

# HIGH-FIELD DIPOLE ANALYSIS MAGNETS



- Continuously variable field
- Cryogen-free
- Fast cooldown
- Compact design
- Low fringe field
- Option to vary orientation of magnet mount

## Applications

HTS-110's XT range is designed to meet a variety of applications:

- MOKE (Magneto-optic Kerr effect)
- Hall probe calibration
- VSM system
- Hall effect measurements
- Transport measurements

## Performance and versatility

- Fast ramping option
- Fast cool-down
- Magnet can be designed to suit customer's required sample orientation
- Large lateral sample access port
- Multiple access ports
- Cold-head top or side mounted for maximum compatibility
- Can be designed to accept third-party variable temperature sample probe

## Multiple pole options

- Adjustable pole gaps via shims
- Removeable poles to accommodate large axial inserts
- Customisable range of user-changeable poles for specialist applications, including high-homogeneity and tapered bore poles (for optical access)

## Easy to use

- Cryogen-free operation; no helium or nitrogen handling, storage, or level monitoring
- No specialist training required to operate

## Easy to site

- Compact sized magnet
- Very low fringe field
- Magnet power supply and compressor can be sited remotely, up to 10 m from magnet



**HTS-110**  
1B Quadrant Drive, Waiwhetu  
Lower Hutt 5010, New Zealand

☎ +64 4 570 8880  
✉ [info@hts-110.com](mailto:info@hts-110.com)  
🌐 [nz.linkedin.com/company/hts-110](https://nz.linkedin.com/company/hts-110)



# HIGH-FIELD DIPOLE ANALYSIS MAGNETS

## Standard system includes

- Magnet sub-system with integrated cryocooler
- Bipolar four-quadrant power supply
- Fast up/down field ramp
- Active magnet protection electronics and energy dump linked to integrated temperature sensors and voltage taps
- 1 year warranty
- Extended warranty, service plan
- Orientation of the magnet sample slot and pole gap dimensions can be designed for customer-specific applications

## Site Requirements

- <12 litres/min water for the compressor
- 50/60 Hz, 3Ø, ~4–11 kW (dependent on model and options)
- Scheduled maintenance on the cryocooler every 13–20,000 hours, depending on model
- Vacuum pump for initial installation and maintenance (turbomolecular pump can be supplied as option)

## Options

- Fast ramping options
- Closed loop field control
- Unipolar supply available in standard and high-stability configurations
- Low-vibration zero-maintenance pulse-tube cold head options

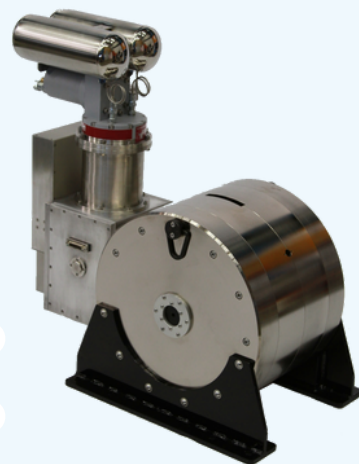
Model XT	Peak Field (T)	Pole gap (mm)	Sample access slot width (mm)	Sample access slot dia. (mm)	Yoke width (mm)	Yoke dia. (mm)	Mass (kg)	5 Gauss Line (m) Radial / axial
5XT	5	10	12	100	245	400	225	0.25/0.33
6XT	6	10	12	100	265	400	250	0.35/0.55
7XT	7	10	12	100	325	400	290	0.39/0.50
8XT	8	30	27	80	365	400	320	0.65/0.75
12XT	12	30	27	80	500	662	1550	1.55/1.88

Dimensions exclude coldhead and coldhead manifold

Model XU	Peak Field (T)	Pole gap (mm)	Sample access slot width (mm)	Sample access slot length (mm)	Height (mm)	Width (mm)	Depth (mm)	Mass (kg)	Ramp time 4 quadrant
7XU	7	3	8	110	900	905	450	525	60 s
8XU	8	3	8	110	900	905	450	525	180 s

Dimensions include coldheads and coldhead manifolds

For other fields and sample access dimensions please contact us  
Fringe-field shielding options available



**HTS-110**  
1B Quadrant Drive, Waiwhetu  
Lower Hutt 5010, New Zealand

+64 4 570 8880  
info@hts-110.com  
nz.linkedin.com/company/hts-110

