

The background image shows a large industrial facility, likely a mineral processing plant. It features a complex network of metal structures, including conveyor belts that rise and fall across the scene. A prominent feature is a large, cylindrical, light-colored tank or silo on the right side. The sky is blue with scattered white clouds. The overall scene is brightly lit, suggesting a clear day.

SIEMENS

SITRANS F US Clamp-on Ultrasonic Flowmeters for the MAC Industry

usa.siemens.com/pi

Siemens offers a wide range of clamp-on ultrasonic flowmeters to suit the varied needs of the mineral processing industries. Typically, the mining, aggregate and cement industries monitor and control the flow of slurries rather than pure liquids. The inherently variable nature of slurries, both in terms of density and material flow characteristics, can be accommodated easily by SITRANS F US clamp-on ultrasonic flowmeters.

Installation is straightforward and can be carried out extremely quickly, since there is no need to break into the flow line or even stop the process. Maintenance costs are reduced to virtually zero as there is no direct contact with the medium being measured. All concerns regarding erosion, which have plagued traditional pool insertion devices, are also eliminated.

Siemens clamp-on ultrasonic flowmeters are ideal for a diverse range of applications within the mineral processing industries, including:

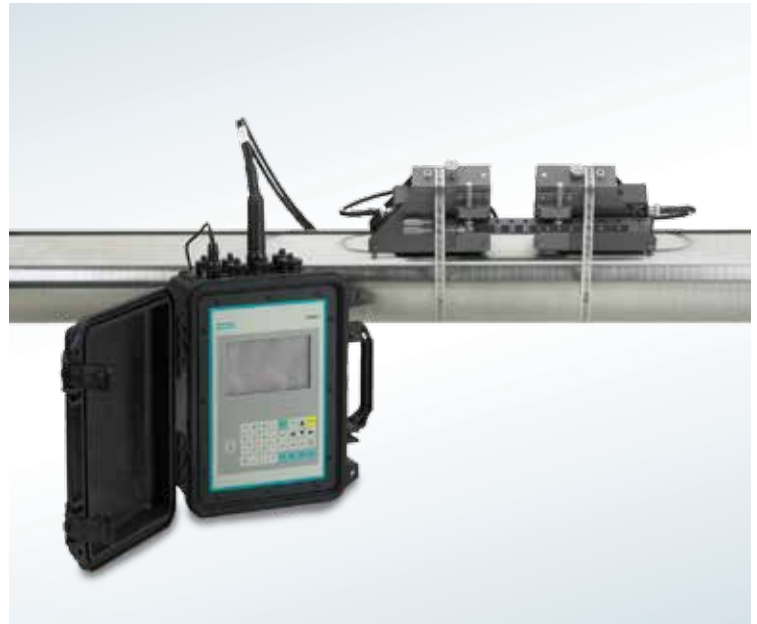
- Thickeners
- De-watering
- Pulp flow
- Clay/sand lines
- Effluent
- Cooling water

Clamp-on flowmeters from Siemens utilize unique WideBeam transit-time technology, which increases measurement precision by reducing the sensitivity to any change in the medium

Answers for industry.

Unique benefits of SITRANS F US clamp-on ultrasonic flowmeters at a glance:

- Fast, easy and cost-effective on-site measurement of any pipe from .25" to 360" (6.4 mm to 9.14 m)
- Non-intrusive mounting of sensors means there is no need to cut the pipe or interrupt the flow, no wear to the instrument
- WideBeam ultrasonic principle allows reliable operation through variable or unpredictable flow characteristics
- Robust sensor housing designed for the primary industries
- Pipe range from .25" to 360" (6.4mm to 9.14m) with one standard product
- Suitable for retrofit or verification applications particularly when using the SITRANS FUP1010 portable



type or pressure. The WideBeam ultrasonic signal is not affected by step velocity changes (hydraulic surging) or solids particle distribution.

The SITRANS FUS1010 provides accurate, non-intrusive flow measurement in full pipes. It is field programmable to switch automatically between WideBeam transit-time and Doppler operation for quick adaptation to changing conditions. Transit-time is the preferred mode for relatively homogeneous liquids, with accuracy of up to 0.5% of flow. Doppler is designed for slurries with extensive suspended solids, with accuracy of up to 1%.

The SITRANS FUS1010 is offered with up to four channels, allowing measurement of multiple independent pipes with only one transmitter to reduce overall ownership costs. It offers a wide range of communication options, including BACnet MSTP/ BACnet IP, Modbus RTU/TCPIP, Ethernet IP, Johnson N2 and VT100 RS232.

The SITRANS FUP1010 is very similar to the SITRANS FUS1010, but is available in a rugged, submersible portable enclosure. The SITRANS FUP1010 is frequently used for flow studies or as a

temporary replacement for validating existing flow meters and can be used as a temporary replacement for failed or flow devices in emergency situations. It comes standard with VT100 RS232 communication.

The SITRANS FUP1010 is also available as an all-inclusive Water Check Metering Kit. It is capable of measuring practically all conductive and non-conductive, clean and moderately aerated liquids as well as those with suspended solids. The meter's portability makes it the perfect choice for performance check or verification of any type or brand of flowmeter. Accuracy is 0.5 to 2.0 % and repeatability on the better side of 0.015 %.

The SITRANS FST020 is an affordable flowmeter featuring specifications compatible with basic application requirements: one channel, limited configuration options that make product selection straightforward, three communication protocols (BACnet MSTP, Modbus RTU and VT100 RS232) and lastly, a simple and user-friendly design that ensures not only easy set-up and configuration but also delivery times up to par with market expectations.

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