



# Flex-Tube® U-Tube Manometers

These inexpensive manometers measure positive, negative and differential pressures. Dwyer Flex-Tube® U-Tube Manometers combine the inherent accuracy of the simple "U" Tube with the durability of tough, long-lasting plastic construction. Columns are of .375" O.D. flexible and shatter proof clear butyrate tubing. They are easily accessible for cleaning. Indicating tube is backed by white scale channel to provide maximum color contrast. Scales are extruded high impact polystyrene plastic, formed to hold columns in perfect alignment. Stark white scales have graduations and numbers silkscreen-printed in black for maximum legibility.

You can choose from numerous models and features including over-pressure safety traps, in full scale ranges from 8" to 36" of water or mercury. All are suitable for total pressures to 100 psi – for determining velocity and static pressures, leakage, fan and blower efficiency, filter resistance, and gas pressures. Ideal wherever a portable, direct reading manometer is needed. Standard ranges and markings as shown, or special ranges, colors, logos and brand names for OEM quantity orders are available.

**Minor Divisions** of 1/16 inch water column (or 2 mm water column on metric units) are silkscreened in jet black on stark white scale for positive definition. Easy to read, even at a distance, they are acrylic coated for permanence. All models are furnished with one 3/4 ounce bottle of fluorescein green color concentrate with special wetting agent for W/M models, or 3/4 ounce bottle of red gage oil for "D" units.

**Series 1221 Manometer**, Fig. 10-1. Our simplest, lowest cost basic U-gage. A dependable U-tube manometer that withstands hard use and provides accurate, high visibility readings. For use with water, mercury or red gage oil. For mercury filled manometers, a scale clamp bar, Dwyer Part No. A-363 (available as an extra for Series 1221 — and standard on Series 1222) is recommended. One pair of carrying plugs and a pair of non-kink vinyl tube connectors are included with each manometer.

**Series 1222 Manometer**, Fig. 10-2. All the features of the 1221 plus magnetic clips for mounting to any vertical steel surface, and clamp bar to insure against U-tube slipping. (Especially recommended for manometers used with mercury.) Both magnets are easily removed and replaced at the user's convenience.

**Series 1223 Manometer**, Fig 11-1 Our finest U-gage — for either portable or stationary use. Safety traps prevent loss of indicating fluid in case of accidental over-pressure. Tubing is permanently bonded to a molded, high impact acrylic plastic top that contains safety traps. Large magnetic clips and clamp bar are provided. Standard type "a" connections include two rapid shut-off type molded nylon tubing connections, two 3-foot lengths of flexible Tygon plastic tubing, and two 1/2" pipe thread to tube adapters.

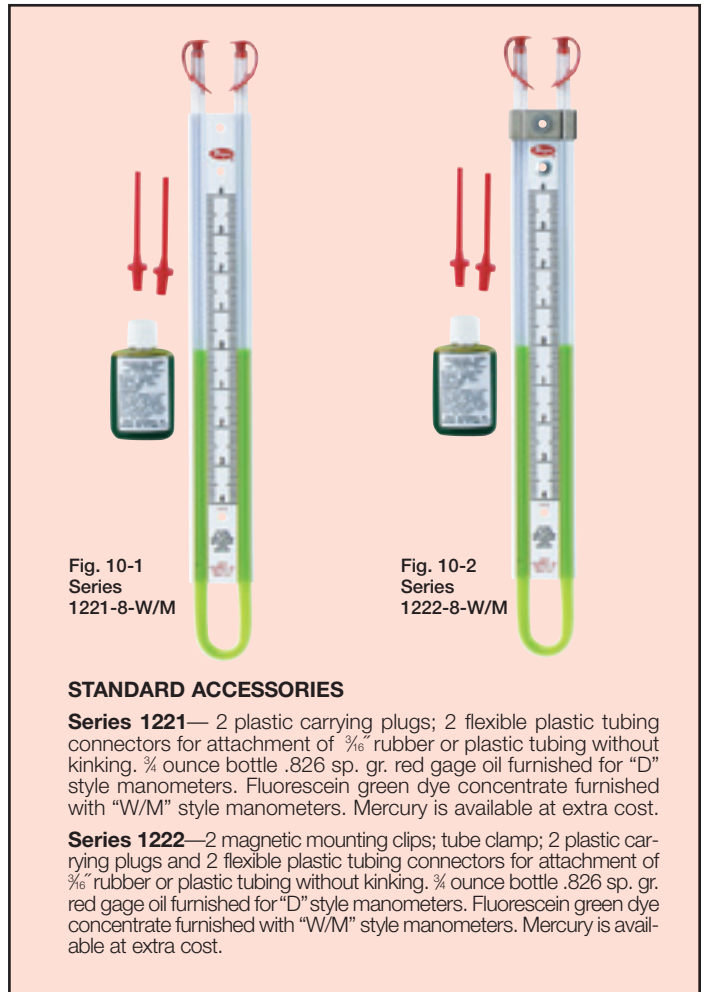


Fig. 10-1  
Series  
1221-8-W/M

Fig. 10-2  
Series  
1222-8-W/M

### STANDARD ACCESSORIES

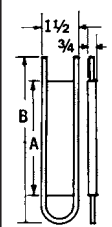
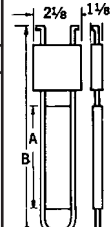
**Series 1221**— 2 plastic carrying plugs; 2 flexible plastic tubing connectors for attachment of 3/16" rubber or plastic tubing without kinking. 3/4 ounce bottle .826 sp. gr. red gage oil furnished for "D" style manometers. Fluorescein green dye concentrate furnished with "W/M" style manometers. Mercury is available at extra cost.

**Series 1222**— 2 magnetic mounting clips; tube clamp; 2 plastic carrying plugs and 2 flexible plastic tubing connectors for attachment of 3/16" rubber or plastic tubing without kinking. 3/4 ounce bottle .826 sp. gr. red gage oil furnished for "D" style manometers. Fluorescein green dye concentrate furnished with "W/M" style manometers. Mercury is available at extra cost.

### STOCKED MODELS in bold


<b>1221-8-W/M</b>	<b>1222-8-W/M</b>	<b>1221-8-D</b>	<b>1222-8-D</b>
<b>1221-12-W/M</b>	<b>1222-12-W/M</b>	<b>1221-12-D</b>	<b>1222-12-D</b>
<b>1221-16-W/M</b>	<b>1222-16-W/M</b>	<b>1221-16-D</b>	<b>1222-16-D</b>
<b>1221-20-W/M</b>	<b>1222-20-W/M</b>	<b>1221-20-D</b>	1222-20-D
<b>1221-24-W/M</b>	<b>1222-24-W/M</b>	1221-24-D	1222-24-D
<b>1221-36-W/M</b>	<b>1222-36-W/M</b>	1221-36-D	1222-36-D
<b>1221-M200-W/M</b>	<b>1222-M200-W/M</b>	<b>1221-M200-D</b>	1222-M200-D
<b>1221-M300-W/M</b>	<b>1222-M300-W/M</b>	<b>1221-M300-D</b>	1222-M300-D
<b>1221-M400-W/M</b>	<b>1222-M400-W/M</b>	1221-M400-D	1222-M400-D
<b>1221-M600-W/M</b>	<b>1222-M600-W/M</b>	1221-M600-D	1222-M600-D
<b>1221-M1000-W/M</b>	<b>1222-M1000-W/M</b>	1221-M1000-D	1222-M1000-D

## Ranges And Dimensions

MODEL OR RANGE		Hg REQUIRED TO FILL		1221, 2 & 3 SCALE LENGTH "A"		1221 & 2 O.A. LENGTH "B"			1223 O.A. LENGTH "B"		
INCHES H.O.	MILLIMETERS H.O.	GRAMS	OUNCES	W/M	D	W/M	D		W/M	D	
8 (4-0-4)	M200 (100-0-100)	178.5	6.3	12%	14	15%	17	18%	19%		
12 (6-0-6)	M300 (150-0-150)	225.5	7.9	16%	18%	19%	21%	21%	24%		
16 (8-0-8)	M400 (200-0-200)	269	9.5	20%	23%	23%	26%	26%	30%		
20 (10-0-10)	M600 (300-0-300)	314.5	11.1	24%	28%	27%	31%	30%	34%		
24 (12-0-12)		379.7	13.4	28%	33%	31%	36%	33%	39%		
36 (18-0-18)	M1000 (500-500)	491.1	17.3	40%	47%	43%	50%	46%	53%		
		526.6	18.5	43%	52	46%	55	49%	57%		

Not recommended for vacuum service above 5 in. Hg (68 in. w.c.)

# Dual Range Flex-Tube® U-Inclined Manometers



Over-Pressure Safety Traps are featured on Dwyer Series 1223 U-tube manometers. The action is simple but positive. Over-pressures, whether gradual or a sudden surge, simply raise the cork and seal the fluid in the gage. When pressure drops, trap opens and gage resumes operation.

**Fig. 11-1**  
Series  
1223-8-W/M


**STANDARD ACCESSORIES** — Magnetic mounting clips; tube clamp and Type “a” connections consisting of two rapid shut off molded nylon tubing connectors; two 1/8” pipe thread to tube adapters; two 3-foot lengths of Tygon plastic tubing, 3/4 ounce bottle .826 sp. gr. red gage oil is furnished for “D” style manometers; fluorescein green dye concentrate with “W/M” style. Mercury is available at extra cost.

## STOCKED MODELS in bold

<b>1223-8-W/M</b>	<b>1223-8-D</b>
<b>1223-12-W/M</b>	<b>1223-12-D</b>
<b>1223-16-W/M</b>	<b>1223-16-D</b>
<b>1223-20-W/M</b>	<b>1223-20-D</b>
<b>1223-24-W/M</b>	<b>1223-24-D</b>
<b>1223-36-W/M</b>	<b>1223-36-D</b>
<b>1223-M200-W/M</b>	1223-M200-D
<b>1223-M300-W/M</b>	1223-M300-D
<b>1223-M400-W/M</b>	1223-M400-D
<b>1223-M600-W/M</b>	1223-M600-D
<b>1223-M1000-W/M</b>	1223-M1000-D

**How To Order:** 1. Indicate series such as 1222. 2. Indicate range desired such as: 8, 12 or M200. 3. Specify “W/M” with model number for inches\* of water, using water or inches\* of mercury, using mercury. Specify “D” with model number for inches\* of water using .826 sp. gr. red gage oil. Red gage oil is often preferred for readings in inches of water because of the longer scale and slower evaporation rate. This lessens the need for frequent re-zeroing and refilling. (If not otherwise indicated, “W/M” style manometers will be shipped.) 4. For Series 1223 only, state the connection option desired if other than standard type “a”. For example, 1223-12-D-“b” manometer is a Series 1223, range 12” w.c. (scale 6-0-6), using red gage oil with type “b” connections.

\*Metric units are in millimeters.



**Fig. 11-2**  
Model 1227  
Dual Range

**STANDARD ACCESSORIES** — Two plastic carrying plugs with retainers for use when manometer is not in service. Two magnetic clips to hold instrument to metal surface. Flexible red vinyl plastic tubing connectors. Brass terminal tube 1/8” diameter x 8” long. One terminal tube holder. Brass adapter, 1/8” pipe thread to plastic tubing. One 4 1/2-foot length of Tygon plastic tubing. One 3/4 ounce bottle .826 sp. gr. red gage fluid. Vinyl carrying case.



**Above** — Fig. 11-3  
Use Series 1227 as a regular U-tube manometer to read high-range pressure on the right leg, or as an inclined manometer (shown here) to read low-range pressure on the bottom leg. Simply incline manometer until fluid levels read zero. No spirit level required. Magnetic clips hold the gage in position on a steel duct surface.

**Series 1227 Manometer,**  
Fig. 11-2. Most versatile and useful low cost manometer we know of. Designed for installation and servicemen. A sturdy, clear plastic manometer, it offers single, direct readings in two ranges: As a U-tube, it reads from 0 to 16” of water; as an inclined gage, it reads from -.20 to 0 to 2.6” of water. Model 1227M (Metric) is 0 – 400mm water column as a U-tube and -5 to 0 to 70mm water column as an inclined gage. “How-to-use” instructions are printed directly on the scale.

**Indicating Tubing** — Clear .400” O.D., tough, shatterproof butyrate. Pressure connection end is bent to provide over pressure protection when used as an inclined gage. One 4 1/2’ x 3/8” Tygon tube included for pressure source connection.

**Scale** — Stark white high-impact styrene, 21” long. Adjustable for precise zeroing.

**Markings** — 1” major, .2” minor graduations on high range; .02” graduations on low range (50 mm major, 10 mm minor graduations on high range, 10 mm major, 1 mm minor graduations on low range for metric model). Silkscreened in black on stark white for positive definition. Acrylic-coated for permanence.

## STOCKED MODELS

AS VERTICAL U-TUBE MANOMETER	AS INCLINED MANOMETER
0-16” water with 1” major divisions, .2” minor divisions	Scale is 17” long, reading .20-0-2.6” water with .02” minor divisions
Model 1227M (metric) is 0-400 mm water column	Model 1227M (metric) is -5 to 0 to 70 mm water column

