

Valve Test Stand For Proportional Solenoid Valves

>VPST6<



The test stand is developed for function testing (internal leakage and flow rate) as well as for laser marking of proportional solenoid valves (NC and NO) for the automotive industry.

It can be adapted for use with proportional solenoid valves used for different applications.

- > Test procedures are optimized to shorten cycle times.
- > Series testing is done with one single button
- > Labelling of UUTs is carried out by a laser and controlled by a scanner.
- > Two compact hydraulic test blocks (for simultaneous testing of six UUTs) are fitted to each of the two test chambers. The blocks contain the components necessary for testing (e.g. valve travel, servo valve tests, flow measurement, temperature and pressure).
- > Mechanical UUT clamps check the UUT identification and monitor clamps' closing

RANGE OF APPLICATION

Part number	Test procedures	Valve type
VR042ZB125D01	PV013091	NC (normally closed)
VR042ZB125D02	PV013092	NC (normally closed)
VR042ZB125D03	PV013093	NC (normally closed)
G042-342VR	PVE-G042-342VR	NO (normally open)
G042-343VR	PVE-G042-343VR	NO (normally open)
G042-344VR	PVE_G042-344VR	NO (normally open)

GENERAL INFORMATION

- > Membrane air spring insulators absorb the vibration of the drive motors thus enabling the laser identification markings to be carried out
- > The rolling shutters are manufactured from a special material which protects the operator during testing and laser labelling
- > Two lateral trolleys, fitted with a weight control mechanism, check the correct positioning of the UUTs
- > A spindle driven slide ensures correct positioning of the laser and its reading device
- > A warning lamp is located between the test chambers indicating laser operation
- > A key operated switch is used to bypass the safety device during trouble shooting, maintenance and calibration operations
- > Ventilating fans ensure that vapours generated by testing and operation of the laser are safely removed
- > Drip trays are placed under the test chambers and close to the “fail/pass boards” for UUTs
- > Extractable drip trays are placed in the appropriate areas to collect fluids generated during tests or other leakages. They are designed to hold the entire test media and can be removed when required
- > Quickly changeable spacer discs for mechanical UUT clamping to test UUTs at various sizes

TECHNICAL DATA

<p>> Electrical supply (requirements):</p> <p>Power supply: 3/N/PE AC 50Hz 400V Nominal current: 105A Power: 73kVA Back-up fuse: 125A gG</p>	<p>> Cooling water supply (requirements):</p> <p>Flow: 75lpm (19.8USgpm) Temperature: 13°C (55.4°F)</p>
<p>> Pneumatical supply (requirements):</p> <p>Pressure: 6 to 10bar (87.0 to 145.0psi)</p>	<p>> Test medium:</p> <p>TITAN SAF 4257 EU 50 Content approx. 500l (132.1USgal)</p>

TECHNICAL DATA

> Measurement range:

Temperature sensor:

(13-off) 0 to 50°C (32 to 122°F)
±1°C (1.8°F)

Pressure sensor:

(12-off) 0 to 6bar (0 to 87.0psi)
±0.5% o.f.s.

(1-off) 0 to 20bar (0 to 290.1psi)
±0.5% o.f.s.

(12-off) 0 to 100bar (0 to 1,450.4psi)
±0.5% o.f.s.

Current:

(6-off) 0 to 4ADC
±0.015ADC

(6-off) 0 to 2.5ADC
±1% o.f.s.

Force:

(2-off) 0 to 7,200g (0 to 15.9lb)
±30.0g (±0.07lb)

(2-off) 0 to 18,000g (0 to 39.7lb)
±30.0g (±0.07lb)

Flow:

(12-off) 0 to 8lpm (0 to 2.1USgpm)
±0.5% o.f.s.

(12-off) 3 to 60lpm (0.8 to 15.9USgpm)
±0.5% o.f.s.

Leakage:

(12-off) 0 to 1,000ml/min
(0 to 0.26USgpm)
±(1ml/min +1% m.v.)
±(0.00026USgpm +1% m.v.)

o.f.s. of full scale

m.v. measurement value

> Dimensions and weight:

Test stand:

Width: approx. 3,900mm (153.5in)
Depth: approx. 2,400mm (94.5in)
Height: approx. 2,600mm (102.4in)
Weight: approx. 5,100kg (11,244lb)

Switch cabinet:

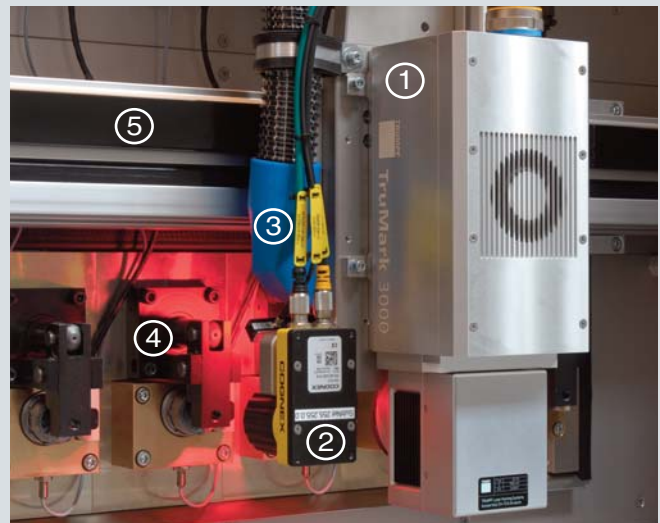
Width: approx. 1,200mm (47.2in)
Depth: approx. 600mm (23.6in)
Height: approx. 2,250mm (88.6in)
Weight: approx. 400kg (882lb)

Fail/pass boards:

Width: approx. 1,050mm (41.3in)
Depth: approx. 650mm (25.6in)
Height: approx. 1,200mm (47.2in)
Weight: approx. 180kg (397lb)

> Operating conditions:

Operating temperature: 5 to 35°C (41 to 95°F)
Storage temperature: 0 to 60°C (32 to 140°F)
Altitude: max. 1,000m (3,281ft) MSL
Air humidity: 5 to 95% (non condensing)



- ① Laser
- ② Reading
- ③ Exhaust system
- ④ UUT clamping
- ⑤ Spindle carrier