



Supply of All-metal Vacuum Valves for the ITER Project

Summary Technical Specifications



1 Background

ITER will be the largest and most complex vacuum system yet to be built. Situated in Southern France, adjacent to the French CEA Cadarache site, the ITER facility covers approximately 190 hectares and is designed to study the fusion reaction between the hydrogen isotopes tritium and deuterium. In order to increase reliability and reduce costs the ITER systems will, where possible, utilise standard components. The type of standard components envisaged includes, instrumentation, electronic components and valves (cryogenic, vacuum etc.).

2 Purpose

The ITER International Organisation (IO) consists of 7 member states, Europe, China, America, India, Korea the Russian Federation and Japan. Each member state has a Domestic Agency (DA), responsible for the procurement of systems and components for the IO.

The aim of this call for tender is to establish a framework contract to be utilised for the supply of all all-metal vacuum valves for the ITER project.

The purpose of setting up this framework contract is to realise benefits from standardisation, to benefit from cost savings from the potential large quantity of total orders, to allow effective procurement budget scheduling, to allow design detailing and effective system structural analysis necessary to meet code and regulatory requirements.

3 Component Procurement Strategy

The Customer (IO or DA or Contractors working for either) will procure components directly from the Supplier under the terms and conditions as specified in the framework contract awarded as a result of the call for tender. The contract will take the form of a framework supply contract between ITER and the Supplier against which the Customer may raise an order for the standardised component without the need for a separate additional tender action. It is envisaged that the customer will deal directly with the Supplier in all matters regarding the supply of the component including financial payment and any special requirements not stated in the scope of supply. The IO will not be responsible for placing or managing orders for the supply of components to the Domestic Agencies or its Contractors.

4 Scope of Supply

Under the scope of the framework contract it is envisaged that the Supplier will supply to the Customer all metal vacuum valves of the type listed in Table 1.

Valve Type	Description	Flange Option (Nominal valve size, DN)
1	Pneumatic double contained UHV all-metal gate valves with all-metal seat sealing, double contained body, bellows and bonnet seal.	Weld stub or ITER flange (40,63,100,160,200,320)

2	Pneumatic UHV all-metal gate valves with all-metal seat and bonnet seal.	Weld stub or CF flange (40,63,100,160,200)
3	Pneumatic all-metal UHV RF (includes RF shield) gate valves with all-metal seat, double contained bellows and bonnet seal.	Special RF flange (63)
4	Pneumatic UHV all metal right angle valves with all-metal seat and bonnet seal.	CF Flange (40,63)
5	Pneumatic Double contained right angle UHV valve with all-metal seat and bonnet seal and double contained bellows. (with weld stub or ITER Flange)	Weld stub or ITER Flange (40,63)

Table 1 Valve type, flange option and nominal sizes

5 Contract Duration and Timetable

It is envisaged that under the scope of the framework supply contract valves will be supplied to the Customer between 2015 and 2025 and hence have a duration of 10 years.

6 Schedule

Action	Tentative date(s)
Call for Nomination	12 June 2013
Pre-Qualification	12 July 2013
Call for tender	30 August 2013
Tender submission	16 October 2013
Contract Award	December 2013
Start of contract	January 2014

7 Experience

The potential tenderers should have proven experience in the following areas:

- 1) Design, manufacture and supply of standard (catalogue) all metal vacuum valves to the nuclear industry.
- 2) Design, manufacture and supply of bespoke all metal valves to the nuclear industry.

8 Candidature

Participation is open to all legal persons participating either individually or in a grouping (consortium) which is established in an ITER Member State. A consortium may be a permanent, legally-established grouping or a grouping, which has been constituted informally for a specific



tender procedure. All members of a consortium (i.e. the leader and all other members) are jointly and severally liable to the ITER Organization.

The consortium groupings shall be presented at the pre-qualification stage. The tenderer's composition cannot be modified without the prior approval of the ITER Organization after the pre-qualification.

Legal entities belonging to the same legal grouping are allowed to participate separately if they are able to demonstrate independent technical and financial capacities. Candidates (individual or consortium) must comply with the selection criteria. The IO reserves the right to disregard duplicated references and may exclude such legal entities from the pre-qualification procedure.