外部委託業者の募集

References: IO/25/OT/10030675/NRE

“Procurement of components for In-Service Inspection System WP2.2 of the ITER Vacuum Vessel"

（ITER 真空容器の稼働中検査システム WP2.2 のための機器の調達）

IO 締め切り 2025 年 4 月 14 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。

〇背景

ITER は平和利用の核融合発電の科学的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・デュランス 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

作業範囲（SoW）には、ITERサイトへの製造設計、製作、調達が含まれます。

部品および数量の一覧は、下記の表に示されています。

（詳細については、技術仕様書（TS）の付録をご参照ください。）

参考資料（非網羅的）として、提出すべき文書の一覧は技術仕様書（TS）の付録2に記載されています。

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、関心のある候補企業に対し、以下の概略日程に示された期日までに担当調達担当官に添付の関心表明フォームで以下の情報を提出し、競争プロセスへの関心を示す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
  PIN の発行から締切日の後、提案依頼書（RFP）を 「IPROC」 に掲載します。この段階では、担当の調達担当者に関心を示し、かつ IPROC に登録している関心のある候補企業は、RFP が公表された旨の通知を受けることができます。その後、RFP に詳述されている入札説明書に従って提案書を作成し、提出します。

  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、RFP 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 RFP 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。

〇概略日程

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	2025 年 2 月 14 日
関心表明フォームの提出	2025 年 4 月 14 日
iPROC での入札への招待（ITT）の発行	2025 年 5 月 23 日
明確化のための質問締切り	2025 年 6 月 20 日
明確化のための質問回答締切り	2025 年 7 月 18 日
入札提出	2025 年 9 月 12 日
契約授与	2025 年 10 月 17 日
契約調印	2025 年 11 月 14 日

〇契約期間と実行

ITER機構は2025年の11月中ごろ供給契約を授与する予定です。予想される契約期間は、24か月の予定で

す。

〇経験
候補者は、要求される商品およびサービスを、適用される規格に完全に準拠し、さらに ITER の品質および安全要件に従って供給する能力があることを示さなければなりません。

〇候補
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。

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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 components for In-Service Inspection System WP2.2 of the ITER Vacuum Vessel**」をご参照ください。】
ITER 公式ウェブ　http://www.iter.org/org/team/adm/proc/overview からも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。

Route de Vinon-sur-Verdon - CS 90 046 - 13067 St Paul Lez Durance Cedex - France

PRIOR INDICATIVE NOTICE (PIN)

OPEN TENDER SUMMARY

IO/24/OT/ 10030675 /NRE

for

Procurement of components for In-Service Inspection System WP2.2 of the ITER Vacuum Vessel

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 components for In-Service Inspection System WP2.2 of the ITER Vacuum Vessel**

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 Supply 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.

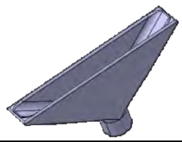
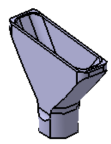
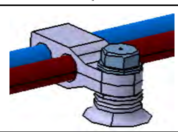
2 Background

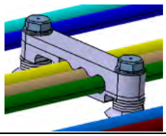
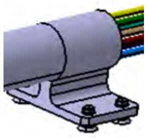
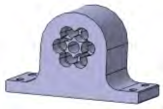
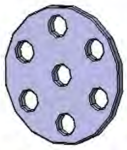
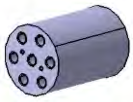
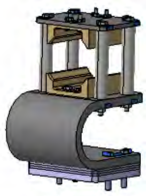
The ITER project is an international research and development project jointly funded by its seven Members being, the European Union (represented by EURATOM), Japan, the People's Republic of China, India, the Republic of Korea, the Russian Federation and the USA. ITER is being constructed in Europe at 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 www.iter.org.

3 Scope of Work

The Scope of Work (SoW) includes manufacturing design, fabrication and procurement to the ITER site.
List of components and quantities are outlined in the below table.
More details can be found in the Appendices of the Technical Specification (TS).

Component	Material	Quantity	Picture/Comment
Raw material for in-vessel guide tubes diameter 14 mm, 2 mm thickness	Alloy 718 (NiCr19Fe19Nb5Mo3)	See the drawings in the TS Appendix 1	Free issued by ITER (currently stored in the IO warehouse, transport to be organized by the Supplier)
Funnel type 1	Stainless steel 316L	6	
Funnel type 2	Stainless steel 316L	3	
Boss type 1	Stainless steel 316L	See the drawings in the TS Appendix 1	
Boss type 2, D30 M16	Stainless steel 316L	See the drawings in the TS Appendix 1	
Supports type 1	stainless steel 316L	See the drawings in the TS Appendix 1	

Component	Material	Quantity	Picture/Comment
Supports type 2	stainless steel 316L	See the drawings in the TS Appendix 1	
Supports type 3	stainless steel 316L	2	
Support type 4	stainless steel 316L	1	
Support type 4	stainless steel 316L	2	
Spacer	stainless steel 316L	6	
End Spacer	Stainless steel 316L	1	
Bolts M16 x 43	Stainless steel 660	See the drawings in the TS Appendix 1	
Bolts M12 x 27	Stainless steel 660	See the drawings in the TS Appendix 1	
Bolts M12 x 37	Stainless steel 660	See the drawings in the TS Appendix 1	
Pad Penetration Pipe assembly	Stainless steel 316L	3	
Flexible Support Assembly	Stainless steel 316L	3	
PIC Valve support	Stainless steel 316L	3	
Welding plate	Stainless steel 316L	3	

Component	Material	Quantity	Picture/Comment
Flange DN100 with helicoflex metallic seal	Stainless steel 316L	3	
Flange DN100 cover	Stainless steel 316L	3	
Spacer ASM	Stainless steel 316L	3	

Detailed drawings are included in the Appendix 1 of the Technical Specification.
Indicative (non-exhaustive) list of document deliverables is given in the Appendix 2 of the Technical Specification.

4 Procurement Process & Objective

The objective is to award a Supply 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" 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". You can find all links to proceed along with instruction going to: https://www.iter.org/fr/proc/overview.

  When registering in Ariba (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 the deadline of expression of interest (as shown in the Procurement Time table) following 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 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 lowest price technically compliant 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)	14/02/2025
Submission of expression of interest form	14/04/2025
Invitation to Tender (ITT) launched on iPROC	23/05/2025
Clarification Questions Deadline	20/06/2025
Clarification Response Deadline	18/07/2025
Tender Submission	12/09/2025
Contract Award	17/10//2025
Contract Signature	14/11/2025

5 Quality Assurance Requirements

The organisation conducting these activities should have either an ITER approved QA Program or an ISO 9001 accredited quality system which shall further be aligned with the IO QA practices/requirements.

6 Contract Duration and Execution

The ITER Organization shall award the Supply Contract around mid of November 2025. The contract duration shall be 24 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 are indicated in the RFP itself.

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VERSION CREATED ON / VERSION / STATUS

20 Jan 2025 / 2.2 / Approved

EXTERNAL REFERENCE / VERSION

Technical Specifications (In-Cash Procurement)

Technical Specification (TS) for VV ISI WP2.2 Supply Contract

Technical Specification for procurement of components for in-vessel In-Service Inspection System (VV ISI) Work Package 2.2 (WP2.2) of the ITER Vacuum Vessel.

SUPPLY

Technical Specification
For
Supply Contract

VACUUM VESSEL IN-SERVICE INSPECTION (VV ISI)
Work Package 2.2 (WP2.2)

Procurement of components for In-Service Inspection System WP2.2 of the ITER Vacuum Vessel

Abstract:

This document defines the technical requirements for the procurement of components for In-Service Inspection System Work Package 2.2 for the ITER Vacuum Vessel and forms an integral part of the Contract.

SUPPLY

Table of Contents

SUPPLY

1 Preamble

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

2.1 Subject

This document is a Technical Specification for the procurement of components for In-Service Inspection System Work Package 2.2 (Guide tubes for in-vessel inspection) for the ITER Vacuum Vessel.

2.2 Background

ITER - designed to demonstrate the scientific and technological feasibility of fusion power - will be the world's largest experimental fusion facility. Fusion is the process that powers the sun and the stars: when light atomic nuclei fuse together to form heavier ones, a large amount of energy is released. Fusion research is aimed at developing a safe, abundant and environmentally responsible energy source.

ITER is also a first-of-a-kind global collaboration. Europe is contributing almost half of the costs of its construction, while the other six Members to this joint international venture (China, India, Japan, the Republic of Korea, the Russian Federation and the USA), are contributing equally to the rest. The ITER Project is under construction in Saint-Paul-lez- Durance, in the south of France.

The ITER experiments will take place inside the Vacuum Vessel, a hermetically sealed steel container that houses the fusion reaction and acts as a first safety containment barrier. In its doughnut-shaped chamber, or torus, the plasma particles spiral around continuously without touching the walls. Along with the superconducting magnets, the ITER vacuum vessel is entirely enclosed in a large vacuum chamber called the cryostat.

The Vacuum Vessel (VV) provides a high-vacuum environment for the plasma, improves radiation shielding and plasma stability, acts as the primary confinement barrier for radioactivity, and provides support for in-vessel components such as the blanket, the divertor, the in-vessel coils and the blanket manifolds. Cooling water circulating through the vessel's double steel walls will remove the heat generated during operation. Forty-four openings, or ports, in the vacuum vessel provide access for remote handling operations, diagnostics, heating, and vacuum systems at upper, equatorial and lower level.

The ITER Vacuum Vessel, with an interior volume of 1,600 m^3, will provide an absolutely unique experimental arena for fusion physicists; the volume of the plasma contained in the center of the vessel (840 m^3) is fully ten times larger than that of the largest operating tokamak in the

SUPPLY

world today. The ITER Vacuum Vessel will measure 19.4 meters across (outer diameter), 11.4 meters high, and weigh approximately 5.200 tones.

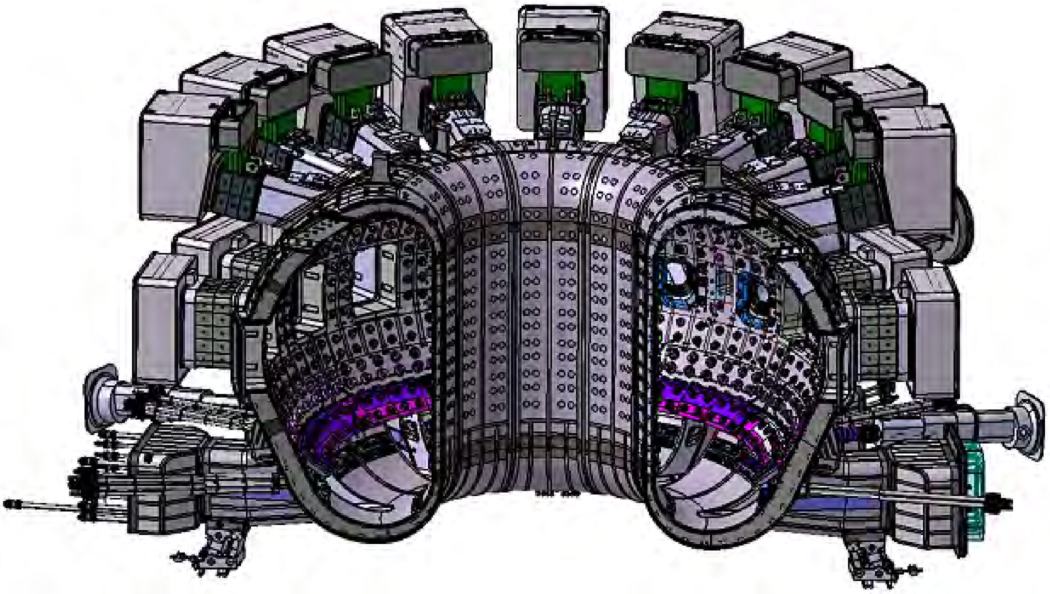
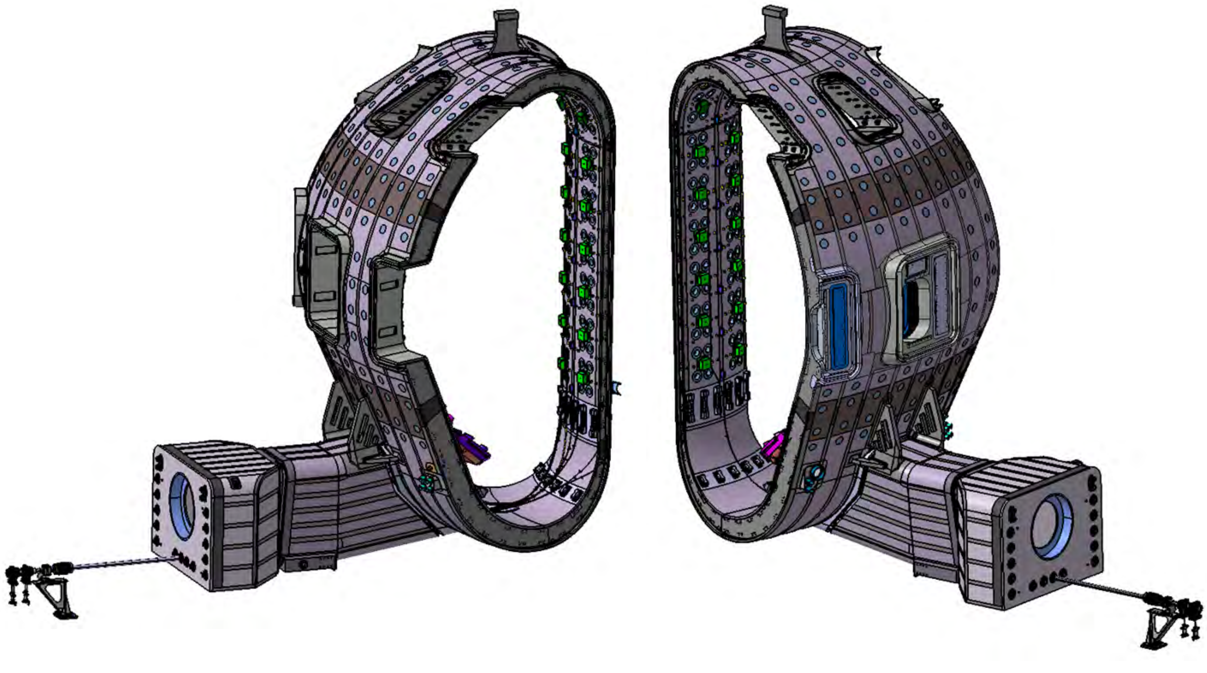


Figure 1The ITER Vacuum Vessel



Guide tubes routed through lower port 18

Guide tubes routed through lower ports 06, 12

Figure 2. Location of in-service inspection components inside Vacuum Vessel.

In-service Inspection system aims to perform examination of most vulnerable areas inside ITER Vacuum Vessel during long term maintenance. It contains of guide tubes routed through Vacuum penetrations in VV Lower Ports 06, 12, 18 along the inner side of Vacuum Vessel. Port 06 and 12 each host 1 guide tube, while port 18 hosts 6 guide tubes. They are located in vacuum, but not forming vacuum boundary. Guide tubes are used to deliver inspection equipment to the inspection area around VV intermodular keys, centering keys. Ends of guide tubes are open to provide angle of view to the inspection areas. Guide tubes are fixed to Vacuum Vessel with bosses welded to it. Design of guide tubes and layout of bosses is organized in such a way to exclude any plastic deformation. Choice of material is determined by vacuum requirements and by rigidity of equipment. Ex-Vessel Part of In-Service inspection system consists of straight pipe DN100 ended with the bellow to suppress the reaction loads from rigid support fixed to the floor. Pipeline is equipped with 2 equal valves, which allow to open the vacuum boundary for insertion of inspection equipment.

Figure 3 shows the disposition of in-service inspection components.

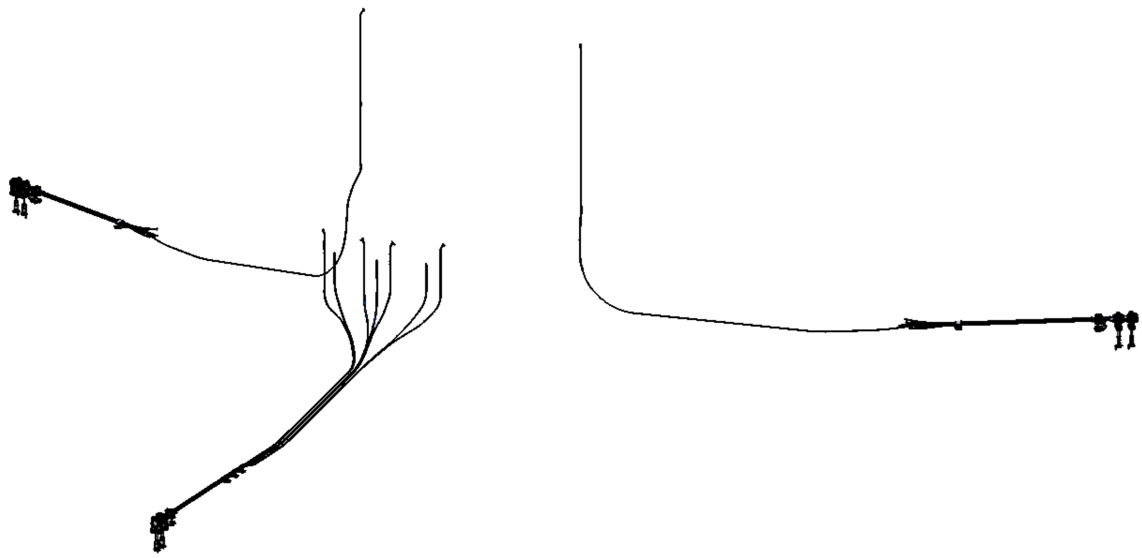


Figure 3. In-service inspection system Work Package 2.2

Assembly drawing of in-service inspection system is shown in the Figure 4 and also can be found in [R3]. Please note that VAT PIC Valves, bellows and pipes DN100 are shown in the drawing for information, however, they are excluded from this technical specification, because they are procured within other contracts. All other components either in-vessel or ex-vessel are in the scope of this contract.

Bill of material for the in-vessel in-service inspection components can be found in [R1].

Bill of material for ex-vessel components can be found in [R2].

2.3 Responsibilities

IO is responsible for providing to the contractor the detailed design of in-service inspection system WP2.2 in accordance with this Technical Specification.

The contractor is responsible for the manufacturing design, the manufacturing, and the factory acceptance tests and for delivering a product which is compliant with the present Technical Specification.

The responsibilities between the Parties are summarised in Table 1 and is further detailed in the following sections.

SUPPLY

Activity	IO	Contractor
Manufacturing Design, Manufacturing, Factory Acceptance Test and Delivery		
Manufacturing Design	A	R
Manufacturing	A	R
Factory Acceptance Testing	A	R
Packing and Delivery	A	R

R = Responsible for organizing, performing and for the content

A = Review/Comment/Accept/Approve

Table 1. Contract gates and responsibilities.

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	Organization
PRO	Procurement Responsible Officer
A&M	Alignment and Metrology
BOM	Bill of Material
CAD	Computer Aided Design
CMM	Configuration Management Model
DMH	Dimensional Metrology Handbook
ESPN	Nuclear Pressurized Equipment (from French "Equipements Sous Pression Nucléaire")
FAT	Factory Acceptance Test
HP	Hold Point
IAEA	International Atomic Energy Agency
IDM	ITER Document Management
ISO	International Organization for Standardization
MIP	Manufacturing and Inspection Plan
MQP	Management and Quality Program
NP	Notification Point
PBS	Plant Breakdown Structure
PED	Pressure Equipment Directive
PIC	Protection Important Component
PR	Project Requirements
PS	PS Project Specifications

SUPPLY

SR	Safety Relevant
SVS	Service Vacuum System
SIC	Safety Important Class
QC	Quality Class
RH	Remote Handling
VV	Vacuum Vessel

4 Applicable Documents & Codes and standards

4.1 Applicable 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_D_X3Y95E - VV ISI WP2: System Requirements Document	ITER_D_X3Y95E	2.2

4.2 Applicable Codes and Standards

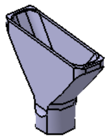
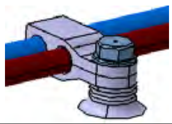
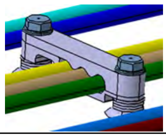
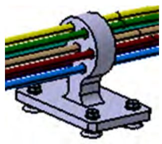
This is the responsibility of the Contractor to procure the relevant Codes and Standards applicable to that scope of work.

Ref	Title	Doc Ref.	Version
CS1	ITER_D_25EW4K - Codes and Standards for ITER Mechanical Components	ITER_D_25EW4K	4.0
CS2	ITER_D_2EZ9UM - ITER Vacuum Handbook	ITER_D_2EZ9UM	2.5
CS3	ITER_D_46FN9B - ITER Dimensional Metrology Handbook	ITER_D_46FN9B	2.1
CS4	ITER_D_SBSTBM - Provisions for Implementation of the Generic Safety Requirements by the External Actors/Interveners	ITER_D_SBSTBM	2.3

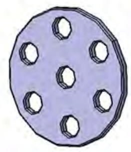
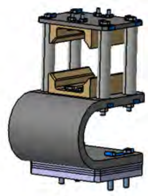
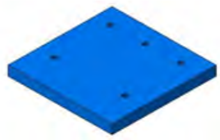
5 Scope of Work

5.1 Contract deliverables

Scope of supply includes manufacturing design, fabrication and procurement to ITER. List of components is shown in the below table 2.

Component	Material	Qty	Picture
In-Vessel guide tubes diameter 14 mm, 2 mm thickness	Alloy 718 (NiCr19Fe19Nb5Mo3)	Drawing, Appendix 1	
Funnel type 1	Stainless steel 316L	6	
Funnel type 2	Stainless steel 316L	3	
Boss type 1	Stainless steel 316L	Drawing, Appendix 1	
Boss type 2, D30 M16	Stainless steel 316L	Drawing, Appendix 1	
Supports type 1	stainless steel 316L	Drawing, Appendix 1	
Supports type 2	stainless steel 316L	Drawing, Appendix 1	
Supports type 3	stainless steel 316L	2	
Support type 4	stainless steel 316L	1	
Support type 4	stainless steel 316L	2	

SUPPLY

Spacer	stainless steel 316L	6	
End Spacer	Stainless steel 316L	1	
Bolts M16 x 43	Stainless steel 660	Drawing, Appendix 1	
Bolts M12 x 27	Stainless steel 660	Drawing, Appendix 1	
Bolts M12 x 37	Stainless steel 660	Drawing, Appendix 1	
Pad Penetration Pipe assembly	Stainless steel 316L	3	
Flexible Support Assembly	Stainless steel 316L	3	
PIC Valve support	Stainless steel 316L	3	
Welding plate	Stainless steel 316L	3	
Flange DN100 with helicoflex metallic seal	Stainless steel 316L	3	
Flange DN100 cover	Stainless steel 316L	3	

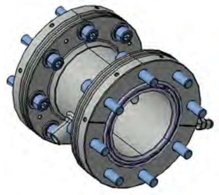
SUPPLY			
Spacer ASM	Stainless steel 316L	3	

Table 2. Procurement scope

Detailed drawings are included in the Appendix 1 of current Technical Specification.

Components Bill of Material is in the Appendix 3 of current Technical Specification.

Guide tubes outer diameter 14 mm, thickness 2 mm of Alloy 718 were previously purchased by ITER and contractor will be required to bend these guide tubes as per as build surface of Vacuum Vessel.

Inner diameter should be suitable to let pass the In-Service Inspection tool, which is remotely operated robot equipped with NDT probe. After guide tubes bending, the contractor should perform functional tests to guarantee that robot will pass.

Flanges DN100 will be welded at ITER site to the corresponding pipes and flexible support assembly aims to support those pipes. Please note, that those pipes are out of scope of this contract and they are procured separately.

Additionally, VAT Valves will be attached to the flanged DN100. VAT Valves are out of this contract scope.

Flange covers and spacers ASM, which connect 2 VAT valves shall be procured in this contract (Table 1).

Assembly of Valves, spacers and flanges will be done at ITER site.

Contractor should provide spares for Bosses D30 M16 and bolts, total number of spare parts shall be additional 5% to the main procurement.

5.2 Manufacturing

The main processes for manufacturing are: Machining, bending, rolling.

Machining will be performed with limited lubricant/cutting fluid.

The lubricant/cutting fluids and cleanliness play a major role in the compatibility with ultra-high vacuum environment in which the components will be placed. The cutting fluids, protective coating, packing materials need to be approved by ITER before usage.

Machining processes and intermediate dimensional verifications shall be reported.

Parts shall be systematically cleaned and degreased during manufacturing. Parts shall be free of any swarfs.

IO may proceed to any additional tests, including outgassing tests in view of the acceptance of the prototypes.

5.3 Marking

The contractor shall specify the part identification and marking used and describe it in the Manufacturing Inspection Plan.

5.4 Factory Acceptance Test

Final inspection of in-vessel in-service inspection system after fabrication shall include at least the following activities:

- Visual inspection to check:
    - The surface status, absence of cracks and corrosion
    - Marking
    - Visual examination of guide tubes inner surface with endoscope.
- Cleanliness inspection
- Dimensional check report based on manufacturing drawings approved by IO, which will include, but not limited to:
    - Checking of the outer and inner diameter of guide tubes
    - Check of bosses

5.5 Final Cleaning and Packing

The contractor shall organize the packaging and delivery of in-vessel in-service inspection system (globally referred hereinafter as "items") to IO. Suitable precautions shall be taken to avoid damage to the items. The items shall be subject to control and inspection as defined below.

5.6 Cleaning

Final cleaning shall ensure effective cleaning without damage to the surface finish, material properties or metallurgical structure of the materials. The allowable cleaning products shall be approved by IO before starting the procedure.

The contractor shall submit to the IO the proposed cleaning procedure for approval/acceptance.
The demonstration of meeting the above cleaning requirements represents a Hold Point (HP).

5.7 Handling and Packaging

Once components have completed initial rough cleaning care shall be taken that vacuum surfaces are not touched by bare skin. Powder free latex or nitrile clean gloves shall be used when handling components.

The contractor shall design and supply appropriate packaging, adequate to prevent damage during shipping and handling operations. The packaging must preserve the cleanliness of the items for the duration of storage. VQC1B components (see 5.4) should be wrapped in clean aluminium foil. All components shall be sealed in a transparent polyethylene bag, under dry air: or dry nitrogen if possible.

The number of items per final package should be limited to a reasonable quantity (for ease of transport to the place of installation) but each variance will be packed separately.

Final packaging must be clearly marked with part number.

5.8 Transport and Delivery

Each shipment shall be accompanied by a Delivery Report shall be prepared by the contractor, stating as a minimum:

- The packing date;
- The full address of the place of delivery and the name of the person responsible to receive the package, as well as of the contractor's name and full address;
- Bill of Materials
- Security Measures
- Release Note: shall be prepared in accordance with the "Contractor Release Note" (4) and approved by IO.
- Packing List
- Packing Control Record
- Material Safety Sheet;
- The declaration of integrity of the package;
- The declaration of integrity of the components;
- Any additional relevant information on the status of the components.

The Delivery Report shall be signed by a representative of the IO. The signature by the IO of the Delivery Report prior to shipment represents a Hold Point (HP).

Before the shipment, a Release Note shall be prepared in accordance with the "Contractor Release Note" and approved by the IO.

5.9 Provisional Acceptance at the ITER Site

Upon receipt of the package, the IO shall open the package and make a visual inspection of its content to check:

- The integrity of the package, including identifying visible damage;
- The number and type of components contained in the shipment;
- The enclosed documentation;
- The cleanliness and integrity of the components.

In the case of anomalies the IO shall make any additional relevant remark on the inspection.

If the components are in an acceptable condition, the IO will sign the Delivery Report. The signature of the Delivery Reports is an IO Hold Point.

The original of the Delivery Report shall be kept by the IO and a copy of it shall be kept by the contractor.

SUPPLY

5.10 Supply of Documentation

The contractor shall provide IO with an End of Manufacturing Report. The documents and data are defined in the Appendix 3 (also refer to or in section 3.3) of this Technical Specification (List of Document Deliverables). Documentation to support assembly and maintenance shall be provided according to the "ITER Document and Data Handover Specification" (13).

5.11 Site Acceptance Test

The contractor shall bear the risk of loss or damages to the components during the execution of this Contract up to delivery, after inspection against any failure of the components during transport. Any risk of loss or damage shall be transferred from the contractor to the IO upon delivery.

Acceptance of items is carried out by means of an established reception plan which identifies the general condition of the equipment that may be affected during the transportation process or any failure in the surveillance program at the facilities of the contractor.

IO site acceptance criteria (non-exhaustive) are:

-Checks of the physical state and condition of the packing for possible damage during transportation;

-Checks of the component cleaning and conservation conditions in accordance with approved cleaning procedure and packing specification;

-Verification of the accompanying documentation;

-Visual examination of the components in contact with bearing plates, pads, and fixtures and

5.12 Final Acceptance

The components shall be handed over to the IO when they have been delivered in accordance with this Technical Specification and all related documentation have been accepted by the IO, have satisfactorily passed the FAT and SAT, and a Certificate of Final Acceptance has been issued (Final Acceptance). The Certificate of Final Acceptance shall be signed by both the IO and the contractor, after the definitive acceptance of each component and its related documentation.

Ownership of the components shall be transferred from the contractor to the IO upon Final Acceptance at the ITER Site. The transfer of ownership to the IO shall not relieve the contractor of its obligations under this Contract in case of non-conformities of the components for the duration of the warranty period.

The contractor shall provide a standard commercial warranty covering repair or replacement of the components up to 5 (five) years after the Final Acceptance of the components or up to the IO commissioning of the installed components, whichever comes first.

5.13 Technical Interfaces

In-Vessel in-service inspection system has interface with Vacuum Vessel, Blankets, Diagnostics, instrumentation.

ITER will provide detailed 3D models to the contractor in the Approved status, meaning, that they are compatible with all interfacing systems. During development of manufacturing design contractor should not deviate from provided overall dimensions and tubes trajectories. Final manufacturing models shall be subject of IO approval before start of fabrication, which represents a Hold Point (HP).

6 Location for Scope of Work Execution

All activities within this contract shall be handled at the contractor premises or their sub-contractors.

Acceptance at IO site and related Site acceptance tests shall be entirely managed by IO.

7 IO Documents & IO Free issue items

Guide tubes outer diameter 14 mm, thickness 2 mm of Alloy 718 were previously purchased by ITER and contractor will be required to bend these guide tubes as per as build surface of Vacuum Vessel.

IO shall provide the IO Documents:

Under this scope of work, IO will deliver for information the following documents before start of the contract

Ref	Title	Doc ID
1	VV ISI WP2.2 detailed drawing	ITER_D_ 2KVKYN
2	Manufacturing documents for the guide tubes in Alloy 718	ITER_D_ 8F3TB9
3	VV ISI WP2.2 structural integrity report	ITER_D_ WX7WQZ
4	Provisional on-site assembly plan	ITER_D_ X5E4JL

7.1 Free issue items:

Under this scope of work, IO will provide to contractor straight Guide tubes outer diameter 14 mm, thickness 2 mm of Alloy 718

SUPPLY

No	Equipment / services description	PNI*	SN*	Quality class / Safety class	PE/ NPE*	Quantity
1.	ISI_GUIDE_TUBE_06_12_SECTION_1	2CLPJ2	1-2	QC1		2
2.	ISI_GUIDE_TUBE_06_12_SECTION_2	2CLQJA	1-2	QC1		2
3.	ISI_GUIDE_TUBE_06_12_SECTION_3	2CLQN8	1-2	QC1		2
4.	ISI_GUIDE_PIPE_18_02_BIS_SECTION_2	2CGRTK	1	QC1		1
5.	ISI_GUIDE_PIPE_18_02_BIS_SECTION_1	2CGRVL	1	QC1		1
6.	ISI_GUIDE_PIPE_18_02_SECTION_1	2CGRXM	1	QC1		1
7.	ISI_GUIDE_PIPE_18_02_SECTION_2	2CH3BU	1	QC1		1
8.	ISI_GUIDE_PIPE_18_04_SECTION_2	2BP8ZH	1	QC1		1
9.	ISI_GUIDE_PIPE_18_04_SECTION_1	2BP9E2	1	QC1		1
10.	ISI_GUIDE_PIPE_18_03_SECTION_1	2CPW4B	1	QC1		1
11.	ISI_GUIDE_PIPE_18_03_SECTION_2	2CPWM3	1	QC1		1
12.	ISI_GUIDE_PIPE_18_05_SECTION_2	2CPZDF	1	QC1		1
13.	ISI_GUIDE_PIPE_18_05_SECTION_1	2CPZFJ	1	QC1		1
14.	ISI_GUIDE_PIPE_18_01_SECTION_2	2AKD2K	1	QC1		1
15.	ISI_GUIDE_PIPE_18_01_SECTION_1	2AKH8M	1	QC1		1
16.	ISI_GUIDE_PIPE_18_01_BIS_SECTION_2	2BFM22	1	QC1		1
17.	ISI_GUIDE_PIPE_18_01_BIS_SECTION_1	2BFMZB	1	QC1		1
18.	Extra tubes (NCR-006)	I17468743	1	QC1		1

Table 3. Bill of Material for in-vessel guide tubes from Alloy 718

8 Deliverables and Schedule Milestones

8.1.1 Schedule for delivery

Provisional schedule for contract execution for the in-service inspection system WP2.2 is shown in the table below:

Schedule Milestones	Description	Is Contract Gate? (Y/N)	Expected Timing (T0+x) *
#1	Contract start	N	T0
#2	Qualification	N	T0+ 4 months
#3	Manufacturing Readiness Review	Y	T0+ 8 months
#4	End of Manufacturing	N	T0+ 16 months
#5	Factory Acceptance Tests	Y	T0+20 months
#6	Delivery to ITER	N	T0+24 months

* T0 = KOM date.

8.1.2 List of deliverable documentation

For the list of document deliverables please refer to Appendix 2.

Contractor 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 Quality class under this contract is [QC1], [Ref 1] GM3S section 8 applies in line with the defined Quality Class.

10 Safety requirements

The following classes will apply to the VV ISI infrastructure design unless otherwise justified by the contractor:

Safety Classification, as per ITER_D_347SF3 [43]

- **PIC** (SIC-1): Protection (Safety) Important Class 1 components are those components required to bring to and to maintain ITER in a safe state.

PIC applies to limited number of WP2 components representing the penetration from the Ex-Cryostat area into the Torus primary vacuum. In that case the safety function provided is "First confinement barrier" with the rationale "Confinement barrier of the main radioactive inventories".

- **SR**: Safety Relevant are those components, while not being PIC (SIC), may have some relevance to safety. They are not credited in the safety analysis and their failure would not impact any safety function. Concerning the design phase, no safety requirements are defined for these SR components. In operation, some requirements, such as periodical maintenance, could be defined.

SR applies to all WP2.2 components which are not classified as PIC. In that case the safety function provided is "Scheduled VV In-Service Inspection" with the rationale "Implementation of inspection activities required by the French Nuclear Law".

Seismic Classification, as per ITER_D_347SF3 [43]

- **SC1(S)**: Seismic Class 1 (S) is assigned to those components which structural stability shall be maintained in the event of an earthquake.

SC1(S) applies to all WP2.2 components, both classified as PIC and SR.

Quality Classification, as per ITER_D_24VQES [14]

- **QC1**: PIC (SIC-1) components are assigned to Quality Class 1. SR components are assigned to a Quality Class as determined by the Attachment 1 in the Quality Class Determination document ITER_D_24VQES [14].

QC1 applies to all components, both PIC and SR classified. In the case of SR components the risk type identified is "Compliance" with the rationale "Large Impact: Failure has potential for noncompliance with Host State laws, regulations or requirements".

Vacuum Quality Classification, as per ITER_D_29DFGH [26]

- **VQC-1**: Vacuum Quality Class 1 A/B components are Torus primary vacuum components or components which become connected to the torus high vacuum through the opening of a valve during normal operations.

VQC-1A applies to WP2 components which form the Torus primary vacuum boundary. VQC-1B applies to WP2 components within Torus primary vacuum but which do not form part of the Torus vacuum boundary.

- **VQC-2**: Vacuum Quality Class 2 A/B components are Cryostat primary vacuum components or components which become connected to the Cryostat vacuum through the opening of a valve during normal operations.

VQC-2A applies to components which form the Cryostat primary vacuum boundary. VQC-2B applies to components within Cryostat primary vacuum but which do not form part of the Cryostat vacuum boundary.

SUPPLY

Tritium Classification, as per ITER_D_2LAJTW [31]

- **TC-1**: Tritium Class 1 A/B components are First Confinement System of fixed installations containing potentially flammable (if exposed to air while also considering diluent gas impacts) concentrations of hydrogen isotopes that include tritium.

TC-1A applies to WP2 components which form the First Confinement barrier and associated vacuum jackets and isolation valves. TC-1B is not considered as applicable for WP2.2 components.

Remote Handling (RH) Classification, as per ITER_D_27ZRW8 [35]

- **RH Class 1**: Scheduled remote maintenance in 20-year period. Components designed to be RH-compatible for maintenance. Maintenance equipment procured and operation sequences planned in detail prior to ITER Machine operations. Maintenance tasks are verified on physical mock-ups before design is finalized.

RH Class 1 shall be assigned to remote maintenance tasks which provides planned dismounting/installation operations of VV ISI infrastructure components, due to the following: (1) the VV ISI is a scheduled activity "at least once every 40 months", as per ESPN; (2) the VV ISI requires the work to be done in an environment (NB Cell and Lower Ports) where hands-on maintenance would result in ITER administrative limit "less than 100 μSv/h" is being exceeded. RH compatibility is required for those components which are subject of regular remote dismounting/installation (e.g. cover plates, bioshield blocks, seals, and bolting). Guidelines for designing for RH compatibility are provided in the RH Code of Practice ITER_D_2E7BC5 [13].

- **Unclassified**: Task probability <3.10^{-2} or no credible need for remote maintenance in 20-year period. No RH provisions.

It is expected that "Unclassified" will be considered any other remote maintenance task related to the VV ISI infrastructure, not classified RH Class 1. The contractor has to perform RAMI analysis in order to demonstrate that the probability is <3.10-2 or no credible need for remote maintenance of WP2.2 components in 20-year period.

The main ITER classifications assigned to the WP2.2 components and related tasks* (*in the case of RH classification) are given in Table 4. These classes shall be updated and specified in detail throughout the design phase according to the Safety Important Functions and Components Classification Criteria and Methodology ITER_D_347SF3 [43], and shall apply accordingly. Changes in the classifications must be in agreement with and approved by IO.

The VV ISI WP2.2 components shall respect the following classifications as per System requirements document [Ref 2]

N°	Components VV ISI WP2.2	PIC-SIC	Quality class	Seismic class	Vacuum class	ESPN category	Tritium class	RH class (task oriented)
1	Bosses	SR	QC1	SC1 (S)	VQC-1B	ESPN welds	TC-1A	N/A
2	In-vessel guide tubes supports	SR	QC1	SC1 (S)	VQC-1B	N/A	TC-1A	N/A

SUPPLY

3	In-Vessel guide tubes (in VV)	SR	QC1	SC1 (S)	VQC-1B	N/A	TC-1A	N/A
4	Lower port VV Penetration tube	SIC-1	QC1	SC1 (S)	VQC-1A	N/A	TC-1A	N/A
5	In-Vessel guide tubes (in penetration)	SR	QC1	SC1 (S)	VQC-1B	N/A	TC-1A	N/A
6	Guide tubes Spacers	SR	QC1	SC1 (S)	VQC-1B	N/A	TC-1A	N/A
7	LP Cryostat Bellow	SR	QC1	SC1 (S)	VQC-2A	N/A	N/A	N/A
8	Connection to bellow	SR	QC1	SC1 (S)	VQC-2A	N/A	N/A	N/A
9	First PIC Valve(2)	PIC/SIC-1	QC1	SC1 (S)	VQC-1A	N/A	TC-1A	N/A(1)
10	PIC Valves connection tube + DN16 PIC valves(5)	PIC/SIC-1	QC1	SC1 (S)	VQC-1A	N/A	TC-1A	N/A
11	PIC Valves Support	PIC/SIC-2	QC1	SC1 (S)	N/A	N/A	N/A	N/A(3)
12	Second PIC Valve(4)	PIC/SIC-1	QC1	SC1 (S)	VQC-1A	N/A	TC-1A	N/A(1)
13	PIC Valve Cap	SR	QC1	SC1 (S)	N/A	N/A	TC-4B	N/A
14	SVS Connection (monitoring of interspaces)	SR	QC1	SC1 (S)	VQC-3A	N/A	TC-1A	N/A

Table 4. Components classification

SUPPLY

(1) Limited RH compatibility was introduced in the design to facilitate further upgrade for D-T phase for RH handling.

(2) Safety vacuum valve directly in contact with the VV during plasma;

(3) Maintenance requirements are out of scope of this contract.

(4) Safety vacuum valve due to Single Failure Criteria requiring redundancy.

(5) The DN16 PIC valves are out of VV ISI WP2.2 scope.

(6) For PIC components the ITER_D_SBSTBM - Provisions for Implementation of the Generic Safety Requirements by the External Actors/Interveners is applied.

11 Special Management requirements

Requirement for [Ref 1] GM3S section 6 applies in full

11.1 Contract Gates

Contract gates are defined in the Section 2.3 in the Table 1 of this document

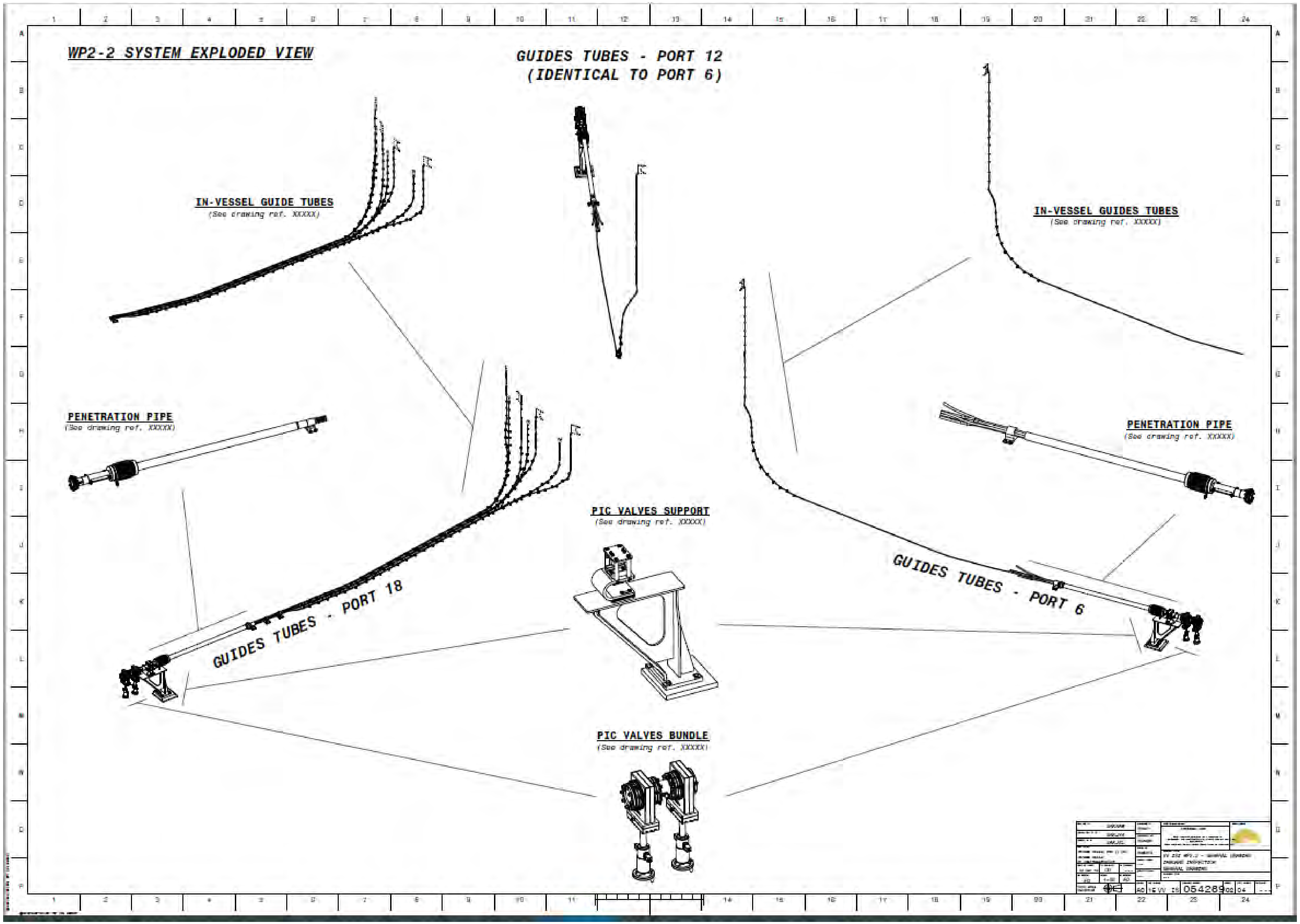
11.2 CAD design requirements

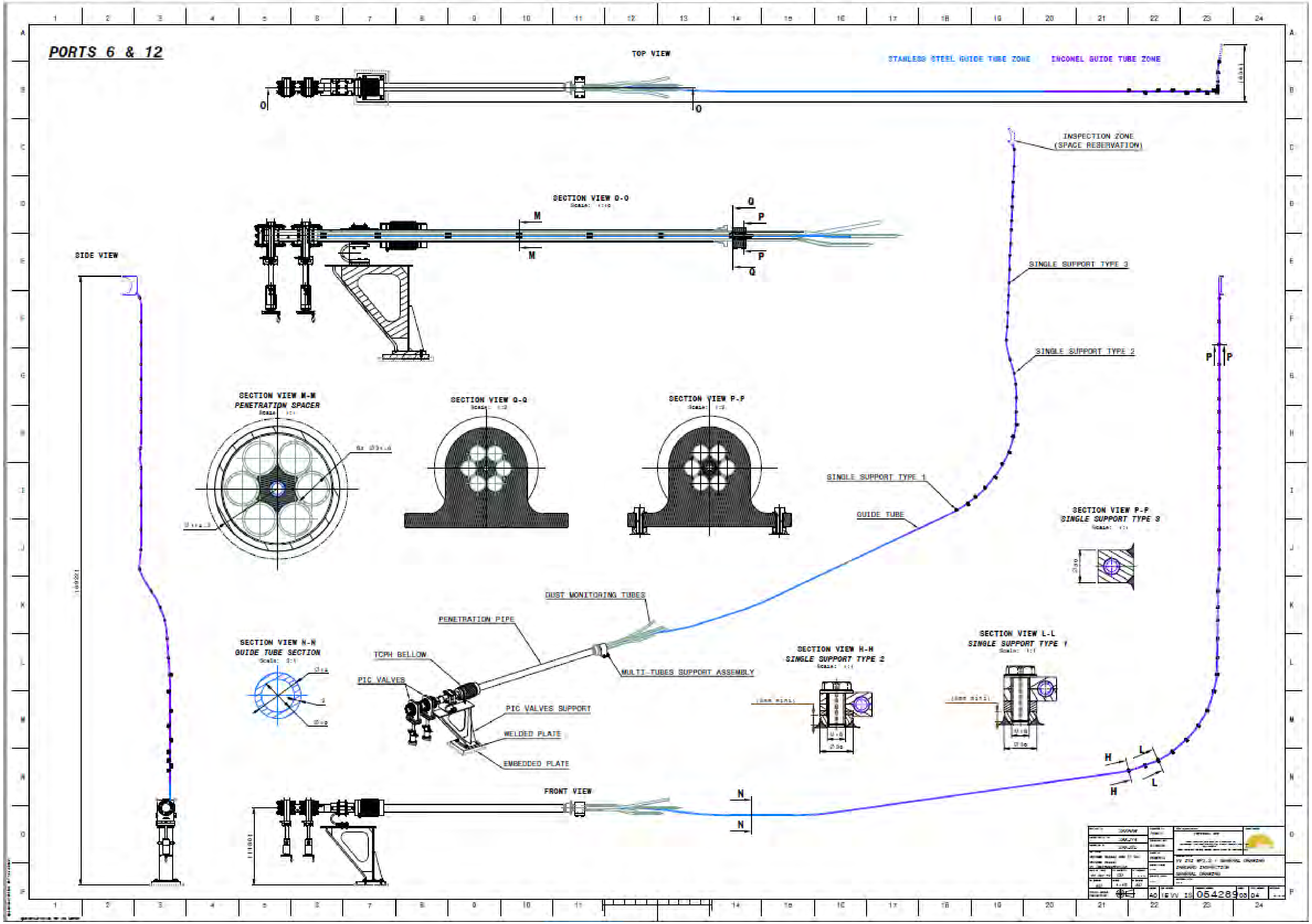
For CAD activities, [Ref 1] GM3S section 6.2.2.2 applies

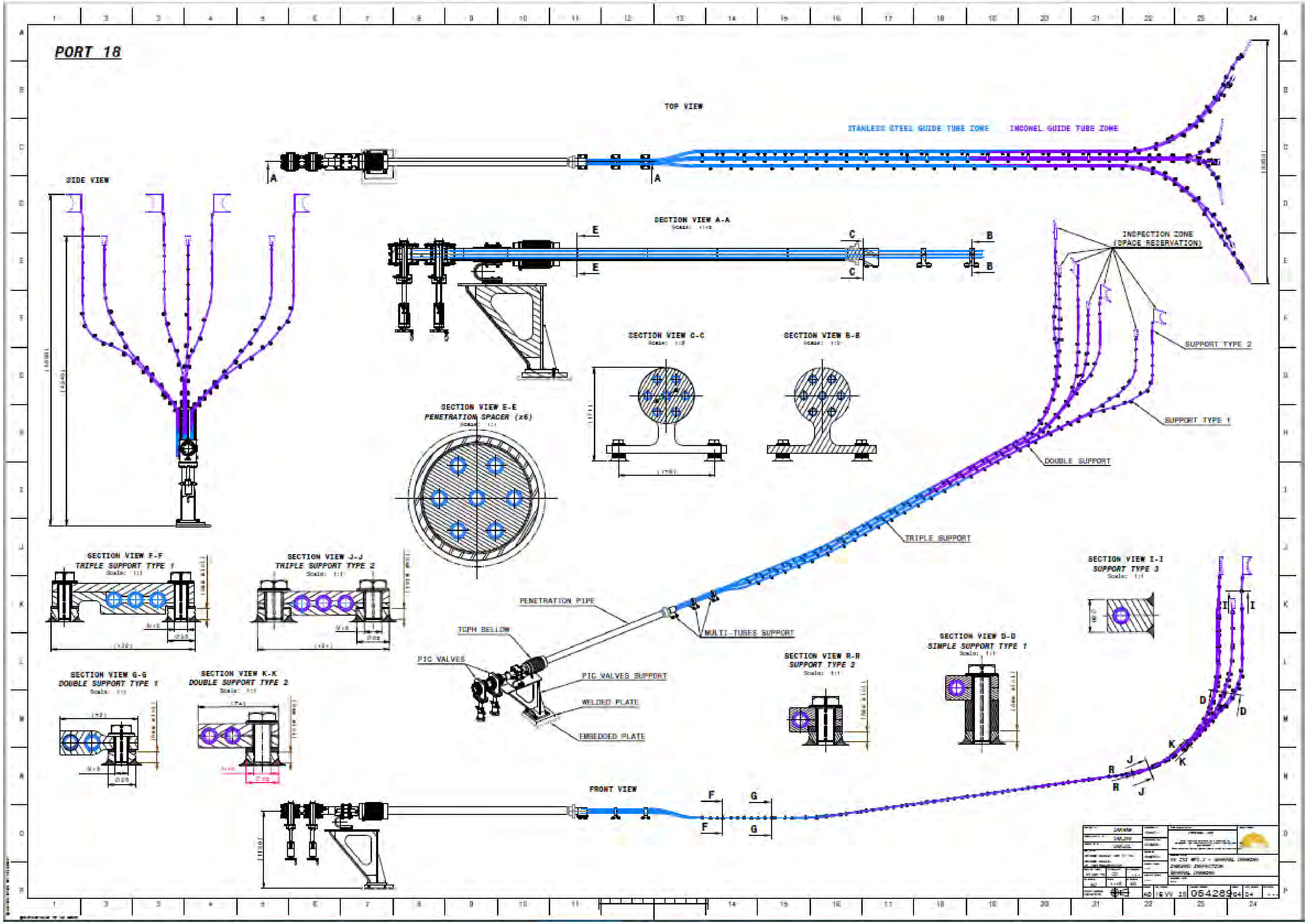
Appendix 1:

In-Service Inspection WP2.2 drawings

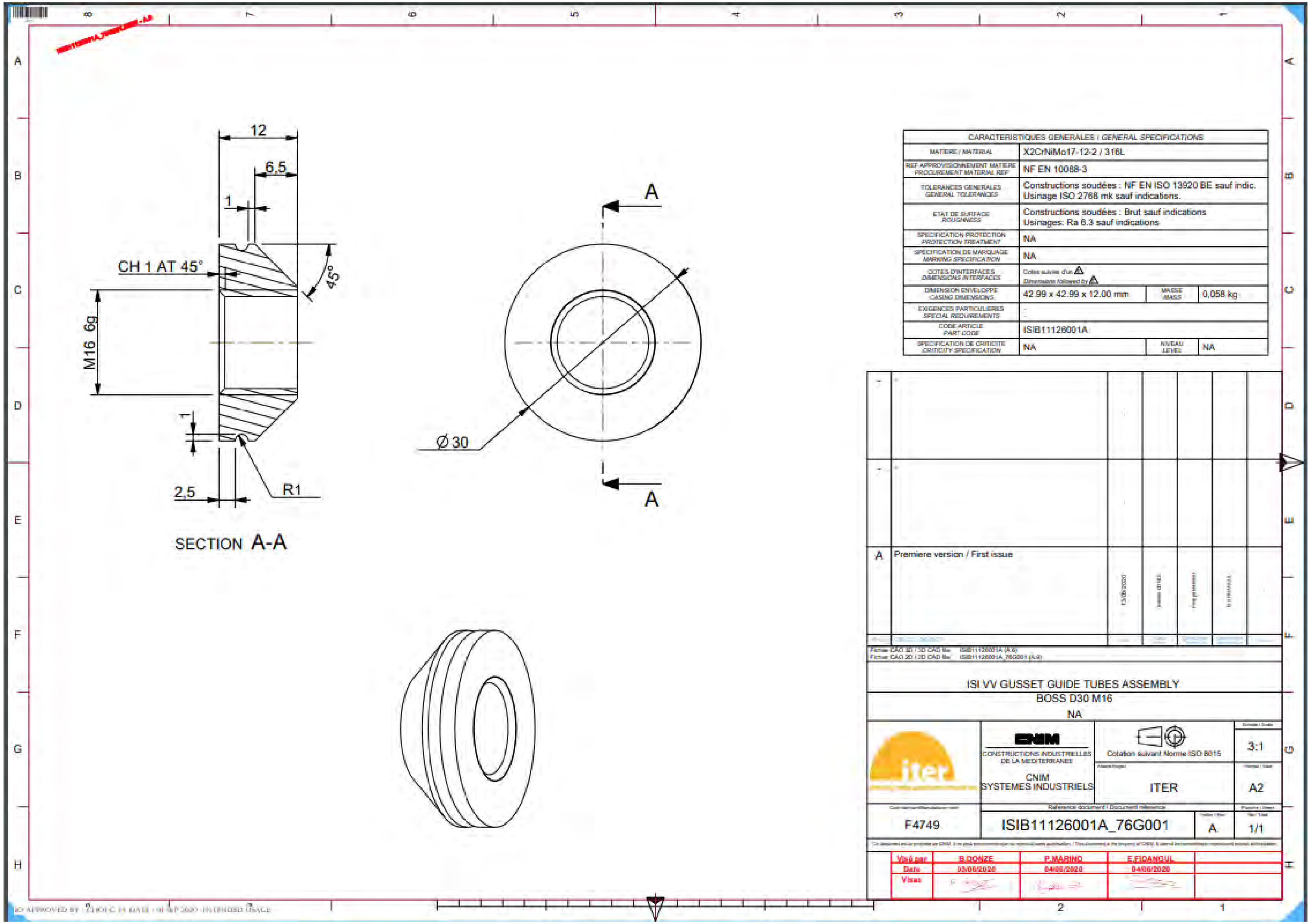
In-Service Inspection System WP2.2 General assembly drawing


WP2-2 SYSTEM EXPLODED VIEW
GUIDES TUBES - PORT 12
(IDENTICAL TO PORT 6)
IN-VESSEL GUIDE TUBES
(See drawing ref. XXXXX)
IN-VESSEL GUIDES TUBES
(See drawing ref. XXXXX)
PENETRATION PIPE
(See drawing ref. XXXXX)
PENETRATION PIPE
(See drawing ref. XXXXX)
PIC VALVES SUPPORT
(See drawing ref. XXXXX)
GUIDES TUBES - PORT 18
GUIDES TUBES - PORT 6
PIC VALVES BUNDLE
(See drawing ref. XXXXX)

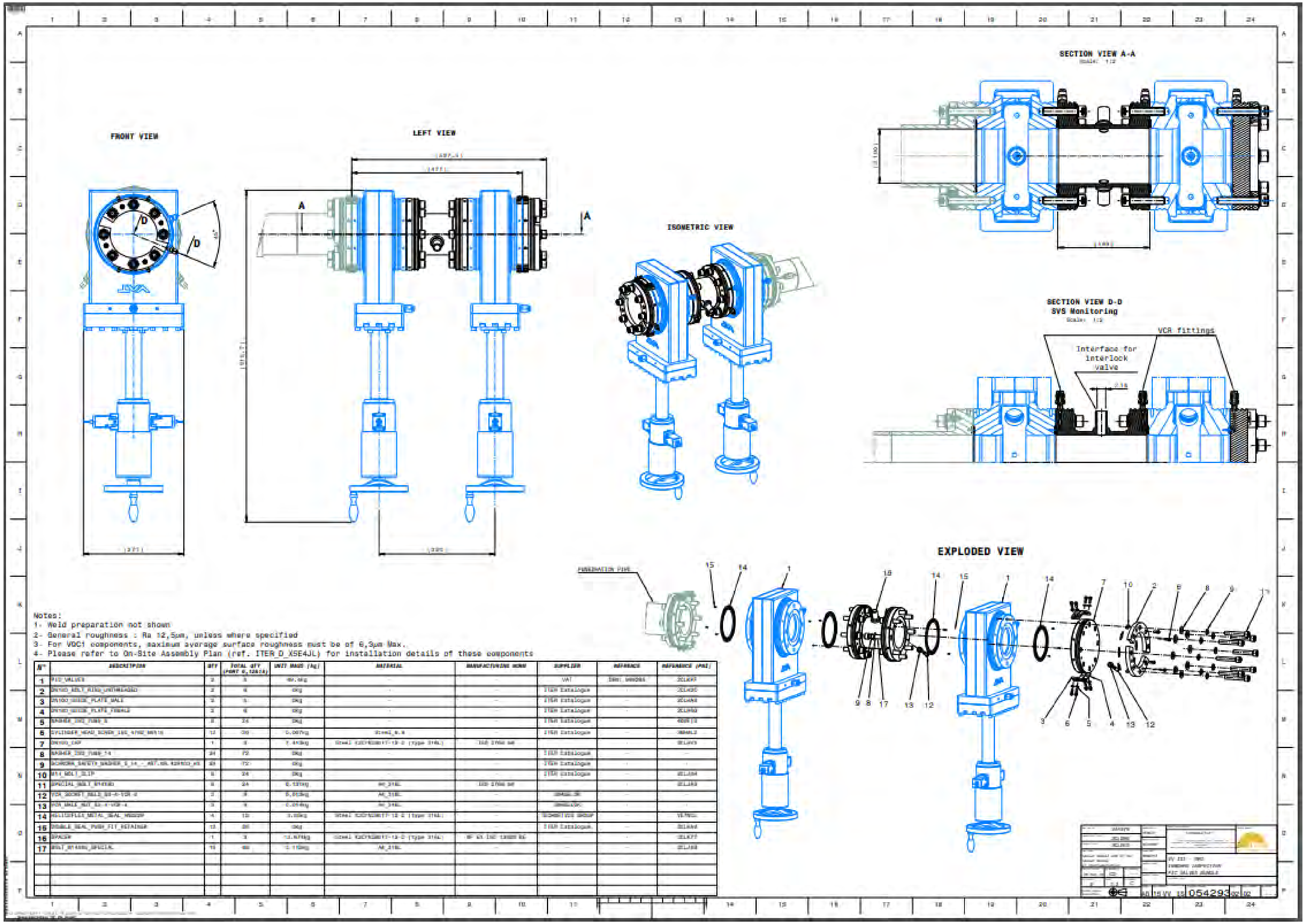

PORTS 6 & 12
TOP VIEW
STAINLESS STEEL GUIDE TUBE ZONE
INCONEL GUIDE TUBE ZONE
INSPECTION ZONE
(SPACE RESERVATION)
SECTION VIEW O-O
SIDE VIEW
SINGLE SUPPORT TYPE 3
SINGLE SUPPORT TYPE 2
SECTION VIEW M-M
PENETRATION SPACER
SECTION VIEW Q-Q
SECTION VIEW P-P
SINGLE SUPPORT TYPE 1
GUIDE TUBE
SECTION VIEW P-P
SINGLE SUPPORT TYPE 3
DUST MONITORING TUBES
PENETRATION PIPE
SECTION VIEW N-N
GUIDE TUBE SECTION
TCPH BELLOW
PIC VALVES
MULTI-TUBES SUPPORT ASSEMBLY
SECTION VIEW H-H
SINGLE SUPPORT TYPE 2
SECTION VIEW L-L
SINGLE SUPPORT TYPE 1
PIC VALVES SUPPORT
WELDED PLATE
EMBEDDED PLATE
FRONT VIEW
054289


PORT 18
TOP VIEW
STAINLESS STEEL GUIDE TUBE ZONE
INCONEL GUIDE TUBE ZONE
SIDE VIEW
SECTION VIEW A-A
INSPECTION ZONE
(SPACE RESERVATION)
SECTION VIEW C-C
SECTION VIEW B-B
SUPPORT TYPE 2
SUPPORT TYPE 1
SECTION VIEW E-E
PENETRATION SPACER (x6)
DOUBLE SUPPORT
TRIPLE SUPPORT
SECTION VIEW F-F
TRIPLE SUPPORT TYPE 1
SECTION VIEW J-J
TRIPLE SUPPORT TYPE 2
SECTION VIEW I-I
SUPPORT TYPE 3
PENETRATION PIPE
TCPH BELLOW
MULTI-TUBES SUPPORT
PIC VALVES
PIC VALVES SUPPORT
WELDED PLATE
EMBEDDED PLATE
SECTION VIEW G-G
DOUBLE SUPPORT TYPE 1
SECTION VIEW K-K
DOUBLE SUPPORT TYPE 2
SECTION VIEW R-R
SUPPORT TYPE 2
SECTION VIEW D-D
SIMPLE SUPPORT TYPE 1
FRONT VIEW

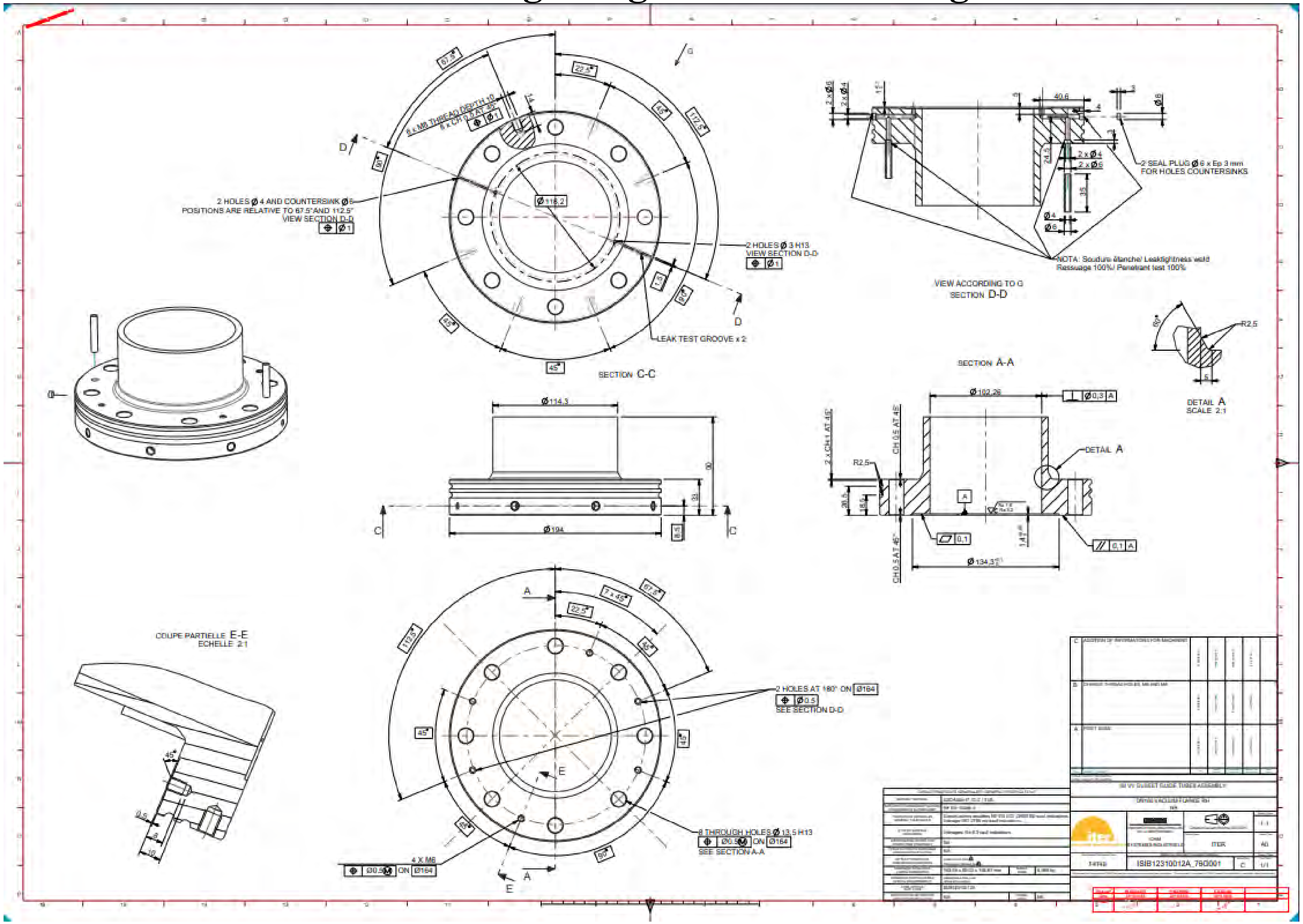
Boss D30 M16 drawing



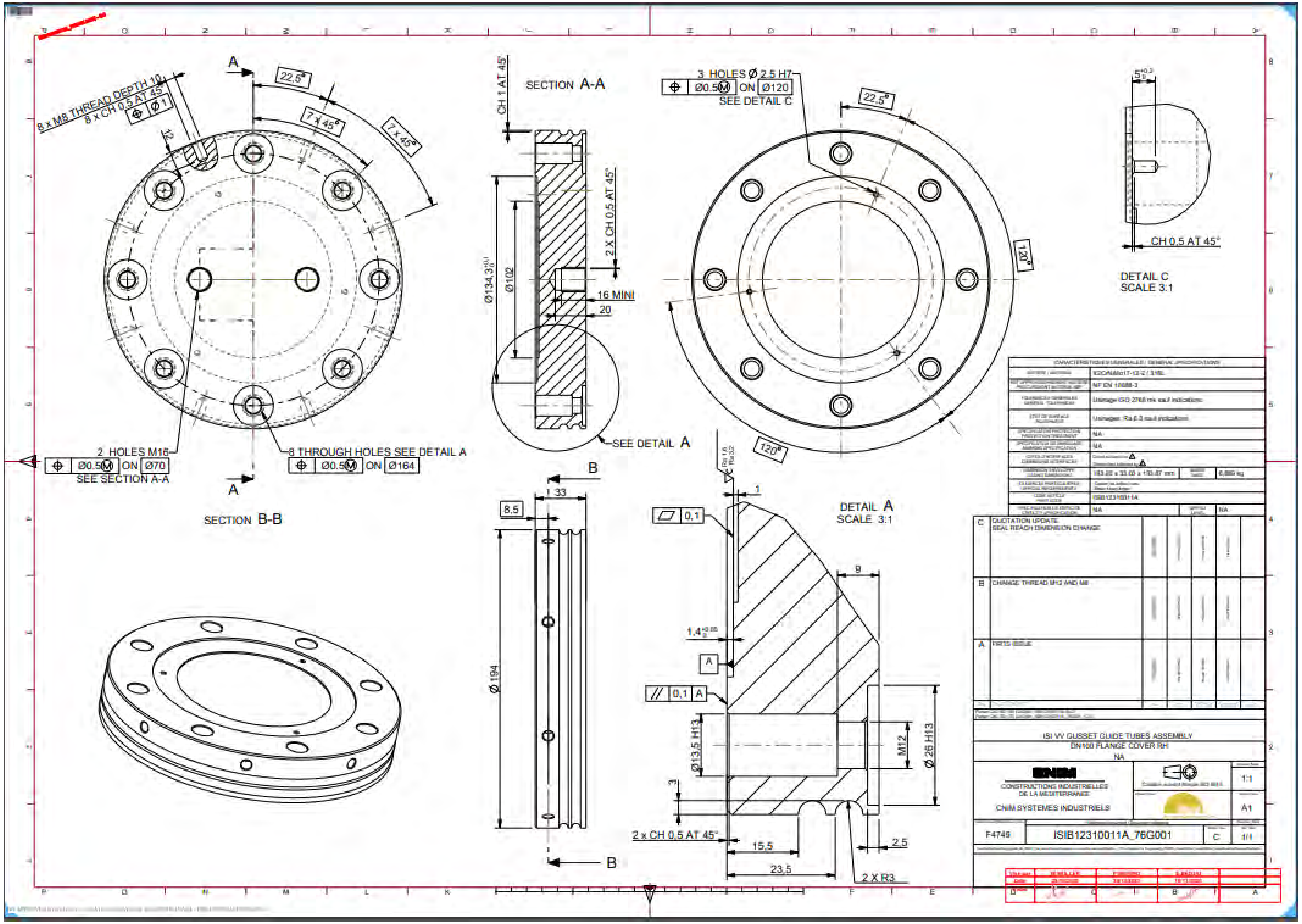
PIC Valves bundle assembly drawing



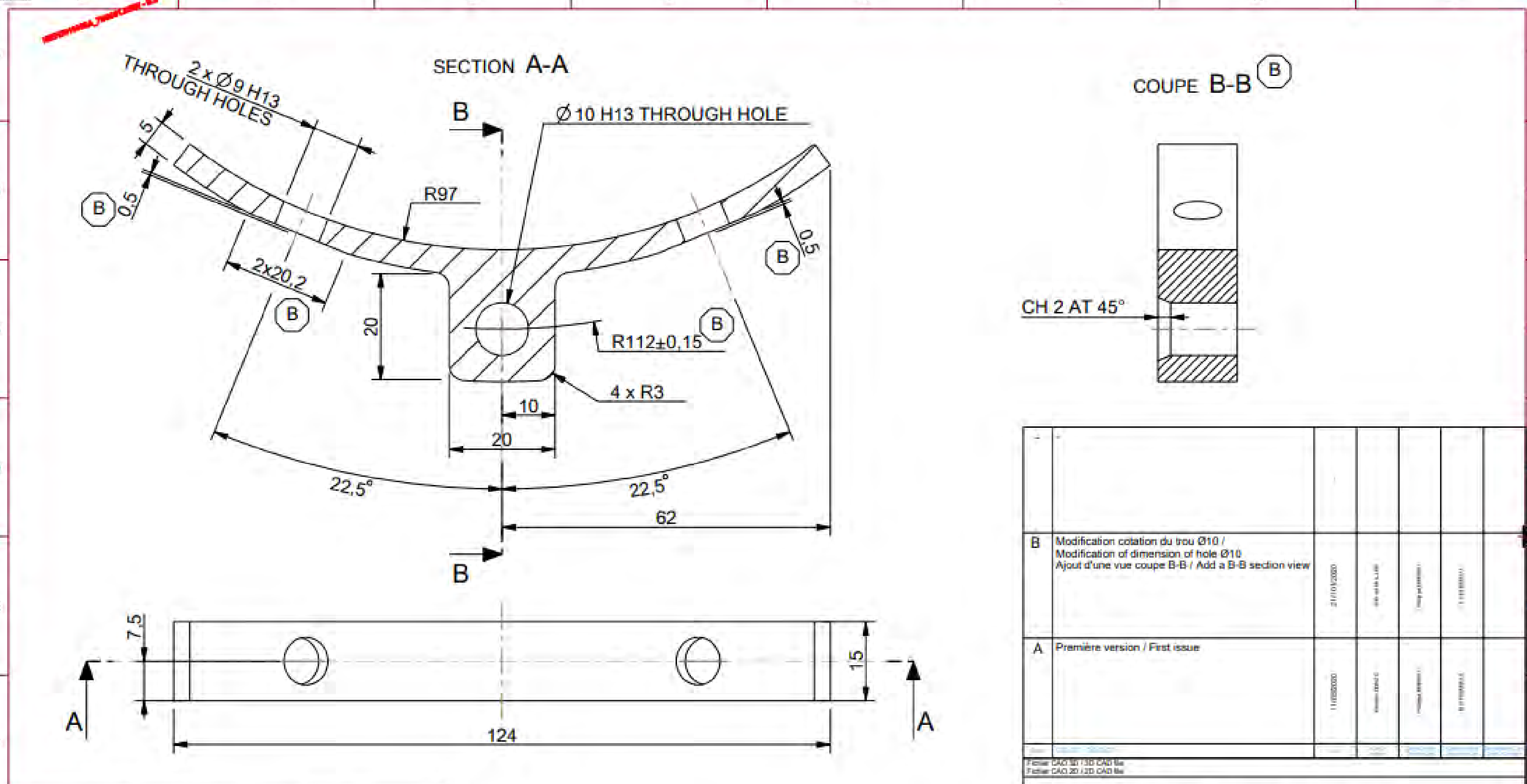
Connecting flange DN100 drawing



Flange DN100 cover drawing



DN100 GUIDE PLATE FEMALE 1



B	Modification cotation du trou Ø10 / Modification of dimension of hole Ø10 Ajout d'une vue coupe B-B / Add a B-B section view
A	Première version / First issue

CARACTERISTIQUES GENERALES / GENERAL SPECIFICATIONS			
MATIERE / MATERIAL	X2CrNiMo17-12-2 / 316L		
REF APPROVISIONNEMENT MATIERE / PROCUREMENT MATERIAL REF	NF EN 10088-3		
TOLERANCES GENERALES / GENERAL TOLERANCES	Usinage ISO 2768 mk sauf indications.		
ETAT DE SURFACE / ROUGHNESS	Usinages: Ra 6.3 sauf indications		
SPECIFICATION PROTECTION / PROTECTION TREATMENT	NA		
SPECIFICATION DE MARQUAGE / MARKING SPECIFICATION	NA		
COTES D'INTERFACES / DIMENSIONS INTERFACES	Cotes suivies d'un △ / Dimensions followed by △		
DIMENSION ENVELOPPE / CASING DIMENSIONS	98.52 x 15.00 x 76.89 mm	MASSE / MASS	0,108 kg
EXIGENCES PARTICULIERES / SPECIAL REQUIREMENTS	-Casser les arêtes vives -Break sharp edges		
CODE ARTICLE / PART CODE	ISIB12310009A		
SPECIFICATION DE CRITICITE / CRITICITY SPECIFICATION	NA	NIVEAU / LEVEL	NA

ISI VV GUSSET GUIDE TUBES ASSEMBLY
DN100 GUIDE PLATE FEMALE 1
NA

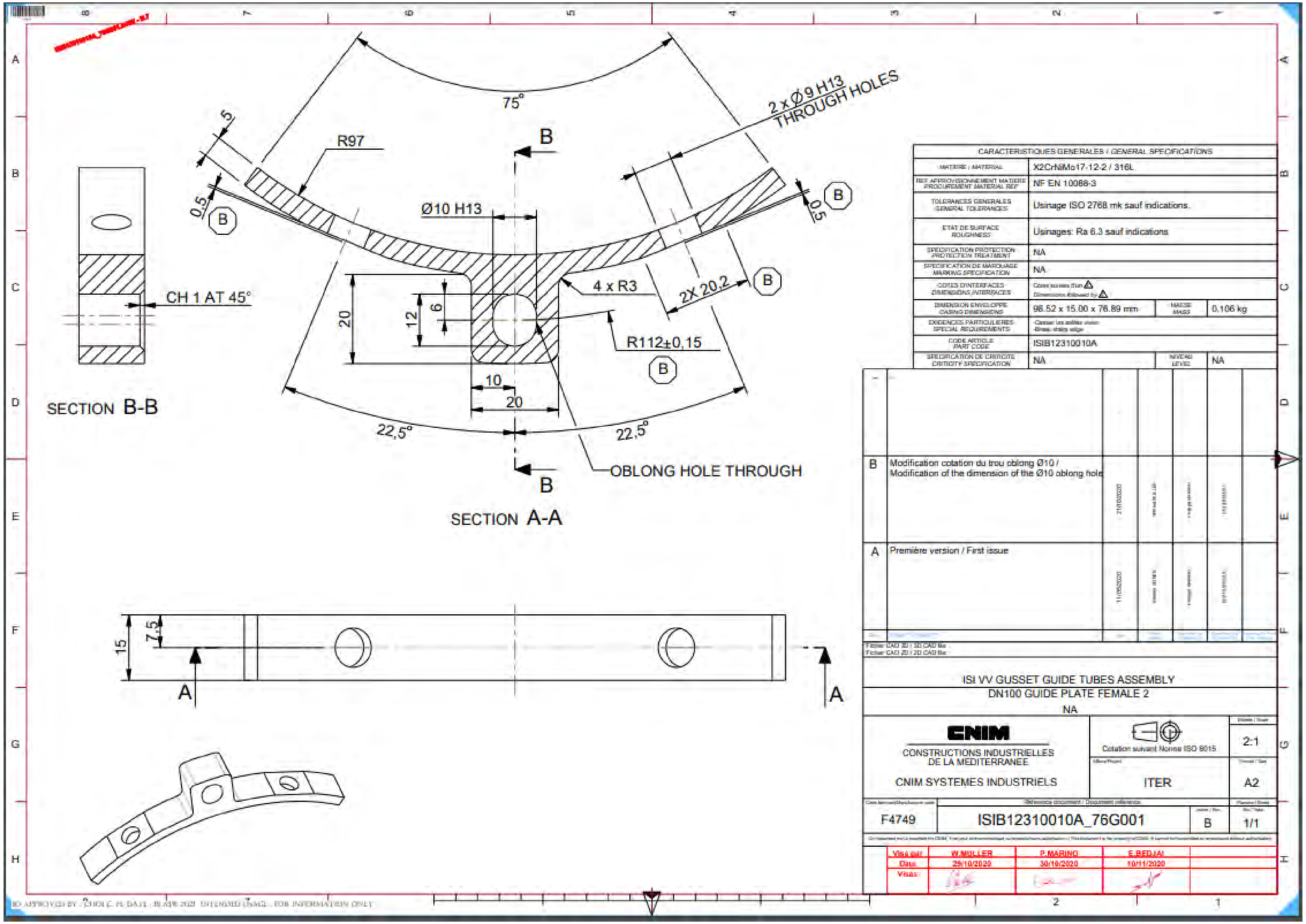
CNIM
CONSTRUCTIONS INDUSTRIELLES DE LA MEDITERRANEE
CNIM SYSTEMES INDUSTRIELS

Cotation suivant Norme ISO 8015

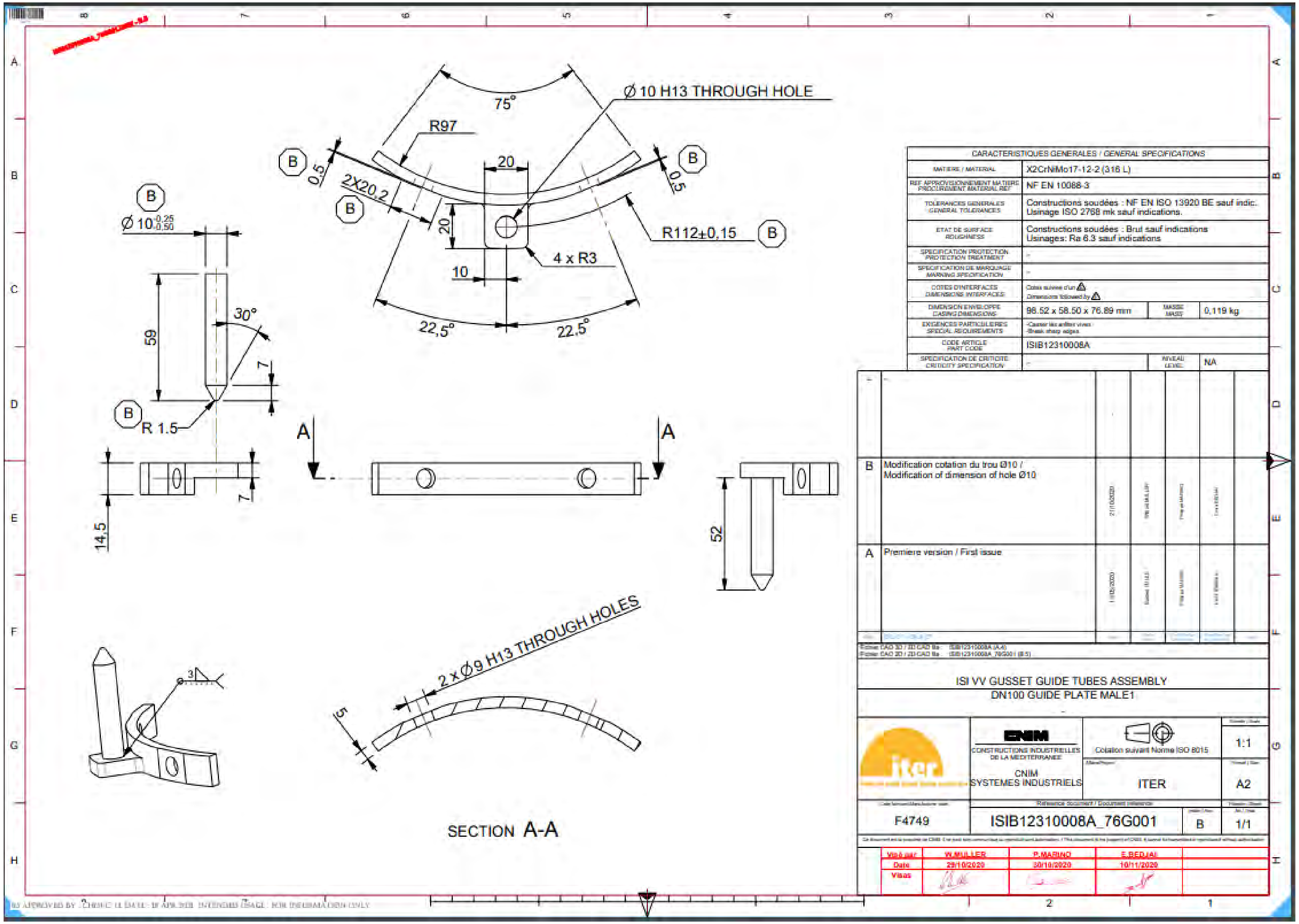
2:1	ITER	A2	
F4749	ISIB12310009A_76G001	B	1/1

Visé par	W.MULLER	P.MARINO	E.BEDJAI
Date	29/10/2020	30/10/2020	10/11/2020

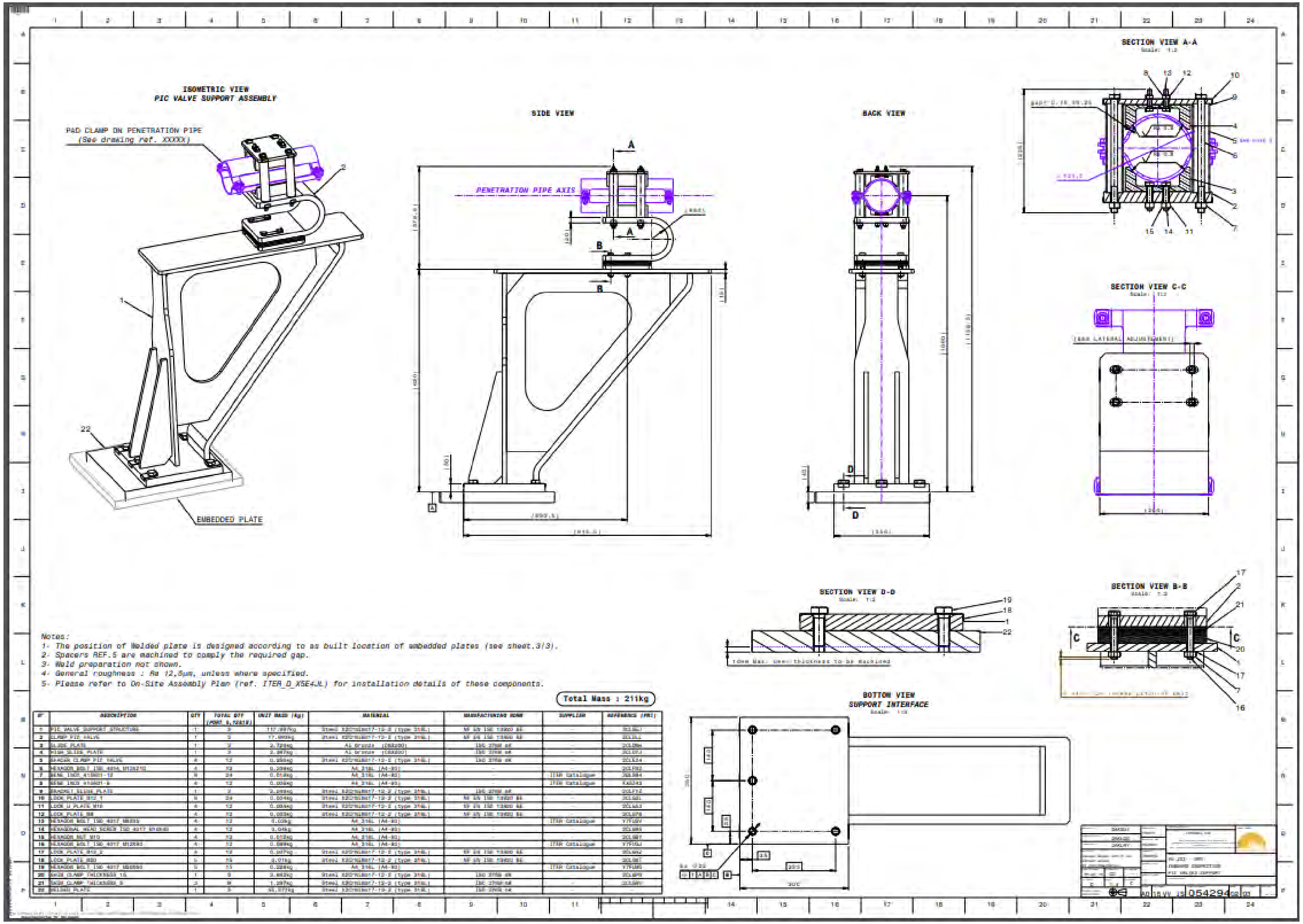
DN100 GUIDE PLATE FEMALE 2

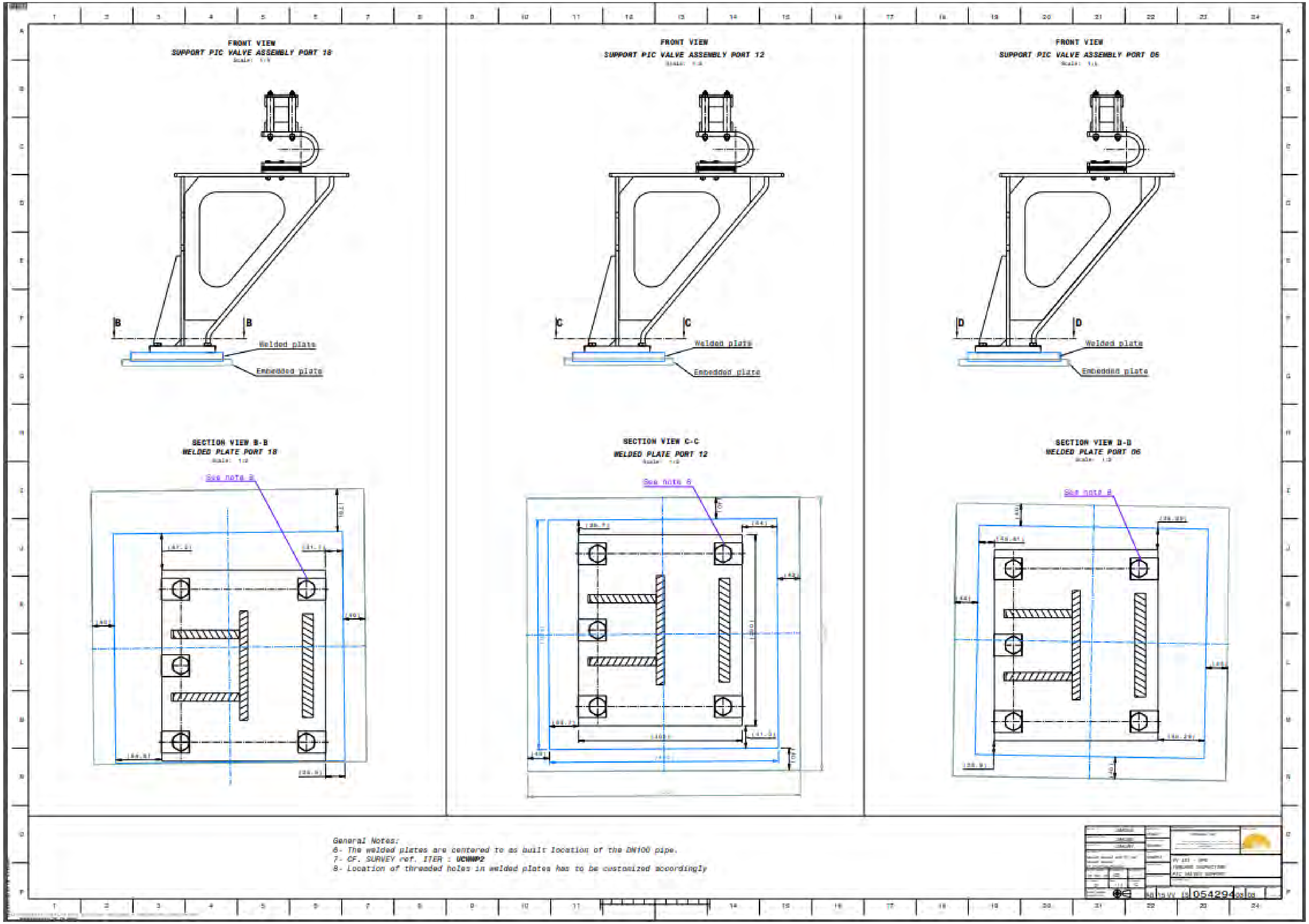


DN100 GUIDE PLATE MALE 1



VV ISI WP2.2 - IN VESSEL INSPECTION - PIC VALVES SUPPORT Assembly





FRONT VIEW
SUPPORT PIC VALVE ASSEMBLY PORT 18
B
B
Welded plate
Embedded plate
FRONT VIEW
SUPPORT PIC VALVE ASSEMBLY PORT 12
C
C
Welded plate
Embedded plate
FRONT VIEW
SUPPORT PIC VALVE ASSEMBLY PORT 06
D
D
Welded plate
Embedded plate
SECTION VIEW B-B
WELDED PLATE PORT 18
See note 8
SECTION VIEW C-C
WELDED PLATE PORT 12
See note 8
SECTION VIEW D-D
WELDED PLATE PORT 06
See note 8
General Notes:
6- The welded plates are centered to as built location of the DN100 pipe.
7- CF. SURVEY ref. ITER : UCWWP2
8- Location of threaded holes in welded plates has to be customized accordingly

Appendix 2:

List of Document Deliverables

Contractor should issue the documents and send them to IO for approval before starting of each corresponding activity.

Before start of fabrication contractor should provide for IO approval:

- QA program, which is to be reviewed and approved for compliance with the IO QA Program.
- Quality Plan.
- Manufacturing and Inspection Plan (MIP) for IO approval, which contains the list of manufacturing activities and agreed intervention points.
- Final version of 3D Models and Manufacturing Drawings.
- Material certificates.
- Dimension control plan.
- Dimension check procedure.
- Beding qualification report.
- On-site assembly plan.

During execution of contract contractor shall implement and provide for IO approval:

- Update MIP if necessary and provide to IO for re-acceptance.
- Notify IO representatives of any pending Inspection points as marked up on the MIP
- Issue Deviation Requests and Non-Conformance reports if necessary.
- Issue reports related to inspection and testing.
- Issue report related to dimension check.

Prior to delivery contractor shall:

- Complete the release note
- Issue Delivery report
- Issue Packing list

ANNEX I

EXPRESSION OF INTEREST & PIN ACKNOWLEDGEMENT

To be returned by e-mail to: shuying.clochard@iter.org with copy to Nicolas.reese@iter.org

TENDER No.	**IO/25/OT/ 10030675 /NRE**
DESIGNATION of SERVICES:	**Procurement of components for In-Service Inspection System WP2.2 of the ITER Vacuum Vessel.**
OFFICER IN CHARGE:	**Shuying Clochard EXT, Nicolas Reese – 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: ....

ANNEX I