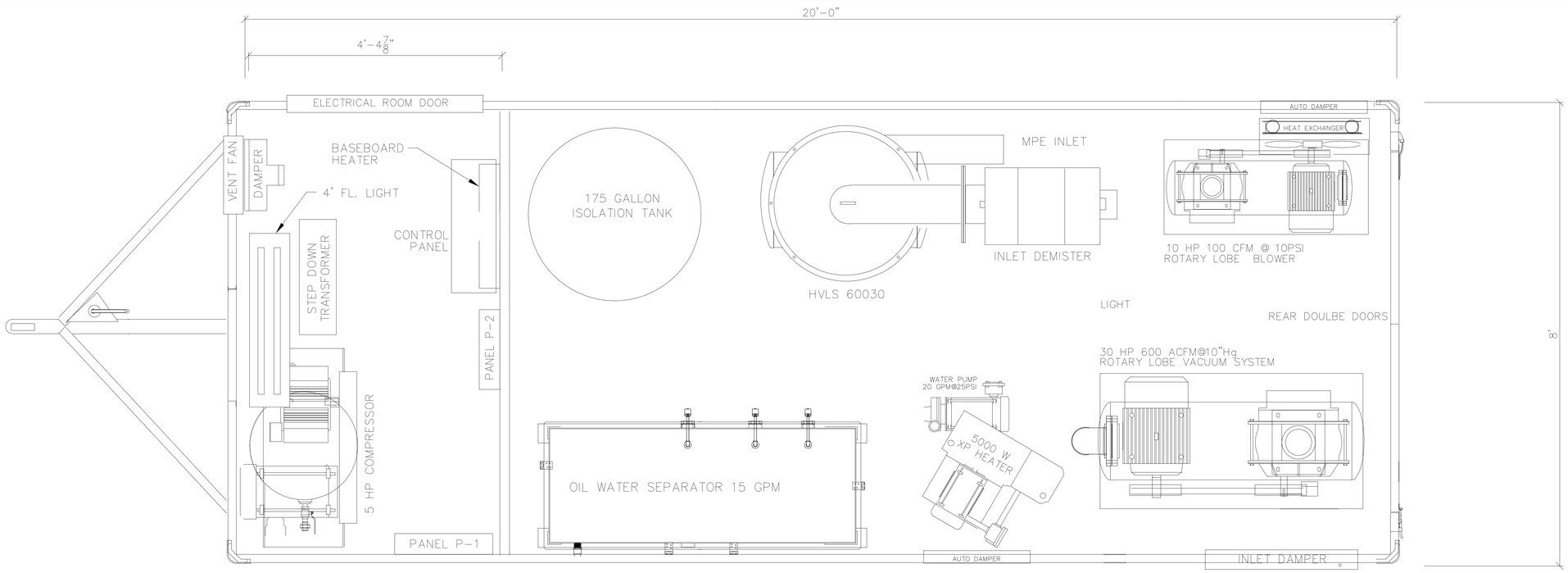


1995 Unit
SCG Industries Limited
Process Specifications & Technical Information

Vacuum Pump

1 Manufacturer: SutorBilt
2 Model: 6 MP
3 Pump Speed (% of Max): 1850 RPM ( 77%)
4 Motor Rating: Class 1 Division II, 460 volt 3 phase
5 Motor Manufacturer: Teco Westinghouse
6 Motor Horsepower: 30
7 Motor Speed: 1750 rpm
8 Rated Flowrate: (14"Hg max) 600 ACFM @ 10 Hg
9 Safeties & Control: Vacuum Relief Valve, Vacuum switch, Pressure Switch, Temp switch set below flash point of Gasoline, Thermal overload on motor.
10 Temperature Switch Manufacturer: Burling
11 Temperature Switch Model: B-IC-53-CSA
12 Demisting Knock out canister: SCG model located between HVLS and pump for secondary protection
13 Inlet Particulate filter: Solberg
14 Electrical Classification of Temperature Switch: cl1 div 2
15 Vacuum gauges Before and after throttle valve, filter and demister
16 Pressure Gauges after pump
17 Inlet plumbing Air dilution c/w muffler, throttle valve, and check valve

Phase Separation Vessel (HVLS)

1 Type of Separator: HVLS-750
2 Manufacturer: SCG Industries Limited
3 Flow rate: 750 scfm, 15 gpm
4 Material of Construction Vessel(s): Steel
5 Reservoir Volume: 30 Gallons (Lower Tank)
6 Type of Level Switch(es): Side-Mounted Level Switch H/H (upper tank), Top Mounted Level Switch (Bottom Tank)
7 Level Switch(es) Manufacturer: W.E. Anderson
8 Level Switch(es) Model: F7 SS2
9 Characteristics: No emulsion, no motors, no scaling. Liquid and sediment transferability. Air over water transfer without the use of any moving parts.
10 Water Demisting Percentage Recovery: 99.9
11 Sight Glass (Both Tanks)
12 Control System: PLC driven cycling controller c/w electric solenoids

Air Compressor

1 Type: 60 gal Vertical Compressor
2 Manufacturer: Ingersoll-Rand
3 Model: 2340
4 Flow Rate: 17 CFM @ 100 psi
5 Hydraulic Flow Rate (HVLS): 25 Gallons/Minute
6 Motor Rating: general purpose, within electrical room
7 Motor Manufacturer: Teco westinghouse
8 Motor Horsepower: 5
9 PLC controlled continuous operation Alarm program (1 hr)
10 Voltage: 460 volt, 3 phase

Flow Stabilization Tank

1 Type HDPE
2 Size 175 gal
3Features: Bottom clean out, High /High Float, Discharge flow valve.

Oil Water Separator

1 Type of Separator: B-15
2 Flow rate: 15 gpm
3 Material of Construction Vessel(s): Steel Epoxy lined internal
4 Dimension: 5.5 long, 2 wide, 4.5 high
5 Type of Level Switch(es): Side-Mounted Level Switch H/H water, H/H Product
6 Level Switch(es) Manufacturer: W.E. Anderson
7 Level Switch(es): Model F7 SS2
8 Characteristics: Coalescing, sediment settling, Oil Pumping option
9 Oil Sight Glass

Effluent Transfer Pumps

1 Type: Centrifugal
2 Manufacturer: Jacuzzi
3 Model: .5 hp 5DA1B 230 volt 3 ph
4 Flow Rate : psi 20 gpm @ 25 psi
5 Electrical Classification: Class 1 Division II
6 Control: PLC Programmable
7 Flow Meter: 1"T-10
8 Material of Construction Vessel: Steel

Enclosure

1 Type: SCG two room enclosed Trailer
2 Dimensions: 20'L x 8'W x 8.5'H
3 Entrance(s): Rear Double Doors, Electrical Room Man door
4 Noise Emissions: 75 dba
5 Thermal Rating: Walls and cieling R-6 styrofoam, Floor R-8 Poly Urethane Spray foam.
6 Heater: Forced air
7 Heater Manufacturer: Ruff neck
8 Heater Model: XL5000
9 Heater Output: 5000 watts
10 Cooling Provision: Exhaust Fan cl 1 div 2
11 Fan Manufacturer: Leader Fan Industries
12 Fan Model: X-18
13 Thermostat Manufacturer: Roughneck
14 Thermostat Electrical Classification cl 1 div 2
15 Material of Construction Skid: Aluminum (checker plate floor)
16 Material of Construction Walls: 24 Gauge Anodized Aluminum interior and exterior
17 Sump with Level Switch: No
18 Wall thickness 1.5"
19 Material: Non Combustible
20 Weather proof
21 Exterior color: White
22 Interior color: White
23 Low Temp Alarm Switch
24 Equipment location: Positioned for ease of repair
25 Fire extinguishers: 1 in each room adjacent to man doors
26 Lighting: 3 incandescent Process room, 1 Flourescent in electrical room
27 Roof Construction: 24 gauge Aluminum interior and exterior
28 Suspension: 2 only 5200 lbs axils for added stability and reduced tongue weight
29 Structural Reenforced structure at manufacture
30 Manufacturers Warranty: 3 years structural 2 years corrosion

Two Way Telemetry

1 Control: capable of modification of all I/O functions remotely
2 Connection: 56 K modem at Electrical control room
3 Logging: Capable of storage and retrieval of data
4 Alarm Auto Dialer 4 channel

System Controls

1 PLC Type: Micro
2 PLC Manufacturer: Toshiba
3 PLC Model: T1S
4 Shop-Programmed
5 Emergency Shut-Down
6 Spare Inputs/outputs
7 Status Lights (on PLC)
8 Control Panel Mounting: Interior Electrical Room
9 Transformer: Control and receptacle
10 Main Fused Disconnect 75 amps, 460 volt Time Delay fuses
11 Distribution: Block
12 Protection: Time delay fuses for all motors and transformers
13 Outputs Fused, labeled, and c/w Terminal blocks
14 Inputs Labeled and c/w terminal blocks
15 115 volt receptacle duplex GFI
16 Motor starters c/w thermal overloads and aux. contacts for all motors
17 Switches and sensor supply power Non -Incendiary

Electrical

1 Classification of Controls Built to Standards (as per NEC)
2 System Electrical Requirements 460 Volt/75 Amp/3 Phase

Air Sparge Blower

1 Type: Rotary Lobe
2 Model: Sutorbilt 3MP
3 Hp: 10 hp
4 RPM (% of Max): 2400 rpm (67%)
5 Exhaust Temp rise: 100 F
6 Capacity: (Max start pressure) 100 cfm ( 10 psi)
Safety Features Pressure switch, pressure relief valve
Accessories Throttle, Dilution, Silencer, Pressure gauges
Controls Pilot switch, Lockout feature to MPVE
7 Electrical Classification Class 1 Div 2

Heat Exchanger

1 Type: Air to Air
2 Model: SCGAA100
3 Core dimensions: 24"wX30"hX2"depth
4 2" flanged pipe connection
5 Rating: 100cfm
6 Cooling to within 20 degrees F of ambient temp

FINAL AS-BUILT

US Army Corps of Engineers

U.S. ARMY ENGINEER DISTRICT, BALTIMORE
CORPS OF ENGINEERS
BALTIMORE, MARYLAND

SOURCE AREA REMEDIAL SYSTEM
GASOLINE ALLEY AREAS 3805 & 1995
FORT DRUM, NEW YORK

AREA 1995 EQUIPMENT
LAYOUT AND SCHEDULE

EA ENGINEERING, P.C.

| DRAWING NUMBER | PLATE |
|---|---|
| N/A | M-4 |

SCALE: AS NOTED | DATE: SEPT. 2004 | SHEET 4

FILE: Syracuse_fp/Syracuse/Working Projects\Fort Drum Projects\MARC\Design\drawings from lovelon\Final design drawings\M-4.dwg [Layout1]