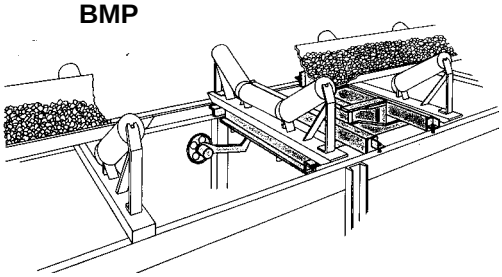
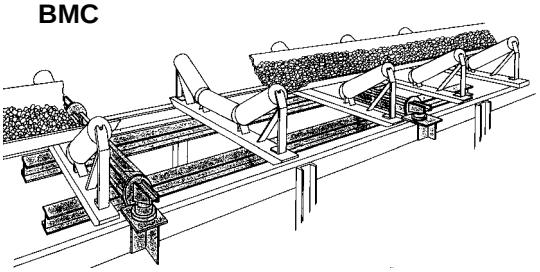
MULTIBELT® Multi-Idler Belt Weighers

BMP



BMC



- **Continuous bulk solids measurement in belt conveyor systems**
- **Suitable for flow rates up to 20.000 t/hr**
- **Accuracy up to ± 0,25 %**
- **Also legal-for-trade-version**
- **Suitable for IEC belt widths**
- **Suitable for use in ATEX explosion-zones**

Application

Multi-Idler Belt Weighers are used for continuous acquisition of flow rates and totalized amounts. They are especially designed for integration into continuously operating belt conveyors and enable accuracies of up to ± 0.25% to be achieved.They can be employed for a whole variety of tasks:

- Throughput and consumption measurement in production plants
- Accountability of stored and retrieved amounts
- Load limit alarm
- Batching, in load-out stations
- Legal-for-trade weighing
- Prefeeder control.

Their rugged design ensures a highdegree of reliability and availability.

Our product range is as varied as the demands of our customers. For Single-Idler Belt Weighers, see separate Spec Sheet BV-D 2049.

Construction

The standard Multi-Idler belt weigher comprises:

- Weighing platform for accommodating user´s idler sets
- Overload-protected load cell(s)with high degree of protection
- Cable junction box forconnection of sensors, and
- All fixing elements required for mounting.

For speed measurement, various speed transducers e.g. friction wheel tachometers, are available as options.

Operating Principle

Belt Weighers are used to acquire continuous material flows of varying amounts.

Load cells acquire the weight of load on particular belt sections.

The longer the belt section is, the less the measuring result is affected by external influences.

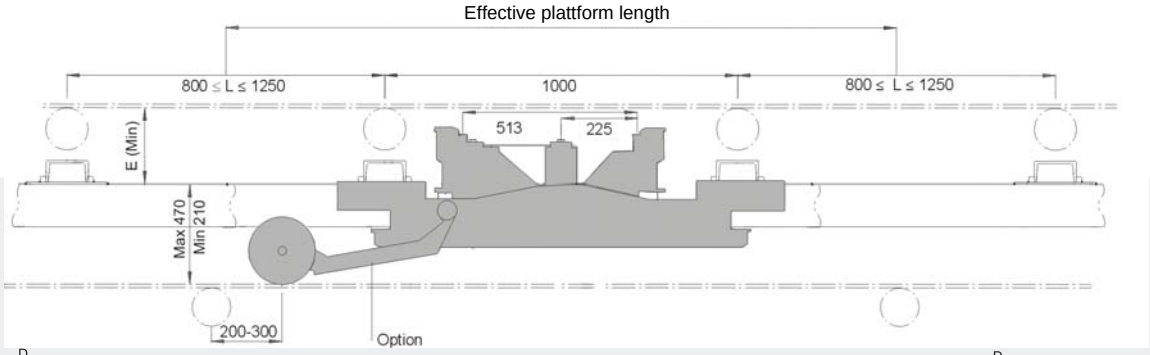
In addition to belt load acquired by load cells, belt speed is measured by a speed transducer.

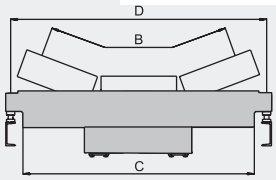
The product of these two variables is the current flow rate.

Integration of flow rate determines the totalized amount of material

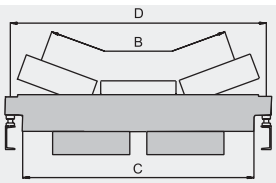
Dimensions [mm]

Dual-Idler Belt Weigher BMP

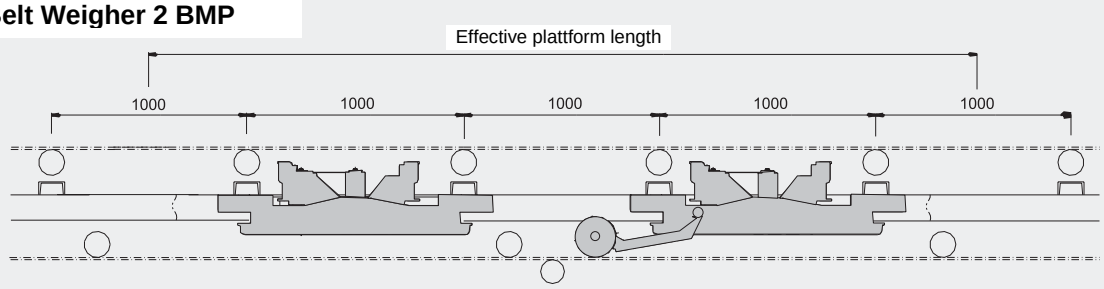




2 weighing stations arranged side by side for belt widths from 1600 mm

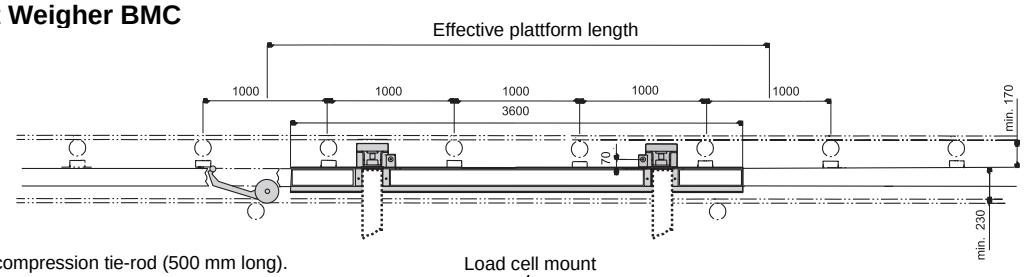


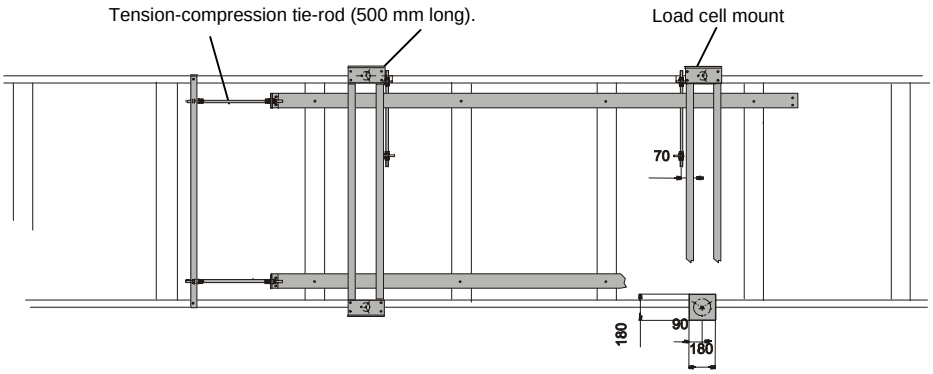
Dual-Idler Belt Weigher 2 BMP



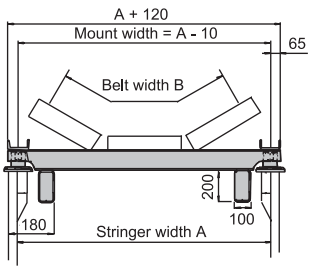
2 BMP weighing stations arranged one after the other to achieve higher accuracies
(Weighing station dimensions are the same as those of the BMP weighing stations)

Multi-Idler Belt Weigher BMC





4 m standard platform length. 6 m also possible.



Dimensions [mm]

MULTIBELT®	Dimensions [mm]									
BMP	Maß B Belt width	500	650	800	1000	1200	1400	1600[1)]	1800[1)]	2000[1)]
	Maß C	616	766	966	1166	1416	1616	1880	2080	2330
	Maß D	740	890	1090	1290	1540	1740	1990	2190	2440
	Maß E	120	120	120	120	120	160			
2 BMP	Maß B Belt width	500	650	800	1000	1200	1400			
	Maß C	616	766	966	1166	1416	1616			
	Maß D	740	890	1090	1290	1540	1740			
	Maß E	120	120	120	120	120	160			
BMC	Maß A	800	950	1150	1350	1600	1800	2050	2250	2500
	Maß B Bandbreite	500	650	800	1000	1200	1400	1600	1800	2000

[1)] 2 weighing stations side by side

Technical Data

MULTIBELT® Multi-Idler Belt Weighers	Accuracy without speed measurement system only achievable at constant speed	Flow rate	Weight	Belt Speed	Belt Rise
BMP	± 0.25 % of nominal flow rate	to ca. 15.000 t/h	≈ 200 kg to 1400 mm belt width ≈ 400 kg to 1600 mm belt width	to ca. 6 m/s (Preferential range)	~ 20° (No relative material movement)
	± 0.5 % of actual flow rate				
2 BMP	± 0.25 % of actual flow rate	to ca. 15.000 t/h	≈ 400 kg		
BMC	± 0.25 % of actual flow rate	to ca. 20.000 t/h	≈ 380 - 480 kg		

Accuracy

Specified accuracies refer either to nominal (maximum) flow rate or to the corresponding actual flow rate in the range of 20 to 100 %.

The accuracy specified for the 2 BMP / BMC types refers to corresponding actual flow rate in the range of 30 to 100 %.

Specified accuracies assume that the variant is installed in a suitable belt conveyor and that the measuring station is installed and calibrated in accordance with our installation and calibration instructions.

For optimum planning-in of your belt weigher(s), see Spec Sheet F9151e ‘Recommendations for ensure proper functioning and high accuracy'.

Special Requirements

Should you have specialrequirements, e.g.

- Legal-for-trade variants
- Belt speed out of specified range
- Meter for varying belt angle
- Prefeeder control
- Special belt widths
- Special belt conveyors,

please let us know.

Ordering Data

For us to be able to handle your order smoothly and quickly, please let us have the data below in addition to the ordering number:

- Belt width [mm]
- Flow rate [t/h]
- Belt rise [°]
- Belt speed [m/s]
- Accuracy [%]
  Nominal flow rate ( )
  Actual flow rate ( )

Multi-Idler Belt Weigher Variants
BMP 500 - 2000 Belt weigher with weighing platform, IEC belt widths from 500 to 2000 mm
2 BMP 500 - 1400 Belt weigher with weighing platform, IEC belt widths from 500 to 1400 mm
BMC 500 - 2000 Belt weigher with weighing platform, IEC belt widths from 500 to 2000 mm

Options
FGA 24 A – Speed measurement system, Namur switch with perforated disc
FGA 20 RSLE - Speed measurement system; friction wheel with rocker and support
FGA 20 RSLE-VA - Speed measurement system for belt speeds up to 3.5 m/s; friction wheel with rocker and support in stainless steel design
FGA 30 R2 - Speed measurement system for belt speeds up to 3.5 m/s; friction wheel, enclosed casing, rocker and support
FGA 53 K - Speed measurement system for belt speeds from 3.5 m/s onward, with coupling for connection to shaft end

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