



REFINERIES APPLICATIONS

Up to 200°C*

Liquid hydrocarbons
processing

Heavy and
light fuels blending

Monitoring of
distillation column
bottoms

Visbreaking

SIMILAR APPLICATIONS

Pitch, Tar, Bitumen
handling

Asphalt blowing

Lubricants plants



The economical
solution to measure
viscosity at **reference
temperature**

*Other configuration
available on demand

HOW TO ENSURE A **CONSTANT PRODUCT QUALITY** IN **OIL AND GAS INDUSTRIES?**

In Refineries and Petrochemical processes, on-site control is of primary importance in regards to product quality. Viscosity is **one of the key parameters** of many petroleum products. It influences storage, handling, and operational conditions.

On-line Viscosity Measurement at Reference Temperature is needed in refineries for petroleum, oil, liquid hydrocarbons, heavy and light fuel blends. **Temperature Compensated Viscosity (TCV)** provides **viscosity at constant reference temperature** and eliminates process temperature variations.

Nowadays, **REFINERIES** face different constraints:

- **PARTIAL UNDERSTANDING** due to lack of monitoring steps
- **VISCOSITY CHANGES** with product quality and process temperature
- Difficulty to **CHARACTERIZE THE BEHAVIOR** of reference products
- **VARYING ORIGIN OF CRUDES** and refining methods
- **QUALITY** of petroleum products and derivatives **DEPENDS ON VISCOSITY** characteristics

OIL & GAS BEST SELLER SOLUTION – *in hazardous environments*

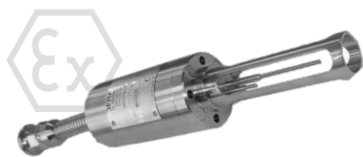
- +** A single sensor able to provide instantaneous and continuous measurement
- +** Avoids drift during manufacturing and guarantees end-product quality
- +** Processor directly calculates **Viscosity at Reference Temperature (TCV)**
- +** Use of either simplified calculations or **ASTM D341 formula**
- +** Compensates the effect of **variable process temperature**
- +** Correlated to the **ASTM D445 standard**
- +** Works **without maintenance** between two plant overhauls



Key characteristics:

Resistant to high pressure and high temperature	Perfect blending control
No wearing parts, very low maintenance	Robust, reliable and easy to install
No need for sample conditioning	Measures in any positions

FEATURES & SPECIFICATIONS



MIVI process viscometer

Typical Full Scale Range: 1000 cP*

Temperature: up to 200°C*

Pressure: up to 60 bar*

Ex-proof certification

Material: 316L SS*

Ingress Protection: IP67

With 316L SS Weld-mount flange



Cf technical datasheet 134
 *Other available on demand



9601 processor

Viscosity, TCV and Temperature processor

Automatic calculation of Compensated Viscosity (TCV)

LCD screen

4 x 4-20 mA outputs

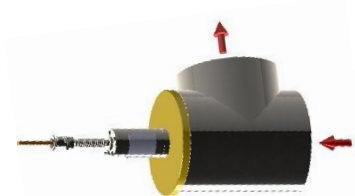
Operating temperature: 0-45°C

Panel-mount type

Cf technical datasheet 241

MAIN MOUNTINGS

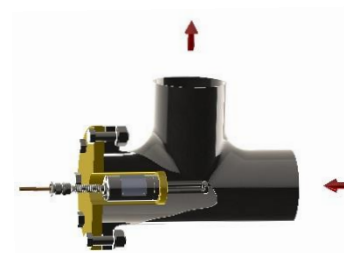
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On large pipe angle



On straight-line flange



On immersion tube

**Any questions or specific needs regarding other viscosity solutions?
 Let us help you find the best match for your process by contacting us at:
instruments@sofraser.com**