>	<p>> Temperature: (12 pcs)</p> <p>-20 to +100°C (-4 to 212°F) ±0.5% of reading to -20 to +537.8°C (-4 to 1000°F) ±0.5% of reading</p>
<p>> Differential pressure: (2 pcs)</p> <p>0 to 2.1bar (0 to 30psi) ±0.1% of measuring range</p> <p>-50 to +50mbar (-0.725 to +0.725psi) ±0.5% of measuring range</p>	<p>> Voltage: (8 pcs)</p> <p>-20 to +20VDC ±0.25% of full scale to 0 to 40VDC ±0.25% of full scale</p>
<p>> Flow: (3 pcs)</p> <p>6.3 to 20ppm ±2% of full scale</p> <p>21 to 100ppm ±2% of full scale</p> <p>53 to 250ppm ±2% of full scale</p>	<p>> Current: (4 pcs)</p> <p>-400 to +400mADC ±0.25% of full scale</p> <p>0 to 1ADC ±0.25% of full scale</p> <p>0 to 5ADC ±0.25% of full scale</p>
<p>> Humidity: (1 pc)</p> <p>0 to 100% ±10%</p>	<p>> Time: (2 pcs)</p> <p>0 to 5min ±0.5% of full scale</p> <p>0 to 10s ±0.1s</p>
	<p>> Angle: (1 pc)</p> <p>0 to 360° ±0.1°</p>

OPTIONS

A wide range of options is available to fulfil our customers' requirements.
e.g.: flow measuring lengths and test cables for different UUTs, etc.