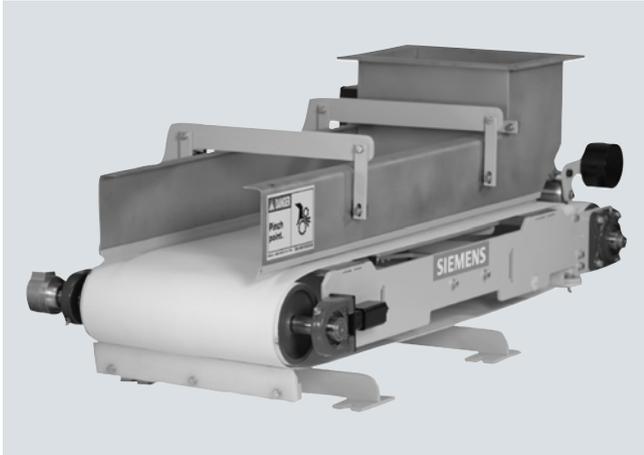


Overview



SITRANS WW100 is a high-accuracy, low-capacity weighfeeder used for minor ingredient additives.

Benefits

- High accuracy
- High turn down ratio 100 ... 10 % of capacity
- Corrosion resistant components
- Fast and easy belt removal for replacement or cleaning
- Simple installation, easy to clean and maintain
- Pre-programmed drive for servo motor control

Application

SITRANS WW100 is one of the most accurate in-motion weighing systems on the market. It is specially designed for high accuracy on light loading processes. The design eliminates material buildup to ensure accurate, reliable measurement.

The unique long length platform weigh bridge mounts directly to a corrosion-resistant platform load cell. An adjustable mechanical shear gate profiles the material and fixes the correct material bed depth for a given material particle size. The belt speed can be automatically adjusted to attain the correct feed rate.

Standard components include the belt weigh bridge, speed sensor, and test chains supported by Milltronics BW100, BW500, or SIWAREX FTC microprocessor-based integrators for easy blending, batching and feed rate control.

Weighfeeders

SITRANS weighfeeders

SITRANS WW100

Technical specifications

SITRANS WW100

Mode of operation

Measuring principle	Strain gauge load cell and digital speed sensor
Typical application	Control and monitor feed rates and blending in bulk chemicals, tobacco, food, and water treatment

Measuring accuracy

Accuracy ¹⁾	± 0.25 ... 0.5 %
Specified range	10 ... 100 % based on load
Design rate range	45 kg/h ... 18 t/h (100 lb/h ... 20 STPH)
Max volumetric flow	45 m ³ /h (1568 ft ³ /h)

Medium conditions

Operating temperature	-10 ... +55 °C (+10 ... +131 °F)
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Design

Material	Mild steel or stainless steel [304 (1.4301) or 316 (1.4401)] contact surfaces
Load cells	<ul style="list-style-type: none"> One (1) single point, nickel plated platform IP66 (standard) 17-4 PH (1.4568) stainless steel construction for corrosive and wash-down environments (optional) IP68
<ul style="list-style-type: none"> Non-linearity Non-repeatability 	± 0.03 % ± 0.02 %
Speed sensor	Optical encoder, driven pulley mounted
Framework	<ul style="list-style-type: none"> Precision machined, stainless [304 (1.4301) or 316 (1.4401)] or mild steel Cantilevered design for easy belt replacement

Pulleys	115 mm (4.5 inch) diameter, crowned and lagged
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Belt speed	0.005 ... 0.36 m/s (1 ... 70 fpm)
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Belt support	Slider bed frame
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Belting	<ul style="list-style-type: none"> Polyester carcass with polyurethane top cover and endless finger splice for maximum weighing consistency Different belt styles for specific applications (optional)
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Belt tension	Counter-weighted stainless steel [304 (1.4301) or 316 (1.4401)] tensioning idler for consistent tension, required for high accuracy weighing
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Belt cleaning	<ul style="list-style-type: none"> UHMW blade type with counterweight at the head pulley for cleaning product side of belt Return plow Cleaning brush optional
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Drive motor

- 0.24 kW (0.32 HP) servo drive motor with direct coupled flange mounted gear reducer 45.6 Nm (404 lb), 2.1 service factor minimum (standard)
- 0.09 kW (0.125 HP) AC drive motor with direct coupled flange mounted gear reducer 81 Nm (717 lb), 3.12 service factor minimum (optional)

Variable frequency drive: SINAMICS S110 servo motor controller (included with supply of WW100 based on ordering options)

- 1 ph, 200-240 V OR 3 ph, 380 ... 480 V
- MMC with Factory loaded program for fast installation and commissioning
- BOP for local control
- External 24 V DC power supply
- RS 232 connection port
- 4 DI, D0
- PROFIBUS DP
- Starter software & Connectin drawings provided with documentation

Shipping weight	91 kg (200 lb) ... 181 kg (400 lb) maximum
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Approvals

CE, C-TICK
Stainless steel options meet USDA and FDA requirements for food processing

¹⁾ Accuracy subject to: On factory approved installations the weigh feeder system's totalized weight will be within the specified accuracy when compared to a known weighed material test sample. The test rate must be within the specified range of the design capacity and held constant for the duration of the test. The minimum material test sample must be equivalent to a sample obtained at the test flow rate for three revolutions of the belt or at least ten minutes running time, whichever is greater.

Weighfeeders

SITRANS weighfeeders

SITRANS WW100

Selection and Ordering data	Order No.	Order No.	
SITRANS WW100	L) 7MH7180-	L) 7MH7180-	
High accuracy solids weighfeeder for low capacity applications. Compact unit improves processing, increases efficiency and provides significant cost savings.		High accuracy solids weighfeeder for low capacity applications. Compact unit improves processing, increases efficiency and provides significant cost savings.	
<u>Add order code Y71-Y73 for all models to specify design data</u>			
Frame and Enclosure Construction			
Painted mild steel open style	0 A		
304 stainless steel open style	0 B		
316 stainless steel open style	0 D		
Painted mild steel enclosed style with painted mild steel enclosure	1 A		
304 stainless steel enclosed style with painted mild steel enclosure	1 B		
304 stainless steel enclosed style with 304 stainless steel enclosure	1 D		
316 stainless steel enclosed style with painted mild steel enclosure	1 G		
316 stainless steel enclosed style with 304 stainless steel enclosure	1 J		
316 stainless steel enclosed style with 316 stainless steel enclosure	1 M		
Material Containment Construction			
<u>Add order code Y74 and plain text: "Arc radius in inches ...XX.XXX inch" for options A-H</u>			
Shear gate inlet and skirtboards 304 stainless steel	A		
Shear gate inlet and skirtboards 304 stainless steel with cover	B		
Shear gate inlet and skirtboards 304 stainless steel, #4 polished	C		
Shear gate inlet and skirtboards 304 stainless steel, #4 polished with cover	D		
Shear gate inlet and skirtboards 316 stainless steel	E		
Shear gate inlet and skirtboards 316 stainless steel with cover	F		
Shear gate inlet and skirtboards 316 stainless steel, #4 polished	G		
Shear gate inlet and skirtboards 316 stainless steel, #4 polished with cover	H		
Horseshoe inlet 304 stainless steel ¹⁾	J		
Horseshoe inlet 304 stainless steel, #4 polished ¹⁾	K		
Horseshoe inlet 316 stainless steel ¹⁾	L		
Horseshoe inlet 316 stainless steel, #4 polished ¹⁾	M		
Load cell			
10 kg (22 lb) nickel plated steel	0		
15 kg (33 lb) nickel plated steel	1		
20 kg (44 lb) nickel plated steel	2		
30 kg (66 lb) nickel plated steel	3		
6 kg (13.2 lb) stainless steel, hermetically sealed	4		
12 kg (26.5 lb) stainless steel, hermetically sealed	5		
30 kg (66.1 lb) stainless steel, hermetically sealed	6		
		SITRANS WW100	
		High accuracy solids weighfeeder for low capacity applications. Compact unit improves processing, increases efficiency and provides significant cost savings.	
		Speed Sensor	
		500 PPR shaft mounted optical encoder	0
		1000 PPR shaft mounted optical encoder	1
		2500 PPR shaft mounted optical encoder	2
		500 PPR shaft mounted optical encoder, stainless steel	3
		1000 PPR shaft mounted optical encoder, stainless steel	4
		2500 PPR shaft mounted optical encoder, stainless steel	5
		Drive configuration	
		<u>Sinamics servo motor and drive</u>	
		200 ... 240 V 1 ph ²⁾	0 A
		380 ... 480 V 3 ph ²⁾	0 B
		200 ... 240 V 1 ph, with 5 m (16.4 ft) communication and power cables	1 A
		380 ... 480 V 3 ph, with 5 m (16.4 ft) communication and power cables	1 B
		200 ... 240 V 1 ph, with 10 m (33 ft) communication and power cables	2 A
		380 ... 480 V 3 ph, with 10 m (33 ft) communication and power cables	2 B
		200 ... 240 V 1 ph, with 25 m (82 ft) communication and power cables	3 A
		380 ... 480 V 3 ph, with 25 m (82 ft) communication and power cables	3 B
		200 ... 240 V 1 ph, with 50 m (164 ft) communication and power cables	4 A
		380 ... 480 V 3 ph, with 50 m (164 ft) communication and power cables	4 B
		200 ... 240 V 1 ph, with 100 m (328 ft) communication and power cables	5 A
		380 ... 480 V 3 ph, with 100 m (328 ft) communication and power cables	5 B
		<u>Add order code Y75 reduction ratio in plain text: "X:1" for options 6A-7B, see "Reduction Ratio Selection Table" on page 5/6</u>	
		Standard AC motor without drive (Drive required for desired belt speed)	
		220 ... 240/380 ... 480 V 3 ph 50/60 Hz AC ³⁾	6 A
		575 V 3 ph 60 Hz AC ³⁾	6 B
		Food grade AC motor without drive (Drive required for desired belt speed)	
		220 ... 240/380 ... 480 V 3 ph 50/60 Hz AC epoxy coated gearmotor ³⁾	7 A
		575 V 3 ph 60 Hz AC epoxy coated gearmotor ³⁾	7 B
		Calibration Method	
		None	A
		1 calibration chain strand 2.41 kg/m (1.62 lb/ft)	B
		2 calibration chain strands 4.82 kg/m (3.24 lb/ft)	C
		3 calibration chain strands 7.23 kg/m (4.86 lb/ft)	D
		Design access side (from inlet to discharge)	
		Left hand	0
		Right hand	1

Weighfeeders

SITRANS weighfeeders

SITRANS WW100

Selection and Ordering data (continued)

Order No.

Further designs

Please add "-Z" to Order No. and specify Order code(s).

Shear gate arc radius: Enter Shear gate arc radius in inches (xxx.xx inch)⁴⁾Enter design units (TPH, MTPH, lb/h, kg/h)
Enter design speed (ft/m, m/s)

Enter design capacity/rate

AC gearmotor reduction ratio: enter reduction ratio in plain text (X:1) (see "Reduction Ratio Selection Table" on page 5/6)

Plastic shear curtain to control dust at the infeed for floodable materials and dusty applications⁴⁾

Pointek CLS100 Capacitance switch for plugged discharge chute detection

Siemens start/stop, auto/manual, speed control, hand held operator

Belt cleaner, stainless steel, nylon brush, mounted under belt plow, cleaning dirty side of belt

Low weight belt for light loading, low rate applications (recommended for under 1 t/h). Thermo-plastic, 1 ply, anti-static, FDA, USDA approved

Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000

Stainless steel tag [69 x 50 mm (2.71 x 1.97 inch)]: Measuring-point number/identification (max. 16 characters) specify in plain text

Discharge dust hood, painted mild steel with de-dust port¹⁾Discharge dust hood, 304 stainless steel with de-dust port¹⁾Discharge dust hood, 316 stainless steel with de-dust port¹⁾

Operating Instructions

English

French

German

Note: The operating instructions should be ordered as a separate item on the order.

This device is shipped with the Siemens Milltronics manual CD containing the complete operating instructions library.

Spare Parts

6 kg (13.2 lb) stainless steel load cell

12 kg (26.4 lb) stainless steel load cell

30 kg (66.2 lb) stainless steel load cell

10 kg (22 lb) nickel plated steel load cell

15 kg (33.1 lb) nickel plated steel load cell

20 kg (44 lb) nickel plated steel load cell

30 kg (66.2 lb) nickel plated steel load cell

500 PPR optical encoder⁵⁾1000 PPR optical encoder⁵⁾2500 PPR optical encoder⁵⁾

500 PPR optical encoder

1000 PPR optical encoder

2500 PPR optical encoder

Optical encoder connector

Optical encoder connector with 20 ft (6 m) of cable⁶⁾Optical encoder connector with 20 ft (6 m) of cable⁷⁾

Order code

Y74

Y71

Y72

Y73

Y75

G11

G12

G13

G14

G15

C11

Y15

H50

H51

H52

Order No.

C) **7ML1998-5MN01**C) **7ML1998-5MN11**C) **7ML1998-5MN31**C) **7MH7725-1EG**C) **7MH7725-1EH**C) **7MH7725-1EJ****7MH7725-1EK****7MH7725-1EL****7MH7725-1EM****7MH7725-1EN****6FX2001-2PA50****6FX2001-2PB00****6FX2001-2PC50****6FX2001-4QA50****6FX2001-4QB00****6FX2001-4QC50****6FX2003-0SU12****7MH7723-1KM****7MH7723-1KD**

500 PPR optical encoder, stainless steel (connector included)

1000 PPR optical encoder, stainless steel (connector included)

2500 PPR optical encoder, stainless steel (connector included)

1 calibration chain strand 2.41 kg/m (1.62 lb/ft) with mount and spacers (Corrosion resistant)

2 calibration chain strands 4.82 kg/m (3.24 lb/ft) with mount and spacers (Corrosion resistant)

3 calibration chain strands 7.23 kg/m (4.86 lb/ft) with mount and spacers (Corrosion resistant)

S110 Control Unit

S110 Basic operator panel (BOP)

S110 input choke 380-480 VAC

S110 power module 200-240 VAC 1 ph

S110 power module 380-480 VAC 3 ph

S110 memory card 200-240 VAC 1 ph

S110 memory card 380-480 VAC 3 ph

S110 power cable to servo gearmotor, 5 m (16.4 ft)

S110 communications cable to servo gearmotor, 5 m (16.4 ft)

S110 power cable to servo gearmotor, 10 m (32.8 ft)

S110 communications cable to servo gearmotor, 10 m (32.8 ft)

S110 power cable to servo gearmotor, 25 m (82 ft)

S110 communications cable to servo gearmotor, 25 m (82 ft)

S110 power cable to servo gearmotor, 50 m (164 ft)

S110 communications cable to servo gearmotor, 50 m (164 ft)

S110 power cable to servo gearmotor, 100 m (328 ft)

S110 communications cable to servo gearmotor, 100 m (328 ft)

Servo gearmotor

Belt

Termination box mild steel

Termination box stainless steel

Bearing replacement kit mild steel (includes C) 1 tail bearing, 2 head bearings)

Bearing replacement kit stainless steel (includes 1 tail bearing, 2 head bearings)

Belt contact replacement kit (includes C) 1 belt scraper blade, 2 belt plow blades, 2 belt guide rollers, 1 belt tension roller, belt skirtboard seal strips)

Pulley replacement kit mild steel (includes 1 drive pulley, 1 driven pulley)

Pulley replacement kit 304 stainless steel (includes 1 drive pulley, 1 driven pulley)

Order No.

7MH7723-1HGC) **7MH7723-1HH**C) **7MH7723-1HJ****7MH7723-1HP****7MH7723-1HQ****7MH7723-1HR**M) **6SL3040-0JA00-0AA0**D) **6SL3055-0AA00-4BA0**C) **6SE6400-3CC00-2AD3**A) **6SL321-01SB12-3UA0**A) **6SL321-01SE11-3UA0**L) **7MH7723-1JH**L) **7MH7723-1JJ****6FX5002-5CG01-1AF0****6FX500-22DC10-1AF0****6FX50-025CG01-1BA0****6FX500-22DC10-1BA0****6FX500-25CG01-1CF0****6FX500-22DC10-1CF0****6FX500-25CG01-1FA0****6FX500-22DC10-1FA0****6FX5002-5CG01-2AA0****6FX5002-2DC10-2AA0**C) **1FK7032-5AK71-1UU7-Z E07 + G57 + H11 + Q90**C) **7MH7723-1JG**C) **7MH7723-1HS**C) **7MH7723-1HT**C) **7MH7723-1HU****7MH7723-1HV**C) **7MH7723-1HW****7MH7723-1HX****7MH7723-1HY**

Selection and Ordering data (continued)

	Order No.		Order No.
Accessories			
Start, Stop, Hand/Off/Auto, speed pot controller	C) 7MH7723-1JA	Siemens, MM420/440, Bop keypad	F) 6SE6400-0BP000AA0
E-stop push button enclosed style	3SB3801-0DF3	Siemens, G120, 0.5 HP/0.37 kW, 380 ... 480 V 3 ph	6SL3224-0137UA0
24 V Power supply, 4 A	6EP1332-1SH52	Siemens Control unit G120, STD RS 485	6SL3244-0BA10-0BA0
Power transformer 600 to 480 V AC 3 ph	7MH7726-1AV	VFC, Siemens, G120, Bop keypad	J) 6SL3255-0AA00-4BA1
Discharge dust hood Mild steel for open style units only	7MH7723-1JB	1) Available with Frame Construction options 0A to 0D only	
Discharge dust hood 304 stainless steel steel for open style units only	7MH7723-1JC	2) Communication and power cables required	
Discharge dust hood 316 stainless steel for open style units only	7MH7723-1JD	3) Available with open style construction options 0A to 0D	
CLS100 plugged discharge chute retrofit kit (includes CLS100, material hood)	D) 7MH7723-1JE	4) Available with Material Containment options A to H only	
Siemens, MM420, 0.5 HP/0.37 kW, 380 ... 480 V 3 ph 50/60 HZ	J) 6SE6420-2UD13-7AA1	5) For use with 5 V DC supply from RS422 circuit card	
Siemens, MM440, 0.5 HP/0.37 kW, 380 ... 480 V 3 ph 50/60 HZ	J) 6SE6440-2UD13-7AA1	6) For use with PPR optical encoders: 6FX20012PA50, 6FX20012PB00, 6FX20012PC50	
Siemens, MM440, 1 HP/0.75 kW, 500 to 600 V 3 ph 60HZ	J) 6SE6440-2UE17-5CA1	7) For use with PPR optical encoders: 6FX20014QA50, 6FX20014QB00, 6FX20014QC50	

A) Subject to export regulations AL: 9I999, ECCN: EAR99H.

C) Subject to export regulations AL: N, ECCN: EAR99.

D) Subject to export regulations AL: N, ECCN: EAR99H.

F) Subject to export regulations AL: 9I999, ECCN: N.

J) Subject to export regulations AL: 9I999, ECCN: EAR99.

L) Subject to export regulations AL: N, ECCN: 3A991X.

M) Subject to export regulations AL: 9I999, ECCN: EAR99APP.

Reduction ratio selection table

Reduction (X:1)	Speed	60 Hz fpm	60 Hz m/s	50 Hz fpm	50 Hz m/s
372:1	max.	5.54	0.028	4.59	0.023
	min.	0.55	0.003	0.45	0.002
303.36:1	max.	6.80	0.035	5.63	0.029
	min.	0.68	0.003	0.56	0.003
248:1	max.	8.31	0.042	6.89	0.035
	min.	0.83	0.004	0.69	0.003
202.24:1	max.	10.19	0.052	8.45	0.043
	min.	1.02	0.005	0.84	0.004
155:1	max.	13.30	0.068	11.02	0.056
	min.	1.33	0.007	1.10	0.006
126.4:1	max.	16.31	0.083	13.51	0.069
	min.	1.63	0.008	1.35	0.007
93:1	max.	22.17	0.113	18.37	0.093
	min.	2.22	0.011	1.84	0.009
75.84:1	max.	27.18	0.138	22.52	0.114
	min.	2.72	0.014	2.25	0.011
62:1	max.	33.25	0.169	27.55	0.140
	min.	3.33	0.017	2.76	0.014
50.56:1	max.	40.78	0.207	33.79	0.172
	min.	4.08	0.021	3.38	0.017
46.5:1	max.	44.34	0.225	36.74	0.187
	min.	4.43	0.023	3.67	0.019
37.92:1	max.	55.44	0.276	45.05	0.229
	min.	4.37	0.028	4.50	0.023
31:1	max.	66.51	0.338	55.10	0.280
	min.	6.65	0.034	5.51	0.028
25.28:1	max.	81.55	0.414	67.57	0.343
	min.	8.16	0.041	6.76	0.034

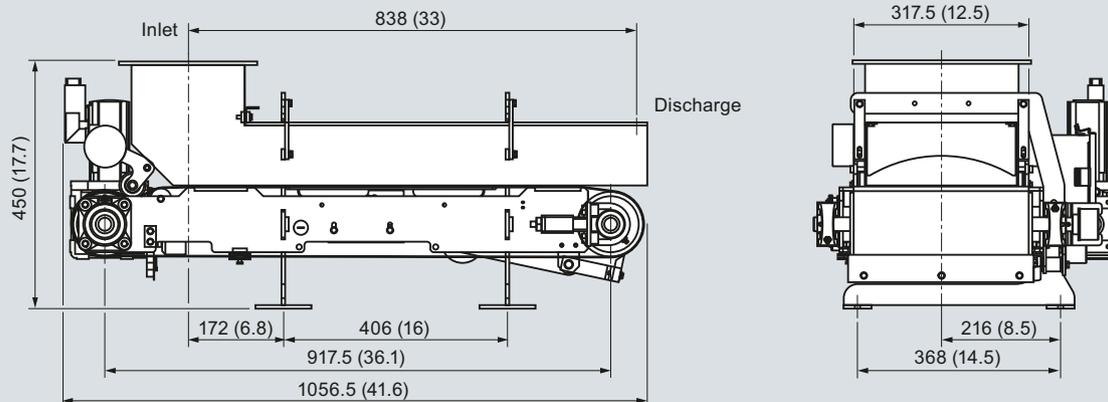
Weighfeeders

SITRANS weighfeeders

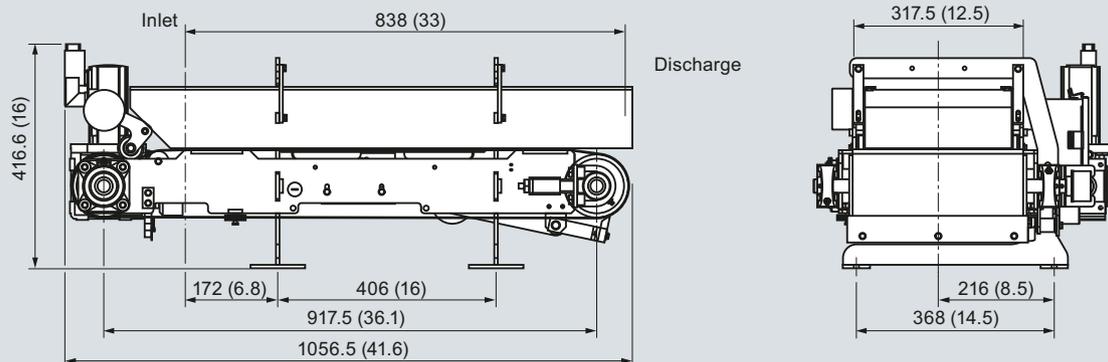
SITRANS WW100

Dimensional drawings

Open Construction



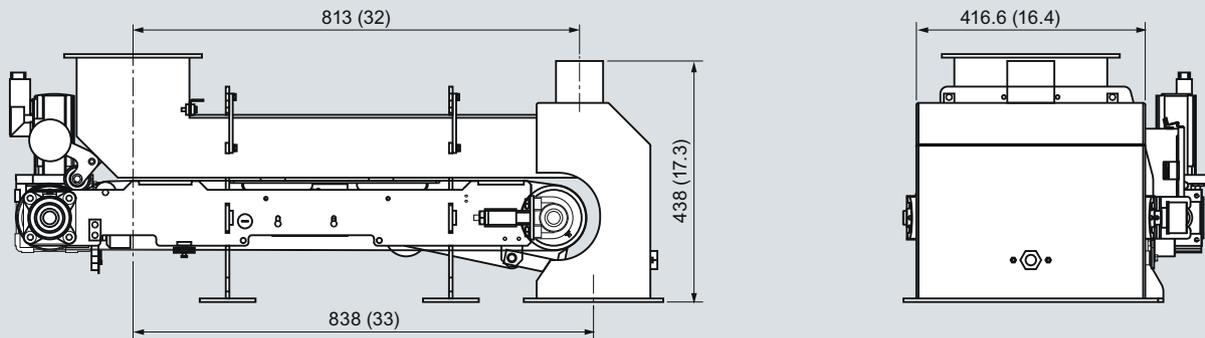
Open Horseshoe Inlet



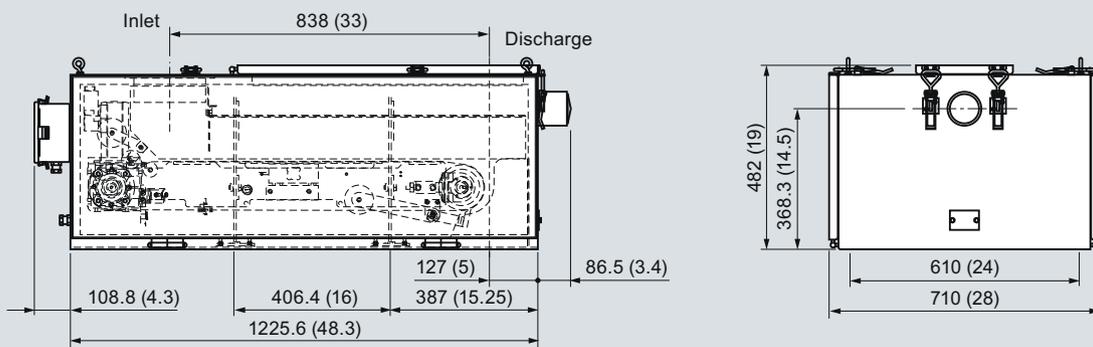
SITRANS WW100 dimensions in mm (inch)

Dimensional drawings (continued)

Open Dust Hood



Enclosed Construction



SITRANS WW100 dimensions in mm (inch)