

**[V-03]**

## **Novel Weight-Loading Device for Calibration of Absolute Pressure Gauge**

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A novel weight-loading device for changing the deadweights in a gas operated piston gauge without breaking the vacuum is described. After carrying out a large number of absolute pressure gauge measurements using a gas-operated piston gauge, it became apparent that a lot of time was being spent in changing the weight combination on the piston gauge. The consequent exposure of the piston, cylinder, masses, and the reference vacuum space to the atmosphere also raised the problem of contamination and the ingress of dust particles to the gap between the piston and cylinder. A device for changing the weights *in-situ* without breaking the vacuum was designed and constructed. It has proved to be very useful and reliable. This saves time and minimizes the risk of contamination.