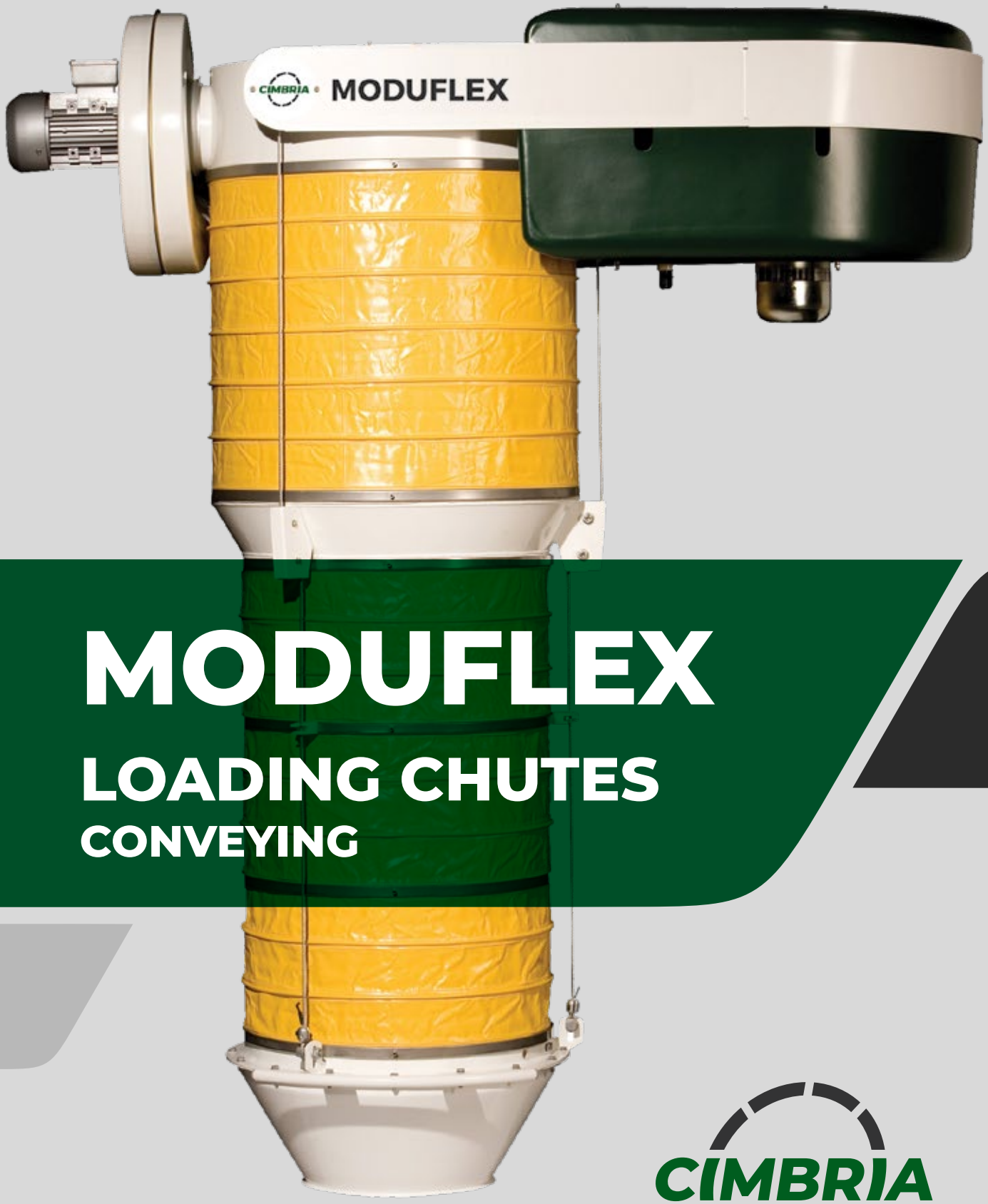


MODUFLEX

LOADING CHUTES

CONVEYING

CIMBRIA

An expert
at your side.

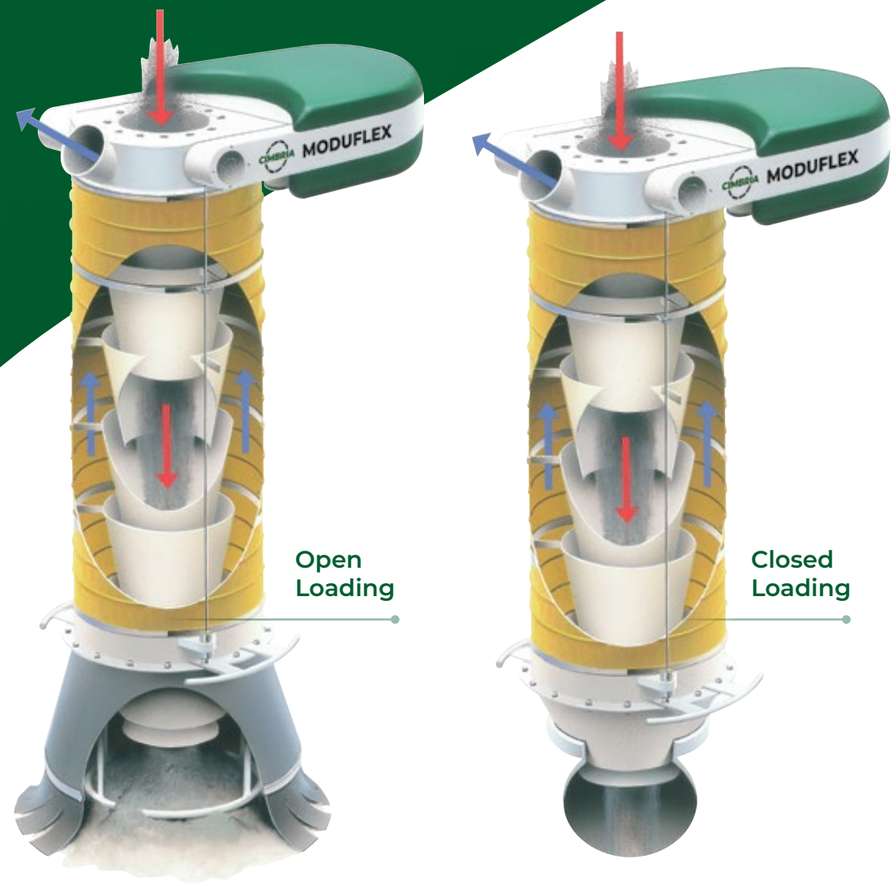
CIMBRIA

An expert
at your side.

Global Leader in Professional Loading.

With more than 17,500 Moduflex systems installed across global industries, Cimbria has built a deep foundation of experience that directly benefits every customer investing in outloading equipment. **Moduflex is a range designed around real-world loading challenges, delivering reliable results and supporting operations that stay clean and safe**. Every component is engineered to secure maximum performance and safe, clean, and healthier operations, protecting both people and the environment.

For more than 75 years, Cimbria has helped customers find the right solution. Thanks to a network of partners around the world and strong customer service support, Cimbria is a partner you can rely on.
With Moduflex, feel confident you will get the right system tailored to your business.



Safety in a Clean Environment.

Outloading of bulk products is associated with the risk of creating waste and dust, as well as increasing the danger of explosion-related incidents. These risks can have a negative impact not only on work safety, but also on the surrounding environment and on the company's finances.

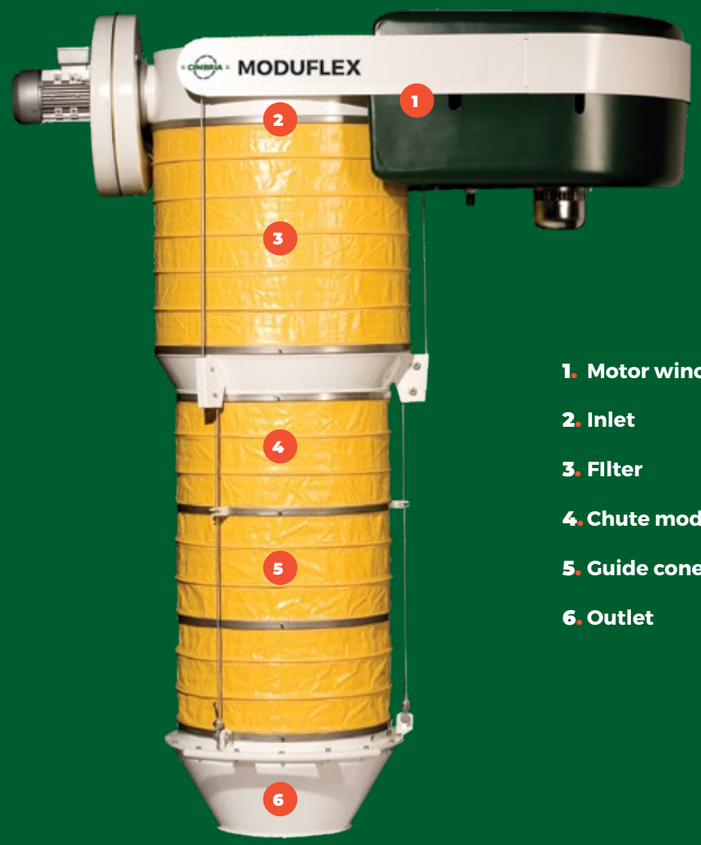
Moduflex provides solutions that minimise dust in both closed and open loading systems, with outlet options for every major transport method.

Closed system: The outlet nozzle rests on the tankers loading hatch

Open system: The loading chute outlet rests on the product pile

CIMBRIA

Modular structure.



1. Motor winch
2. Inlet
3. FIlter
4. Chute module
5. Guide cone
6. Outlet

The modular structure is a unique feature of Moduflex. This means that the user receives precisely the solution that matches his application, as well as a level of flexibility that enables modifications and repairs of the loading chute to be undertaken with a minimum of disruption of the outloading process. This reduces not just maintenance costs but also the knock-on effect in lost production time.

1 Motor.

A.
Motor frame
The entire motor frame is designed and manufactured as a very sturdy construction, encased in a housing of steel and ABS plastic which ensures optimal protection of the electrical and mechanical parts. At the same time, a mere four bolts provide full access, from below or from above, to all parts of the motor winch.

B.
Motor, gears and controls
The motor winch is supplied with a gear motor. It can be supplied with a control panel in which all functions are integrated, or with a junction box. The control cabinet or junction box is mounted on sliding brackets which enable the control gear to be lowered for easy access.

C.
Winch drums and end stops
The motor winch is equipped with three sturdy winch drums as standard, supported by a high-quality ball bearing. The three corresponding hoisting wires give extremely even and balanced hoisting and lowering. A tight/slack safety wire function is provided as standard on all loading chutes.

2 Inlet.

TYPE C + S

- standard inlet
- aspiration orifice: diameter 150 mm
- variable inlet diametres
- automatic closing function for negative pressure
- false air valves available for type S inlets
- mild steel, stainless steel, wear-resistant versions
- Type C + S - Ø300, max loading capacity approx.. 250 m^3
- Type S - Ø400 to Ø800 max loading capacity approx.. 440 m^3 to 1800 m^3

TYPE H

- standard inlet where overlap with the top cone is required
- the funnel shape ensures optimal product flow and minimal dust in the aspiration system
- automatic closing function for negative pressure
- false air valves
- mild steel, stainless steel, wear-resistant versions
- Type H – Ø300 to Ø800 max loading capacity approx.. 250 m^3 to 1800 m^3

TYPE T

- supplied with a 250 mm diameter flange with 12 x 12 mm holes
- aspiration orifice: diameter 100 mm
- the upper telescopic tube sections are mounted at the bottom of the inlet, using simple linking clamps which make it easy to replace one or more sections of the tube in case of damage.
- mild steel, stainless steel, wear-resistant versions the telescopic tuve T250 is delivered as standard in AISI 316 acid-proof steel

Closing Function

Automatic 150 mm closing function shuts off negative pressure when the chutes are in the top position. The closing function is supplied in the same choice of material as the rest of the inlet. All of the inlets fit a DN counter-flange as standard. The inlets can be supplied with adaptors for connecting to other types of transistion.

False Air Valves

False air valves in painted or stainless steel are available for all types of loading chutes. The false air valve is equipped with a pipe section which makes it easy to insert into the pipe of the aspiration system.

3 Filter inlet.

TYPE F

The Moduflex inlet for type F is a fully self-contained unit, independent of external filters. The inlet is supplied with an integrated filter module with nine filter bags. The filter inlet is equipped with its own fan with regulating damper and pressure tank, ensuring that the filter is continuously cleaned during loading.

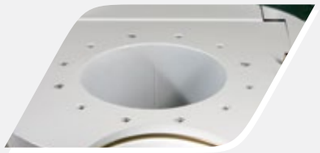
The filter inlet in the type F300 is retractable, providing a very compact construction. As a result, this type of loading chute only requires a small installation height.

The filter bags are mounted on the top and bottom of the filter intake, and are available in several different versions to match various outloaded products and applications.

TYPE D

Moduflex inlets for type D have the same characteristics as those for type F, but the inlet is supplied with an integrated filter module with nine filter cardridges. This filter module requires a certain installation height, thus providing a larger filter area than filter bags.

The filter cartridges are mounted on top of the filter inlet, and are thus extremely easy to service in connection with replacement and/or cleaning.



All of the inlets fit a DN counter-flange as standard. The inlets can be supplied with adaptors for connecting to other types of flanges.

TYPE K & N

The K & N series are equipped with a side-mounted filter unit. The construction enables easy access to replacement of filter units and magnetic valves. Furthermore, this solution enables even larger filter areas than the F & D types.

The standard filter area are 9 m^2, 14 m^2 and 18 m^2, but the models can be supplied with other filter sizes as an option.

The filter cartridges are mounted on top of the filter unit, and are thus extremely easy to service in connection with replacement and/or cleaning.

4 Chute Module.

TYPE Y
- PVC-clad polyamide
- designation PA700
- yellow colour code
- temperature range from -35° to 70°C.

TYPE W
- PVC-clad polyamide
- designation PA700
- white colour code, suitable for certain types of products. Other colours available on demand.
- temperature range from -35° to 70°C.

TYPE M
- For food products and drinking water
- PVC-clad polyester
- light grey colour
- temperature range from -35° to 70°C
- resistant to UV light, rot and fungus.

TYPE G
- for very demanding tasks
- Teflon-clad fibreglass
- dark grey colours code
- working range of up to 260°C
- resistant to almost all kinds of external impact

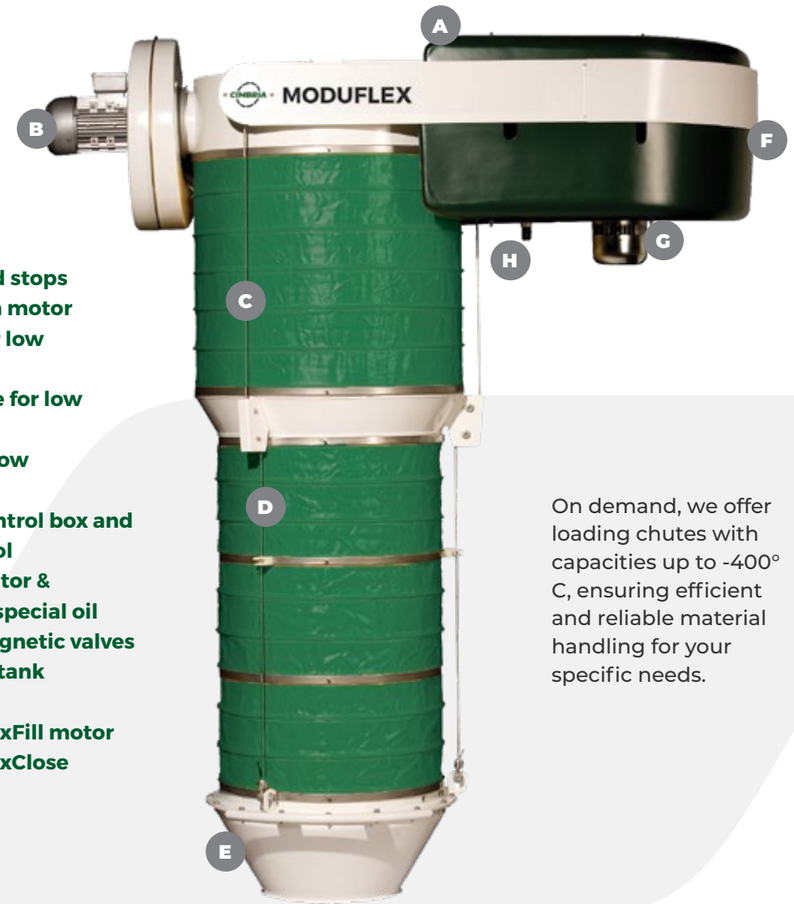
TYPE B
- NPG module
- chloroprene rubber-clad polyamide
- black colour code
- good wearing quality
- resistant towards many types of chemical impact
- high protection against UV light
- temperature range from -40° to 130°C.

TYPE R
- Valmex Corotex P250
- rusty polyester and fibre glass fabrics coated with silicone rubber on both sides
- red colour code
- temperature range from -40° to 150°C (peak +220° C).

TYPE Y WITH ANTISTATIC STRIPS
- products with latent risk of dust explosion
- e.g. grain and sugar
- compliant with ATEX directives
- anti-static strips connected to the in-sewn metal rings, thereby ensuring that no spark can occur due to the built-up of static electricity

TYPE Z
- climate conditions with possibility of very low air temperatures
- Vinyplan Artic, polyester with PVC/PU coating
- temperature working range from -60 °C to +70 °C
- green colour code
- anti-static as standard

Set-up for Low Temperature Environments.



A Low temp and stops
B Heating in fan motor
C Filter bags for low temperature
D Chute module for low temperature
E Indicator for low temperature
F Heating in control box and remote control
G Heating in Motor & Gearbox and special oil
H Low temp magnetic valves and pressure tank

- **Heating in FlexFill motor**
- **Heating in FlexClose**

On demand, we offer loading chutes with capacities up to -400° C, ensuring efficient and reliable material handling for your specific needs.

5 Guide Cone.

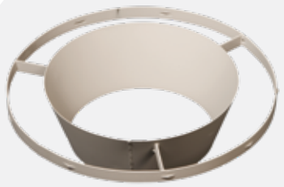
Moduflex outloading solutions can be supplied with rings and a number of different guide cones types to match various types of outloaded product, such as powder, clinker granulate or pellets, ensuring that the product is guided through the chutes. The guide cones are supplied with an edge ring, onto which the modules are fastened by the external connection ring. This means that in case of damage to the guide cone, or in connection with normal wear, the relevant cone or cones may be replaced without having to remove the entire chute. The cones can be combined in the various types of chutes.

SUPPORT RING TYPE O

- standard internal support ring in type C300
- the support ring ensures the safe coupling of the modules in situations where guide cones are not necessary or desired
- usable with little or no dust, or with products for which there is a risk of a build-up of residues on the inner side of the guide cone
- steel or stainless steel.

ULTRAMIDE CONE TYPE U

- for all types of loading chute in the 300 series
- made of high-density polyamide
- moulded with a wall thickness of 6 mm
- very light yet extremely durable
- to be used with products with moderate abrasive wear characteristics, or when a relatively low weight is desirable for the total outloading chute



STEEL CONES TYPE J

- standard steel guide cone
- for all types of loading chutes, e.g. when the parts in contact with the outloaded product are required to be in stainless steel, such as when outloading foodstuffs
- 2 mm wall thickness in both normal and stainless steel
- 4 mm available
- 4 mm available in Hardox 400

OVERLAPPING STEEL CONES TYPE L

- overlapping steel guide cones
- typically used with products that create a lot of dust, or where a optimum separation of product and exhaust air is desirable
- 2 mm wall thickness in both normal and stainless steel
- 4 mm available
- 4 mm available in Hardox 400

6 Outlet.

FLAT OUTLETS

STANDARD TYPE FS

- dust skirt
- protection guard, with a fit level indicator
- the protection cage can be in mild or stainless steel

HEAVY DUTY TYPE FH

- stronger and longer dust skirt than the standard flat outlet
- larger protection cage, enabling N.2 level indicators to be mounted

TANK OUTLETS

BASIC TYPE TB

- N. 3 easily accessible fixing arms, onto which each wire is secured with a wire lock
- N. 3 fixed grips located at 120°

HEAVY DUTY TYPE TH

- supplied with an internal cone for optimum separation of the product and exhaust air supplied with adjustment bushes for the hoisting wires and N.2 grips
- N. 2 loose handles are provided

STANDARD TYPE TS

- mounted on an outlet coupling
- N. 3 wire brackets to allow adjustment of the hoisting wires
- N. 2 loose handles

Option

RUBBER COVERING

- As an option the T ourlet can be completed with 10mm soft black Remaline or a 6mm white Remaline food stuff approved rubber

TELESCOPIC OUTLETS

TANK OUTLET TYPE TS

- outlet plate
- N. 3 wire guides for the hoisting wires are fitted to the plate
- flange for the aspiration tube
- threaded bush for the level indicator

MULTI-OUTLET TYPE MS

- combination of the tank and flat outlet
- equipped with both an outlet cone and a dust skirt
- for loading into flat bed trucks, thedust skirt is lowered

FLAT OUTLET TYPE FS

- outlet plate
- dust skirt
- outlet cage to which a level indicator can be fitted

For tanker truck loading, the dust skirt is raised and astened using the fittings on the two handles. The outlet cone has a similar design to that of the tank outlet.

MULTI-OUTLETS

STANDARD TYPE MS HEAVY DUTY TYPE MH

- combination of the tank outlet and flat outlet
- equipped with both an outlet cone and a dust skirt
- for loading into flat bed cars, the dust skirt is lowered
- for tanker loading the dust skirt is raised and fastened in the fittings on the two grips

In the heavy duty type

- the dust skirt is stronger and longer than the one on the standard multi-outlet

TYPE FT MULTI-OUTLET

- compatible with all Moduflex Series 300 chutes
- creates a material beam with almost no air or dust — no dust skirt required
- designed for tanker, flatbed, and stockpile loading
- for flatbed loading, the outlet is raised above the loading zone without touching it

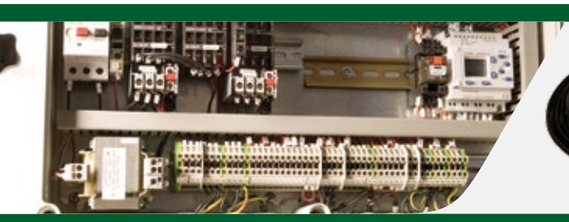
Accessories.

FLEXPOSITIONER
Compact motorised positioning system for all loading chute installations.

FLEXCLOSE
Closing system to seal off the loading chute.

FLEXFILL
Disperser for tank also functioning as a closing cone.

FLEXSEAL
A bonded inflated rubber layer seals the chute outlet to the tanker inlet hatch.



FLEX CONTROL
FLEXVIB/INDICATOR
Different kinds of electrical equipment with indicators can be applied, depending on the type and function of the loading chute.

One system. Multiple functions.

Load anything from fly ash to fertiliser, grain and food products.

Load ships, train wagons, flatbed and tanker trucks or stockpiling.

One only system with everything to respond to the needs of different businesses.

Minerals

Coal

Cement and cement clinker

Fly ash

Grain

Feed

Food

Fertilizers

CERTIFICATIONS

- ATEX standards Certificate
- EAC
- Food grade
- Compatible with UL and CSA standards
- IECEx

The pictures and technical data herein mentioned are indicative only and can be subject to changes.
We reserve the right to change them at any time without prior notice.

Over 17.500 Moduflex Systems Delivered Worldwide.

SCAN QR-CODE OR CHECK CIMBRIA.COM FOR MORE TECHNICAL INFORMATION.

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Release date: September 2026/EN

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