

DryMix Processing

BELLOJET® ZA

Tanker Loading Bellows With Built-In Dust Filter

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Description ▼

BELLOJET® ZA Loading Bellows are used for efficient, dust-controlled loading of dry, dusty bulk solids into tankers. The spouts are provided with inner cones to contain the flow of material and an outer double bellows to provide for dust removal. At the lower end of the Loading Bellows, a polymer-coated SINT® cone with special sealing properties is provided for connection to the tanker.

The BELLOJET® dust filtration system, which includes 8 cartridges to provide an overall surface area of 10m² (108 sq ft), is equipped with a 2.2 kW (3.0 HP) fan.

Function ▼

First the Loading Bellows is lowered from the stand-by position towards the inlet spout of the tanker. As soon as the bellows outlet cone has settled on the inlet spout of the tanker, the slack cable switch mounted outside the transmission box stops lowering of the bellows. The limit switch inside the transmission box stops both full extension and contraction of the bellows. Material loading is started by opening the silo outlet valve. During the filling of the tanker, the polymer SINT® coating of the outlet cone acts as a perfect dust seal. At the same time the filter fan continuously sucks dust through the external bellows into the integrated filter cartridges in the upper section of the unit and exhausts excess air. A slack cable switch activates further extension of the bellows as the tanker lowers under the increasing material weight. A level monitoring device installed in the centre of the outlet cone signals maximum material level in the tanker compartment and orders immediate closing of the silo outlet valve. Contraction of the bellows back to stand-by position starts after a delay of approximately 10 seconds in order to allow the filter to evacuate the remaining dust. Once the bellows is fully contracted, the cable limit switch inside the transmission box stops operation. The preset after shut-down cleaning cycle now provides for additional pulse-jet cleaning of the filter cartridges for another 10 minutes.



Application ▼

BELLOJET® ZA Telescopic Loading Bellows are suitable for continuous loading at a maximum flow rate of 250m³/h (147 cfm) of bulk material.

The outlet can be equipped with an anti-spillage device which acts as a dustproof stopper as the Loading Bellows is being raised. The equipment features an electric winch. The fan of the BELLOJET® dust filtration system increases the efficiency of the filtering elements. Due to an after-shutdown-cleaning-cycle, the filter elements are always in perfect condition at the start of each new loading.

Benefits ▼

- ✓ **No product contamination thanks to the following features:**
 - Double bellows which keeps the falling material separate from the upstream dust
 - Built-in filter unit which recycles dust extracted into the tanker
 - Built-in dust filter reduces dust emission during filling operation
- ✓ **Flexible chute in Neoprene covered by Hypalon® makes bellows weather-proof, highly abrasion and temperature-resistant and durable;**
- ✓ **Reverse cone with inside level indicator indicates when tanker is full, raises loading bellows gradually and improves material distribution inside the tanker;**
- ✓ **Outlet can be equipped with an anti-spillage device which acts as a dustproof stopper as the Loading Bellows is being raised and prevents that the loading area will be full of dust;**
- ✓ **Two lifting cables outside the material flow raise and lower the loading bellows without any cable wear due to material friction and obstruction to material flow.**

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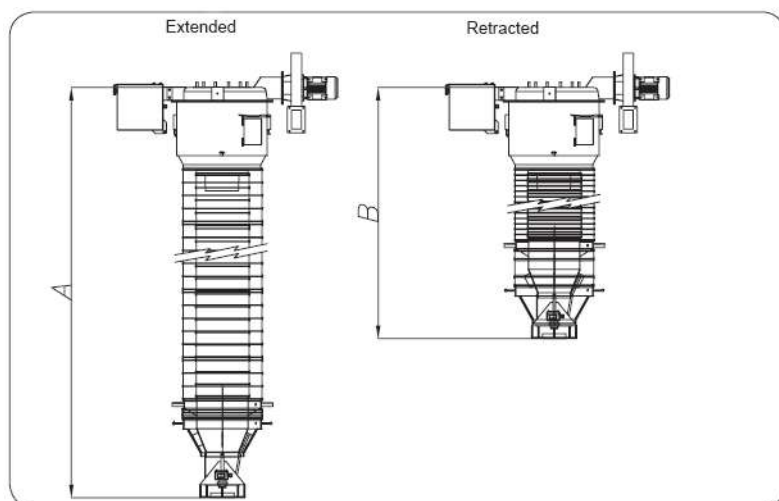
Tanker Loading Bellows With Built-In Dust Filter



Technical Features / Performance ▼

- ▶ Inlet diameter: 300mm (12 in)
- ▶ Maximum flow rate: 250 m³/h (147 cfm)
- ▶ Working temperature: - 20 °C up to 120 °C (- 4° F to 250° F)
- ▶ Hoisting system equipped with 0.55 kW electric motor and gear reducer with belt transmission.
- ▶ Upper/lower limit switch
- ▶ Slack cable limit switch
- ▶ Dust filtration system including 8 cartridges with polyester or antistatic media
- ▶ Filtering surface: 10 m² (108 sq ft)
- ▶ Dust suction fan equipped with 2.2 kW (3.0 HP) electric motor
- ▶ Electronic filter cleaning panel
- ▶ Fabricated parts in carbon steel or anti-abrasive steel
- ▶ Bellows manufactured from Neoprene/Hypalon®
- ▶ Double bellows with optional internal steel cones for granules
- ▶ Rubber bottom outlet cone to ensure perfect sealing of tanker hatch
- ▶ Control panel with remote control for fully automatic operation
- ▶ Available with rotary level indicator or vibrating level indicator
- ▶ Anti-spillage device on outlet
- ▶ 2 external hoisting cables

Overall Dimensions ▼



A _{max} [mm]	B _{min} [mm]	[kg]
2,050	1,550	303
2,330	1,590	305
2,630	1,630	308
2,810	1,650	309
3,110	1,690	311
3,390	1,720	313
3,590	1,750	315
3,870	1,780	317
4,170	1,820	319
4,450	1,850	322
4,730	1,890	324
5,030	1,930	326
5,310	1,960	328