



Faster homogenous blending – without moving parts

The Blendcon® blender/transporter lifts, turns and tumbles dry materials to a homogenous blend by utilizing the high kinetic energy developed when compressed air is allowed to expand rapidly to atmospheric conditions. Compressed air 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/transporter ideal for blending and conveying abrasive materials that would shorten the life of a conventional blender or for fragile materials where particle degradation is a concern. This method of operation is so effective that it normally takes very few minutes to complete a blending cycle. The vertical blending action and smooth interior surfaces prevent buildup. This unit combines blending with Dynamic Air's dense phase pneumatic conveying to provide a clean, efficient system for blending and conveying most dry bulk materials.

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 blender/transporter works

Filling cycle

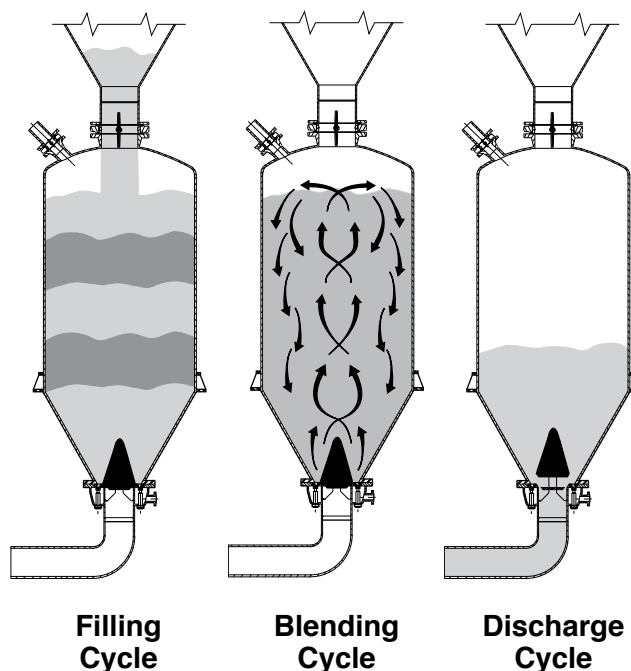
1. The discharge cone valve lowers and seals.
2. The inlet and vent valves open, allowing material to gravity feed into the Blendcon blender/transporter.
3. Air displaced during the filling cycle passes through the vent valve to a dust filter which allows any solids collected to gravity feed back into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

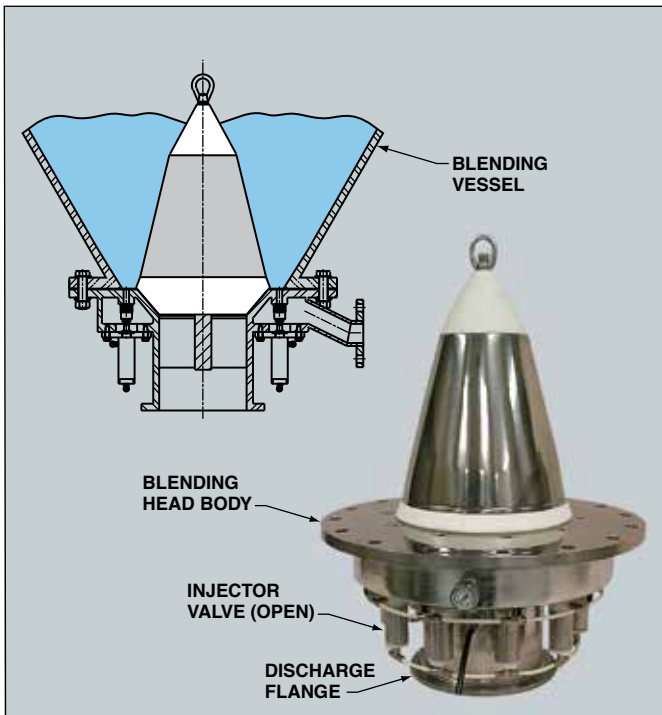
7. The vent valve closes.
8. The discharge cone valve rises, allowing material to be conveyed pneumatically.



The blending head – key to fast, clean homogenous blending

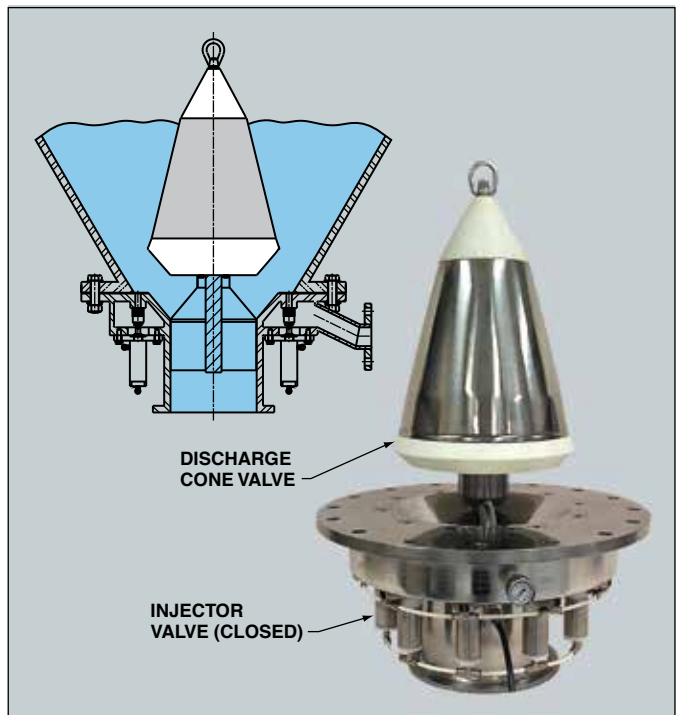
The blending head, which takes the place of mixing arms or blades, has only three major components:

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 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

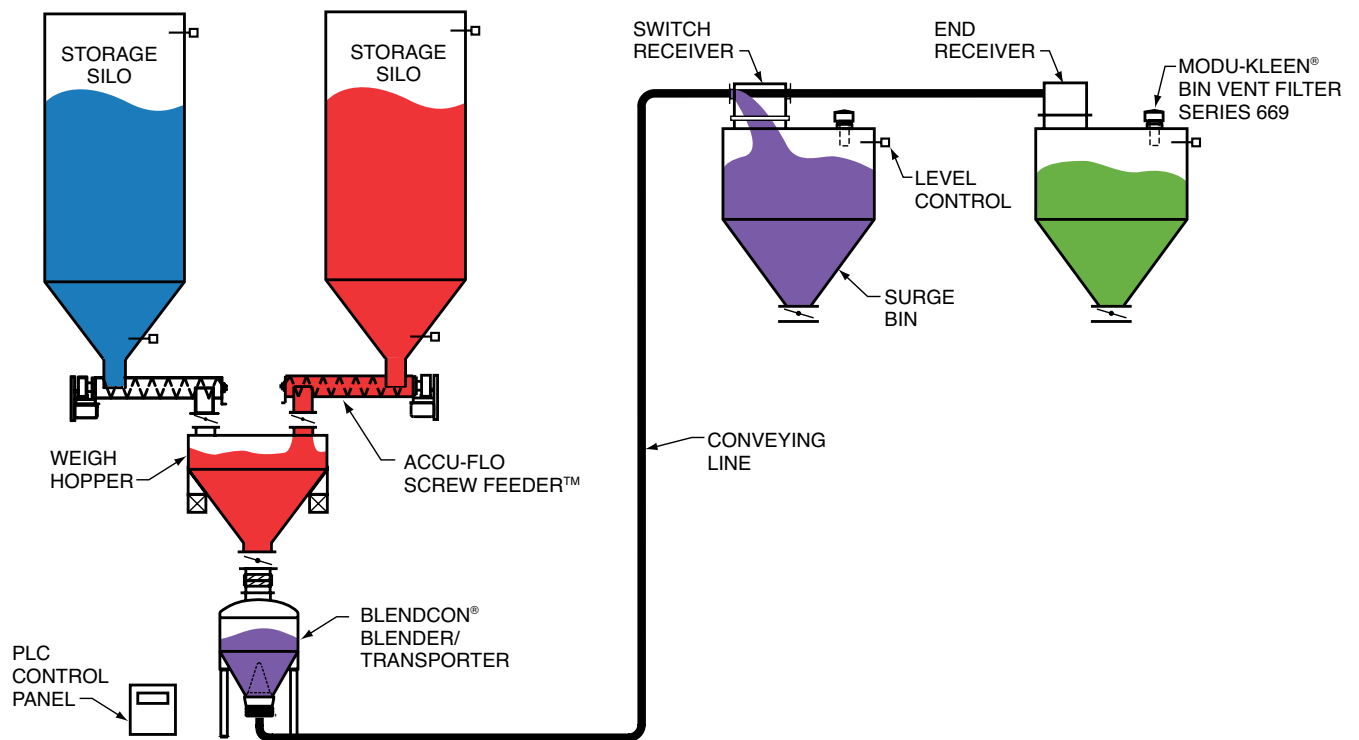
Features

- No mixer arms or blades
- Shorter blending cycles
- No mechanical agitators
- Uses compressed air or inert gas (N₂)
- Variable vertical blending action
- Suitable for abrasive or fragile materials
- Anti-clog nozzles
- Gentle, fast agitation
- More effective discharge
- Low maintenance

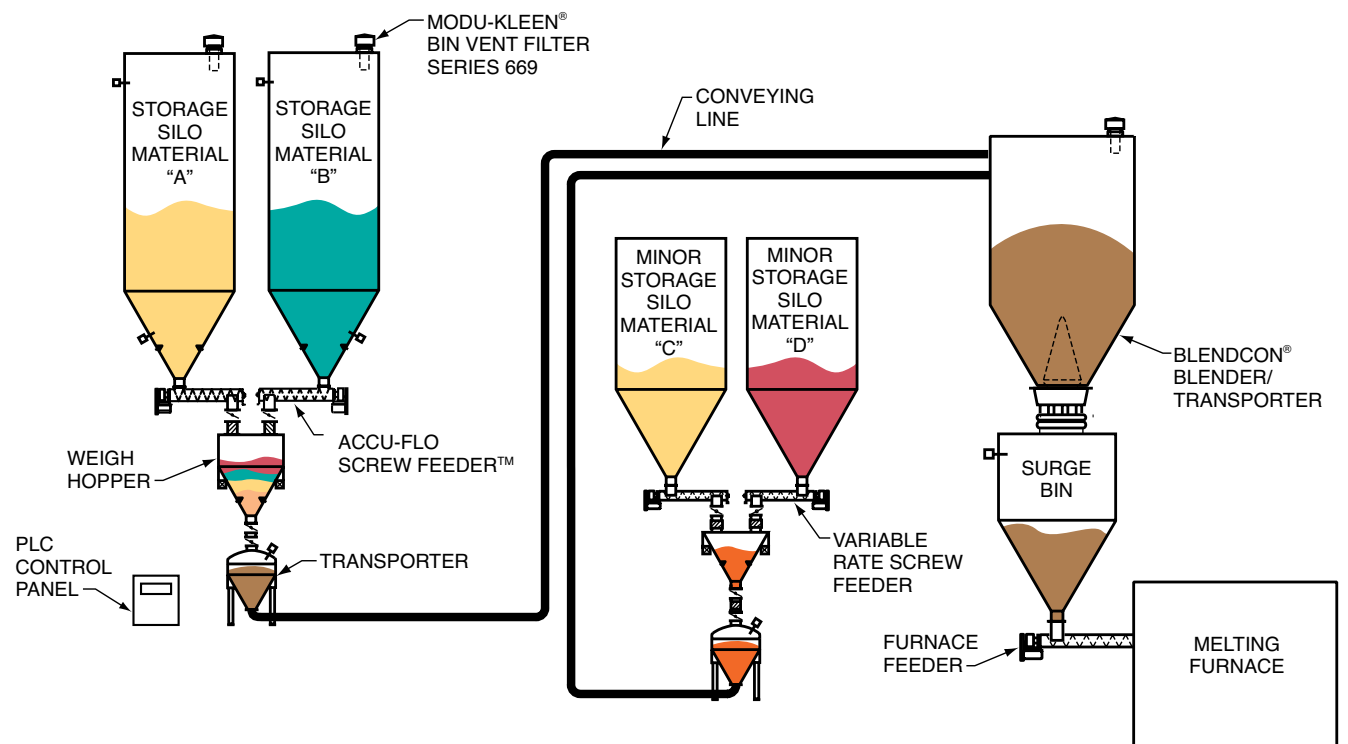
The blender/transporter will handle

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

Typical applications

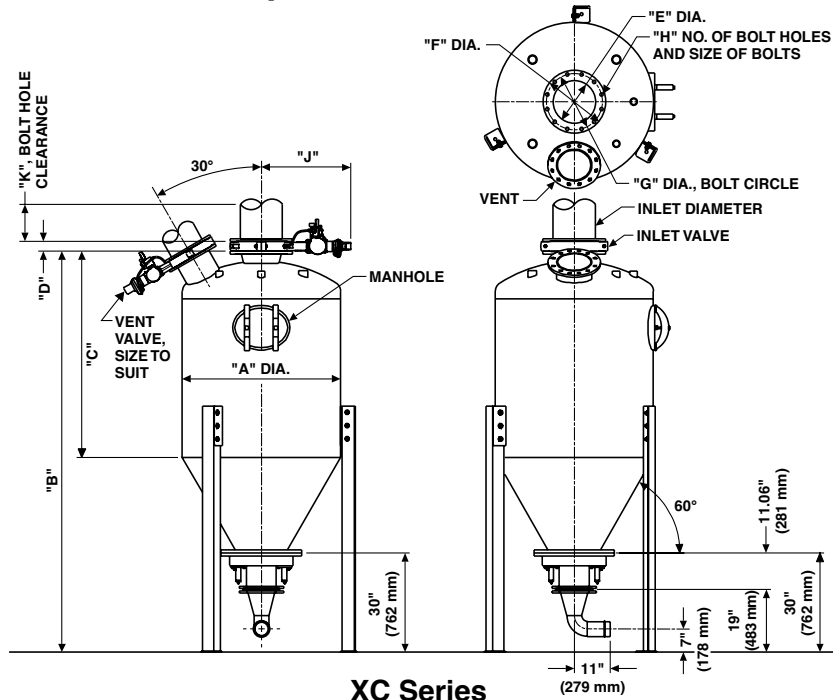


Batching, weighing, blending and transporting system



Batch weighing, transporting and blending system

Dimensions and specifications



Blending and dense phase conveying

Blendcon blender/transporter dimensions

MODEL NO. XC SERIES	BLENDING CAPACITY	WATER FILL CAPACITY	DIMENSIONS			INLET DIAMETER	SHIPPING WEIGHT XC SERIES
			A	B	C		
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)	1336 lbs. (606 kg)
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)	1523 lbs. (691 kg)
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)	1826 lbs. (828 kg)
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)	2142 lbs. (972 kg)
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)	2382 lbs. (1080 kg)
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)	2797 lbs. (1269 kg)
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)	3013 lbs. (1367 kg)
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)	3229 lbs. (1465 kg)
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)	3432 lbs. (1557 kg)
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)	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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