



Cryogenics for Fusion

Our references

TORE SUPRA (France)

- Cryoplant of the Tokamak

JET (United Kingdom)

- Cryopumps

SST-1 (India)

- Cryoplant of the Tokamak
- Cryoplant of the NBI

KSTAR (South Korea)

- Tokamak Thermal Shields engineering study
- Cryoplant

JT60-SA (Japan)

- Cryoplant engineering study

ITER

- Prototype cryopump, and its test facility at FZK
- Cryoplant engineering studies

Contacts

AIR LIQUIDE ADVANCED TECHNOLOGIES
2, rue de Clémence - BP 15
38360 Sassenage - France
Phone: + 33 (0)4 76 43 62 11
Fax: + 33 (0)4 76 43 62 71
www.dta.airliquide.com
E-mail: gcom.dta@airliquide.com



The cooling power for superconducting magnets
and cryopumps

Air Liquide Advanced Technologies, specialised in cryogenics and gas engineering provides tailor sized cryogenic solutions dedicated to fusion. High field superconducting magnets confining the plasma and cryopumps trapping the fusion reaction ashes must be cooled down by customised design cryoplants. We design and manufacture cryoplants and cryodistribution systems for fusion, and also cryopumps, and current feeders.

Air Liquide team's support you in all the stages of your project, from drawing up the specifications to implementing the solution. Our cryogenic products are customised designed according to your specific needs.

ITER Tokamak

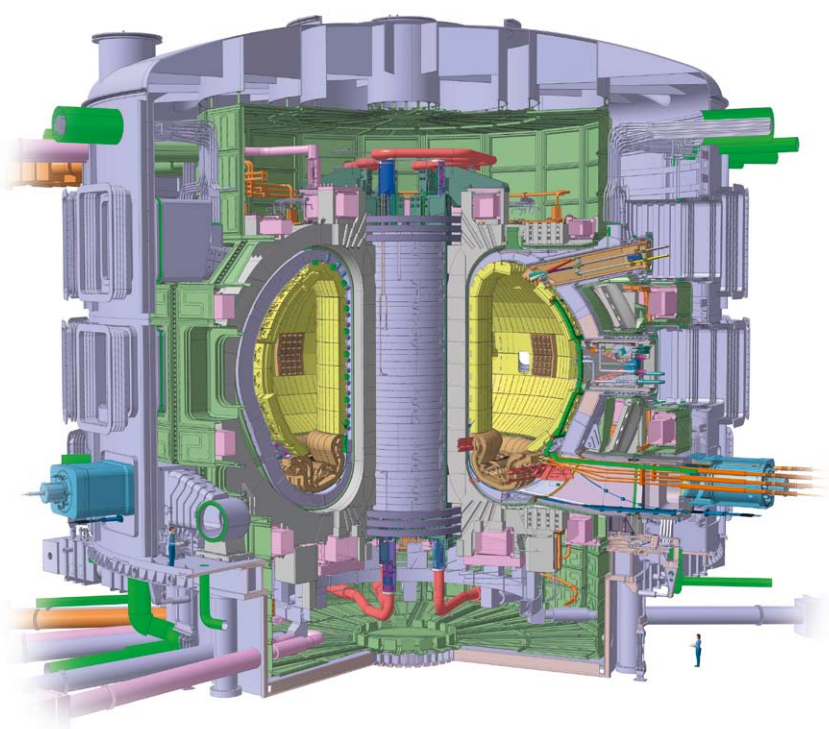
Air Liquide expertise

Highly reliable systems with references in major fusion projects

- > Helium and Nitrogen refrigerators and liquefiers
- > Valve boxes
- > Cryogenic transfer lines
- > Cryopumps
- > Current feeders
- > Liquid Helium and Nitrogen storage tanks
- > Gas management systems (compressors, purifiers, storage tanks, piping...)

Air Liquide support

- > Support with designing your specification
- > Selection of the most appropriate technologies
- > Turnkey solutions
- > Risk management
- > Maintenance and operation services
- > Training
- > Know-how and support of an international group



Liquefier cold box



Current feeders



Liquefier - HELIAL



Cryogenic transfer lines



Cryopump