VARIAN

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A Varian, Inc. Company

Horizontal Bore Magnet Systems

4.7T - 9.4T HIGH FIELD MRS

Magnex MRBR 9.4 T/820mm MRI system being delivered to the **Max Planck Institute for Biological Cybernetics in Tübingen, Germany.**

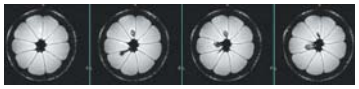
Photograph courtesy of The Max Planck Institute.

9.4T 210mm zero boil off magnet installed at Oxford, UK

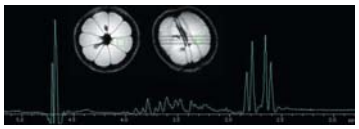
7.0T 310 zero boil off magnet installed at Edinburgh, UK

Magnex MRBR 7.0 T/680 mm, zero boil-off, active shield MRI magnet system.

Photograph courtesy of EPFL, Lausanne.



Fast spin echo images of a lemon.
1mm thick slices, echo train length: 16



^{1}H PRESS spectrum from the Voxel indicated
Voxel = 8mm x 8mm x 8mm,
VAPOR water suppression.
Images courtesy of the Varian, UK Applications Laboratory.

SPECIFICATIONS FOR HORIZONTAL BORE MAGNET SYSTEMS

Product	MRBR 4.7T/160 AS	MRBR 7.0T/160 ASR	MRBR 9.4T/160 AS	MRBR 4.7T/210 ASR	MRBR 7.0T/210 ASR	MRBR 9.4T/210 ASR	MRBR 4.7T/310 ASR	MRBR 7.0T/310 ASR	MRBR 9.4T/310 ASR	MRBR 4.7T/400 ASR	MRBR 7.0T/400 ASR	MRBR 9.4T/400 ASR	MRBR 7.0T/680 ASR
Operating field (T)	4.7	7.0	9.4	4.7	7.0	9.4	4.7	7.0	9.4	4.7	7.0	9.4	7.0
Bore Size, excl RT shim and Gradients (mm)	160	160	160	210	210	210	310	310	310	400	400	400	680
Homogeneity volume (mm dsv)	80	80	80	80	80	80	150	140	140	200	200	200	300
Homogeneity fully shimmed peak to peak (ppm)	<5	<5	<4	<4	<4	<4	<5	<5	<5	<5	<5	<5	<10
Minimum Hold Time between Helium refills (days)	>150	Annual	>100	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual
Minimum Hold Time between Nitrogen refills (days)	>14	n/a	>14	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
System length (mm)	1012	1012	1224	1012	1280	1420	1280	1636	1704	1500	1958	2286	2200
System diameter (mm)	1350	1350	1500	1179	1720	1655	1360	1655	1740	1720	2171	2708	2881
Zero boil-off	tbd	Yes	tbd	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fringe field (5 Gauss) (Axial x Radial) (m)	1.9 x 1.8	2.1 x 1.1	2.4 x 2.0	2.4 x 1.6	2.5 x 1.5	3.0 x 2.0	2.3 x 1.5	2.6 x 1.2	3.6 x 2.2	2.7 x 1.8	4.2 x 2.3	5.0 x 3.6	6.4 x 3.3

BSI UKAS QUALITY MANAGEMENT 003

THE MAGNET TECHNOLOGY CENTRE

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