

FLEXIM

More than 25 years of experience in  
non-invasive ultrasonic flow measurement



FLUXUS® G721 ST



FLUXUS® G601 ST

Technical Specifications

|   |  |
|---|--|
| FLUXUS® ST  | Portable or stationary clamp-on ultrasonic steam flow measurement system |
| Media   | Saturated and superheated steam  |
| Measurement quantities                            | Volume flow, mass flow, flow velocity                                    |
| Temperature                                       | maximum 356 °F   |
| Pressure  | minimum 44 psig  |
| Pipe sizes  | 1.8'' – 15'' *   |
| Flow velocities                                   | 0.03 ft/s to 200 ft/s **   |
| Measurement uncertainty<br>(Volumetric flow rate) | ±1 ... 3% of reading ±0.0015 ft/s, depending on application              |
| Calibration                                       | EN 17025 accredited in-house calibration traceable to NIST Standards     |

\* please have your specific application tested for feasibility  
\*\* depending on transducer frequency and pipe diameter, see technical specification for details

For more detailed Information please download the Technical Specifications here: [www.flexim.com](http://www.flexim.com).

FLEXIM AMERICAS  
Corporation  
Headquarters  
250-V Executive Drive  
Edgewood, NY 11717  
Phone: (631) 492-2300

FLEXIM has offices located  
throughout North America.

Your local representative:



CHALTRON SYSTEMS, INC.  
Headquarters  
PO Box 836  
Chardon, OH 44024-0836  
Phone: (440) 639-6400  
[sales@chaltron.com](mailto:sales@chaltron.com)  
[www.chaltron.com](http://www.chaltron.com)

Serving Ohio & Kentucky

Process Control

Energy Balancing

Consumption Metering

FLEXIM Sets Standards  
when measuring matters

The World's Only Clamp-On Steam Meter

FLUXUS® ST

Non-Invasive – High Turndown – Accurate



BUSTEAMV1-1US 11/2019 Subject to change without notification!



# FLUXUS® ST

## The smart solution for steam measurement



### Innovation on demand

Because of its obvious advantages, clamp-on ultrasonic measurement has become a standard technology in all branches of industry and innumerable applications, be it for the flow measurement of liquids or gases. No wonder that many customers asked: „What about steam?“ However, gaseous water seemed to remain the ultimate challenge. Up until now.

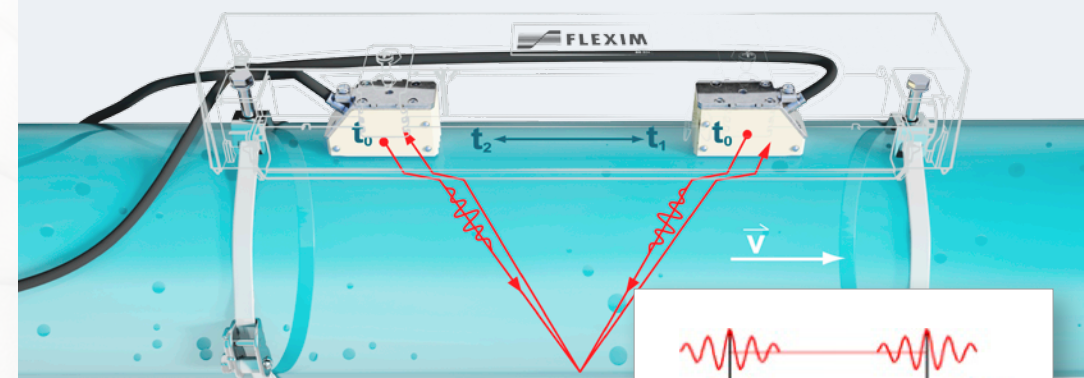
With FLUXUS® ST, clamp-on steam measurement is now available for the very first time – as FLEXIM continues to push the boundaries and to set the standards.

### Non-invasive and efficient

FLUXUS® ST measures steam flow non-invasively from the outside of the pipe. Non-invasive steam flow measurement means measuring without any interruption of operation and supply. Since clamp-on ultrasonic transducers are simply mounted on the outside of the pipe, it requires just minimal installation effort and no opening of the pipeline.

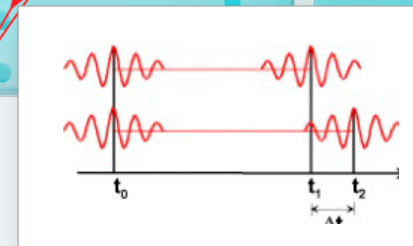
The acoustic measuring method proves to be impressive with its exceptionally high measuring dynamics, is highly sensitive even at very low flow velocities and functions independently of the flow direction. Due to this large flow range (flow velocities from 0.03 ft/s up to 200 ft/s), there is no need to reduce pipe diameter to fit an inline meter's requirement of minimum flow velocity. Moreover, the non-invasive measurement does not cause any pressure loss. The transducer mountings can be completely insulated to reduce any heat loss to the environment.

With FLEXIM's FLUXUS® ST, for the first time ever, it is possible to capture all steam usage from very low to very high flow rates with one meter size.



#### Ultrasonic Transit-Time Principle

Two ultrasonic transducers are mounted with a defined distance onto the pipe. By sending sound signals alternating with and against the flow, a transit time difference can be measured. This corresponds to the flow velocity.



The FLUXUS® ST series is available for fixed installation and for portable use.

### Completely maintenance-free

Non-invasive steam flow measurement also means measuring without direct contact with the medium flowing in the pipe. FLUXUS® ST has no moving parts. Its ultrasonic transducers are fixed to the pipe with broad stainless steel straps and secured in robust stainless steel housings. They are connected to the pipe with permanent coupling pads, instead of coupling gel that can deteriorate or be washed away. Therefore, FLUXUS® ST is not subjected to wear and tear and does not require any maintenance.

### Fixed and flexible

FLUXUS® ST measures volume and mass flow of saturated and superheated steam at temperatures up to 356 °F. The clamp-on ultrasound system is available as both a stationary and a portable meter:

FLUXUS® G721 ST is the stationary flow meter for steam and offers a variety of digital communication interfaces such as Profibus, Modbus RTU, TCP and others.

With the new portable FLUXUS® G601 ST, FLEXIM offers a veritable multi-tool for maintenance and energy managers: in addition to steam, the measuring system can also measure liquids, gases, compressed air and heat.