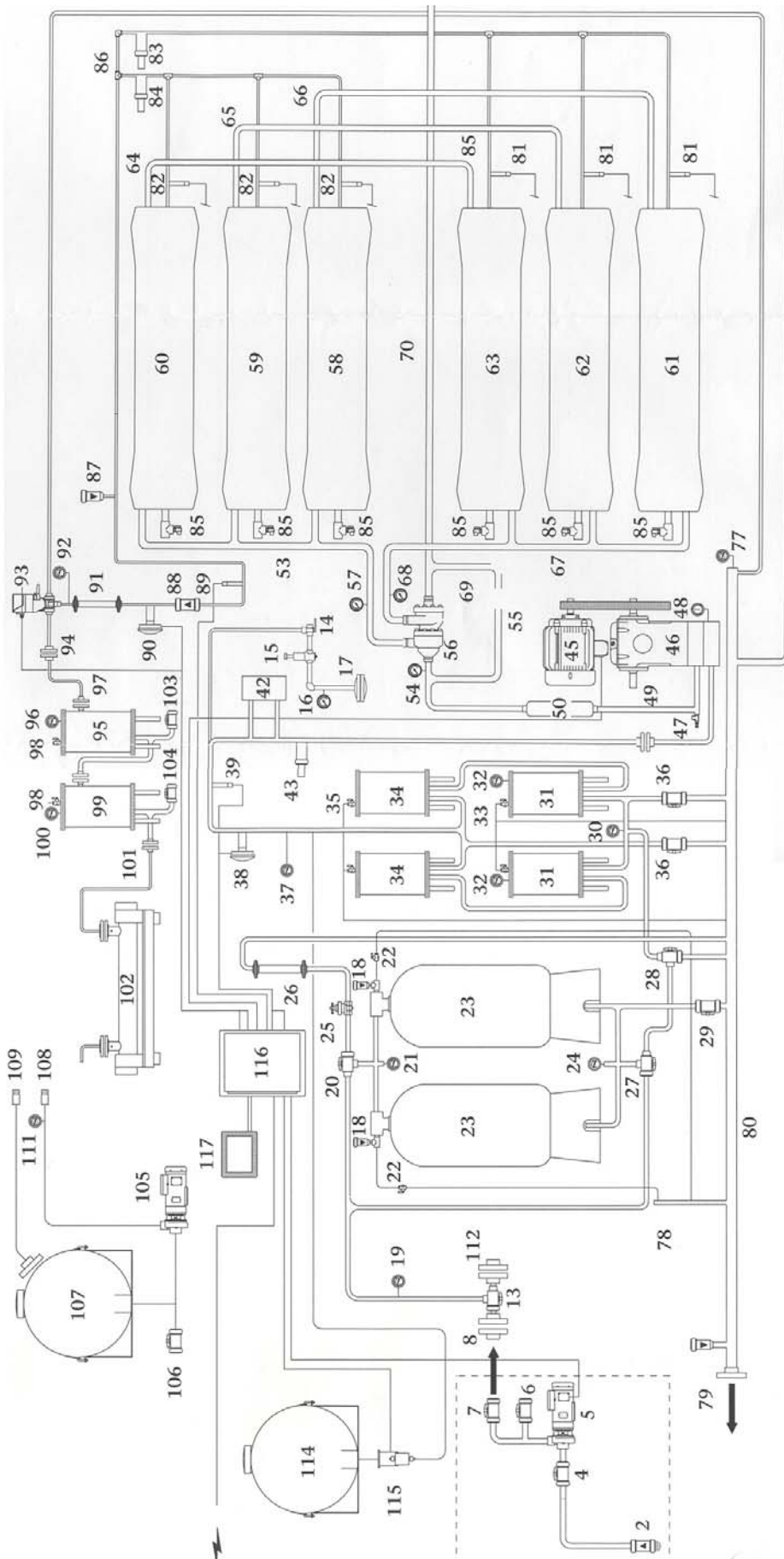


Sea Recovery “North Sea” Series

System identification Schematic

Sea Recovery “North Sea” 250m³ R.O. Desalinator System



IDENTIFICATIONS OF SYSTEM COMPONENTS

NOTE: Identification numbers correspond to the System Schematic numbers shown:

A. SUCTION LINE AND PRETREATMENT SUBSYSTEM EXTERNAL TO SYSTEM

1. Future reference
2. Inlet ball check valve, 3"
3. Future reference
4. Inlet ball valve, 3"
5. Booster pump
6. Ball valve feed water prime/well purge
7. Ball valve, booster pump or System shut off
8. Flange connection, booster pump feed water inlet at booster pump skid edge
9. - 12. Future reference
13. 3-way ball valve, feed water inlet

B. LOW PRESSURE FILTRATION SUBSYSTEM

14. SDI Test 2-Way (ON/OFF) Valve
15. SDI Test Pressure Regulator
16. SDI Test Pressure Gauge
17. SDI Test Filter Holder
18. Vacuum Breakers, Media Filter Inlets
19. Pressure sensor, feed water inlet
20. Media filter inlet control 3-way valve
21. Media filter inlet pressure sensor & gauge
22. Media filter air bleed valve
23. Media filter 30 micron
24. Media filter outlet/cartridge prefilter (20 micron) inlet pressure sensor pressure gauge
25. Gate valve, multi-media filter back flush flow control
26. Flow meter, multi media filter back flush
27. 3-way ball valve, multi-media filter outlet/back wash inlet directional control
28. 3-way ball valve, multi-media filter outlet/rinse dump directional control
29. Ball valve, multi-media filter dram
30. Pressure gauge, 20 micron inlet
31. Cartridge prefilters, 20 micron
32. Pressure sensor & pressure gauge, 20 micron outlet/5 micron inlet
33. Ball valve, 20 micron cartridge prefilter air bleed
34. Cartridge prefilters, 5 micron
35. Ball valve, 5 micron cartridge prefilter air bleed
36. Ball valve, cartridge prefilter dram
37. Pressure sensor & pressure gauge, 5 micron prefilter outlet/high pressure pump inlet
38. Temperature sensor, feed water
39. Salinity sensor, feed water
40. - 41. Future reference
42. Turbidity monitoring sensor
43. Flow sensor, feed water
44. Future reference

C. PRESSURIZATION SUBSYSTEM

- 45. Electric motor high pressure pump
 - 46. High pressure pump
 - 47. Pressure relief valve
 - 48. Oil temperature sensor, high pressure pump oil
 - 49. High pressure hose, high pressure pump outlet/pulsation dampener inlet
 - 50. Pulsation dampener, in line
 - 51. - 52. Future reference
 - 53. Feed inlet piping to first membrane array
 - 54. Pressure sensor & gauge, high pressure pump outlet/turbine feed inlet
 - 55. Ball valve, flow by-pass
 - 56. Energy recovery turbine
 - 57. Pressure sensor & gauge turbine feed outlet/membrane vessel assembly inlet
 - 58. Membrane vessel assembly, lower upstream vessel
 - 59. Membrane vessel assembly, center upstream vessel
 - 60. Membrane vessel assembly, upper upstream vessel
 - 61. Membrane vessel assembly, lower downstream vessel
 - 62. Membrane vessel assembly, center downstream vessel
 - 63. Membrane vessel assembly, upper downstream vessel
 - 64. High pressure interconnect to second membrane array
 - 65. High pressure interconnect to second membrane array
 - 66. High pressure interconnect to second membrane array
 - 67. High pressure brine outlet manifold
 - 68. Pressure sensor & gauge turbine brine inlet/membrane vessel assembly outlet
 - 69. Auxiliary brine nozzle valve
 - 70. Turbine brine outlet interconnect to brine discharge
 - 71. - 75. Future reference
- D. BRINE DISCHARGE LINE**

- 76. Brine discharge flow meter
- 77. Pressure sensor and gauge, brine discharge line
- 78. Vacuum breaker, brine discharge line
- 79. Flange connection, brine discharge line at system skid edge
- 80. Brine discharge line

E. PRODUCT WATER MONITORING AND FILTRATION SUBSYSTEM

- 81. Salinity sensors, second array
- 82. Salinity..sensors, first array
- 83. Flow sensor, first array
- 84. Flow sensor, second array
- 85. Ball valve, product water test taps
- 86. Product water collection manifold
- 87. Vacuum breaker, product water line
- 88. Check valve (non return valve), product water line
- 89. Temperature compensated salinity sensor, total product water
- 90. Temperature sensor, product water
- 91. Flow meter, product water

92. Pressure sensor and gauge, product water outlet from membrane vessel assembly/pH neutralizer housings
93. 3-Way actuator valve, product water diversion
94. Flange connection, product water outlet
95. pH neutralizer housings, product water
96. Pressure sensor & gauge pH neutralizer housing outlet/charcoal filter inlet
97. Flange connection, post filtration inlet
98. Air bleed, post filtration housings
99. Charcoal filtration housings, product water
100. Pressure sensor & gauge charcoal filtration outlet/UV sterilizer inlet
101. Post filtration skid outlet flange
102. UV sterilizer, product water
103. Dram valve, pH Neutralizer housings
104. Dram valve, GAC housings

F. CLEANING SYSTEM

105. Cleaning System pump
106. Ball valve cleaning system dram
107. Cleaning tank
108. Cleaning line feed, victaulic fitting, one end, cam lock fitting, other end.
109. Cleaning line return, victaulic fitting, one end, cam lock fitting, other end.
110. Future reference
111. Pressure gauge, cleaning Station line pressure differential
112. Flange connection, cleaning tank outlet/booster pump inlet at booster pump skid inlet.
113. Future reference

G. CHEMICAL PRE-TREATMENT

114. Chemical Pretreatment tank, PRETREATMENT: ANTISCALANT
115. Pump, chemical metering

H. ELECTRONIC SUBSYSTEM

116. System electrical connection controller
117. System touch screen interface

CWI Sattion Praia SRC 250/D2
System Identification Schematic
SR/NS 250 m3 R.O. Desalinator System