Wet Test Meters

Elster American Meter Wet Test Meters are precision, positive displacement meters typically used to measure small volumes and low flow rates.

Features

- Compact, stainless steel housing
- Soldered stainless steel drum and internal parts
- Easy to read index has large resettable sweep hand and four resettable totalizing hands – available in liters or cubic feet
- High visibility gage glass permits accurate liquid level adjustment
- Inlet & outlet connections adaptable to hose
- Buna-N gaskets
- Bulls eye level and leveling screws provide means for correct operational position of meter
- The back of the meter is removable to ease maintenance and facilitate cleaning

Applications

- Laboratories and Research/ Educational Institutions
- R&D for Refinery Pilot plants
- Calibrating small orifices
- Determining proper fuel-air ratios for gas appliances
- Finding gas volumes resulting from chemical reactions
- Testing gas consumption in domestic-science cooking experiments
- Calibrating atmospheric-emission sample meters
- Gas appliance testing
- Calibrating diaphragm-type reference meters
- Any application where accurate measurement of small volumes and low flow rates of manufactured, natural or technical gases are required

Elster American Meter Wet Test Meters are individually calibrated under controlled conditions. The Hinman-type drums (low-differential) provide a high degree of accuracy. These meters will maintain the original calibration for long periods due to the extensive use of corrosion resistant material. Additionally, the grommet-type seal is designed for minimum friction to give maximum meter sensitivity.

				Large Dial			Approx. Dimensions*				
Model Number	Maximum Working Pressure	Capacity (air)	Capacity (.64 gas)	One Revolution	Subdivisions	Totalizing Dials Max. Reading	Width	Height	Front to Back	Standard Connections	Shpg Weight
WITH CUBIC FOOT INDEXES											
	Inches W.C.	CFH	CFH	CF	CF	CF	Inches	Inches	Inches		LBS
AL - 17	14"	8	10	0.05	0.0005	1000	10¼	12	6 13/16	note 1	16
AL - 18	14"	16	20	0.10	0.001	1000	13¼	14¼	8¼	note 2	25
AL - 19	14"	64	80	1.0	0.01	10,000	16½	16	11 11/16	½" MPT**	65
AL -20	14"	120	150	1.0	0.01	10,000	19	18½	14 1/8	¾" MPT**	85
AL - 21	12"	240	300	1.0	0.01	10,000	19	23¾	25 1/8	1" MPT**	165
WITH LITER INDEXES											
	Inches W.C.	L/m	L/m	Liters	Liters	Liters	Inches	Inches	Inches		LBS
AL 17 - 1	14"	4	5	1	0.01	10,000	10¼	12	6 13/16	note 1	16
AL 18 - 3	14"	8	10	3	0.01	10,000	13¼	14¾	8¾	note 2	25
AL 19 - 3	14"	32	40	10	0.10	100,000	16½	16	11 11/16	½" MPT**	65
AL 20 - 1	14"	60	75	100	1.0	1,000,000	19	18½	14 1/8	¾" MPT**	85

* Overall dimensions without pressure gage, thermometers and nozzles or swivels.
** One straight swivel, one elbow swivel and two caps supplied.
note 1 – Hose nozzles and caps supplied
note 2 - Hose nozzles and caps or 3/8-inch threaded swivels and caps supplied as specified

Accuracy

		Limiting Rates for given Deviation from Calibration			
Model Number	Calibration Rate	+0.5%	-0.5%	+1.0%	-1.0%
WITH CUBIC FOOT INDEXES					
	CFH	CFH	CFH	CFH	CFH
AL - 17	4	2	6	0.24	8
AL - 18	8	4	12	0.4	16
AL - 19	32	16	48	1.6	64
AL -20	60	30	90	6.4	120
AL - 21	120	60	180	24	240
WITH LITER INDEXES					
	L/m	L/m	L/m	L/m	L/m
AL 17 - 1	2	1	3	0.12	4
AL 18 - 3	4	2	6	0.20	8
AL 19 - 3	16	8	24	0.8	32
AL 20 - 1	30	15	45	3.2	60

Principle of Operation

Each Elster American Meter Wet Test meter contains a hollow drum with several compartments of known volume. The drum is free to rotate inside the meter casing, which is sealed and filled with liquid to a specific level. When gas passes through the meter the drum rotates. Each compartment of the drum is successively filled and emptied as it rotates. The liquid inside the casing seals the drum compartments as they transfer the gas from the inlet to the outlet of the meter. Since the volume of each compartment is known, the rotation of the drum can be indexed to compute the total volume of gas passed through the meter.

About Elster

A world leader in advanced metering infrastructure, integrated metering, and utilization solutions to the gas, electricity and water industries. Elster's metering and system solutions reflect over 170 years of knowledge and experience in measuring precious resources and energy.

Elster provides solutions and advanced technologies to help utilities more easily, efficiently and reliably obtain and use advanced metering intelligence to improve customer service, enhance operational efficiency, and increase revenues. Elster's AMI solutions enable utilities to cost-effectively generate, deliver, manage, and conserve the life-essential resources of gas, electricity, and water.