

## Gravimetric Blender

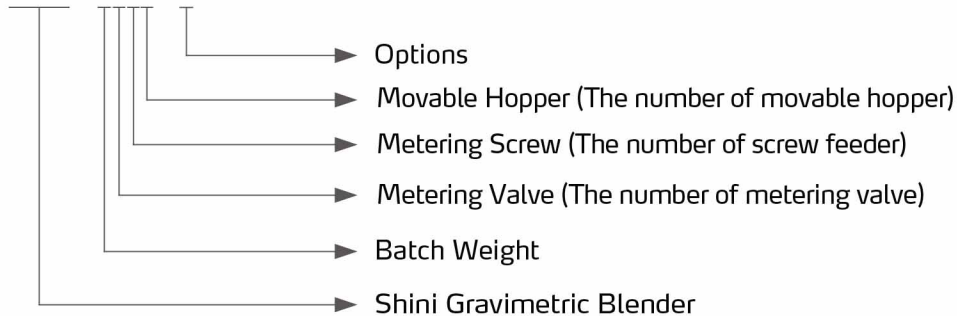
SGB-3400



Refer carefully to the manual before operation.

## ■ Coding Principle

SGB - xxxx - x



For example, model SGB-3410, indicating the batch size is 3kg., four sets of the standard vertical metering valves, one set of metering screws, zero movable hoppers, and the total is five components.

## ■ Features

- An optional movable hopper with a quick-release air connector is available for the SGB-1/3 series, making it easier to change master-batches and perform cleaning and maintenance.
- The quick-detachable mixing tank and blade make it easy to disassemble and clean.
- Use a 7-inch colour touch panel to enhance user operation efficiency and overall experience.
- Support auto suction control function, and the vacuum generator SVG and the central hopper receiver SHR-U-ST are optional for auto material addition;
- Support production data record viewing and alarm record storing;
- Production data can be exported via a USB interface with a single click for convenient analysis.
- Support sandwich metering mode to solve the problem of differences in the bulk density of masterbatch materials.
- The unit supports regrind auto-compensation, which automatically adjusts the proportions of materials and masterbatches.
- Preset output is available, and the unit can stop automatically when it reaches the preset weight.
- Support auto update of PLC HMI programs via USB interface to achieve software upgrade;
- The auto-speed calibration function is performed after each material weighing, using the dosing rate to ensure the best proportioning accuracy.
- The recipe storage function can store up to 1000 recipes.
- The Ethernet communication function enables centralised connection and monitoring with the main process machine.
- Support multiple languages including Chinese, English, Spanish, French, Vietnamese, Japanese, and Polish.



Vertical Metering Valve



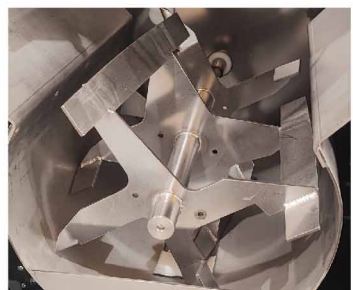
Metering Screw



Movable Hopper



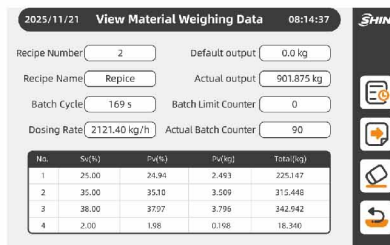
Quick detachable Air Connection



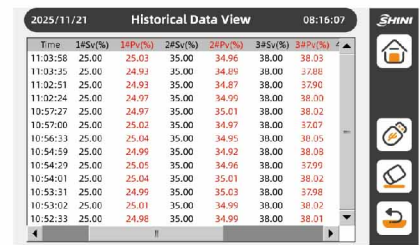
Quick Detachable Structure



Home Page



Production Status

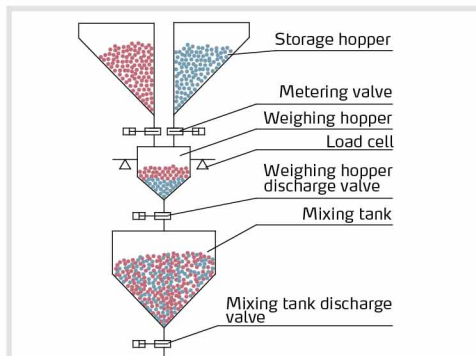


History Record Inquiry

## Options

- Material hopper low-level sensors can provide an early alarm when materials are low. Add "LS" at the end of the model code.
- A special metering valve, including a bridge-breaking device. It is for flake or irregular material while the diameter is less than 12\*12\*12mm/0.47\*0.47\*0.47 inch. Add "FF" at the end of the model code.
- The micro-pulse metering valve (suitable for SGB-1 series model) is optional, which is suitable for receipt ratio from 0.5% and 1%, and add "MF" at the end of the model code.
- The bridge breaking device is optional, and add "MB" at the end of the model code.
- For high-temperature materials processing above 80°C and below 120°C, add "H" at the end of the model code.
- SGB series with floor stand. Add "GS" at the end of the model code.

## Working Principle



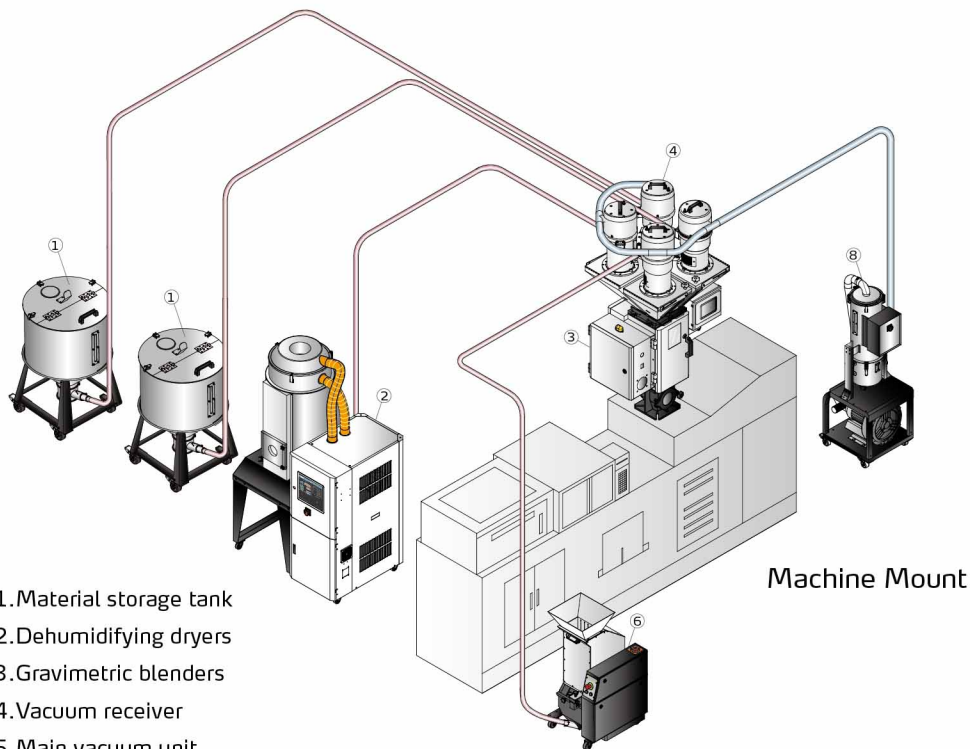
3D animation  
(Tencent)



3D animation  
(Youtube)

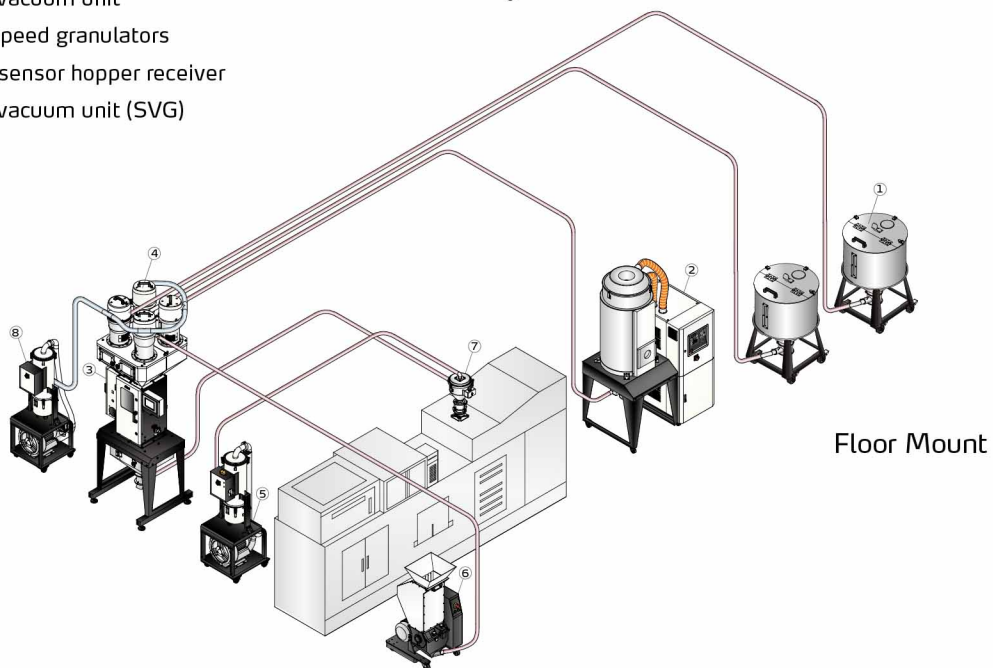
## Application

The SGB Gravimetric Blender is equipped with a PLC controller, making it ideal for applications that require precise mixing of multiple materials based on weight proportions. It is suitable for processes like injection, extrusion, or hollow moulding. The blender can be installed in two ways: as a floor stand or a direct mount. The floor stand version is designed for a flat ground foundation and is typically used in conjunction with a material storage tank or suction box. In contrast, the direct-mount version can be installed directly at the injection moulding machine's feeding port.



Machine Mount

1. Material storage tank
2. Dehumidifying dryers
3. Gravimetric blenders
4. Vacuum receiver
5. Main vacuum unit
6. Low-speed granulators
7. Photosensor hopper receiver
8. Main vacuum unit (SVG)



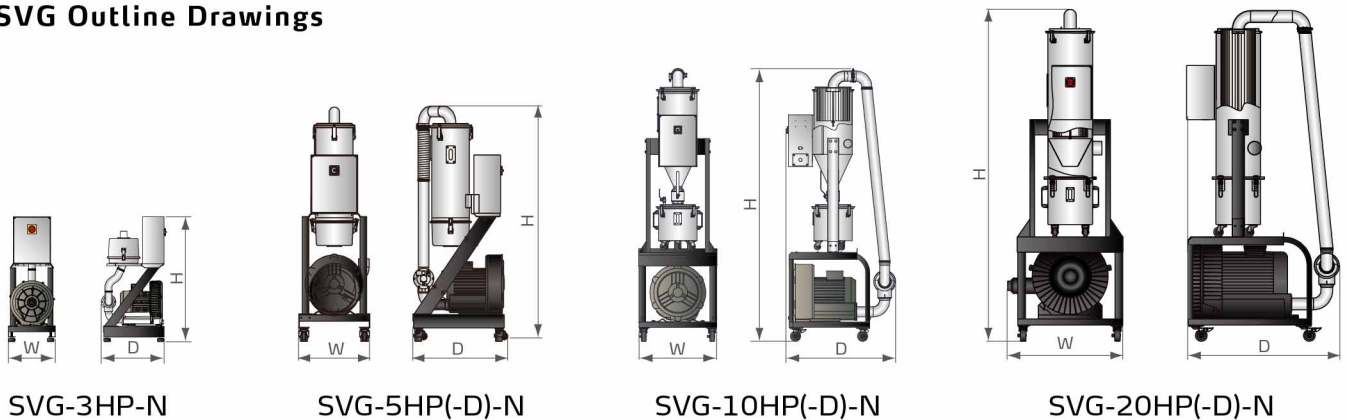
Floor Mount

## Accessories

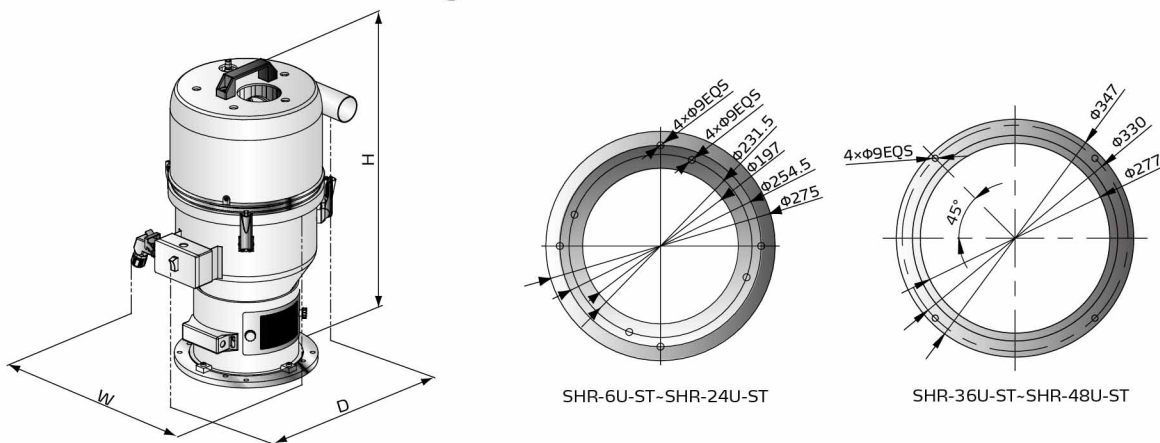
### SVG&SHR-U-ST

SVG can work with SGB and SHR-U-ST vacuum hopper directly to convey materials into the storage hopper of the SGB. The controller of SVG is integrated into the SGB, so it can control all the functions of SVG through the touch panel to make it more useful. The T-shape design of SHR-U-ST 's suction pipe that worked with the SVG makes it easy to connect the vacuum hoppers, which only needs one suction pipe that can connect the SVG and the vacuum hoppers as to give well organized pipe layout.

### SVG Outline Drawings



### SHR-U-ST Outline Drawings



## Specifications

Model	SVG	Power (kW)	SHR-U-ST	Capacity (L)	Material pipe (inch)	Vacuum pipe (inch)	SVG(H×W×D)	SHR(H×W×D)	SVG Weight(kg)	SHR Weight(kg)
SGB-1series	3HP-N	1.85	SHR-6U-ST	6	1.5	2	933×350×450	560×290×400	60	8
SGB-3 series	5HP-N	3.75	SHR-12U-ST	12	1.5	2	1359×426×593	825×305×455	74	11
	5HP-D-N	3.75	SHR-12U-ST	12	1.5	2	1359×426×593	825×305×455	76	11
SGB-10 series	10HP-N	7.5	SHR-36U-ST	36	2	2.5	2031×580×818	1094×349×510	185	16
	10HP-D-N	7.5	SHR-36U-ST	36	2	2.5	2031×580×818	1094×349×510	192	16
SGB-20 series	20HP-D-N	11	SHR-48U-ST	48	2.5	3	2200×745×1000	1242×349×1000	246	18

Note: 1) SVG Power: 3 Φ, 400VAC, 50Hz

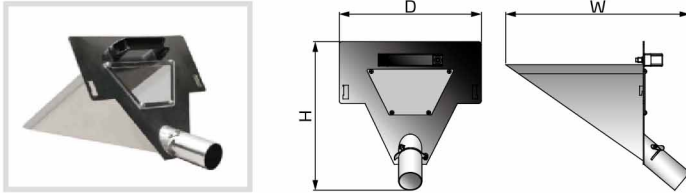
2) SHR Power: AC24V

# SGB Series

## Discharging hopper SGB-DH

The discharging hopper can be directly mounted on the SGB for easy cleaning during material replacement.

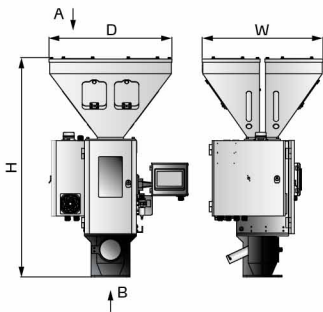
### Outline Drawings



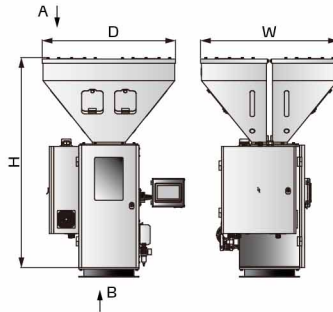
### Specifications

Model	SGB-DH	W×D×H
SGB-3 series	SGB-DH-3	310×405×325
SGB-10 series	SGB-DH-10	410×495×415
SGB-20 series	SGB-DH-20	570×515×445

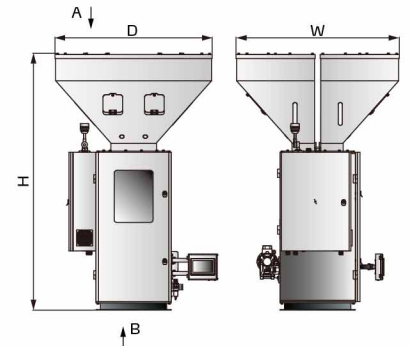
### Outline Drawings



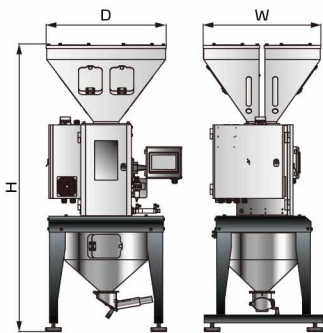
SGB-1XXX/3XXX (standard mode)



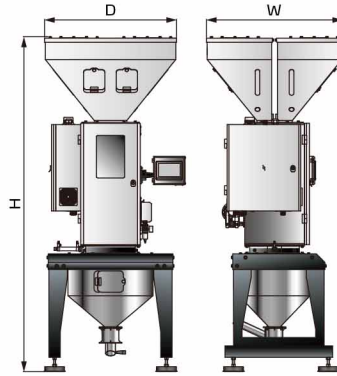
SGB-10XXX (standard mode)



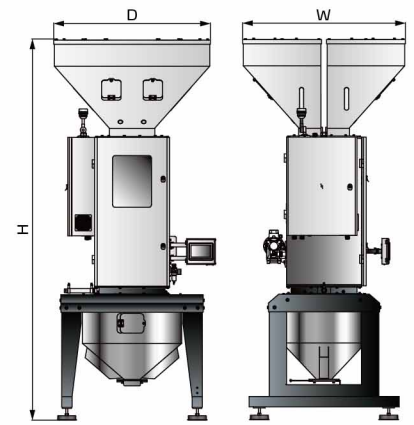
SGB-20XXX (standard mode)



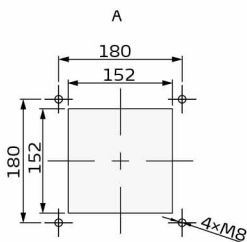
SGB-3XXX-GS (floor stand mount)



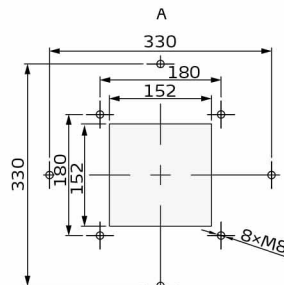
SGB-10XXX-GS (floor stand mount)



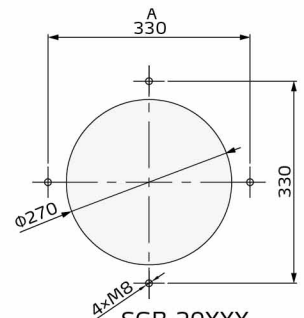
SGB-20XXX-GS (floor stand mount)



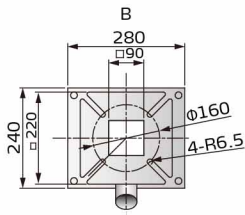
SGB-1XXX/3XXX Series  
Hopper mount size



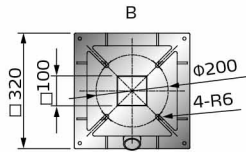
SGB-10XXX Series  
Hopper mount size



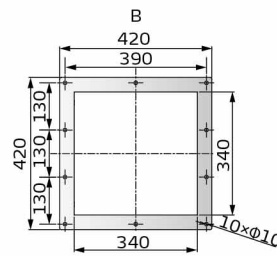
SGB-20XXX  
Hopper mount size



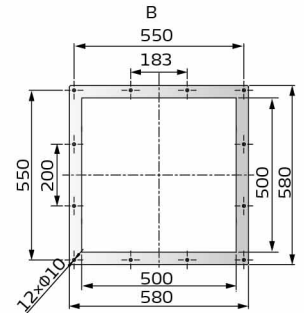
SGB-1XXX  
Magnetic Base Size



SGB-3XXX  
Magnetic Base Size



SGB-10XXX  
Magnetic Base Size



SGB-20XXX  
Magnetic Base Size

## Specifications

Series	Model	Batch weight (kg)	Components	Metering Valve	Metering Screw	Movable Hopper	Max. Batch (kg/hr)	Mixing Motor Power(kW)	Dimension(WxDxH)		Weight (kg)
									Standard type	Foot frame type	
1 Series	SGB-1202	1	4	2	-	2	80	0.25	620x540x1100	620x540x1620	105/130
	SGB-1400		4	4	-	-			750x600x1100	750x600x1620	115/145
3 Series	SGB-3200	3	2	2	0	0	400	0.25	650x800x1350	650x800x1820	115/155
	SGB-3210		3	2	1	0			760x800x1350	760x800x1820	125/165
	SGB-3220		4	2	2	0			760x900x1350	760x900x1820	135/175
	SGB-3222		6	2	2	2			760x850x1350	760x850x1820	130/170
	SGB-3400		4	4	0	0			745x860x1350	745x860x1820	125/165
	SGB-3410		5	4	1	0			760x860x1350	760x860x1820	135/175
	SGB-3420		6	4	2	0			760x900x1350	760x900x1820	145/175
10 Series	SGB-10400	10	4	4	0	-	1200	0.55	1005x980x1535	1005x980x2365	350/450
	SGB-10410		5	4	1	-			1295x980x1535	1295x980x2365	370/460
	SGB-10420		6	4	2	-			1295x1150x1535	1295x1150x2365	380/470
	SGB-10600		6	6	0	-			1300x1100x1535	1300x1100x2365	390/480
	SGB-10610		7	6	1	-			1480x1100x1535	1480x1100x2365	400/490
	SGB-10620		8	6	2	-			1480x1350x1535	1480x1350x2365	410/500
20 Series	SGB-20400	20	4	4	0	-	3000	0.75	1260x1210x1980	1260x1210x2950	670/800
	SGB-20410		5	4	1	-			1380x1210x1980	1380x1210x2950	680/810
	SGB-20600		6	6	0	-			1480x1400x1980	1480x1400x2950	700/930
	SGB-20610		7	6	1	-			1620x1400x1980	1620x1400x2950	710/940
	SGB-20800		8	8	0	-			1700x1630x1980	1700x1630x2950	750/980

Note: 1) Above mentioned are common models.

2) The above data are obtained based on even granules with bulk density of 0.8kg/l and diameter of 3-4mm in a test criteria of continuous process. The value may varies with the material characteristics. If doubtful materials are used, please make further discussion.

3) Typically, vertical metering valves are suitable for material ratios above 1%, and metering screws are for material ratios below 1%.

4) Voltage: 3Φ, 400/460/575VAC, 50/60Hz.

5) The output may vary by material type, shape, fluidity, density, and production process. For other special cases, don't hesitate to contact us.

## Shini Group

Addr: No. 23, Minhe St., Shulin Dist.,  
New Taipei, Taiwan

Tel: +886 2 2680 9119

Fax: +886 2 2680 9229

Email: [shini@shini.com](mailto:shini@shini.com)

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