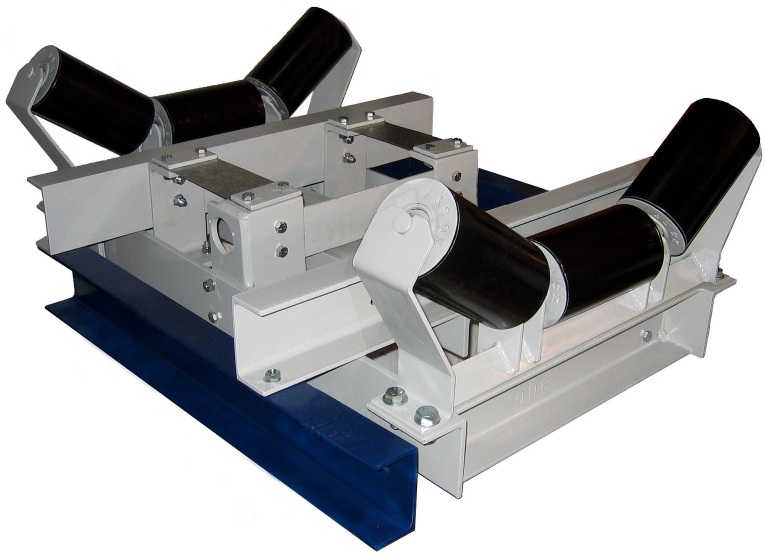
Modular Multi-Idler Belt weigher model MBD

- **Highly Accurate, Proven and Rugged Design**
- **Fully Floating weigh carriage for simple calibration**
- **Cost effective modular design**
- **Two and four idler configurations**
- **Integrated test weight receptors or optional lever arm operated stored in place test weights**



Application

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

- Throughput and consumption measurement in production plants.
- Accountability of stored and retrieved amounts.
- Maximum or Minimum load limit alarms.
- Batching, in loading stations.
- Pre-feeder control.

The rugged design ensures a high degree of reliability and availability.

Construction

The standard belt weigher comprises:

- Fully floating weighing platform.
- Overload-protected stainless Steel load cell(s) of IP65 construction.
- IP65 Cable junction box in painted mild steel.
- IP65 Tail drum speed sensor.
- Mounting and adjusting bolts.

Options include:

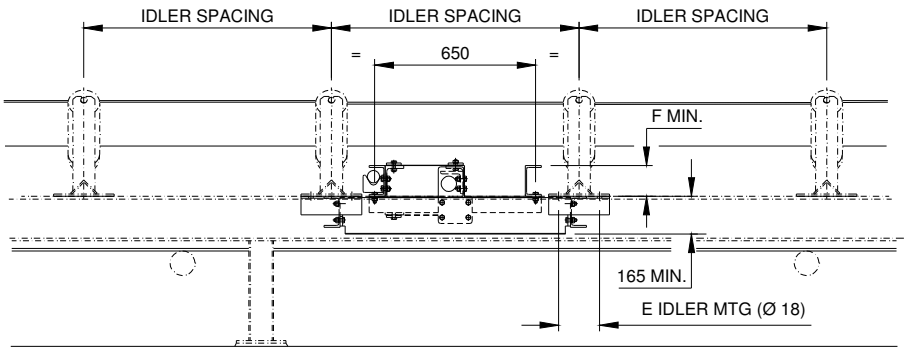
- Weigh quality idler sets with screw adjustment (for precise idler alignment, ± 0.2mm).
- IP65 Cable junction box in 316 stainless steel and optional speed sensor(s).
- Friction Jockey Wheel running on return belt.

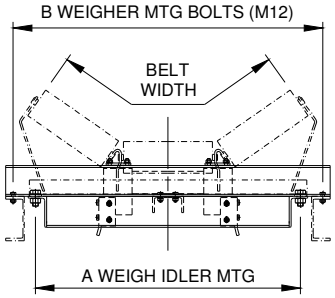
Operating Principle

The belt weigher comprises load cells measure the load on the weigh length while a speed transducer acquires the belt speed. The controller calculates both the instantaneous load and the totalized amount. Belt weighers designed with a longer weigh length are less prone to errors from the conveyor system. Similarly, wide belts introduce large side forces which cause errors. The MBD is a fully modular system which allows modules to be run in tandem or parallel thus giving a common belt weigher for a wide range of applications. This modular design also results in a lighter construction better suited to the load cells.

Configurations and Dimensions

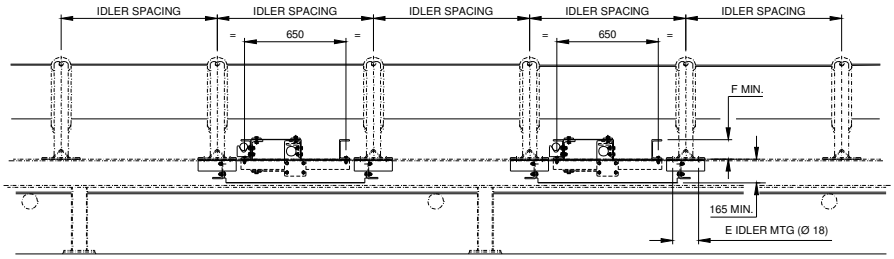
Single module (Dual Idler Configuration)

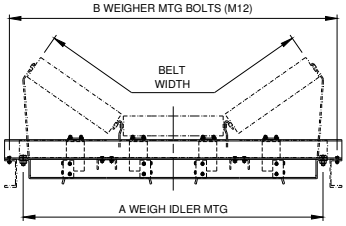




Multi module Configurations

2MBD (four idler) and MBD2 versions (for belt widths 1600 and above)





Standard Models

Model	Accuracy	No. L/C & Modules	Weight (kg)	Belt Width	A	B	E	F
1MBD1.500	± 0.5%	1	105	500	570	750	60	130
2MBD1.500	± 0.25%	2	210					
1MBD1.600	± 0.5%	1	111	600	670	850	60	130
2MBD1.600	± 0.25%	2	222					
1MBD1.650	± 0.5%	1	114	650	720	900	60	130
2MBD1.650	± 0.25%	2	228					
1MBD1.750	± 0.5%	1	122	750	820	1000	60	130
2MBD1.750	± 0.25%	2	244				140	
1MBD1.800	± 0.5%	1	126	800	870	1050	60	130
2MBD1.800	± 0.25%	2	252				150	
1MBD1.900	± 0.5%	1	132	900	970	1150	60	130
2MBD1.900	± 0.25%	2	264				150	
1MBD1.1000	± 0.5%	1	138	1000	1070	1250	60	165
2MBD1.1000	± 0.25%	2	276				150	
1MBD1.1050	± 0.5%	1	157	1050	1120	1300	60	165
2MBD1.1050	± 0.25%	2	314				150	
1MBD1.1200	± 0.5%	1	169	1200	1270	1450	60	165
2MBD1.1200	± 0.25%	2	338				165	
1MBD1.1350	± 0.5%	1	184	1350	1470	1650	180	165
2MBD1.1350	± 0.25%	2	368					
1MBD1.1400	± 0.5%	1	200	1400	1520	1700	200	165
2MBD1.1400	± 0.25%	2	400					
1MBD1.1500	± 0.5%	1	208	1500	1620	1800	200	165
2MBD1.1500	± 0.25%	2	412					
1MBD2.1600	± 0.5%	2	282	1600	1820	2000	240	165
2MBD2.1600	± 0.25%	4	564					
1MBD2.1800	± 0.5%	2	295	1800	2020	2200	240	195
2MBD2.1800	± 0.25%	4	590					
1MBD2.2000	± 0.5%	2	315	2000	2220	2400	280	195
2MBD2.2000	± 0.25%	4	630					
1MBD2.2200	± 0.5%	2	330	2200	2320	2600	280	195
2MBD2.2200	± 0.25%	4	660					
1MBD2.2500	± 0.5%	2	350	2400	2520	2800	350	195
2MBD2.2500	± 0.25%	4	700					
1MBD2.2500	± 0.5%	2	360	2500	2720	2900	350	195
2MBD2.2500	± 0.25%	4	720					

Standard Idler spacings 1000, 1250 & 1500mm. Custom designs to suit non standard conveyor stringers, idler spacing and idler dimensions are also available on request. Accuracy quoted is based on maximum belt speed of 5m/s and is subject to confirmation by formal quotation. Belt weighers should be installed in accordance with the operating and installation manuals. Dimensions and specifications are subject to change without notice.

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