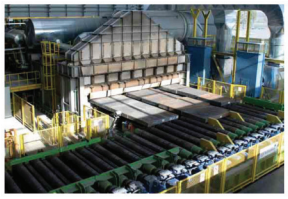
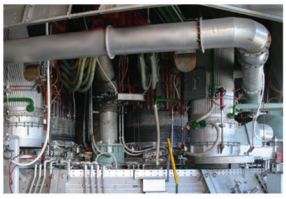
NON-CONTACT HIGH TEMPERATURE GAS VELOCITY SENSOR






APPLICATIONS

For the continuous measurement of gas velocities in dust-bearing high temperature (>600°C) industrial processes.

Optical Measurement Cabinet

Optical assemblies mount at process duct. Shown with optional protective sleeves.

FEATURES

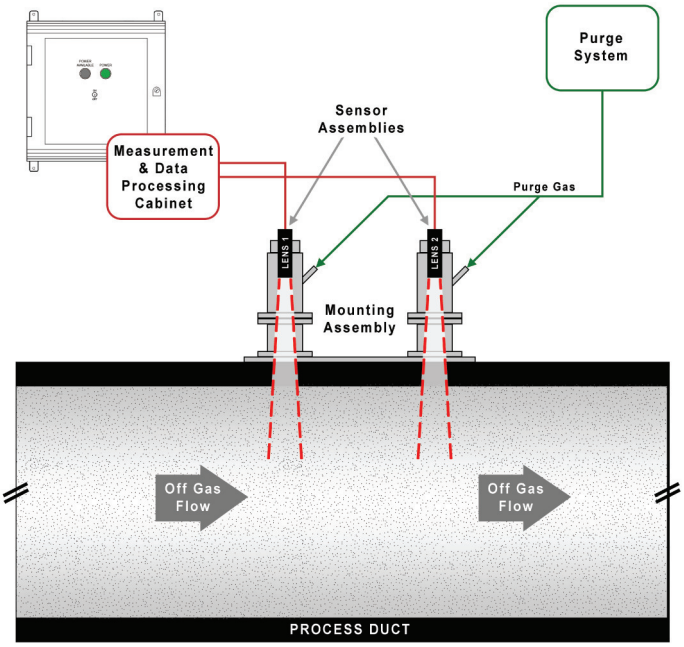
- Continuous, real-time measurement of high temperature gas velocity
- Non-contact sensor measures velocities in gases hotter than 600°C where other sensors do not survive
- Passive sensor has no consumable parts and requires minimal maintenance
- System measures clean or dust-bearing gases at velocities up to 60 m/s
- Purge system can be coordinated to cool, purge or turn off during process events
- Built-in 4-20mA analog output can be used to send temperature measurement to customer's data collection system
- Sensor cabinet is NEMA 4 rated, climate controlled and suitable for outdoor installation

OPTIONS

- N2 purge system, sensor protective assembly, and mounting plate may be fabricated by Nova or by customer

SYSTEM VERIFICATION

- System operation is verified prior to shipping. Methods of verifying the velocity after installation are available on an industry specific basis.



DESCRIPTION

The velocity sensor optically measures high temperature gas velocities in industrial processes. The passive non-contact sensor is designed to operate at temperatures above 600 °C and in harsh environments where other measurement systems do not survive. Potential industries include steel making and cement making, metallurgical smelting, petroleum refining, chemical production, and power generation.

The sensor consists of two optical lenses mounted on a gas carrying conduit, optical fibers, a sensor cabinet, and a purge system.

The sensor cabinet contains the optical sensors and industrial processor. It is a NEMA 4 climate controlled cabinet suitable for outdoor mounting. The purge system cools and cleans the lenses and can be coordinated to cool, purge or turn off during specific process events.

For gas velocity measurement in hot and dusty applications, contact Tenova Goodfellow.

SPECIFICATIONS

Tenova reserves the right to specification changes which may occur with advances in design without prior notice.

Description	
Method of Detection:	Optical sensor
Range Available:	0 - 60 m/s
Resolution:	0.25 m/s
Accuracy and Repeatability:	± 3% of full scale (will depend on specific application)
Cabinet Environment:	14°F to +122°F (-10°C to +50°C)
Size and Weight:	Main Cabinet: approx. 355 x 305 x 178mm @ 14kgs (14" H x 12" W x 7" D @ 30lbs)
Power:	115VAC 60Hz (220VAC 50Hz available)
Output Options:	4-20mA output calibrated to measurement range
Alarms:	Optical failure alarm communicated by 4-20mA output

Tenova Goodfellow Inc. is the Centre of Excellence for process control technology within the Tenova Iron & Steel Division. As world leader in real-time off-gas based process control, Tenova Goodfellow offers extractive sampling systems with data acquisition and process model/analysis and control. Through award-winning products such as the EFSOP® system, iEAF®, iBOF®, and others, Tenova Goodfellow offers dynamic control and efficiency improvements for high intensity industrial processes. Better process optimization, reduced costs, improved safety, and environmental benefits for greater competitiveness are just some of the advantages that our clients enjoy.

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