

Dead Weight Testers



The operation is based on the principle of balancing known weights against the force produced by an unknown pressure action on a hydraulic piston of known area. When these forces reach equilibrium and balance the unknown pressure equals the total of the weights and piston. Dead weight testers incorporate a built-in pump for generating pressure and can be used for checking spring gauges, calibrating bourdon gauges, recorders, transmitters or other instruments, pressure testing small vessels and measuring gas pressure with high accuracy.

The accuracies of De Wit dead weight testers are traceable to National Standards. Each piston area is determined by comparison against a piston of known area traceable to the Dutch Metrology Institute (NMI VSL). The mass of the balancing weights is traceable to National Standards. Each tester is supplied with a calibration/control report and an operation manual.

The standard testers are supplied with weights in brass. On request we can supply weights in stainless steel.

It is possible to use a dead weight tester in psi for other unit pressures by adding a compensation weight and a complete set of the requested weights. [»](#)

Pressure System Builders Vietnam

Address: 16 Yen The St, Ward 2, Tan Binh District,
Ho Chi Minh, Vietnam
Phone: (+84)909.901.707
Email: chartrecorders@psbvn.com

Also available in bar, kPa, kg/cm²

Portable Standard Dead Weight Testers (model 35260)

A compact, portable instrument. Supplied with weights, hand pump and one each of 1/8", 1/4" and 1/2" adapters on the same base as the tester. A carrying case with the handle makes the instrument easily portable and provides the necessary protection. Guaranteed accuracy is +/- 0,1 % of the rated pressure. Optional +/- 0,05 %.

cat.no.	range (psi)	press. interval (psi)
35260-1	5-500	1
35260-2	5-1000	1
35260-3	5-1500	1
35260-4	5-500	0,1
35260-5	5-1000	0,1
35260-6	5-1500	0,1

Portable High Pressure Dead Weight Testers (model 35265)

For pressure gauge testing and calibration of pressures up to 5000 psi. The only true portable dead weight tester of this capacity. Construction similar to model 35260. Guaranteed accuracy is +/- 0,1 % of the rated pressure. Optional +/- 0,05 %.

cat.no.	range (psi)	press. interval (psi)
35265-1	50-3000	1
35265-2	50-4000	1
35265-3	50-5000	1

Portable Super Pressure Dead Weight Testers (model 35270)

For pressures up to 15.000 psi. Tester and weights are in separate metal carrying cases, supplied with hand pump, weights and one each of 1/2" and 1/4" adapters. Guaranteed accuracy +/- 0,1 % of the rated pressure. Optional +/- 0,05 %.

cat.no.	range (psi)	press. interval (psi)
35270-1	50-6000	1
35270-2	50-7000	1
35270-3	50-8000	1
35270-4	50-9000	1
35270-5	50-10000	1
35270-6	50-15000	1

Laboratory Dead Weight Testers (model 35300)

A rigid and stable assembly is essential to ensure precise measurement and the De Wit standards achieve this through the use of a specially designed housing. At the same time, care has been taken that all controls are easily accessible, thus giving easy operation. The pressure element is securely mounted on the piston. The operation of the pump and the valves is smooth and progressive and they cannot be overtightened. An excellent instrument for calibration purposes. Due to the rotation by the piston by means of an electric motor drive an accuracy of +/- 0,05 % of the rated pressure can easily be achieved. Upon request we can supply +/- 0,03 % (for pressures up to and including 15.000 psi only). Supplied with weights and one each of 3/8", 1/4" and 1/2" adapters and complete with metal carrying cases.

cat.no.	range (psi)	press. interval (psi)
35300-1	5-500	1
35300-2	5-1000	1
35300-3	5-1500	1
35300-4	5-500	0,1
35300-5	5-1000	0,1
35300-7	5-1500	0,1
35305-1	50-3000	1
35305-2	50-4000	1
35305-3	50-5000	1
35310-1	50-6000	1
35310-2	50-7000	1
35310-3	50-8000	1
35310-4	50-9000	1
35310-5	50-10000	1
35310-6	50-15000	1
35310-7	50-20000	1

High Pressure Laboratory Dead Weight Testers (model 35320)

The accuracy of model 35320 dead weight testers is +/- 0,1 % of the rated pressure. The high pressure laboratory dead weight tester has two pumps, a priming pump and a high pressure pump to enable response.

cat.no.	range (psi)	press. interval (psi)
35320-1	100-25000	100
35320-2	200-35000	100
35320-3	200-40000	100

Pressure System Builders Vietnam

Address: 16 Yen The St, Ward 2, Tan Binh District,

Ho Chi Minh, Vietnam

Phone: (+84)909.901.707

Email: chartrecorders@psbvn.com