

# Flour Milling

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 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 10 m<sup>2</sup> (108 sq ft), is equipped with a 2.2 kW (3.0 HP) fan.

## Function ▼

First the Loading Bellows is lowered from its 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 retracted, 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 250m<sup>3</sup>/h (147 cfm) of bulk material.

They are suitable for loading both finished products (flour) and by-products in bulk.

## 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 bellows gradually and improves material distribution inside the tanker;**
- ✓ **Outlet can be equipped with an anti-spillage device which acts as a dust-tight stopper as the loading bellows 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 bellows without any cable wear due to material friction and obstruction to material flow.**

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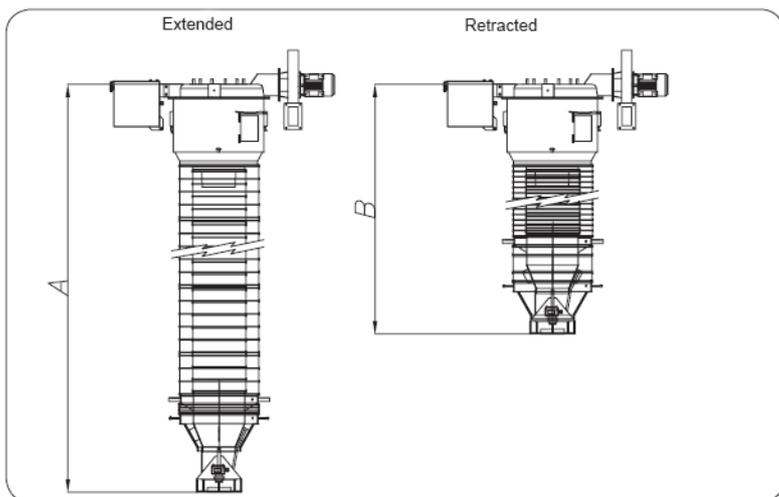
**Tanker Loading Bellows With Built-In Dust Filter**



## Technical Features / Performance ▼

- ▶ Inlet diameter: 300mm (12 in)
- ▶ Maximum flow rate: 250 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 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	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 might not show the complete range but only the models most suitable for the application.*