

RECEIVED

CONCRETE BATCHING PLANT  
AIR GENERAL PERMIT REGISTRATION FORM

NOV 23 2010

Part II. Notification to Permitting Office Bureau of Air Monitoring  
(Detach and submit to appropriate permitting office; keep copy onsite) & Mobile Sources

Instructions: To give notice to the Department of an eligible facility's intent to use this air general permit, the owner or operator of the facility must detach and complete this part of the Air General Permit Registration Form and submit it to the appropriate Department of Environmental Protection or local air pollution control program office which has permitting authority. Please type or print clearly all information, and enclose the appropriate air general permit registration processing fee pursuant to Rule 62-4.050, F.A.C. (\$100 as of the effective date of this form)

7775658-001

Registration Type

Check one:

INITIAL REGISTRATION - Notification of intent to:

- Construct and operate a proposed new facility.
- Operate an existing facility not currently using an air general permit (e.g., a facility proposing to go from an air operation permit to an air general permit).

RE-REGISTRATION (for facilities currently using an air general permit) - Notification of intent to:

- Continue operating the facility after expiration of the current term of air general permit use.
- Continue operating the facility after a change of ownership.
- Make an equipment change requiring re-registration pursuant to Rule 62-210.310(2)(e), F.A.C., or any other change not considered an administrative correction under Rule 62-210.310(2)(d), F.A.C.

Surrender of Existing Air Operation Permit(s) - For Initial Registrations Only

If the facility currently holds one or more air operation permits, such permit(s) must be surrendered by the owner or operator upon the effective date of this air general permit. In such case, check the first box, and indicate the operation permits being surrendered. If no air operation permits are held by the facility, check the second box.

- All existing air operation permits for this facility are hereby surrendered upon the effective date of this air general permit; specifically permit number(s): \_\_\_\_\_
- No air operation permits currently exist for this facility.

General Facility Information

Facility Owner/Company Name (Name of corporation, agency, or individual owner who or which owns, leases, operates, controls, or supervises the facility.)

Archer Western Contractors, Ltd.

Site Name (Name, if any, of the facility site; e.g., Plant A, Metropolis Plant, etc. If more than one facility is owned, a registration form must be completed for each.)

SR-9B - Erie Strayer Concrete Plant

Facility Location (Provide the physical location of the facility, not necessarily the mailing address.)

Street Address: 12855 Phillips Highway

City: Jacksonville

County: Duval

Zip Code: 32256-3704

Facility Start-Up Date (Estimated start-up date of proposed new facility.)(N/A for existing facility)

August 2011

**Owner/Authorized Representative**

<b>Name and Position Title</b> (Person who, by signing this form below, certifies that the facility is eligible to use this air general permit.) Print Name and Title: <b>David Casey, Business Group Leader</b>		
<b>Owner/Authorized Representative Mailing Address</b> Organization/Firm: <b>Archer Western Contractors, Ltd.</b> Street Address: <b>4343 Anchor Plaza Parkway, Suite 155</b> City: <b>Tampa</b> County: <b>Hillsborough</b> Zip Code: <b>33634-7532</b>		
<b>Owner/Authorized Representative Telephone Numbers</b> Telephone: <b>(813) 849-7500</b> Fax: <b>(813) 849-7581</b> Cell phone (optional):		

**Facility Contact (If different from Owner/Authorized Representative)**


<b>Name and Position Title</b> (Plant manager or person to be contacted regarding day-to-day operations at the facility.) Print Name and Title: <b>Don Davis, Project Manager</b>		
<b>Facility Contact Mailing Address</b> Organization/Firm: <b>Archer Western Contractors, Ltd.</b> Street Address: <b>12855 Phillips Highway</b> City: <b>Jacksonville</b> County: <b>Duval</b> Zip Code: <b>32256-3704</b>		
<b>Facility Contact Telephone Numbers</b> Telephone: <b>(904) 551-7073</b> Fax: <b>(904) 551-7401</b> Cell phone (optional):		

**Owner/Authorized Representative Statement**

This statement must be signed and dated by the person named above as owner or authorized representative

*I, the undersigned, am the owner or authorized representative of the owner or operator of the facility addressed in this Air General Permit Registration Form. I hereby certify, based on information and belief formed after reasonable inquiry, that the facility addressed in this registration form is eligible for use of this air general permit and that the statements made in this registration form are true, accurate and complete. Further, I agree to operate and maintain the facility described in this registration form so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof.*

*I will promptly notify the Department of any changes to the information contained in this registration form.*

  
Signature

Nov 12, 2010  
Date

**Type of Facility**

Check one:

Stationary Facility

Relocatable Facility

**Type(s) of Reasonable Precautions Used to Prevent Unconfined Emissions**

Check all precautions to be used for the management of roads, parking areas, stock piles and yards:

**Pave Roads**

**Pave Parking Areas**

**Pave Yards**

**Maintain Roads/Parking/Yards**

**Use Water Application**

**Use Dust Suppressant**

**Remove Particulate Matter**

**Reduce Stock Pile Height**

**Install Wind Breaks**

Check all precautions to be used for the management of drop points to trucks:

**Spray Bar**

**Chute**

**Enclosure**

**Partial enclosure**

**Description of Reasonable Precautions**

Below, or as an attachment to this form, provide details of all types of reasonable precautions to be used to prevent unconfined emissions at the facility.

The facility will be located on the east side of Phillips Highway, just south of the intersection of Gran Bay on the FDOT Right of Way. Please refer to the attached site map of the area for reference.

The precautions used to prevent unconfined emissions at the site will be as follows:

- \* The dirt roads in and around the site will be maintained with water application to control the dust generated by trucks delivering materials as well as the trucks involved with the batch plant operations.
- \* Heavily travelled roads and parking lots may be capped with asphalt millings or other suitable materials to minimize rutting and road maintenance.
- \* The aggregate stockpiles will be maintained in a saturated-surface-dry condition utilizing a network of sprinklers and water pipes to control the dust generated by the stockpile.
- \* Utilizing saturated-surface-dry aggregate will also assist in controlling dust being generated by the handling, and conveying of the aggregate in the concrete batching operations.
- \* The 12 cy tilt mixer drum is equipped with a pivoting dust plug which is a rotating steel disc with a rubber seal effectively sealing the mixer drum as it rotates. A directional discharge chute with a rubber boot is also installed.

### **Description of Facility**

Below, or as an attachment to this form, provide a description of the concrete batching plant operations at the facility in sufficient detail to demonstrate the facility's eligibility for use of this air general permit and to provide a basis for tracking any future equipment or process changes at the facility. Describe all air pollutant-emitting processes and equipment at the facility, and identify any air pollution control measures or equipment used.

Archer Western Contractors, Ltd. proposes to utilize an Erie Strayer Mobile Central Mix Paving Plant Model MG-12CP Serial Number MG-7993 to batch concrete for the State Road 9B Project in Jacksonville Florida. Please refer to the attached drawings for information regarding the general plant arrangement and erection plan.

The batching operations at the facility will begin with a loader supplying the aggregate to the bin charging conveyors which will deposit the aggregate onto an inclined batch transfer conveyor, depositing it into the 12 CY cement mixer drum. Water, cement and admixtures are added via automatic controls from the batch house operator and the contents are mixed while the cement mixer drum is rotated.

After thoroughly mixing the batch, the drum tilts and deposits the concrete into a waiting dump truck. The dump truck then transports the concrete to the placement operations.

Air pollution control measures employed at the facility during concrete batching are as follows:

- \* Cement silo: Split 2/3 and 1/3 with air volumes of 1,905 cf (71cy) and 955 cf (35 CY) respectively. A double wall partition with tell-tale opening at the silo cone separates the compartments. A 14" diameter dust collection duct runs from the batch level through the large compartment and roof with a leg to each compartment. A 3" dust collection duct runs from the batch level into the small compartment for returning dust to the small compartment. In addition to the silo, portable dry storage tanks will be used to store additional cement and fly-ash.

- \* Cement Batcher: 12 CY cement batcher with 6" dust connection with a damper/cut-off gate and adjustable hood with connection to the silo dust control duct.

- \* Mixer Charging Chute: The mixer charging chute is factory installed in the cement travel frame and contains a 16" diameter dust duct collection. The cement is kept separate from the aggregate and water to the entry of the mixer.

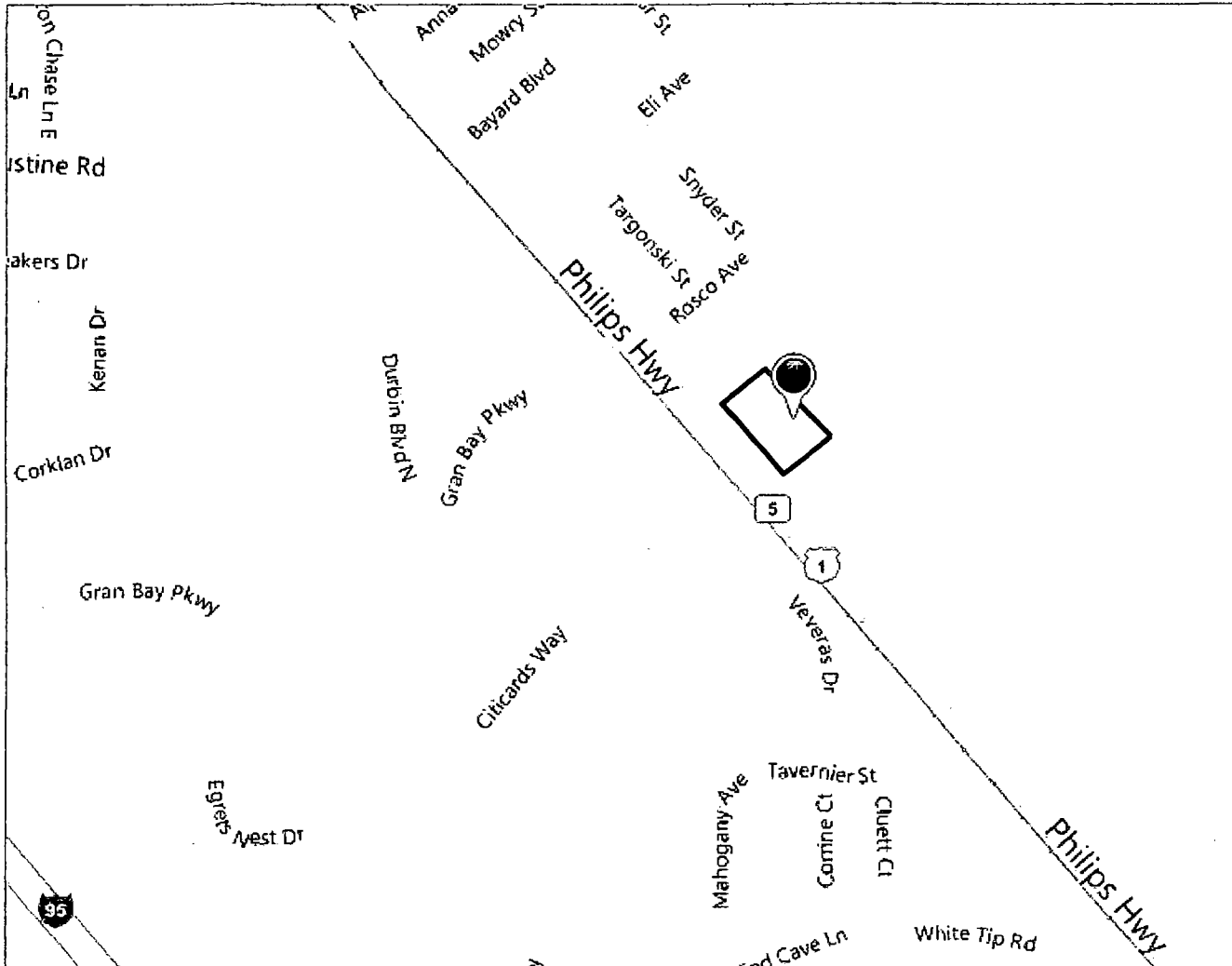
- \* Central Dust Collector: RA-280-Series dust collector manufactured by C&W Manufacturing and Sales Co. The RA-280 is a four compartment dust collection enclosure with 2,865sf of Dacron filter bags. The reverse air cleaning cycle is automatically programmed and controlled by a timer. In addition to the automatic cleaning cycle, a magnehelic gauge provides a visual indication of the condition of the filter bags by showing the differential pressure between the "clean" air side and the "dirty" air side (resistance through the filter media). The automatic dust recycle system returns collected material to the fly-ash compartment of the silo.

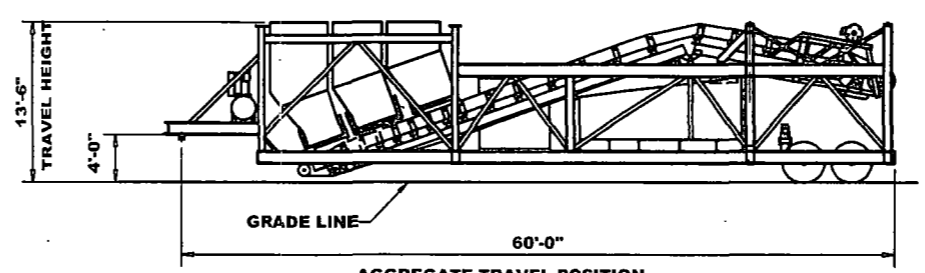
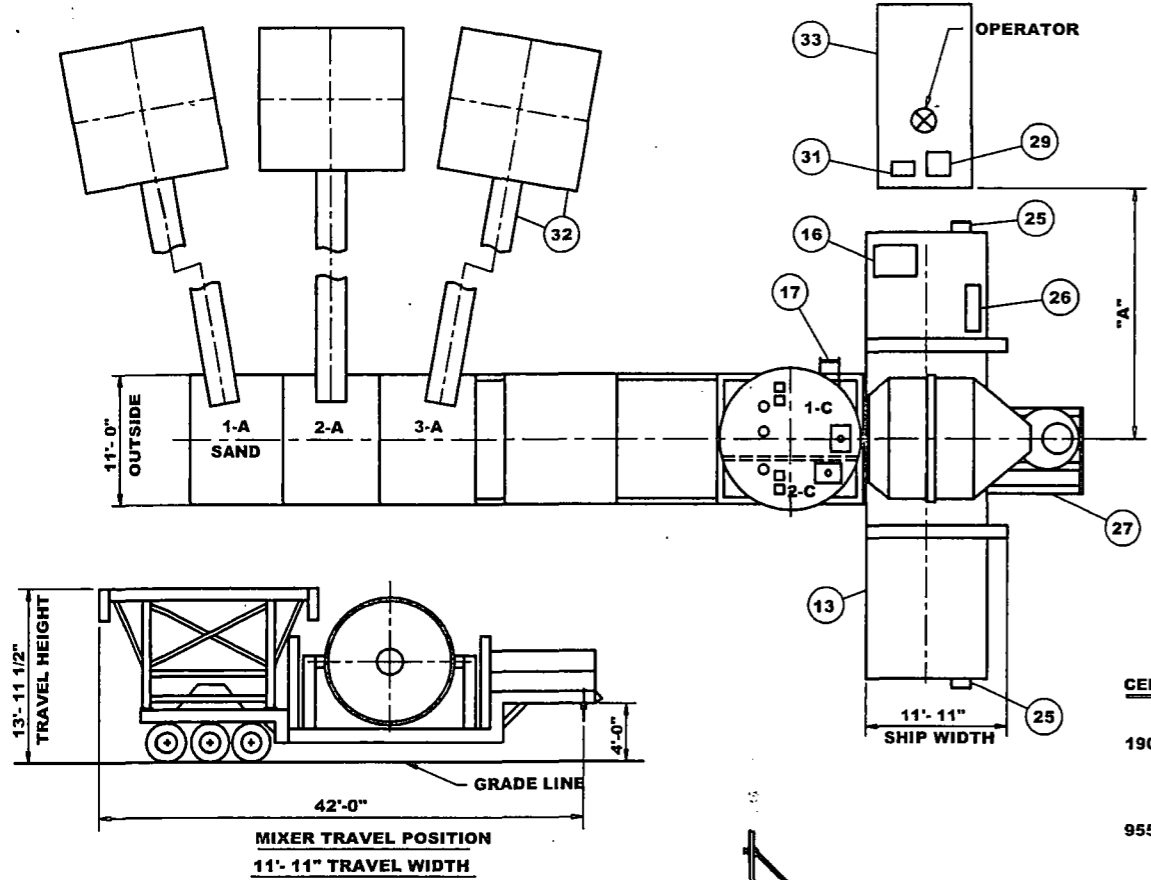
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# Bing Maps

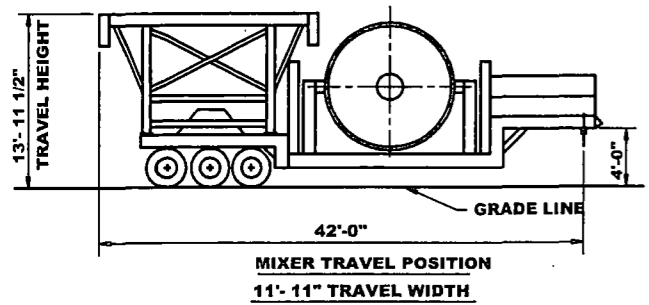
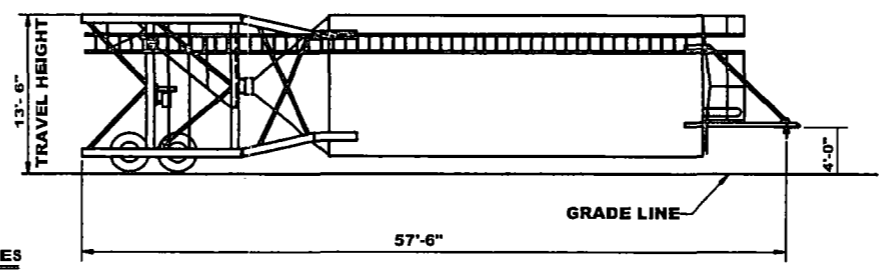
## Unsaved places

### 1. Concrete batch plant

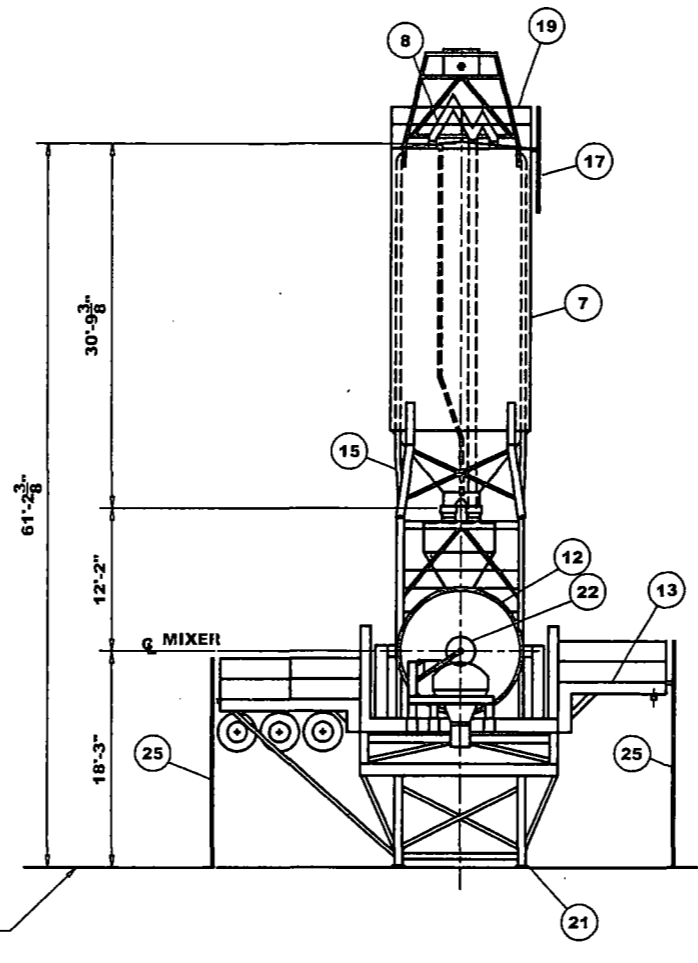
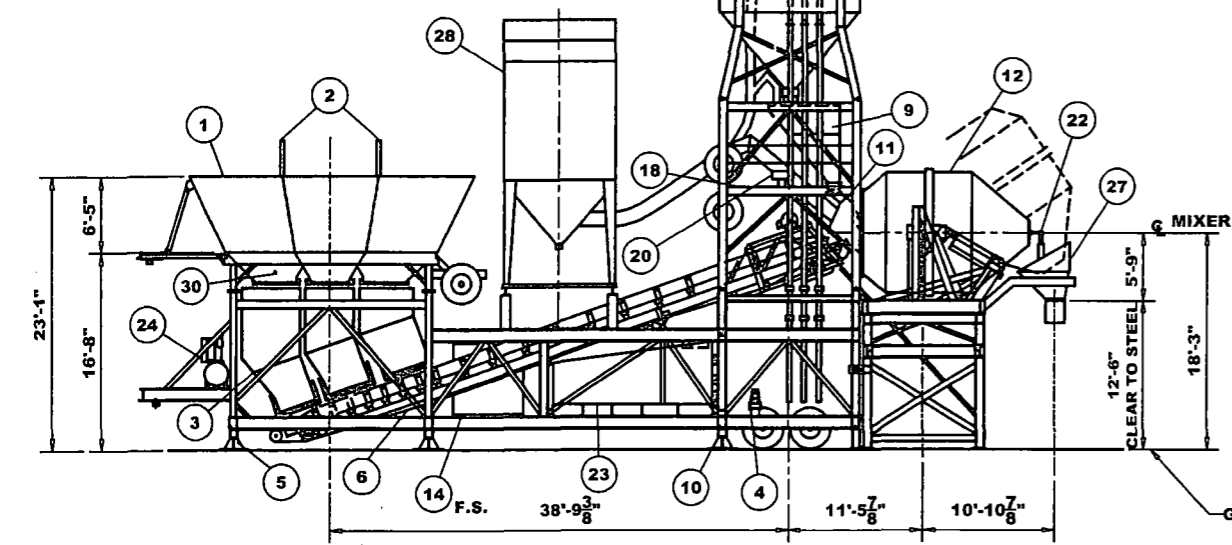
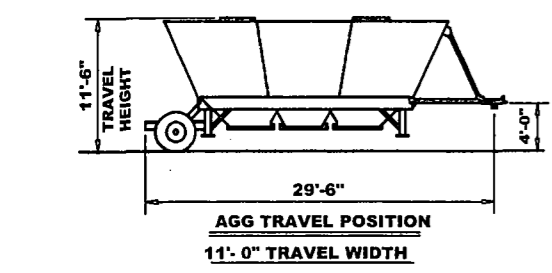




**NOTE:**  
CUSTOMER TO ADVISE ON  
DIMENSION OF "A"



**GEM. SILO CAPACITIES**  
**COMP'T 1-C**  
1905 CU. FT. AIR VOL.  
71 CU. YD.  
**COMP'T 2-C**  
955 CU. FT. AIR VOL.  
35 CU. YD.



**BY ERIE STRAYER CO.**  
**MG-12CP**

- ① AGGREGATE BIN 3 COMPARTMENT (PATT. A-111) 80 CU YD HEAPED CAPACITY
- ② HINGED PARTITION EXTENSIONS (2 REQ'D)
- ③ 12 CU YD AGGREGATE BATCHING SYSTEM W/ 3 INDIVIDUAL AGG BATCHERS
- ④ 4" WATER METER
- ⑤ ADJUSTABLE JACK STANDS (4 REQ'D)
- ⑥ 48" INCLINED BATCH TRANSFER CONVEYOR 50'-0" C. TO C. W/75 H.P. DRIVE
- ⑦ MOBILE CEMENT SILO 2 COMP'T (PATT. C-11) SPLIT APPROX. 2/3 - 1/3 W/DOUBLE WALL PARTITION 715 BBL MAX CAPACITY
- ⑧ 14" DIA. DUST DUCT
- ⑨ 12 CU YD CEMENT BATCHER
- ⑩ SUPPORT SILLS (2 REQ'D)
- ⑪ MIXER CHARGING CHUTE
- ⑫ 12 CU YD ERIE TILT MIXER
- ⑬ MIXER TRAILER
- ⑭ PLANT MOTOR CONTROL PANEL
- ⑮ AIR LOADING PIPING (6 REQ'D) 1-4" & 3-5" DIA IN LARGE COMP'T 1-4" & 1-5" DIA IN SMALL COMP'T
- ⑯ HYDRAULIC POWER UNIT
- ⑰ LADDER W/SAFETY CABLE FROM GRADE TO CEM SILO ROOF W/ACCESS TO BATCH PLATFORM
- ⑱ BATCH PLATFORM W/HANDRAILS
- ⑲ CEM ROOF HANDRAILS
- ⑳ 4 1/2 H.P. AERATION BLOWER
- ㉑ MIXER SUPPORT SECTION
- ㉒ PIVOTING MIXER DUST PLUG
- ㉓ 4000 GALLON WATER STORAGE TANK W/ 20 H.P. WATER PUMP
- ㉔ 25 H.P. AIR COMPRESSOR W/ 120 GAL. TANK
- ㉕ LADDER TO MIXER TRAILER PLATFORM (2 REQ'D)
- ㉖ MIXER MOTOR CONTROL PANEL
- ㉗ CONCRETE DIRECTIONAL CHUTE W/ 26" DIA. OPENING
- ㉘ C & W RA-280 DUST COLLECTION SYSTEM FOR CEMENT SILO, CEMENT BATCHER & MIXER
- ㉙ COMPUTER CONTROL SYSTEM
- ㉚ MOISTURE PROBE (IN SAND COMP'T)
- ㉛ AGGREGATE HANDLING PANEL
- ㉜ 30" X 80'-0" BIN CHARGING CONVEYOR W/20 H.P. DRIVE & 12'-0" X 12'-0" HOPPER (3 REQ'D)
- ㉝ CONTROL HOUSE (8'-0" X 20'-0")

FOR PLANT ANCHOR BOLT PLAN SEE 4A-246153

**GENERAL NOTES BELOW APPLY TO EQUIPMENT SHOWN ON THIS DRAWING.**

**- AGGREGATE BINS AND BIN COMPARTMENTS**  
HEAPED CAPACITY OF AGGREGATE BINS AND BIN COMPARTMENTS ARE AS SHOWN AND ARE BASED ON HEAVING TO AN ANGLE OF 40° FROM THE HORIZONTAL WITH MATERIAL TENDING 110° PER CU. FT. OR APPROXIMATELY ONE AND ONE HALF TONS PER CU. YD.

**- CEMENT BINS, BIN COMPARTMENTS AND SILOS**  
SILOS ARE SHOWN WITH 25% COMPACTED AND 75% UNCOMPACTED AS SHOWN ARE BASED ON BUILDING OF 200 OR 0.8 CU. FT. PER BARREL.

**- ELECTRIC MOTORS**  
UNLESS INDICATED OTHERWISE, ALL ELECTRIC MOTORS ARE USED FOR 230/460 VOLT, 3 PHASE, 60 CYCLE CURRENT. EXISTING EQUIPMENT WILL BE FURNISHED TO OPERATE ON 460 VOLT UNLESS OTHERWISE NOTED.

**- POWER REQUIREMENT FOR CONTROLS**  
VOLTAGE SHALL BE 120 VOLTS (1-Ø) 60 CYCLE PER SECOND.

**- MODIFICATIONS OR ADDITIONS**  
ALL FIELD CHANGES TO THE EQUIPMENT SHOWN HEREON, OR ANY ENCLOSURE, CHASIS, PLATFORM, HOUSING OR OTHER ADDITION TO THIS EQUIPMENT ARE THE RESPONSIBILITY OF THE BUYER, WHO AGREES TO HOLD ERIE STRAYER COMPANY HARMLESS AGAINST LIABILITY FOR THE SAME.

**- NOT FOR CONSTRUCTION**  
THE DIMENSIONS SHOWN HEREON ARE GENERAL AND OUTLINE DIMENSIONS ONLY AND ARE NOT INTENDED FOR USE AS DETAILED DIMENSIONS FOR MAKING MODIFICATIONS OR ADDITIONS, SUCH AS ENCLOSURES, WALKWAYS, PLATFORMS OR HOUSINGS TO THE EQUIPMENT SHOWN.

**EQUIPMENT CONFORMS TO CPMB, PMMD, & CSMD STANDARDS**

NO.	REVISION	BY	DATE

**ERIE STRAYER CO.**  
1851 Rudolph Ave. Erie, PA 16502  
Phone: (814) 456-7001 Fax: (814) 452-3422  
Website: [www.eriestrayer.com](http://www.eriestrayer.com)

END BY	DATE	CHK BY	DATE	APP BY	DATE
NAS	9/23/2005				

<b>PLANT POWER</b> 460V - 3PH - 60HZ	<b>ERIE STRAYER CO.</b> MOBILE GRAVITY CENTRAL MIX PAVING PLANT GENERAL ARRANGEMENT <b>THE WALSH GROUP</b>
<b>CONTROL POWER</b> 120V - 1PH - 60HZ	
CONTRACT NO. MG-7870	SCALE 1/8" = 1'-0"
	DWG NO. 4A-246152

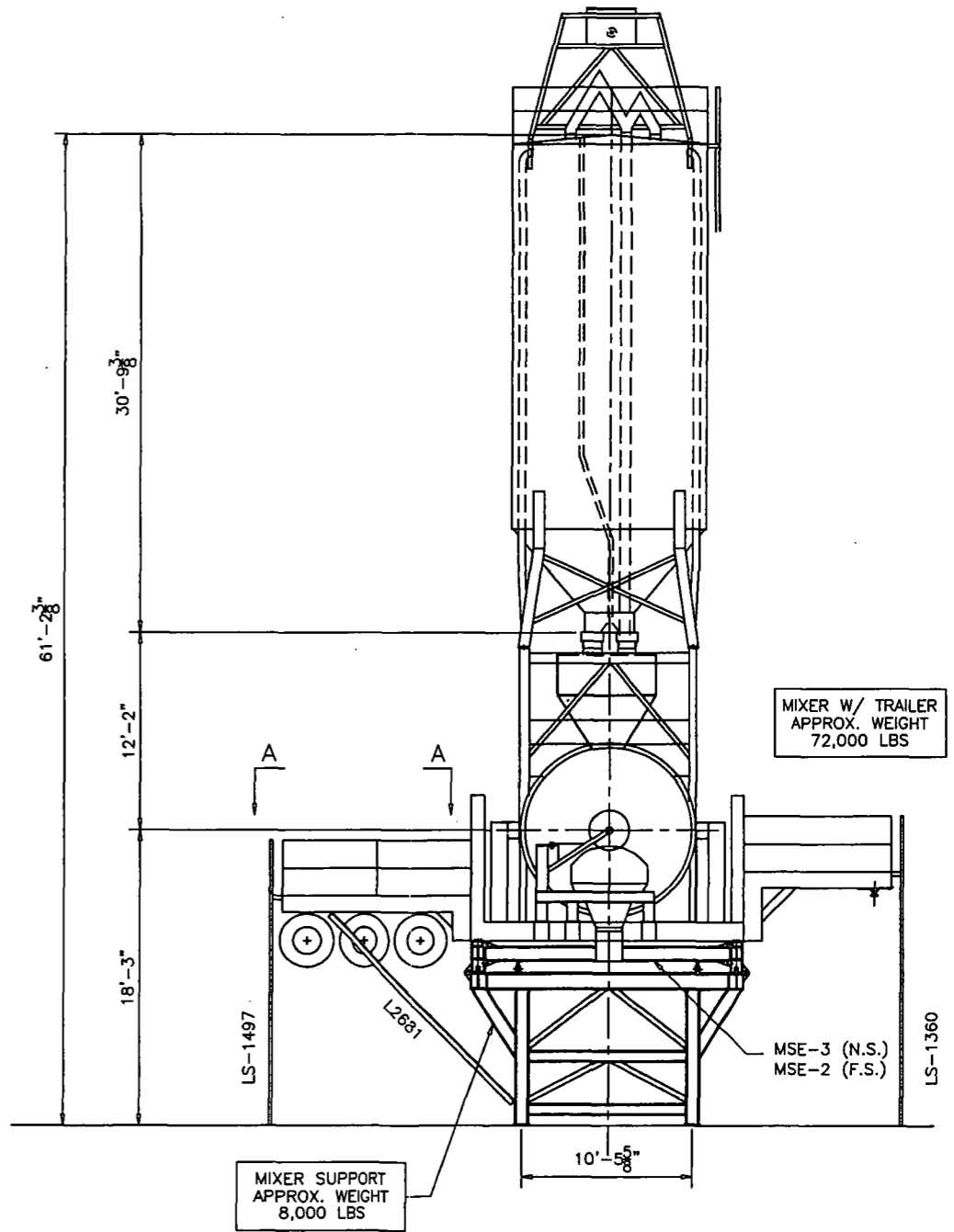
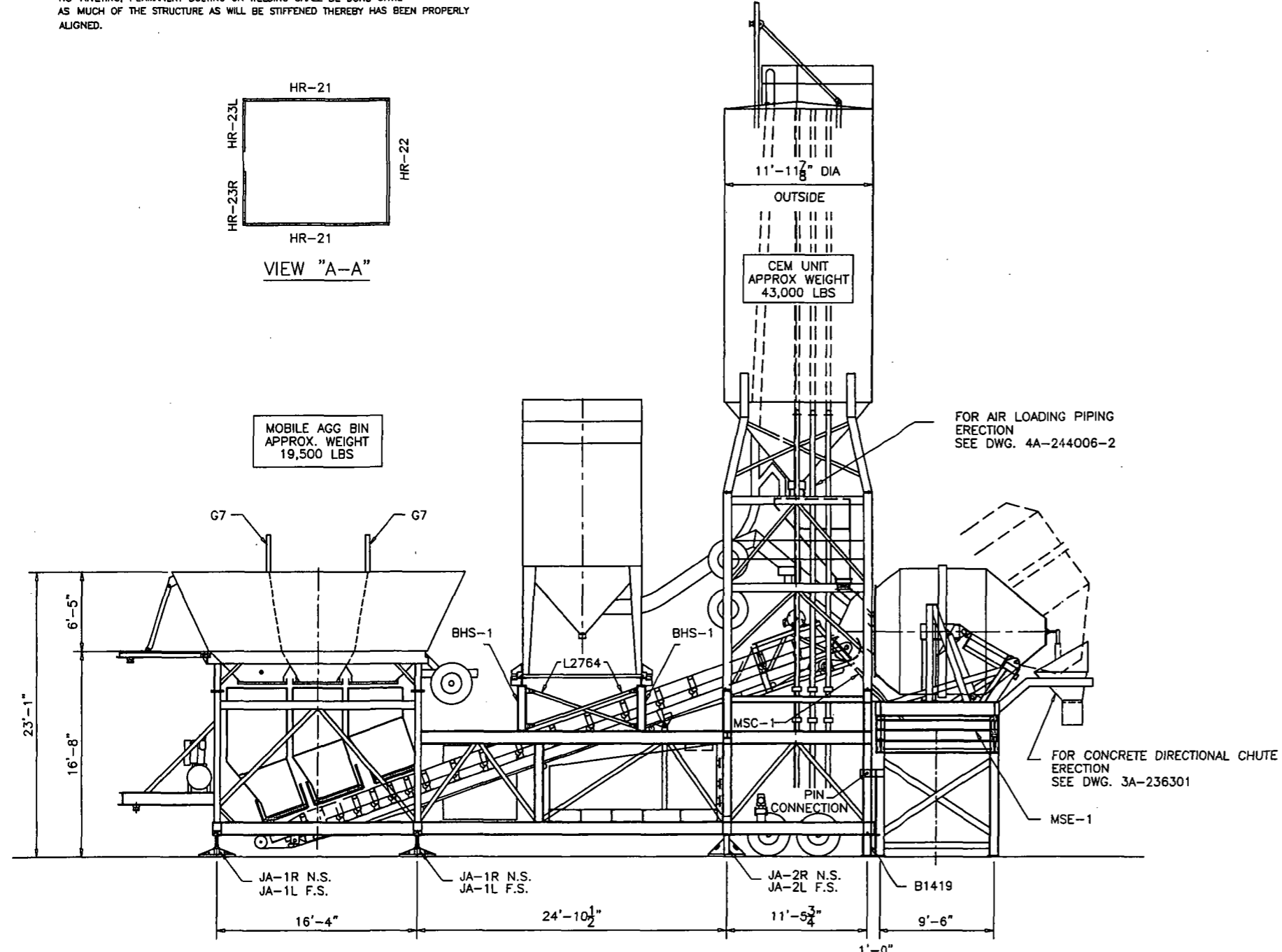
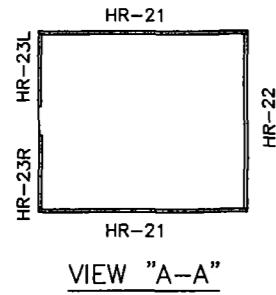
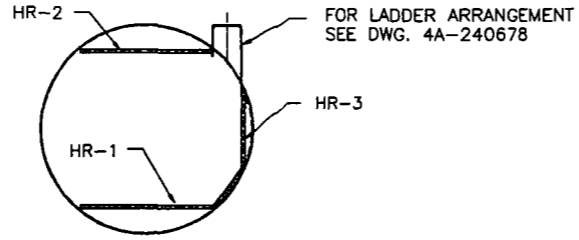
**FIELD NOTE -- WARNING**

LIFTING LUGS SUPPLIED ARE SUITABLE FOR HOISTING SHIPPING SECTIONS (AS INDICATED). ANY ATTEMPT TO HOIST UNITS LARGER THAN SHOWN MAY RESULT IN FAILURE AND ABSOLVES "ERIE STRAYER CO." OF RESPONSIBILITY.

**ERECTION NOTES:**

**TEMPORARY CONNECTIONS:**  
AS ERECTION PROCEEDS, THE WORK SHALL BE SECURELY BOLTED OR WELDED, TO TAKE CARE OF ALL DEAD LOADS, WIND AND ERECTION STRESSES.

**ALIGNMENT:**  
NO RIVETING, PERMANENT BOLTING OR WELDING SHALL BE DONE UNTIL AS MUCH OF THE STRUCTURE AS WILL BE STIFFENED THEREBY HAS BEEN PROPERLY ALIGNED.



AGG UNIT  
APPROX. WEIGHT  
59,000 LBS

MIXER W/ TRAILER  
APPROX. WEIGHT  
72,000 LBS

MIXER SUPPORT  
APPROX. WEIGHT  
8,000 LBS

FIELD BOLT LIST #5008

NO.	REVISION	INTL.	DATE

<b>ERIE STRAYER CO.</b>			
ERE PA			
PLANT ERECTION PLAN			
MG-12CP			
CONTRACT NO.	DRW BY	DATE	CHK BY
MG-7870	DSD	2/22	2006
SCALE	FILE	DRW NO	APP BY
3/16"=1'-0"		4A-247039	

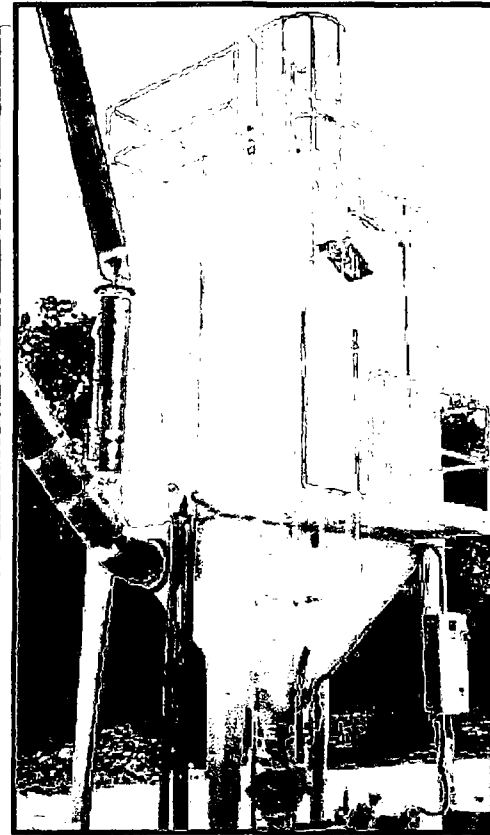
# RA-Series

Central Dust Collectors



## Operating and Service Manual

**\*Includes Parts List**



**C & W Manufacturing and Sales Co.**

© 2004 C & W Manufacturing and Sales Co.



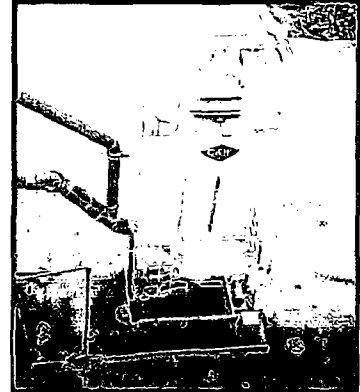
## RA-Series Collectors

### HELPFUL TIP

For the most effective filtration, a small even thickness of material should coat the inside of the filter bags. This helps to trap more dust and improves the effectiveness of the filter bags.

# Principles of Operation

1. Reverse Air collectors are designed to collect the dust from multiple points, such as the mixer truck charging point or central mixer, cement weigh batchers and silos. Ducting is installed to the different dust sources and proper hoods are used to pull the dust into the ducting and down into the collector.
2. The contaminated air enters the multiple compartment dust collector through the lower section and moves into the collector hopper.
3. In the hopper, much of the heavy dust particles settle out of the air stream and into the hopper bottom because of the reduction of air velocity.
4. From the hopper, the dust-laden air flows up through the inside of the filter bags, where the dust particles are trapped. The bags allow the clean air to pass through to the clean air chamber.
5. From there, the air flows through the fan and into the environment.
6. When the reverse air door on top of the unit opens to the air from the environment, the flow of air is reversed through the bags and the cleaning cycle is initiated. This causes the compartment to clean. The cleaning cycle is alternated between the compartments.
7. The cleaning cycle of the filter bags is automatically programmed by the sequence timing panel. The time between cleaning cycles is controlled by one simple timer in the sequence panel.
8. During the bag cleaning cycle, the air diverter door opens above one compartment and simultaneously redirects the air, causing the dust to be released from the bag and fall into the hopper below. The cycle rotates between compartments so each is cleaned in rotation. Only one air diverter door is open at a time. During normal operation, all doors are closed.



OPERATIONS

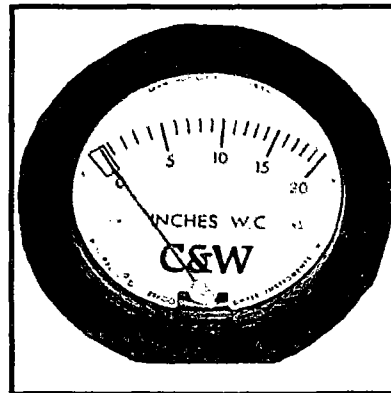
Questions? Call 1-800-880-3878 for C & W Customer Support

## RA-Series Collectors

# Maintenance Procedures

## Reading and Understanding the Mini-Magnehelic Gauge on C&W dust collectors

The Mini-Magnehelic Gauge located on a dust collector shows the differential pressure between the clean air side and the dirty air side of the collector (resistance through the filter media).



This gauge is read in inches of water column (" W.C.). C&W collectors are rated depending on the style, filter media and application.

**RA series are rated for 6" W.C.**

Normal operational range for the RA series ranges from 2" to 5" W.C. When the gauge reads higher than this, the cleaning cycle should be reset to clean more often, thus reducing the gauge reading back to the normal range. If this does not reduce the reading then the filter media requires changing.

### Notes:

1. In normal operations not all collectors will read the same. You can judge the collector after the filter media is seated and has been running for several weeks. Once normal reading for your unit has been determined you will know when to make adjustments to the cleaning cycles.
2. If the gauge reading reads zero while running, this may indicate one of the following problems is present: (1) Torn bag or cartridge, (2) Bag not installed properly, or (3) Diverter doors are open. A closer inspection of the filter media and cleaning system is required.
3. In some instances the application requires the static pressure to be designated higher than the normal settings, mentioned above. Please consult C&W at 1-800-880-3878 for further information under these

### HELPFUL TIP

The filtration media will normally last for 12 months. New media should be installed each Spring season when start-up maintenance is performed. Filter bags can be ordered from C & W and can normally be received within 24 hrs if necessary.

Questions? Call 1-800-880-3878 for C & W Customer Support

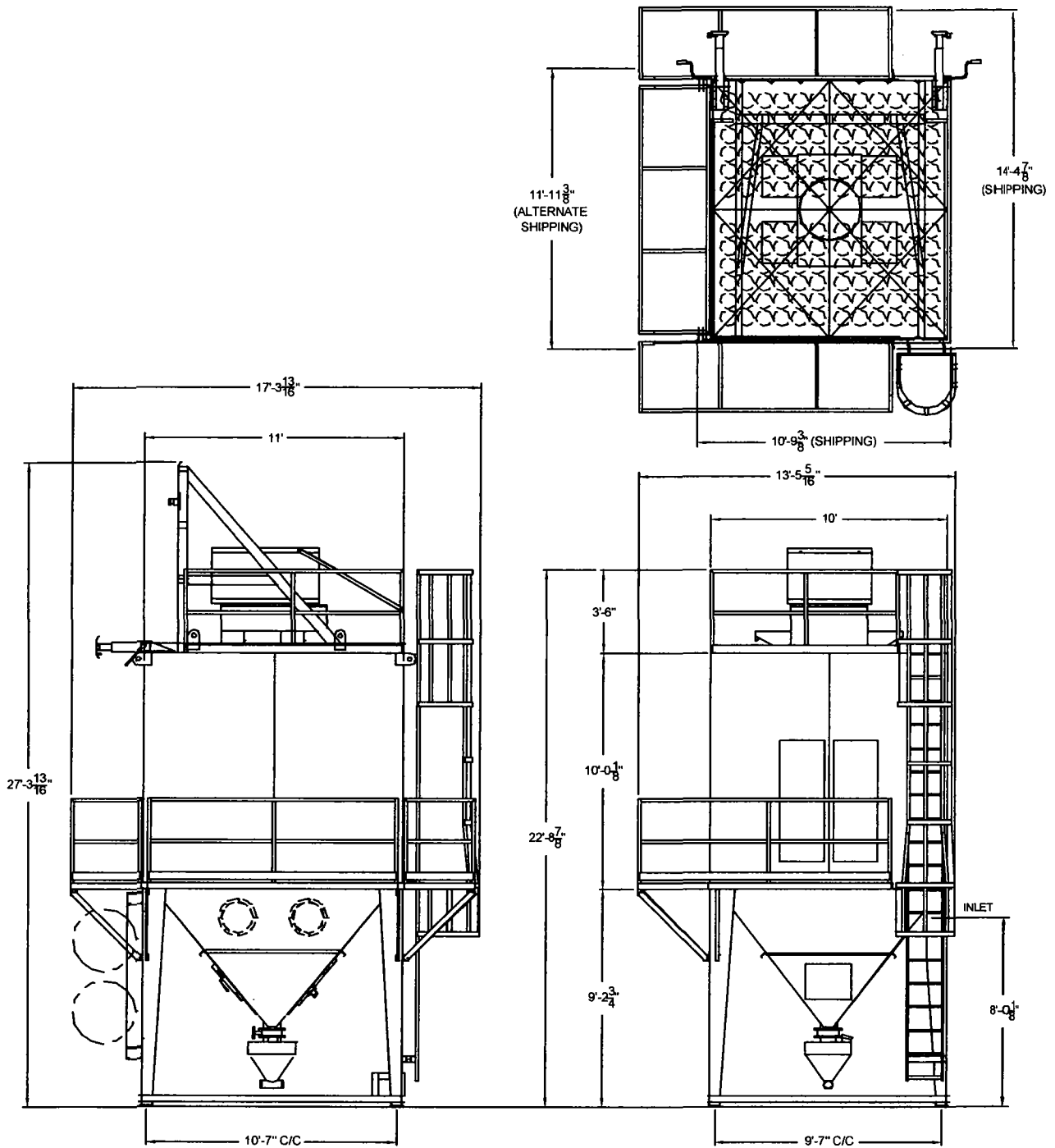
# Specifications

## Reverse Air Central Collectors Specifications

Model Number	RA-120	RA-140	RA-170	RA-200	RA-280	RA-340
Number of Bags	48	72	72	108	144	144
Bag Diameter	8"	8"	8"	8"	8"	8"
Bag Length	114"	114"	138"	114"	114"	138"
Total Filtration Area	955	1433	1734	2148	2865	3468
Min. Design Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
Air to Cloth Ratio (ACFM/Ft.2)	5.2	4.54	4.61	4.66	4.54	4.33
Filtration Velocity (Ft./Min.)	5.2	4.54	4.61	4.66	4.54	4.33
Blower Horsepower	10	10	15	20	25	30
Static Pressure Drop (WC)	6"	6"	6"	6"	6"	6"
Normal Air Capacity	5000	6500	8000	10000	13000	15000
Outlet Area (Ft.2)	1.91	2.29	2.85	2.85	4.19	5.17
Outlet Velocity (Ft./Sec.)	43.6	47.31	46.78	58.48	51.71	48.36
Outlet Moisture Content (Ideally)	0	0	0	0	0	0
Cleaning Mechanism	Reverse Air	Reverse Air	Reverse Air	Reverse Air	Reverse Air	Reverse Air
*Inlet Dust Concentration	75,000	97,500	120,000	150,000	195,000	225,000
*Outlet Emissions (Gr/Min)	75.00	97.50	120.00	150.00	195.00	225.00
*Outlet Dust Loading (Gr/Cf)	0.015	0.015	0.015	0.015	0.015	0.015
<b>*These Calculations Based on Inlet Loading of 15 Gr. / Ft. 3</b>						
<b>Your State Environmental Dept. may request additional information. If so, contact C &amp; W Engineering</b>						

**SPECIFICATIONS**

Questions? Call 1-800-880-3878 for C & W Customer Support



# RA-280 PORTABLE DUST COLLECTOR

## WITH OPTIONAL RECYCLE SYSTEM



C & W MFG. & SALES CO.  
6933 SHELMOR RD.  
ALVARADO, TX. 76009 (817) 790-5000

**UPS Internet Shipping: View/Print Label**

1. **Print the label(s):** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

**3. GETTING YOUR SHIPMENT TO UPS**

**Customers without a Daily Pickup**

Schedule a same day or future day Pickup to have a UPS driver pickup all of your Internet Shipping packages.

Hand the package to any UPS driver in your area.


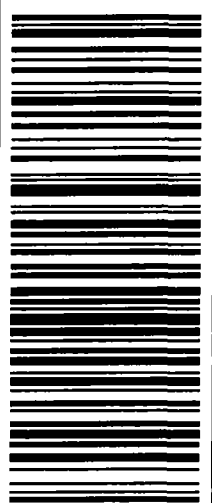

Take your package to any location of The UPS Store®, UPS Drop Box, UPS Customer Center, UPS Alliances (Office Depot® or Staples®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services<sup>SM</sup> (including via Ground) are also accepted at Drop Boxes.

To find the location nearest you, please visit the 'Find Locations' Quick link at ups.com.

**Customers with a Daily Pickup**

Your driver will pickup your shipment(s) as usual.

FOLD HERE

<p>SANDRA CLEMMONS 904-551-7073 ARCHER WESTERN 12855 PHILLIPS HWY JACKSONVILLE FL 32256</p> <p><b>SHIP TO:</b> DICKSON DIBBLE 850-921-9586 FDEP REPORTS 3800 COMMONWEALTH BLVD <b>TALLAHASSEE FL 32303-3123</b></p>	<p><b>FL 323 0-01</b></p> 	<p><b>UPS NEXT DAY AIR SAVER 1P</b></p> <p>TRACKING #: 1Z R04 231 13 9364 0422</p> 	<p>BILLING: P/P</p>  <p>UIS 12.8.10. WNTTBB0 09.0A.10/2010</p>
<p>0.0 LBS LTR</p> <p>1 OF 1</p>			