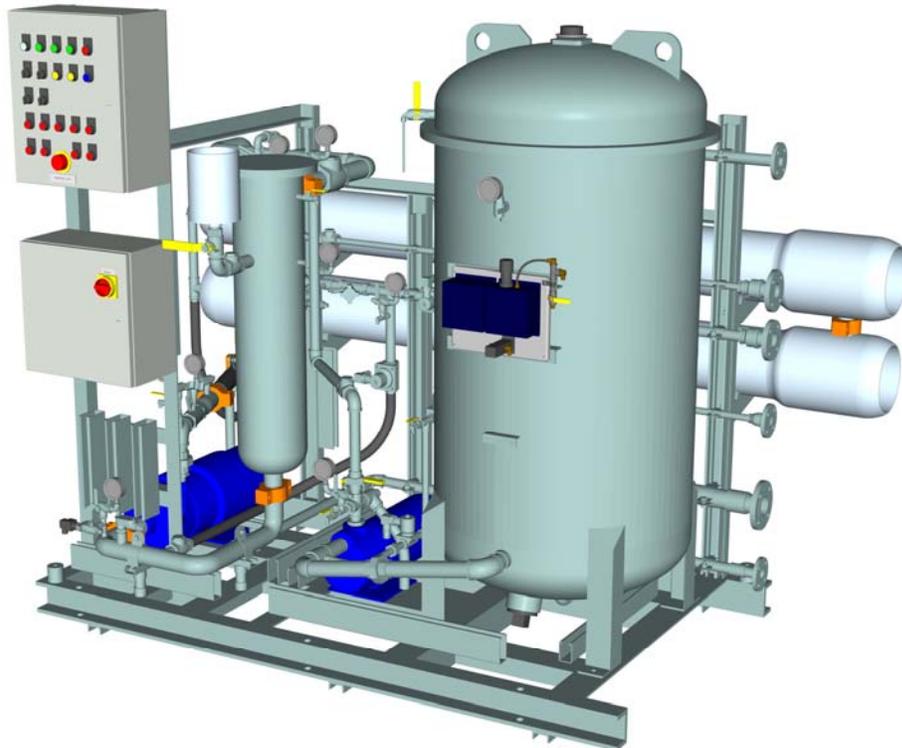


February 2016

**PARTS CATALOG  
OIL WATER SEPARATOR  
ULTRA-SEP MODEL 5000-J020**



**Compass**  
water solutions

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

WEB: [compasswater.com](http://compasswater.com)

TEL: (949) 222-5777

FAX: (949) 222-5770



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

When ordering parts, be certain to include serial number and voltage of the Ultra-Sep model.

<b>Model Number</b>	<b>Description</b>
USBWS5000-J020	ULTRA-SEP OILY WATER SEPARATOR

For Electrical Control Panel and Motor Control Center,  
Refer to your Operation and Maintenance Manual.

For assistance contact COMPASS at [parts@compasswater.com](mailto:parts@compasswater.com)

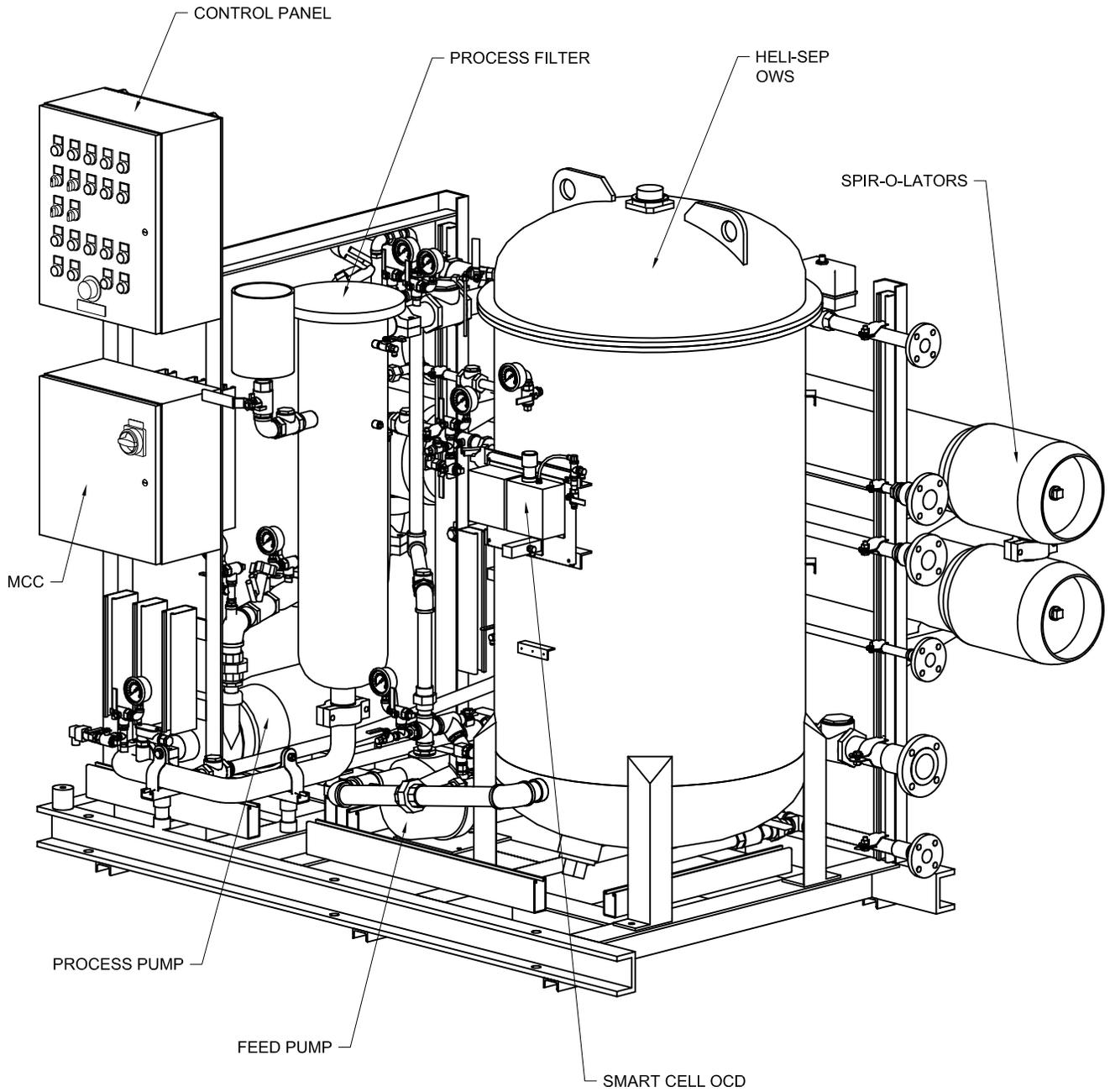
This parts book will cover all  
Ultra-Sep system Serial numbers:

47020	47050	47323
47021	47051	47384
47042	47052	47385
47049	47322	

Some custom items may not be shown, refer to the  
Installation and Operation Manual for your specific system

# **TABLE OF CONTENTS**

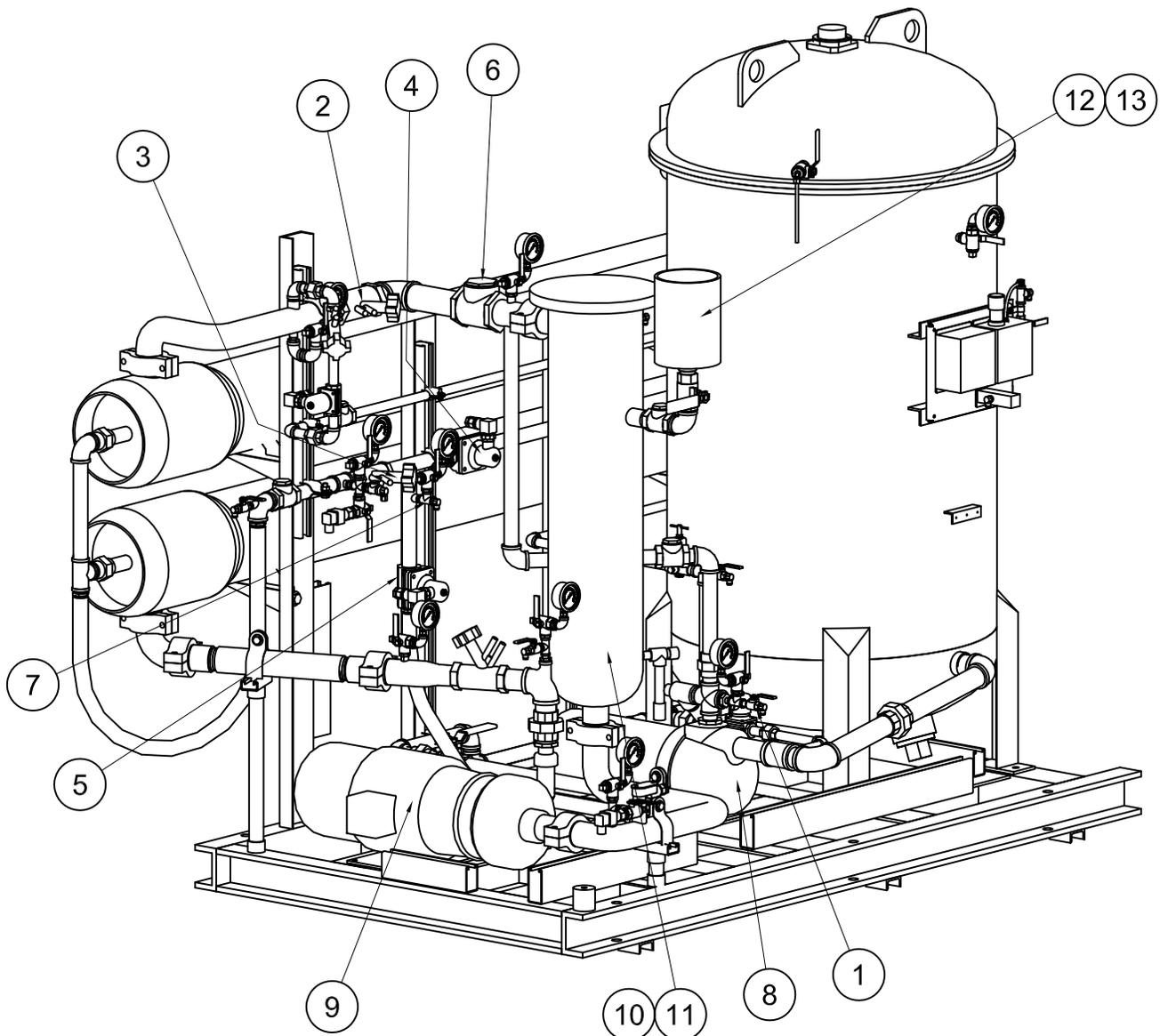
<b>OVERVIEW .....</b>	<b>4</b>
<b>PARTS VIEW 1 .....</b>	<b>5</b>
<b>PARTS VIEW 2 .....</b>	<b>6</b>
<b>PARTS VIEW 3 .....</b>	<b>7</b>
<b>PRESSURE GAUGES &amp; SWITCHES .....</b>	<b>8</b>
<b>SPIR-O-LATOR HOUSING .....</b>	<b>9</b>
<b>SPIR-O-LATOR FEED END .....</b>	<b>10</b>
<b>SPIR-O-LATOR CONC. END .....</b>	<b>11</b>
<b>HELI-SEP DETAILS .....</b>	<b>12</b>
<b>PUMP 1 (PU1) 60Hz PARTS .....</b>	<b>13</b>
<b>PUMP 2 (PU2) 60Hz PARTS .....</b>	<b>14</b>
<b>SMART BILGE ALARM PARTS .....</b>	<b>15</b>
<b>DEPTH FILTER .....</b>	<b>16</b>
<b>RECOMMENDED ON BOARD SPARES .....</b>	<b>17</b>



# PARTS LIST

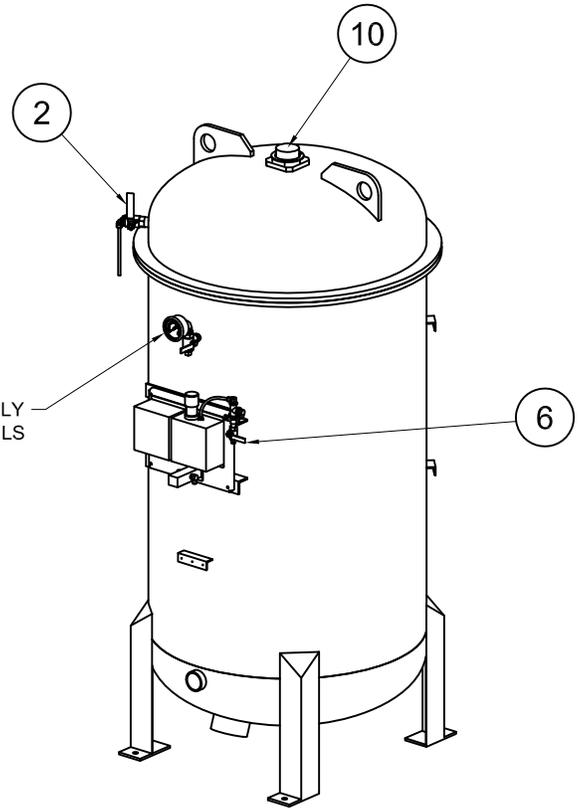


ITEM NO.	PART & ID #	CWS PART NO.	NOMENCLATURE OR DESCRIPTION
1	BV8	VBLB0400	BALL VALVE, 1/4" (SAMPLE)
2	GV2	VCTB3200	CONTROL VALVE, 2", CBV
3	GV3	VCTB1600	CONTROL VALVE, 1", CBV
4	SV1	VSDB1650	240V - SOLENOID VALVE, 1"
5	SV2	VSDB1650	240V - SOLENOID VALVE, 1"
6	CV3	VSCB3200	CHECK VALVE, SWING, 2"
7	CV8	VLCB0408	CHECK VALVE, LIFT, 1/4"
8	PU1	PMGI741301	60Hz - FEED PUMP / MOTOR
9	PU2	PMGI271310-W	60Hz - PROCESS PUMP / MOTOR
10	FIL1	FHGB1720-US	PROCESS FILTER HOUSING
11	FIL1	ORGN8000	PROCESS FILTER O-RING
12		USCC0570	US CLEANING CANISTER
13		USCL0570	US CLEANING CANISTER LID

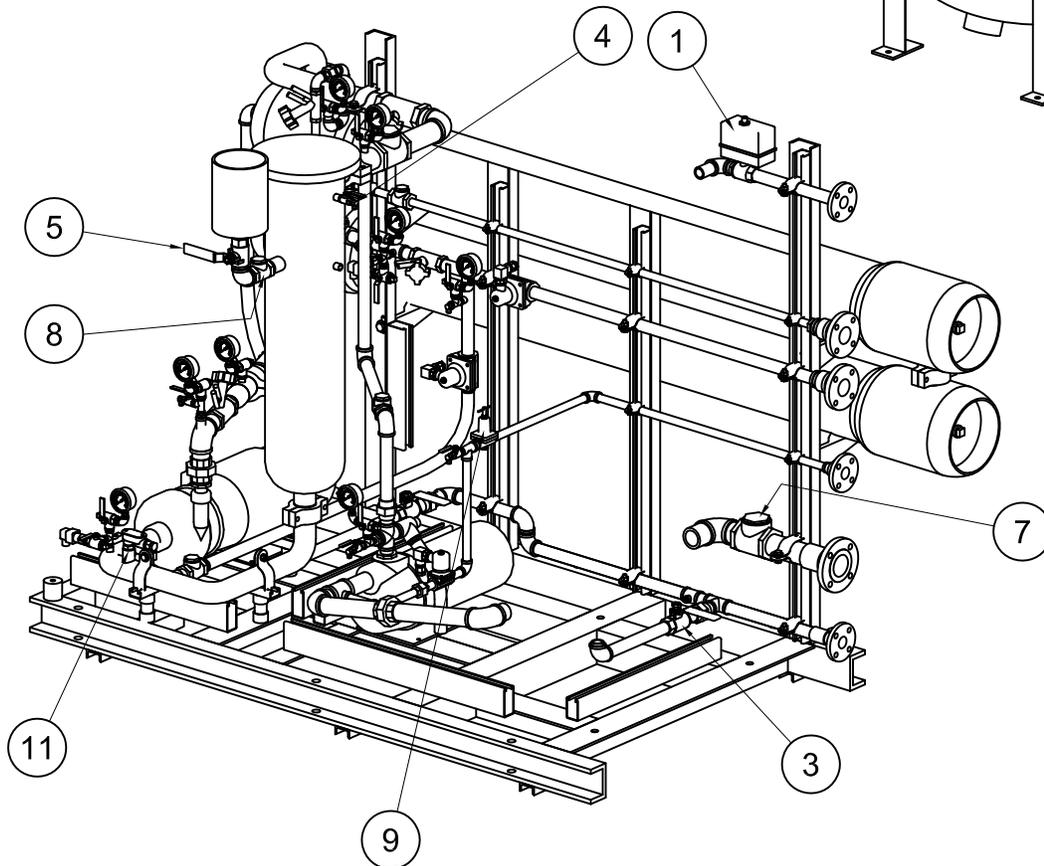


# PARTS LIST

ITEM NO.	PART & ID #	CWS PART NO.	NOMENCLATURE OR DESCRIPTION
1	MV1	VBEB1655	240V - EA BALL VALVE, 1"
2	BV2	VBLB0800	BALL VALVE, 1/2" (VENT)
3	BV3	VBLB1600	BALL VALVE, 1"
4	BV4	VBLB0400	BALL VALVE, 1/4" (VENT)
5	BV6	VBLB1600	BALL VALVE, 1"
6	BV7	VBLB0400	BALL VALVE, 1/4" (DRAIN)
7	CV1	VSCB3200	CHECK VALVE, SWING, 2"
8	CV9	VSCB1600	CHECK VALVE, SWING, 1"
9	RV1	VRGB0823	REGULATOR VALVE, 1/2"
10	OSP	OSPE0074	OIL SENSING PROBE "E"
11	TSH1	SWAT0806	TEMP. SWITCH, 1/2"



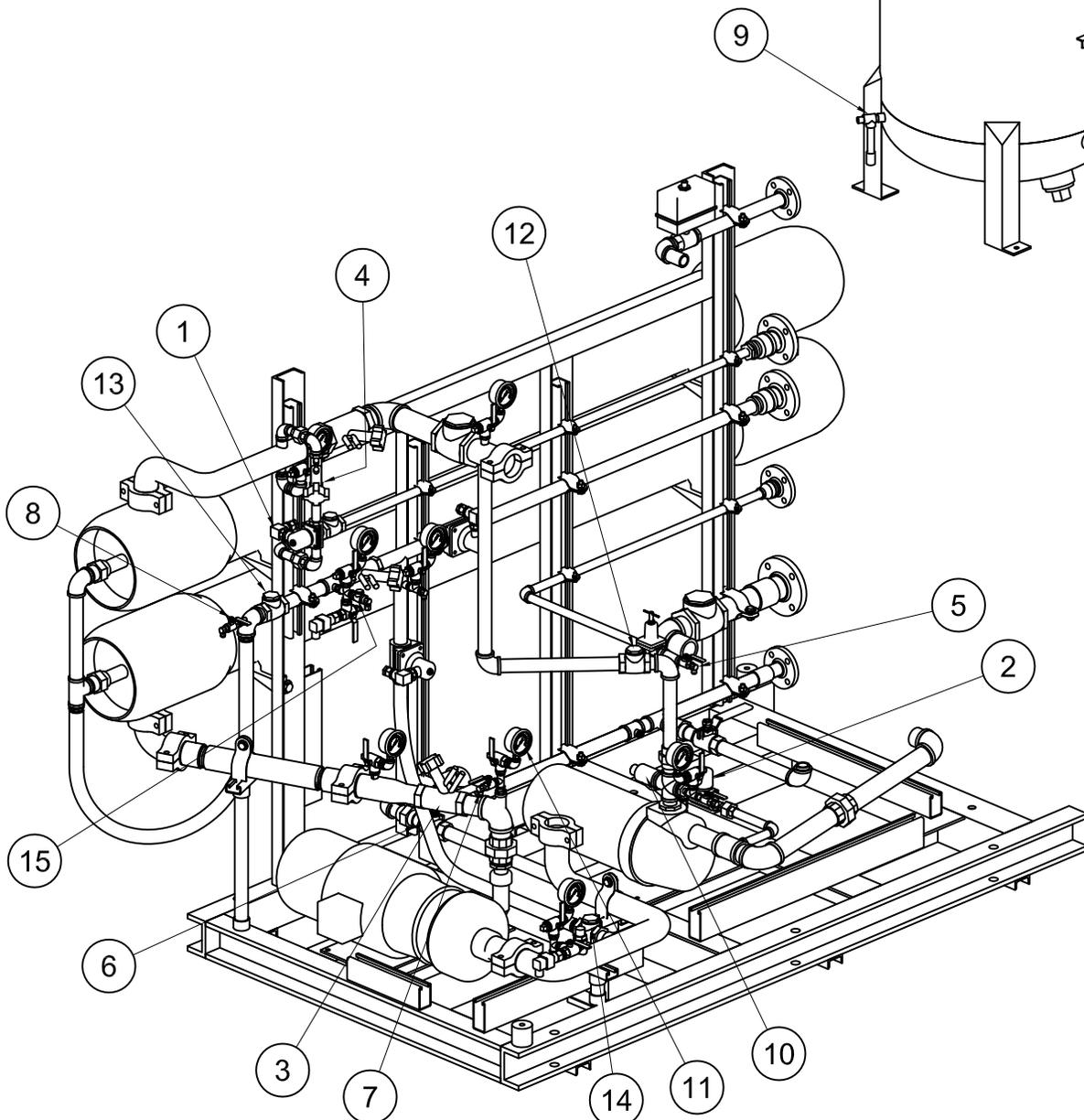
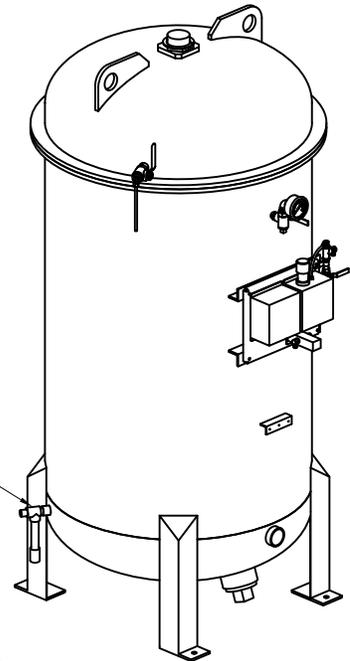
TYPICAL GAUGE ASSEMBLY  
SEE PAGE 8 FOR DETAILS



# PARTS LIST

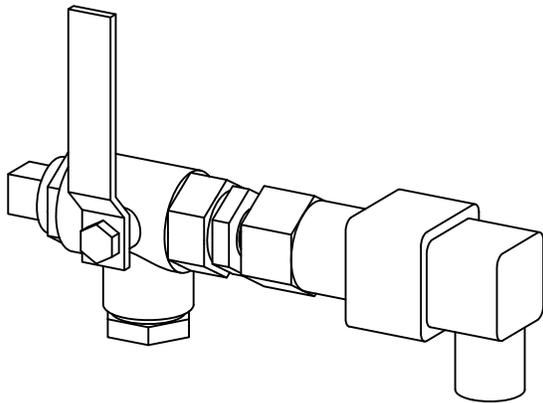


ITEM NO.	PART & ID #	CWS PART NO.	NOMENCLATURE OR DESCRIPTION
1	SV3	VSDB0850	240V - SOLENOID VALVE, 1/2"
2	SV4	VSDB0850	240V - SOLENOID VALVE, 1/2"
3	GV1	VCTB2400	CONTROL VALVE, 1 1/2", CBV
4	GV4	VCTB0800	CONTROL VALVE, 1/2", CBV
5	BV1	VBLB0400	BALL VALVE, 1/4"
6	BV5	VBLB1600	BALL VALVE, 1" (DRAIN)
7	BV9	VBLB0400	BALL VALVE, 1/4" (SAMPLE)
8	BV10	VBLB0400	BALL VALVE, 1/4" (SAMPLE)
9	PR1	VRLB1220-35	RELIEF VALVE, 35PSI, 3/4"
10	PR2	VRLB1220-50	RELIEF VALVE, 50PSI, 3/4"
11	PI3	GALB0405-J020	PRESS. GAUGE, 0-400PSI
12	CV2	VSCB1600	CHECK VALVE, SWING, 1"
13	CV4	VSCB1600	CHECK VALVE, SWING, 1"
14	CV5	VSCB1600	CHECK VALVE, SWING, 1"
15	CV7	VSCB0400	CHECK VALVE, SWING, 1/4"

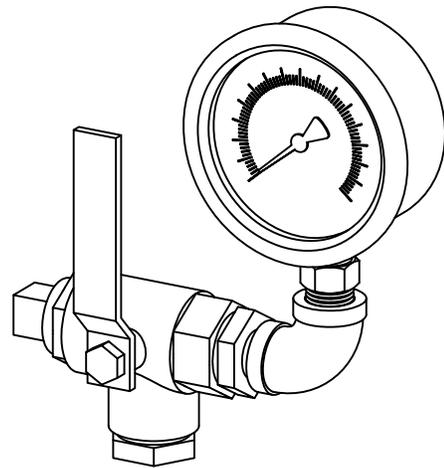


# PARTS LIST

PART & ID #	CWS PART NO.	NOMENCLATURE OR DESCRIPTION
	VBTB0401	VALVE, BALL, THREE WAY, 1/4" NPT
PI1	GALK0401-J020	GAUGE, V/P 30-0-60, 2 1/2" D, FF
PI2	GALB0402-J020	GAUGE, PSI 0-200, 2 1/2" D, FF, RANGE 0-40 PSI
PI3	GALB0402-J020	GAUGE, PSI 0-200, 2 1/2" D, FF, RANGE 0-40 PSI
PI4	GALB0402-J020	GAUGE, PSI 0-200, 2 1/2" D, FF, RANGE 0-40 PSI
PI5	GALB0403-J020	GAUGE, PSI 0-200, 2 1/2" D, FF, RANGE 60-120 PSI
PI6	GALB0403-J020	GAUGE, PSI 0-200, 2 1/2" D, FF, RANGE 60-120 PSI
PI7	GALB0404-J020	GAUGE, PSI 0-200, 2 1/2" D, FF, RANGE 60-90 PSI
PI8	GALB0402-J020	GAUGE, PSI 0-200, 2 1/2" D, FF, RANGE 0-40 PSI
PI9	GALB0405-J020	GAUGE, PSI 0-400, 2 1/2" D, FF, RANGE 100-180 PSI
PSL1	SWVB0430	SWITCH VACUUM, 1/4" PRESET @ 5"Hg
PSL2	SWMB0030	SWITCH, LOW PRESS., 1/4" SET @ 30 PSI



PRESSURE SWITCH

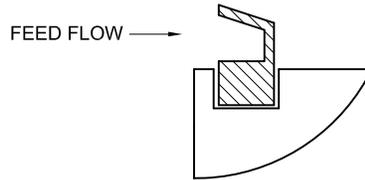


PRESSURE GAUGE

## ULTRA-SEP - TYPICAL SET UP

# PARTS LIST

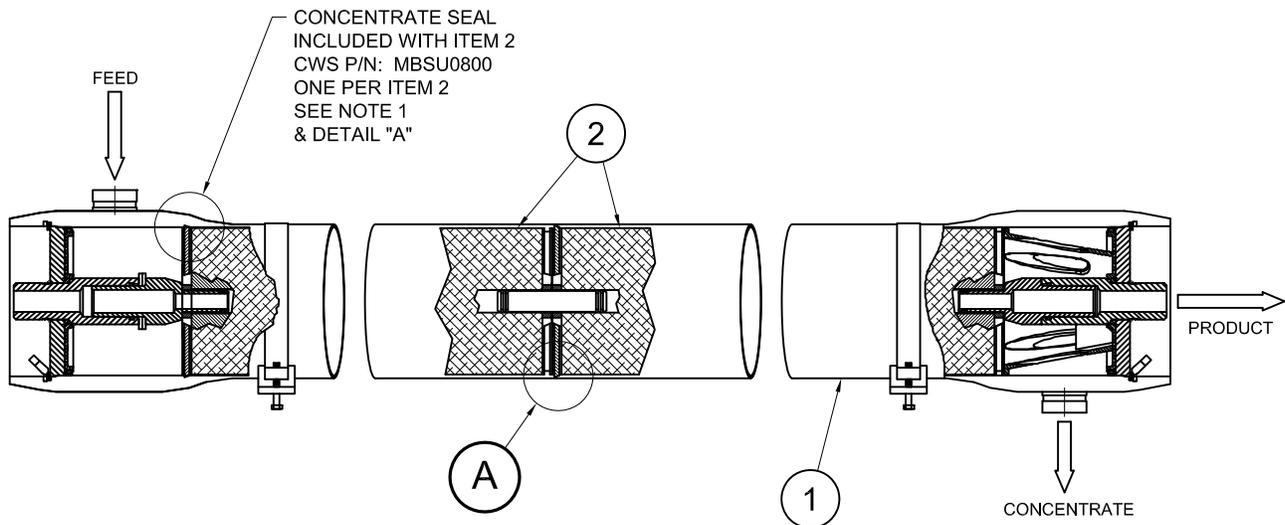
ITEM NO.	QTY. REQD.	CWS PART NO.	NOMENCLATURE OR DESCRIPTION
1	1	MHUP2840	MEMBRANE HOUSING, 8", 2L, 2" VIC 180°
2	2	MUFO0852	SPIR-O-LATOR, UF OWS 8" x 40"
3	2	JTMH0800	HOUSING HEAD REMOVAL TOOL (2 REQ)
4	1	JTMH0832	HOUSING 2" PORT REPAIR TOOL



## DETAIL

A

IMPORTANT, NOTE  
CONCENTRATE SEAL  
ORIENTATION  
(2 PLACES)



## 8" SPIR-O-LATOR HOUSING - DOUBLE ELEMENT

### NOTES

1. THE CONCENTRATE SEAL END OF THE SPIR-O-LATOR MUST BE INSTALLED TOWARD THE HOUSING FEED AS SHOWN. SEE DETAIL "A".
2. ITEMS 3 AND 4 ARE TOOLS FOR HOUSING MAINTENANCE.

# PARTS LIST

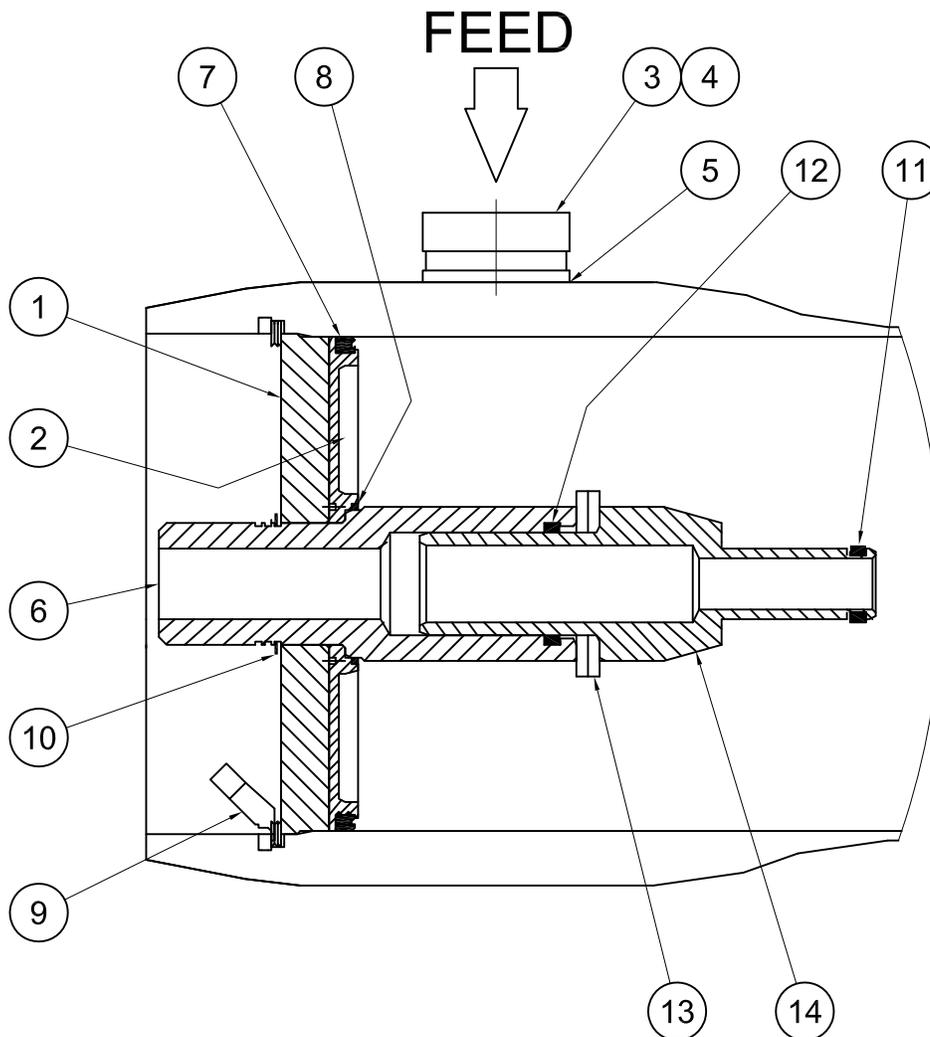


ITEM NO.	QTY. REQD.	CWS PART NO.	NOMENCLATURE OR DESCRIPTION
1	1	MHBP0815	BEARING PLATE
2	1	MHSP0815	SEAL PLATE
3	1	MHVP0890	FEED / CONCENTRATE PORT 2"
4	2	MHRP0890	RETAINING RING, FEED / CONCENTRATE PORT
5	1	MHSP0890	FEED / CONCENTRATE PORT SEAL
6	1	MHPP0815	PERMEATE PORT
7	1	MORN0442MK	HEAD SEAL
8	1	MORN0229	PERMEATE PORT SEAL
9	1	MHRR0815	HEAD RETAINING RING W/ FINGER PULL
10	1	MHPR0815	RETAINING RING, PERMEATE PORT
11	1	MORN0119-N	PWT SEAL, O-RING
12	1	MORN0326	ADAPTER SEAL, O-RING
13	2	MHSV0815	ADAPTER SPACERS, 3/16"
14	1	MADP0815	MEMBRANE ADAPTOR, 8"
15	1	MSPA0874	SUPPORT SADDLE, MOUNTING STRAP, & BOLTS

## NOTES

- ITEM 15 IS NOT SHOWN ON DRAWING.
- ITEM 16 IS ONLY ON CONCENTRATE END OF HOUSING.

KIT	ITEMS CONTAINED	CWS PART NUMBER
COMPLETE HEAD	ITEMS 1,2,3,4,6,9,10,13,14,16	MHHK0815
SEAL KIT	ITEMS 5,7,8,11,12	MHSK0815



# PARTS LIST

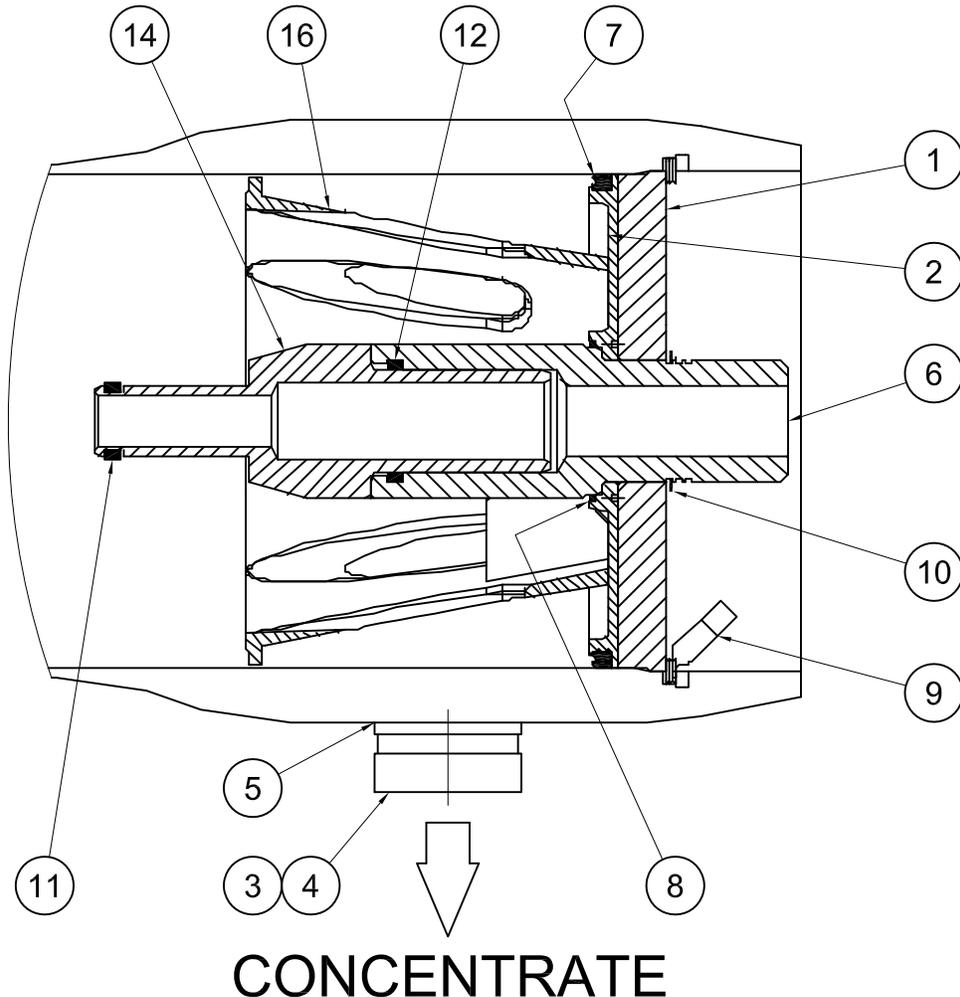


ITEM NO.	QTY. REQD.	CWS PART NO.	NOMENCLATURE OR DESCRIPTION
1	1	MHBP0815	BEARING PLATE
2	1	MHSP0815	SEAL PLATE
3	1	MHVP0890	FEED / CONCENTRATE PORT 2"
4	2	MHRP0890	RETAINING RING, FEED / CONCENTRATE PORT
5	1	MHSP0890	FEED / CONCENTRATE PORT SEAL
6	1	MHPP0815	PERMEATE PORT
7	1	MORN0442MK	HEAD SEAL
8	1	MORN0229	PERMEATE PORT SEAL
9	1	MHRR0815	HEAD RETAINING RING W/ FINGER PULL
10	1	MHPR0815	RETAINING RING, PERMEATE PORT
11	1	MORN0119-N	PWT SEAL, O-RING
12	1	MORN0326	ADAPTER SEAL, O-RING
13	2	MHSV0815	ADAPTER SPACERS, 3/16"
14	1	MADP0815	MEMBRANE ADAPTOR, 8"
15	1	MSPA0874	SUPPORT SADDLE, MOUNTING STRAP, & BOLTS
16	1	MHTR0815	THRUST CONE (ONLY ON CONCENTRATE END)

## NOTES

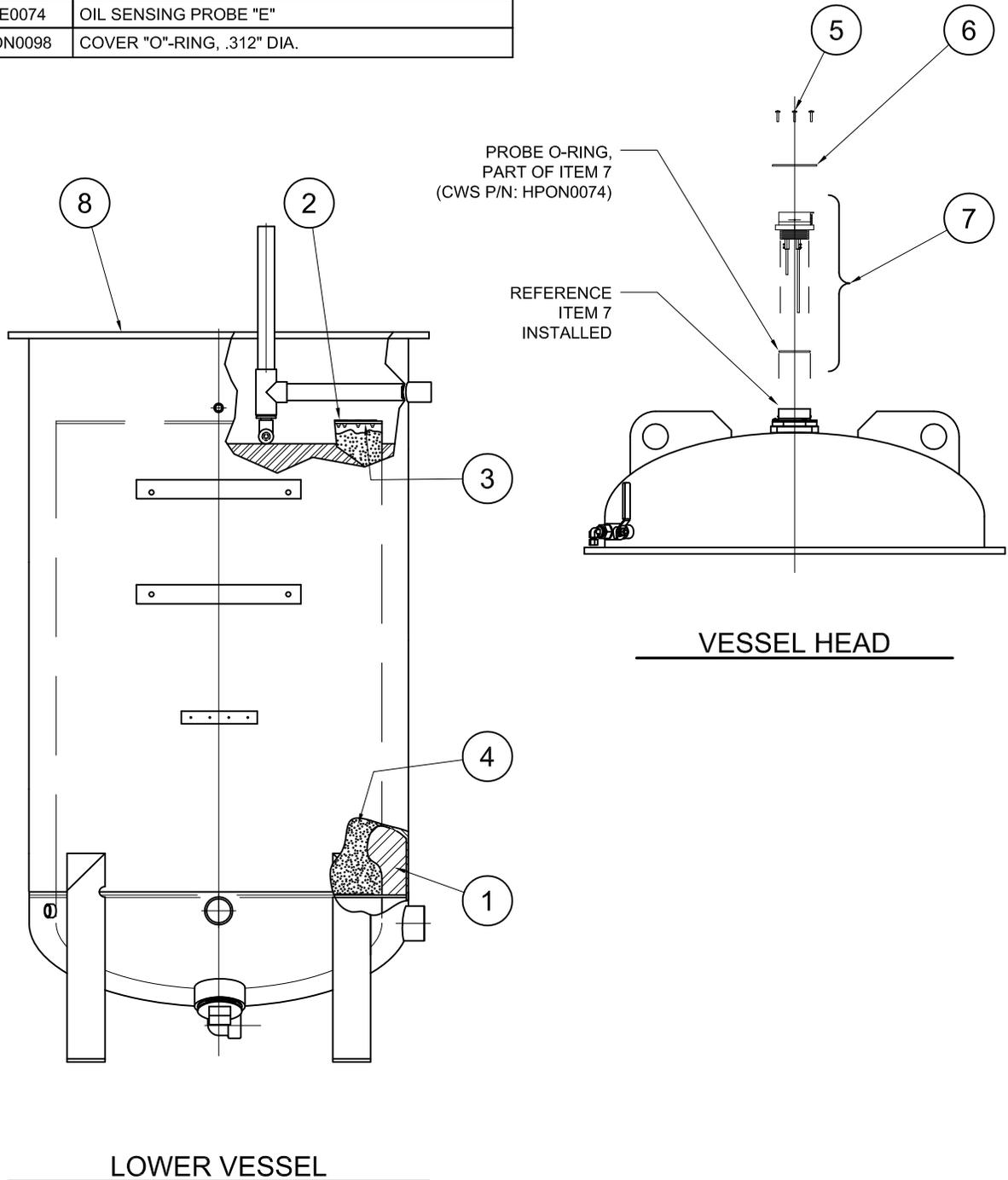
- ITEM 15 IS NOT SHOWN ON DRAWING.
- ITEM 16 IS ONLY ON CONCENTRATE END OF HOUSING.

KIT	ITEMS CONTAINED	CWS PART NUMBER
COMPLETE HEAD	ITEMS 1,2,3,4,6,9,10,13,14,16	MHHK0815
SEAL KIT	ITEMS 5,7,8,11,12	MHSK0815



# PARTS LIST

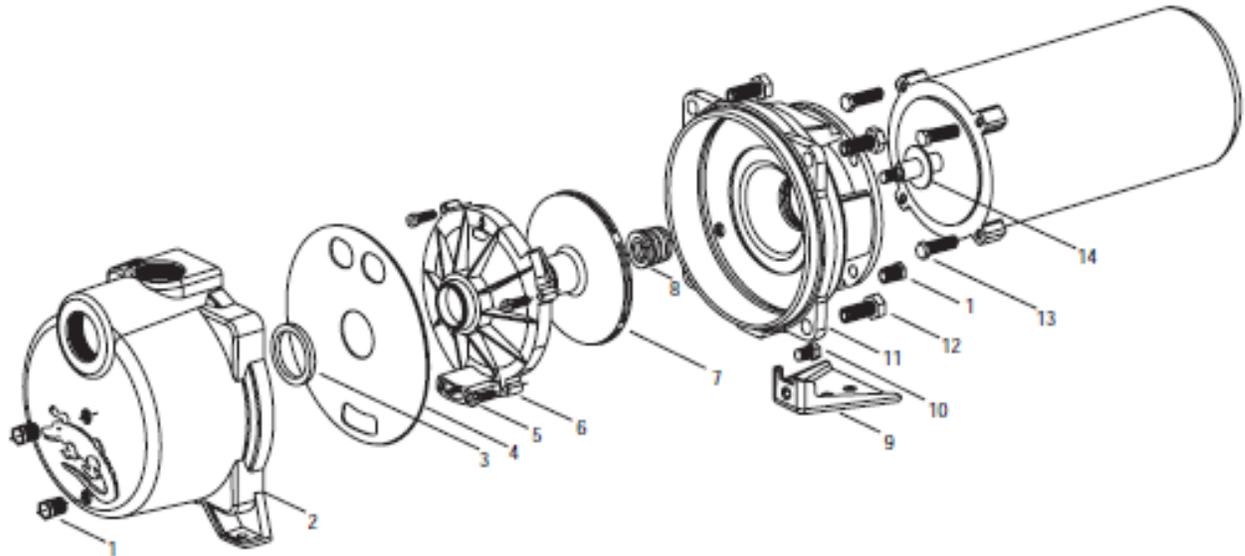
ITEM NO.	QTY. REQD.	CWS PART NO.	NOMENCLATURE OR DESCRIPTION
1	1	HSP5067	OILY WATER PLATE PACK, MODEL 5000
2	26	RVTS0306	3/16" RIVET SS
3	1	HSSE0563	SCREEN -E
4	90 LBS	FMPB0001	FILTER BEADS
5	3	STCS0812	SCREWS 8/32 X 3/4 SS
6	1	HSP0075	(OSP) OIL SENSING PROBE PLATE - (AS REQUIRED)
7	1	OSPE0074	OIL SENSING PROBE "E"
8	1	HCON0098	COVER "O"-RING, .312" DIA.



## HELI-SEP 5000 SUB-ASSEMBLY

# ULTRA-SEP™ 5000

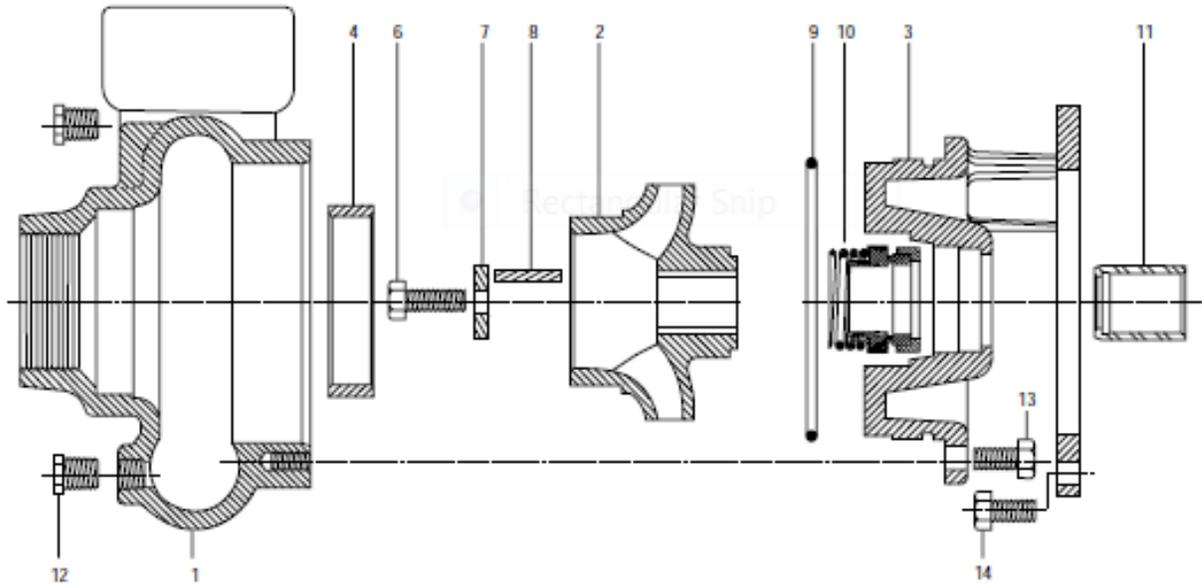
## 60HZ FEED PUMP (PU1) BREAKDOWN



ITEM NO.	QTY	DESCRIPTION	MATERIAL	CWS P/N
1	4	Drain Plug - 1/4" NPT	Zinc Plated Steel	PPTG0400
2	1	Casing	Cast Iron	PPCI1324
3	1	Guide Vane Seal Ring	BUNA-N	PPGN5231
4	1	Diaphragm	Neoprene	PPGN5256
5	3	Screw Phillip Head 1/4"-20UNC	Stainless Steel	BTCS0403-1
6	1	Guidevane	Lexan 10% G.F.	PPGY7406-1
7	1	Impeller	Noryl 20% G.F.	IMGY2716
8	1	Mechanical Seal	Carbon/Ceramic Buna	MSGS1010
9	1	Pump Foot	Steel	PPPF4408
10	1	Pump Foot Bolt	Steel	BHCP0603
11	1	Motor Adapter	Cast Iron	PPMA1310
12	4	Hex Head Bolt (adapter to casing)	Zinc Plated Steel	BHCP0805
13	4	Hex Head Bolt (adapter to motor)		BHCP0604
14	1	Deflector	BUNA-N	PPGS2700

**NOTE: Reference Model GT10/GT103**

## ULTRA-SEP™ 3000 & 5000 60HZ PROCESS PUMP (PU2) BREAKDOWN



ITEM NO.	QTY	DESCRIPTION	MATERIAL	CWS P/N
1	1	Casing	Cast Iron	PPCI1612
2	1	Impeller (7.62)	Bronze	IMGB2755
3	1	Adapter	Cast Iron	PPMA1116
4	1	Wear Ring (casing)	Bronze	PPGB0468
5	n/a	Wear Ring (seal housing)	-	-
6	1	Impeller Bolt	AISI 303 Stainless Steel	PPGS1343
7	1	Impeller Washer		PPGS1339
8	1	Impeller Key		PPGS0411
9	1	Seal Housing O-Ring	BUNA-N	PPGN0574
10	1	Mechanical Seal	Carbon/Ceramic Buna	MSGS1013
11	1	Shaft Sleeve	AISI 300 SS	PPGS0466
12	4	Drain Plug - 1/4" NPT	Zinc Plated Steel	PPTG0400
13	8	Hex Head Bolt (adapter to casing)		BHCP0604
14	4	Hex Head Bolt (adapter to motor)		BHCP0806

## **SMART CELL OIL CONTENT DETECTOR SPARE PARTS**

When ordering spares, it is important to supply details of the type of monitor, serial number of monitor, part number of each spare required, its description and any other relevant information.

### **RECOMMENDED ON-BOARD SPARES**

<b>Item</b>	<b>Qty</b>	<b>Part Number</b>
Cell wiper ring	1	SBWR9039
Fuse 1.25A	1	SBFU9089
Solenoid valve (230V)	1	SBSV9059

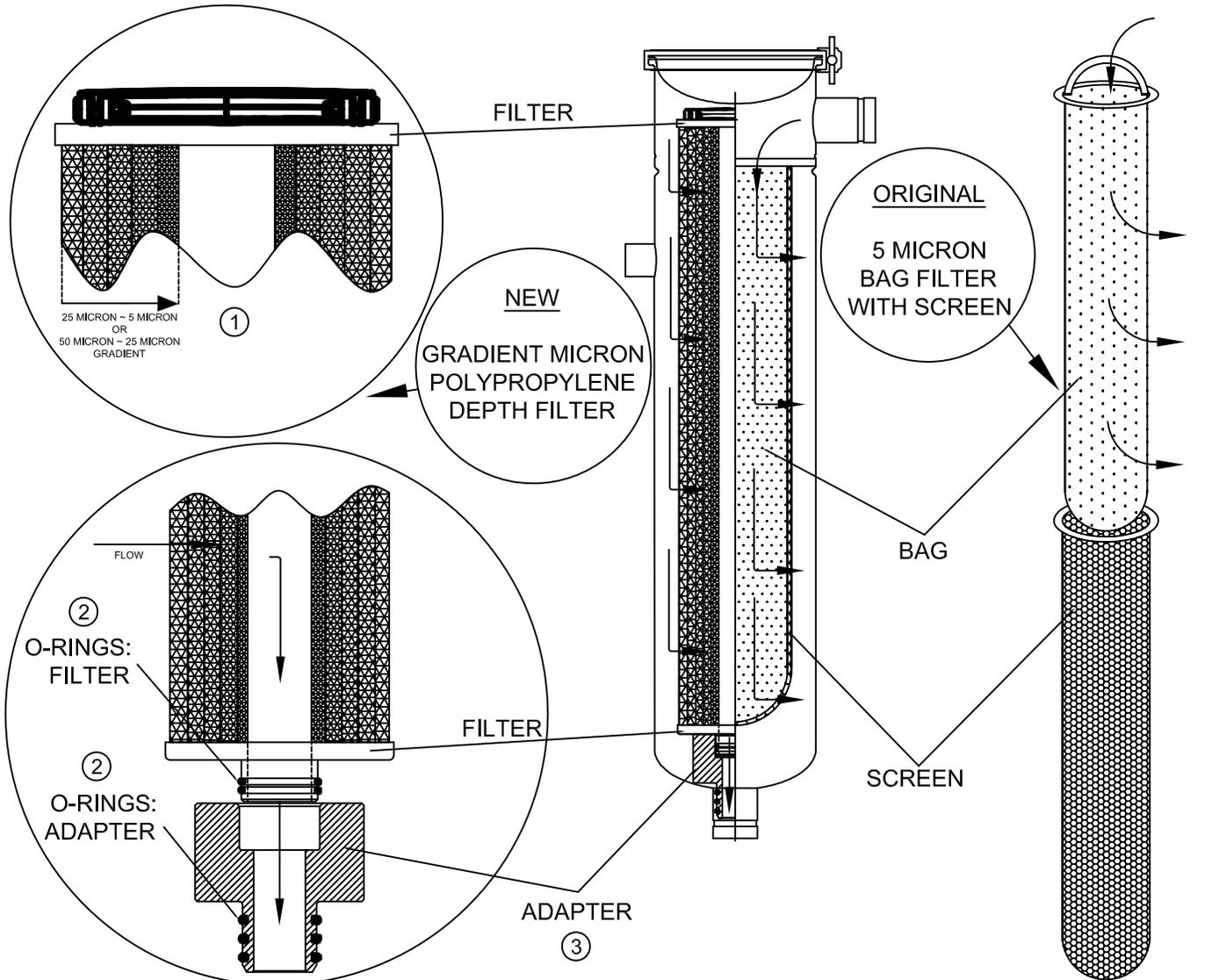
### **OTHER SPARES**

<b>Item</b>	<b>Qty</b>	<b>Part Number</b>
Spare Smart Cell Assy Bilge	1	SBSC9171
Spare 110/240V Programmed Smart Bilge PCB Assy	1	SBBA9019
Membrane overlay	1	SBMO9030
LCD display module	1	SBDM9068
Smart Bilge Download Cable / Kit	1	SBDK0958
Calibration Verification Kit	1	SBVK0900





## DEPTH FILTER REPLACING BAG FILTER



DEPTH FILTER

BAG FILTER

ITEM	5 MICRON FITS ULTRA-SEP MODELS			25 MICRON DUPLEX PRE-FILTERS	
	US500C-1000C	US2000-5000	US7500&10000	ALL-US5000	US7500&10000
DEPTH FILTER	FCCU0520	FCCU0530	FCCU0540	FCCU2530	FCCU2540
③ INITIAL ADAPTER	FHAB1610-US	FHAB1720-US	FHAB1730-US	FHAB1720-US	FHAB1730-US
O-RINGS: FILTER	DRGN2225	DRGN2225	DRGN2225	DRGN2225	DRGN2225
O-RINGS: ADAPTER	DRGN2322	DRGN2326	DRGN2334	DRGN2326	DRGN2334

① THESE FILTERS WILL NOT FIT IN ASME HOUSINGS.

② ADAPTERS AND FILTERS INCLUDE O-RINGS.

③ ADAPTERS REQUIRED FOR INITIAL RETROFIT ONLY.

### BENEFITS (DEPTH FILTER)

- REDUCED SPIR-O-LATOR CLEANING
- IMPROVED SPIR-O-LATOR PERFORMANCE
- ABSORBS OIL
- MORE DIRT/OIL LOADING CAPACITY
- LESS BY-PASS POTENTIAL

## RECOMMENDED ON BOARD SPARES

ITEM NO.	QTY. REQD.	CWS PART NO.	DESCRIPTION
1	1	VRKD0800	SOLENOID VALVE, REPAIR KIT 1/2"
2	1	VRKD1600	SOLENOID VALVE, REPAIR KIT 1"
3	2	VCLD0050	SOLENOID VALVE, REPLACEMENT COIL, 240V
4	12	FCCU0530	DEPTH FILTER, 5 MICRON
5	1	FHAB1720-US	DEPTH FILTER ADAPTER
6	2	MCLN1511	SPIR-O-LATOR CLEANER, 4 GAL. / CASE
7	6	ASMS0000	SPIR-O-LATOR PRESERVATIVE, 2lbs EA.
8	1	MSG1010	PU1, MECHANICAL SEAL
9	1	MSG1013	PU2, MECHANICAL SEAL
10	1	SWVB0430	SWITCH, VAC. / LOW PRESS., 1/4"
11	1	SWMB0030	SWITCH, LOW PRESS., 1/4" 30PSI
12	1	SWAT0806	SWITCH, TEMP-NC 1/2"MNPT @ 125F
13	2	MHSK0815	SPIR-O-LATOR HOUSING SEAL KIT
14	2	MHHK0815	SPIR-O-LATOR HOUSING HEAD ASSEMBLY
15	1	OSPE0074	OIL SENSING PROBE, "E" US5000