

Pilot Testing

V ♦ SEP Auto L/P Skid Machine Specifications (12/15/08)

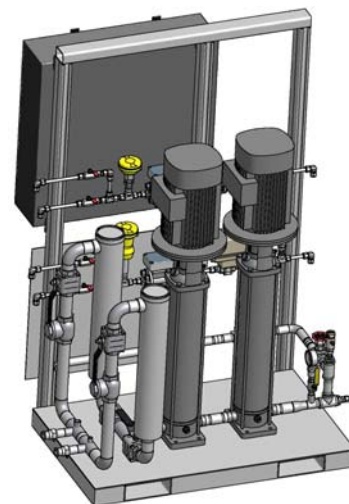
Current operating Manual: L/P Version 5.0

Operating Conditions:

Equipment Rating: Nema 4, Indoor-Outdoor protected from sunlight and rain.
Operating Ambient Temperature Limits: 0-40C
Storage Temperature: -20C - 60C
Relative Humidity: 90% or less, non-condensing
Elevation: 3300 ft. (1006 M), without derating.

Filter Pack:

Membrane Area: L Mode: 0.48 sq. ft. P Mode with 38 membranes: 16.44 sq. ft.
Hold Up Volume: P Mode: Approx. 0.8 Gallons (3.0 liters)
Filtrate Removal Capacity: Approx. 2.25 GPM (8500 ml/min)
Maximum Operating pressure: 600 psi
Maximum Shear Rate: 150,000 Inverse Seconds
Wetted Materials: 316 Stainless Steel, Polypropylene, EPDM



Vibration System:

Drive Bearings: MORSE SEALMASTER RFB2102
Vibration Motor: BALDOR VM3555, 2HP 3450RPM, 208-240 VAC 3 phase
Vibration Motor Control: Allen Bradley Power Flex 40

Feed Skid:

Pump: Dual Stage Grundfos High Pressure CRN 5-24, CRN 5-24SF 30.0 GPM @ 500 PSI
Motor: Grundfos Custom and Siemens, 7.5HP and 10HP 3450 RPM, 208-240 VAC 3 phase
Feed Pump Motor Control: AB Power Flex 40

Instruments:

pH Meter: GF Signet 0-14 Model 3-2774-1/ 3-2750-2
Pressure Gauges: 2 on Process Outlet and 1 on Process Inlet ASHCROFT 600psi Model 1009
Conductivity Meter: GF Signet 0-10,000uS Model 3-2850-52-41
Flow Meter: IFM Efector 0-6.6gpm Model SM6001
Pressure Transmitters: IFM Efector 0-1450psi Model PA2222
Temperature Transmitters: IFM Efector -40-125C Model TN2530
DP Pressure Transmitters: IFM Efector 0-36psi Model PA2226
Flow Indicator: GFI 3-50gpm Model A109GMA100NA1
Flow Control Valve: FloTite Model 320SSFFFL13-1/2"
Position Actuator: Indelac S Series Nema 4 Model SR4BF03-5

Electrical Power Requirements: Standard Unit

2HP Vibration Motor, 7.5HP/10HP Pump, 120Vac PLC, HMI, and Instrumentation controls (transformer)
Voltage: 208-240 VAC 3 phase Normal Full Load Operating Current: 24 - 30 amps Power Cord: 2x 8 Ft
long with a NEMA L15-30P plug Required Receptacle: NEMA L15-30, 2x30 amp circuit recommended

System Size and Weight:

Overall Dimensions: 52" w x 40" d x 68" h
System Weight: 1200lbs. (545 kg) approximate