

Series P

Penguin Vertical Pump

Features:

- Choice of CPVC, PVDF, or Polypropylene
- Sealless
- Runs Dry Without Damage
- Self-Priming When Immersed
- No Metal Contact
- Chemical Resistant
- Extended Pump Lengths Available
(See Bulletin 216)

Recommended Applications:

- Sump Pumping / Draining
- Transfer Pumping
- Recirculation Pumping
- Plating
- Wet Fume Scrubbing
- Waste Treatment
- Wet Processing
- Etching
- Filtering



Flows from 9 to 175 GPM
Pressure to 166 Ft. TDH

Model P-7 1/2AK

Penguin vertical immersible pumps are compact, portable, and self-priming when immersed. Simple in design and efficient in performance, this pump has only one moving part. Constructed completely of CPVC, polypropylene, or PVDF where in contact with the solution, this pump is suitable for pumping, agitating, filtering, or circulating acid and alkaline solutions (pH 0-14), abrasive fluids, and other corrosive solutions. Maximum temperature ratings are as follows: CPVC-180°F, polypropylene-150°F, and PVDF-260°F. Because PVDF is ultra pure, it is recommended for use in high purity deionized water, HF, and liquids that must remain contamination free. The Penguin vertical pump has a rigid, solid stainless steel, one-piece rotor drive shaft covered with a two-piece sleeve and impeller. Titanium shafts are available as an option. Because of the unique double impeller design, this pump has no seals, no pump bearings, no bushings, no wearing parts, and thus requires little maintenance.

As a standard feature on our P-1/4 HP model and up, the Penguin vertical pump comes equipped with a plugged air purge in the bottom (shaft end) endbell of the motor. If utilized, this air purge requires a minimum of 5 psi to create a positive displacement, extending the life of the lower motor bearing.

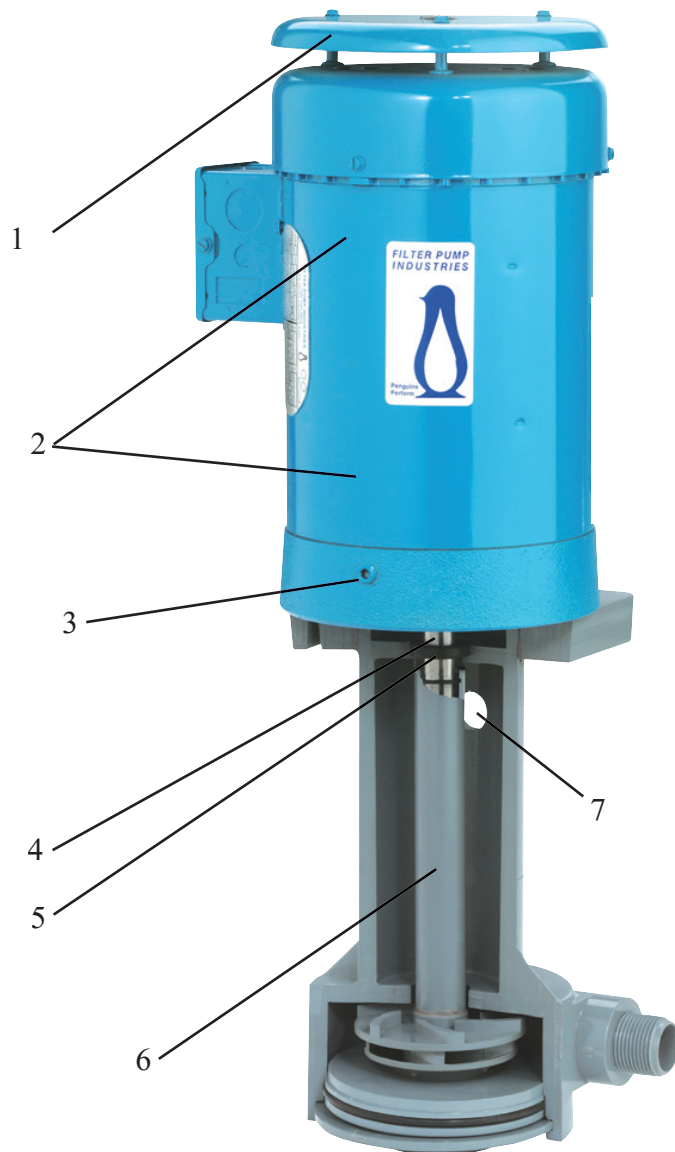
The Penguin vertical pump is equipped with a totally enclosed fan cooled (TEFC) motor. Most motor housings come standard with epoxy coating for additional corrosion resistance and oversized shaft end bearings for longer life and easy replacement. Single phase motors are wired 115V and equipped with a 6 foot cord and grounded plug unless otherwise specified. All three phase motors are shipped unwired.

Penguin vertical pumps are versatile, easy to install, and require a minimal amount of tank space, thus saving valuable floor space. Most can be easily moved from tank to tank, with mounting either internally or externally on the tank flange.

Series P

Penguin Design Features On Most Models

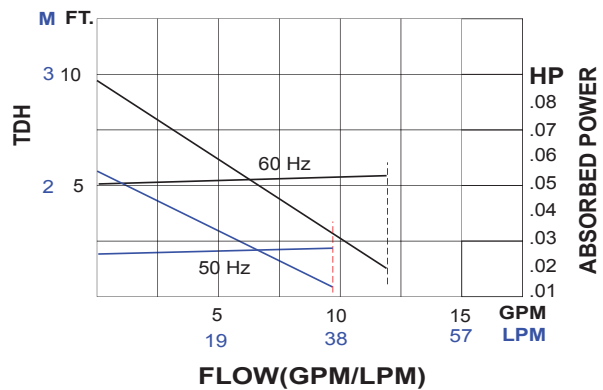
Penguin Vertical Pump



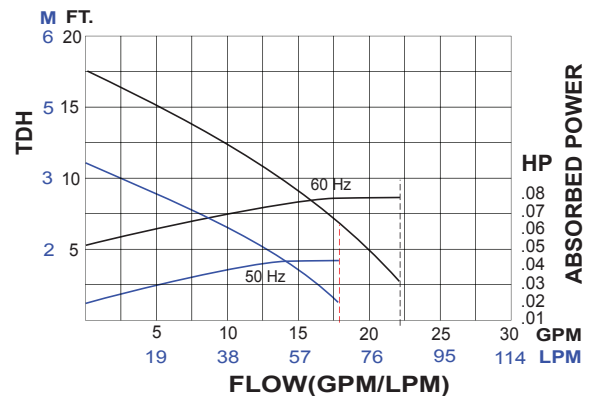
1. Motor fan cover with drip shield.
2. Standard TEFC Epoxy coated motor.
3. Air purge plug.
4. One-piece stainless steel rotor shaft assembly.
Optional 316 SS or Titanimm shaft available on most models.
5. Viton vapor seal/fume barrier assembly.
6. Sleeved O-ring sealed compound impeller for non metallic solution contact.
7. Overflow.

Performance Charts

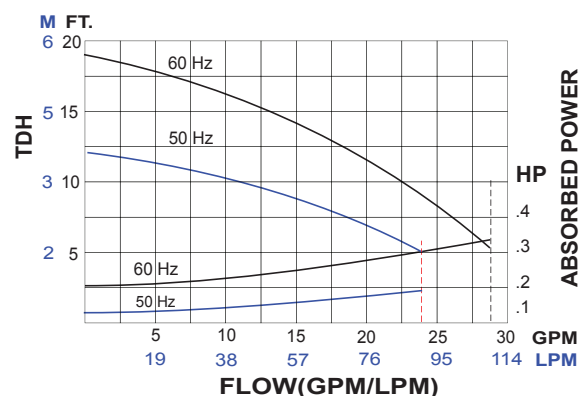
P-1/15



P-1/6



P-1/4

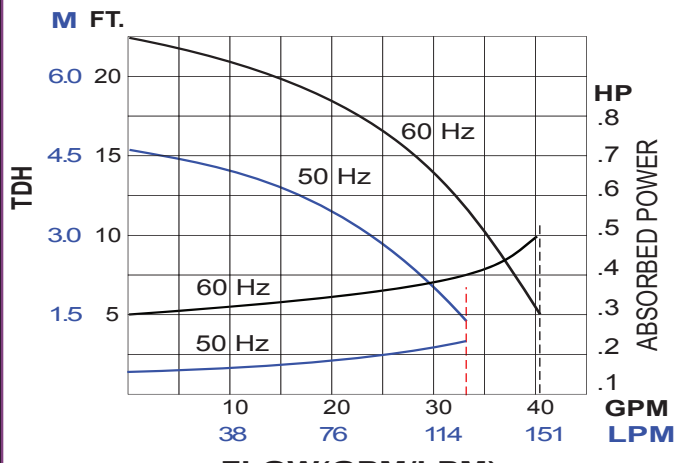


Series P

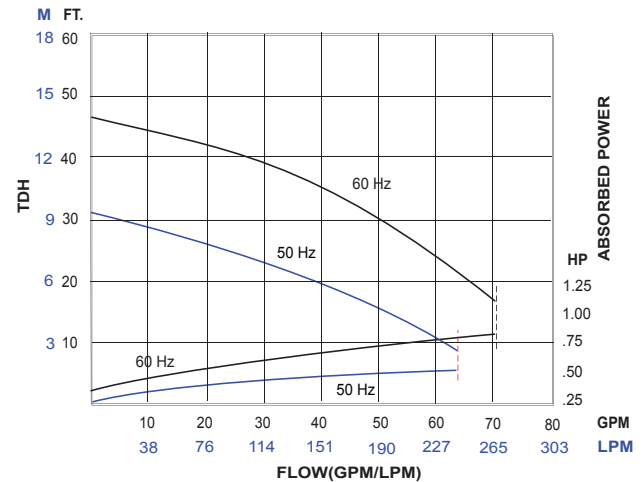
Penguin Vertical Pump

Performance Charts

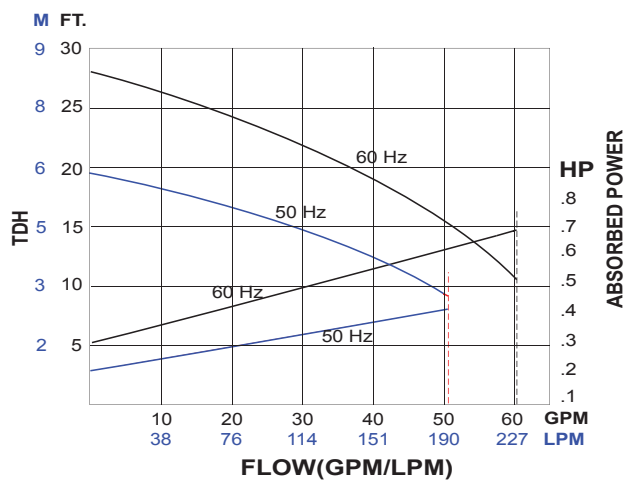
P-1/2



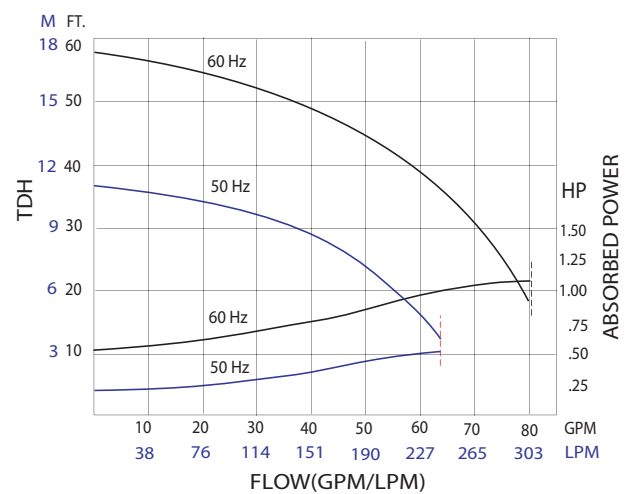
P-3/4-HP



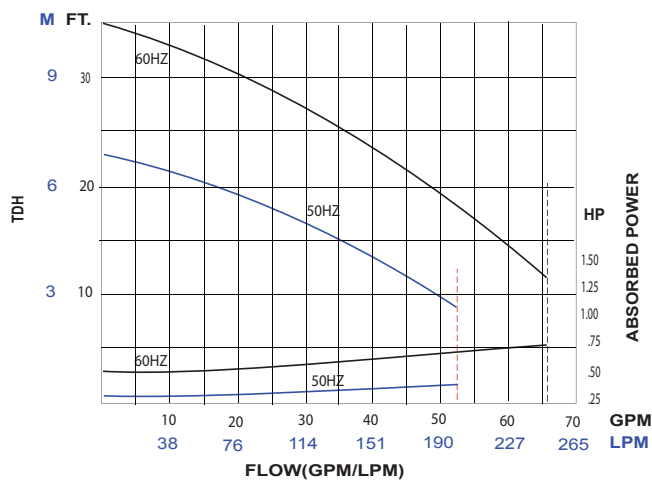
P-3/4



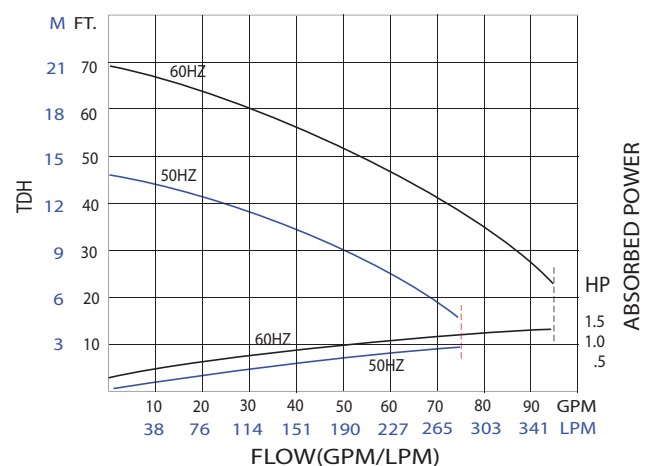
P-1



P-1/2-HP



P-1 1/2

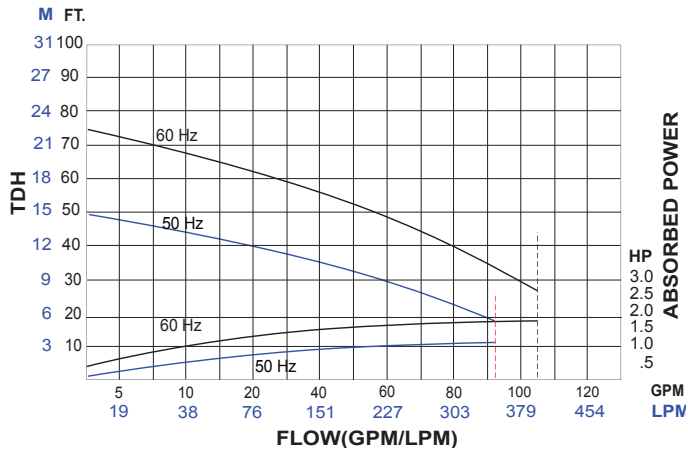


Series P

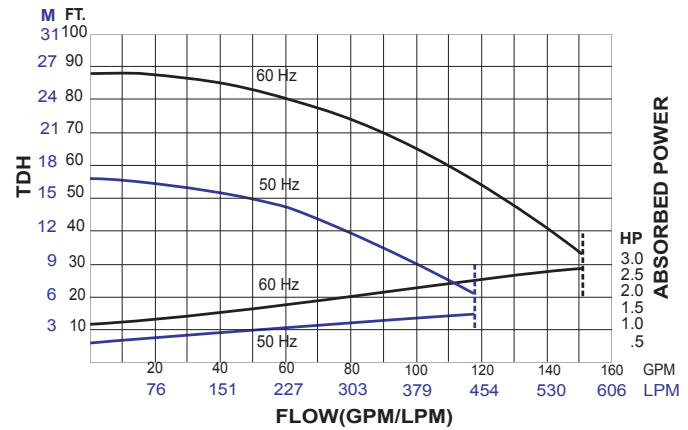
Penguin Vertical Pump

Performance Charts

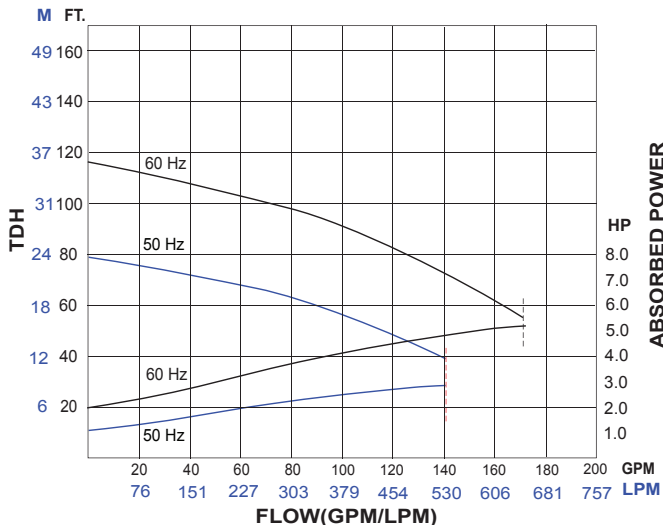
P-2



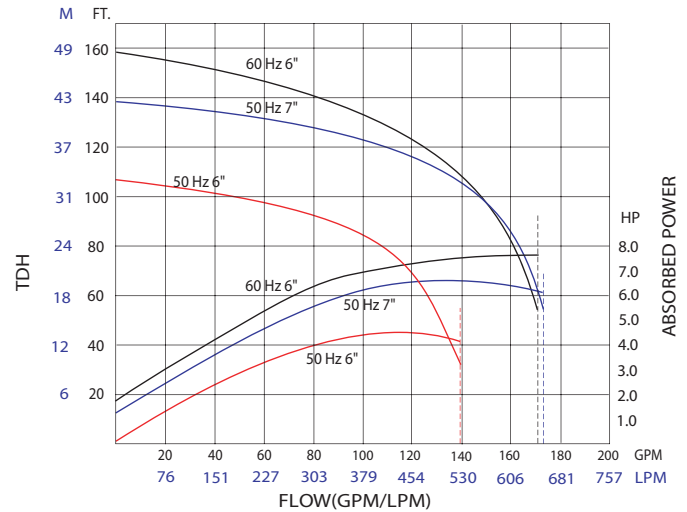
P-3



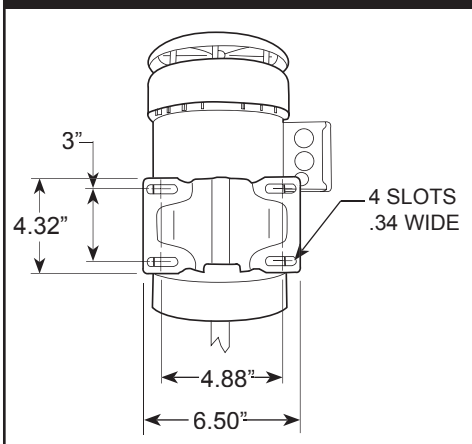
P-5



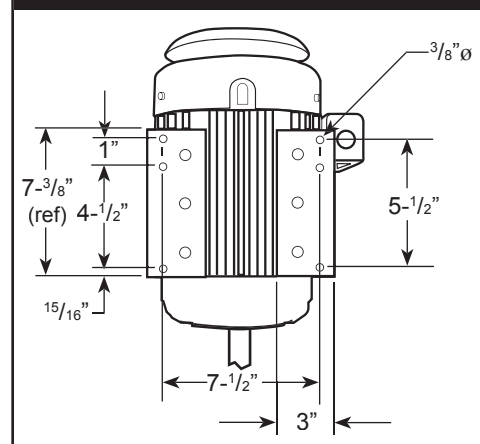
P-7 1/2



Mounting Diagram P1/2 - P2

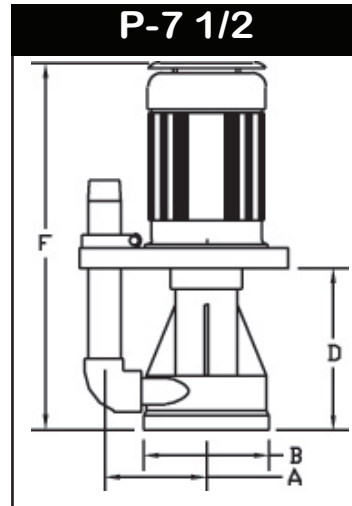
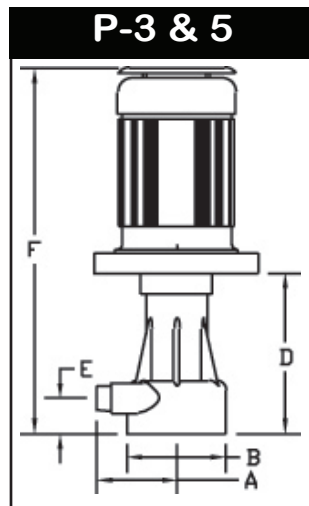
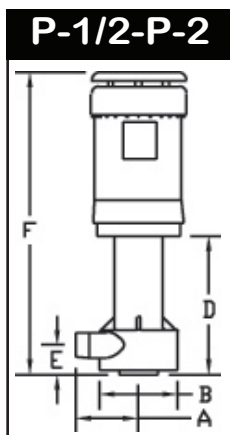
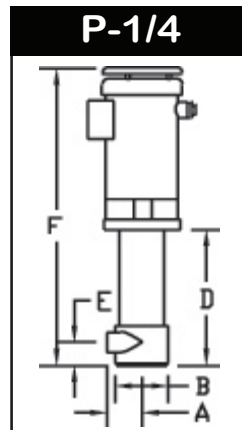
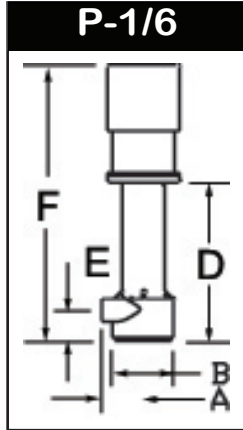
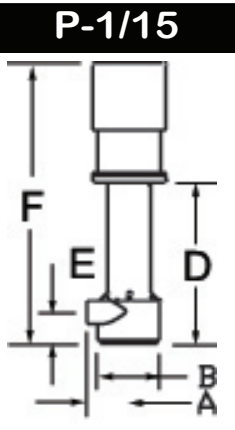
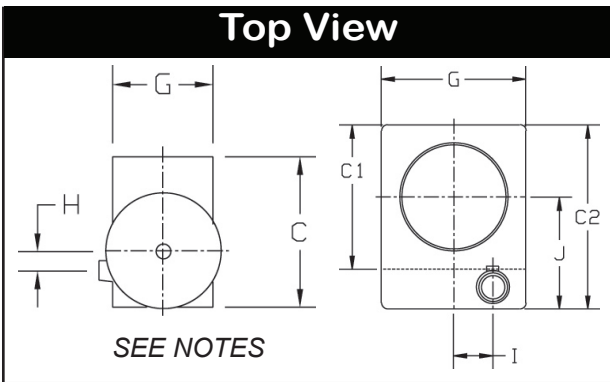


Mounting Diagram P3 - P7 1/2



Series P

Penguin Vertical Pump



Dimensions

Model	A	B	C	D	E	F	G	H	Suction	Discharge
P-1/15	2 1/2	2 1/2	5 3/4	9 3/8	2 3/8	14 3/8	3 3/4	5/8	3/4 MPT	1/2 FPT
P-1/6	2 1/4	3 1/4	6 1/2	8 7/8	1 1/2		4	1	1 FPT	3/4 FPT
P-1/4		3 1/2	8	9 3/8		19 5/8	5	1 1/8		
P-1/2	3 3/4	3 3/4	9 1/4	10 3/4	1 3/4	23 1/4	6 1/2	1 1/4		
P-1/2HP	4 1/2	5 1/2		10 3/8	2	22 5/8	6	1 5/8	1 1/2 FPT	1 MPT
P-3/4	3 3/4	3 3/4		10 3/4	1 3/4	23 1/4	6 1/2	1 1/4	1 1/4 FPT	
P-3/4HP	4 1/2	5 1/2		10 3/8	2	22 5/8	6	1 5/8	1 1/2 FPT	
P-1									1 1/2 FPT	
P-1 1/2										
P-2						23 3/4			2 FPT	1 1/2MPT
P-3*	6	7	12	12 1/2	3	28 1/4	12	2 1/8		
P-5*										
P-7 1/2	5 1/2	5	15 3/10	12	2 5/8	28 3/4		3 1/8		

Series P

Penguin Vertical Pump

Specifications

Model	Max Flow (gpm)	Max Head (ft)	Max Flow 50HZ (LPM)	Max Head 50HZ (M)	HP	RPM	Motor Volts	Hertz	Phase	Amps	Ht	Wth	Lth	Wt
P-1/15	12	9	10	6	1/15	3000/2450	115	60/50	1	2.0	10	10	18	9
					1/25	3300/2700	208-230			0.9-0.8				
P-1/6	22.5	18	19	12	1/6	3200	115	60/50	1	2.0	11	11	19	11
						2675	208-230			1.3-1.2				
P-1/4	33	18.5	27	13	1/3	3450	110/220	60/50	3	5.4/2.7	27	26	27	26
						2850	230/460			1.2/0.6				
P-1/2	40	23	33	16	1/2		115/230	60	1	7.8/3.9	45	47	45	47
							208-230/460	60/50	3	1.9-1.8/0.9				
P-1/2HP	66	35	55	24			115/230	60	1	7.8/3.9	45	47	45	47
							208-230/460	60/50	3	1.9-1.8/0.9				
P-3/4	64	27.5	53	19	3/4		115/230	60	1	9.8/4.9	47	48	47	48
							208-230/460	60/50	3	2.7-2.6/1.3				
P-3/4HP	70	46	58	31	3/4	3450 2850	115/230	60	1	9.8/4.9	47	48	47	48
							208-230/460	60/50	3	2.7-2.6/1.3				
P-1	74	52	61	36	1		115/230	60	1	11/5.5	50	52	50	52
							208-230/460	60/50	3	3.4-3.2/1.6				
P- 1 1/2	82	62	68	42	1 1/2		115/230	60	1	17.8/8.9	48	60	100	120
							208-230/460			4.9-4.6/2.3				
P-2	112	69	93	47	2					5.8-5.4/2.7	21	16	36	130
P-3	135	88	112	60						8.2-7.8/3.9				
P-5	172	122	142	83	5					12.2-11.6/5.8				
P-7 1/2	175	166	145	113						20.5-19.0/9.5				

Nomenclature

P	XX	X	-	XX	-	XX	-	XX	-	XX
Penguin Vertical Pump	Horsepower	Construction Material/O-Ring Elastomer Material		Impeller/Housing Configuration		② Shaft Configuration		Shaft Material		① Pump Bracket Config.
	1/15=1/15 1/6=1/6 1/4=1/3 1/2=1/2 3/4=3/4 1=1 1 1/2=1 1/2 2=2 3=3 5=5 7 1/2=7 1/2	A = CPVC/EPR B = Polypropylene/EPR C = PVDF/Viton		None = Standard HP = High Pressure		None = Threaded K = Keyway/Thrd Screw&Nut		None = 316SS T = Titanium		None=Bracket RB = Round Flange DP = Bracket Rigid Plumbed

- ① "RB" round flange applies to models P3, P5 & 7 1/2 only.
 "B" polypro and "C" PVDF models are only available with RB round flange configuration.
 "A" CPVC models are available with standard bracket.
 Optional "RB" includes round flange
 Optional "DP" includes bracket and rigid plumbed configurations.
- ② "K" Keyway impeller-P3, P5 & P7-1/2
 "K" Threaded screw/w nut impeller-1/2HP, 3/4HP, 1, 1-1/2, 2

A Division of Penguin Pumps Inc.
 7932 Ajay Drive Sun Valley, CA 91352 U.S.A.
 877-773-6484 • Office: 818-504-2391 • Fax: 818-768-7590
 e-mail: info@filterpump.com • website: www.filterpump.com
 Bulletin 201M 10/07

