

SUMMIT™

VV40

VV40



**Internal
Gear Pump**



SUMMIT™
PUMP, Inc

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FEATURES & BENEFITS

Bracket is one unit. This puts the pump packing or seal between the thrust bearing and bracket bushing, keeping movement to a minimum for longer seal life.

Multiple **Configuration** options conform to your system design with a simple change to casing orientation and/or shaft rotation.

Bearing Housing assembly is designed for ease of maintenance without lengthy downtime.

Stuffing Box is designed to easily accept alternate sealing methods.

Ports are either NPT or flange type.

Bearing is a double row ball bearing to handle thrust loads. (VV40Q and VV40QS sizes have two taper roller bearings.)

Bushings are either bronze or carbon graphite and reduce moving parts and maintenance.

End Clearance is externally set by rotating the bearing housing.

Standard Gland will accommodate packing or a component seal.

Internal Pressure Relief Valve is standard on all pumps. Pressure setting is calibrated at the factory.



Internal gear pumps offer a wide range of benefits. Although, they do not handle solids, they are a good option for abrasive applications.

Shear sensitive fluids can be pumped with this type of pump. Fluids are transferred in "chunks" as the gears rotate and very little pumped fluid is actually sheared. If needed, operating at slower speeds, selecting a larger pump or adjusting end clearances are ways to adapt to higher shear sensitive materials.

CONFIGURABILITY

Installation configurations are obtainable since the VV40 pumps are designed for adaptability. There are 16 possible configurations by simply choosing a casing orientation and shaft rotation (*Notice relief valve positions*).

The images to the right are four main configurations. Standard configuration is right hand orientation and clockwise rotation, unless otherwise stated on the purchase order.

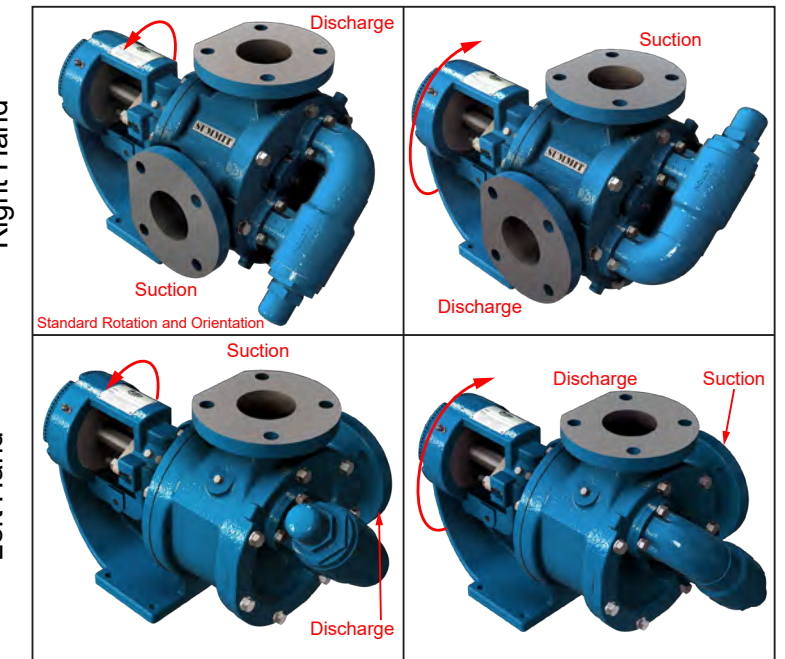
Material options are cast iron, ductile iron, steel and stainless steel. NPT or flanged ports are determined by pump size and material. Consult your local Summit Pump, Inc. Distributor for specific details.

Shaft Rotation
(As viewed from motor)

Clockwise

Counter Clockwise

Casing Orientation
Right Hand
Left Hand



PERFORMANCE DATA

Standard Material - Cast Iron Pumps														
Size		VV40G	VV40H	VV40HL	VV40AK*	VV40AL*	VV40K	VV40KK	VV40L	VV40LQ	VV40LL	VV40LS	VV40Q	VV40QS
GPM	100SSU > Viscosity <750SSU	8	15	31	70	90	77	100	140	140	140	200	300	470
RPM		1750	1750	1750	1450	1450	780	780	640	640	520	640	520	520
Max Discharge PSI		200	200	200	200	200	200	200	200	200	200	200	200	200
Appx. Shipping Weight		25	38	40	82	85	105	110	155	175	185	190	440	540

Contact your local Summit Pump Distributor for further performance data
Note: *AK and AL sizes are interchangeable with Viking® Pump's 125 model.



OEM NUMBERS AND MODELS ARE FOR REFERENCE ONLY AND IN NO WAY INDICATE THAT SUMMIT IS SELLING OEM PARTS OR REPRESENTS THE OEM IN ANY WAY.

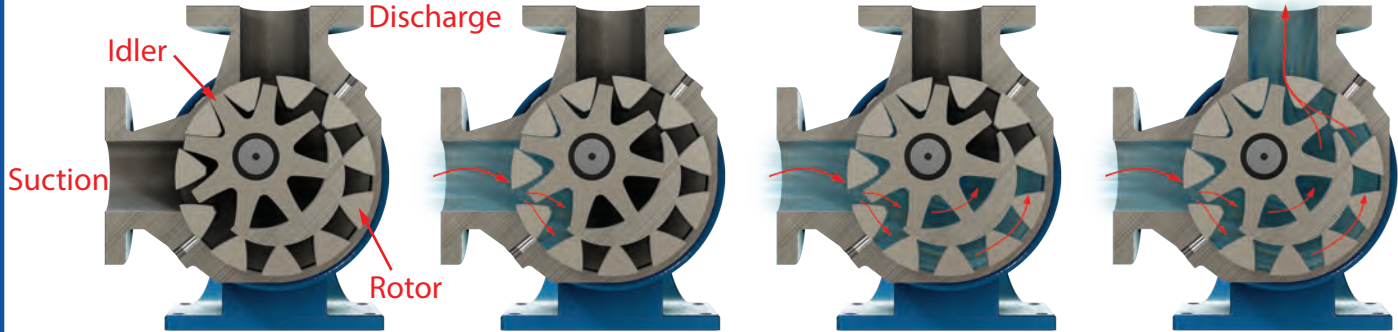


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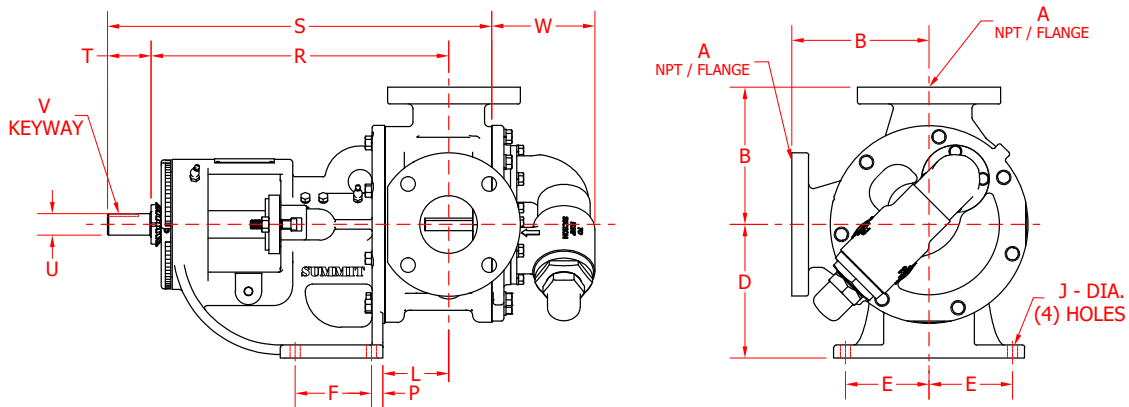
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DESIGN PRINCIPLE

The VV40 series is a positive displacement internal gear type pump. The outer gear (rotor) is driven which turns the inner gear (idler) with its centerline offset from the rotor. This generates expanding volume near the suction port and contracting volume near the discharge expelling the pumped product.



DIMENSIONS



Pump Configuration			Reference Dimensions (inches)																				
Model	Size	Materials of Construction	A	B	D*	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U	V	W	
VV40	G	Cast Iron	1" NPT	2.50	2.75	1.62	1.31	4.00	2.38	0.34	0.57	1.21	4.87	1.09	0.31	0.63	7.40 7.34	9.55	1.06 1.12	0.5	0.12 x 0.06	2.71	
VV40	H, HL	Cast Iron, Ductile Iron	1.5" NPT	3.00	3.50	2.75	2.25	6.75	3.50	0.47	1.50	3.38	5.19	1.19	0.56	0.62	10.44	13.25	1.62	0.75	0.19 x 0.09	2.85	
VVB40		Steel, 316ss	1.5" 150# ANSI	4.00																			0.57
VV40	AK**, AK**	Cast Iron	2" NPT	4.50	5.25	2.88	2.00	6.75	4.03	0.41	2.25	2.82	8.84	2.00	0.44	1.00	13.19	17.69	2.50	1.00	0.25 x 0.12	4.83	
VVB40				4.13					2.72		1.11	4.77											
VV40	K, KK	Cast Iron, Ductile Iron	2" NPT	5.12	5.50	4.00	2.75	9.25	4.00	0.53	2.00	3.00	9.38	1.75	0.62	0.62	14.12	18.12	2.25	1.12	0.25 x 0.12	5.25	
VVB40		Steel, 316ss	2" 150# ANSI	5.25																			1.42
VV40	L	Cast Iron, Ductile Iron	2" NPT	6.50	7.00	4.38	4.00	10.00	5.38	0.53	2.00	1.42	3.38	1.75	0.62	0.62	15.62	19.62	2.25 (2.35)	1.12 (1.44)	0.25 x 0.12 - Standard (0.38 x 0.19) - Optional	0.38 x 0.19	5.43
VVB40		Cast Iron, Cast Iron - Steel Fitted	2" NPT	5.12																			
VV40	LQ	Cast Iron	2.5" 125# ANSI	7.19	7.00	4.38	4.00	10.00	5.38	0.53	2.00	1.42	3.38	1.75	0.62	0.62	15.62	19.62	2.25 (2.35)	1.12 (1.44)	0.25 x 0.12 - Standard (0.38 x 0.19) - Optional	0.38 x 0.19	5.43
VVB40		Ductile Iron, Steel, 316ss	2.5" 150# ANSI																				
VV40	LL	Cast Iron	3" 125# ANSI	7.19	7.00	4.38	4.00	10.00	5.38	0.53	2.00	1.42	3.38	1.75	0.62	0.62	15.62	19.62	2.25 (2.35)	1.12 (1.44)	0.25 x 0.12 - Standard (0.38 x 0.19) - Optional	0.38 x 0.19	5.43
VVB40		Ductile Iron, Steel, 316ss	3" 150# ANSI																				
VV40	LS	Cast Iron	3" 125# ANSI	7.19	7.00	4.38	4.00	10.00	5.38	0.53	2.00	1.42	3.38	1.75	0.62	0.62	15.62	19.62	2.25 (2.35)	1.12 (1.44)	0.25 x 0.12 - Standard (0.38 x 0.19) - Optional	0.38 x 0.19	5.43
VVB40		Ductile Iron, Steel, 316ss	3" 150# ANSI																				
VV40	Q	Cast Iron	4" 125# ANSI	8.25	8.75	4.12	4.00	10.00	6.00	0.69	4.38	6.62	11.12	3.00	0.75	1.00	19.25	26.75	4.50	1.94	0.50 x 0.25	8.25	
VVB40		Ductile Iron, Steel, 316ss	4" 150# ANSI																				5.12
VV40	QS	Cast Iron	6" 125# ANSI	9.00	8.75	4.12	4.00	10.00	6.00	0.69	4.38	7.12	11.12	4.00	0.80	1.00	19.75	28.25	4.50	1.94	0.50 x 0.25	8.25	
VVB40		Ductile Iron, Steel, 316ss	6" 150# ANSI																				5.12
VV40	QS	Cast Iron	6" 125# ANSI	9.00	8.75	4.12	4.00	10.00	6.00	0.69	4.38	7.12	11.12	4.00	0.80	1.00	19.75	28.25	4.50	1.94	0.50 x 0.25	8.25	
VVB40		Ductile Iron, Steel, 316ss	6" 150# ANSI																				5.12

* DIMENSION IS TO PUMP CENTERLINE. VV40QS HAS SUCTION AND DISCHARGE PORTS 180 DEGREES APART AND 3.00" ABOVE CENTERLINE

Note: **AK and AL sizes are interchangeable with Viking® Pump's 125 model.

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