

# Plastics 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 tapered cones to contain the flow of material and an outer double bellow to provide for dust removal. At the lower end of the Loading Bellow, 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 10m<sup>2</sup> (108 sq ft), is equipped with a 2.2 kW (3.0 HP) fan.

## Function ▼

First the Loading Bellow is lowered from the stand-by position towards the inlet spout of the tanker. As soon as the bellow 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 bellow 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.



## Applications ▼

BELLOJET® ZA Telescopic Loading Bellows are suitable for continuous loading at a maximum flow rate of 250m<sup>3</sup>/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 Bellow 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 dust
  - 304/316 stainless steel contact parts
  - White colour food-grade polyester internal/external chutes
  - Built-in filter unit which recycles the dust extracted into the tanker
  - ATEX zone 22 certification
  - 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 bellow 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 Bellow is being raised and prevents that insects or birds enter inside the outlet;**
- ✓ **Two lifting cables outside the material flow raise and lower the loading bellow without any cable wear due to material friction and obstruction to material flow.**

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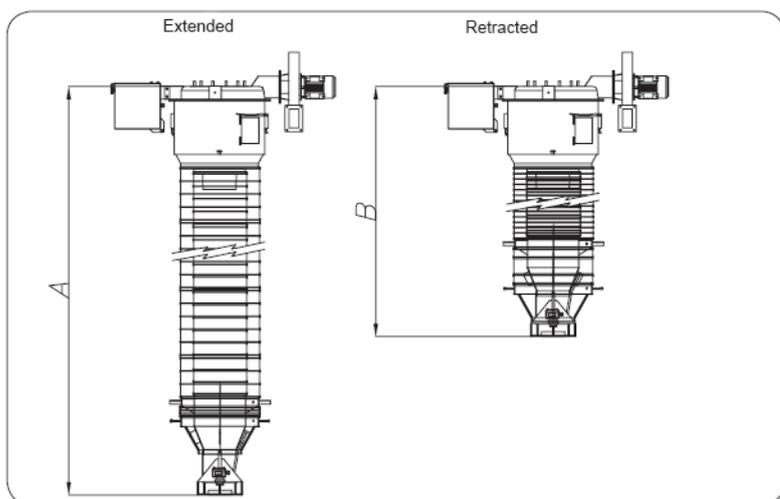
Tanker Loading Bellows With Built-In Dust Filter



## Technical Features / Performance ▼

- ▶ Inlet diameter: 300mm (12 in)
- ▶ Maximum flow rate: 250 m<sup>3</sup>/h (147 cfm)
- ▶ Working Temperature: - 20 °C up to 120 °C (- 4° F to 248° F)
- ▶ Hoisting system equipped with an 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 m<sup>2</sup> (108 sq ft)
- ▶ Dust suction fan equipped with an 2.2 kW (3.0 HP) electric motor
- ▶ Electronic filter cleaning panel
- ▶ Fabricated parts in carbon steel or 304/316 stainless steel
- ▶ Bellows manufactured from Neoprene/Hypalon® or white colour food-grade polyester
- ▶ Double bellows with optional internal steel cones for granules
- ▶ Rubber bottom outlet cone to ensure a perfect sealing of the 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 ▼



\* = Order Form

*	A <sub>max</sub> [mm]	B <sub>min</sub> [mm]	[kg]
05	2050	1550	303
07	2330	1590	305
10	2630	1630	308
12	2810	1650	309
15	3110	1690	311
17	3390	1720	313
20	3590	1750	315
22	3870	1780	317
25	4170	1820	319
27	4450	1850	322
30	4730	1890	324
32	5030	1930	326
35	5310	1960	328

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