

外部委託業者の募集

References: IO/24/OT/1002971/YSA

"B2M Cryostat Feedthrough Box"

(B2M クライオスタットフィードスルーボックス)

IO 締め切り 2024 年 11 月 18 日(月)

〇はじめに

本事前情報通知 (PIN) は、作業契約の入札授与および実行につながる公開入札調達プロセスの最初のステップです。

本文書の目的は作業範囲と入札プロセスに関する技術的な内容の基本的な要約を提供することです。

国内機関は、次回の入札に先立って、これらのサービス/工事を提供することができる企業、機関またはその他の団体が入札の詳細を事前に通知する前に、この情報を公表するよう求められます。

〇背景

ITER は平和利用の核融合発電の科学的小および技術的な実現可能性の実証を目的とした、国際共同研究開発プロジェクトです。ITER 機構の 7 つのメンバーは、欧州連合 (EURATOM が代表)、日本、中華人民共和国、インド、大韓民国、ロシア連邦、および米国です。

ITER の敷地はフランス南東部のブーシュデュローヌ地区にあり、ITER 本社 (HQ) もあるフランス CEA サン・ポール・レ・デュランズ に近いところに位置しています。詳細については、ITER のウェブサイト <http://www.iter.org> を参照して下さい。

〇作業範囲

この調達の範囲は、すでにクライオスタットに取り付けられている7つのノズルを切断し、製作・設置される7つのフィードスルーボックスに交換することです。

詳細については、付属書II - 技術概要をご参照ください。

〇調達プロセスと目的

目的は、競争入札プロセスを通じて供給契約を落札することです。

この入札のために選択された調達手続きは公開入札手続きと呼ばれます。

オープン入札手順は、次の 4 つの主要なステップで構成されています。

➤ ステップ 1-事前情報通知 (PIN)

事前情報通知は公開入札プロセスの第一段階です。IO は、関心のある企業、機関又はその他の団体に事前に入札機会について通知するために、国内機関に対し、今後の入札に関する情報を公表するよう正式に要請します。

特に注意:

関心のある候補企業は、IO Ariba の電子調達ツール「IPROC」に登録してください（まだ登録していない場合）。手順については、<https://www.iter.org/fr/proc/overview> を参照してください。

Ariba (IPROC) に登録する際には、お取引先様に最低 1 名の担当者の登録をお願いします。この連絡担当者は、提案依頼書の発行通知を受け取り、必要と思われる場合は入札書類を同僚に転送することができます。

➤ ステップ 2-入札への招待 (ITT)

事前指示通知 (PIN) の公表から 14 日以内に、入札への招待 (ITT) が公告されます。この段階では、PIN を見た関心のある入札者が入札書類を入手し、入札説明書に従って提案書を作成して提出することができます。

特に注意:

このツールに登録されている企業のみが入札に招待されます。

➤ ステップ 3-入札評価プロセス

入札者の提案は、IO の公平な評価委員会によって評価されます。入札者は、技術的範囲に沿って、かつ、入札への招待 (ITT) に記載された特定の基準に従って作業を実施するために、技術的遵守を証明する詳細を提供しなければなりません。

➤ ステップ 4-落札

認定は、公開されている入札への招待 (ITT) に記載されている、コストに見合った最適な価格または技術的に準拠した最低価格に基づいて行われます。

○概略日程

概略日程は以下の通りです：

マイルストーン	暫定日程
事前指示書 (PIN) の発行	2024 年 10 月 21 日
関心表明フォームの提出	2024 年 11 月 18 日
iProc での提案の要請 (RFP) の発行	2024 年 12 月 3 日
入札者会議	TBD
明確化のための質問	2025 年 1 月 28 日
明確化のための質問回答	2025 年 2 月 11 日
入札提出	2025 年 2 月 25 日
契約授与	2025 年 5 月
契約調印	2025 年 6 月

○契約期間と実行

ITER機構は2025年6月ごろに契約の調印をする予定です。予想される契約期間は20か月の予定です。

○経験

入札者は付属書 I に詳述された作業範囲に関連する技術的および産業上の経験を実証する必要があります。

ITERでの作業に使われる言語は英語です。プロレベルの流暢さが求められます（話す、書く両方）。

○候補

参加は、個人またはグループ/コンソーシアムに参加するすべての法人に開放されます。法人とは、法的権利及び義務を有し、ITER 加盟国内に設立された個人、企業又は機構をいいます。ITER 加盟国は欧州連合(EURATOM メンバー)、日本、中華人民共和国、インド共和国、大韓民国、ロシア連邦、アメリカ合衆国です。

法人は、単独で、またはコンソーシアムパートナーとして、同じ契約の複数の申請または入札に参加することはできません。共同事業体は、恒久的な、法的に確立されたグループ又は特定の入札手続のために非公式に構成されたグループとすることができます。

コンソーシアムのすべての構成員(すなわち、リーダーと他のすべてのメンバー)は、ITER 機構に対して連帯して責任を負います。

コンソーシアムとして許可されるために、その点で含まれる法人はコンソーシアムの各メンバーをまとめる権限をもつリーダーをもたなければなりません。このリーダーはコンソーシアムの各目メンバーのために責任を負わなければなりません。

指名されたコンソーシアムのリーダーは、入札段階で、コンソーシアムのメンバーの構成を説明する予定です。その後、候補者の構成は、いかなる変更も ITER 機構に通知することなく変更してはなりません。かかる認可の証拠は、すべてのコンソーシアムメンバーの法的に授権された署名者が署名した委任状の形式で、しかるべき時期に IO に提出しなければなりません。

どのコンソーシアムメンバーも IPROC に登録する必要があります。

【※ 詳しくは添付の英語版技術仕様書「**Procurement of: B2M Cryostat Feedthrough Box**」をご参照ください。】

ITER 公式ウェブ <http://www.iter.org/org/team/adm/proc/overview> からアクセスが可能です。

「核融合エネルギー研究開発部門」の HP : <http://www.fusion.qst.go.jp/ITER/index.html>
では ITER 機構からの各募集 (IO 職員募集、IO 外部委託、IO エキスパート募集) を逐次更新しています。ぜひご確認ください。

イーター国際核融合エネルギー機構からの外部委託 に関心ある企業及び研究機関の募集について

＜ITER 機構から参加極へのレター＞

以下に、外部委託の概要と要求事項が示されています。参加極には、提案された業務に要求される能力を有し、入札すべきと考える企業及び研究機関の連絡先の情報を ITER 機構へ伝えることが求められています。このため、本研究・業務に関心を持たれる企業及び研究機関におかれましては、応募書類の提出要領にしたがって連絡先情報をご提出下さい。



china eu india japan korea russia usa

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PRIOR INDICATIVE NOTICE (PIN)

OPEN TENDER SUMMARY

IO/24/OT/10029971/YSA

for

Procurement of: B2M Cryostat Feedthrough Box

List of annexes:

- Annex I – Expression of Interest
- Annex II – Technical Summary AHL95T

Abstract

The purpose of this summary is to provide prior notification of the IO's intention to launch a competitive Open Tender process in the coming weeks. This summary provides some basic information about the ITER Organisation, the technical scope for this tender, and details of the tender process for the procurement of the Thermal Insulation for Cryostat Bellows Interface with the Tokamak Building.

1 Introduction

This Prior Indicative Notice (PIN) is the first step of an Open Tender Procurement Process leading to the award and execution of a Contract.

The purpose of this document is to provide a basic summary of the technical content in terms of the scope of work, and the tendering process.

2 Background

The ITER project is an international research and development project jointly funded by its seven Members being, the European Union (represented by EURATOM), Japan, the People's Republic of China, India, the Republic of Korea, the Russian Federation and the USA. ITER is being constructed in Europe at St. Paul–Lez-Durance in southern France, which is also the location of the headquarters (HQ) of the ITER Organization (IO).

For a complete description of the ITER Project, covering both organizational and technical aspects of the Project, visit <https://www.iter.org/>.

3 Scope of Work

The scope of this procurement is the cutting of 7 nozzles already installed on the Cryostat to be replaced by 7 feedthrough boxes to be fabricated and installed.

For more details, please refer to Annex II -Technical Summary.

4 Procurement Process & Objective

The objective is to award a Contract through a competitive bidding process.

The Procurement Procedure selected for this tender is called the **Open Tender** procedure.

The Open Tender procedure is comprised of the following four main steps:

➤ Step 1- Prior Information Notice (PIN)

The Prior Information Notice is the first stage of the Open Tender process. The IO formally invites interested Suppliers to indicate their interest in the competitive process by returning to the Procurement officer in charge the attached “Expression of Interest and PIN Acknowledgement” (Annex I) by the date indicated under the procurement timetable.

Special attention:

Interested tenderers are kindly requested to register in the IO Ariba e-procurement tool called “iPROC”, if they have not already done so. You can find all links to proceed along with instruction going to: <https://www.iter.org/fr/proc/overview>.

When registering in iPROC, suppliers are kindly requested to nominate at least one contact person. This contact person will be receiving the notification of publication of the Request for Proposal and will then be able to forward the tender documents to colleagues if deemed necessary.

➤ Step 2 - Invitation to Tender

After at least 10 working days of the publication of the PIN, the Request for Proposals (RFP) will be published on our digital tool “iPROC”. This stage allows interested bidders who have indicated their interest to the Procurement Officer in charge AND who have registered in iPROC to receive the notification that the RFP is published. They will then prepare and submit their proposals in accordance with the tender instructions detailed in the RFP.

Only companies registered in this tool (iPROC) will be invited to the tender.

➤ Step 3 – Tender Evaluation Process

Tenderers proposals will be evaluated by an impartial evaluation committee of the IO. Tenderers must provide details demonstrating their technical compliance to perform the work in line with the technical scope and in accordance with the particular criteria listed in the RFP.

➤ Step 4 – Contract Award

A Supply contract will be awarded on the basis of best value for money according to the evaluation criteria and methodology described in the RFP.

Procurement Timetable

The tentative timetable is as follows:

Milestone	Date
Publication of the Prior Indicative Notice (PIN)	21/10/2024
Submission of expression of interest form	18/11/2024
Request for Proposal (RFP) launched on iPROC	03/12/2024
Tenderers’ conference	TBD
Clarification Questions Deadline	28/01/2025
Clarification Response Deadline	11/02/2025
Tender Submission	25/02/2025
Contract Award	May 2025
Contract Signature	June 2025

5 Quality Assurance Requirements

The Contractor should have an ISO 9001 accredited quality system or be able to provide and have approved by the IO a quality plan.

6 Contract Duration and Execution

The ITER Organization plans to sign the Contract in June 2025. The contract duration is estimated to be 20 months.

7 Experience

The candidates shall need to demonstrate that they have the capabilities to supply the required goods and services in full compliance with the applicable standards as well as with the ITER quality and safety requirements.

8 Candidature

Participation is open to all legal entities participating either individually or in a grouping/consortium. A legal entity is an individual, company, or organization that has legal rights and obligations and is established within an ITER Member State, being, the European Union (represented by EURATOM), Japan, the People's Republic of China, India, the Republic of Korea, the Russian Federation and the USA.

Legal entities cannot participate individually or as a consortium partner in more than one application or tender of the same contract. 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.

In order for a consortium to be acceptable, the individual legal entities included therein shall have nominated a leader with authority to bind each member of the consortium, and this leader shall be authorised to incur liabilities and receive instructions for and on behalf of each member of the consortium.

It is expected that the designated consortium leader will explain the composition of the consortium members in its offer. Following this, the Candidate's composition must not be modified without notifying the ITER Organization of any changes. Evidence of any such authorisation shall be submitted to the IO in due course in the form of a power of attorney signed by legally authorised signatories of all the consortium members.

All consortium members shall be registered in IPROC.

9 Sub-contracting Rules

All sub-contractors who will be taken on by the Contractor shall be declared with the tender submission in iPROC. Each sub-contractor will be required to complete and sign forms including technical and administrative information which shall be submitted to the IO by the tenderer as part of its tender.

All declared sub-contractors must be established within an ITER Member State in order to participate.

The IO reserves the right to approve (or disapprove) any sub-contractor which was not notified in the tender and request a copy of the sub-contracting agreement between the tenderer and its subcontractor(s). Rules on sub-contracting including its maximum percentage are indicated in the RFP itself.

ANNEX I

EXPRESSION OF INTEREST & PIN ACKNOWLEDGEMENT

To be returned by e-mail to: yuki.suyama@iter.org copy: guillaume.retaillaud@iter.org

TENDER No. **IO/24/OT/10029971/YSA**
DESIGNATION of SERVICES: **B2M Cryostat Feedthrough Box**
OFFICER IN CHARGE: **Yuki SUYAMA – Procurement Division ITER Organization**

☐ WE ACKNOWLEDGE HAVING READ THE PIN NOTICE FOR THE ABOVE MENTIONED TENDER

☐ WE INTEND TO SUBMIT A TENDER

Are you registered in iPROC (only entities registered in iPROC will be invited to tender):

☐ YES

☐ NO, but we shall register before the tender launch

.....

Signature:

COMPANY STAMP

Name:

Position:

Tel:

E-mail

Date:



IDM UID

AHL95T

VERSION CREATED ON / VERSION / STATUS

16 Oct 2024 / 1.4 / Approved

EXTERNAL REFERENCE / VERSION

Technical and Financial Quotation Documents

Technical Summary for B2M feedthrough box (In-cash procurement)

The information and technical details provided in the present document are preliminary and shared with the Candidates to check their interest and capabilities for this contract. (Separate technical specifications will be issued with full details for tendering.)

7 sets of installed Feedthrough flanges shall be replaced with Feedthrough Boxes. The work is consisted with cutting of nozzles installed on cryostat; fabrication of feedthrough boxes; and installation of feedthrough boxes to the cut cryostat nozzles.

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1 Purpose

The ITER Organization (IO) intends to issue a Tender procedure for cryostat feedthrough box fabrication/installation.

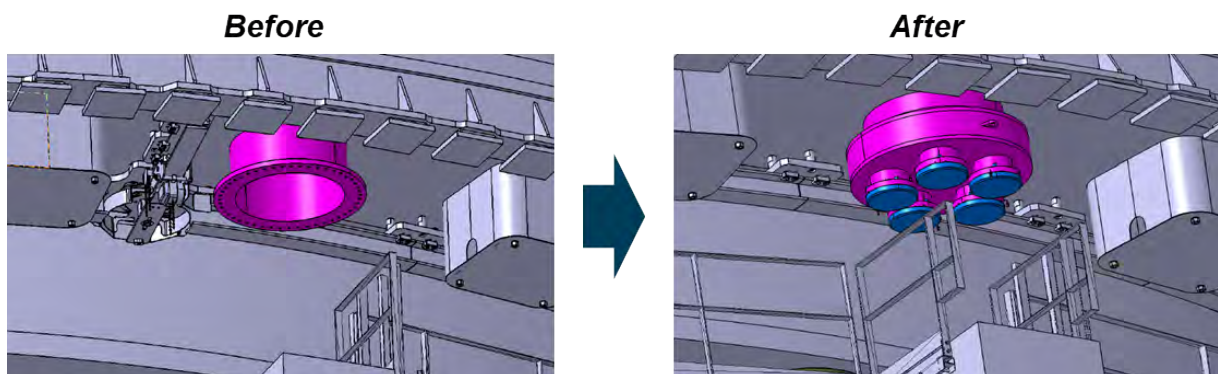
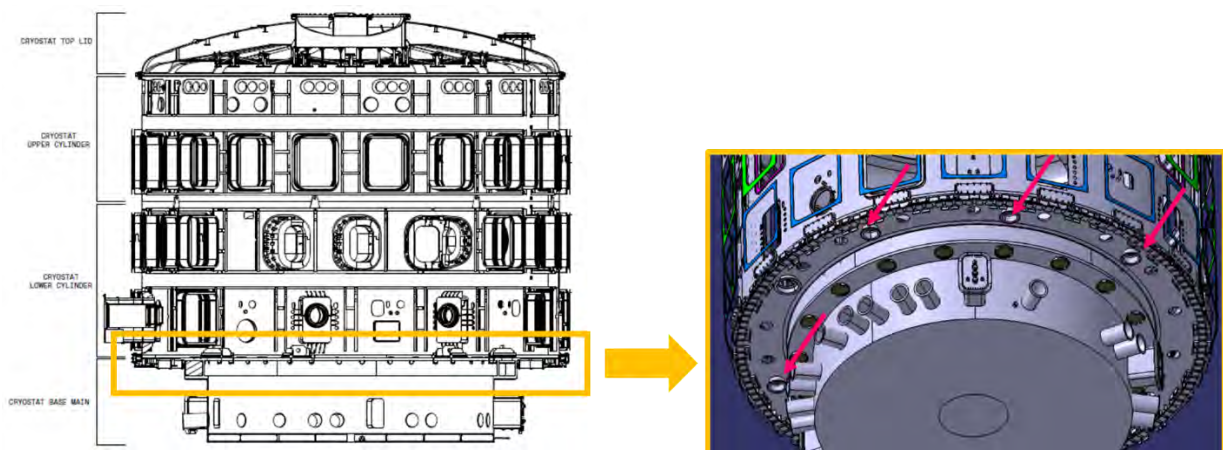
The information and technical details provided in the present document are preliminary and shared with the Candidates to check their interest and capabilities for this contract. Therefore, technical specifications that will be issued for Open Tendering will be the only documents to be considered for bidding.

2 Scope of Work

7 sets of installed Feedthrough flanges shall be replaced with Feedthrough Boxes.

The work is consisted with cutting of nozzles installed on cryostat; fabrication of feedthrough boxes; and installation of feedthrough boxes to the cut cryostat nozzles.

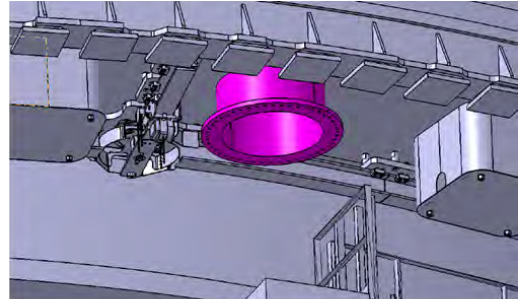
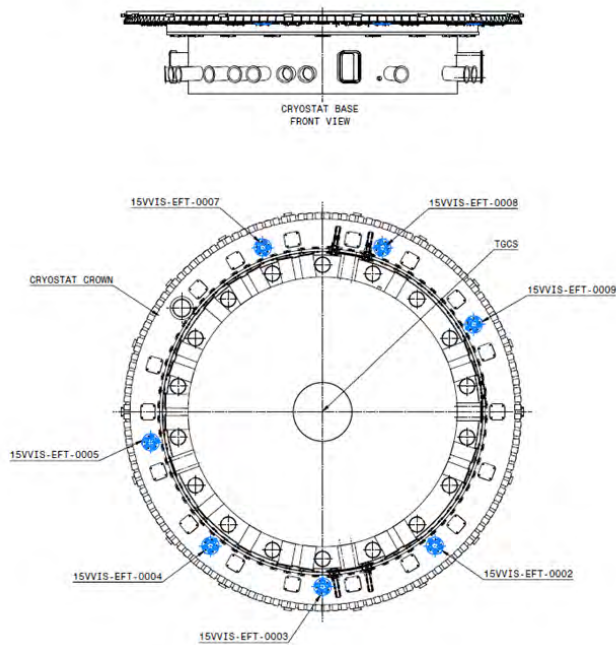
Basic construction code is ASME VIII-2, 2010, and relevant qualification code such as ASME BPVC V, ASME BPVC IX shall be applied.



2.1 Work to be performed

2.1.1 Cutting of nozzle installed on Cryostat

Cutting of nozzles with flange installed on the cryostat base (7 Nozzles, SS304L, OD 960mm, Thickness: 30mm)

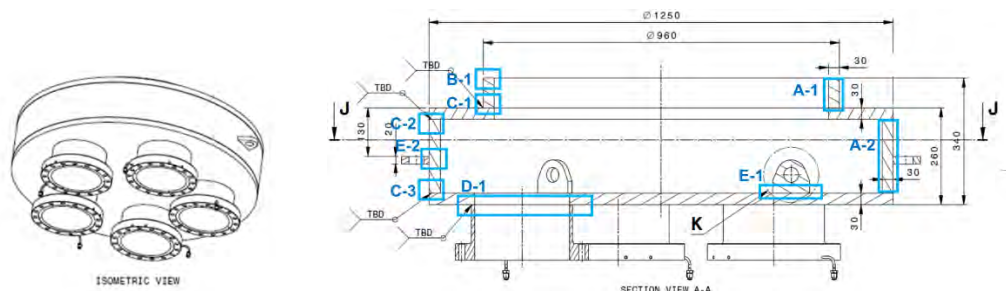


Note: The on-site work areas are complex because many other components have been installed and the components surrounds the work areas. Candidates will have a chance to visit site during open tendering process. (For proper understanding of worksite condition: Mobilization access, Space for lifting, handling, cutting, welding, etc.) See more photos in para 3.

2.1.2 Fabrication of feedthrough box

Fabrication of feedthrough box shall be performed at contractor's premises. (Off Site at Contractor's premises)

- The Contractor is responsible to procure all raw materials required for the feedthrough boxes manufacturing.
- Contractor supplies DN 250 ITER style flanges with VCR pipes and fittings.
- A-1 ~ E-2 in picture below are welded joints to be made in accordance with applicable construction code.



2.1.3 Installation of feedthrough box

Installation of feedthrough box to the cut cryostat nozzle shall be performed again in pit under the cryostat base include followings: (At Construction Site).

2.2 Components provided by IO

None of material will be supplied by IO.

2.3 Components provided by the contractor

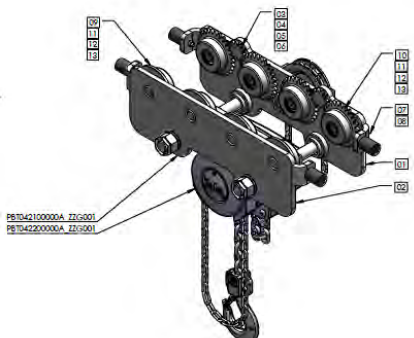
The Contractor shall supply the cryostat feedthrough boxes defined in the bill of materials and applicable documents.

[Bill of material - CWP - Prepare and Weld cryostat feedthrough boxes; 006107-CRYOSTAT_BASE_EFT_BOX](#)

The Contractor is responsible to procure all raw materials required for the feedthrough boxes manufacturing.

The Contractor shall provide the equipment/material for preservation and protection of the cryostat flange after cutting and for feedthrough box during lifting handling and after installation completion.

2.4 Tooling to be provided by IO

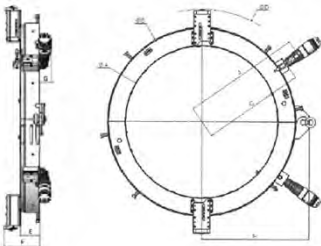
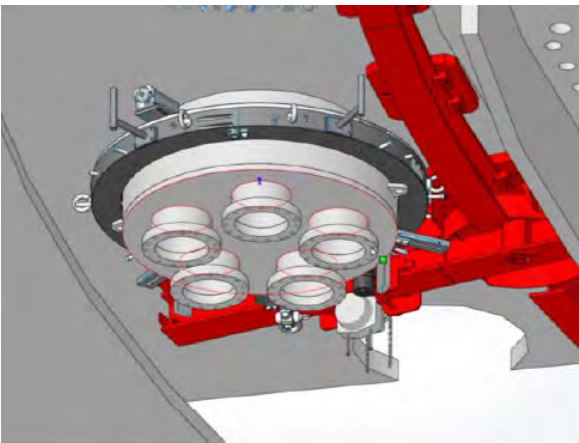
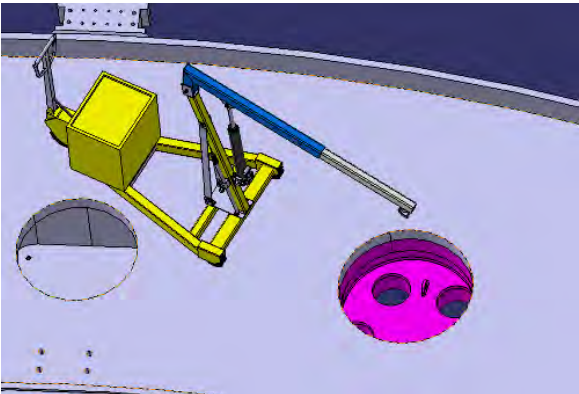
Tool Names	Description	Reference document
MONORAIL SYSTEM TOOL		PBT042000000A_ZZG001-skirt crane system; PBT041000000A_76G001-MONORAIL SYSTEM TOOL
50T crane		NKM BH DW C20001_ME - As-Built Design - PBS 62.13.CL - Tokamak / Assembly Hall Cranes - 50t Cranes - General arrangement

Note: The tools provided by IO will remain IO's property after Contractor's use. The Contractor shall be responsible for the maintenance and repair (including cleaning, removal of traces, rust removal, touch-up painting, weather protections, periodic testing and recertifications) of all tooling.

2.5 Tooling to be provided by the contractor

All the standard tooling and such access tooling not provided by IO for the temporary works are to be assessed, procured, and used by the Contractor, following their own working procedures.

The following table is a non-exhaustive list of tools to be used and provided by the Contractor during CWP execution. Some will require customization to meet the constraints of the work area. Except for protection/preservation systems, all the tools are not required to be handed over to IO, in which case the Contractor shall remove them from IO premises. Tools shall be defined by document input for MRR. (See paragraph 8. List of deliverables and due dates.)

Tool Names	Description																																											
Mechanized orbital cutting/beveling machine (Necessity of the tool depends on Contractor plan)	<div></div> <table><tr><th>Mode</th><th>Motor</th><th>mm</th><th>Inch</th><th>Ø A</th><th>Ø B</th><th>C</th><th>Ø D</th><th>E</th><th>F</th><th>G</th><th>H</th><th>J</th><th>M</th></tr><tr><th>I</th><th></th><th></th><th></th><th>mm</th><th>mm</th><th>mm</th><th>mm</th><th>mm</th><th>mm</th><th>mm</th><th>mm</th><th>mm</th><th>(Kg)</th></tr><tr><td>1</td><td>200</td><td>Hydraulic</td><td>Ø 914 – Ø1219</td><td>36" – 48"</td><td>126 2</td><td>154 0</td><td>826</td><td>167 6</td><td>121</td><td>228</td><td>290</td><td>875</td><td>101 5</td><td>650</td></tr></table>	Mode	Motor	mm	Inch	Ø A	Ø B	C	Ø D	E	F	G	H	J	M	I				mm	mm	mm	mm	mm	mm	mm	mm	mm	(Kg)	1	200	Hydraulic	Ø 914 – Ø1219	36" – 48"	126 2	154 0	826	167 6	121	228	290	875	101 5	650
Mode	Motor	mm	Inch	Ø A	Ø B	C	Ø D	E	F	G	H	J	M																															
I				mm	mm	mm	mm	mm	mm	mm	mm	mm	(Kg)																															
1	200	Hydraulic	Ø 914 – Ø1219	36" – 48"	126 2	154 0	826	167 6	121	228	290	875	101 5	650																														
Mechanized orbital welding machine (Necessity of the tool depends on Contractor plan)	<div></div>																																											
Workshop crane, lifting platforms, and other standard lifting equipment	<div></div> <p>Equipment required for transporting, setting up, storing, testing, installing, operating, reconfiguring, handling, dismantling, and removing all tools used in this Services.</p> <p>It shall include temporary structure for installation at CSB location. (Bolting type is preferable.)</p>																																											
Standard Non Destructive Examination Devices	Testing equipment for penetrant testing, ultrasonic testing, etc.																																											
Metrology equipment	Equipment for metrology surveys and inspection purposes required for the Services execution (such as – laser trackers, photogrammetry equipment, spirit levels, endoscopes, cameras. To be defined by the Contractor)																																											
Protection/preservation systems	Temporary protection during this Services.	Long term protector(*) of Feedthrough boxes for preservation after Services. This protection shouldn't																																										

	damage DN250 flange and SVS nozzles. (compatible with helicoflex joints)
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(*) Contractor shall hand over the Long term protector to IO, and it shall be installed by Contractor.

3 Photos/Illustrations for information of complex site condition



Figure 1 - Left: crown cell environment in the configuration without spare CSB. Right: crown cell environment in the configuration with spare CSB

tooling shall be defined according to the dimensions of the path along the way to the lifting point, where the narrowest points are shown below:

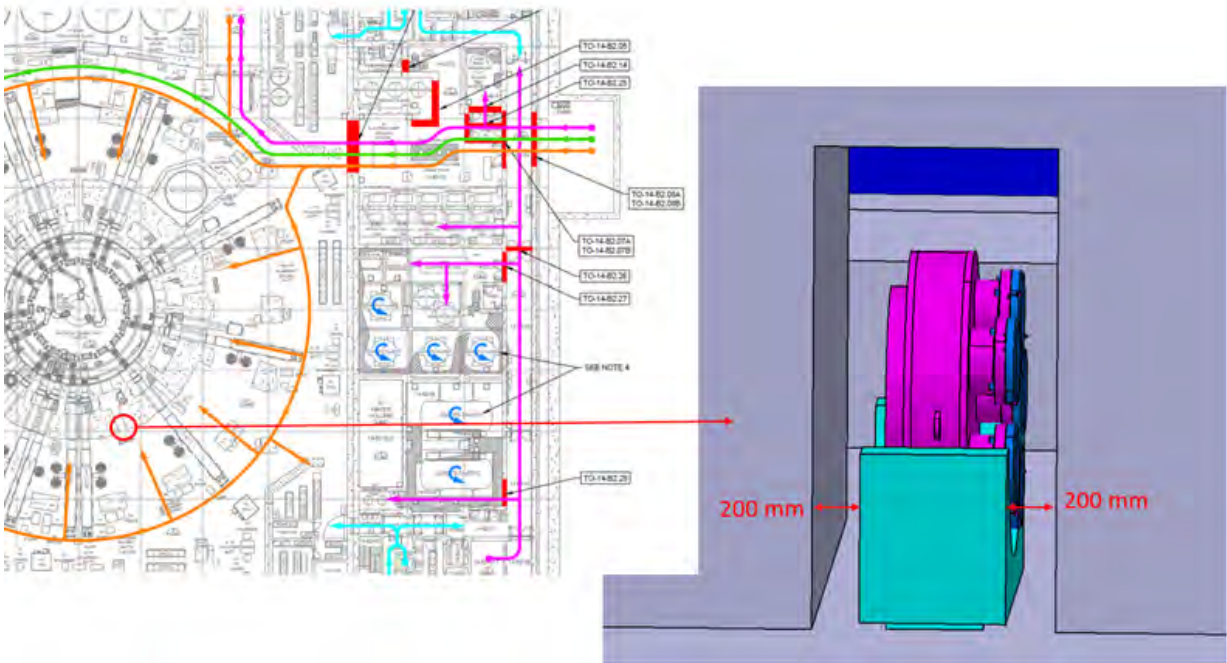


Figure 2 – Transport path from unloading to crown cell – door opening through bioshield

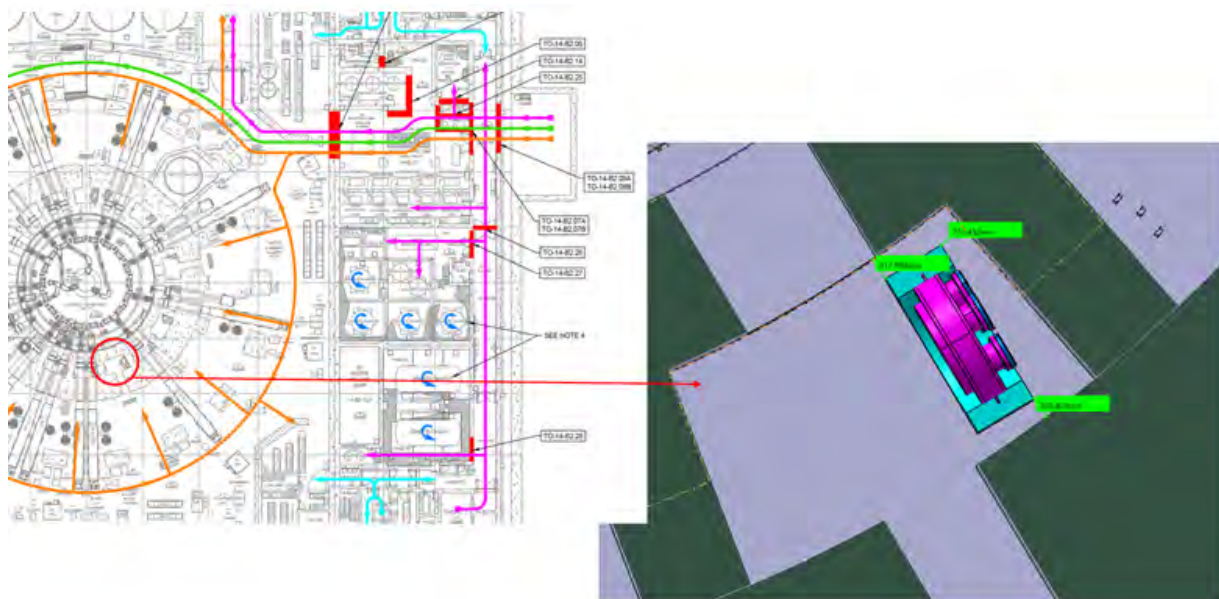


Figure 3 - Transport path from unloading to crown cell – lifting zone using B2 cryostat skirt Monorail

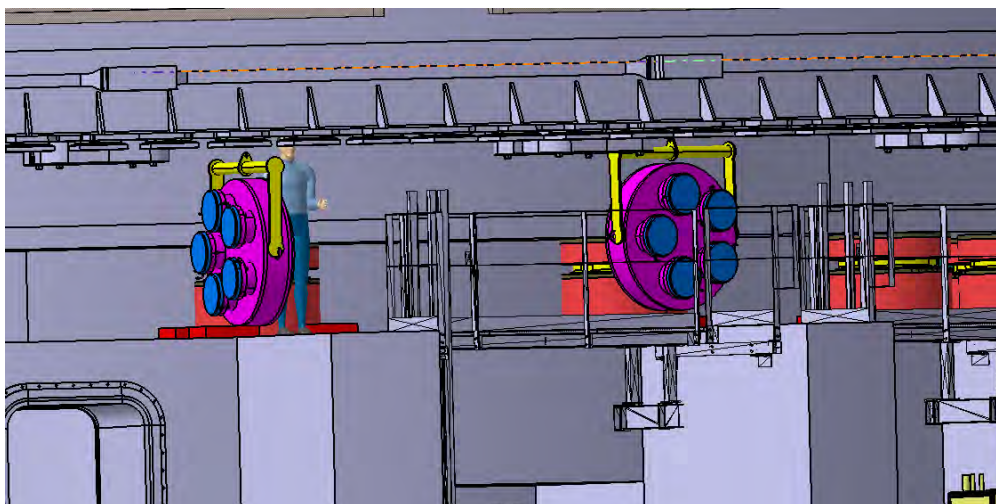


Figure 4 - Feedthrough box lifting in vertical position using the B2 cryostat skirt monorail

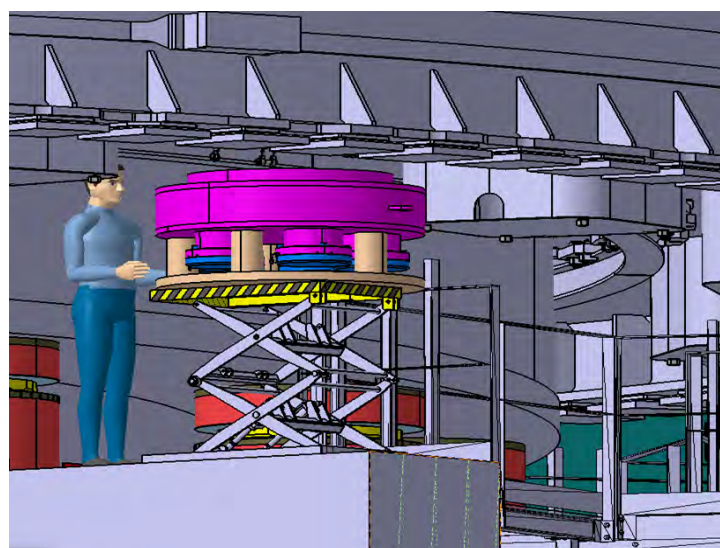


Figure 5 – Feedthrough box in horizontal position preparing for fit-up

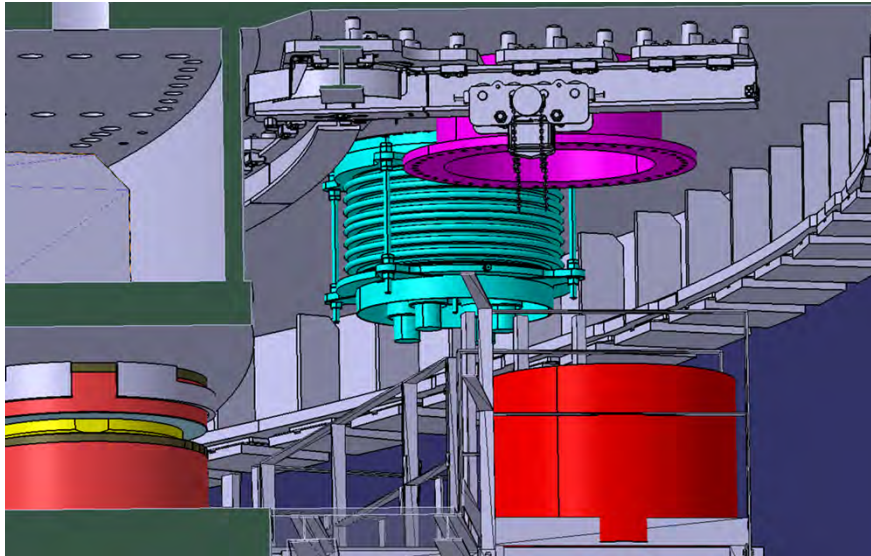


Figure 6 – Spare CSB in position before flange cutting

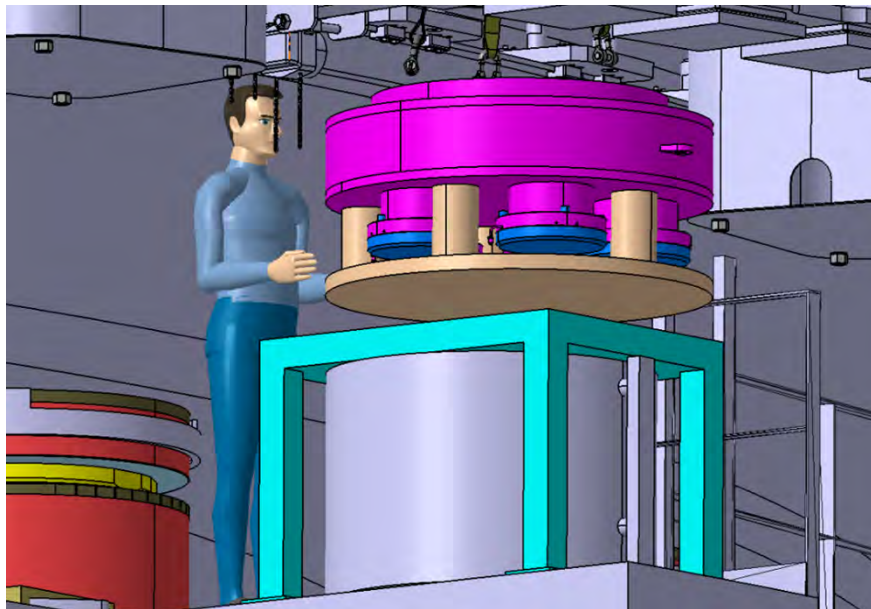


Figure 7 - Spare CSB in position during feedthrough box installation

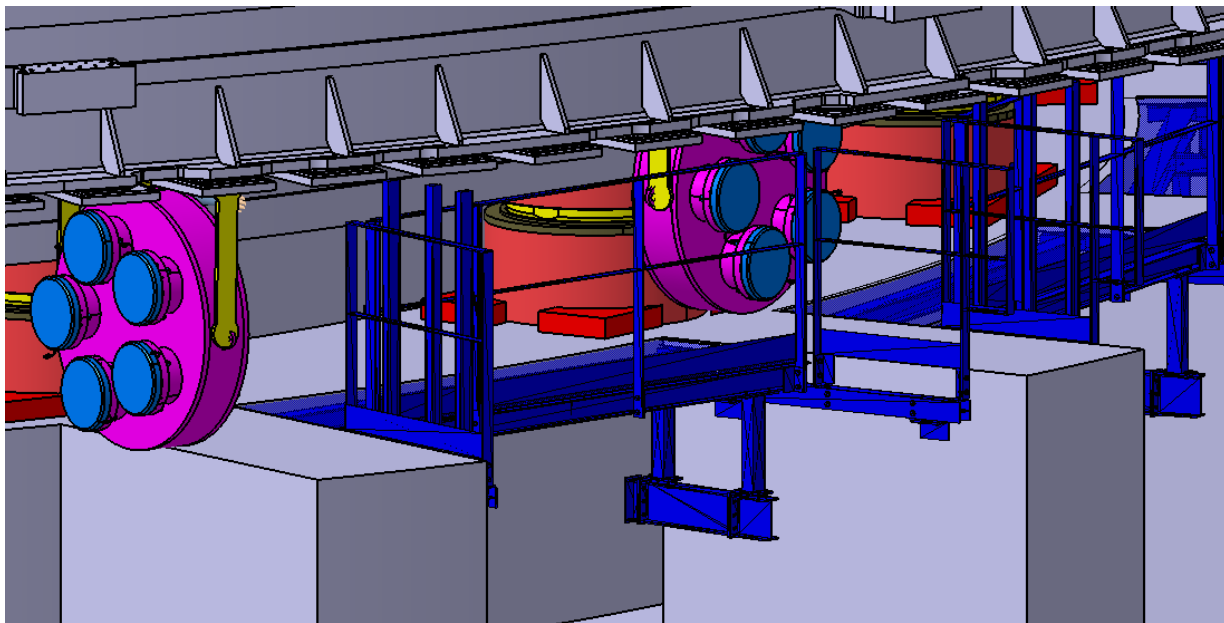


Figure 8 – Removable platforms / in-pit mezzanine floor design in blue

4 Estimated work sequence

Work Step	Description	Qty	Location
1	KOM [Kick off Meeting]^(*)	1 lot	IO Office Area
2	Mock-up Test	1 lot	
2-1	Complete mock-up / demonstration for lifting, handling, cutting, and welding	1 lot	At Construction Site
2-2	Mock-up test Result Review^(*)	1 lot	IO Office Area
3	Feedthrough box Manufacturing		
3-1	MRR [Manufacturing readiness review]^(*)	1 lot	IO Office Area
3-2	Cryostat flange cutting, and measuring nozzle size for manufacturing	7 units	At Construction Site
3-3	Perform inspection (Cleaning, dimension, and protection)	7 units	At Construction Site
3-4	Manufacturing and NDE Inspection		
3-5	Factory acceptance test	7 units	Off Site
3-6	DRR [Delivery Readiness Review]^(*)	1 lot	IO Office Area
3-7	Delivery of feedthrough box	7 units	Off Site
4	Cryostat box Installation		
4-1	CRR [Construction Readiness Review]^(*)	1 lot	IO Office Area
4-2	Assembly and NDE Inspection	7 units	At Construction Site
4-3	Perform final inspection (Within 4 hours before long term protector installed)	7 units	At Construction Site
4-4	Install protector	7 units	At Construction Site

4-5	Preservation Inspection	7 units	At Construction Site
5	Close-out ^(*)	1 lot	IO Office Area

() marks means contract gates, and next activities are permitted after the contract gates closed.*

5 Estimated schedule

No.	Milestones	Date
1	KOM [Kick Off Meeting]	T0 ^(*)
2	Mock-up test result review	T1 (T0 + 2months)
3	MRR [Manufacturing Readiness Review]	T2 (T1 + 3months)
4	DRR [Delivery Readiness Review]	T3 (T2 + 5months)
5	CRR [Construction Readiness Review]	T3 (T2 + 5months)
6	Close-out	T4 (T3 + 10months)
Total estimated duration		20 months

() Kick off meeting should be done within 2 months after signing of the contract. And signing of contract is expected to be done in Q2 2025.*