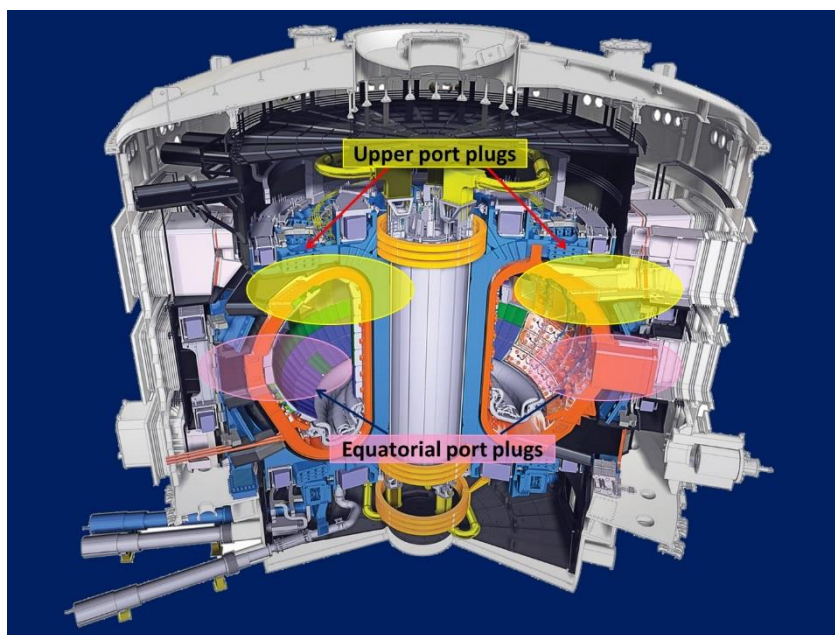


Two new contracts for CNIM contributing ITER, the biggest energy project

With these new contracts, CNIM reaffirms its expertise in engineering, designing, developing and manufacturing large bespoke instruments for highly demanding environments.

The CNIM group has announced the signing of two additional contracts with ITER Organization and Fusion for Energy (F4E), the EU organisation that manages Europe's contribution to ITER. These contracts relate to the industrial engineering and manufacturing of equipment for the Tokamak machine where the fusion reaction takes place. Once again, F4E and ITER Organization have placed their trust in CNIM's ability to develop new manufacturing processes and to develop high-tech bespoke equipment.

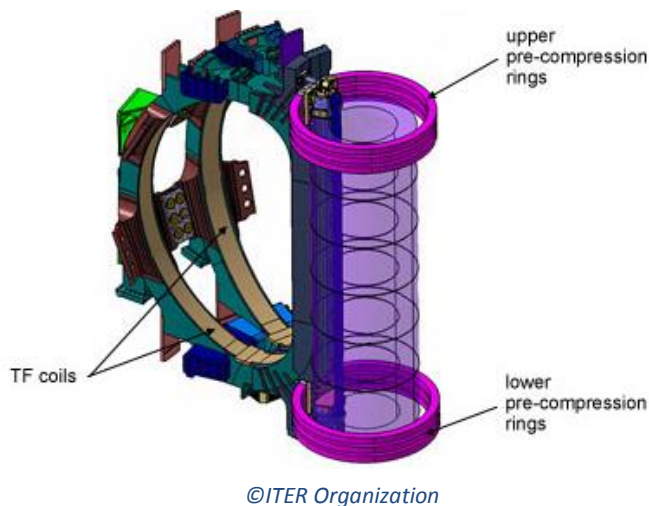
The first contract, signed on October 28, 2016 by ITER Organization and the consortium represented by CNIM, alongside the leading Indian manufacturer Larsen & Toubro Ltd., relates to the design and manufacture of **Port Plug Structures**: structures made from forged stainless steel intended to house instrumentation, which will enable the ITER machine to be controlled and allow measurements to be taken.



©ITER Organization

Weighing between 10 and 15 tonnes, depending on whether they are upper Port Plugs (placed at the top of the vacuum chamber) or equatorial Port Plugs (placed half way up the chamber), the Port Plug Structures will be inserted into openings that provide access to the interior of the vacuum chamber. They will play a key role by contributing to the reactor's integrity. They must comply with very high regulatory requirements. Under the terms of this contract, CNIM will **produce at least 24 of these structures.**

The second agreement, signed by F4E and CNIM on December 15, 2016, relates to the development of the manufacturing process and the production of spare **Pre-Compression Rings**: epoxy glass composite rings that will reduce the fatigue of ITER's Toroidal Field coils, confining the super-hot plasma reaching 150 million ° C, from the powerful electro-magnetic forces.



This highly innovative process, proposed by CNIM and chosen by F4E, is based on a **pultrusion** technique that involves the manufacture of profiles of epoxy glass.

Each Pre-Compression Ring is a manufacture by winding the flat pultruded profile (2mm thick and about 2800 m long) and utilizing an adhesive tape (0,12 mm thick) between layer to freeze the geometry. Finally, the pre-compression ring is machined to reach the required geometry tolerances.

Complete mastery of highly sophisticated manufacturing processes

CNIM has, for a number of years, been employing cutting-edge manufacturing methods to produce bespoke large-scale items that guarantee safety and a hermetic seal. The Group has industrial expertise in machining, welding, electron beam welding and dimensional inspection of mechanical stainless steel components with high added value.

According to Philippe Lazare, CEO of the CNIM Industrial Systems division and the Seyne-sur-Mer Site Manager: *"These new contracts underline the expertise and skills of our multidisciplinary teams in engineering, designing, developing and manufacturing large, bespoke instruments to be used in highly demanding environments. Our willingness to take up such an industrial challenge demonstrates our complete mastery of high-tech e manufacturing processes"*.

About CNIM Group

Founded in 1856, CNIM is a French equipment manufacturer and industrial contractor operating on a worldwide basis. The Group provides its products and services to major public and private sector organizations, local authorities and national governments in Environment, Energy, Defense, and high technology markets. Technological innovation is at the core of equipment and services designed and manufactured by the Group. They contribute to produce cleaner and more competitive energy, to limit environmental impacts of industrial activities, to secure sensitive facilities and infrastructures and to protect individuals and nation states. CNIM is listed on the Euronext exchange in Paris. It relies on a stable family-based majority shareholding structure committed to its development. The Group employs 2,500 staff and had revenues of €539.9 million in 2016, 54.6% of which was from exports.

www.cnim.com/en

About Fusion for Energy

Fusion for Energy (F4E) is the European Union's organization for Europe's contribution to ITER.

One of its main tasks is to work together with European industry, SMEs and research organizations to develop and provide a wide range of high technology components together with engineering, maintenance and support services for the ITER project.

F4E supports fusion R&D initiatives through the Broader Approach Agreement signed with Japan and prepares for the construction of demonstration fusion reactors (DEMO).

F4E was created by a decision of the Council of the European Union as an independent legal entity and was established in April 2007 for a period of 35 years.

Its offices are in Barcelona, Spain.

<http://www.fusionforenergy.europa.eu>

About ITER

ITER is a first-of-a-kind global collaborative project. It will be the world's largest experimental fusion facility and is designed to demonstrate the scientific and technological feasibility of fusion power. This facility is expected to produce a significant amount of fusion power (500 MW) for longer sustained durations than have ever been achieved.. Fusion is the process that powers the sun and the stars. When light atomic nuclei fuse together to form heavier nuclei, a large amount of energy is released. Fusion research is aimed at developing a safe, limitless and environmentally responsible energy source.

As "host member" Europe will contribute 45 percent of the costs incurred in constructing the facility, while the other six parties to this joint international venture (China, Japan, India, the Republic of Korea, the Russian Federation and the USA), will contribute equally to the remaining costs. The site of the ITER project is in Saint-Paul-lez-Durance, some 40 kilometres north of Aix-en-Provence, in the South of France.

<http://www.iter.org>

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