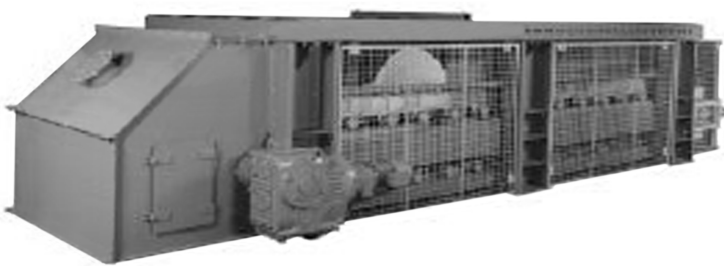


VDP Apron Weighfeeder



- Apron weighfeeder for difficult-to-extract bulk solids
- Apron weighfeeder for hot bulk solids
- Combination of bin extraction and feeding ensures low investment cost
- High-tech direct-weighing technology ensures high feeding accuracy
- Self-cleaning apron plates for hot bulk solids
- Special apron plates for wet, sticky bulk solids
- Pin gate can be integrated into frame
- Particular suitability for applications in the cement and steel industries

Application

Particularly in the cement and steel industries, the need often occurs to discharge bulk solids which are difficult to extract, e. g. marl, clay, gypsum, trass or sludge from bins, and to feed them into production processes in a controlled manner.

Another key application are dry, super hot bulk solids like clinker.

Until now, apron conveyors were used for the purpose, either as a prefeeder for a weighfeeder, or in purely volumetric mode.

Coperion apron weighfeeders combine the two functions of extraction and gravimetric feeding, thus providing the following advantages:

- Minimal investment and follow-up cost (i. e. operation and maintenance cost)
- Easy installation and low space requirements
- Improved accuracy and higher quality of the end product compared to volumetrically operating extraction apron conveyors.

Construction

The standard equipment of the apron weighfeeder comprises:

- sturdy mechanical equipment
- feed hopper with high-adjustable slide gate
- transport belt
- direct-weighing equipment
- AC geared motor
- frequency transducer
- precabbling for easy connection to electronics

The transport belt consists of overlapping apron plates. This shape ensures smooth extraction of sticky and moist bulk solids.

A special pan design is used for free flowing hot bulk solids.

The following accessories are available for different applications:

- pins for the pin gate integrated into the apron weighfeeder, for shutting off the feed hopper
- discharge aid roller for homogenising the material discharge
- scraper conveyor for removing dropped material

Function

The apron weighfeeder is designed as a speed-controlled apron conveyor with integral direct-weighing equipment for the determination of the weight of the belt load. The speed of the circulating belt is measured with the help of a frequency transducer.

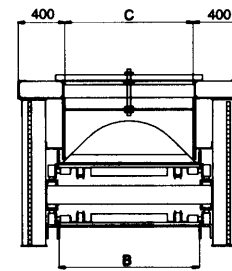
From these two measured variables, the actual feed rate is determined. The belt speed is then controlled as a function of the control difference, so that the exact feed rate set point is maintained.

Smooth direct extraction of the bulk solid is ensured by the apron plates a design of the transport belt and the optimum feeding cross section of the feed hopper. The apron plate belt is guided along a rail over rollers connected to each other by means of a chain. This transport rail includes a weighing rail for determining the belt load.

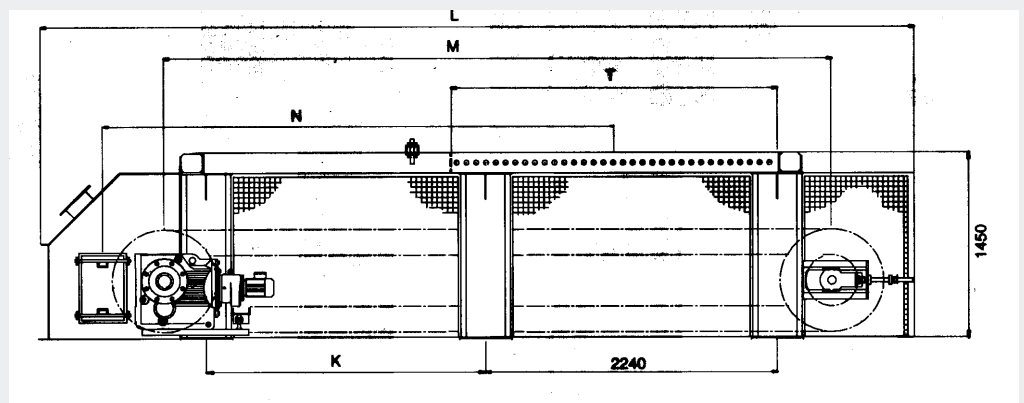
At the discharge point, the pockets of the apron plates increase thus releasing any material that has stuck. This self-cleaning method ensures excellent extraction from the storage bin, and reduces material losses underneath the apron feeder to a minimum

Dimensions [mm]

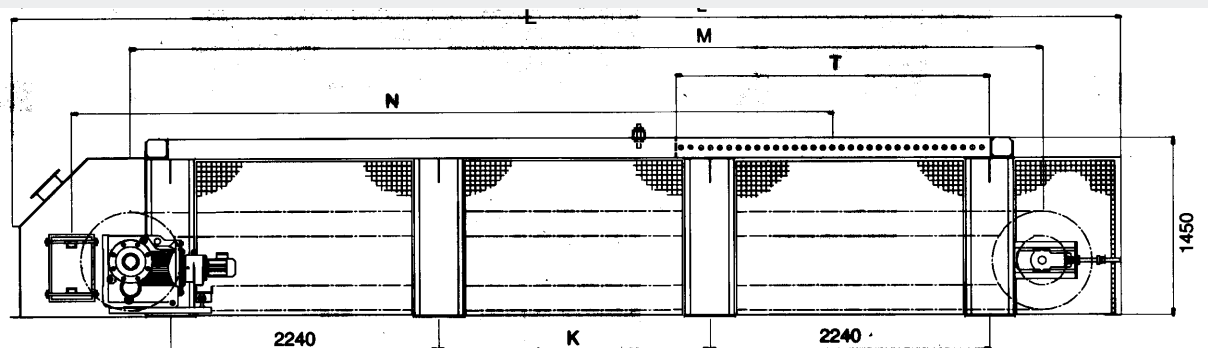
Apron weighfeeder



Side view
(Pulley centres up
to 6560)



Side view
(Pulley centres over 7040)



Dimensions	Plate width (B) dependent dimensions [mm]			
	1000	1200	1400	1600
C	900	1100	1300	1500
T	2250	2500	2500	2500

Dimensions	Pulley centre (M) dependent dimensions [mm]						
	5120	5600	6080	6560	7040	7520	8000
K	2140	2620	3100	3580	1820	2300	2780
L	6698	7128	7658	8138	8618	9098	9578
N	3785	4265	4745	5225	5705	6185	6665

Technical Data

Gravimetric feed rate	up to max. 980 t/h
Volumetric feed rate	up to max. 700 m ³ /h
Accuracy (related to actual value)	±1 % in a range of 10 : 1
Belt speed	max. 0.3 m/s
Material temperature	max. 250 °C or max. 300 °C for short time
Min. belt load	230 kg/m
Pulley distance [mm]	3200, 3680, 4160, 4640, 5120, 5600 ... 10400
Plate width [mm]	1000, 1200, 1400, 1600, 1800, 2000

Options

Beyond the standard scope of supply, a wide range of useful options are available:

- Special dimensions available upon request
- Pins for the pin gate for shutting-off the feed hopper
- Scraper conveyor as a collecting belt for material residues underneath apron feeder
- Discharge aid roller for homogenising the material discharged

Ordering information

For smooth and speedy processing of your order, please let us have the following information:

- ▶ Bulk solids
- ▶ Bulk density [t/m³]
- ▶ Material temperature [°C]
- ▶ Feed rate [t/h]
- ▶ Pulley centres [mm]

Coperion

7901 NW 107th Terrace
 Kansas City, MO 64153
 816-891-9300
info@coperion.com
www.coperion.com/fpm