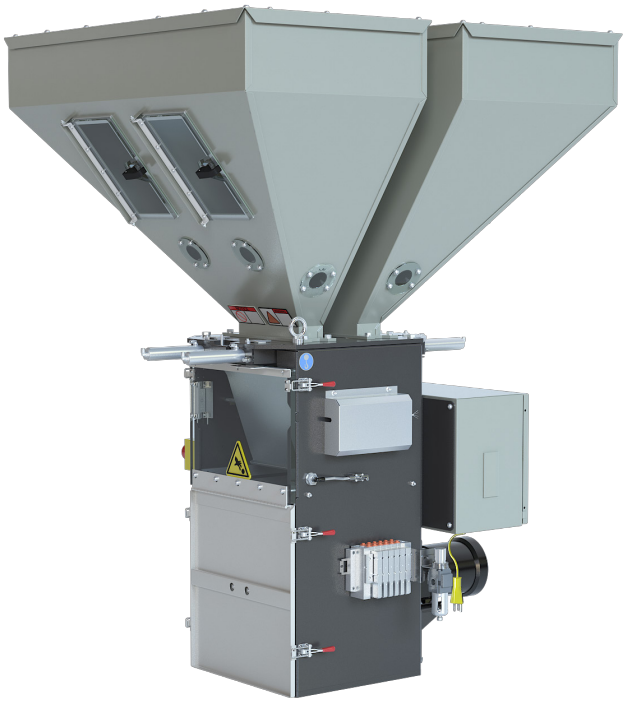
# BD SERIES
## Gravimetric Blender



## Technical Specifications

The BD Series batch weigh blenders are setting new industry standards for accuracy and homogeneous blend quality with quick-acting diamond slide gates, unmatched mixing performance, and an easy to use high resolution color touchscreen interface.

With 3 different ways to enter blend recipes, the BD Series blender is perfect for Injection Molding, Extrusion, Blow Molding or any other process. Combined with its easy to clean design, the BD series blender allows you to minimize material changes and maximize machine efficiency.

## Features

**Standard Features**

- 7" High Resolution Color Touchscreen display and a powerful Allen Bradley Micro850 PLC.
- Unmatched mixing performance - new high efficiency paddle delivers the most consistent batch-to-batch mix in the industry.
- 100 recipe storage book
- Alarm light & audible alarm
- 3 Recipe Modes

  **1.** Percentage recipe entry - Ingredients metered as a percentage of the batch.

  **2.** 8-component "EZ" mode recipe entry - Color and additives metered as a percentage of the virgin.

  **3.** "Parts" mode ratio recipe entry (i.e. 500:1)

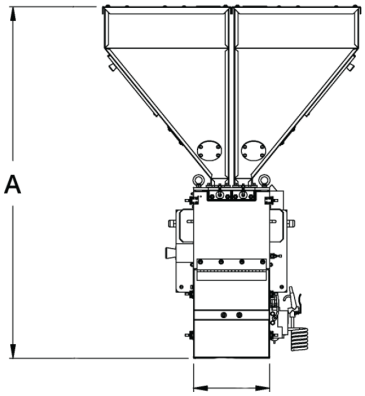
- Precision metering with diamond slide gate design - dispense as few as 5 pellets per pulse
- Oversized square gate assembly for Regrind
- Precision 0.02% span accurate cantilever load cell weigh system
- Adjustable stroke limiters for all ingredients
- Interlocked safety system shuts off air and power if mix chamber is opened
- 7th and 8th components include additive feeders or RAM feeders
- 115/1/60 or 230/1/60 supply voltage
- Remotely monitor or control via phone, tablet, or PC
- Seamlessly integrate with any smart factory
- E-mail alert capability

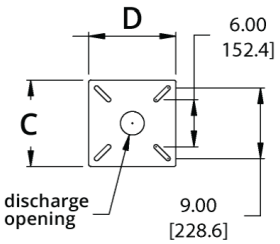
**Optional Features**

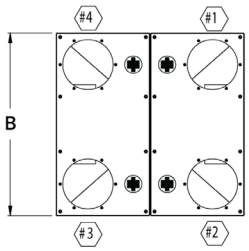
- Integrated 9-station loading control
- Low-level proximity sensor for each supply hopper
- Regrind Auger Metering (RAM) assembly with agitated straight wall hopper (model 900 and larger)
- Stainless steel supply hoppers
- Blender stands with air operated mixer discharge knife gate for gaylord or barrel filling
- Low-profile blender stand for mezzanine mounting
- Low-profile drawer-magnet
- Blender stand with mixer valve and surge hopper with integral take off stub or vacuum take off box mounting
- Aluminum spool with drain port
- Drain tube with slide gate on supply hopper
- Ethernet switch for remote communications

# BD SERIES

## Product Diagrams

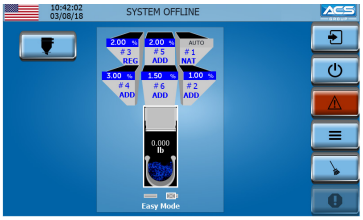


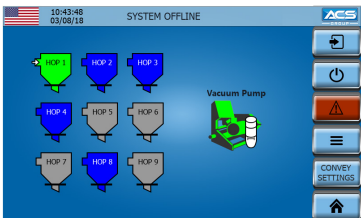




| Model | A, in. (mm.) | B, in. (mm.) | C, D, in. (mm.) | Weight |
|---|---|---|---|---|
| 500 | 51.5 (1308) | 37.5 (952) | 11x11 (280x280) | 375 (170) |
| 900 | 56.5 (1435) | 37.0 (940) | 14x15 (355x457) | 450 (205) |
| 2500 | 69.5 (1765) | 45.5 (1156) | 17x18 (432x453) | 650 (295) |
| 4000 | 85.5 (2172) | 57.5 (1461) | 22x24 (559x610) | 1100 (500) |
| 6000 | 89.5 (2337) | | | |

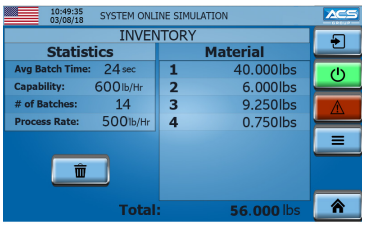
## Advanced Controls




**Blender Home Screen**
Visual representation of the entire blender system to quickly and easily see the current recipe, operation mode, and the weight of the current batch.




**9 Station Loading Control (Optional)**
Control a vacuum pump to load up to 8 hoppers and convey to a single process machine.




**Inventory Statistics**
Quickly see the average batch time and current pounds per hour process rate to identify throughput targets.


**Recipe Book**
Enter and store up to 100 unique recipes.

## Specifications

| Model | Max. Blending Rate* lbs./hr. (kgs./hr.) | # of materials to be blended | Slide gate size, in. (mm.) | | Supply hopper capacity | | Weigh hopper cap., cu.ft (l) |
|---|---|---|---|---|---|---|---|
| | | | Majors | Minors | Majors | Minors | |
| 500 | 500 (227) | 2-6 | 2.0 (50) | 1.5 (38) | 1.4 (40) | 1.0 (28) | 0.18 (5.0) |
| 900 | 900 (410) | 2-8 | | | | | 0.38 (11) |
| 2500 | 2500 (1135) | | 2.5 (63) | 2.0 (50) | 3.0 (85) | 2.7 (77) | 0.82 (23) |
| 4000 | 4000 (1815) | | 4.0 (100) | 3.0 (75) | 7.5 (212) | 6.0 (170) | 1.23 (34) |
| 6000 | 6000 (2725) | | | | | | 2.17 (61) |

* Maximum blending rates based on running three components at 80% virgin pellets, 18% free-flowing regrind and 2% pelletized additive

| Model | Typical batch size lbs. (kgs.) | Mixer | | | Load cell capacity kgs. | Discharge opening in. (mm.) |
|---|---|---|---|---|---|---|
| | | Capacity cu.ft. (l) | Motor size HP (kW) | RPM | | |
| 500 | 4 (1.8) | 0.25 (7) | 1/6 (0.124) | 21 | 2 @ 10 kgs. | 3.0 (76.2) |
| 900 | 8 (3.6) | 0.56 (16) | | | 2 @ 10 kgs. | |
| 2500 | 25 (11.3) | 1.1 (31) | 1/3 (0.25) | 22 | 2 @ 10 kgs. | 4.0 (102) |
| 4000 | 35 (15.8) | 2.72 (77) | 1 (0.75) | | 2 @ 15 kgs. | |
| 6000 | 45 (20.4) | | | | 2 @ 15 kgs. | |

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*Gravimetric Batch Blender*

## APPROXIMATE MAX BLENDING RATE (LB/HR)

Use for reference only! To determine actual throughputs, contact engineering with actual recipe!

| Model | # Components | | | | | |
|---|---|---|---|---|---|---|
| | 3 | 4 | 5 | 6 | 7 | 8 |
| 500 | 500 | 400 | 320 | 250 | 200 | 160 |
| 900 | 900 | 720 | 570 | 450 | 360 | 280 |
| 2500 | 2500 | 2000 | 1600 | 1280 | 1020 | 810 |
| 4000 | 4000 | 3200 | 2560 | 2040 | 1630 | 1300 |
| 6000 | 6000 | 4800 | 3840 | 3070 | 2450 | 1960 |

IMPORTANT INFORMATION CONCERNING MAX. BLENDING RATE LISTED:

- The standard maximum blending rate is based on a 3-component blend running 80% virgin, 18% regrind (free-flowing) and 2% pelletized color. Each additional component reduces the overall maximum rate by 20% per component.
- Recipes with more than 50% regrind will significantly reduce the throughput, and minor ingredient accuracy, of the blender. Consult the factory for achievable rates.
- Two component recipes may REDUCE overall blenders throughput due to reduced available with hopper capacity. Consult the factory for achievable rates.
- Rates are based on dry, free-flowing virgin pellets with a bulk density of 35 lbs./ft3. Rates will vary as a result of the number of blender components, the materials, and the recipe(s) used. Consult the factory for guaranteed rates.
- Material samples are required for testing prior to shipment for guaranteed rates. Consult the ACS Sales Department for shipping instructions and for the amounts of each material to send for testing. A test request form must be submitted, and typical amounts of material required for small blenders are 50 lbs. for major ingredients and 10 lbs. for minor ingredients

## MAXIMUM LOADER SIZING

(Recommended MAXIMUM loader sizing - smaller models can be used in all locations.)

| Model | Layout [1] | Comp #1 | Comp #2 | Comp #3 | Comp #4 | Comp #5 | Comp #6 |
|---|---|---|---|---|---|---|---|
| 500 | 3-Comp | SRC-16; SSR-45 | SRX-04; SSX-11 | SRC-16; SSR-45 | | | |
| | All Other | SRC-16; SSR-45 | | | | | SRX-04; SSX-11 |
| 900 | 3-Comp | SRC-16; SSR-45 | SRX-04; SSX-11 | SRC-16; SSR-45 | | | |
| | All Other | SRC-16; SSR-45 | | | | | SRX-04; SSX-11 |
| 2500 | 3-Comp | SRC-60; SSR-170 | SRX-04; SSX-11 | SRC-60; SSR-170 | | | |
| | All Other | SRC-60; SSR-170 | | | | | SRX-04; SSX-11 |
| 4000 | 3-Comp | SRC-60; SSR-170 | SRC-16; SSR-45 | SRC-60; SSR-170 | | | |
| | All Other | SRC-60; SSR-170 | | | | | SRC-16; SSR-45 |
| 6000 | 3-Comp | SRC-60; SSR-170 | SRC-16; SSR-45 | SRC-60; SSR-170 | | | |
| | All Other | SRC-60; SSR-170 | | | | | SRC-16; SSR-45 |



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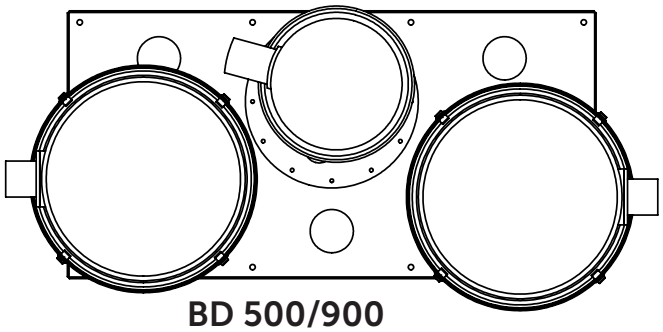
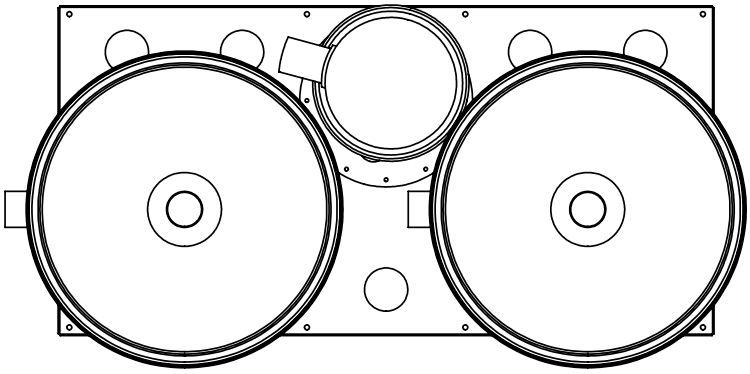
## BLENDER COVER LAYOUT



**BD 500/900**

SRC16; SRC45, QTY: 2

SRC04; SSR11, QTY: 2

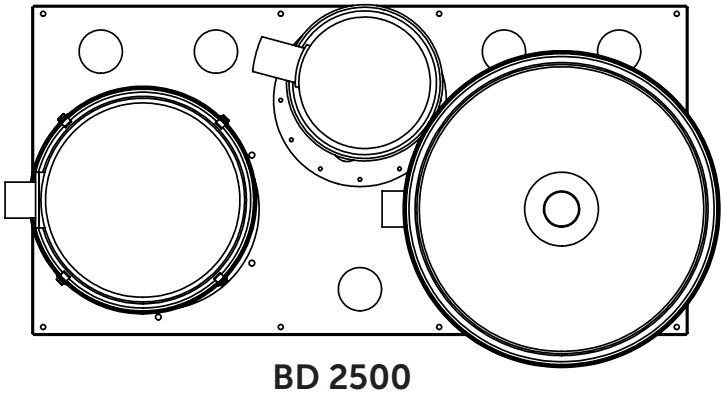


**BD 2500**

SRC60; SSR170, QTY: 2

SRC04; SSR11, QTY: 1

OR



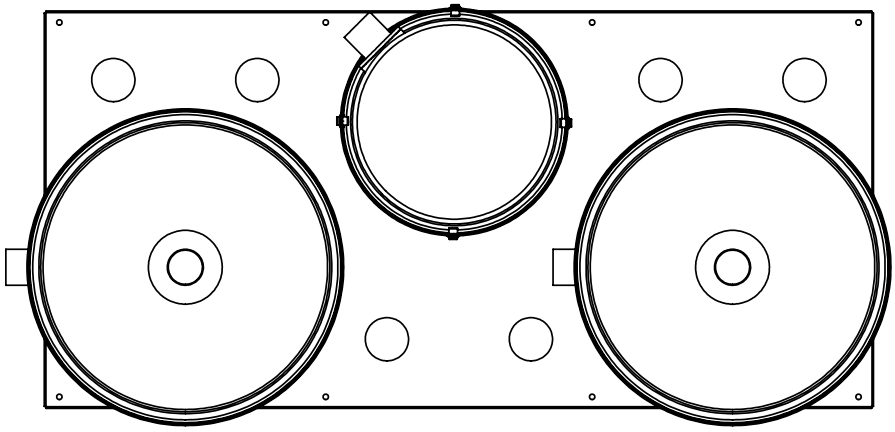
**BD 2500**

SRC16; SSR45, QTY: 2

SRC04; SSR11, QTY: 1

2.0 cu.ft. RAM Hopper

SRC16; SSR45



**BD 4000/6000**

SRC60; SSR170, QTY: 2

SRC04; SSR11, QTY: 1

7.0 cu.ft. RAM Hopper

SRC60; SSR170

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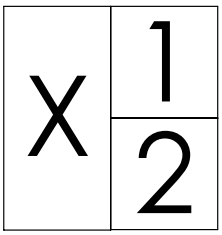
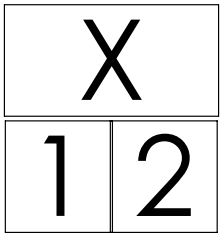
## STANDARD SLIDE GATE CONFIGURATIONS

REAR CONTROL



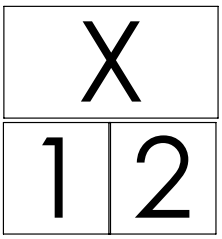

2-COMP MODEL

REAR CONTROL



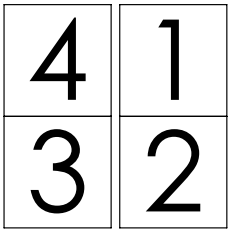

2-COMP MODEL

REAR CONTROL



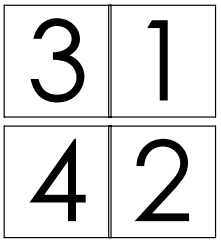

2-COMP MODEL

REAR CONTROL



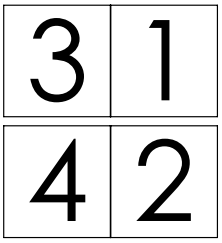

4-COMP MODEL

REAR CONTROL



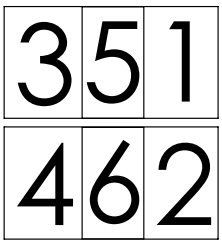

4-COMP MODEL

REAR CONTROL




4-COMP MODEL

REAR CONTROL

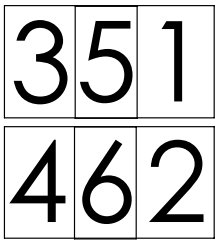



6-COMP MODEL
(500 LB/HR ONLY)

HOPPER #3 IS DEFAULT REGRIND
WITH SQUARE GATE

500 LBS/HR
BLENDER

REAR CONTROL

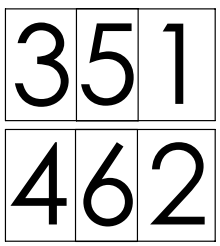



6-COMP MODEL

HOPPER #3 IS DEFAULT REGRIND
WITH SQUARE GATE

900 LBS/HR
2500 LBS/HR
BLENDER

REAR CONTROL




6-COMP MODEL

HOPPER #1 IS VIRGIN
WITH SQUARE GATE
HOPPER #3 IS DEFAULT REGRIND
WITH SQUARE GATE

4000 LBS/HR
6000 LBS/HR
BLENDER

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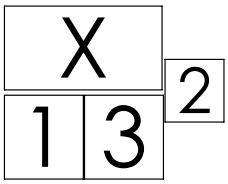
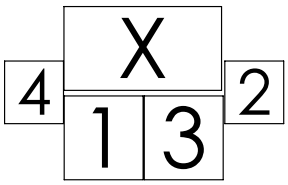
## ADDITIVE FEEDER OPTIONS

REAR CONTROL



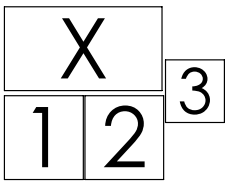

3F MODEL

REAR CONTROL



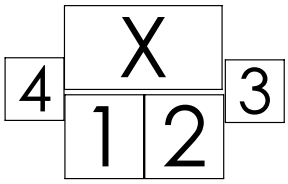

4FF MODEL

REAR CONTROL



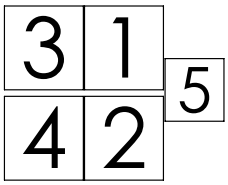

3R MODEL

REAR CONTROL



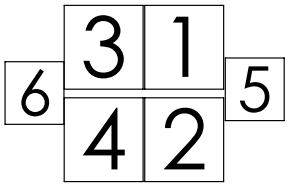

4RR MODEL

REAR CONTROL



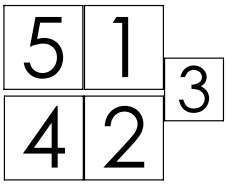

5F MODEL

REAR CONTROL



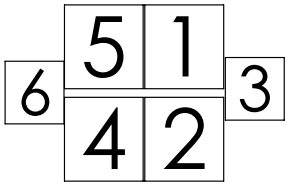

6FF MODEL

REAR CONTROL



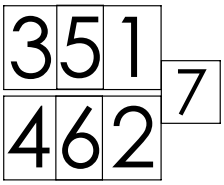

5R MODEL

REAR CONTROL



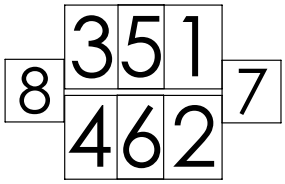

6RR MODEL

REAR CONTROL



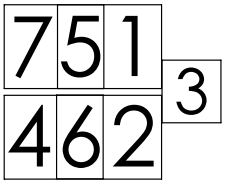

7F MODEL

REAR CONTROL



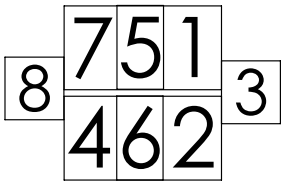

8FF MODEL

REAR CONTROL




7R MODEL

REAR CONTROL




8RR MODEL

## R.A.M. (REGRIND AUGER METERING) OPTIONS

**ADDITIVE FEEDER CONFIGURATIONS ARE EQUIPPED WITH STANDARD GATES**

**BD-900 AND 2500 R.A.M CONFIGURATIONS ARE EQUIPPED WITH ALL DIAMOND GATES**

**BD 4000 AND 6000 R.A.M CONFIGURATIONS ARE EQUIPPED WITH STANDARD GATES**

**ADDITIVE FEEDER AND R.A.M. OPTIONS AVAILABLE ON BD-900 THROUGH BD-6000 ONLY**



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