

## The Norcross Viscosity Sensor (CE) M50 - A 'True' In-Line Sensor

### What is a NORCROSS viscometer?



The basic components of a Norcross viscosity control system are a viscosity sensor and a controller.

The viscosity sensor, described here, is mounted in the ink line carrying ink from the ink pump to the ink fountain.

The M50 can be used with any Norcross controller such as the MP2000, MP2500 or VISC6000.

### What does True In-Line mean?

Most 'In-Line' sensors require a side stream installation, not shown, this because they need to stop the ink flow to take measurements. Thus they cannot be in the main ink line.

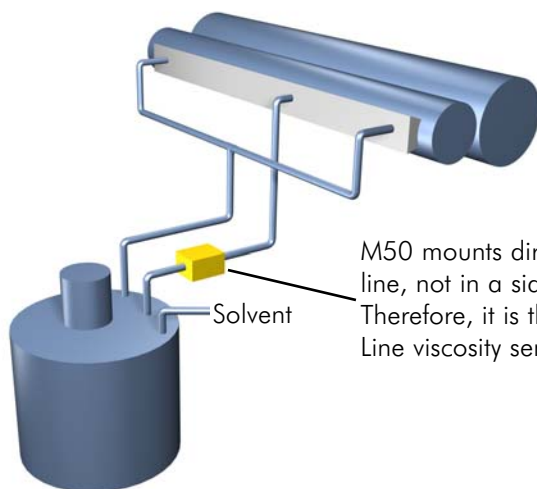
This diversion of ink flow, into the sidestream, has also been known to affect print quality. This due to pressure changes in doctor blade chambers, caused by this measuring technique.

Side stream installations also require more piping and special solvent flushing provisions.

The patented M50, by Norcross, operates directly in the ink line, to the fountain, and does not impede ink flow.

The M50 is not affected by changes in flow rate or ink pressure and causes no change in flow rate or ink pressure.

The M50 requires no special piping and no special cleaning cycle. Simply leave it operating when the ink lines/doctor blade chamber are being flushed.



M50 mounts directly in the ink line, not in a sidestream. Therefore, it is the simplest In-Line viscosity sensor to install.

### What are the benefits of a Norcross viscometer?

Beyond the fact that Norcross control systems are a product of a company with decades of expertise in process measurement and control. Norcross also offers prompt and knowledgeable engineering support. In addition, Norcross viscometers are:

**Simple** The M50 measures viscosity based upon an easy-to-understand principle: the time required for a piston to fall through a fluid within a stationary cylinder, the 'Piston Time-of-Fall'.

**Sensitive** Norcross viscometers can detect the viscosity changes between hot and cold water, which demonstrates our sensitivity to small changes in viscosity.

**Rugged** The patented falling piston principle permits the design of a simple and dependable instrument that can be easily serviced by any maintenance department.

**Easy to Install** The M50 can be installed directly in the ink/coating line.

**Intrinsically Safe** When M50 is used with an approved intrinsically safe barrier it can be used in UL Class 1, Division 1, Group C/D locations and European Zone 0,1 & 2 locations ( EEx ia IIC).

**Corrosion Resistant** Wetted parts are constructed of Delrin, Teflon, SS 303/304 and EPDM.

**Repeatable** Because the falling piston principle depends upon the force of gravity, its constancy ensures the repeatability of the results.

**Self-Cleaning** The reverse flushing, resulting from the up and down motion of the piston, provides effective self cleaning of the piston. Normal ink flow continuously cleans the interior of the M50.

**Easy to Clean** As you flush the ink line you simultaneously clean the M50.