



AF10A

MULTI-TUBE MANOMETER

A multitube inclinable manometer for use with the Modular Air Flow Bench



- For measuring multiple air pressures on the optional modules of the Modular Air Flow Bench
- Uses water for safety and simplicity
- Inclinable for increased sensitivity
- Adjustable height datum and levelling feet
- Quick-release couplings for ease of use
- Includes non-toxic coloured dye to see water levels clearly

MULTI-TUBE MANOMETER

DESCRIPTION

The multitube manometer is an ancillary to the AF10 base module and its experiment modules. It fits on or near to the AF10 and connects to pressure tapings on the optional experiment modules. Some experiment modules may only have two or three pressure tapings but others use up to 12 tapings. This makes the multitube manometer essential to see all the pressures at the same time.

The manometer uses clean water as a working fluid for safety and convenience. TecEquipment supply coloured non-toxic dye to add to the water so students can see the water levels more clearly.

A small reservoir to the side of the manometer tubes holds the water. Students can adjust the reservoir height to change the datum of the water levels in the manometers. Adjustable feet allow students to accurately level the manometer before use.

Thumbscrew fixings allow the user to incline the manometer tubes from fully vertical to 80 degrees. This changes the magnification (sensitivity) of the manometer for reading very small changes in pressure. The User Guide gives details of the magnification factors for different angles. A set of markings to the side of the manometer shows angles in 5 and 10 degrees division.

STANDARD FEATURES

- Supplied with a comprehensive user guide
- Five-year warranty
- Manufactured in accordance with the latest European Union directives

ANCILLARY FOR:

- Modular Air Flow Bench (AF10)
- Bernoulli's Equation (AF11)
- Drag Force (AF12)
- Round Turbulent Jet (AF13)
- Boundary Layer (AF14)
- Flow Round A Bend (AF15)
- Aerofoil With Tapings (AF18)

ESSENTIAL SERVICES

Clean, low mineral content water (de-ionised water suitable for batteries and steam irons is good).

OPERATING CONDITIONS

OPERATING ENVIRONMENT:

Laboratory

STORAGE TEMPERATURE RANGE:

-25°C to +55°C (when packed for transport)

OPERATING TEMPERATURE RANGE:

+5°C to +40°C

OPERATING RELATIVE HUMIDITY RANGE:

80% at temperatures < 31°C decreasing linearly to 50% at 40°C

SPECIFICATIONS

NETT DIMENSIONS AND WEIGHT:

640 mm wide x 160 mm front to back and 470 mm high
6 kg including bottle of dye

PACKED DIMENSIONS:

Approximately 0.1 m³ and 8 kg

- 14 separate manometer tubes with a common lower manifold fed from an adjustable height reservoir.
- Scale range 0 to 260 mm water in 2 mm divisions.
- Inclination range 0 to 80 degrees.