



Vortex Non-Clog Series





Vortex Series



Vortex Non-Clog Pumps

- Capacities to 2600 GPM
- Heads to 440 TDH (190 PSI)
- Temperatures to 500° F
- Pressures to 285 PSIG

Performance Features For Vortex Non-Clog Pumps

Pump Reliability

- Casing and Impeller Materials
 Cast Iron
 Hardened Ductile Iron
 CD4MCu or Alloy 20
- Concentric Vortex Casing for Non-Clog Minimum Wear
- Recessed Impeller for Minimum Solids Degradation

Ease of Maintenance

- Top Pull Out Design Available
- NEMA or IECD Flange Motors
- Parts Interchangeability
- External Impeller Adjustments
- Easy Retrofit

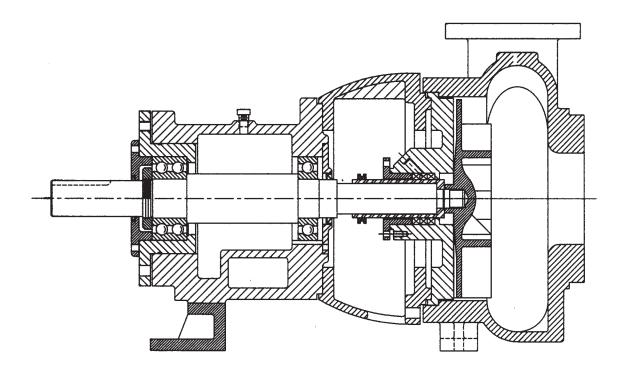


The Vortex Non-Clog Impeller is designed to handle large diameter solids and fibrous material without clogging. The Vortex Non-Clog Pumps will handle solids up to the same diameter as the discharge. There is reduced radial loading for trouble free operation. Even with low flows, the Vortex Non-Clog design allows throttling to a low performance range unacceptable to many centrifugal pumps. The complete Vortex Non-Clog line has been designed to pump various liquids and oils containing up to 30% entrained air. They will operate 23% below its first critical speed at any point of operation. The Vortex Non-Clog Pump shaft is designed to have a maximum total indicated run-out not to exceed .008 inches.

Services

Filter slurries
Latex
Polystyrene beads
Crystal suspensions
Screen rejects
Hydropulper pump
Sodium chlorate slurry
Fruit and vegetable suspensions
Dye liquor
Fibrous wastewater
Long fiber white water
Primary cleaner pump





Pumps Designed to Handle Solids

Caution, Not All Pumps Are Designed To Handle Bulky/Fibrous or Shear Sensitive Solids

When handling certain bulky, fibrous solids, clogging can occur. Standard end suction pumps have close clearances between the impeller and casing to maintain efficiency and performance. High velocities in the casing will cause increased wear, and can degrade or shear pumpage.

Trouble-Free Operation At Low Flows

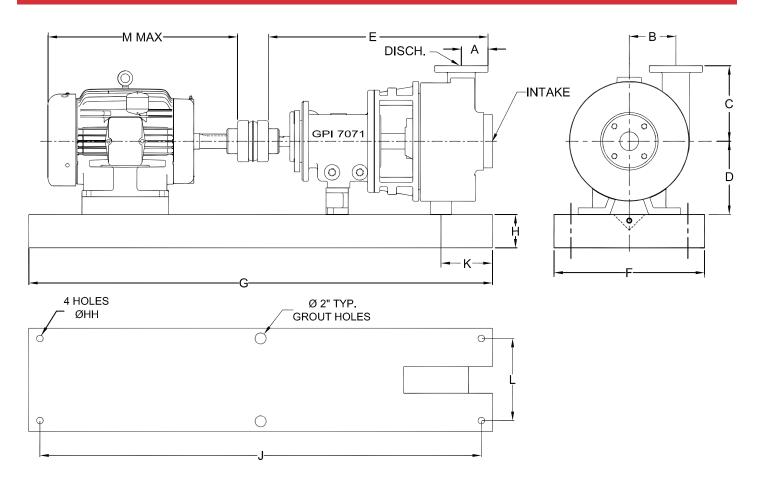
Recessed impeller pumps are reliable when operating at low flows. Gusher's Vortex Non-Clog Pumps use a concentric casing reducing radial loads up to 85%. Bearing, seal and overall pump life are optimized.

Non-Clog Pumping With Minimum Solids Degradation

With the induced flow of Non-Clog Vortex impeller being recessed from the casing, velocities are low. Contact by solids with the impeller is reduced. Wear rate, solids degradation and shearing of liquid are greatly minimized. The Vortex Non-Clog casing design is able to handle solids in liquid suspension. Any substance that can exit the discharge will pass through the pump without clogging.

Vortex Horizontal

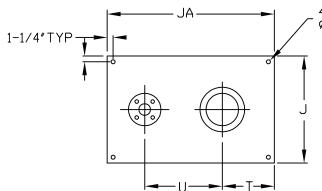




MODEL	INTAKE	DISCHARGE	SHAFT DIA.	Α	В	С	D	E	SUCTION FLANGE
PV2X2-8	2	2	7/8"	2 3/4"	4 3/8"	6 1/2"	6"	17 1/2"	4 Holes 5/8-11 Tap
PV2X2-10	2	2	1 1/8"	3 1/2"	5 1/4"	8 1/2"	8 1/4"	23 1/2"	4 Holes 5/8-11 Tap
PV3X3-10	3	3	1 1/8"	4 1/4"	5 1/4"	9"	8 1/4"	23 1/2"	4 Holes 5/8-11 Tap
PV2X3-13	3	2	1 1/8"	4 1/8"	6 3/4"	10 1/2"	10"	23 1/2"	4 Holes 5/8-11 Tap
PV3X4-13	4	3	1 1/8"	4 1/8"	6 3/4"	10 1/2"	10"	23 1/2"	8 Holes 5/8-11 Tap
PV4X6-13	6	4	2 3/8"	4 3/4"	6 3/4"	11 1/2"	10"	33 7/8"	8 Holes 3/4-10 Tap
PV6X8-15	8	6	2 3/8"	5 1/2"	7 7/8"	14"	14 1/2"	33 7/8"	8 Holes 3/4-10 Tap
NEMA Frm.	BASE	М	F	G	Н	J	K	L	HH
56-145	18	13 1/2	10	35	3	32 1/2	4 1/2	8	3/4
182-215	2S	19 1/2	12	39	3 1/4	36 1/2	4 1/2	9	3/4
254-286	3S	27	15	46	4 1/8	43 1/2	4 1/2	12	3/4
143-215	1M	19 1/2	12	45	3 3/4	42 1/2	4 1/2	9	3/4
254-286	2M	27	15	52	4 1/8	49 1/2	4 1/2	12	1
324-326	3M	30	18	58	4 3/4	55 1/2	4 1/2	15	1
364-365	3M	34	18	58	5 3/4 ¹ -4 3/4 ²	55 1/2	4 1/2	15	1
404-405	4M	35 1/2	18	60	6 3/4 ¹ -5 ²	57 1/2	4 1/2	15	1
440	4M	46 1/2	18	60	7 3/4 ¹ -6 ²	57 1/2	4 1/2	15	1
213-256	1L	24	22	62	4	59 1/2	6 1/2	19	1
284-365	2L	34	22	68	4 3/4	65 1/2	6 1/2	19	1
404-445	3L	46 1/2	22	80	4 3/4	77 1/2	6 1/2	19	1
447	4L	46 1/2	26	74	4	71 1/2	6 1/2	19	1

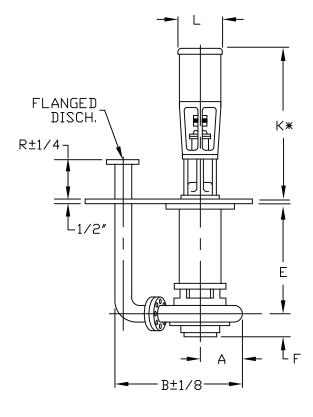
7550 52HD





4 THRU HOLES ø7/8 DRILL

NEMA	K	L	NEMA	K	L
56UC			143/145TC	30	7.38
182/184UC	32	9.5	182/184TC	31.88	9.5
213/215UC	36	11.5	213/215TC	35.75	10.88
254/256UC	42.13	13.25	254/256TC	41.75	12.56
284/286UC	44.94	15.31	284/286TC	44.06	13.75
324/326UC	47.44	16.5	324/326TC	46.81	15.75
364/365UC	49.94	18.25	364/365TC	49.31	18



3/16" X 5/32"

MIN. SKEYWAY

1 3/8" DIA.

16 1/2"

MAX LIQUID LEVEL

FLANGED INTAKE

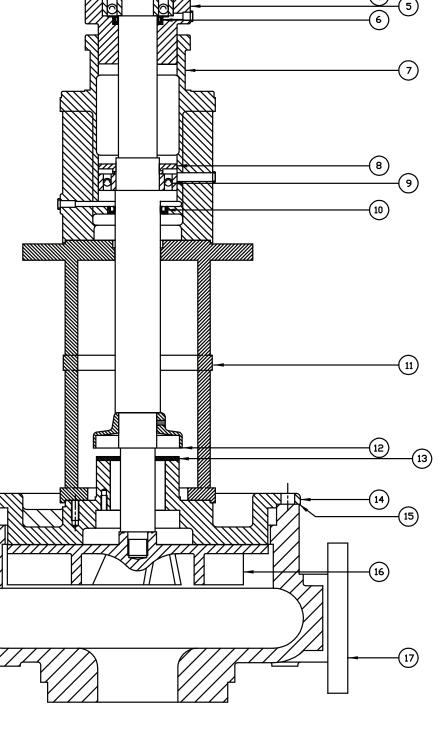
*VARIES WITH MOTOR MANUFACTURER

Model	Discharge	Intake	A	В	D	E	F	J	JA	R	T	U
V2x2-8	2	2	7	20.90	8.5	18.40	2.75	18	24	6	8.5	12.75
V2x2-10	2	2	9.75	26	13	18.10	3.5	24	36	6	10.5	15
V3x3-10	3	3	9.63	28.43	15	18.80	4.25	24	36	6	10.5	17.06
V2x3-13	2	3	8.25	26.81	15	18.80	4.13	24	36	6	10.5	17.38
V3x4-13	3	4	9	29.75	15	18.75	4.13	24	36	6	10.5	19
V4x6-13	4	6	9.5	33.38	15	19.70	4.75	24	36	6	10.5	21.63

Power Frame Cross Section

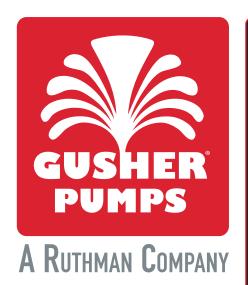


1	SHAFT	100098-V
2	BEARING RETAINER	14003
3	LOCKNUT	68100
4	THRUST BEARING	41308-DR
5	CARTRIDGE	51019
6	OIL SEAL	83000
7	BEARING HOUSING	51231
8	BRG/GREASE RETAINER	14079
9	RADIAL BEARING	41211
10	OIL SEAL	83006
11	STEM	17005-13
12	SLINGER	58002
13	BUSHING	71508
14	STEM PLATE	21173-H-8
15	GASKET	61116
16	IMPELLER	25803
17	VOLUTE	27804



Notes





www.Gusher.com

Ruthman Companies: A family-owned business supplying pumps for over 100 years



Ruthman Companies was co-founded in 1912 by brothers Alois and Edward Ruthman as the "Ruthman Machinery Company." Based in Cincinnati, the company serviced the steamboats that traveled the Ohio River.

In 1924, Alois conceived the first sealless centrifugal pump, coining the term 'coolant pump.' The brothers named this

new pump "Gusher," giving birth to what is now Ruthman Companies' flagship brand, Gusher Pumps.

Alois' son Thomas R. Ruthman joined the family business in 1949, growing the business globally through organic growth and the acquisition of complementary technologies. In the early 1990's, Alois' grandson, Thomas G. Ruthman, became the third generation of Ruthmans in the pump business. Over the years, Ruthman Companies has expanded its product line from the original centrifugal coolant pumps to include valves, vertical turbine pumps, positive displacement pumps, gear pumps, and other specialized pump equipment, while upholding its reputation as a leader in the custom engineering of pumps for the most challenging applications.

GUSHER PUMPS LOCATIONS

Williamstown Headquarters

115 Industrial Road Williamstown, KY 41097 Phone: 859.824.5001 Fax: 859.824.3011

Email: Info@Gusher.com

Dry Ridge Manufacturing

22 Ruthman Drive Dry Ridge, KY 41035 Phone: 859.824.5001 Fax: 859.824.3011 Email: Info@Gusher.com

Dry Ridge Training Facility

3565 Dixie Highway Dry Ridge, KY 41035 Phone: 859.824.5001 Email: Info@Gusher.com

New Castle Sales & Service

403 North Ninth Street New Castle, IN 47362 Phone: 765.529.5624 Fax: 765.521.0008

Email: GusherNC@Gusher.com

Gusher Pumps, Shanghai

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www.BSMPump.com

Fulflo Hydraulic Valves

459 East Fancy Street Blanchester, OH 45107 Phone: 937.783.2411 Fax: 937.783.4983 Email: Info@Fulflo.com

www.Fulflo.com Nagle Pumps

1249 Center Avenue Chicago Heights, IL 60411 Phone: 708.754.2940 Fax: 708.754.2944 www.NaglePumps.com

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Email: Sales@PSI4Pumps.com

www.PSI4Pumps.com

Process Systems Inc., Midwest Service

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