TAB
Multi-station infrastructure scale

The TAB scale model was designed for weighing bulk products in the extractive, mineral, cement, fertilizer or phosphates production, agri-industry, sugar refinery, timber, recycling industry market sectors and other activities using belt conveyors.

The TAB scale can be installed in a new conveyor or can easily replace at least two roller stations of an existing conveyor. This weighing infrastructure can be equipped with more than two roller stations in order to obtain the expected accuracy.
Combined with PRECIA MOLEN I 400 BS electronics (see data sheets ref. 04-32-81 FT and 04-32-82 FT), it can be used to carry out commercial transactions in the following regulatory accuracy classes:

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

** Cumulative load percentage*

General description

The TAB scale consists of several elements:

- 1 rigid fabricated steel lower chassis to be installed as replacement for existing roller stations.
- 1 suspended chassis consisting of an assembly of two side rails and at least two trough roller stations, thus forming a multi-station weighing table.
- 4 strain gauge sensors with their environment. The weighing table suspended assembly allows eliminating the mechanical constraints that disturb the weight measurement in a flanged-formed type assembly.
- 4 ties serve to stabilize the weighing table with respect to the fixed frame. This device also allows to install the scale on an inclined conveyor.
- 6 screws built into in each weighing station allow adjusting the height of the rollers and their fine alignment with respect to the upstream and downstream stations. This device allows carrying out a real weighing plan and eliminate measuring disturbances related to banding.
- 1 locking device for the transport and the mechanical assembly on the conveyor. This device prevents the strain gauge sensors from being damaged.
- 2 standard weight brackets are incorporated into the weighing table structure. They allow making dynamic calibration on site easily.

The design of this scale allows getting an accurate, reliable and repeatable weight measurement even under the most severe operating conditions.

Finish

- Painted steel:
  - baked,
  - epoxy paint.
- 304L or 316L stainless steel.
- Aluminium infrastructure for low density product weighing.

Application

Bulk product weighing, flow measurement, daily or accumulated production totalling.

These various uses can be carried out during the phases of extraction, processing, pre-storage, etc.

The TAB belt scale can also be used to carry out loading or unloading operations with weight set point, in legal metrology or not.

European and international metrological certification

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

European and international compliance

- Directive 2004/108/CE for Electromagnetic compatibility
- Directive 94/9/CE for ATEX atmospheres*.

** ATEX version on request.*

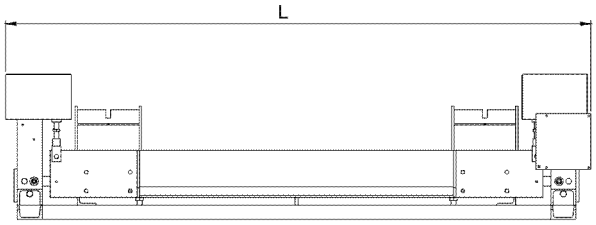
Installation

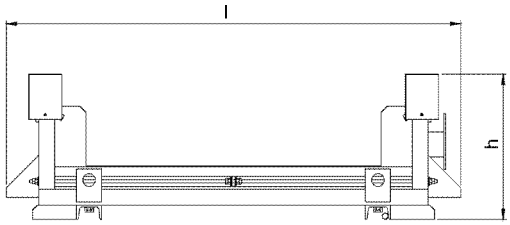
The TAB scale can be installed on any type of trough belt conveyor with a heavy or light frame, in profiles, shell, lattice or tubular.
There are no belt width or speed limitations for the conveyor to be equipped.

For legal metrology use or for an accuracy better than +/- 0.5 %, our bulk weighing experience leads us to recommend::

- Non-grabbing stations with rollers in the same vertical plane.
- Roller station trough angle up to 30º maximum.
- Weighing length proportional to the belt width.
- Scale station roller alignment and 3 or even 4 stations located upstream and downstream.
- Automatic type belt tension.
- Conveyor spacing between 12 m and 60 m.
- Horizontal or slightly inclined conveyor according to the behaviour and characteristics of the product to be weighed.
- Straight and no side edge conveyor in the weighing area.
- Weight area covering so that the wind does not interfere with the weight measurement.
- Product bypass circuit allowing carrying out material tests by comparison to a weighbridge.
- Belt speed measuring at one of the conveyor driven drum level.
- Automatic belt zero activation during daily start up or before each load.
- Use the scale at a flow greater than 20 % of the maximum flow requested at the scale.
- Compliance with regulatory recommendations of OIML R50 and MID 2004/22/EC for use in legal metrology, particularly:
  - Minimum totalling equal to 400 steps in class 1and 800 steps in class 0.5;
  - Operating temperature range: - 10 ºC to + 40 ºC;
  - Annual periodic check at different flows required, and comparison with a road or rail weighbridge previously checked.

Dimensions and weight





Belt width (mm)	Roller Ø* (mm)	L (mm)	l (mm)	h (mm)	Weight (kg)
500	89	1865	908	417	135
650	89	1865	1058	417	145
800	89	1865	1208	417	155
1000	89	1865	1408	417	175
800	133	1865	1248	462	190
1000	133	1865	1448	462	205
1200	133	1865	1648	462	225
1400	133	1865	1848	462	245
1600	133	1865	2048	462	265
1000	159	1865	1510	515	280
1200	159	1865	1710	515	300
1400	159	1865	1910	515	320
1600	159	1865	2048	515	340

** Option*

Options

304L stainless steel construction	Roller station* adjustable for upstream and downstream weighing area
316L stainless steel construction	ATEX version
Hot galvanized steel construction	Low temperature use version - 40 ºC to + 60 ºC
304L stainless steel fastenings	Standard weights, calibration chain
SA $2^{1/2}$ sandblasting	Rolls on request.

** To be installed upstream and downstream of the TAB scale.*

Your specialist

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