

Section 1. System / Equipment Description

This manual contains important information about the equipment H2K Technologies, Inc has supplied for this project. Specific operation and maintenance information for individual components or systems can be found in the numbered sections. If additional information is required, please call.

The appendices contain the original equipment manufacturers' operation and maintenance manuals, specification sheets, modeling, etc.

Equipment Description:

The below is a list of equipment supplied by H2K Technologies Inc. for this project, more specific information on most of these items can be found in numbered sections of the manual.

Sparge System

- (1) Rotary claw compressor, Rietschle model DLR-250
 - Cast iron housing and claw construction
 - 15hp, 230VAC, 3Ø, TEFC motor
 - 142 icfm at 17 psi
 - Oilless compressor
 - ~~Integrally mounted aftercooler driven by claw cooling fan~~
 - Inline inlet air filter, Solberg CSL-851-250HC
 - Check valve on blower outlet
 - 1" Air bleed valve with silencer on blower outlet
 - Pressure gage on blower outlet, liquid filled
 - Temperature gage on H/X outlet
 - High temperature switch on H/X discharge, Barksdale model M1H
- (1) Moisture trap on H/X discharge with drain valve and tubing back to SVE knockout
- (1) ~~Pressure transmitter, United Electric series one, 4-20 mA DC output, local LCD display, Class I, Div 2 rated~~
monitors pressure to control PNL - PT 200
- (1) Sparge discharge manifold
 - 1" header with (17) 1" takeoffs, schedule 40 galvanized steel piping & fittings
 - (17) 1" Brass gate valves
 - (17) 1" Air flow venturi with minihelic gage, scfm
 - (17) Pressure gages, vertically mounted, liquid filled, 0-30 psi

*Set Temp Switch
To keep from
melting Rubber
Hose*

SVE System

- (1) SVE inlet manifold
 - 4" header with (7) 4" takeoffs, schedule 80 PVC piping & fittings
 - (7) Sample ports, vertically mounted
 - (7) Velocity measurement ports, 1/2" Full port ball valve
 - (7) 4" PVC Knife gate valve on each leg
 - ~~(7) Vacuum gages, 0-60" wc vacuum, vertically mounted~~ *change out to vac*
- (1) Moisture separator, H2K model VLS 100
 - Tangential inlet and demister for 99% + moisture removal
 - Carbon steel construction, industrial enamel finish
 - 17" Hg vacuum design rating
 - 6" NPT inlet and outlet
 - Polypropylene demister element

110 gallon total capacity, 50 gallon holding capacity
PVC site glass w/ ss high/high-high-low level switches, mounted with union for easy removal
Vacuum gage, on separator inlet, 0-60" wc vacuum
Clean out port, 6"
1" manual drain valve

(1) ~~Vacuum transmitter, United Electric series one, 4-20 mADC output, local LCD display, Class I, Div 2 rated~~

(1) Vacuum Blower, New York Bower model 2606 centrifugal pressure blower
550 cfm @ 45" wc vacuum at blower inlet with no discharge pressure at 3320' elevation
10 hp, 230/460VAC 3 ph, TEFC motor
Steel blower housing with aluminum wheel
Direct drive arrangement 4 blower
Integral damper on blower discharge
~~6" Blower discharge silencer~~
Flexible connectors on blower inlet and outlet
Vacuum gage on inlet, 0-60" wc vacuum
Vibration pads on floor
Sample port on blower discharge
Temperature gage on discharge
Pressure gage on discharge
Flexible connections on inlet and outlet
Air flow meter, Dwyer pitot tube sensor with magnehelic gage on blower discharge
Blower exhaust stack with drain and rain cap discharge 15' above roof line with guy wires

Note:

1. Centrifugal blowers do not require inlet filters or vacuum relief valves. Do to centrifugal design there are no tight tolerances to be interfered by particulate. Dead heading the blower will not damage it.
2. Air bleed with filter silencer not included. Dampening of blower reduces power consumption on centrifugal blower and will therefore be used in lieu of air bleed.

(1) Condensate pump, Meyers model CT-05 centrifugal pump
10 gpm @ 72' TDH
Cast iron bronze fitted
3/4 HP, 230/460VAC, 3Ø, TEFC motor
Check valve, on pump discharge
Isolation ball valve on pump inlet
Flexible braided steel connector on pump inlet
Throttle valve, ss liquid filled pressure gage and sample port on pump discharge
Unions on pump inlet & outlet
Camlock fitting on pump discharge

(1) 1" x 10' PVC reinforced hose with camlocks on both ends (sewer connection)

(1) High DP switch across LGAC piping

(1) Water flow totalizer, Kent C-700 turbine meter

(1) Siphon break on system discharge