	ITER-India	
	Technical specifications for “Logistics Services for Transportation and Ad-valorem Insurance of ITER Cryo-distribution System (3 ACBs) from Italy to France”	II-MHPM7T4-v1_1


Type of document	Tender Specifications
IDM number (If required)	--
INDUS number	II-MHPM7T4-v1_1
References	
Current Document phase	Approved
Current Document Version	V5.2
Version date	21-11-2022

Title	Part-A(I): Technical specifications Tender for “Logistics services for transportation and Ad-valorem insurance of ITER Cryo-distribution System (3 ACBs) from Italy to France”
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Distribution list	The Tenderer
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Abbreviations (in alphabetical order)

ACB - Auxiliary Cold Box
DAP - Deliver at Place
FCA - Free Carriage
GPMM - Grand Port Maritime de Marseille
LSP - Logistic Service Provider
LLSP - Local Logistic Service Provider

1. INTRODUCTION

1.1 Introduction to ITER Project

ITER is a unique collaboration involving more than half of the global humanity. The ITER partners are the Peoples Republic of China, The European Union, India, Republic of Korea, Japan, Russian Federation and the United States of America. ITER will be built mostly through in-kind contributions from the participant countries Domestic Agencies (DAs) in the form of components manufactured by DAs and delivered/installed at ITER.

ITER-India (Purchaser) is the Indian Domestic Agency (INDA) responsible for delivering India's contributions to the ITER Project. It is a specially empowered project within the Institute for Plasma Research, which is an autonomous institute under the Department of Atomic Energy (DAE), Government of India. ITER-India has 09 procurement packages to be delivered to the ITER Project. More information is available in the web site www.iterindia.in

DAHER International, France (DI) have been appointed by ITER Organization as the Logistics Service Provider to the ITER project with framework agreement. DAHER International, France will work with the LSP appointed by ITER-India.

The bidders should note that ITER being an international collaboration they will uphold the prestige of India in matters of execution of the work under this contract.


1.2 Introduction to ITER Cryo-distribution System

ITER Cryo-distribution system consist of five Auxiliary Cold Boxes (ACBs), one Thermal Shield Valve Box (TCVB) and one Cryoplant Termination Cold Box (CTCB).

The scope of present tender is limited to transportation of three ACBs. Each ACB is primarily made of stainless steel. ACBs consists of various internal components like internal piping, heat exchangers, Cryogenics valves, LHe bath, instruments etc. Transport package of each ACB weighs around 30 tons and dimensions of each ACB are as follows: ~5.6 meter long, ~4.8 meter high and ~5 meter wide.

2. SCOPE OF WORK

The scope of work includes following:

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1. Transport of 3 ACBs [ACB-5(CP), ACB-2(TF), ACB-1(CS)] from M/s SIMIC, Italy to ITER organization, France including loading, unloading and handling at ports.
2. Transportation of 3 Nos. ACBs in single batch in multimodal (road and sea) transport in close coordination with M/s Daher International France.
3. Preparation and submission (by email) of shipping plan of load (SPL) [refer Annexure-T4 for template], risk assessment and route plan at least 15 working days before commencement of shipment. Shipment can start only after approval of SPL by the Purchaser.
4. Ad valorem Insurance (max. permissible deductible is 0.5 % of cargo value) from collection point to the final destination (ITER organization). Insurance = 110% of the transit cargo value.
5. Route surveys, permissions and legal compliances necessary to carry out full scope of work.
6. Custom clearance/documentations activities at the country of collection point, if necessary.
7. All lifting devices for handling of ACBs shall be provided by the Contractor. Please refer more details in Annexure-T1 (transportation drawings).
8. Daily monitoring and recording of pressure as per Chapter 7 of this document.

The origin and destination for the items are as follows:

From (collection point):

M/s SIMIC S.p.a,
Via Vittorio Veneto
12072 Camerana (CN)
Italy

INCOTERM 2020:

FCA at collection point (free on Truck)

To (delivery point):

Fos Sur Mer, (GPMM), France

INCOTERM 2020:

DAP at delivery point, Fos Sur Mer, (GPMM), France

Means of transport:

By Road (from collection point to Marghera port, Italy) and By Sea from Marghera port, Italy to FOS Sur Mer (GPMM), France on gearless coaster vessel.

Duration:

Transportation shall be initiated within 30 calendar days from the date of intimation from the purchaser for readiness of the cargo and shall be completed (Delivered at FOS Sur Mer, France) within 30 calendar days from the initiation of the transport. The Transporter shall inform the Purchaser at least five working days before about the exact date of pick-up of items at the collection point.

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Item Details: 3 Nos of ACBs. Refer Annexure-T1 for drawings and Annexure-T2 for Packing List.

Schedule: Tentative date for transportation is during Q1/Q2 of 2023.

3. DELIVERY TO ITER SITE


Transportation of 3 Nos. ACBs from Fos Sur Mer (GPMM), France to ITER organization, France (Final Destination) shall be managed by M/s DAHER International under the Global Framework Contract with ITER Organization.

The Contractor shall have a partnership agreement with M/s DAHER International as per Annexure-A1 for the execution of the transportation of the cargo from delivery point to final destination (ITER Organization).

Final Destination of Cargo: ITER ORGANIZATION,
In front of Building 17,
Route de Vinon sur Verdon, CS 90046
13067 St Paul-Lez-Durance

4. General Terms and Conditions

- (a) Transport shall be carried out considering the dimensions, weight and other constraints mentioned in Annexure-T1.
- (b) Detention of the trailer, additional loading/unloading (if any) is included in the scope of the Contractor. Unloading of consignment at delivery point is in the scope of the Contractor.
- (c) Kick-off Meeting (KOM) may be held between purchaser and contractor within 1 week of contract signature to plan and organize the execution of scope of work.
- (d) It may be noted that an independent third party surveyor will be appointed by M/s Daher International for inspection at all handling points during the course of transportation as per the Global Framework Contract. The invoice along with the surveyor report for the same would be submitted by the Contractor for release of payment by the purchaser.
- (e) The Contractor shall make Partnership Agreement as per Annexure-A1 with M/s Daher International, France, which is mandatory for the shipment under consideration. The Contractor shall prepare necessary documentation in co-ordination with M/s Daher International for the shipment for approval.

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5. Technical Details of shipment

1. The shipment will be comprised of 3 ACBs. The detailed information is mentioned in the Packing List (Annexure-T2), transport procedure (Annexure-T3) and transportation drawings (Annexure-T1).
2. This is a non-hazardous cargo.
3. 3-Axis Accelerometers (supply and mounting in Purchaser's Scope) will be mounted on each component/package, which shall record the accelerations captured during handling and transportation activities with respect to time and date.
4. The handling instructions are specified in Annexure-T1 and T3 which includes position of centre of gravity, position of area for lifting (authorized and prohibited area), authorized handling direction, etc. For the transportation, the items/components need to be properly lashed with the bed of the truck/ship as mentioned in Annexure-T1 and T3.
5. The contractor shall arrange lifting devices (e.g. frames, slings, shackles etc.) for handling/lifting/tilting of ACBs (refer Annexure-T1)

6. Packaging Requirements

Full ACBs as well as its individual ports shall be covered in good quality weatherproof and sea worthy tarpaulin sheet properly fixed and secured to avoid loosening during transports and predicted winds. Packaging details shall be send to the Purchaser at least 15 working days before commencement of shipment.


7. Cargo Specifications and Requirements

- (1) Each ACBs will be mounted with 3-axis accelerometer/data logger (refer Annexure-T3 for details) by the Purchaser. These accelerometers will record real time data every few seconds. The ACB and its components are designed for following limits of accelerations and same shall be taken care while transport/handling/loading/unloading operations.

Table 1: Acceleration limits for ACBs and components to be transported

	By Road	By Sea
Transport direction	0.8 G	0.5 G
Lateral direction	0.5 G	0.5 G
Vertical direction	1 G	1 G

- (2) Internal components of each ACB will be pressurized with nitrogen gas (Purchaser's scope of work) to prevent ingress of impurity from ambient. The pressure gauge will be installed to monitor the pressure of nitrogen (Purchaser's scope of work).

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8. Incoming Inspection and Acceptance Criteria

The ACBs, once received at ITER site, will undergo inspection and following acceptance criteria is applicable.

- (a) The transported components shall not be physically damaged (visual inspection will be carried out).
- (b) The transported components shall not be subjected to accelerations more than defined in Table 1 (accelerometers readings will be checked).
- (c) Pressure inside the applicable components shall remain above atmosphere (should not be less than 0.05 bar(g)) (pressure gauge readings will be checked).

An incoming inspection report will be prepared for formal closure of the shipment.

In case, the above mentioned acceptance criteria is not satisfied, the rectification / additional test will be carried out by the Purchaser and the cost associated with it will be claimed against the Ad-valorem Insurance.

9. List of Annexures:

Annexure-T1: Transportation drawings for all 3 ACBs

Annexure-T2: Packing list for ACBs

Annexure-T3: Transport Procedure for ACBs

Annexure-T4: Template for Shipping Plan of Load

Annexure-T1:

Transportation drawings for all 3 ACBs

Bidders are requested to download Transportation Drawings from ITER-India website on following link:

<https://www.iterindia.in/tenders>

under Public/Global Tender Category

Annexure-T2 Packing List

PACKING LIST									
Packing List Number:		I-I/CDCL/EXPORT/XXXX/22-23		Date:		XXXXXXXXXX			
Exporter :									
ITER-India (IPR), Block A, Sangath Skyz, Bhat-Motera Road, Koteswar, Ahmedabad – 380005, India				Procurement Arrangement (PA) Number :		3.4.P3.IN.01			
				Other reference :		(i) I-I/CON/006/CRYDT/2015-16/1 dated 25/02/2021			
Place of Receipt :		M/s LKT and C/o M/s SIMIC S.p.a, Via Vittorio Veneto 12072 Camerana (CN) Italy Contact Person Details: Mr. Christian Bozzolasco TEL: +39 0174 906611 christian.bozzolasco@simic.it		Manufacturer :		M/s LKT and C/o M/s SIMIC S.p.a, Via Vittorio Veneto 12072 Camerana (CN) Italy Contact Person Details: Mr. Christian Bozzolasco TEL: +39 0174 906611 christian.bozzolasco@simic.it			
Delivery Address :				Delivery Address :					
ITER ORGANIZATION, In front of Building 17, Route de Vinon sur Verdon, CS 90046 13067 St Paul-Lez-Durance				ITER ORGANIZATION, In front of Building 17, Route de Vinon sur Verdon, CS 90046 13067 St Paul-Lez-Durance					
Contact :		Yanchun QIAO		Contact :		Yanchun QIAO			
Phone no.:		33442176257/33626312996		Phone no.:		33442176257/33626312996			
E-mail :		Yanchun.Qiao@iter.org		E-mail :		Yanchun.Qiao@iter.org			
Place of Receipt by Pre-carrier				M/s LKT and C/o M/s SIMIC S.p.a					
Vessel/Flight No.				-					
Port of Loading				Marghera port, Italy					
Port of Discharge				FOS Sur Mer (GPM), France					
Final Destination				Iter Org., B-17, Route de Vinon sur Verdon, 13115, St Paul-Lez-Durance, France					
Country of final Destination				France					
Terms of Shipment (Incoterms 2020) :				DAP at ITER-Site, St. Paul-Lez-Durance, France. INCOTERMS 2020 (excluding loading at SIMIC).					
Sr. No.	Description of Item	Type of Package	Qty	Dimensions			Unit Weight/ Kg	Gross Weight/ Kg	Volume (cm ³)
				Length/ cm	Width/ cm	Height/ cm			
1	Auxiliary Cold Box-5 (CP) [ACB-5]	Open+wooden protection	1	560	500	480	31000	31000	134400000.0
2	Auxiliary Cold Box-2 (TF) [ACB-2]	Open+wooden protection	1	560	500	480	29500	29500	134400000.0
3	Auxiliary Cold Box-1 (CS) [ACB-1]	Open+wooden protection	1	560	500	480	29500	29500	134400000.0
TOTAL							90000.00	90000.00	403,200,000.00
HS Code : 84191990									
* No commercial Value / Value for customs purposes only									
ITER-INDIA(IPR)'s IEC CODE : 0100000011/AMDCG0111E									
GSTN No. AA240717007578Z									
PAN No. AAAAI0348C									
Shipment under NFEI Scheme									
RBI GR WAIVER Reference Number :									


For ITER-India (IPR):

Logistics Contact Person of CDCL Group

For ITER-India (IPR):

Coordinator for INDA Logistics

Annexure-T3 Transport procedure for ACBs

 Linde Kryotechnik AG	ACB 1-5 Transport and Installation Procedure	L-SD 1036 Proj. No.: K.00519
Customer Nr.:		ITER-CD15 ACB 1-5

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1.

This document is between Purchaser and Purchaser's manufacturer. However, LLSP will refer details of instructions given in section 4 to 10 in this document.

Remark for the actual version:

Class of confidence 3 according LS 104-03: protected

draft	01	11.11.22		FC (alba)	F. Holzer	F. Holzer
Status	Issue	Date	Remarks	Issued	Approved	Released

Scope

This document describe the sequence of the transport from the manufacturer (SIMIC S.p.a, Camerana Italy) to ITER, Cadarache.

2. General remarks

1. In brackets it is noted who is responsible for each scope.
2. When information described in this document is not clear and unambiguous, please consult Linde Kryotechnik AG for further clarification before continuation of the works.
3. Client, ITER, is responsible for unloading and placement of ACB coldboxes.

3. Documents

3.1. Packing lists

Doc. No.	Description	Rev
L-LX 1010	ACB-1-CS Packing List	01
L-LX 1020	ACB-2-TF Packing List	01
L-LX 1030	ACB-3-ST Packing List	01
L-LX 1040	ACB-4-PF Packing List	01
L-LX 1050	ACB-5-CP Packing List	01

3.2. Drawings

Title	ACB-1	ACB-2	ACB-3	ACB-4	ACB-5
Transport	200104184	200104183	200104186	200104185	200103573
Transport saddle	200103717				
Transport lashing point with rip	200104046				
Transport lashing point	200104047				
Craddle	200103575				
Pump Nozzle for Transport	200104588				
Pressure gauge asm for Transport	200104579				
ACB Datalogger	200104618				

For information

External Piping	200103504	200103501	200103510	200103507	200102213
Dripping tray	200104196	200104195	200104198	200104197	200104194
Cooling water panel	200102217				
Maintenance access	200104043				
Vacuum pumping nozzle DN160	200102233				
Vacuum measurement system	200102235				
Vacuum connection filter	200102256				
Filtersystem-DN100	200102119				

4. Preparation for transport (LKT-SIMIC)

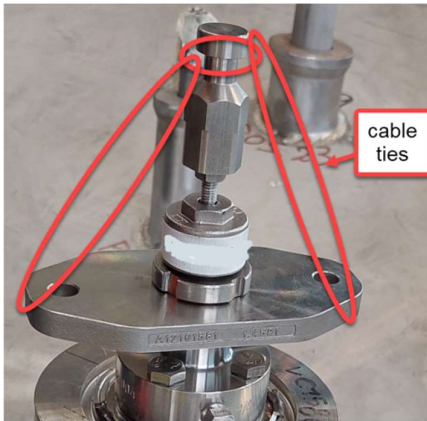
Following components (according Packing list) have to be dismantled for transport.

1. Valves actuators
2. Vacuum connection filter (DWG 200102256)
3. Pump Nozzle (DWG 200102233),
4. Cooling water Panel (DWG 200102217),
5. Dripping Tray, mark each segment for reassembly (e.g. numbers on drawing and vacuum vessel, pictures)
6. Grid of maintenance access
7. Junction boxes and vertical cable trays (only if wiring is not done)

Fill pipe spools according chapter 5 with Nitrogen. Filling positions are shown on transport drawing.

4.1. Transport preparation Cryogenic valves

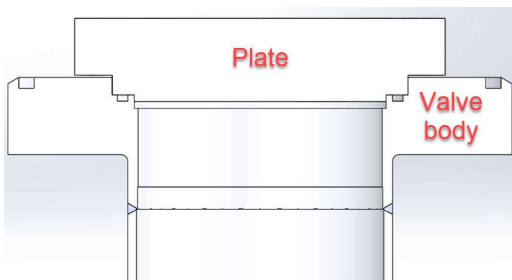
1. Spindles of Cryogenic valves has to be secured with cable ties to actuator plate.



2. Spindles of guarded valves have to be removed for rework by Flowserve and have to be closed with flange plates.

Following valves are concerned:

TAG	ACB-1-CS	ACB-2-TF	ACB-3-ST	ACB-4-PF	ACB-5-CP
VC-3600	DN100	DN100	DN100	DN100	DN100
VC-3650	DN65	DN80	DN80	DN65	DN65
VC-3660	DN32	DN32	DN32	DN32	DN25
VC-3680	DN15	DN15	DN15	DN15	DN15
VC-4100	DN15	DN15	DN15	DN15	DN15



5. Nitrogen filling (LKT-SIMIC)

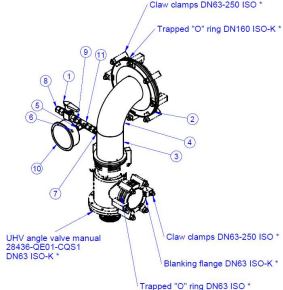
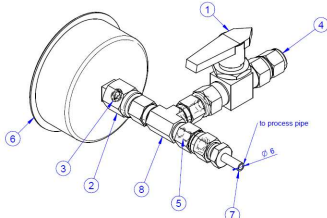
The vacuum shell and the piping have to be filled with nitrogen for the transport to prevent ingress of impurity from ambient.

Nitrogen shall be filled up to following pressures:

Vacuum vessel 0.1 bar.g

Piping: 0.3 bar.g

Use additional equipment

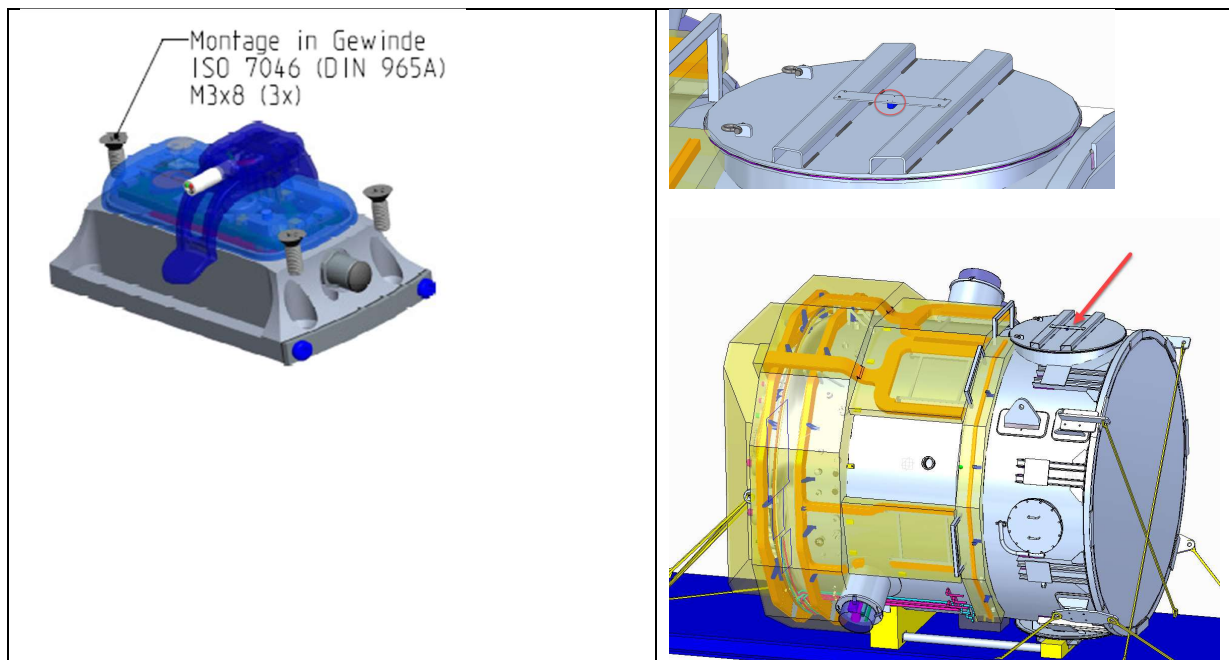
<p>Vacuum vessel 200104588 Pump Nozzle for Transport</p> <p>Second pump port has be closed with blind flange ISO-K DN160</p>	
<p>Piping 200104579 Pressure gauge asm for Transport</p>	

6. Accelerometers - Datalogger (LKT-SIMIC)

Datalogger will be provided by LKT and has to be returned to LKT afterwards (property of LKT).

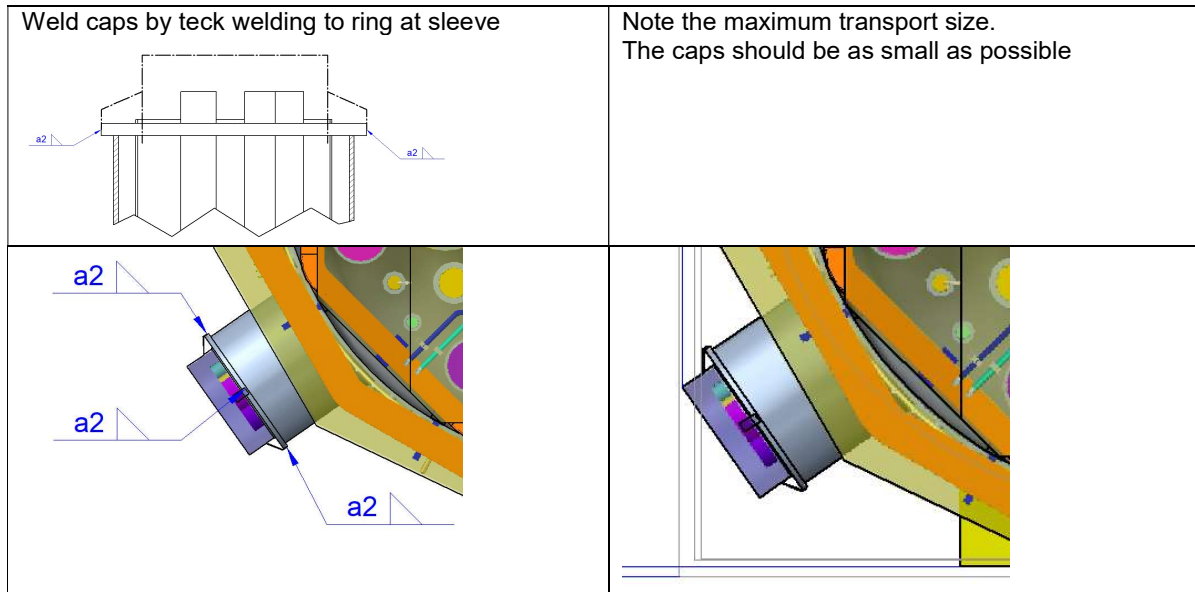
The 3-axis accelerometers (Data logger) will be placed at upper access HX.

Datalogger has to be fixed on the coldbox before tilting and has to be removed when the coldbox is at its final position in Tokamak building.



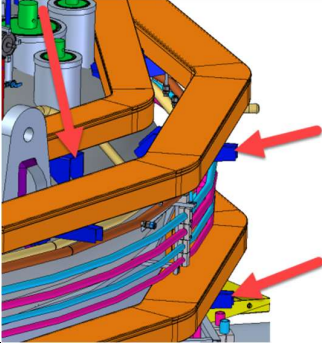
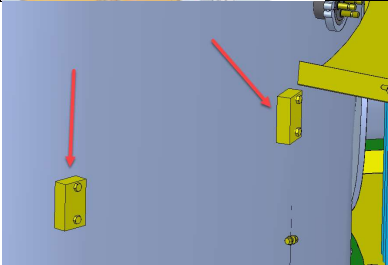
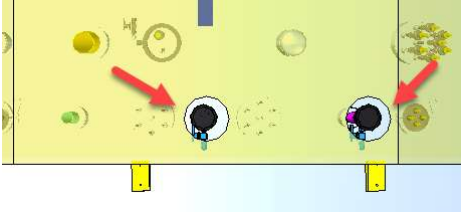
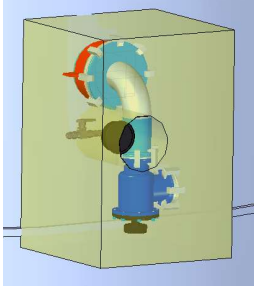
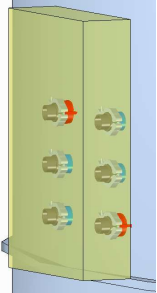
7. Protection for Transport (LKT-SIMIC)

1. Close flange (e.g. Manhole, Filter) by tape to protect sealings.
2. Fix Datalogger on coldbox.
3. Protect pipe spools in sleeve with "caps". Build caps with stainless steel (1.4301) plate thickness 3mm.



4. Seal sleeve with shrinking foil.
5. Tilt coldbox to horizontal before preparation for transport.
6. Cover valve plate with foil
7. Cover cable tray and junction boxes with foil
8. Cover measurement feed through with foil
9. Build the wooden protection hood. Take care to recess in protection hood for lashing.
 - a. Wooden protective hood protect valve plate, all cable trays, connectors and pump nozzle.
 - b. To fix protective hood use following structure:



<p>Cable tray supports</p> <p><i>You can drill additional holes if required</i></p>	
<p>Fixing points of dripping tray 2x M10 thread</p>	
<p>Piping filling ports (DWG 200104579)</p>	<p>Make window for checking nitrogen filling at manometer.</p> 
<p>Pump Nozzle for transport</p>	<p>Use pipe clamp to fix wooden protective hood. (Pipesize: Ø154x2.0 mm) Make window for checking nitrogen filling at manometer.</p> 
<p>Heater connectors</p>	<p>Use pipe clamp to fix wooden protective hood. (Pipesize: Ø44.5x2.0 mm)</p> 

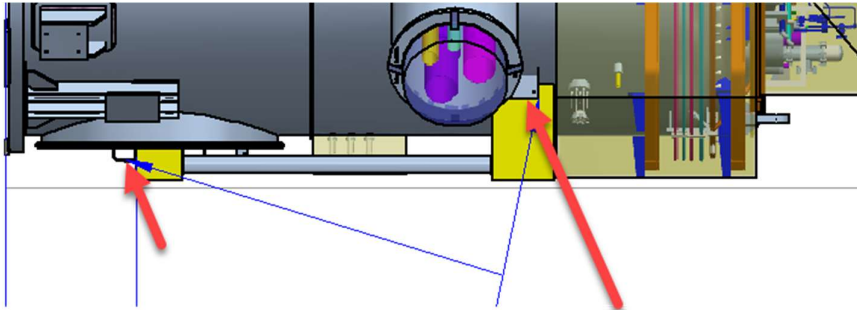
→ Cover complete cold box during transport with a trap.



**Create documentation for disassembly of wooden protection hood!
Mark position of screws for disassembly.**

8. Transport saddle (LKT-SIMIC)

Transport saddle (dwg 200103717) to be screwed to weld sheets at vacuum vessel.



9. Lifting and tilting (LKT-SIMIC-ITER)

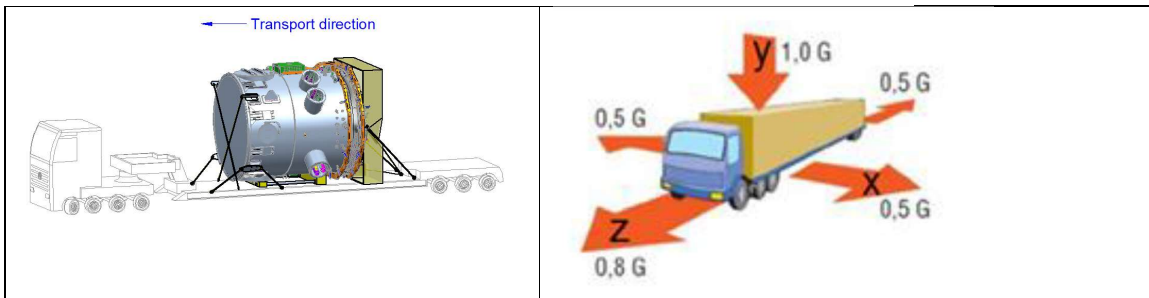
Lifting device must be provided by carrier.
Lifting and tilting information are shown on Transport drawing.

10. Transport road / sea (ITER)

(According: Specification_v0_2021-11-12)

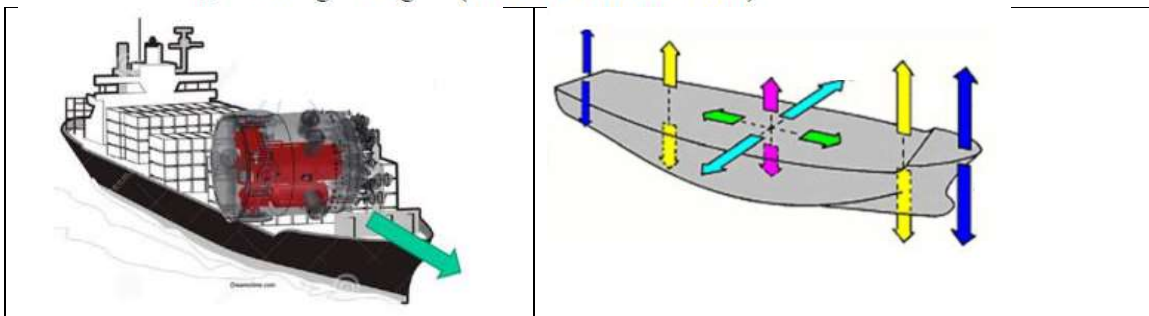
Road Transport Accelerations (4 combinations):

$$\begin{aligned} a_{x'} &= +0.5 \text{ g} / -0.5 \text{ g} && \text{(lateral direction 1)} \\ a_{y'} &= -1.0 \text{ g} && \text{(lateral direction 2, gravity load)} \\ a_{z'} &= -0.8 \text{ g} / +0.5 \text{ g} && \text{(axial direction of vessel)} \end{aligned}$$



Sea Transport Accelerations (8 combinations):

$$\begin{aligned} a_{x'} &= +0.5 \text{ g} / -0.5 \text{ g} && \text{(lateral direction 1)} \\ a_{y'} &= -1.0 \text{ g} \pm 0.5 \text{ g} && \text{(lateral direction 2, gravity load included)} \\ a_{z'} &= +0.5 \text{ g} / -0.5 \text{ g} && \text{(axial direction of vessel)} \end{aligned}$$



Lashing has be done according transport drawing.

Refer to protection notice ISO 16016.

11. Unloading (ITER)

1. Unload from road truck. For further information see transport drawing.
2. Coldbox has to be unpacked according documentation.
3. Bring coldbox to its final position. Use cradle (dwg 200103575) for lifting with hydro jack.

12. Internal Transport (ITER)

The procedure for transport inside the facility shall be defined by ITER, who is responsible for safe transportation within regulation.

13. Installation (LKT)

1. Install all actuators.
2. Install Junction Boxes
3. Install wiring of actuators
4. Install cooling water panels, use new sealing.
5. Install vacuum pump nozzle, some parts are used in 200104588 Pump Nozzle for Transport
6. Install vacuum connection filter
7. Install CRMs (to be done by ITER)
8. Install dripping tray

[Insert DA logo
here]

Annexure-T4

[Insert Partner
logo here]

Shipping Plan of Load – Cover Page

1. General

Date	
SPL version	
INDA TI reference and version	
DAHER TI reference	
Components description	

2. Table of content

Document name	Version	Date

3. Document revision

Version	Date	Changes

4. DAHER validation

Role	Name	Function	Date	Visa

[Insert DA logo
here]

[Insert Partner
logo here]

Technical Information

1. General

Date	
INDA TI reference and version	
DAHER TI reference	
Components description	
Purchase order number	

2. Origin

Place of collection	
Incoterms for delivery by supplier	
Foreseen date of pick-up	

Contacts at origin

Name	Company	Phone	E-mail

3. Destination

Place of delivery	
Incoterms for delivery	
Requested date at site	

Contacts at destination

Name	Company	Phone	E-mail

4. Component general information

Value for insurance		Currency	INR
PIC classified	Yes		
Export control procedure	No		
Import control procedure	Yes		
Hazardous cargo	No		
Preferred main transportation mode	OCEAN		

5. Packing list

Component description	inv reference	Drawing reference	critical	Number of pack.	Type of packing	Stackabi-ility	Per unit values			
							Length (cm)	Width (cm)	Height (cm)	Gross Weight (kg)
HEL / CEL										
Total number of packages				Total volume (m3)		0.0	Total gross weight (kg)			

Total number of packages	0	Total volume (m3)	0.0	Total gross weight (kg)	0.0
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6. Special instructions

Transportation and handling	
<i>Note: instructions from the manufacturer shall be attached; it shall include in case of CEL/HEL, the sketches with transportation frames, centre of gravity, lifting and lashing points, resting points for stillaging</i>	
Monitoring	
<i>Note: sketched with position of monitoring devices shall be attached</i>	
Storage	
<i>Note: packing shall be designed to withstand temporary outdoor storage during transportation</i>	
Import customs formalities	

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here]

[Insert Partner
logo here]

Routing Plan

1. General

Date	
Routing version	
INDA TI reference and version	
DAHER TI reference	
Components description	

2. Contacts

DAHER contacts

Name	Function	Company	Phone	E-mail

Partner contacts

Name	Function	Company	Phone	E-mail

3. Routing summary and warning points

Proposed departure date	b) late hypothesis	
Requested At Site date (RAS)		

Summary from route details (for information)

Warning Point 1 (contracting)	no contractual milestone
Warning Point 2 (pre-booking)	no contractual milestone
Warning Point 3 (confirmation)	no contractual milestone
Estimated average transit time	
Estimated arrival date	b) late hypothesis

4. Applicable documents

5. Business risks

#	Risk description	Type of impact		Risk level			Mitigation action
		Quality/ Cargo damage	Cost/ Delay	Severity	Proba- bility	Ranking	
1	Damage to Frames due to inappropriate handling	Yes	Yes	2	2	Med. (4)	obtain detailed handling procedure from supplier
2	Unavailability of empty OT containers	No	Yes	1	1	Low (1)	Booking with shipping line to be confirmed at earliest stage
3	Impossibility to receive components on ITER site	No	Yes	1	1	1	closely coordinate shipment with IO and obtain confirmation on RAS date prior shipment, provide CRN prior shipment
4	damage due to environmental influences	Yes	Yes	2	2	Med. (4)	check condition of tarpaulin used to cover OT cntrs
5	Damage due to excessive accelerations during container handling	Yes	Yes	2	2	Med. (4)	ship on direct vessel to limit handling operations
6	Container detention fees at FOS	No	Yes	1	2	Low (2)	Negotiate minimum 14 days free time detention at FOS

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Appendix - Route Detail								
Step	From	To	Activity	Transit time estimates		Subcontractor name	Detailed operations performed per subcontractor	Mean specification
				Earliest (days)	Latest (days)			
Pre carriage								
Doc and Declaration at Origin								
Loading of main transport								
Main transport								
Doc. and declaration at destination								
Unloading of main transport								
Intermediate storage at destination								
Loading of post-carriage								
Post-carriage								
Unloading of post-carriage								

Technical Bid Format				
Tender document Part-A (i) for Technical specifications for “Logistics Services for Transportation and Ad-valorem Insurance of ITER Cryo-distribution System (3 ACBs) from Italy to France”			Compliance matrix	
Section	Section Name/Sub section	Transport (ACBs) tender document requirements and information	YES/NO/PARTIAL	Remarks
2	SCOPE of WORK	1. Transport of 3 ACBs [ACB-5(CP), ACB-2(TF), ACB-1(CS)] from M/s SIMIC, Italy to ITER organization, France including loading, unloading and handling at ports.		
		2. Transportation of 3 Nos. ACBs in single batch in multimodal (road and sea) transport in close coordination with M/s Daher International France.		
		3. Preparation and submission (by email) of shipping plan of load (SPL) [refer Annexure-T4 for template], risk assessment and route plan at least 15 working days before commencement of shipment. Shipment can start only after approval of SPL by the Purchaser.		
		4. Ad valorem Insurance (max. permissible deductible is 0.5 % of cargo value) from collection point to the final destination (ITER organization). Insurance = 110% of the transit cargo value.		
		5. Route surveys, permissions and legal compliances necessary to carry out full scope of work.		
		6. Custom clearance/documentations activities at the country of collection point, if necessary.		
		7. All lifting devices for handling of ACBs shall be provided by the Contractor. Please refer more details in Annexure-T1 (transportation drawings).		
		8. Daily monitoring and recording of pressure as per Chapter 7 of this document.		
		The origin and destination for the items are as follows:		
	From: (Collection Point)	M/s SIMIC S.p.a, Via Vittorio Veneto 12072 Camerana (CN) Italy		
	INCOTERM 2020	FCA at collection point (free on Truck)		
	To : (Delivery Point)	FOS Sur Mer, (GPMM), France		
	INCOTERM 2020	DAP at delivery point, Fos Sur Mer, (GPMM), France		
	Means of transport:	By Road (from collection point to Marghera port, Italy) and By Sea from Marghera port, Italy to FOS Sur Mer (GPMM), France on gearless coaster vessel.		
	Duration	Transportation shall be initiated within 30 calendar days from the date of intimation from the purchaser for readiness of the cargo and shall be completed (Delivered at FOS Sur Mer, France) within 30 calendar days from the initiation of the transport. The Transporter shall inform the Purchaser at least five working days before about the exact date of pick-up of items at the collection point.		
	Item Details	3 Nos of ACBs. Refer Annexure-T1 for drawings and Annexure-T2 for Packing List.		
	Schedule	Tentative date for transportation is during Q1/Q2 of 2023.		
	DELIVERY TO ITER SITE	Transportation of 3 Nos. ACBs from Fos Sur Mer (GPMM), France to ITER organization, France (Final Destination) shall be managed by M/s DAHER International under the Global Framework Contract with ITER Organization		

3		The Contractor shall have a partnership agreement with M/s DAHER International as per Annexure-A1 for the execution of the transportation of the cargo from delivery point to final destination (ITER Organization).		
	Final Destination of Cargo	ITER ORGANIZATION, In front of Building 17, Route de Vinon sur Verdon, CS 90046 13067 St Paul-Lez-Durance		
4	General Terms and Conditions	(b) Detention of the trailer, additional loading/unloading (if any) is included in the scope of the Contractor. Unloading of consignment at delivery point is in the scope of the Contractor		
		(c) Kick-off Meeting (KOM) may be held between purchaser and contractor within 1 week of contract signature to plan and organize the execution of scope of work.		
		(d) It may be noted that an independent third party surveyor will be appointed by M/s Daher International for inspection at all handling points during the course of transportation as per the Global Framework Contract. The invoice along with the surveyor report for the same would be submitted by the Contractor for release of payment by the purchaser		
		(e) The Contractor shall make Partnership Agreement as per Annexure-A1 with M/s Daher International, France, which is mandatory for the shipment under consideration. The Contractor shall prepare necessary documentation in co-ordination with M/s Daher International for the shipment for approval.		
5	Technical Details of Shipment	1. The shipment will be comprised of 3 ACBs. The detailed information is mentioned in the Packing List (Annexure-T2), transport procedure (Annexure-T3) and transportation drawings (Annexure-T1)		
		2. This is a non-hazardous cargo		
		3. 3-Axis Accelerometers (supply and mounting in Purchaser's Scope) will be mounted on each component/package, which shall record the accelerations captured during handling and transportation activities with respect to time and date.		
		4 The handling instructions are specified in Annexure-T1 and T3 which includes position of centre of gravity, position of area for lifting (authorized and prohibited area), authorized handling direction, etc. For the transportation, the items/components need to be properly lashed with the bed of the truck/ship as mentioned in Annexure-T1 and T3.		
		5. The contractor shall arrange lifting devices (e.g. frames, slings, shackles etc.) for handling/lifting/tilting of ACBs (refer Annexure-T1)		
6	Packaging Requirements	Full ACBs as well as its individual ports shall be covered in good quality weatherproof and sea worthy tarpaulin sheet properly fixed and secured to avoid loosening during transports and predicted winds.		
		Packaging details shall be send to the Purchaser at least 15 working days before commencement of shipment.		
	Cargo Specifications and Responsibilities	The ACB and its components are designed for following limits of accelerations and same shall be taken care while transport/handling/loading/unloading operations.		
		Table 1: Acceleration limits for ACBs and components to be transported		

7		<table><tr><td></td><td>By Road</td><td>By Sea</td></tr><tr><td>Transport direction</td><td>0.8 G</td><td>0.5 G</td></tr><tr><td>Lateral direction</td><td>0.5 G</td><td>0.5 G</td></tr><tr><td>Vertical direction</td><td>1 G</td><td>1 G</td></tr></table>		By Road	By Sea	Transport direction	0.8 G	0.5 G	Lateral direction	0.5 G	0.5 G	Vertical direction	1 G	1 G		
			By Road	By Sea												
		Transport direction	0.8 G	0.5 G												
		Lateral direction	0.5 G	0.5 G												
		Vertical direction	1 G	1 G												
8	Incoming Inspection and Acceptance Criteria	The ACBs, once received at ITER site, will undergo inspection and following acceptance criteria is applicable.														
		(a) The transported components shall not be physically damaged (visual inspection will be carried out).														
		(b) The transported components shall not be subjected to accelerations more than defined in Table 1 (accelerometers readings will be checked).														
		(c) Pressure inside the applicable components shall remain above atmosphere (should not be less than 0.05 bar(g)) (pressure gauge readings will be checked).														
		An incoming inspection report will be prepared for formal closure of the shipment.														
		In case, the above mentioned acceptance criteria is not satisfied, the rectification / additional test will be carried out by the Purchaser and the cost associated with it will be claimed against the Ad-valorem Insurance.														
		Annexure-T1	Transportation drawings for all 3 ACBs													
Annexure-T2	Packing list for ACBs															
Annexure-T3	Transport Procedure for ACBs															
Annexure-T4	Template for Shipping Plan of Load															