MULTIDOS® L Weighfeeder

- **Wide performance range**

- **MechaTronic design with integrated electronics**

- **Quick clean-out**

- **Easy belt change without auxiliaries**

- **Standard stainless steel housing**

- **All contact parts of stainless steel**

Application

SCHENCK weighfeeders are used for continuous feeding of bulk solids in gravimetric mode. Application-oriented variants and high-quality standards offer economic solutions that satisfy even the most sophisticated requirements. High-quality measuring, control, and supervisory electronics enable comprehensive monitoring of weighfeeders, and the MechaTronic design ensures easy integration into the plant control system at reasonable cost.

Customer's benefits:

- Minimal investment, operating and maintenance costs
- Easy installation, low space requirements
- Improved accuracy and quality of final product.

Construction

The standard variant comprises:

- Rugged mechanical system
- Mechanics removable from the side, drive via plug-in coupling
- Automatic belt tracking system
- Static belt tension through spindles integrated in frame
- Belt influence compensation (BIC)
- Plough scraper (diverting tramps on return belt)
- Belt outside scrapers
- Dedusting socket
- Material bed depth adjustable from outside
- Contact parts of stainless steel 1.4301; US grade 304
- All plastics FDA-approved
- Inert gas blanket 10mbar

For the many and varied applications, the following accessories/options are available:

- Contact parts of stainless steel 1.4571; US grade 316Ti

- Settling chamber for fine materials
- Feed screws
- Plexiglass window in inspection covers
- Dust collecting and discharge hoppers
- Special equipment package for secondary fuels and light materials
- Housing pressure-proof to 0.3 bar
- ATEX variants 2D; 3D

Operating Principle:

The mechanical system is designed for:

- Direct discharge using specified hopper
- Material infeed with settling chamber for fine materials
- Screw feeding
- Block mode with prefeeder

The MULTIDOS L weighfeeder is suited both for continuous feeding and batching of bulk solids.

The equipment comprises:

- Belt conveyor
- Drive with speed transducer for acquisition of belt speed
- Feed hopper
- Integral belt weigher
- Measuring and control system

The measuring and control system determines feed rate m (kg/h) through multiplication of load q (kg/m) measured by belt weigher and belt speed v (m/s) acquired by speed transducer, and keeps set feed rate value constant.

For proper operation and accuracy of your weighfeeder, the belt weigher assembly is of essential importance.

SCHENCK weighfeeders use electronic single-idler belt weighers. The force applied by the weigh idler is picked up by two hermetically sealed stainless steel strain-gauge load cells. The weighing system measures the resulting force G of the material on the above belt section between the two adjacent carrying idlers.

Belt load q results from the quotient of force G and the space between two conveyor belt idlers, i.e. weigh span L. If this value is multiplied by belt speed, the feed rate results. Totalization over the time supplies the material amount fed out. Belt influence is considered through belt influence compensation (BIC).

For peak functionality of a weighfeeder, proper material infeed is an important consideration. For specific material properties, a choice of prefeeders is available.

Variants:

- Dimensions

Belt widths / mm:
300, 600, 800, 1000, 1200
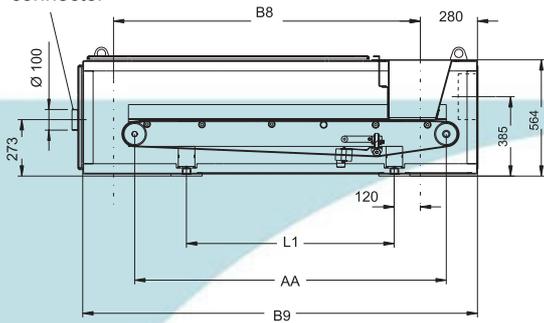
Axle spacings / mm:
1000, 1500, 2000, 2500, 3000, 3500

Technical Data

Accuracy (related to actual value)	+/- 0.25 to 0.5%				
Conveying speed	max. 0.5 m/s with feed hopper max. 0.3 m/s with feed screw				
Material temperature	80°C on standard 130°C and 170°C with special design				
		Belt width / mm				
Feed max.		300	600	800	1000	1200
Volumetric / m^3/h	V = 0.3 m/s	21	45	64	82	102
	V = 0.5 m/s	34	75	107	137	169
Gravimetric / t/h	V = 0.3 m/s	10	22	32	41	51
γ = 0.5 t/m^3	V = 0.5 m/s	17	37	54	68	85

Weight Table / kg						
		Belt Width / mm				
		300	600	800	1000	1200
Axle spacing	1000	230	290	320	-	-
	1500	270	340	380	420	-
	2000	310	380	430	480	520
	2500	350	440	490	550	590
	3000	390	480	540	600	650
	3500	420	520	590	650	710

Dedusting connector

Ø 100
273
B8
280
385
564
120
L1
AA
B9

Servicing area

D=12mm
100
500
B3
B2
200
Ø 500 Option
B1
D=12mm
200
290
500
350
500

View from below

Belt change area

Access to weighing system

400
180 180
B5
B4
B7
42
D=12mm
300
400
390

Motor disassembly area   Access to weighing system
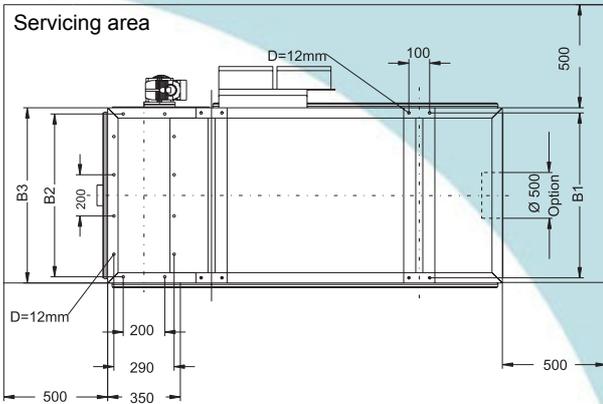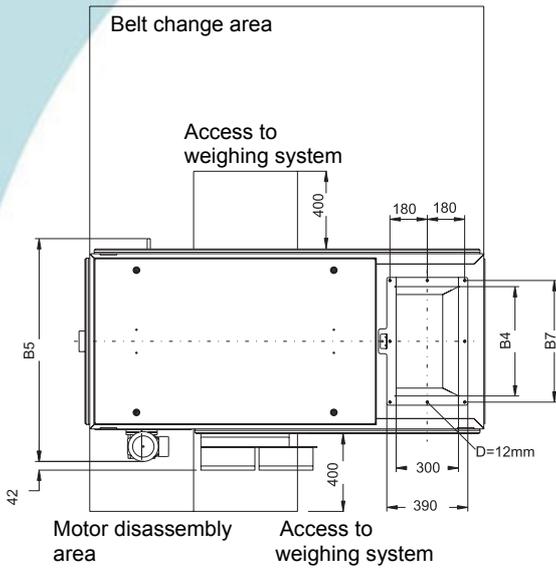
	Axle spacing / mm						Belt width / mm				
							300	600	800	1000	1200
AA	1000	1500	2000	2500	3000	3500					
L1	500	1000	1500	1000	1250	1500					
n	2	2	2	3	3	3					
B1							500	800	1000	1200	1400
B2							490	790	990	1190	1390
B3							550	850	1050	1250	1450
B4							230	530	730	930	1130
B5							780	1080	1280	1480	1680
B6							600	1200	1600	2000	2400
B7							290	590	790	990	1190
B8	945	1445	1945	2445	2945	3445					
B9	1400	1900	2400	2900	3400	3900					

AA = axle spacing
L1 = carrying idler spacing
n = carrying idler spacing

SCHENCK

Measuring and Process Systems
SCHENCK PROCESS GmbH
D-64273 Darmstadt
Telefon: +49 (0) 61 51-32 17 58
Fax: +49 (0) 61 51-32 36 32
E-Mail: bvk.process@schenck.net
www.schenck-process.de

The DÜRR Group

Keep in Motion