FLEXIM

Leading Technology – Improved Accuracy – Superior Performance

FLUXUS® F721XLF

Clamp-on Ultrasonic Measurement of Liquid Low Flows

Chemical Injection for Oil & Gas Upstream and Midstream

Chemical dosing in Water and Wastewater treatment

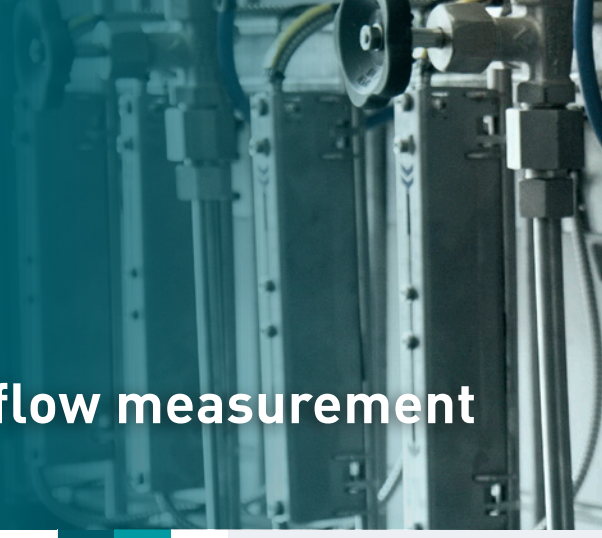
Paint spray lines

Pulp & Paper Industry

Chemical and Petrochemical Industries

Semiconductor Industry

FLEXIM Sets Standards
when measuring matters



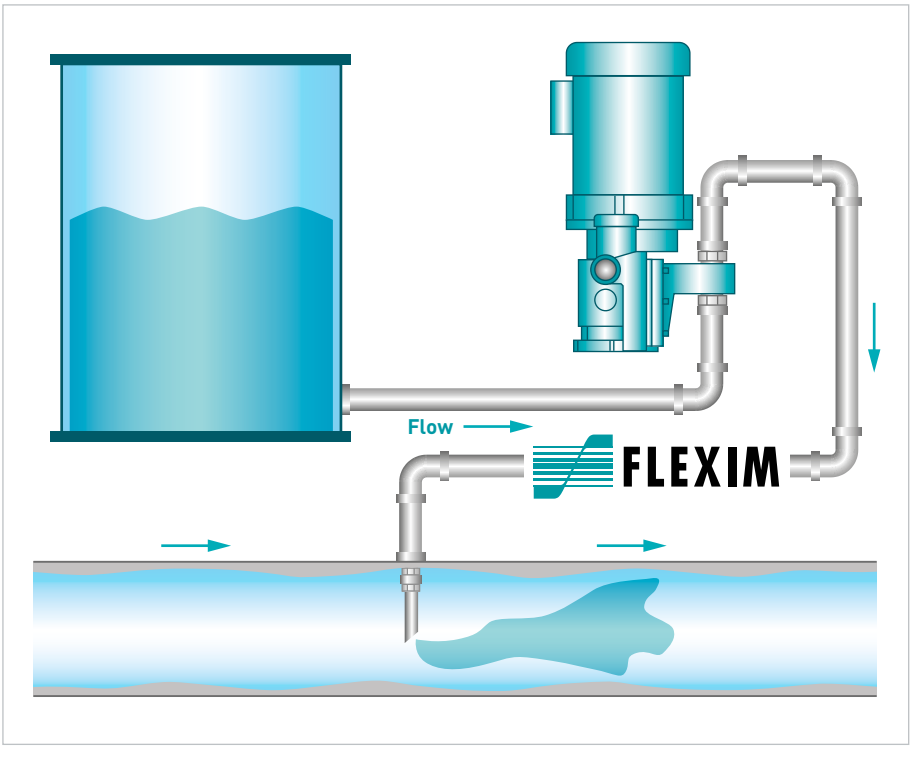
FLUXUS® F721XLF

The superior solution for liquid low flow measurement

Achieving accurate measurement of extra low flow rates has been a known challenge for many metering technologies across several industries. Even though traditional metering options are commercially available these come with some undesired effects such as pressure drop and are prone to wear and tear and drifting over time. These ultimately impact measurement accuracy and repeatability, not to mention being costly to install in retrofitted applications and requiring constant maintenance and calibration.

Understanding that flow rate measurement provides one of the most important process parameters in the chemical, pharmaceutical, petroleum, energy, and power engineering industries, FLEXIM continues to develop and improve our extra low flow capabilities and signal processing techniques and introduces the FLUXUS® F721XLF ultrasonic clamp-on meter.

The new FLUXUS® F721XLF can achieve accurate and reliable measurement of flows as low as 1 gph or 0.01 gpm and below in small pipes and tubes 3/8 to 2 inches, provides bidirectional communications protocols, matched transmitter and transducer calibration as well as aluminum and stainless-steel housing options.



Key features

- Non-intrusive, clamp-on design
- No moving parts, wear & tear is a thing of the past!
- Temperature-compensated transducers
- Atex/IECEx Zone 1 & 2, FM Class 1, Div. 2 approval
- Matched transducers, advanced digital signal processing (DSP) and efficient algorithms ensure stable measurements at very low flows

Advantages

- Unimpaired plant availability: Installation and commissioning during ongoing operation
- Independent of operating pressure
- Increased operational and environmental safety: No risk of leakage
- Completely maintenance-free

Chemical Injection for Oil & Gas

Scale and corrosion inhibitors are used in the Oil & Gas industry to prevent scale build-up on pipes and to maintain well integrity. Accurate measurement of these costly chemicals means that oil companies can keep costs down while ensuring optimum flow is maintained.

Upstream: Exploration and Production

Sea Water Treatment pre water injection

Injection of organic biocides as corrosion inhibitors is commonly used in offshore environments to reduce the abrasiveness and solid particles of sea water prior to injection. Due the high cost and quantities needed, these are dosed weekly for a period of 1 to 2 hrs at concentrations up to 1000 mg/l and require reliable and accurate flow measurement.

Removal of Salt on Gas producing wells

Precipitation of salt from reservoir water in gas reservoirs can cause significant decrease in production rates and pipeline blockages. In order to remove salt deposits freshwater treatments are performed at regular intervals to wash out the salt safely. In these applications small amounts of pure water are injected a high pressure and low flow rates to wash out the salt. Due to abrasive nature of the salt particles inline metering is often not suitable.

Midstream: Underground Gas Storage

Hydrate Inhibitor Injection

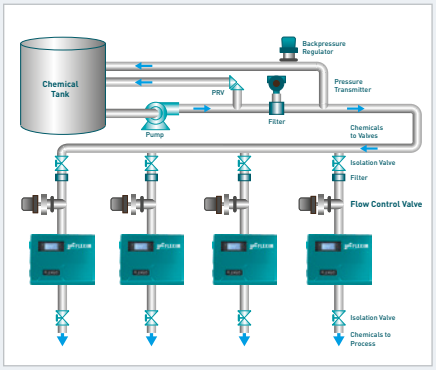
Methanol Injection is routine in Underground Storage operations to mitigate hydrate formation and minimize blockages of valves and pipelines during withdrawal stages. Injecting substances to lower freezing points thus limiting hydrate formation needs to be carefully dosed, monitored and controlled. Typical application will employ a combination of high pressure and low flow injection to ensure proper mixing with the gas medium.

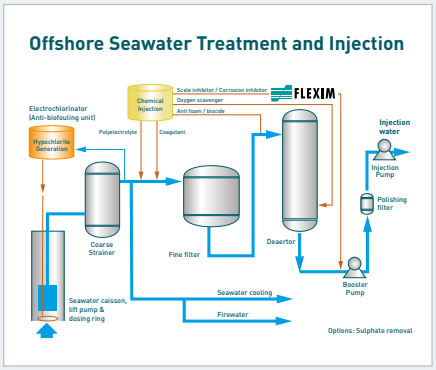
Chemical dosing in Water and Wastewater treatment

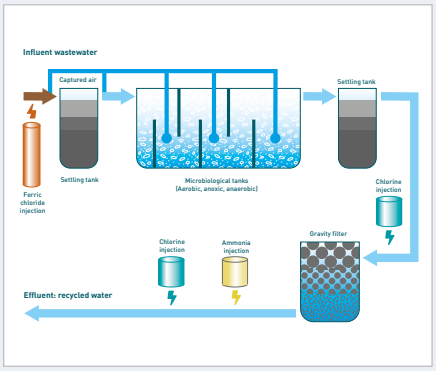
Specialized chemicals such as chlorine, hydrogen peroxide, sodium chlorite, and sodium hypochlorite (bleach) act as agents to disinfect, sanitize, and assist in the purification of wastewater at treatment facilities. These need to be handled and measured carefully and meticulously to comply with safety regulations.

Other Applications

- Paint spray lines
- Pulp & Paper Industry
- Chemical/Petrochemical Industries
- Semiconductor Industry
- Pharmaceutical Dosing







FLEXIM

In partnership with you

FLEXIM considers itself not only a manufacturer of measuring instruments, but also a provider of technical and consulting services. These services include instrument rentals, on-site measurements, laboratory analysis, project handling, training, commissioning and consulting services.

The company's focus and dedication are directed towards providing the highest quality equipment with the best support and service possible.

Technical facts

FLUXUS® F721XLF	**Clamp-on ultrasonic measuring system for extreme low flows**
Measurement Functions	
Physical quantities	Volumetric flow rate, mass flow rate, flow velocity
Totalizer	Volume, mass
Diagnostic Functions	Sound speed, signal amplitude, SNR, SCNR, standard deviation of amplitude and transit times
Measurement	
Fluid	all acoustically conductive liquids with < 2 % gaseous or solid content in volume
Reynolds Number	< 1000
Repeatability	0.15 % MV ±0.019 f/s
Measurement uncertainty (Volumetric flow rate)	
measurement uncertainty of the measuring system	±0.3 % MV ±0.019 f/s
measurement uncertainty at the measuring point	±1 % MV ±0.019 f/s
Transmitter	
Number of measuring channels	1
Explosion protection	ATEX/IECEx Zone 1/2, FM Class I / Div. 2
Power supply	100 ... 230 V AC / 50 ... 60 Hz 12 / 24 V DC
Outputs	4 - 20 mA active 4 - 20 mA HART active / passive pulse / frequency / binary
Inputs	Pt100 / Pt1000 4 - 20 mA active / passive / binary
Digital communication	Modbus RTU/TCP, HART, Profibus PA, Foundation Fieldbus
Available transducers	
Explosion protection	ATEX/IECEx Zone 2, FM Class I / Div. 2
Pipe size range (inner diameter)	3/8 to 2"
Temperature range (pipe wall)	-40 °F ... +140 °F

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FLEXIM has offices located throughout North America.

Please have a look for your local representative at:

www.flexim.com
or call us at:
1-888-852-PIPE

ACCREDITED
CERTIFICATE #3791.01

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