

EDM NOTCHING

Bowyer Engineering design, manufacture and notch bespoke Ultrasonic, Eddy Current and X-Ray NDT inspection standards, and we have the capability to produce a wide range of other solutions to suit customers' needs.

Notch Classifications

Size	Macro	-	>250 µm in width
	Micro	-	100 to 250 µm
	Sub-Micro	-	≤ 1.5 mm in length and/or ≤ 100 µm wide
Orientation	Axial	-	On a flat plane
	Transverse	-	Over a varying plane (e.g. circumferential)
Other	Shaped	-	Almost any geometrically constant defect (size constrained by shape)
	Response	-	Notch specifically made to conform to a particular response (typically dB)

Measurement

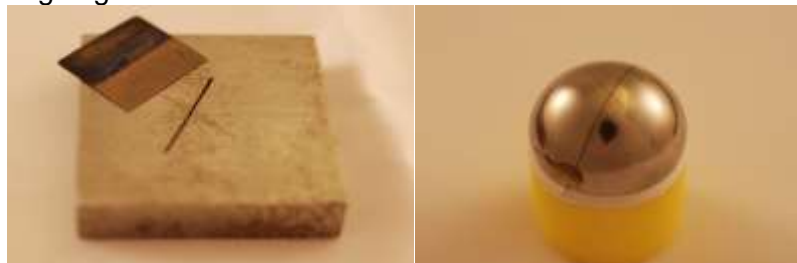
Utilising Vision Engineering's Swift Duo optical video measuring system, Bowyer Engineering are able to obtain accurate and reliable results and ensure our customers can be confident in the results, alongside Microset 101FF replicating fluid which allows us to produce a negative of the defect and to examine surface finish and defect form.

Applications and Background

NDT (non destructive testing) using Ultrasonic, Eddy Current, Radiography, etc., to evaluate the presence of discontinuities (appearing as flaws, voids and cracks, etc.) requiring artificial defects of known size, shape and orientation (in the form of notches / holes) placed into reference pieces, in order that detection / sizing of the NDT process can be assessed.

The more accurately the notch can replicate the shape, size and orientation of the defects to be located, the better the detection rate of significant defects. This also results in fewer parts being rejected, as a result of over testing.

Micro notches or fissures can also be placed on parts to seed corrosion on accelerated ageing tests.



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