

Intermediate Check & Validation Form Pack

Blank, printable working sheets for verifying that calipers, micrometers and other gauges remain within tolerance *between* formal calibrations — in line with ISO/IEC 17025:2017 §6.4.10 and §7.7.1. Record results by hand, then enter them into Cali's Asset Validation module for automatic control-chart trending and out-of-tolerance alerts.

What's inside

- 1 Vernier / dial / digital caliper — intermediate check sheet
- 2 Micrometer — intermediate check sheet
- 3 General blank check sheet — define your own check points
- 4 Control-chart / trend log (record successive checks over time)
- 5 How to use this pack with Cali

Tip

Set the acceptance tolerance and check frequency in Cali for each instrument. After a few checks, Cali draws Shewhart control limits ($\pm 2\sigma$ warning, $\pm 3\sigma$ action) and warns you before an instrument drifts out of tolerance — turning these paper sheets into predictive, audit-ready evidence.

Caliper — Intermediate Check Sheet

Verify against calibrated gauge blocks / a reference standard. Tighten gently and read square to the scale.

Instrument ID / asset tag	Description	Date	Technician
Temperature (°C)	Humidity (%RH)	Pressure (hPa)	Check standard / gauge block ID

Checks

Check point	Nominal	Reading 1	Reading 2	Reading 3	Error	In limits?
Zero check (jaws closed)						
Gauge block — low (e.g. 10 mm)						
Gauge block — mid (e.g. 50 mm)						
Gauge block — high (e.g. 100 mm)						
Internal jaws (ring / bore)						
Depth rod						
Jaw parallelism / wear						

Overall result

Reaction / action taken

☐ In control ☐ Warning ☐ Out of control

☐ None ☐ Increase frequency ☐ Quarantine + raise NC

Performed by (name / sign)

Reviewed by (name / sign)

Micrometer — Intermediate Check Sheet

Use gauge blocks and an optical flat. Use the ratchet/friction thimble for consistent force.

Instrument ID / asset tag	Description / range	Date	Technician
Temperature (°C)	Humidity (%RH)	Pressure (hPa)	Check standard / gauge block ID

Checks

Check point	Nominal	Reading 1	Reading 2	Reading 3	Error	In limits?
Zero check (anvil + spindle)						
Gauge block — low						
Gauge block — mid						
Gauge block — high						
Reading at thimble 0°						
Reading at thimble 90/180/270°						
Anvil/spindle flatness (optical flat)						
Parallelism (optical flat)						

Overall result

Reaction / action taken

☐ In control ☐ Warning ☐ Out of control

☐ None ☐ Increase frequency ☐ Quarantine + raise NC

Performed by (name / sign)

Reviewed by (name / sign)

General Intermediate Check Sheet

For any gauge not covered by the sheets above — write in what you are validating and your own check points.

Instrument type	Instrument ID / asset tag	Date	Technician
What is being validated? (parameter / characteristic)		Acceptance tolerance ($\pm$)	
Temperature ($^{\circ}\text{C}$)	Humidity (%RH)	Pressure (hPa)	Check standard / gauge block ID

Checks

Check point (write in)	Nominal	Reading 1	Reading 2	Reading 3	Error	In limits?

Overall result	Reaction / action taken
☐ In control ☐ Warning ☐ Out of control	☐ None ☐ Increase frequency ☐ Quarantine + raise NC
Performed by (name / sign)	Reviewed by (name / sign)

Control-Chart / Trend Log

Record one check result per row to build a trend. Plot the "check value" over time; flag any point outside the warning/action limits or any run of points trending one way.

Instrument ID / asset tag

Check point / nominal

Target / centre line

Tolerance ($\pm$)

#	Date	Check value	Error vs target	Zone (C/B/A/Out)	Action / NC ref
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					

Interpreting the zones (Western Electric rules, applied automatically in Cali)

Zone C = within $\pm 1\sigma$ of centre · Zone B = $\pm 1-2\sigma$ · Zone A = $\pm 2-3\sigma$ (warning) · Out = beyond $\pm 3\sigma$ (action). Investigate if: 1 point beyond $\pm 3\sigma$; 2 of 3 in zone A; 4 of 5 in zone B or beyond; or 8 in a row on one side of the centre line.

Using this pack with Cali

1. In Cali, open **Validation** and create a check procedure for the instrument, listing the same check points and the acceptance tolerance. 2. Perform the checks on this sheet at your set frequency. 3. Enter each result in Cali — it stores the history, draws the control chart, and (if a reading is out of tolerance or out of control) automatically raises a non-conformance for you.