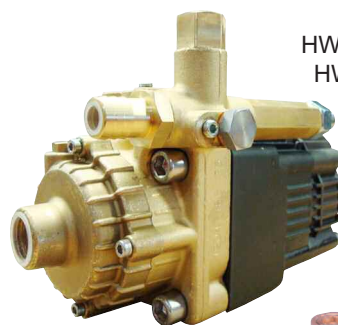


GENERAL PUMP A member of the Interpump Group

HWB Series

Hydraulic Drive - Triplex Plunger Pump

HWB2512 &
HWB2112



HWB1812 &
HWB1512



FEATURES

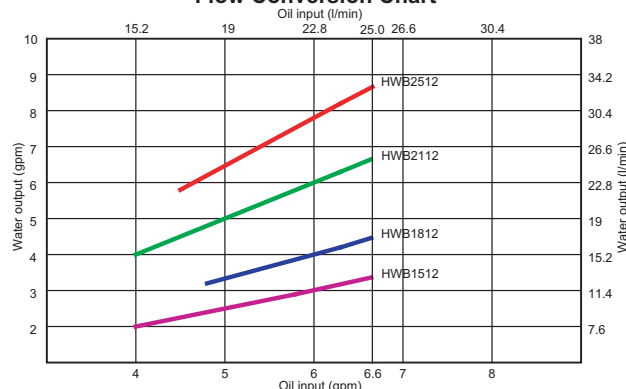
- Innovative drive design eliminates need for auxiliary hydraulic drive
- Forged brass manifold
- No scheduled maintenance required
- Longer life low and high pressure seals
- Pressure trapping unloader included

SPECIFICATIONS

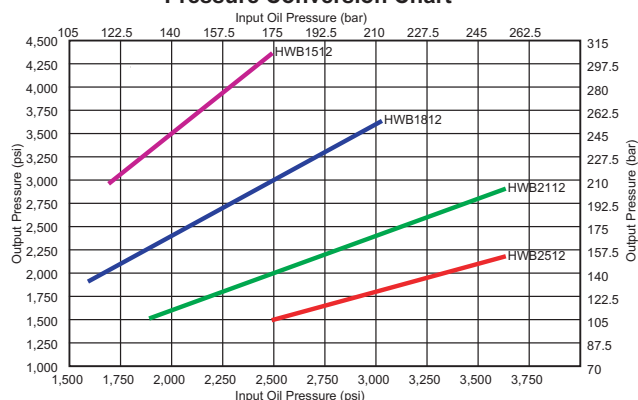
Pump Model	HWB2512	HWB2112	HWB1812	HWB1512
Maximum Volume	8.6 GPM	6.6 GPM	4.4 GPM	3.3 GPM
Maximum Discharge Pressure	2175 PSI	2900 PSI	3625 PSI	4350 PSI
Maximum Fluid Temperature	145° F			
Minimum Inlet Pressure	-9 ft.			
Maximum Inlet Pressure	150 PSI			
Inlet Port Thread	3/4" NPT-F			
Discharge Port Thread	3/8" NPT-F			
Flow Factor	1.3	1.0	0.67	0.5
Pressure Factor	0.6	0.8	1.2	1.75
Max. Hydraulic Pressure	3625	3625	3020	2485
Max. Oil Supply Volume	6.6 GPM			
Minimum Oil Supply	3.2 GPM			
Max. Hyd. Return Pressure	145 PSI			
Max Oil Temperature	176° F			
Hydraulic Inlet Port Size	1/2" BSP-F			
Hydraulic Return Port Size	1/2" BSP-F			
Weight	19 lbs.			
Dimensions	11.2" x 4.7" x 7.0"			

PERFORMANCE

Flow Conversion Chart



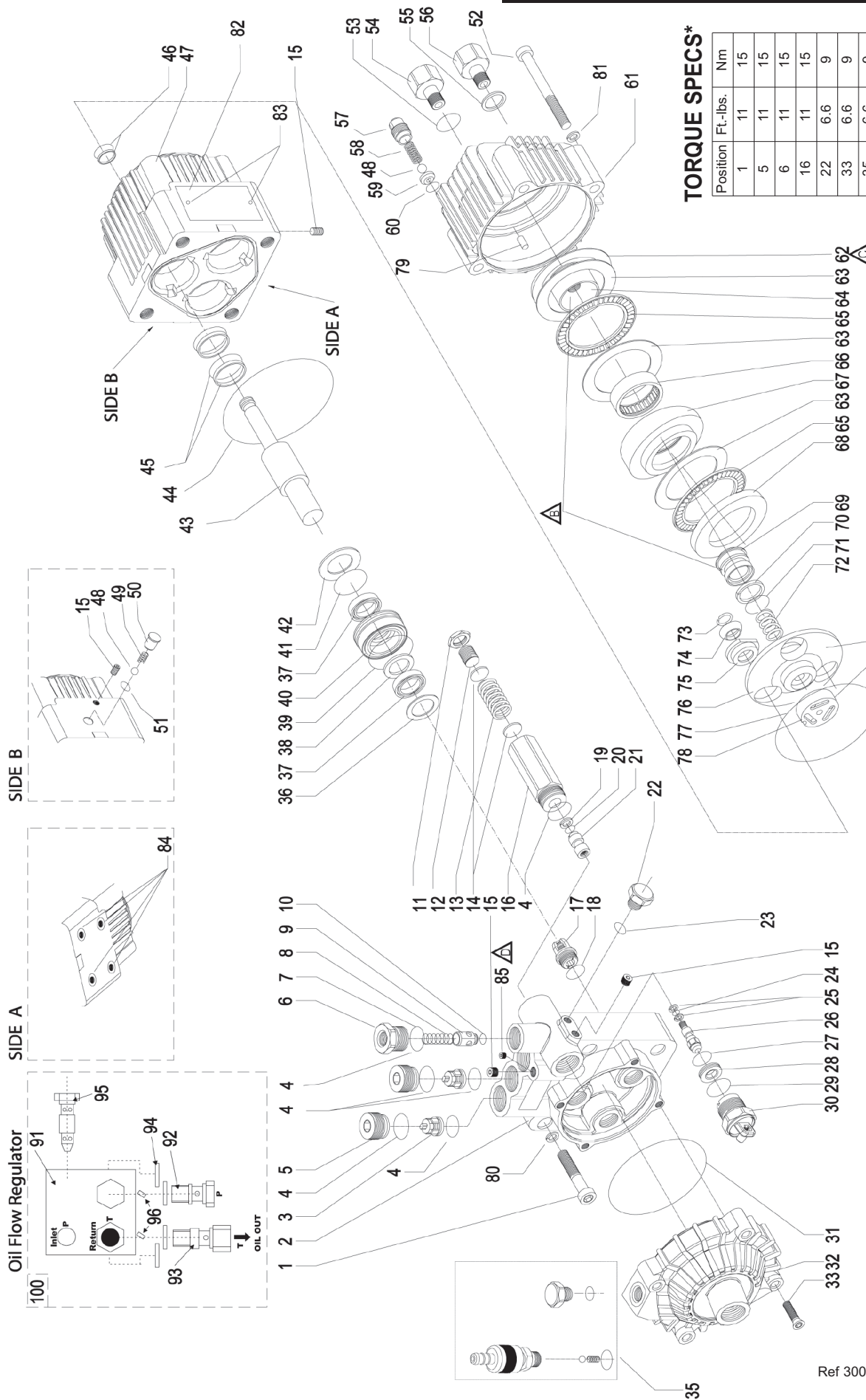
Pressure Conversion Chart



General Pump
is a member of
the Interpump Group

Ref 300351 Rev. E
08-12





TORQUE SPECS*

Position	Ft.-lbs.	Nm
1	11	15
5	11	15
6	11	15
16	11	15
22	6.6	9
33	6.6	9
35	6.6	9
52	7.7	10

*Decrease torque by 20% if threads are lubricated.

- A. Order kit P320. To guarantee proper performance, parts are factory mated and must be replaced as a set.
- B. Order kit P330. To guarantee proper performance, parts are factory mated and must be replaced as a set.
- C. Drive must be properly shimmed after disassembly. An authorized technician must perform shimming operation. Failure to shim drive correctly will result in premature wear and/or failure. Improper shimming will void warranty.
- D. Orifice (ref. 85) is only present in HWB1512 and HWB1812 models. No service required. Specify pump model when ordering replacement manifold (ref. 2).

PARTS LIST

Item	Part #	Description	QTY.
1.	P03800210	Screw, 12x.55	4
2.	P03500090	Brass manifold	1
3.	P93700030	Outlet Valve, (HWB2115-1812-1512)	3
	P93700035	Outlet Valve (HWB2512)	
4.	P02100340	O-ring, 2050 - 70	7
5.	P03300180	Outlet Valve Plug	3
6.	P02000170	Outlet Nipple, 3/8" NPT-F	1
7.	P02100350	O-ring, 15.6x1.78 - 70	1
8.	P01900100	Check Valve Spring	1
9.	P03700060	Hexagonal Check Valve	1
10.	P02100070	O-ring, 6x3 - 90	1
11.	P04100020	Hexagonal Nut, M16x2	1
12.	P03800140	Screw, M16x2	1
13.	P01900180	Bypass Regulation Spring	1
14.	P01100140	Spring Spacer, Ø14	2
15.	P03800150	Screw, 906 8x1x8 Conical	4
16.	P02000060	Brass Nipple	1
17.	P93700090	Inlet Valve	3
18.	P02100290	O-ring, 18x2 - 90	3
19.	P00200070	Anti-extrusion Ring for O-ring 7x2	1
20.	P02100460	O-ring, 7x2 - 70	1
21.	P02400140	Bypass Piston, Female	1
22.	P03300160	Pressure Gauge Plug, 1/4" BSP	1
23.	P02800160	Washer, 1/4"	1
24.	P02100470	O-ring, 2015 3.69x1.78 - 70	1
25.	P00200080	Anti-extrusion Ring for O-ring 2015	2
26.	P02400130	Bypass Piston, Male, w/ Spherical Head	1
27.	P02100480	O-ring, 2062 15.6x1.78 - 90	1
28.	P02200060	Bypass Shutter	1
29.	P02100490	O-ring, 19x2 - 90	1
30.	P92200050	Hosebarb (HWB2512 & HWB2112)	1
	100860	Seat with 145°F Thermal Relief Valve (HWB1812 & HWB1512)	1
31.	P02100500	O-ring, 3300 78.87x2.62 - 70	1
32.	P05700021	Brass Suction Water Cover Plate, 3/4" NPT-F	1
33.	P03800250	Screw, 5x.25	4
35.	P05200010	Chemical Suction Injector (ON REQUEST)	1
	P03300240	Plug, M12x1 (W/O-ring P02100050)	
36.	P00500130	Washer For High Pressure Seal Ø25 (HWB2512)	3
	P02800080	Washer For High Pressure Seal Ø21 (HWB2112)	
	P02800050	Washer For High Pressure Seal Ø18 (HWB1812)	
	P02800060	Washer For High Pressure Seal Ø15 (HWB1512)	
37.	P03400070	High Pressure Seal Ø25 (HWB2512)	6
	P03400060	High Pressure Seal Ø21 (HWB2112)	
	P03400050	High Pressure Seal Ø18 (HWB1812)	
	P03400130	High Pressure Seal Ø15 (HWB1512)	
38.	P00500120	Anti-extrusion Ring Ø32x25.1x2 (HWB2512)	3
	P00500110	Anti-extrusion Ring Ø28x21x2 (HWB2112)	
	P00500100	Anti-extrusion Ring Ø26x18.2 (HWB1812)	
	P00500090	Anti-extrusion Ring Ø25x15x2 (HWB1512)	
39.	P02100390	O-ring, 32x1.5 - 75	3
40.	P00600260	Brass Water Bushing, Ø25 (HWB2512)	3
	P00600270	Brass Water Bushing, Ø21 (HWB2112)	
	P00600200	Brass Water Bushing, Ø18 (HWB1812)	
	P00600210	Brass Water Bushing, Ø15 (HWB1512)	
41.	P02100520	O-ring, 2137 - 70	3
42.	P02800120	SS Washer, Ø38 / Ø 25.5 (HWB2512)	3
	P02800110	SS Washer, Ø38 / Ø 21.5 (HWB2112)	
	P02800090	SS Washer, Ø38 / Ø 18.5 (HWB1812)	
	P02800100	SS Washer, Ø38 / Ø 15.5 (HWB1512)	

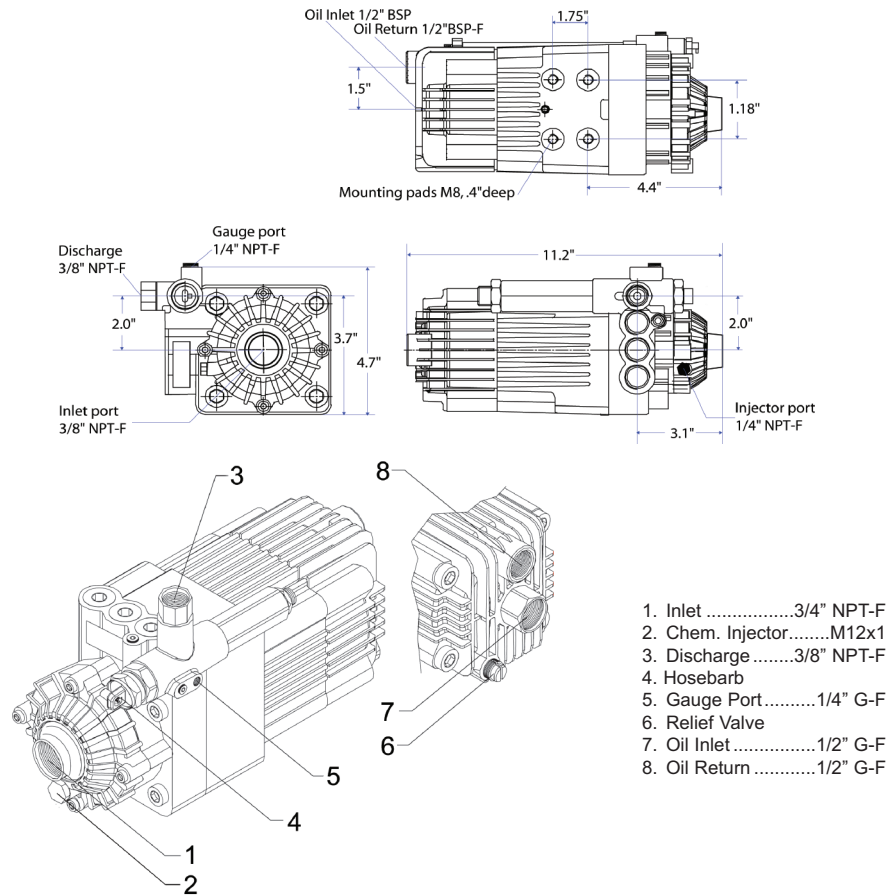
Item	Part #	Description	QTY.
43.	P92400160	Complete Piston, Ø25 (HWB2512)	3
	P92400170	Complete Piston, Ø21 (HWB2112)	
	P92400110	Complete Piston, Ø15 (HWB1812)	
	P92400120	Complete Piston, Ø15 (HWB1512)	
44.	P02100530	O-ring, 90x2 - 70	1
45.	P03600020	Turcon-Glyde, Ø25	6
46.	P03600010	Turcon-Glyde, Ø12	3
47.	P00900113	Aluminum Body	1
48.	P03000080	Ball, Ø7	2
49.	P01900120	Draining Valve Spring	1
50.	P03300140	Draining Valve Plug	1
51.	P02100600	O-ring, 5x3 - 90	1
52.	P03800130	Screw, 8x0.65	4
53.	P02100540	O-ring, 2068, 17.17x1.78 - 90	1
54.	P02000090	Oil Inlet Nipple, 1/2" BSP-F	1
55.	P03600050	Gasket, 1/2" BSP	1
56.	P02000150	Oil Outlet Nipple, 1/2" BSP-F	1
57.	P03300200	Vented Valve Plug	1
58.	P01900140	Vented Valve Spring	1
59.	P02900070	Vented Valve Seat	1
60.	P02100140	O-ring, 10x1.3 - 90	1
61.	P01000052	Aluminum Anodized Bottom	1
62.	P02700010	Shim, Ø0.1mm	A/R
	P02700020	Shim, Ø0.2mm	
	P02700030	Shim, Ø0.3mm	
63.	P02600030	Flat Bearing	3
64-69	P330	Oil Distribution KIT	1
65.	P02600010	Needle Bearing	2
66-67	P92300020	Wobble Plate	1
68.	P02600020	Bearing, 4mm	1
70.	P00200050	Anti-extrusion Ring, 25x19.5x1.5	1
71.	P02100330	O-ring, 19x3 - 90	1
72.	P01900040	Half Ball Spring	1
73-75	P080	Piston Retainer KIT	1
76.	P03900010	Swaying Disc	1
77.	P02100420	O-ring, 87x2 - 70	1
78.	P01200030	Oil Distributor	1
79.	P03200010	Cylindrical Pin, Ø4x8	1
80.	P02800160	Washer for Screw, M12	4
81.	P02800020	Washer C98 for Screw Ø8	4
82.	P10000004	Aluminum Riveted Data Plate (HWB2512)	1
	P10000005	Aluminum Riveted Data Plate (HWB2112)	
	P10000006	Aluminum Riveted Data Plate (HWB1812)	
	P10000007	Aluminum Riveted Data Plate (HWB1512)	
83.	P10000008	Brass Rivet	2
84.		Mounting Holes	4
85.	P03800400	Nozzle (HWB1512, HWB1812 only)	1
91.	P00900100	Valve Body	1
92.	P00900110	Banjo Bolt, P, 1/2" G-F	1
93.	P00900120	Banjo Boly, T, 1/2" G-F	1
94.	P03600050	Gasket, 1/2" Bonded Seal	4
95.	P00900160	Regulator Assembly	1
96.	P00900170	Plugs, 8mm	2
100.	PHRV66AN	Complete Flow Regulator Assembly	OPT

REPAIR KITS

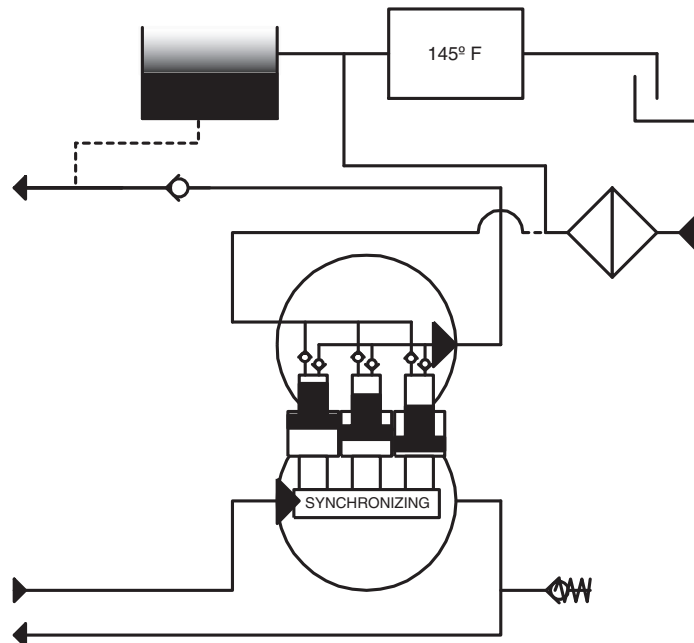
Repair Kit	P080	P260	P270	P280	P290	P300
HWB Model	All	All	HWB1512	HWB1812	HWB2112	HWB2512
Items in Kit	73, 74, 75	45, 46, 53, 59, 60, 70, 71, 77	37, 38, 39, 41, 44	37, 38, 39, 41, 44	37, 38, 39, 41, 44	37, 38, 39, 41, 44
Quantity Required	1	1	1	1	1	1

Repair Kit	P310	P350	P320	P330	P340
HWB Model	HWB15, 18, 21	HWB2512	All	All	All
Items in Kit	3, 4, 17, 18, 31, 44	3, 4, 17, 18, 31, 44	76, 78	64, 69, 70, 71	4, 7, 10, 19, 20, 24, 35, 27, 29
Quantity Required	1	1	1	1	1

DIMENSIONS & PORTS



SCHEMATIC



OPERATION AND INSTALLATION

POSITIONING

The HWB pump can be mounted in any orientation but consider the water supply when installing the pump keeping in mind feed and plumbing requirements. The pump must be mounted to a rigid and flat base using the four threaded feet in the body. Never install the pump such that the fluid end rests on the base on which the pump is mounted. The fluid end must be left free and not subject to any force.

WATER LINE CONNECTIONS

In order to isolate any pump vibration, use flexible hoses for both the inlet and discharge lines. The flexible inlet hose must be rigid enough not to collapse during the suction stroke, when a partial vacuum may occur.

PUMP FEEDING

HWB series pumps require minimum inlet pressure at the inlet port. HWB pumps operate between -9 ft of inlet pressure to a maximum inlet pressure of 150 PSI.

If the above conditions cannot be met a feed pump (centrifugal type) may be required and must:

- (1) supply at least twice the plunger pump volume at the required pressure,
- (2) operate independently and
- (3) supply its full rated performance even if the plunger pump is run below its rated performance.

INLET LINE

THE INLET LINE MUST HAVE THE FOLLOWING CHARACTERISTICS:

- Minimum internal diameter of 1".
- Minimize all 90° elbows, diameter reductions, counter slopes and T-connections, and none of these fittings in the inlet piping within 12 inches of the inlet port.
- Be positioned so that it remains filled after the pump stops.

Recommendations:

- Do not use high pressure flexible hose for the inlet line.
- Install an inlet pressure gauge after the filters and as close as possible to the pump inlet port.
- Be sure that the supply tank dimensions and the minimum water level do not create turbulence at the pump inlet port.
- Recommended minimum tank volume is five times discharge flow rate.
- Baffle plates should be inside the tank.
- Before connecting the suction line to the pump inlet port be sure the line is clean inside.
- A low water cut-out should be installed to prevent the pump from running dry.
- On systems with a high oil capacity a flow regulator should be installed to protect the pump from over-running.

FILTRATION

HWB pumps require 80 mesh filtration.

The filters should be installed as close as possible to the pump, allow easy inspection and have the following characteristics:

- The capacity of each filter must be at least 3 times the rated pump volume.
- Filter port diameters should not be smaller than the pump inlet ports.

IMPORTANT NOTE: Clean the filters daily, more often in poor water conditions, to prevent premature wear and damage.

START-UP CHECKS

Note: if pump has not been operated for a long period of time, check the inlet and discharge lines for scaling.

START-UP AND OPERATION:

- Make sure the correct inlet pressure is provided.
- Set the regulation valve to zero or set the discharge line into the dump mode.
- Be sure that the correct inlet pressure is provided.
- Before putting the pump under pressure, let the pump run for some time until the water flows freely.
- After stopping the pump, relieve the pressure from the system.