Positive displacement meters series
SBM 75 - SBM 150

SBM 150

SBM 75

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The solutions that count

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SBM 150

SBM 75

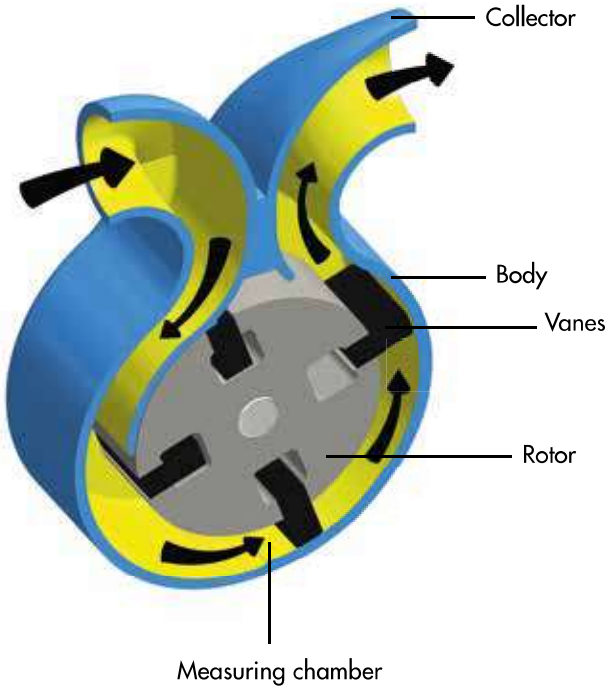
Positive displacement meters series SBM 75 - SBM 150

ISOIL PD meter series **SBM** sizes 2"and 3" offers high accuracy and a repeatability of over 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).

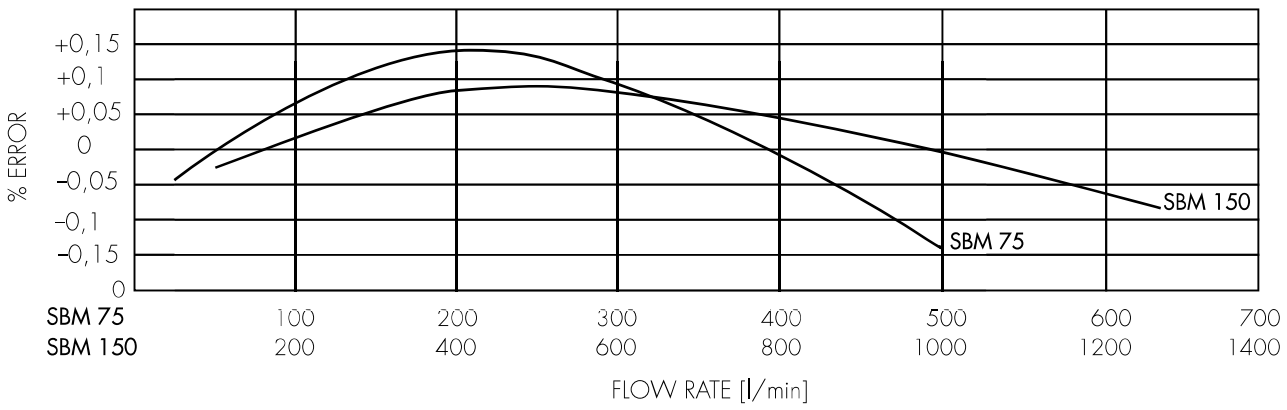
Applications
» tank trucks loading and unloading
» biofuel Blending
» aircraft refuelling
» petrochemical products transfer in refineries, loading terminals and pipelines
» calibration of other meters or tanks (Master Meters)

Filtering and air elimination
To assure a measuring accuracy and preserve the meter from damage, the fluid under measurement must be properly filtered and air or gas must be eliminated. Isoil produces a wide range of strainers and strainer – air separators.

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 remote, the meter mounts a pulses emitter or encoder (see Encoder Isoil 6422 data sheet).



Accuracy curves



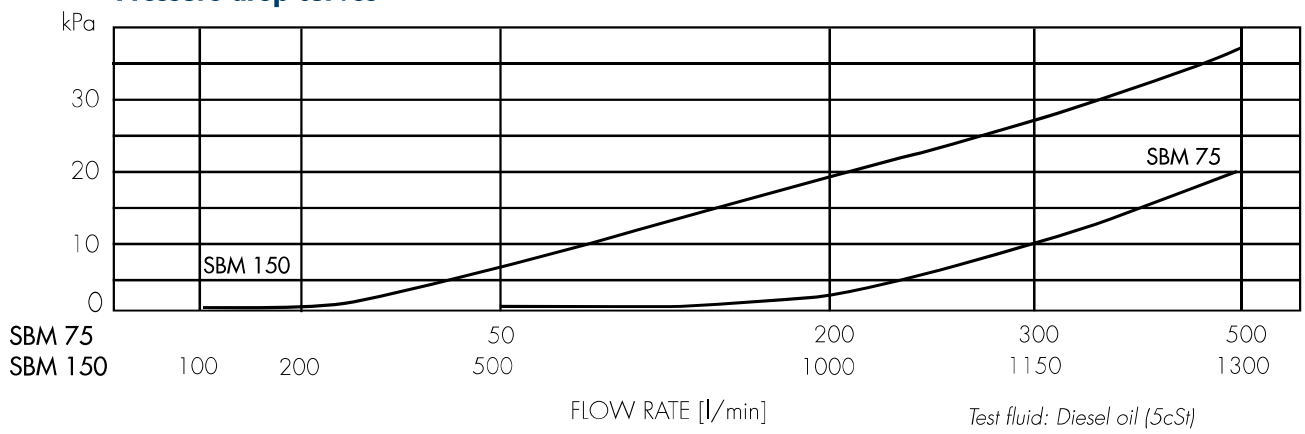
Technical specifications

	STANDARD		UPON REQUEST
	SBM 75	**SBM 150**	
EU Directives compliance	ATEX, PED and MID		
Working conditions			
Flow rate:	[50 ; 500] l/min @ 10 cSt	[100 ; 1,300] l/min @ 10 cSt	
Working pressure:	1,000 kPa max	1,000 kPa max	Higher values
Test pressure:	1,700 kPa	1,700 kPa	Higher values
Working temperature:	[-30; +100] °C*	[-30; +100] °C*	Higher and lower values
Construction			
Manifold and flanges:	Aluminium	Aluminium	
Body:	Aluminium	Aluminium	
Covers:	Carbon steel with corrosion prevention treatment	Carbon steel with corrosion prevention treatment	
Rotor:	Aluminium	Aluminium	
Vanes:	Xenia** (T≤ 60°C)	Graphite	PTFE or graphite (SBM75) (T>60°)
Gaskets:	Nitrile	Nitrile	Viton or PTFE
Ball bearings:	Stainless Steel	Stainless Steel	
Seal:	Viton lip seal	Viton lip seal	TMechanical seal or magnetic drive
Flanged:	Square 90x90 mm	3" ANSI150 FF	2" ANSI150 RF (SBM75) square 120 x 120 mm (SBM150)
Readout (with mechanical register)	litres	litres	Others
Flow direction:	Left (IN) to right (OUT)	Left (IN) to right (OUT)	Right (IN) to left (OUT)
Performances			
Accuracy:	± 0.15%	± 0.1%	
Repeatability:	0.04%	0.02%	
Pressure drop:	Refer to the diagram attached	Refer to the diagram attached	

** Temperature range, printed on plate, will always span 60° C*

*** Xenia is an engineering plastic*

Pressure drop curves

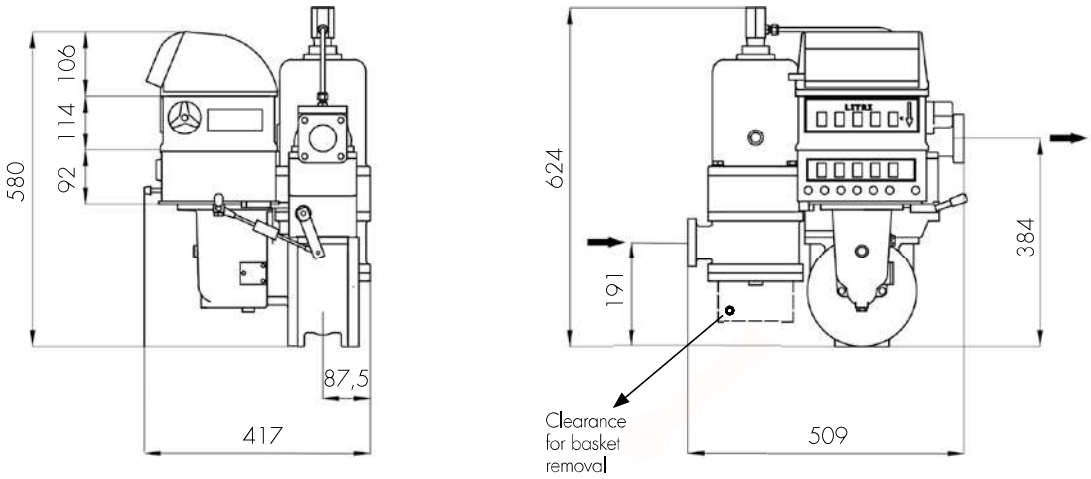


Test fluid: Diesel oil (5cSt)

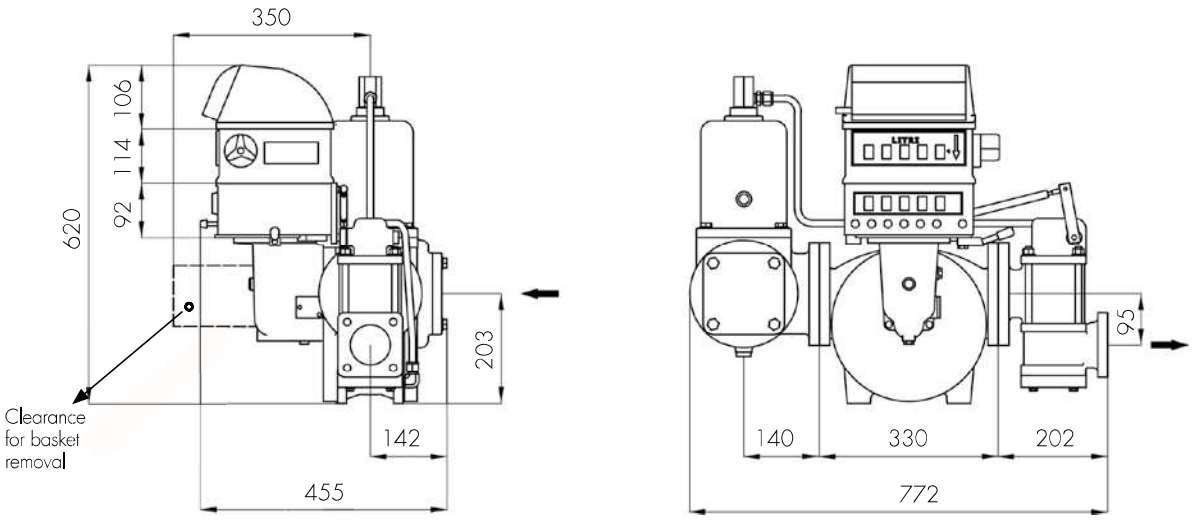
Accessories

Pulses emitter Encoder EM6422 Ex-d; Pulses emitter EM 345 Eex-i or EM T2 Exd (incorporated in Veeder Root 7887 register)
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 Ex-d ATEX
Extension for mechanical counter L = 250 mm, 500 mm
Differential pressure gauge 0 -200 kPa
Valve Preset valve 2" and 3"; check valve 2" and 3"

SBM 75

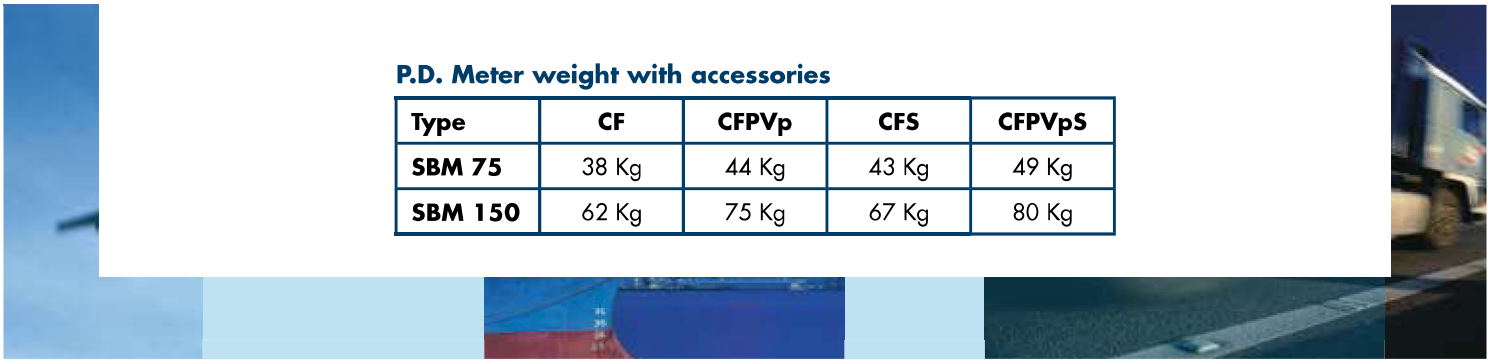


SBM 150



P.D. Meter weight with accessories

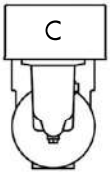
Type	CF	CFPVp	CFS	CFPVpS
SBM 75	38 Kg	44 Kg	43 Kg	49 Kg
SBM 150	62 Kg	75 Kg	67 Kg	80 Kg



Esecuzioni SBM 75

Executions with strainer and check valve are in accordance with MID

C = "Counter" V/R 7887
F = Strainer air separator
P = Preset
Vp = Preset valve
Vm = Manual valve
S = Printer V/R
K = Check valve
E = Execution with electronic counter
Vn = Pneumatic valve



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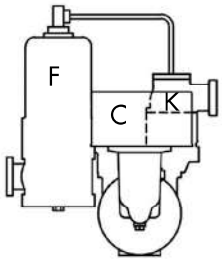

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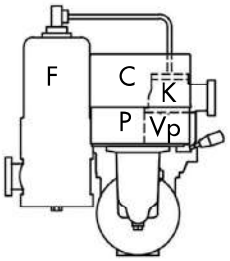

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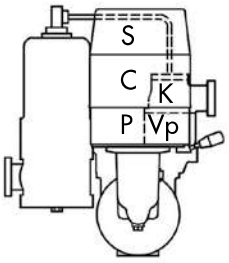

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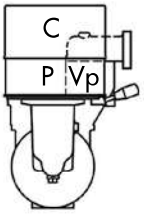

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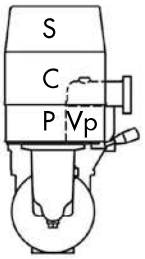

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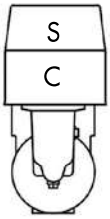

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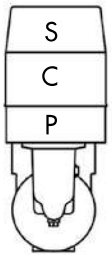

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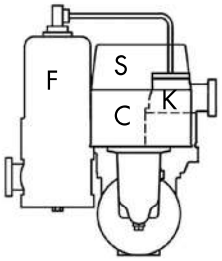

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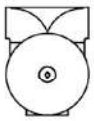

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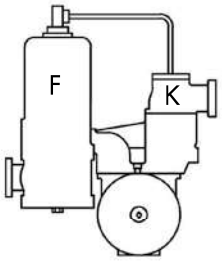

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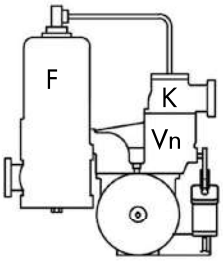

11) MOD: EFVnK / BARE SHAFT

Esecuzioni SBM 150

Executions with strainer and check valve are in accordance with MID

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Vp = Preset valve
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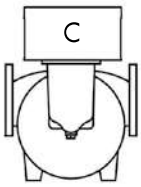

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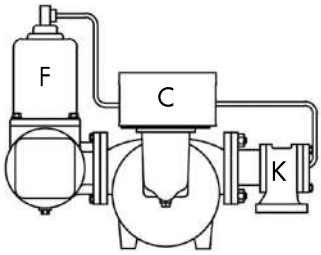

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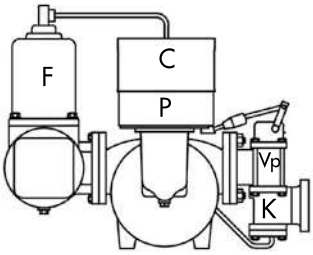

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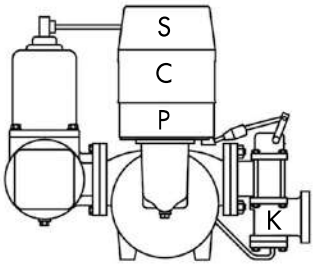

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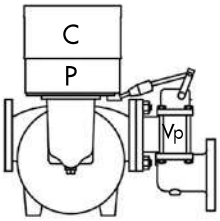

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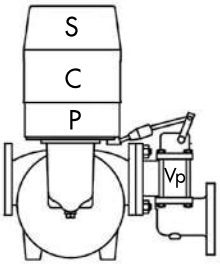

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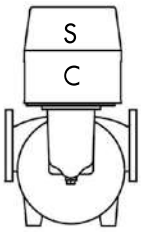

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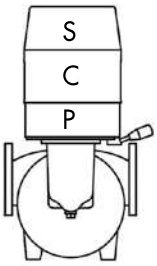

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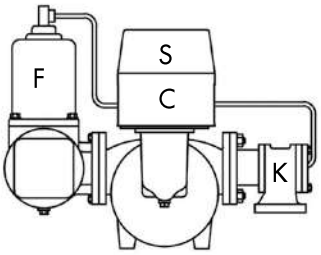

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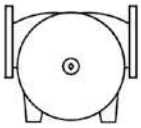

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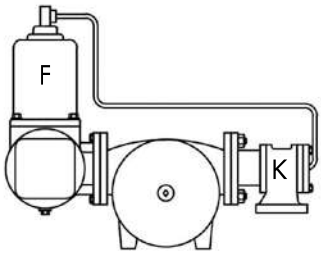

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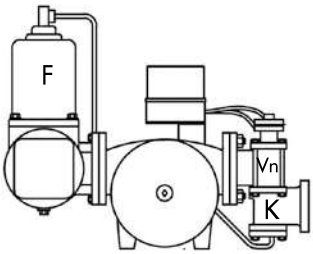

11) MOD: EFVnK / BARE SHAFT

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