



HydraTester Dead Weight Testers

DTP Series, Hydraulic, Piston Type



HydraTester DTP Series hydraulic piston type deadweight tester is an oil driven highly reliable and accurate primary pressure standard suitable for industrial environment. Based on unique design, ISO9001 certified quality production, and ease of operation and maintenance, Henry pressure standards have been serving the markets for more than 40 years.

DTP Technical Specifications

Accuracy

Standard version: 0.05% of reading

Optional version: 0.02% of reading

Temperature

If unspecified, the instrument will be manufactured for inH₂O at 20 deg.C, according to ISA. Temperature coefficient is 0.000017 per deg.C. Operating range: 15 to 30 deg.C.

Gravity

As specified on order. If unspecified, then International Standard: 980.665 cm/s².

Standard models available

Model	Pressure Range
DTP0060/1	0.04 to 0.6 MPa/0.4 to 6 bar
DTP0600/1	0.1 to 6 MPa/1 to 60 bar
DTP2500/1	0.5 to 25 MPa/5 to 250 bar
DTP6000/1	1 to 60 MPa/10 to 600 bar

Intermediate ranges and other engineering units are optional.

Technical Data

Tester Model No.		DTP0060	DTP0600	DTP2500	DTP6000	
Output Pressure Range	bar	0.4 ~ 6	1 ~ 60	5 ~ 250	10 ~ 600	
Accuracy	%	0.02 or 0.05				
Nominal Area of Piston		cm ²	1	0.5	0.2	0.1
Carrier and Piston	Nominal Mass	kg	0.4	0.5	1	1
	Produced Pressure	bar	0.4	1	5	10
Supplied Weights	Nominal Mass	kg	0.1 ; 0.5	0.5 ; 2.5	1 ; 5	1 ; 5
	Produced Pressure	bar	0.1 ; 0.5	1 ; 5	5 ; 25	10 ; 50
	Quantity Block	pcs	6 ; 10	4 ; 11	4 ; 9	4 ; 11
Pressure Port		M 20 x 1.5				
Working Fluids		Transformer Oil (viscosity 9 ~ 12 centistokes at 20°C), or Medical Castor Oil (acidity < mg KOH/g)				
Overall Dimensions	mm	630 x 382 x 593				
Weight per Unit + Weights	kg	20 + 5.6	26 + 29.5	26 + 49	26 + 59	

The manometers shown in photo are not supplied.

The specifications are subject to change without advance notice.

DTP1 Series, Compact Type

-WT for Water Medium,

-DL for Dual Ranges

-SS for Stainless Steel Weight Sets

HydraTester DTP1 series dead weight tester is developed based on the long proven base model DTP-HA series. The -WT for water medium is used for pressure calibration while oil is strictly prohibited. Dual ranges are also available. And pressure values and engineering units of mass sets are made to customer design.



DTP1-WT

Features: compact, light in weight, light in pumping, fine adjustment, lower start pressure, higher resolution, rolling bearing, thin hydraulic fluid; optional motorized turning on/off switch, dual range.



DTP2 Series, All Stainless Steel And Volumetric Construction Type

-WT for Water Medium,

-DL for Dual Ranges

-MT for Motorized

HydraTester DTP2 series dead weight tester is developed for pressure calibration at tougher industrial environment and volumetric pressure transmission. Dual ranges are also available. And pressure values and engineering units of mass sets are made to customer design.



DTP2- DL-MT

Features: all stainless steel, light in pumping, fine adjustment, larger hydraulic volume, lower start pressure, higher resolution, rolling bearing; optional motorized turning on/off switch, piston position indicator, dual ranges, 4 process ports.

DTP1 / DTP2 Technical Specifications

Ranges: 1 to 60 bar (0.5 bar start optional)

10 to 600 bar (5 bar start optional)

20 to 1000 or 1500 bar

1 to 60 bar and 10 to 600 bar dual

Accuracy: 0.05%IR, 0.02%IR, or 0.005%IR

Medium: transformer oil, sebacate oil, or water

Construction: carbon steel for DTP1, stainless steel and aluminum for DTP2.

Piston material: hardened tungsten carbide

Mass set material: carbon steel or optionally stainless steel for DTP1, stainless steel for DTP2.

Weight:

DTP1: body 10 kg, mass set 30 kg per range.

DTP2: body 40 kg, mass set 30 kg per range

Standard Weight Sets:

Model	Range Bar /Media	Piston Area CM2	Pressure of Dead Weight Bar	Q'ty of Dead Weights		
				Class 0.05 %	Class 0.02 %	Class 0.005 %
DTP1-0600-WT for MPa	1-60 transformer Oil	0.05	1	4	4	N
DTP1-0601-WT for Bar			5	11	11	N
DTP1-6000-WT for MPa	10 - 600 Castor Oil	0.05	10	2	2	N
DTP1-6001-WT for Bar			20	1	1	N
			50	11	11	N

DTP2-6000 for MPa	10 - 600 Castor Oil	0.05	10	n	2	2
DTP2-6001 for Bar			20	n	1	1
			50	n	11	11
DTP2-H100 for MPa	1-60 transformer Oil	0.05		n	y	y
DTP2-H101 for Bar				n	y	y
DTP1 or DTP2-0601/6001-SS	1-60 10 - 600 transformer Oil	0.05	1	4	4	N
-DL for Bar			5	11	11	N
			10	2	2	N
			20	1	1	N
			50	11	11	N

Other Henry pressure products:

PneumaTester Dead Weight Testers

PressCali Portable Pressure Calibrators

Henry Electronic Pressure Calibrators with accuracy 0.1% FS and 0.05% FS are available.

PressGene Pressure Generating Sources

Henry Hand held pumps and Comparison pumps are available as portable pressure generators for checking pressure instruments, generating pressure from -0.88 to 1000 bar.

Your Local Distributor: