November 2015

PARTS CATALOG SEA WATER DESALINATOR AQUA-SEP SERIES II MODELS 14-16 TPD





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
ASSD1425214-MCS	AQUA-SEP SERIES II, 14 TPD
ASSD1525215-MCS	AQUA-SEP SERIES II, 15 TPD
ASSD1625216-MCS	AQUA-SEP SERIES II, 16 TPD

Serial Numbers:

33395	33438	33504
33402	33447	33506
33410	33451	33507
33411	33452	33508
33412	33460	33516
33413	33461	33542
33434	33499	33576

COMPONENT PART NUMBERS & DESCRIPTIONS NOTE: Some items listed are optional and may not be included on your Aqua-Sep system

<u>ITEM</u>	COMPONENT NAME	DESCRIPTION
1.	Control Box (Various)	Houses the electrical controls, wiring and safety switches. Refer to System Manual For Control Box Drawings. (fig #1)
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: MHSA1440 Element: MSHH0441-H (fig #1 & #8)
3.	Cleaning Solution Filter	Removes silt and sediment from cleaning solution. Filter Element: FCAE3010 , Filter Housing: FCHQ7010 (fig #1 & #4)
4.	Desalinator Frame	Serves to mount the system and houses the piping and booster pump/motor. (fig $\#1$)
5.	Cleaning Solution Tank Assy.:	Tank for mixing cleaning solution. (Full Assy. ASCT120110) (Tank Only ASCT100175) (fig #4)
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) (fig #3)
8.	Inlet Pressure Gauge Assy.	Indicates the cartridge filter inlet pressure. ASIG120705 (Gauge Only GALK0406) (fig #3)
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. ASOV120705 (<i>fig #3</i>)
11.	Cleaning Tank Drain Valve Assy.	Used to drain the cleaning solution tank. ASDV120705 (fig #3)
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

ITEM	COMPONENT NAME	DESCRIPTION
13.	Flowmeter "Product Water"	Provides instantaneous indication of product water production in gallons per minute and liters per minute. FMTR50500 ($fig \#3$)
14.	Flowmeter "Reject Water"	Provides instantaneous indication of water being rejected in gallons per minute and liters per minute. FMTR50750 ($fig \#3$)
15.	Cartridge Filter Housing	Contains replaceable filter cartridge (5 micron). Filter Housing: FCHQ1520 Filter Element: FCCH0520 (fig #7)
16.	Cartridge Filter Housing	Contains replaceable filter cartridge (20 micron). Filter Housing: FCHQ1520 Filter Element: FCCH2020 (fig #7)
17	Booster Pump / Motor Assy.	Complete Pump/Motor Assy. (fig #5 & #6) 380-415/50Hz: ASBP120704-50 440-480/60Hz: ASBP120704-60
18.	Electric Motor	5 H.P. motor with 184T Frame (fig #5 & #6) MTRL1305
19.	Booster Pump	Plunger style Pump Frame 5 (fig #5 & #6) PUCS1051
20.	Pulsation Dampener	600 P.S.I., ½" 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.	Motor Drive Belts	DBBX59 (2x) (fig #5)
24.	Motor Tension System	Securing Bar: ASSR120769 (fig #5) Motor Bar: ASTR120769 Bolts: ASTB120769 (2x)
25.	Product Valve Assy.	Controls Direction of flow based on the quality of the Processed Water. (fig #7) 120 VAC – ASPV120705-120 220 VAC – ASPV120705-220
26.	Solenoid Valve (1/2"),	120 VAC – VSDB0840 (fig #7) 220 VAC – VSDB0850

COMPONENT PART NUMBERS & DESCRIPTIONS NOTE: Some items listed are optional and may not be included on your Aqua-Sep system

ITEM	COMPONENT NAME	DESCRIPTION
27	TDS Probe	Checks quality of processed water. (fig #7) MPCS1000
28.	Drain Manifold	ASDM120705 (fig #7)
29.	High Pressure Hose Assy. (3/4" x JIC-37°)	These are made to fit. Please indicate "End to End" measurement. Replace "" in part number with length in inches. ASHA1 (fig #8) [Example: ASHA1075 = 75 inches long]
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 [Refer to Drawing 120708-MSC For Full Details]

PART NUMBERS & DESCRIPTIONS

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

<u>ITEM</u>	PART NUMBER	DESCRIPTION
A.	FCAE3010	Cleaning Filter Element
В.	ASCT100175	Cleaning Tank (Tank Only – No Fittings)
C.	PNXS0800 (3x)	Pipe Nipple, SS, Sch 80, 1/2" x Close
D.	PTXS0800 (2x)	Pipe Tee, #3000, SS, 1/2"
E.	PEXS0800	Pipe Elbow, #3000, SS, ½"
F.	PBTS0804 (2x)	Pipe Bushing, SS, ½" x ¼"
G.	PNTS0400	Pipe Nipple, SS, 1/4" x Close
H.	PEGX0800	Pipe Adapter Elbow, PVC Sch 80, 1/2" Hose x FNPT
I.	FCMS120837	Flare Connector, ½" MNPT x ¾" - 37° Hose
J.	PNTS1210 (2x)	Pipe Nipple, SS, 3/4" x 2 1/2" Long
K.	PTTS1200	Pipe Tee, SS, ¾"
L.	PAHX1612 (2x)	Pipe Adapter, PVC Sch 80, 1" Hose x 3/4" MNPT
M.	FTEM0402	Fast & Tite Elbow, ¹ / ₄ " Tube x 1/8" MNPT
N.	ASSE100563	Suction Elbow (Fabricated) 3/4"
O.	PNTS1200	Pipe Nipple, SS, 3/4" x Close
P.	PPPX1600 (1')	Pipe, 1" PVC Sch 80 (order 1 foot)
Q.	PQSX1600	Pipe Cap, PVC Sch 80
R.	PETS1200	Pipe Elbow, SS, ¾"
S.	PSTS1200	Pipe Street Elbow, SS, 3/4"
T.	PPTS0800	Pipe Plug, SS, ½"
U.	PETS0800	Pipe Elbow, SS, ½"
V.	PUTS0800	Pipe Union, SS, ½"
W.	PNTS0800 (6x)	Pipe Nipple, SS, ½" x Close

PART NUMBERS & DESCRIPTIONS

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

ITEM	PART NUMBER	DESCRIPTION
X.	PAHX0812	Pipe Adapter, ½" Hose x ¾" MNPT
Y.	PTTX1200	Pipe Tee, PVC Sch 80, 3/4"
Z.	PBTX1208	Pipe Bushing, Threaded PVC, 3/4" x 1/2"
AA.	PTTS1200	Pipe Tee, SS, ¾"
BB.	FTEM0608	Fast & Tite Elbow, 3/8" Tube x 1/2" MNPT
CC.	FEFS1237 (2x)	Flare Elbow, 3/4" x 37° Hose
DD.	PQTX0800 (4x)	Pipe Cap, ½" Threaded
EE.	FTEF0800 (4x)	Fast & Tite Elbow, ½" Tube x FNPT
FF.	CEFS1200 (6x)	Compression Elbow, 3/4" Tube x FNPT
GG.	TUSS1200	Tubing, ³ / ₄ "
НН.	MSDA0400 (8x)	Membrane Saddle 4"
II.	FTTR0800	Fast & Tite Run Tee, ½" Tube x MNPT
J J.	PTTX0800	Pipe Tee, Threaded PVC Sch 80, 1/2"
KK.	PNTX0800	Pipe Nipple, PVC Sch 80, 1/2" x Close

CONSUMABLES & REBUILD PARTS

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

PART NUMBER	DESCRIPTION

PCVK4152 Booster Pump Valve Kit, Cat 1051

PCSK0987 Booster Pump Seal Kit, Cat 1051

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

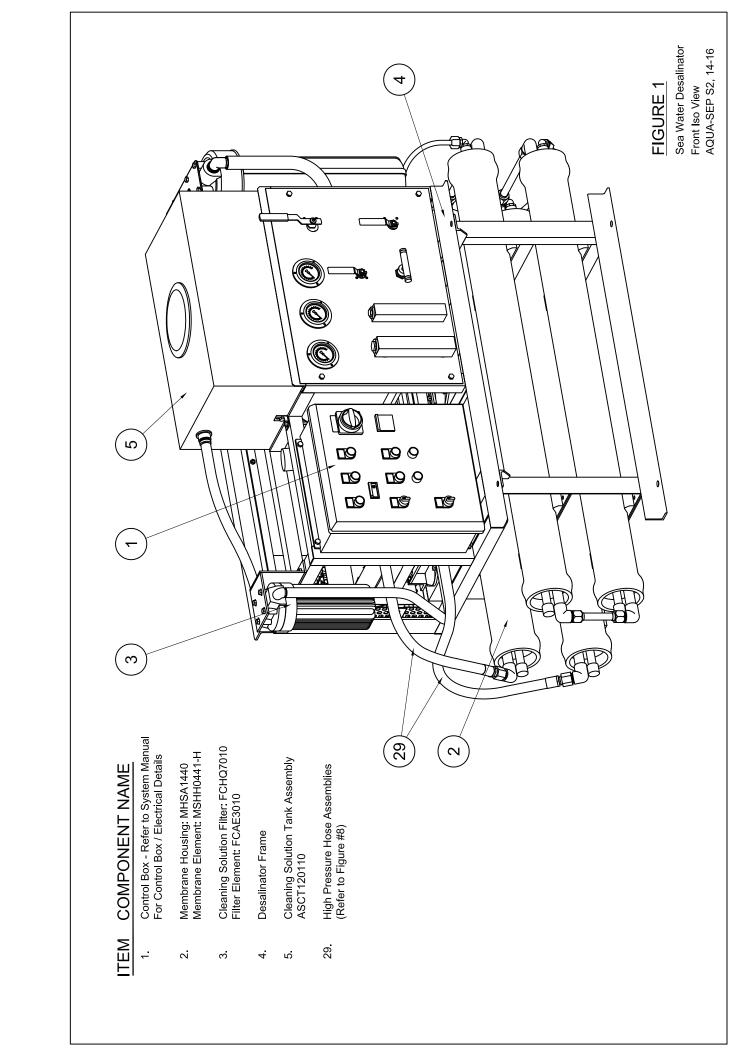
FCAE3010 Cleaning Filter

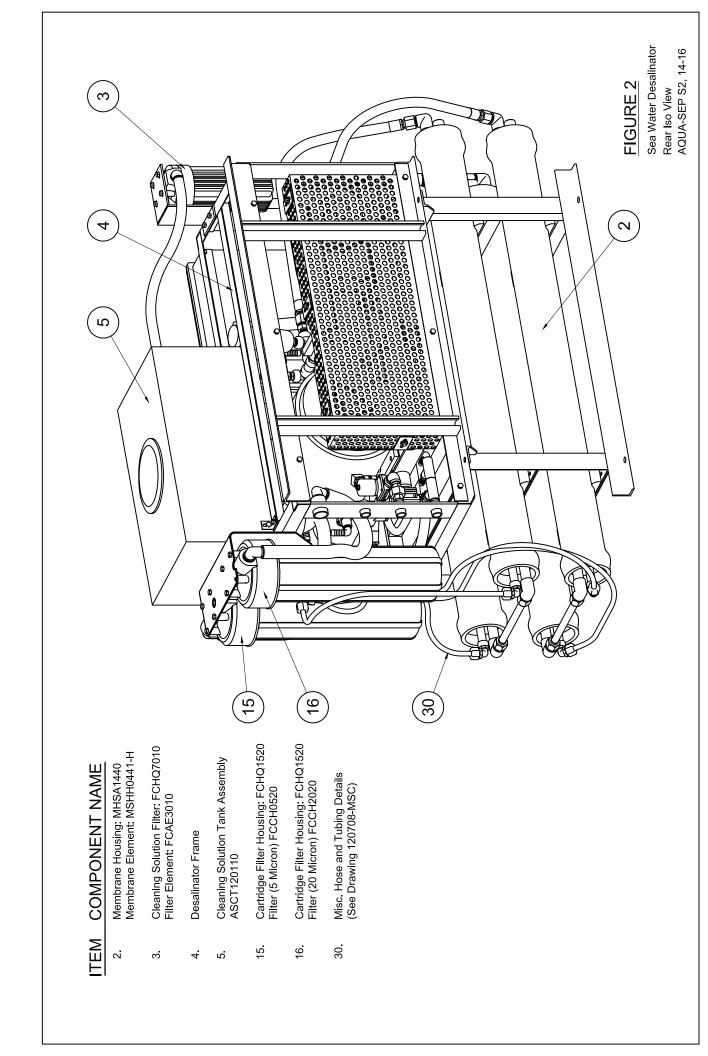
FCCH0520 Filter Element: (5 micron) x 20" Long, BB

FCCH2020 Filter Element: (20 micron) x 20" Long, BB

FCWQ1500 Filter Housing Wrench, BB

VRKD0800 Solenoid Valve Rebuild Kit ½"





ITEM COMPONENT NAME

- 6. Operating Pressure Gauge Assembly ASOG120705
- 7. Feed Pressure Gauge Assembly ASFG120705
- 8. Inlet Pressure Gauge Assembly ASIG120705

13)

 Operate / Clean Inlet Valve Assembly ASIV120705

FRONT VIEW

တ

10

0

Ref. Item #6

0

Ref. Item #8 -

Ref. Item #7

 Operate / Clean Outlet Valve Assembly ASOV120705

4

- Cleaning Tank Drain Valve Assembly ASDV120705
- Pressure Control Valve Assembly ASCV120705
- Flowmeter Product Water FMTR50500
- 14. Flowmeter Reject Water FMTR50750

Ref. Item #10

REAR VIEW

NOTE

For Connections Details & Tubing callouts Refer to Drawing 120708-MSC

FIGURE 3

Sea Water Desalinator Instrument Panel Views AQUA-SEP S2, 07-20

Ref. Item #12

COMPONENT NAME ITEM

Cleaning Solution Filter Housing FCHQ7010

က

Cleaning Solution Tank Assembly ASCT120110 2

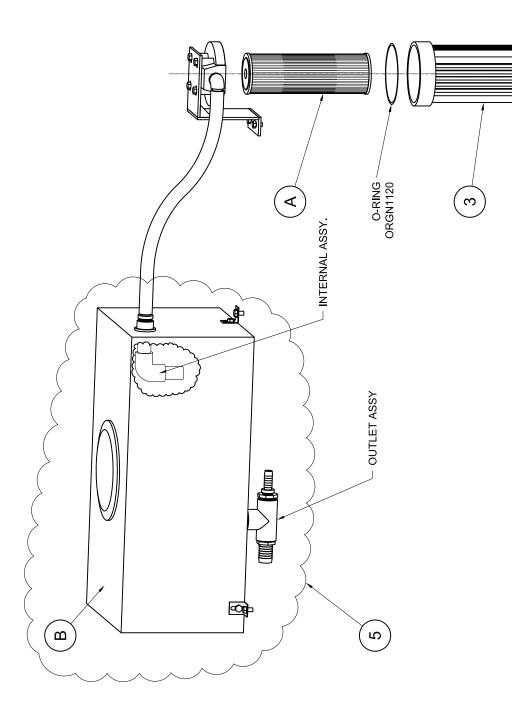
OUTLET ASSY:

PNTX1600 PTTX1600 PBTX1608 PAHX1600 PAHX0800

INTERNAL ASSY:

PNTX1200 PETX1200 PNTX1216

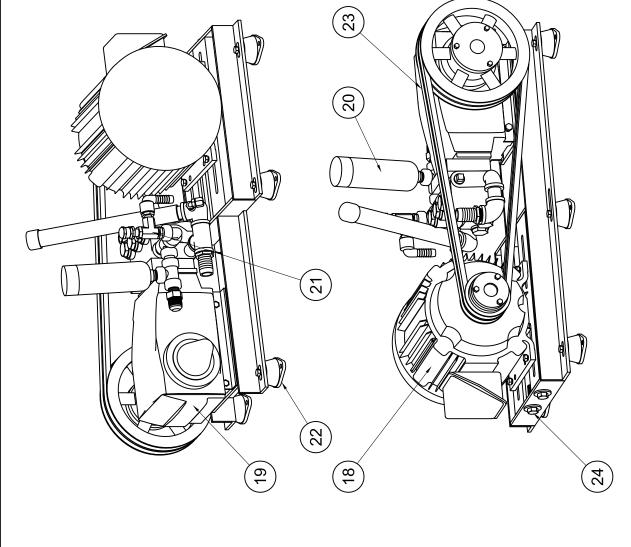
- Cleaning Filter Element FCAE3010 ⋖
- Cleaning Tank (Tank Only) ASCT100175 œ.



Sea Water Desalinator Cleaning Tank AQUA-SEP S2, 07-20 FIGURE 4

ITEM COMPONENT NAME

- Booster Pump / Motor Assembly (Complete as Shown) 380-415 / 50Hz: ASBP120704-50 440-480 / 60Hz: ASBP120704-60
- Electric Motor, 5 H.P. MTRL1305
- Booster Pump, Plunger PUCS1051
- Pulsation Dampener, 600 PSI PPDS0815
- 21. Pressure Relief Valve Valve Body: VRHS0400 Valve Spring: ASPS0001
- 22. Motor Mounts VBIR0507
- 23. Drive Belt DBBX59 (2x)
- 24. Motor Tensioning System Bolts: ASTB120769 (2x) Securing Bar: ASSR120769 Motor Bar: ASTR120769

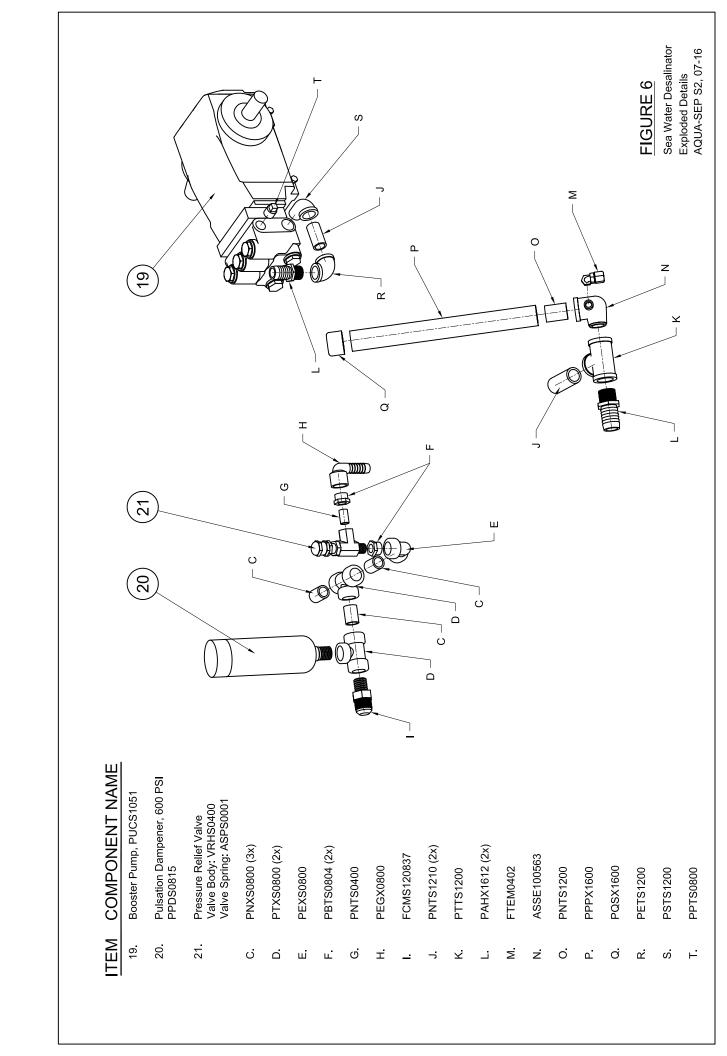


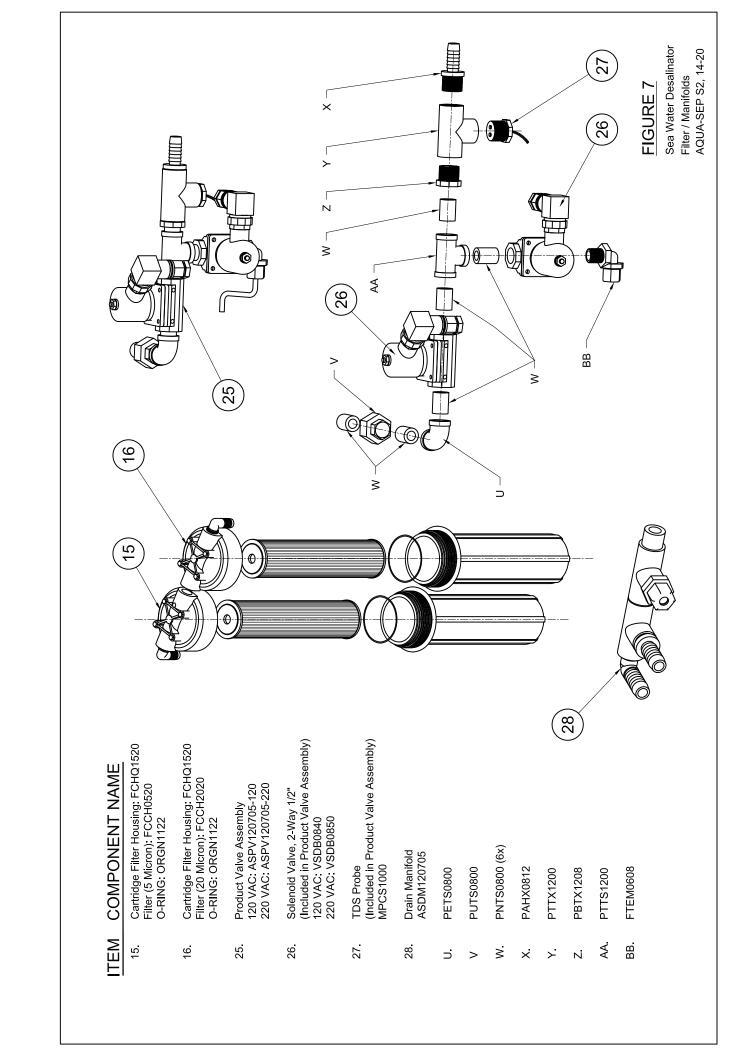
NOTE

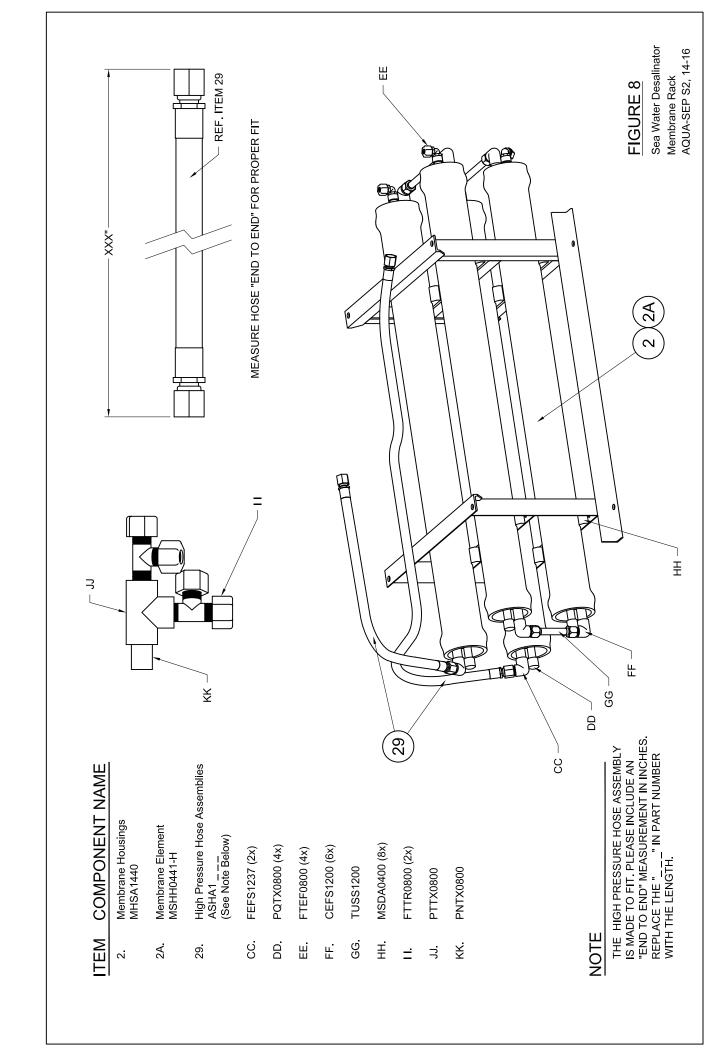
Detail exploded views on next sheet

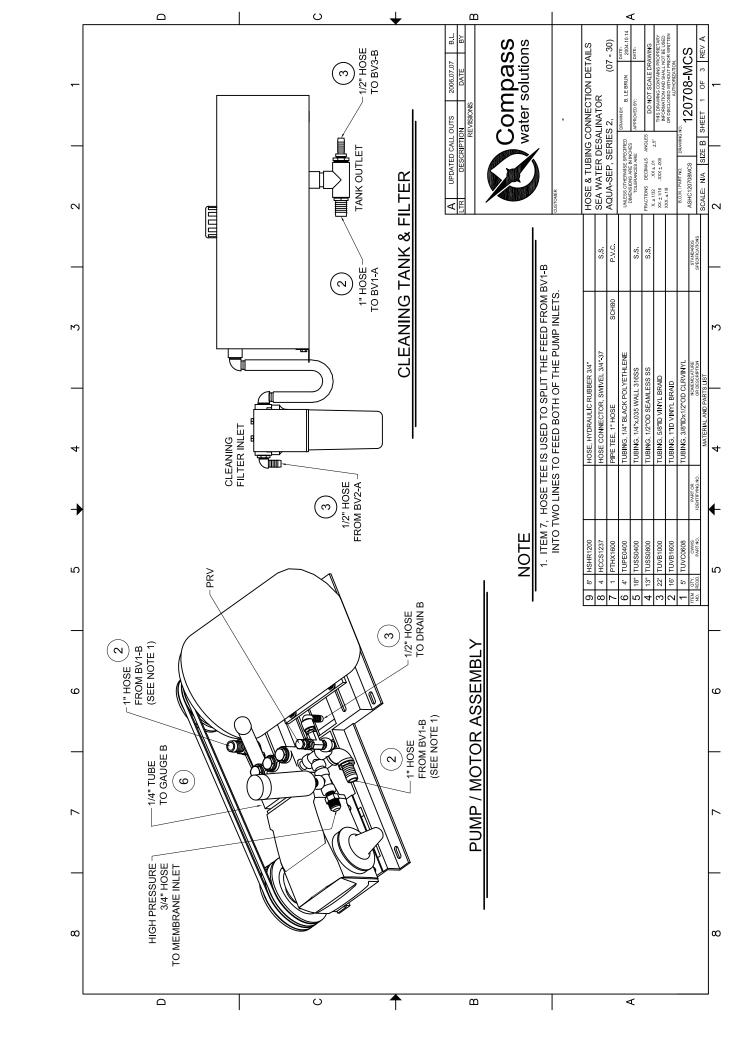
FIGURE 5

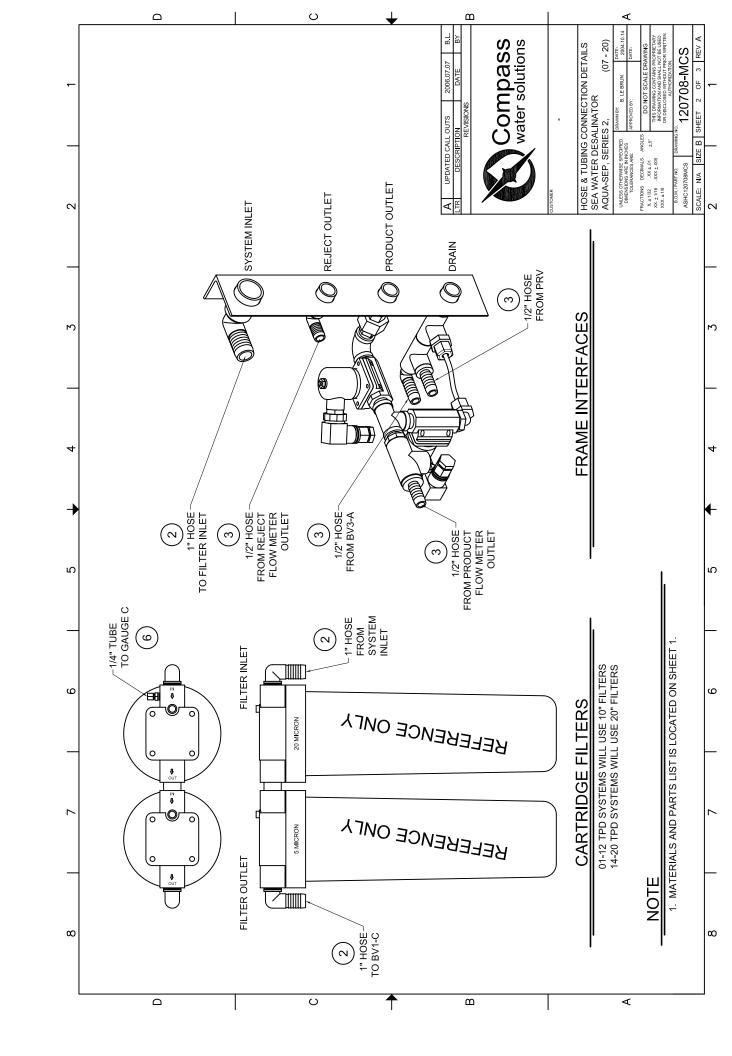
Sea Water Desalinator High Pressure Pump AQUA-SEP S2, 07-16

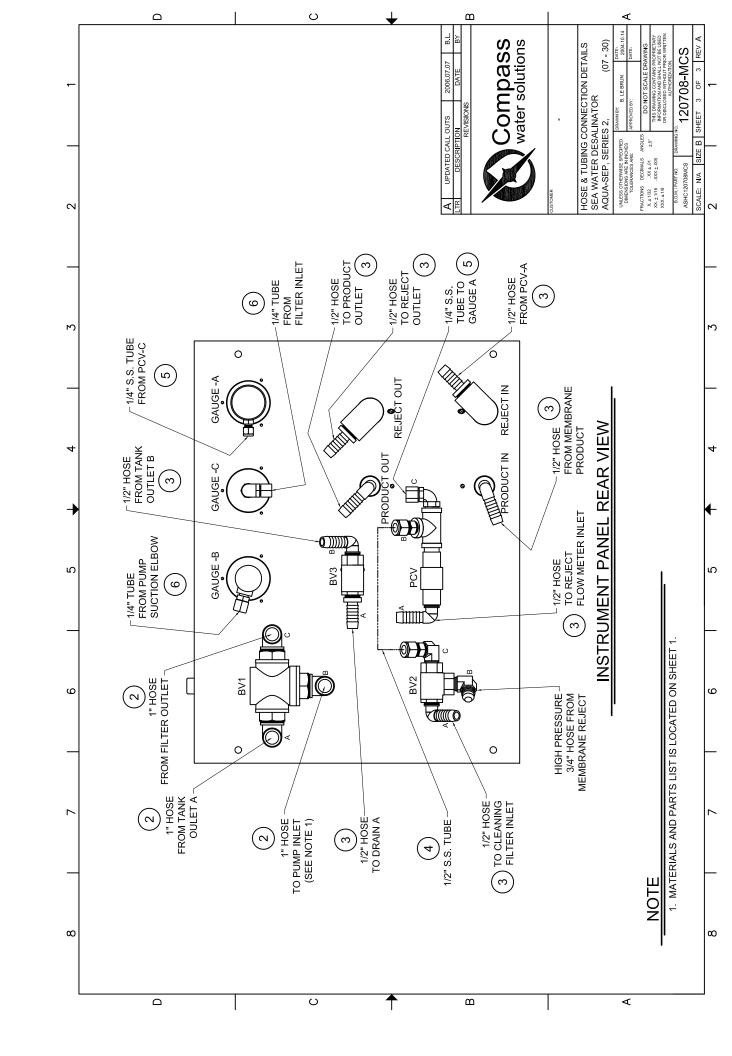








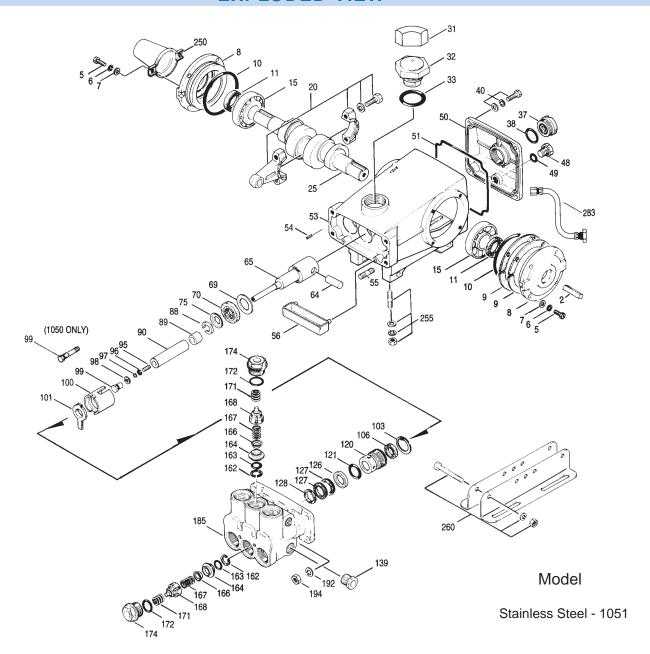




BOOSTER PUMP PARTS LIST

ITEM	PART NUMBER 1051	DESCRIPTION	QTY
• 2	KEYB1057	Key (M8x7.5x25))	1 •
5		Screw, Sems HHC (M6x16)	8
5 6	PPCS89618 PPCS15849	Screw, (M6x16) Lockwasher, Split (M6)	8 8
7	PPCS19933	Washer (M6)	8
8	PCBC43496	Cover, Bearing	2
9	PCSB43520 PCSB45387	Shim, Bearing Cover Shim, Split 2-Pc	2/4 0/4
10	PCBC11340	O-Ring, Bearing Cover	2
11	PCOS43495	Seal, Oil, Crankshaft	2
15 20	PCBR39060	Bearing, Roller	2
20		Rod, Connecting Assembly Rod, Connecting Assembly	3
25	PCCK43494	Crankshaft, Dual End	1
31	PCCP82871	Protector, Oil Cap	1
32 33	PCOC43211 PCOR14177	Cap, Oil Filler O-Ring, Filler Cap	1 1
37		Gauge, Oil, Bubble	1
38 40	PCGK44428	Gasket, Flat, Oil Gauge Screw, Sems HHC (M6x20)	1 4
48	PCDP25625	Plug, Drain (1/4"x11)	1
49	PCOR23170	O-Ring, Drain Plug	1
50	PCCC43491	Cover, Crankcase	1
51 ● 53	PCCK43488	O-Ring, Crankcase Cover Crankcase	1 1 •
54		Pin, Guide	2
	PCMS44005	Stud, Manifold (M10x45)	4
	PCOP44664 PCPR43507	Pan, Oil, w/Screws Pin, Rist	1 3
	PCPR45258	Rod, Plunger	3
	PCWR43504	Washer, Oil Seal	3
	PCOS43500 PCBS43506	Seal, Oil, Crankcase Slinger, Barrier	3 3
	PCWK45675	Washer, Keyhole	3
	PCCL45879	Collar, Spacer	3
	PCPL43552 PCRS89651	Plunger (M77) Stud, Plunger Retainer (M6x70	3
	PCBUR43235	Back-up-Ring, Plunger Retainer	3 3 3 3
	PCOR17399	O-Ring, Plunger Retainer	3
	PCOR14160 PCOR46204	O-Ring, Plunger Retainer O-Ring, Plunger Retainer	<i>3</i> 3
	PCGK44041	Gasket, Plunger Retainer	3
99	PCPR44031	Retainer, Plunger	3 3
100	PCSR43509	Retainer w/Stud Retainer, Seal	3 3
	PCWK43554	Wick, Long Tab	3
	PCRR44036	Ring, Retaining	3
	PCPS44035 PCPS <i>44388</i>	Seal, LPS w/SS-Spg Seal, LPS w/SS-Spg	3 <i>3</i>
	1 01 344300	Sear, Er S W/SS-Spg	3
	PCSC48464	Case, Seal	3
	PCRG14762 PCOR <i>11737</i>	O-Ring, Seal Case O-Ring, Seal Case	3 <i>3</i>
	FOOR11737	O-King, Sear Case	3
	PCFS 48389	Adapter, Female	3
127	PCVP 103692	V-Packing	6
128		Adapter, Male	3
139 162	PCBR43248	Plug, Inlet (3/4" NPT) Back-up-Ring, Valve Seat	1 6
163	PCVS43249	O-Ring, Seat	6
	PCOR <i>44383</i>	O-Ring, Seat	6
164	PCVS 44037	O-Ring, Seat Seat	<i>6</i> 6
166	PCBL44038	Valve	6
167	PCVB44564	Spring, Valve	6
168 171	PCVR44564	Retainer, Spring Coil Spring, Valve Plug	6 6
172	PCOR7617	O-Ring, Valve Plug	6
	PCOR11691	O-Ring, Valve Plug	6
174	PCVP 48463	<i>O-Ring, Valve Plug</i> Plug, Valve	<i>6</i> 6
● 185		Head, Manifold	1 •
192		Lockwasher, Split (M10)	4
194		Nut, Hex (M10)	4

EXPLODED VIEW



1051 250	
255 Mounting, Direct (Inclds: 12490, 12503, 14050, 81048) 260 Rail, Angle Assy, A (30635, 30903, 30921, 30912) 265 Kit, Complete Mounting, U.S. (30613, 30206, 30059, 30067, 269 PCPU30206 Pulley (9.75") AB [See complete Drive Packages, Tech Bulletin 03] 274 Hub, "H", M30 (Keyway M8) [See complete Drive Packages, Tech Bulletin 03] 283 Kit, Oil Drain 290 Gasket, Liquid (1.5 oz.) 299 PHCS1051 Head, Complete 300 PCSK3916 Kit, Seal (Inclds: 97, 103, 106, 121, 127) PCSK0986 Kit, Seal (Inclds: 97, 103, 106, 121, 127) Xit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) Xit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) Xit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172)	
260 Rail, Angle Assy, A (30635, 30903, 30921, 30912) 265 Kit, Complete Mounting, U.S. (30613, 30206, 30059, 30067, ● 269 PCPU30206 Pulley (9.75") AB [See complete Drive Packages, Tech Bulletin 03] ● 274 Hub, "H", M30 (Keyway M8) [See complete Drive Packages, Tech Bulletin 03] ■ 283 Kit, Oil Drain 290 Gasket, Liquid (1.5 oz.) ■ 299 PHCS1051 Head, Complete 300 PCSK3916 Kit, Seal (Inclds: 97, 103, 106, 121, 127) PCSK0986 Kit, Seal (Inclds: 97, 103, 106, 121, 127) 310 PCVK34387 Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) PCVK30987 Kit, Valve (Inclds: 162, 1 63, 164, 166, 167, 168, 172)	1
265 Kit, Complete Mounting, U.S. (30613, 30206, 30059, 30067, ● 269 PCPU30206 Pulley (9.75") AB [See complete Drive Packages, Tech Bulletin 03] ● 274 Hub, "H", M30 (Keyway M8) [See complete Drive Packages, Tech Bulletin 03] ■ 283 Kit, Oil Drain 290 Gasket, Liquid (1.5 oz.) ■ 299 PHCS 1051 Head, Complete 300 PCSK3916 Kit, Seal (Inclds: 97, 103, 106, 121, 127) PCSK0986 Kit, Seal (Inclds: 97, 103, 106, 121, 127) **The complete Mounting, U.S. (30613, 30206, 30059, 30067, 103) **Hub, "H", M30 (Keyway M8) [See complete Drive Packages, Tech Bulletin 03] **Kit, Oil Drain **Gasket, Liquid (1.5 oz.) **Head, Complete Mounting, U.S. (30613, 30206, 30059, 30067, 103) **Example of Complete Drive Packages, Tech Bulletin 03] **Example of Complete Drive Packages, Tech	1
● 269 PCPU30206 Pulley (9.75") AB [See complete Drive Packages, Tech Bulletin 03] ● 274 Hub, "H", M30 (Keyway M8) [See complete Drive Packages, Tech Bulletin 03] ● 283 Kit, Oil Drain 290 Gasket, Liquid (1.5 oz.) ● 299 PHCS 1051 Head, Complete 300 PCSK3916 Kit, Seal (Inclds: 97, 103, 106, 121, 127) PCSK0986 Kit, Seal (Inclds: 97, 103, 106, 121, 127) 310 PCVK 34387 Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) Yeve 30987 Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172)	1
 ■ 274 ■ 283 290 ■ 289 ■ 299 ■ PHCS 1051 ■ PCSK3916 ■ PCSK0986 ■ PCVK 34387 ■ PCVK 30987 Hub, "H", M30 (Keyway M8) [See complete Drive Packages, Tech Bulle Kit, Oil Drain Gasket, Liquid (1.5 oz.) Head, Complete Kit, Seal (Inclds: 97, 103, 106, 121, 127) Kit, Seal (Inclds: 97, 103, 106, 121, 127) Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) 	30764) 1
 ■ 283 □ 290 □ 300 □ 4 3 4387 □ 5 1 5 1 6 3 164, 166, 167, 168, 172) □ 5 1 7 10 7 10 7 10 7 10 7 10 7 10 7 10	1
290 Gasket, Liquid (1.5 oz.) ● 299 PHC\$1051 Head, Complete 300 PC\$K3916 Kit, Seal (Inclds: 97, 103, 106, 121, 127) PC\$K0986 Kit, Seal (Inclds: 97, 103, 106, 121, 127) 310 PCVK34387 Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) PCVK30987 Kit, Valve (Inclds: 162, 1 63, 1 64, 1 66, 1 67, 1 68, 1 72)	in 03] 1
● 299 PHCS1051 Head, Complete 300 PCSK3916 Kit, Seal (Inclds: 97, 103, 106, 121, 127) PCSK0986 Kit, Seal (Inclds: 97, 103, 106, 121, 127) 310 PCVK34387 Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) PCVK30987 Kit, Valve (Inclds: 162, 1 63, 164, 166, 167, 168, 172)	1
300 PCSK3916 Kit, Seal (Inclds: 97, 103, 106, 121, 127) PCSK0986 Kit, Seal (Inclds: 97, 103, 106, 121, 127) 310 PCVK34387 Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) PCVK30987 Kit, Valve (Inclds: 162, 1 63, 164, 166, 167, 168, 172)	1
70 PCSK0986 Kit, Seal (Inclds: 97, 103, 106, 121, 127) 810 PCVK34387 Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) 811 PCVK30987 Kit, Valve (Inclds: 162, 1 63, 164, 166, 167, 168, 172)	1
310 PCVK 34387 Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172) PCVK 30987 Kit, Valve (Inclds: 162,1 63, 164, 166, 167, 168, 172)	1
PCVK 30987 Kit, Valve (Inclds: 162,1 63, 164, 166, 167, 168, 172)	1
	2
PCVK3 1258 Kit, Valve (Inclds: 162, 163, 164, 166, 167, 168, 172)	2
	2
350 PPCC0696 Tool, Valve Seat Removal	1
351 PPCC3523 Tool, Seal Case Removal	1
	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.