



## Faster homogenous blending – without moving parts

The Blendcon® air blender/transporter lifts, turns and tumbles dry materials to a homogenous blend by utilizing the high kinetic energy released when compressed air is allowed to expand rapidly to atmospheric conditions. Compressed air (normally 15 to 30 PSIG) is injected into the material in an upward circular pattern and pulsated to obtain optimum results. There are no mixer arms or blades to wear out or get clogged with the material, which makes the Blendcon blender ideal for blending abrasive materials that would shorten the life of a conventional blender. This method of operation is so effective that it normally takes very few pulses to complete a blending cycles. The vertical blending action and smooth interior surfaces prevent buildup, so cleaning between batches is unnecessary. Combining air blending with Dynamic Air's dense phase pneumatic conveying provides a clean, efficient system for blending and conveying most bulk granular material.

## Excellent controllability

For optimum results, blending action and intensity are controlled by the duration and frequency of air pulses, and the pressure and volume of air. These variables give you the control to adjust the blending action for your specific application. No other blender gives you this versatility.

## How the Blendcon air blender/transporter works

### Filling cycle

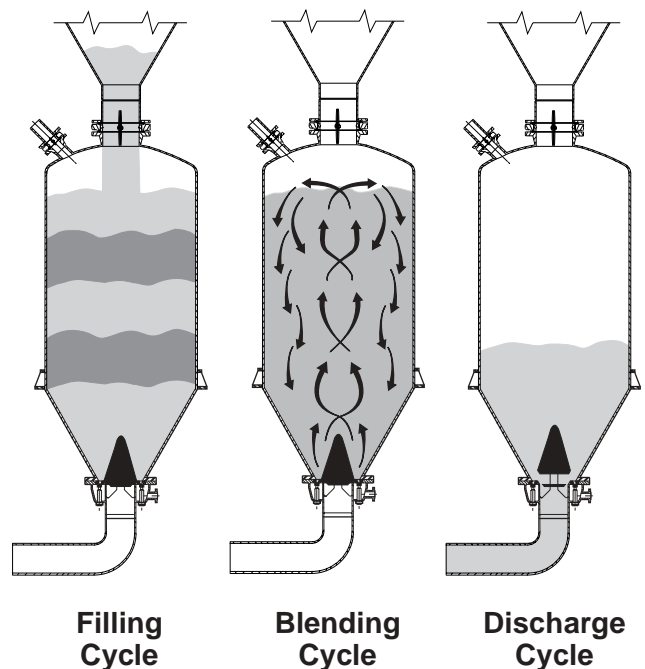
1. The discharge cone valve lowers and seals.
2. The inlet and vent valves open, allowing material to gravity feed into the Blendcon air blender/transporter.
3. Air displaced during the filling cycle passes through the vent valve to a dust collector which allows any solids collected to gravity feed back into the blender.

### Blending cycle

4. The inlet valve closes.
5. Compressed air is pulsed upward in a circular pattern through the blending head to lift, turn and tumble the material to a homogenous blend.
6. Exhausted air passes through the vent valve again, and any solids collected gravity feed back into the blender.

### Discharge cycle

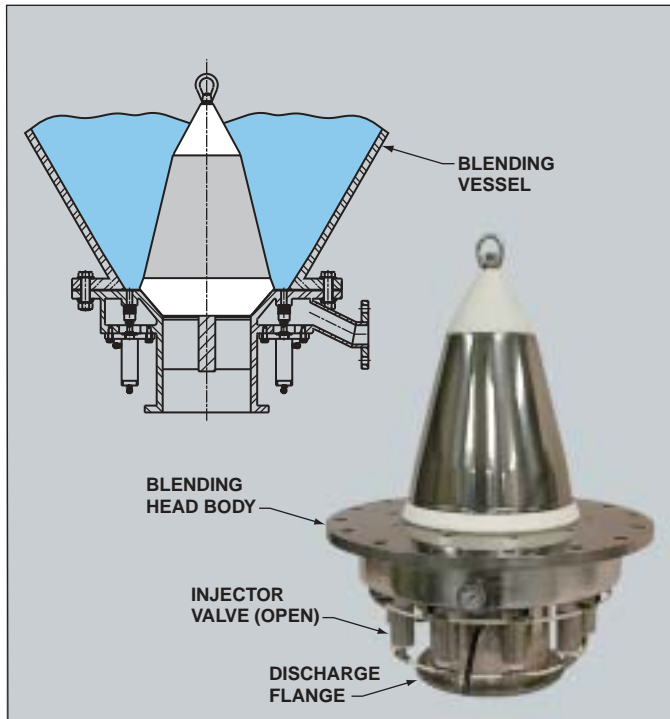
7. The vent valve closes.
8. The discharge cone valve rises, allowing material to either discharge by gravity or to be conveyed pneumatically.



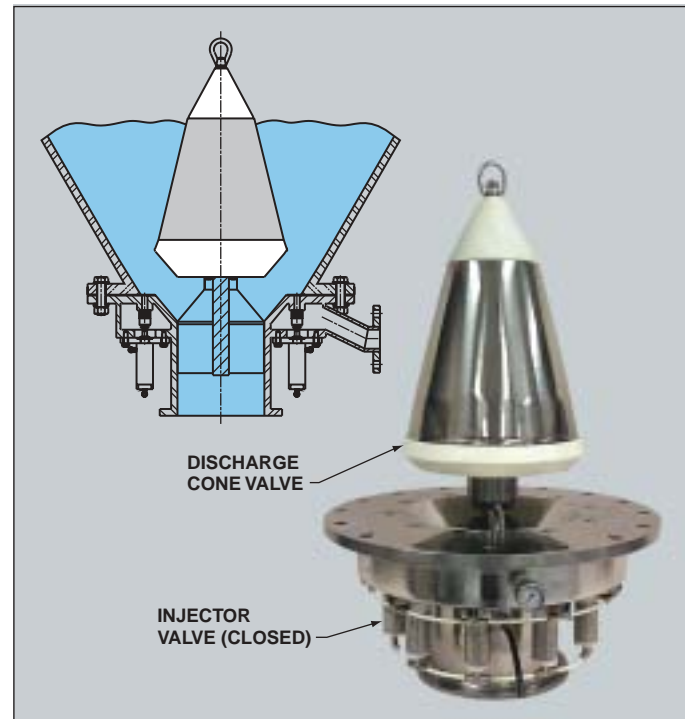
## The blending head – key to fast, clean homogenous blending

The blending head, which takes the place of mixing arms or blades, has only three major components:

1. Blending head body – can be mounted on most round vessels or dense phase transporters with a bolted flange. It has a high pressure manifold for storing compressed air, which is used on a demand basis during blending.
2. Injector valves – mounted peripherally around the inside of the blending head, these valves
3. Discharge cone valve – keeps material in the path of the blending air and eliminates dead areas to optimize blending. It also prevents segregation and ratholing during discharge, and seals the blender for the next blending cycle. Operated by compressed air, the cone valve moves up for discharging and down for blending.



**Blending Cycle**  
Cone valve in down position



**Discharge Cycle**  
Cone valve in up position

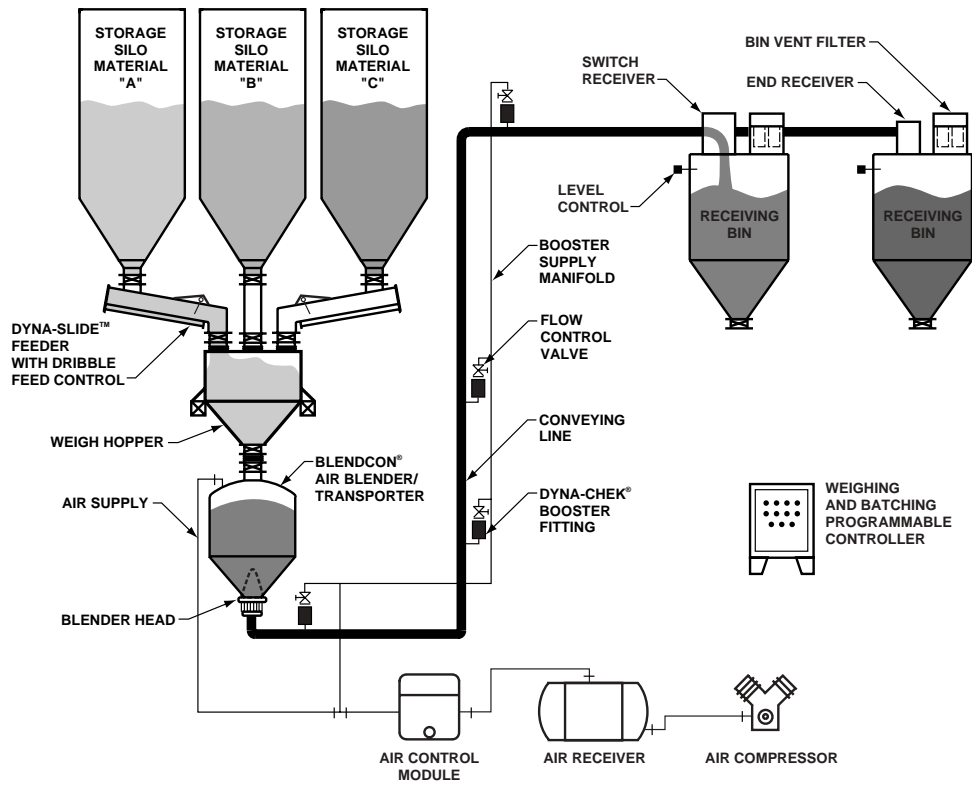
### Features

- No mixer arms or blades
- Shorter blending cycles
- No internal moving parts during blending cycle
- Uses standard plant compressed air
- Variable vertical blending action
- Suitable for abrasive materials
- Air operated
- Anti-clog air orifices
- Gentle, fast agitation
- More effective discharge
- Low maintenance
- Fits existing tanks

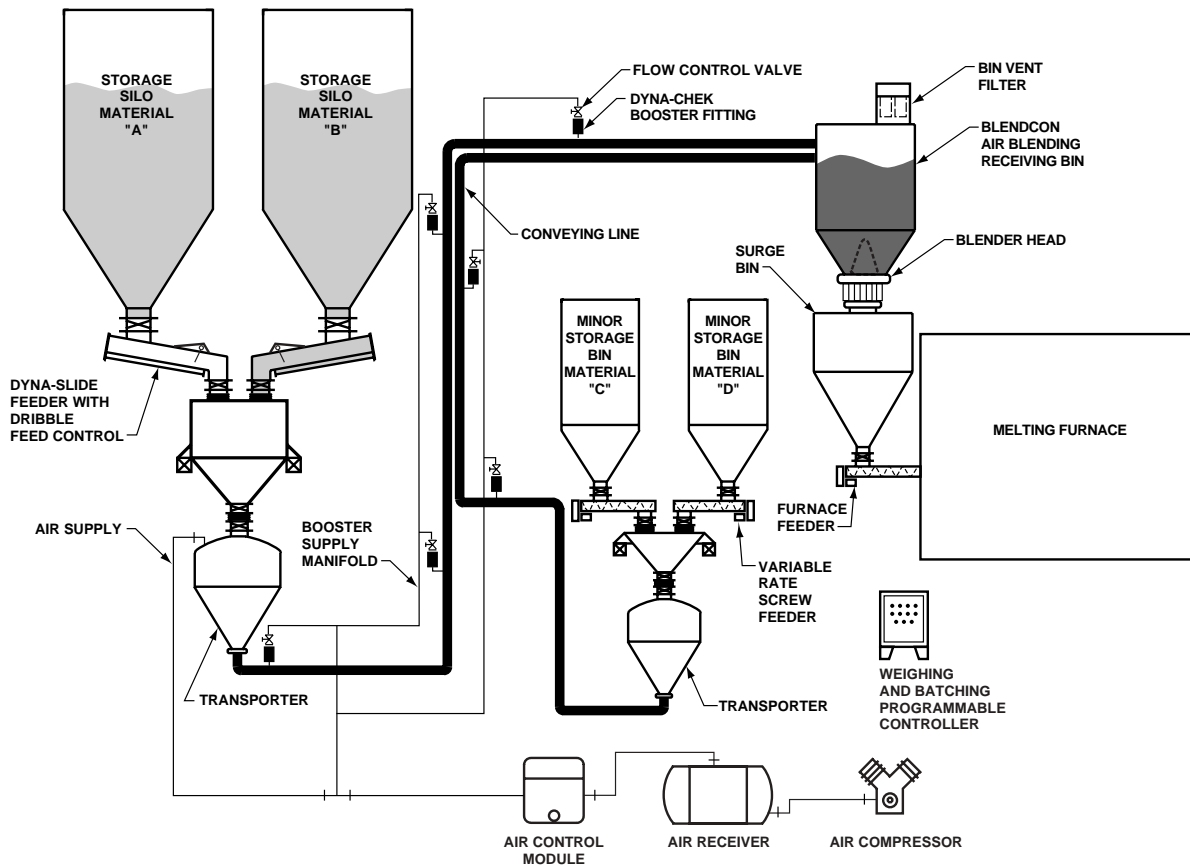
### The Blendcon air blender will handle

- Alumina
- Ball clay
- Barite
- Bauxite
- Bentonite
- Borax
- Calcium carbonate
- Cement
- Feldspar
- Fine coal
- Flour
- Fluorspar
- Fly ash
- Gypsum
- Iron oxide
- Kaolin clay
- Lime
- Milk powder
- PVC resin
- Quartz
- Silica sand
- Soda ash
- Sodium sulfate
- Sugar
- Glass batch
- Talc
- And more

# Typical applications

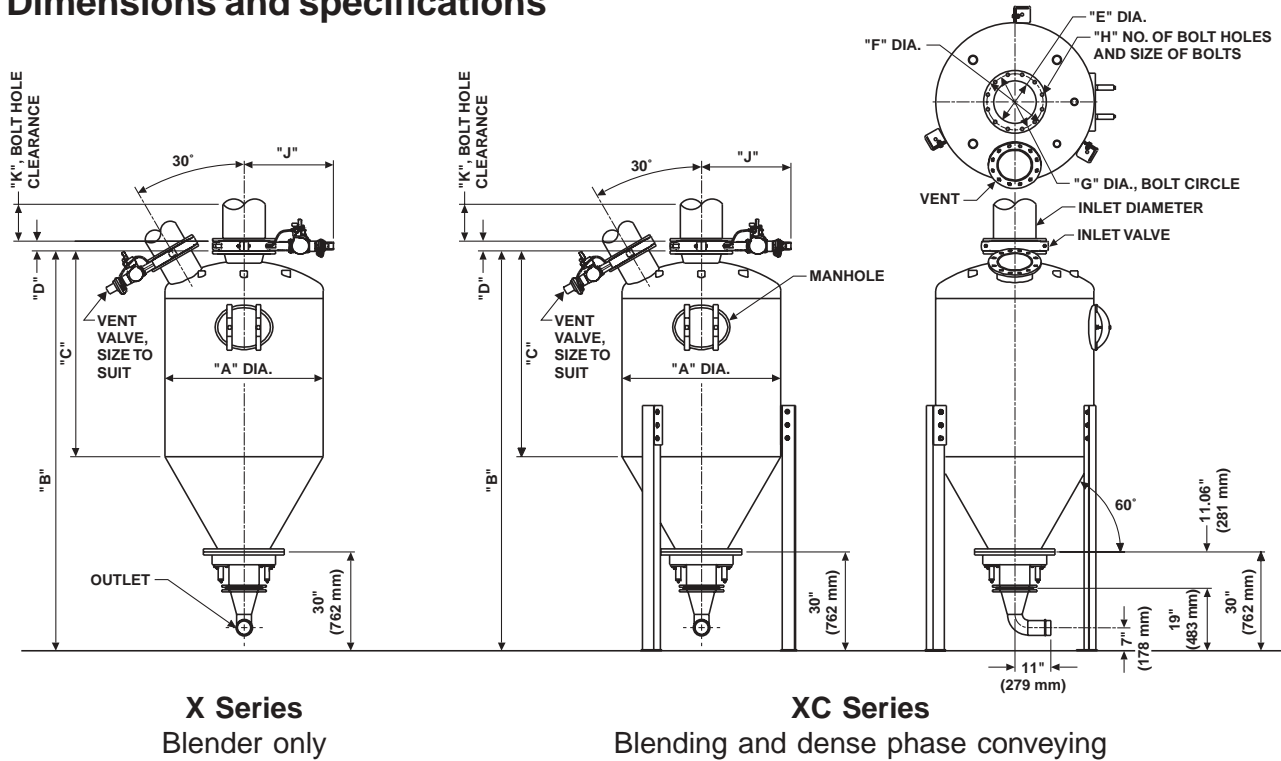


# Batching, weighing, blending and transporting system



# Batch weighing, transporting and blending system

# Dimensions and specifications



**X Series**  
Blender only

**XC Series**  
Blending and dense phase conveying

## Blendcon air blender/transporter dimensions

MODEL NO.		BLENDING CAPACITY	WATER FILL CAPACITY	DIMENSIONS			INLET DIAMETER	SHIPPING WEIGHT	
X SERIES	XC SERIES			A	B	C		X SERIES	XC SERIES
X-100	XC-100	10 cu. ft. (.28 cu. meters)	26 cu. ft. (0.74 cu. meters)	36" (914 mm)	98" (2489 mm)	49" (1245 mm)	10" (254 mm)	1123 lbs. (509 kg)	1336 lbs. (606 kg)
X-200	XC-200	20 cu. ft. (0.57 cu. meters)	35 cu. ft. (0.99 cu. meters)	36" (914 mm)	115" (2921 mm)	66" (1676 mm)	10" (254 mm)	1248 lbs. (566 kg)	1523 lbs. (691 kg)
X-300	XC-300	30 cu. ft. (0.85 cu. meters)	57 cu. ft. (1.61 cu. meters)	48" (1219 mm)	116" (2946 mm)	57" (1448 mm)	10" (254 mm)	1459 lbs. (662 kg)	1826 lbs. (828 kg)
X-400	XC-400	40 cu. ft. (1.13 cu. meters)	72 cu. ft. (2.04 cu. meters)	48" (1219 mm)	126" (3200 mm)	67" (1702 mm)	16" (406 mm)	1699 lbs. (771 kg)	2142 lbs. (972 kg)
X-500	XC-500	50 cu. ft. (1.42 cu. meters)	87 cu. ft. (2.46 cu. meters)	48" (1219 mm)	135" (3429 mm)	76" (1930 mm)	16" (406 mm)	1859 lbs. (843 kg)	2382 lbs. (1080 kg)
X-600	XC-600	60 cu. ft. (1.70 cu. meters)	108 cu. ft. (3.06 cu. meters)	54" (1372 mm)	136" (3454 mm)	72" (1829 mm)	16" (406 mm)	2183 lbs. (990 kg)	2797 lbs. (1269 kg)
X-700	XC-700	70 cu. ft. (1.98 cu. meters)	123 cu. ft. (3.48 cu. meters)	54" (1372 mm)	144" (3658 mm)	80" (2032 mm)	16" (406 mm)	2327 lbs. (1056 kg)	3013 lbs. (1367 kg)
X-800	XC-800	80 cu. ft. (2.27 cu. meters)	138 cu. ft. (3.91 cu. meters)	54" (1372 mm)	151" (3835 mm)	87" (2210 mm)	16" (406 mm)	2471 lbs. (1121 kg)	3229 lbs. (1465 kg)
X-900	XC-900	90 cu. ft. (2.55 cu. meters)	167 cu. ft. (4.73 cu. meters)	60" (1524 mm)	150" (3810 mm)	80" (2032 mm)	18" (457 mm)	2596 lbs. (1178 kg)	3432 lbs. (1557 kg)
X-1000	XC-1000	100 cu. ft. (2.83 cu. meters)	173 cu. ft. (4.90 cu. meters)	60" (1524 mm)	156" (3962 mm)	86" (2184 mm)	18" (457 mm)	2757 lbs. (1251 kg)	3673 lbs. (1666 kg)

## Inlet valve dimensions\*

SIZE	D	E	F	G	H	J	K
10" (254 mm)	2.50" (64 mm)	10" (254 mm)	16" (406 mm)	14.25" (362 mm)	12 7/8" bolts	23.50" (597 mm)	6.50" (165 mm)
16" (406 mm)	4" (102 mm)	15.25" (387 mm)	23.50" (597 mm)	21.50" (546 mm)	16 1" bolts	35.50" (902 mm)	8.50" (216 mm)
18" (457 mm)	4.25" (108 mm)	17.25" (438 mm)	25" (635 mm)	22.75" (578 mm)	16 1-1/8" bolts	35.50" (902 mm)	9" (229 mm)

\* Custom sizes available.

Specifications subject to change without notice.

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