



## Gravimetric Doser

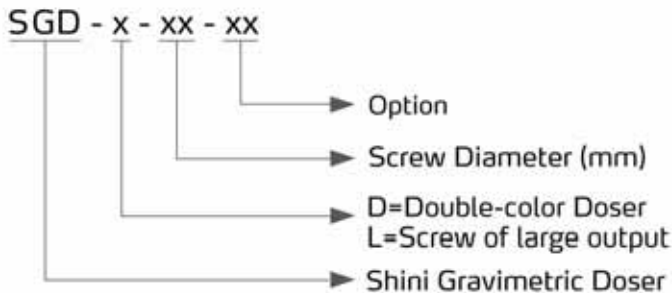
SGD-12



Refer carefully to this manual before operation.

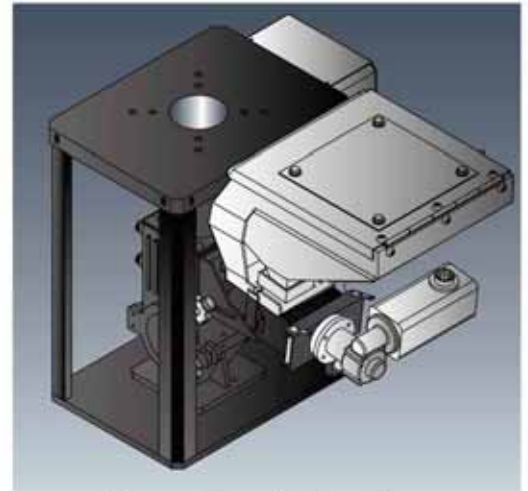
# SGD Series

## ■ Coding Principle

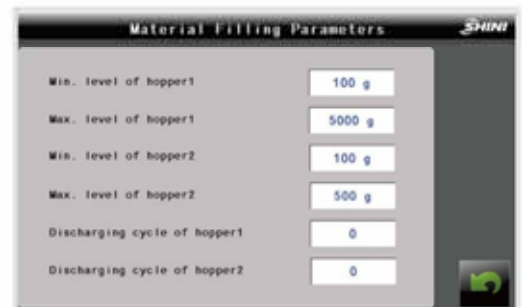


## ■ Features

- Dosing screws are chrome plated for durability.
- Unit is comprised of standard modules for ease of cleaning, disassembly and interchangeability.
- Three-tube hopper magnet is equipped at the base to absorb metal impurities so to prevent screw of molding machine from damage.
- The current operation mode can be recorded, unaffected by power failure so operation would be returned to normal when power is on.
- Set the manually discharging valve for easy replacement of master batch.
- SGD is able to automatically monitor the addition of masterbatch and additives.
- Ethernet communication is available to transmit data, record and store the dosage of regrinds and masterbatch for future use.
- The function of aberration compensation is able to adjust the proportion of masterbatch or additives based on regrinds amount.
- Manipulate dosing process via loss-in-weight technology, satisfying the high requirement of production precision.
- Up to 100 groups of recipes can be saved.
- Suitable for extrusion or injection molding modes.
- It is able to detect the blockage and overload of masterbatch and stop machine and sound alarms accordingly.
- Machine halts and sounds alarm when motor faults.



Heavy Base (Optional)



Calculation Mode

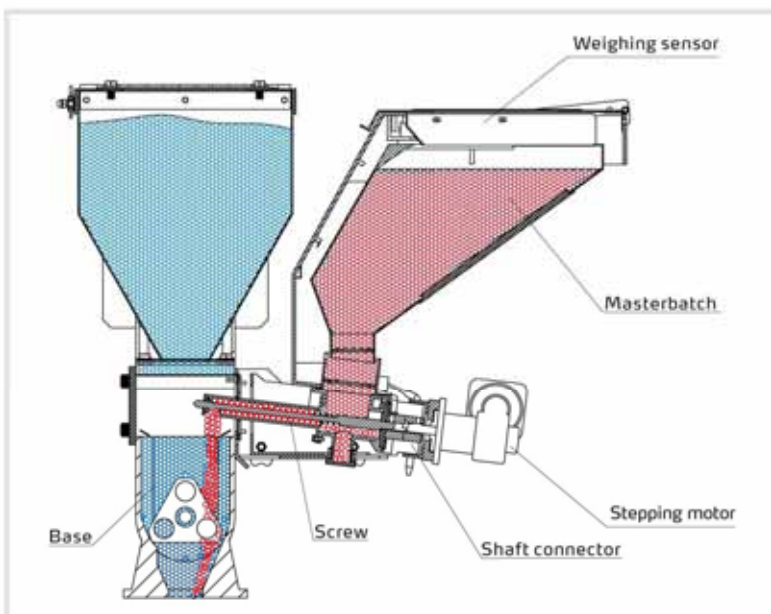


Recipe Edit Menu

## ■ Options

- Venturi Loaders are optional.
- For collocating with SHD-100-300 or SHD-160U-450U dryers, heavy base should be selected.
- Blender is an option for customers to make materials evenly mixed.
- Main material hopper is optional equipment for customers to feed main material.
- Screws with diameter of 30mm/1.18inch can meet customers' requirements of large output.

## ■ Working Principle



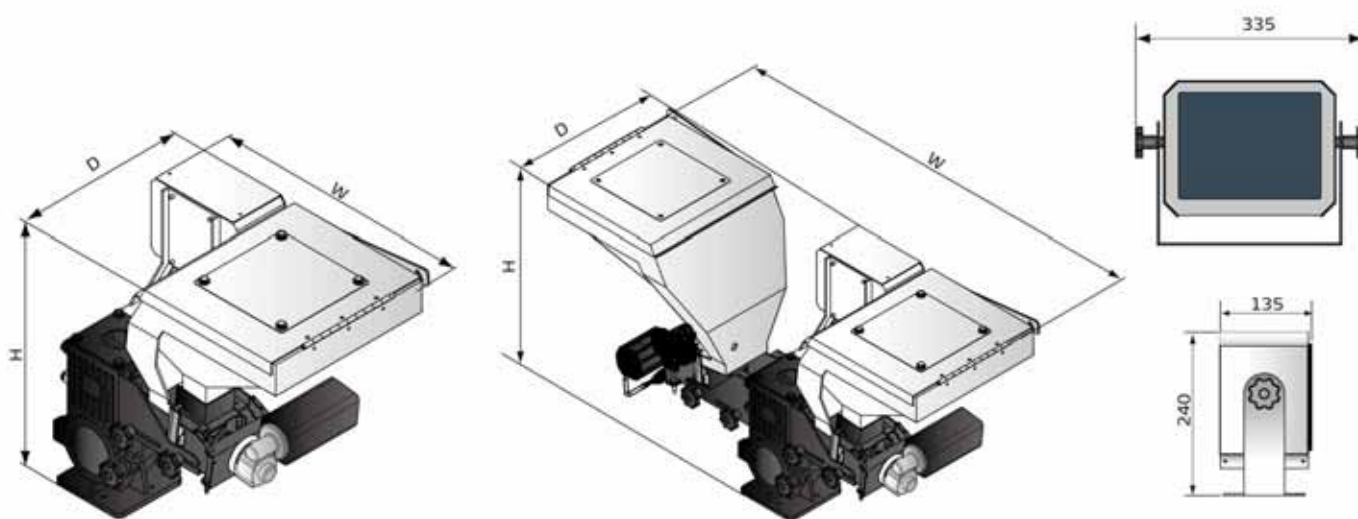
Signals from control cabinet are sent to motor, then motor begins to work, the rotary force is transferred to dosing screw through shaft connector. Masterbatch in hopper falls into the groove of conveying screw, and then be taken to hopper base by rotating action of the screw. Weighing sensor is adopted to precisely control masterbatch output to fulfill proportional adding.

## ■ Application

SGD series dosers are suitable for auto-proportional mixing of virgin material, regrinds, masterbatch or additives. The motor with gear ratio of 38:1 is coupled to a dosing screw of 12,16,20 or 30mm/ (0.47, 0.63,0.79 or 1.18inch) in diameter to give a total of four models with the output ranging from 0.04-60kg/hr(0.09-132lb/hr). Double color dosers can be assembled from two single color dosers according to customers' requirements.

# SGD Series

## Outline Drawings



## Specifications

Model	Single Color Unit				Double Color Unit	
	SGD-12	SGD-16	SGD-20	SGD-30	SGD-D	
Motor Power (kW, 50/60Hz)	0.06				0.06×2	
Output Power of Mixer (kW, 50 / 60Hz)	0.09					
Screw External Dia.	mm	12	16	20	30	**
	inch	0.47	0.63	0.79	1.18	**
Output Capacity	kg/hr	0.04-3.6	0.1-16	1.0-30	3.0-60	*
	lb/hr	0.09-7.9	0.22-35.3	2.2-66	6.6-132	*
Storage Hopper	L	10				
	gal	2.64				
Gear Ratio	38:1					
Main Material Hopper	L	Optional (15)				
	gal	Optional (4.0)				
Mixer	Optional					
Heavy-duty Base	Optional					
Dimensions	H	mm	610			
		inch	24			
	W	mm	645			1090
		inch	25.4			42.9
D	mm	470				
	inch	18.5				
Weight	kg	36			54	
	lb	79			119	

Notes: 1) "\*" stands for the output capacity depends on model selected, data of the single color doser can be a reference. For example: SGD-D-12/16, output: capacity 0.1-19.6kg/hr(0.22-43.2lb/hr).

2) "\*" stands for external dia. of screw is up to model selected.

3) For additionally mount mixer on single color doser, add "MS" at the end of the model code.

4) When selecting screws with diameter of 30mm/1.2inch, the machine model should be followed by "L" to distinguish it from other three kinds of interchangeable screws.

5) All output capacities from above models are based on data from bulk density 1.2kg/L(10lb/gal), dia. 2-3mm/0.08-0.12inch masterbatch in a test criteria of continuous running.

6) Power supply: 1Φ, 115/230V, 50/60Hz.

We reserve the right to change specifications without prior notice.



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