

Master Meter



Master Meters are high precision calibrated meters that can be used as a reference for the calibration of other flow meters. Their typical use in the petrochemical industry is the calibration of p.d. meters in tank truck loading bays and of pipeline meters for product transfer from refineries to terminals.

Master Meters can therefore be adopted as a good alternative to proving tanks since they require one single operator and reduce operation time by half.

Moreover they can be mounted on a trolley to ease transportation, even on public roads, so that they can come as close as possible to the p.d. meter that has to be calibrated.

During calibration with a Master Meter the product can be transferred to a product recovery line or stored into a tank truck for subsequent recovery.

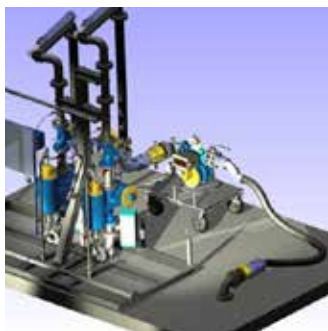


Fig.1:
Master Meter with product recovery line

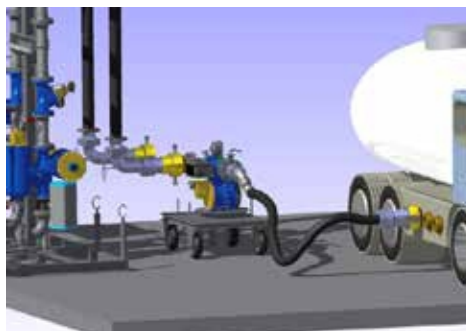


Fig.2:
Master Meter with tank truck to store measured product



Fig.3:
Master Meter with proving tank

Calibration

Master Meters can be provided with two different calibration types:

- water: in this case field recalibration of the master meter with the product has to be performed;
- with gasoline, diesel oil or jet fuel: calibration is performed in a credited laboratory with the required product.

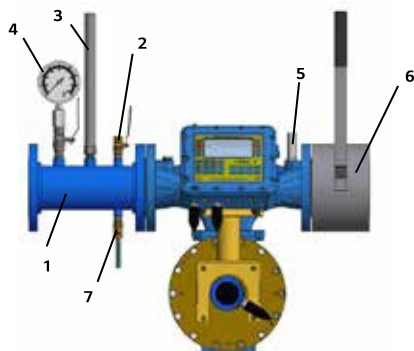
In both cases each Master Meter is calibrated at increasing flow rates inside its range and it is always provided with a specific calibration report proving the accuracy of the Master Meter, even for different products (typically diesel oil and gasoline).

Standard equipment and accessories

Master Meters can be provided with electronic or mechanical counter: in the latter case they are equipped with flowrate indicator and Vernier scale to increase the precision of the counter.

Master Meters can also be supplied with hoses and couplers.

Here below are the accessories both for stationary application and for trolley mounting.



1. Pipe
2. Ball valve 3/8" NPT– venting
3. Thermometer
4. Manometer
5. Thermal relief valve
6. Ball valve for flow rate adjustment
7. Ball valve 3/8" NPT – drain

If the Master Meter is mounted on a trolley and provided with electronic counter, an ATEX certified backup battery can be supplied.



Backup battery

Technical data

Working conditions

	BM/M 200	BM/M 400	BM/M 600
Max. flow rate @ 10 cSt:	1 300 L/min.	2 400 L/min.	3 400 L/min.
Jet Fuel only:	1 400 L/min	2 600 L/min	4 000 L/min
Working pressure:	1 000 kPa		
Working temperature:	-10 °C +50 °C		

Construction

Flanges:	3"	4"	6"
Product inlet:	-	API 4" quick connector	-
Product outlet:	-	Ball valve, flex hose and 4" API coupler	-
Readout (mechanical counter):	litres		decalitres
Readout (electronical counter):			litres or decalitres

Performances

Accuracy:	± 0,1%
Repeatability:	0,02%