FREE VYRCO RESOURCE

# Cooling circuits: record before and after

Guide and record for comparing observed mold-circuit conditions without advancing a diagnosis.

Intermediate level | Mold, maintenance, process and quality technicians.

Preserve circuit identity, test configuration, and readings before and after an authorized activity. Supports technical review; by itself, it does not declare that a circuit is clean, leak-free, or fit for production.

Original general guidance from VYRCO. Values and criteria depend on mold design, medium, temperature-control equipment, instruments, and applicable documentation. It prescribes no flow, pressure, temperature, stabilization time, or cleaning method.

## Before comparing a circuit

### 1. Identify the path

Use the current drawing or diagram to record mold, revision, circuit, inlet, return, and intended flow direction. If a connection or branch cannot be matched to the documentation, mark it pending; do not reassign it by appearance.

### 2. Define a safe, authorized condition

Reference the approved procedure, equipment, and limits before connecting, pressurizing, or circulating a medium. Confirm isolation, containment, compatibility, and personal protective equipment through local documentation. This form does not authorize the test.

### 3. Preserve the configuration

Record the stated medium and composition, supply source, displayed setting, hoses, connections, valves, adapters, and stabilization time or condition. A reading changes meaning when the setup changes.

### 4. Record instruments and locations

Enter the instrument, ID, unit, available verification or calibration status, and exact measurement location. Commercial systems may observe flow, temperature, and pressure, but functions and limits are specific to each model. [DME-FLOW] [PCS-FLOW]

### 5. Compare traceable conditions only

Preserve original before-and-after readings, times, and changes made. Reading differences describe what was observed under the recorded conditions; by themselves, they do not prove blockage, corrosion, leakage, thermal improvement, or root cause.

### 6. Separate evidence, criterion, and decision

Link the documented criterion and authorized decision maker. Flow calibration addresses points, repetition, reproducibility, and uncertainty; a single field comparison does not replace that process. [NIST-LF] Record pending when evidence is missing.

# 1 / Circuit identity and configuration

BLANK TEMPLATE. One record per circuit and condition; fictional example kept separate.

| |
|---|
| Record ID / date / owner / time zone |
| |
| Mold / revision / drawing or diagram and revision |
| |
| Circuit / inlet / return / intended flow direction |
| |
| Objective: before-after / condition to be compared |
| |
| Authorized safe procedure / revision / permit |
| |
| Stated medium and composition / source / or undocumented |
| |
| Supply or control equipment / ID / displayed setting / unit |
| |
| Hoses / connections / adapters / valves / position |
| |
| Instruments / IDs / units / documented status |
| |
| Stabilization condition or time / criterion and source |
| |

Copy the original indication with its unit. Do not enter zero for an unmeasured value: write not measured or undocumented. Do not calculate a pressure or temperature difference when points, instruments, or conditions are not comparable. Retain original photos and files outside this form.

# 2 / Readings, observations, and decision

BLANK TEMPLATE. One record per circuit and condition; fictional example kept separate.

| |
|---|
| BEFORE: time / measurement point / flow and unit / source |
| |
| BEFORE: inlet-return temperature and unit / if measured |
| |
| BEFORE: inlet-return pressure and unit / if measured |
| |
| BEFORE: visible observation / evidence / missing data |
| |
| Authorized activity performed / reference / setup changes |
| |
| AFTER: time / measurement point / flow and unit / source |
| |
| AFTER: inlet-return temperature and unit / if measured |
| |
| AFTER: inlet-return pressure and unit / if measured |
| |
| AFTER: visible observation / evidence / missing data |
| |
| Comparability / criterion / review / action / authorized decision |
| |

Copy the original indication with its unit. Do not enter zero for an unmeasured value: write not measured or undocumented. Do not calculate a pressure or temperature difference when points, instruments, or conditions are not comparable. Retain original photos and files outside this form.

# Original FICTIONAL example

## Invented context

Mold DEMO-COOL, revision R-A; fictional circuit C-DEMO-04. Drawing DEMO-DWG-R-A identifies inlet E4 and return R4. Every ID, reading, and event in this example is fictional.

## Before condition

Fictional instrument FM-DEMO-01 at the same measurement point. Before indication: 4.80 L/min at 09:10. Temperature and pressure: not measured. The equipment's displayed setting and valve positions were copied to the record.

## Recorded activity

Fictional authorized activity ACT-DEMO-07. The form only references the activity and records that the setup was not intentionally changed. It does not describe chemicals, pressure, time, or a cleaning procedure.

## After condition

After indication: 5.10 L/min at 09:35, at the same point with FM-DEMO-01. Descriptive difference: +0.30 L/min. No uncertainty, tolerance, flow target, or acceptance criterion was supplied.

## Gap identified

Medium composition was not documented and the stabilization condition says pending. Therefore, the form does not declare the conditions fully comparable or attribute the difference to the activity.

## Provisional closure

Both indications and the observed change were preserved. Cleanliness, restriction, heat transfer, leakage, cause, and production fitness remain pending authorized review and criteria.

# Primary sources and scope

Sources accessed: 2026-10-21

DME-FLOW - DME FloSense

The manufacturer page describes observing flow, temperature, and pressure, data recording, and sensor locations in cooling circuits. It is used only to support which context may be relevant to record. Its features, alarms, and performance claims belong to FloSense; they are not transferred to other equipment or adopted as VYRCO criteria.

Open primary source

PCS-FLOW - Smartflow Digital Flow Meters

The official page states that these meters detect and display flow and temperature and that the interface can store data or transmit alerts. It is cited as an example of product-specific capability, not a universal procedure or validation of any instrument.

Open primary source

NIST-LF - Fluid Metrology Calibration Services - Liquid Flow

NIST describes its liquid-flow meter calibration services: multiple points, repeated averages, reproducibility assessment, and an uncertainty report. It supports why a field comparison is not a calibration. NIST facility ranges, fluids, and uncertainties are not mold-test values.

Open primary source

## Limitations and hold points

- Does not prescribe flow, pressure, temperature, medium composition, stabilization time, or alarm limits.

- Does not authorize pressurization, purging, chemical cleaning, compressed air, disassembly, or access to a moving machine or mold.

- Does not confirm leakage, blockage, corrosion, scale, turbulent regime, heat transfer, or root cause.

- Cited product specifications are specific to those manufacturers and models; they do not transfer to other equipment.

- Does not establish calibration, uncertainty, regulatory compliance, mold acceptance, or release to production.

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