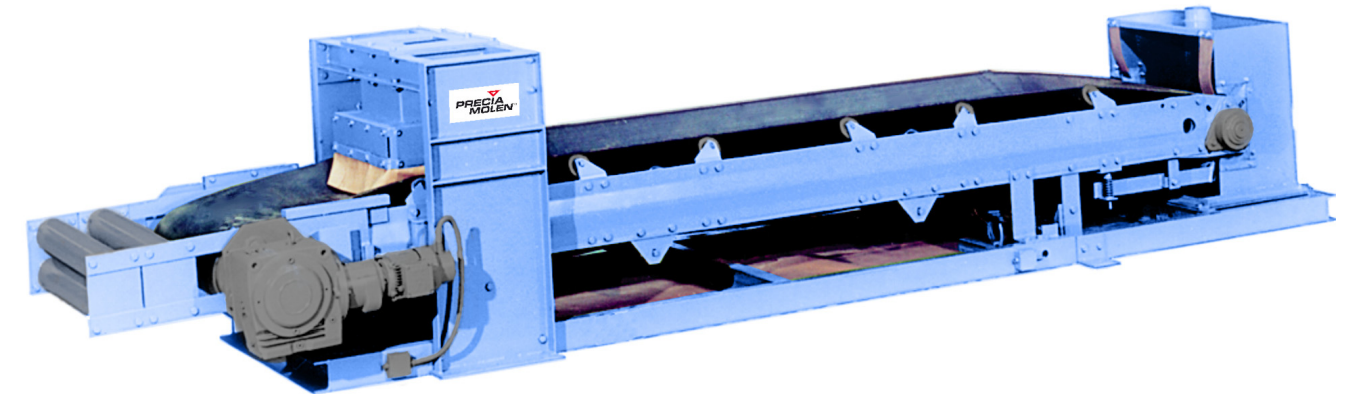


BT Scale with conveyor



This fully equipped weighing belt conveyor is a totalizing scale known as "with conveyor included". It is designed for weighing bulk products* in the extractive, mineral, fertilizer or phosphates production, agri-industry, sugar refinery, timber and other activity sector carrying bulk products.

The reachable accuracy with a banding totalizing scale depends on the characteristics of the conveyor to be equipped. When these are incompatible with good practices, the BT offers the perfect alternative to obtain the desired accuracy.

In fact, the BT weighing conveyor fits into the handling circuit, following the conveyor unfit for the installation of the planned banding scale. This BT continuous weighing infrastructure is based on strain gauge sensors and its accuracy depends on the available drum spacing.

It can be used for commercial transactions thanks to PRECIA MOLEN I 4100 BS electronics (data sheets 04-41-81 FT et 04-41-82 FT) according to the following regulatory accuracy classes:

Accuracy class	Precision*
0.5	+/- 0.25 %
1	+/- 0.5 %
2	+/- 1 %

* Cumulative load percentage

General description

The BT weighing conveyor consists of several elements:

- A rigid fabricated steel carrying chassis to be installed on a metal or concrete framework.
- A weighing chassis consisting of two braced stringers, equipped with roller stations, forming the trough conveyor at 30°.
- A hinge device designed for transferring the loads while eliminating the material feeding impact.
- One or two strain gauge sensors with mounting hardware. The use of a pulling clevis fitting eliminates all mechanical stresses that could disturb the weight measurement.
- A set of Mine type carrying and return rollers.
- A control drum mounted on ball bearings and placed at the foot of the conveyor (pushed belt).

* Standard grain size: 0/40.

- A constant speed drive geared motor unit with asynchronous motor and hollow shaft gearbox.
- A return drum mounted on ball bearings and placed at the head of the conveyor.
- A smooth textile structure belt: synthetic, rubber, abrasion-resistant coating, self-extinguishing, anti-grease, etc.
- A belt tension adjustment device (screw), placed at the foot of the conveyor.
- A lower belt scraper placed on the return strand.
- A tangential belt scraper under the discharge drum.
- A feed panel with rubber shield, integral with the frame and intended for centring the product on the belt.
- A device for measuring the conveyor belt moving speed.
- A standard weight bracket, incorporated into the conveyor structure, allows making dynamic calibration on site easily.
- Two emergency stop boxes installed on each side of the conveyor feed panel.
- A locking device for transport and assembly. It prevents the weight sensors from being damaged and holds both parts of the scale, weighing and fixed, together.

The conveyor being totally weighing, there is no weight measuring disturbance connected to the product displacement, trough angle or belt tension.

A such design allows getting an accurate, reliable and repeatable weight measurement even under the most severe operating conditions.

▼ Finish

- Painted steel:
 - baked,
 - epoxy.
- RAL 5012.
- 304L or 316L stainless steel.
- Galvanized steel.



BT model with cover

Options

304L stainless steel construction	Power box
316L stainless steel construction	Power cabinet
Hot galvanized steel construction	ATEX 3D version or others on request
SA 2 ^{1/2} sandblasting	Low temperature use version - 20 °C to + 60 °C
304L stainless steel fastenings	Volumetric hatch
Discharge chute on chassis	Cellular airlock
Product cover	Standard weights
Full cover	

Your specialist

Non contractual illustrations. Precia-Molen reserves the right to alter the characteristics of the equipment described in this brochure at any time.

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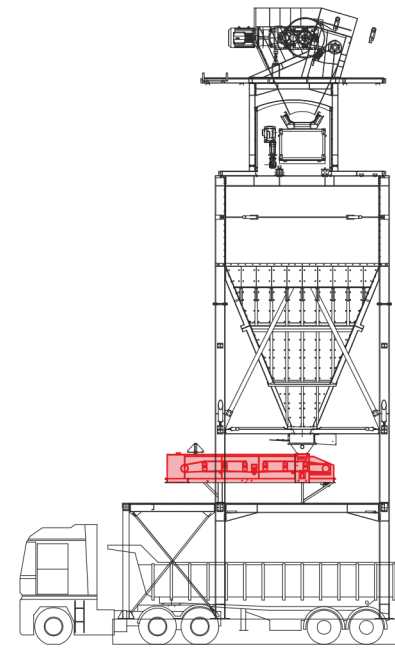
Installation

The BT conveyor can be incorporated into any type of bulk product transport installation due to the belt conveyor.

Examples of installations carried out

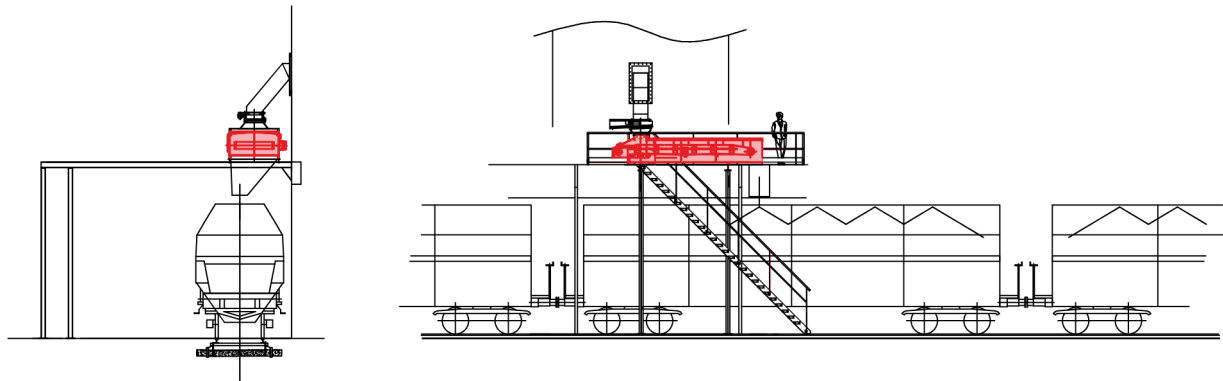
▼ Aggregate loading station

- Pre-loading: Allows avoiding overloads by delivering the desired amount at once, avoiding overloads and underloads, as well as exact operations and waiting at the weighbridge exit.
- Automatic truck loading, slaved to tare weighbridge at the site entrance via an RFID tag and a driver terminal. Loading stops when the instruction given by the badge is reached. When the scale is used in legal metrology, the truck gets the delivery slip and leave the site without having to go through the exit weighbridge.



▼ The cereal grain loading station in Legal Metrology

- BT conveyor on silo side outlet chute.



▼ Internal use bulk handling

In the silos, the handling circuits used for inter-bin transfer or wheelbarrowing operations include the belt conveyors. When it is not the case (chain conveyor, bucket elevators, etc.), installing a continuous weighing instrument proves to be impossible. Implement a BY conveyor becomes the most simple and effective solution.

Likewise, for ensilage, when installing a totalizing scale on the cell filling conveyor is impossible (chain conveyor, tripper), the ATEX version BT conveyor is the ideal solution.

In addition to the standard flow rate and belt width range PRECIA MOLEN designs and manufactures customized weighing conveyors in order to meet your needs for higher flow rates or for very low density products.

European and international metrological certification

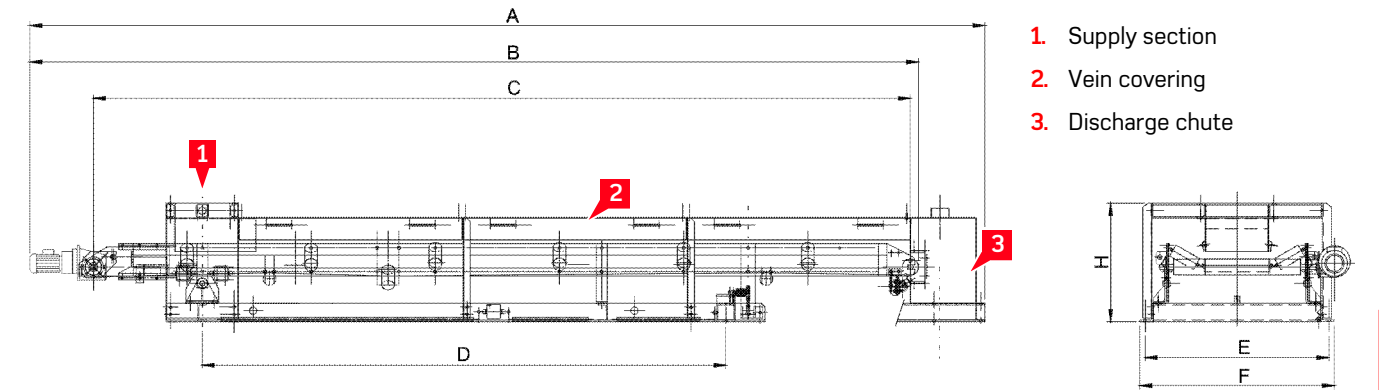
- Directive 2004/22/CE.
- Recommendation OIML R50.

- Directive 2006/42/CE on machinery.
- Directive 2006/95/CE for low voltage equipment.
- Directive 2004/108/CE for Electromagnetic compatibility
- Directive 94/9/CE for ATEX atmospheres**.

** ATEX version on request.

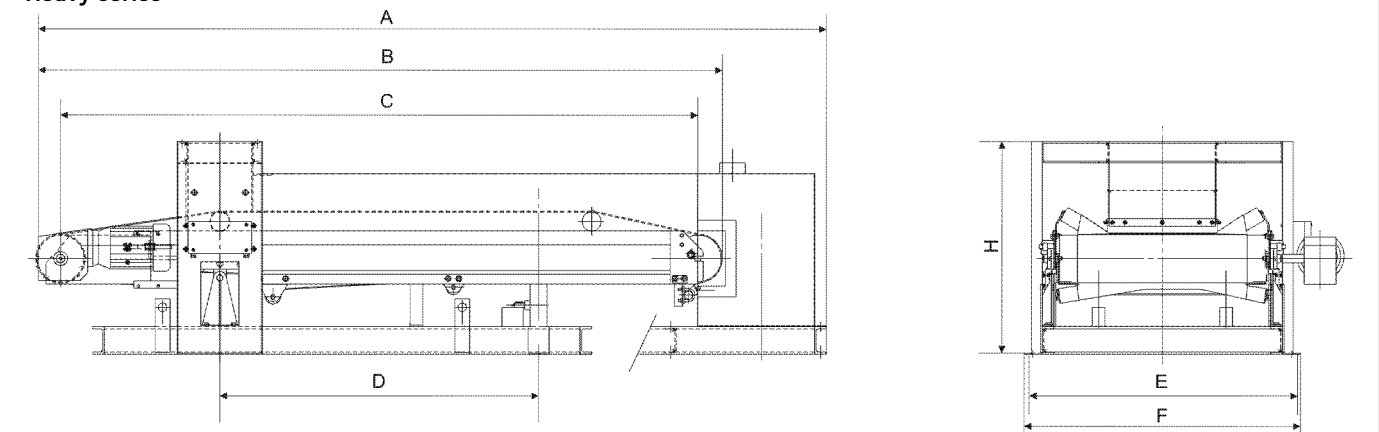
Dimensions and weight

Agri series



	Belt width	A	B	C	D	E	F	H	Weight (kg)	Flow (m ³ /h)
BTA 4x1800	400	2560	2195	1800	954	762	822	650	380	35
BTA 5x1800	500	2560	2195	1800	954	862	922	650	430	60
BTA 6x1800	650	2560	2195	1800	954	1012	1072	650	500	90
BTA 4x3000	400	3760	3400	3000	1604	762	822	650	490	35
BTA 5x3000	500	3760	3400	3000	1604	862	922	650	590	60
BTA 6x3000	650	3760	3400	3000	1604	1012	1072	650	710	90
BTA 8x3000	800	3760	3400	3000	1604	1162	1222	650	790	130
BTA 5x4500	500	5260	4895	4500	2884	862	922	650	660	60
BTA 6x4500	650	5260	4895	4500	2884	1012	1072	650	780	90
BTA 8x4500	800	5260	4895	4500	2884	1162	1222	650	880	130
BTA 10x4500	1000	5260	4895	4500	2884	1272	1362	650	1020	180

Heavy series



	Belt width	A	B	C	D	E	F	H	Weight (kg)	Flow (m ³ /h)
BTL 6x3000	650	3710	3220	3000	1500	1070	1150	1000	1155	110
BTL 8x3000	800	3710	3220	3000	1500	1220	1300	1000	1215	170
BTL 10x3000	1000	3710	3220	3000	1500	1420	1500	1000	1285	250
BTL 12x3000	1200	3710	3220	3000	1500	1620	1700	1000	1395	325
BTL 14x3000	1400	3710	3220	3000	1500	1820	1900	1000	1665	410
BTL 6x4500	650	5220	4730	4500	3000	1070	1150	1000	1300	110
BTL 8x4500	800	5220	4730	4500	3000	1220	1300	1000	1350	170
BTL 10x4500	1000	5220	4730	4500	3000	1420	1500	1000	1420	250
BTL 12x4500	1200	5220	4730	4500	3000	1620	1700	1000	1530	325
BTL 14x4500	1400	5220	4730	4500	3000	1820	1900	1000	1800	410
BTL 16x4500	1600	5270	4730	4500	3000	2020	2100	1000	2000	460

All dimensions are in mm.