



Overview

RVP SERIES PUMPS



AZIENDA CON SISTEMA QUALITÀ
CERTIFICATO DA DNV
=UNI EN ISO 9001/2000=

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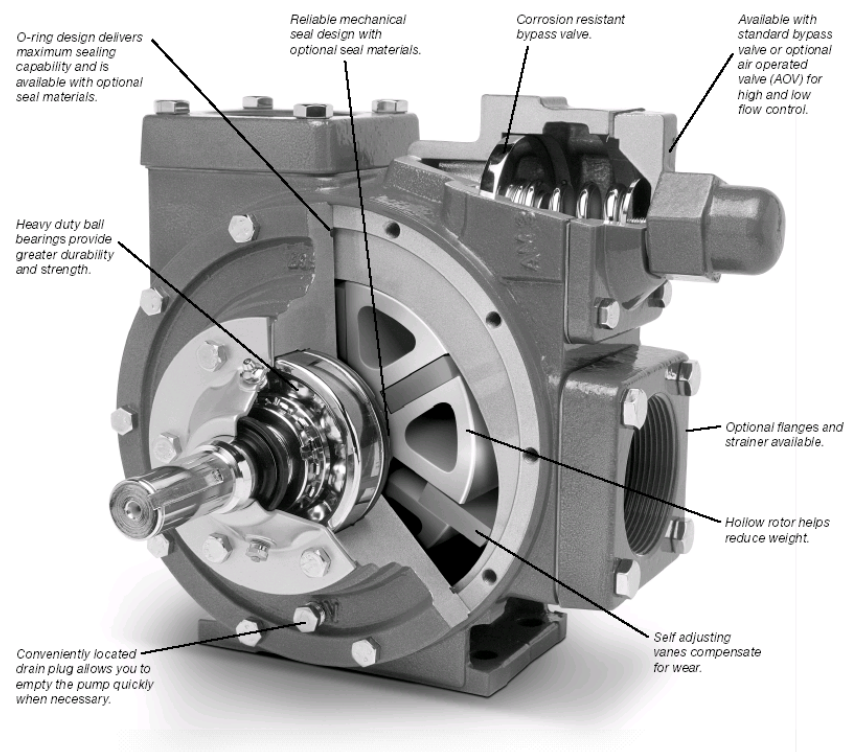
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General Description

The RVP Series pump is 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 RVP 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.



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 pump has a number of other features to help make it more easily operated and maintained.

The rotor material is cast iron and the vanes material is auto-lubricating. Several mechanical models of sealing systems are available and selectable in accordance with the pumped liquid. It can operate with viscous or light liquids and it needs less

power than other types of pumps. The pump guarantees higher flow rates than other pumps at the same speed. The pump will operate satisfactorily in any position. Consult SAMPI for vertical shaft mounts. The pump can be bolted to the truck frame, and **MUST** be adequately supported. The pump may be driven by a power take-off through universal joints. When using universal joints, a splined slip joint, properly lubricated, must be used on the connecting jack shaft to prevent end thrust on the pump shaft. It is very important to install a proper drive line to avoid excessive wear, vibration and noise. The pump may also be driven by other motors (hydraulic, electric, internal combustion). These motors must be well supported with their shafts parallel to the pump shaft in all respects.

The pump has an internal by-pass valve to drain the excess flow. With Teflon seals, it can be used with a large number of industrial solvents.

Maximum specifications chart

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

Performance data

Model	RVP20		RVP25		RVP30	
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)

Materials

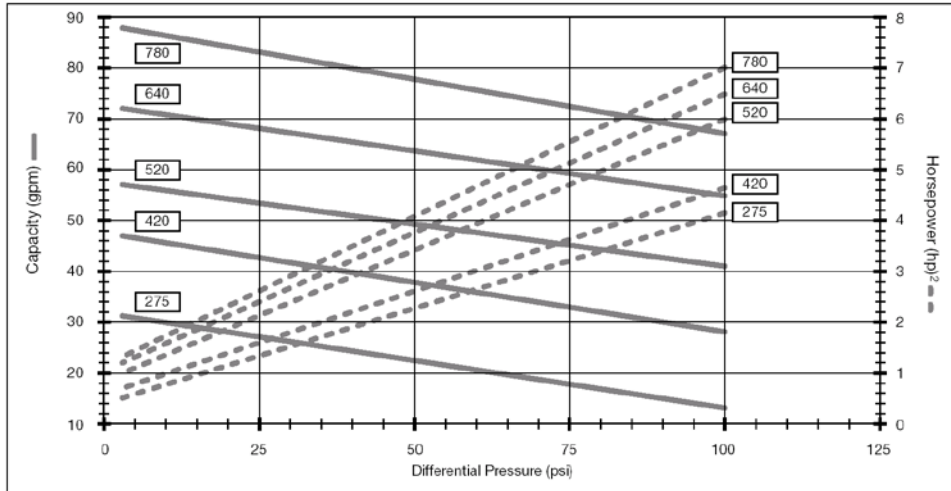
Part	Standard Material	Available options
Case	Cast iron ASTM A48	
Head	Cast iron ASTM A48	
Flanges	Cast iron ASTM A48	
Rotor	Ductile iron ASTM A536	
Bearing cap	Steel	Bearing cover/spacer with hydraulic motor adapter (cast aluminum) and coupling (steel)
Bearings	Ball (single row), grease lubricated to 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	
Seal seat	Cast iron	Stainless steel and Ni-Resist
Seal metal parts	Steel	
Shaft	High strength steel	
O-rings	Buna-N to 240°F (115°C)	Viton to 300°F (149°C)
Gaskets	Composite to 500°F (260°C)	
Vane drivers	Case hardened steel	

Maximum RPM chart

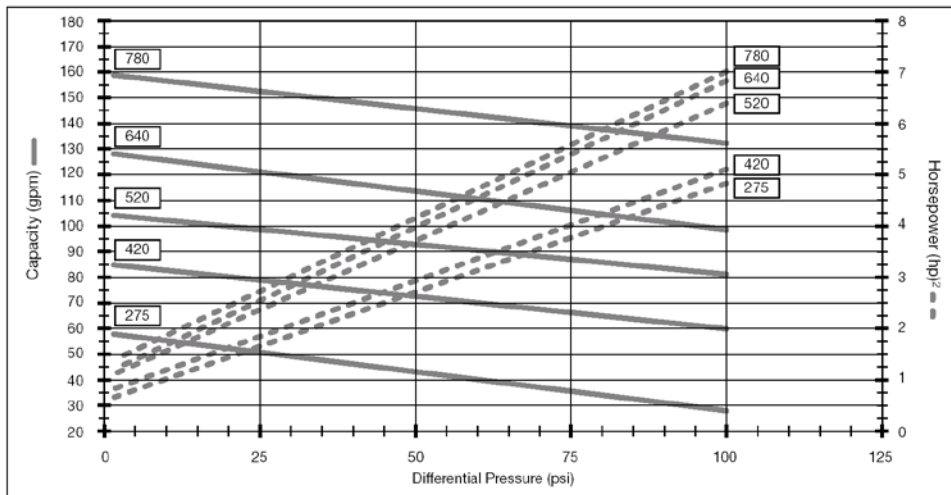
Model	Viscosity (SSU)				
	100	1,000	5,000	10,000	20,000
RVP 20	780	640	520	420	275
RVP 25	780	640	520	420	275
RVP 30	640	520	420	350	275

Performances

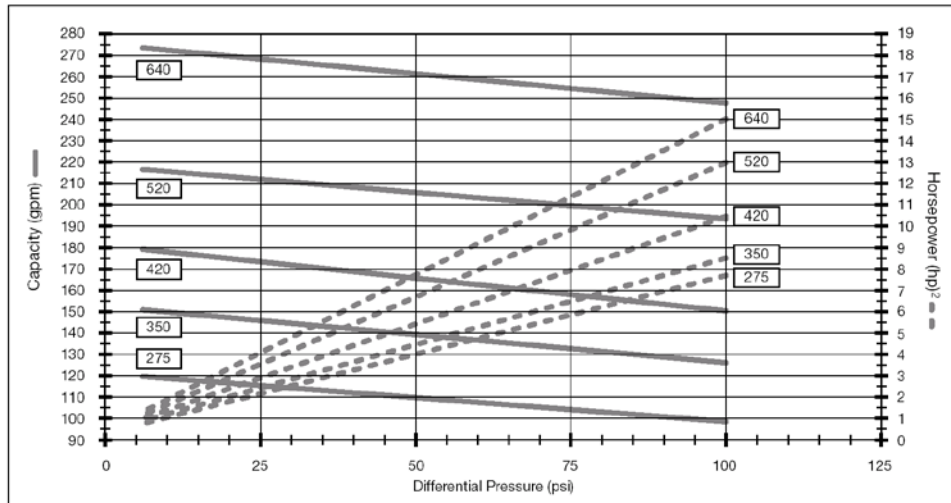
RVP 20 PUMP¹:



RVP 25 PUMP¹:



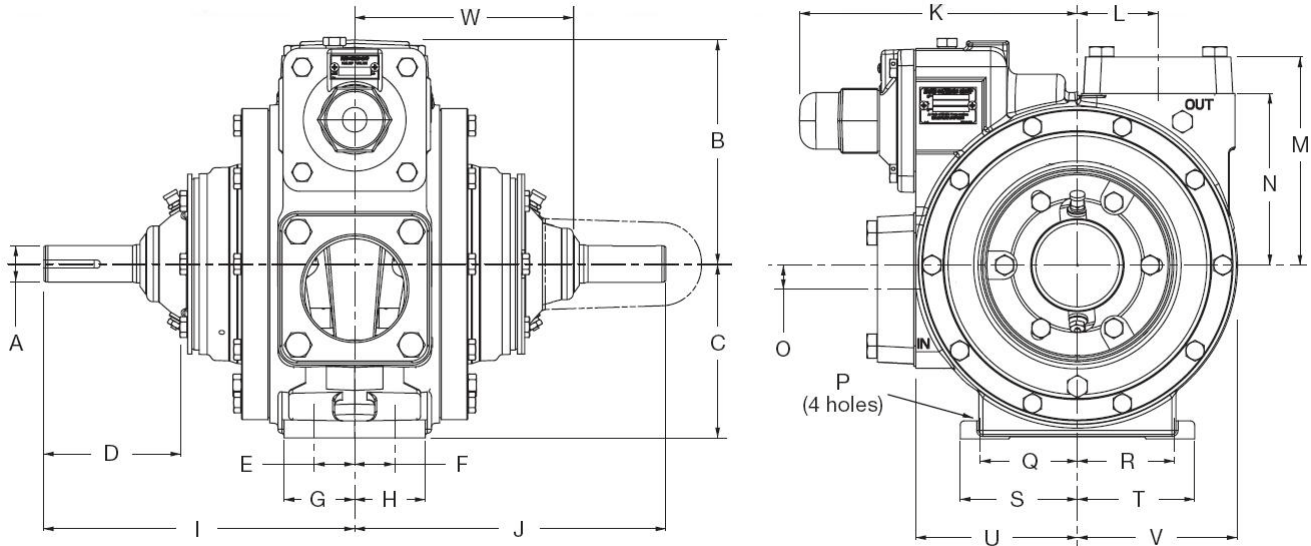
RVP 30 PUMP¹:



¹These 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.

²Torque (in•lb) = $\frac{hp \times 63025}{RPM}$

Dimensions



**Standard version single shaft
Double shaft upon request**

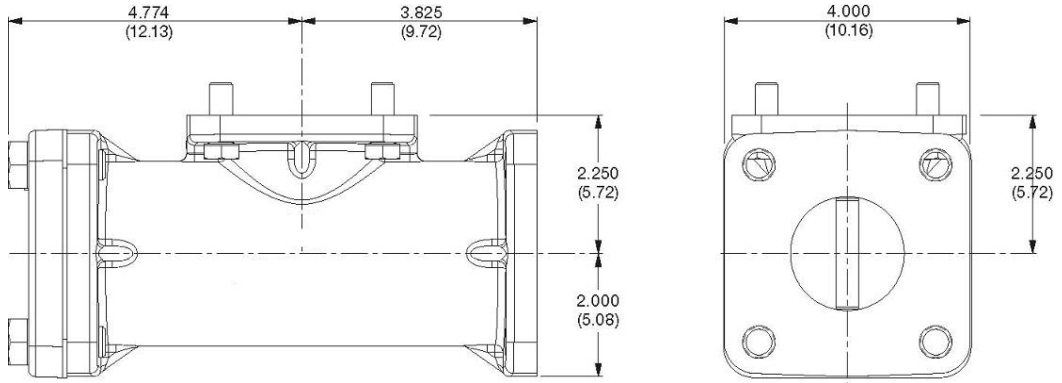
Model	Dimensions	A	B	C	D	E	F	G	H	I	J	K	L
RVP 20	in	1,13	5,18	4,00	3,63	0,81	0,81	1,75	1,75	7,99	7,99	6,07	1,50
	mm	28,60	131,60	101,60	92,20	20,60	20,60	44,50	44,50	203,20	203,20	154,40	38,10
RVP 25	in	1,13	5,78	3,99	3,63	1,50	1,50	2,44	2,44	9,44	8,75	6,79	1,75
	mm	28,60	146,90	101,50	92,20	38,10	38,10	62,15	62,15	239,90	222,30	172,70	44,50
RVP 30	in	1,13	6,92	5,39	4,25	1,26	1,26	2,20	2,20	9,60	9,60	8,58	2,52
	mm	28,60	176,00	137,00	108,00	32,00	32,00	56,00	56,00	244,00	244,00	218,00	64,00

Model	Dimensions	M	N	O	P	Q	R	S	T	U	V	W
RVP 20	in	4,98	4,12	0,50	0,44	2,50	2,50	3,30	3,30	3,90	3,90	5,30
	mm	126,60	104,80	12,70	11,20	63,50	63,50	84,00	84,00	99,20	99,20	134,60
RVP 25	in	6,34	5,06	0,25	0,44	2,75	2,75	3,50	3,50	4,31	3,88	6,04
	mm	161,20	128,60	6,40	11,20	69,90	69,90	88,90	88,90	109,50	98,70	153,60
RVP 30	in	6,45	5,31	0,75	0,62	2,99	2,99	3,62	3,62	5,00	4,96	6,42
	mm	164,00	135,00	19,00	15,80	76,00	76,00	92,00	92,00	127,00	126,00	163,30

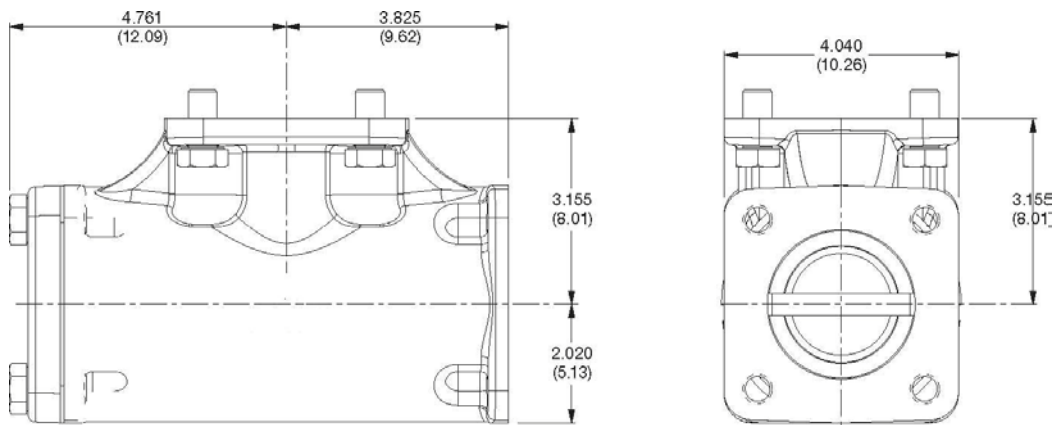
Model	Weight (Kg)
RVP 20	30
RVP 25	37
RVP 30	60

Accessories

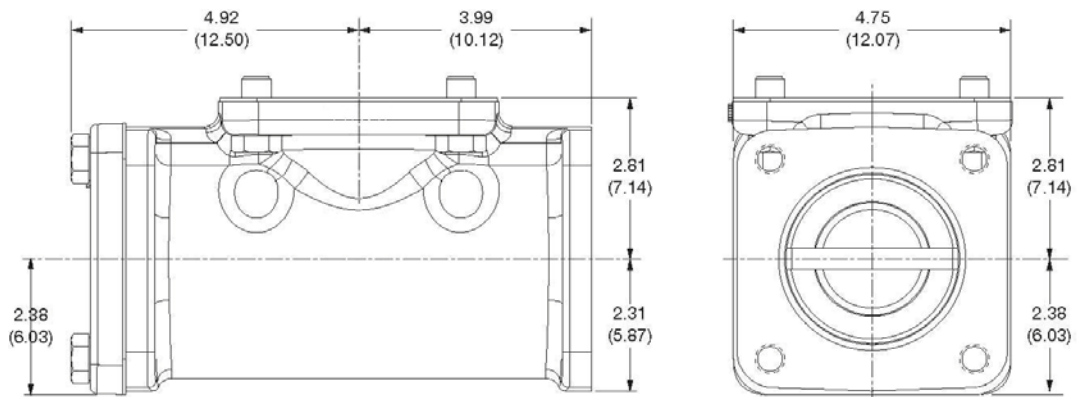
STRAINER ASSEMBLY



For RVP20 Pumps



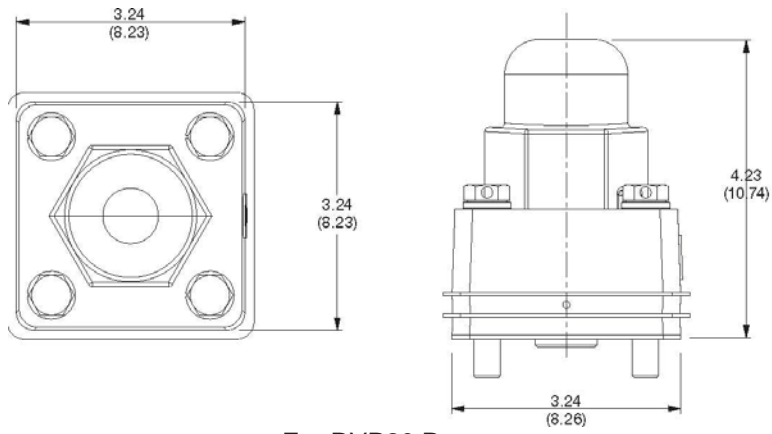
For RVP25 Pumps



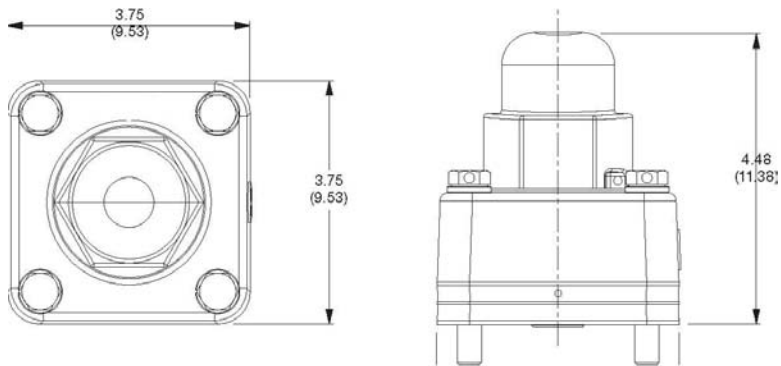
For RVP30 Pumps

* All measures are in inches (centimetres)

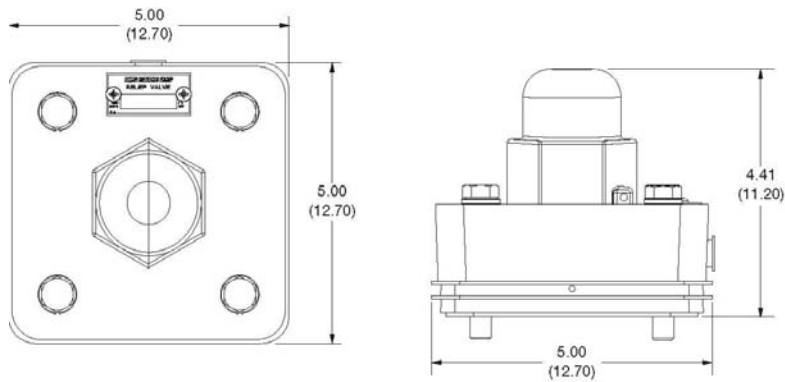
AIR OPERATED VALVE



For RVP20 Pumps



For RVP25 Pumps



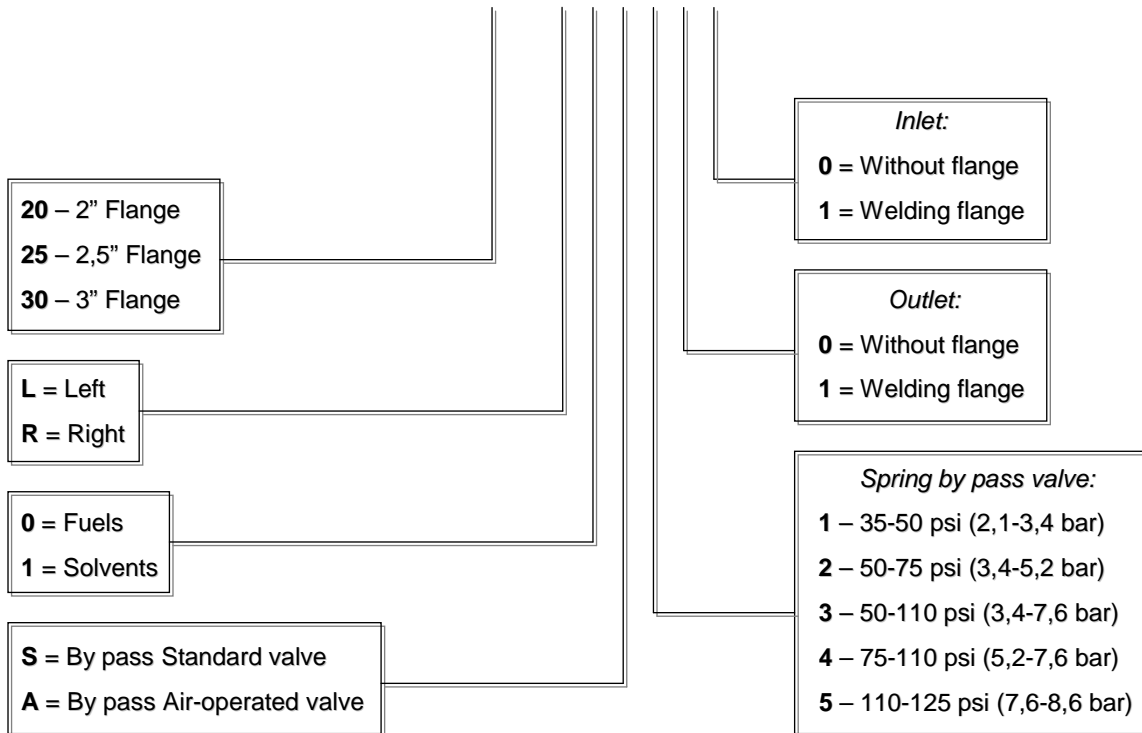
For RVP30 Pumps

* All measures are in inches (centimetres)

Pump Model	Strainer assembly Part Number	AOV Part Number
RVP20(FUELS)	N2705A4684X	N2705A54701XA
RVP25(FUELS)	N2705B4689X	N2705B54621XA
RVP30(FUELS)	N2705C4680X	N2705C5566XA
RVP20(SOLVENTS)	N2705A4684X-1	N2705A54701XA-1
RVP25(SOLVENTS)	N2705B4689X-1	N2705B54621XA-1
RVP30(SOLVENTS)	N2705C4680X-1	N2705C5566XA-1

Identification code

RVP 20 - L 1 S 0 0 0



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