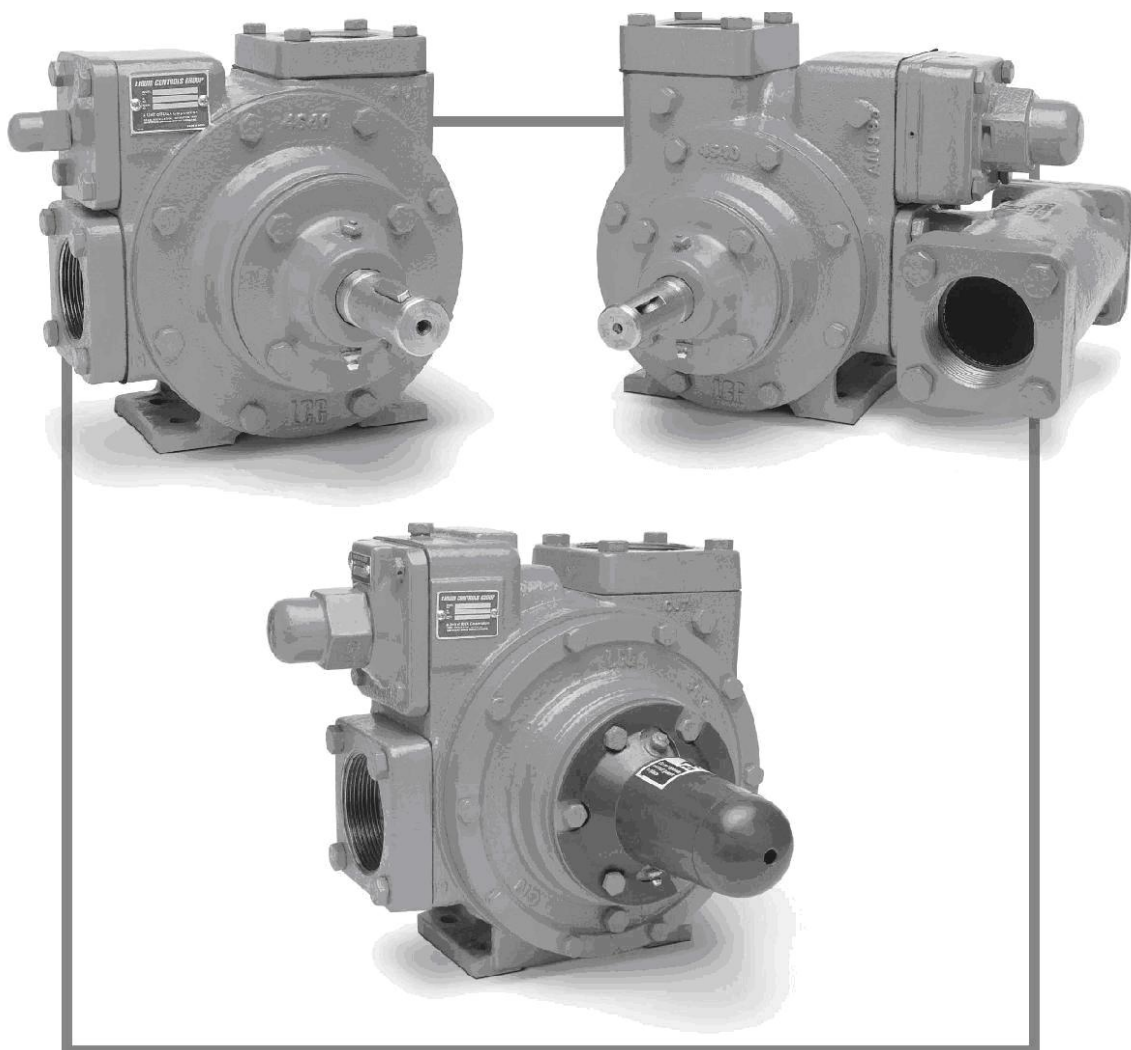

Petroleum pumps

Sales Catalog for RVP-Series and PS-Series



LIQUID CONTROLS GROUP
IBEX

General Information3
Technical Specifications4
Maximum specifications chart4
Performance data.....5
Dimensions5
Performance Curves6
Model Number and Identification Code for the RVP-Series8
Strainer assembly and air operated valve.....9

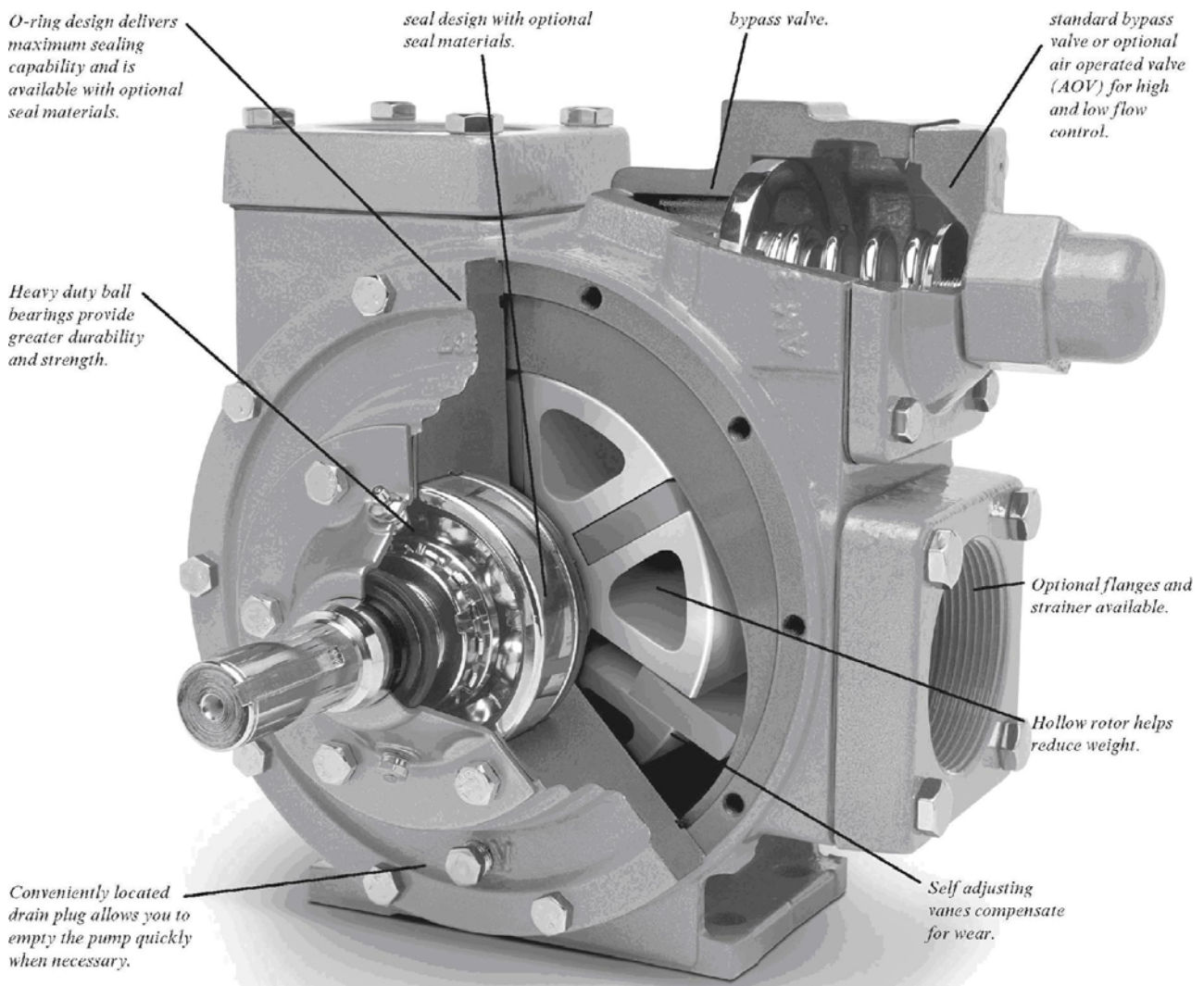
General Information

Principles of the RVP-Series and PS-Series pumps

The RVP-Series and PS-Series pumps are a special type of rotary positive displacement pump, known as a sliding vane pump. The sliding vane pump has many of the positive displacement advantages of the gear pump, plus the ability to compensate for wear, and operate at a lower noise level. The sliding vane pump consists of a rotor turning inside a cam that is machined eccentrically in relation to the rotor. As the rotor turns, the liquid that is trapped between the rotor, cam and vanes is displaced. The PS-Series and PT-Series pumps are made with vanes produced from advanced polymers which exhibit extremely low coefficients of friction. The self adjusting vanes compensate for wear and help extend the life of the pump.

Exclusive Features of the RVP-Series and PS-Series pumps

The pumping of volatile liquids is one of the most difficult of all pumping jobs, and pumping from a delivery truck makes it even more difficult, so more attention must be given to the design and manufacturing of the pump and to its installation and operation. In addition to being especially suited for handling volatile liquids, your RVP-Series and PS-Series pumps have a number of other features to help make them more easily operated and maintained.



Technical Specifications

Operating Specifications for RVP-Series and PS-Series

Standard connections:	2 in., 2-1/2 in., and 3 in. NPT
Optional connections	BSPT, Slip-on weld
Maximum differential pressure:	125 psid (8.6 bar)
Temperature range:	-25° to 300°F (-32° to 149°C)
Maximum working pressure:	200 psi (13.8 bar)
Maximum speed:	780 RPM
Maximum flow:	Up to 271 GPM (1,026 L/min)
Maximum viscosity:	20,000 SSU (4,250 cP)
Fluids	Refined petroleum products, industrial solvents, and other fluids

Material Specifications for RVP-Series and PS-Series

Part	Standard Material	Avaiable options
Case	Cast iron ASTM A48	
Head	Cast iron ASTM A48	
Flanges	Cast iron ASTM A48	
Rotor	Ductile iron ASTM A536	
Bearing cap	Steel	Bearing cover/spacer with hydraulic motor adapter (cast aluminum) and coupling (steel)
Bearings	Ball (single row), grease lubricated to 300°F (149°C) max.	
Vanes	Full size with 316 stainless steel wear plate to 240°F (115°C); 20,000 SSU (4,250 cP) max.	
Bypass valve	Cast iron ASTM A48 with nickel added	
Bypass/AOV cap	Cast iron ASTM A48	
Bypass valve cover	Cast iron ASTM A48	
Bypass valve spring	Plated steel	
Bypass valve spring ranges	35–125 psi (2.4–8.6 bar)	
Seal seat	Cast iron	Stainless steel and Ni-Resist
Seal metal parts	Steel	
Shaft	Double end keyed shaft, high strength steel	
O-rings	Buna-N to 240°F (115°C)	Viton to 300°F (149°C)
Gaskets	Composition to 500°F (260°C)	
Vane drivers	Case hardened steel	
Gauge ports	1/4 in. NPT	

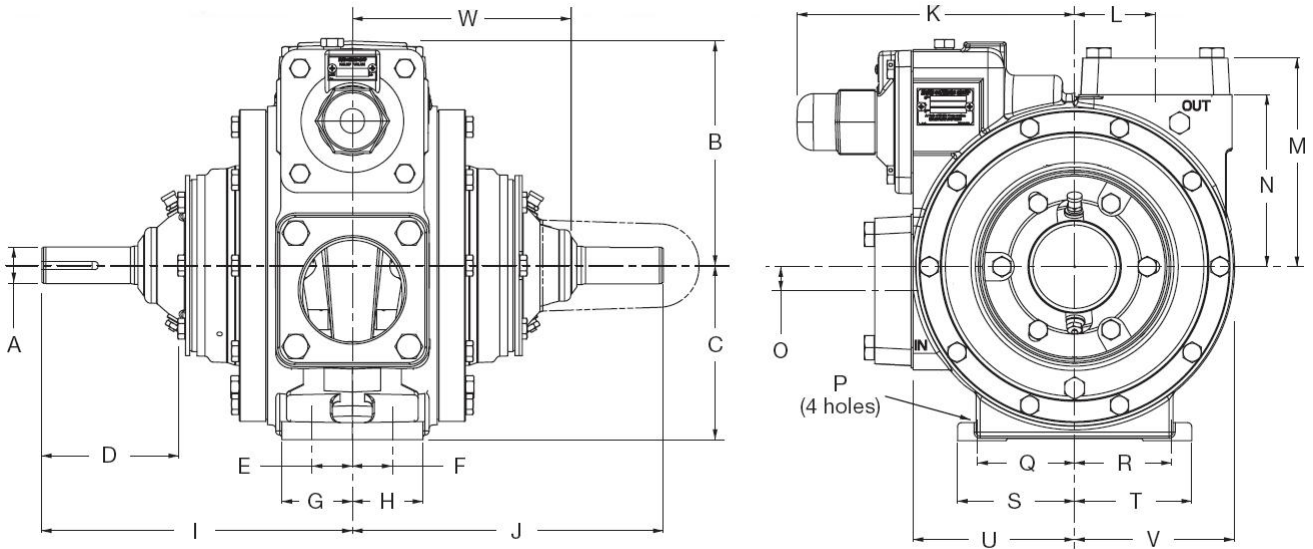
Maximum specifications chart

Model	Flow	Pump speed	Viscosity	Differential Pressure	Working Pressure	Temperature
	GPM (L/min)	RPM	SSU (cP)	psi (bar)	psi (bar)	°F (°C)
RVP20/PS20	88 (333)	780	20,000 (4,250)	125 (8.6)	200 (13.8)	300 (149)
RVP25/PS25	159 (602)	780	20,000 (4,250)	125 (8.6)	200 (13.8)	300 (149)
RVP30/PS30	271 (1,026)	640	20,000 (4,250)	125 (8.6)	200 (13.8)	300 (149)

Performance data

Model	RVP/PS20		RVP/PS25		RVP/PS30	
	RPM	GPM (L/min)	RPM	GPM (L/min)	RPM	GPM (L/min)
RPM	520	640	520	640	520	640
GPM (L/min)	58 (220)	72 (273)	98 (371)	120 (454)	211(799)	263 (995)
HP (Kw)	2.5 (1.9)	3.0 (2.2)	3.8 (2.8)	5.0 (3.7)	7.8 (5.8)	9.5 (7.1)

Dimensions



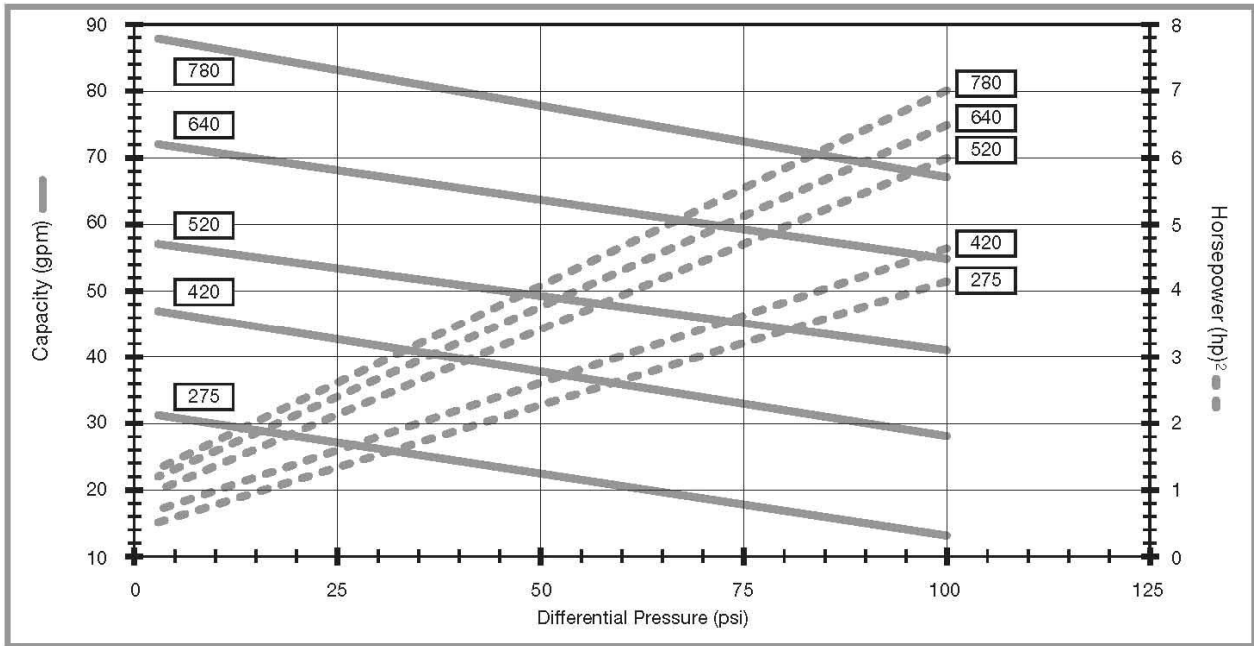
All dimensions in inches and centimeters

Model	A	B	C	D	E	F	G	H	I	J	K	L
RVP20 /PS20	1.125 Dia. (2.86)	5.18 (13.16)	4.00 (10.16)	3.63 (9.22)	0.81 (2.06)	0.81 (2.06)	1.75 (4.45)	1.75 (4.45)	8.00 (20.32)	8.00 (20.32)	6.08 (15.44)	1.50 (3.81)
RVP25 /PS25	1.125 Dia. (2.86)	6.64 (146.87)	4.00 (10.15)	3.63 (9.22)	1.50 (3.81)	1.50 (3.81)	2.45 (6.215)	2.45 (6.215)	9.45 (23.99)	8.75 (22.23)	6.80 (17.27)	1.75 (4.45)
RVP30 /PS30	1.125 Dia. (2.86)	6.93 (17.60)	5.38 (13.70)	4.25 (10.80)	1.25 (3.20)	1.25 (3.20)	2.19 (5.60)	2.19 (5.60)	9.63 (24.40)	9.63 (24.40)	8.60 (21.80)	2.50 (6.40)

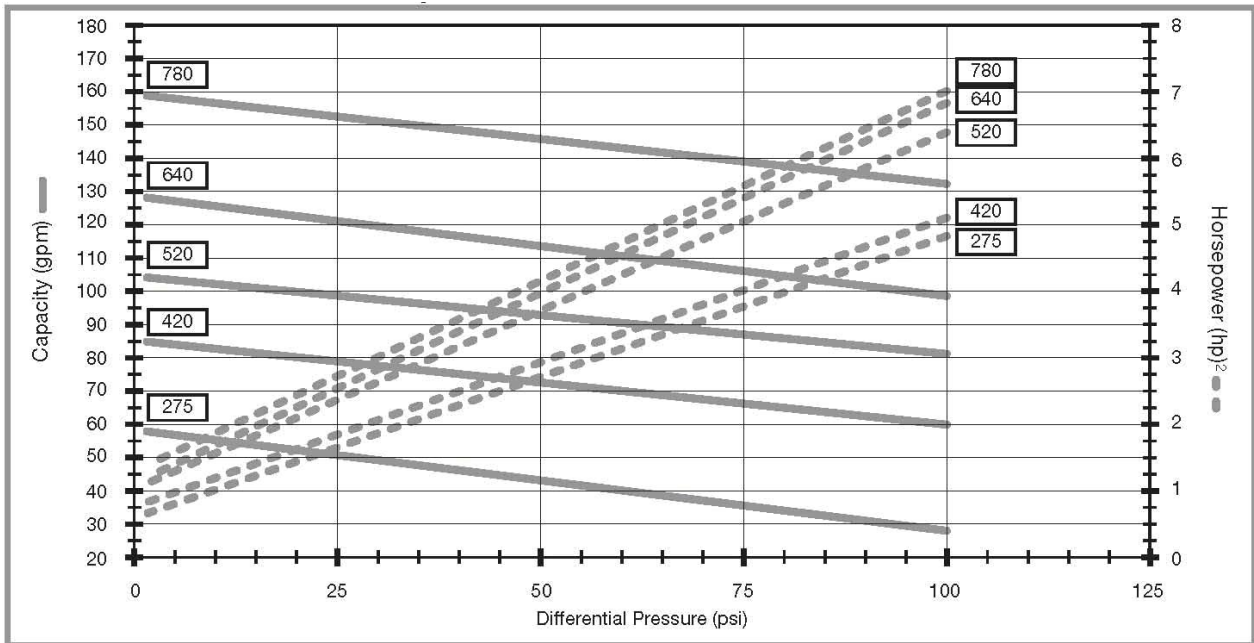
Model	M	N	O	P	Q	R	S	T	U	V	W
RVP20 /PS20	4.98 (12.66)	4.13 (10.48)	0.50 (1.27)	0.44 Dia. (1.12)	2.50 (6.35)	2.50 (6.35)	3.31 (8.40)	3.31 (8.40)	3.90 (9.92)	3.90 (9.92)	5.30 (13.46)
RVP25 /PS25	6.35 (16.12)	5.06 (12.86)	0.25 (0.64)	0.44 Dia. (1.12)	2.75 (6.99)	2.75 (6.99)	3.50 (8.89)	3.50 (8.89)	4.31 (10.95)	3.87 (9.87)	6.05 (15.36)
RVP30 /PS30	6.44 (16.40)	5.31 (13.50)	0.75 (1.90)	0.63 Dia. (1.58)	3.00 (7.60)	3.00 (7.60)	3.63 (9.20)	3.63 (9.20)	5.00 (12.70)	4.95 (12.60)	6.43 (16.33)

Performance Curves

RVP20 and PS20 Pumps



RVP25 and PS25 Pumps



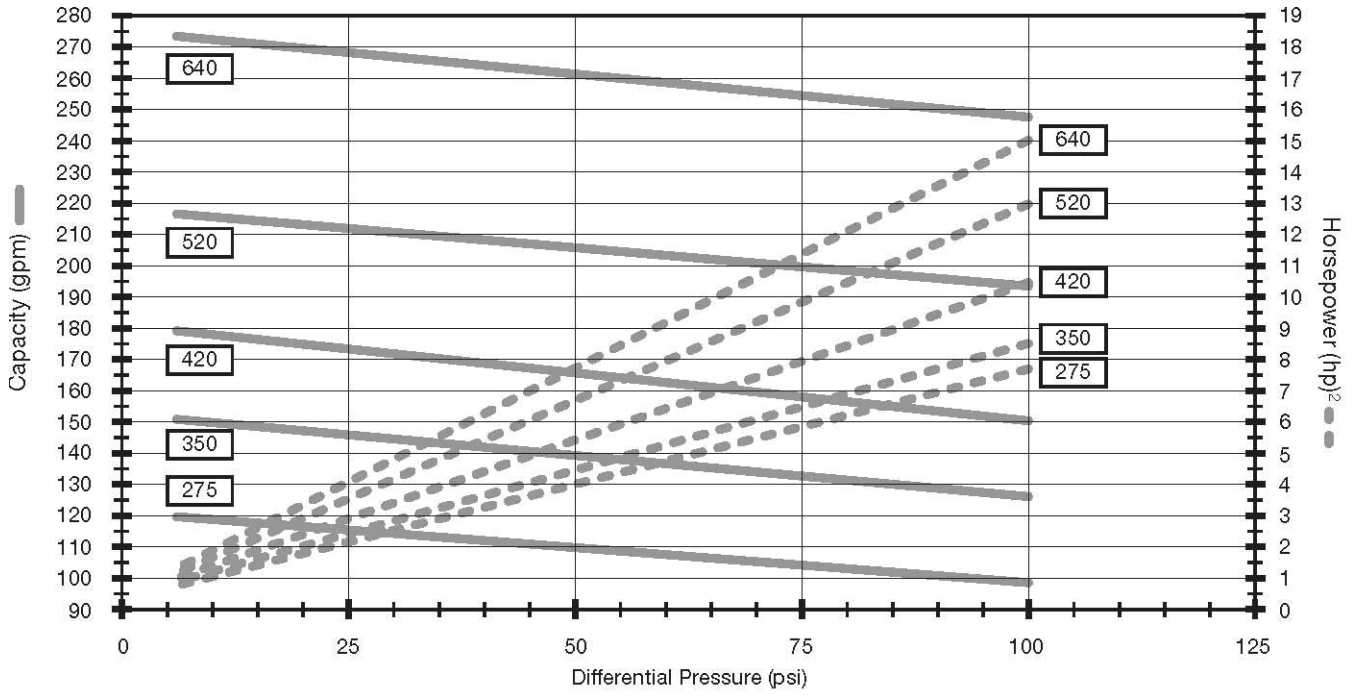
These curves depict performance of the PUMP ONLY. Performance will vary in applications due to system design and variables. Approximate capacities and horsepowers are based on 30 SSU (3 cP) fluid.

Torque (in•lb) = hp x 63025 / RPM

Viscosity Chart

Viscosity (SSU)	100	1,000	5,000	10,000	20,000
Maximum RMP	780	640	520	420	275

RVP30 and PS30 Pumps



These curves depict performance of the PUMP ONLY. Performance will vary in applications due to system design and variables. Approximate capacities and horsepowers are based on 30 SSU (3 cP) fluid.

Torque (in•lb) = hpx63025/RPM

Viscosity Chart

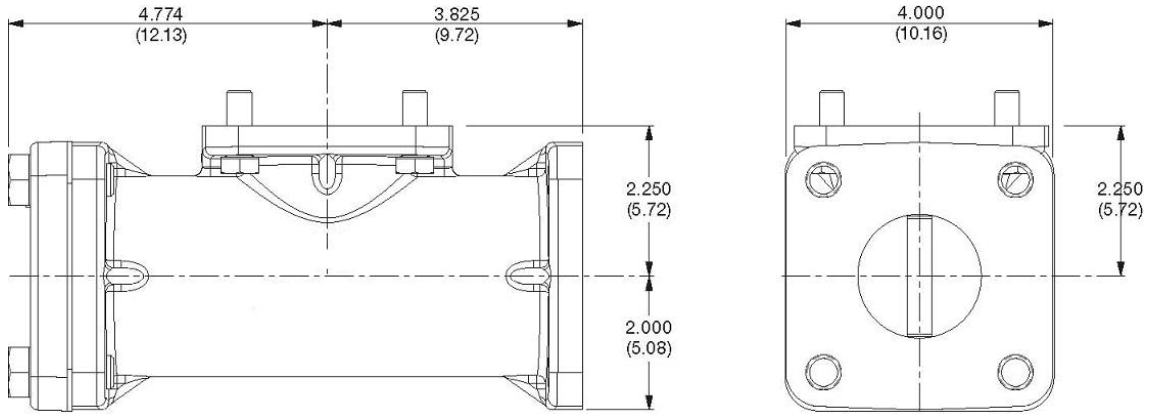
Viscosity (SSU)	100	1,000	5,000	10,000	20,000
Maximum RMP	780	640	520	420	275

Model Number and Identification Code for the RVP-Series

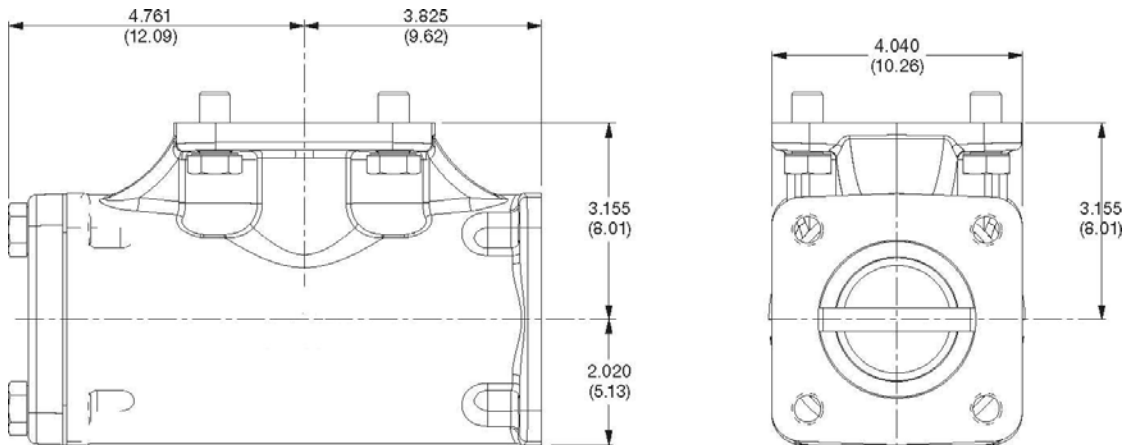
R	V	P	2	0	L	1	S	0	0	0	
			2	0							RVP 20
			2	5							RVP 25
			3	0							RVP 30
					L						Left /sinistra
					R						Right /destra
						0					Carburanti / fuels
						1					Solventi / solvents
							S				By pass - standard valve
							A				By pass - air operated valve
								1			35-50 psi (2,1-3,4 bar) Molla /spring by pass valve
								2			50-75 psi (3,4-5,2 bar) Molla /spring by pass valve
								3			50-110 psi (3,4-7,6 bar) Molla /spring by pass valve
											Standard RVP25/RVP30
								4			75-110 psi (5,2-7,6 bar) Molla /spring by pass valve
											Standard RVP20
								5			110-125 psi (7,6-8,6 bar) Molla /spring by pass valve
									0		Senza flangia
									1		Flangia a saldare
									2		
									3		
									0		Senza flangia
									1		Flangia a saldare
									2		
									3		

Strainer assembly and air operated valve

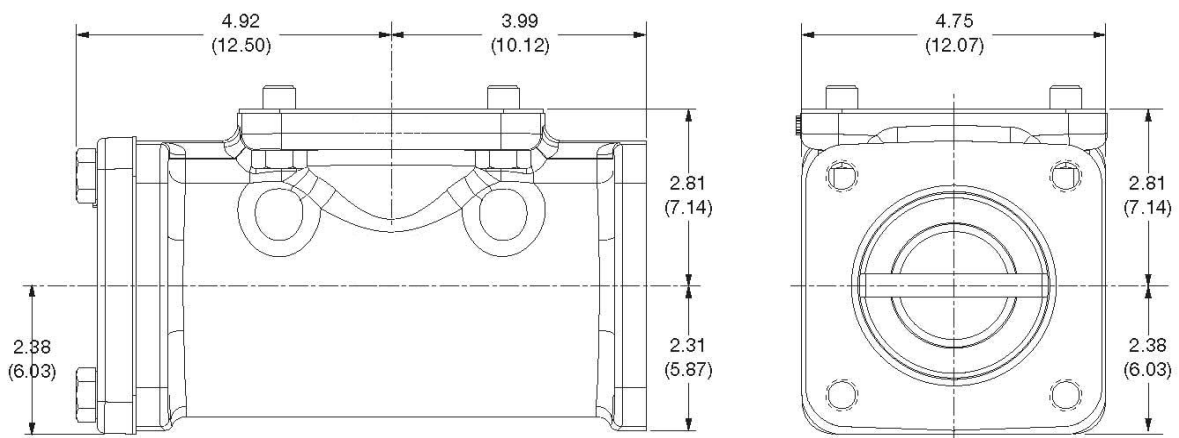
STRAINER ASSEMBLY



For RVP20 and PS20 Pumps

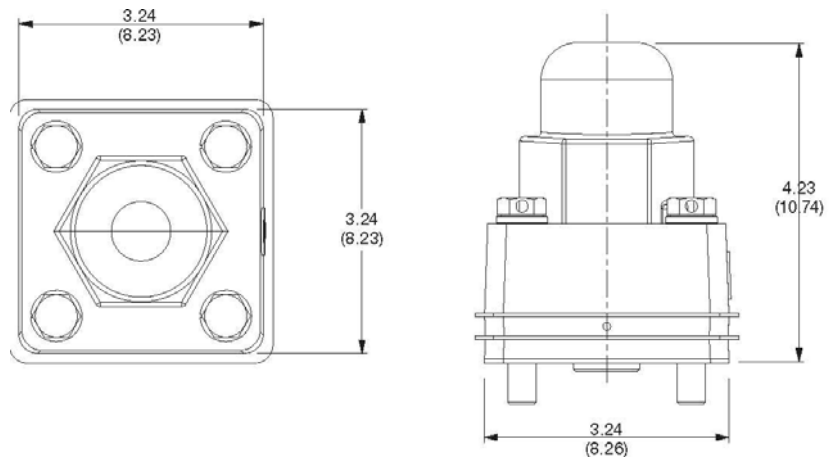


For RVP25 and PS25 Pumps

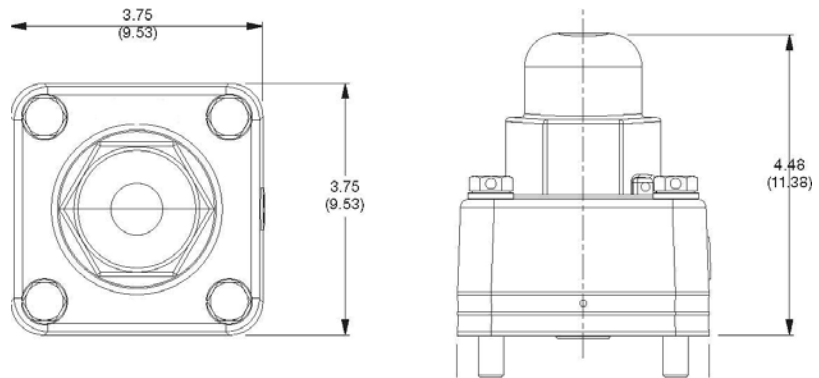


For RVP30 and PS30 Pumps

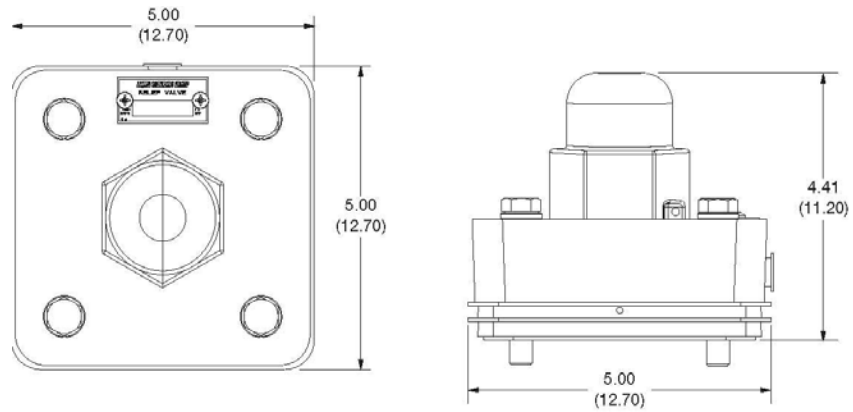
AIR OPERATED VALVE



For RVP20 and PS20 Pumps



For RVP25 and PS25 Pumps



Pump Model	Strainer Assembly Part Number	AOV Part Number
RVP/PS20	4684-X	5470-1XA (Buna-N)
RVP/PS25	4689-X	5462-1XA (Buna-N)
RVP/PS30	4680-X	5566-XA (Buna-N)



S.A.M.P.I. Spa
Via A Vespucci, n°1
55011 - Altopascio LU
Italy
www.sampi.it

Corken
Faure Herman
Liquid Controls
Liquid Controls Europe
Liquid Controls India
Liquid Controls Sponsler
SAMPI
Toptech Systems

