



GOLD
STANDARD
PHANTOMS

MULTISAMPLE 190F

One phantom
endless possibilities

- Quantitative T1 and T2 relaxometry
- Diffusion
- Metabolic imaging
- Spectroscopy
- Multi-nuclear imaging
- Fat fraction

The MultiSample190 F is a 190mm diameter cylindrical phantom, capable of holding up to twelve industry standard Falcon BD 50ml polypropylene vials. The phantom can be supplied pre-filled with configurations for diffusion or relaxometry, or empty for filling by the user, making it ideal either for acquisitions/technique development, or quality assurance of advanced imaging methods.

- Standardised multi-vial phantom, using industry standard 50ml sample vials
- Available pre-filled with configurations for diffusion and relaxometry, or empty for your own unique applications.
- Use for Quality Assurance testing and validation of advanced MRI techniques

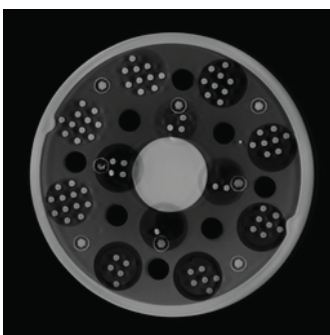
More
Demo Data
at GSP
Viewer



The sample holder incorporates MR-visible sample identification fiducials for each vial, and two fillable glass tubes run the length of the sample holder with single-order rotational symmetry, making it easy to unambiguously identify every sample vial in every MR image.

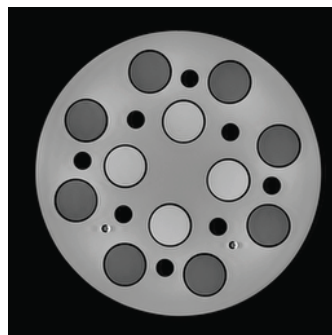
Fiducial

Acquired MR image



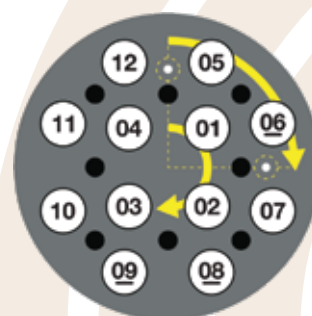
Samples

Acquired MR image



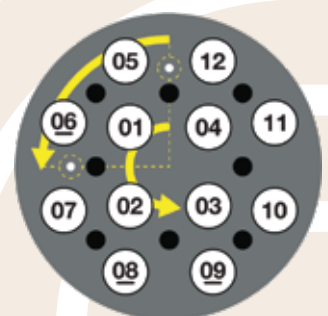
Front View

Clockwise Rotation



Rear View

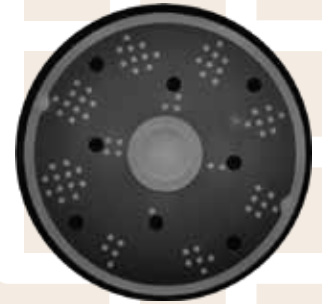
Counter-clockwise Rotation



Temperature Monitoring

Monitor the phantom's temperature using the included liquid crystal thermometer. Two ports are included for inserting fibre optic probes. Contact us to see how your favourite temperature probes can be fitted to the phantom.

Two concentric rings of sample locations (8 outer, 4 central) provide ample possibilities for investigating the spatial impact of B1 and B0 inhomogeneities and gradient non-linearities.



Specification Table

The standardised design, combined with voxel models generated directly from CAD, provides a structural reference to register acquired images to and extract regions of interest for further analysis.

Diameter	190mm (internal volume) 200mm (outer cylinder) 228mm (widest point)
Length	168mm
Overall dimensions	(L)228mm x (W)228mm x (H)168mm
Ports	1x 1/4" BSP (filling ports) 2x M12x1.5 (probe ports) 1x M40 port
Materials	Body and Lid: Polycarbonate Sample holder: Polycarbonate and Acrylic Fillable Tube Fiducials: Glass and EVA Plastic Fasteners: GF Nylon and Polycarbonate Plug: GF Nylon Seals: Nitrile
Sample containers	12x Falcon BD 50ml polypropylene vials Easy snap in-design means tubes can be easily changed without the need to disassemble the sample holder.
Phantom Contents	Can be: - Supplied empty. - Filled with standard diffusion and relaxometry configurations. - Filled to customer specification on request.
Packaging	Foam padded box for storage and transport
Optional extras	Insertable fibre optic thermometer probes Torque screwdriver (highly recommended for self-filling applications to prevent damage from overtightening screws.)

Pre-filled vials
Available!
in standard configurations
for Diffusion
and Relaxometry

with NIST certification

Other materials
Available!
on request.

Visit us for more



**GOLD
STANDARD
PHANTOMS**
goldstandardphantoms.com

Main Office
Unit 9, Cuxton House
1 Cuxton Road
Rochester, ME2 2BT
United Kingdom

Manufacturing
H13, Sheaf Bank Business Park
20 Prospect Road
Sheffield, S2 3EN
United Kingdom