INSTITUTE FOR PLASMA RESEARCH

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MINOR FABRICATION WORKS
ENQUIRY

Office Copy

ENQUIRY NO :IPR/MFW/20-21/98
Date : 18-03-2021
Due Date : 18-04-2021 13:00 IST
Extended Due Date : 21-04-2021

Please send your offer in sealed envelope specifying Inquiry No, Date & Due Date, ALONG WITH your credentials for the following items:

Important Note:

Please note that e-mail quotations are not acceptable however you may send your queries (if any) to **asircar@ipr.res.in**

Please Ensure that your sealed quotation reaches this office not later than above mentioned due date and time.

Kindly go through the following document properly before Quoting which are available on the IPR web portal i.e., http://www.ipr.res.in/documents/tenders.html/ attached here with.

1. Technical specification as enclosed.
2. Instruction to the bidders & terms and Condition (refer Form NO:**IPR-MFW-01-V1**)
3. Bidding format(refer Biddingformat MFW-Bid.pdf)

GST fro Goods and Services (IGST/CGST/SGST TAX BENEFITS): PLEASE REFER clause no:8 of Form No:**IPR-MFW-01-V1**

QUOTATION SHOULD BE ADDRESSED TO **AMIT SIRCAR** ONLY.

Sr.No.	Description	Quantity	Rate
1	Fabrication, testing and supply of Cold Trap as per attached specification	1	No.

Free Issue Material

Sr.No.	Description	Quantity	Unit	Value
1	Not Any	0.00		0.00
2		0.00		0.00

Note : Please quote with complete technical details (Technical Compliance sheet and product data sheet)

Encl: As per attachment

25/-03-2021

AMIT SIRCAR
Scientific Officer-G

Technical specification for fabrication, testing and supply of cold trap

1. Introduction:

This document covers the technical specification for the fabrication, testing and supply of cold trap (CT).

2. Scope of supply:

This work involves the fabrication, testing and supply of cold trap. Detail scope of the work is described below.

2.1 Vendor shall review the drawings of cold trap assembly provided by IPR (refer attached drawings) considering the fabrication and assembly point of view.

2.2 Vendor may provide their suggestion for the modifications considering the fabrication feasibility in the existing drawings submitted by the IPR.

2.3 IPR will review the suggestions provided by the vendor and if found suitable, IPR will provide approval to vendor to incorporate mutually agreed design modifications in the final fabrication drawing.

2.4 Vendor shall prepare the final fabrication drawings of CT incorporating mutually agreed design modifications and submit the final fabrication drawings to IPR for approval. Vendor shall mention the tolerance details as per ASME in the final fabrication drawing.

2.5 After the approval of final fabrication drawing by IPR, vendor shall submit the detailed QAP (Quality assurance plan) documents, assembly sequence and the fabrication drawings along with source file (CATIA/ AutoCAD etc.) of drawings. Vendor shall not proceed for fabrication without IPR approval of final fabrication drawings and QAP.

2.6 Vendor shall follow the prescribed codes and standards as well as QAP provisions for material procurement, fabrication and testing as described in the section- 3 and section-4 of technical specification.

2.7 Vendor shall procure the required materials and submit the material test certificate (chemical and mechanical) from NABL accredited lab prior to fabrication.

2.8 Vendor shall fabricate the Cold Trap as per the approved fabrication drawings and prescribed codes and standards.

2.9 Pre-Dispatch Inspection (PDI) will be performed in the presence of IPR representatives and/or IPR authorized experts at the vendor's site as per the test described in section-5 of technical specification. Vendor shall arrange all the required test facilities and instrumentation for PDI at his site.

2.10 All the test results shall be submitted to IPR for review. Dispatch clearance will be provided based on the acceptance of the test reports.

2.11 After issuance of dispatch clearance by IPR, the cold trap shall be suitably packed by the vendor to avoid any damage during transportation. Vendor should also ensure that the cold trap will be pressurized with inert gases pressure to restrict the corrosion of material. Safe transportation of complete cold trap assembly to the IPR is the responsibility of the vendor.

2.12 Vendor shall submit the fabrication drawings, material test certificates, inspection and testing reports along with the delivery of the equipments.

2.13 After the delivery of the cold trap, acceptance test will be performed at IPR, as mentioned in section 7 of technical specification. After the successful completion of the acceptance test at IPR site, final acceptance will be provided to the vendor.

2.14 **Materials**

2.14.1 Material of construction for cold trap internals: SS316L

2.14.2 Material of construction of fins: Aluminum

2.14.3 Material of construction of outer jacket: SS304

2.14.4 Material of construction of mesh packing (US mesh sieve size 40): SS316L

2.14.5 Material of construction of gasket: Grafoil

3. Applicable Codes & Standards

The following Standards, Codes and Regulations whichever is applicable in their latest edition including their addenda shall form the basis for fabrication, inspection, testing Cold Trap

3.1 **Fabrication Codes and Standards:**

3.1.1	ASME Section VIII Div. 1	: Boiler & Pressure Vessel Code
3.1.2	ASME Section IX	: Welding Qualifications
3.1.3	ASME B16.9	: Standard for butt welded fittings

3.2 **Material Code**

3.2.1	ASME Section II	: Boiler & Pressure Vessel Codes
3.2.2	ASTM	: Standards of Material of Construction and Testing

3.3 **Inspection and Testing Codes**

3.3.1	ASME Section V	: Non-Destructive Test

4. Quality Assurance Plan and fabrication requirement

4.1 **General QAP requirements**

4.1.1 Vendor shall submit the Quality Assurance Plan (to be supplied after acceptance of the design documents) document to IPR prior to start of the fabrication addressing the below points. The QAP shall show review, hold point and witness for the specific jobs. The same shall be mutually agreed. QAP should also include

the Witness final and important tests/inspections and issuance of inspection release notes. QAP shall also include the review of material test certificate by IPR.

4.1.2 Vendor shall submit following quality control documents, as discussed in the following sections:

- Material test certificates (Chemical and Mechanical) from NABL certified lab
- Welding documents (WPS, WPQ, PQR)
- Dimension Inspection report
- Liquid penetrant test report
- Hydro Test report

4.2 **Material and testing**

4.2.1 Vendor shall use seamless pipe during the fabrication of cold trap.

4.2.2 Vendor shall procure all the required materials and submit the material test certificate (chemical and mechanical) from NABL accredited lab prior to fabrication.

4.3 **Fabrication**

4.3.1 Vendor shall execute the fabrication work of cold trap as per the approved final fabrication drawings.

4.3.2 Fabrication practice shall be as per the codes and standard provided in section 3 of the technical specification. Prior to fabrication, vendor shall prepare fabrication procedure with sequence of operation and shall submit to IPR for approval.

4.4 **Welding**

All welding shall be performed only by qualified welders and as per the codes and standard provided in section 3 of the technical specification. Prior to start of the fabrication, vendor shall submit the welding procedure specification (WPS), Welder performance qualification (WPQ) and procedure qualification records (PQR) to IPR for approval.

4.5 **Liquid Penetrant Test**

Liquid penetrant test shall be carried out for all weld joints (external /internal surfaces, weld etc.) in cold trap as per relevant codes and standard mentioned in section 3 of the technical specification. The vendor shall submit the Liquid penetrant test report to IPR for review and approval.

5. Factory Acceptance Test:

Following test should be carried out at the vendor's site in presence of the IPR representative: The vendor is responsible for arranging all the necessary man power and tools for performing all inspection and testing as described below at their own cost.

5.1 **Dimensional Checks:** External dimension of Cold Trap will be measured and verified with the approved fabrication drawing.

5.2 **Hydro Testing:**

5.2.1 The hydrostatic test of cold trap inner vessel shall be performed using demineralized water at 5 bar pressure for the duration of 30 minutes. Vendor has to demonstrate no leakage from the vessel during the hydro testing of CT.

5.2.2 Prior to dispatch, the cold trap shall be cleaned internally and externally to remove scale, dirt, water & foreign matter and thereafter it will be dried. All end connections shall be blanked, plugged, capped or otherwise suitably sealed to prevent the ingress of moisture.

5.2.3 Based on the satisfactory test results of factory acceptance test, dispatch clearance will be provided to the vendor.

6. Packing and Delivery

6.1 After issuance of dispatch clearance by IPR cold trap shall be suitably packed by vendor to avoid any damage during transportation. Safe transportation of whole complete cold trap assembly to IPR is the responsibility of the vendor.

6.2 The delivery shall be made within 5 months after placement of the purchase order and subsequent acceptance by the vendor. The shipment shall be delivered to, The Stores In-Charge, IPR, Bhat, Gandhinagar 382428 Gujarat, India.

7. Acceptance Test at IPR:

After the delivery of the cold trap at IPR, following test will be carried out at IPR

7.1 Visual inspection of cold trap will be carried out to check any damage and deformities happened during the transportation of the CT.

7.2 After completion of visual inspection, the helium leak test of the cold trap vessel (excluding outer jacket and fins) will be carried out at Room Temperature using evacuation method in the presence of vendor's representative. The cold trap will be accepted only if the leak rate is found $\leq 1\times10^{-8}$ std.cc/s.

7.3 If the measured local leak rate is found higher than specified value, the heat exchanger shall be repaired by the vendor and the testing shall be repeated sequentially as mentioned above.

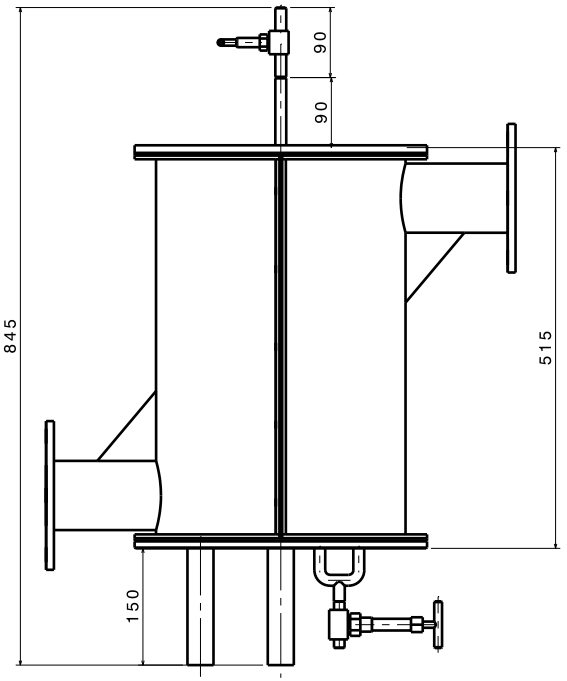
8. List of Deliverables

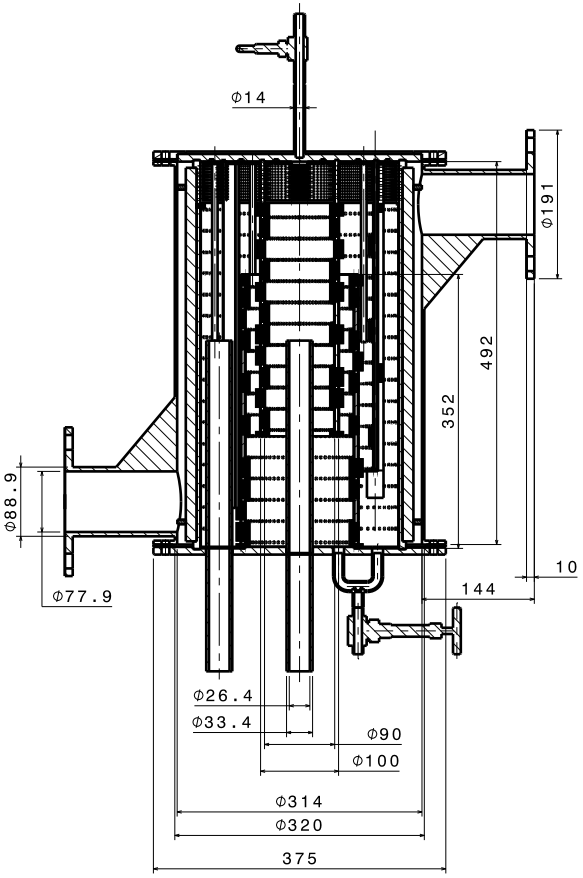
a) Complete Cold Trap Assembly
b) Final fabrication drawings of Cold Trap
c) The relevant source file of drawings
d) All test reports mentioned in QAP
e) All test reports for the test performed during factory acceptance test

9. Time Schedule:

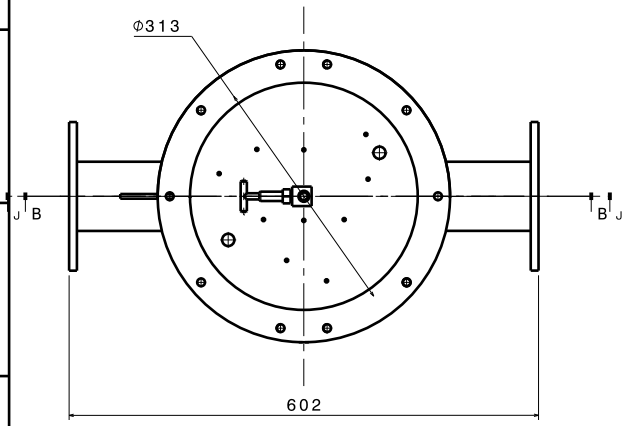
S. No.	List of Activities	Duration (Months)
1	Placement of PO	T0
2	Submission of following documents to IPR for approval a. Final Fabrication Drawing and QAP b. Assembly Sequence	T0+1
3	Review of fabrication drawings, QAP and assembly sequence by IPR	T0+2
4	Completion of fabrication of Cold Trap assembly	T0+4
5	Pre-dispatch inspection and delivery of CT to IPR	T0+5

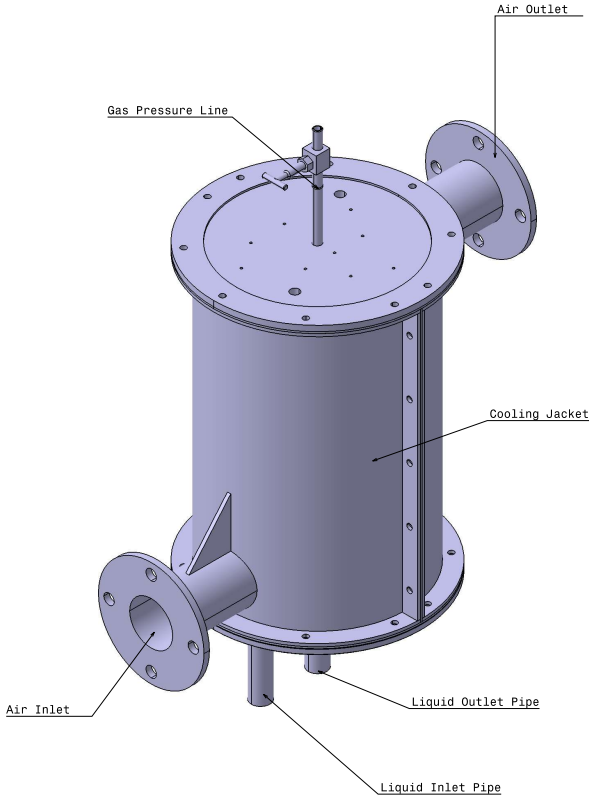
10. Warranty: Vendor shall provide one year warranty on complete cold trap assembly for fabrication defects.





Section view B-B





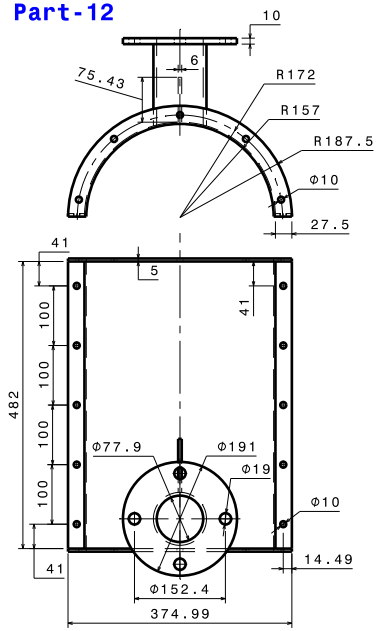
Isometric view

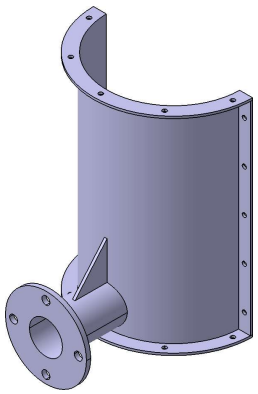
All the dimensions are in MM.

Material for cooling Jacket :- SS304
Material for other components :- SS316L
Material for Fins :- Aluminium

DESIGNED BY: ASHOK DATE: 15/03/2021	Liquid Metal Cold Trap	
CHECKED BY: Ankush DATE:	LMTS-Fusion Blanket Division	
SIZE: A1	Institute For Plasma Research	
SCALE: 1:1 WEIGHT (kg):	DRAWING NUMBER: Assembly of cold trap SHEET: 1/2	

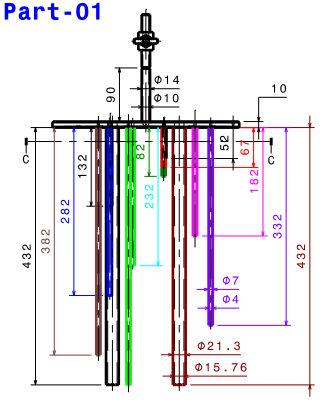
Part-12



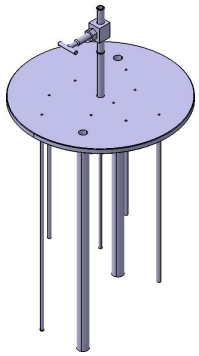


Isometric view

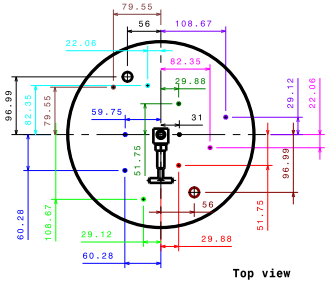
Part-01



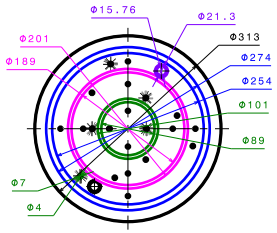
Front view



Isometric view



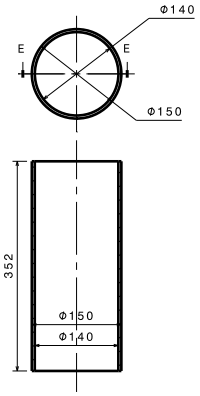
Top view



Section view C-C

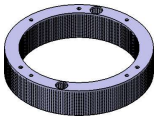
Part-08

Isometric view

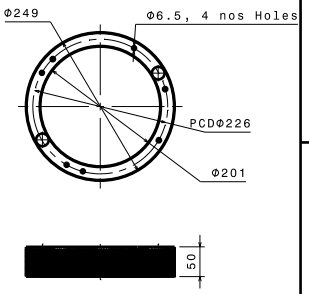


Section view E-E

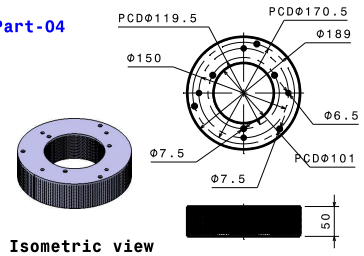
Part-06



Isometric view

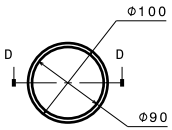


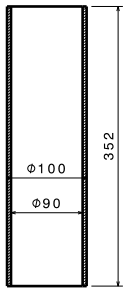
Part-04



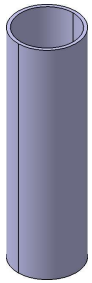
Isometric view

Part-03





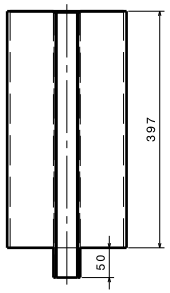
Section view D-D

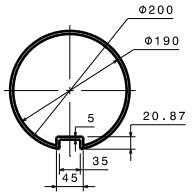


Isometric view

Part-05

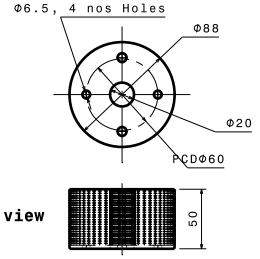
Isometric view





Part-02

Isometric view

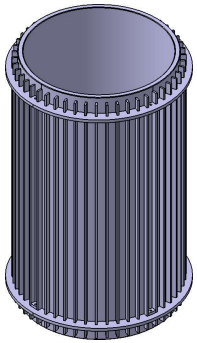


Sr. No	Part. No	Description	Size	Qty	Material
1	Part-1	Top Flange	Φ273.1 x 8mm	1	SS316L
2	Part-2	Mesh-1	Φ89 x 50mm	1	SS316L
3	Part-3	Pipe Section-1	Φ100 x 352 x 5mm	1	SS316L
4	Part-4	Mesh-2	Φ190 x 50mm	1	SS316L
5	Part-5	Pipe Section-2	Φ200 x 397 x 5mm	1	SS316L
6	Part-6	Mesh-3	Φ250 x 50mm	1	SS316L
7	Part-8	Pipe Section-3	Φ150 x 352 x 5mm	1	SS316L
8	Part-12	Cooling Jacket	Φ350 x 510 x 5mm	2	SS304

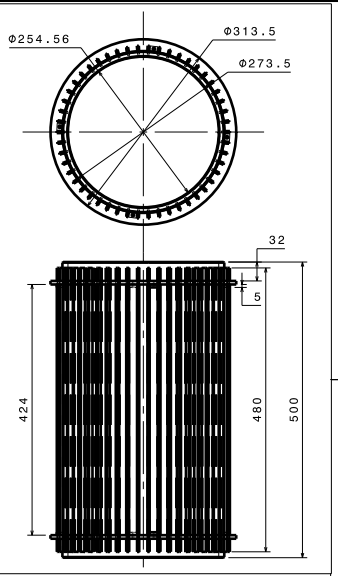
All the dimensions are in MM.

DESIGNED BY: ASHOK	Detailed Parts Drawing of Cold Trap_01	
DATE: 15/03/2021		
CHECKED BY: Ankush	LMTS-Fusion Blanket Division	
DATE:		
SIZE: A1	Institute For Plasma Research	
SCALE: 1:1	DRAWING NUMBER: Assembly of cold trap	SHEET: 1/2

Part:-7



Isometric view



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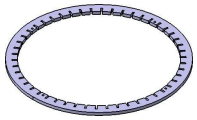

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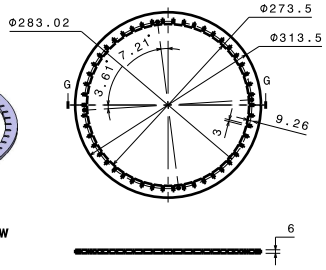
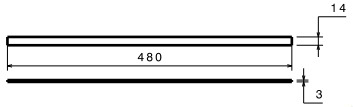
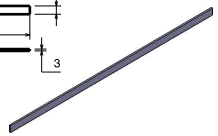


Section view G-G

Part:-7.3

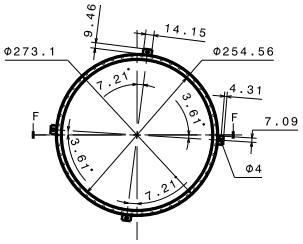


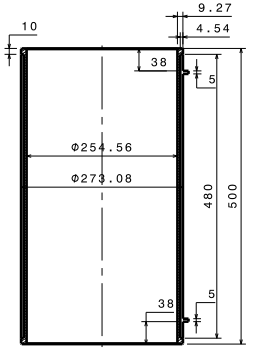


Isometric view

Part:-7.1

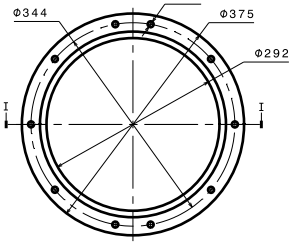
Isometric view

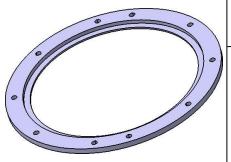




Section view F-F

Part:-10





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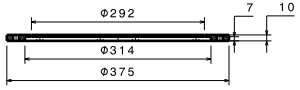
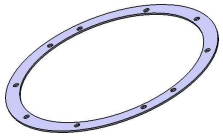
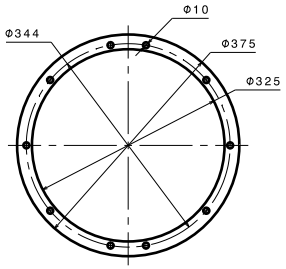


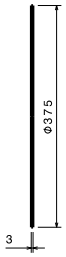
Section view I-I

Part:-11

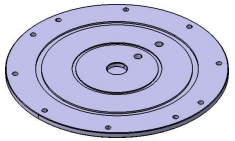


Isometric view

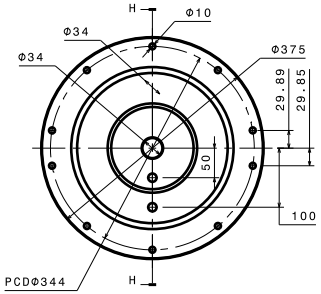


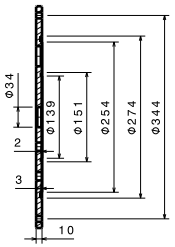


Part:-9



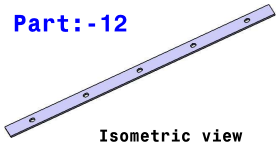
Isometric view



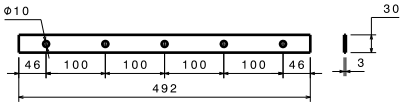


Section view H-H

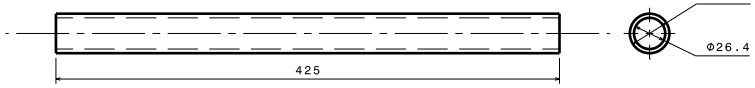
Part:-12



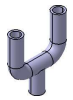
Isometric view



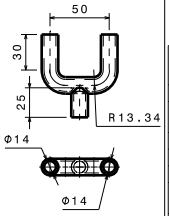
Part:-13



Part:-14



Isometric view



Sr. No	Part-no	Description	Size	Qty	Material
1	Part-7	Fin Asembly	Φ273.1 x 450 x 9.27mm	1	SS316L
2	7.1	Outer Pipe_Fin Attachment	Φ273.1 x 450 x 9.27mm	1	SS304/SS316L
3	7.2	Support Ring	Φ313.5 x 20 x 6mm	2	SS316L
4	7.3	Fins	480 x 14 x 3mm	50	Aluminium
5	9	Bottom Flange	Φ273.1 x 8mm	1	SS316L
6	10	Top plate Locking flange	Φ375x 37.5 x 10mm	1	SS316L
7	11	Grafoli Gasket_round	Φ375x 25 x 1mm	2	Grafoil
8	12	Grafoli Gasket_Flat	375x 25 x 1mm	2	Grafoil
9	13	1" In/Outlet Pipe	Φ33.4 x 425 x 3.38mm	2	SS316L
10	14	Drain Pipe	Φ33.4 x 425 x 3.38mm	1	SS316L

All the dimensions are in MM.

DESIGNED BY: ASHOK DATE: 15/03/2021	Detailed Parts Drawing of Cold Trap_02	
CHECKED BY: Ankush DATE:	LMTS-Fusion Blanket Division	
SIZE: A1	Institute For Plasma Research	
SCALE: 1:1 WEIGHT (Kg):	DRAWING NUMBER: Assembly of cold trap SHEET: 1/2	

Compliance Form

S. No.	Particulars	IPR Specification	Details to be filled by the vendor
1	Scope of Supply	This work involves the fabrication, testing and supply of cold trap. Detail scope of the work is described below. • Vendor shall review the drawings of cold trap assembly provided by IPR (refer attached drawings) considering the fabrication and assembly point of view. • Vendor may provide their suggestion for the modifications considering the fabrication feasibility in the existing drawings submitted by the IPR. • IPR will review the suggestions provided by the vendor and if found suitable, IPR will provide approval to vendor to incorporate mutually agreed design modifications in the final fabrication drawing. • Vendor shall prepare the final fabrication drawings of CT incorporating mutually agreed design modifications and submit the final fabrication drawings to IPR for approval. Vendor shall mention the tolerance details as per ASME in the final fabrication drawing. • After the approval of final fabrication drawing by IPR, vendor shall submit the detailed QAP (Quality assurance plan) documents, assembly sequence and the fabrication drawings along with source	

S. No.	Particulars	IPR Specification	Details to be filled by the vendor
		file (CATIA/ AutoCAD etc.) of drawings. Vendor shall not proceed for fabrication without IPR approval of final fabrication drawings and QAP. • Vendor shall follow the prescribed codes and standards as well as QAP provisions for material procurement, fabrication and testing as described in the section- 3 and section-4 of technical specification. • Vendor shall procure the required materials and submit the material test certificate (chemical and mechanical) from NABL accredited lab prior to fabrication. • Vendor shall fabricate the Cold Trap as per the approved fabrication drawings and prescribed codes and standards. • Pre-Dispatch Inspection (PDI) will be performed in the presence of IPR representatives and/or IPR authorized experts at the vendor's site as per the test described in section-5 of technical specification. Vendor shall arrange all the required test facilities and instrumentation for PDI at his site. • All the test results shall be submitted to IPR for review. Dispatch clearance will be provided based on the acceptance of the test reports. • After issuance of dispatch clearance by IPR, the cold trap shall be suitably packed by the vendor to avoid any damage during transportation. Vendor should also ensure that the cold trap will be	

S. No.	Particulars	IPR Specification	Details to be filled by the vendor
		pressurized with inert gases pressure to restrict the corrosion of material. Safe transportation of complete cold trap assembly to the IPR is the responsibility of the vendor. • Vendor shall submit the fabrication drawings, material test certificates, inspection and testing reports along with the delivery of the equipments. • After the delivery of the cold trap, acceptance test will be performed at IPR, as mentioned in section 7 of technical specification. After the successful completion of the acceptance test at IPR site, final acceptance will be provided to the vendor. • **Materials** – Material of construction for cold trap internals: SS316L – Material of construction of fins: Aluminum – Material of construction of outer jacket: SS304 – Material of construction of mesh packing (US mesh sieve size 40): SS316L – Material of construction of gasket: Grafoil	
2	**Applicable Codes & Standards**	The following Standards, Codes and Regulations whichever is applicable in their latest edition including their addenda shall form the basis for design, fabrication, inspection, testing Pb-Li/TF HX and TF/Water HX	

S. No.	Particulars	IPR Specification			Details to be filled by the vendor
		Design and Fabrication Codes and Standards	ASME Section VIII Div. 1	Boiler & Pressure Vessel Code	
			ASME Section IX	Welding Qualifications	
			ASME B16.9	Standard for butt welded fittings	
		Material Code	ASME Section II	Boiler & Pressure Vessel Codes	
			ASTM	Standards of Material of Construction and Testing	
		Inspection and Testing Codes	ASME Section V	Non-Destructive Test	
3	**Quality Assurance Plan and fabrication requirement**	**General QAP requirements**	Vendor shall submit the Quality Assurance Plan (to be supplied after acceptance of the design documents) document to IPR prior to start of the fabrication addressing the below points. The QAP shall show review, hold point and witness for the specific jobs. The same shall be mutually agreed. QAP should also include the Witness final and important tests/inspections and issuance of inspection release notes. QAP shall also include the review of material test certificate by IPR.		

S. No.	Particulars	IPR Specification		Details to be filled by the vendor
		Quality control documents	Vendor shall submit following quality control documents, as discussed in the following sections: • Material test certificates (Chemical and Mechanical) from NABL certified lab • Welding documents (WPS, WPQ, PQR) • Dimension Inspection report • Liquid penetrant test report • Hydro Test report	
		Material and Testing	• Vendor shall use seamless pipe during the fabrication of cold trap. • Vendor shall procure all the required materials and submit the material test certificate (chemical and mechanical) from NABL accredited lab prior to fabrication.	
		Fabrication	• Vendor shall execute the fabrication work of cold trap as per the approved final fabrication drawings. • Fabrication practice shall be as per the codes and standard provided in section 3 of the technical specification. Prior to fabrication, vendor shall prepare fabrication procedure with sequence of operation and shall submit to IPR for approval.	
		Welding	All welding shall be performed only by qualified welders and as per the codes and standard provided in	

S. No.	Particulars	IPR Specification		Details to be filled by the vendor
			section 3 of the technical specification. Prior to start of the fabrication, vendor shall submit the welding procedure specification (WPS), Welder performance qualification (WPQ) and procedure qualification records (PQR) to IPR for approval.	
		Liquid Penetrant Test	Liquid Penetrant Test shall be carried out for all weld joints (external /internal surfaces, weld etc.) in cold trap as per relevant codes and standard mentioned in section 3 of the technical specification. The vendor shall submit the Liquid penetrant test report to IPR for review and approval.	
4	**Factory Acceptance Test**	Following test should be carried out at the vendor's site in presence of the IPR representative: The vendor is responsible for arranging all the necessary man power and tools for performing all inspection and testing as described below at their own cost.		
		Dimensional Checks	External dimension of Cold Trap will be measured and verified with the approved fabrication drawing.	
		Hydro Testing	• The hydrostatic test of cold trap inner vessel shall be performed using demineralized water at 5 bar pressure for the duration of 30 minutes. Vendor has to demonstrate no leakage from the CT during the hydro testing. • Prior to dispatch, the cold trap shall be cleaned internally and externally to remove scale, dirt,	

S. No.	Particulars	IPR Specification		Details to be filled by the vendor
			water & foreign matter and thereafter it will be dried. All end connections shall be blanked, plugged, capped or otherwise suitably sealed to prevent the ingress of moisture. • Based on the satisfactory test results of factory acceptance test, dispatch clearance will be provided to the vendor.	
5	**Packing and Supply**	• After issuance of dispatch clearance by IPR cold trap shall be suitably packed by vendor to avoid any damage during transportation. Safe transportation of whole complete cold trap assembly to IPR is the responsibility of the vendor. • The delivery shall be made within 5 months after placement of the purchase order and subsequent acceptance by the vendor. The shipment shall be delivered to, The Stores In-Charge, IPR, Bhat, Gandhinagar 382428 Gujarat, India. •		
6	**Acceptance Test at IPR**	After the delivery of the cold trap at IPR, following test will be carried out at IPR • Visual inspection of cold trap will be carried out to check any damage and deformities happened during the transportation of the CT. • After completion of visual inspection, the helium leak test of the cold trap vessel (excluding outer jacket and fins) will be carried out at Room Temperature using evacuation method in the presence of		

S. No.	Particulars	IPR Specification	Details to be filled by the vendor
		vendor's representative. The cold trap will be accepted only if the leak rate is found $\leq 1\times10^{-8}$ std.cc/s. • If the measured local leak rate is found higher than specified value, the heat exchanger shall be repaired by the vendor and the testing shall be repeated sequentially as mentioned above.	
7	**List of Deliverables**	a) Complete Cold Trap Assembly b) Final fabrication drawings of Cold Trap c) The relevant source file of drawings d) All test reports mentioned in QAP e) All test reports for the test performed during factory acceptance test	

<table>
<tr><th>S. No.</th><th>Particulars</th><th colspan="4">IPR Specification</th><th>Details to be filled by the vendor</th></tr>
<tr><td>8</td><td>Time Schedule of Activities</td><td colspan="4"><table>
<tr><th>S. No.</th><th>List of Activities</th><th>Duration (Months)</th></tr>
<tr><td>1</td><td>Placement of PO</td><td>T0</td></tr>
<tr><td>2</td><td>Submission of following documents to IPR for approval
a. Final Fabrication Drawing and QAP
b. Assembly Sequence</td><td>T0+1</td></tr>
<tr><td>3</td><td>Review of fabrication drawings, QAP and assembly sequence by IPR</td><td>T0+2</td></tr>
<tr><td>4</td><td>Completion of fabrication of Cold Trap assembly</td><td>T0+4</td></tr>
<tr><td>5</td><td>Pre-dispatch inspection and delivery of CT to IPR</td><td>T0+5</td></tr>
</table></td><td></td></tr>
<tr><td>9</td><td>Warranty</td><td colspan="4">Vendor shall provide one year warranty on complete cold trap assembly for fabrication defects.</td><td></td></tr>
</table>

Signature and Stamp of Vendor

(This need to be printed in Bidders letter head)

1. Please quote with complete technical details.
2. Quotation should be submitted with below (Quotation format) else IPR shall not consider the offer submitted by the vendor for further evaluation

NAME OF PARTY : _____

ENQUIRY NO:_____ DUE ON:_____

QUOTATION No. & DATE : _____

Currency of Quotation: **Indian Rupees**

Sr. No.	Item Description	Quantity	Rate (Basic)	Packaging & forwarding (P&F)	Applicable GST	Rate (incl P&F and GST)	Value
		a	b	c	d	e= b+c+d	f = a x e
1							
2							
3							
4							

Sr. No.	PARTICULAR	Remarks
I.	Ex-works / FOR Destination	
II.	Freight	
III.	Insurance	
IV.	Delivery Period	
V.	Payment (IPR terms will apply)	
VI.	Guarantee / Warrantee	
VII.	Validity Period	
VIII.	Discount (if any)	
IX.	Remarks	

Note: Enclose technical compliance sheet with your quotation
Fill in the all applicable details.

Place: Authority Signatory

Date: Company Seal

Bidder should submit the copy of GSTIN / ARN Certificate along with the offer

प्लाज़्मा अनुसंधान संस्थान
(भाट, इन्दीरा पुल के पास, गांधीनगर382428 – , गुजरात) भारत
Institute for PlasmaResearch
Bhat, Near Indira Bridge, Gandhinagar – 382428, Gujarat (INDIA)
Phone: +91-79-23962021 to 23962028 ; Fax: +91-79-23962277 Website: www.ipr.res.in

Form No: IPR-LP-01.V4

INSTRUCTIONS TO BIDDERS AND TERMS AND CONDITIONS

1. The Quotation and any order resulting from this enquiry shall be governed by our Conditions of Contract/Purchase Order and supplier quoting this enquiry shall be deemed to have read and understood the same in toto.
2. Where counter terms and conditions have been offered by the Tenderer, the same shall not be deemed to have been accepted by IPR unless our specific written acceptance thereof is obtained.
3. **Quotation:** Quotation should be submitted in the prescribed QUOTATION FORMAT attached with this Enquiry and the same should be submitted to the Purchase Officer, IPR in a sealed envelope superscribing the same with our enquiry No., date, due date and brief description of item on or before the due date. Late/delayed/incomplete/unsigned quotations will not be considered. Envelopes received without Enquiry number, date, due date and brief description of item may be rejected. The quoted prices should be firm for a period of 90 days from due date for placing order. IPR is not bound to accept lowest rate/s. IPR reserves the right to place on one or more parties. The scope of supply includes insurance by the Contractor/Supplier.
4. **Specifications:** Material should be offered strictly confirming to our specifications/drawings. Deviation, if any, should be clearly indicated by the supplier in their quotation. The Tenderer should also indicate the Make/Type number of the materials offered and catalogues, technical literature and samples, wherever necessary should accompany the quotation. Clarification/s on drawings should be obtained before submitting quotation.
5. **Terms of Prices:** Quotation should be submitted on door delivery basis without extra charge wherever possible. For quotations on Ex-Works, Ex-godown basis the approximate packing and forwarding charges should be indicated by the supplier. In the case of local suppliers, the material is to be delivered at our stores free of charge.

5.1 In respect of tenders on Ex-works basis, in case the tenderer has not mentioned in the offer packing, forwarding and transportation charges for safe delivery up to Purchaser's site, 2% of the price quoted towards packing (in respect of both local and outstation firms), 1% of the basic price quoted towards safe delivery charges in respect of local tenderer and 3% of the basic price quoted towards safe delivery charges in respect of outstation firm will be added for comparison of offers on safe door delivery at Purchaser's site.

5.2 Prices are required to be quoted according to the units indicated in the tender form/Enquiry. When Quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished

6. Tender should be free from Correction and Erasures. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail. Unsigned quotations will summarily be rejected. If there is a discrepancy between the unit price and total price, unit price shall prevail.
7. IPR shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the tenderers shall supply the same at the rate quoted.
8. **Goods & Services Tax (GST):** The details of Taxes/GST and other levies legally leviable and intended to be claimed should be clearly indicated in the tender. Where this is not done, no claim on these accounts would be admissible later.

   a) GST for Goods (IGST/CGST/SGST TAX BENEFITS):

   IPR is entitled to avail tax benefit as per the following notifications issued by Ministry of Finance, Department of Revenue, Government of India:
   (1) No: 47/2017-INTEGRATED TAX (RATE) DATED 14/11/17 for IGST
   (2) No: 45/2017-CENTRAL TAX (RATE) DATED 14/11/17 for CGST
   And,
   IPR is entitled to avail tax benefit as per the following notifications issued by Finance Department, Government of Gujarat:
   (1) No. 45/2017-STATE TAX (RATE) DATED 15/11/17 for SGST
   As per above notifications IPR will bear only 5% IGST for procurement of goods from outside Gujarat & 2.5% CGST and 2.5% SGST (total 5%) for procurement of goods within Gujarat. Vendors are required to charge tax as per these notifications while quoting/supplying the goods. Deviations, (if any) should be clearly mentioned in the quotation/offer.

   Please specify the HSN codes while quoting.

   b) GST for Services:
   As applicable. **Specify the SAC codes wherever services are involved**.

9. **Earnest Money Deposit (EMD):** Tenderer should furnish EMD if asked for by the Purchaser.
10. **Delivery Date:** Delivery period is essence of the Contract. Supplier must indicate the firm delivery date by which the materials will be dispatched/delivered by them from the date of our order. Delivery period shall be clearly indicated against each item separately.

11. **Price/ Purchase Preference:** Purchase/Price preference to industries will be given as per the policy of the Government of India in force at the time of evaluation provided their offer is in compliance with the conditions of the policy.
12. **Liquidated Damages:** The successful Vendor/Bidder should pay liquidated damages @ ½% (half percent) of the total contract/order value for the delay of each week in the scheduled date of completion of the work envisaged in the Contract/Purchase Order subject to a maximum of 5% (Five percent) of the total Contract/Order value.
13. **Inspection**: Materials on its arrival at IPR will be inspected by our Engineer/Stores Officer, and his decision in the matter will be final. However, where the items are required to be inspected at the Suppliers Premises, Supplier has to give advance notice to the Purchase regarding readiness of the material to enable Purchase/Stores section to depute his representative for inspection.
14. **Payment**: Payment will be arranged for accepted materials only within 30 days from the date of receipt of materials at IPR and bills in our accounts section, completed in all respects.
15. No correspondence will be entertained within 30 days from the date of receipt of material and bills, whichever is later.
16. **Guarantee**: The Stores offered should be guaranteed for a minimum period of twelve months, from that date of acceptance, against defective materials, design, workmanship, operation or manufacture. For defects noticed and communicated during the Guarantee period, replacement/rectification should be arranged free of cost within a reasonable period of such notifications. In case where our specifications call for a guarantee period more than 12 months specifically, then such a period shall apply.
17. **Performance Bank Guarantee**: If demanded by IPR, the successful bidder will have to furnish Performance Bank Guarantee for 10% of the order value (basic price) from a Nationalised/Scheduled Bank/State Bank of India, valid throughout the Guarantee/Warranty period. The scheduled banks approved by IPR are Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank. Bank Guarantees submitted other than from banks approved by IPR will not be accepted.
18. **Security Deposit:** If demanded the successful Bidder will have to furnish to the Purchaser an interest free security deposit for 10% (Ten percent) of the order value in the form of Bank Guarantee of an equivalent amount from a nationalized/ scheduled Bank/State Bank of India within 15 days from the date of LOI/Purchase order and the said Guarantee should be valid till the goods are accepted by IPR. The scheduled banks approved by IPR are Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank. Bank Guarantees submitted other than from banks approved by IPR will not be accepted. The Security deposit shall be forfeited in case the selected Bidder does not start the work within the time limit specified or fail to complete the work within the stipulated delivery period or fail to comply with any of the terms and conditions in the purchase order/contract. On successful completion of scope of work and its acceptance by IPR, supplier should send a letter to the Purchase Officer to return the original BG.
19. The Contractor/Supplier shall at all times indemnify the purchase against all claims which may be made in respect of the stores for infringement of any right protected by Patent Registration of design or Trade Mark and shall take all risk of accidents or damage, which may cause failure of supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfilment of the contract.
20. **Free Issue Material (FIM):** Successful tenderer will have to arrange insurance showing beneficiary as “Institute for Plasma Research” at their risk and cost towards adequate security for the materials/property provided/issued by the Purchaser as Free Issue Material for the due execution of the contract.
21. The Director, IPR reserves the right to accept or reject any quotations fully or partly or to cancel the enquiry without assigning any reason.
22. **Jurisdiction**: The contract shall be governed by the Laws of India for the time being in force. The Courts of Gandhinagar only shall have jurisdiction to deal with and decide any legal or dispute arising out of this Contract/Purchase Order.