

MODEL BL511 HYDRAULIC DEADWEIGHT TESTER



The model BL511 hydraulic deadweight testers are applicable in very wide variety of pressure calibration and measurement tasks. The piston cylinder assembly is the heart of the dead weight tester and responsible for its high accuracy. We manufacture piston cylinder with accuracies from 0.05% up to 0.005% of reading. To give an idea of the manufacturing skills, the space between the piston and the cylinder is in the μm range and can only be measured in a climate room.

KEY FEATURES

- 0.05%, 0.02%, 0.01%, 0.005% accuracy
- Built-in filter in 400ml oil reservoir
- Shows pressure regulator rod position
- 3.5 inch LED shows piston position, ambient temperature and humidity
- Piston moving position indicator can be easily calibrated
- The piston and cylinder is made of the high intensity, extreme hardness and lowest thermal expansion tungsten carbide, which density is 15 g/cm^3 , thermal coefficient of expansion is $16.5 \text{ ppm/}^\circ\text{C}$
- Five year warranty for piston stability

APPLICATION

- Pressure calibration labs
- Pressure measurement in field

PRESSURE RANGE SELECTABLE SHEET

Part #	Pressure	Piston	Mass	Accuracy
XY6	0.04~0.6MPa	0.4kg	5.6kg	0.05...0.005
XY60	(0.1~6) MPa	0.5kg	29.5kg	0.05...0.005
XY250	(0.5~25) MPa	0.5kg	24.5kg	0.05...0.005
XY600	(1~60) MPa	0.5kg	29.5kg	0.05...0.005
XY1000A	(2~100) MPa	0.5kg	49.5kg	0.05...0.005
XY1000B	(1~100) MPa	0.5kg	49.5kg	0.05...0.005
XY1600A	(2~160) MPa	0.5kg	79.5kg	0.05...0.005
XY1600B	(1~160) MPa	0.5kg	79.5kg	0.05...0.005

SPECIFICATIONS

- Piston material: Tungsten carbide
- Cylinder material: Tungsten carbide
- Mass material: 304 non-magnetic stainless steel
- Hydraulic base material: Aluminium alloy
- Effective area: 0.5 cm^2
- Transforming and lubrication medium: Mineral Oil ($<25 \text{ MPa}$); Sebacate ($\geq 25 \text{ MPa}$)
- Reservoir volume: 400ml
- Connector: Metric (NPT and BSP is option)
- Base size: 310 mm (H) x 480 mm (L) x 680 mm (D)
- Base weight: 26kg
- Power: AC220V, 50Hz

SCOPE OF DELIVERY

- BL511 Hydraulic deadweight tester base
- Piston cylinder unit
- Mass carrier
- 304 non-magnetic stainless steel mass set
- Adapter kits ($1/4"$ NPT, $1/2"$ NPT, $1/4"$ G, $1/2"$ G)
- User manual
- Transit case

OPTIONAL ACCESSORIES AND SERVICES

- ISO17025 calibration certificate (P/N:9000-511)

HOW TO ORDER

- BL511 / part number / accuracy / gravity value