

Powerful, High-Capacity Granulators For Multiple Applications

Conair's Viper Granulator, heavy-duty 23-Series granulators are designed for high throughput applications to provide exceptional and dedicated size reduction for blow molders, injection molders, extruders, and recyclers.

These industrial-strength granulators feature two styles of cutting chamber geometry from super tangential to tangential, allowing you to process virtually any kind of scrap.

Easy pre-adjustment of the gap between rotor and fixed bed knives results in increased throughputs and high-quality, uniform regrind.

Now standard with the "SG" (Smart Granulator) HMI touch screen control.



Model 2343

High Throughputs in an Easy-to-Clean Design

Conair's 23-Series is a robust, heavy-duty central granulator for reclaim of all types of plastic materials and applications.

In addition to the uniquely adaptable cutter housing, the 23-Series offers a drop-down screen cradle for the industry's fastest and safest chamber access. A three-blade slant-knife open rotor provides scissor-cutting action for fast, efficient processing. An optional five-blade open rotor is available for more demanding applications.

23-Series also offer custom hoppers for front, side, rear and roll feed to accommodate most every type of feed system. Hoppers are easily opened/closed with a powered linear actuator.

23-Series options include: high-wear screen and knives, blower evacuation systems, fines removal systems, feed rolls, high-level/high-amp alarms, larger horsepower motors, and incline conveyors with and without a metal detector.

The state-of-the-art SG HMI control is standard and includes auto start/stop, built-in hour meter, lock/unlock screen, data trending and hopper lift control for exceptional oversight and tracking.

▶ Direct, safe and easy access to machine core

Conair's innovative 23-Series tilt-back hopper and cutting chamber features a drop-down screen cradle and removable discharge bin. Complete rotor access greatly simplifies clean out and blade maintenance saving you time and money. Integral safety interlocks prevent accidental operation during service or clean out.

▶ High-quality regrind

The scissor-cutting configuration, larger screen area, and pre-adjustable rotating and fixed knives provide consistent knife gaps to produce high quality regrind.

▶ Greater screen area equals higher throughput with fewer fines

Rotor knives adjust outward to the stationary bed knives to maintain an unchanging gap between the knives and screen, eliminating screen clogging, minimizing heat buildup and reducing fines for best-in-class throughput of higher quality regrind.

▶ Automatic rotor safety lock

The 23-Series rotor automatically locks in place when the hopper is raised. This safety feature, which also has a manual release, protects the operator during blade maintenance by holding the rotor firmly in place.

▶ Pre-Adjustable knives

Provides the ultimate in blade changes. Knives are pre-set in the included knife setting fixture decreasing the time it takes to replace knives while improving safety.

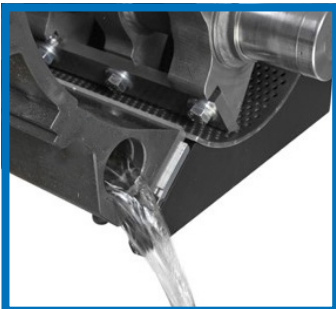
▶ Water-cooled cutting chamber

Keeping the cutting chamber cool when handling heat sensitive or hot material increases granulate quality while decreasing the risk of downtime associated with screen clogging.

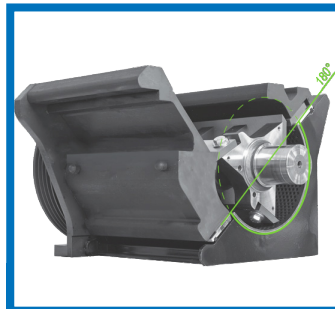


Features

- Rotor equipped with rotating end disks
- Roller bearings mount integral with cutting chamber
- Flywheel-type rotor pulley mounted with taper-lock bushing
- Rotor "zero speed" sensor
- Stationary rotor lock for safe cutting chamber maintenance
- Easy tool-free access for quick and simple cleaning and maintenance
- Drop-down screen supported by gas cylinder
- Powered hopper opening and closing
- 3- or 5-knife rotor with steep angle cutting configuration
- Scissor-cutting configuration
- Pre-adjustable knives
- Open area screen equal to approximately 50% of the rotor diameter
- Water-cooled cutting chamber
- Floor-mount NEMA control panel
- Base set on vibration pad mounting
- Discharge for blower evacuation



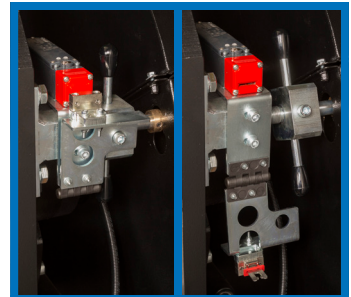
Water-cooled cutting chamber



Screen equal to approximately 50% of the rotor diameter



Rotor equipped with rotating end disks



Rotor lock device for maintenance

Options

Model	2329	2343	2363
Options			
Hardened cutting chamber	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High-wear knives and screens	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soundproof Hopper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soundproof enclosure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feed tray	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Funnel for conveying feed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Large volume hopper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feed roll package	<input type="radio"/> *	<input type="radio"/> *	<input type="radio"/> *
Hopper for pipes and sheets	<input type="radio"/> *	<input type="radio"/> *	<input type="radio"/> *
Hopper for relief head	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Special controls	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Main electrical disconnect	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High-amp control with alarm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High-level control with alarm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blower evacuation systems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feed conveyor with metal detection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SG HMI touch screen control	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

● Standard ○ Available * Not available on the super tangential configuration

23-Series Cutting Chamber Configurations

Super-Tangential Chamber

Designed specifically to efficiently granulate large, bulky parts for blow molding and injection molding applications increasing throughput and improving regrind quality.



Tangential Chamber

Designed for the granulation of extruded sheet, profiles, and pipe as well as for high throughputs of pre-shredded material. Available with a 3-blade or 5-blade rotor.

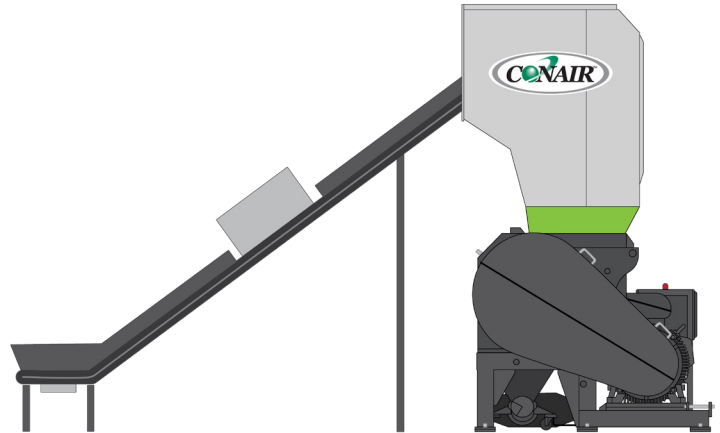


Feeding/Evacuation Configurations



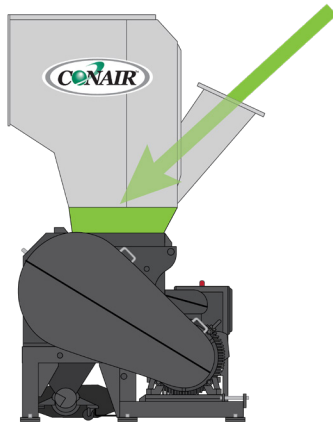
Hand Feeding

Large and/or cumbersome scrap can be hand fed, typically without preliminary cutting or breaking. Flyback is minimized by rugged curtains. Feed tray may be rotated up to close off opening; down to feed scrap. Hearing protection is recommended.



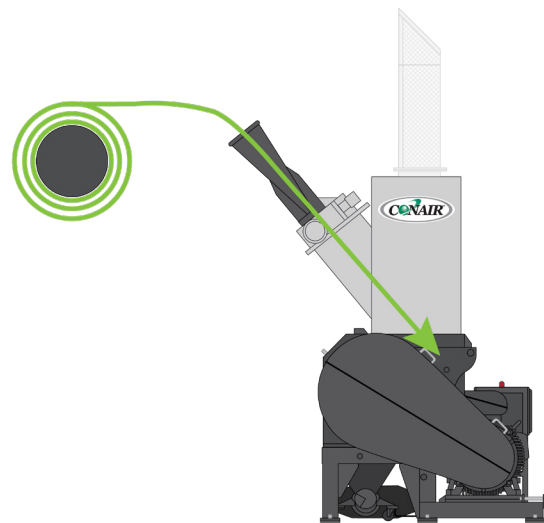
Conveyor Feeding

Optimized, meter feeding of scrap by a speed-controlled conveyor. Conveyor speed can be linked to granulator drive motor amps. Conveyor can include a metal detector that stops conveying when metal in the scrap is detected.



Rear Feeding

Commonly used for sheet and other wide scrap, the angled chute is as wide as the cutting chamber and scrap is fed directly into the rotor knives. High hopper entry requires a platform or other elevation. Hearing protection is recommended.



Roll Feeding

For film scrap on rolls (e.g. film extrusion start-up scrap), feeding is automatically controlled by speed-controlled pinch rollers slaved to the amperage of the granulator drive and/or the closed-loop film reclaim system. A relief head may be included on top for edge trim.

Feeding/Evacuation Configurations

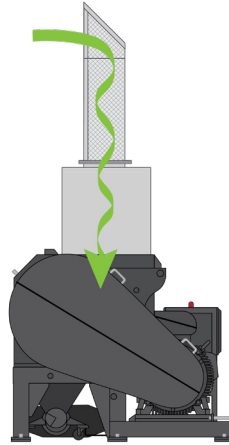
Cyclone Head Feeding

For near continuous feeding of tabs and tails, small scrap/parts fed from a blower.



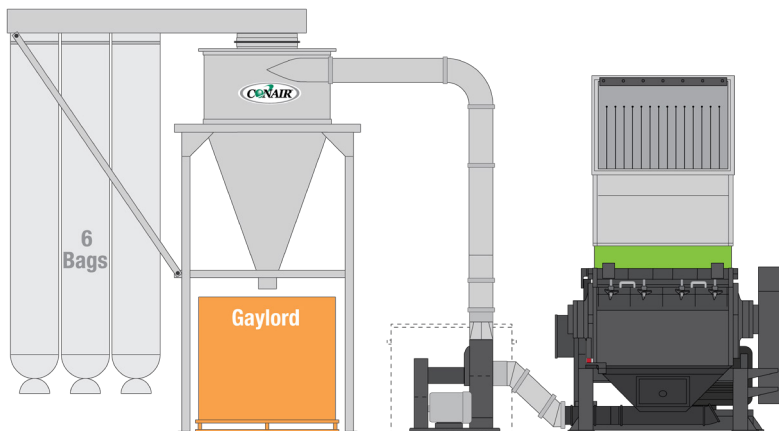
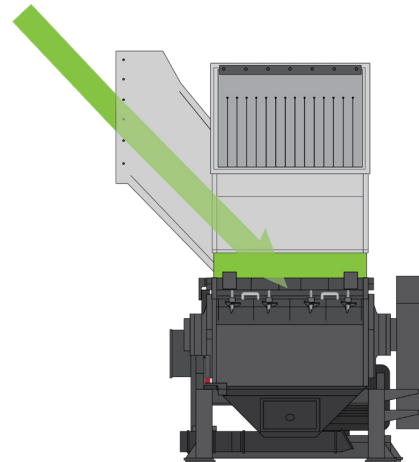
Relief Head Feeding

Thin strips of film edge trim and other film products are transferred to the granulator by a blower system and the conveying air is exhausted by the screen shell of the relief head.



Side Feeding

Commonly required for long extruded parts and scrap. Preliminary cutting, folding or breaking of scrap is not required, since feed chute delivers scrap directly to rotor knives. Flyback is minimized by rugged curtains. High hopper entry requires a platform or other elevation. Hearing protection is recommended.



SRB Cyclone Evacuation

Fully optimized evacuation by a blower and cyclone system assures the granulator never overfills, while granulate is cooled by the blower's air flow.

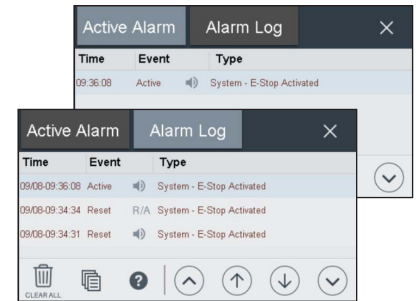
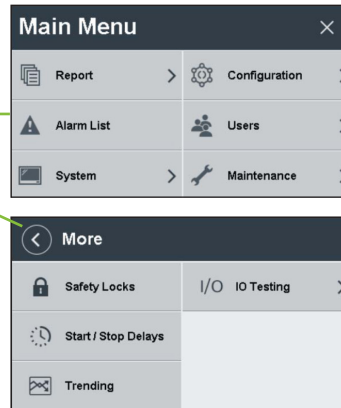
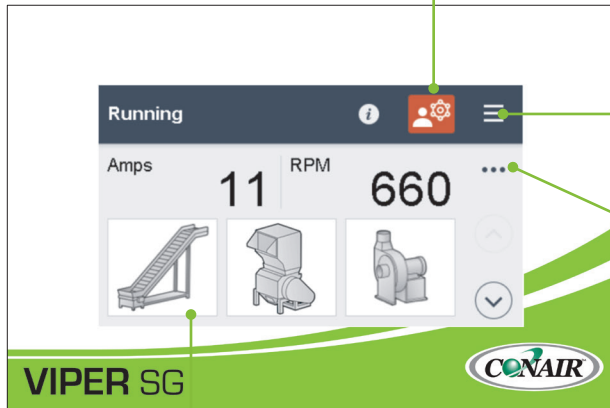


SG (Smart Granulator) Control Features

Multi-level User Security
Identify User and Log-in Status

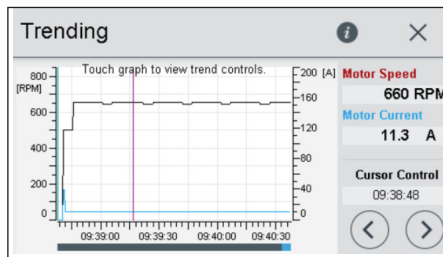
Simple Menu Operation
Access to all features

Alarm Lists, History, and Details
Operators can drill down from the Alarm List to the Alarm History and Alarm Details screens to analyze issues. Alarm details are specific, with recommended corrective actions.

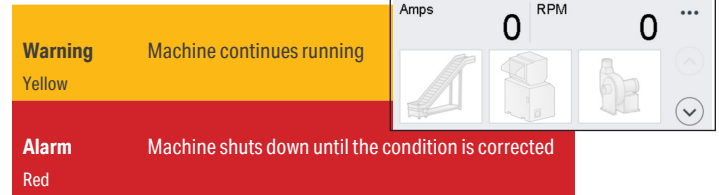


Touch Screen Display
Large, customizable Home screen display with current Amps & RPM

Trending
Follow the performance of the machine using RPMs and AMPs. These trends demonstrate the performance of the screen, knives, and motor.



Alarm and Warning Banners
Easy-to-see banners



Contextual Help Mode
On-screen descriptions of features when touched

Optional Basic Control Features



Easy to Read Buttons
Basic on/off of the blower, rotor, and in-feed buttons

Alarm Silencer
Quickly turn off alarms

Accessible Lock /Delay Unlock
Lock and delay unlock conveniently located at the top of the control

Control Feature Comparison

Control Features	SG	Basic
On/Off of the Blower, rotor, in-feed	●	○
Alarm Silence	●	○
Lock	●	○
Delay Unlock	●	○
AutoStart/AutoStop*	●	
AutoStart/AutoStop Membrane Switch	●	
Lock/Unlock screen †	●	
Data Trending (RPM and Amps)	●	
Built-in hour meter	●	
Audible and visual alarms	●	○
Communications - Modbus-TCP, OPC-UA	●	
Hopper Lift Control	●	○

● Standard ○ Optional

Notes

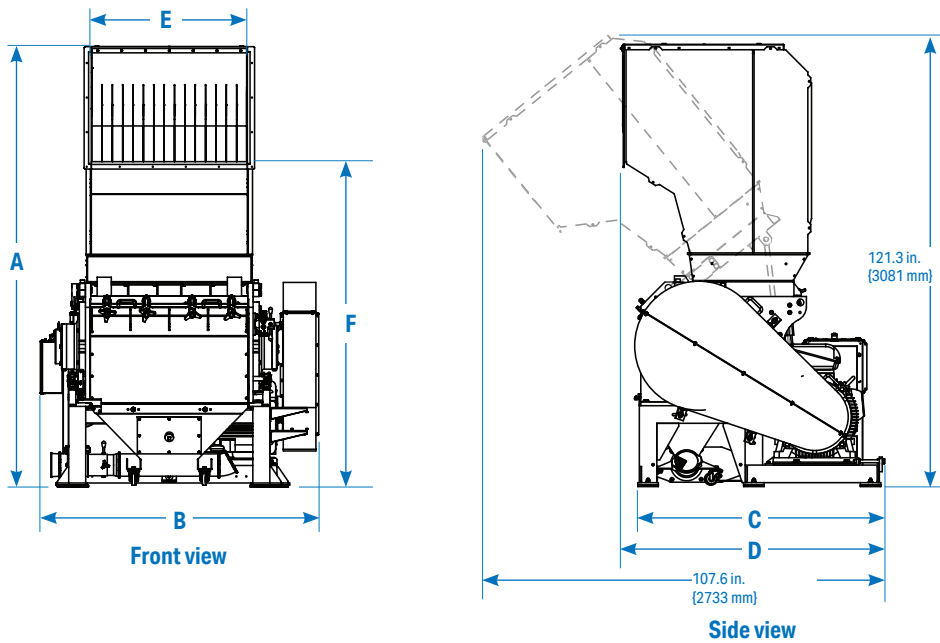
* AutoStart and AutoStop turn on and off all of the connected equipment (infeed, granulator, outfeed) in order, with editable delays between each device.

† Initiates lock and unlock process. Identifies any safety locks that are open and closed for simple troubleshooting.



Specifications

Granulator with standard hand feed hopper



Application Note
 Allow appropriate clearance above machine for hopper tilting during maintenance.

Models	2329	2343	2363
Performance characteristics			
Throughput range † lb/hr (kg/hr)	up to 2200 {1000}	up to 3200 {1451}	up to 3800 {1724}
Rotor diameter inches {mm}		19.7 {500}	
Rotor speed rpm		480 at 60 Hz	
Rotor type		3-blade or 5-blade welded open rotor	
Rotating knives x fixed knives		3 x 2; optional 5 x 2	
Standard screen hole size inches {mm}		11/32 {9}	
Cutting chamber inches {mm}	22.5 x 29.1 {570 x 740}	22.5 x 43.3 {570 x 1100}	22.5 x 63.0 {570 x 1600}
Motor power Hp {kW} (standard)	75 {55}	100 {75}	125 {90}
Motor power Hp {kW} (optional)	60 {45}, 100 {75}	125 {90}, 150 {110}	100 {75}, 150 {110}
Dimensions inches {mm}			
A - Height		118.8 {3017}	
B - Width	60.9 {1547}	75.4 {1915}	94.9 {2411}
C - Depth		65.6 {1665}	
D - Overall depth		70.3 {1786}	
E - Feed hopper opening width	28.3 {720}	43.3 {1100}	63 {1600}
F - Height to hopper infeed		87.3 {2217}	
Approximate weight lb {kg}			
Installed	8580 {3900}	12,540 {5700}	13,200 {6000}
Shipping	10,000 {4550}	14,000 {6370}	15,000 {6820}
Voltages Full load amps based on motor size †			
Motor power Hp	75 {55}	100 {75}	125 {90}
460/3 phase/60 Hz (standard)	84.1	111.0	139.0
575/3 phase/60 Hz	67.3	88.8	111.0

Specification Notes

- * Throughputs are provided as a capacity guideline only. Throughput will be greater or lesser than the values shown according to the selected screen size and the shape, size, thickness and properties of the material to be cut. Consult Conair for a material test to help in determining the correct granulator model for your application.
- † FLA data for reference purposes only. Does not include any accessories added such as blower or conveyor motor loads. Includes standard motor only. For true, full FLA for power circuit design of specific machine refer to electrical diagram of the machine order or nameplate applied to machine at shipment. Specifications may change without notice. Check with a Conair representative for the most current information.

