



Amec Foster Wheeler E&I, Inc.

5845 NW 158th Street, Miami Lakes, FL 33014  
(305) 826-5588 - (305) 826-1799 Fax

# LETTER OF TRANSMITTAL

DATE: Aug. 16, 2016 6783-10-2164

PROJECT NAME: American Tire Recycling

TO: Department of Regulatory and Economic Resource  
Environmental Resources Management  
701 NW 1st Court  
7th Floor  
Miami, FL 33136

ATTENTION: Francisco T. Calleja  
REF: Permit Application

GENTLEMEN:

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via fed ex the following items

☐ Drawings ☐ Reports ☐ Letters ☐ CD ☐ Specs. ☐ Invoices ☐ Change order

☐

IF ENCLOSURES ARE NOT AS NOTED, KINDLY NOTIFY US AT ONCE.

COPIES	DATE	NO.	DESCRIPTION
1	08/16/16		FDEP Waste Tire Processing Facility Permit Application #0303329-002-WT
1	08/15/16		Chec #825035 for \$525

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Resubmit \_\_\_ copies for approval  
☐ For your use ☐ Approved as noted ☐ Submit \_\_\_ copies for distribution  
☒ As requested ☐ Returned for corrections ☐ Return \_\_\_ corrected prints  
☐ For review and comment ☐  
☐ For Bids Due ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS

RECEIVED  
DERM  
AUG 19 2016

POLLUTION REGULATION  
DIVISION

COPY TO By: Ricardo Fraxedas



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Reset Form

Print Form

DEP Form # 62-701.900(23)

Form Title: Waste Tire Processing  
Facility Permit Application

Effective Date: January 6, 2010

Incorporated in Rule 62-711.530(6)

## Waste Tire Processing Facility Permit Application

Permit No. 0303329-002-WT

Renewal ☐

Modification ☒

Existing unpermitted facility ☐

Proposed new facility ☐

### Part I-General Information:

#### A. Applicant Information:

1. Applicant Name: American Tire Recycling Group, LLC

2. Applicant Street Address: 3551 NW 116th Street

3. City: Miami County: Miami-Dade Zip: 33167-2923

4. Applicant Mailing Address: 3551 NW 116th Street

5. City: Miami County: Miami-Dade Zip: 33167-2923

6. Contact person: Alfredo Revati Phone: (954)514-0942

FEID No: \_\_\_\_\_

7. Have any enforcement actions been taken by the Department against the applicant relating to the operation of any solid waste management facility in this state? This includes any Complaint, Notice of Violation, or revocation of a permit or registration, as well as any Consent Order in which a violation of Department rules is admitted. It does not include a Warning Letter, Warning Notice, Notice of Noncompliance, or other similar document which does not constitute agency action.

Yes ☐

No ☒

If yes, attach a history and description of the enforcement actions.

#### B. Facility Information:

1. Facility Name: American Tire Recycling Group, LLC.

2. Facility Street Address (Main Entrance): 3551 NW 116th Street

3. City: Miami County: Miami Dade Zip: 33167-2923

4. Facility Mailing Address: SAME

5. City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

6. Contact Person: Alfredo Revati Phone: (305)688-8566

7. Facility Location Coordinates:

Section: 52 Township: 41 Range: 33

Latitude: 25' 52' 48.6401 Longitude: -80' 15' 27.0309

8. Anticipated date for starting construction N/A and for completion of construction N/A

9. Anticipated date for receipt of tires N/A and for start of processing N/A

Mail completed form to  
appropriate district office listed below

Northwest District  
160 Government Center  
Pensacola, FL 32501-5794  
850-595-8360

Northeast District  
7825 Baymeadows Way, Ste. 200 B  
Jacksonville, FL 32256-7590  
904-807-3300

Central District  
3319 Maguire Blvd., Ste. 232  
Orlando, FL 32803-3767  
407-894-7555

Southwest District  
13051 N. Telecom Pky  
Temple Terrace, FL  
813-632-7600

South District  
2295 Victoria Ave., Ste. 364  
Fort Myers, FL 33902-2549  
239-332-6975

Southeast District  
400 North Congress Ave.  
West Palm Beach, FL 33401  
561-681-6600

**C. Land Owner Information** (if different from applicant):

1. Owner's name: Alfredo Revati
2. Land owner's mailing address: 3551 NW 116th Street
3. City: Miami State: FL Zip: 33167
4. Authorized Agent: \_\_\_\_\_ Agent's phone ( ) \_\_\_\_\_
5. Current lease expires: \_\_\_\_\_

**D. Facility Operator Information** (if different from applicant):

1. Operator's name: Alfredo Revati
2. Operator's mailing address: 3551 NW 116th Street
3. City: Miami State: Florida Zip: 33167
4. Contact person: Alfredo Revati Phone: (305)688-8566

**E. Preparer of Application:**

1. Name of person preparing application: Ricardo Fraxedas
2. Mailing address: 5845 NW 158th Street
3. City: Miami Lakes State: Florida Zip: 33014
4. Phone: (305)818-8448
5. Affiliation with facility: Environmental Engineering Consultant

**Part II-Operations:**

**A. Facility type (check appropriate box):**

- ☒ Waste tire processing facility.
- ☐ Waste tire processing facility with on-site disposal of processed tires or processing residuals.
- ☐ Waste tire processing facility with on-site consumption of waste tires or processing residuals.
- ☐ Permitted solid waste management facility modification to allow waste tire site and processing.

**B. Type of processing facility (check as many as apply):**

- ☒ Shredder ☐ Cutter ☐ Chopper ☐ Incinerator only ☐ Incinerator with energy recovery
- ☐ Pyrolysis ☐ Supplemental fuel user ☐ Other, explain \_\_\_\_\_

**C. Storage:** Indicate the maximum quantities of whole waste tires, processed waste tires, and processing residuals, expressed in tons, to be stored at the facility, in accordance with Rule 62-711.530(2), F.A.C.

	Outdoor Storage(tons)	Outdoor Storage (sq.ft)	Indoor Storage (tons)	Indoor Storage (sq.ft)	Total Storage (tons)
Whole waste tires:	<u>0</u>	<u>0</u>	<u>90</u>	<u>30,000</u>	<u>90</u>
Processed tires:	<u>0</u>	<u>0</u>	<u>60</u>	<u>10,000</u>	<u>60</u>
Processing residuals:	<u>0</u>	<u>0</u>	<u>4</u>	<u>5,000</u>	<u>4</u>
TOTALS:	<u>0</u>	<u>0</u>	<u>154</u>	<u>45,000</u>	<u>154</u>

- D. For reporting quantity of tires in tons, tires will be: weighed on site ☐ weighed off site ☐  
weights will be calculated ☒
- E. Facilities that will not be disposing of processed tires or processing residual on the facility site must indicate the permitted solid waste management facility where processed tires or residuals will be disposed.
1. Name of facility N/A
2. Street address: \_\_\_\_\_
3. City: \_\_\_\_\_ County: \_\_\_\_\_ Zip: \_\_\_\_\_
- F. Facilities that will be delivering processed tires to consuming facilities must describe the existing or proposed markets for those processed tires.
- Recycled tire chips are being sold primarily as mulch. Other uses for sold processed materials include mat fabrication. Current consumers include municipalities for use in public parks.

**Part III-Attachments:****A. Facility design**

NOTE: All maps, plan sheets, drawings, isometrics, cross sections, or aerial photographs shall be legible; be signed and sealed by a registered professional engineer responsible for their preparation; be of appropriate scale to show clearly all required details; be numbered, referenced to narrative, titled, have a legend of symbols used, contain horizontal and vertical scales (where applicable), and specify drafting or origination dates; and use uniform scales as much as possible, contain a north arrow and use NGVD for all elevations.

1. A topographic or section map of the facility, including the surrounding area for one mile, no more than one year old, showing land use and zoning within one mile of the facility *NO CHANGES WERE MADE. RF*
2. A plot plan of the facility on a scale of not less than one inch equals 200 feet. At a minimum, the plot plan shall include *NO CHANGES WERE MADE TO THE FACILITY DESIGN. RF*
  - a. The facility design, including the location and size of all storage and processing areas for used tires, unprocessed waste tires, processed waste tires, and waste tire processing residuals; *NO CHANGE*
  - b. All wetlands and water bodies within the facility or within 200 feet of any storage area; *NO CHANGE*
  - c. Stormwater control measures, including ditches, dikes, and other structures; *NO CHANGE*
  - d. Boundaries of the facility, legal boundaries of the land containing the facility, and any easements or rights of way that are within the facility or within 200 feet of any storage area; *NO CHANGE*
  - e. Location, size, and depth of all wells within the facility or within 200 feet of any storage area; *NO CHANGE*
  - f. All structures and buildings that are, or will be, constructed at the facility; include those used in storage and processing operations; *NO CHANGE*
  - g. All areas used for loading and unloading; *NO CHANGE*
  - h. All access roads and internal roads, including fire lanes; *NO CHANGE*
  - i. Location of all fences, gates, and other access control measures; and *NO CHANGE*
  - j. Location of all disposal areas within the facility. *NO CHANGE*

**B. Facility operation.**

1. A description of the facility's operation, process and products including how waste tires will be received and stored. *NO CHANGE. RF*
2. A description of the equipment used for processing tires. This description shall include the make, model, and hourly capacity of each piece of equipment. *SEE ATTACHMENT - ONLY OPERATING TIME OF EQUIPMENT IS PROPOSED RF*
3. Description of the waste from the process, the amount of waste expected and how and where this waste will be disposed of. *NO CHANGE IS PROPOSED RF*
4. Statement of the maximum daily throughput and the planned daily and annual throughput. *SEE ATTACHMENT*
5. A description of how the operator will maintain compliance with each of the storage requirements of Rule 62 - 711.540, F.A.C. *NO CHANGE TO STORAGE COMPLIANCE IS PROPOSED. RF*
6. A copy of the emergency preparedness manual for the facility with a statement of the on site and off site locations where that manual will be maintained. *NO CHANGE IS PROPOSED RF*
7. A copy of the fire safety survey *NO CHANGE RF*
8. A description of how 75% of the annual accumulation of waste tires will be removed for disposal or recycling. *NO CHANGE RF*

- C. Completed closing plan for the facility as required by Rule 62-711.700(2) and (3), F.A.C. *NO CHANGES ARE PROPOSED FOR THE CLOSURE PLAN RF*

- D. Attach proof of financial responsibility as requirement by Rule 62-711.500(3) OR a calculation showing that financial assurance documents, currently on file with the Department, are sufficient to assure closing of the waste tire site as well as any other solid waste management facility at that location.
- E. A letter from the land owner (if different from applicant) authorizing use of the land as a waste tire processing facility.
- F. If waste tires will be consumed or disposed of at the facility, attach a description of the other environmental permits that the applicant has for this use, including, permit number, date of issue, and name of issuing agency
- G. The permit fee as required in Rule 62-4, F.A.C.

**Part IV-Certification:**

**A. Applicant:**

The undersigned applicant or authorized representative of American Tire Recycling Group, LLC  
Is aware that statements made in this form and attached information are an application for a  
Permit modification Permit from the Florida Department of Environmental Protection and certifies that  
The information in this application is true, correct and complete to the best of his knowledge and belief.  
Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Department will be notified prior to the sale or legal transfer of the facility

[Signature]  
Signature of Applicant or Authorized Agent

Alfredo Reviati / President  
Name and Title

7-29-16  
Date

**B. Professional Engineer registered in Florida.**

This is to certify that the engineering features of this waste tire processing facility have been  
Designed/examined by me and found to conform to engineering principals applicable to such facilities. In my  
professional judgment, this facility, when properly maintained and operated will comply with all applicable statutes of  
the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a  
set of instructions for proper maintenance and operation of the facility.

[Signature]  
Signature

5845 NW 158th Street  
Mailing Address

Ricardo Fraxedas/Principal Engineer  
Name and Title

Miami Lakes, FL 33014  
City, State, Zip

43287  
Florida Registration Number

305-818-8448  
Telephone number

(please affix seal)



8/15/16  
Date

Florida Department of Environmental Protection  
Waste Tire Processing Facility Permit Application for  
Modification of Permit 0303329-002-WT

Part III – Attachments

A. Facility Design

There has been no change to the facility design since the original construction permit for the facility was issued. Two primary shredders and one secondary shredder have been replaced due to wear and tear (and failure) of the original equipment. The replacement machines are of similar capacity to the original permitted equipment. The replacement machines were manufactured in the USA whereas the original equipment was manufactured in China.

Specifically, 2 Eco Green Shredders were replaced with 2 CM Dual-Speed Shredders and 1 Eco Grater was replaced with 1 CM (CM4R) Liberator. The manufacturer specifications for the replacement equipment is provided in the following pages.

B. Facility Operation

There have been no changes to the operation of the facility since the approval of permit 0303329-002-WT. The previously permitted storage capacity will remain the same whereas the production rate is requested to be increased from 12,000 tires per day to up to 28,000 tires per day as a result of the equipment replacement described in Section A - Facility Design and the increased production up time.

Primary shredder capacity - The capacity of the CM Dual-Speed Shredders is up to 1,200 tires (12 tons) per hour each (2,400 tires per hour for both) or up to 38,400 tires per 16 hours.

Secondary shredder capacity - The capacity of the secondary shredders is: 1) the CM4R Liberator up to 9 tons per hour (900 tires per hour) and 2) the Eco Grater up to 5 tons (500 tires) per hour. Combined secondary shredder capacity is 14 tons (1,400 tires) per hour or 22,400 tires per 16 hours. Please note that it is not necessary to process all tire material through both a primary and a secondary shredder to produce a marketable product. Some product is sold after processing only through a primary shredder. As such, a 28,000 tire per day processing capacity is achievable with the existing equipment operating at less than the equipment's maximum capacity.

C. Facility Closure Plan

The facility closure plan has not been changed and remains the same as previously approved by the Department.

## DUAL-SPEED TIRE SHREDDER

### Rugged & Ready

The CM Dual-Speed Tire Shredder is designed to process higher capacities and heavier tires than the Single-Speed Shredder. It can shred whole tires at a rate up to 12 tons per hour; which is as many as 1,200 passenger or 200 truck tires. It's rugged enough to cut whole tires up to 48" in diameter, including steel-belted radials, in just one step.

#### Turnkey Ready

This turnkey whole tire-to-chip system includes all stands, platforms and conveyors and comes completely pre-wired — to quickly have you up and operational. And since it's designed for simplicity, you can keep your labor cost down to a minimum.

#### Features at a glance:

- Utilizes CM's Patented Knife Design
- Offered in mobile configurations
- Two-speed drive ensures energy efficient operation
- Patented classification and recirculation systems for easy monitoring of performance

#### The Cleanest Cuts in the Tire Recycling Industry

Our patented MULTI-STACK knife design operates at extremely close tolerances which produces the industry's cleanest cut with very little exposed wire. The knives can be resharpened and reused which significantly increases lifespan and decreases costs.

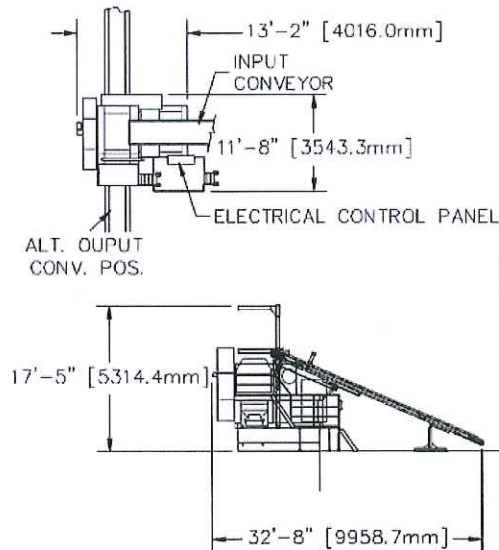
#### Whole Tire Production Rates

Primary Shred	22 to 24 tons / hour
2" (50mm) Chip Size	8 to 12 tons / hour
1 1/2" (38mm) Chip Size	6 to 8 tons / hour
1" (25mm) Chip Size	4 to 6 tons / hour

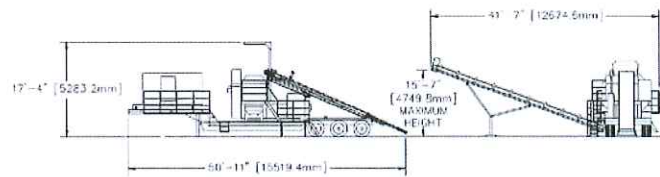


For more information or to see the Dual-Speed Tire Shredder in action, please visit [www.cmtirerecyclingequipment.com](http://www.cmtirerecyclingequipment.com)

## Dual-Speed Tire Shredder Engineering



**STATIONARY SHREDDER** 60,000 LBS. INCLUDES PLATFORMS AND CONVEYORS  
(27,215 KG)



**MOBILE SHREDDER** 85,000 LBS. INCLUDES PLATFORMS AND CONVEYORS  
(38,555 kg)

### Customer Service is Second to None.

We carry a complete line of replacement parts for all CM Tire Shredding Systems with shipping on standard parts within 24 hours. Our dedicated Customer Service Team is available to take your part orders via email, telephone or fax. We use various freight carriers to ensure you will receive your package on time and at the lowest cost.

We also provide Field Service Technicians support if your equipment needs maintenance or repairs. Depending on location, our technicians can generally be on your site within 24 hours.



For more information,  
please call us at  
**(800) 848-1071 or (941) 755-2621**

**CM Tire Recycling Equipment Solutions**

1920 Whitfield Avenue • Sarasota, Florida 34243 • (800) 848-1071 • (941) 755-2621 • Fax: (941) 753-2308  
[www.cmtirerecyclingequipment.com](http://www.cmtirerecyclingequipment.com)

Stock #TESPS-DSTS1 6/09 GK



COLUMBUS MCKINNON CORPORATION  
SARASOTA OPERATIONS  
1920 WHITFIELD AVENUE  
SARASOTA, FL 34243  
PHONE 941/755-2621 FAX 941/753-2308  
[www.cmtirerecyclingequipment.com](http://www.cmtirerecyclingequipment.com)

## CM STATIONARY DUAL SPEED TIRE SHREDDER SPECIFICATIONS

### A. Drive Assembly

Main Motor	250 H.P., High Efficiency, T.E.F.C. Motor
Motor Coupling	Para-Flex #PX140, Flex Coupling
Gear Reducer	Maximum 17:1 ratio
Two Speed	20 RPM passenger, 10 RPM truck

### B. Shredder Gear Box

Construction	2" thick steel, welded construction
Drive Gears	AISI 4320 hardened and toughened by our exclusive tool steel process. 56-62 RC in accordance with Agma Quality Class 5-6 specifications
Lubrication	Gears are lubricated in an oil bath/oil splash for maximum lubrication. Temperature and oil level sight gauge included.

### C. Cutting Chamber

Frame	6 - 1/2" mild steel, bolted construction
Main Bearings	#23248 spherical roller, 17 -1/2 " OD
Shafts	AISI 4140 pre-hardened, 9 -1/2" dia., 1" wide keyed
Rotors	A-36 mild steel, 21" dia., keyed and heat shrunk to shaft
Knives	Enhanced machine tool steel 60-62RC
Wear Plates	A-2 steel; 60RC
Opening	48" x 48"

### D. Base

Construction	8" I-beam, welded construction
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### E. Feed Rollers

Drive	Chain driven from main shredder shafts
Shafts	Mild steel, 3 -1/2" dia., X 79" long
Feeders	12 per shaft
Bearings	Pillow block

### Choose only one from the following group (F. through K.)

#### F. 4" Classifier- SINGLE DECK

Drive Motor	3 HP T.E.F.C. chain drive
Bottom Deck	9 sizing shafts, 6 -7 daisy wheels per shaft
Lubrication	All bearings plumbed to a central lubrication block

**G.     3" Classifier**

Drive Motor	3 HP T.E.F.C. chain drive
Top Deck	8 sizing shafts, 6 – 7 daisy wheels per shaft
Bottom Deck	9 sizing shafts, 6 – 7 daisy wheels per shaft
Lubrication	All bearings plumbed to a central lubrication block

**H.     2" Classifier**

Patented double deck disk type

Drive Motor	3 HP T.E.F.C. chain drive
Top Deck	8 sizing shafts, 6 – 7 daisy wheels per shaft
Bottom Deck	9 sizing shafts, 9 daisy wheels per shaft
Lubrication	All bearings plumbed to a central lubrication block

**I.     1-5/8" Classifier**

Patented double deck disk type

Drive Motor	3 HP T.E.F.C. chain drive
Top Deck	8 sizing shafts, 6 – 7 daisy wheels per shaft
Bottom Deck	11 sizing shafts, 9 daisy wheels per shaft
Lubrication	All bearings plumbed to a central lubrication block

**J.     1-1/2" Classifier**

Patented double deck disk type

Drive Motor	3 HP T.E.F.C. chain drive
Top Deck	8 sizing shafts, 6 – 7 daisy wheels per shaft
Bottom Deck	11 sizing shafts, 12 – 13 daisy wheels per shaft
Lubrication	All bearings plumbed to a central lubrication block

**K.     1" Classifier**

Patented double deck disk type

Drive Motor	3 HP T.E.F.C. chain drive
Top Deck	8 sizing shafts, 6 – 7 daisy wheels per shaft
Bottom Deck	13 sizing shafts, 17 – 18 daisy wheels per shaft
Lubrication	All bearings plumbed to a central lubrication block

**L.     Re-circulation Drum**

Drive Motor	3 H.P. T.E.F.C. chain drive
Diameter	8'
Width	18"

**M.     Input Conveyor System**

Dimensions	36" wide by 29' long. (telescoping on mobile units only)
Drive Motor	2 HP variable speed
Construction	Flat rubber belt, roller bed type

**N.     Output Conveyor System**

1 <sup>st</sup> Conveyor	9' long x 24" wide
2 <sup>nd</sup> Conveyor	33' long x 24" wide
Drive Assembly	1 HP T.E.F.C. (9'), V-belt drive
	2 HP T.E.F.C. (33"), V-belt drive
Construction	Trough roller, rubber belt type

**O. Electrical Controls**

1. Electrical equipment suitable for operation with 480 volt, 60 Hertz, three phase power.
2. 800 ampere minimum service required.
3. Control circuit is grounded (24 Volt DC)
4. All wiring fused
5. All wiring numbered
6. PLC with HMI, Touch Screen Controls
7. Key lockout protection provided

**P. General**

Warranty	One (1) year after shipment date
Guards	All external, exposed, moving components are guarded.

<b>Q. <u>Weight</u></b>	60,000 LBS. (27,215 KG)
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Tire Recycling Equipment Solutions  
For Profit and Planet.

## THE CM4R LIBERATOR

### The Ultimate in Wire Separation Technology

The CM4R Liberator's unique design allows it to separate the wire from rubber tires in the purest, cleanest form possible, allowing processors to generate revenue streams from both rubber and wire.

#### Key Features for Greater Production with Less Downtime

The CM4R Liberator has a serrated knife design which gives each knife more linear inches of cutting surface. The larger cutting surface means less time is needed to process tire material, thus lower energy consumption. The Liberator's over-sized screening area permits efficient screening and separation of wire and rubber.

Along with increased production comes increased wear. The CM4R Liberator addresses this situation with its exclusive "Armor-Plated" rotor and rotor housing, which dramatically reduces wear to internal components. The internal wear surfaces are lined with replaceable wear liners that are easily changed when worn. This exclusive feature of the CM4R Liberator eliminates the need for any maintenance welding and results in greater machine "uptime".

Combine these features with the patented "flow-through" design that reduces pinch points and you have the most profitable tire wire liberating systems available for the tire recycling industry today.

#### Operational Benefits Include:

- High production with low maintenance
- Serrated knife design for maximum cutting area
- Reversible screens
- Powered screen cradle for quick changes
- Exclusive "Armor-Plated" rotor and rotor housing
- "Flow Through" design
- Removable rotor housing
- Easy access to rotor chamber and screen
- Low shaft RPM to reduce operating temperature
- Service drive for ease of maintenance
- Patented Technology

#### Production Rates - Passenger & Truck Tires

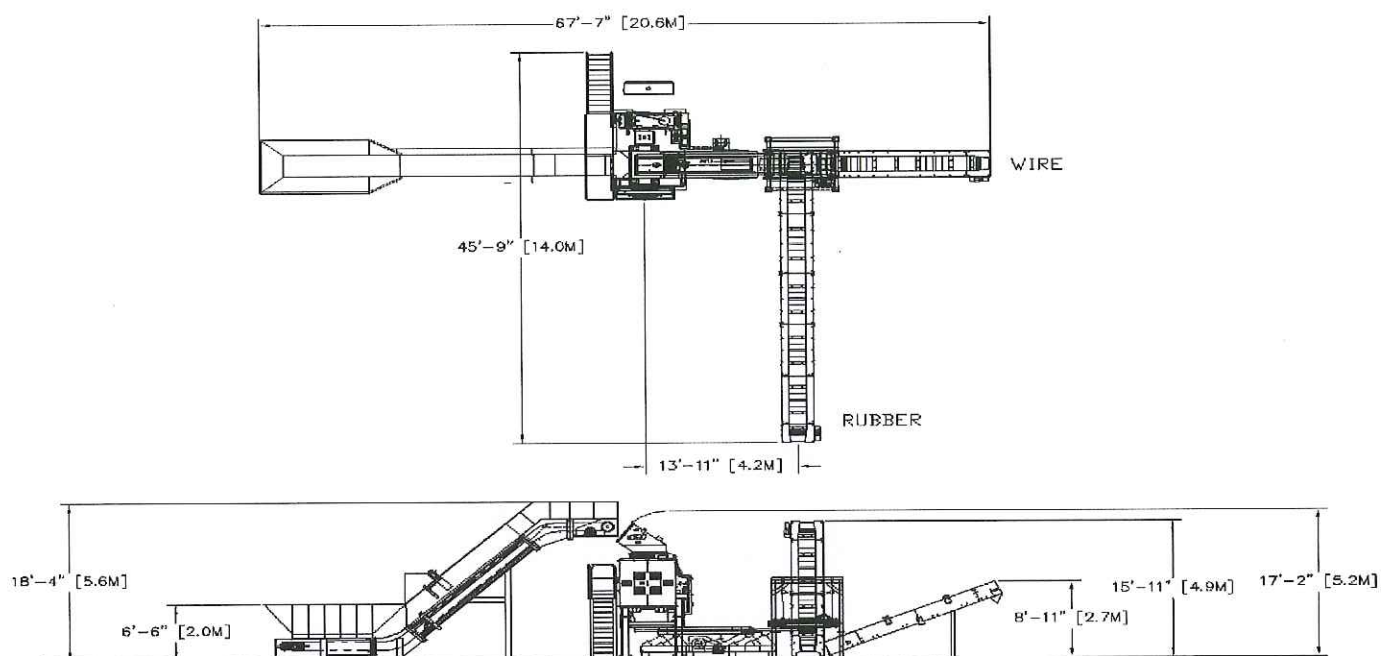
5/8" Screen	3 TPH
3/4" Screen	5 TPH
1.00" Screen	6 TPH
1.25" Screen	7 TPH
1.5" Screen	8 TPH
1.75" Screen	9 TPH

*\* Production rates may vary depending on specific application*



For more information or to see the CM Liberator in action  
please visit: [www.cmtirerecyclingequipment.com](http://www.cmtirerecyclingequipment.com)

## The CM4R Liberator Engineering



### Customer Service is Second to None

We carry a complete line of replacement parts for all CM TireProcessing Equipment with shipping on standard parts within 24 hours. Our dedicated Customer Service Team is available to take your part orders via email, telephone or fax. We use various freight carriers to ensure you will receive your package on time and at the lowest cost.

HEIGHT (in/cm)	208/528
WIDTH (in/cm)	86/218
LENGTH (in/cm)	176/447
FEED OPENING (in/cm)	38/96
DISCHARGE OPENING (in/cm)	40/102
BEARING TYPE	OUTBOARD PILLOW BLOCK
BEARING DIAMETER	18/44
MOTOR (hp/kw)	400/315
WEIGHT (lb/kg)	82000/37194

We also provide Field Service Technicians support if your equipment needs maintenance or repairs. Depending on location, our technicians can generally be on your site within 24 hours.

For more information please call us at  
(800) 848-1071 or (941) 755-2621



**CM** Tire Recycling Equipment Solutions

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[www.cmtirerecyclingequipment.com](http://www.cmtirerecyclingequipment.com)



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SARASOTA OPERATIONS  
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PHONE 941/755-2621 FAX 941/753-2308  
[www.cmtirerecyclingequipment.com](http://www.cmtirerecyclingequipment.com)

## **CM LIBERATOR™ MODEL CM4R SPECIFICATIONS**

### **A. Drive Assembly**

Belt Drive                      Parallel Shaft Gear Reducer Belt Driven with 400 HP, High Efficiency Motor

### **B. Rotor Housing**

Frame                              2" mild steel, bolted construction  
Main Bearings                  Outboard, Pillow Block, spherical roller  
Shaft                                AISI 4140 pre-hardened, 11" dia., keyed  
Rotors                              A-36 mild steel, 36" diameter, 9" Long, keyed to shaft  
Rotor Quantity                  4  
Knives                              Serrated, 2-1/8" thick solid, machine tool steel 60-62 RC  
Fly Knives                        32  
Static Knives                    11  
End Block Knives                2  
Wear Plates                      AR 500 steel; Reversible  
Opening                          36" x 36"

### **C. In-feed Opening**                      38"

### **D. Base**

Construction                    8" A-36 Steel Plate on welded modular tubular frame

### **E. Screen**

Screen Cradle                   Bolted Construction, 40" Long  
Screen                              Two piece, Reversible & Interchangeable 21" Radius  
Sizes                                5/8" – 1-3/4" available

### **F. Electrical Controls**

Electrical equipment suitable for operation with 480 volt, 60 Hertz, three phase power.

1. Soft Start Unit
2. Control circuit is grounded (24 volt DC)
3. All wiring fused
4. All wiring numbered
5. PLC with HMI, Touch Screen Controls
6. Key lockout protection provided

### **G. General**

Warranty                          One (1) year, or 2080 hours after shipment date  
Guards                              All external, exposed, moving components are guarded.

### **H. Weight**                                      85,000 pounds



## ECO Graters – Secondary Shredders

### Equipment Introduction

ECO Green's Graters are the ultimate machines for mid-stream grinding and steel separation. It is designed to take pre-shredded tires chips and produce between 44-16 mm (1.75" and 0.625") wire free rubber chips. The ECO Grater has three models which can process up to 5 tons of input per hour. The main rotor housing is equipped with replaceable wear plates to increase the durability and longevity of the cutting chamber. Another unique feature of this machine is the ability to turn the knives once before having to send them to be sharpened or replaced, minimizing operating costs.



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# ECO GREEN

EQUIPMENT



## Equipment Specifications

Specifications	ECO 1500-G	ECO 1250-G	ECO 1200-G
Motor Type	Electric	Electric	Electric
Number of Motors	1	1	1
HP/KW Motor Size	400 HP/315 KW	350 HP/230 KW	150 HP/132 KW
Voltage	as per customer request	as per customer request	as per customer request
Cutting Chamber L x W	1562 mm x 697 mm (62 inches x 28 inches)	1058 mm x 697 mm (42 inches x 28 inches)	806 mm x 697 mm (48 inches x 28 inches)
Equipment Dims L x W x H	6217 mm x 1868 mm x 4561 mm (245" x 74" x 180")	5702 mm x 1868 mm x 4686 mm (225" x 74" x 185")	5198 mm x 1868 mm x 4686 mm (205" x 74" x 185")
Equipment Weight	24000 Kg (52,911 lbs)	20000 Kg (44,000 lbs)	6100 Kg (13,448 lbs)
Hopper Opening L x W x H	1726 mm x 877 mm x 906 mm (68" x 35" x 36")	1006 mm x 493 mm x 1026 mm (44" x 20" x 41")	1412 mm x 902 mm x 1410 mm (56" x 36" x 56")

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Input Capacity	up to 7 tons/hr.	up to 4 tons/hr.	up to 2 tons/hr.
Max Recommended Input Size	6 inches / 150 mm	6 inches / 150 mm	6 inches / 150 mm
Product Size Range	44 mm - 16 mm chips (1.73" - 0.62")	44 mm - 16 mm chips (2" - 1")	44 mm - 16 mm chips (2" - 1")
Est. Wear Costs	\$6-9 USD per ton	\$6-9 USD per ton	\$6-9 USD per ton
Est. Duration of Blades	Up to 80,000 PTE before resharpening (Can be resharpened up to 6 times)	Up to 80,000 PTE before resharpening (Can be resharpened up to 6 times)	Up to 80,000 PTE before resharpening (Can be resharpened up to 6 times)
Concrete Pad Thickness	400 mm (16 inches)	400 mm (16 inches)	300 mm (12 inches)
Description ECO 1500-G	<p>ECO Green's 1500-G Grater is the ultimate single-shaft machine for mid-stream grinding and steel separation. Powered by a 315 KW (400 HP) electric motor, the 1500-G features a 1562 mm x 697 mm (62 inch x 28 inch) cutting chamber.</p> <p>The ECO 1500-G Grater can process pre-shredded tire chips and produce between 44 mm (1.75 inch) and 16 mm (0.62 inch) wire free rubber chips and input up to 7 tons/hour. Product size can be modified by adjustable screens for exact output requirements.</p>		
Description ECO 1250-G	<p>ECO Green's 1250-G Grater is the ultimate single-shaft machine for mid-stream grinding and steel separation. Powered by a 230 KW (350 HP) electric motor, the 1250-G features a 1058 mm x 697 mm (42 inch x 28 inch) cutting chamber.</p> <p>The ECO 1250-G Grater can process pre-shredded tire chips and produce between 44 mm (2 inch) and 16 mm (1 inch) wire free rubber chips and input up to 4 tons/hour. Product size can be modified by adjustable screens for exact output requirements.</p>		

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