



FABRUM.

**ADVANCED
COMPOSITES FOR
SUPERCONDUCTIVITY**

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Fabrum's ground breaking composite manufacturing techniques are the culmination of over two decades of research and development in the fields of cryogenics and composites. We have worked closely with industry and academic partners to advance the development of magnets, superconducting transformers, MRI, electric motors, generators and experimental test equipment. Fabrum are well placed to help develop systems that deliver unrivalled structural, thermal, vacuum and electrical performance.



APPLICATIONS

- Winding supports
- Non-conductive cryostats
- Cryogenic system design
- System integration and testing



INDUSTRIES

- Aviation
- Space
- Superconductivity
- R&D
- Product development



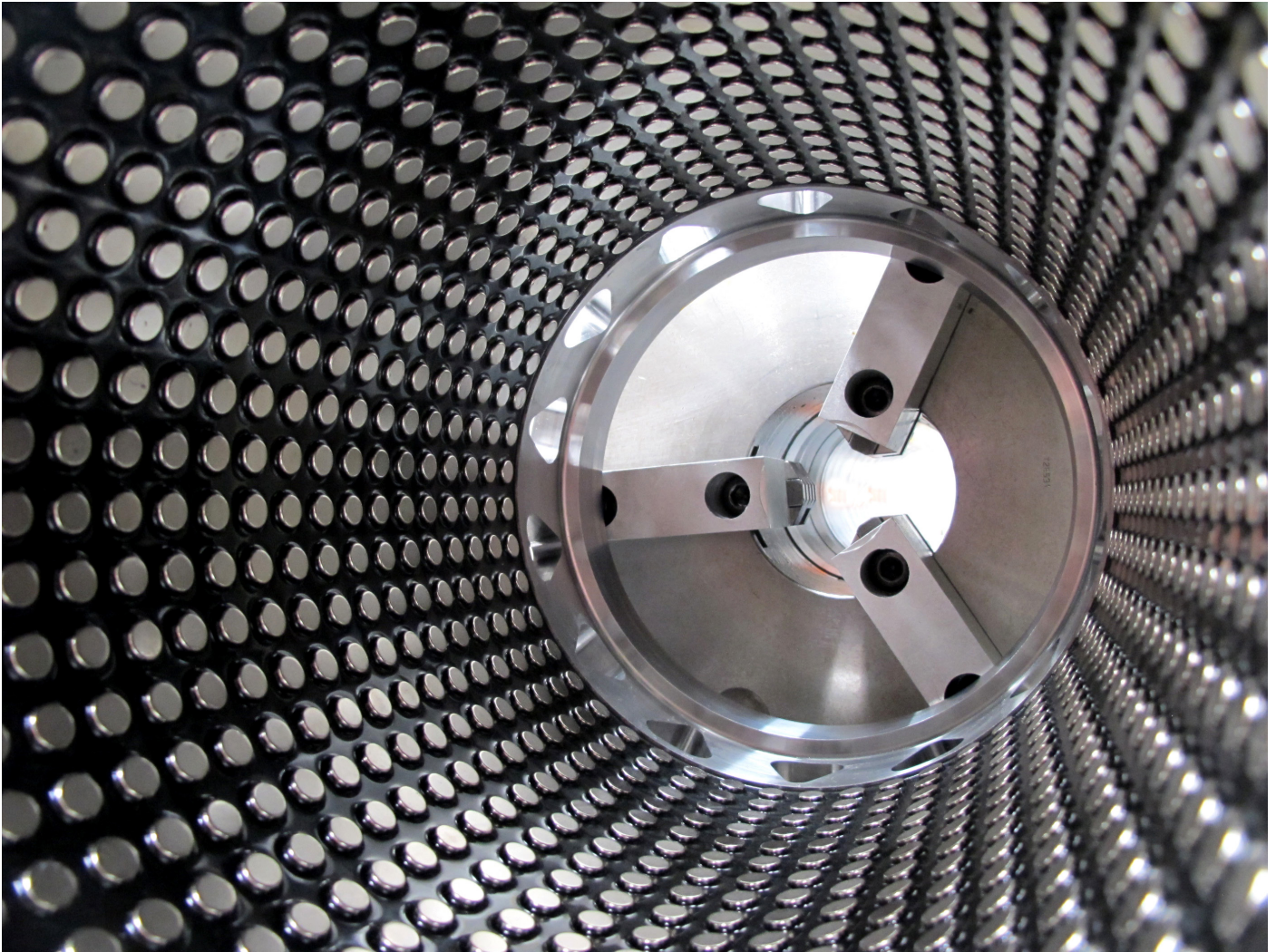
KEY BENEFITS

- Advanced manufacturing
- Proven capability and experience

Fabrum's Advanced Composites Division for Superconductivity delivers these attributes:

- 01** Expert knowledge and experience to deliver advanced composite solutions for a wide range of demanding applications.
- 02** Proven techniques for integration of metal and composite components for challenging electrical, cryogenic and vacuum applications.
- 03** Helium leak testing and liquid nitrogen pressure and thermal testing capacity.
- 04** Design expertise for delivery of optimised composite structures that minimise heat transfer whilst managing anticipated loads.
- 05** Sophisticated in-house waterjet and machining capability enables efficient high-precision manufacture.
- 06** Custom lightweight and low-permeability composite dewars and cryostats.

Experience and Innovation Redefined: Fabrum's ongoing drive to deliver high quality solutions.



COMPOSITE TUBE & PLATE MANUFACTURING.

Fabrum provides OEM contract manufacturing of glass and carbon composite tube and plate, requiring intricate machining details and surface finishing, for international customers.

Fabrum offers medium and high production volumes of high tolerance cylindrical grinding and CNC milling of complex components in composite material.



MANUFACTURING COMPLEX COMPONENTS.

Fabrum manufactures a large number of tubes and plates into complex and specific shapes.

Fabrum uses a number of processes to manufacture complex shapes, including waterjet profiling, CNC milling, drilling and assembly. All moulds and jigs are manufactured in-house.



JOINING COMPOSITES TO NON-COMPOSITE PARTS.

Fabrum has perfected techniques required to join composites to non-composite parts for use in cryogenic applications, ensuring device integrity when operated down to 4K temperature and over 6 bar pressure.

“We operate from the bottom of the world but we perform at the top of it; and this is just the beginning of our story.”



Mission Critical Solutions.

Providing world leading solutions in engineering and cryogenic technology. Clever Solutions for a Better Future.

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