RODUCT BULLETIN

Inline Viscometer

The Floquip VDH viscometer is a patented device, designed to continuously measure, in line and at high pressure, viscosity of polymer solution during chemical EOR injection processes.

This system allows a stable and accurate viscosity measurement of the polymer solution without degradation and which can be extrapolated to a Yield viscosity.



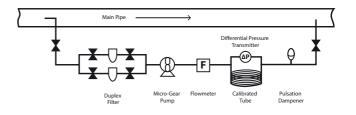
In Line Viscometer for Enhanced Oil Recovery

The In Line Viscometer has been developed to give an accurate measurement of polymer solution viscosity in field conditions. Fluid parameters, like power law index and consistency index are automatically calculated through a wide range of shear rates. The principle is based on the measurement of a pressure drop through a calibrated tube at a constant flow rate.

Main Characteristics

- Viscosity range from 1 to 1000 cP
- Determination of n, K and γ
- Operating pressure up to 200 barg
- Temperature range 5 to 80 °C
- Local control panel or remote control from existing DCS/PLC
- Construction materials Stainless steel 316L, Hastelloy ...

Schematic of Floquip VDH



Real Time Data Chart

FLOQUIP VDH Inline Viscosity Measurement Field Trial with FLOPAAM 3630 S in 10,000 ppm brine at 120 barg 25 20 Polymer injection 2,000 ppm Start of polymer injection

Views of the Device



Inline viscometer features

The device allows a continuous monitoring of viscosity avoiding the intervention of operators and manual sampling. Moreover, the system is waste-free and the need for disposal is eliminated.