



AMT TN-13

Pressure Drop Flow Curves for the Coflore® ACR

Overview

This technical note summarises the process pressure drop across a Coflore ACR continuous flow reactor. The Coflore ACR consists of ten 10 mL reactor cells, connected in series via 4 mm² interstage channels (Figure 1). For this testing, each cell housed a 10% spring agitator, to give a total working reactor volume of 90 mL.

Pressure Drop Calculations

For the process fluid pressure drop, pressure was recorded at both the process inlet and outlet connections on the ACR reactor cell block. Water was pumped through the process channel at 15 °C at various flowrates.

Pressure Drop Notes

This testing determined the pressure drop across the ACR reactor cell block itself. In practice, users will need to account for any additional pressure drop arising from the tubing to and from the reactor. Pressure drop in tubing can be calculated using the Darcy-Weisbach equation.

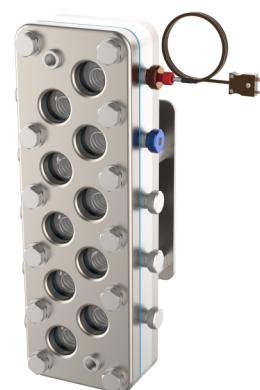


Figure 1: Coflore ACR Reactor Cell Block.

Process Fluid Pressure Drop

