



OPERATING INSTRUCTION MANUAL

P1/4A – C PUMP Station



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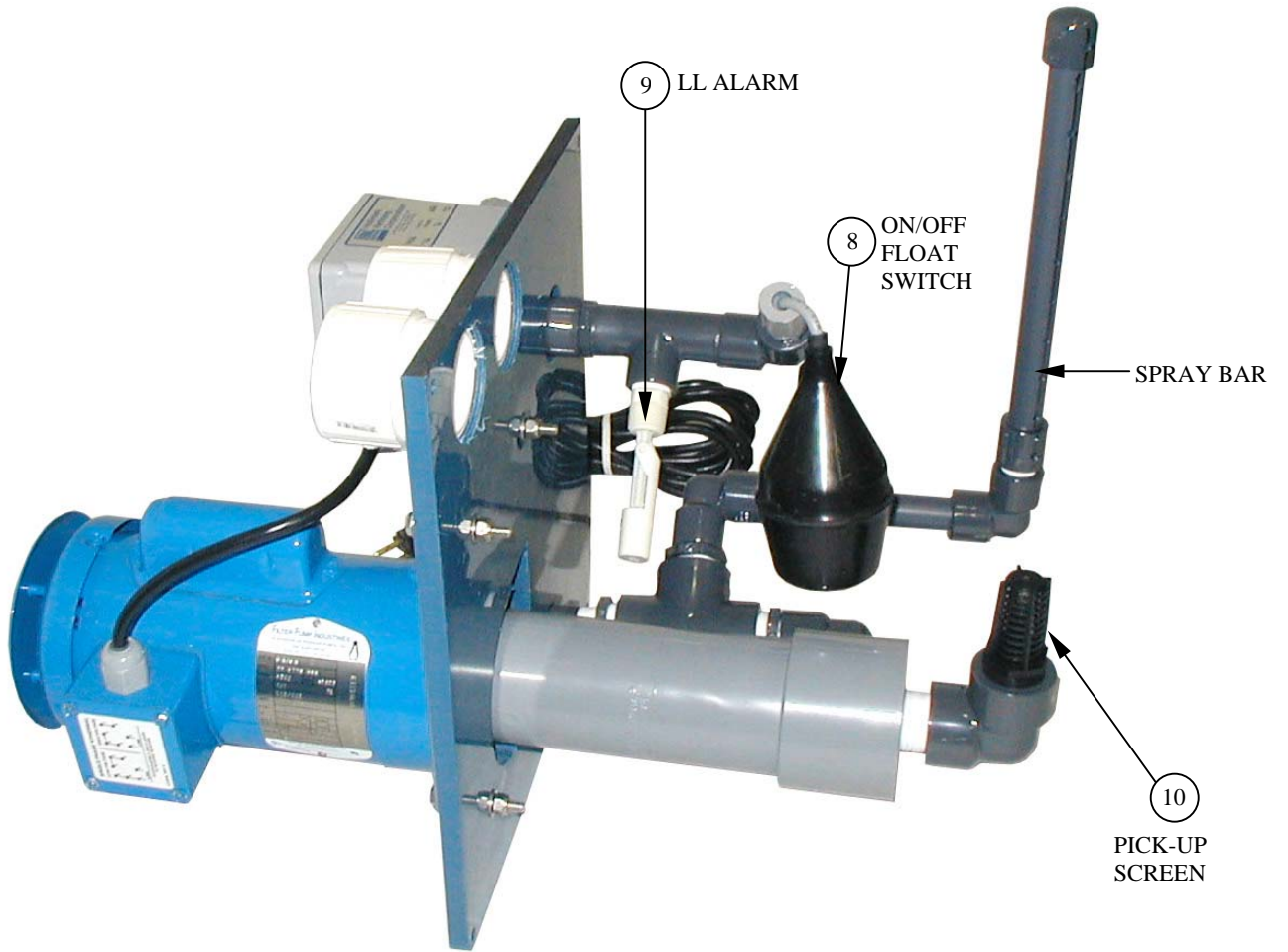
STATEMENT OF WARRANTY AND LIABILITY

All equipment manufactured by Hallmark Refining Corporation is guaranteed against defects in material and workmanship for a period of six months from the date of shipment from the factory. Any claimed defects must be reported, and the materials and/or equipment must be returned, freight prepaid, to HRC within the guarantee period. HRC's liability for defects in material and workmanship shall be limited to replacing or repairing (at its option) such defective materials or equipment at no cost to the original purchaser. Any damage or loss occurring during shipment is not covered by the terms of this warranty. Any shipping damage is the responsibility of the carrier(s) and should be reported to the carrier(s) immediately.

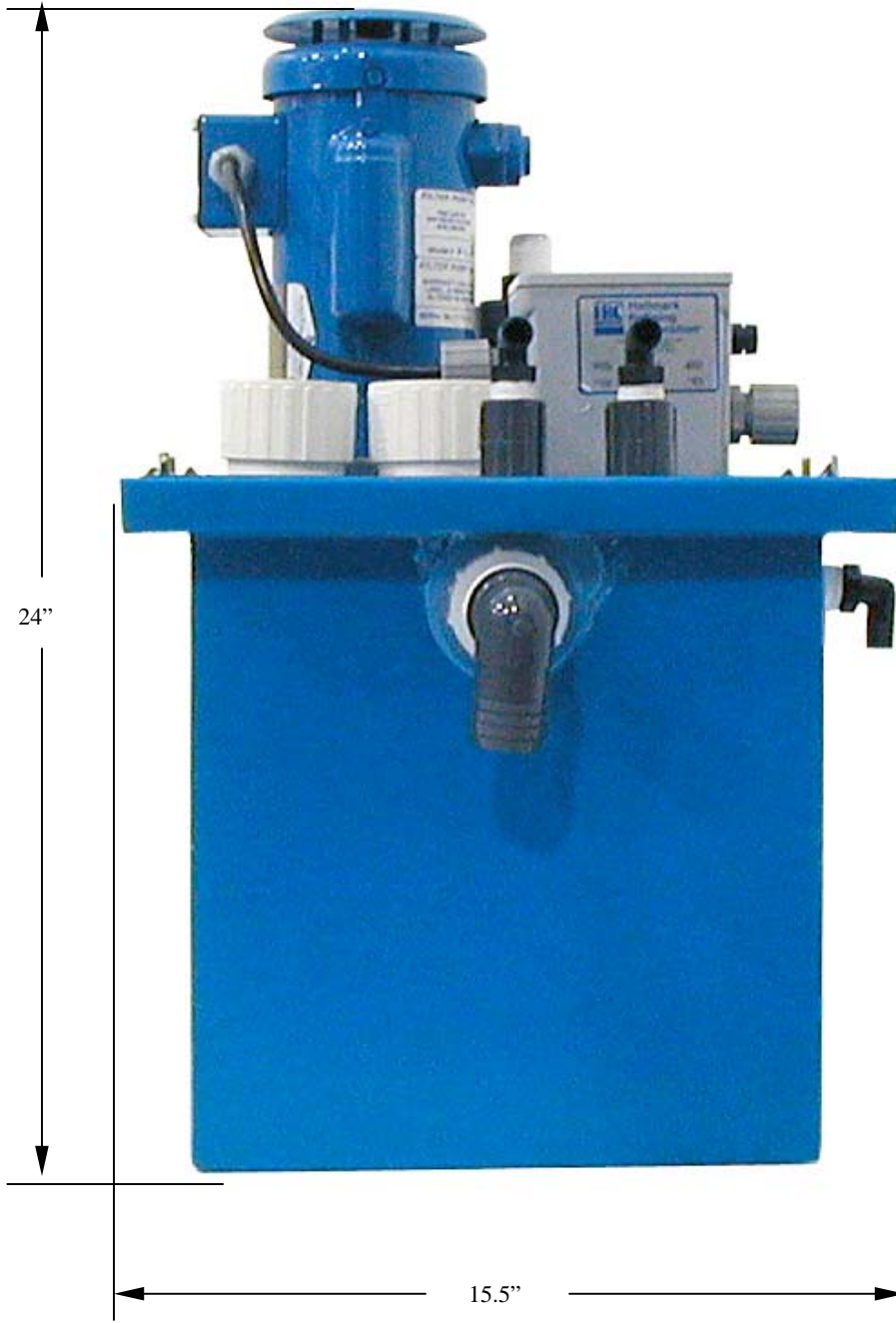
All material and/or equipment furnished by other suppliers are not warranted by HRC and are covered by the suppliers warranty only for defects in material and workmanship. Transportation, handling damage, normal wear and tear and other damage outside the control of HRC are not covered by this warranty. Under no circumstances will HRC be responsible for any of the following: damage, loss or liability of any nature arising out of the installation and/or use of the materials equipment and furnished.

There are no other warranties expressed or implied, except as stated above. This warranty becomes null and void if any devices or accessories other than those distributed or officially recommended by HRC are installed, attached or used in conjunction with this equipment.

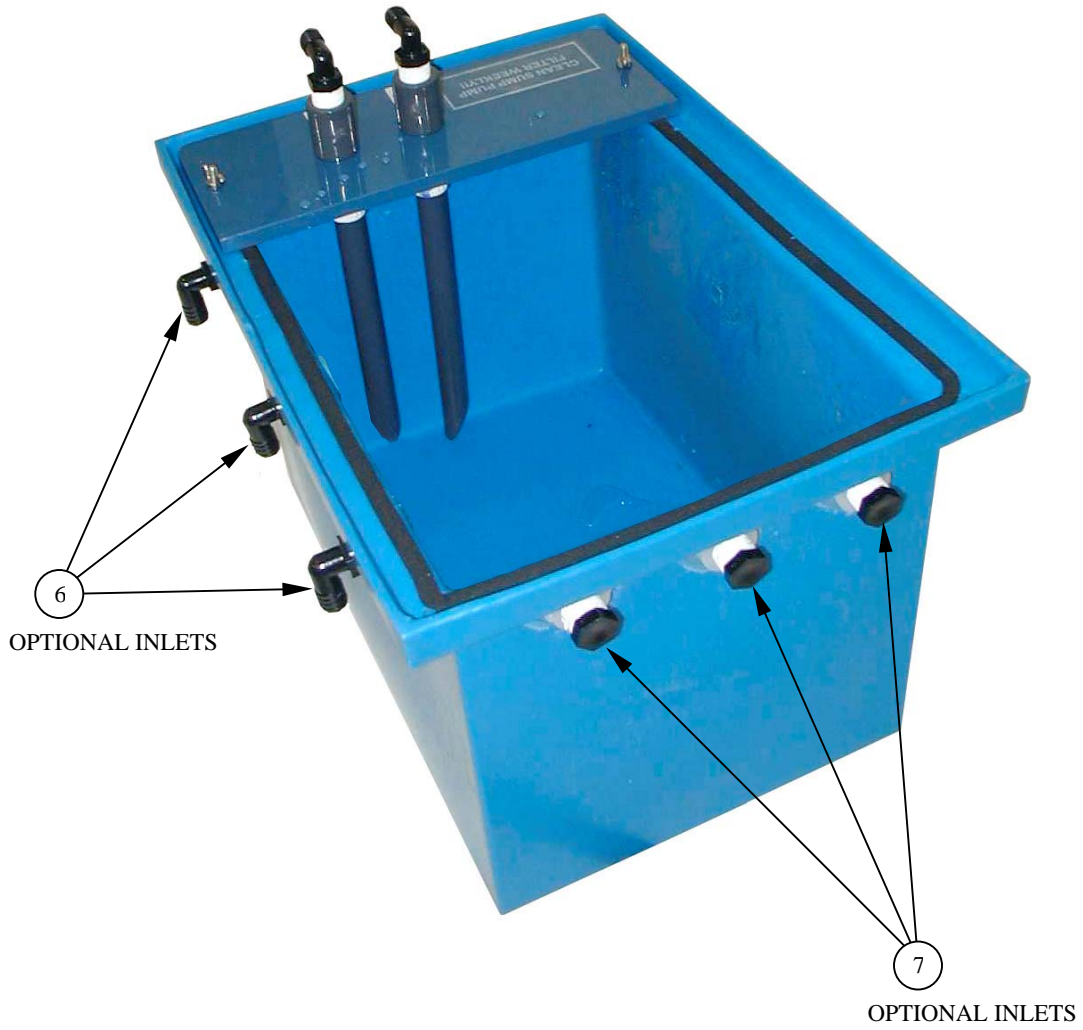
WET END ASSEMBLY



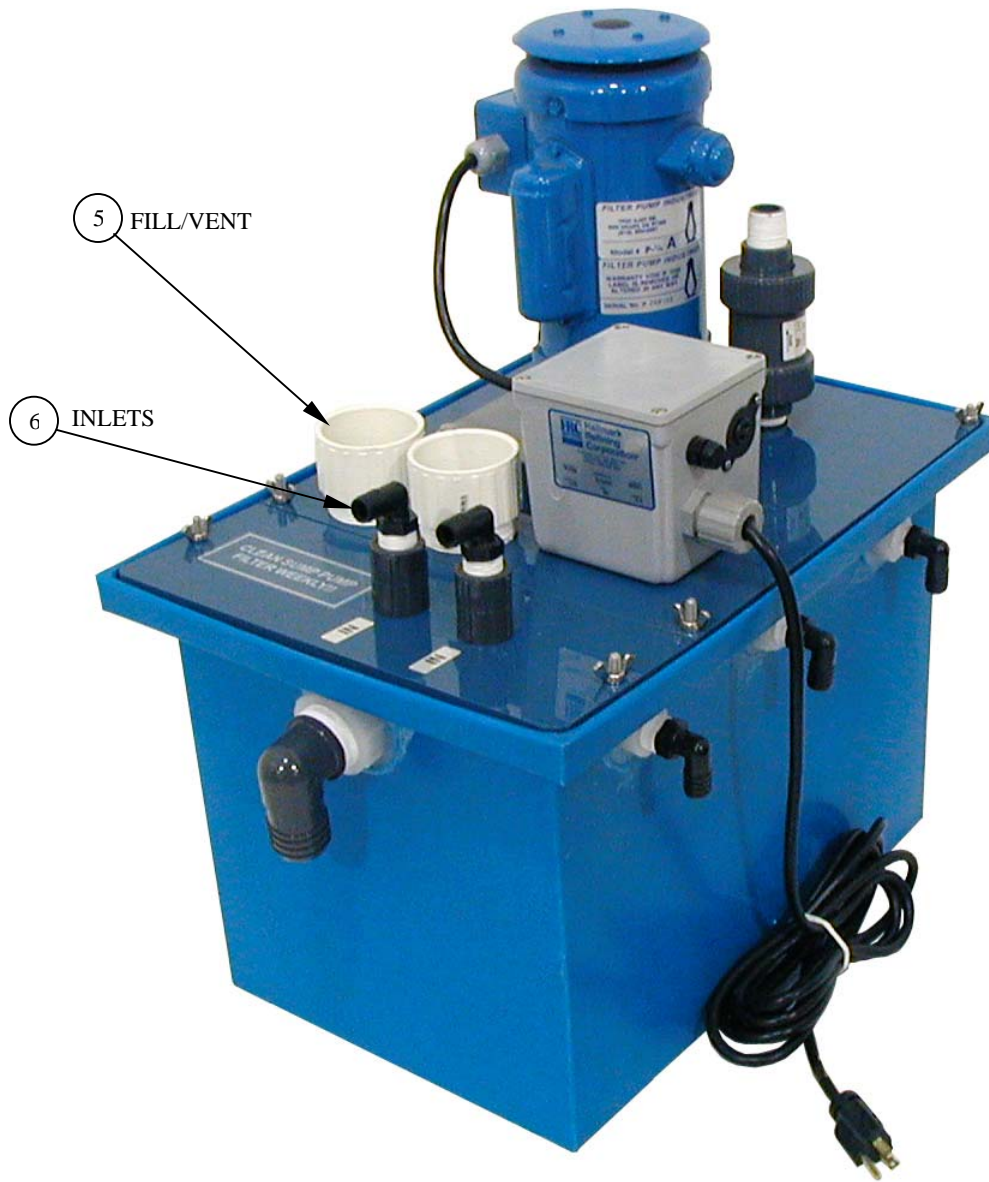
END VIEW



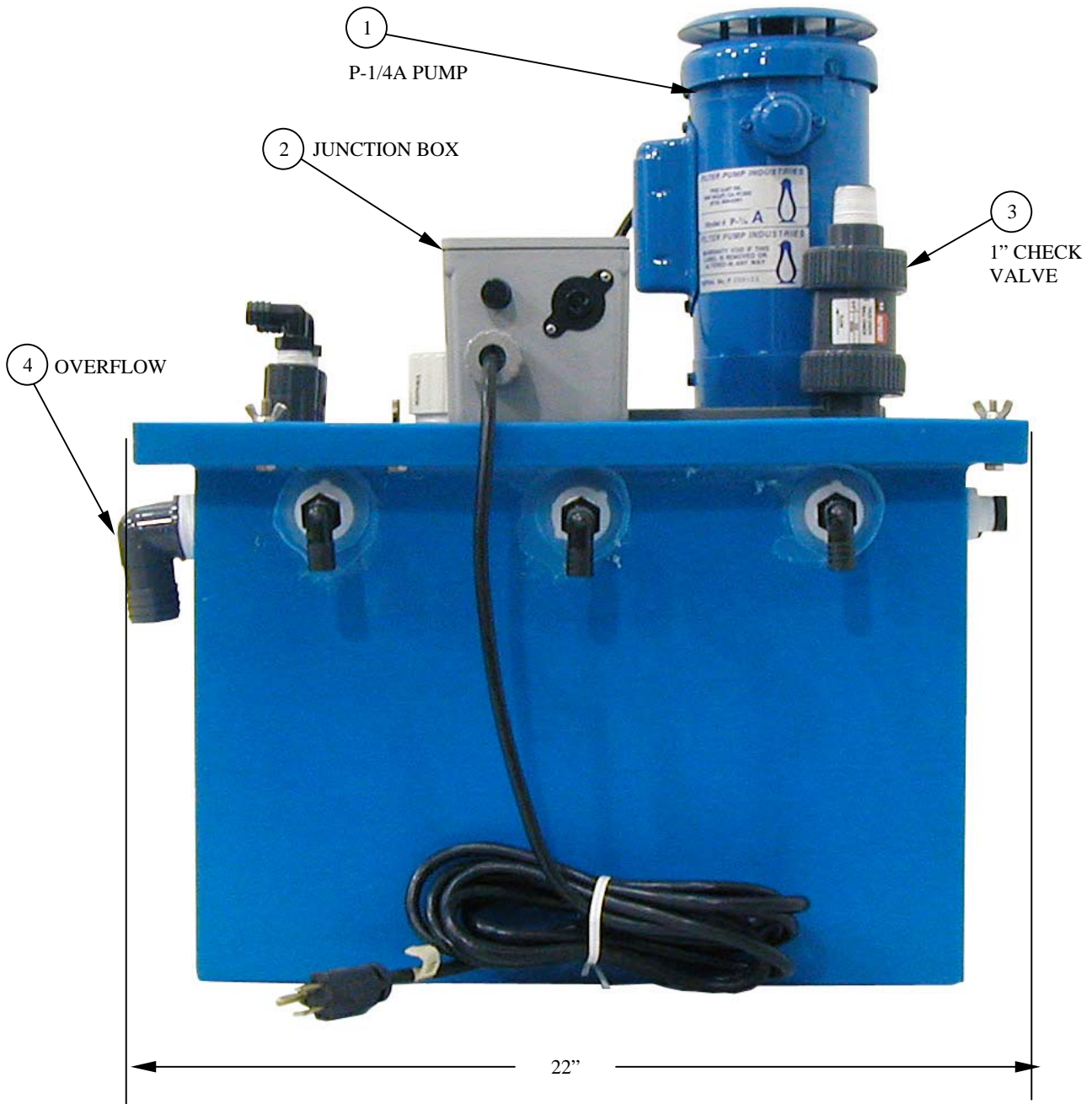
INLET OPTIONS



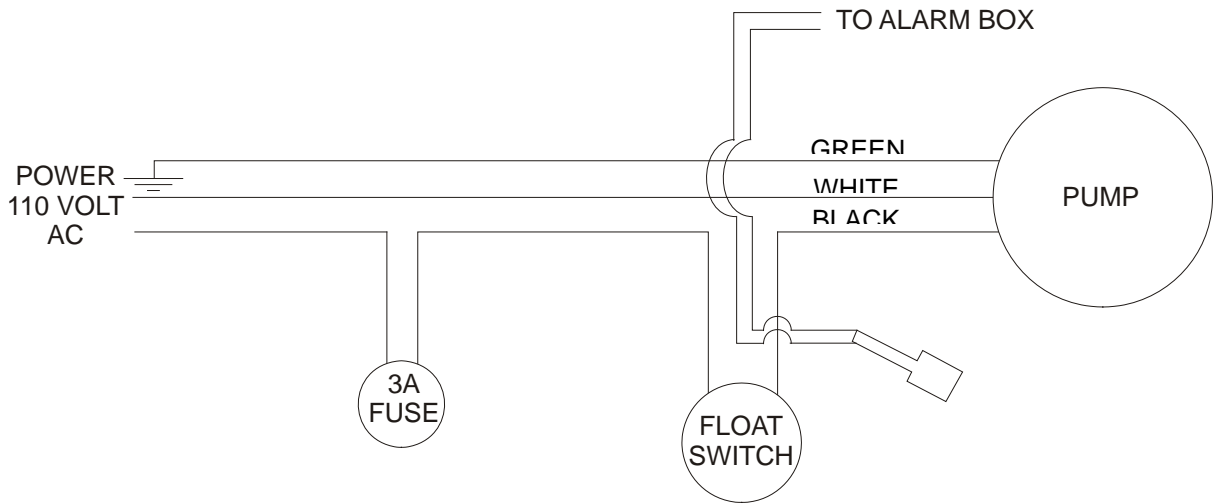
ISO VIEW



SIDE VIEW



P1/4 - C



P1/4A – C PARTS LIST

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>PART DESCRIPTION</u>	<u>QTY.</u>
1	700-002	Penguin P1/4 A Pump	1
2	600-444	Junction Box	1
3	502-007	¾" Check Valve	1
4	313-012	1 ¼" Elbow	1
5	436-020	2" Male Adapter	2
6	510-065	5/8" Elbow	5
7	526-315	½" Plug	6
8	526-315	Float Switch	1
9	524-004	Liquid Alarm Switch	1
10	520-010	1" Screen	1
11	600-002	Alarm Box	1
12	730-001	Alarm Buzzer	1
13	736-001	9V Battery	1
14	737-001	Battery Retainer	1

PUMP AND FILTERING SYSTEM*Series P*Installation & Maintenance

Models:

P-1/15
P-1/6
P-1/4
P-1/2
P-1/2-HP
P-3/4
P-3/4-HP
P-1
P-1 1/2
P-2
P-3
P-5
P-7 1/2

Materials:

A - CPVC
B - Polypropylene
C - PVDF

Introduction

Penguin pumps are designed to handle a large range of chemicals without difficulty. Completely constructed of CPVC, polypropylene or PVDF, where in contact with the solution being pumped, Series P pumps have an upper working temperature of 200/160/80 degrees respectively, and thus can handle most corrosives, slurries, and abrasive liquids. Series P pumps are easy to install and operate, and are virtually maintenance-free. All pumps have been tested for proper operation before leaving the factory. To obtain optimum service life, please follow all installation and operation instructions.



SPARE PARTS LIST

Item	Description	P-1 Part No.
1	Motor/Shaft Ass'y	
	Phase-Voltage-Cycle	
	1 115 50/60	
	1 230 50/60	
	1 110/220 50/60	P-140-0103
	1 115/230 60	
	w/ titanium shaft	
	1 115/230 50/60	
	w/ titanium shaft	
	3 230/460 50/60	P-140-3103
	w/ titanium shaft	
1BS	Bearing Set	P-140-01BS
1EF	External Fan w/Set Screw	P-140-01EF
1FC	Fan Cover (w/Drip Shield	P-140-01FC
	except P-1/15, P-1/6)	
2	Motor Screw/Bolts/	P-140-05 (4)
	Washer Ass'y	
3	Slinger	P-140-02
4A	Mounting Bracket - CPVC	
	(A-A/A-S)	
5	Mounting Bracket Screw	
6	Chamber Mounting Screw (A-A/A-S/A-AL)	P-140-06 (2)
7A	Pump Housing Ass'y - CPVC	P-140-07A
7AL	Mounting Bracket - CPVC	P-140-07AL
	(A-AL)	
7B	Pump Housing Ass'y - Polypro	P-140-07B
7C	Pump Housing Ass'y - PVDF	P-140-07C
8A	Impeller - CPVC	P-140-08A
8AT	w/ titanium insert	
8B	Impeller - Polypro	P-140-08B
8C	Impeller - PVDF	P-140-08C
8CT	w/ titanium insert	

Item	Description	P-1 Part No.
9E	Head O-Ring - EPR	P-140-09E
9V	Head O-Ring - Viton	P-140-09V
10A	Head - CPVC	P-140-10A
10B	Head - Polypro	P-140-10B
10C	Head - PVDF	P-140-10C
11V	Lip Seal Ass'y - Viton	P-140-12V
12A	Snap Ring - CPVC	P-140-11A
12B	Snap Ring - Polypro	P-140-11B
12C	Snap Ring - PVDF	P-140-11C
13V	Impeller Nut O-Ring - Viton	
14A	Impeller Nut Ass'y - CPVC	
14AT	w/ titanium insert	
14C	Impeller Nut Ass'y - PVDF	
14CT	w/ titanium insert	
15T	Shaft Key - Titanium	
16A	Snap Ring Screw - CPVC	
16B	Snap Ring Screw - Polypro	
16C	Snap Ring Screw - PVDF	
17A	Pump Head Ass'y - CPVC	P-140-13A
17AT	w/ titanium	
17B	Pump Head Ass'y - Polypro	P-140-13B
17BT	w/ titanium	
17C	Pump Head Ass'y - PVDF	P-140-13C
17CT	w/ titanium	

* Includes viton O-ring

SPARE PARTS LIST

