

SPB SERIES

A FLEXIBLE, MODULAR DESIGN FOR UP TO EIGHT INGREDIENTS

Blend pellets, granular and powder materials at rates of up to 16,500 lbs./hr. (7,500 kgs/hr) in continuous extrusion applications, including compounding, profile, fiber and sheet. SPB Series offers the most homogeneous blend available compared to common batch-type blenders or mixers. Materials include all pellets, regrind and powder materials, including wood flour and talc. Twin screw feeders can also be provided for non-free-flowing materials.

SPB Series blenders provide continuous gravimetric blending that responds to changes in the recipe or extruder speed. Ingredients are homogeneously dispersed, ensuring a more consistent product cross section that results in a more consistent product. Continuous feeding eliminates surge or starvation of material at the extruder screw.



Features

- Mezzanine mount configuration
- Blender automatically adjusts feeders to match extruder rate at the ratio required
- Capable of starve or flood feeding of extruder
- Supply hoppers with reload valves
- Stainless steel and nickel plated aluminum construction
- Precision vibrating wire digital load cells
- Feed augers with DC motors
- Touch-screen operator panel features easy menu-driven graphic format, RS-232 printer port, recipe storage book, and material usage information
- Hopper lids arranged for Sterling vacuum receivers and hopper loaders. Lids may also be cut for other loaders at no additional charge provided detailed drawings are submitted with the order.
- 230/1/60 supply voltage

Options

- Twin screw feeder with integral agitator for non-freeflowing or cohesive materials
- High temperature model, 350°F (175°C)
- Vacuum loading equipment
- Liquid additive introduced below blender
- MultiLine™ control system (based on an industrial PC and required for multiple blender applications)
- Communications capability (Ethernet, Modbus, Profibus, etc). MultiLine system only

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SPECIFICATIONS

All of these blenders are custom designed to fit the specific application. Each feeder must be sized to handle the full range of each component, so minimum and maximum percentages must be specified up front. The range can usually change in the future by changing auger assemblies, but an initial range must be specified. A Quote Request form must be completed to properly size and price the blender.

For budgetary purposes, the following configuration includes a control system, and is based on some of the most popular applications:

1000 lbs. (450 kgs)/hr

2000 lbs. (900 kgs)/hr

4000 lbs. (1800 kgs)/hr

(Pricing is determined on a per feeder basis for either pellets or powder)

**Lead time on most systems is 12 weeks

DIMENSIONS AND SPECIFICATIONS OF TYPICAL UNITS

No. of Components	Height, in. (mm)	Width, in. (mm)	Depth, in. (mm)	Weight, lbs. (kg)
1	70 (1780)	36 (915)	40 (1020)	350 (160)
4	70 (1780)	54 (1375)	42 (1070)	500 (230)
6	80 (2035)	60 (1525)	50 (1270)	750 (345)
8	80 (2035)	60 (1525)	55 (1400)	1000 (455)

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.

Augers have minimum and maximum output rates based on auger and motor size.

Bulk density of materials, particularly regrinds, can greatly impact blender performance and rate. Consult the factory for guaranteed blending rates.

Material samples are required for testing in order to guarantee actual processing rates. Consult your Sterling sales contact for shipping instructions and the amounts of each material required for testing. Typical amounts required are 100 pounds for major ingredients and 25 pounds for minor ingredients.

TYPICAL POWDER MATERIALS

Type	Feeder	Materials
Free-flowing or non-cohesive	Single screw feeder without agitation	PVC powder or compound; Sodium carbonate; Color concentrate; Blowing agent; Various ground materials
Free-flowing or non-cohesive	Single screw feeder with agitation	Wood flour; Oat, wheat, or rice hulls; Knaff; Hemp; Talc
Non-free-flowing or cohesive	Twin screw feeder with agitation	Calcium carbonate; Talc; Clay; Titanium dioxide (TiO ₂); Various wax granules; UV stabilizers; Stearates; Pigments

All materials must be the proper mesh size suitable for processing with the equipment. Obtain samples of all materials and consult the factory if in doubt of any of the materials to be blended or fed.

