



## Gravimetric Doser

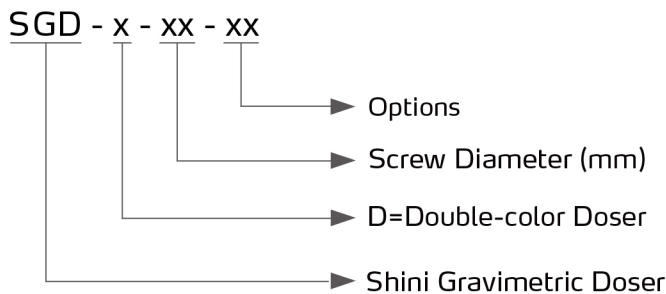
SGD-12



Refer carefully to this manual before operation.

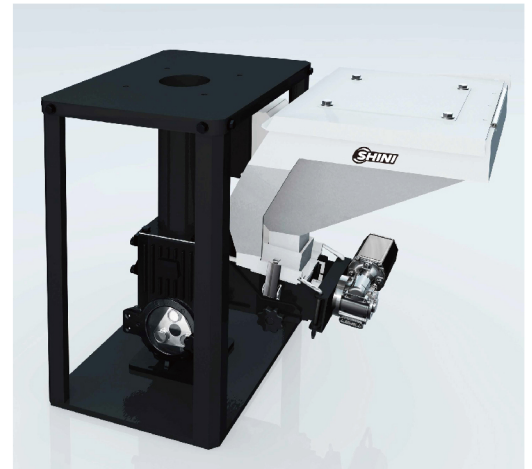
# SGD Series

## ■ Coding Principle

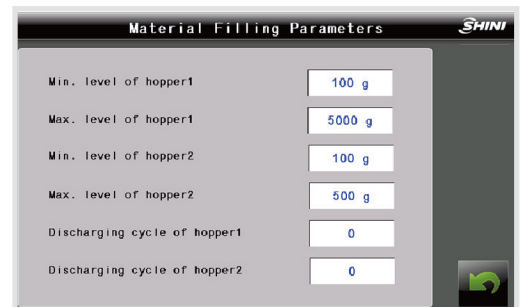


## ■ Features

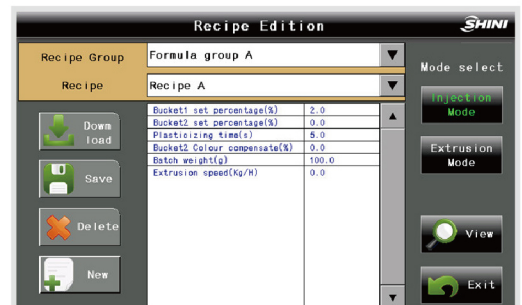
- Dosing screws are chrome plated for durability.
- Modular assembly structure for easy cleaning, disassembly and interchangeability.
- Standard base equipped with hopper magnet to prevent screw damage of the IMM.
- The current operation mode can be recorded, unaffected by power failure so operation would be resume to normal when power is on.
- Set the manually discharging valve for easy replacement of master batch.
- SGD is able to automatically monitor the dosing 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.
- 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)



Parameter Setting Mode

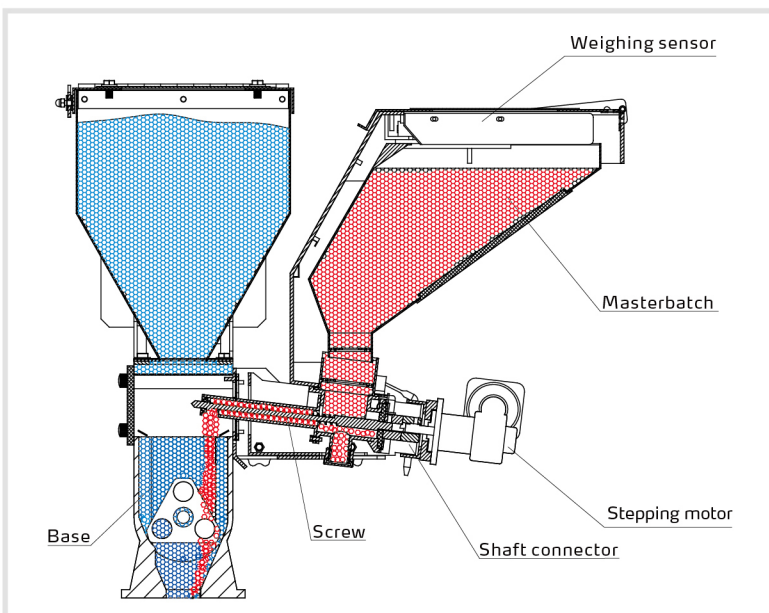


Recipe Edit Menu

## Options

- When collocating with SHD-100~300 or SHD-160U~450U dryers, heavy base should be selected, and add "HB" at the end of the model code.
- Blender is an option for customers to make materials evenly mixed, and add "MS" at the end of the model code.
- Main material hopper is optional equipment for customers to feed main material, and add "MH" at the end of the model code.

## Working Principle



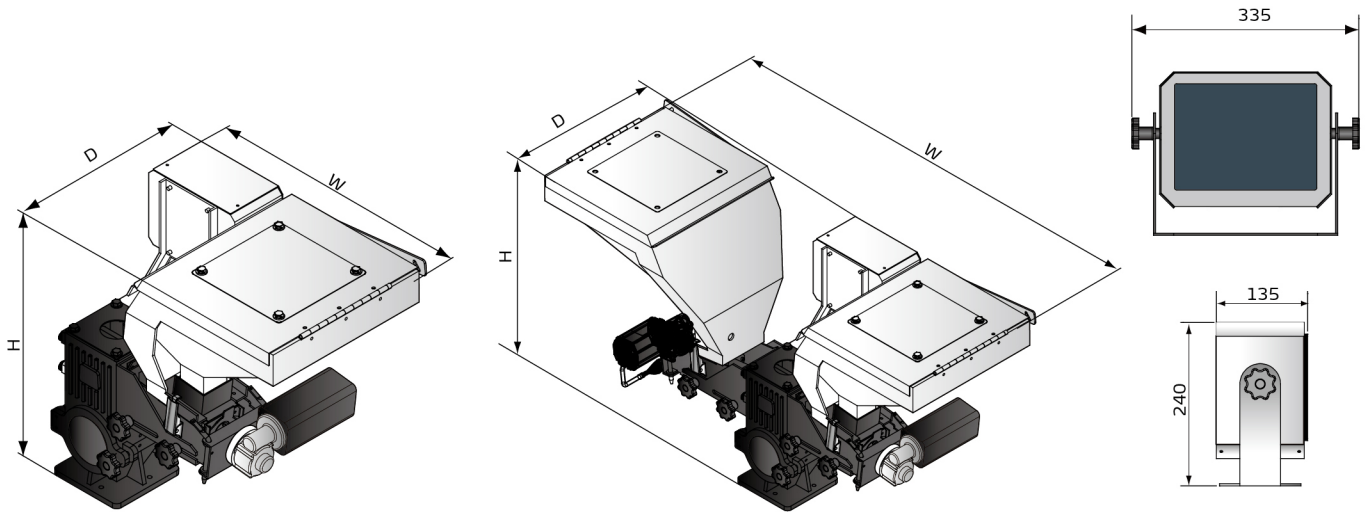
Signals from control cabinet are sent to motor, then motor begins to work, the rotary force is transferred to dosing screw through shaft connector. Masterbatch in hopper falls into the groove of conveying screw, and then be taken to hopper base by rotating action of the screw. Weighing sensor is adopted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

## Application

SGD series dosers are suitable for auto-proportional mixing of virgin materials, regrinds, masterbatch or additives. The motor with gear ratio of 38:1 is coupled to a dosing screw of 12, 16, 20 or 30 mm/(0.47, 0.63, 0.79 or 1.18 inch) in diameter to give a total of four models with the output ranging from 0.04-60kg/hr (0.09-132 lb/hr). Double color dosers can be assembled from two single color dosers according to customer's requirement. SCM supports the extruder mode. When working with the extruder, SGD only requires simple circuit adjustment that can achieve the linkage between the masterbatch metering and the rotating speed of extruder screw, so as to maintain stable additives proportion. Due to small additives proportion and dosage, SCM can work with the Venturi Loader VL to realize auto feeding of the masterbatch.

# 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	○(15)					
	gal	○(4.0)					
Mixer		○					
Heavy-duty Base		○					
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 0.14~19.6kg/hr(0.3~43.2lb/hr).  
 2) "\*\*" stands for external dia. of screw is up to model selected.  
 3) "●" stands for standard, "○" stands for options, "-" stands for none.  
 4) The output capacity is obtained by continuous testing under the conditions of masterbatch in material bulk density of 1.2 kg/L, and diameter of 2-3 mm.  
 5) Power supply: 1Φ, 115/230V, 50/60Hz.

We reserve the right to change specifications without prior notice.