FIRST ANGLE PRJECTION

ALL DIMENSIONS ARE IN MM

DRAWING NO. 1-16503-40836

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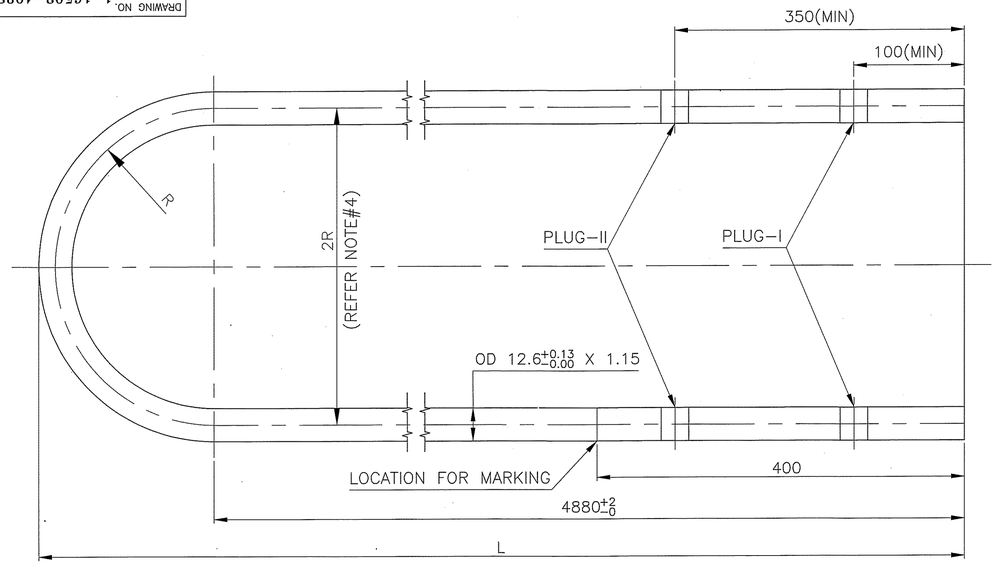

TECHNICAL REQUIREMENTS (TR) :-

1) TUBE MATERIAL SEAMLESS INCOLOY-800 AS PER SB163UNS8800.
2) TUBE SHALL BE SUPPLIED MEETING THE REQUIREMENT AS PER TECH. SPEC. DOC. NO. BHEL/NPCIL/30599/INCOLOY-800 TUBES/CDE-19-3410.
3) TOLERANCE ON TUBE BENDS.
   a) THINNING ALLOWANCE : 10% (MAX.) OF THE MINIMUM WALL THICKNESS.
   b) OVALITY: 5% (MAX.)
4) TOLERANCE ON LEG SPACING:-
   a) FOR BEND RADIUS(R) LESS THAN 220 : ±1mm.
   b) FOR BEND RADIUS(R) 220<R<450 : ±1.6mm.
5) EACH TUBE SHALL BE MARKED BY ELECTRO-ETCHING OR ANY OTHER SUITABLE PERMANENT MARKING METHOD AT APPROX. 400mm FROM EACH END. MARKING SHOULD CONTENT TUBE IDENTIFICATION NO. ALONG WITH TUBE OD X TK X STRAIGHT LEG AND MATERIAL OF CONSTRUCTION.
6) EACH BEND TUBE SHALL BE CHECKED FOR PASSAGE BY BALL TEST USING BALL SIZE (9.2+0/-0.1) AS PER NPCIL BALL TEST PROCEDURE.
7) EACH TUBE SHALL BE HYDROSTATICALLY TESTED AS PER TECH. SPEC. MENTIONED IN TR # 2.
8) THE TUBES SHALL BE FREE FROM KINKS,BENDS, LOCAL DISTORTIONS ETC.
9) IN THE EVENT THAT CERTAIN REQUIREMENTS OF THE CODE/STANDARD LISTED IN DRG. & BHEL TECH. SPEC. CONFLICTS, THE REQUIREMENTS WHICH ARE MORE STRINGENT SHALL GOVERN.
10) VENDOR TO INSERT 4NOS. TUBE PLUGS 2 NOS. ON EACH STRAIGHT LEG AS SHOWN. VENDOR TO SUPPLY PLUG REMOVAL TOOL WITH SUPPLY OF U-TUBES AND PROCEDURE ALONG WITH SUPPLY.
11) QUANTITY MENTIONED IN BILL OF MATERIAL IS FOR ONE TUBE BUNDLE ASSEMBLY ONLY

TUBE IDENTIFICATION NO.	LENGTH L	MEAN BEND RADIUS "R"	VAR01 (QTY)	VAR00 (QTY)	REMARKS (DEVELOP LENGTH)	VAR. NO.	ITEM NO.	DESCRIPTION	STD	DRAWING NO.	IT.NO.	MATL. CODE	UNIT	UNIT WT.	GS	ZONE
											VAR.	MATL. SPCN.		QTY.		
3332-HX-1-223-R16	5076.3	190.0	17	16	10356.9		16	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.43		
3332-HX-1-222-R15	5066.8	180.5	21	20	10327.1		15	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.42		
3332-HX-1-221-R14	5057.3	171.0	19	18	10297.2		14	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.41		
3332-HX-1-220-R13	5047.8	161.5	21	20	10267.4		13	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.40		
3332-HX-1-219-R12	5038.3	152.0	19	18	10237.5		12	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.39		
3332-HX-1-218-R11	5028.8	142.5	21	20	10207.2		11	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.38		
3332-HX-1-217-R10	5019.3	133.0	21	20	10177.8		10	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.37		
3332-HX-1-216-R9	5009.8	123.5	19	18	10147.9		09	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.36		
3332-HX-1-215-R8	5000.3	114.0	21	20	10118.1		08	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.35		
3332-HX-1-214-R7	4990.8	104.5	21	20	10088.3		07	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.34		
3332-HX-1-213-R6	4981.3	95.0	21	20	10058.5		06	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.33		
3332-HX-1-212-R5	4971.8	85.5	23	22	10028.6		05	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.32		
3332-HX-1-211-R4	4962.3	76.0	21	20	9998.8		04	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.31		
3332-HX-1-210-R3	4948.8	66.5	23	22	9968.9		03	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.30		
3332-HX-1-209-R2	4943.3	57.0	21	20	9939.1		02	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	Kg.	3.29		
3332-HX-1-208-R1	4933.8	47.5	21	20	9909.2		01	TUBE 12.6 ODx1.15MM				B.O. SB163UNS8800	A Kg.	3.28		

न्यूक्लियर पावर कार्पोरेशन ऑफ इंडिया लिमिटेड
NUCLEAR POWER CORPORATION OF INDIA LTD.
☑ अनुमोदित / APPROVED
☐ टिप्पणी के अनुसार अनुमोदित / APPROVED AS NOTED
☐ संशोधन के आगे भेजा / रोके ।
PROCEED WITH / HOLD FABRICATION
☐ अंतिम दृष्टांतपत्रों के प्रतियां भेजें ।
SEND FINAL TRANSPARENCIES & PRINTS
☐ संशोधन करें एवं अनुमोदन के लिए पुनः प्रस्तुत करें।
REVISE AND RESUBMIT FOR APPROVAL

जाँचकर्ता CHECKED BY	समीक्षाकर्ता REVIEWED BY	अनुमोदन कर्ता APPROVED BY

विक्रेय उत्पादों कार्य का अनुमोदन आपूर्तिकर्ता की विशिष्टताओं के अनुसार आपूर्ति के उत्तरदायित्व से मुक्त नहीं करता ।
The Approval of the work to be done does not relieve the supplier of responsibility of supply according to specifications.

UNLESS OTHERWISE STATED :-
ALL DIMENSIONS ARE IN mm.
SURFACE FINISH TO BE 1.6/ OR BETTER.
REMOVE ALL BURRS.
REMOVE ALL EXTERNAL SHARP CORNERS AND EDGES BY CHAMFERING TO 0.15/0.40 X 45°
ROUND ALL INTERNAL CORNER AND EDGES TO R 0.15/0.40

TOLERANCE ON RADII AND CHAMFERS (IS:2102)

RADII AND CHAMFERS	0.5-3	3-6	6-30
TOLERANCE	± 0.2	± 0.5	± 1.0

ADDITIONAL INFORMATION
DRG. LIST : 4-16503-40358
STATUS OF DRAWING
W/O. NO. : 18085/86-W-04801
DISTRIBUTION OF PRINTS
CDE - 1 HCM - 4 FWM - 4

REV.	DATE		
01	22/03/19	ALTERED	विक्रम कुमार मुखराया
		CHECKED	नारायण सिंह
		APPROVED	ए.के.माहौर
ZONE	DRAWING REVISED BASED ON NPCIL COMMENTS DTD. 15/03/2019.		

NUCLEAR POWER CORPORATION OF INDIA LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)
PROJECT : GORAKHPUR HARIYANA ANU VIDHYUT PARIYOJANA 1&2 (700 MWe)
NPCIL PURCHASE ORDER NO. : CMM/FTP/10-33-1-1149/e-PO/30599, DATED 25.01.2019
NPCIL DRAWING NO : GHAVP-1&2/33321/2008/DD REV.00

उत्पाद का प्रकार या ग्राहक/परियोजना का नाम
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: BLEED COOLER (3332-HX-1)

भारत हेवी इलेक्ट्रिकल्स लिमिटेड भोपाल
BHARAT HEAVY ELECTRICALS LTD. BHOPAL

	नाम/ NAME	हस्ता./SIGN	दिनांक/DATE	वे.रि. की संख्या NO. OF VAR.
कारा. DRN.	विक्रम कुमार मुखराया		06/03/2019	
जाँचा CHKD.	नारायण सिंह		07/03/0019	
अनुमोदित APPD.	ए.के.माहौर		08/03/0019	

विभाग DEPT. CDE	उत्पाद SCALE	भार (कि.ग्रा.) WEIGHT (K.G.)	उसे. ड्राईंग का संदर्भ REF. TO ASSY. DRG.	मद क्र. ITEM NO.	मद संख्या NO. OF ITEM
सीडी CDE 411	–	–	1-16503-40852	–	–

शीर्षक/ TITLE	ड्राईंग क्र./DRAWING NO.	पुन./ REV.
U-TUBES	1-16503-40836	01
	पृष्ठ क्र./ SHT. NO. 01	पृष्ठों की संख्या/ NO. OF SHT. 01

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