

# TT-100™ Viscometer

for in-line systems applications

**Continuous linear output signal**  
(4-20 mA)

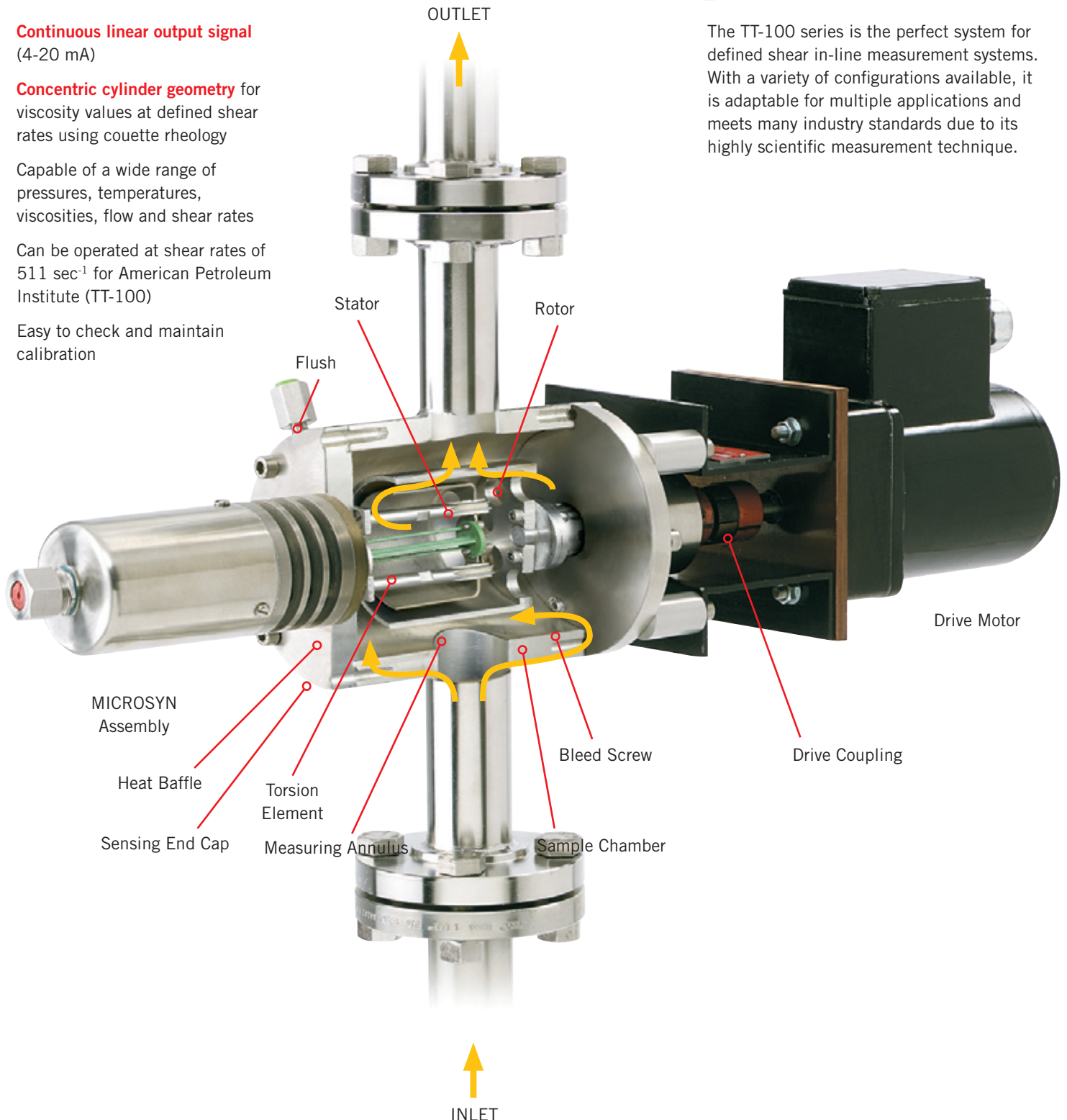
**Concentric cylinder geometry** for viscosity values at defined shear rates using couette rheology

Capable of a wide range of pressures, temperatures, viscosities, flow and shear rates

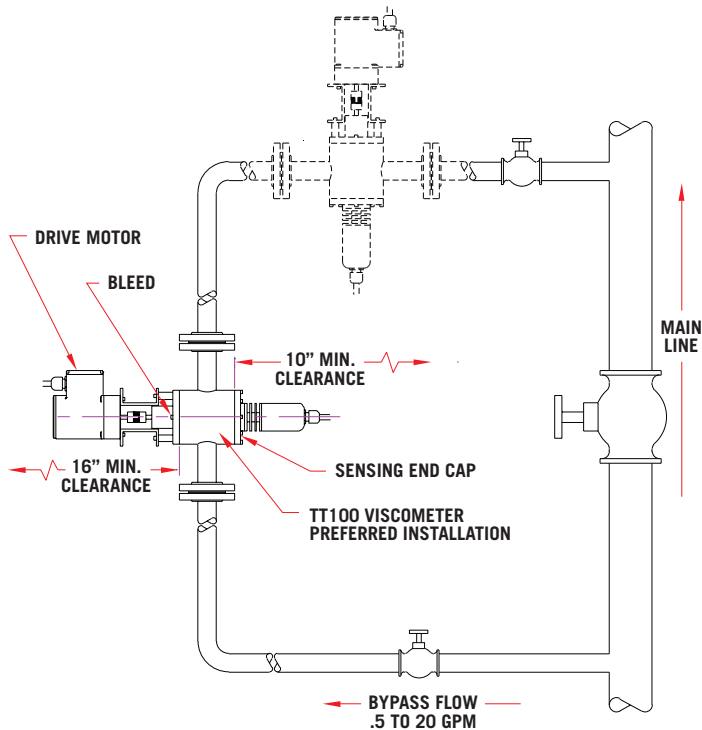
Can be operated at shear rates of 511 sec<sup>-1</sup> for American Petroleum Institute (TT-100)

Easy to check and maintain calibration

The TT-100 series is the perfect system for defined shear in-line measurement systems. With a variety of configurations available, it is adaptable for multiple applications and meets many industry standards due to its highly scientific measurement technique.



## Typical Installation



**Notes:**

1. Install viscometer in clean, vibration free, readily accessible area. To avoid air or gas entrapment, preferred installation is vertical bypass line. Allow specified clearance for removal of viscometer endcaps.
2. Provide a minimum of 4-feet of straight pipe to viscometer inlet to minimize turbulent flow caused by elbow.

## Optional Configurations

Optional configurations include 500 psi, 500°F construction, ATEX, NEMA 7 explosion-proof (FM approved), 1", 1½", 2" threaded or flanged inlet and outlet fittings, special viscosity ranges or shear rates, 24V DC operations, readout indicator and variable speed motor



### TT-100VS™

Optional variable speed instrument for multiple shear rates

## Ranges & Specifications

**Measurement Type:** Concentric Cylinder

**Viscosity Range:** TT-100: 10 to 500,000 cP  
STT-100: 350 to 250,000 cP

**Shear Rates:** TT-100: 10 to 1,000 sec<sup>-1</sup>  
STT-100: 7.5 to 225 sec<sup>-1</sup>

**Temperature (fluid):** TT-100: -40° to +300°F (options to 500°F)

**Pressure Range:** 200 psig (maximum) (options to 1000 psig)

**Repeatability:** ±0.5% of span, ±1° Full Scale

**Power Requirements:** 115/230VAC, 50 or 60Hz, 100W

**Maximum Flow Rate:** TT-100: 20 gpm (maximum)

**Wetted Surfaces:** 316L stainless steel

**Output Signal:** 4-20 mA

**Process Connections:** STT-100: 3-inch, 4-inch Tri Clamp

**Electrical Code:** NEMA 4, NEMA 7 or ATEX option



### STT-100VS™

Sanitary Viscometer

Conforms to 3-A sanitary conditions and has clean-in-place (CIP) technology (STT-100)

3" or 4" tri-clamp connections  
Other options available