

ANNEXURE II – PROVEN TRACK RECORD

Project: TFL WUHUAN N2 &NH3 COMPRESSOR

BHEL Enquiry Ref No _____ Date _____

Vendor offer Ref No _____ Date _____

PROVEN TRACK RECORD FOR THE MODEL BEING OFFERED

MINIMUM THREE REFERENCES TO BE MENTIONED

SL.NO	PLANT NAME /LOCATION	CLIENT	PO No. & Date	SERVICE / MODEL NO / SIZE & RATING	YEAR OF SUPPLY

The vendor shall complete the above proforma to amply prove that the equipment offered meets the Equipment Qualification Criteria for technical acceptance. Vendor may furnish additional information to justify that the EQC is being met. In addition, manufacturer's catalogue and general reference list for all the above equipment's shall also be furnished along with the proposal.

Signature and stamp of vendor

TFL WUHUAN NITROGEN & AMMONIA COMPRESSOR PROJECTS

Annexure-III to Purchase Specification TC54290

Technical Deviation Sheet (TDS Sheet)

Sl. No	Spec No	Description of Spec	Deviation	Reason

Vendor's Signature

Vendor's Company seal

TD-106-1
Rev. 5

Form No.



Annexure-I to purchase specification TC54290
TFL WUHUAN N2 & NH3 PROJECTS
TURBINES AND COMPRESSORS
BHEL, HYDERABAD

Rev 00

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Vendor shall consider the following project specific requirements without any deviations:

1. All codes and Standards for manufacture, testing and inspection etc. shall be of latest editions.
2. Allowable pressure drop, when specified shall be certified by vendor along with the offer. If asked specifically, vendor shall furnish pressure drop calculations.
3. Bottom flange of Y-type strainer shall NOT have tapped hole. Full length standard size studs shall be used for joining blind flange.
4. All strainers shall be hydrostatically tested at the lower of twice the design pressure and 1.5 times the class rating as per ASME B16.5 at ambient temperature.
5. Positive Material Identification (PMI) test is applicable.
6. Supplier to follow BHEL Standard Quality Plan.
7. Supplier to submit completely filled in and stamped copy of Annexure –II (Proven Track Record) of the offered model along with offer, without which, the offer will be technically rejected.

Rev. No.	Revisions	Prepared:	Reviewed:	Approved	Date
00	Issue	SHEKHAR	K BHARATH	SUNIL B J	26.11.2021

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Annexure-IV (Check list) to purchase specification TC54290
TFL WUHUANN2 & NH3 COMPRESSOR PROJECTS
TURBINES AND COMPRESSORS
BHEL, HYDERABAD

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Table 1: Check List

(TO BE FILLED BY THE VENDOR AND SUBMITTED ALONG WITH THE TECHNICAL OFFER WITH OUT WHICH OFFER WILL NOT BE CONSIDERED)

S.No.	Description	Vendor's Confirmation (Yes/No)
1	Compliance to BHEL specification TC54290 Rev00	
2	Compliance to Annexure-I of BHEL specification TC54290 & Annexure-I	
3	Compliance to BHEL Standard Quality Plan	
4	Deviation list, if any, filled in Annexure-III and submitted along with offer.	
5	Submitted duly filled-in and signed copy of Annex-II (PTR) along with the offer.	
6	Submitted duly filled-in and signed copy of Pre-Qualification Criteria along with the offer.	
7	Cross sectional GA drawing with Bill of materials	
8	Ratio of free area to pipe area shall be 3:1 as per clause 4.0.0.h of TC54290	
9	Technical data sheet in line with clause 4.0.0 - Technical requirement.	
10	Pressure drop vs flow curve with Servo prime 46 of IOC	
11	Vendor shall confirm that the bill of material furnished along with offer is only indicative and the final BOM, which shall be furnished during detailed Engineering (after order placement) for the approval of BHEL. The additional items, if any required at later stage for complying BHEL specification or for the satisfactory working of the equipment shall be supplied by vendor without any price/delivery implications.	
12	Any additional requirements which are essential for proper functioning of the equipment included in the offer.	

Vendor's Signature

Vendor's Company seal

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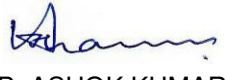
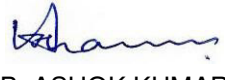
PRE-QUALIFICATION CRITERIA					
Y TYPE STRAINERS					
BHEL Material Code: TC9754290091					
S.No.	BHEL Requirement		Vendor's Confirmation	Deviation, if any	Remarks
1	All the suppliers need to submit this document i.e. titled pre-qualification criteria and furnish required information along with offer.				
2	a)	Name, address, e-mail id, contact no.etc. of manufacturer of Y Type Strainers			
	b)	Name, address, e-mail id, contact no.etc. of authourised agency / trading house quoting on behalf of manufacturer In case offer is received from authourised agency / trading house, the following requirements shall be full filled. i) Valid letter of authorisation and copy of agreement to be enclosed with offer. ii) The offer shall be either from the authorised agency or from the manufacturer directly. In case of BHEL receiving offer from both, then offer from manufaturer will only be considered. Offer from an unauthorised agency / entity on behalf of any vendor shall be summarily rejected. iii) Name, address, e-mail id, contact no.etc. of entity on whom order to be released in case of L1 shall be clearly indicated.			
3	Supplier to confirm/provide the following criteria/documents for evaluation of offer.				
	(a) The supplier should have the proven experience in manufacturing and supply of offered model.				
	i	Application: Turbine Lube Oil			
	ii)	Proven track Record of equipment: Strainers shall be identical and similar in terms of flow, Operating pressure, Mechanical Design, Materials etc as compared to at least ONE unit of the proposed model designed, engineered, manufactured, tested and supplied from the proposed manufacturing plant in the last TEN years and the reference unit shall have completed ONE year of satisfactory operation at site as on bid due date.			
	iii)	All the facilities required for manufacturing and testing of strainers shall be available with manufacturer.			
	iv)	Vendor shall furnish the details of Service after Sale facilities available in India with references of executed project. Spare shall be readily available at propretary suppliers/ distributors in India.			
	All the above criteria 3(a) (i) to 3(a) (iv) must be combinedly met by the vendor against a single supply reference.				
	(b) The supplier meeting all the above criteria as per clause 3 (a), shall furnish details of such supplies in the annexure II (Proven Track Record). Suppliers shall furnish up to 03 numbers of latest customer reference details. Note : Details furnished in any other format shall not be considered. All the documents shall be furnished only in English. Documents furnished in other langauges will not be considered for further evaluation.				
	(c) BHEL reserves the right to cross verify with the above such customers including overseas customers with a copy to the supplier and satisfy itself with reference to the claims of the supplier. If the information furnished by the supplier is not found satisfactory, the offer will be technically rejected.				
4	The vendors should furnish the detailed process of manufacturing and testing procedures along with the offer.				
5	List of BHEL qualified bidders shall be forwarded to BHEL's End Customer for their review and approval. The list finalized by BHEL's End Customer shall be final and binding.				
6	BHEL team may carry out vendor evaluation/assesment(incase of a new vendor)by a visit to vendor works for qualifying /rejecting the technical bid based on the findings of the visit.				
7	Vendors to submit their bid in 2 - part system i.e. Part-I shall consists of Pre-Qualification Criteria along with the required documents and Techno-Commercial Bid.Vendor shall submit duly filled supplier questionarie. Part-II shall consists of Price Bid. Offers failing to meet prequalification part will not be considered for further evaluation.				

		BHARAT HEAVY ELECTRICALS LIMITED R.C.PURAM, HYDERABAD		STANDARD QUALITY PLAN FOR VENDOR ITEMS				QP. NO: HYQA-2016- Y-STRAINER-02 Rev. No.: 02 DATE: 04.10.2021 VALID UPTO: 04.10.2023 PAGE 1 OF 4					
				ITEM: Y TYPE (Casted Body, SS Steel & Pressure class ANSI 150) BHEL SPEC: TC 54290									
				SL NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REF DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	*D
										P	W	V	
1.0	RAW MATERIALS & BOI												
1.1	BODY, COVER (CASTED)	CHEM, MECH PROPERTIES, HEAT TREATMENT	MAJOR	TC REVIEW	100%	BHEL SPEC/DRG	BHEL SPEC/DRG	SUPPLIER TC	✓	2		1	RANDOM PMI CHECK SHALL BE DONE FOR SS MATERIAL .IR TO BE INCLUDED IN QC DOCUMENTATION
		PMI	MAJOR	COMPOSITION	100%	BHEL SPEC/DRG	BHEL SPEC/DRG	IR	✓	2		1	
		IGC	MAJOR	METALLURGY	SAMPLE/HEAT	ASTM A262 PR E		IR	✓	2		1	
1.2	SCREEN & MESH	CHEM, DIMENSIONS	MAJOR	TC REVIEW/ DIMENSIONAL REPORT	100%	BHEL SPEC/DRG	BHEL SPEC/DRG	SUPPLIER TC	✓	2		1	
1.3	GASKET	CHEM, MECH PROPERTIES	MAJOR	TC REVIEW	100%	BHEL SPEC/DRG	BHEL SPEC/DRG	SUPPLIER TC/COC	✓	2		1	
1.4	BOLTS & NUTS	CHEM, MECH PROPERTIES	MAJOR	TC REVIEW	100%	BHEL SPEC/DRG	BHEL SPEC/DRG	SUPPLIER TC/COC	✓	2		1	
1.2	DRAIN PLUG, VENT PLUG	CHEM, MECH PROPERTIES	MAJOR	TC REVIEW	100%	BHEL SPEC/DRG	BHEL SPEC/DRG	SUPPLIER TC/COC	✓	2		1	
2.0	IN PROCESS												
2.1	MACHINING	DIMENSION, SURFACE FINISH	MAJOR	MEASUREMENT, VISUAL	100%	BHEL SPEC/DRG	BHEL SPEC/DRG	IR		2			
2.2	ASSEMBLY	DPT	MAJOR	NDE	100%	DRG	DRG	IR	✓	2		1	
3.0 . FINAL INSPECTION													
3.1	FINAL INSPECTION	DIMENSIONS & CONFORMITY ORIENTATION, END CONNECTION, WORKMANSHIP	MAJOR	VISUAL & DIMENSIONAL	100%	BHEL SPEC/DRG	BHEL SPEC/DRG	IR	✓	2	1		
3.2		LEAK TIGHTNESS	MAJOR	HYDRO TEST	100%	BHEL SPEC/DRG	BHEL SPEC/DRG	IR	✓	2	1		
VENDOR TO SUBMIT DRG. FOR BHEL APPROVAL. LEGEND: P: - PERFORM, W: - WITNESS, V: - VERIFICATION, INDICATING 1: - BHEL / BHEL NOMINATED INSPECTION AGENCY, 2: - VENDOR / SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT / CHARACTERISTICS UNDER THE COLUMNS P, W & V. * D: RECORDS IDENTIFIED WITH TICK (✓) SHALL BE ESSENTIALLY INCLUDED IN QA DOCUMENTATION.						PREPARED BY:  ALOK BEHERA DY.MGR/ QA		REVIEWED BY:  B. ASHOK KUMAR AGM/QA		APPROVED BY:  B. ASHOK KUMAR AGM/QA			
Format no. : HYQA/QP/VSQP Rev.02													

	BHARAT HEAVY ELECTRICALS LIMITED R.C.PURAM, HYDERABAD	STANDARD QUALITY PLAN FOR VENDOR ITEMS						QP. NO: HYQA-2016- Y-STRAINER-02 Rev. No.: 02 DATE: 04.10.2021 VALID UPTO: 04.10.2023			
		ITEM: Y TYPE (Casted Body, SS Steel & Pressure class ANSI 150) BHEL SPEC: TC 54290						PAGE 2 OF 4			

SL NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REF DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	*D	AGENCY			REMARKS
										P	W	V	
3.3	FINAL INSPECTION	a) FINAL FINISH & APPEARANCE b) COMPLETENESS OF SUPPLY WITH SPARES & ACCESSORIES	MAJOR	VISUAL	100%	BHEL SPEC/DRG	a) NO BURR, CUT MARK b) AS PER P O & APPROVED DRAWING	IR	✓	2	1		
D PRE-DESPATCH INSPECTION													
01	MARKING/STAMPING			VISUAL	100%	BHEL SPEC/DRG	BHEL SPEC/DRG	PACKING LIST		2	1		
E.PRESERVATION , CLEANING & APINTING													
01	CLEANING ,PICKLING & PASSIVATION	SURFACE FINISH /DFT	MAJOR	VISUAL MARK	100%	BHEL SPEC/DRG& ASTM A 380	BHEL SPEC/DRG & ASTM A 380	IR	✓	2		1	AFTER HYDROTEST
02	PRESERVATION & DESPATCH				100%	BHEL SPEC/DRG/PO	BHEL SPEC/DRG & PO	PACKING LIST	✓	2		1	NOTE-A

A. END PROTECTION SHALL BE AS PER CL 10.0 OF BHEL SPEC TC54290.

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Format no. : HYQA/QP/VSQP Rev.02			

		BHARAT HEAVY ELECTRICALS LIMITED R.C.PURAM, HYDERABAD		STANDARD QUALITY PLAN FOR VENDOR ITEMS ITEM: Y TYPE (Casted Body, SS Steel & Pressure class ANSI 150) BHEL SPEC: TC 54290				QP. NO: HYQA-2016- Y-STRAINER-02 Rev. No.: 02 DATE: 04.10.2021 VALID UPTO: 04.10.2023					
								PAGE 3 OF 4					
				SL NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REF DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	*D

GENERAL NOTES:

1. TPIA TO CHECK THE LATEST VERSION OF STANDARDS/DRAWINGS /TOLERANCES ETC TO BE MENTIONED IN QUALITY PLAN/DRAWING. THIS QP SHOULD BE READ ALONG WITH BHEL SPEC, BHEL DRAWINGS / APPROVED DRAWINGS, DATA SHEET, BOM AND PO
2. BHEL RESERVES THE RIGHT FOR CONDUCTING REPEAT TEST, IF REQUIRED.
3. BHEL APPROVED INSPECTION ENGINEERS TO BE DEPLOYED FOR INSPECTION.
4. ONLY LEVEL II & ABOVE QUALIFIED PERSON IN RESPECTIVE NDE TO VERIFY OR WITNESS THE NDT TEST REPORT/RESULTS.
5. INSPECTOR TO ENSURE THAT DOCUMENTS (QUALITY PLAN, DRAWINGS, DATA SHEET, PURCHASE SPECIFICATIONS, ETC) ARE AVAILABLE AS PER PURCHASE ORDER BEFORE STARTING THE INSPECTION.
6. TPIA TO REVIEW ONLY THE ORIGINAL TEST CERTIFICATES ISSUED BY THIRD PARTY LABORATORIES OR SUPPLIERS.
7. INSPECTION REPORTS SHALL BE SUBMITTED WITH A REMARK THAT ' COMPARED WITH ORIGINAL TEST CERTIFICATE. REVIEWED, VERIFIED AND FOUND IN ORDER '. TPIA TO ENSURE THE SAME.
8. INSPECTOR TO ENSURE USE OF VALID AND CALIBRATED MEASURING INSTRUMENTS AND EQUIPMENT.
9. TPIA SHALL ENSURE THAT MATERIAL TEST CERTIFICATE & TRACEABILITY RECORDS ARE AVAILABLE FOR USE OF CORRECT MATERIAL.
10. QUALIFICATION OF EQUIPMENT, PROCESS & PERSONNEL FOR SPECIAL PROCESSES LIKE WELDING, BRAZING, PAINTING & METAL COATING ETC.
11. TPIA TO ENDORSE ON ALL CERTIFICATES WITH COMMENTS (WITNESSED OR VERIFIED) AS PER QUALITY PLAN.
12. TPIA SHALL ENSURE THAT LOG SHEETS CONTAIN ACTUAL MEASURED VALUES INSTEAD OF SAYING OK/NOT OK.
13. COMPLETE INSPECTION AND TEST DOCUMENTATION WHICHEVER IS IDENTIFIED WITH (v) UNDER COLUMN D OF APPROVED QUALITY PLAN SHALL BE ENCLOSED WITH THE INSPECTION REPORT. ALL TEST CERTIFICATES/ REPORTS REVIEWED AND CERTIFIED BY BHEL/TPI SHALL BE SUBMITTED TO BHEL AS DOCUMENTATION PACKAGE
14. ORIGINAL COPIES OF ALL INSPECTION AND TEST DOCUMENTS AUTHENTICATED BY TPIA SHALL BE SUBMITTED.
15. DRAWING / DATA SHEET SHALL PREVAIL OVER QUALITY PLAN IN CASE OF ANY CONTRADICTION BETWEEN QUALITY PLAN AND DRAWING / DATA SHEET.
16. ALL TEST REPORTS SHALL BE PROVIDED AS PER PRESCRIBED FORMATS IN BHEL SPEC.
17. ANY OTHER TESTS/ CHECKS INDICATED IN SPECIFICATION, P.O., OR DRAWING & ANY ADDITIONAL CHECKS ENVISAGED BY BHEL/TPI TO ENSURE WORKMANSHIP, FINISH, AESTHETICS, ETC. SHALL ALSO BE CONDUCTED AND WITNESSED/VERIFIED BY BHEL /TPI / CUSTOMER AS REQUIRED

VENDOR TO SUBMIT DRG. FOR BHEL APPROVAL. LEGEND: P: - PERFORM, W: - WITNESS, V: - VERIFICATION, INDICATING 1: - BHEL / BHEL NOMINATED INSPECTION AGENCY, 2: - VENDOR / SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT / CHARACTERISTICS UNDER THE COLUMNS P, W & V. * D: RECORDS IDENTIFIED WITH TICK (✓) SHALL BE ESSENTIALLY INCLUDED IN QA DOCUMENTATION.	PREPARED BY:  ALOK BEHERA DY.MGR/ QA	REVIEWED BY:  B. ASHOK KUMAR AGM/QA	APPROVED BY:  B. ASHOK KUMAR AGM/QA
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								PAGE 4 OF 4					
				SL NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REF DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	*D

GENERAL LEGENDS						
NDE	NON DESTRUCTIVE EXAMINATION	ASSLY	ASSEMBLY	CHEM	CHEMICAL	
UT	ULTRASONIC TEST	QC	QUALITY CONTROL	MECH	MECHANICAL	
PT	DYE PENETRANT TEST	TPIA	THIRD PARTY INSPECTION AGENCY	TC	TEST CERTIFICATES	
MT/MPI	MAGNETIC PARTICLE INSPECTION	WPS	WELDING PROCEDURE SPECIFICATION	VERFN	VERIFICATION	
RT	RADIOGRAPHY TEST	WQR	WELDER QUALIFICATION RECORD	IGC	INTER GRANULAR CORROSION	
MEASRT	MEASUREMENT	PQR	PROCEDURE QUALIFICATION RECORD	HT	HEAT TREATMENT	
DIMN	DIMENSION	IR	INSPECTION REPORT	QA	QUALITY ASSURANCE	

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INDUSTRIAL TURBINES & COMPRESSORS

TC 54290

Rev. No. : 00

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Y-TYPE PUMP SUCTION STRAINER

(Casted Body, Stainless Steel & Pressure class ANSI 150)

1.0.0 DEFINATION:

This standard specifies the requirements of Y-Type Strainer with Stainless steel body material, pressure class ANSI 150 with flanged end connection.

2.0.0 APPLICATION:-

The strainers are used in suction piping of centrifugal lube oil pumps where the ISO VG 46 Oil being carried. Oil should not be contaminated by MOC of any part of strainer.

3.0.0 OPERATING CONDITIONS:-

3.1.0 INSTALLATION: Horizontal and in line with suction piping.

3.2.0 FLUID: The grade of the oil to be considered as Servo prime 46 of IOC, unless otherwise specified.

3.3.0 CHARACTERISTICS OF FLUID:

Grade :	Servo prime 46 of IOC	Servo prime 32 of IOC
Specific Gravity :	0.88	0.88
Kinematics viscosity :	30 CST at 50°C 18 CST at 65°C 280 CST at 10°C	22 CST at 50°C 14 CST at 65°C 170 CST at 10°C

3.4.0 Suction temp. Of fluid handled: 65°C (Normal Operation) : 10°C (During starting only for brief period)

3.5.0 Suction head : Atmospheric (Flooded suction)

4.0.0 TECHNICAL REQUIREMENT:-

Cl.	Requirement	Compliance
a.	Pressure Temperature rating	Class 150 as per ANSI B16.5
b.	Material	As per Table-I
c.	Construction	Y-Type as shown in Figure-A
d.	End Connections-	Flanged as per ANSI B16.5
e.	Face to Face dimension	As per Table-I
f.	Screen	20 Mesh – with minimum 49% opening area and 0.035" opening
g.	Back Up Screen	Shall be provided with least pressure loss.
h.	Ration: Free area to pipe area	3:1
i.	Screen retainer	Bolted Screen retainer with Bolted blow down.
j.	Connection for Vent	At "V" shown in figure-A with ¾" NPT female connection with metallic plug.

Revisions	Prepared	Approved	Date
Refer to record of revisions	SBJ / K. Bharath	M V S Raju	15.09.15

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COPYRIGHT AND CONFIDENTIAL The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED. It must not be used directly or indirectly in any way detrimental to the interest of the company.	5.0.0 <u>TEST & TEST CERTIFICATE :</u> 5.1.0 <u>Body Test:</u> Strainer shall be subjected to a hydraulic test pressure of 9.0kg/cm² (g) by blanking all the ends. No leakage is permitted. 5.2.0 <u>Test certificate :-</u> Three copies of test certificate are to be given for each consignment. BHEL standard Number & Purchase order No. shall be mentioned in each test certificate. The test certificate shall include 1. Material test certificate 2. Hydraulic Pressure test certificate 3. Dimensional check report 4. Visual Inspection report 5. Dye Penetration Test report 6.0.0 <u>GUARANTEE CERTIFICATE</u> 6.0.1 A guarantee certificate for 24 months of trouble free performance from date of shipment or 18 months from the date of commissioning whichever is earlier shall be supplied. 6.0.2 If any mal-performance or defects occur during the guarantee Period, the vendor shall make all necessary alteration, repairs and replacement free of charge. 7.0.0 <u>DOCUMENTS :</u> 7.0.1 Technical literature along with cross sectional drawing with bill of material and general arrangement drawings and pressure drop vs. flow curve with the mentioned fluid shall be submitted with offer. 7.0.2 Installation, operating and maintainace manual (2 copies) shall be supplied along with the equipment. One copy of soft copy shall be sent before dispatch of consignment. 8.0.0 <u>CLEANING & PAINTING:</u> Special care shall be taken to ensure that all foundry sand & loose material is properly removed by fettling / shot blasting. The outer surface of the strainer shall be painted with light grey shade 631 of IS:5 after completion of hydrostatic testing. The DFT of paint shall be as per manufactured standard. 9.0.0 <u>PRESERVATION:</u> Suitable temporary rust preventive with minimum life of one year shall be applied inside the body in order to prevent corrosion 10.0.0 <u>END PROTECTION:</u> A circular blanking plate made of thin steel sheet with a diameter 6 mm less than the bolt holes inner PCD shall be firmly fixed to the flange faces by the application of adhesive after ensuring at the flange faces have been thoroughly de-greased.		



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11.0.0 PACKING:-

11.0.1 The equipment shall be properly packed to withstand mechanical damage and rust during transit.

11.0.2 The following details shall be marked on packing.

- Manufacturer's name
- BHEL order number
- BHEL standard number

12.0.0 MARKING:-

12.0.1 A tag Number bearing the relevant 12 digit material code of BHEL and Purchase Order Number shall be attached to the supply. Product name and manufacturers name has to be clearly indicated on the product.

13.0.0 SCOPE OF SUPPLY:

- a). Y-Type Strainer with Stainless steel body material, pressure class ANSI 150 with flanged end connection as per variant table.
- b). One set of spare Gaskets along with consignment as commissioning spares with properly preserved & packed condition.

TABLE – I:-

S. No.	Part	Material
1	Body (Casted)	SS of 300 Series (ASTM A351 Gr. CF8)
2	Screen & Mesh	SS 304
3	Gasket	Compressed non asbestos
4	Cover	ASTM A351 Gr. CF8
5	Bolts & Nuts	ASTM A-193 Gr B-7
6	Drain Plug	SS
7	Vent with plug	SS

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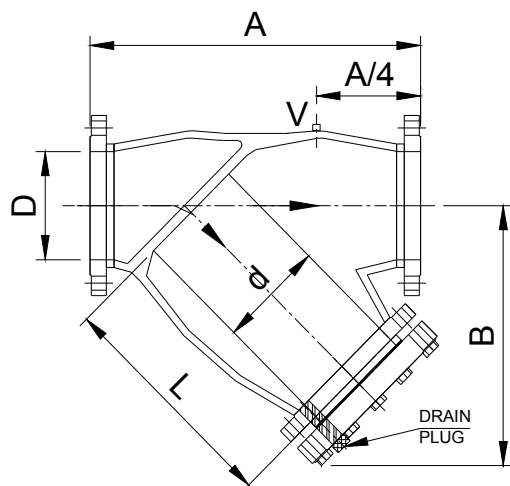
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FIGURE-A:-**VARIANT TABLE**

Var. No.	Description	Inlet & outlet (D)	Material Code	A (mm)	B (mm)	L (mm)	d (mm)
01	STRAINER Y TYPE SS 8" CL150RF	8"X8" (#150RF)	TC9754290016	635	*	400	*
02	STRAINER Y TYPE SS 6" CL150RF	6"X6" (#150RF)	TC9754290024	450	*	300	*
03	STRAINER Y TYPE SS 4" CL150RF	4"X4" (#150RF)	TC9754290032	384	*	200	*
04	STRAINER Y TYPE SS 3" CL150RF	3"X3" (#150RF)	TC9754290040	355	*	160	*
05	STRAINER Y TYPE SS 2" CL150RF	2"X2" (#150RF)	TC9754290059	229	*	100	*
06	STRAINER Y TYPE SS 8" CL150RF	8"X8" (#150RF)	TC9754290067	635	*	400	*
07	STRAINER Y TYPE SS 6" CL150RF	6"X6" (#150RF)	TC9754290075	450	*	300	*
08	STRAINER Y TYPE SS 4" CL150RF	4"X4" (#150RF)	TC9754290083	384	*	200	*
09	STRAINER Y TYPE SS 3" CL150RF	3"X3" (#150RF)	TC9754290091	355	*	160	*
10	STRAINER Y TYPE SS 2" CL150RF	2"X2" (#150RF)	TC9754290105	229	*	100	*

Note: -

- 1). "*" Mark dimension vendor to specify.
- 2). Slight variations in Dimension "A" & "L" are acceptable as long as the free area to pipe area ratio is maintained as 3:1 in line with clause 4.0.0.h

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