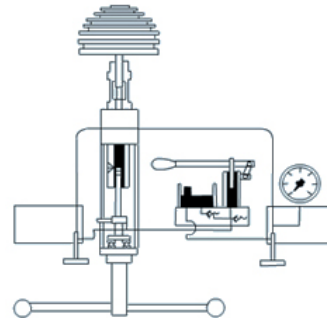


Dead Weight Pressure Gauge Tester > DW 20 Series



Models of DW 20 and DW 30 series are provided with a lever operated Priming Pump also giving continuous oil delivery for filling up large gauges or even external piping. It is capable of developing 10% of instrument range and with isolating valves at both ends. It forms a unique closed circuit for effective air removal.

WORKING PRINCIPLE: The Dead Weight Pressure Gauge Testers make use of the relationship between pressure acting on the known area of a vertically free floating piston producing a force balanced by known dead weight.

MAIN COMPONENTS of the tester are :-

Screw Pump: It is used to generate pressure in the circuit of adequate capacity and is operated by a spoked handle which permits easy and accurate setting of pressure.

Priming Pump: (provided only in High Pressure Calibrators) : It is a lever operated pump used for providing continuous oil delivery for filling up large gauges or even external piping. This pump is capable of developing 5% — 10% of the instrument range. Isolating valves are provided at both ends. It forms a unique closed circuit for effective air removal.

Free Piston Assembly: It is made of special steel, hardened, tempered, ground and lapped to accurate size and very fine surface finish provides true floating action.

Set of Weights: Each weight is directly marked in convenient values of pressure and is easily stacked on the weight carrier which is placed on to the free piston. The calibration can be provided in various units of pressure measurement namely kgf/cm², bar, lbf/in², kPa, KN/m² as per customer requirement. Weights are available in two material options : MS Phosphated black & SS 304. Storage box is provided for storing weights safely.

Gauge Connector: of 1/2" BSP (female) union for connecting the gauge to be tested. Gauges with other connecting threads may be connected using adaptors provided.

Base Plate: The instrument is mounted on a sturdy base plate provided with levelling screws. The entire circuit is covered by a sheet metal cover.

Incremental Weights: to provide smaller steps (better least count) is available for all models at extra cost.

Calibration / Traceability: Calibration is done against Master Dead Weight Pressure Gauge Tester and Master Dial Pressure Gauges using cross-float method. Our instruments are backed by test certificates traceable to National Standard to meet the requirements of ISO 9000, QS 14000 and other Inspection Agencies.

MODEL	RANGE (kgf / cm ²)			RANGE (lbf / in ²)			RANGE (bar)			RANGE (MPa)		
	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
DW21												
REGULAR	2	0.5	160	20	10	2000	2	0.5	160	0.2	0.05	16
INC	2	0.02	160	20	0.5	2000	2	0.02	160	0.2	0.002	16

MODEL	RANGE (kgf / cm ²)			RANGE (lbf / in ²)			RANGE (bar)			RANGE (MPa)		
	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
DW22												
REGULAR	4	1	250	40	10	3600	4	1	250	0.4	0.1	25
INC	4	0.05	250	40	0.5	3600	4	0.05	250	0.4	0.005	25

MODEL	RANGE (kgf / cm ²)			RANGE (lbf / in ²)			RANGE (bar)			RANGE (MPa)		
	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
DW23												
REGULAR	5	1	400	50	10	5000	5	1	400	0.5	0.1	40
INC	5	0.05	400	50	0.5	5000	5	0.05	400	0.5	0.005	40

MODEL	RANGE (kgf / cm ²)			RANGE (lbf / in ²)			RANGE (bar)			RANGE (MPa)		
	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
DW24												
REGULAR	10	2	600	100	20	8000	10	2	600	1	0.2	60
INC	10	0.1	600	100	1	8000	10	0.1	600	1	0.01	60

MODEL	RANGE (kgf / cm ²)			RANGE (lbf / in ²)			RANGE (bar)			RANGE (MPa)		
	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
DW25												
REGULAR	10	2	800	100	20	12000	10	2	800	1	0.2	80
INC	10	0.1	800	100	1	12000	10	0.1	800	1	0.01	80

MODEL	RANGE (kgf / cm ²)			RANGE (lbf / in ²)			RANGE (bar)			RANGE (MPa)		
	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
DW26												
REGULAR	10	2	1000	100	20	15000	10	2	1000	1	0.2	100
INC	10	0.1	1000	100	1	15000	10	0.1	1000	1	0.01	100

FIELDS OF APPLICATION:

- » Automobile Industry
- » Breweries & Distilleries
- » Textile Industry
- » Pipe Manufacturers
- » Pipeline Contractors
- » Metals Industry
- » Cement Industry
- » Electronics Industry
- » Paper Industry
- » Engineering Industry
- » Food & Drug Industry
- » Chemicals & Fertilizer Industry
- » Glass Industry
- » Industrial & Medical Gases
- » Sugar Industry
- » Gas & LPG Cylinders
- » Petroleum & Petrochemical Industry
- » Airlines
- » Railways
- » Defence Organisation
- » Engg. Colleges & Training Institutes
- » Ceramic Industry
- » Thermal Power Stations
- » Hydro-Electric Power Generation

STANDARD PARAMETERS

- » Gravity : 9080665 m/s²
- » Air Density : 1.159087 Kg/m³ (For Low Pressure)
1.155872 Kg/m³ (For High Pressure)

OPERATING FLUID:

- » Hydraulic Oil
(Multigrade Mobil Oil)

STANDARD ACCESSORIES:

- » Storage Box for Weights
- » Set of Spare Seals
- » Dust Cover
- » Instruction Manual
- » Tin of Oil (1/2 L)
- » Adaptors : M20 x 1.5, 1/4" BSP & 3/8" BSP
- » Standard Tool Kit including Spanners, Allen Key, Screw Driver, Spirit Level

MATERIAL OF CONSTRUCTION

- » Piston : HCHCr / Tungsten Carbide
- » Cylinder : HCHCr / Tungsten Carbide
- » Base Instrument : MS Painted
- » Pipelines : Stainless Steel
- » Weights : Stainless Steel / MS Phosphated Black

OPTIONAL ACCESSORIES

- » Adaptors 1/8", 1/4", 3/8", 1/2" NPT
- » Angle Connection (1/2" M x 1/2" F BSP)
- » Pointer Puller & Pointer Punch
- » Steel Carrying Box for Tester

ENVIRONMENTAL CONDITIONS

- » Temperature : 23°C +/- 1°C
- » Humidity : 50% +/- 10%

ACCURACIES AVAILABLE

- » +/- 0.1% of reading taken
- » +/- 0.05% of reading taken
- » +/- 0.03% of reading taken

[DW 10 SERIES](#) | [DW 20 SERIES](#) | [DW 30 SERIES](#)

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