NEW LOGIC RESEARCH, INC.
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PREMIUM VSEP SYSTEM COMPONENT SPECIFICATIONS

Updated: 11/29/08

1] Filter Pack

Membrane:	MF, UF, NF, or RO
Maximum Operating Temperature:	160 ^{O}F (70ºC) (Options for up to 130ºC)
Allowable Feed Slurry pH Range:	2-11 (Options for 1-14)
O-ring Material:	EPDM (Options for Viton)
Filter Pack Housing:	Vinyl Ester 8084 Derekane Fiberglass
Wetted Steel Trays:	304 Stainless Steel .018 Gauge (Option for 316SS)
Wetted Plastic End Plates:	Polypropylene (Options for Teflon, Aluminum)

2] Piping

Maximum Pressure:	550 psi (Options for up to 1200 psi)
Pressure Piping:	316L Stainless Steel Schedule 80
Atmospheric Piping:	316L Stainless Steel Schedule 40
Special VSEP Concentrate Pipe:	1-1/4" Alloy 20 Stainless Steel .065 wall
Flexible Hoses:	*Weatherhead* Neoprene Lined Reinforced Flex Hose
Pipe Clamps:	*Victaulic* Zero-Flex Style 07 EPDM
On/Off Control Valves:	*FloTite* Series-300 316SS 3-Piece Ball Valves w/ Teflon seats
Flow Control Valves:	*FloTite* Series-300 316SS 60 degree V-Ball *BLX* V100E positioner
Check Valves:	*JFW Valve* Series-200 CF8M Swing Check Valve
Pneumatic Actuators:	*Habonim* Compact2 Pneumatic Rack and Pinion Spring Return
Skid Piping Terminations:	150lb 316SS 1.5"/2" Flange with EPDM Gaskets
Pneumatic Air Supply:	90lb Instrument Grade Air (3/8" connection)
Clean in Place Tank:	260 Gallon Cross Linked Polypropylene w/ Lid (36" ø x 74")

3] Vibration System

Motor:	*Baldor* CM4106T 460VAC, 3phase, 20HP, 3525 RPM
Motor Speed Controller:	*AC Tech* 20HP NEMA 4 (or Equal)
Vibration Amplitude:	3/4 inch (peak to peak measured at the Filter Pack)
Frequency Range:	49.0 hz to 55.0 hz (Approximate)
Maximum Decibels:	<85
Bearing RPM:	2800 to 3100
Bearing Oil:	*Sullube* ~750 ml Compressor Oil
Bearing O-rings:	2-263 & 2-270 Buna

4] Electrical Specifications:

Controls Voltage:	220/120VAC, 1phase, 15A, 50/60Hz
Programmable Controller Type:	*Allen-Bradley* CompactLogix 1769
Touch Screen Display Type:	*Allen-Bradley* PanelView+ 1000
Enclosures:	*Hoffman* NEMA 4 Powdercoat Finish 48x30x10, 24x30x8
Switches, Relays, & Contactors:	*Allen Bradley* 220/110 Volt
Pressure Sensors:	*Efector* PN-2222
Flow Tube:	*Yamatake* MGG18D-050P21CS5ACA-XX
Flow Transmitter:	*Yamatake* MGG14C-MH4G-1A1N-YAH
Flow Indicator:	*GPI* Paddlewheel 4352k55
Temperature Sensor:	*Efector* TN-2530/ E-40107
Conductivity Meter	*GF Signet* 3-2850-52-41
Level Sensor:	*Efector* PN-2228
pH Meter	*GF Signet* 3-2774-1/ 3-2750-2
Solenoid Valve:	*SMC* VV5Q21-20/VQ2101N Gang Mounted 20 Port 24 volt

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5] Pump Specifications:

Feed Pump Type:	*Grundfos* 316SS 88gpm Vertical Multi-stage Centrifugal
Feed Pump Motor:	*Grundfos* ML 25 HP 3500 rpm TEFC 460VAC, 3phase, 35A
Motor Speed Controller:	*AC Tech* 25 HP NEMA 4 (or Equal)
Chemical Metering Pump:	*Bran+Luebbe* MD 200S 19111 007
Metering Pump Motor:	*Baldor* 3/4HP 3500rpm TEFC 120/220V, 1phase, 15A, 60/50Hz

6] Pre-Screen Basket Strainer:

Filter Housing Type (or equal):	*NLR* Custom Made
Basket Strainer:	60 Mesh 316 SS
Capacity:	220 GPM
Filter Housing Material:	316L Stainless Steel
Elastomers (Seals):	EPDM, (Options for Buna, Viton - Depending on Process)

7] Operating Site Conditions:

Equipment Rating:	NEMA 4, Indoor/Outdoor protect from sunlight & rain.
Ambient Temperature:	5 - 37°C
Storage Temperature:	2 - 70°C (Protect Filter Pack from Freezing)
Max Relative Humidity:	<95%, non-condensing
Elevation:	3300 ft maximum without derating