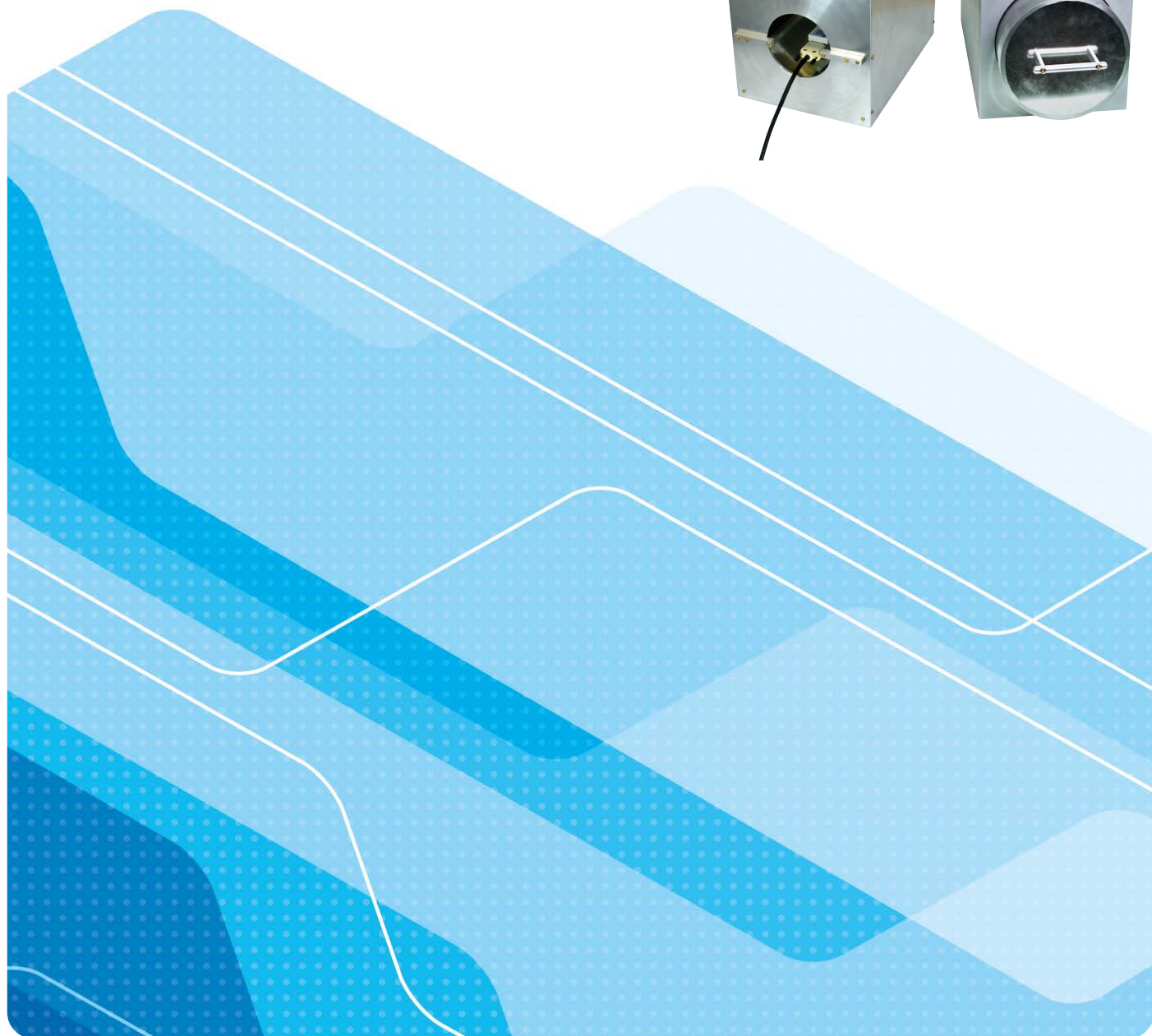
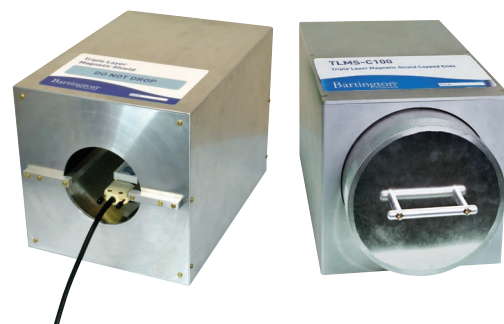
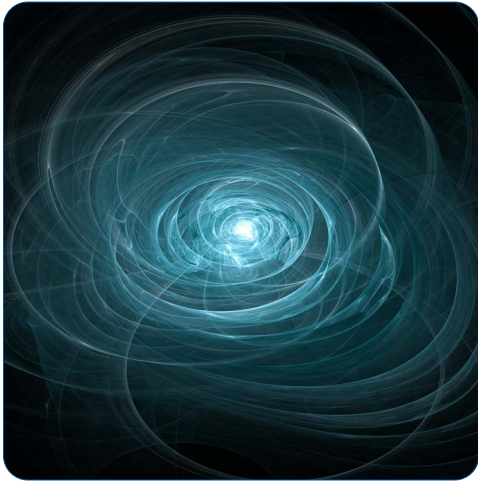


# Magnetic Shields

Very Low Magnetic Field Test Facilities





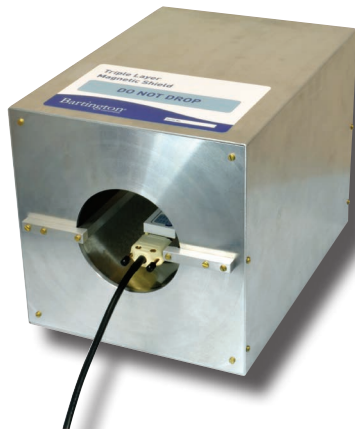
## Magnetic Shields

### Very Low Magnetic Field Test Facilities

These Mumetal cylindrical chambers divert the lines of magnetic flux around the layers, reducing the magnetic field inside them.

Open- and capped-end versions are available, the capped-ends available in two diameters. The open-end version is best used with the external field transverse to the axis of the shield, in a recommended East-West orientation. The capped-end versions have additional shielding at either end of the sample chamber and so are less reliant on orientation. Either will typically attenuate the Earth's field of  $\approx 50,000\text{nT}$  to a level of a few nT, enabling the user to measure remanent magnetism in small components or errors in magnetic sensors.

Even small inhomogeneities or stresses in the shield can lead to low level magnetism accumulating inside the cylinder. This can be removed with the Bartington Instruments Degaussing Wand, which ensures that the field inside the cylinder is as close as possible to zero before critical measurements are made.



#### TLMS-O100 Open-end Magnetic Shield Features

- Open ends for easy access
- Guide rails to support test probe fitted inside the cylinder



#### TLMS-C100 and TLMS-C200 Capped-end Magnetic Shield Features

- Capped ends (with removable front three-layer lid) provide additional shielding for all directions, with internal diameters of 100 or 200mm
- 4mm test earth socket included

#### Typical applications

- Measurement of zero-field offset errors in magnetic sensors
- Remanent magnetisation measurements

## TLMS-O100 Open-end Magnetic Shield Specifications

Shield details	
Type	Triple layer
Shielding material	Mumetal
Seams	6mm overlap
Ends	Both open
Inner bore diameter	100mm
Internal diameters of shield layers	100mm, 120mm, 140mm
Length of cylinder	300mm

External case	
Material	Anodised aluminium
Overall size (approximate)	221mm x 221mm x 310mm
Inner packaging material	Packaging foam
Weight	6.25kg

## TLMS-C100 and TLMS-C200 Capped-end Magnetic Shield Specifications

Shield details	TLMS-C100	TLMS-C200
Type	Triple layer	
Shielding material	Mumetal	
Seams	6mm overlap	
Ends	Capped ends (removable front lid)	
Inner bore diameter	100mm	200mm
Internal diameters of shield layers	100mm, 120mm, 140mm	200mm, 220mm, 240mm
Internal length of cylinder	250mm	400mm

External case	TLMS-C100	TLMS-C200
Material	Anodised aluminium	
Overall size (approximate)	167mm x 173mm x 369mm	272mm x 289mm x 519mm
Inner packaging material	Packaging foam	
Weight	6.8kg	15kg

The specifications of the products described in this brochure are subject to change without prior notice.

Bartington Instruments Ltd  
5, 8, 10, 11 & 12 Thorney Leys Business Park  
Witney, Oxford OX28 4GE. England

**Telephone:** +44 (0)1993 706565  
**Email:** sales@bartington.com

 **Bartington**<sup>®</sup>  
Instruments