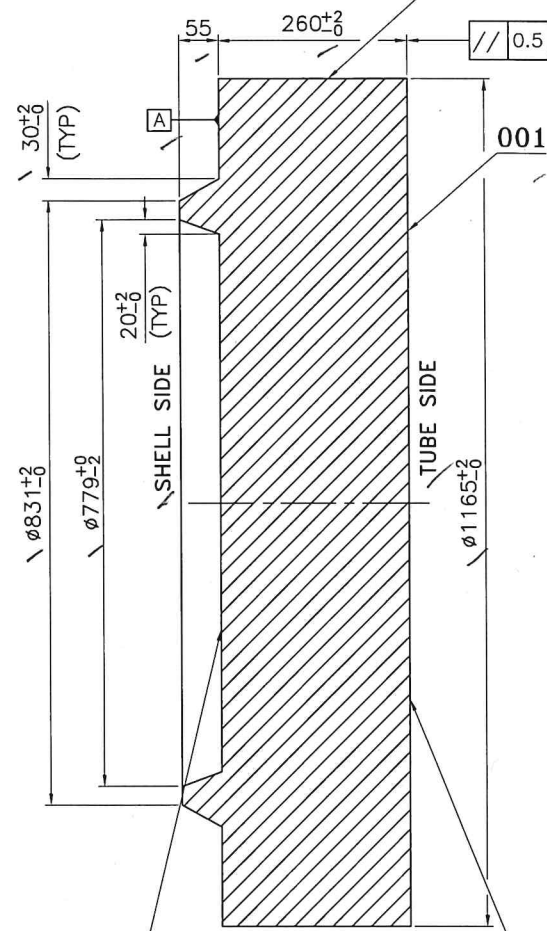
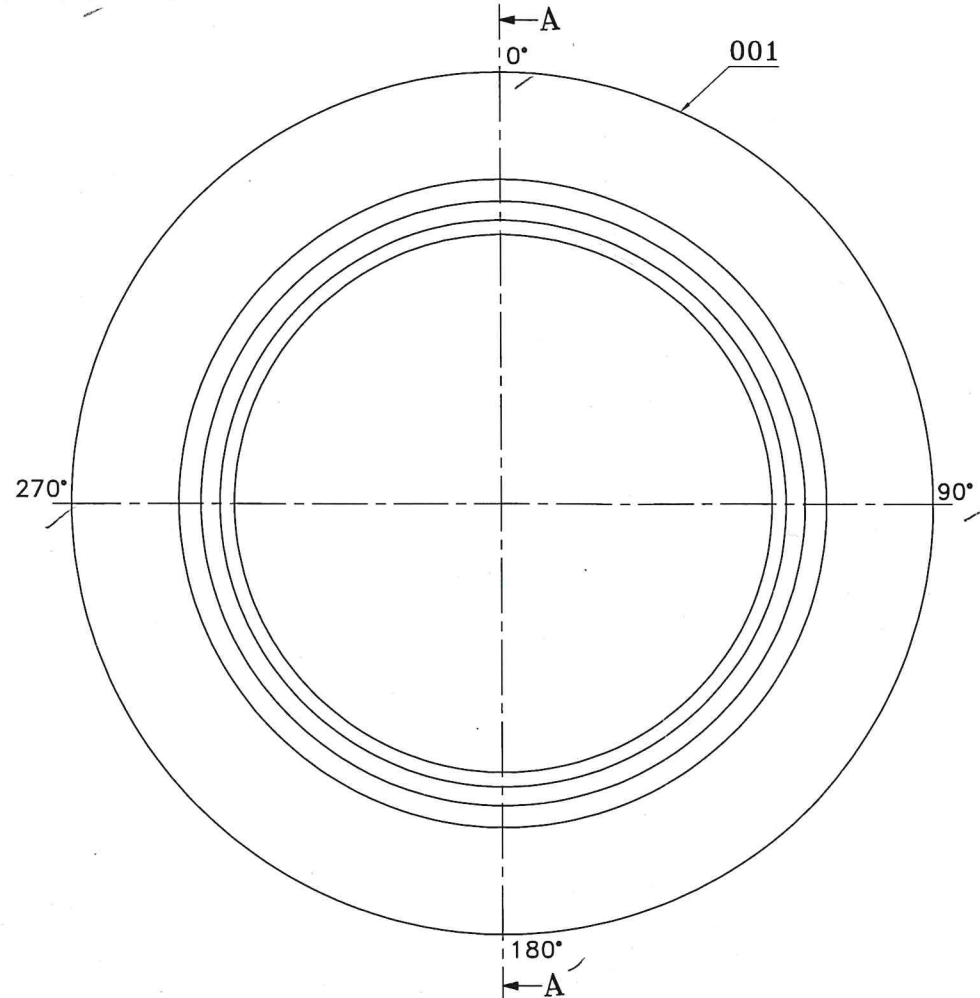


08804-39091-3

DRAWING NO.

IDENTIFICATION i.e. PF NO. TO
BE STAMPED ON THIS SURFACEIT IS MOST IMPORTANT THAT THESE
FACES ARE MACHINED PARALLEL TO
EACH OTHER AND ARE SQUARE WITH
TUBE SHEET OD.

SECTION : A-A



NOTE-A

MOCKUP BLOCK REQUIRED FOR PROCESS QUALIFICATION AND PROCESS CONTROL
SHALL BE OF SAME HEAT TREATMENT CONDITION AND MATERIAL OF TUBE SHEET
FORGING. FOR QUANTITY AND SIZE FOR DIFFERENT MOCKUP BLOCKS REFER
ENQUIRY/PO.

न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड Nuclear Power Corporation of India Limited		
☒ अनुमोदित / APPROVED		
☐ डिप्टी के अनुसार अनुमोदित / APPROVED AS NOTED		
☐ संशोधन को आगे बढ़ाएं / सेट / PROCEED WITH/HOLD FABRICATION		
☐ अंतिम दस्तावेजों एवं प्रतियों भेजें / SEND FINAL TRANSPARENCIES & PRINTS		
☐ संशोधन करें एवं अनुमोदन के लिए पुनः प्रस्तुत करें REVISE & RESUBMIT FOR APPROVAL		
जाँचकर्ता / CHECKED BY	समीक्षकर्ता / REVIEWED BY	अनुमोदन कर्ता / APPROVED BY
अक्षर वा/5/19	वि.क.माधोकर 7/5/19	अक्षर 7/5/19
किए जानेवाले कार्य का अनुमोदन आपूर्तिकर्ता संविदाकार को विनिर्देशनों के अनुसार आपूर्ति करने के उत्तरदायित्व से मुक्त नहीं करता है। This approval of the work to be done does not relieve the supplier of the responsibility of supply according to specifications.		

TECHNICAL REQUIREMENTS (TR):-

- SUPPLY CONDITION : HEAT TREATED AND PROOF MACHINED ALL OVER.
- ALL TECHNICAL AND TESTING REQUIREMENTS SHALL BE AS PER NPCIL APPROVED SPECIFICATION No. BHEL/NPCIL/30599/CS-FORGINGS/CDE-19-3411.
- NO REPAIRS/WELDING SHALL BE PERMITTED WITHOUT PRIOR APPROVAL OF NPCIL.
- TEST COUPON FOR TESTING SHALL BE FORMED AS PER SPECIFICATION NO.- BHEL/NPCIL/30599/CS-FORGINGS/CDE-19-3411.
- IDENTIFICATION TO BE STAMPED AT LOCATION SHOWN WITH FOLLOWING INFORMATION:
a). PURCHASE FORGING NUMBER.
b). HEAT NUMBER
c). BHEL PO NUMBER
d). MATERIAL DESIGNATION.
- MATERIAL OF CONSTRUCTION : SA 350 LF2 CLASS-1.
- TEMPORARY OIL BASED RUST PREVENTIVE TO BE APPLIED AFTER MACHINING THE TUBE SHEET ON ALL SURFACES.
- THE TUBE SHEET SHALL BE FORGED IN SUCH A WAY THAT FACE CORRESPONDING TO TUBE SIDE (CLADDING SIDE) SHALL CORRESPOND TO THE BOTTOM OF INGOT.
- ALL DIMENSIONS INDICATED ARE IN mm.
- UNLESS OTHERWISE MENTIONED THE TOLERANCE ON LINEAR AND ANGULAR DIMENSIONS SHALL BE IN ACCORDANCE TO IS:2102.
- THE SURFACE FINISH OF FORGINGS SHALL BE 3.2 OR BETTER.

DO NOT SCALE THE DRAWING.
UNLESS OTHERWISE STATED:-ALL DIMENSIONS ARE IN mm.
MACHINE ALL OVER.
SURFACE FINISH TO BE $\sqrt{3.2}$ OR BETTER.
REMOVE ALL BURRS.
REMOVE ALL EXTERNAL SHARP CORNERS
AND EDGES BY CHAMFERING TO $0.15 \times 45^\circ$.
ROUND ALL INTERNAL CORNERS AND
EDGES TO R 0.15 .
TOLERANCES ON RADII AND CHAMFERS
(IS : 2102)
REDII AND CHAMFERS 0.5-3 3-6 6-30
TOLERANCES ± 0.2 ± 0.5 ± 1.0

TOLERANCE ON LINEAR DIMS. (IS:2102)

DIMENSIONS	TOL.	DIMENSIONS	TOL.
UP TO 6	± 0.1	315 - 1000	± 0.8
6 - 30	± 0.2	1000 - 2000	± 1.2
30 - 120	± 0.3	2000 - 4000	± 2.0
120 - 315	± 0.5	4000 - 8000	± 3.0

TOLERANCE ON ANGULAR DIMS: 0°-0.5°

SPECIFIED DIMENSIONS	TOLERANCE
XX	± 0.40
XX.X	± 0.40
XX.XX	± 0.25

ADDITIONAL INFORMATION

DRG. LIST : 4-16503-40357

STATUS OF DRAWING

W/O. NO. : 18085/86-W-04801

DISTRIBUTION OF PRINTS

CDE - 1 HCM - 1 FWM - 1

REV.	DATE	ALTERED	BY	CHKD.
02	03/05/19	CHECKED	नागेन्द्र सिंह	नगेन्द्र सिंह
		APPROVED	ए.के.माधोकर	अक्षर
ZONE	DRAWING REVISED TO INCORPORATE NPCIL COMMENTS DTD. 10/04/2019.			

REV.	DATE	ALTERED	BY	CHKD.
01	20/03/19	CHECKED	नागेन्द्र सिंह	नगेन्द्र सिंह
		APPROVED	ए.के.माधोकर	अक्षर
ZONE	DRAWING REVISED BASED ON NPCIL COMMENTS DTD. 15/03/2019. TOLERANCE TABLE ADDED. NOTE-A ADDED.			

01	01165	001	TUBE SHEET	B.O.	2250.0
VAR. QTY. Nos	REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	DRAWING NO.
59	64	65	75	78	79
28	CARD TYPE-3	28	CARD TYPE-1	28	CARD TYPE-2



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 : GHVP-1&2/33321/2004/DD REV.00

EQUIPMENT NAME :

BLEED COOLER

TAG NO. :

(3332-HX-1)

भारत हेवी इलेक्ट्रिकल्स लिमिटेड
भोपाल
BHARAT HEAVY ELECTRICALS LTD
BHOPAL

नाम/ NAME	हस्ता/ SIGN	दिनांक/ DATE	वे. री. की संख्या NO. OF VAR.
विजय कुमार कुशवाहा	विजय कुमार	19/02/2019	
नागेन्द्र सिंह	नागेन्द्र सिंह	19/02/2019	
अरुण कुमार सिंह	अरुण कुमार	19/02/2019	

विभाग DEPT. CDE	अनुमो. नाप की त्रुटि UNTO. DIMS. GR.	अनुपात SCALE	भार (कि.ग्रा) WEIGHT (K.G.)	असे. ड्राइंग का संदर्भ REF. TO ASSY. DRG.	मद क. ITEM NO.	मद संख्या NO. OF ITEM
कोड 411	AA0203208	-	2250.0	3-16503-40881	001	-
शीर्षक/ TITLE				ड्राइंग क्र./DRAWING NO.	पुन. REV.	
TUBE SHEET FORGING				3-16503-40880	02	
				पृष्ठ क्र./SHT. NO. 01	पृष्ठों की संख्या/NO. OF SHT. 01	