



Fliteway Technologies, Inc.

Equipment Description

2129 East Birchwood Ave. Cudahy, WI 53110

(414) 483-5600 1-800-236-3580 FAX (414) 483-1957



Fliteway Technologies, Inc.

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<input type="checkbox"/>	EXCEPTIONS NOTED
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<input type="checkbox"/>	RETURNED FOR CORRECTION
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OLSSON ASSOCIATES	

Q14190

Olsson Associates

All Points Cooperative, Lexington NE

- **SVE Unit rated for 1,000 ACFM at 40" WC Vacuum at 2,390 Foot Elevation Fliteway Model FV15117X3-NYB2608** foot elevation with the following:

- New York Blower Model 2608A Aluminum Wheel Pressure Blower with 15 HP 3500 RPM Exp Motor and housing drain and cleanout door.
- Fliteway "Cyclonic Action" 117 Gallon Vertical knockout/demister tank, carbon steel with 8" flanged inlet and discharge, internal demister, removable top cover, site gauge, 6" cleanout, and bottom drain.
- 8" inlet with sample port, and liquid filled vacuum gauge.
- One (1) 8" Inlet Averaging Pitot Tube Flow sensor with Magnehelic Gauge
- 8" 10 micron in-line filter between tank and vacuum pump.
- Mini Magnehelic to measure pressure drop across filter element
- Air Dilution Valve with filter/silencer
- Discharge Pressure, Temperature gauge, and Sample Port
- 8" Discharge Silencer
- 8" Removable Discharge Stack (15' above ground level)
- Vacuum relief valve on inlet side of pump, field adjustable from 0 - 15".
- One (1) 8" Discharge Averaging Pitot Tube Flow sensor with Magnehelic Gauge
- Explosion Proof Automatic Drain System
 - ¾ HP Explosion Proof Stainless Steel Centrifugal Pump
 - Two (2) Pump Control Switches
 - Discharge check valve, sample port, and pressure gauge
- Cartridge Filter
- Two (2) Tetrasolve HP-100 Liquid Phase Carbon Vessels plumbed in series

- 8" Inlet Manifold with Eleven (4) 4" Legs
 - Temperature Gauge
 - Eleven (11) 4" Gate Valves
 - Eleven (11) Vacuum Gauges
 - Eleven (11) 3/8" Threaded nipples with caps for insertion of Pitot Tube for flow measurements
- One (1) Dwyer 4" Averaging Pitot Tube Flow Sensor with Magnehelic Gauge (shipped loose)

Fliteway is the Rightway!

- **Air Sparging System rated for 500 ACFM at 8 PSIG
Fliteway Model FS25X3-Dual R56 URAI-J Blowers plumbed in parallel (each rated for 250 ACFM at 8 PSIG at 2,390 foot elevation with the following:**

- Two (2) Roots 56 URAI-J positive displacement rotary lobe blowers
- Two (2) 20 HP Explosion Proof Three Phase 230/ 460 VAC 1750 RPM motor.
- Two (2) 4" External 10 Micron Filter
 - Mini Magnehelic to measure pressure drop across filter element
- Two (2) Inlet 4" Silencers installed on Trailer Exterior (removed for shipping)
- Two (2) Weighted Pressure relief valve on discharge side of pump.
- Two (2) Discharge Check Valves, Pressure Gauges, and Temperature Gauges
- Two (2) Bleed Valves with Silencers
- All iron pipe and fittings.
- One (1) High Discharge Pressure Switch
- One (1) High Discharge Temperature Switch

- 6" Steel Discharge Manifold with Seventeen (17) 2" Ports
 - Seventeen (17) 2" Gate Valves
 - Seventeen (17) Pressure Gauges
 - Seventeen (17) 3/8" Threaded nipples with caps for insertion of Pitot Tube for flow measurements
- One (1) Dwyer 2" Averaging Pitot Tube Flow Sensor with Magnehelic Gauge

- **NEMA 4 Control Panel (480 VAC Three Phase, 4 wire)**

- Separate 100 Amp NEMA 4 Fused Disconnect
- Lockable NEMA 4 System Control Box with inner panel
- Power Distribution Panel
- Branch circuit Protection for
 - Trailer Vent Fan
 - Trailer Light
 - Trailer Heater
- 3 KVA Power Transformer
- Starters and overload protection for:
 - 15 HP SVE Motor
 - 3/4 HP HP SVE Transfer Pump
 - 1/4 Vent Fan
 - 20 HP Air Sparge Motor #1
 - 20 HP Air Sparge Motor #2
- Four (4) HOA switches
 - SVE
 - SVE Transfer Pump
 - Air Sparge #1
 - Air Sparge #2
- Alarm Lights
 - SVE Motor Fault
 - SVE HHL
 - Air Sparge #1 Motor Fault

- Air Sparge 21 Motor Fault
- Air Sparge Common Manifold High Discharge Temperature
- Air Sparge Common Manifold High Discharge Pressure
- Three (3) Hour Meters
- Two (2) Dual Intrinsically Safe Switch Repeater
- One (1) Intrinsically Safe Pump Controller
- Fliteway "Flite-Link" Cellular Web Based Control and Communications System
 - Allen Bradly MicroLogix 1400 PLC
 - 6" Color LCD Touch Screen with web Hosting
 - Analog Card for displaying Amps
 - Verizon Cellular Modem
 - Cradlepoint router
 - Internet Remote Management and SADA System
- UPS Battery Backup
- Surge Protection
- Lightning Protection
- Alarm reset
- GFI
- Control Box heater and Thermostat
- UL Certification

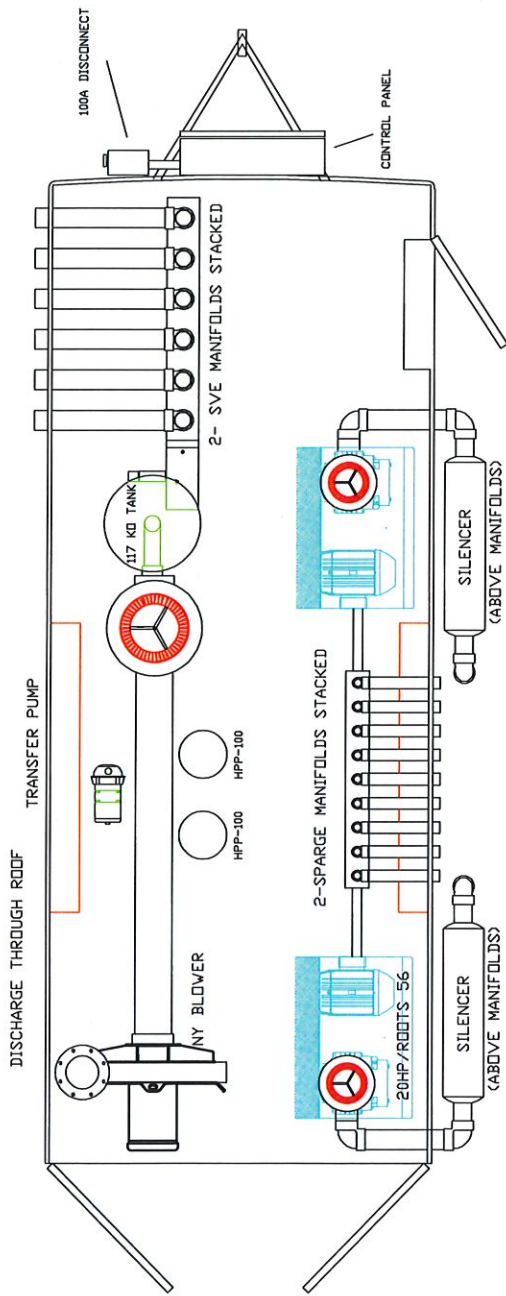
- **Enclosed Trailer:**

Interstate Model IT820TA2XLT Interior Dimensions 8'6" Wide by 6'5" Tall by 20'5" Long

- All Wheel Electric Brakes with 12 VDC Breakaway switch
- Independent torsion suspension
- Double Swing Rear Doors with Semi-Style Camlocks
- 32" Side Door
- Clearance Lights
- ¾" Plywood Floor
- 3/8" interior Plywood Walls
- Three (3) Year Trailer Warranty
- Two Floor Vents
- Front and Rear Stabilizer Jacks
- Spare Tire
- 1" Thermal Insulation inside interior walls
- Hazardous Location Vent fan and Thermostat
- Two (2) Hazardous Location Light and Switch
- 3,600 Watt Hazardous Location Convection Heater and Thermostat
- Installation of all Equipment and manifolds per Class 1 Div 2 Hazardous Location
- **One (1) Layer of 3 ½" Convuluted Polyester Noise Absorption Foam panels on interior walls and ceiling.**

- **Maintenance Items for 1 Year**

- Four (4) SVE Filter Elements
- Four (4) Air Sparge Filter Elements
- One (1) Vacuum Gauge
- One (1) Pressure Gauge



APPROVED BY _____

DATE _____

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 2129 EAST BIRCHWOOD AVE
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 414.483.5600 414.483.1957

8x20 TRAILER LAYOUT

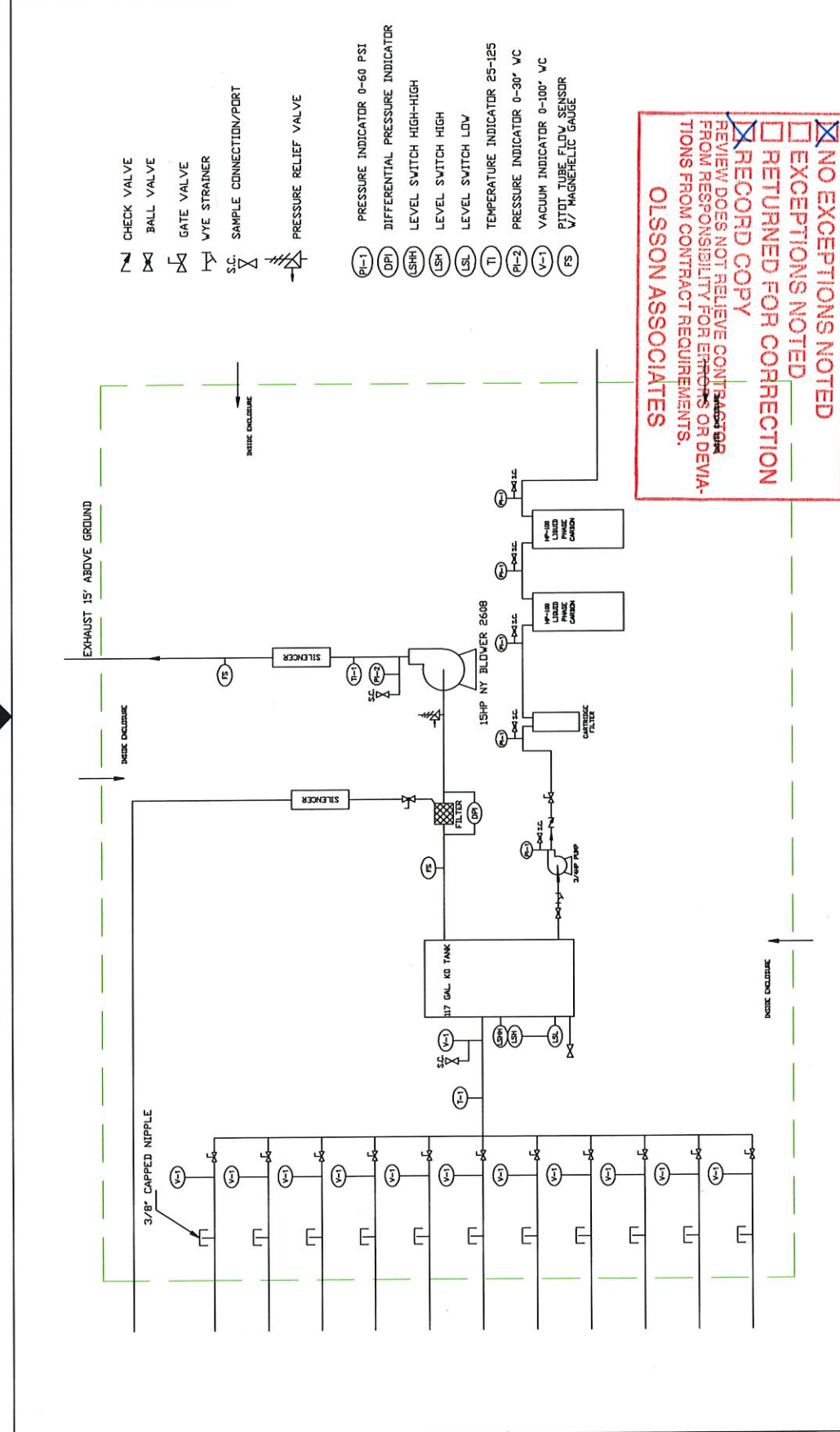
OLSON ASSC.
 LEXINGTON, NE

3/23/12

SIZE FSCM NO. DWG NO. Q14190

SCALE NONE SHEET 1 OF 1

AND IS NOT TO BE REPRODUCED
 WITHOUT WRITTEN PERMISSION



- ✓ CHECK VALVE
- BALL VALVE
- ◇ GATE VALVE
- ⊕ WYE STRAINER
- SC SAMPLE CONNECTION/PORT
- ⊥ PRESSURE RELIEF VALVE

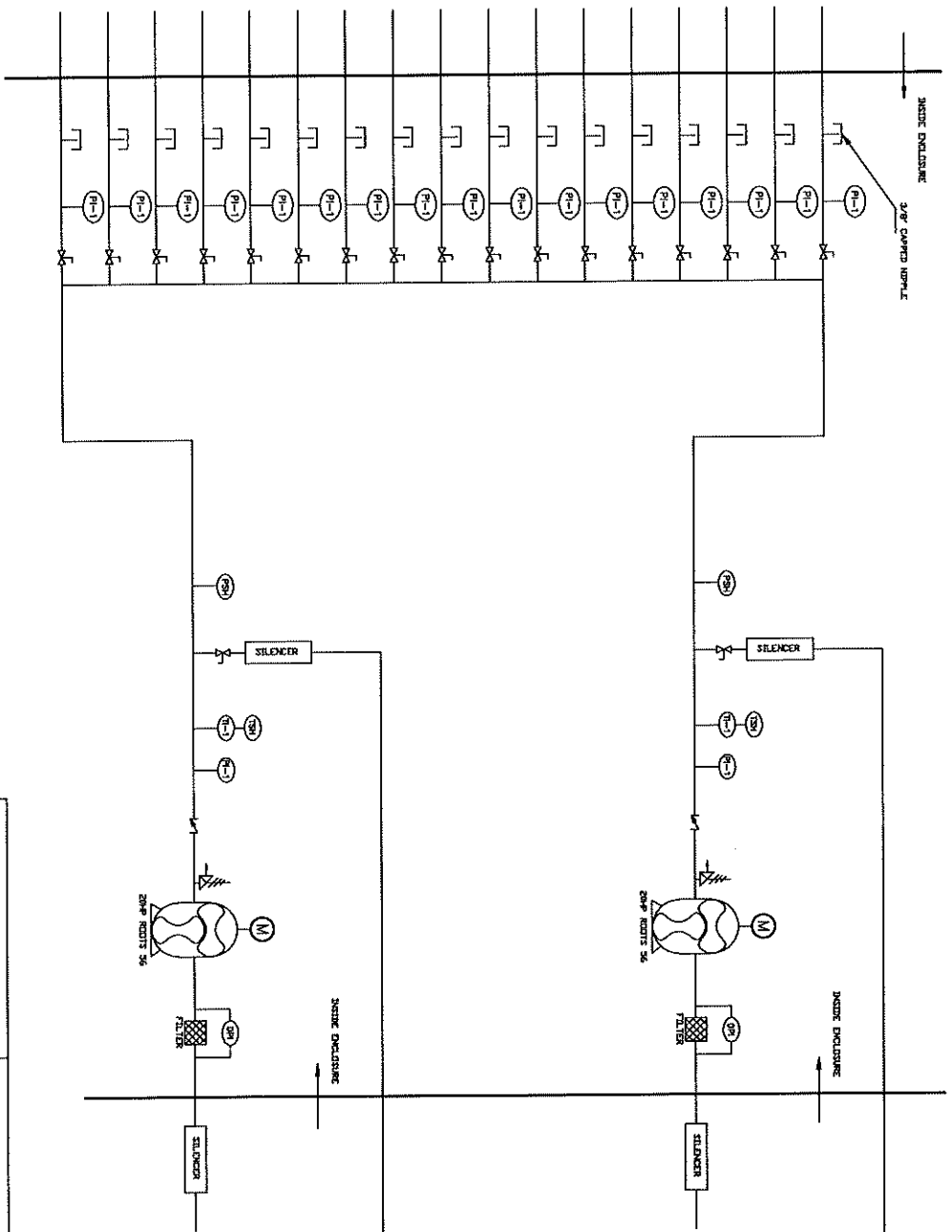
- PI-1 PRESSURE INDICATOR 0-60 PSI
- DPH DIFFERENTIAL PRESSURE INDICATOR
- LSHH LEVEL SWITCH HIGH-HIGH
- LSH LEVEL SWITCH HIGH
- LSL LEVEL SWITCH LOW
- TI TEMPERATURE INDICATOR 25-125
- PI-2 PRESSURE INDICATOR 0-30" WC
- V-1 VACUUM INDICATOR 0-100" WC
- FS FITTED TUBE FLOW SENSOR
- V MAGNETIC GAUGE

NO EXCEPTIONS NOTED
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SVE P&ID	
OLSON ASSC. LEXINGTON, NE	
SIZE	FSOM NO. Q14190
DATE	3/28/12
SCALE	NONE
SHEET 1 OF 1	

APPROVED BY _____
 DATE _____



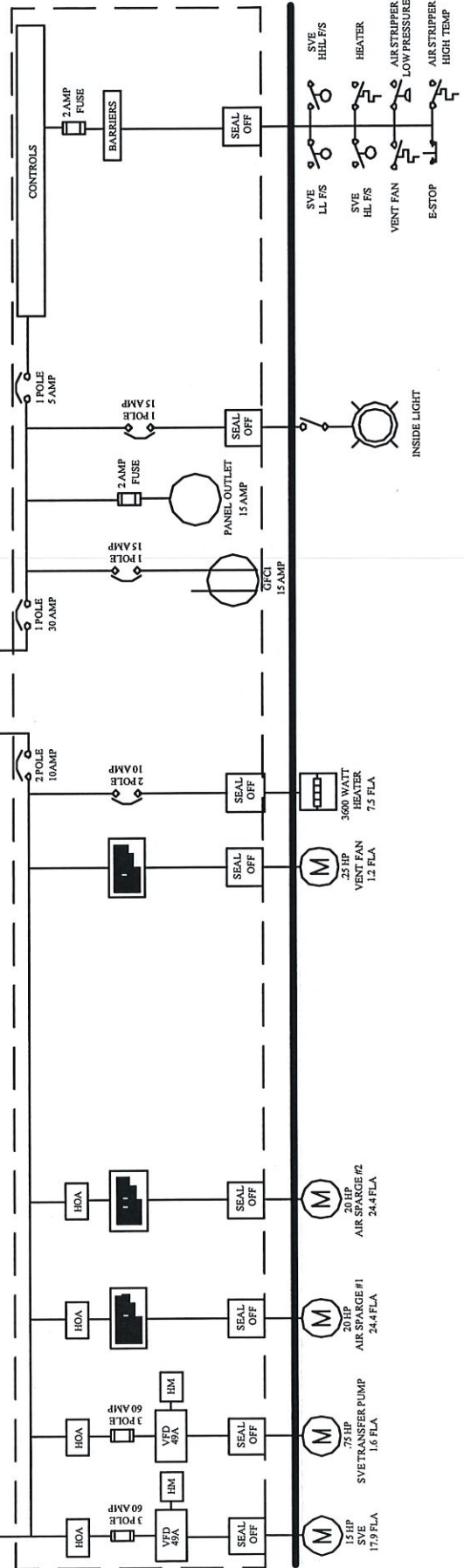
- Ⓜ 20HP MOTOR
- Ⓢ-1 PRESSURE INDICATOR 0-30 PSI
- Ⓢ-2 DIFFERENTIAL PRESSURE INDICATOR
- Ⓢ-3 TEMPERATURE INDICATOR 0-250
- Ⓢ-4 PRESSURE SWITCH HIGH
- Ⓢ-5 TEMPERATURE SWITCH HIGH
- Ⓢ-6 CHECK VALVE
- Ⓢ-7 BALL VALVE
- Ⓢ-8 GATE VALVE
- Ⓢ-9 PRESSURE RELIEF VALVE

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DATE _____

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SPARGE P&ID OLSON ASSC. LEXINGTON, NE		SIZE FSCM NO.	DWG NO. Q14190
SCALE NONE		SHEET 1 OF 1	

100 AMP
FUSED DISCONNECT
FUSED AT 100 AMP
480VAC/PH/60Hz
4 WIRE
89 FLA

3 KVA



ONE LINE ELECTRICAL DIAGRAM

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OLSSON ASSOC.

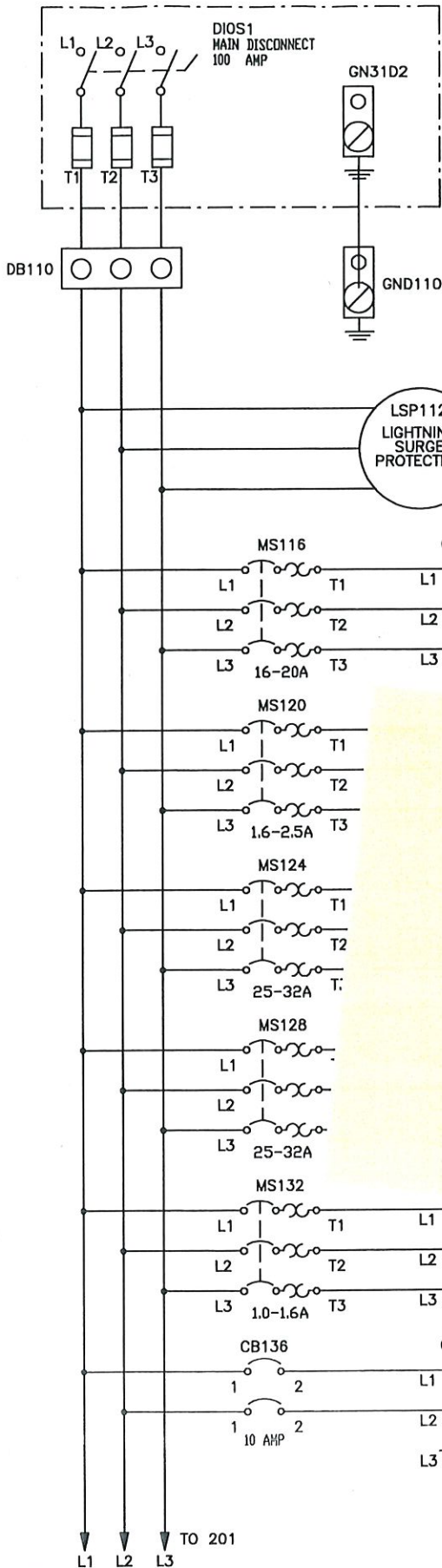
SIZE	FSCM NO.	DWG NO.	REV
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SCALE	NONE	SHEET	

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4/2/12

480 VAC THREE PHASE 60 HZ

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LSP112
LIGHTNING
SURGE
PROTECTION

Section 1

Book 2

SVE MOTOR
15 HP
1800 RPM
17.9 AMP

SVE

SVE TRANS. MOTOR
.75 HP
1800 RPM
1.6 AMP

SVE TRANSFER PUMP

AIR SPARGE MOTOR
20 HP
1800 RPM
24.4 AMP

AIR SPARGE #1

AIR SPARGE MOTOR
20 HP
1800 RPM
24.4 AMP

AIR SPARGE #2

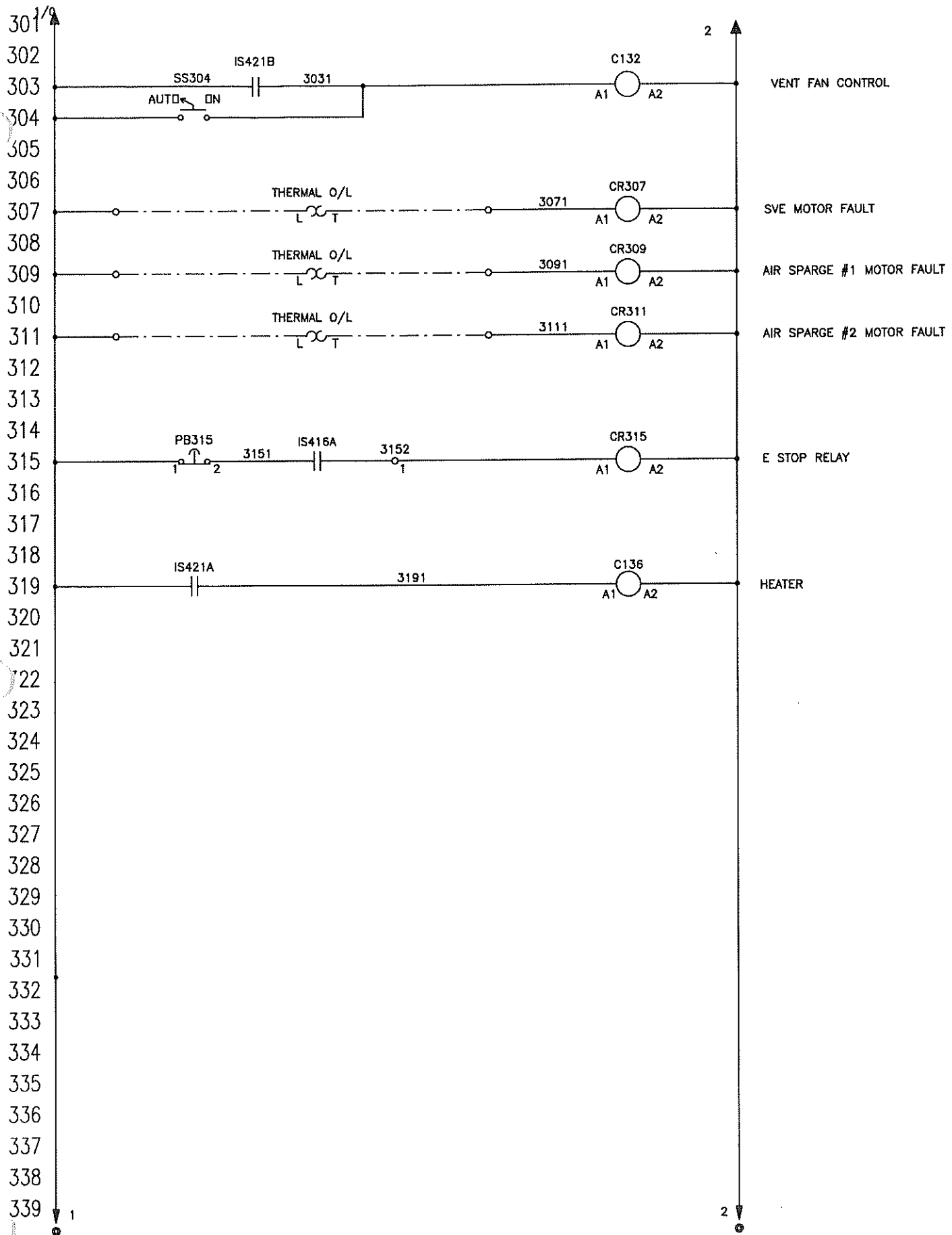
FAN MOTOR
.25 HP
1800 RPM
1.2 AMP

VENT FAN

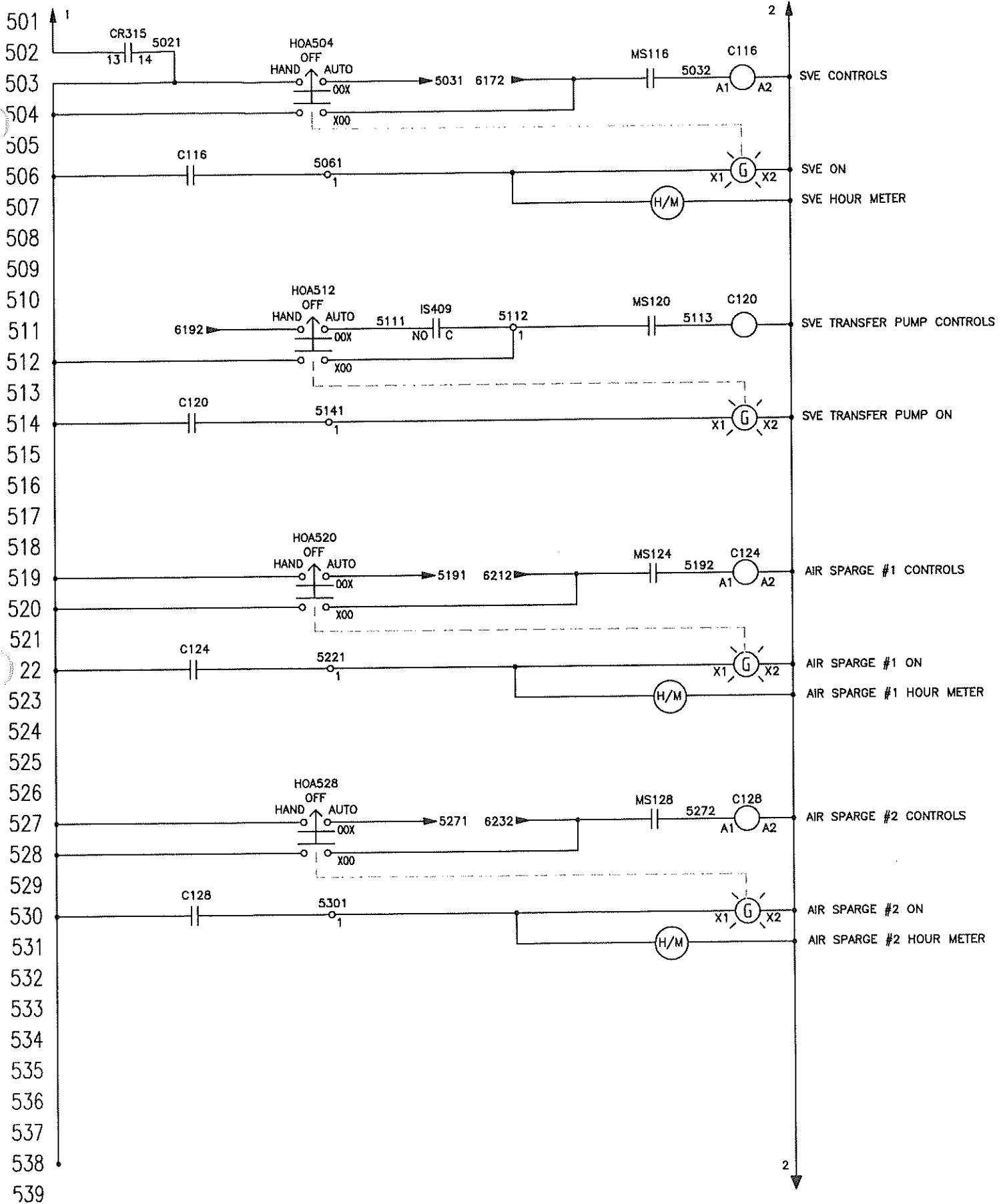
HTR136
HE1
HE2
HEATER
3600 W
480 V
7.5 AMP

HEATER

DATE		NAME		Flightway Technologies, Inc. 2129 East Birchwood Avenue Cudahy, Wisconsin 53110 1-800-236-3580	PROJECT: Q14190 REV2.1 (AS BUILT)		DRAWING-NO.:	
DRAWN BY 03/29/12		Flightway			PAGE DESCRIPTION Olsson Associates		JOB-NO.:	
CKD BY		CLS				PAGE: 1 OF 8		

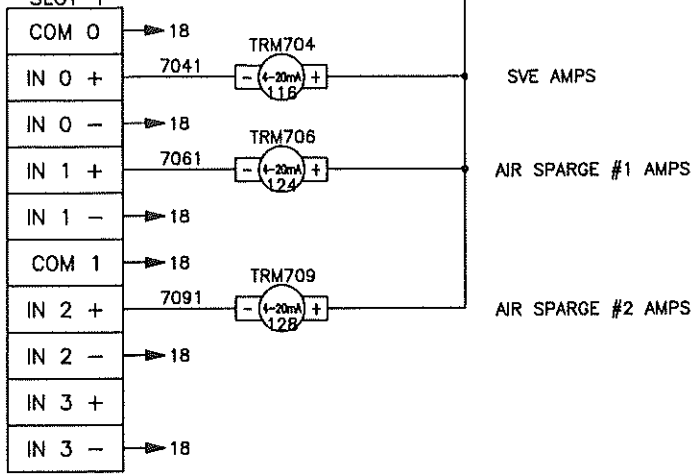


DATE		NAME	Flightway Technologies, Inc. 2129 East Birchwood Avenue Cudahy, Wisconsin 53110 1-800-236-3580	PROJECT:	DRAWING-NO.:
DRAWN BY	03/29/12	Flightway		Q14190	JOB-NO.:
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				REV2.1 (AS BUILT)	3 OF 8
				Olsson Associates	



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	03/29/12	Flightway		Q14190 REV2.1 (AS BUILT)	JOB-NO.:
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				Olsson Associates	5 OF 8

701 MICROLOGIX 1400
 702 1762-IF4
 4CH ANALOG INPUT
 SLOT 1



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	06/01/12	Box		Q14190 REV2.1 (AS BUILT)	JOB-NO.:
CKD BY		Sean		PAGE DESCRIPTION	PAGE:
				Olsson Associates	7 OF 8



File : E225974

ENCLOSED INDUSTRIAL CONTROL PANEL

Fliteway Technologies, Inc.
2129 E. Birchwood Ave. - Cudahy, WI 53110

480 Volts - 3 Phase - 60 Hz
Full Load Amps 89

Largest Motor : 20 HP
Drawing No : Q14190
Enclosure : TYPE 4

Short circuit current 5 kA rms symmetrical,
230 V maximum



ENCLOSED INDUSTRIAL CONTROL PANEL
RELATING TO HAZARDOUS LOCATIONS
WITH INTRINSICALLY SAFE CIRCUIT EXTENSIONS
No. BX - 040528



STATIONARY UNIT FOR COMMERCIAL USE

**IN ACCORDANCE WITH THE 2008 NATIONAL ELECTRIC CODE **

UNIT SERIAL: 820TRQ14190E126146

MANUFACTURED BY FLITWAY TECHNOLOGIES, INC.
2129 E. Birchwood Av.
Cudahy, WI. 53110

Fliteway Technologies, Inc.
2129 E. Birchwood Ave.
Cudahy, WI. 53110

Serial Number – 820TRQ14190E126146

Wiring – Insulated conductors in IMC and EMT and Liquid Tight

Main Power Supply- 480 VOLTS, Three Phase

Quantity of Circuits Provided - 5
Factory Installed Appliances - 5

<u>Appliance</u>	<u>Manufacture</u>	<u>Model Number</u>
Motor	WEG	02018XT3E256T
Motor	WEG	02018XT3E256T
Motor	WEG	01536XT3E254T
Motor	Baldor	CBS85210
Motor	Bluffton	1313007141

Field Completed Electrical Constructions Subject to Inspection by Local Authority

1. Connection and bonding of electrical Service.
2. Working clearance at Industrial control panel.

The interior of this building is intended for use as a Class I, Division 2, Group D hazardous location and is not intended for storage.

For processing materials with ignition temperature not less than 135C (275 F) T4 temperature code.

If ignition temperature of materials processed exceeds 80% of the fixture temperature rating, then fixture must be replaced with a UL listed Class I, division 1, Group D fixture.

Warehouse 13

*** INDENTED B.O.M. REPORT ***

Batch Qty. 1

From VQ14190 to VQ14190

Scrap/Yield OFF

L	Seq	Stock Code	Description	Category Code/Description	Scrap/Yield %	Inst.	Lead Time	U/M	Usage Qty.
		**Top Assembly* 13-VQ14190	FV15117X3-NYB2608 OLSSON ALL P	01 Soil Remediation	100.00	N			
1*****	001	30-FTK-117-8	TANK 117 GALLON 8" NPT	05 Fabrication	100.00	N		EA	1
2	001	00-IF-81-1040	ELEMENT 6" DEMISTER FOR 6"NPT	01 Soil Remediation		N		EA	1.000
2	002	00-ST-SM60X120-11G	SHEET METAL 60 X 120 X 11 GA	01 Soil Remediation		N		IN	120.000
2	003	00-PF-2 C	COUPLER,2in	01 Soil Remediation		N		ea	3.000
2	004	00-PF-2 HALF C	HALF COUPLING 2"	01 Soil Remediation		N		ea	2.000
2	005	00-PF-1/4 HALF C	HALF COUPLING 1/4" BLACK	01 Soil Remediation		N		ea	2.000
2	006	00-ST-PIPEB8SCH40	STEEL PIPE BLACK 8" SCH 40	01 Soil Remediation		N		FT	3.000
2	007	00-ST-PIPEB6SCHD40	STEEL PIPE,BLACK,6 in, SCHD40	01 Soil Remediation		N		FT	4.000
2	008	00-PF-6 GP	GRIPPER PLUG, 6in	01 Soil Remediation		N		EA	1.000
2	009	00-ST-SM48X120X1/4	SHEET METAL, 48 X 120 X 1/4"	01 Soil Remediation		N		IN	16.000
1	002	35-CA-HP-P100-100	POLY WATER FILTER 100LBS W/ 1"	01 Soil Remediation		N		EA	2.000
1	003	00-IF-68786	CARTRIDGE FILTER HOUSING 1"NPT	01 Soil Remediation		N		EA	1.000
1	004	00-IF-68923	CARTRIDGE FILTER FOR 68786 20	01 Soil Remediation		N		EA	1.000
1	005	00-IF-68790	WRENCH FOR 1000 SERIES WATER F	01 Soil Remediation		N		EA	1.000
1	006	00-BL-NY-2608A	BLOWER, NY 2608A LESS MOTOR, A	01 Soil Remediation		N		EA	1.000
1	007	00-EM-0153GXT3E254	MOTOR 15 HP 3600 RPM EXP 3 PHA	01 Soil Remediation		N		EA	1.000
1	008	00-ST-SM48X120-11	SHEET METAL 11 GA 48X120"	01 Soil Remediation		N		IN	110.000
1	009	00-PF-4 HALF C	HALF COUPLING 4"	01 Soil Remediation		N		ea	11.000
1	010	00-ST-PIPEB6SCHD40	STEEL PIPE,BLACK,6 in, SCHD40	01 Soil Remediation		N		FT	0.500
1	011	00-ST-SQT1.5X1/8	SQUARE TUBE 1-1/2 X 1-1/2 X 1/8	01 Soil Remediation		N		FT	36.000
1	012	00-IF-ILFV-8	FILTER, UNIVERSAL, 8" PAPER	01 Soil Remediation		N		EA	1.000
1	013	00-IF-81-1163	ELEMENT FOR ILFV-8 PAPER	01 Soil Remediation		N		EA	1.000
1	014	00-SL-SU5-8	SILENCER, 8" UNIVERSAL	01 Soil Remediation		N		EA	1.000
1	015	00-SL-L21-2	SILENCER, STODDARD, 2"	01 Soil Remediation		N		EA	1.000
1	016	04-WP-1ST1D7F4	WATER PUMP, GOULD, 3/4 HP, 3Q,	01 Soil Remediation		N		EA	1.000
1	017	00-FS-4YM36	SWITCH, LIQUID LEVEL	01 Soil Remediation		N		EA	1.000
1	018	00-FM-DS-300-8	FLOW METER 8" PITOT TUBE	01 Soil Remediation		N		EA	2.000
1	019	00-GU-2002AV	MAGNEHELIC AIRVELOC 0-2"WC 100	01 Soil Remediation		N		EA	2.000
1	020	00-FM-DS-300-4	FLOW METER, 4IN PITOT TUBE, CO	01 Soil Remediation		N		EA	1.000
1	021	00-GU-2001AV	MAGNEHELIC AIRVELOC 0-1"WC 500	01 Soil Remediation		N		EA	1.000
1	022	00-GU-2-5020	GAUGE, MINIHELIC, 2-5020	01 Soil Remediation		N		EA	1.000
1*****	023	30-FBK-MINI MAG	BRACKET, MINIHELIC GAUGE	05 Fabrication	100.00	N		ea	1
2	001	00-ST-SM48X120-16	SHEET METAL 48X120 16GA CRS	05 Fabrication		N		IN	15.000
1	024	00-GU-LP1-254-30	GAUGE 0-30" WC PRESSURE PIC	01 Soil Remediation		N		EA	1.000
1	025	00-GU-SEC201L254D	GAUGE 0-60 PSI PIC 2.5" SS/BRA	01 Soil Remediation		N		EA	4.000
1	026	00-GU-LP1-254100"V	GAUGE 0-100" WC VAC PIC	01 Soil Remediation		N		EA	13.000
1	027	00-GU-T20025B5	GAUGE TEMP 25 - 125 DEG WINTER	01 Soil Remediation		N		EA	1.000
1	028	00-PF-B-1/4X1/4	BARB 1/4 X 1/4 BARB X NPT MALE	01 Soil Remediation		N		EA	11.000
1	029	00-PF-B-1/4X1/4-90	BARB 1/4 X 1/4 90 BRASS MALE E	01 Soil Remediation		N		EA	6.000
1	030	00-VA-1/4 BV	BALL VALVE 1/4"	01 Soil Remediation		N		EA	17.000
1	031	00-PF-G-1/4 CN	NIPPLE, CLOSE, 1/4" GALV	01 Soil Remediation		N		ea	1.000
1	032	00-PF-G-1/4 T	TEE GALV. 1/4"	01 Soil Remediation		N		ea	17.000
1	033	00-CV-1	CHECK VALVE 1"	01 Soil Remediation		N		EA	1.000
1	034	00-PF-G-1 CN	NIPPLE, 1" GALV CLOSE	01 Soil Remediation		N		ea	6.000
1	035	00-PF-G-1 90	ELBOW, 1" GALV	01 Soil Remediation		N		ea	2.000
1	036	00-VA-1 GATE	GATE VALVE 1"	01 Soil Remediation		N		EA	1.000
1	037	00-PF-G-1 U	UNION, 1" GALV	01 Soil Remediation		N		ea	5.000
1	038	00-PF-WYE 1	WYE STRAINER 1"	01 Soil Remediation		N		EA	1.000

Warehouse 13
From VQ14190 to VQ14190

*** INDENTED B.O.M. REPORT ***

Batch Qty. 1
Scrap/Yield OFF

L	Seq	Stock Code	Description	Category Code/Description	Scrap/Yield %	Inst.	Lead Time	U/M	Usage Qty.
1	039	00-PF-G-2 CN	NIPPLE, GALV. 2" CLS	01 Soil Remediation		N		ea	3.000
1	040	00-PF-G-2 90	ELBOW, GALV. 2" 90	01 Soil Remediation		N		ea	1.000
1	041	00-VA-2 GATE	GATE VALVE 2"	01 Soil Remediation		N		EA	1.000
1	042	00-PF-G-2 U	UNION, GALV. 2"	01 Soil Remediation		N		ea	1.000
1	043	00-VA-4 GATE	VALVE, GATE 4"	01 Soil Remediation		N		EA	11.000
1	044	00-PF-PVC1413-010	BARB 1" 90, (1"BARB X 1"BARB)	01 Soil Remediation		N		ea	2.000
1	045	00-PF-PVC1436-010	BARB 1" MALE PIPE THREAD	01 Soil Remediation		N		ea	6.000
1	046	00-PF-PVC884-005	NIPPLE CLOSE 1" PVC SCH 80	01 Soil Remediation		N		ea	8.000
1	047	00-PF-PVC836-010	ADAPTER 1" PVC MALE SCH 80	01 Soil Remediation		N		ea	1.000
1	048	00-PF-PVC806-010	ELBOW 1" 90 PVC SLIPXSLIP SCH	01 Soil Remediation		N		ea	1.000
1	049	00-PF-PVC406-020	ELBOWS, 2" 90	01 Soil Remediation		N		ea	1.000
1	050	00-PF-PVC435-020	ADAPTER, 2" FEMALE	01 Soil Remediation		N		ea	1.000
1	051	00-PF-PVC805-040	TEE, 4in, THREADED, SCHED80	01 Soil Remediation		N		ea	11.000
1	052	00-PF-PVC836-040	ADAPTER MALE 4" MXS SCH 80	01 Soil Remediation		N		ea	11.000
1	053	00-PF-PVC858-040	UNION 4" THD	01 Soil Remediation		N		EA	11.000
1	054	00-PF-PVC850-040	PLUG 4" THREADED	01 Soil Remediation		N		EA	11.000
1	055	00-PF-PVCS40PVC2	PIPE, 2" SCH 40	01 Soil Remediation		N		FT	3.000
1	056	00-EH-B22SH10FTGAL	UNISTRUT 1-5/8X1-5/8 12GA HOLE	01 Soil Remediation		N		FT	4.000
1	057	00-EH-B2013	CLAMP PIPE 2"	01 Soil Remediation		N		ea	2.000
1	058	00-PF-PVC801-080	TEE 8" SLIPXSLIPXSLIP SCH 80 P	01 Soil Remediation		N		ea	2.000
1	059	00-PF-PVC806-080	ELBOW 90 8" SLIP SCH 80 PVC	01 Soil Remediation		N		ea	1.000
1	060	00-PF-PVC838-420	BUSHING, REDUCER 4X2 SCH80	01 Soil Remediation		N		ea	1.000
1	061	00-PF-PVC854-080	FLANGES 8" SCH 80 PVC SWIVEL	01 Soil Remediation		N		ea	3.000
1	062	00-PF-PVCS80PVC8	PIPE 8" SCH 80 PVC	01 Soil Remediation		N		FT	20.000
1	063	00-PF-G-3/8 CAP	CAP 3/8" GALV	01 Soil Remediation		N		EA	30.000
1	064	00-PF-G-3/8 CN	NIPPLE CLOSE GALV 3/8"	01 Soil Remediation		N		ea	30.000

** END OF REPORT **

Warehouse 16
From SQ14190 to SQ14190

*** INDENTED B.O.M. REPORT ***

Batch Qty. 1
Scrap/Yield OFF

Seq	Stock Code	Description	Category Code/Description	Scrap/Yield %	Inst.	Lead Time	U/M	Usage Qty.
**Top Assembly*	16-SQ14190	FS20X3-DUAL R56 OLSSON ALL POI	01 Soil Remediation	100.00	N			
1	001	00-BL-RT-56URAIJ#1	ROOTS 56 URAI-J HORIZ/RT HAND/	01 Soil Remediation	N		EA	1.000
1	002	00-BL-RT-56URAIJ#2	ROOTS 56 URAI-J HORIZ/LFT HAND	01 Soil Remediation	N		EA	1.000
1	003	00-EM-02018XT3E256	MOTOR 20 HP 1800 RPM EXP 3 PHA	01 Soil Remediation	N		EA	2.000
1	004	00-EM-F2 MODIFICAT	F2 ELECTRICAL BOX LOCATION MOD	01 Soil Remediation	N		EA	1.000
1	005	00-ST-SM48X120X1/4	SHEET METAL, 48 X 120 X 1/4"	01 Soil Remediation	N		IN	120.000
1	006	00-ST-SM48X120-16	SHEET METAL 48X120 16GA CRS	01 Soil Remediation	N		IN	120.000
1	007	00-ST-EX-48X120-16	EXPANDED 48X120 16 GA	01 Soil Remediation	N		IN	120.000
1	008	00-ST-SQT5X5X3/16	SQUARE TUBE 5 X 5 X 3/16	01 Soil Remediation	N		FT	11.000
1	009	00-ST-SQT3X3X1/8	SQUARE TUBE, 3X3X1/8 X 20'	01 Soil Remediation	N		FT	7.000
1	010	00-PF-2 HALF C	HALF COUPLING 2"	01 Soil Remediation	N		ea	17.000
1	011	00-PF-4 HALF C	HALF COUPLING 4"	01 Soil Remediation	N		ea	2.000
1	012	00-MB-256T	MOTORBASE 256T,ADJUSTABLE	01 Soil Remediation	N		ea	2.000
1	013	00-PU-2B5V94	PULLEY, 94	01 Soil Remediation	N		ea	2.000
1	014	00-PU-B1-5/8	BUSHING, 1-5/8	01 Soil Remediation	N		ea	2.000
1	015	00-PU-2BK90H	PULLEY, H, 2BK90H	01 Soil Remediation	N		ea	2.000
1	016	00-PU-H1 1/8	BUSHING, H, 1 1/8in	01 Soil Remediation	N		EA	2.000
1	017	00-BT-BX64	BELT	01 Soil Remediation	N		ea	4.000
1*****	018	30-FIF-ILFV-4	INLINE FILTER 4"	01 Soil Remediation	100.00	N	ea	2
2	001	00-ST-SM48X120-11	SHEET METAL 11 GA 48X120"	05 Fabrication	N		IN	14.000
	002	00-ST-SM48X120-18	SHEET METAL 18GA CRS 48X120"	05 Fabrication	N		IN	24.000
	003	00-ST-SM48X120-7G	SHEET METAL 48 X 120 X 7 GA HR	05 Fabrication	N		IN	14.000
2	004	00-IF-19-2308	FILTER ELEMENT ILFV 2,3,4 (81-	01 Soil Remediation	N		EA	2.000
2	005	00-PF-4 HALF C	HALF COUPLING 4"	05 Fabrication	N		ea	4.000
2	006	00-PF-1/4 HALF C	HALF COUPLING 1/4" BLACK	05 Fabrication	N		ea	6.000
2	007	00-PF-2 HALF C	HALF COUPLING 2"	05 Fabrication	N		ea	2.000
1	019	00-IF-19-2308	FILTER ELEMENT ILFV 2,3,4 (81-	01 Soil Remediation	N		EA	4.000
1	020	00-SL-L21-2	SILENCER, STODDARD, 2"	01 Soil Remediation	N		EA	2.000
1	021	00-SL-L21-4	SILENCER 4" NPT	01 Soil Remediation	N		EA	2.000
1	022	00-FM-DS-300-2	FLOW METER 2" PITOT TUBE COMP	01 Soil Remediation	N		EA	1.000
1	023	00-GU-2001AV	MAGNEHELIC AIRVELOC 0-1"WC 500	01 Soil Remediation	N		EA	1.000
1	024	00-PS-CS-30	PRESSURE SWITCH MERCOID, 1-30	01 Soil Remediation	N		ea	1.000
1	025	00-GU-SEC201L254B	GAUGE 0-15 PSI PIC 2.5" SS/BRA	01 Soil Remediation	N		EA	20.000
1	026	00-EB-4KN97	ENCL NEMA4 BOX W/KNOCKOUTS (MU	01 Soil Remediation	N		EA	2.000
1	027	00-GU-T-A20T250-6	GAUGE SW TEMP MURPHY 1/2" 250	01 Soil Remediation	N		EA	2.000
1	028	00-VA-909861010524	1" WEIGHTED PRESS RELIEF, 15#	01 Soil Remediation	N		EA	2.000
1	029	00-PF-G-1/4 CN	NIPPLE, CLOSE, 1/4" GALV	01 Soil Remediation	N		ea	19.000
1	030	00-PF-G-1/4 90	ELBOW, GALV. 1/4" 90	01 Soil Remediation	N		ea	19.000
1	031	00-PF-G-2 CN	NIPPLE, GALV. 2" CLS	01 Soil Remediation	N		ea	57.000
1	032	00-PF-G-2 90	ELBOW, GALV. 2" 90	01 Soil Remediation	N		ea	4.000
1	033	00-VA-2 GATE	GATE VALVE 2"	01 Soil Remediation	N		EA	19.000
1	034	00-PF-G-2 U	UNION, GALV. 2"	01 Soil Remediation	N		ea	19.000
1	035	00-PF-G-2X1/4 RB	REDUCER BUSHING 2 X 1/4 GALV	01 Soil Remediation	N		ea	17.000
1	036	00-PF-G-2X1 RB	REDUCER BUSHING, 2X1, GALV	01 Soil Remediation	N		ea	2.000
1	037	00-PF-G-3X2 RB	REDUCER BUSHING GALV. 3 X 2	01 Soil Remediation	N		ea	2.000
1	038	00-CV-34108	CHECK VALVE 4" CARBON STEEL	01 Soil Remediation	N		EA	2.000
1	039	00-PF-G-4 CN	NIPPLE, 4" CLOSE GALV	01 Soil Remediation	N		EA	4.000
1	040	00-PF-G-4 90	ELBOW, GALV. 4" 90	01 Soil Remediation	N		ea	2.000
1	041	00-PF-G-4 T	TEE, GALV. 4"	01 Soil Remediation	N		ea	4.000

Warehouse 16
From SQ14190 to SQ14190

*** INDENTED B.O.M. REPORT ***

Batch Qty. 1
Scrap/Yield OFF

L	Seq	Stock Code	Description	Category Code/Description	Scrap/ Yield %	Inst.	Lead Time U/M	Usage Qty.
1	042	00-PF-G-4X3 RB	REDUCER BUSHING, GALV. 4 X 3	01 Soil Remediation		N	ea	2.000
1	043	00-ST-G-PIPE-2	PIPE, GALV. 2"	01 Soil Remediation		N	FT	51.000
1	044	00-ST-G-PIPE-4	PIPE GALV 4" SCH 40	01 Soil Remediation		N	FT	8.000
1	045	00-PF-PVC406-020	ELBOWS, 2" 90	01 Soil Remediation		N	ea	2.000
1	046	00-PF-PVC435-020	ADAPTER, 2" FEMALE	01 Soil Remediation		N	ea	2.000
1	047	00-PF-PVC406-040	ELBOW 4" 90 DEG SCH 40	01 Soil Remediation		N	ea	4.000
1	048	00-PF-PVC435-040	ADAPTER FEMALE 4in SCHED40	01 Soil Remediation		N	EA	6.000
1	049	00-PF-PVCS40PVC2	PIPE, 2" SCH 40	01 Soil Remediation		N	FT	4.000
1	050	00-PF-PVCS40PVC4	PIPE 4" SCHED 40	01 Soil Remediation		N	FT	4.000
1	051	00-EH-B22SH10FTGAL	UNISTRUT 1-5/8X1-5/8 12GA HOLE	01 Soil Remediation		N	FT	2.000
1	052	00-EH-B2013	CLAMP PIPE 2"	01 Soil Remediation		N	ea	2.000
1	053	00-EH-B2017	CLAMP PIPE 4"	01 Soil Remediation		N	ea	4.000
1	054	00-HO-4X16 FLEX	FLEX HOSE 4 X 16 SS	01 Soil Remediation		N	EA	1.000

** END OF REPORT **

Warehouse 15
From CQ14190 to CQ14190

*** INDENTED B.O.M. REPORT ***

Batch Qty. 1
Scrap/Yield OFF

Seq	Stock Code	Description	Category Code/Description	Scrap/Yield %	Inst.	Lead Time	U/M	Usage Qty.
**Top Assembly* 15-CQ14190 CONTROL PANEL OLSSON ALL POINT 03 Electrical 100.00 N								
1	001	00-EB-N412363612C	ENCLOSURE SUBPANEL, SWNG DR, PAD	03 Electrical	N		EA	1.000
1	002	00-EB-NP3636C	SUB PANEL WIEGMANN	03 Electrical	N		EA	1.000
1	003	00-EB-N412MPK	FOOT KIT	03 Electrical	N		EA	1.000
1	004	00-EB-N41214TWPL	HANDLE, WING PDLK	03 Electrical	N		EA	1.000
1	005	00-ST-SM48X120-16	SHEET METAL 48X120 16GA CRS	03 Electrical	N		IN	39.000
1	006	00-EC-2PAR2	HOUR METER (T50B52)	03 Electrical	N		EA	3.000
1	007	00-EC-6WU91	TRANSFORMER, 240/208/120 - 24V	03 Electrical	N		EA	1.000
1	008	00-EH-3MU97	THERMOSTAT, EXHAUST FAN 3Q	03 Electrical	N		EA	1.000
1	009	00-EH-3MU96	THERMOSTAT, HEATER, (480 VOLT IS	03 Electrical	N		EA	1.000
1	010	00-EC-5B711	GROUND BAR KIT PK12GTA	03 Electrical	N		EA	1.000
1	011	00-EC-IC-105	SURGE SUPPRESSOR 5A 120V .6KVA	03 Electrical	N		EA	1.000
1	012	00-ED-HF363R	DISCONNECT 100 AMP 600 VOLT 3P	03 Electrical	N		EA	1.000
1	013	00-EC-FLSR150	FUSE 150 AMP 600V RK5 TD	03 Electrical	N		EA	3.000
1	014	00-EC-330T25S2D16	MOTOR START, MANUAL 1.0-1.6A	03 Electrical	N		EA	1.000
1	015	00-EC-330T25S2D25	MOTOR STARTER, MANUAL 1.6-2.5	03 Electrical	N		EA	1.000
1	016	00-EC-330T25S2U20	MOTOR STARTER, MANUAL 16-20 AM	03 Electrical	N		EA	1.000
1	017	00-EC-330T25S2U32	MOTOR STARTER, MANUAL 25-32 AM	03 Electrical	N		EA	2.000
1	018	00-EC-330FA11S25	CONTACT, FRONT MOUNTED 1 NO AN	03 Electrical	N		EA	5.000
1	019	00-EC-330LSTBS25	BARRIER, LINE SIDE TERMINAL M3	03 Electrical	N		EA	5.000
1	020	00-EC-300S09N30D10	CONTACTOR 9 AMP 110V AC 1 NO	03 Electrical	N		EA	3.000
1	021	00-EC-300S18N30D10	CONTACTOR 18 AMP 110V AC 1 NO	03 Electrical	N		EA	1.000
1	022	00-EC-300S25N30D10	CONTACTOR 25A 3P 20V 50 HZ 1 N	03 Electrical	N		EA	2.000
1	023	00-EC-300SFA10	CONTACT, AUXILLIARY FRONT MOUN	03 Electrical	N		EA	6.000
1	024	00-EC-GPRM-B4C05D3	RELAY, 4PDT, 120V, MAN/LIGHT, C3	03 Electrical	N		EA	4.000
1	025	00-EC-GPRA-SB14U1	RELAY SOCKET, 14-PIN, C3	03 Electrical	N		EA	4.000
1	026	00-EC-W22UNR120LW	LIGHT 110-130V WHITE W22UNR-12	03 Electrical	N		EA	1.000
1	027	00-EC-W22PPM-R-01	SWITCH, E-STOP, RED, 1NO, C3	03 Electrical	N		ea	2.000
1	028	00-EC-W22PB-FK-10	LIGHT -10/01 NON-ILL PUSH FLSH	03 Electrical	N		EA	1.000
1	029	00-EC-W22ISLC-IHG	HOA SWITCH W22ISLC-IHG-FM120LG	03 Electrical	N		EA	4.000
1	030	00-EC-W22S2-HW-10	SWITCH 2 POS MAINT L WE HANDLE	03 Electrical	N		EA	1.000
1	031	00-EC-22LP-83	LEGEND PLATE, HOA, BL/WH, C3	03 Electrical	N		ea	4.000
1	032	00-EC-22LP-68	LEGEN A/MAN TAG	03 Electrical	N		EA	1.000
1	033	00-EC-22LPRMYW-04	LEGEND 3-STOP ROUND TAG	03 Electrical	N		EA	2.000
1	034	00-EC-PMRU-1C-480A	PHASE MONITOR UNIVERSAL 208-48	03 Electrical	N		EA	1.000
1	035	00-EC-70169-D	RELAY SOCKET, 600V PHASE MONIT	03 Electrical	N		EA	1.000
1	036	00-EC-6SC30A3-C	FUSE HOLDER	03 Electrical	N		EA	1.000
1	037	00-EC-ATQR 2	FUSE, 2AMP, FERRAZ SHAWMUT	03 Electrical	N		ea	1.000
1	038	00-EC-57.504.0055	TERMINALS, STANDARD GRAY	03 Electrical	N		ea	40.000
1	039	00-EC-07.311.0155	END BARRIER, WIELAND GRAY	03 Electrical	N		EA	5.000
1	040	00-EC-57.504.9055	TERMINAL BLOCKS DIN RAIL GROUN	03 Electrical	N		ea	2.000
1	041	00-EC-Z5.523.9353	WIELAND END BARRIER, PLASTIC *	03 Electrical	N		EA	6.000
1	042	00-EC-Z5.522.8553	CLAMP END BARRIER *	03 Electrical	N		EA	2.000
1	043	00-EC-98.300.1000	DIN RAIL 35X7.5, SLOT 6' LENGT	03 Electrical	N		ea	12.000
1	044	00-EH-1SNA892461R	RECEPTACLE DUPLEX ABB 1SNA8924	03 Electrical	N		EA	2.000
1	045	00-EC-1403404	DISTRIBUTION BLOCK, 200 AMP, 3P	03 Electrical	N		ea	1.000
1	046	00-EC-CC1403	DISTRIBUTION BLOCK COVER MARAT	03 Electrical	N		EA	1.000
1	047	00-EC-TA-2/0	LUG 2/0 #14	03 Electrical	N		EA	4.000
1	048	00-EC-S201-K5	CIRCUIT BREAKER, 5 AMP, SUPP, ABB	03 Electrical	N		ea	1.000

Warehouse 15
 From CQ14190 to CQ14190

*** INDENTED B.O.M. REPORT ***

Batch Qty. 1
 Scrap/Yield OFF

1	Seq	Stock Code	Description	Category Code/Description	Scrap/ Yield %	Inst.	Lead Time	U/M	Usage Qty.
1	049	00-EC-S201-K15	CIRCUIT BREAKER 15A 1P	03 Electrical		N	EA		2.000
1	050	00-EC-S201-K30	CIRCUIT BREAKER 30 AMP 1P	03 Electrical		N	EA		1.000
1	051	00-EC-S202-K10	CIRCUIT BREAKER 2P 10A	03 Electrical		N	EA		2.000
1	052	00-EC-GDL-2	FUSE, G/S, 2 AMP	03 Electrical		N	ea		6.000
1	053	00-EC-57.904.6355	FUSEHOLDER 1P GLASS ABB	03 Electrical		N	ea		6.000
1	054	00-EC-AG4803C3	LIGHTNING ARRESTOR UL 480V 3PH	03 Electrical		N	EA		1.000
1	055	00-EC-ISR-24V-100K	RELAY, 2-CH, 24V, 100K	03 Electrical		N	EA		4.000
1	056	00-EC-ISL-24V-100K	RELAY LATCHING, 24V, 100K	03 Electrical		N	EA		1.000
1	057	00-ED-G003K1KF7A03	TRANSFORMER 3KVA MULTI-TAP	03 Electrical		N	EA		1.000
1	058	00-PLC-PSB24-060-P	POWER SUPPLY 24VDC 60W DIN-RAI	03 Electrical		N	EA		1.000
1	059	00-PLC-1766-L32AWA	MICROLOGIX 1400 32 PT AC IN/RE	03 Electrical		N	EA		1.000
1	060	00-PLC-EA7-T6CL	TOUCHSCREEN 6" PANEL COLOR STN	03 Electrical		N	EA		1.000
1	061	00-PLC-1762-1F4	PLC CARD, ANALOG IN, 4CH / MICRO	03 Electrical		N	EA		1.000
1	062	00-EC-ACT050-42L-F	TRANSDUCER 0-50A IN, 4-20mA OU	03 Electrical		N	EA		3.000

** END OF REPORT **

Warehouse 17

*** INDENTED B.O.M. REPORT ***

Batch Qty. 1

From TRQ14190 to TRQ14190

Scrap/Yield OFF

1	Seq	Stock Code	Description	Category Code/Description	Scrap/Yield %	Inst.	Lead Time	U/M	Usage Qty.
	**Top Assembly*	17-TRQ14190	I820TA2XLT OLSSON ALL POINTS C	04 Distributed Goods	100.00	N			
1	001	04-TR-I820TA2XLT	TRAILER 100"W X 20'L X 90"H	04 Distributed Goods		N		EA	1.000
1	002	04-TR-DBLFLR	EXTRA LAYER PLYWOOD ON FLOOR	04 Distributed Goods		N		EA	1.000
1	003	00-IN-FLT00005	FOAM 3"X24"x96" (2" PEAK, 1" B	01 Soil Remediation		N		EA	40.000
1	004	00-IN-FLT00006	FOAM 2"X24"x96" SOLID - 85170	01 Soil Remediation		N		EA	40.000
1*****	005	30-FFV-FLOOR VENT	FLOOR VENT	05 Fabrication	100.00	N		ea	2
2	001	00-ST-SM48X120-11	SHEET METAL 11 GA 48X120"	05 Fabrication		N		IN	36.000
2	002	00-ST-EX-48X120-16	EXPANDED 48X120 16 GA	05 Fabrication		N		IN	36.000
1*****	006	30-FBK-TIRE	BRACKET, SPARE TIRE	05 Fabrication	100.00	N		ea	1
2	001	00-ST-SM48X120-11	SHEET METAL 11 GA 48X120"	05 Fabrication		N		IN	33.000
1	007	00-ST-SQT1.5X1/8	SQUARE TUBE 1-1/2 X 1-1/2 X 1/	01 Soil Remediation		N		FT	30.000
1	008	00-EH-B54SHG10	B-LINE 13/16 X 1 5/8 SLOTTED S	01 Soil Remediation		N		FT	12.000
1	009	00-ST-48X120X1/4	SAFETY PLATE 48 X 120 X 1/4	01 Soil Remediation		N		IN	22.000
1*****	010	01-K-VENTFAN-HZD	VENT FAN HAZARDOUS 1/4 HP 3Q 1	01 Soil Remediation	100.00	N		EA	1
2	001	00-EM-M6002A	MOTOR, BALDOR, 1/4 HP 3Q EXP 1	01 Soil Remediation		N		ea	1.000
2	002	00-EH-4C348	FAN BLADE 12"	01 Soil Remediation		N		EA	1.000
2	003	00-EH-94-0034	WIRE GUARD FOR EN122 PROPELLER	01 Soil Remediation		N		ea	1.000
2	004	00-EH-1C742	SHUTTER, WALL 12" GALV, OPENS/	01 Soil Remediation		N		ea	1.000
2	005	00-ST-SM48X120-11	SHEET METAL 11 GA 48X120"	01 Soil Remediation		N		IN	22.000
1	011	00-EX-1752K76	HEATER HZD CONVCT 480V 3600W 1	01 Soil Remediation		N		EA	1.000
1	012	00-EX-KILLFXS-41C	SWITCH, LIGHT 1/2" 1P2	01 Soil Remediation		N		EA	1.000
1	013	00-EX-VUXGG1100PX	LIGHT FIXTURE, KILLARK CL5.1 D	01 Soil Remediation		N		EA	2.000
1	014	00-EF-WH-1	HUB, 1/2" WEATHERPROOF CONDUIT	01 Soil Remediation		N		EA	3.000
1	015	00-EF-WH-2	HUB, 3/4" WEATHERPROOF CONDUIT	01 Soil Remediation		N		EA	4.000
1	016	00-EF-WH-3	HUB, 1" WEATHERPROOF CONDUIT	01 Soil Remediation		N		EA	3.000
1	017	00-EF-OLB-1M	CONDUIT LB 1/2" MALLEABLE	01 Soil Remediation		N		EA	2.000
1	018	00-EF-OL-10CM	COVER 1/2" IRON (GASKET OLK-1R	01 Soil Remediation		N		EA	2.000
1	019	00-EF-OLK-1RG	GASKET, 1/2" (FOR OK-10CM COVE	01 Soil Remediation		N		EA	2.000
1	020	00-EF-OLB-2M	CONDUIT LB 3/4" MALLEABLE	01 Soil Remediation		N		EA	2.000
1	021	00-EF-OL-20CM	COVER 3/4" IRON (GASKET OLK-2R	01 Soil Remediation		N		EA	2.000
1	022	00-EF-OLK-2RG	GASKET, 3/4" (FOR OK-20CM COVE	01 Soil Remediation		N		EA	2.000
1	023	00-EF-OLB-3M	CONDUIT LB 1" MALLEABLE	01 Soil Remediation		N		EA	1.000
1	024	00-EF-OL-30CM	COVER 1" IRON (GASKET OLK-2RG)	01 Soil Remediation		N		EA	1.000
1	025	00-EF-OLK-3RG	GASKET 1"	01 Soil Remediation		N		EA	1.000
1	026	00-EF-OT-1M	1/2" LB "T" MALLEABLE	01 Soil Remediation		N		EA	1.000
1	027	00-EF-Y-2M	CAP ELBOW 3/4" FEMALE	01 Soil Remediation		N		EA	2.000
1	028	00-EF-ENY-1M	FITTING, 1/2" SEALING	01 Soil Remediation		N		EA	4.000
1	029	00-EF-ENY-2M	FITTING, 3/4" SEALING	01 Soil Remediation		N		EA	5.000
1	030	00-EX-EMT1/2	EMT 1/2	01 Soil Remediation		N		FT	35.000
1	031	00-EX-IMC-1/2	CONDUIT IMC 1/2"	01 Soil Remediation		N		FT	16.000
1	032	00-EX-IMC3/4	CONDUIT IMC 3/4"	01 Soil Remediation		N		FT	32.000
1	033	00-EF-1/2-UA	CONDUIT, FLEX 1/2"	01 Soil Remediation		N		FT	7.000
1	034	00-EF-3/4-UA	CONDUIT FLEX 3/4"	01 Soil Remediation		N		EA	1.000
1	035	00-EF-1-UA	CONDUIT, FLEX 1"	01 Soil Remediation		N		FT	2.000
1	036	00-EF-K0501	FITTING, 1/2" STRAIGHT LIQUIDT	01 Soil Remediation		N		EA	4.000
1	037	00-EF-K05041	FITTING, 1/2" 45 LIQUIDTITE	01 Soil Remediation		N		EA	4.000
1	038	00-EF-K05091	FITTING, 1/2 90 LIQUIDTITE	01 Soil Remediation		N		EA	2.000
1	039	00-EF-K07541	FITTING, 3/4" 45 LIQUIDTITE	01 Soil Remediation		N		EA	2.000
1	040	00-EF-K07591	FITTING, 3/4 90 LIQUIDTITE	01 Soil Remediation		N		EA	2.000

Warehouse 17

*** INDENTED B.O.M. REPORT ***

Batch Qty. 1

From TRQ14190 to TRQ14190

Scrap/Yield OFF

Seq	Stock Code	Description	Category Code/Description	Scrap/Yield %	Inst.	Lead Time	U/M	Usage Qty.
1	041 00-EF-RE31S	REDUCER BUSHING 1" TO 1/2"	01 Soil Remediation		N		EA	2.000
1	042 00-PF-1-1/2X3/4 RB	REDUCER BUSHING, 1-1/2X3/4	01 Soil Remediation		N		ea	1.000

** END OF REPORT **

2012

NYB2608E126142	FV15117X3-NYB2608	OLSSON / ALL POINTS COOP, LEXINGTON, NE	5/21/12	Q14190
56URAIJE126143 - #1	FS20X3-DUAL R56	OLSSON / ALL POINTS COOP, LEXINGTON, NE	5/21/12	Q14190
56URAIJE126144 - #2	FS20X3-DUAL R56	OLSSON / ALL POINTS COOP, LEXINGTON, NE	5/21/12	Q14190
CPQ14190E126145	CPQ14190	OLSSON / ALL POINTS COOP, LEXINGTON, NE	5/21/12	Q14190
820TRQ14190E126146	I820TA2XLT	OLSSON / ALL POINTS COOP, LEXINGTON, NE	5/21/12	Q14190

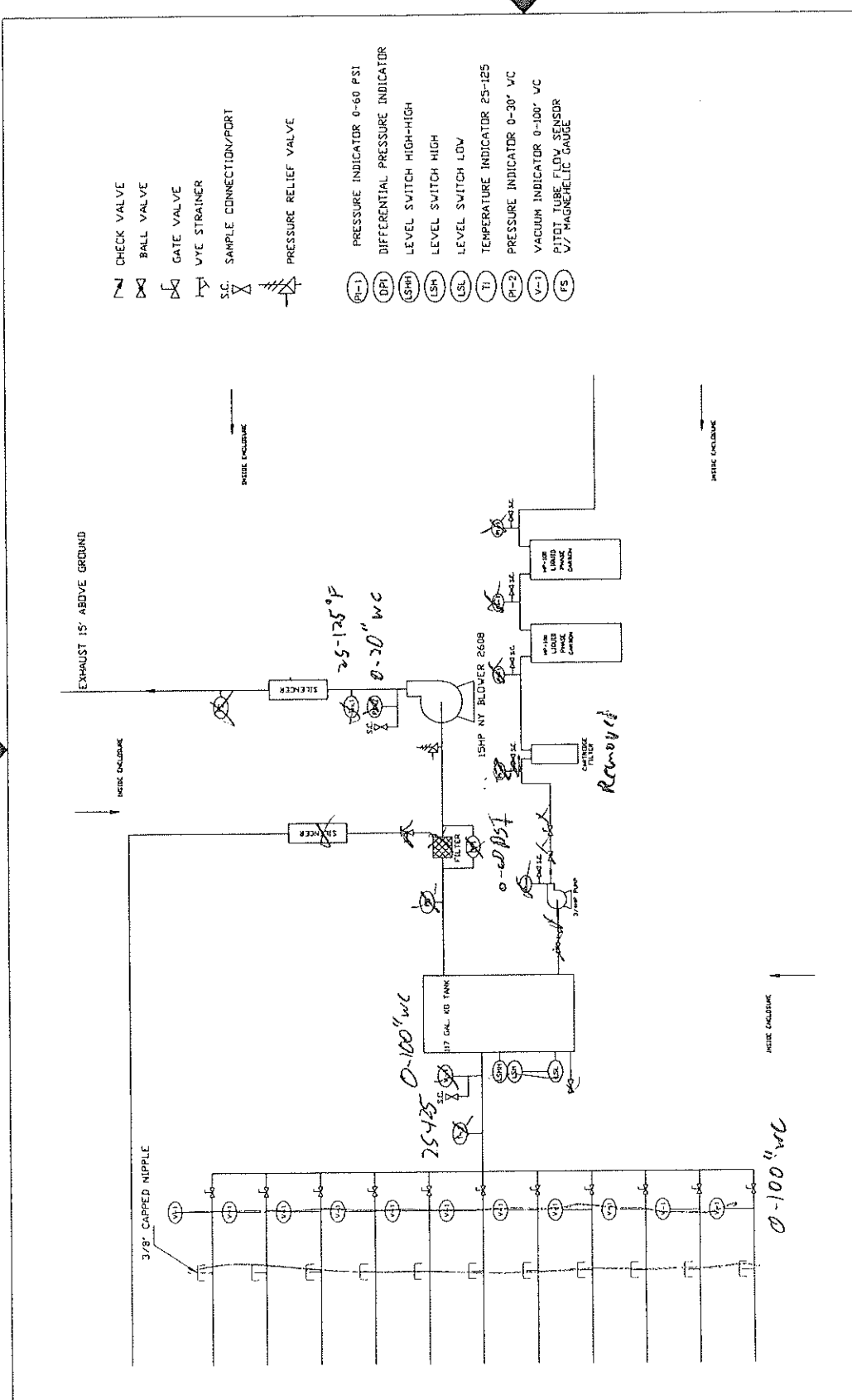
Q14190 OLSSON / ALL POINTS COOP, LEXINGTON, NE

ITEM	MANUFACTURER	MODEL	FLITEWAY ASSIGNED SERIAL NUMBER	MANUFACTURER ASSIGNED SERIAL NUMBER
SVE SYSTEM	FLITEWAY	FV15117X3-NYB2608	NYB2608E126142	N/A
BLOWER	NEW YORK	2608A	N/A	G08905 100
BLOWER MOTOR - 15 HP	WEG	01536XT3E254T	N/A	16FEV12 1014931558
CENTRIFUGAL PUMP - 3/4 HP	GOULDS	1ST1D7F4	N/A	E1205729
SPARGE SYSTEM	FLITEWAY	FS20X3-DUAL R56	56URAJE126143	N/A
BLOWER - #1	DRESSER ROOTS	56 URAI-J	N/A	1205951477
BLOWER MOTOR - 20 HP (MODIFIED)	WEG	02018XT3E256T	N/A	CHS 94663-1-A
BLOWER - #2	DRESSER ROOTS	56 URAI-J	N/A	1205951475
BLOWER MOTOR - 20 HP	WEG	02018XT3E256T	N/A	23FEV12 1015013666
CONTROL PANEL	FLITEWAY	CPQ14190	CPQ14190E126145	N/A
8X20 TRAILER SYSTEM	FLITEWAY	I820TA2XLT	820TRQ14190E126146	N/A
8X20 TRAILER	INTERSTATE	I820TA2XLT	N/A	1UK500J20C1075734
VENT FAN MOTOR - 1/4 HP	BALDOR	M6002A	N/A	W1204200115

FLITEWAY TECHNOLOGIES, INC.
SVE SYSTEM TEST RUN AND DATA SHEET

6/2012

FLITEWAY PROJECT	Q14190		
CUSTOMER	OLSSON		
JOB NAME	ALL POINTS COOP, LEXINGTON, NE		
UNIT MODEL NUMBER	FV15117X3-NYB2608		
UNIT SERIAL NUMBER	NYB2608E126142		
SET POINT CONDITION	1,000 ACFM @ 40" WC VACUUM @ 2,390 ELEVATION		
SITE POWER	460 VOLTS	60 HZ	3 PHASE
			4 WIRE
TEST DATA			
MOTOR AMP DRAW @	13.6		
SET POINT CONDITION	3" wc		
LOW VAC SET			
	MOTOR	BLOWER	INLET FILTER
MANUFACTURER	WEG	NEW YORK	FLITEWAY
MODEL	01536XT3E254T	2608A	ILFV-8
SERIAL NO	16FEV12 1014931558	G08905 100	N/A
HP	15	N/A	N/A
RPM	3600	N/A	N/A
FRAME	254T	N/A	N/A
PULLEY SIZE	N/A	N/A	N/A
BUSHING TYPE	N/A	N/A	N/A
BELT	N/A	N/A	N/A
VOLTAGE	N/A	N/A	N/A
PHASE	3Ø	N/A	N/A
			TRANSFER PUMP MOTOR
			GOULD
			1ST1D7F4
			E1205729
			3/4
			3450
			N/A
			N/A
			N/A
			N/A
			N/A
			N/A
			N/A
			3Ø
TESTED BY:		DATE:	
OIL ADDED BY:		DATE:	



- ✓ CHECK VALVE
- ⊗ BALL VALVE
- ⊗ GATE VALVE
- ⊗ YVE STRAINER
- SC SAMPLE CONNECTION/PORT
- ⊗ PRESSURE RELIEF VALVE
- PI-1 PRESSURE INDICATOR 0-60 PSI
- DPI DIFFERENTIAL PRESSURE INDICATOR
- LSH1 LEVEL SWITCH HIGH-HIGH
- LSH LEVEL SWITCH HIGH
- LSL LEVEL SWITCH LOW
- TI TEMPERATURE INDICATOR 25-125
- PI-2 PRESSURE INDICATOR 0-30" WC
- V-1 VACUUM INDICATOR 0-100" VC
- FS FLOT TUBE FLOW SENSOR W/ MAGNETIC GAUGE

SVE P&ID	
OLSON ASSC. LEXINGTON, NE	
SIZE	FSOM NO.
3/28/12	Q14190
SCALE NONE	
SHEET 1 OF 1	

APPROVED BY _____
DATE _____

THIS DRAWING IS THE PROPERTY OF
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2129 EAST BIRCHWOOD AVE
CUDAHY WI, 53110
414-483-5600 414-483-1957
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**FLITEWAY TECHNOLOGIES, INC.
SPARGE TEST RUN AND DATA SHEET**

6/11/2012

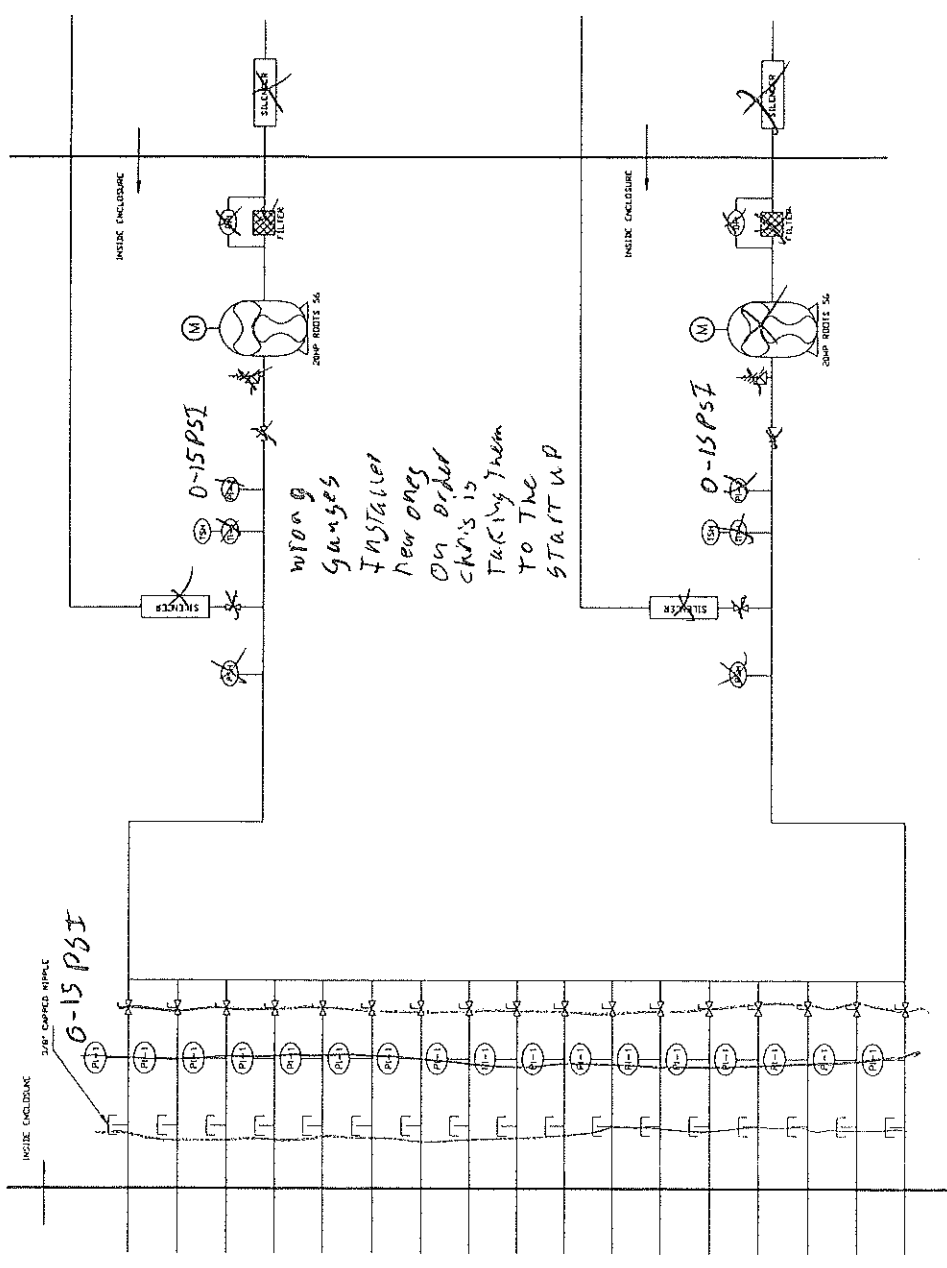
FLITEWAY PROJECT	Q14190		
CUSTOMER	OLSSON		
JOB NAME	ALL POINTS COOP, LEXINGTON, NE		
UNIT MODEL NUMBER	FS20X3-DUAL R56		
UNIT SERIAL NUMBER	56URAJJE126143 - UNIT #1		
SET POINT CONDITION	RATED FOR 250 ACFM @ 8 PSIG @ 2,390 FOOT ELEVATION		
SITE POWER	460 VOLTS 60 HZ 3 PHASE 4 WIRE		
TEST DATA			
MOTOR AMP DRAW @	19,3 A		
SET POINT CONDITION			
ACTUAL MOTOR RPM	1900		
MANUFACTURER	BLOWER MOTOR	BLOWER	INLET FILTER
WEG	DRESSER ROOTS	FLITEWAY	
MODEL 02018XT3E256T	56 URAI-J	ILFV-4	
SERIAL NO CHS 94663-1-A	1205951477	N/A	
HP 20	N/A	N/A	
RPM 1800	N/A	N/A	
FRAME 256T	N/A	N/A	
PULLEY SIZE 2B5V94	2BK90H	N/A	
BUSHING TYPE B1-5/8	H1-1/8	N/A	
BELT N/A	BX64	N/A	
VOLTAGE N/A	N/A	N/A	
PHASE 3Ø	N/A	N/A	
TESTED BY:	DATE:		
OIL ADDED BY:	DATE:		

FLITEWAY TECHNOLOGIES, INC.
SPARGE TEST RUN AND DATA SHEET

6/2012

FLITEWAY PROJECT	Q14190		
CUSTOMER	OLSSON		
JOB NAME	ALL POINTS COOP, LEXINGTON, NE		
UNIT MODEL NUMBER	FS20X3-DUAL R56		
UNIT SERIAL NUMBER	56URAJE126144 - UNIT #2		
SET POINT CONDITION	RATED FOR 250 ACFM @ 8 PSIG @ 2,390 FOOT ELEVATION		
SITE POWER	460 VOLTS	60 HZ	3 PHASE 4 WIRE
TEST DATA			
MOTOR AMP DRAW @	19.6 A		
SET POINT CONDITION			
ACTUAL MOTOR RPM	1900		
	BLOWER MOTOR	BLOWER	INLET FILTER
MANUFACTURER	WEG	DRESSER ROOTS	FLITEWAY
MODEL	02018XT3E256T	56 URAI-J	ILFV-4
SERIAL NO	23FEV12 1015013666	1205951475	N/A
HP	20	N/A	N/A
RPM	1800	N/A	N/A
FRAME	256T	N/A	N/A
PULLEY SIZE	2B5V94	2BK90H	N/A
BUSHING TYPE	B1-5/8	H1-1/8	N/A
BELT	N/A	BX64	N/A
VOLTAGE	N/A	N/A	N/A
PHASE	3Ø	N/A	N/A
TESTED BY:		DATE:	
OIL ADDED BY:		DATE:	

- (P-1) PRESSURE INDICATOR 0-15 PSI
- (DP) DIFFERENTIAL PRESSURE INDICATOR
- (TH) TEMPERATURE INDICATOR 0-250
- (TS) TEMPERATURE SWITCH HIGH
- (M) CHECK VALVE
- (B) BALL VALVE
- (G) GATE VALVE
- (PR) PRESSURE RELIEF VALVE



THIS DRAWING IS THE PROPERTY OF Fliteway Technologies, Inc 2129 EAST BIRCHWOOD AVE CUDAHY WI, 53110 414.483.5600 414.483.1957 AND IS NOT TO BE REPRODUCED WITH OUR WRITTEN PERMISSION		SPARGE P&ID OLSON ASSC. LEXINGTON, NE	
SIZE 4/11/12	FSCM NO. Q14190	DWG NO. Q14190	SHEET 1 OF 1
SCALE: NONE			

APPROVED BY Sean Higgins
 DATE _____



Fliteway Technologies, Inc.

6100 Industrial Court • P.O. Box 108 • Greendale, WI 53129
(414) 423-5600 • 1-800-236-3580 • FAX (414) 423-9007

WARRANTY

ONE YEAR LIMITED WARRANTY- Fliteway Technologies, Inc. remediation equipment is warranted by Fliteway to the original user against defects in workmanship or materials under normal use for one year after date of shipment. Exceptions to this are positive displacement vacuum pumps and blowers which have 18 Month warranties direct from the original manufacturer (Roots and Sutorbilt only). Any part determined by Fliteway Technologies, Inc. to be defective in material or workmanship and returned to Fliteway Technologies, Inc., shipping costs prepaid, will be repaired or replaced at Fliteway's option, as the exclusive remedy. See **PROMPT DISPOSITION** below for limited warranty claim procedures. This limited warranty gives the purchaser specific legal rights which may vary from state to state.

LIMITATIONS OF LIABILITY- To the extent allowable under applicable law, Fliteway's liability (or incidental and consequential damages is expressly disclaimed. Fliteway's liability in all events is limited to, and shall not exceed, the purchase price.

PRODUCT SUITABILITY - Many states and localities have regulations and codes governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While Fliteway Technologies, Inc. attempts to assure that its products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the product is installed or used. Before purchase and use of a product, please determine local and national codes and regulations, review the product application, and verify that the product, installation and use comply with those regulations and codes.

PROMPT DISPOSITION - Fliteway Technologies, Inc. will make every effort for a prompt correction or other adjustment with respect to any product which proves to be defective within the limited warranty. For any product believed to be defective within limited warranty, first write or call Fliteway Technologies, Inc. giving the model and serial number of the unit and describing the nature of the defect. Title and risk of loss pass to the buyer on delivery to common carrier. If product was damaged in transit to you, file a claim with carrier. Freight of postage charges on returns to the factory are at the customer's expense. If returned product is returned under warranty, the manufacturer will cover return freight.

SVE SYSTEM

GENERAL

The SVE system uses a positive displacement (PD) blower. The blower is the driving force that draws the vapors from the wells into an upstream separator and through an inline air filter. The blower will be provided with a vacuum relief valve and/or a high vacuum switch to protect the blower from operating outside of its capabilities. These devices are factory set to protect the blower and should not be field adjusted without the consent of a factory-trained representative.

The PD Blower package also comes standard with a dilution air valve with a filter silencer. This valve should be used to regulate the vacuum drawn by the blower. If this valve is left closed and the blower is forced above the design vacuum setpoint, the vacuum relief valves and vacuum switches will activate.

When using PD blowers in a soil vapor extraction application, the high humidity air can have small droplets of entrained water which get past the moisture knockout drum and the inlet filter. Over time, this moisture can cause rust and iron or calcium deposits to build up on the internal lobes of your PD blower. Depending on the site conditions your blower may require removal for cleaning periodically. If the blower is shut down for an extended period of time with excessive calcium, iron or rust buildup it can seize up.. Automatic and manual oilers are available for sites with high water entrainment. These devices will provide a constant supply of oil at a slow drip when the blower is on. This will reduce the chances of having to remove and clean your blower.

PD Blowers are provided in belt driven packages designed to operate the blower at a specific RPM. This specific RPM determines the ACFM of the air drawn into the blower. Because the blower is positive displacement, an operator can count on a consistent volume of air entering the blower. Fliteway has provided the specifications for the blower designed to operate at your specific flow, vacuum, and pressure requirements.

OPERATION

Before starting the blower for the first time, the following operations and checks must be performed:

- Open the dilution air valve.
- Check to ensure that all required process valves are open to allow air to flow through the system.

SYSTEM MAINTENANCE CONSIDERATIONS

SYSTEM MAINTENANCE

DAILY CHECKLIST

- Check the control panel for running status.
- Phone the system using remote dialup capabilities to check the system operation for:
 - Alarms
 - Operating:
 - Temperatures
 - Pressures
 - Vacuums
 - Reading on pH meter
 - Water processed if available

WEEKLY CHECKLIST

- Check for leaks.
- Check the volume of consumables. i.e. Chemicals
- Check for excessive noise of various components.
- Check for Alarms.
- Check and record Flow Rates, Vacuums, Pressures, Temperatures, pH.
- Check for excessive moisture inside the control panels and transducer wiring boxes.
- Check for corrosion and grease the moving parts if required to reduce corrosion.

SCHEDULED MAINTENANCE - MONTHLY

- Test critical inputs for proper shutdown capacity.
- Follow maintenance procedures for specific items as listed below.
- Complete items listed in weekly checklist.
- Test the operation of the overload.

YEARLY MAINTENANCE

- Test each Input.
- Test alarm conditions.
- Test the operation of each output device.
- Complete the maintenance checks listed below for the various items.
- Complete the items listed in weekly checklist.

- Disassemble the valve and clean out any debris or scale buildup.
- Spray the housing and any external moving parts with lithium grease periodically when used in a corrosive environment.

DIRECT DRIVE FAN

- Check the fan outlet pressure: _____
- Check to ensure nothing is obstructing the air intake.
- Check the fan wheel for corrosion.
- Check the fan wheel for alignment and positioning.

BELT DRIVEN POSITIVE DISPLACEMENT BLOWER

- Check the inlet Vacuum: _____
- Change the crankcase oil in operating blower every 4-6 weeks.
- Check the blower case for excessive heat or noise.
- Change the bearing lubrication every 8 weeks.
- Check the inlet filter condition and pressure drop.
- Check the belt tension.
- Check and adjust the sheaves and bushings to ensure that they have not vibrated loose over time after startup and then bi-annually.
- Check the belt for wear and cracking, replace it if required.

AIR PHASE CARBON VESSEL

- Check the backpressure from the vessel.
- Check for air leaks.
- Test the exhaust air for contaminant breakthrough.
- Check for excessive water in bottom of vessel.

WATER PHASE CARBON VESSEL

- Check the backpressure from the vessel.
- Check for water leaks.
- Test the discharge water for contaminant breakthrough.

BAG FILTER

- Check the backpressure from the vessel.
- Check for water leaks.
- Replace the filter element when the pressure builds up.

PHASE SEPARATOR AND VAPOR LIQUID SEPARATOR

- Check for sediment buildup.
- Drain and flush out the tank.

- When shutting the blower down for more than a week or if moisture is likely to collect inside the blower, oil should be sprayed into the motor while it is rotating before shutting it down to coat the inside of the blower and prevent scaling and rusting.

COUPLING DRIVEN CENTRIFUGAL PUMP

- Check the operating pressure.
- Feel the motor and housing for excessive heat.
- Listen for excessive noise.
- Check for leaks around the pump housing.
- Check the condition of the couplings.
- Check the alignment between the pump and motor.

PRODUCT STORAGE TANK

- Check the level in the tank.
- Check for Leaks.
- Check the operation of the high-high level switch.

AIR REFRIGERATED COMPRESSED AIR DRYER

- Clean the air filter with soapy water and allow it to dry when the filter is dirty.
- Clean the inlet strainer screen.
- Remove the separator filter element and clean the filter bowl yearly or as the pressure builds up across the dryer.
- Check the operation of the automatic condensate drain daily.
- Replace the drain mechanism yearly.

RECOMMENDED MAINTENANCE OF VARIOUS INSTRUMENTATION COMPONENTS

PITOT TUBE

- Check the pitot tube flow rate to ensure that the readings make sense.
- Blow any water out of the air lines if required.
- Remove the air lines from the transducer to ensure that the transducer output is 4 mA or zero CFM on the display.
- Recalibrate the zero set point if required. (See specification sheet for calibration of specific transducer.)

LEVEL SWITCHES

- Test the operation of the switch.
- Remove the switch and check for debris buildup that can potentially cause a failure of normal operation.

Troubleshooting Chart

Symptom	Potential Cause	Possible Solution
Electrical Motor		
Motor will not start and there is no noise.	Motor may not be receiving the proper power.	Check fuses and power distribution between power lines to motor.
	Overload is tripped.	Reset Overload.
	Main power may be off.	Check main power.
	Contactors may not be closing because motor is in manual position.	Switch motor to back to Auto position.
	Contactors may not be closing because PLC is not telling output to be on.	Check PLC operating sequence to determine if a start requirement is not met.
Motor does not start but makes a humming noise.	One of the phases of power is not getting to the Motor as a result of a blown fuse.	Change Fuse.
	One of the phases of power is not getting to the Motor as a result of a poor wire connection	Check wiring for a loose wire or a poor connection.
	The driven component, i.e. pump, will not spin and could be seized up.	Disassemble driven component, check clearances and clean internal components and replace any damaged components.
	Bearing on drive shaft of motor or driven component may be seized up.	Replace bearings.
Overloads Trip immediately after startup.	Check for Short Circuit in motor windings.	Re-wind motor.
	One of the phases of power is not getting to the Motor as a result of a blown fuse.	Change Fuse.
	Motor power wires may be shorting out to ground.	Search for wiring short and replace wiring if required.
	Motor may have too much load or backpressure as a result of operating the driven component outside of its operating capabilities.	Check operating capabilities of driven component. I.e. Ensure positive displacement pump is not over pressured or that centrifugal pump is not operating at too high a flow rate.
Motors amps are above the allowable value on the nameplate.	Motor may be designed to operate on the upper limit.	Calculate maximum allowable amps. Name plate amps x safety factor.
	Driven component may have scale built up inside.	Clean internal components of driven component.
	Driven component may be rotating in the wrong direction.	Check direction of rotation and switch rotation of motor if it is incorrect.
	Check voltage of power. Low voltage results in high amps.	Adjust overloads for higher amps if the difference is only slight. Other wise change power or motor.
Centrifugal Pumps		
Pump does not produce sufficient Pressure/Vacuum.	Pump is not primed.	Prime pump.
	Wrong Direction of rotation.	Check and change rotation if required.
	Vacuum or Pressure gauge is faulty	Replace gauge.
	Pump is not operating at required RPM	Check and replace motor if required.
	Pump has wrong sized impeller.	Check impeller and replace if required.
	Pump pressure or vacuum is lost do to obstruction located between pump and gauge	Check for flow restrictions and clean strainers or piping if required.
	Pump is not turned on.	Rub pump gently until turned on
	Coupling between pump and motor is no longer connected preventing the pump from rotating with the motor.	Reconnect and realign motor and pump.

Belt is wearing excessively.	Check orientation of blower and motor.	Adjust orientation if required.
Carbon Vessel		
Vessel is operating over pressure.	Silt may have collected in water phase vessel.	Remove lid and check for silt. Remove top layer of silt or replace vessel.
Vessel is breaking through earlier than expected.	Flow rate through vessel may be too high. Check design specifications.	Decrease flow rate.
	Air contaminant concentrations are higher than expected.	Test inlet concentrations.
	Check piping orientation to ensure that water is going in the top of water phase vessels and air is going in the bottom of air phase vessels.	Repipe vessel if piping is wrong.
	Ensure that there is not a large trapped air gap in the top of the water phase carbon vessel allowing the water to bypass a portion of the carbon.	Release air gap if present.

Bag Filter		
Vessel is operating over pressure.	Bag filter may be full of dirt and silt.	Remove cover and check for dirt buildup in the bag. Replace filter element if required.
	Equipment down stream of bag filter may be plugging	Check for pressure buildup down stream of filter and fix pressure buildup downstream if found.
Water will not flow through filter fast enough.	Pump may not be able to supply enough pressure	Check pressure output of pump with pump curve. Replace pump if required.
Filters are plugging too fast	Filter element micron size may be too low.	Install larger micron filter element
	Filter pressure switch setpoint may be too low.	Increase high pressure shutdown setpoint.
PLC's		
Power is on, Lights are on but PLC is not running the logic. Run light is not on.	PLC may not be in run mode. If the power has been off to the panel for an extended period of time, then the PLC will switch out of run mode and stop running the logic.	Use external switch on PLC to switch from "term" to "run" then back to "term". This will force the plc back into run mode. The run light should now indicate that the PLC is in run mode.
Power is on to panel but PLC lights are not on.	Fuse for PLC is pulled out or blown.	Test PLC fuse and replace if necessary. This is in the "PLC" fuse holder.