

### ACCURATE, HOMOGENEOUS BLEND QUALITY

The SGC Series is designed for continuous extrusion applications. The SGC Series offers the most homogenous blend available versus common batch type blenders or mixers. Only the material weigh hoppers are mounted on precision load cells, eliminating the weight and vibration of the metering auger and motor assemblies.

The SGC Series lower mass flow weigh hopper learns the exact extruder weight, continuously sends the information to the control system, and automatically adjusts the upper material feed rates to match the learned extruder rate to maintain a consistent ingredient ratio.



#### Features

- Automatically adjusts individual ingredient feeders to match learned extruder rate at the exact ratio required
- Upper material supply hoppers with conical reload valves
- Individual ingredient weigh hoppers, with clear side walls
- Lower mass flow weigh hopper assembly, with clear side walls
- Parallel printer port
- RS-485 Communications port
- LCD display, touch pad control and menu driven format
- Variable frequency drive (VFD) system with inverter duty AC motors; provides precision auger metering with greater recipe ranges and better accuracy
- Cascade mixing section
- Machine-mount cast aluminum throat mounting flange with drain tube
- Precision 1/10% span accurate cantilever load cells provide for accurate weighing system
- Recipe storage book for easy retrieval (up to 1,000 recipes can be stored)
- Full diagnostics
- Complete inventory and material usage information
- Alarm outputs
- 115/1/60 supply voltage
- Hopper lids specified arranged for Sterling Series receivers and loaders. Hopper lids may be alternately cut for customer-supplied non-Sterling loading hoppers at no additional charge, provided proper detailed drawings and specifications are received with order.

#### Options

- Allen-Bradley PLC controls – in lieu of standard proprietary controls
- RS-485 Communications port
- LCD display, touch pad control and menu driven format
- Yaskawa (MagneTek) variable frequency drive (VFD) system with inverter duty AC motors; provides precision auger metering with greater recipe ranges and better accuracy
- Mezzanine mounting stand with 4" tube stub
- Low level solid state proximity sensor for each supply hopper including low level alarm panel with horn and silence button
- Spun regrind hopper with 3.5" dia. discharge, suitable for most free-flowing regrind materials
- RCP - RS-485 remote control panel with 10 ft. cable, 100 ft. maximum distance (2 line display for 2, 3, & 4 component units; 4 line display for 5, 6, & 7 component units)
- Agitated regrind supply hopper and weigh hoppers for regrind material

# SGC SERIES

## Continuous Loss-In-Weight Blender

### SPECIFICATIONS

Model	Max. Output, lbs./hr (kg/hr) <sup>2</sup>	Number of components
SGC-015	750 (340)	2 - 6
SGC-060	3000 (1360)	2 - 6
SGC-100	5000 (2270)	2 - 6

Note: Minimum and maximum processing (extruder) rates must be included with order to avoid processing and manufacturing delays. Orders forwarded without proper minimum and maximum processing rates, as well as individual ingredient recipe percentages, cannot be entered or scheduled until the information is received.

#### Information concerning the maximum blending rate listed below:

- Augers have minimum and maximum output rates based on auger and gearbox size.
- Rates and capacities are based on freeflowing virgin pellets with a bulk density of 35 lbs./ft<sup>3</sup>
- Bulk density of materials, particularly regrinds, can greatly impact blender performance and rate
- Actual rates will vary. Consult the factory for guaranteed blending rates
- All materials must be free-flowing and dry
- Material samples are required for testing prior to shipment for guaranteed rates. Consult the Sterling Sales Department for shipping instructions and for the amounts of each material to send for testing. Typical amounts required are 100 lbs. for major ingredients and 25 lbs. for minor ingredients.

### EXTRUSION CONTROL OPTIONS

Model	Description
COEX	CoExpert™ co-extrusion IBM-compatible Windows-based industrial graphical control system with touch screen. Includes an integrated PC/Touch Screen controller, significantly easing installation and operator usage. For use with up to six (6) SGC blending systems and/or SFCM rate monitor units without a haul-off control. Controls extruder speeds, layer percentages, and blender recipes. Complete with all necessary hardware, software, and startup assistance. Communications wires and cables not included.
COEX-LS	CoExpert™ with line speed control (haul-off). Required when using a CoExpert™ package to control the haul-off. For use with up to six (6) SGC blending systems or SFC-M rate monitor units and a haul-off control. Included are an encoder and a conversion panel for interfacing to the CoExpert™ control system. Controls overall yield (weight/length), weight per area, and thickness. Complete with all necessary hardware, software, and startup assistance. Communications wires and cables not included.
520-LCD	Mono-layer extruder speed (output) and/or downstream yield (weight/length) control with two (2) digital potentiometers. (Optional start-up assistance recommended.)

### SGC SERIES PLC OPTION

The Allen-Bradley control system option consists of a SLC 5/04 and PanelView 550™ interface.

The SLC 5/04 is ideal for dedicated control applications. These controllers include a built-in Data Highway Plus port that enables high speed peer-to-peer communication with bit execution times of 0.37µs.

The PanelView 550™ Operator Terminal provides a high-performance operator interface in a small, flat-panel design. Using the latest operator interface technology, the PanelView 550™ terminal is optimized for value and ease of use.

The PLC controls function with the same method of operation as our proprietary controls. Consult the factory for special operator interface other than listed above.

#### Notes:

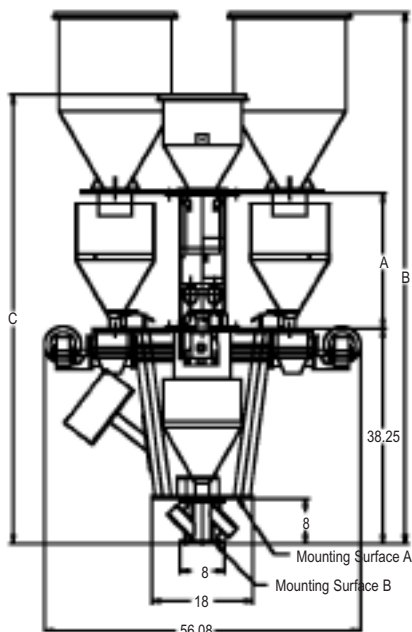
- SGC Series floor-mount configuration also available; consult factory or sales representative for more information
- All orders must include the following information to be processed at the factory:
  - Minimum and maximum customer specified extruder rates (processing rates) – real rates
  - Minimum and maximum recipe percentage ranges for each ingredient, i.e. 50-100%
  - Material types and bulk densities for each ingredient - Note: Material samples may be required
  - Hopper lid arrangement by ingredient

# SGC SERIES

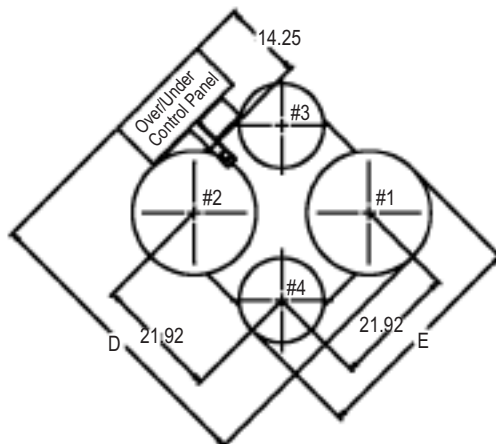


## Continuous Loss-In-Weight Blender

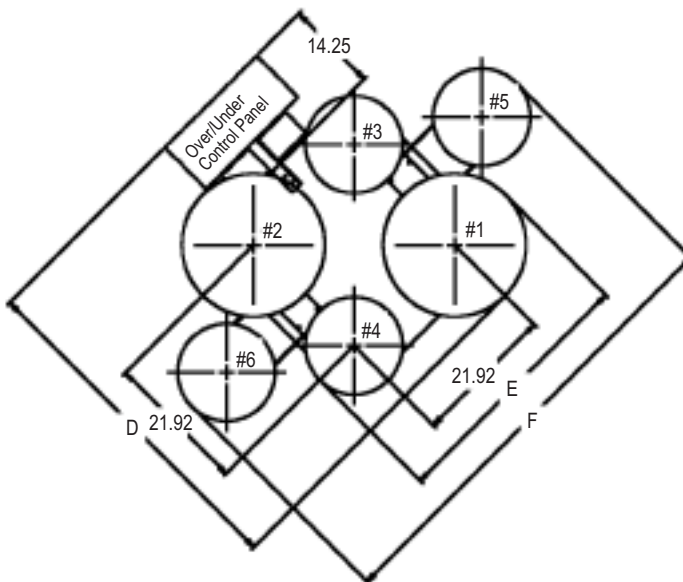
### DIMENSIONS



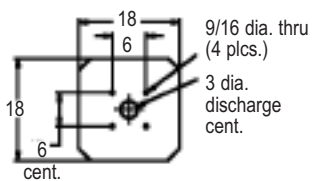
Typical 4-component blender



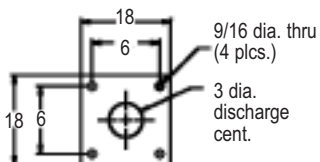
Typical 6-component blender



#### Mounting Surface A



#### Mounting Surface B



Model	A, in. (cm)	B, in. (cm)	C, in. (cm)	D, in. (cm)	E, in. (cm)	F, in. (cm)
SGC-015	20 (51)	81 (205)	76 (195)	51 (130)	39 (100)	56 (142)
SGC-060/100	24 (61)	95 (240)	80 (205)	54 (140)	41 (105)	71 (180)

# SGC SERIES

## Continuous Loss-In-Weight Blender

### OUTPUT CHART: CUBIC FEET PER HOUR (LITERS PER HOUR)

Auger size, in. (mm) OD	Gearbox ratio	Min. auger speed	Min. output, cu. ft./hr (l/hr)	Max. auger speed	Max. output, cu. ft./hr (l/hr)
3 (76.2)	20:1	5 rpm	4.00 (117)	175 rpm	104 (4,125)
	10:1	10 rpm	8.00 (235)	350 rpm	208 (8,255)
2 (50.8)	20:1	5 rpm	1.14 (30)	175 rpm	34 (1,080)
	10:1	10 rpm	2.28 (61)	350 rpm	69 (2,160)
	5:1	20 rpm	4.57 (123)	700 rpm	138 (4,320)
1 5/8 (41.2)	20:1	5 rpm	0.71 (20)	175 rpm	23 (710)
	10:1	10 rpm	1.43 (40)	350 rpm	47 (1,415)
	5:1	20 rpm	2.86 (80)	700 rpm	93 (2,850)
1 (25.4)	20:1	5 rpm	0.17 (4)	175 rpm	5 (165)
	10:1	10 rpm	0.34 (9)	350 rpm	10 (335)
	5:1	20 rpm	0.68 (19)	700 rpm	21 (675)
0.75 (19)	20:1	5 rpm	0.06 (2)	175 rpm	2 (75)
	10:1	10 rpm	0.14 (4)	350 rpm	5 (150)
	5:1	20 rpm	0.28 (8)	700 rpm	9 (300)
0.5 (12.7)	20:1	5 rpm	0.014 (0)	175 rpm	0 (16)
	10:1	10 rpm	0.03 (0)	350 rpm	1 (33)
	5:1	20 rpm	0.06 (1)	700 rpm	2 (67)

### OUTPUT CHART: POUNDS PER HOUR (KILOGRAMS PER HOUR)

Auger size, in. (mm) OD	Gearbox ratio	Min. auger speed	Min. output, lbs./hr (kg/hr)	Max. auger speed	Max output, lbs./hr (kg/hr)
3 (76.2)	20:1	5 rpm	140 (63)	175 rpm	3,635 (1,650)
	10:1	10 rpm	280 (127)	350 rpm	7,270 (3,305)
2 (50.8)	20:1	5 rpm	40 (18)	175 rpm	1,205 (545)
	10:1	10 rpm	80 (37)	350 rpm	2,410 (1,095)
	5:1	20 rpm	160 (74)	700 rpm	4,820 (2,190)
1 5/8 (41.2)	20:1	5 rpm	25 (10)	175 rpm	815 (395)
	10:1	10 rpm	50 (22)	350 rpm	1,630 (740)
	5:1	20 rpm	100 (45)	700 rpm	3,265 (1,485)
1 (25.4)	20:1	5 rpm	6 (3)	175 rpm	180 (80)
	10:1	10 rpm	12 (5)	350 rpm	360 (165)
	5:1	20 rpm	24 (11)	700 rpm	720 (325)
0.75 (19)	20:1	5 rpm	2 (1)	175 rpm	80 (35)
	10:1	10 rpm	5 (2)	350 rpm	160 (70)
	5:1	20 rpm	10 (4)	700 rpm	320 (145)
0.5 (12.7)	20:1	5 rpm	0.5 (0.2)	175 rpm	20 (9)
	10:1	10 rpm	1 (0.4)	350 rpm	40 (15)
	5:1	20 rpm	2 (0.9)	700 rpm	80 (35)

NOTE: These tables represent approximate output values for variable frequency AC inverter drives. These results may not be achieved, given a particular application or material. Consult the factory for guaranteed rates.