

Configurable Cutting Chamber For Multiple Applications

The innovative and adaptable hardened cutting chamber on the Conair Viper Granulator 12-Series granulators allows these granulators to be configured with different cutting chamber geometries to meet specific application requirements.

These quiet, heavy-duty granulators feature two styles of cutting chamber geometry from super tangential to tangential, accommodating virtually everything from large bulky parts to heavy-wall profiles, sheets to sprues and runners. The result is increased throughput, greater efficiency and a more consistent and uniform regrind. Now available with an optional "SG" (Smart Granulator) HMI touch screen control.



Model 1227

Easy Access for Cleaning and Care

The robust 12-Series offers a drop-down screen cradle for tool-free chamber access and easy screen removal and rotation. A three-blade, slant-knife open rotor provides scissor-cutting action for fast, efficient processing.

Standard on the 12-Series is a hardened cutting chamber, soundproofed hopper and base, water-cooled chamber, rotating end disks, and pre-adjustable knives. 12-Series also offer custom hoppers for conveyor, front, side, rear and roll feed to accommodate most every type of feed system with gas-assist hopper opening.

12-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.

Select the optional state-of-the-art HMI screen that includes auto start/stop, built-in hour meter, lock/unlock screen and data trending for exceptional control and tracking.

▶ Quiet operation; optional HMI control

12-Series granulators include soundproofed hoppers and base enclosures as standard creating the quietest granulator in its class. The optional SG control offers more features while simplifying operation for novice and advanced operators.

▶ Hardened cutting chamber

The hardened cutting chamber provides greater resistance to wear.

▶ Direct, safe and easy access to machine core

Conair's innovative 12-Series cutting chamber features a drop-down screen cradle and removable discharge bin. Complete rotor access (front and rear enclosure access) greatly simplifies clean out and blade maintenance saving you time and money. Integral safety interlocks prevent accidental operation during service or clean out.

▶ Greater screen area equals higher throughput with fewer fines

Increased rotor and screen contact area reduces heat generation and minimizes fines for best-in-class throughput of higher quality regrind.

▶ Pre-Adjustable knives with scissor-cutting

Provides the ultimate in blade changes. The scissor-cutting knives are pre-set in the included knife setting fixture decreasing the time it takes to replace knives while improving safety and delivering the highest quality regrind.

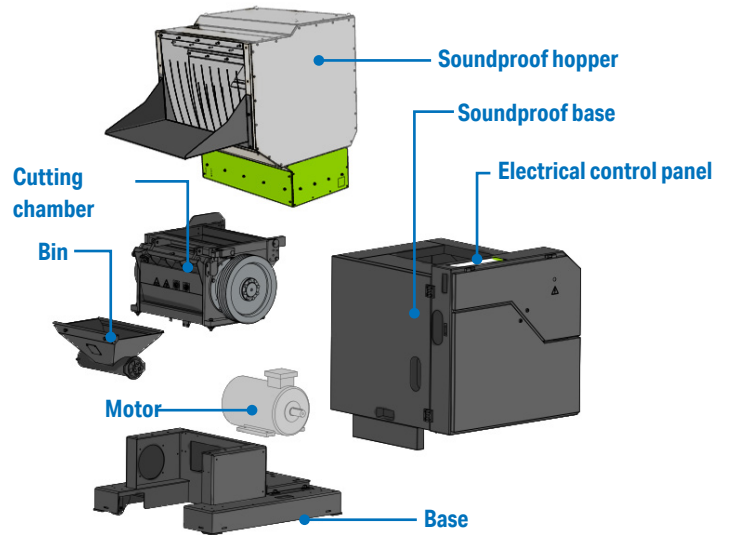
▶ Water-cooled cutting chamber

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.



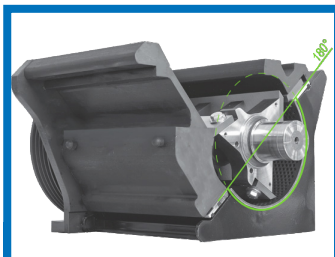
Features

- Soundproofed hopper and base sound enclosure
- Rotor equipped with rotating end disks
- Roller bearings mount integral with cutting chamber
- Easy tool-free access for simple and quick cleaning and maintenance
- Hopper opening assisted by gas cylinder
- Scissor-cutting configuration
- Pre-adjustable knives
- Open area screen equal to approximately 50% of the rotor diameter
- Hardened cutting chamber
- Water-cooled cutting chamber
- Locking, swivel casters (not available on model 1227)
- Integrated electrical control panel
- Discharge for blower



Water cooling channel

Bolted, hardened steel cutting chamber for replaceable wear components



Screen equal to approximately 50% of the rotor diameter



Rotor equipped with rotating end disks



Scissor-cutting configuration

Options

Model	1214	1220	1227
Construction Options			
High-wear knives and screens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feed tray	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Funnel for conveying feed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large volume hopper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feed roll package	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hopper for pipes and sheets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hopper for relief head	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anti-longs screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High-amp control with alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High-level control with alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discharge for vacuum take-off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blower evacuation systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feed conveyor with metal detection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SG HMI touch screen control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* Not available on the super tangential configuration

12-Series Cutting Chamber Configuration



Super-Tangential Chamber

Designed specifically for the blow molding industry for the granulation of blow molding rejects, in-line preforms at higher temperatures, and similar items

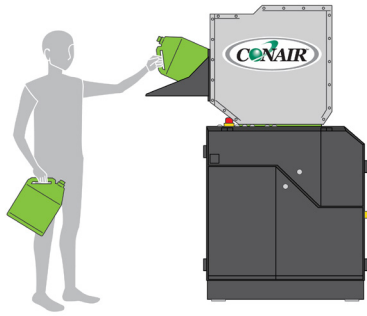


Tangential Chamber

Designed for the granulation of extruded material, whether flexible or rigid. They are also used as a secondary size reduction for pre-shredded material.

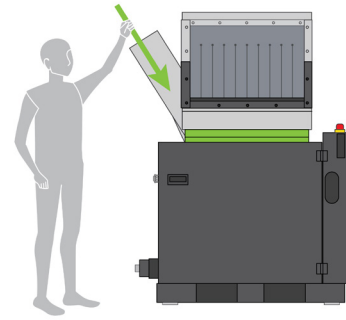


Feeding/Evacuation Configurations



Hand Feeding

Standard feeding method. Flyback minimized by rugged curtains.

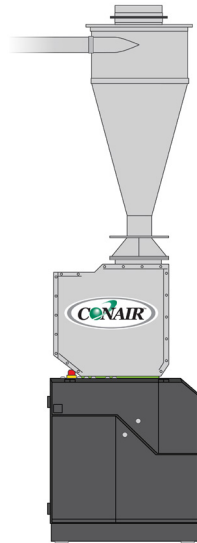


Side Feeding

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.

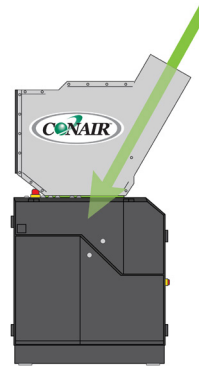
Cyclone Feeding

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



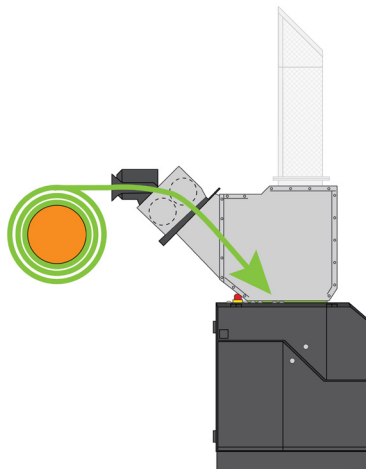
Rear Feeding

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. May include a hand feeding opening in the front, as well.



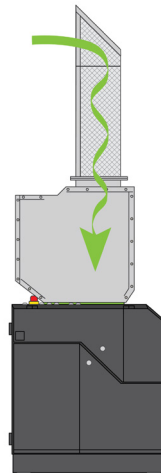
Roll Feeding

For film scrap on rolls (IE: 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 also be included, to receive blown-in edge trim.



Relief Head Feeding

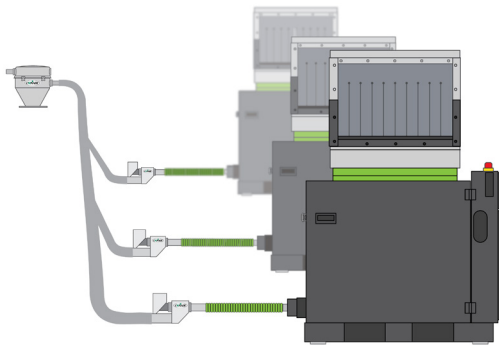
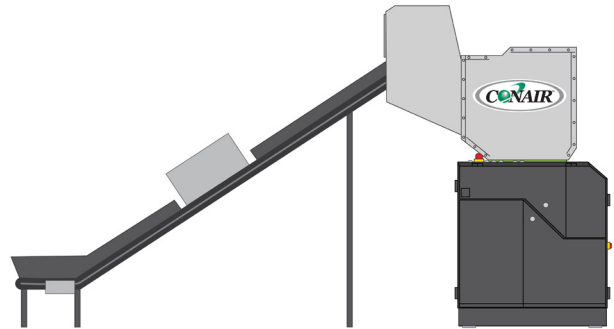
Thin strips of film edge trim and other film products are transferred to the granulator by a blower system and the conveying air is exhausted by the screen shell of the relief head.



Feeding/Evacuation Configurations

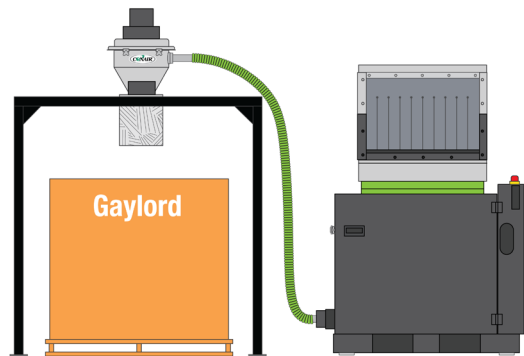
Conveyor Feeding

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.



Vacuum System Evacuation

Multiple granulators can be emptied by a central vacuum system to a common collection bin or box. Each granulator is equipped with a vacuum pick-up tube and a material line valve, sequenced by the central loading control (e.g. Conair FLX-128).

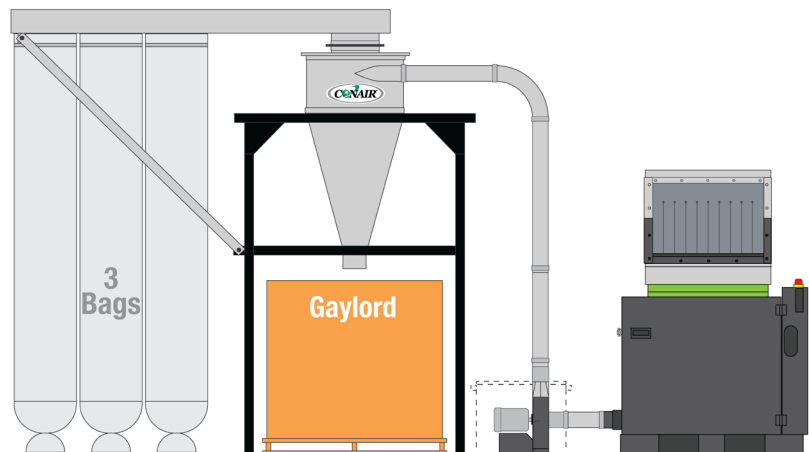


Vacuum Take-Off Evacuation

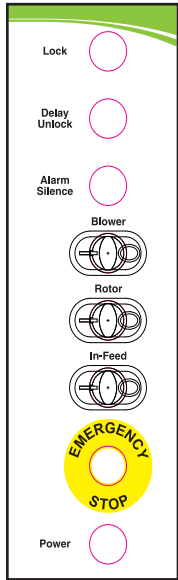
A vacuum pick-up tube is used to pull granulate from the granulator drawer. Multiple types of loaders/receivers can be used, programmed to convey by a sensor in the granulator drawer or special loading control settings.

SRB-1 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.



Standard 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	Std
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	○	

● 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.

Optional SG (Smart Granulator) Control Features

Multi-level User Security

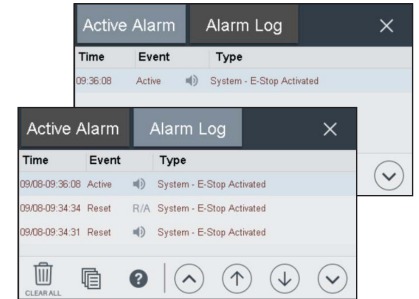
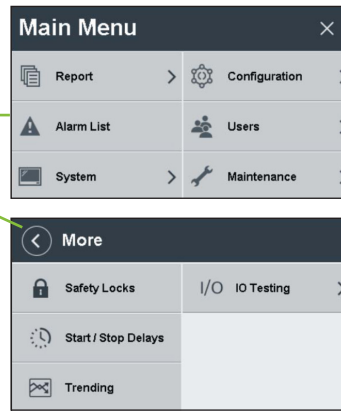
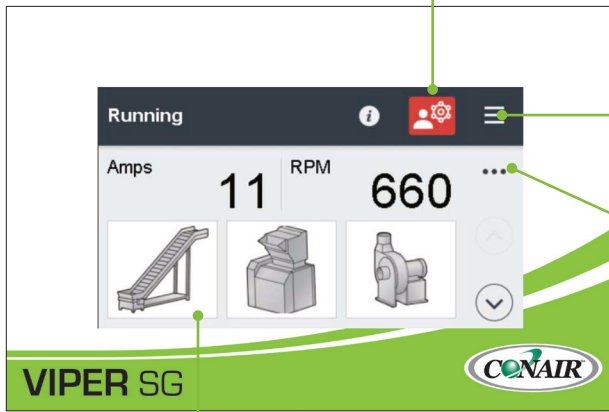
Identify User and Log-in Status

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.

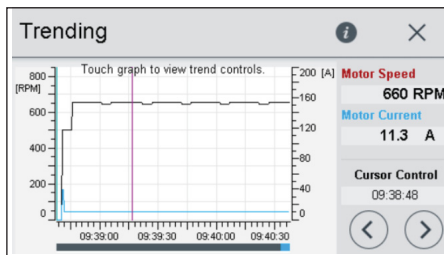


Touch Screen Display

Large, customizable Home screen display with current Amps & RPM, and easy start/stop.

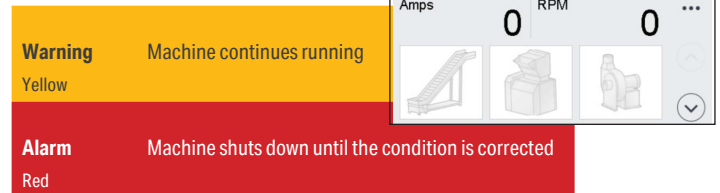
Trending

Follow the performance of the machine RPMs and AMPs. These trends demonstrate screen, knife, and motor performance.



Alarm and Warning Banners

Easy-to-see banners



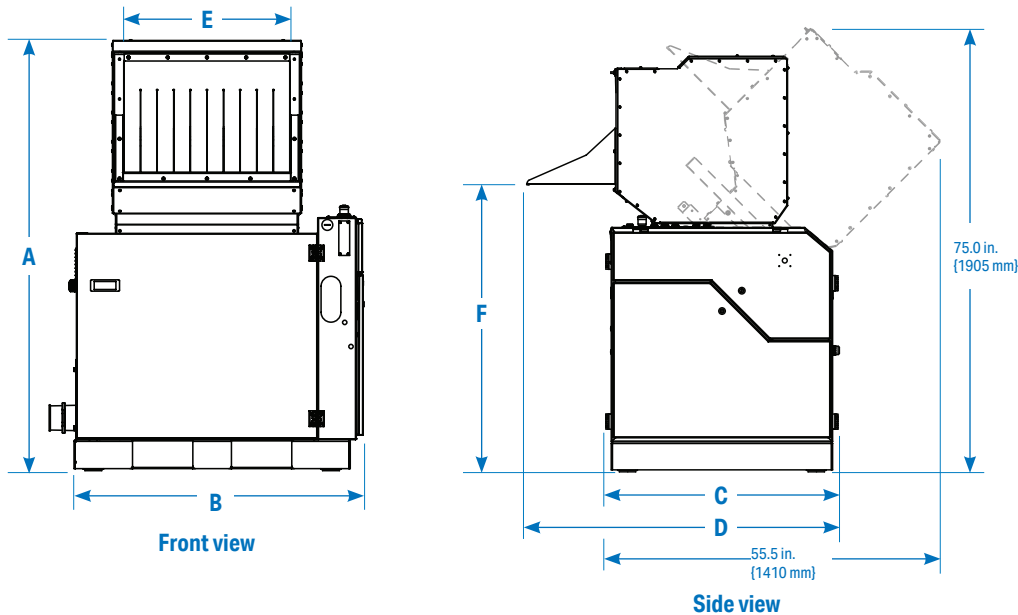
Contextual Help Mode

On-screen descriptions of features when touched



Specifications

Granulator with standard hand feed hopper



Application Note

Allow appropriate clearance above machine for hopper tilting during maintenance.

Models	1214	1220	1227
Performance characteristics			
Throughput range † lb/hr {kg/hr}	up to 480 {220}	up to 700 {320}	up to 900 {410}
Rotor diameter inches {mm}		10.2 {260}	
Rotor speed rpm		696 at 60 Hz	
Rotor type		3-blade welded open	
Rotating knives x fixed knives		3 x 2	
Standard screen hole size inches {mm}		11/32 {9}	
Cutting chamber inches {mm}	11.8 x 13.8 {300 x 350}	11.8 x 19.7 {300 x 500}	11.8 x 27.6 {300 x 700}
Motor power Hp {kW} (standard)	10 {7.5}	15 {11}	20 {15}
Motor power Hp {kW} (optional)	7.5 {5.5}, 15 {11}	7.5 {5.5}, 10 {7.5}, 20 {15}	10 {7.5}, 15 {11}
Dimensions inches {mm}			
A - Height		70.4 {1788}	
B - Width	33.3 {845}	39.1 {995}	47.2 {1198}
C - Depth		37.4 {950}	
D - Overall depth		52.5 {1334}	
E - Feed hopper opening width	13.3 {338}	19.2 {488}	27.1 {688}
F - Height to feed infeed		48.6 {1234}	
Approximate weight lb {kg}			
Installed	1430 {650}	1650 {750}	2000 {910}
Shipping	2315 {1050}	2590 {1175}	3000 {1361}
Voltages Full load amps based on motor size †			
Motor power Hp {kW}	10 {7.5}	15 {11}	20 {15}
230/3 phase/60 Hz	24.8	38.0	48.2
460/3 phase/60 Hz (standard)	12.4	18.0	24.1
575/3 phase/60 Hz	9.9	14.4	19.3

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.

