

## Radial™ Granulators

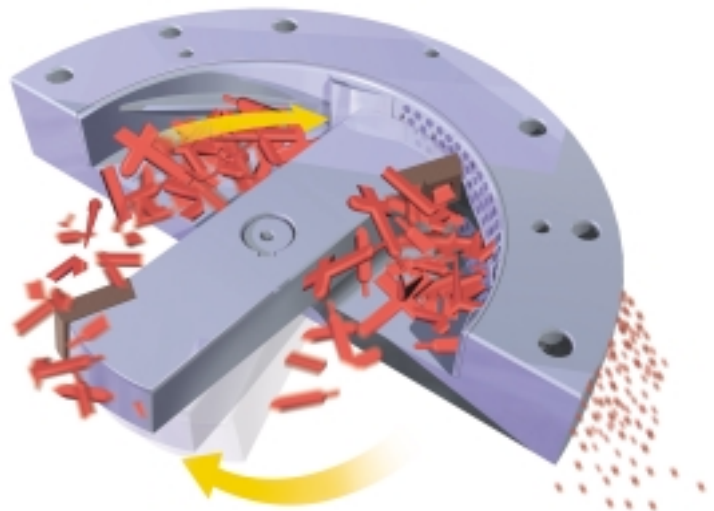


Shown left to right:  
Model R9; Model R18

- 3 year warranty (the longest, most comprehensive granulator warranty in the industry)
- Small footprint:  
(R9 - 16" x 16")  
(R18 - 28" x 29")
- Reduced noise level
- Easy and safe cleanout
- Very low cost
- Easy-access screen ring
- Eliminates flyback
- Low dust and fines
- Manual or robot feed hoppers

The Maguire Radial™ Granulator features a patent pending rotary cutting method which delivers superior performance at a lower price than conventional granulators. The unique rotary cutting action eliminates flyback and requires less torque for granulation. The unit delivers 6 cuts per revolution or 10,500 cuts per minute with a 1,750 rpm motor. Two feed throat openings are available: 6" x 7.5" (R9) and 12.5" x 12.5" (R18). The Radial Granulator is safely and easily disassembled for quick material change. The front access door is fully interlocked and easily opened to enable unlimited access to material contact surfaces.

*Patent pending radial cutting design guides the scrap into the knives and through the screen resulting in very high throughput.*



## How Radial<sup>™</sup> Granulators Work

In a conventional granulator the rotor turns at speeds as low as 200 rpm around a horizontal axis and describes a cylindrical path in the cutting chamber. The rotor in the Maguire Radial Granulator moves in a circular path around a vertical axis at 1,750 rpm creating

far more centrifugal force which drives scrap to the knives and through the screen. The combination of very low residence time in the cutting chamber and close tolerances between the cutting edges of the knives dramatically reduces the creation of dust and fines.

High air flow through the chamber is also inherent to the design of the Radial Granulator. This aspect not only promotes movement of granulate through the screen, but also reduces temperature in the cutting chamber improving the quality of the granulate.

### Fast, safe cleanout

For cleanout, operators can gain easy access to all material contact surfaces by means of the unit's fully interlocked front door.



Easy-access hinged door



Inner hopper removal



Screen ring removal

SPECIFICATIONS	R9	R9 OPTIONS	R18	R18 OPTIONS
Cutting Chamber	Rotary, 9" Diameter		Rotary, 18" Diameter	
Feed Throat	6" x 7.5"		12.5" x 12.5"	
Drive	3 HP, 1750rpm, Direct Drive	5 HP, 1750rpm, Direct Drive	7.5 HP, 1750rpm, Direct Drive	10HP, 1750rpm, Direct Drive
Throughput	Up to 400 lb/hr		Up to 1000 lb/hr	
Weight	400 lbs.		1000 lbs.	
Rotor Knives	(2) D2 Steel HT - Hook Style		(2) D2 Steel HT - Hook Style	
Bed Knives	(3) 4-edge D2 Steel Adjust.		(3) 4-edge D2 Steel Adjust.	
Screen Ring	1/2" Diameter Drilled Holes	1/8" to 7/16" (1/16" increm.)	1/2" Diameter Drilled Holes	1/8" to 7/16" (1/16" increm.)
Hopper	Manual or Robot Feed		Manual or Robot Feed	
Cabinet	Unibody		Unibody	
Discharge Bin	Manual	Vacuum Takeoff	Vacuum Takeoff	
Controls	Single location, fully interlocked		Single location, fully interlocked	
Overall Dimensions	16"w x 16"d x 57"h (Manual) 16"w x 16"d x 65"h (Robot)		28"w x 29"d x 70"h (Manual) 28"w x 29"d x 87"h (Robot)	

# Shuttle™ Granulators



*Model S-30 shown above*

The Maguire Shuttle™ Granulator is a low cost alternative to conventional size-reduction of any large parts or purgings. This completely new type of plastics granulator automatically transforms large reject parts, purgings and other bulky or difficult-to-handle scrap into high-quality regrind but costs substantially less than conventional equipment.

Until now, size-reducing large parts has meant buying a massive heavy-duty granulator, using a shredder in combination with a standard granulator, or cutting the parts with a saw before granulation.

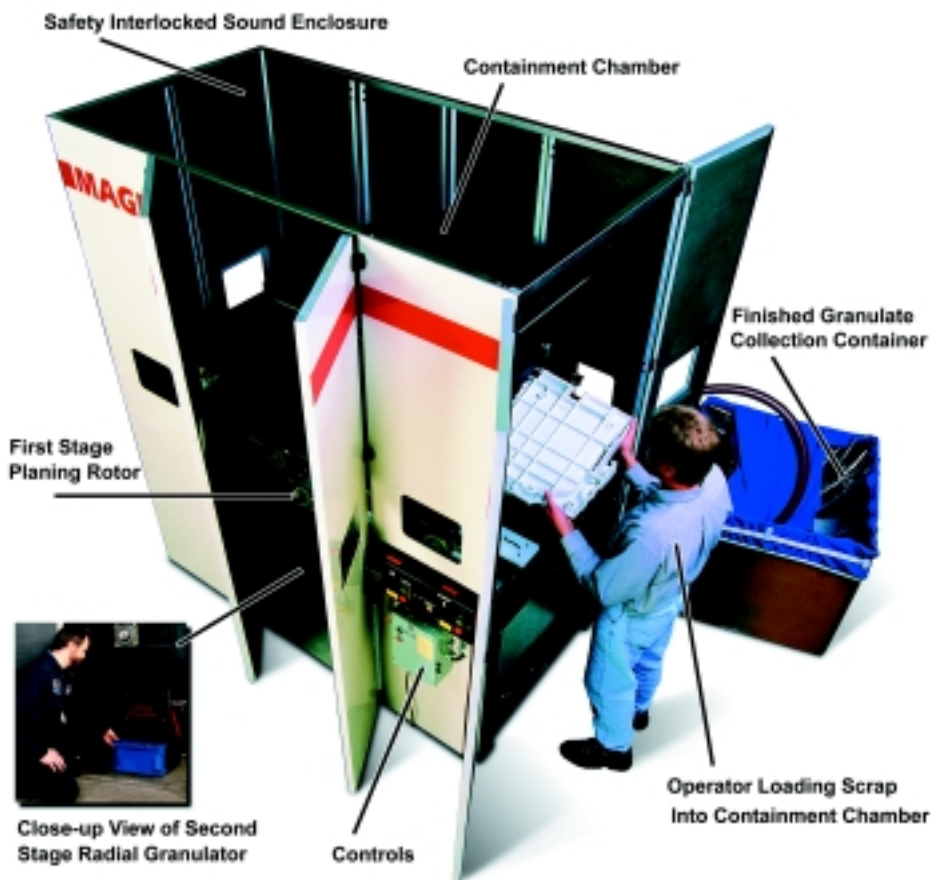
The Shuttle Granulator is a two-stage system that in the first stage literally planes reject parts into small pieces. In this "planing" stage the scrap or reject part is automatically shuttled back and forth over a table surface that is split into two levels like a carpenter's plane. Mounted in between the two levels is a staggered knife rotor that turns at 1750 rpm. This rotor reduces the scrap into small pieces and propels them into the hopper of a Radial Granulator. This Radial Granulator is positioned directly below the planer and performs the second stage by size reducing the pieces into highly uniform regrind meeting the particle size requirement of your operation.



*Model S-20 shown above*

## How Shuttle™ Granulators Work

- The operator places the plastic part or bulk scrap in a containment chamber that is parked in the home position at the upper table level.
- Upon pushbutton activation by the operator, the containment chamber shuttles on rails toward the lower table level. The scrap then passes over the rotor that is turning in the same direction as that of the shuttle movement. When the containment chamber reaches the other end of the table, it reverses direction, and the part is fed into the rotor knives.
- Small pieces produced by the rotor knife are propelled downward into the hopper of the Radial Granulator, as the containment chamber continues to shuttle back and forth across the rotor.
- The cycling continues until the scrap is consumed or a cycle timer elapses. This timer provides an automatic stop to allow reloading of scrap.



### Single Stage Available

The system is available in a single-stage set-up in which the second stage Radial Granulator is not supplied. In this configuration the shredded scrap from the planing stage drops into a container for transfer to another operation.

The simplicity and low cost of the planing operation are not the only advantages of the Shuttle Granulator. Retained in the system are the advantages afforded by the Radial Granulator. Among the most valuable of these are the quality and consistency of the granulate that it produces and the degree to which common workplace problems such as flyback, dusting and noise are eliminated.

SPECIFICATIONS	DESCRIPTION
Overall Dimensions S-20	W x D x H 30" x 66" x 54" 40" x 66" x 58" 72" x 130" x 100"
Shuttle Drive	1/6 HP, Rack and Pinion Drive, 110V / 1 Phase
Rotor Drive	5 HP, 1750 rpm, Direct Drive, 480V / 3 Phase
Planing Rotor	8, 12 or 24 Knife, Staggered
Controls	Interlocked, Sequenced Control For Operator Safety
Containment Chamber	W x D x H 20" x 30" x 20" 30" x 30" x 20" 60" x 60" x 60"
S-30	
S-60	

## Heavy Duty Granulators



Maguire manufactures heavy duty granulators for high throughput and long life. Maguire granulators provide uncommon productivity, more uptime, and greater versatility than other large machines on the market.

Besides being rugged, Maguire granulators are more user-friendly than conventional units and provide easy, safe access to the cutting chamber for cleaning or changing knives. With minimal disassembly the rotor can be removed on-site for repair or replacement making it unnecessary to return the unit to the manufacturer for rotor removal. This versatile design allows the user to change applications while utilizing the same cutting chamber.

Drive motors range from 100 to 250 HP for applications such as:

- Heavy purgings
- High volume materials like post-consumer waste or film
- Tough or abrasive products like electrical cable,
- Large moldings like automotive body panels and blow molded containers.

A proprietary QuaDischarge™ base provides diverse material discharge options including discharge to pneumatic conveying systems, drums, gaylords, or mechanical conveyors.

### Easy Maintenance



*Easy rotor removal through top of cutting chamber*



*Fast, safe cleanout*

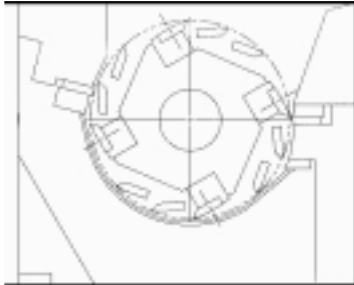


*Replaceable wear surfaces*

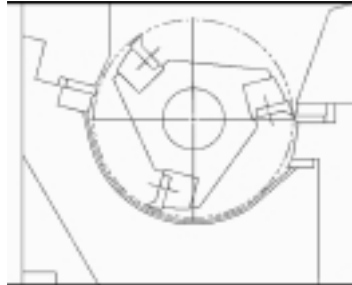
## How Heavy Duty Granulators Work

### INNOVATIVE CUTTING CHAMBER

- Increased open space in screens. 25% larger open area increases throughput.
- Minimal reduction in cutting circle. Eliminates screen blanketing.
- Integrally mounted bearings. Maintains tight tolerance knife gaps of 0.003 to 0.006 in.
- Multiple cutting geometries. Straight, slant, or scissor cut designs available in 5 rotor styles to suit your application.
- Replaceable wear surfaces. Granulator life is extended with replaceable bed knife blocks and end-plate mounted wear plates.
- Optimized air-flow. Provides high air-flow to dissipate heat for maximum output.



High Shear/High Impact



Hook Style

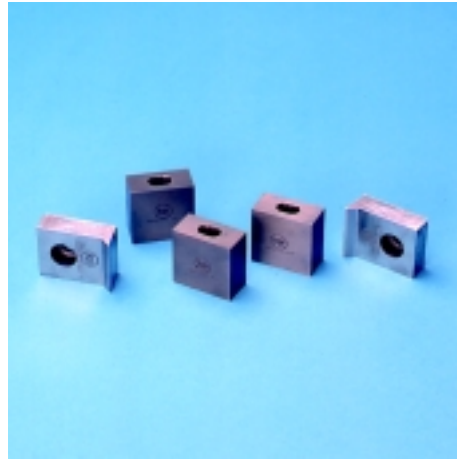


Steep Angle

SPECIFICATIONS	MODEL 2436	MODEL 2454	OPTIONS
Cutting Chamber	24" x 36"	24" x 54"	Wear Plates and Hardened Components
Drive	150 HP V-belt driven	150 HP V-belt driven	100 to 250 HP
Throughput	up to 9,000 lb/hr	up to 16,000 lb/hr	
Weight	14,500 lbs.	18,000 lbs	
Rotor	3 Knife Open Wing	3 Knife Open Wing	5 Styles Available
Bed Knives	(2) Adjustable D2 Steel	(3) Adjustable D2 Steel	
Screen	7/16" diameter	7/16" diameter	Hole Diameter to Suit Application
Hopper	Conveyor Feed	Conveyor Feed	Tray Feed
Base	Leg Style	Leg Style	Airveyor & QuaDischarge
Controls	NEMA 12 Soft Start	NEMA 12 Soft Start	Starters for Blowers and Conveyors



**R9 PORT-A-GRAN DOLLY**  
Model AD9



**RADIAL KNIVES**

- |      |                 |
|------|-----------------|
| K9R  | R9 Rotor Knife  |
| K9B  | R9 Bed Knife    |
| K18R | R18 Rotor Knife |
| K18B | R18 Bed Knife   |



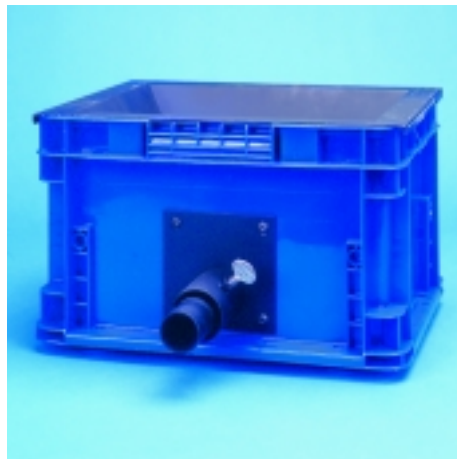
**RADIAL SCREENS**

- |       |                                   |
|-------|-----------------------------------|
| AS9-2 | Screen Ring, 1/8" Diameter Holes  |
| AS9-3 | Screen Ring, 3/16" Diameter Holes |
| AS9-4 | Screen Ring, 1/4" Diameter Holes  |
| AS9-5 | Screen Ring, 5/16" Diameter Holes |
| AS9-6 | Screen Ring, 3/8" Diameter Holes  |
| AS9-7 | Screen Ring, 7/16" Diameter Holes |
| AS9-8 | Screen Ring, 1/2" Diameter Holes  |



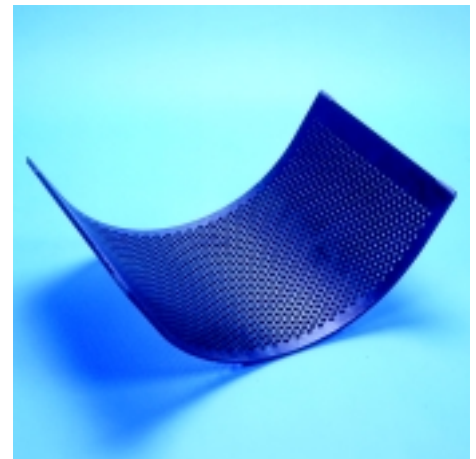
**RADIAL HOPPERS**

- |            |                       |
|------------|-----------------------|
| Model 9067 | R9 Manual Feed Hopper |
| Model 9080 | R9 Robot Feed Hopper  |



**R9 VACUUM TAKEOFF**

- |        |   |
|--------|---|
| AV9-15 | Vacuum Evacuation, 1-1/2" Material Line |
| AV9-20 | Vacuum Evacuation, 2" Material Line     |
| AV9-25 | Vacuum Evacuation, 2-1/2" Material Line |
| AV9-30 | Vacuum Evacuation, 3" Material Line     |



**2436, 2454 SCREENS**

- |         |                               |
|---------|-------------------------------|
| 2436048 | Model 2436, 4140 Heat-Treated |
| 2436153 | Model 2436, 1020 Mild Steel   |
| 2454048 | Model 2454, 4140 Heat-Treated |
| 2454153 | Model 2454, 1020 Mild Steel   |



◆ **2436, 2454 ROTOR/BED KNIVES**

- |         |                                |
|---------|--------------------------------|
| 2436010 | Model 2436, 10° - D2 Steel     |
| 2436042 | Model 2436, Steep Angle, - 55° |
| 2436097 | Model 2436, High Shear, - 60°  |
| 2436037 | Model 2436, Hook - 70°         |
| 2436099 | Model 2436, Keen Edge - 35°    |