# Reprocessing Plastic Scrap into Valuable Regrind



From the Small Hand Feed Operation to Complete Engineered Plastic Granulator Systems Technology working for you.



# Screenless Granulators

#### Low speed (27 rpm) screenless technology for the most efficient and cost effective grinding of glass-filled plastics

Screenless technology allows for no "longs" and uniform regrind with minimal fines for efficient re-processing.

Low speed single pass processing means less wear on cutting tools for reduced maintenance, low sound levels, and low power consumption. Low speed/high torque for grinding hard and brittle plastics.

ARS Automatic Reversing System (option) to help avoid rotor blocking in case of jams and aids the granulation of thicker-walled or tougher plastics.



### Compact Units - Minor 2 and Junior 2 Compact

#### Minor 2

- Transparent polycarbonate hopper (option).
- High stand with plastic bag mounted below cutting chamber for regrind collection (option).

#### Junior 2 Compact

- Swivel outlet bin for 360 degree positioning of vacuum hose (standard).
- Capacitive detector for regrind bin level (probe is located underneath cutting chamber) with sound and visual alarm (option).





Туре	Cutting chamber	Knives	Rollers	Power (option)	Ø Cutter	Rotor speed 50 Hz	Average throughput
	mm			kW	mm	rpm	kg∕h*
Minor 2	240 x 249	2	3	1.1 (1.5)	245	27	12
Junior 2C	240 x 346	2	3	1.5	245	27	20

\* Depending on nature, shape, density of sprues/parts to be processed and regrind size of toothed rollers.

# Large Screenless Granulators

#### Junior 3 for the Grinding of Large Sprues and Parts

- Direct transmission for high torque loads.
- Optional additional shaft above the cutting chamber designed to pre-break large parts and runners.
- Soundproofed stainless steel feed hopper designed for easy addition of optional magnet.

Туре	Cutting chamber	Knives	Rollers	Power (option)	Ø Cutter	Rotor speed 50 Hz	Average throughpu
	mm			kW	mm	rpm	kg∕h*
Junior 3	240 x 467	3	4	2.2 (3)	245	27	30



# Under-the-press Granulators

#### Auger Fed Granulators for Receiving Sprues Directly Under the Mold

- Variable screw pitch to optimize sprue conveying and to avoid flyback.
- Safety signal to stop the granulator when IMM door safety cage is opened.
- Stainless steel regrind collection bin designed for vacuum evacuation.
- Metal detection in the auger by METALSTOP (option).
- Hopper on auger for robot or conveyor feeding (option).
- Pre-cutting knife to avoid runners from wrapping around and jamming the feed screw (standard).

### Low Speed Screenless for Hard, Brittle and Abrasive Plastics

#### Junior 2CA

- Higher motor output to grind thicker cross-sectioned scrap.
- Larger cutting chamber for higher throughput.
- Low profile compact design to fit under most presses.



#### MAS 2A

- 3 blade open rotor with adjustable rotating and stationary knives and scissor-type cutting action for efficient processing of thin, soft, flexible materials.
- Open rotor allows for higher airflow through the cutting chamber for more efficient processing of hot scrap.



Туре	Cutting chamber	Auger throat	Power	Rotor speed 50 Hz	Average throughput
	mm	mm	kW	rpm	kg∕h*
Junior 2CA	240 x 346	600 x 280	1.5 + 1.1	27	20
MAS 2A	247 x 255	600 x 280	4 + 1.1	200	70

\* Depending on nature, shape, density of sprues/parts to be processed and regrind size of toothed rollers.

# Beside-the-press Conventional Blade Granulators

- For closed loop automatic reclamation of injection molded sprues, runners and defective parts.
- Low rotor speed (200 rpm @ 50 Hz) for higher regrind quality, lower sound levels.
- Compact design with direct drive motor.
- Low feed height, and large top feed opening allow easy use by means of sprue picker, conveyor belt, part separator, dumping the content of a box or by hand.
- High capacity stainless steel regrind collection bin designed for vacuum evacuation.
- High stand with plastic bag mounted below cutting chamber for regrind collection (option).



#### MAS 1 and MAS 3

- Staggered rotor allows for power to be transmitted to less cutting surface area to process harder to cut materials and/or thicker parts and runners.
- Easy exchange of knives.
- Ease of maintenance due to no gapping required.





**Open Rotor for Processing Soft, Flexible Materials** 

#### MAS 2 and MAS 4

- 3 blade open rotor with adjustable rotating and stationary knives and scissor-type cutting action for efficient processing of thin, soft, flexible materials.
- Open rotor allows for higher airflow through the cutting chamber for more efficient processing of hot scrap and easily degradable materials.
- Knife gap pre-adjustment fixture allows for easy, safe, and accurate knife gap adjustment.

Туре	Cutting chamber	Knives	Power	Ø Rotor	Rotor speed 50 Hz	Average throughput
	mm		kW	mm	rpm	kg∕h*
MAS 1	130 x 247	3 x 3	2.2	180	200	30
MAS 2	247 x 255	3	4	180	200	70
MAS 3	325 x 190	3 x 8	4	180	200	80
MAS 4	420 x 190	3	4	180	200	110

\* Depending on nature, shape, density of sprues/parts to be processed and regrind size of toothed rollers.

# Larger Cutting Circle and Higher Power for Processing Bulkier Injection Molded Parts and Small Blow Molded Parts

The granulator can also be protected from excessive wear with replaceable inserts, located inside the grinder chamber (option).

Designed with rotor and stator knives that are counter angled to each other producing a true scissors type cutting action. This design results in a cleaner more uniform granulate, reduced heat build-up in the granulate, reduce noise emissions and energy consumption.

All cutting knives are adjustable and pre-adjusted to the proper gap outside the granulator with the use of the knife gap pre-adjustment fixture. Adjustable rotating and stationary knives allow for a constant cutting circle, minimally gapped knives, and longer knife life since knives do not have to be sharpened as a set and taken down to the knife with most wear.

Rotor bearings positioned outside the cutting chamber keep grease from contaminating product and product from contaminating the bearings.

### MC 33 Granulator

- Square cutting chamber 300 x 300 mm.
- High stand with plastic bag mounted below cutting chamber for regrind collection (option).



### MC 34 Primus a Versatile Medium-size Granulator



- Standard and soundproofed base version.
- Screw ram internal to the feed hopper designed for the size reduction of hollow containers (option).

Туре	Cutting chamber	Knives	Power (option)	Ø Rotor	Rotor speed 50 Hz	Average throughput
	mm		kW	mm	rpm	kg∕h*
MC 33	300 x 300	3	5.5 (7.5)	260	340	100-150
MC 34 Primus	300 x 440	3	7.5 (11/15)	260	350	200-300

\* Depending on nature, shape, density of sprues/parts to be processed and regrind size of toothed rollers.

# *Large Central Series Granulators Designed, for the Reclamation of Large Products or Large Volumes of Material*

- Replaceable wear plates placed within the cutting chamber walls save costly repairs when dealing with abrasive materials (option).
- Knives can be easily removed and safely and accurately adjusted in a fixture outside the unit. Knives that are kept sharp and tightly gapped result in more efficient size reduction, higher throughput, and reduced downtime.
- Rotor bearings positioned outside the cutting chamber keep grease from contaminating product and product from contaminating the bearings.
- Solid steel flywheel provides more inertial energy inertia to cut through thick-walled parts without losing rotor speed.
- Hydraulically-assisted hopper with top-split housing allows complete access to the cutting chamber and screen operation to decrease downtime for cleaning and routine blade changes.
- Machine mounted soundproofed blower, maximum integral sound control.

#### MC 34-60 and MC 46-60 Granulators

- With compact footprint and maximum sound control, granulators may also be positioned beside-the-press or blow molding machine for grinding necks (tops) and bottoms (tails).
- A large selection of infeed systems, qualifying screens, configurable discharge designs (surge bins and box dumpers) dust separators and metal detectors (option).





Туре	Cutting chamber	Knives	Power (option)	Ø Rotor	Rotor speed 50 Hz	Average throughput
	mm		kW	mm	rpm	kg∕h*
MC 34-60	340 x 600	3 x 2	11 (15)	260	450	250-450
MC 46-60	460 x 600	3 x 2	22 (30/37)	370	430	300-700

\* Depending on nature, shape, density of sprues/parts to be processed and regrind size of toothed rollers.

# **Screenless Models**

#### **Minor and Junior**

Model	Height	Length	Width	Weight
	mm	mm	mm	kg*
Minor 2	1,256	600	420	160
Junior 2 Compact	1,345	800	425	280
Junior 3	1,430	1,377	456	300

# **Conventional Blade Models**

#### MAS and MC

Model	Height	Length	Width	Weight
	mm	mm	mm	kg*
MAS 1	1,146	556	454	162
MAS 2	1,311	796	588	210
MAS 3	1,311	803	588	250
MAS 4	1,311	898	588	270
MC 33	1,800	889	794	350
MC 34 Primus	1,748	1,019	1,010	750
MC 34-60	2,020	1,310	1,240	850
MC 46-60	2,242	1,660	1,330	1,900

# Under-the-press Models

#### Junior 2CA and MAS 2A

Model	Height	Length	Width	Weight
	mm	mm	mm	kg*
Junior 2CA	1,062	1,471	800	300
MAS 2A	947	1,534	613	300

\* Depending on nature, shape, density of sprues/parts to be processed. Actual throughput may vary.

# **Fechnology working for you.**

#### WITTMANN Kunststoffgeräte GmbH

Lichtblaustrasse 10 1220 Vienna | Austria Tel.: +43 1 250 39-0 | Fax: +43 1 259 71 70 info.at@wittmann-group.com

www.wittmann-group.com