

**ADDENDUM: EXTRACTOR FANS FOR ATMOSPHERIC  
DEGASSERS**

## I. Introduction:

Process Solutions International's extractor fan removes gases released from drilling mud while being processed through an atmospheric degasser. The extractor fan will remove 175 cfm when operated at 60 hz (3500 rpm) and 145 cfm when operated at 50 hz (2900 rpm). The extractor unit can discharge the gases 250 ft away. Table 1 provides a physical description of the extractor fan. Table 2 provides the performance specifications.

Table 1: Extractor Fan Physical Description(Ref GA11375 Pg 4):

Dimensions:

Length: 36.25 in (921 mm)

Width: 18.31 in (465 mm)

Height: 32.125 in (816 mm)

Weight is 129 lb (59 kg)

Table 2: Extractor Fan Specifications:

1. Electrical:

A. 60 hz

i. Voltage is 230/ 460 V or 575 V

ii Full Load Amps:

$$230/460 \text{ V} = 2.3/1.2$$

$$575 \text{ V} = 0.7$$

iii. Power is 0.5 hp (0.37 kW)

iv. Motor Speed is 3500 rpm

B. 50 hz

i. Voltage is 190/380 V

ii Full Load Amps:

$$190/380 \text{ V} = 1.9/1.0$$

iii. Power is 0.33 hp (0.25 kW)

iv. Motor Speed is 2900 rpm

2. Fan Performance

i. Flow:

175 cfm (4.96 m<sup>3</sup>/min) at 60 hz

145 cfm (4.1 m<sup>3</sup>/min) at 50 hz

ii. Discharge distance is 250 ft (76 m) with 3" (75 mm) Line

## II. Installation:

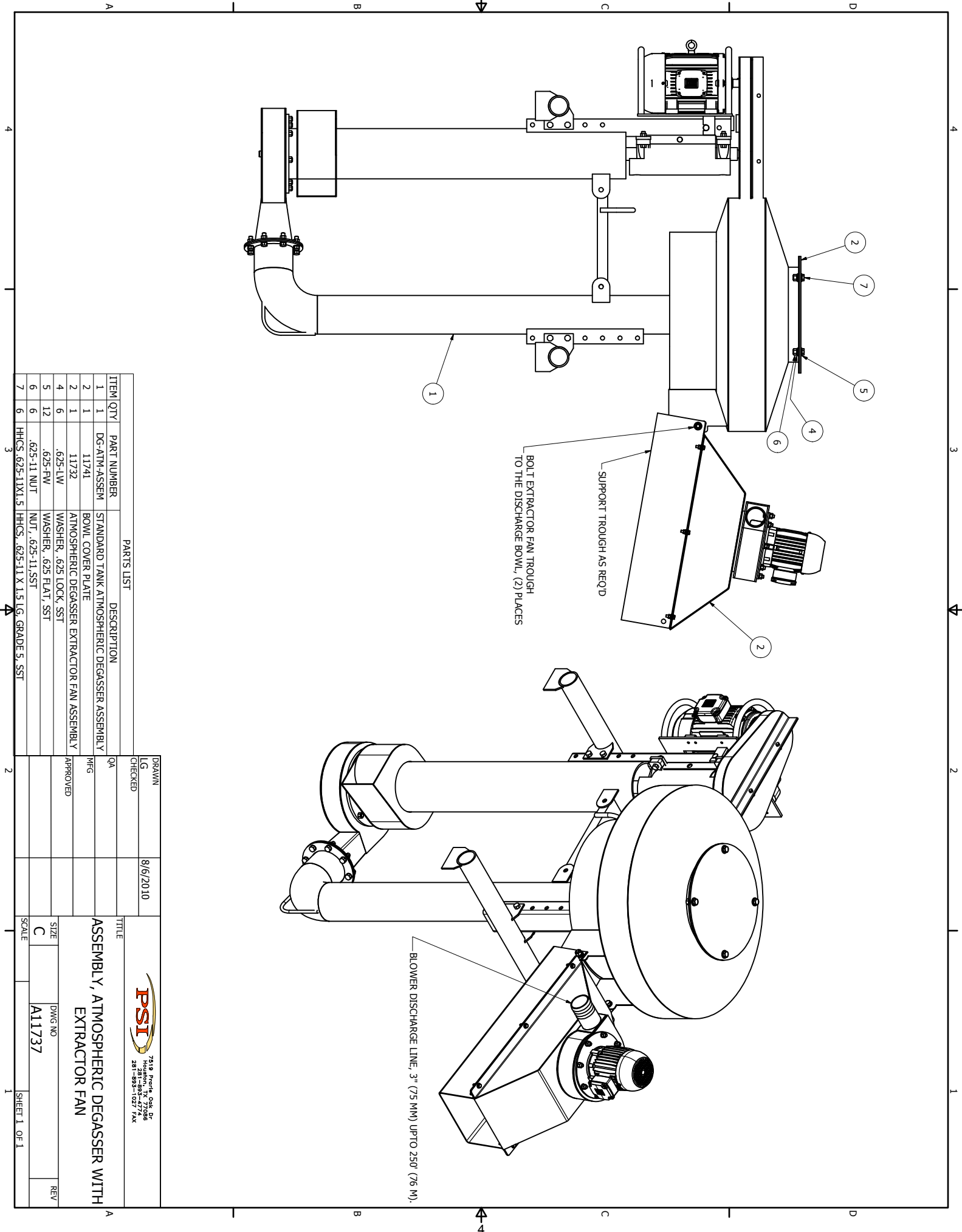
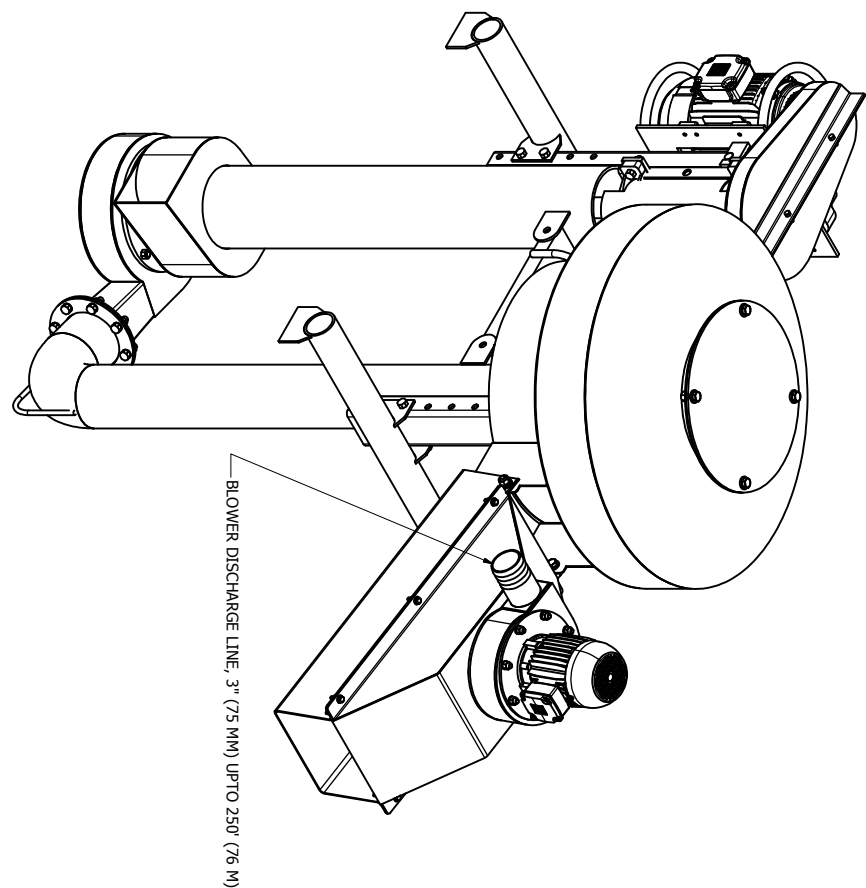
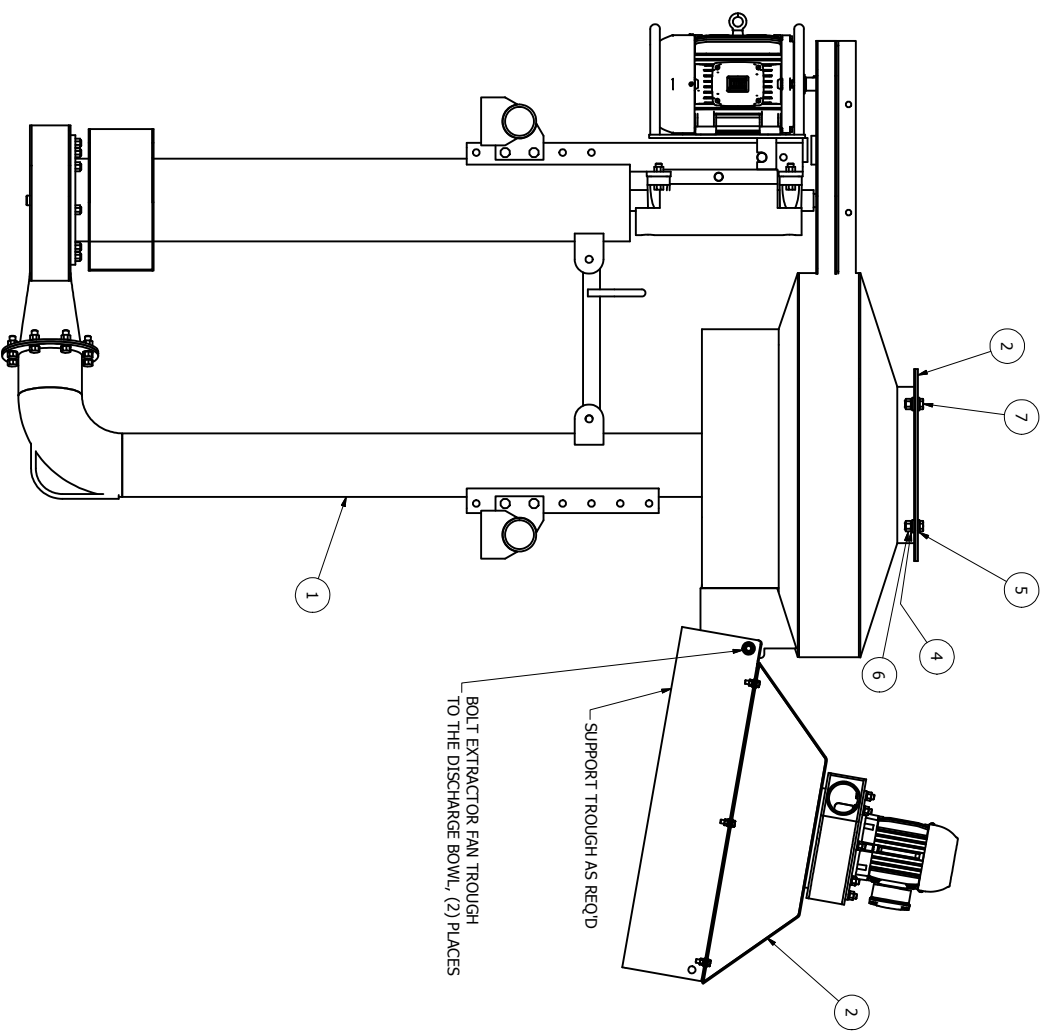
Install the extractor fan per drawing A11737, see page 5. The extractor fan trough is to bolt to the atmospheric degasser discharge. The atmospheric degasser bowl cap must be installed as well. The bowl cap is provided by the customer. The extractor fan and motor should rotate counter clockwise when viewed from the top. The extractor fan motor should be tied in with the atmospheric degasser motor in a way that the extractor fan motor is energized when the degasser motor is energized.

### III. Parts and Maintenance:

The only moving parts on the extractor fan assembly are the fan and motor. The fan is directly coupled to the motor shaft. The fan motor is lubricated at the factory for life. The only required maintenance is a weekly visual inspection for loose fasteners and vibrations that may indicate the impeller is out of balance.


See table 3 for a complete parts list. PSI recommends a spare motor and impeller be kept in stock.

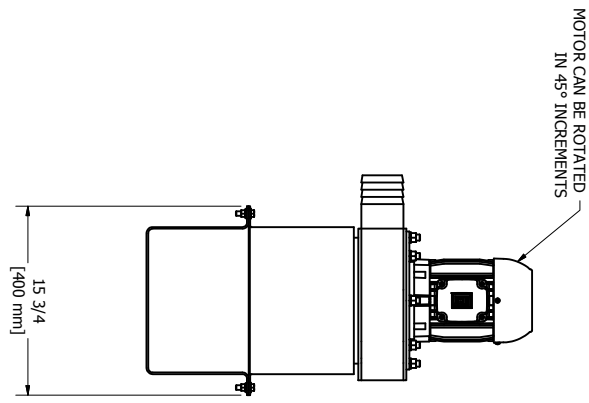
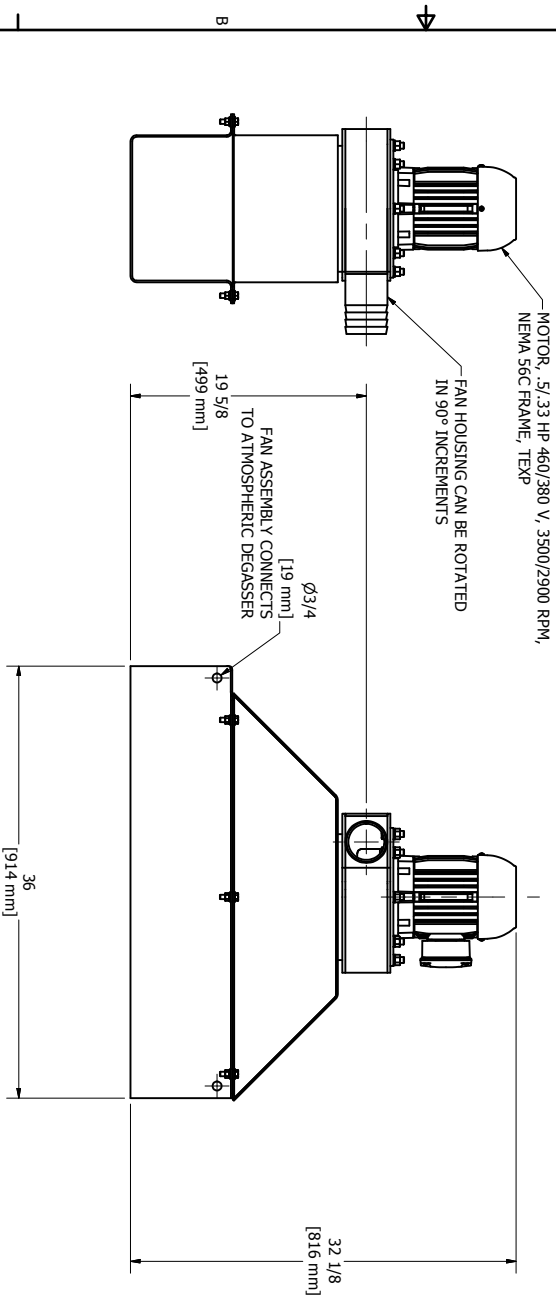
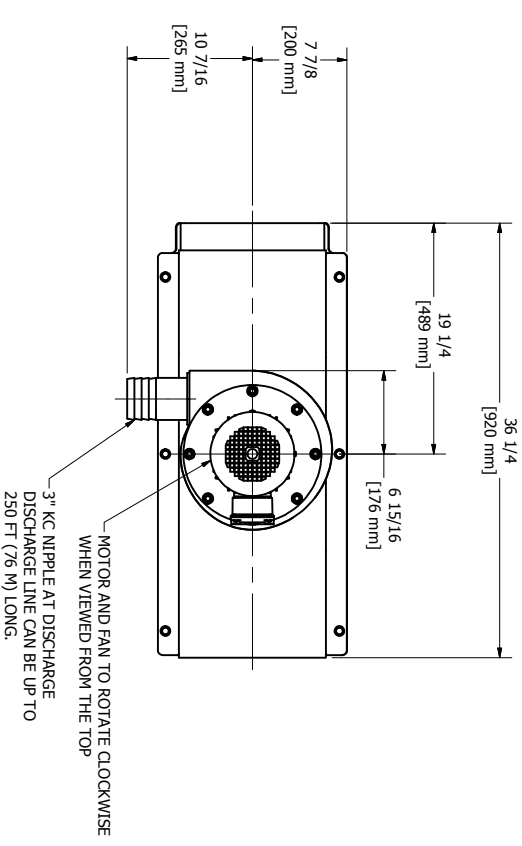
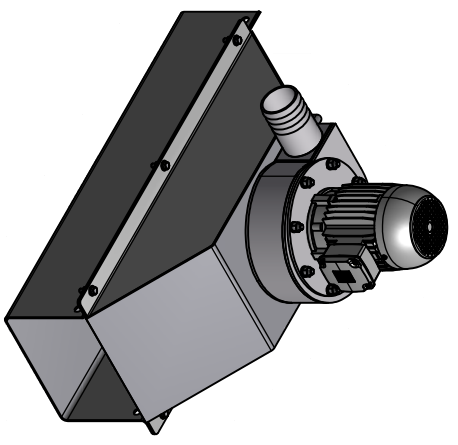
TABLE 3: ATMOSPHERIC DEGASSER EXTRACTOR FAN ASSEMBLY PARTS LIST, REFERENCE DRAWING A11732 PG 6			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	11730	ATMOSPHERIC DEGASSER EXTRACTOR FAN TROUGH
2	1	11731	WELDMENT, ATM DEGASSER EXTRACTOR FAN HOOD
3	1	.5MTR-56C	MOTOR, .5/.33 HP, 460/380 V, 3500/2900 RPM, 60/50, 56C FRAME, TEXP.
4	1	11734	EXTRACTOR FAN MOTOR MOUNTING PLATE
5	1	11733	WELDMENT, EXTRACTOR FAN HOUSING
6	4	HHCS.375-16X1	HHCS, .375-16 X 1 LG, SST
7	10	.375-LW	WASHER, .375 LOCK, SST
8	8	.5-FW	WASHER, .5 FLAT, SST
9	8	.5-LW	WASHER, .5 LOCK, SST
10	8	NUT.5-13	NUT, .5-13, SST
11	8	HHCS.5-13X1.5	HHCS, .5-13 X 1.5 LG, SST
12	6	NUT.375-16	NUT, .375-16, SST
13	6	HHCS.375-16X1.25	HHCS, .375-16 X 1.25 LG, SST
14	12	A.375-FW	WASHER, .375 FLAT, SST
15	4	NUT .625-11	NUT, .625-11, SST
16	4	.625-LW	WASHER, .625 LOCK, SST
17	1	11737	FAN, FOR ATMOSPHERIC DEGASSER EXTRACTOR ASSEMBLY



PARTS LIST

ITEM QTY	PART NUMBER	DESCRIPTION
1 1	DG-ATM-ASSEM	STANDARD TANK ATMOSPHERIC DEGASSER ASSEMBLY
2 1	11741	BOWL COVER PLATE
2 1	11732	ATMOSPHERIC DEGASSER EXTRACTOR FAN ASSEMBLY
4 6	.625-LW	WASHER, .625 LOCK, SST
5 12	.625-FW	WASHER, .625 FLAT, SST
6 6	.625-11 NUT	NUT, .625-11, SST
7 6	HHCS, .625-11X1.5	IHHCS, .625-11 X 1.5 LG, GRADE 5, SST

DRAWN	8/6/2010	 7518 Brndt, Oak Dr Houston, TX 77066 281-883-1027 FAX
LG	CHECKED	
QA		TITLE
MFG		ASSEMBLY, ATMOSPHERIC DEGASSER WITH EXTRACTOR FAN
APPROVED		SIZE
		C
		DWG NO
		A11737
		REV
		SCALE
		SHEET 1 OF 1



**NOTES:**

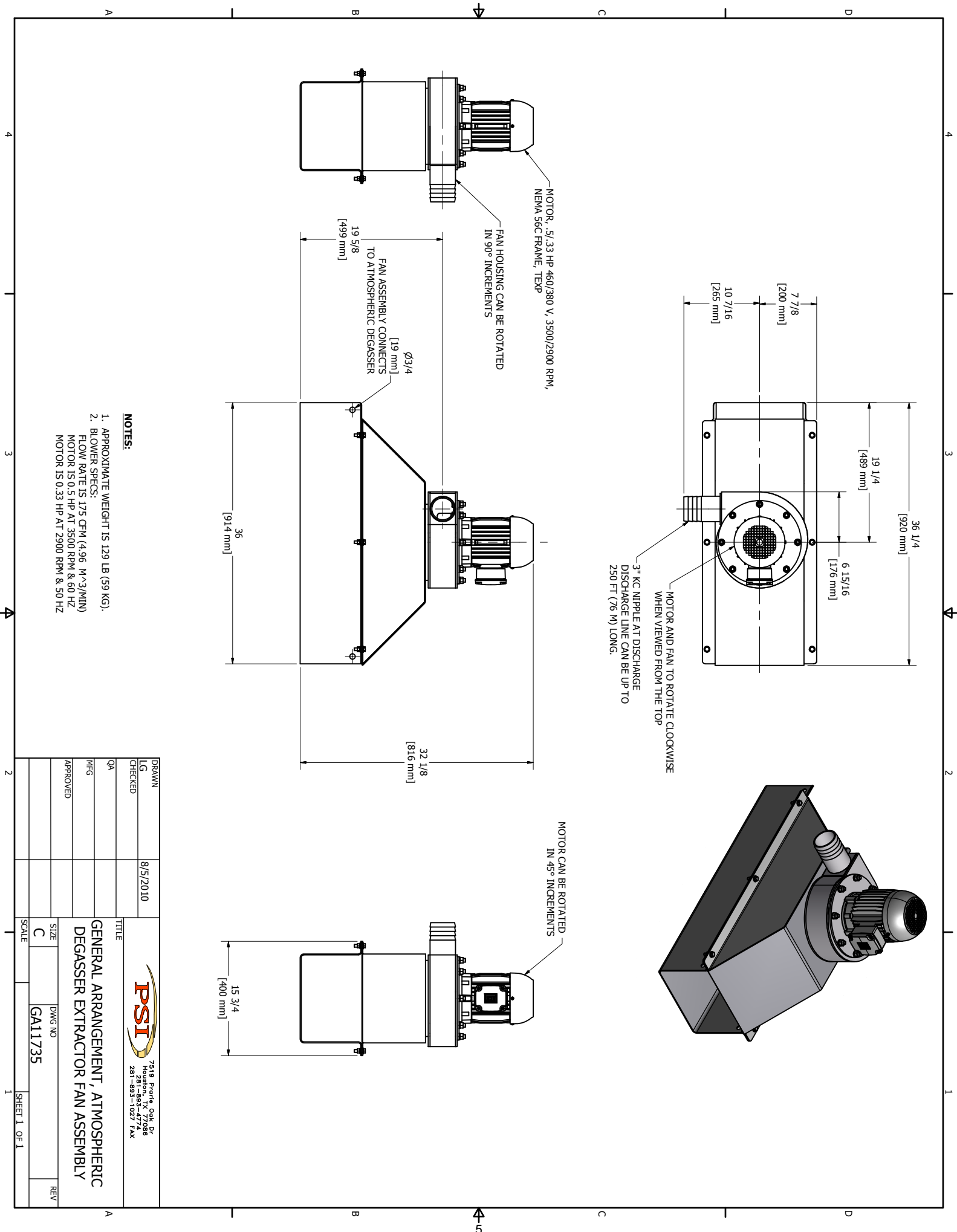
1. APPROXIMATE WEIGHT IS 129 LB (59 KG).
2. BLOWER SPECS:  
 FLOW RATE IS 175 CFM (4.96 M<sup>3</sup>/MIN)  
 MOTOR IS 0.5 HP AT 3500 RPM & 60 HZ  
 MOTOR IS 0.33 HP AT 2900 RPM & 50 HZ

DESIGN	8/5/2010
LG	
CHECKED	
QA	
MFG	
APPROVED	

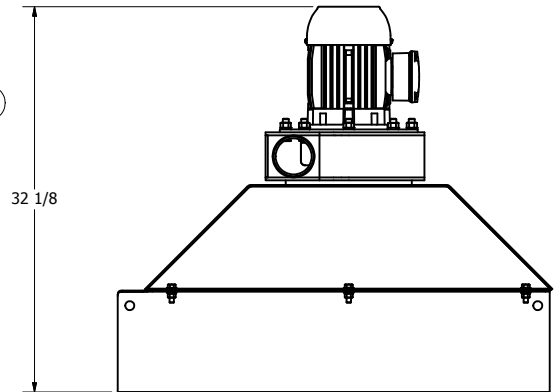
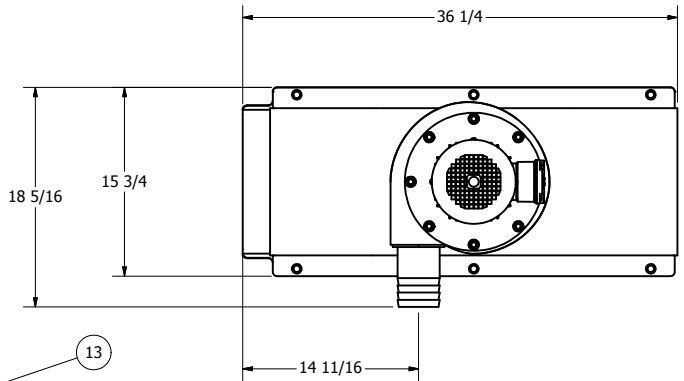
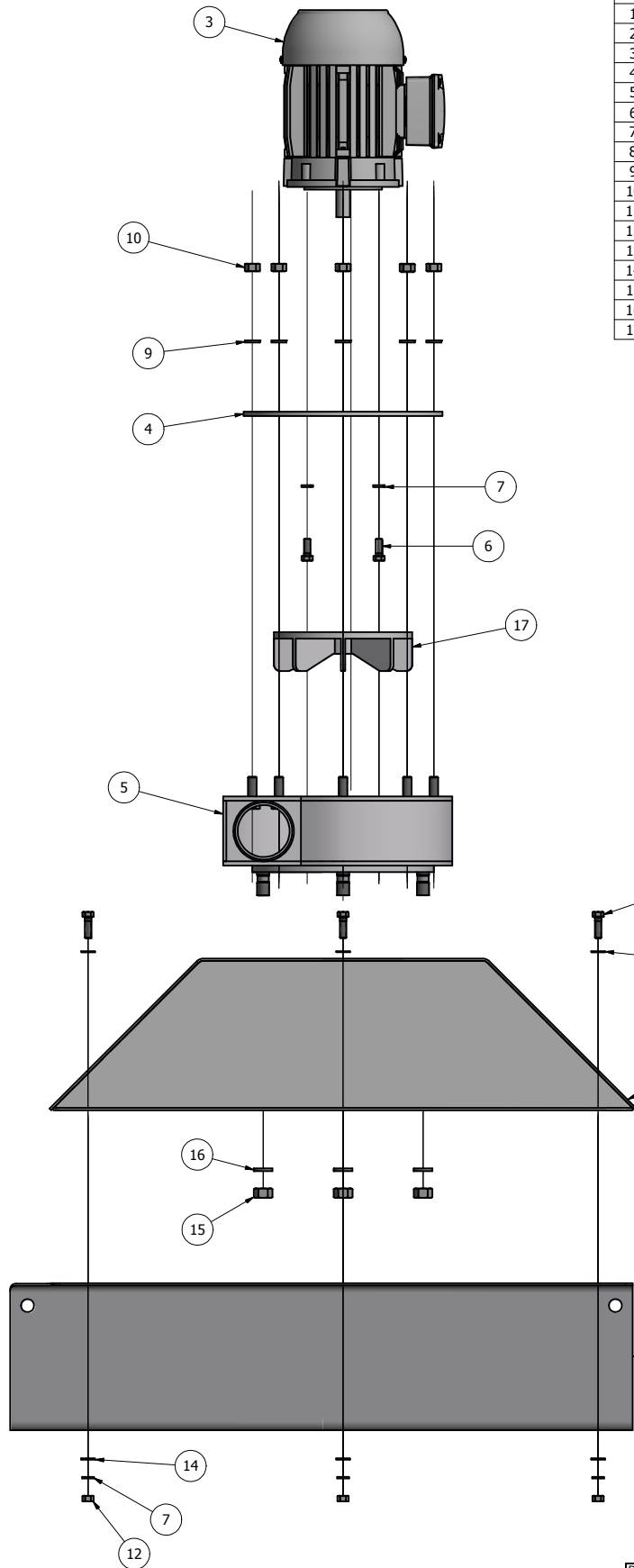
TITLE

**PSI** 7519 Prairie Oak Dr  
Houston, TX 77066  
281-585-4774  
281-585-1027 FAX

GENERAL ARRANGEMENT, ATMOSPHERIC DEGASSER EXTRACTOR FAN ASSEMBLY	
SIZE	DWG NO
C	GA11735
SCALE	REV




PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	11730	ATMOSPHERIC DEGASSER EXTRACTOR TROUGH
2	1	11731	WELDMENT, ATM DEGASSER EXTRACTOR FAN HOOD
3	1	,5MTR-56C	MOTOR, .5/.33 HP, 480/380 V, 3500/2900 RPM, 60/50, 56C FRAME, TEXP.
4	1	11734	EXTRACTOR FAN MOTOR MOUNTING PLATE
5	1	11733	WELDMENT, EXTRACTOR FAN HOUSING
6	4	HHCS.375-16X1	HHCS, .375-16 X 1 LG, GRADE 5, SST
7	10	.375-LW	WASHER, .375 LOCK, SST
8	8	.5-FW	WASHER, .5 FLAT, SST
9	8	.5-LW	WASHER, .5 LOCK, SST
10	8	NUT.5-13	NUT, .5-13, SST
11	8	HHCS.5-13X1.5	HHCS, .5-13 X 1.5 LG, GRADE 5, SST
12	6	NUT.375-16	NUT, .375-16, SST
13	6	HHCS.375-16X1.25	HHCS, .375-16 X 1.25 LG, GRADE 5, SST
14	12	A.375-FW	WASHER, .375 FLAT, SST
15	4	NUT .625-11	NUT, .625-11, SST
16	4	.625-LW	WASHER, .625 LOCK, SST
17	1	11737	FAN, FORATMOSPHERIC DEGASSER EXTRACTOR ASSEMBLY



**NOTES:**

1. WEIGHT IS 129 LB (59 KG).

DRAWN	LG	8/6/2010	 7519 Prairie Oak Dr Houston, TX 77086 281-893-4774 281-893-1027 FAX		
CHECKED	QA				
MFG	APPROVED		TITLE		
			ASSEMBLY, ATMOSPHERIC DEGASSER EXTRACTOR		
SIZE		C	DWG NO	A11732	REV
SCALE			SHEET 1 OF 1		