## JAPSIN INSTRUMENTATION



## ISO 9001:2015 CERTIFIED ORGANISATION COMPLETE RANGE OF FLOW, LEVEL, TEMPERATURE & PRESSURE INSTRUMENTS



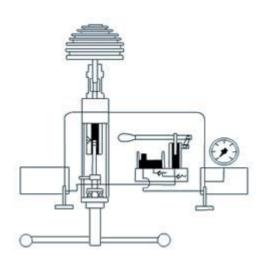






## **Dead Weight Pressure Gauge Tester > DW 20 Series**





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. If form 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 adoptors 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 <sup>2</sup> )			RANGE (lbf / in²)				RANGE (bar)		RANGE (MPa)		
DW21	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
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	RA	RANGE (kgf / cm <sup>2</sup> )			RANGE (lbf / in²)			RANGE (bar)		RANGE (MPa)		
DW22	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
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 / cm²)				RANGE (lbf / in²)			RANGE (bar)		RANGE (MPa)		
DW23	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
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 / cm²)				RANGE (lbf / in²)			RANGE (bar)		RANGE (MPa)		
DW24	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
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 / cm²)				RANGE (lbf / in²)			RANGE (bar	')	RANGE (MPa)		
DW25	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
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 / cm²)			RANGE (lbf / in²)				RANGE (bar	)	RANGE (MPa)		
Ī	DW26	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.	Min.	Step	Max.
Ī	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

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