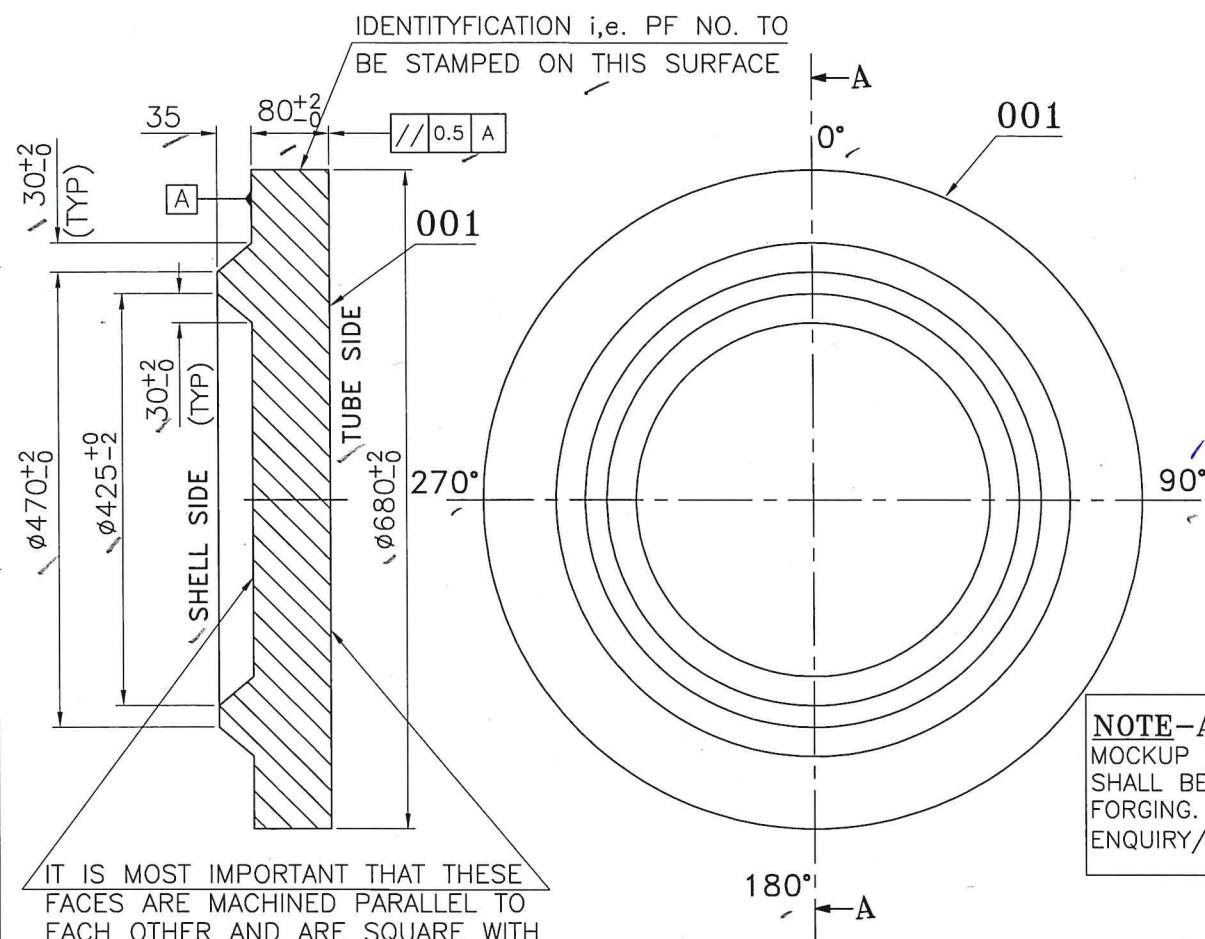


3-16503-40884

DRAWING NO.



IT IS MOST IMPORTANT THAT THESE
FACES ARE MACHINED PARALLEL TO
EACH OTHER AND ARE SQUARE WITH
TUBE SHEET OD.

TECHNICAL REQUIREMENTS (TR):-

- SUPPLY CONDITION : HEAT TREATED AND PROOF MACHINED ALL OVER.
- ALL TECHNICAL AND TESTING REQUIREMENTS SHALL BE AS PER NPCIL APPROVED SPEC. 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:
 - PURCHASE FORGING NUMBER.
 - HEAT NUMBER
 - BHEL PO NUMBER
 - 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.

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.

Nuclear Power Corporation of India Limited		
☒ अनुमोदित / APPROVED		
☐ डिजाइन के अनुसार अनुमोदित / APPROVED AS NOTED		
☐ संशोधन को आगे बढ़ाएं / सेकें / 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		
जांचकर्ता / CHECKED BY	समीक्षाकर्ता / REVIEWED BY	अनुमोदन कर्ता / APPROVED BY
प्रखर 8/5/19	रिश्ताधिकारी 8/5/19	8/5/19
किए जाने वाले 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.		

01	Ø680	001	TUBE SHEET	B.O.	236.0
VAROQ QTY.-Nos	REMARKS	VAR. NO.	ITEM NO.	SA350 LF2Cl.1	KG
59	64	65	75	78	79
25	27	29	58	59	60
77	28	31	34	45	55
56	57	58	UNIT WT.	65	72
32	33	46	MATL. SPCH.	54	68
71	72	73	QTY.	74	75
28	CARD TYPE-3		28	CARD TYPE-1	
28	CARD TYPE-2		28	CARD TYPE-2	

**DO NOT SCALE THE DRAWING.
UNLESS OTHERWISE STATED:-**

ALL DIMENSIONS ARE IN mm.
MACHINE ALL OVER.
SURFACE FINISH TO BE $\sqrt{32}$ 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 0.40 .
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 DIMENSIONS (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 LINEAR DIMENSIONS

SPECIFIED DIMENSIONS	TOLERANCE
XX	± 0 . 40
XX.X	± 0 . 40
XX.XX	± 0 . 25

TOLERANCE ON ANGULAR DIMENSIONS : 0°-0.5°**ADDITIONAL INFORMATION**

DRG. LIST : 4-16503-40360

STATUS OF DRAWING

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

DISTRIBUTION OF PRINTS

CDE - 1 HCM - 4 FWM - 4

**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&2/33371/2004/DD REV.00

EQUIPMENT NAME : F/M RECIRCULATION & RETURN COOLER**TAG NO. : (3337-HX-1,2)**

विकास DRN.	नाम/ NAME	हस्ता./ SIGN	दिनांक/ DATE	वे. रि. की संख्या NO. OF VAR.
जॉय CKD.	विजय कुमार कुशवाहा	विजय कुमार	08/03/2019	
अनुमोदित APPD.	नागेन्द्र सिंह	नागेन्द्र सिंह	08/03/2019	
	ए.के.माहौर	ए.के.माहौर	08/03/2019	

विभाग DEPT. CDE	उत्प. टोल. नाप की त्रुटि UNTOL. 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 CODE 411	AA0203208	1:10	236.0	3-16503-40885	001	-

शीर्षक/ TITLE	ड्राइंग क./DRAWING NO.	पृष्ठ क./SHT. NO.01	पृष्ठों की संख्या/NO. OF SHT.01
TUBE SHEET FORGING	3-16503-40884		02