Positive displacement meters series
BMV 200 - BMV 400 - BMV 600

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The solutions that count

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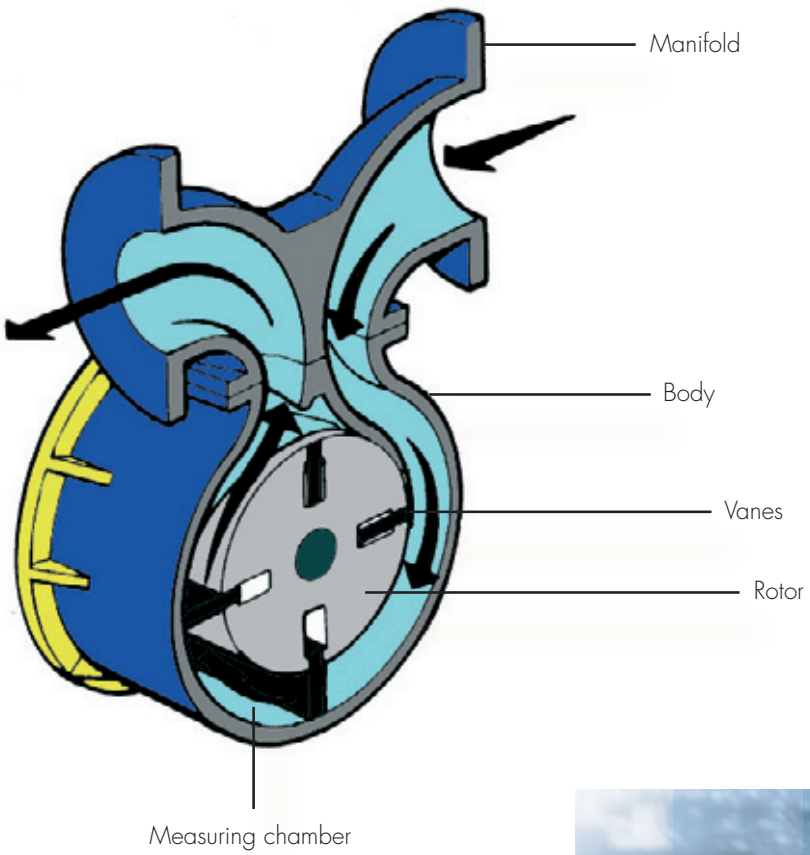
ISOIL PD meter series **BMV** sizes 3", 4" and 6" offers high accuracy: +/- 0,1% with a repeatibility of +/- 0,01%, over a large range of flow rate. This accuracy remains constant during long periods of use.
Visual indication of the flow rate measured can be obtained when associated with mechanical register or electronic flow computer directly mounted on the meter or remote by means of a pulses emitter (see VEGA II or VEGA T leaflets).

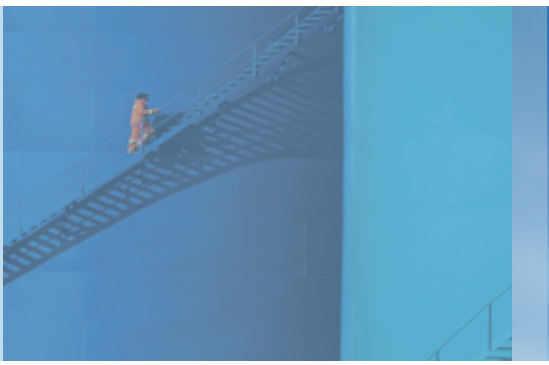
Applications
Vertical meters series BMV, have been specifically designed to fit into tank truck and tank wagon loading racks.
Overall dimentions remain compact however the strainer air separator is included in the unit.

Operation
While rotating, the vanes are driven by the internal surface of the single body. This means that the self – lubricating vanes are always in contact with the internal surface of measuring chamber, therefore product leakage is avoided and though high accuracy is granted. The calibration mechanism allows micrometric adjustment. It is not necessary to change gears.
When an electronic counter is used, the calibration mechanism is substituted with a 90° driving gear, if the electronic counter in mounted directly on the meter. If the electronic counter is remote, the meter mounts a pulses emitter or encoder (see Encoder Isoil 6422 data sheet).

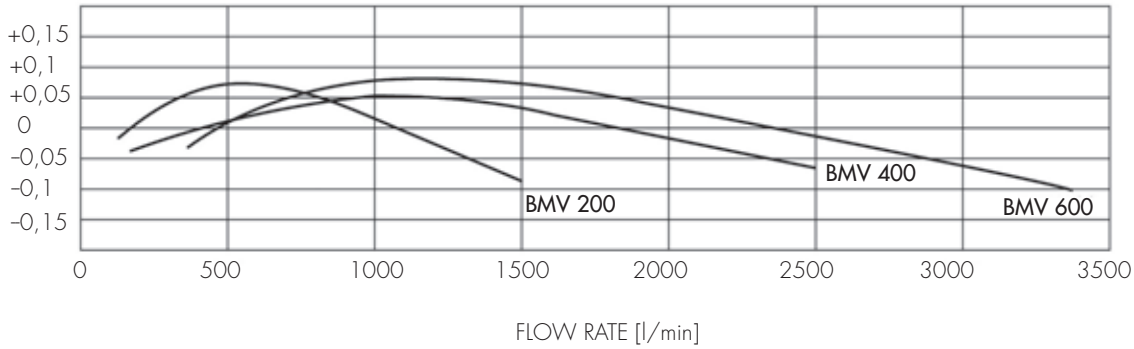


Technical specifications

	STANDARD			UPON REQUEST
	BMV 200	**BMV 400**	**BMV 600**	
EU Directives compliance				
PED (dir. 97/23/CE)	Compliant directive 97/23/CE, with risk category depending on the measured liquid			
ATEX (dir. 94/9/CE)	Non electrical equipment, compliant directive 94/9/CE, suitable for installation in hazardous area II 2G, marking Ex II 2 G c T1 … T6			
Working conditions				
Flow rate:	[100 ; 1,300] l/min @ 10 cSt	[200 ; 2,400] l/min @ 10 cSt	[300 ; 3,400] l/min @ 10 cSt	
Working pressure:	1,000 KPa max	1,000 KPa max	1,000 KPa max	Higher values
Test pressure:	1,700 KPa	1,700 KPa	1,700 KPa	Higher available upon request
Working temperature:	[-10; +50] °C	[-10; +50] °C	[-10; +50] °C	MIN -40°C MAX -180°C
Construction				
Filter air eliminator:				
Body:	Carbon Steel	Carbon Steel	Carbon Steel	
Air eliminator:	Aluminium	Aluminium	Aluminium	
Filtering element:	Stainless Steel	Stainless Steel	Stainless Steel	
Mesh size:	Typically 100 (gasoline), 60 (diesel oil)	Typically 100 (gasoline), 60 (diesel oil)	Typically 100 (gasoline), 60 (diesel oil)	Others
Meter:				
Body:	Carbon Steel with corrosion prevention treatment	Carbon Steel with corrosion prevention treatment	Carbon Steel with corrosion prevention treatment	
Manifold and flanges:	Carbon Steel	Carbon Steel	Carbon Steel	
Covers:	Carbon Steel with corrosion prevention treatment	Carbon Steel with corrosion prevention treatment	Carbon Steel with corrosion prevention treatment	
Rotor:	Aluminium	Aluminium	Aluminium	
Vanes:	Graphite	Graphite	Graphite	PTFE
Gaskets:	Nitrile	Nitrile	Nitrile	Viton or PTFE
Ball Bearings:	Stainless Steel	Stainless Steel	Stainless Steel	Graphite bushes
Seal:	Viton lip seal	Viton lip seal	Viton lip seal	Mechanical or magnetic drive
Flanged:	3" ANSI150 RF	4" ANSI150 RF	6" ANSI150 RF	Other sizes and standards
Readout (with mechanical register)	litres	litres or m^3	m^3	Others upon request
Volume per revolution:	2.275 litres	4.55 litres	6.825 litres	
Flow direction:	Right (IN) to left (OUT)	Right (IN) to left (OUT)	Right (IN) to left (OUT)	Left (IN) to right (OUT)
Performances				
Accuracy:	± 0.1%	± 0.1%	± 0.1%	
Repeatability:	± 0.01%	± 0.01%	± 0.01%	
Pressure drop:	Refer to the diagram attached	Refer to the diagram attached	Refer to the diagram attached	

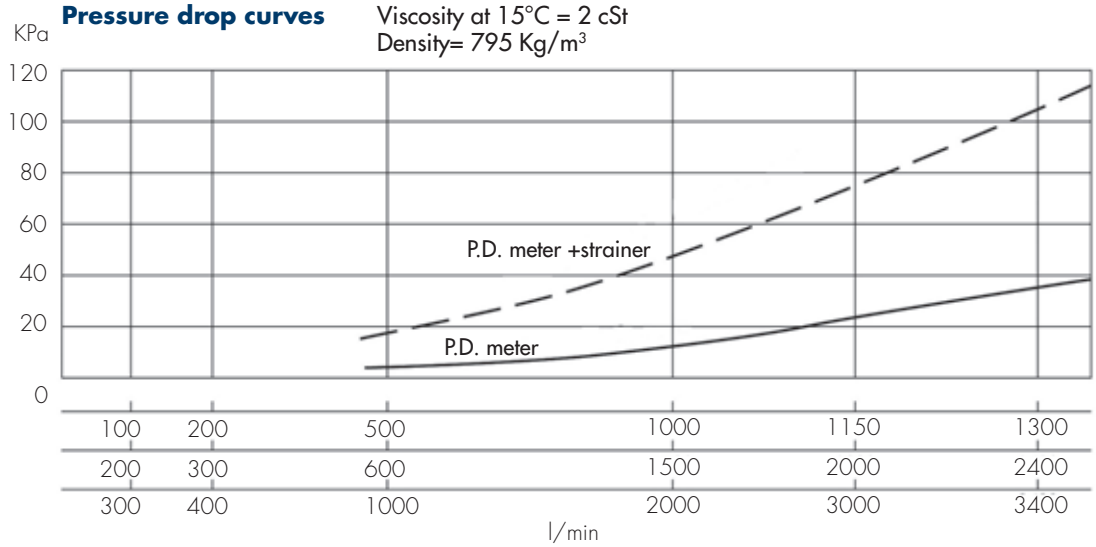


Accuracy curves



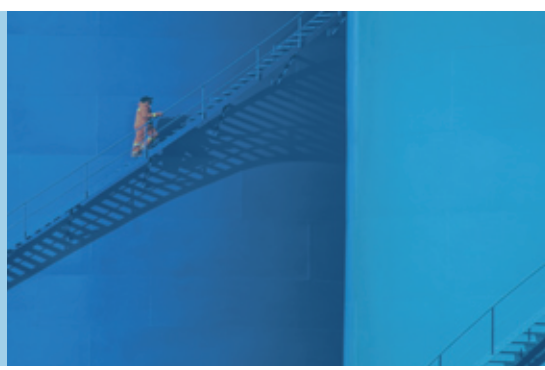
Pressure drop curves

Viscosity at 15°C = 2 cSt
Density= 795 Kg/m³



Accessories

Pulses emitter Encoder 6422 Eex-d. Pulses emitter EM 345 Eex-i incorporated in Veeder Root 7887 register
Mechanical temperature compensation Setting "alfa" coefficient (only with Veeder Root 7887 register)
With VEGA II compensation Is achieved by an algorithm based on "alfa" coefficient or density
Instant flow rate Mechanical needle indicator
Ticket printer Veeder Root. Zero start or cumulative
Preset Veeder Root 7889, with one or two pneumatic micro switches or electric micro switches Eex-d ATEX
Extension for electronic or mechanical counter L = 250 mm, 500 mm, 1000 mm and 3000 mm
Line pressure gauge 0-1,600 KPa, 100 mm diam. Dial
Differential pressure gauge 0-200 KPa
Drain valve 1" NPT ball valve
ISE/N automatic valve 3" or 4". 2 stages or Multistep closure. Flow limiting. No return



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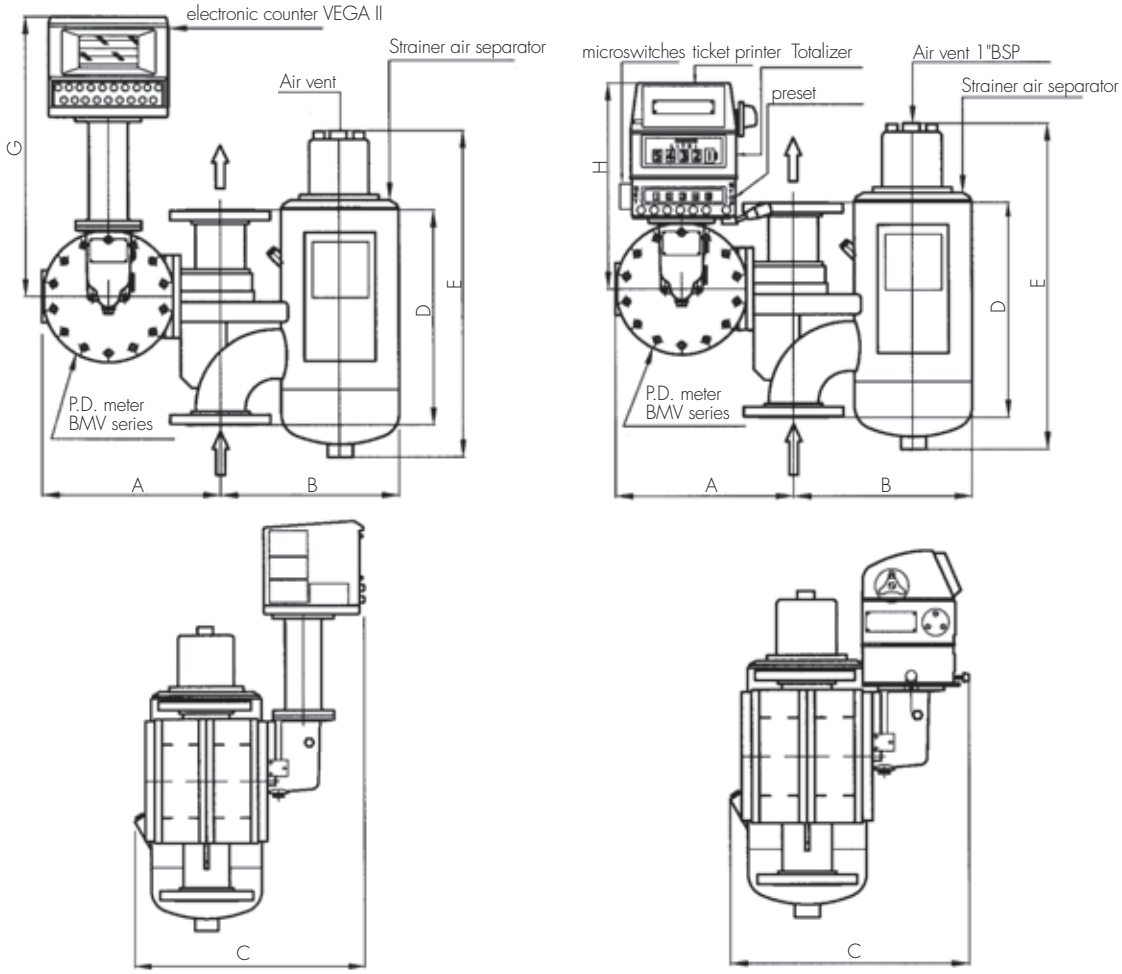
BMV Meters with accessories



Type	Dimension								Weight
	A	B	C	D	E	F	G	H	
BMV 200	410 mm	412 mm	502 mm	385 mm	751 mm	751 mm	644 mm	474 mm	170 Kg
BMV 400	410 mm	412 mm	568 mm	495 mm	751 mm	751 mm	644 mm	474 mm	210 Kg
BMV 600	468 mm	456 mm	650 mm	650 mm	700 mm	700 mm	644 mm	474 mm	300 Kg

Accessories	Weight
VR Counter	6 Kg
Preset	5 Kg
Printer	5 Kg
VEGA II Counter	20 Kg

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