

## V.M.HYDRANT FLOW GAUGE AND MAINS TESTING OUTFIT:

The V.M.Hydrant Flow Gauge is universally used by Water Engineers and Fire Service Authorities in the appraisal of piped water supply for fire-fighting, for development planning, and as a probe for investigating the ageing conditions of water mains and the incidence of overloading. In all of these spheres there is no effective substitute.

The rateflow indicator is a manometer of the compressed-air type incorporating a precision-bore glass tube. Used as an open water column, this measures all flows between 2.6 and 7.2 litres per second, purely by the gravimetric head due to velocity. Over the middle range 7.0 to 34.0 l.p.s. the residual air within the glass tube and a compression chamber of accurately determined capacity affixed to its top end, is entrapped by the water entering from the pitot tube, which it tends to resist in accordance with Boyle's law of the compressibility of gases.

A third range is provided, reading from 34.0 upto 60 l.p.s., and this is obtained by inserting an aluminium plug into the compression chamber at the top, in order to reduce its volumetric capacity and connecting a second compression chamber to the bottom of the manometer.

One of the advantages of this device is that the calibration is permanent and cannot be affected by severe mechanical or hydraulic shock. A further striking advantage of the compressed-air manometer in this application is its virtually straight-line response to the square-law increment of velocity head, giving an almost evenly spaced scale of calibration, and much greater clarity in reading the value of poor to indifferent flows at the lower end of the scale.

## SPECIFICATION:

### FLOW TUBE:

Heavy gauge solid drawn brass tube 18" long to allow the water to regain even velocity after rounding the sharp bend in the standpipe head; fitted with 2 1/2" male instantaneous connection; the pitot tube assembly is fitted with a tapered swivel joint to provide universal movement in aligning the Manometer to the vertical.

### MANOMETER:

Extra heavy gauge slotted brass tubular housing with gunmetal fittings; a precision bore glass tube; calibrated in three ranges with large Figures easily readable in all weather conditions.

### STATIC PRESSURE TESTING ASSEMBLY:

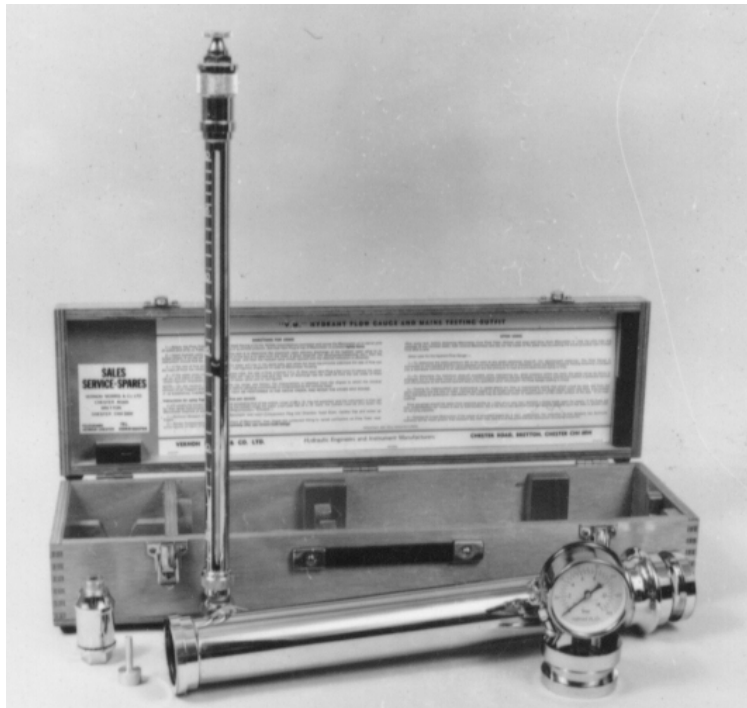
Good quality Bourdon Tube Pressure Gauge with plastic face, calibrated with a dual scale reading 0-140 mhd and 0-14 bar. 2 1/2" Instantaneous male blank cap fitted with a pet cock to release air and residual pressure after use.

### FINISH:

All brass and gunmetal parts are heavily chromium plated and polished.

### CARRY CASE:

Made of polished mahogany laminated plywood tailored to hold the components firmly in their respective compartments during transit; Fitted with twin tension-bolt fasteners and carry handle. An instruction card is attached to the inside of the lid.



**RANGE:**  
2.6 – 7.2 l.p.s  
Vent Plug OPEN

**RANGE:**  
7.0 – 34.0 l.p.s.  
Vent Plug CLOSED

**RANGE:**  
34.0 – 60.0 l.p.s.  
Vent Plug closed, compensator plug inserted into compression chamber and compensator chamber attached to the bottom of the manometer.

Also available in Imperial Calibration (to special order),  
30 – 95 g.p.m. 90 – 440 g.p.m.  
RANGE 440 – 800 g.p.m. (Static Pressure Testing Assembly  
Reading 0 – 200 p.s.i. with equivalent feet head).

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