

Optional parts (examples of the options for GRANCUTTER/GRANMIXER)

SPCII-750/750S with Compulsive Sending System (CSS)

CSS feeds a runner larger than the standard hopper to the coarse cutter.

NOTES

1. CSS is not a device to increase the throughput of the Gran-Cutter. (100g/min for 750/750S models)
2. The anti-scattering curtain is not available because the curtain may get caught in CSS.
3. The effectiveness of CSS depends on a runner shape, diameter, and stiffness. Please contact us and send us samples beforehand so that we can make an appropriate suggestion to you.



Feeding Screw

● **Anti-Cluster Stirring Motor** (mounted onto a dedicated suction tank.)

● **Optional press cutter sizes: Standard size → small size**
 Hard material granulator II-400/750 2.8×4.5→2.1×3.5
 Hard material granulator II-1500 3.8×6→2.8×4.5
 Soft material granulator II-1500S 3.8×6→2.8×4.5

● **Anti-Wear Type Pressing Blade**
 High-speed steel blade

● **Customizable Color : Specify your color.**
 Inform us the color number or send us the color sample.

● **The full-recycling GMA mixer is also available upon request.**



Magnetic Bar
 ·Diameter 22mm
 ·The length is customizable to your requirement.



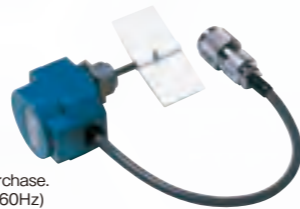
Hopper with Anti-Scatter Shutter
 ·The picture is for the double shutter type.
 ·The single shutter type, the double-door shutter type, and the slide shutter type are also available.



Signal Tower
 Single:Red/Green/Yellow
 Double:Red-Green



Extension Hopper
 This can be put into the standard hopper. (The height is adjustable.)



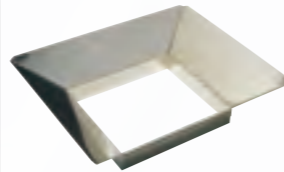
Level gauge
 Designed by HARMO
 Available for single item purchase.
 Power supply 200VAC (50/60Hz)
 100VAC (50/60Hz) (option)
 Contact us for other voltages.



Buzzer



Emergency stop button



Auxiliary Chute



Suction Tank



Safety Hopper (Z type)



Paper Bag Frame
 Choose from the tank type and the paper-bag type (excluding SPCII-1500 and 1500S).

※The size and shapes are customizable on the listed auxiliary chute, suction tank, paper-bag frame, and hopper.
 ※Inquire for other optional parts.

※The sample cut service is available for your sprues and runners. Contact our representative for details.

* This brochure is subject to change without notice.

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SPC2/GM2/MB2-06AE 18042KP

Not a Crusher, But a Gran-Cutter

Gran-Cutter & Mixer Series

SPCII / SPCII-S / GMII-t / GMII-St / MBII-t



with New Cartridged Teeth

Revolutionary Gran-Cutter reduces your plastic material cost.

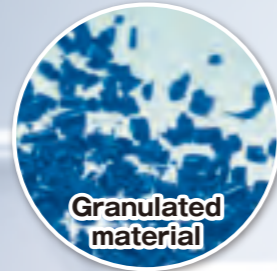
PAT.



SPC II -400

"Not a crusher, but a Gran-Cutter" HARMO's Gran-Cutter is a revolutionary re-pelleting machine to cut the fed runners and sprues into granules as small as virgin materials by using our unique swing press cutting system patented in nine countries. Gran-Cutter can revive the materials which used to be thrown away.

The difference is just like night and day! SPCII Gran-Cutter cuts the fed sprues into cylindrical granules - not crushing into pieces!



Granulated material



Gran-Cutter materials

To customers who have never used a Gran-Cutter Comparing with a crusher

Evenly-sized granules

The patented "Swing-Press Cutting System" can regrind runners and sprues into evenly-sized granules.

Very little dust

Since the cut sprues and runners does not pass through the blades again, clean cut with a single swing action can minimize dust, static electricity, and heat generation.

Very few miscuts

Gran-Cutter has the mechanism to cut the sprues and the runners into the certain size (as small as the virgin pellets) and is free from mis-cut (no screen).

Very quiet

Gran-Cutter does not make unnecessary movements, the operation is very quite.

Easy to clean

The regrind materials do not stick to the inner wall of the machine, because static electricity is kept minimum. The doors can open widely downward to provide easy access of the inside and reduce the cleaning time (5 to 7 minutes).

Not a Crusher, But a Gran-Cutter

No more wasting the materials! The thrown-away sprues reborn as reusable materials.

Examples of hard materials



PMMA (Poly (Methyl methacrylates))



POM (Polyester)

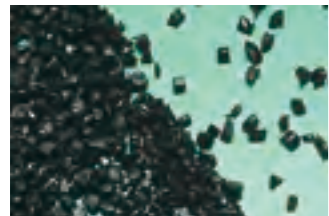
Examples of soft materials



PP (Polypropylene)



PE (Polyethylene)



PA (Nylon 20% glass filler)



ABS (Acrylonitrile butadiene styrene)



TPE (Thermoplastic elastomer)



PUR (Polyurethane)

Never-Before-Seen Swing Press Cut System! The SPCII-S series Gran-Cutter can cut soft-type resin sprues and runners, which used to be non-recyclable.

PAT.

Conventional crushers

When a conventional rotary cutter type crusher cuts the sprues and the runners, which are thicker than the height of the blades (see the figure 1), the sprues and the runners come out in comb-shape. The comb-shaped pieces tend to remain on the fixed blade and block the new sprues to go through. In such case, the rotating blades need to run repeatedly and shave the remained sprues into dust.

The conventional type crusher cut the thinner materials in ring-shape. The ring-shaped materials, which stay on the top of the fixed blade (see the figure 2), block the new sprues to go through and cause excessive dust.

Gran-Cutter

Gran-Cutter has the press cutters on the cam-driven swinging shaft. The stationary cutters are mounted on the circumference of the swinging shaft so that the press cutters mesh with the rotating cutters (figure-3). The male and female blades on the stationary and rotating cutters mesh together, these blades cut the fed sprues / runners. These blades push out the cut pieces and open again to cut the next fed materials (picture-2).

This unique granulating mechanism eliminates the cause of producing powder during the cutting process and also minimizes the generated heat and static electricity.

Gran-Cutter for Soft Type Materials

Our S-type Gran-Cutter exclusively for soft-type materials has answered our customers request such as; wanting to recycle the elastomers or other soft-type materials (PP, PU or PE).

A factory had to dispose the used elastomers, until our innovative S-type Gran-Cutter. The recycled PP or PU were far from being satisfactory either.

However, this S-type Gran-Cutter was able to solve such problems and concerns, which troubled our customers.

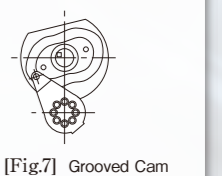
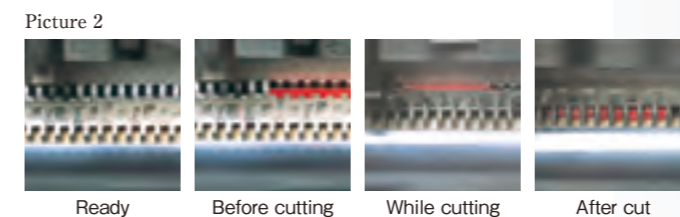
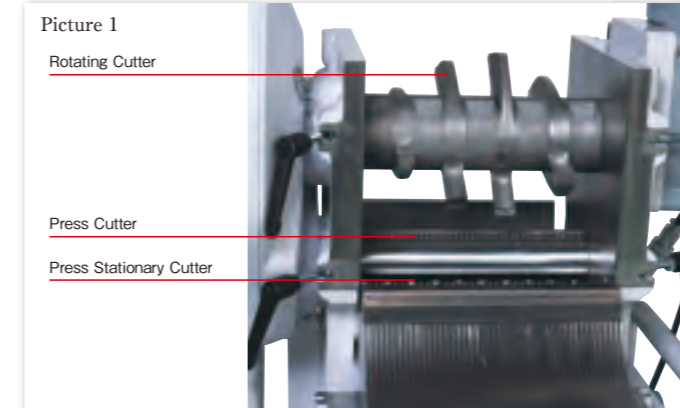
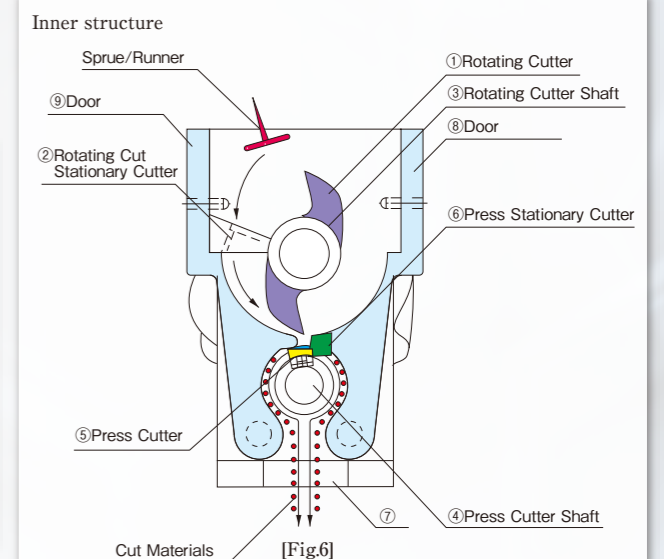
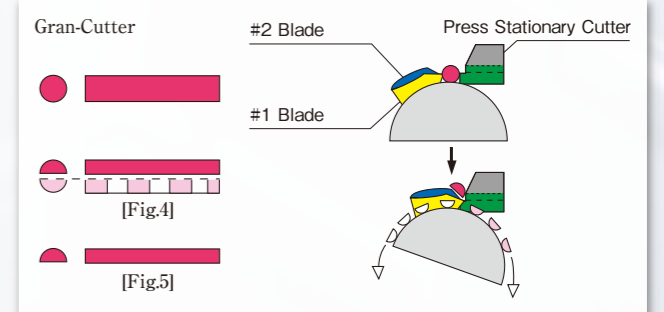
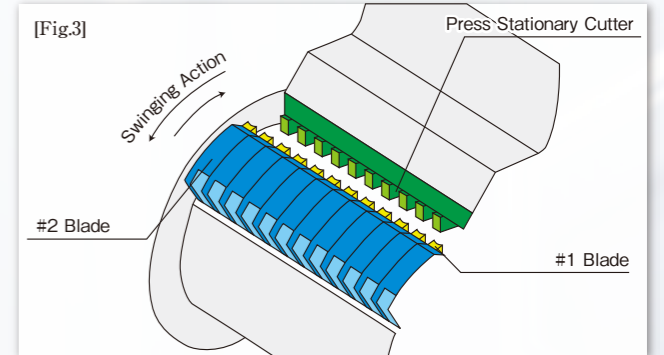
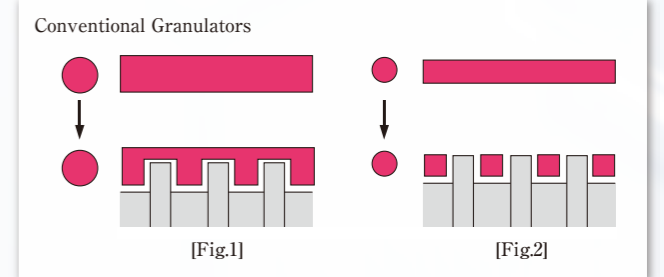
*** The S-type Gran-Cutter is only applicable for the specified materials.**

Design and Structure of Gran-Cutter

The rotating cutter (1) and the rotating cut stationary cutter (2) roughly cut the fed sprues and runners.

Because the rotating shaft (3) and the grooved cam [figure 7] are directly connected to the motor, the actions of the grooved cam make the press cutter shaft (4) and the press cutter (5) start to swing with the rotation of the motor.

The roughly cut sprues and runners are cut by the press cut stationary cutters (6) press. The cut sprues and runners falls down through (7). The equipped doors (8) and (9) open widely as shown in the [Figure-1] to ease the periodical cleaning.

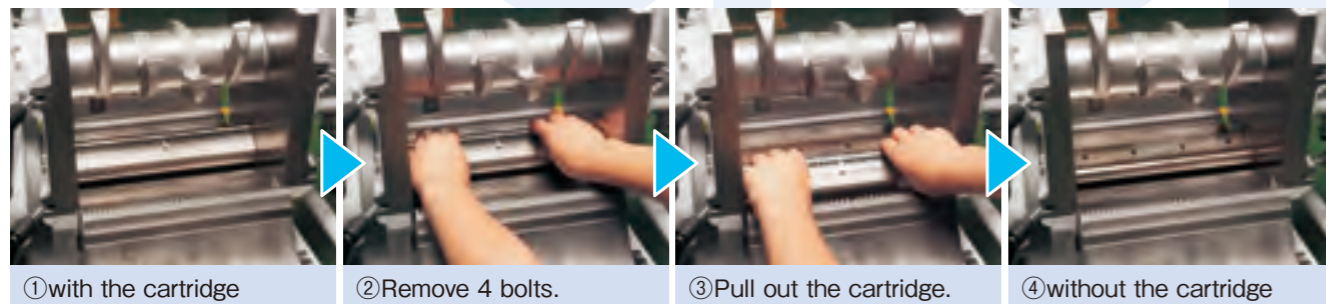


[Fig.7] Grooved Cam

GRAN CUTTER SPCII Series (Gran-Cutter)

with New Cartridged Teeth (excluding the model 1500)

The press cutter is now replaceable at your own site with the teeth cartridge!!



Your unit can be modified into the cartridge type, only by replacing the following parts.

Available Model **SPCII-200 / 200S / 400 / 400S / 750 / 750S**
GMI-200t / 200St / 400t / 400St / 750t / 750St

Replaceable Blades

Hard	↔	Hard	○
Hard	↔	Small	○
Small	↔	Small	○
Soft	↔	Soft	○
Hard	↔	Soft	×
Soft	↔	Small	×



Press Cutter Assembly (Cartridge)

Replace these parts to change your unit to the cartridge type.



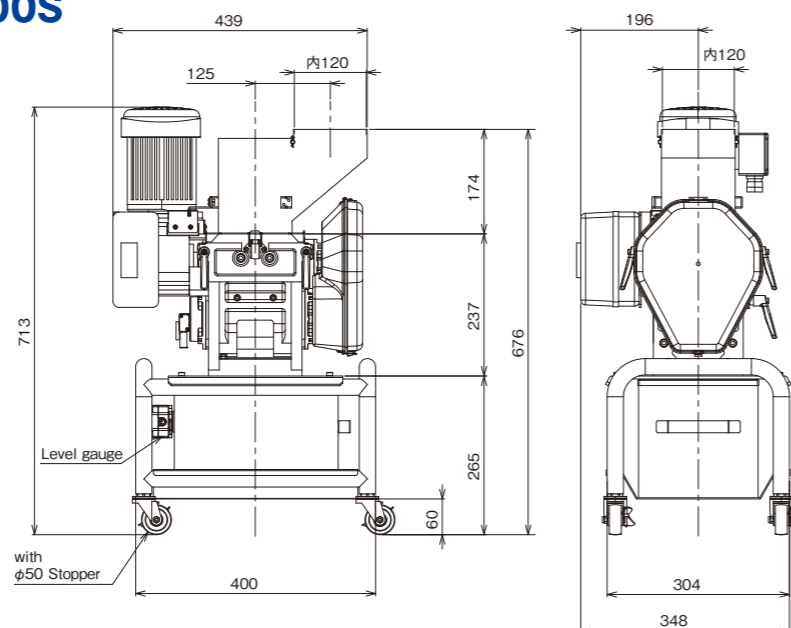
Press Cutter Assembly

Press Stationary Cutter

SPCII-C200 / SPCII-C200S

Model	SPCII-C200/SPCII-C200S
Power	3-phase 200VAC (50/60Hz)
Motor Output	0.2kw-3P
Rotary Cutters	φ 98mm diam, 4pcs 37.5rpm/50Hz 45rpm/60Hz
Press Moving Cutter	2.1mm×3.5mm 23 pieces 2.8mm×4.5mm 19 pieces (S type) 75 cycles/min (50Hz) 90 cycles/min (60Hz)
Hopper Mouth	120mm×120mm
Cuttible Sprue Diameter	φ6 mm or smaller
Processing Capacity	※30~40g/min
Material Tank Volume	6ℓ(Approx. 3Kg)
Weight	60kg (S type:65kg)

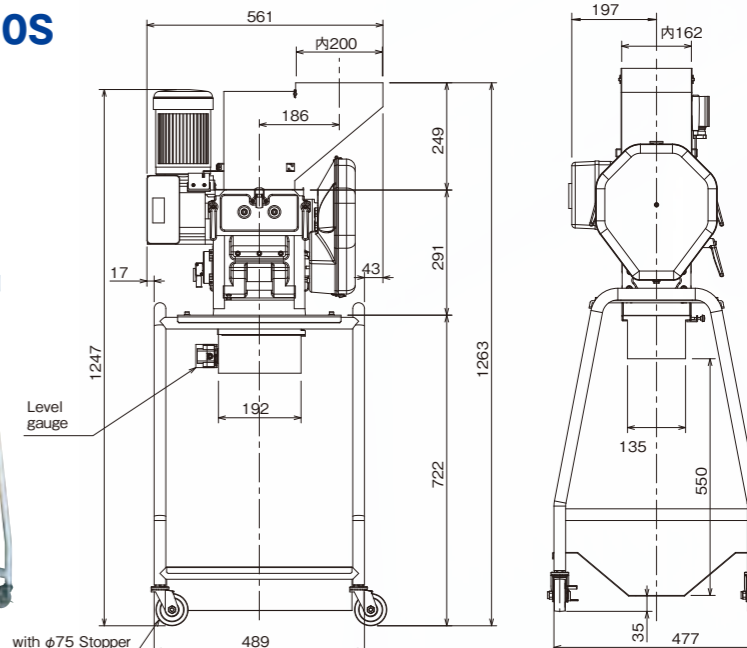
※ The processing capacity is the measured value when cutting sprues; PA glass with 20% glass fiber, 6mm-max diameter, 4g-weight.
 ※ The processing capacity is the measured value when cutting sprues; TPE, 6mm diameter,3g-weight. (S type)



SPCII-C400 / SPCII-C400S

Model	SPCII-C400/SPCII-C400S
Power	3-phase 200VAC (50/60Hz)
Motor Output	0.4kw-3P
Rotary Cutters	φ 130mm diam, 4pcs 37.5rpm/50Hz 45rpm/60Hz
Press Moving Cutter	2.8mm×4.5mm 26 pieces 112.5 cycles/min (50Hz) 135 cycles/min (60Hz)
Hopper Mouth	200mm×162mm
Cuttible Sprue Diameter	φ8 mm or smaller
Processing Capacity	※90~120g/min
Material Tank Volume	N/A(material bag)
Weight	95kg (S type:100kg)

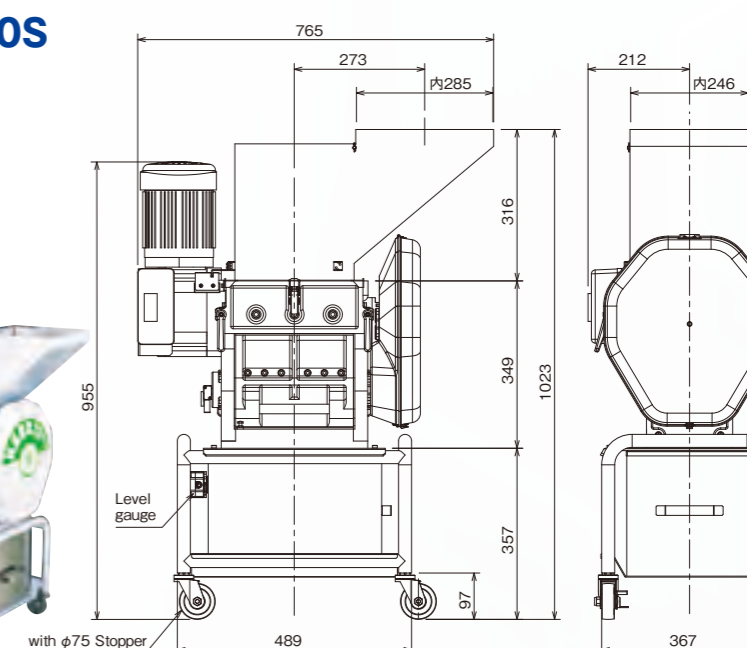
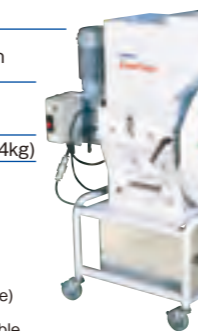
※ The processing capacity is the measured value when cutting sprues; PA glass with 20% glass fiber, 6mm-max diameter, 4g-weight.
 ※ The processing capacity is the measured value when cutting sprues; TPE, 6mm diameter,3g-weight. (S type)



SPCII-C750 / SPCII-C750S

Model	SPCII-C750/SPCII-C750S
Power	3-phase 200VAC (50/60Hz)
Motor Output	0.75kw-3P
Rotary Cutters	φ 176mm diam, 3pcs 37.5rpm/50Hz 45rpm/60Hz
Press Moving Cutter	2.8mm×4.5mm 40 pieces 112.5 cycles/min (50Hz) 135 cycles/min (60Hz)
Hopper Mouth	246mm×285mm
Cuttible Sprue Diameter	φ8 mm or smaller
Processing Capacity	※150~200g/min
Material Tank Volume	18ℓ(Approx. 9Kg)
Weight	149kg (S type:154kg)

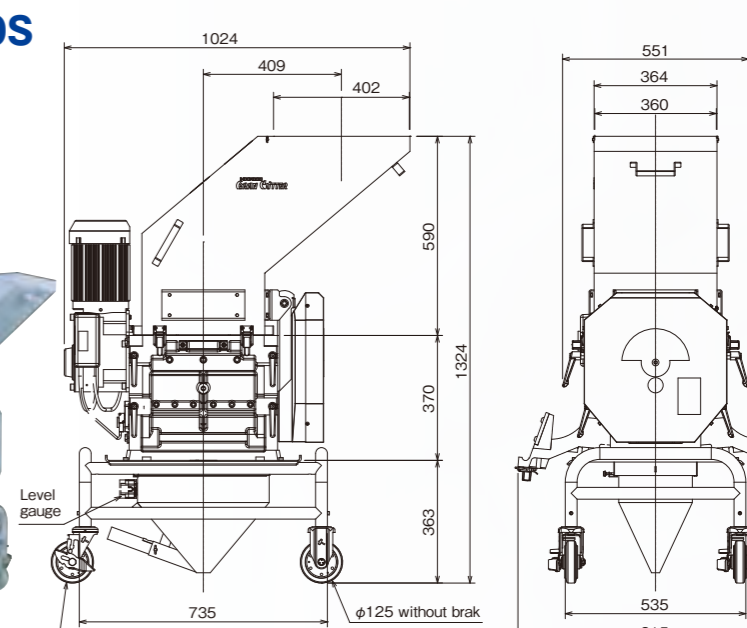
※ The processing capacity is the measured value when cutting sprues; PA glass with 20% glass fiber, 6mm-max diameter, 4g-weight.
 ※ The processing capacity is the measured value when cutting sprues; TPE, 6mm diameter,3g-weight. (S type)



SPCII-1500 / SPCII-1500S

Model	SPCII-1500/SPCII-1500S
Power	3-phase 200VAC (50/60Hz)
Motor Output	1.5kw-3P
Rotary Cutters	φ 220mm diam, 4pcs 37.5rpm/50Hz 45rpm/60Hz
Press Moving Cutter	3.8mm×6mm 45 pieces 112.5 cycles/min (50Hz) 135 cycles/min(60Hz)
Hopper Mouth	402mm×360mm
Cuttible Sprue Diameter	φ13 mm or smaller
Processing Capacity	※320~400g/min
Material Tank Volume	8ℓ(Approx. 4Kg)
Weight	299kg

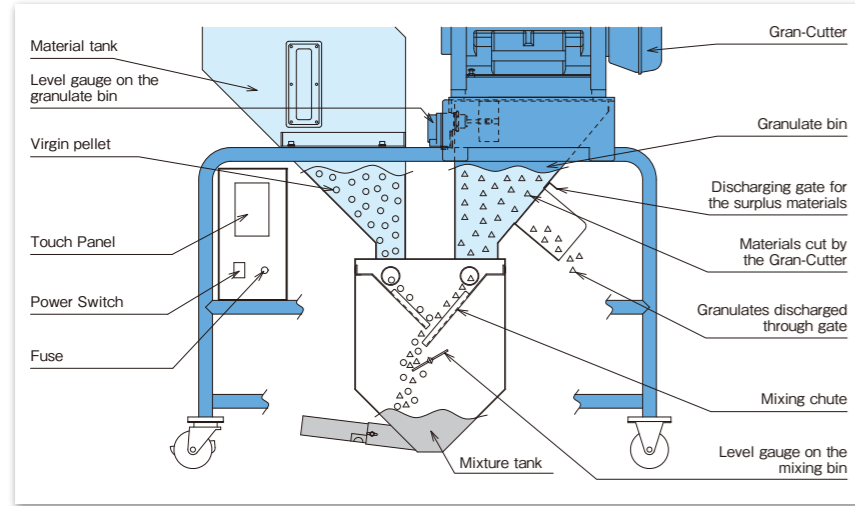
※ This value is true for a 9g, 6mm diameter sprue containing 20% six nylon glass.
 ※ The processing capacity is the measured value when cutting sprues; TPE, 6mm diameter,3g-weight. (S type)



GRAN MIXER GMI-t Series (Mixer)

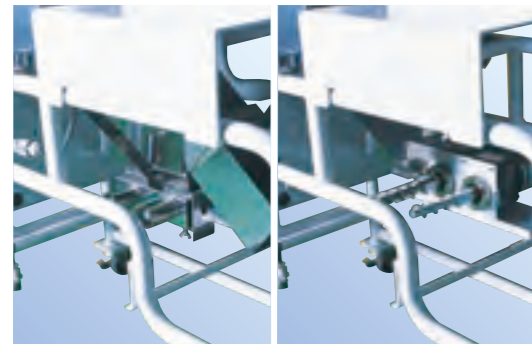
Instantly Mixing Virgin Materials with Granulated Materials!!
with New Cartridged Teeth

GMI-t Series Layout



- The equipped touch panel and buzzer alert you when Gran-Mixer stops with an error.
- It is easy to change the materials.
- The inside of Gran Mixer is easy to disassemble and clean without any tools.
- The mixture tank stores both the virgin and the recycled materials. Any wings or blades are not necessary for further mixing.

Upgraded and much easier to use [GMI/MBII series]



- The motor mounted on the frame eliminates the hassles for removing the motors while cleaning.



- The touch panel and the buzzer alert you when the bin is full.
- The machine can out-feed the surplus materials to the included container.

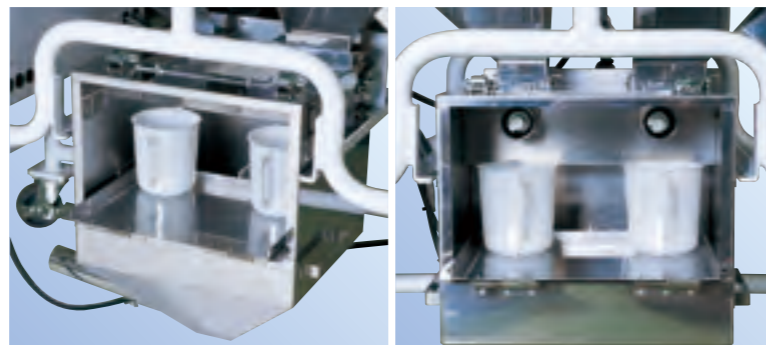
(GMI only)

The measuring procedures are much easier now with the improved mixing screw unit.

The measuring procedure for mixing is drastically improved compared to the previous unit. The lid on the mixing tank can serve as a table to put the included measuring cups. The screw automatically stops by the timer during measurement.



The screw automatically stops by the timer during measurement.



Finger-tip operations with the touch panel

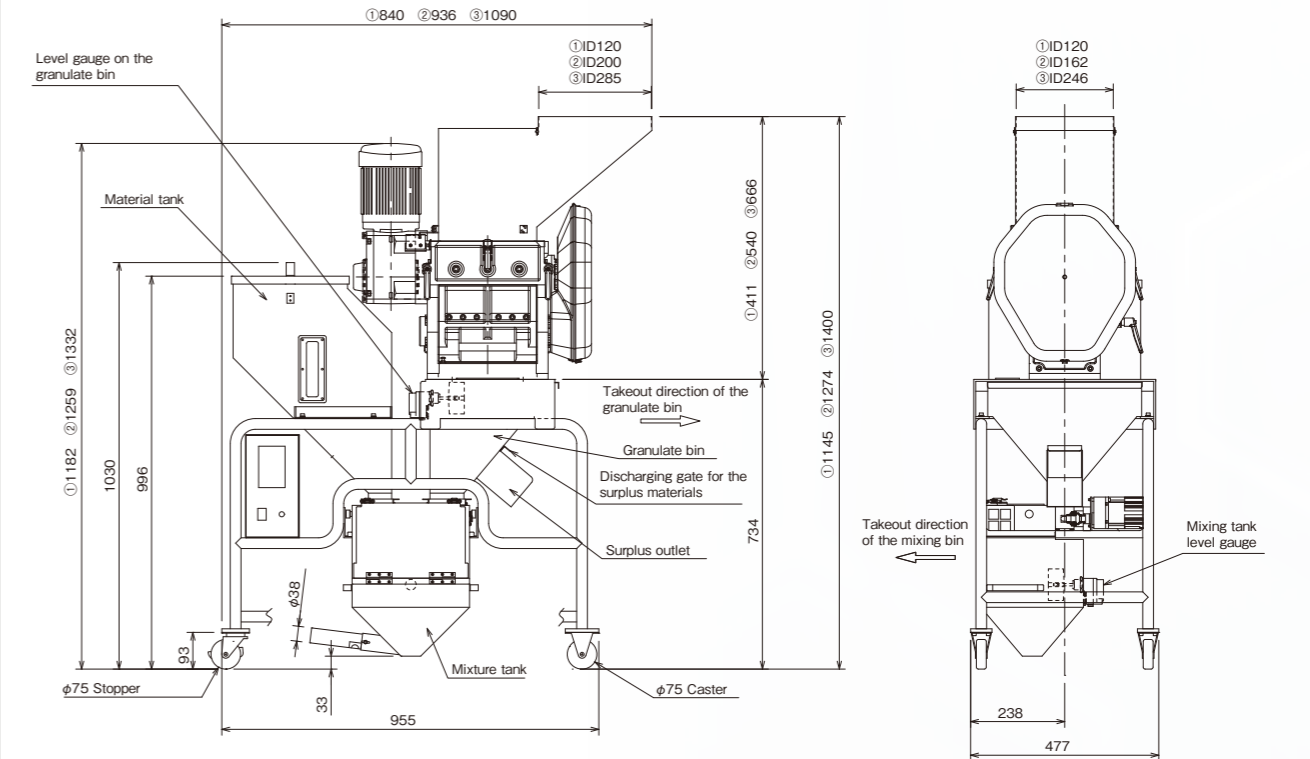
- ① Measure the virgin pellet (V) and the granules (R) with the measuring cup. Repeat for a few times and enter the measurements. The unit starts to run the reference measurement.
- ② The unit automatically calculates and saves the average of the reference measurements, and then transfers the average value.
- ③ Enter the molding criteria. The unit automatically configures the number of screw rotations.
- ④ The unit compensates the difference between the actual measurements and the provisional calculations.



GMI-C200t / GMI-C200St · GMI-C400t / GMI-C400St · GMI-C750t / GMI-C750St

Model	GMI-C200t/GMI-C200St	GMI-C400t/GMI-C400St	GMI-C750t/GMI-C750St
Power	3-phase 200VAC (50/60Hz)	3-phase 200VAC (50/60Hz)	3-phase 200VAC (50/60Hz)
Motor Output	0.2 kw-grounding 3P	0.4 kw-grounding 3P	0.75 kw-grounding 3P
Rotary Cutters	φ98mm 4 pieces 37.5 rpm/50Hz 45rpm/60Hz	φ130mm 4 pieces 37.5 rpm/50Hz 45rpm/60Hz	φ176mm 3 pieces 37.5 rpm/50Hz 45rpm/60Hz
Press Moving Cutter	2.1 mm×3.5 mm 23 pieces 2.8 mm×4.5 mm 19 pieces (S type) 75 cycles/min (50Hz) 90 cycles/min (60Hz)	2.8mm×4.5mm 26 pieces 112.5 cycles/min (50Hz) 135 cycles/min (60Hz)	2.8mm×4.5mm 40 pieces 112.5 cycles/min (50Hz) 135 cycles/min (60Hz)
Hopper Mouth	120mm×120mm	162mm×200mm	246mm×285mm
Cuttible Sprue Diameter	φ6 mm or smaller	φ8 mm or smaller	φ8 mm or smaller
Processing Capacity	※30~40g/min	※90~120g/min	※150~200g/min
Material Tank Capacity	50ℓ(Approx. 25Kg)	50ℓ(Approx. 25Kg)	50ℓ(Approx. 25Kg)
Granule Tank Capacity	8ℓ(Approx. 4.0kg)	8ℓ(Approx. 4.0kg)	8ℓ(Approx. 4.0kg)
Mixing Tank Capacity	7ℓ(Approx. 3.5kg)	7ℓ(Approx. 3.5kg)	7ℓ(Approx. 3.5kg)
Weight	109kg(S type:114kg)	141kg(S type:146kg)	188kg(S type:193kg)

※ The processing capacity is the measured value when cutting sprues; PA glass with 20% glass fiber, 6mm-max diameter, 4g-weight.
※ The processing capacity is the measured value when cutting sprues; TPE, 6mm diameter, 3g-weight. (S type)



※①: GMI-C200t/GMI-C200St ②: GMI-C400t/GMI-C400St ③: GMI-C750t/GMI-C750St

MIXER MBIIt Mixers

■ Mixing the granulated and virgin materials ■ This is only for mixing and not equipped with Gran-Cutter.

Model	MBIIt
Virgin Bin Capacity	50ℓ(Approx. 25Kg)
Recycled Bin Capacity	50ℓ(Approx. 25Kg)
Mixing Tank Capacity	7ℓ(Approx. 3.5Kg)
Weight	Approx. 51kg

