

Serial #: EEI-1316

Status: In Stock, Claw Blower Tested, Rest of System Un-Tested, Needs Some Refurbishing

Dimensions: Trailer is 8' wide by 16' long (plus tongue) by 8' interior height with 12,000lb GVWR

Description: Dual Phase Extraction System with 10GPM Groundwater Treatment

- Rietschle VLR-500 Claw Blower with 15HP 3PH XP Inverter Duty Rated Motor
- Knockout Tank with Progressive Cavity Transfer Pump
- 13 GPM Fiberglass Oil Water Separator with Product Storage Tank and Myers Transfer Pump
- 15 GPM Poly Shallow Tray Air Stripper with 3HP New York Blower and Myers Transfer Pump
- 24 leg 2" Extraction Manifold split into two zones by XP electrically actuated valves tied to timers in control panel
- 240V 1PH Weatherproof Control Panel mounted over trailer tongue with Automation Direct PLC and Phase Converting VFD with Line Reactor for claw blower. Weatherproof service panel with various circuit breakers.
- Trailer is wired class 1 div 2 group D with XP Heaters, XP Lights, XP Exhaust Fan
- Various gauges, transmitters and safety switches





Enviro-Equipment Inc. 10120 Industrial Drive Pineville NC 28134







1. Equipment Description

Dual Phase Extraction

(2) Dual phase inlet manifolds each with:

4" headers with (10) 2" takeoffs, schedule 80 PVC piping & fittings

- (10) 2" PVC ball valves
- (10) Vacuum gages, 0-30" Hg
- (10) Teed sample ports
- (10) 6" Clear PVC site glass with unions on both ends
- (10) 2" Male camlock fittings

(2) 4" PVC ball valves with electric actuator, NEMA 7, 110VAC actuator

To allow controls of (2) 4" headers

Asahi series 92 Quarter Master Actuator

(1) H2KTech RCLV 500 rotary lobe "claw" vacuum blower, with:

320 ICFM at 24" Hg vacuum

Approximate discharge temperature of 220F at 22" Hg vac and 70F ambient

Worse case discharge flow condition at 350 icfm at 10" Hg vacuum, (200 scfm at 900' elevation)

15 hp, 230/460VAC, 3φ, EXP motor

Cast iron rotors and casing

Vacuum relief valve on blower inlet, built into blower housing

Integral cooling through ducted shroud

Sound enclosure to reduce sound levels to < 85 dBA

Vacuum gage on inlet

Temperature gage on inlet

Sample port on blower inlet

Pressure gage on blower discharge

Temperature gage on blower discharge

Sample port on blower discharge

Silencer on blower discharge, Solberg model SLCR-3"

(1) Vacuum switch on blower inlet, Dwyer model 190-P2-2F (low vacuum)

Dwyer model 1950P-25-2F (high vacuum)

(1) Moisture separator, *H2K* model VLS 100

Tangential inlet and demister for 99% + moisture removal

Carbon steel construction, industrial enamel finish

Full vacuum design rating

110 gallon total capacity, 50 gallon holding capacity

PVC site glass with ss High/high-high & low level switches

Polypropylene demister pad

Air filter integral inside separator with replaceable polyester element,

Solberg model FT-235P-400

DP gage across air filter element, Dwyer Magnehelic model 2015

Vacuum gage, on separator inlet

Sample port on separator inlet

Air bleed valve with silencer on separator inlet, 2" with air flow meter

Dwyer model DS300-2 pitot tube and gauge

(1) Condensate pump, Moyno model 34401

3/4 hp, 230VAC, 1Ø, EXP motor

10 gpm at 40 psi differential pressure

Cast iron housing, carbon steel rotor, NBR rubber stator

Check valve, on pump inlet and discharge

Isolation ball valve on pump inlet and discharge

Pump re-circulation loop with ball valve

Pressure gage and sample port on pump discharge

2" Tee on pump discharge with ball valve, check valve &

2" male camlock on trailer exterior

- (1) LEL combustible gas meter with local LCD display and relay output Detcon model 624C, NEMA 7 enclosure, 24VDC power required
- (1) Vane Flow meter/transmitter, ERDCO model 3700 3" aluminum with transmitter Mounted on separator inlet to monitor total well flow, scfm 4-20mADC output
- (1) Vacuum Transmitter, United Electric Series One DP transmitter Local LCD display, NEMA 4X, Class I, Div II, Group D rated

Groundwater Treatment Equipment

(1) H2K Model LLS-4 oil/water separator

FRP construction

PVC slant rib coalescing media

Treatment of 10 gpm at 0.75 S.G. oil (>30 micron), 55 deg. F. (Typical)

Adjustable skimming weir

Solids collection sump with drain ball valve

Gravity flowing drains for water and floating product discharges

Clearwell for pumping directly from separator

Vapor tight gasketed cover

PVC site glass with high/high level switch

Steel stand, 24" high to allow gravity drain into free product tank and

- (1) 55 gallon steel drum product tank with high level switch
- (1) 150 gallon surge tank with level controls

150 gallon HDPE vertical tank

31" diameter, 55" tall

PVC site glass with high/high-high-low ss level switches for pump control

Sight glass, PVC

(1) Transfer pump, Myers model CT-051 transfer pump

10 gpm @ 72' TDH

Cast iron bronze fitted

3/4 HP, 230VAC, 1Ø, EXP motor

Throttle valve, check valve & pressure gage on discharge Isolation ball valve on pump inlet Sample port on discharge Tee with (2) ball valves on discharge for bypass or stripper

(1) NEEP model 1341-P w/ high flow option – Low profile air stripper

- (4) HDPE aeration trays with gasket
- (1) HDPE top with polypropylene demister element
- (1)HDPE sump with pump out discharge
- (1) New York Blower model 1803 centrifugal pump

150 scfm @22" wc

3 h, 230 VAC 1ph, EXP motor

Aluminum blower housing and wheel

Air intake ducted outside with trap on blower inlet

Air flow meter no blower inlet, Dwyer DS-300 with Magnehelic gage, scfm

Site glass with ss high/high-high-low pump out level switches

High blower pressure switch, Dwyer model 1950P-2

Low blower pressure switch, Dwyer model 1950-5

Pressure gage on sump vapor space

Air stripper bypass with (2) 1" PVC ball valves for isolation

(1) Discharge pump, Myers model CT-053 transfer pump

15 gpm @ 65' TDH

Cast iron bronze fitted

3/4 HP, 230/460VAC, 1Ø, EXP motor

Throttle valve, check valve & pressure gage on discharge

Isolation ball valve on pump inlet

Sample port on discharge

Siphon break on discharge

(1) Water flow totalizer on discharge

Blancett model B2800 with 1" Turbine meter

Discharge through floor with 2" male camlock

Controls

(1) Control System

For operation on 230 VAC, $1\emptyset$, 3 wire incoming electrical service. To control 15HP DPE blower $(3\emptyset)$, 3 Hp air stripper blower, & (2) 3/4HP pumps. Furnished mounted and wired on the trailer exterior wall. To include:

OTY DESCRIPTION

- 1 Enclosure, NEMA 4, 48"h, 36"w, 12"d with inner door for switches and indicators
- 1 Variable Frequency Drive, 230VAC 3ph, 15 hp, mounted and wired in panel
- 1 Forced air ventilation with galvanized steel shroud; intake/exhaust fan
- 2 Motor starter: Contactor 23A FLA/Overload relay 2-7.0A, 1Ø; pumps
- 1 Motor starter: Contactor 23A FLA/Overload relay 12-32A, 1Ø; stripper

- 1 Load Center; 1Ø, 200A Main Breaker w/ the following:
 - 1. 1 Circuit breaker 230V 1P15A 10K; control power
 - 2. 2 Circuit breaker 230V 1P15A 10K; vent fan, lighting
 - 3. 1 Circuit breaker 230V 1P20A 10K; receptacle
 - 4. 2 Circuit breaker 230V 2P20A 10K; Trailer Heaters
 - 5. 3 Circuit breaker 230V 2P15A 10K; pumps
 - 6. 1 Circuit breaker 230V 2P30A 10K; Air Stripper Blower
 - 7. 1 Circuit breaker 230V 2P100A 10K; DPE blower
 - 8. 2 Circuit breaker 230V 1P15A 10K; receptacles for future groundwater pumps
 - 9. 1 Circuit breaker 230V 2P15A 10K; receptacles for future groundwater pump
- 7 Switch; three position; Hand-Off-Auto with integral Run (green/LED) indication
- 7 Light (red/LED); motor off
- 9 Light (red/LED); alarms
- 1 Pushbutton (red/NO); alarm Reset
- 9 Intrinsically safe barriers, discrete, 2 channel
- 1 24VDC power supply for transmitter
- 2 24 pin timers for DPE Header alternation
- Mission Model 100 Cellular modem telemetry with Internet-based alarm & status monitoring. To monitor up to eight (8) contact closures & (2) analog signals representing alarm, status conditions and flow or level signals and transmit this information via the cellular telephone network control channel. Internet-based alarm and status monitoring includes current status indication, alarm history report, run time history report, time-based status report and retransmission of alarms to voice, e-mail and pager. Requires no hard phone line. \$30/month monitoring fee, 1 year minimum.
- PLC direct DL-06 PLC programmable logic controller, 20DI, 16 relay out, (2) RS 232 serial ports
- 2 PLC direct 8 point discrete output card
 - Engraved laminated legends for all door mounted devices
 - Terminal blocks for external connections and fusing as required
 - Color-coded wiring with wire markers at all terminations
 - Fully documented, assembled, wired, programmed and pre-shipment test
- 1 UL 698A serialized label
- 1 Panel heater, 120VAC, 250Watt with thermostat
- 1 Emergency off pushbutton in NEMA 3R enclosure mounted inside trailer
- 1 GFIC 20A outlet with and weatherproof cover; mounted adjacent to control panel
- (2) Exterior mounted, 120 VAC GFCI plugs for wells pumps with weather proof cover
- (1) Exterior mounted, 220 VAC GFCI plug for well pump with weather proof cover

Enclosure

(1) Enclosed trailer system, 8' wide x 16' long x 8' interior height

Includes equipment installation and wiring

6" steel I beam frame

Plywood floor decking, aluminum & fiberglass exterior

R-5 fiberglass wall and ceiling insulation with plywood interior

Tandem axle, 12,000lb GVWR, 6,000lb axles, radial tires

Double rear doors with cam lock

(1) 32" Side door

2 5/16" Ball hitch coupler with jack stand

(2)Rear stabilizer jacks

Electric brakes, ICC lighting

- (1)Explosion proof vent fan with inlet & outlet louvers and thermostat, Leader Fan P14
- (2) Explosion proof electric convection heater with thermostat, Fostoria model FEP3624-1R
- (2)Explosion proof ceiling mounted incandescent lights with vapor globe with wall switch
- (2)Sound insulated louver covers to minimize exterior sounds levels via line of site transmission through exposed louvers

SVE systems & stripper systems will be installed, piped and wired in trailer, wiring will be per NEC for a Class I, Division II, Group D area. Piping will be PVC schedule 80 for DPE inlet and water and schedule 40 galvanized steel for DPE vapor discharge. Control panel, and breaker panel will be mounted and wired outside of trailer per NEC for a non-classified area.