

Idealtec



AERO MECH ANIC AL

IDEAL

CONVEYORS

WE LISTEN TO and STUDY each client's specifics,
to achieve **QUALITY** in the **DESIGN, MANUFACTURING**
and **INSTALLATION** of machines and systems
for **STORING, DOSING** and **CONVEYING** powders.

OPERATING PRINCIPLE

IDEALTEC AERO MECHANICAL CONVEYOR IS A MACHINE WHICH IS SIMPLE IN DESIGN AND OPERATION. IT CONSISTS OF TWO OR MORE CORNERS, FITTED WITH **SPECIALLY DESIGNED SPROCKETS**, CONNECTED WITH A TWIN-TRACK TUBULAR CONSTRUCTION.

Within the tubular path a steel cable, with a series of disks made of thermoplastic material moulded onto it, travels at high and constant speed.

The movement of the driven disks generates considerable air displacement inside the conveying path. Therefore the bulk material fed into the pipeline fluidizes, as a result of airflow action, which favours its transferring to the discharge unit.

In the discharge unit, whose chamber is larger than the pipe's one, the air speed is drastically reduced. The solid material particles are centrifugally separated from the air stream and, as per centrifugal force, ejected from the path. The unloaded air current in the feed pipe is drawn back in the tube circuit and returned to the inlet in a virtual volume balance.

This type of material transport is therefore suitable for **conveying not very fluid and sticky powder and bulk products**, for mixtures of materials with different specific weights or for particularly fragile materials.

QUALITY

IDEAS

DESIGN

INNOVATION



A photograph of industrial machinery, likely a water treatment plant, viewed through yellow safety railings. The machinery includes large blue tanks, white pipes, and a control panel with a screen and buttons. The scene is brightly lit, suggesting an indoor industrial setting.

**FEASIBILITY
AND PROJECT REPORTS**

**INSTALLATION AT THE
CUSTOMER'S PREMISES**

**TECHNICAL AND
MANAGEMENT CONSULTANCY**

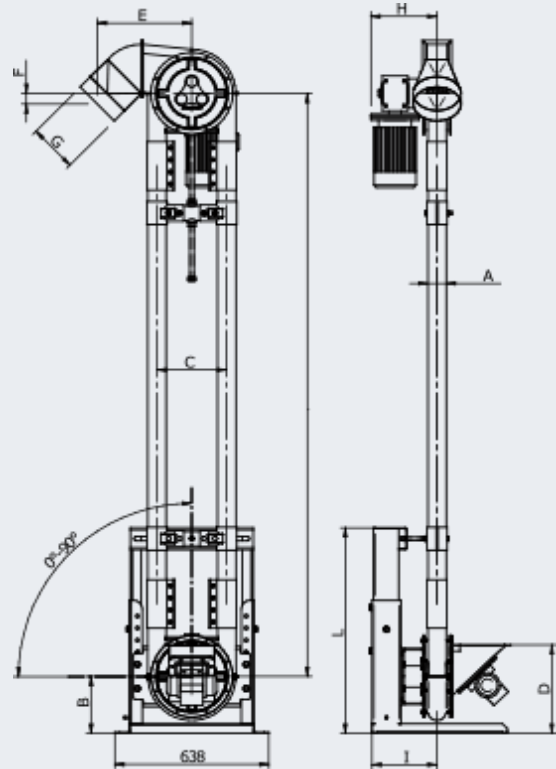
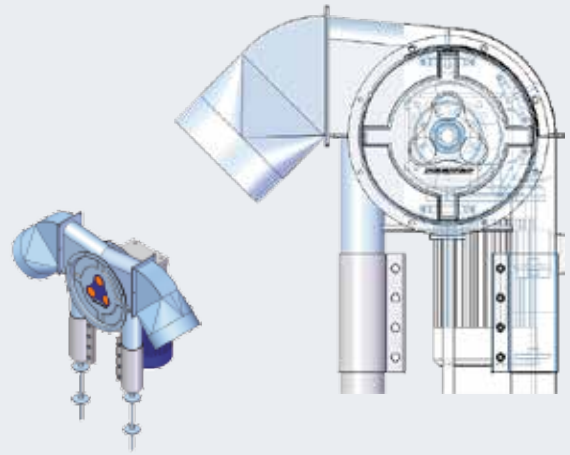
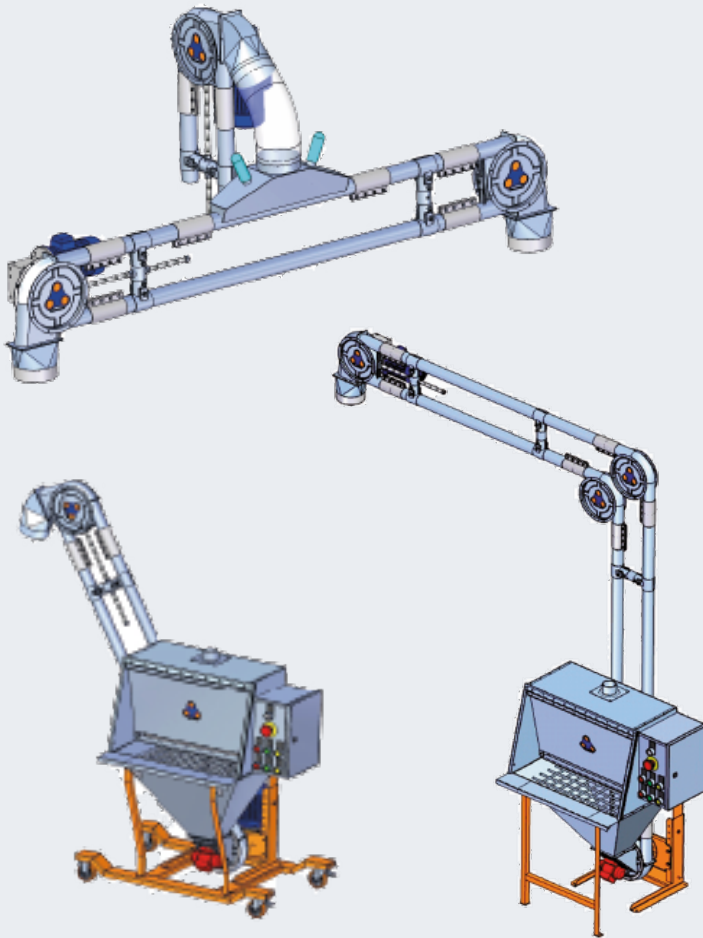
AFTER-SALES ASSISTANCE

**SCHEDULED MAINTENANCE
COMMISSIONING**

**IDEALTEC ALSO SUPPLIES
TURN-KEY PLANTS**

AEROMECHANICAL HS TYPE

The conveying system can also be fitted with a reversible drive that can charge two symmetrical vessels from a single feed point.



	A	B	C	D	E	F	G	H	I	L
48 HS	48	-	-	-	-	-	-	-	-	-
76 HS	76	235	288	365	390	45	Ø199	274	249	118
114 HS	114	335	432	500	494	55	Ø199	293	268	118
140 HS	140	-	-	-	-	-	-	-	-	-

MODEL	POWER SUPPLY	PIPE SIZE	THROUGHPUT
48 HS	1,1 Kw	48 mm	6 m ³ / h
76 HS	1,5 Kw	76 mm	15 m ³ / h
114 HS	2,2 Kw	114 mm	35 m ³ / h
140 HS	3,0 Kw	140 mm	65 m ³ / h

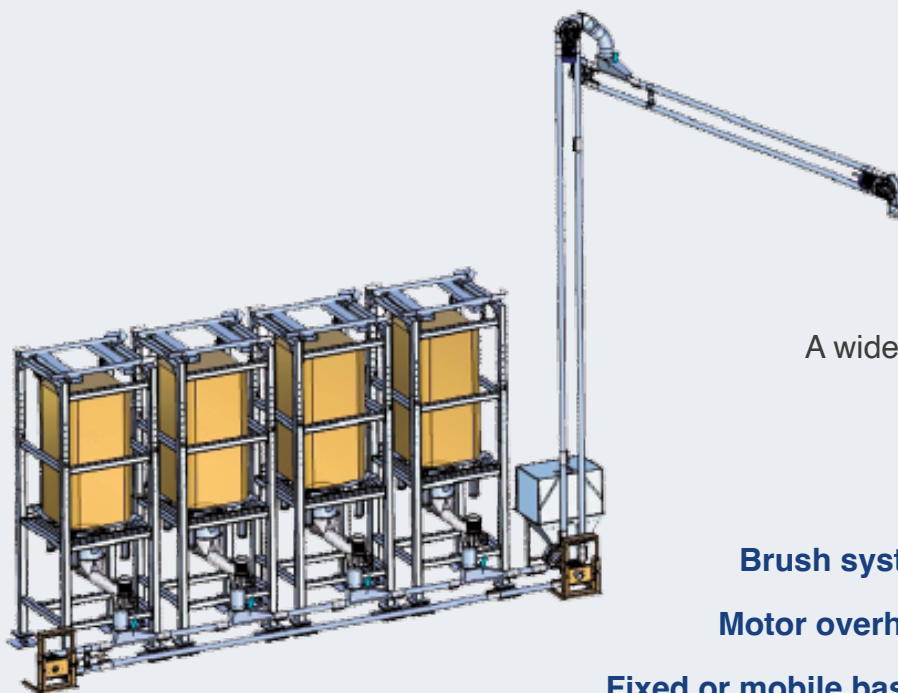
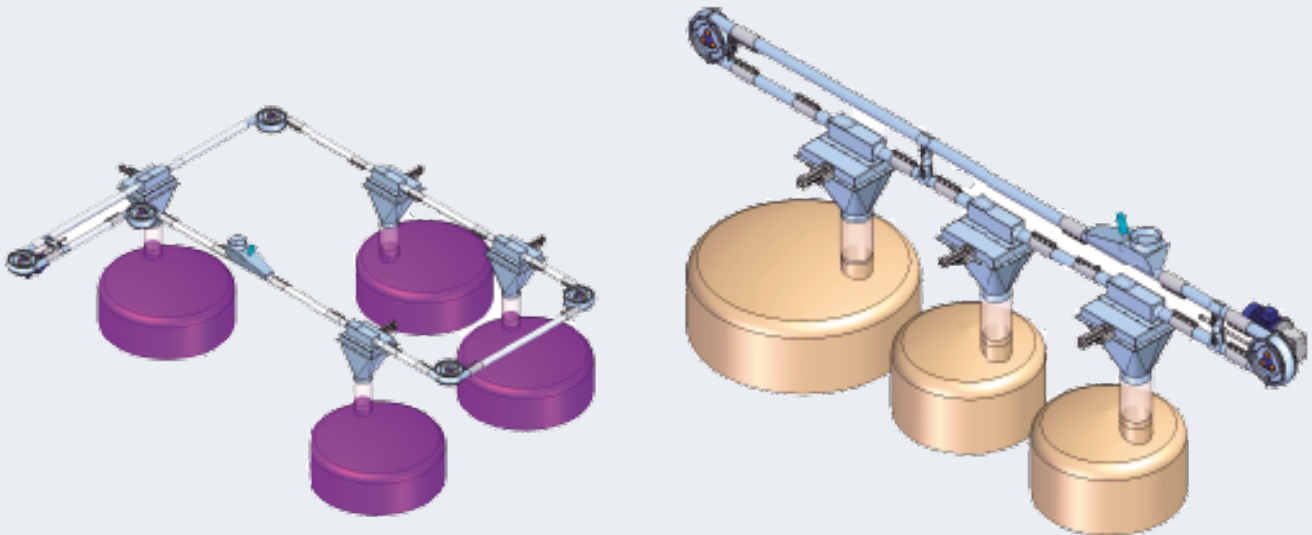
MODEL	POWER SUPPLY	PIPE SIZE	THROUGHPUT
76 LS	1,5 Kw	76 mm	8 m ³ / h
114 LS	2,2 Kw	114 mm	16 m ³ / h
140 LS	3,0 Kw	140 mm	30 m ³ / h

The data reported in the tables are indicative and may vary according to the characteristics of the conveyed materials and the customer's required specifications.

The manufacturer reserves the right to make any changes to the characteristics of its machine and parts there of at any time, without prior notice.

AEROMECHANICAL LS TYPE

For distributing material to multiple outlets conveyors operated at slow speed are provided with pneumatic operated cut-valves or rotative valves, intercepting the flow of material and discharging it to selected receiving.



ACCESSORIES

A wide range of optional accessory equipment and applications is available on request:

Sensor of rotation

Brush system for cable cleaning mode

Motor overheating protection system

Fixed or mobile basement (wheeled basement)

Nitrogen insufflation system for peculiar applications.

Air insufflation system for corner self-cleaning.

Various charge units (infeed screws, rotocells, sack tipping cabinets, etc.) according to infeed mode

Versatile discharge spouts (mono and reversible outlets, diverter valves for HS type, rotary and slide valves for LS type, etc.).

Rapid opening of the corners functional to maintenance and cleaning operations.

ADVANTAGES

- **Closed system** with no dust emission into the environment.
- **No separation of powder mixtures** with different size during conveying.
- **High power efficiency**. With modest power requirements, conveying of bulk materials is possible with throughput rates higher than those of other systems.
- Material conveying takes place in "**an air stream**", with a short staying within the system. The almost total absence of mechanical contact action makes that even delicate products are not damaged and wearing of contact parts is minimal.
- **Material unloading takes place by gravity, without pressure buildup**. The installation of filtering systems and cyclones, at material discharge points, is therefore excluded. Consequently the volume of gas output building up in totally enclosed tanks (reactors, mixers, storage containers, etc.) that must be "treated" is roughly equal to the volume of powder fed into the system.
- **Besides lower energy costs, maintenance operations are minimal and occasional**.

STANDARDS & CERTIFICATIONS

The **EU-type-examination Certification** pursuant to Annex III of Atex Directive 2014/34/EU makes our **aeromechanical, mechanical** and **screw conveyors** the indisputable protagonists, attesting to the conformity with the essential health and safety requirements of the Directive, **for the transport of a 0/20 ZONE**.

The **production quality assessment notification**, pursuant to Annex IV of the Atex Directive 2014/34/EU proves the **validation of the corporate quality system for production** and seals our strong propensity towards spreading a culture of health and safety in the workplace.

The **EAC EX Certification** of our aeromechanical and mechanical conveyors for classified atmospheres.



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