

Streamline Multi-Circuit Flow Validation & Maximize Uptime

Many companies involved with buying or making injection molding parts now require molds to have GPM flowrate and temperature data per circuit to be validated at startup. This data is also needed during production to troubleshoot problems, prevent defects, and minimize cycle times.

If there's no data from the mold startup, and something changes in the mold, then potential defects can be very difficult to diagnose. An issue that often occurs is one circuit becomes significantly hotter than another because a water line gets clogged with scale, rust or other contaminants. This will generally cause defects that may not be visible. Most companies use mechanical or electronic flowmeters to validate each circuit individually, a very time-consuming process, but with the new [X-FLOW Multi-Circuit Flow Validator](#) from Plastixs, you can validate up to 16 circuits simultaneously and troubleshoot the mold while in the molding machine, reducing the time needed for individual circuit validation and resulting in new molds moving into production faster.

Detecting Mold Temperature Fluctuations

The temperature of a mold is a critical factor for validation. There are hundreds of variables when setting up a molding process for new or existing tooling, but mold temperature is one variable that is consistently identified as having a significant effect on part quality. The X-FLOW Multi-Circuit Flow Validator is designed to validate multiple water lines simultaneously, providing insight as to what is occurring within the cooling circuits. X-FLOW accelerates the gathering of mold



temperature data and can display it on any Bluetooth enabled device, or automatically transfers this data to a CSV file on a USB device or network.

Establishing a Baseline on New Molds

When tool builders build a new mold, they validate water flow to establish a baseline measurement. This is essential when troubleshooting and proves beneficial in such a scenario where a mold that has been in production for months suddenly stops running the required a cycle time. In this case, the baseline measurement can be compared to the current water flow in each of the lines and determine if there is problem with the mold. If this is the case, the mold water lines can be cleaned and the mold returned to service, where the X-Flow system can again be used to quickly verify if the cleaning has returned the flow in each circuit back to the specification.

Multi-Circuit Flow Validation for Medical Products

Preventing product defects is crucial when manufacturing medical products. A standard practice is to define all operational parameters of a new mold. Varying the mold temperature at startup helps determine what configuration works best. Once these parameters are defined, they are recorded in the set-up sheets for that mold and if a change is needed, then re-validation is required, sometimes even when moving existing molds into a new machine. The X-Flow speeds up the validation process and simplifies the gathering of flow and temperature data for each circuit in the mold.

Now Available: The Plastixs X-FLOW Multi-Circuit Flow Validator

The Plastixs X-FLOW Multi-Circuit Flow Validator makes validating and troubleshooting mold flow rate and temperature per circuit quick and easy. The X-FLOW validates up to 8 or 16 circuits simultaneously, and includes a 110-120-volt power supply and portable cart, so using it with multiple machines on a production floor is very convenient. The X-FLOW also includes a USB, Bluetooth and network connection capabilities for transferring data to a Bluetooth device, a USB data card or your network.

Each group of 8 zones is built around a [SMARTFLOW SMARTLINK Tracer VM Interface](#) that is fully wired and configured for immediate use. The 16-zone configuration has two of the Smartflow Smartlink interfaces installed on the cart. The second interface and flow meters can be added at any time.

The Plastixs X-FLOW Multi-Circuit Flow Validator help monitors your critical injection molding processes at machine startup and also for troubleshooting cooling-related issues. X-FLOW provides a baseline of mold performance and indicates when waterline maintenance is needed. Streamline your production floor and maximize your uptime with the new X-Flow Multi-Circuit Flow Validator from Plastixs.

[Contact us to learn more about multi-circuit flow validation](#)

