

Technical Specifications (In-Cash Procurement)

Technical specification for crane procurement - roof B74 and B14

The purpose of this technical specification is to provide the Supplier background information that is necessary to complete this procurement

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1 Preamble

ITER is a joint international research and development project aiming to demonstrate the scientific and technological feasibility of fusion power for peaceful purposes. The seven members of the ITER Organization are: The European Union (represented by EURATOM), Japan, the People's Republic of China, India, the Republic of Korea, the Russian Federation and the USA. Further information is available on the ITER website: <http://www.iter.org>. The ITER Organization is located in Saint Paul Lez Durance (13115) – France.

ITER construction activities have started on the ITER Site. To address the handling demand for activities on the roof of Building 74 (B74) and on the roof of Building 14 (B14) a tower crane is needed. The objective of this tendering is to implement a contract for the provision of a crane and its yearly maintenance for 5 years.

This Technical Specification is to be read in combination with the General Management Specification for Service and Supply (GM3S) – Ref [1] that constitutes a full part of the technical requirements.

In case of conflict, the content of the Technical Specification supersedes the content of Ref [1].

2 Purpose

The purpose of this technical specification is:

- To provide the Supplier background information that is necessary to complete this procurement, e.g. the loads specification and work condition;
- To provide the technical requirements for the provision and maintenance;
- To specify applicable norms and regulations that the Supplier shall have to respect to meet the requirements of the ITER Organization.

3 Acronyms & Definitions

3.1 Acronyms

The following acronyms are the main one relevant to this document.

Abbreviation	Description
MTO	Material Take Off
CRO	Contract Responsible Officer
GM3S	General Management Specification for Service and Supply
IO	ITER Organization
PRO	Procurement Responsible Officer

3.2 Definitions

Contractor: shall mean an economic operator who have signed the Contract in which this document is referenced.

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4 Applicable Documents & Codes and standards

4.1 Applicable Documents

This is the responsibility of the Contractor to identify and request for any documents that would not have been transmitted by IO, including the below list of reference documents.

This Technical Specification takes precedence over the referenced documents. In case of conflicting information, this is the responsibility of the Contractor to seek clarification from IO.

Upon notification of any revision of the applicable document transmitted officially to the Contractor, the Contractor shall advise within 4 weeks of any impact on the execution of the contract. Without any response after this period, no impact will be considered.

Ref	Title	IDM Doc ID	Version
1	General Management Specification for Service and Supply (GM3S)	82MXQK	1.4
2	ITER Site Master Plan	27X5FM	3.11
3			

4.2 Applicable Codes and Standards

This is the responsibility of the Contractor to procure the relevant Codes and Standards applicable to that scope of work.

5 Scope of Work

This section defines the specific scope of work, in addition to the contract execution requirement as defined in Ref [1].

5.1 Scope of Supply #1

5.1.1 Description

The scope of this contract is the provision of a new crane that shall include the following items:

- Designing, manufacturing, delivering, testing, and taking over at the ITER Organization the crane;
- Providing all necessary manuals and documentation required to operate and maintain the crane;
- Providing at least two years / 24 months warranty for the crane after taking over date;
- Providing training for the staff of operation and maintenance;
- Providing back-up spares for regular maintenance during and after the warranty period;
- Maintain on a yearly basis the crane.

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- Provide service for installation, removal, and re-installation in a different place of the crane.

The commissioning of the crane on site and training shall be carried out by personnel trained and authorised by the Supplier.

The crane shall be accepted with a Taking over certificate where it is identifiable by its serial number, which specifies that the crane fulfil these technical specifications with mention of reserves if any.

The crane shall be fully certified, and CE marked. The work of the Supplier shall be compliant with all relevant European norms and regulations.

5.1.2 *Design requirements*

NA

5.1.3 *Operating requirements*

The crane shall be used in the ITER site in Saint-Paul-lez-Durance, mainly close to the B74 with restricted access and erection area, and B14 which is mainly an open area. The crane has to be self-erect, easily demountable, moved and reinstalled in a different position.

The maximum ground bearing capacity in the crane installation area is 5t/m². Where the crane load on the ground is higher than requirement supplier shall quote as option the devices to spread the load up to required capacity.

The crane shall be able to manoeuvre within the constraints of B74 and B14 access routes as shown in Appendix 1. Site visits can be organised to assess the site restrictions if required for quotations.

The crane shall satisfy the following technical requirements:

Capabilities	Mobile Self Erect
Height (ground to hook)	50m Minimum – on B14 side the boom shall tilt to accommodate the different height of the building – see appendix 10
Boom length	50m
Safe Working load @ maximum Length	1t
Maximum Safe Working load	8t
Workable Boom split	1 or 2 sections – sections sizes shall allow movement of the boom in horizontal configuration on B74 – see appendix 10
Elevation Tilt	Shall allow the movement on top of B14 roof obstacles if horizontal position is not enough
Outrigger base (Maximum)	5m x 5m
Self-Erect area	Up to 30m (Boom erecting)
Counterweight radius (from slew centre)	4m maximum

Constraints for crane and boom positioning shown in appendix 1 shall be considered.

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5.1.4 *Warranty*

The crane shall carry the manufacturer's warranty of 24 months after the taking over by the IO. A certificate shall be provided.

5.1.5 *Spare Parts*

Spares parts for the crane shall be available for the IO's procurement in the next ten years following the taking over certificate.

5.1.6 *Delivery Time*

The maximum expected duration from the contract signature to the supply of the scope of work is [3] months. Crane has to be delivered at ITER site.

5.2 **Scope of Service #2**

5.2.1 *Description*

The Supplier shall conduct all regulatory inspections as per applicable French law. The Supplier shall provide maintenance on-site.

The Supplier shall provide operation and maintenance trainings at ITER site to IO's authorized logistics service provider and the material handling equipment fleet management contractor.

The supplier may be required during operation as an option to:

- 1) Pack the crane and deliver it to storage area inside ITER site
- 2) Re install the crane in ITER site ready for use (including tests, if any).
- 3) Remove the crane and re install in different area (including the movement) in ITER site ready for use (including tests, if any).
- 4) Perform periodic test and maintenance as per French regulation requirements.
- 5) Perform modification of crane configuration without crane dismantling (if applicable and not feasible by crane operator after training).

5.2.2 *Service Duration*

The maximum expected duration for this activity is [5] years.

6 **Location for Scope of Work Execution**

Site activities shall be done in ITER site close to Building 74, Building 11 and Building 14. Areas may be under CMA supervision as described in [1]

7 **IO Documents & IO Free issue items**

No input nor free issue item is expected from IO.

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8 List of deliverables

The Supplier shall provide IO with the documents and data required in the application of this technical specification, the GM3S Ref [1] and any other requirement derived from the application of the contract.

You can find here below a minimum list of documents, but not limited to, that are required within the expected timing:

Technical Design Family (TDF)	Generic Document Title (GTD)	Expected Timing (T0+x) *
Operation and Maintenance Manual	Parts catalogue, including but not limited to Engine parts manual, Transmission service manual, Electrical circuit drawings, Schematic diagrams for hydraulic systems	At crane delivery
Operation and Maintenance Manual	Service and operation manual	At crane delivery
Operation and Maintenance Manual	Repair and maintenance manual	At crane delivery
Acceptance Record or Report	Final product certificates and relevant CE certificates	At crane delivery
Acceptance Record or Report	Proof of training and content of the training	At crane delivery
Acceptance Record or Report	Start of the warranty certificate	At crane delivery

(*) T0 = Commencement Date of the contract ; X in months.

Supplier shall prepare their document schedule based on the above and using the template available in the GM3S Ref [1] appendix II ([click here to download](#)).

9 Quality Assurance requirements

The Supplier shall be responsible for the Quality assurance and Quality control for the crane together with all accessories.

The Supplier shall be responsible for carrying out all required inspection, and tests.

[Ref 1] GM3S section 8 applies in line with the defined Quality Class.

10 Safety requirements

The scope under this contract doesn't covers for PIC and/or PIA and/or PE/NPE components.

10.1 Nuclear class Safety

No specific safety requirement related to PIC and/or PIA and/or PE/NPE components apply.

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10.2 Seismic class

No specific requirement applies.

11 Specific General Management requirements

Requirement for [Ref 1] GM3S section 6 applies only for sections relevant to supply.

11.1 Contract Gates

Not applicable

11.2 CAD design requirements

This contract does not imply CAD activities.

12 Appendices

Appendix 1: space constraints around B74 and B14 and access to B74/B14 roof



