



**Submittal Package**

**Project** [14230] - Lee College  
 McNair Career Center Phase  
 3

**View Date** 1/16/2015

Bartlett Cocke General Contractors,  
 LLC  
 4540 Kendrick Plaza  
 Suite #120  
 Houston, TX 77032  
 Phone: (713) 996-9510  
 Fax: (713) 996-9546

**Submittal Package No.**  
 15650

**General Information**

**Package No.** 15650      **Package Revision** 0  
**Description** Mechanical Equipment  
**Primary CSI Code**  
**Reviewers** Busch, AI (BGK Architects)  
**Primary Reviewer** AI Busch (BGK Architects)  
**Notes**

**Items**

CSI Code	Item No./Rev.	Description	Submitting Company	Status	Primary Response
	<u>15650-001.0</u>	Air Handling Units, Variable Air Volume Box, & Filters	Traylor Mechanical Group	Reviewed	Reviewed
	<u>15650-002.0</u>	Air Cooled Rotary Chiller & Duct Free Split System	Traylor Mechanical Group	Reviewed as Noted	Reviewed as Noted
	<u>15650-003.0</u>	Modulating Copper Finned Tube Boiler & Trim	Traylor Mechanical Group	Requested	
	<u>15650-004.0</u>	Welding Exhaust Fan, Collectors/ Filtration System	Traylor Mechanical Group	Reviewed	Reviewed
	<u>15650-005.0</u>	Water Pumps	Traylor Mechanical Group	Reviewed	Reviewed
	<u>15650-006.0</u>	Misc. Fans	Traylor Mechanical Group	Reviewed	Reviewed
	<u>15650-007.0</u>	Fan Cooling Units	Traylor Mechanical Group	Reviewed	Reviewed
	<u>15650-008.0</u>	Water Treatment	Traylor Mechanical Group	Reviewed	Reviewed
	<u>15650-009.0</u>	Welding Exhaust Collectors	Avani Environmental International, Inc.	Reviewed	Reviewed
	<u>15650-010.0</u>	Variable Speed Motor Control	Traylor Mechanical Group	Requested	



<b>Transmittal</b>
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**Project** [14230] - Lee College McNair Career Center Phase 3      **View Date** 1/16/2015

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 LLC  
 4540 Kendrick Plaza  
 Suite #120  
 Houston, TX 77032  
 Phone: (713) 996-9510  
 Fax: (713) 996-9546

**Transmittal No.** 14230-00112

<p><b>To</b> Mr. Kevin Peterson          BGK Architects          100 Jackson          Suite 202          Houston, TX 77002          Phone: (713) 237-8002          Fax: (713) 237-8255</p> <p><b>From</b> Jeff Bergeron (Bartlett Cocke General Contractors, LLC)</p> <p><b>Subject</b> Submittal Package 15650.0: Mechanical Equipment</p>	<p><b>Date</b> 1/16/2015</p> <p><b>Items listed are being sent</b></p> <p><input type="checkbox"/> Enclosed</p> <p><input type="checkbox"/> Under Separate Cover</p> <p><b>Via</b> E-Mail</p>
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We are transmitting the following to you:

- |  |  |   |                                      |                                  |
|--|--|---|--------------------------------------|----------------------------------|
| <input checked="" type="checkbox"/> Product Data | <input type="checkbox"/> Samples       | <input type="checkbox"/> Shop Drawings        | <input type="checkbox"/> O&M Manuals | <input type="checkbox"/> Plans   |
| <input type="checkbox"/> Architectural Drawings  | <input type="checkbox"/> Letters       | <input type="checkbox"/> Specifications       | <input type="checkbox"/> Prints      | <input type="checkbox"/> Addenda |
| <input type="checkbox"/> Engineering Drawings    | <input type="checkbox"/> Change Orders | <input checked="" type="checkbox"/> Submittal |                                      |                                  |

### Submittals

Pkg. No./Rev.	Item No./Rev.	Description	Copies	Reason	Action	Due
15650.0	15650-009.0	Welding Exhaust Collectors	1	For Approval		1/30/2015

### Remarks

Received By	Printed Name	Date

### Supporting Documents

Document Type	Document	Open	Description	Date	Size (KB)
Sub. Pkg.	<u>15650.0</u>		Mechanical Equipment		



## SUBMITTAL REVIEW

**Project:** Lee College New Welding, Pipefitting Machine Technology and Millwright Facility at McNair

**Date:** 1/16/2014  
**Jeffery**

**Subcontractor:** Avani Environmental

**Reviewed By:** Bergeron

**Submittal No.:** 15650-009 Welding Exhaust Collectors  
Resubmitted for Stamping

Bartlett Cocke General Contractors has reviewed this submittal for general conformance with the Contract Documents. This review does not relieve the subcontractor or supplier from responsibility for accuracy, completeness, quality, dimensions or compliance with the Contract Documents. Any deviation from the contract documents must be expressly stated. The subcontractor or material supplier is responsible for confirming all dimensions with actual jobsite conditions. Subcontractor is responsible for coordination of all his work with other trades and the general contractor. If engineering calculations were involved in the preparation of this submittal, those calculations have not been reviewed or verified.

### Action Taken

- Reviewed
- Reviewed Exceptions Noted
- Revise and Resubmit
- Rejected

### Comments

- **This is a resubmittal that needs to be stamped for the files**
- **Arch/ENR please review attached documents for Approval**
  1. **48 Cartridge Collector (in lieu of the 50 Cartridge Collector)**
  2. **65 Cartridge Collector**
  3. **WB-1055 Welding Booths**
  4. **Welding booth arm**
  5. **Arm Bracket**
  6. **Mobile Fume Extractor**
  7. **Mobile Extractor Arm**
  8. **Halogen Light Kit (Last Three Pages)**
    - **PDF related to electrical aspect**
    - **PDF Converted from CAD**
    - **Installation manual shows photos**

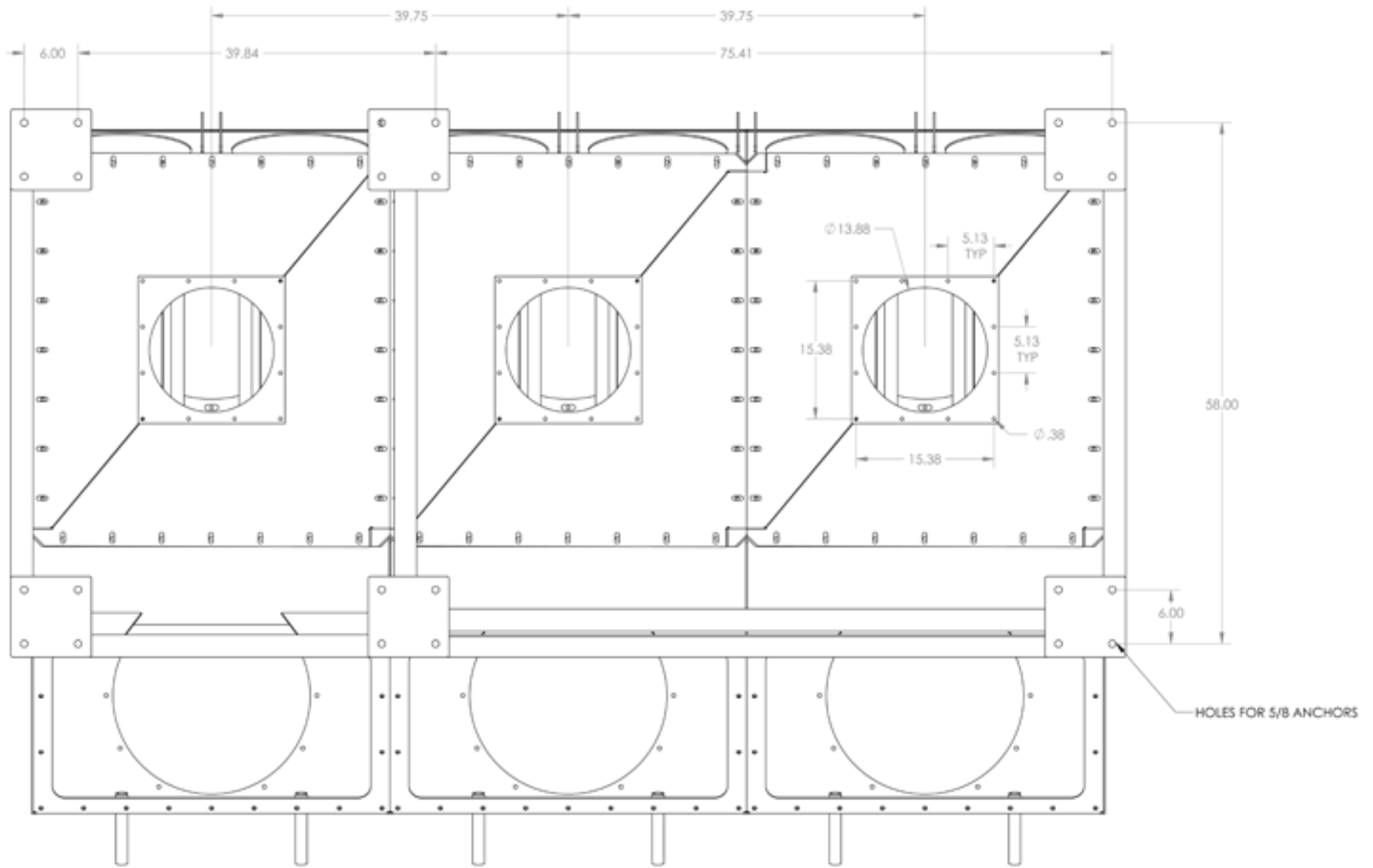


**Consulting  
Engineers, Inc.**

Reviewed [ ] Reviewed As Noted [ ] Rejected

Checked by: CKT Date: 1/16/15

Acceptance does not amend the Contract Documents nor relieve the Contractor of compliance with those documents

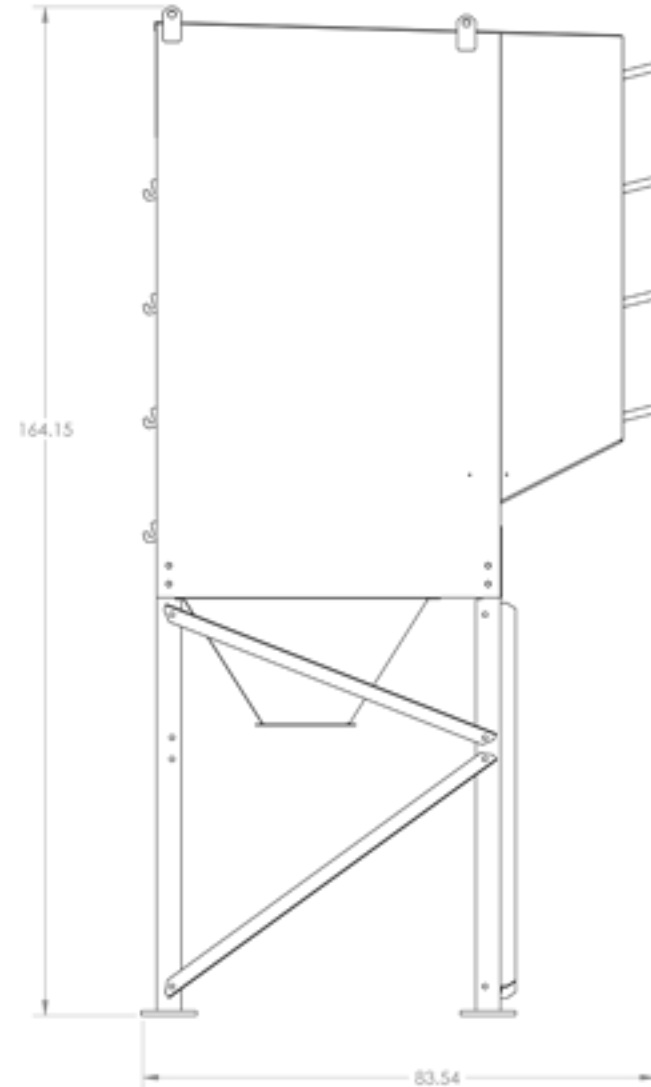
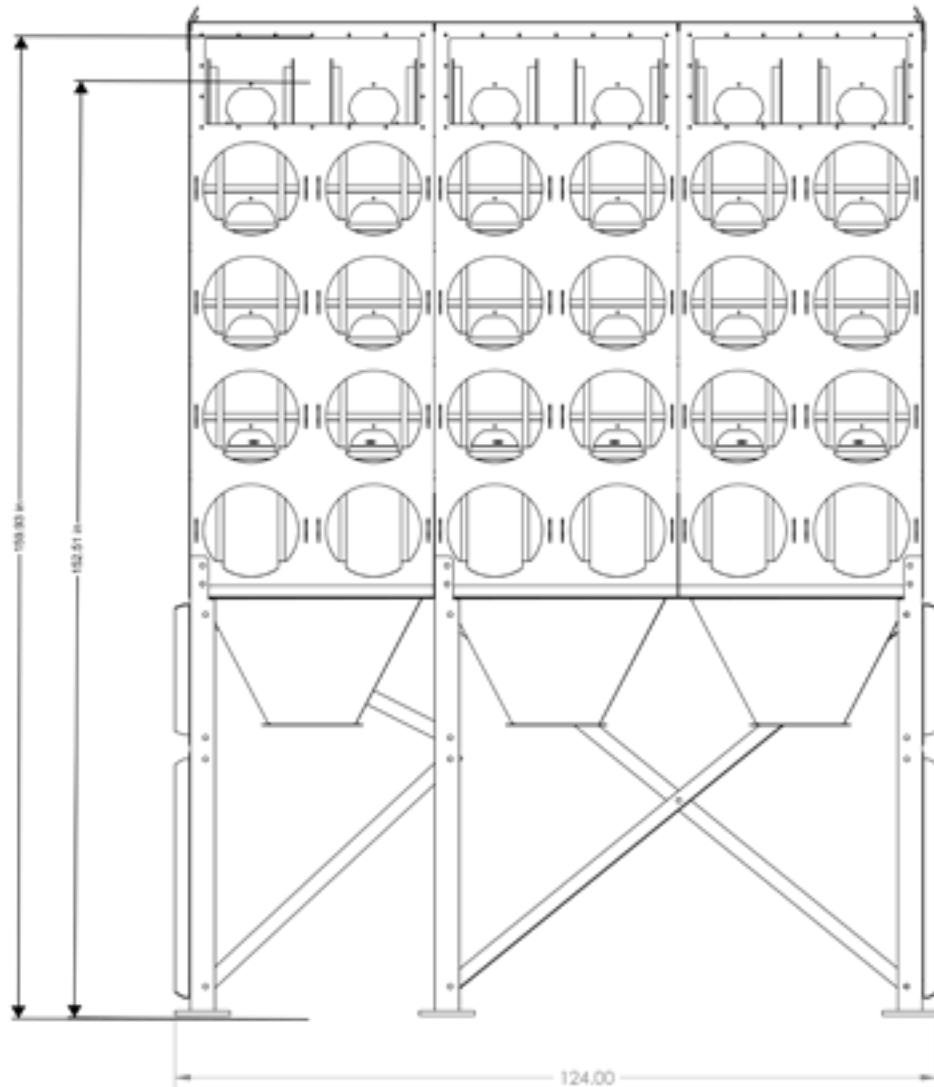


	SAW / CUT / SHEAR	X	TOLERANCES UNLESS OTHERWISE SPECIFIED
	PUNCH / DRILL	X	ANGLES 10° 15°
	WELD	X	DECIMALS 30 3.33 300 4.00
	PAINT	X	FRACTIONS 1/16
			WELD SYMBOLS 1/2" = 1/4" 3/4" 1/2" = 1/2" 1/8"
XX-XX-XX	X	X	ISSUE
DATE	BY	BOB	DESCRIPTION
			REV



95 Cypress Dr.  
 Youngsville, NC 27597  
 Phone: 919-570-2862  
 www.avanienvironmental.com

TITLE	X		
MATERIAL	SEE BOM		
SCALE	1:8	SHEET	1 OF 1
DRAWING NUMBER			C4-48 ASSY

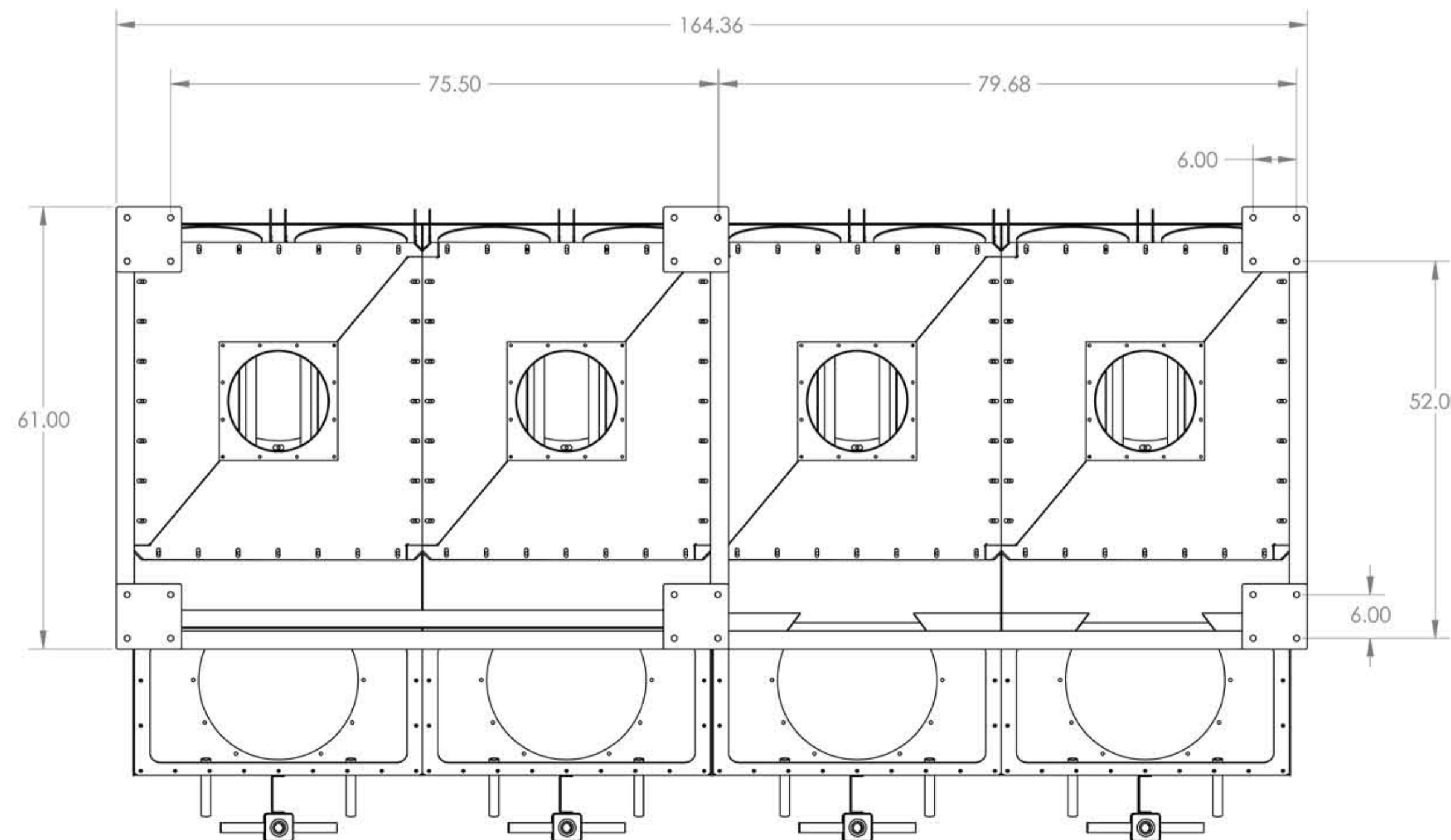
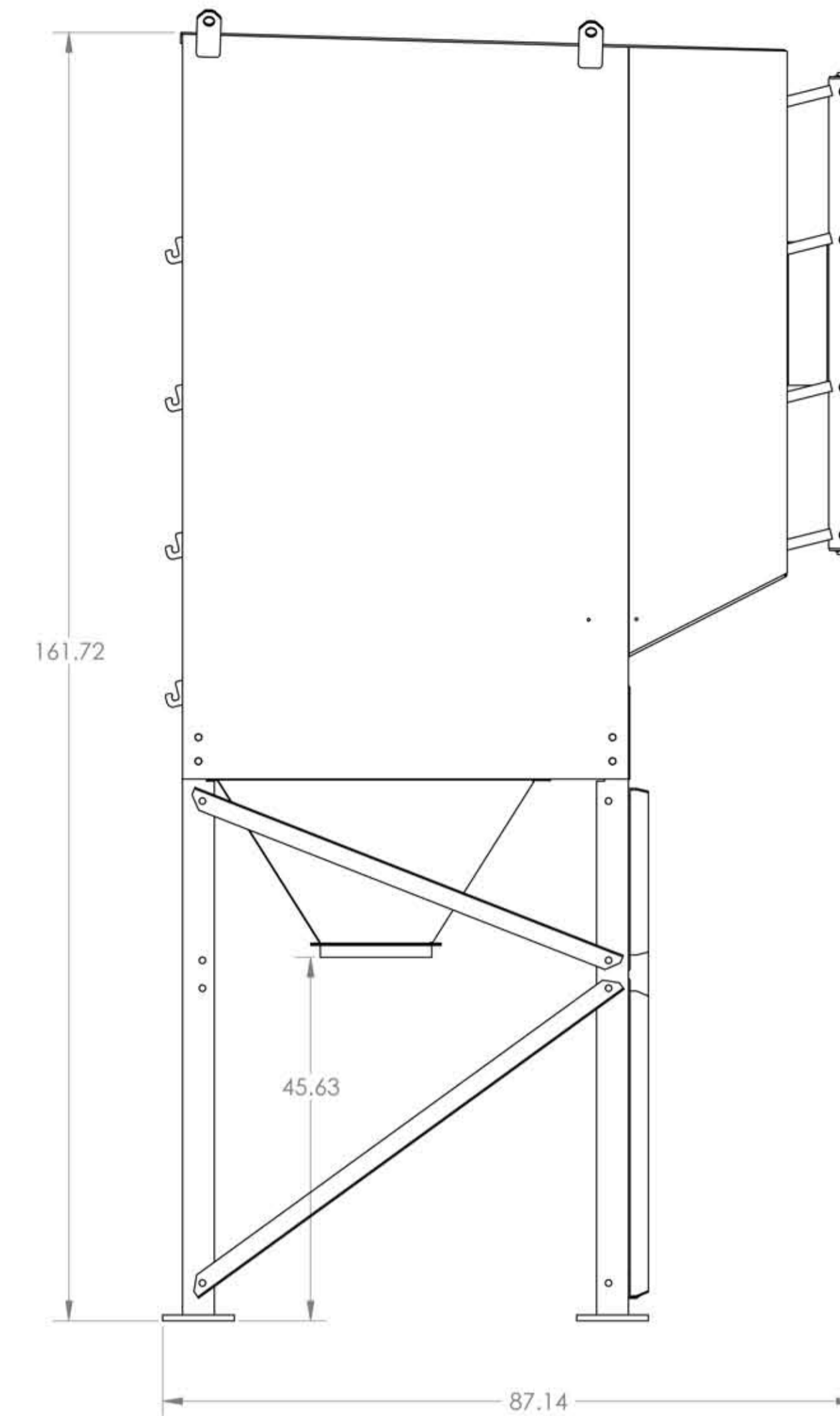
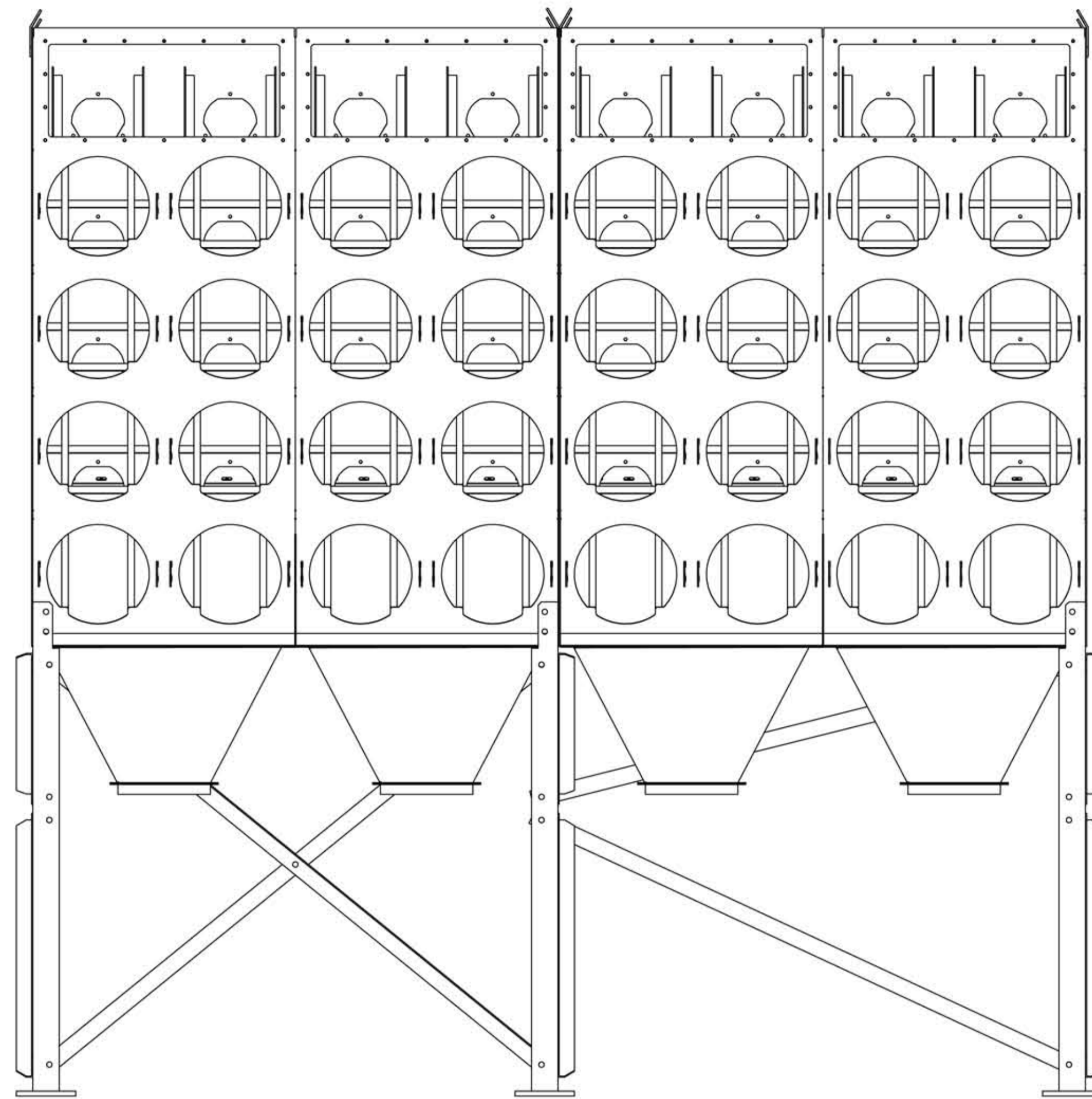


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		PAINT	X	FRACIONS	1/16		
				WELD PART LOC.	1/2" ± .01, 1/4" ± .01 ± .01, 1/8" ± .01		
				ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED		SCALE	SHEET
XX-XX-XX	X	X	ISSUE			1:16	1 OF 1
DATE	BY	ROOM	DESCRIPTION	REV		DRAWING NUMBER	C4-48 ASSY



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**SDC-AT-4-64 Specs**

NUMBER OF FILTERS...	...	64
SQ FT PER FILTER...	...	254 SQ FT
FILTER DIMENSIONS...	...	13.8" X 26"
NUMBER OF VALVES...	...	32
RECOMMENDED AIR PRESSURE...	...	90-100 PSI
APPROXIMATE AIR CONSUMPTION...	...	24 CFM WHEN 2 DIAPHRAGMS ARE PULSED EVERY SECONDS CONTINUOUSLY

CUT / SAW / SHEAR	X	TOLERANCES UNLESS SPECIFIED	 <p>Avani Environmental Int., Inc. 95 Cypress Dr. Youngsille, NC 27596 (919) 570-2862 avanienvironmental.com</p>				
PUNCH / DRILL	X	ANGLES +/- 1°					
FORM	X	DECIMAL .00 ± .003 .000 ± .010					
WELD	X	FRACTIONS +/- 1/16					
PAINT	X	WELDED PART LOC. <math>\phi < \pm 1/16</math> >math>\phi = +/- 1/16</math>					
DATE	BY	ECH#	ISSUE	DESCRIPTION	SCALE 1:16	SHEET 1 OF 1	DRAWING NUMBER C4-64 ASSY

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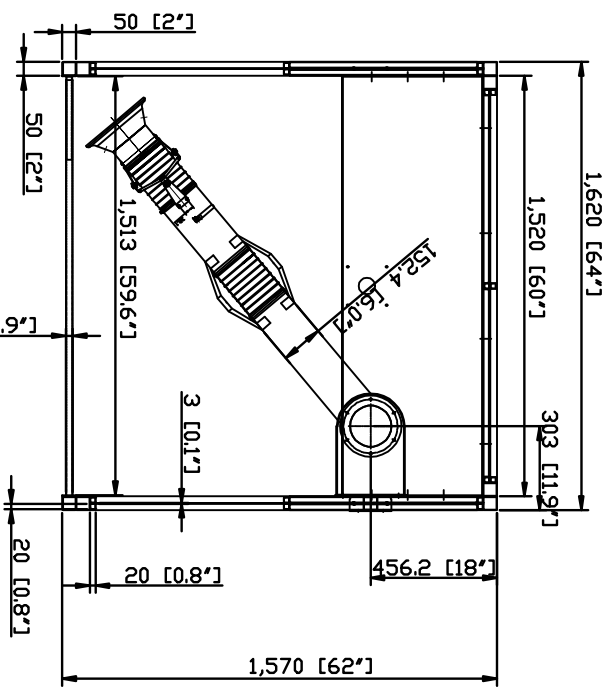
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MATERIAL: SEE BOM

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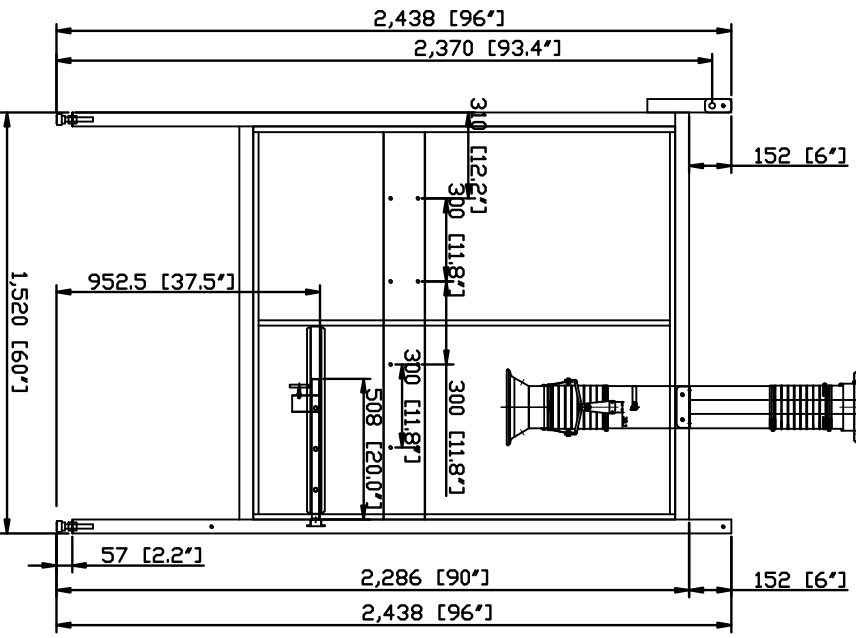
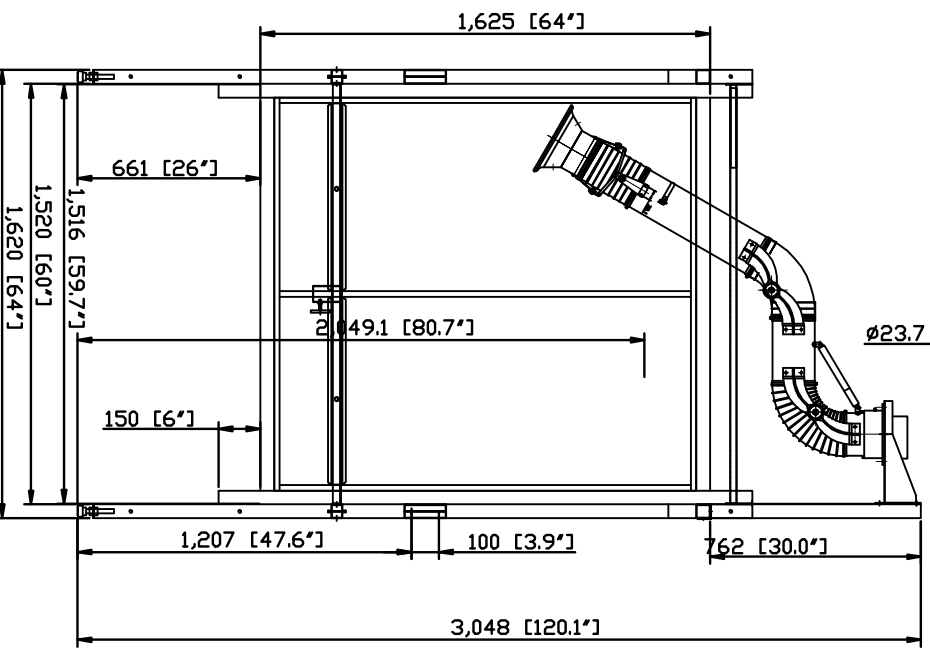
Rev	Description	Date	Approval



- WB-1055 WELDING BOOTH SPECIFICATIONS**
- Adjustable Level System: (4) dia. 2.36" Feet
  - Panel Construction: 12-gauge welded steel
  - Welding Curtain Supports: (1) set welding curtain bar
  - Fume Arm Supports & Brackets: (1) bracket (6 bolt pattern) to match optional dia. 6" fume arm
  - Powder Coated: Avariil Safety Blue Standard (custom colors available)
  - Three Piece Configuration: (2) side panels, (1) back panel.
  - Booths can be mounted back-to-back, side-by-side or both options
  - \*\*\*Unadjustable Fixed Rear Shelf: 60"W x 20"D x 1.1"H (solid with 2" hole drilled)

**OPTIONS**

- Welded Nuts: Optional locations for J-Hooks
- Welding Nuts: For wire feeder or welder bracket



**AVANT ENVIRONMENTAL INT'L, INC.** Sales Department  
 95 Opines Drive  
 Youngsville, NC 27596  
 (919) 570-2832  
 info@avantenvironmental.com

Drawn by:	Date:	Name:	Part Number:	Title:	Scale:	Drawing Number:
	2013-02-07			WB-1055	1 = 25	WB-S-35

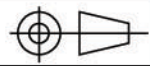
**Scale** A

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Revisions

Rev	Description	Date	Approved
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# Hanging Arm 6"\*7'

**Diameter:** 6"

**Length:** 7'

**Weight:** 42.5 lbs (net)

**Arm Construction:** Two galvanized steel tubes, three pieces of flex hose at joints, aluminum hood, heavy gauge steel swivel base, and support spring.

**Arm Adjustment:** Externally supported, adjustments are quickly done at the joints.

**Hood:** 13" diameter round aluminum hood.

**Damper:** Internal with external adjustment.

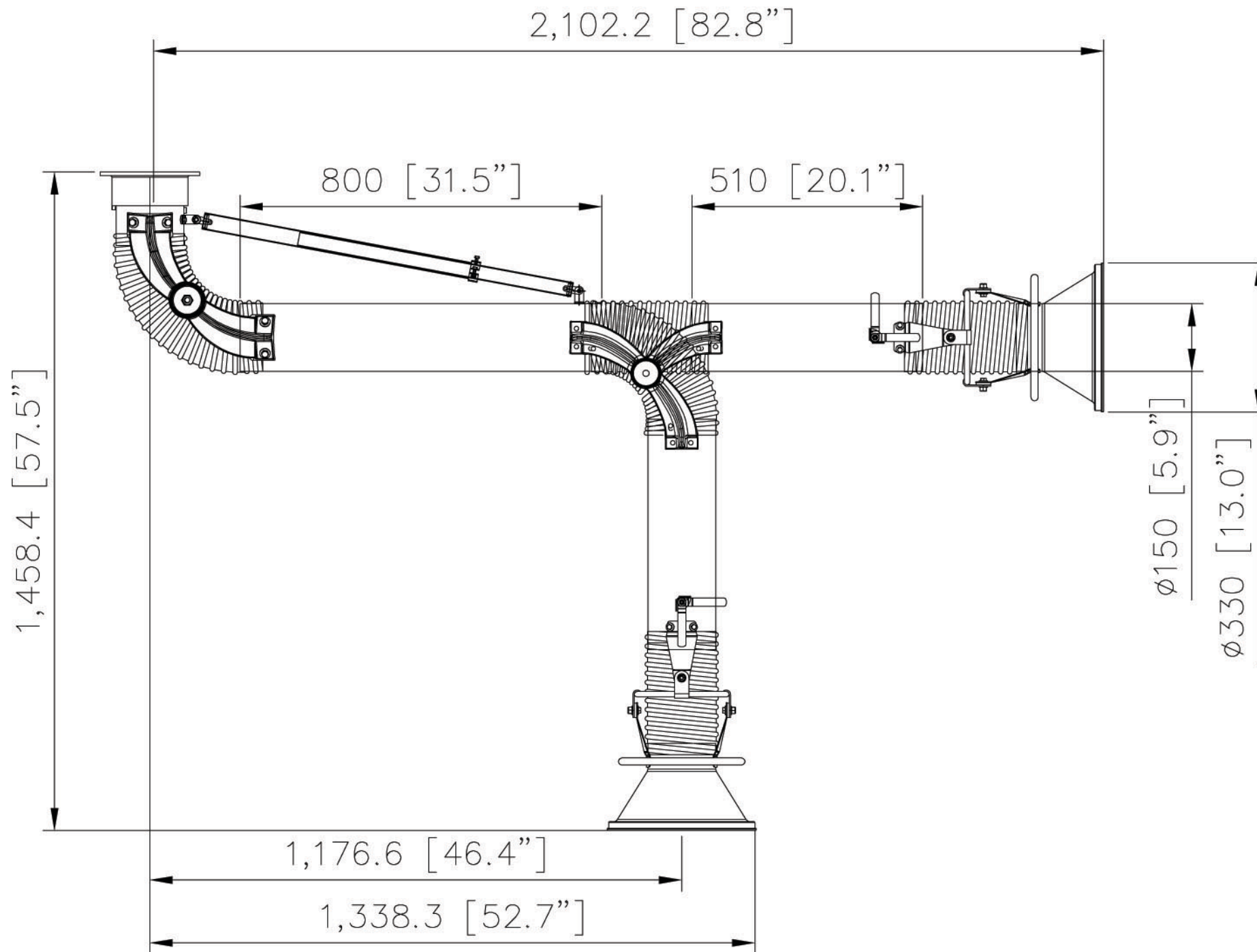
Finish: Powder coated.

Hose: Rated at 200°F

Accessories: Mounting bracket and light kit.

Mounting Bracket:

Warranty: Limited two years from date of purchase.



<b>Packing Size:</b>	133.7 x 87 x 37.5 cm 52.7 x 34.3 x 14.8 inch
<b>N.W. / G.W.:</b>	19.3 / 24.9 kgs 42.5 / 54.9 lbs

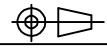
Avani Environmental Intl, Inc.  
95 Cypress Drive  
Youngsville, NC 27596  
sales@avanienvironmental.com

Sales Department  
(919) 570-2862

Drawn by:	Date	Name	Part Number:	Title:
Checked by:	XX-XX-XX	XXXXX	PART NO.	Arm 1620
			Size	Scale
			A	1 = xx
			Drawing Number:	
			2009.12.18	

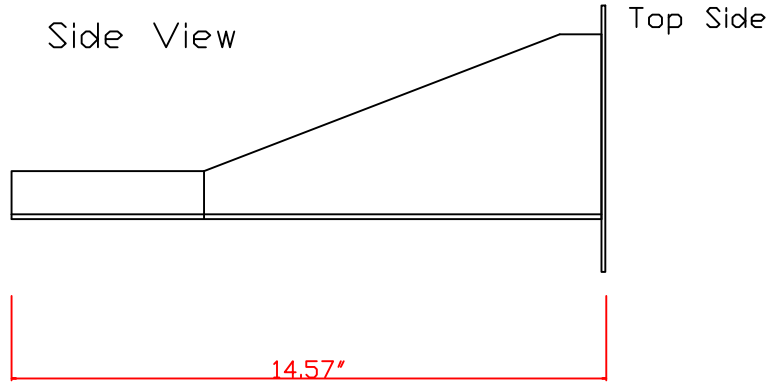
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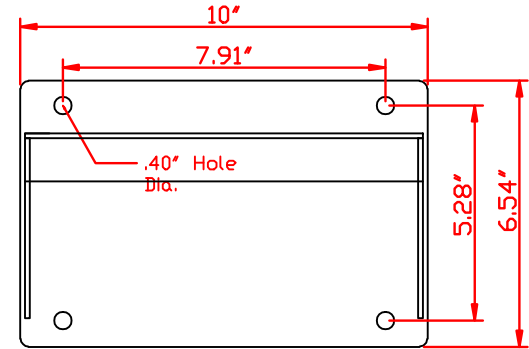


# WALL MOUNT BRACKET 6" ARM

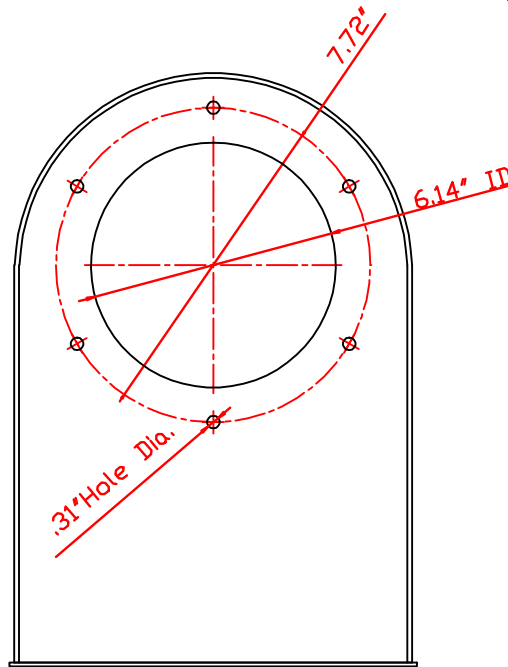
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Rev	Description	Date	Approved



End View



Plan View



- \* 11 Gauge Steel
- \* Painted Black

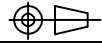
AVANI ENVIRONMENTAL INTL. INC. Sales Department  
 95 Cypress Drive (919) 570-2862  
 Youngsville, NC 27596 info@avanienvironmental.com

Drawn by:	Date	Name	Part Number:	Title:
Checked by:	2012.02.14	DOJ	FE-MB-6	6 inch arm wall mount bracket

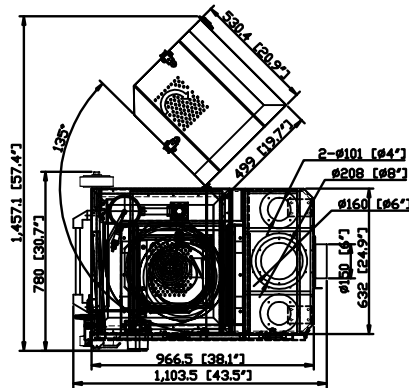
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Size	Scale	Drawing Number:
A	1 = 1	FE-MB-6

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Revisions			
Rev	Description	Date	Approved



**SPC-2000 WELDING FUME EXTRACTOR SPECIFICATIONS**

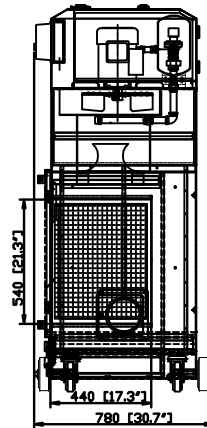
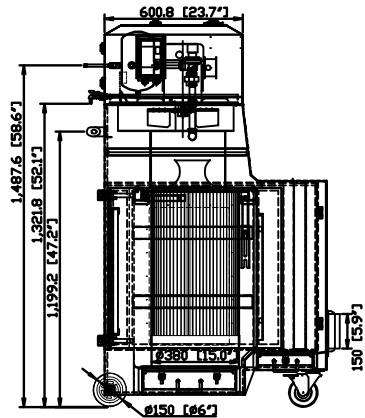
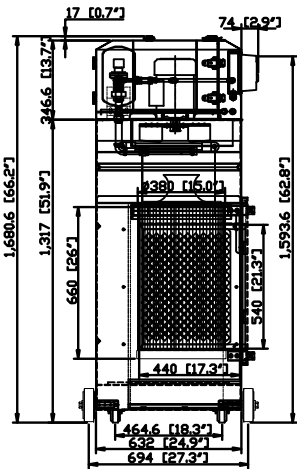
- Motor: 1.5HP
- \*\*\* NEMA Motor
- \*\*\* Aluminum Impeller

- Electric Spec: 120V/240V -60HZ -1Ph-16/8 FI Amps (wired at 120V)
- Airflow: 1100 CFM (1867.8 m3/hr)

**Filtration Stages:**

1. aluminum mesh x 1 pc
  2. Cartridge Filter: DIA. 380 x 660mm x 1 pc
    - spec: dia. 380 x 660mmL (15" x 26"L)
    - filtering area: 25m2 (269 ft2)
  3. carbon after-filter x 1 pc
- Cartridge Material: 80 / 20 FR - Standard Media
  - Polyester Cartridge with TEFLON treatment & coating (Optional Media)
  - Dimensions: 43.5" x 30.7" x 66.2" (111 x 78 x 168cm)
  - No. of Valves: 1
  - Compressed Air Requirement: 90 PSI - 1/4" npt fitting
  - Compressed Air Reservoir: 1.79 gallon
  - Construction: 14 gauge steel
  - Max. Operating Temp.: 120°C
  - Paint Color: powder coated Blue
  - Inlet Port: an arm port plate compatible for (1) 8" (1) 6" or (2) 4"
  - Adjustable Blast Gate: dia. 6" x 1
  - N.W. / G.W.: 441 / 562 lbs. (200 / 255 kgs.)

\*\*top maintenance door open at the back.



AVANI ENVIRONMENTAL INTL. INC. Sales Department  
 95 Cypress Drive  
 Youngsville, NC 27596  
 (919) 570-2862  
 info@avanienvironmental.com

	Date	Name	Part Number:	Title:
Drawn by:	2011-03-25	***	**	SPC-2000
Checked by:				
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Revisions		
Rev	Description	Date

# Standing Arm 8"\*7'

**Diameter:** 8"

**Length:** 7'

**Weight:** 58.2 lbs (net)

**Arm Construction:** Two galvanized steel tubes, powder coated, (2) die casted aluminum external joints, heavy gauge steel swivel base, steel final external joint with aluminum hood, 360 degree grab handle, and support spring in protective aluminum cover.

**Arm Adjustment:** 100% externally supported (no internal joints).

**Hood:** 14" diameter spun aluminum and powder coated.

**Damper:** Internal damper with external adjustment.

**Finish:** Powder coated.

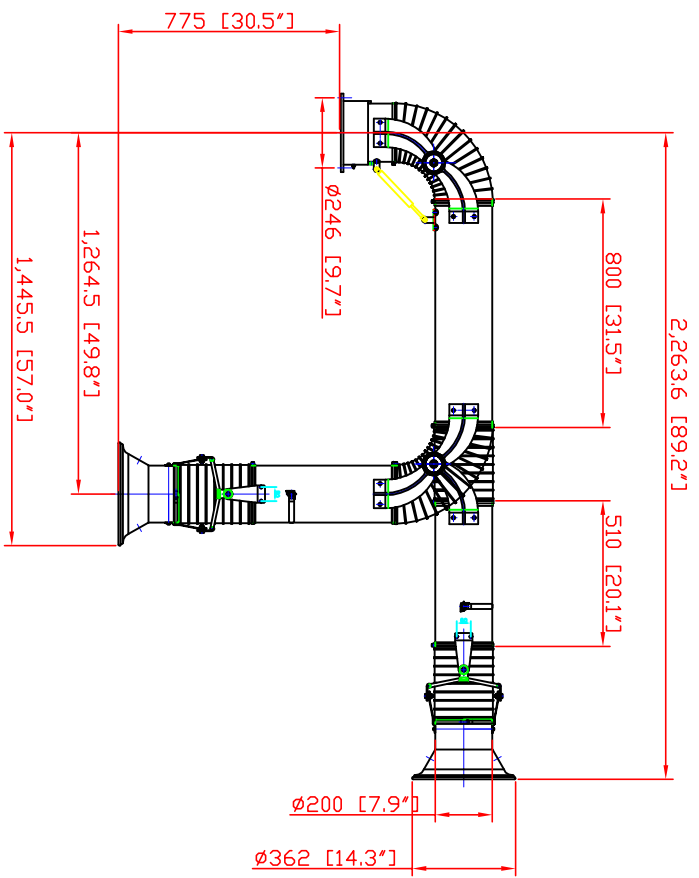
**External Hose:** Smooth bore, helical hose rated at 200 degrees.

**Finish:** Powder coated.

**Accessories:** Mounting bracket and One tough halogen light.

**Mounting Bracket:**

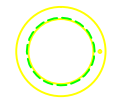
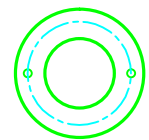
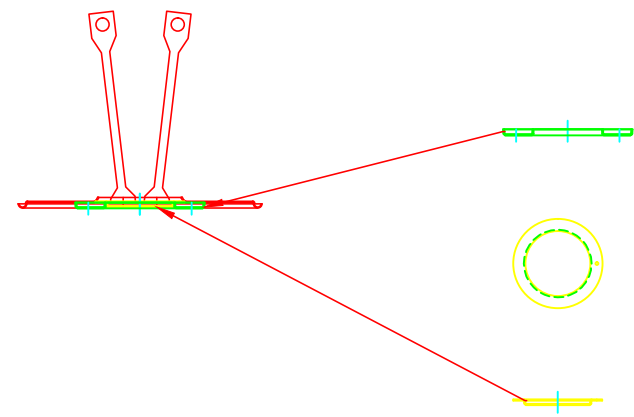
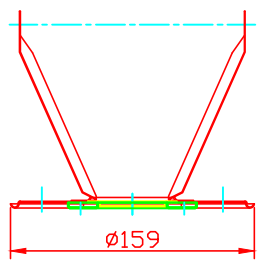
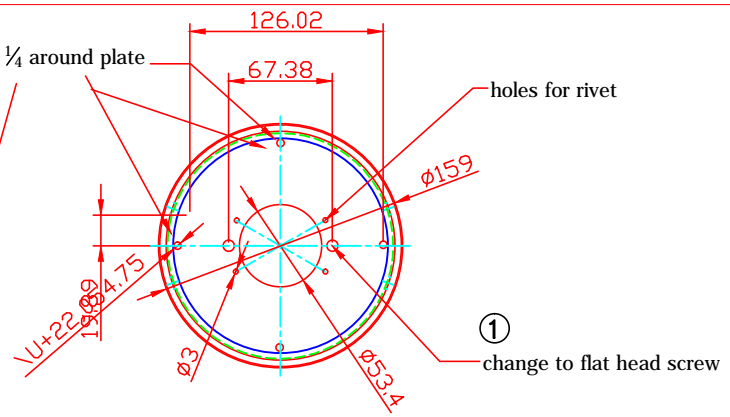
**Warranty:** Limited two years from date of purchase.



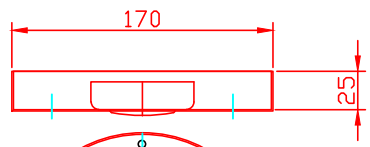
Packing Size:	156 x 40 x 75.5 cm
	61.4 x 15.7 x 29.7 inch
N.W. / G.W.:	26.4 / 34 kgs
	58.2 / 75 lbs

AVANI ENVIRONMENTAL INTL. INC. Sales Department 95 Cypress Drive Youngsville, NC 27596 (919) 570-2862 info@avanienvironmental.com		Date: 2013-09-30 Name: *** Part Number: **		Title: Arm 2020P	
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Checked by:		2013-09-30	***	**	**
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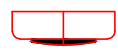
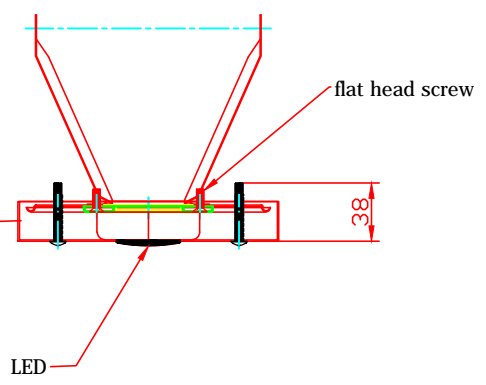
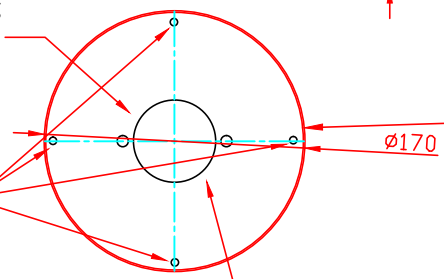
each hole centered at 13mm from outer edge and spaced equally ¼ around plate



③ new tooling for light cover plate



center at 13mm from outer edge

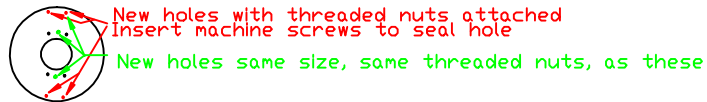


this inner ring riveted in place

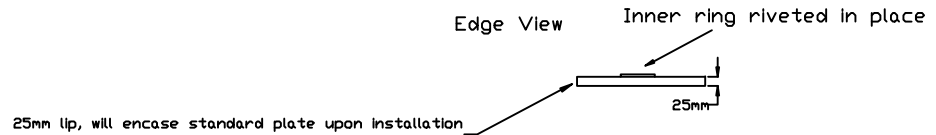
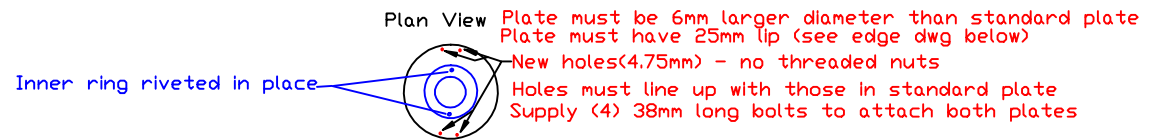
# Battery powered LED Fume Arm Lighting

1200 - 1600 - 2000 Models  
5"                  6"                  8"

\*NEW\* Standard Diverter Plate  
For all 5", 6" & 8" arms.



Light Kit External Diverter Plate  
Stocked item to be used when light kit is ordered



- Notes;  
Standard diverter plate changes:
1. Add 4 holes on outer portion of plate with nuts attached to back of plate
  2. Install screws to seal holes

- Light Kit Diverter Plate
1. Fabricate 6mm larger diameter than standard plate
  2. Drill holes (4.75mm) to line up with new holes on standard plate
  3. Rivet inner ring to plate (no nuts)
  4. Fabricate with a 25mm lip that will cover standard plate when installed
  5. Supply (4) 38mm long bolts to secure the two plates together.

# Owners Manual

## LED Touch Activated Light Kit Assembly Manual



1. Remove the (4) hex head bolts that secure the diverter plate to the hood.



2. Find the new diverter plate kit made for battery powered lighting, including the required nylon sleeves (1/2" x .194 x 1), LED light and glass cover. (See parts photo below:)





### Parts List:

1. Inner Diverter Plate (1), Outer Plate Cover (1), Glass Cover (1)

Supplier: Taiwan

2. Led Light (1) Supplier: Lowes Item Number: 163154

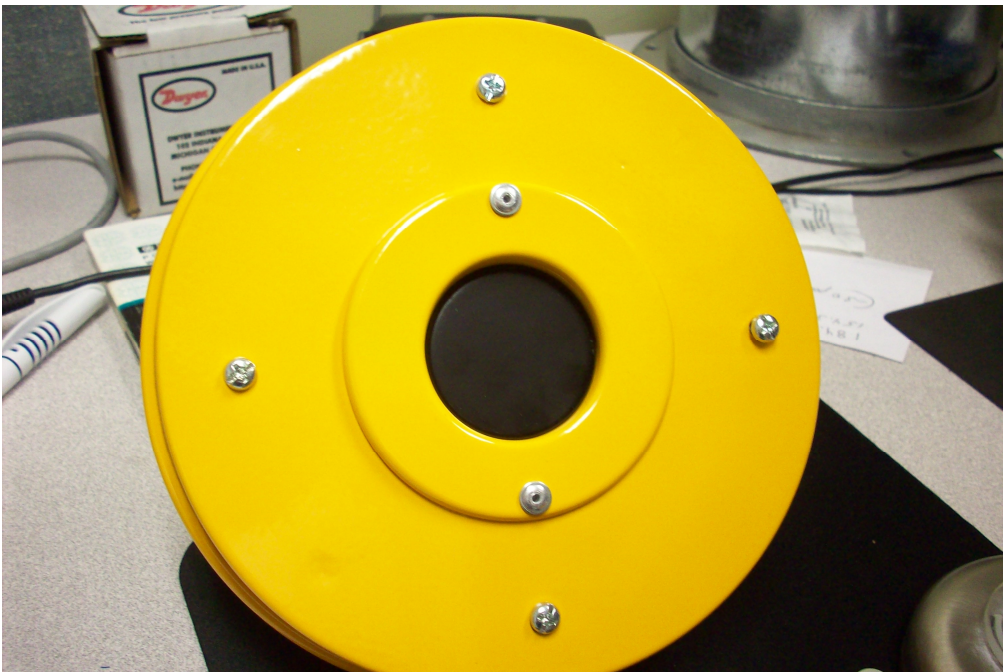
Model Number: 72435

3. Nylon Sleeves (4) 3/8 x .171 x 1 Supplier: Lowes

Part Number: H#880432 UPC#: 0823670824

4. 10/24 hex nuts (4)

3. Remove the (4) Phillips head screws from the new diverter plate cover and separate the inner plate from the outer cover.

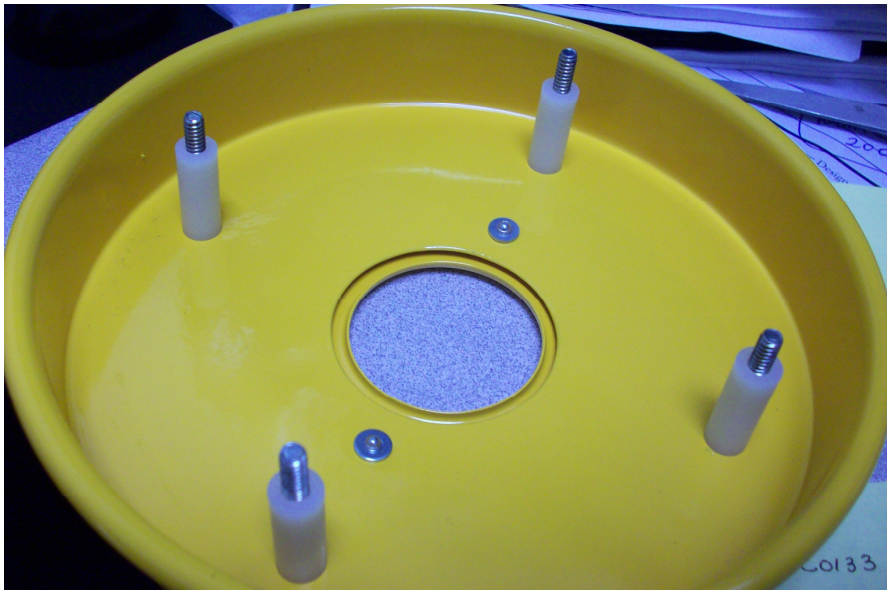


4. Locate the battery powered light and a glass cover.
5. Glue the glass cover to the light by applying a small drop of gorilla super glue to each of the three light contacts.

6. The light is magnetic and should be attached to the center of the inside plate. Remove adhesive backing and attach. (see photo below).



7. Locate the top cover and re-insert the (4) Phillips head screws.
8. Insert the nylon sleeves onto the screws. (see photo below)
9. Secure the nylon sleeves with a 10/24 hex nut and tighten.



10. With the sleeves in place the cover can be secured to the inner plate by turning the screws.
11. Test the unit to ensure that it works properly.
12. Using the (4) hex head bolts that were removed from the original diverter plate, install the battery powered kit to the arm hood.

## **Contact Information**

Avani Environmental International Inc.  
95 Cypress Drive,  
Youngsville, NC 27596  
Email: [info@avanienvironmental.com](mailto:info@avanienvironmental.com)  
[www.avanienvironmental.com](http://www.avanienvironmental.com)

**Customer Service:** [info@avanienvironmental.com](mailto:info@avanienvironmental.com)  
**Tel: 919-570-2862 ext.208**

**Engineering Service:** [engineering@avanienvironmental.com](mailto:engineering@avanienvironmental.com)  
**Tel: 919-570-2862 ext.203**