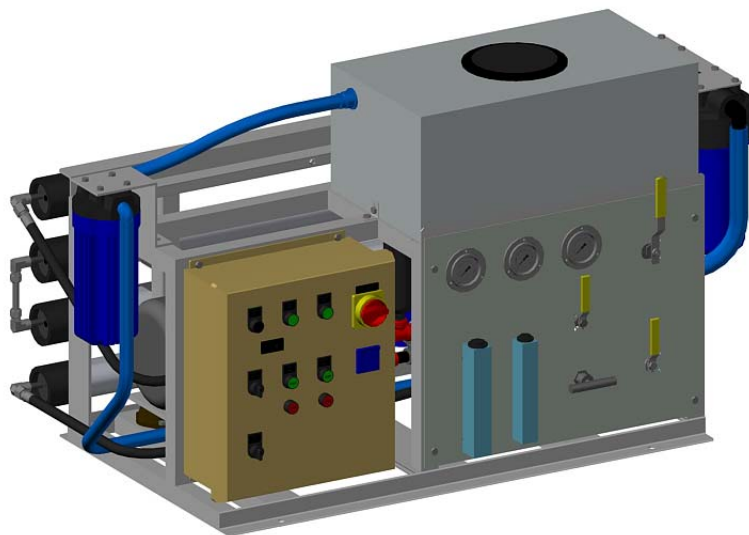


November 2015

**PARTS CATALOG
SEA WATER DESALINATOR
AQUA-SEP SERIES II
MODELS 01-05 TPD**



Compass
water solutions

15542 Mosher Ave. Tustin, CA 92780 U.S.A.

WEB: compasswater.com

TEL: (949) 222-5777

FAX: (949) 222-5770

This parts catalog is a reference for all of the following
Model numbers and Serial numbers manufactured prior
to the date of this document.

Model Number	Description
ASSD0425204-MCS	AQUA-SEP SERIES II, 4 TPD
ASSD0525205-MCS	AQUA-SEP SERIES II, 5 TPD

Serial Numbers:

33390	33467	33537
33393	33470	33538
33394	33515	33539
33414	33527	33543
33439	33528	33557
33458	33533	33558
33466	33534	

COMPONENT PART NUMBERS & DESCRIPTIONS

NOTE: Some items listed are optional and may not be included on your Aqua-Sep system

<u>ITEM</u>	<u>COMPONENT NAME</u>	<u>DESCRIPTION</u>
1.	Control Box (Various)	Houses the electrical controls, wiring and safety switches. Refer to System Manual For Control Box Drawings. (<i>fig #1</i>)
2.	Membrane Housings & Membrane Elements	High pressure housing for spiral wound membranes. Reject dissolved solids. Only pure water permeates the membranes. Converts seawater to potable water. Housings: MHSA0340 Element: MSHH0340 (<i>fig #1 & #8</i>)
3.	Cleaning Solution Filter	Removes silt and sediment from cleaning solution. Filter Element: FCAE3010 , Filter Housing: FCHQ7010 (<i>fig #1 & #4</i>)
4.	Desalinator Frame	Serves to mount the system and houses the piping and booster pump/motor. (<i>fig #1</i>)
5.	Cleaning Solution Tank Assy.	Tank for mixing cleaning solution: (Full Assy. ASCT120110) (Tank Only ASCT100175) (<i>fig #4</i>)
6.	Operating Pressure Gauge Assy.	Indicates system operating pressure. ASOG120705 (Gauge only GALK0438 , High Press. Switch SWMS0015) (<i>fig #3</i>)
7.	Feed Pressure Gauge Assy.	Indicates the cartridge filter outlet and booster pump inlet pressure. ASFG120705 (Gauge only GALK0406 , Low Press. Switch SWMS0005) (<i>fig #3</i>)
8.	Inlet Pressure Gauge Assy.	Indicates the cartridge filter inlet pressure. ASIG120705 (Gauge Only GALK0406) (<i>fig #3</i>)
9.	Operate/Clean Inlet Valve Assy.	Diverts flow during operating or cleaning mode. ASIV120705 (<i>fig #3</i>)
10.	Operate/Clean Outlet Valve Assy.	Diverts flow during operating or cleaning mode. ASOV120105 (<i>fig #3</i>)
11.	Cleaning Tank Drain Valve Assy.	Used to drain the cleaning solution tank. ASDV120705 (<i>fig #3</i>)
12.	Pressure Control Valve Assy.	Variable orifice back pressure valve. Maintains system feedwater pressure sufficient to permeate the membranes. ASCV120705 (<i>fig #3</i>)

COMPONENT PART NUMBERS & DESCRIPTIONS

NOTE: Some items listed are optional and may not be included on your Aqua-Sep system

<u>ITEM</u>	<u>COMPONENT NAME</u>	<u>DESCRIPTION</u>
13.	Flowmeter "Product Water"	Provides instantaneous indication of product water production in gallons per minute and liters per minute. FMTR50376 (fig #3)
14.	Flowmeter "Reject Water"	Provides instantaneous indication of water being rejected in gallons per minute and liters per minute. FMTR50500 (fig #3)
15.	Cartridge Filter Housing	Contains replaceable filter cartridge (5 micron). Filter Housing: FCHQ1510 Filter Element: FCAA0510 (fig #7)
16.	Cartridge Filter Housing	Contains replaceable filter cartridge (20 micron). Filter Housing: FCHQ1510 Filter Element: FCAA2010 (fig #7)
17	Booster Pump / Motor Assy.	Complete Pump/Motor Assy. (fig #5 & #6) 380-415/50Hz: ASBP120404-50 440-480/60Hz: ASBP120404-60
18.	Electric Motor	3 H.P. motor with 182TC Frame (fig #5 & #6) 50Hz: MTRB3303C 60Hz: MTRB1303C
19.	Booster Pump	Plunger style Pump Frame 5 PUCS0351 (fig #5 & #6)
20.	Pulsation Dampener	600 P.S.I., 1/2" PPDS0815 (fig #5 & #6)
21.	Pressure Relief Valve	1/4" Stainless Steel Valve Body Valve VRHS0400 Aqua-Sep Set Spring (750-1500 PSI) ASPS0001 (fig #5 & #6)
22.	Motor Mounts	Vibration Dampeners. VBIR0507 (fig #5)
23.	Flex Coupling	Connects Pump to Motor, 20mm x 1 1/8". FCLI4418 (fig #5)
24.	Bell Housing	Connects Pump to Motor, 182T x CAT Frame 5 PPBH4131 (fig #5)
25.	Product Valve Assy.	Controls Direction of flow based on the quality of the Processed Water. (fig #7) 120 VAC – ASPV120105-120 220 VAC – ASPV120105-220

COMPONENT PART NUMBERS & DESCRIPTIONS

NOTE: Some items listed are optional and may not be included on your Aqua-Sep system

<u>ITEM</u>	<u>COMPONENT NAME</u>	<u>DESCRIPTION</u>
26.	Solenoid Valve (1/4"), Three way	120 VAC – VSAB0440 220 VAC – VSAB0450 (<i>fig #7</i>)
27	TDS Probe	Checks quality of processed water. MPCS1000 (<i>fig #7</i>)
28.	Drain Manifold	ASDM120705 (<i>fig #7</i>)
29.	High Pressure Hose Assy. (1/2" x JIC-37°)	These are made to fit. Please indicate "End to End" measurement. Replace " _ _ _ " in part number with length in inches. ASHA0 _ _ _ (<i>fig #8</i>) [<i>Example: ASHA0075 = 75 inches long</i>]
30.	Misc. Hoses & Tubing Details	Product Tubing (3/8" x 1/4" I.D.) TUVC0406 5/8" Tubing (Vinyl Braid) TUVB1000 1" Tubing (Vinyl Braid) TUVB1600 [<i>Refer to Drawing 120108-MSD For Full Details</i>]

PART NUMBERS & DESCRIPTIONS

NOTE: Some items listed are optional and may not be included on your Aqua-Sep system

<u>ITEM</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
A.	FCAE3010	Cleaning Filter Element
B.	ASCT100175	Cleaning Tank (tank only – no fittings)
C.	PNTS0600	Pipe Nipple, Threaded SS, 3/8" x Close
D.	PBTS0806	Pipe Bushing, SS, 1/2" x 3/8"
E.	PTXS0800	Pipe Tee, #3000, SS, 1/2"
F.	FCMS0837	Flare Connection, SS, 1/2" - 37° x 1/2" MNPT
G.	PNTS0808	Pipe Nipple, Threaded SS, 1/2" x 2" long
H.	PTTS0800	Pipe Tee, Threaded SS, 1/2"
I.	PBTX0804	Pipe Bushing, PVC, 1/2" x 1/4" Threaded
J.	FTFM0400	Fast & Tite Fitting, 1/4" MNPT x Tube
K.	PAHX0800	Pipe Adapter, 1/2" MNPT X Hose
L.	PNTS0800	Pipe Nipple, Threaded SS, 1/2" x Close
M.	PPPX1200	Pipe, PVC Sch 80, 3/4" x 12" Long
N.	PQSX1200	Pipe Cap, PVC Sch 80, 3/4"
O.	PEHX0800	Pipe Adapter Elbow, 1/2" MNPT x Hose
P.	PBTS0604	Pipe Bushing, Threaded SS, 3/8" x 1/4"
Q.	PNTS0400	Pipe Nipple, Threaded SS, 1/4" x Close
R.	PEXS0400	Pipe Elbow, #3000, SS, 1/4"
S.	PEGX0800	Pipe Adapter Elbow, 1/2" FNPT x Hose
T.	PNTS0800	Pipe Nipple, Threaded SS, 1/2" x close
U.	PUTS0800	Pipe Union, SS, 1/2"
V.	PBTS0804	Pipe Bushing, Threaded SS, 1/2" x 1/4"
W.	PNTS0400	Pipe Nipple, Threaded SS, 1/4" x Close

PART NUMBERS & DESCRIPTIONS

NOTE: Some items listed are optional and may not be included on your Aqua-Sep system

<u>ITEM</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
X.	PETS0800	Pipe Elbow, Threaded SS, ½"
Y.	FTFM0608	Fast & Tite Fitting Male, 3/8" Tube x ½" MNPT
Z.	PBTX1204	Pipe Bushing, Threaded PVC, ¾" x ¼"
AA.	PTTX1200	Pipe Tee, Threaded PVC Sch 80, ¾"
BB.	PAHX0812	Pipe Adapter, PVC Sch 80, ½" Hose x ¾" MNPT
CC.	FTEF0604	Fast & Tite Elbow, 3/8" Tube x ¼" FNPT
DD.	PNTX0416	Pipe Nipple, Threaded PVC, ¼" x 4" Long
EE.	UNIS4000	Pipe Clamp, 2.5" Membrane Housing
FF.	FEFS080437	Flare Elbow, SS, ½" - 37° x ¼" FNPT
GG.	PNTS0408	Pipe Nipple, Threaded SS, ¼" x 2" Long
HH.	FCNS0837	Flare Nut, SS, ½" x 37°
I I.	FCSS0837	Flare Connection Sleeve, SS, ½"
J J.	TUSS0800	Tubing, ½" x 4" Long
KK.	PTTX0600	Pipe Tee, Threaded PVC Sch 80, 3/8"
LL.	PNTX0600	Pipe Nipple, PVC Sch 80, 3/8" x Close
MM.	PBTX0806	Pipe Bushing, Threaded PVC, ½" x 3/8"
NN.	FTFM0600	Fast & Tite Fitting Male, 3/8" Tube x MNPT

CONSUMABLES & REBUILD PARTS

NOTE: Some items listed are optional and may not be included on your Aqua-Sep system

<u>PART NUMBER</u>	<u>DESCRIPTION</u>
PCVK4152	Booster Pump Valve Kit, Cat 351
PCSK4153	Booster Pump Seal Kit, Cat 351
ORGN1122	O-Ring, BB Filters
ORGN1120	O-Ring, Cleaning Filter
ASAC1000	Aqua-Sep Membrane Cleaner – Acid 2 lbs. (Mix 2 lbs. with 15 gallons of Water)
ASAL2000	Aqua-Sep Membrane Cleaner – Alkaline 2 lbs. (Mix 1 lb. with 15 gallons of Water)
SBSP0001	Aqua-Sep Preservative, Sodium Bisulfate 50 lbs. pail
FCAE3010	Cleaning Filter (30 micron) x 10” Long
FCAA0510	Filter Element: (5 micron) x 10” Long, BB
FCAA2010	Filter Element: (20 micron) x 10” Long, BB
FCWQ1500	Filter Housing Wrench, BB

ITEM	COMPONENT NAME
1.	Control Box - Refer to System Manual For Control Box / Electrical Details
2.	Membrane Housing: MHSA0340 Membrane Element: MSHH0340
3.	Cleaning Solution Filter: FCHQ7010 Filter Element: FCAE3010
4.	Desalinator Frame
5.	Cleaning Solution Tank Assembly ASCT120110
29.	High Pressure Hose Assembly (Refer to Figure #8)

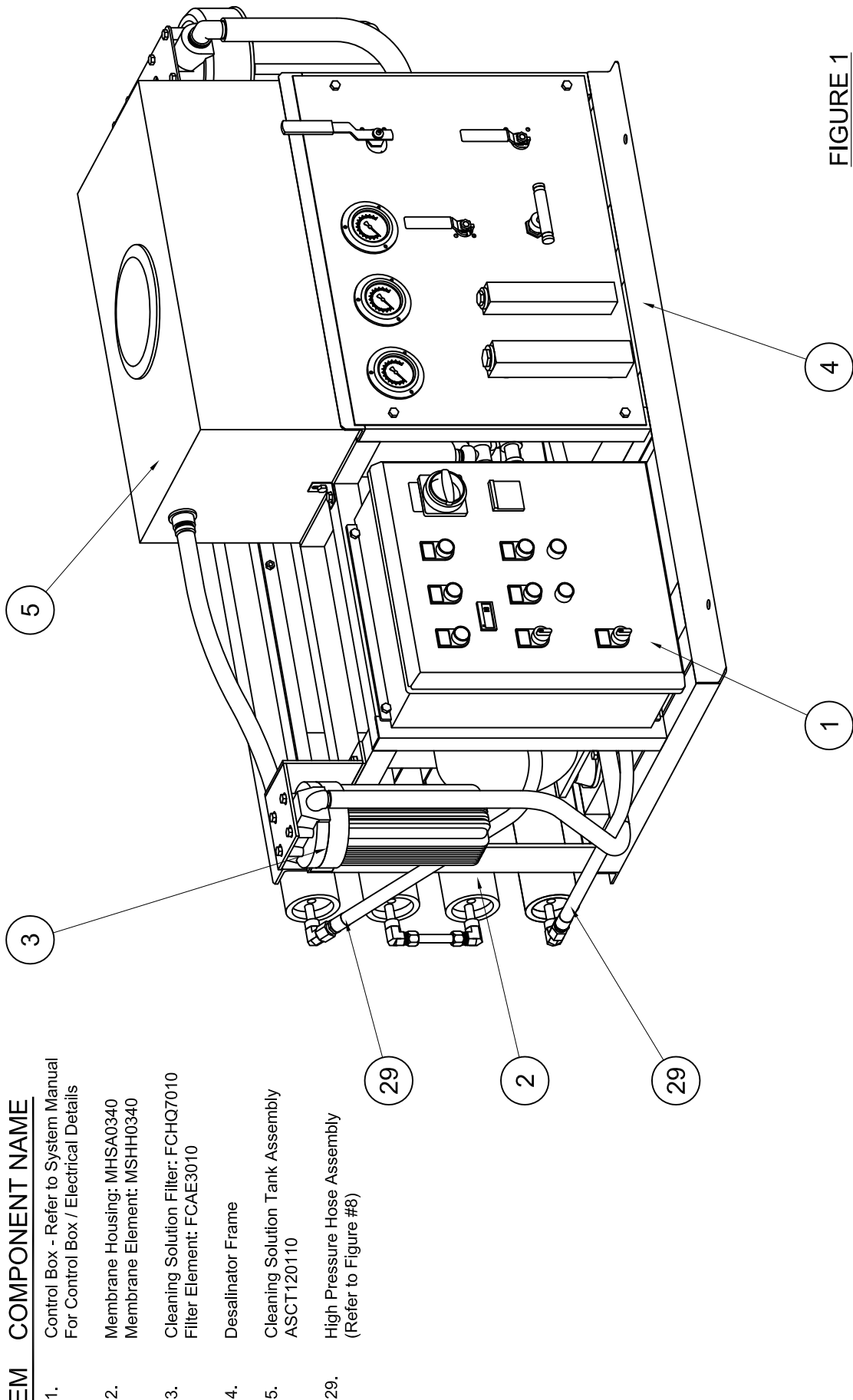


FIGURE 1

Sea Water Desalinator
Front Iso View
AQUA-SEP S2, 01-05

ITEM	COMPONENT NAME
------	----------------

- | | |
|-----|---|
| 2. | Membrane Housing: MHS0340
Membrane Element: MSH0340 |
| 3. | Cleaning Solution Filter: FCHQ7010
Filter Element: FCAE3010 |
| 4. | Desalinator Frame |
| 5. | Cleaning Solution Tank Assembly
ASCT120110 |
| 15. | Cartridge Filter Housing: FCHQ1510
Filter (5 Micron) FCAA0510 |
| 16. | Cartridge Filter Housing: FCHQ1510
Filter (20 Micron) FCAA2010 |
| 30. | Misc. Hose and Tubing Details
(See Drawing 120108-MSC) |

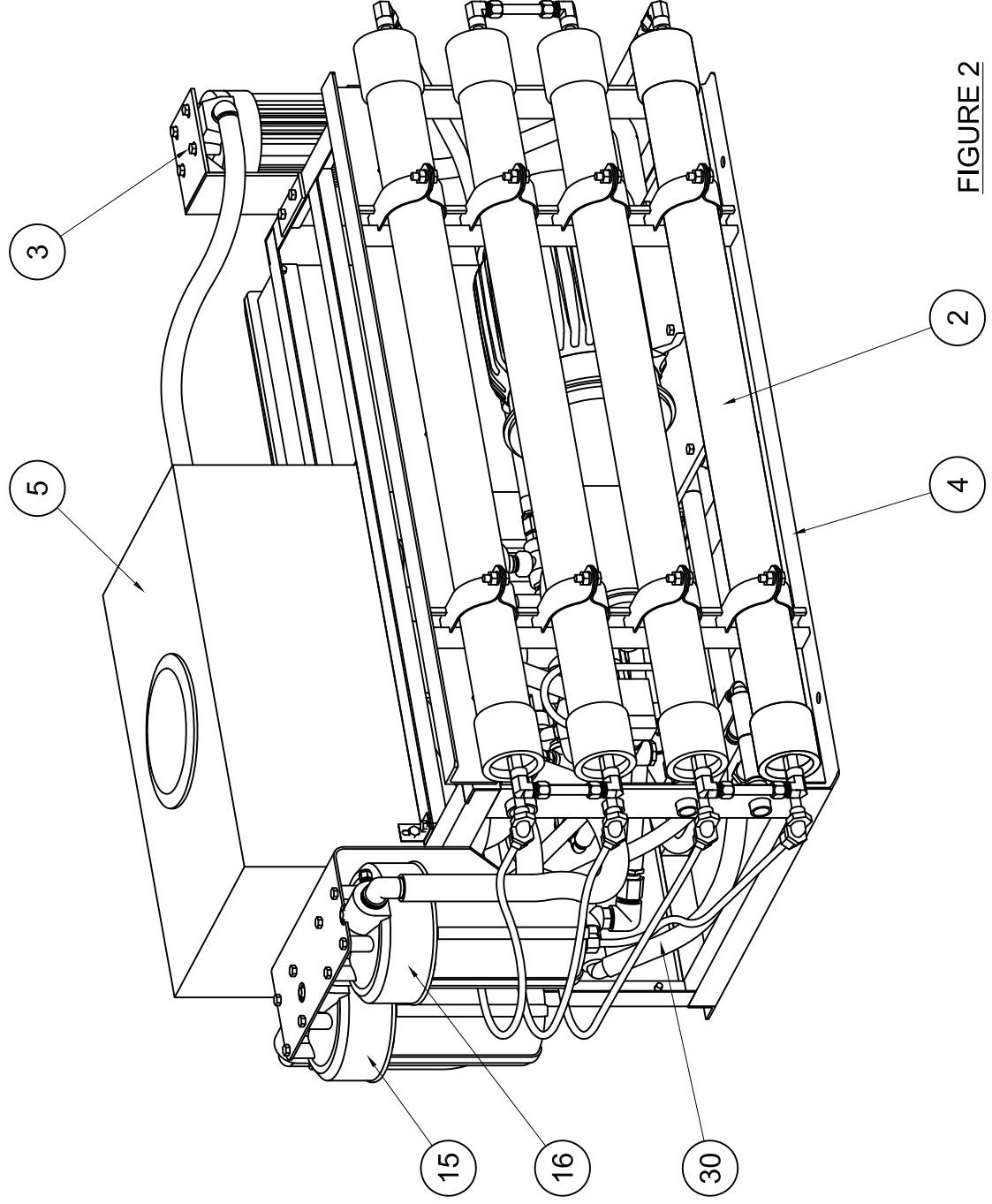


FIGURE 2

Sea Water Desalinator
Rear Iso View
AQUA-SEP S2, 01-05

ITEM	COMPONENT NAME
6.	Operating Pressure Gauge Assembly ASOG120705
7.	Feed Pressure Gauge Assembly ASFG120705
8.	Inlet Pressure Gauge Assembly ASIG120705
9.	Operate / Clean Inlet Valve Assembly ASIV120705
10.	Operate / Clean Outlet Valve Assembly ASOV120105
11.	Cleaning Tank Drain Valve Assembly ASDV120705
12.	Pressure Control Valve Assembly ASCV120705
13.	Flowmeter - Product Water FMTR50376
14.	Flowmeter - Reject Water FMTR50500

NOTE:

For Connections Details & Tubing callouts
Refer to Drawing 120108-MSC

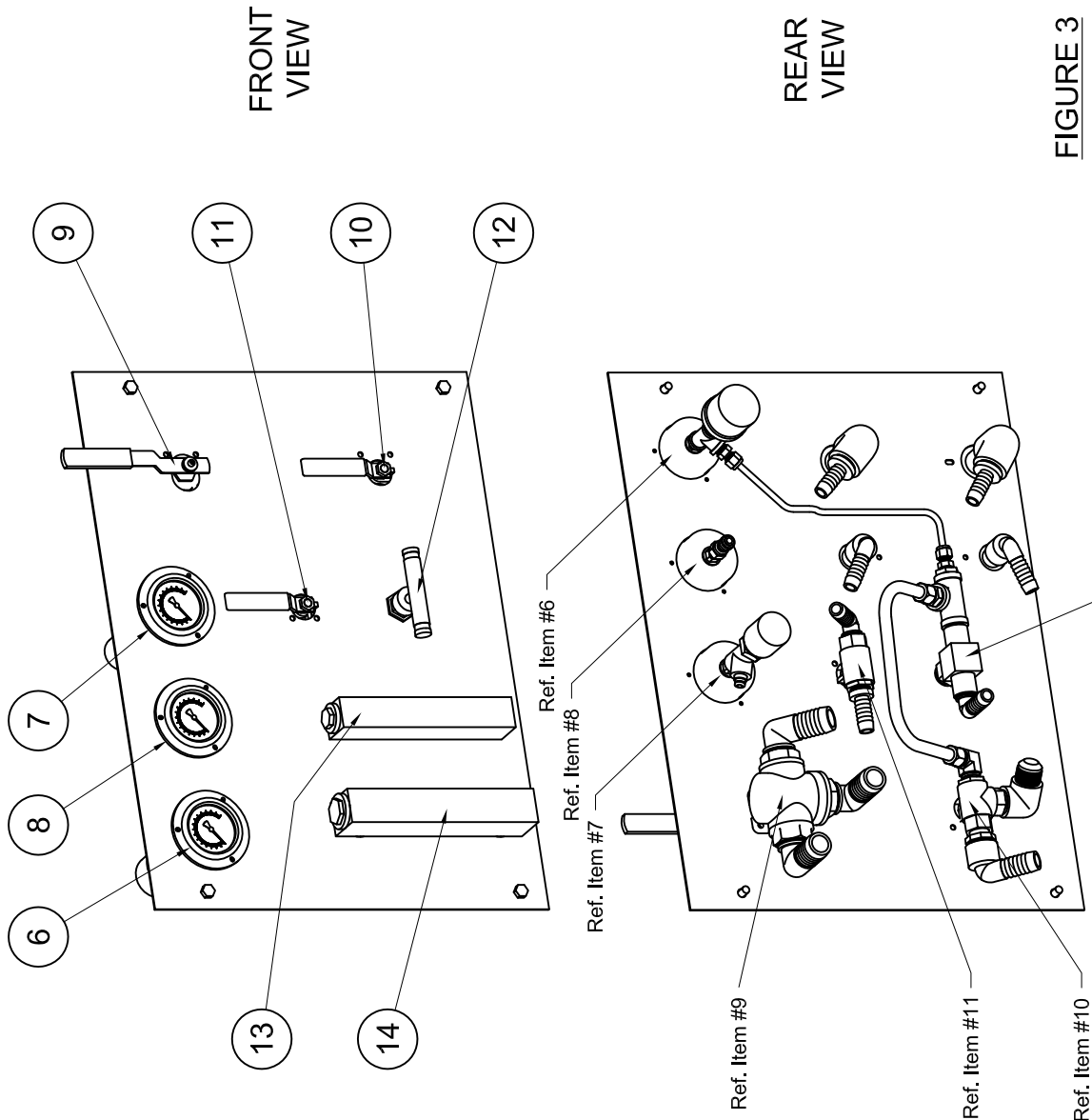


FIGURE 3

Sea Water Desalinator
Instrument Panel Views
AQUA-SEP S2, 01-05

ITEM	COMPONENT NAME
3.	Cleaning Solution Filter Housing FCHQ7010
5.	Cleaning Solution Tank Assembly ASCT120110
	OUTLET ASSY: PNTX1600 PTTX1600 PBTX1608 PAHX1600 PAHX0800
	INTERNAL ASSY: PNTX1200 PETX1200 PNTX1216
A.	Cleaning Filter Element FCAE3010
B.	Cleaning Tank (Tank Only) ASCT100175

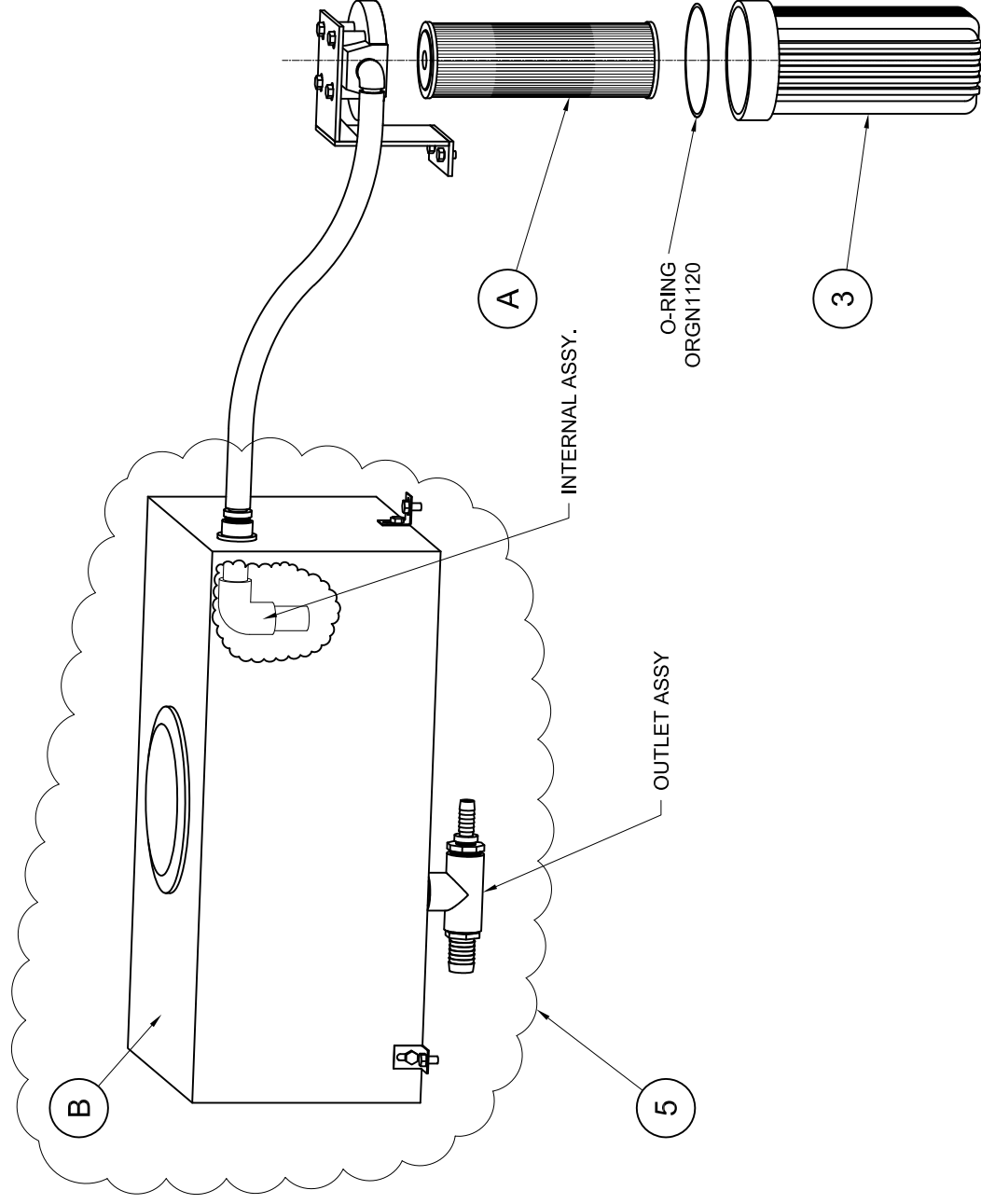
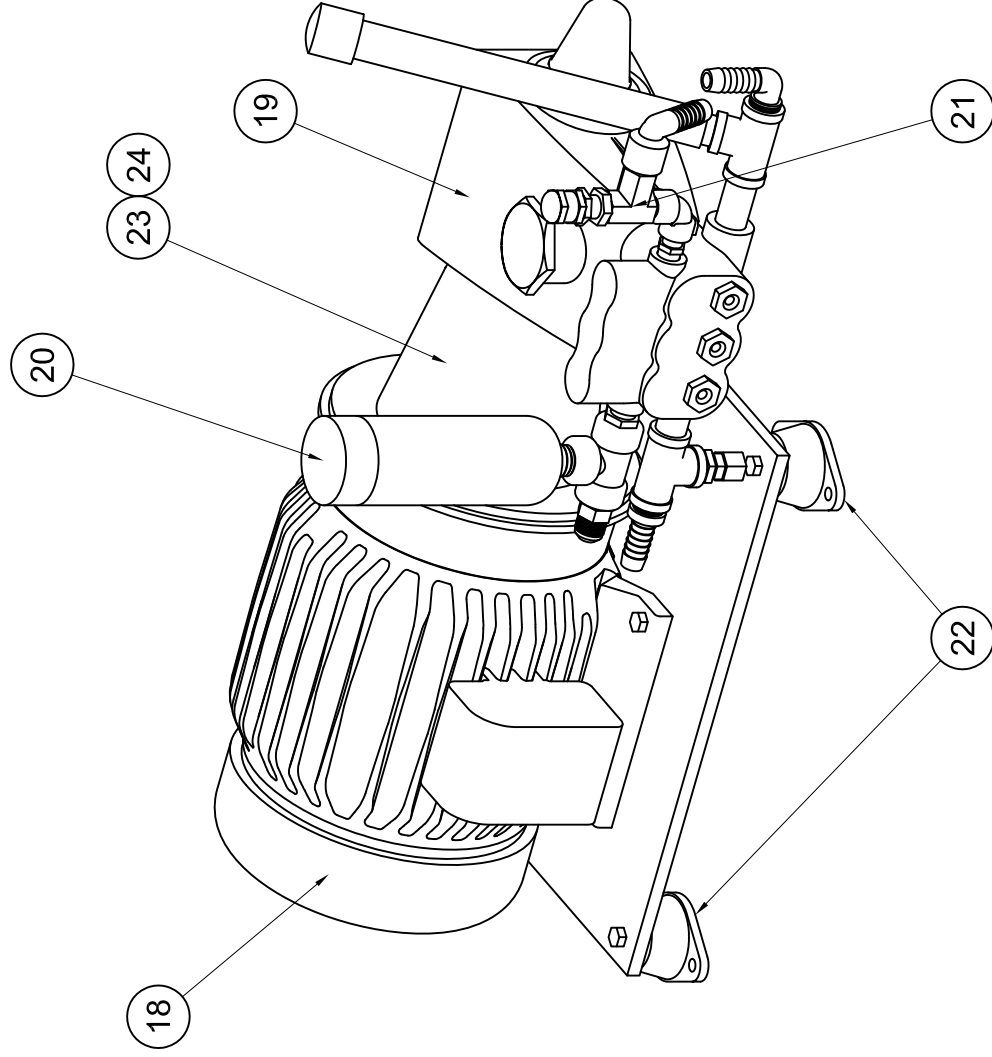


FIGURE 4

Sea Water Desalinator
Cleaning Tank
AQUA-SEP S2, 01-05

ITEM	COMPONENT NAME
17.	Booster Pump / Motor Assembly (Complete as Shown) 380-415 / 50Hz: ASBP120404-50 440-480 / 60Hz: ASBP120404-60
18.	Electric Motor, 3 H.P. 50Hz: MTRB3303C 60Hz: MTRB1303C
19.	Booster Pump, Plunger (Frame 5) PUCS0351
20.	Pulsation Dampener, 600 PSI PPDS0815
21.	Pressure Relief Valve Valve Body: VRHS0400 Valve Spring: ASPS0001
22.	Motor Mounts VBIR0507
23.	Flex Coupling FCL1418
24.	Bell Housing PPBH4131



NOTE:

Detail exploded views on next sheet

FIGURE 5

Sea Water Desalinator
High Pressure Pump
AQUA-SEP S2, 01-05

ITEM	COMPONENT NAME
19.	Booster Pump, Plunger (Frame 5) PUCS0351
20.	Pulsation Dampener, 600 PSI PPDS0815
21.	Pressure Relief Valve Valve Body: VRHS0400 Valve Spring: ASPS0001
C.	PNTS0600
D.	PBTS0806
E.	PTXS0800
F.	FCMS0837
G.	PNTS0808 (2X)
H.	PTTS0800 (2X)
I.	PBTX0804
J.	FTFM0400
K.	PAHX0800
L.	PNTS0800
M.	PPPX1200
N.	PQSX1200
O.	PEHX0800
P.	PBTS0604
Q.	PNTS0400 (2X)
R.	PEXS0400
S.	PEGX0800

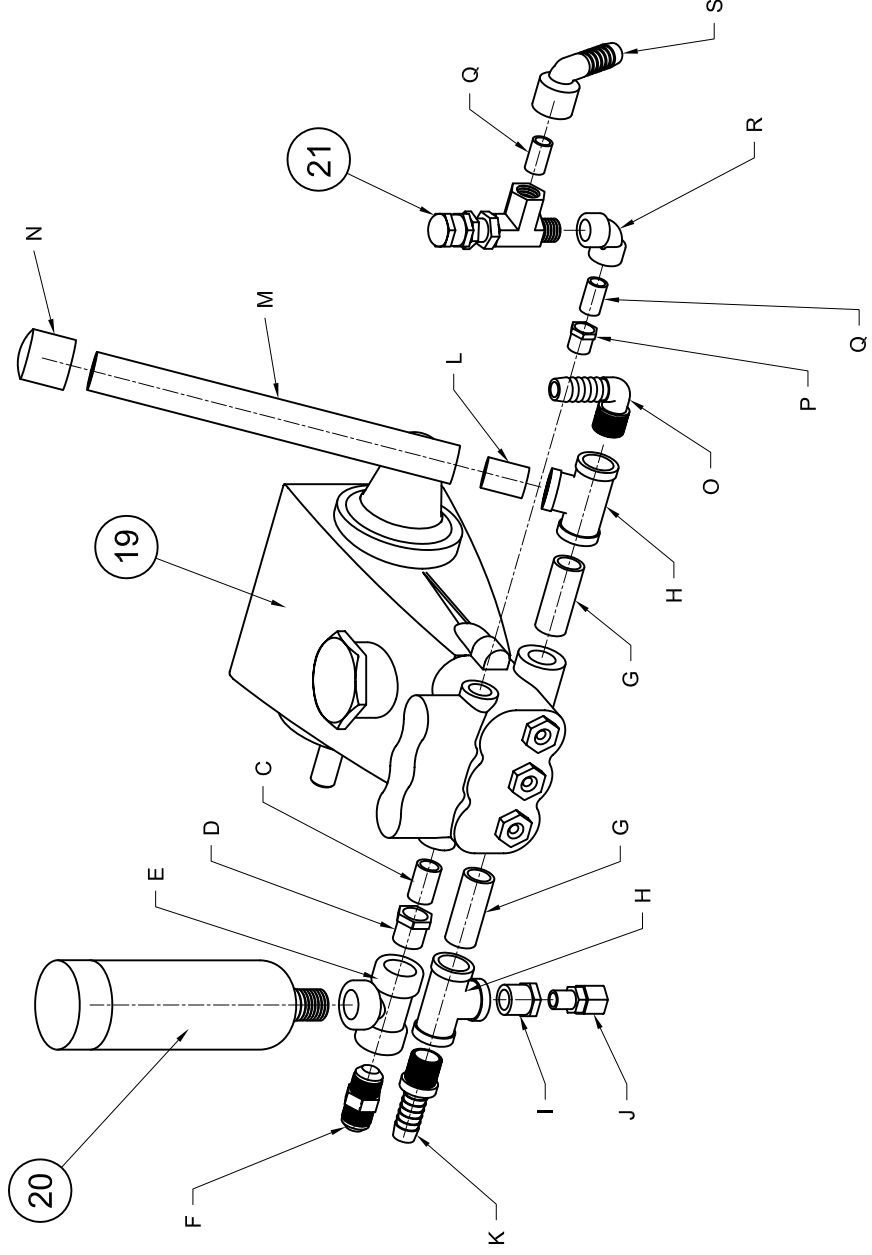


FIGURE 6
Sea Water Desalinator
Exploded Details
AQUA-SEP S2, 01-05

ITEM	COMPONENT NAME
15.	Cartridge Filter Housing: FCHQ1510 Filter (5 Micron): FCAA0510 O-RING: ORGN1122
16.	Cartridge Filter Housing: FCHQ1510 Filter (20 Micron): FCAA2010 O-RING: ORGN1122
25.	Product Valve Assembly 120 VAC: ASPV120105-120 220 VAC: ASPV120105-220
26.	Solenoid Valve, 3-Way 1/4" (Included in Product Valve Assembly) 120 VAC: VSAB0440 220 VAC: VSAB0450
27.	TDS Probe (Included in Product Valve Assembly) MPCS1000
28.	Drain Manifold ASDM120705
T.	PNTS0800
U.	PUTS0800
V	PBTS0804
W.	PNTS0400 (3X)
X.	PETS0800
Y.	FTFM0608
Z.	PBTX1204
AA.	PTTX1200
BB.	PAHX0812

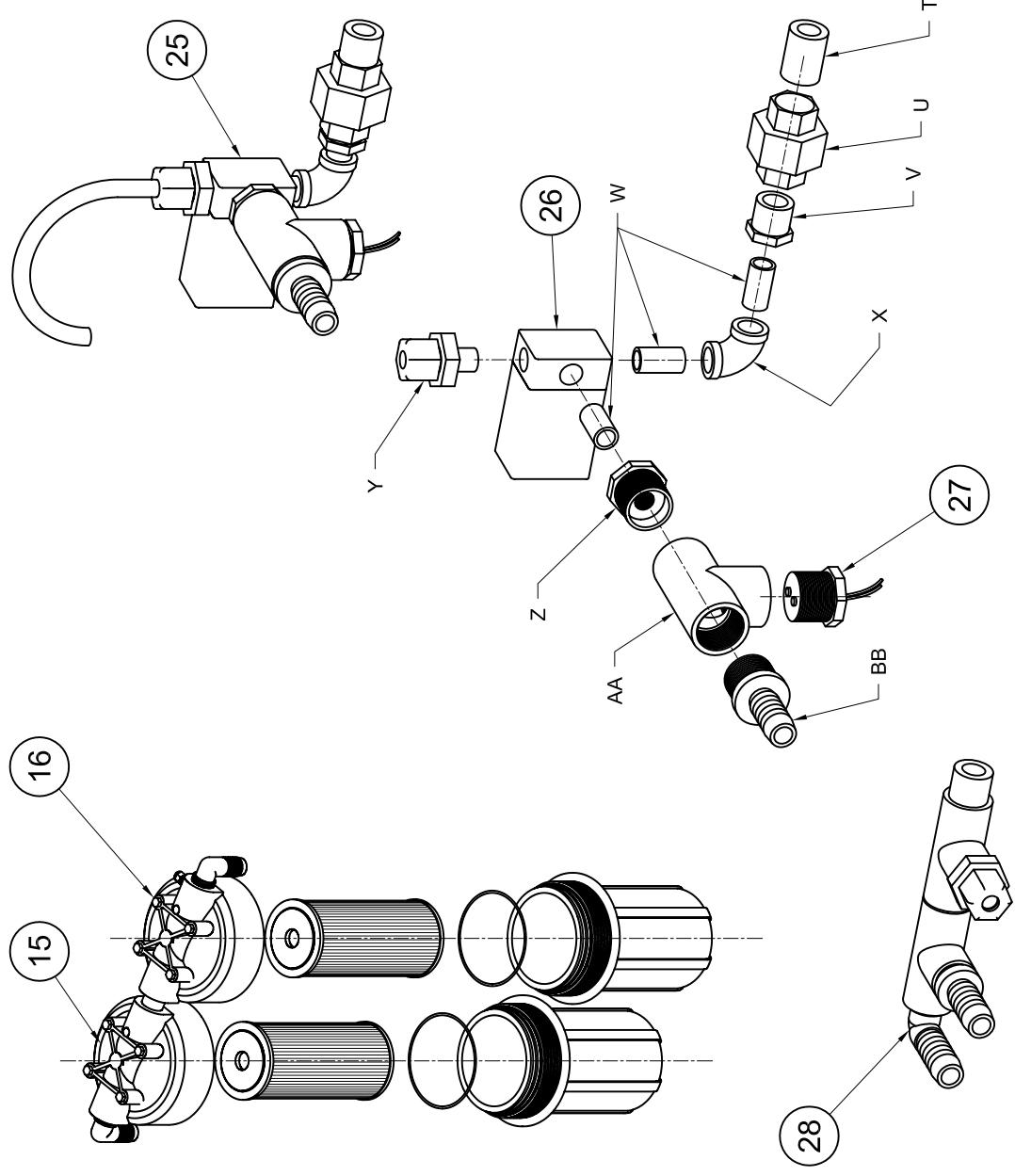
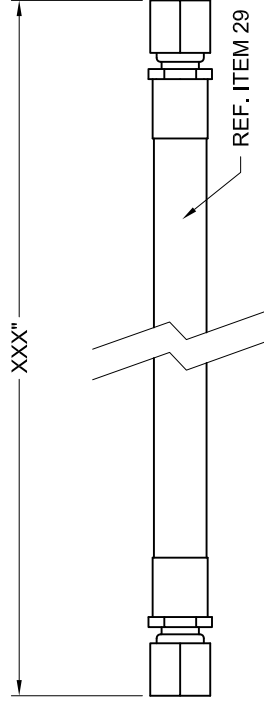
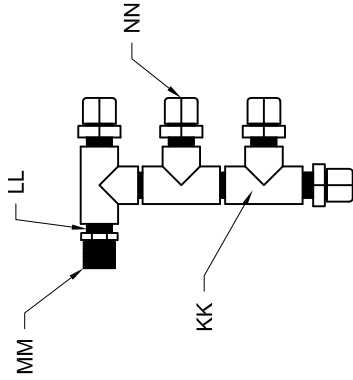


FIGURE 7

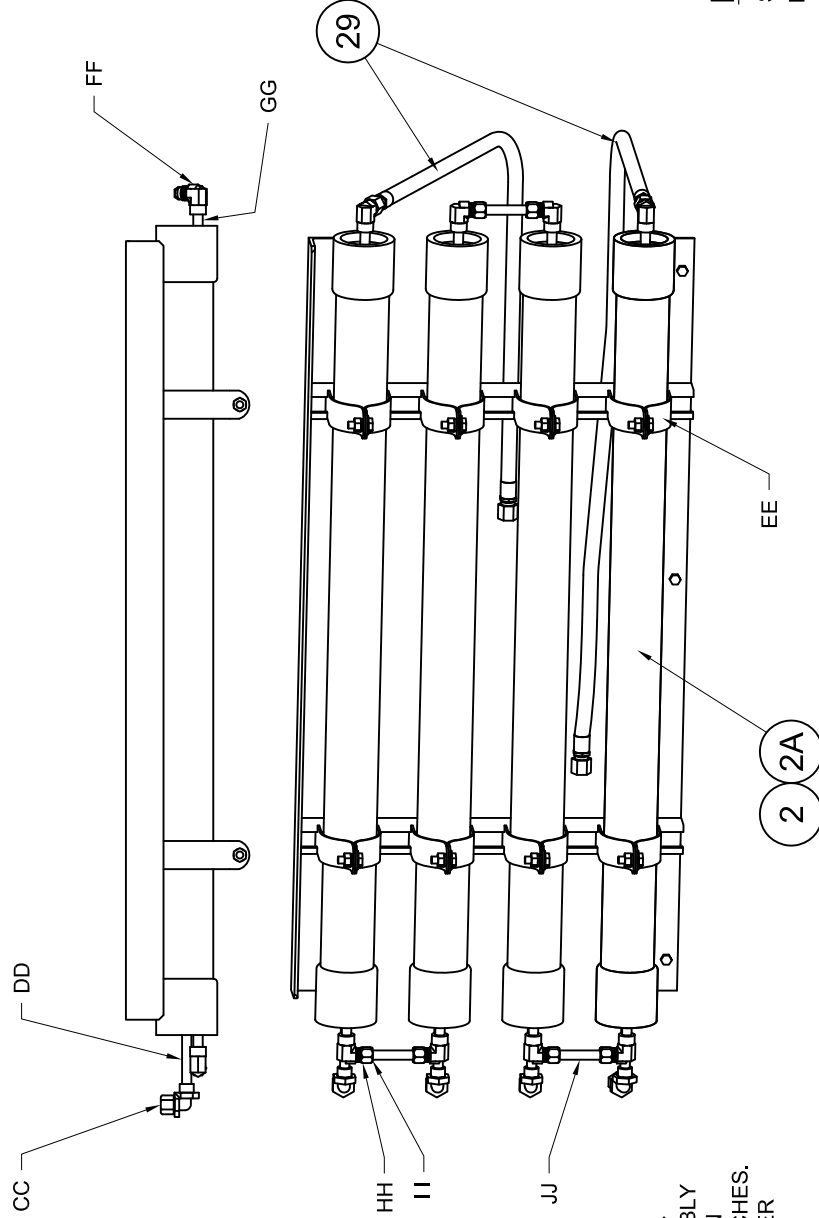
Sea Water Desalinator
Filter / Manifolds
AQUA-SEP S2, 01-05

ITEM	COMPONENT NAME
2.	Membrane Housings MHHA0340
2A.	Membrane Element MSHH0340
29.	High Pressure Hose Assemblies ASHA0 --- (See Note Below)
CC.	FTEF0604 (4X)
DD.	PNTX0416 (4X)
EE.	UNIS4000 (8X)
FF.	FEFS080437 (8X)
GG.	PNTS0408 (8X)
HH.	FCNS0837 (6X)
II.	FCSS0837 (6X)
JJ.	TUSS0800 (3X) (4" EACH)
KK.	PTTX0600 (3X)
LL.	PNTX0600 (3X)
MM.	PBTX0806
NN.	FTFM0600 (4X)

THE HIGH PRESSURE HOSE ASSEMBLY IS MADE TO FIT. PLEASE INCLUDE AN "END TO END" MEASUREMENT IN INCHES. REPLACE THE " --- " IN PART NUMBER WITH THE LENGTH.



MEASURE HOSE "END TO END" FOR PROPER FIT



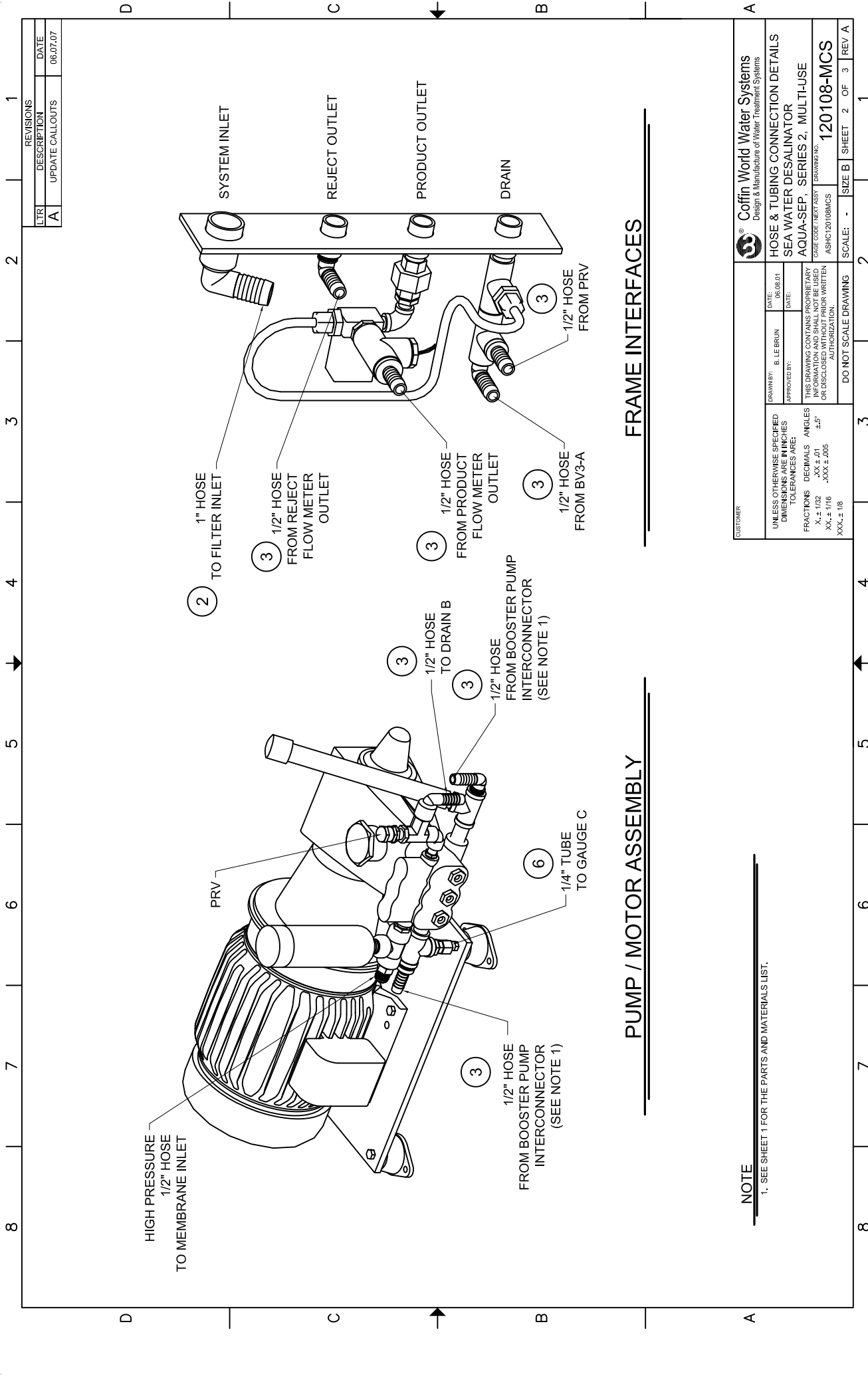
NOTE

THE HIGH PRESSURE HOSE ASSEMBLY IS MADE TO FIT. PLEASE INCLUDE AN "END TO END" MEASUREMENT IN INCHES. REPLACE THE " --- " IN PART NUMBER WITH THE LENGTH.

FIGURE 8

Sea Water Desalinator
Membrane Rack
AQUA-SEP S2, 01-05





PUMP / MOTOR ASSEMBLY

FRAME INTERFACES

NOTE

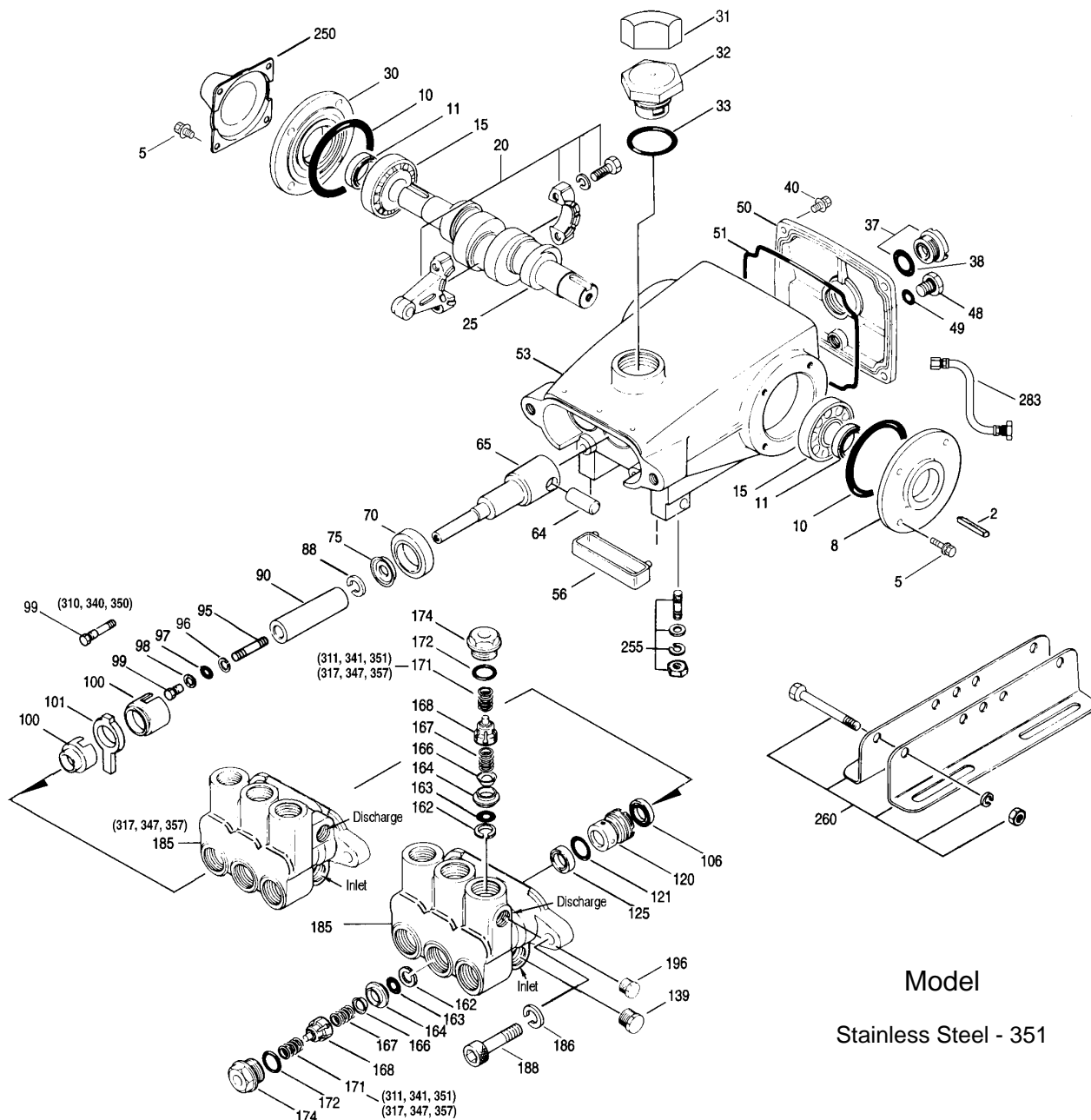
1. SEE SHEET 1 FOR THE PARTS AND MATERIALS LIST.

CUSTOMER		COFFIN WORLD WATER SYSTEMS Design & Manufacture of Water Treatment Systems	
UNLESS OTHERWISE SPECIFIED DIMENSIONS AND TOLERANCES ARE:	DRAWN BY:	B. LE BRUN	DATE: 06.08.01
	APPROVED BY:		DATE:
FRACTIONS DECIMALS ANGLES XX ± .01 X ± .032 XX ± 1/16 XXX ± 1/8	THIS DRAWING CONTAINS PROPRIETARY INFORMATION AND IS NOT TO BE REPRODUCED OR DISCLOSED WITHOUT PRIOR WRITTEN AUTHORIZATION.		
DO NOT SCALE DRAWING		SCALE: -	SIZE B
		SHEET 2	OF 3
		REV A	

BOOSTER PUMP PARTS LIST

ITEM	PART NUMBER	DESCRIPTION	QTY
	351		
2	KEYB0357	Key (M6x6x25)	1
5	---	Screw, Sems HHC (M6x16)	8
8	PCBC43344	Cover, Bearing	1/2
10	---	O-Ring, Bearing Cover	2
11	PCOS43222	Seal, Oil, Crankshaft - (310, 350-2) (340-1)	1/2
15	---	Bearing, Ball	2
20	---	Rod, Connecting Assy [09/05]	3
25	---	Crankshaft, Dual End - 310, 310W, 311, 317	1
	---	Crankshaft, Single End - 340, 340W, 341, 347	1
	---	Crankshaft, Dual End - 350, 350W, 351, 357	1
30	---	Cover, Blind Shaft - 340	1
31	PCCP82871	Protector, Oil Cap	1
32	PPOC43211	Cap, Oil Filler	1
33	PCOR14177	O-Ring, Filler Cap - 70D	1
37	PCBG92241	Gauge, Oil, Bubble w/Gasket	1
38	PCGK44428	Gasket, Flat, Oil Gauge - 80D	1
40	---	Screw, Sems HHC (M6x20)	4
48	PCDP25625	Plug, Drain (1/4"x19 BSP)	1
49	PCOR23170	O-Ring, Drain Plug - 70D	1
50	---	Cover, Rear [10/01]	1
51	---	O-Ring, Rear Cover [10/01]	1
53	---	Crankcase [05/02]	1
56	PCOP43355	Pan, Oil	1
64	---	Pin, Crosshead	3
65	---	Rod, Plunger	3
70	PCOS43228	Seal, Oil, Crankcase	3
75	---	Slinger, Barrier	3
88	---	Washer, Keyhole (M18)	3
90	PCPL43367	Plunger (M20x72)	3
95	---	Stud, Plunger Retainer (M6x58)	3
96	PCBUR43235	Back-up-Ring, Plunger Retainer	3
97	PCOR17399	O-Ring, Plunger Retainer - 80D	3
	PCOR14160	O-Ring, Plunger Retainer - 70D	3
	PCOR46204	O-Ring, Plunger Retainer - 70D	3
98	PCGK44041	Gasket	3
99	---	Retainer, Plunger w/Stud	3
99	PCPR44031	Retainer, Plunger	3
100	PCSR45682	Retainer, Seal, Adapter - Front	3
	PCSR45681	Retainer, Seal - Rear	3
101	PCWK43302	Wick, Long Tab	3
106	---	Seal, LPS w/S-Spg	3
	---	Seal, LPS w/SS-Spg	3
	---	Seal, LPS w/SS-Spg	3
	---	Seal, LPS w/SS-Spg	3
120	---	Case, Seal	3
121	---	O-Ring, Seal Case - 70D	3
	---	O-Ring, Seal Case - 70D	3
	---	O-Ring, Seal Case	3
125	---	Seal, HPS w/S	3
	---	Seal, HPS w/SS	3
	---	Seal, HPS w/SS	3
	---	Seal, HPS w/S "Hi-Temp", 2-Pc w/S-Support	3
139	---	Plug, Inlet (1/2" NPT)	1
162	PCBR48361	Back-up-Ring, Seat	6
163	PCOR43358	O-Ring, Seat - 70D	6
	PCOR44938	O-Ring, Seat - 70D	6
	---	O-Ring, Seat	6
164	PCST44128	Seat	6
166	PVLC44057	Valve	6
167	PCSP44056	Spring, Valve	6
168	PCRS44565	Retainer, Valve Spring	6
171	PCSC44832	Spring, Coil	6
172	---	O-Ring, Valve Plug - 75D	6
	---	O-Ring, Valve Plug -70D	6
	---	O-Ring, Valve Plug -75D	6
174	---	Plug, Valve	6
185	---	Manifold Head	1
	---	Manifold Head	1
186	---	Lockwasher (M10)	2
188	---	Screw HSH (M10x35) [01/04]	2
196	---	Plug, Discharge (3/8" NPT)	1
250	PPCY8672	Protector, Shaft (Belt Drive Only)	1
255	---	Mount, Direct (Belt Drive Only)	1
260	---	Mounting, Angle Rail - B (28499,30900,30910,30920) (Belt Drive Only)	1
265	---	Mount, Assy (30611,30633,118672) (Belt Drive Only)	1
270	---	Assy, Pulley & Key (30058,30057) (Belt Drive Only)	1
275	---	Assy, Hub & Key (M20 w/M6 Keyway) (Belt Drive Only)	1
		[See Drive Packages, Tech Bulletin 003]	
283	---	Kit, Oil Drain	1
298	---	Clutch Assy, Single Groove, 20mm, 12VDC	1
	---	Clutch Assy, Dual Groove, 20mm, 12VDC	1
299	---	Head, Complete	1

EXPLODED VIEW



Model
Stainless Steel - 351

300	351		
310	PCSK4153	Kit, Seal (Incls: 97,101,106,121,125)	1
350	PCVK4152	Kit, Valve (Incls: 162-164,166-168,172)	2
351	PPCC0696	Plier, Reverse	1
---	---	Socket, Seal Case (1/2" Drive)	1
---	---	BD Motors - See Individual Data Sheet	
---	---	Oil, Bottle (21 oz.) ISO 68 Multi-viscosity Hydraulic	1
---	PCAL6119	(Fill to specified crankcase capacity prior to start-up)	
		Lubricant, Antiseize (1 oz.)	1

PART NUMBERS SHOWN ARE FOR MOST COMMON REPLACEMENT PARTS.

If ordering a part that does not have a part number,
please use the item number and specify the pump model.