### Home of magnets and coils





#### Scanditronix in Uppsala 1965–2005

- Spectrometers
- Cyclotrons
- Microtrons
- PET-Cameras
- Synchrotons
- Gamma knives
- Electron Beam Irradiators
- Magnets
- Dosimetry



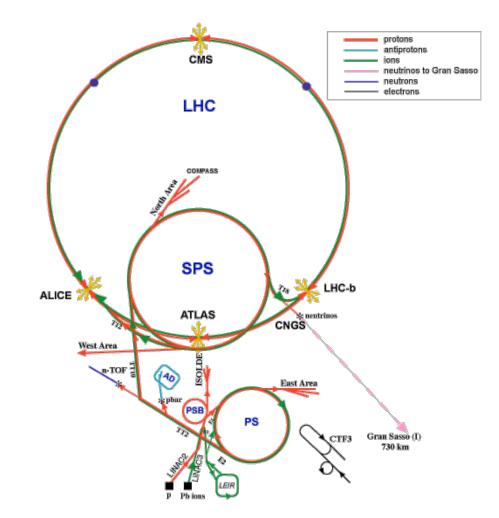
#### **Scanditronix Magnet AB**

- Specialteknik, Vislanda, founded 1980
- Part of Scanditronix group 1985–2005
- Scanditronix Magnet 1991



#### Magnets for accelerators





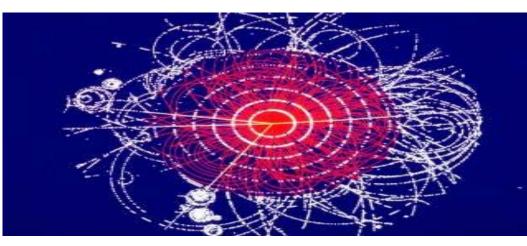


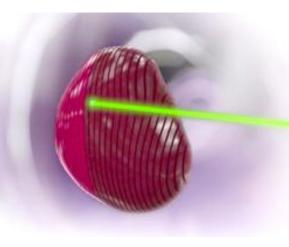
#### Market, applications

#### Research

#### Medicine

#### Industry









#### **Customers research**



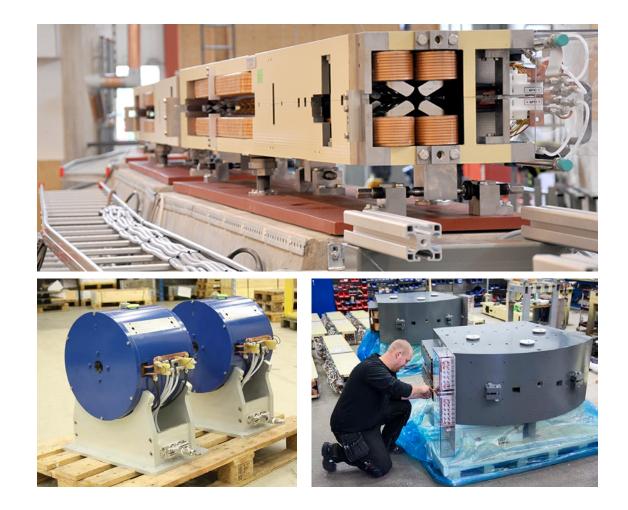
## Our products



#### Magnets

- Solid Steel Magnets
- Laminated Magnets

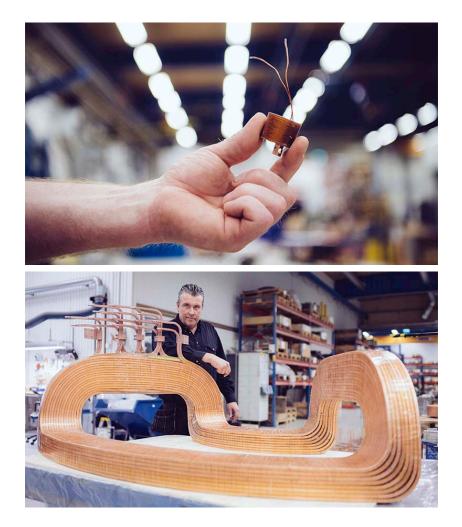
Bending magnets, Switching magnets, Correction Magnets, Quadrupoles, Sextupoles, Octupoles, Solenoids, Toroids, Klystron magnets, Septum magnets





#### Coils

- Hollow Conductor or Solid Conductor
- Copper or Aluminium
- Water Cooling or Air Cooling





#### Accessories

- Supports
- Vacuum chambers
- Alignment details
- Power supplies





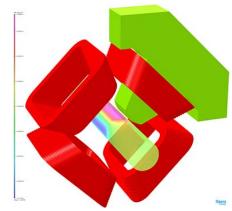




#### Services

- Project management
- Field calculations
- Design
- Manufacturing
  - Stacking and bonding of yokes in-house
  - Coil production in-house
  - Subcontractors machining etc.
- Assembly
- Tests
- Field measurements



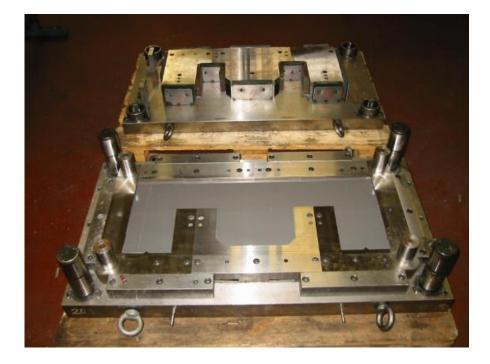


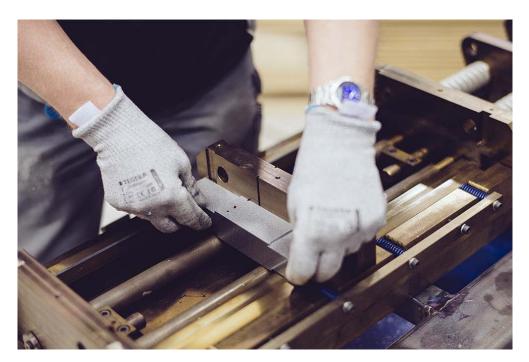




#### Laminated yokes

- Stamping
- Stacking and bonding







#### Coils

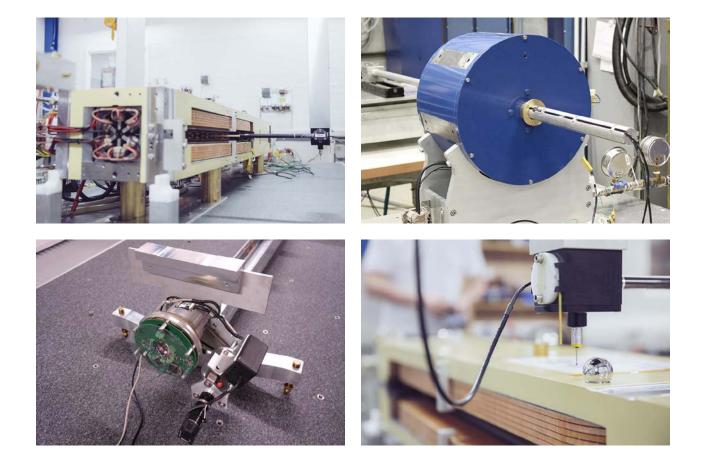
- Winding machines for different type of coils
- Large vacuum chambers for moulding
- Insulation test equipment
- Equipment for pressure test and flow measurements





#### Field measurements

- Temperature controlled
  measurement room
- Hall probe mapping bench based on 3D CMM
- Rotating coil systems
- Power supplies up to 900A/100V





#### Testing and quality assurance

- Project travellers
- Manufacturing instructions, internal and for subcontractors
- Testing and measurement instructions, internal and for subcontractors
- Test reports
- Calibration of measurement tools and testing equipment
- CE certification

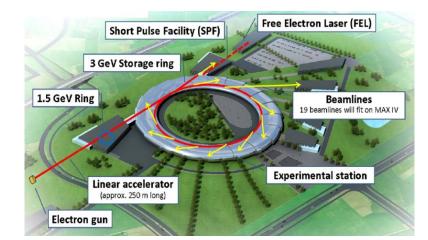


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#### MAX-IV 3 GeV Synchrotron Light Source







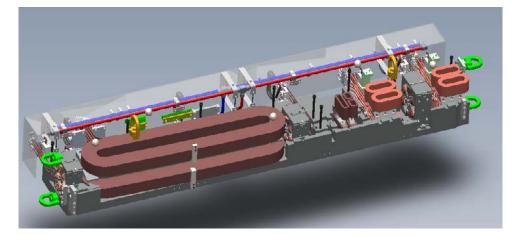


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#### MAX-IV 3 GeV Storage Ring Magnets

- 80 magnet segments each containing dipole, sextupoles, quadrupoles and correction magnets in a common iron block
- Machining tolerance examples: Flatness: 0,04 mm, Pole profile: 0,02 mm
- Field measurements: Rotating coil measurements and Hall probe mapping performed in temperature controlled room







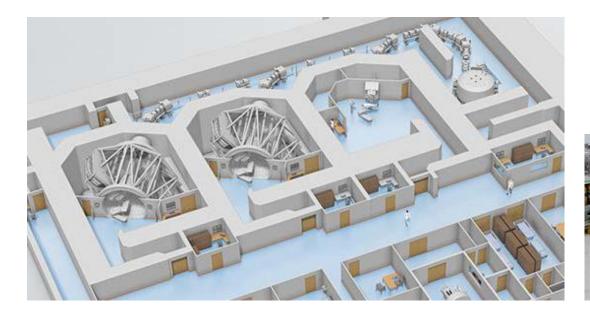
# Magnets for Proton Therapy



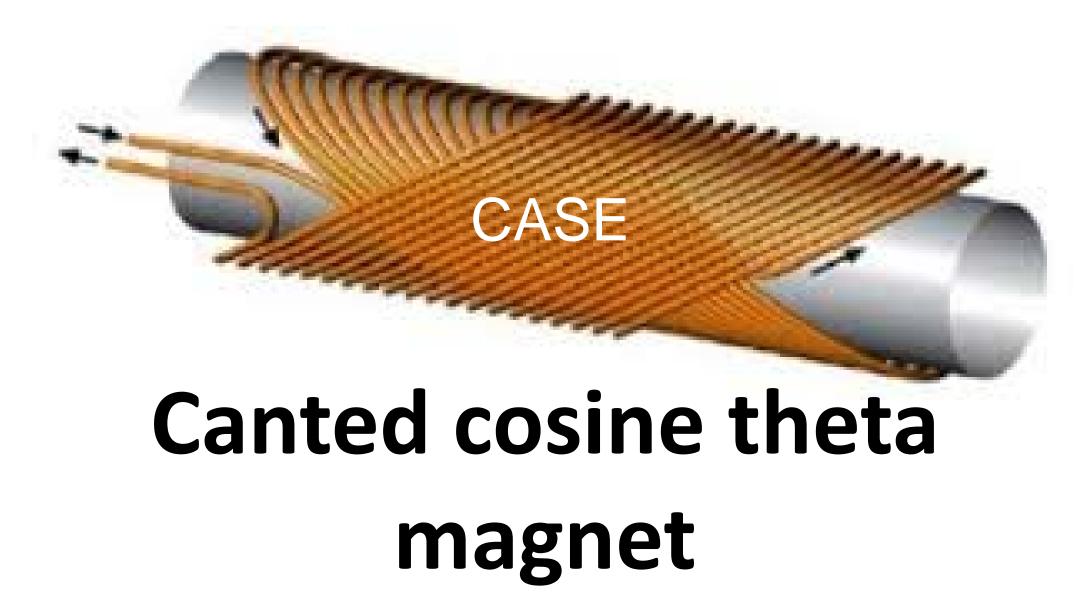
#### Magnets for Proton Therapy

- > 50 systems
- > 1.500 Quadrupoles
- > 400 Dipoles











#### CCT Super Conducting Magnet

Collaboration with CERN and FREIA Financed partly by Vinnova







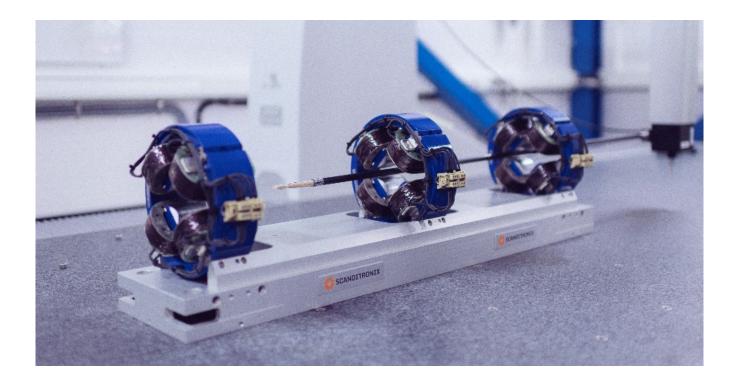


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#### Working with research laboratories

- Hard technical requirements
- Collaboration with the customer
- Collaboration with suppliers
- Public procurement
- Financing
- Language



## Thank you!

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