Waste Water Treatment

BELLOJET® Tanker Loading Bellows ZA







Description v



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

The BELLOJET® dust filtration system, that 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



BELLOJET® Loading Bellows are the perfect solution for quick, clean and even loading of tankers with material from storage silos or large hoppers.



Application



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

They are installed underneath silos, screw conveyors or any other equipment in which dry materials to be filled into tankers are stored.

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.

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 enable 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 ten minutes.

Benefits



- Built-in filter unit which recycles the dust extracted into the tanker;
- Double bellows keeping falling product separate from dust;
- 304/316 Stainless Steel contact parts;
- 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 tanker:
- Outlet can be equipped with an anti-spillage device which acts as a dustproof stopper as the Loading Bellows is being raised;
- Two lifting cables outside the material flow raise and lower the Loading Bellows without any cable wear due to material friction or obstruction to material flow.





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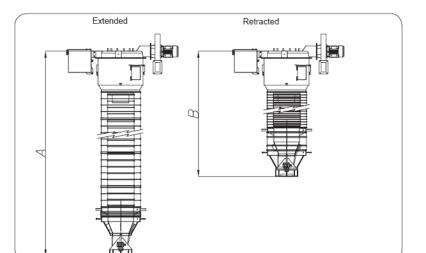
BELLOJET® Tanker Loading Bellows ZA



Technical Features / Performance

- Inlet diameter 300 mm
- Maximum flow rate: 250 m³/h (147 cfm)
- Working temperature from -20 °C up to +120 °C (-4 °F up to 250 °F)
- Hoisting system equipped with an electric motor 0.55 kW (0.75 HP) and gear box with belt transmission
- Upper/lower limit switch
- Slack cable limit switch
- Dust filtration system that including 8 cartridges with polyester or antistatic media
- Filtering surface: 10 m² (108 sq ft)
- Dust suction fan equipped with electric motor 2.2 kW (3.0 HP)
- Filter cleaning electronic panel
- Metal parts construction in carbon steel or 304/316 stainless steel
- Bellows manufactured in Neoprene / Hypalon®
- Double bellows with optional internal steel cones for granules
- Rubber bottom outlet cone to ensure a perfect sealing of tanker hatch
- Control panel with remote control for fully automatic operation
- Available with rotary level or vibrating level indicator
- Anti-spillage device at outlet
- 2 external hoisting cables

Overall Dimensions



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*	A _{max} [mm]	B _{min} [mm]	[kg]
05	2,050	1,550	303
07	2,330	1,590	305
10	2,630	1,630	308
12	2,810	1,650	309
15	3,110	1,690	311
17	3,390	1,720	313
20	3,590	1,750	315
22	3,870	1,780	317
25	4,170	1,820	319
27	4,450	1,850	322
30	4,730	1,890	324
32	5,030	1,930	326
35	5,310	1,960	328

This datasheet does not show the complete range but only the models most suitable for the application.



