

**What provides simple, consistent,  
and accurate feed rate control?**

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SITRANS WW weighfeeders provide dependable results for industrial and process applications with low cost of ownership.

Answers for industry.

**SIEMENS**

# Siemens weighfeeders – accurate weighing, made to order

Siemens weighfeeders are custom-engineered to meet your application, guaranteeing the perfect fit.

Ranging from light- to heavy-duty, these weighfeeders deliver fast, reliable, and uninterrupted service no matter what your application. Virtually maintenance-free construction delivers unmatched performance from food processing to aggregates and everything in between.




A weighfeeder system is a custom-engineered conveyor integrated with a belt weighbridge and speed sensor. A weighfeeder system controls the rate of material flow into or out of a process. A variable speed drive, motor, and gear-box allow the flow of material to be controlled by a given setpoint chosen with a Siemens integrator such as Milltronics BW500 or SIWAREX FTC through SIMATIC S7 or SIMATIC PCS 7. This control allows the feeder to provide precision weighing accuracies, and to improve blend consistencies, accountability, and record keeping.

Weighfeeders are indispensable when automated production processes require continuous in-line weighing and feeding. Flanged belting is available on most models. The height of the

flange depends on model and application. Belt widths and conveyor lengths are made to measure for the required application. Typical weighfeeder applications include pebble lime, kaolin clay, gypsum, coal feed, fruits and vegetables, cereals and many others.

With its global presence, Siemens will always be at your side with experienced specialists, in over 160 countries. We will offer you advice from the very beginning with the planning and implementation of your weighfeeder – and we will be there for you afterwards.



	SITRANS WW100	SITRANS WW200	SITRANS WW300
			
<b>Order No.</b>	7MH7180	N/A	N/A
<b>Typical industries</b>	Bulk chemicals, tobacco, food, water/wastewater	Bulk chemicals, grain, food, vegetables, fertilizer	Aggregates, cement, mineral processing, coal, mining, pulp and paper
<b>Typical applications</b>	High-accuracy, low-capacity for minor ingredient additives, available in sanitary duty	Low- to medium-capacity for minor ingredient additives, available in sanitary duty	Medium- to high-capacity for macro ingredient additives
<b>Design rate range</b>	45 kg/h to 18 t/h (100 lbs/h to 20 STPH)	0.45 to 36 t/h (1,000 lbs/h to 40 STPH)	4.5 to 800 t/h (5 to 880 STPH)
<b>Belt speed</b>	0.005 to 0.36 m/s (1 to 70 fpm)	0.005 to 0.36 m/s (1 to 70 fpm)	0.005 to 0.36 m/s (1 to 70 fpm)
<b>Accuracy*</b>	±0.25 to 0.5%	±0.5% or better	±0.5% or better
<b>Specified range</b>	<ul style="list-style-type: none"> <li>• 10 to 100% based on load</li> <li>• Up to 3 to 100% based on speed</li> </ul>		
<b>Sensing element</b>	<ul style="list-style-type: none"> <li>• Long length platform weighbridge</li> <li>• Single load cell</li> </ul>	<ul style="list-style-type: none"> <li>• Platform weighbridge</li> <li>• Dual load cells</li> </ul>	<ul style="list-style-type: none"> <li>• Single idler</li> <li>• Dual load cells</li> <li>• Option: special versions of the MSI belt scale, with load cells located outside conveying area</li> </ul>
<b>Approvals</b>	Meets USDA and FDA requirements for food processing, CE, C-TICK	Meets USDA and FDA requirements for food processing	

\*Accuracy subject to: on factory approved installations, the weighfeeder 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.



<b>SITRANS WW100</b>	<ul style="list-style-type: none"> <li>• Cantilevered design allows for easy belt replacement</li> <li>• Compact size, easy to install</li> <li>• Calibration with a test chain</li> <li>• Fewer material buildup areas</li> <li>• Direct drive with wash down duty motors and gear reducer</li> <li>• Hermetically sealed load cells</li> </ul>
<b>SITRANS WW200</b>	<ul style="list-style-type: none"> <li>• Calibration weights included</li> <li>• Cantilevered design allows for easy belt replacement</li> <li>• Externally mounted dual load cells for ease of access</li> <li>• Fewer material buildup areas</li> <li>• Crowned pulleys and side guide rollers for positive belt tracking</li> <li>• Belt widths up to 1.2 m (48")</li> </ul>
<b>SITRANS WW300</b>	<ul style="list-style-type: none"> <li>• 102 mm (4") CEMA C idlers</li> <li>• Calibration weights included</li> <li>• Cantilevered design allows for easy belt replacement</li> <li>• Externally mounted dual load cells for ease of access</li> <li>• Crowned pulleys and automatic belt tracking and alignment</li> <li>• Belt widths up to 1.8 m (72")</li> </ul>

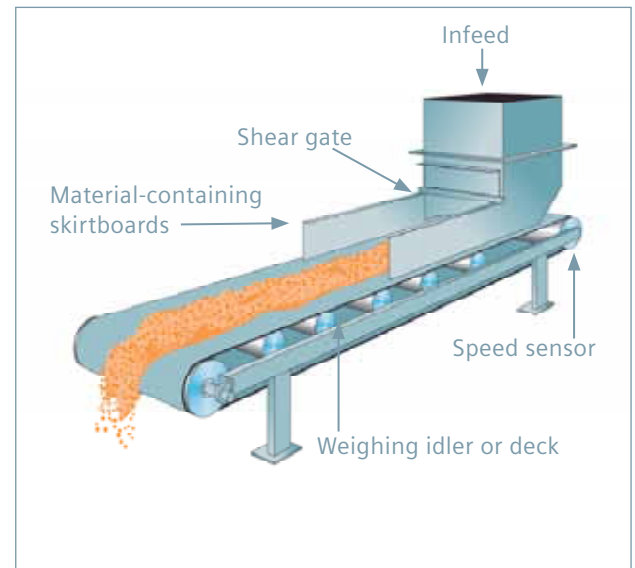
# Why use a weighfeeder?

A weighfeeder system accurately controls the mass flow rate of material into or out of a process. The material is profiled by an adjustable mechanical shear gate which fixes the correct material bed depth for a given material particle size. The feed rate is then maintained and adjusted by the varying speed of the belt.

The weight of the material is determined through the deflection of the load cell(s). This signal is processed by the integrator along with the belt speed to determine the rate of material travelling over the belt. As material flow into the weighfeeder increases or decreases, this rate is maintained by increasing or slowing the speed of the belt. The belt speed is controlled by the motor which is connected to a variable frequency drive which in turn is controlled by the integrator or PLC.

With a weighfeeder, you can deliver a designated rate of material from one point in a process to another. In addition, a weighfeeder system delivers:

- totalization of delivered material weight;
- instrumentation outputs for production record keeping; and,
- high and low material flow rate or belt speed alarms.



# Unique design, less maintenance time, less cost, and better results

For Siemens unique weighfeeder design, the platform weighbridge mounts directly to a corrosion-resistant platform load cell. This direct load design eliminates all intermediate mechanical suspension and allows material to be applied directly to the load cell. Ultra-sensitive load cells provide precision weighing accuracies to ensure accurate feeding and blending. The overall design eliminates areas of material buildup which can cause product contamination and lead to weighing inaccuracies. You can depend on SITRANS weighfeeders to deliver fast, reliable, and uninterrupted service.

## Well-proven technologies supply reliable results

In cement and mineral processing, weighfeeders can be used in many locations to provide rate control for blending raw materials or additives. SITRANS weighfeeders can handle high pressure washdowns and high temperatures ideal for the food and pharmaceutical industries. The continuous blending and proportioning offered by SITRANS weighfeeders eliminates inaccuracies and inefficiencies to improve your profitability and automate production processes.

## Benefits at a glance

- Rugged load cells for all types of applications, with built-in overload protection, temperature compensation, and strain gauge sealing IP66 (IP67 optional) rated
- Easy access to internal components for general maintenance
- Simple calibration – all weighfeeders are pre-calibrated at the factory to customer-supplied design specifications
- Variety of belting options available including general purpose, abrasion-resistant, oil-resistant, high temperature, and food grade
- 30 years of application experience built-in
- Support hotline – around the clock, around the globe

## SITRANS WW300 additional benefits

- Advanced belt tracking control system including optional automatic belt tracking and tensioning device
- Capacity up to 800 t/h (880 STPH) using 1.8 m (72") wide belts and up to 51 mm (20") pulleys



## Application solution: cereal – made to order

In the food industry, consistent taste, composition, and appearance are essential for long-lasting market success. A major cereal producer required exact dosing of vitamins to secure consistent product composition and controlled feed to the roaster kiln for optimal roasting conditions. High accuracy and easy washdown were highest priority. The equipment needed to be adaptable to the limited installation conditions. Siemens provided two compact SITRANS WW200 Sanitary Duty (SD) weighfeeders with a BW100 integrator.

A weigh deck with flat bars for belt support minimizes moving parts and reduces maintenance and cleaning. The Siemens system offers maximum process optimization due to outstanding accuracy, linearity, and repeatability. The company benefits from high operating reliability and low maintenance requirements.

SITRANS WW200 can be modified for specific application needs with different lengths, drives, and belt types. The SD version is specifically designed for the food industry and allows for easy cleaning and high pressure washdown.

## Get more information

[www.siemens.com/weighing](http://www.siemens.com/weighing)

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