



World's only non-invasive Flow Meter for
High-temperature Steam

FLUXUS® ST-HT

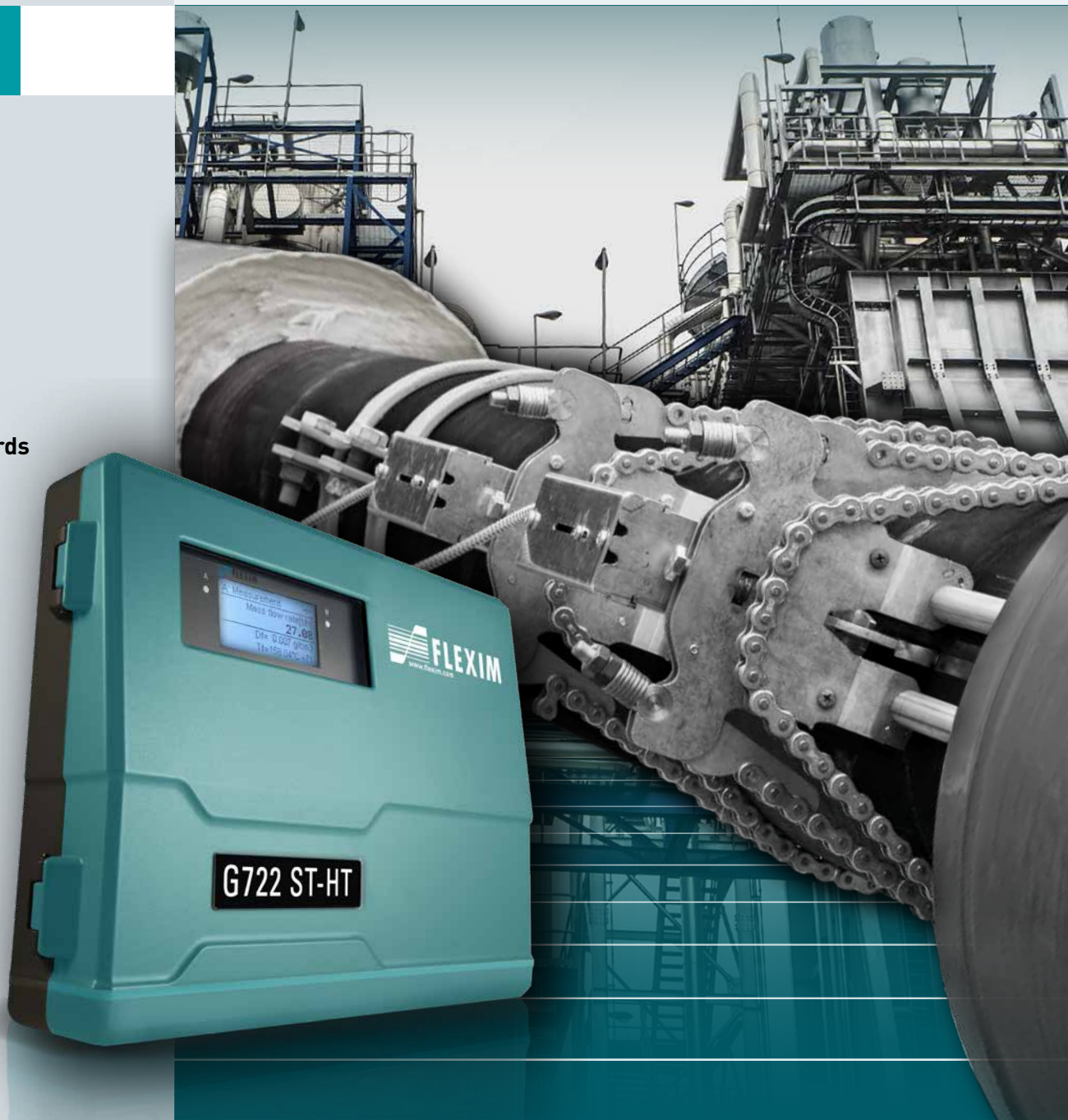
Non-Invasive – High Turndown – Accurate

Process Metering

Consumption Metering

Check Metering

FLEXIM Sets Standards
when measuring matters



FLUXUS® ST-HT

The smart solution for high-temperature steam flow measurement



World Innovation

FLEXIM is proud to present, FLUXUS® ST-HT, the latest high-temperature model in our growing family of unique non-invasive steam flow metering products. The FLUXUS® ST-HT is complementary to our existing FLUXUS® ST steam flow meter, but pushes FLEXIM's solutions for clamp-on ultrasonic steam measurement up to 1166 °F!

Non-invasive and efficient

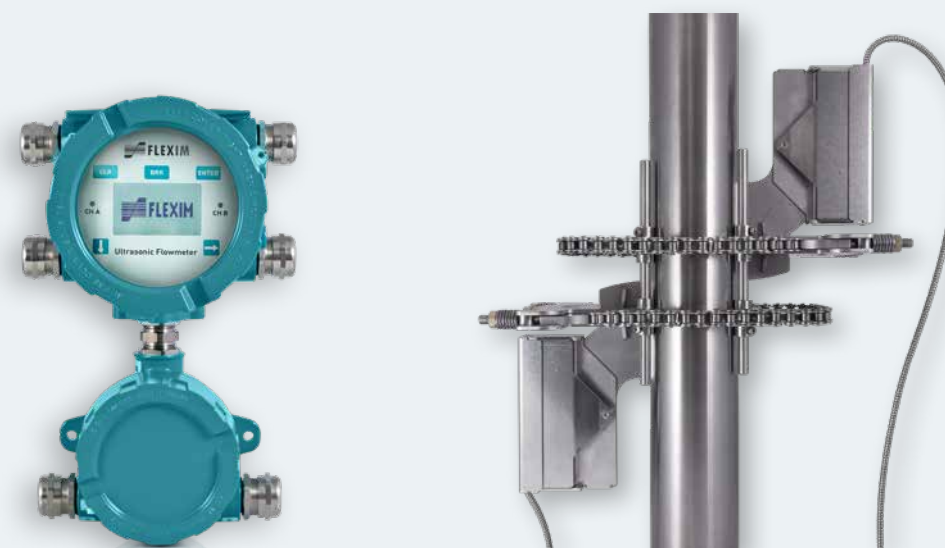
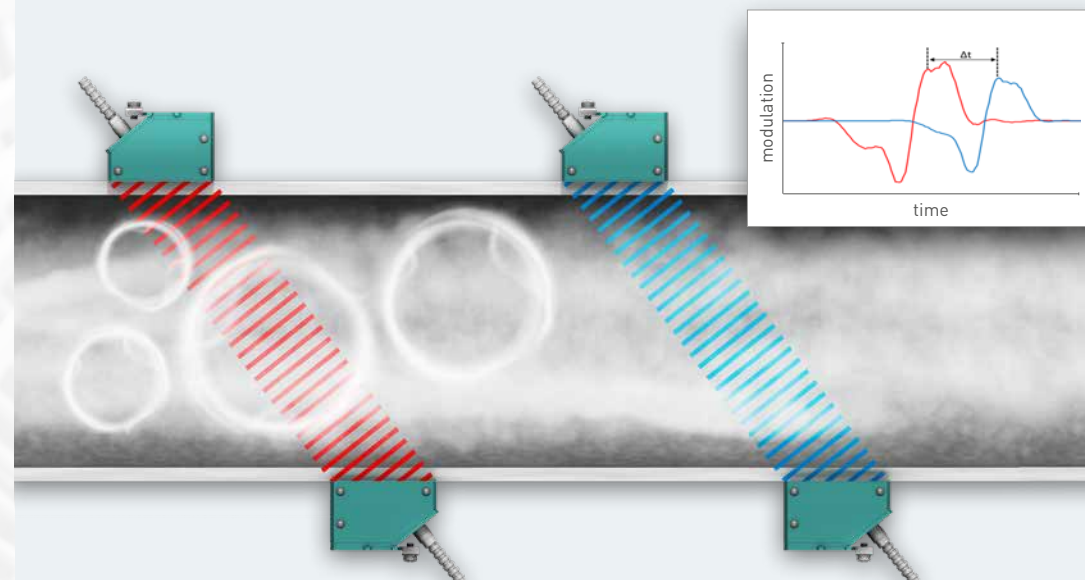
FLUXUS® ST-HT measures steam flow non-invasively from the outside of the pipe. Non-invasive steam flow measurement means measuring without any interruption of operation or supply. Since clamp-on ultrasonic transducers are simply mounted on the outside of the pipe, only minimal installation effort is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

- No pressure loss
- No process interruption
- No pipe modification required
- No susceptibility to leak paths

The acoustic measuring method functions **independently of the flow direction**. The FLUXUS® ST-HT offers precise bidirectional flow measurement over a turndown ratio of up to 10:1.

Correlation Flow Measurement Principle

Two ultrasonic transducer pairs are mounted with a defined distance onto the pipe forming two gates. They send ultrasonic signals through the pipe wall. The modulation of the signals tracks the turbulence characteristic of pipe flow. By cross-correlation of the modulation signals of both gates over time, FLUXUS® determines the steam's flow velocity.



High Temperature Steam Meter G831 ST-HT for hazardous environments

High-temperature mounting system - WaveInjector®

Completely maintenance-free, robust and safe in operation

Non-invasive steam flow measurement also means measuring without direct contact with the medium flowing in the pipe. FLUXUS® ST-HT has **no moving parts**. Its ultrasonic transducers are fixed to the pipe with broad stainless steel straps or our patented WaveInjector® 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-HT is **not subject to wear and tear and does not require any maintenance**. No more venting and draining of inline flow equipment is necessary, which assures totally safe operation of the flow measurement instrument.

Designed for high temperature steam applications

With the WaveInjector® FLEXIM provides a very robust transducer mounting fixture for the ultrasonic flow measurement. It has been specifically **engineered for high-temperature applications** above 464 °F. Using patented technology, the WaveInjector® thermally isolates the ultrasonic transducers from the hot pipe, allowing operation at process temperatures up to 1166 °F.

It has proven itself in numerous high-temperature applications worldwide. Without the need for pipe work or process interruption, the WaveInjector® is mounted on the outer surface of the pipe. Sturdy mounting fixtures provide **long-term high stability measurement**. Once installed, the pipe can be completely insulated up to and around the WaveInjector® to reduce heat loss to the environment.

FLEXIM

More than 30 years of experience in non-invasive ultrasonic flow measurement



FLUXUS® G722 ST-HT



FLUXUS® G722 ST-HT
Stainless Steel



FLUXUS® G831 ST-HT

Technical Specifications

FLUXUS® ST-HT	Stationary clamp-on ultrasonic steam flow measurement system for high temperature steam
Media	Saturated and superheated steam <i>(turbulent flow required)</i>
Measurement quantities	Volume flow, mass flow, flow velocity
Temperature	212 to 1166 °F *
Pressure	14.5 to 3176 psig
Pipe sizes (ID)	0.4 to 35 inches
Measurement uncertainty (Volumetric flow rate)	±3% of reading **
Repeatability	±1% of reading **
Explosion protection (optional)	Transmitter ATEX/IECEx Zone 2, FM Class I / Div 2 (G722 ST-HT) Transmitter ATEX/IECEx Zone 1, FM Class I / Div 1 (G831 ST-HT) Transducers ATEX/IECEx Zone 1/Zone 2, FM Class I / Div 2
Calibration	In-house calibration traceable to NIST standards

* please have your specific application tested for feasibility, for applications above 750 °F please contact FLEXIM for pre-evaluation

** flow velocities with > 60.000 Reynolds

For more detailed Information please download the Technical Specifications here: 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.

Please have a look for your
local representative at:

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

