

Equipment Description

SYSTEM # 1

VACUUM EXTRACTION MANIFOLD MODULE

- Includes: One 43" vacuum extraction manifold with seven 31.5" legs
Each leg to contain:
- Gate valve
 - MLEE PFLOW Pitot tube flow indicator
 - Vacuum gauge
 - Sample port
 - 3" Termination outside of enclosure

VAPOR LIQUID SEPARATOR MODULE

- Includes: VLD-400, 55 G vapor liquid separator with:
- Exterior to be primed and painted with a two component chemically-cured urethane gloss enamel (MLEE Blue)
 - Removable lid
 - Sight glass w/ level switch assembly
 - High level alarm switch - *discrete input*
 - Manual drain plumbed to exterior of enclosure

REGENERATIVE SOIL VAPOR EXTRACTION BLOWER MODULE

- Includes: Rotron model ~~EN858BA72L~~ EN858BD72WL regenerative blower with 7.510 HP 230/460V/3P motor:
- *Discrete output*
 - Motor: EXP
 - Performance at inlet of blower: 200 SCFM at 60" WC
 - Expected inlet pressure losses through MLEE system: 15" WC
 - Discharge temperature: 158F at an inlet of 68F
 - Noise rating: 85 dBA

Inlet piping to blower to contain:

- Solberg inlet filter/silencer
- Vacuum gauge
- MLEE PFLOW Pitot tube flow indicator
- Sample port
- Dilution line to contain:
 - Solberg filter/silencer
 - Gate-Ball valve
 - MLEE PFLOW Pitot tube flow indicator
- Vacuum relief valve
- PVC piping

Discharge piping from blower to contain:

- Integral Discharge silencer
- Sample port
- Pressure gauge
- Temperature gauge
- MLEE PFLOW Pitot tube flow indicator
- Steel piping to be terminated outside of enclosure

SYSTEM # 2

VACUUM EXTRACTION MANIFOLD MODULE

Includes: One 3" vacuum extraction manifold with four 2" legs

Each leg to contain:

- Gate valve
- MLEE PFLOW Pitot tube flow indicator
- Vacuum gauge
- Sample port
- Termination outside of enclosure

VAPOR LIQUID SEPARATOR MODULE

Includes: VLD-400, 55 G vapor liquid separator with:

- Exterior to be primed and painted with a two component chemically-cured urethane gloss enamel (MLEE Blue)
- Removable lid
- Sight glass w/ level switch assembly
 - High level alarm switch - *discrete input*
- Manual drain plumbed to exterior of enclosure

REGENERATIVE SOIL VAPOR EXTRACTION BLOWER MODULE

Includes: **Rotron model EN757F72XL regenerative blower with 5 HP**

230/460V/3P motor:

- Discrete output
- Motor: EXP
- Performance at inlet of blower: 130 SCFM at 60" WC
- Expected inlet pressure losses through MLEE system: 15" WC
- Discharge temperature: 140F at an inlet of 68 F
- Noise rating: 85 dBA

Inlet piping to blower to contain:

- Solberg inlet filter/silencer
- Vacuum gauge
- MLEE PFLOW Pitot tube flow indicator
- Sample port
- Dilution line to contain:
 - Solberg filter/silencer
 - Gate-Ball valve
 - MLEE PFLOW Pitot tube flow indicator
- Vacuum relief valve
- PVC piping

Discharge piping from blower to contain:

- Integral discharge silencer
- Sample port
- Pressure gauge
- Temperature gauge
- MLEE PFLOW Pitot tube flow indicator
- Steel piping to be terminated outside of enclosure

SYSTEM # 1 & 2

REMEDICATION ENCLOSURE

Built to NEC Class 1 Div 1 standards, all wiring intrinsically safe and all equipment pre-piped factory tested and mounted in enclosure

Includes 8' x 12' enclosed cargo trailer with the following standard features:

- 6.5' standard interior height
- Tandem 3500 lbs axles

- 5500 lbs payload capacity
- Aluminum siding
- Independent suspension
- Electric brakes
- Break away kit
- Safety chain
- Four jack stands
- Insulated walls and ceiling
- Barn-style rear double doors
- Control panel mounted to exterior

Interior to contain the following:

- Vacuum extraction system
- Lighting - *powered device*
- Ventilation fan with thermostat and hood – *powered device*
- Heater with thermostat - *discrete output*
- Passive vent louvers with hood
- All influent, effluent, and drain lines plumbed to outside of building

CONTROL SYSTEM MODULE

Includes: RELAY Series Relay Logic based control panel with the following standard features:

- UL certification
- NEMA4 lockable panel enclosure
- Inner swing panel
- Primary circuit protection using fused main disconnect
- Surge and lightning protection for control system
- Main power block
- Branch circuit protection with circuit breakers for motors
- Motor starters with overload protection
- 120V/1P power transformer
- Branch circuit protection with circuit breakers for powered devices
- Relays for control logic
- 24 VDC IS power supply
- Intrinsically safe barriers
- One (1) duplex 15 Amp GFI receptacle – *powered device*
- Wired and installed
- Factory tested prior to shipping

Outside cover of inner swing panel to contain the following:

- HOA switches with green run lights
- Red alarm indicator lights
- Alarm reset button

- Hour meter
- Emergency stop button

OPERATION AND MAINTENANCE MANUAL

- Includes:
- Operating instructions for all treatment system components
 - Copy of operating manual for each piece of equipment
 - Summary of system components
 - Summary of system operation principals
 - Summary of operation controls and failsafes
 - Summary of maintenance requirements for each piece of equipment