

# Reference Solution Calibration

## - Fluidicam Technical Note -



### Introduction

FLUIDICAM<sup>RHEO</sup> can be used with the Formulation reference solutions, however it is also possible to choose a reference solution to meet your own specific needs. This technical note describes the simple procedure to calibrate your selected reference.

### THE REFERENCE MUST

- Be **Newtonian** - Viscosity is independent of applied shear
- Have a **good contrast** with the sample
- Have **similar viscosity** to the sample (Maximum ratio 1:5)
- Ideally be miscible with the sample



### Key Steps

- Select & setup reference and comparison solutions*
- Create a Unit Reference*
- Measure the viscosity of Comparison Solution*
- Calculate the Absolute Reference Viscosity*

## I. Setup: Reference and Comparison Solutions

To calibrate a reference solution, it must be compared against a Newtonian solution with a known viscosity, a **comparison solution**. An example of a comparison solution is water or a Formulation reference solution. Place the comparison solution in the **Sample** position of FLUIDICAM<sup>RHEO</sup>. Place the reference solution to be calibrated in the **Reference** position of FLUIDICAM<sup>RHEO</sup>. The comparison and reference solutions must be placed in these positions to obtain a precise calibration.

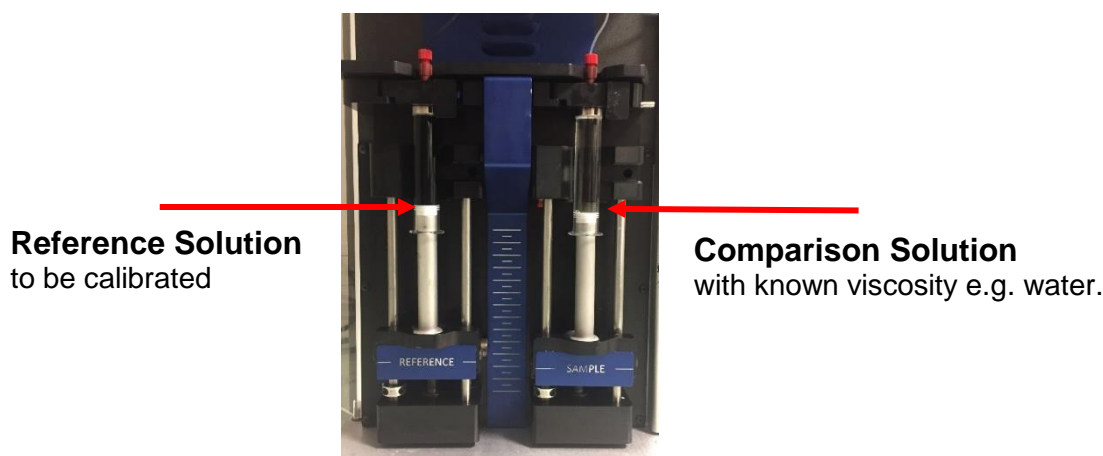


Fig. 1: Fluidicam reference solution calibration setup