

Title: Calibration of Metric Feeler Gauges

1. Scope

Work Instruction for the calibration of metric feeler gauges. To be used in the absence of a manufacturers calibration instruction.

2. Preparation

Calibration shall be carried out using Category 'A' master instruments.

Equipment required:

- 0 – 25mm point or ball micrometer
- or
- Vernier calliper

The micrometer shall have the appropriate certificate of calibration traceable through United Kingdom Accreditation Service and shall be rechecked at intervals of no more than 5 years.

Note that a 25mm micrometer is the preferred method for checking feeler gauges. Where a Vernier calliper is used, the examiner shall check that only the tip of the feeler gauge is measured between the jaws of the calliper.

3. Method

3.1 Check that the identification number is clearly visible and that each feeler gauge is clearly identified with its nominal thickness.

3.2 Check that the feeler gauges are free from damage, indentations or corrosion.

3.3 Check the thickness of each feeler gauge indicated with a master micrometer. The thickness shall be checked as close to the measuring tips as possible.

3.4 The difference between the nominal thickness and measured thickness shall be $\pm 10\%$ of the nominal thickness.

3.5 Results shall be recorded on the calibration form (see Appendix A) and retained for audit purposes.

4 References

Appendix A. Metric Feeler Gauges Calibration Result Sheet.

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Appendix A. Metric Feeler Gauges Calibration Record

Gauge Number:		Date last checked:		Next check due:	
Master Equipment Used:					
Micrometer:		Vernier Calliper:			

Visual Checks (Identify Pass or Fail as appropriate)			Comments
Check for visible signs of damage	Pass	Fail	
Check for visible signs of rusting. <i>Note. Light rusting can be removed with wire wool.</i>	Pass	Fail	
Check that the markings are clearly visible	Pass	Fail	
Check ID number is clearly visible	Pass	Fail	

Dimensional Checks (Identify Pass or Fail as appropriate)			Readings / Comments		
Check that the indicated measurements are correct	Pass	Fail	Nominal Thickness (mm)	Measured Thickness (mm)	Required Range (mm)
			0.05		0.045 – 0.055
			0.10		0.09 – 0.11
			0.20		0.18 – 0.22
			0.30		0.27 – 0.33
			0.40		0.36 – 0.44
			0.50		0.45 – 0.55
			0.60		0.54 – 0.66
			0.70		0.63 – 0.77
			0.80		0.72 – 0.88
			0.90		0.81 – 0.99

Examined by:	Signed:	Date:
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NOTE Failed equipment is to be labelled 'Do Not Use' and quarantined until rectified or scrapped.