

<b>MONITORING INSTRUCTION FOR INSPECTION</b>		Issue No. 01 Rev. No. 00
		Date of Issue 28.05.2022
<b>STEEL BLANKS Ø180mm – Adapter</b>		<b>HEPF/QA/SC/ZI/106</b>
Rev no	Amendment	Date

**SPECIFICATION** : BS 970 (PT 3)-91 GRADE 817M40 (En 24)  
**DRAWING** : O RGB 060 1 181  
**CONDITION OF SUPPLY** : HARDENED AND TEMPERED TO 'U' CONDITION  
**END USE** : ADAPTER (NASK 1134/1/4(P))

**1. INSPECTION TO BE CARRIED OUT AT FIRM'S PREMISES BY THE FIRM.**

(TABLE A)

SL. NO	CHARACTERISTICS	SPECIFICATION / REQUIREMENT	SAMPLE SIZE
1	Visual	The blanks shall be clean, and free from sharp edges, dents, porosity, cracks etc	100%
2	Outer Diameter	180 +0.0 / -2.0 mm	
3	Length	83+0.5mm	
4	Chemical (%)	<b>BS 970 (PT 3) - 91GRADE 817M40 HARDENED AND TEMPERED 'U' CONDITION</b>	3 Samples per lot or as per the discretion of inspection authority
5	Mechanical		
6	Macro Structure Examination	C2 R1 S1 Plate 1 & Nil for Plate 2 as per <b>ASTM E 381-1984</b>	Randomly selected samples from 3 Nos. per heat
7	Micro Structure Examination	Tempered Martensite with grain size greater than 5 as per ASTM E 112	
8	NMIR	NMIR ABCD 1.5 thin & AD 0.5 thick as per <b>ASTM E 45-2018</b>	
9	Ultrasonic Test (After heat treatment to 'U' condition)	All components shall be tested as per specification <b>IS: 8791/78 Class "A" For Ferritic Steel Forging</b> . Test certificate to be submitted.	100%
10	Dye Penetrant Test	ASME SE 165	
11	Marking	Each blank shall be legibly stamped with <b>manufacturer's identity &amp; heat number</b> .	Each Consignment
12	Packing	Packing of the material shall be done in such a manner to avoid <b>corrosion</b> and <b>damage</b> in handling and transit.	Each Consignment

**NOTE:**

- i. The blank samples / test specimens for each heat shall be selected from bulk at firm's premises by **NAI REP.** for forwarding to nearby **NABL** accredited laboratory for testing
- ii. Ultrasonic testing to be carried out by level-III inspector and test report shall be submitted as per **IS :8791-78 Clause 10**.
- iii. The firm has to check for the dimensions, visual defects and marking as per **Table A**. After testing of all parameters as per **Table-A**. The firm has to forward the following documents.
  - I. The raw material original manufacturer's certificate, heat number, quantity purchased and number of blanks are to be mentioned in the inspection letter to NAI/TRICHY. Materials of different heat No. shall be marked with separate identity & packing
  - II. The test certificates from NABL accredited lab as per **Table A**.
  - III. Dimension report including visual as per **Table A**.
- iv. All the above documents are to be forwarded to **NAI & HEPF**.
- v. NAI shall verify all the documents as per above and accord clearance for dispatch of the material to HEPF if all documents are in order.

ISSUED BY  
STANDARD CELL

DATE: 1/6/22      SIGNATURE:

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2. On receipt at HEPF, the store will be subjected to chemical, mechanical, ultrasonic testing, dye penetration test and micro & macro examination, ultrasonic testing of randomly selected samples from each heat as per discretion of HEPF as per Table-A and user trial (machining)
3. Material has to be replaced 100% by the firm in case of non conformity to specification as per Table A, during inspection at HEPF, Trichy.
4. VERIFICATION OF INSPECTION DOCUMENTS AT HEPF

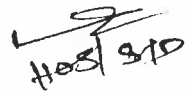
FOLLOWING INSPECTION DOCUMENTS MUST BE ENCLOSED WITH EACH SUPPLY.

TABLE B

SL.NO.	INSPECTION DOCUMENTS
1	BLANK ORIGINAL MANUFACTURER'S CERTIFICATE, DETAILS OF HEAT NUMBER, QUANTITY PURCHASED AND NUMBER OF BLANKS ETC.
2	TEST CERTIFICATES FROM NABL ACCREDITED LAB & UT TEST CERTIFICATE
3	DIMENSION REPORT INCLUDING VISUAL
4	PACKING SLIP DETAILS
5	IN ADDITION TO THE ABOVE SOFT COPIES OF ALL THE CERTIFICATES MENTIONED IN TABLE - A SHALL BE SENT TO E-MAIL ID's <a href="mailto:happqa@ord.gov.in">happqa@ord.gov.in</a> , <a href="mailto:mmhapp@ord.gov.in">mmhapp@ord.gov.in</a>
NOTE	EXPLICIT DEVIATION(S) IF ANY SUCH AS TYPOGRAPHICAL ERROR, VALUES, NUMERIC, OTHER PARAMETER, ETC IS/ARE FOUND IN MONITORING INSTRUCTION OF THE ABOVE STORES, THE RELEVANT STANDARD CONFORMING TO THE SPECIFICATION SHALL BE REFERRED TO CONFIRM THE PARAMETER

  
**N.CHELLAPANDI** 28/05/22  
 Jt.GM/P  
 MEMBER MI COMMITTEE /USER

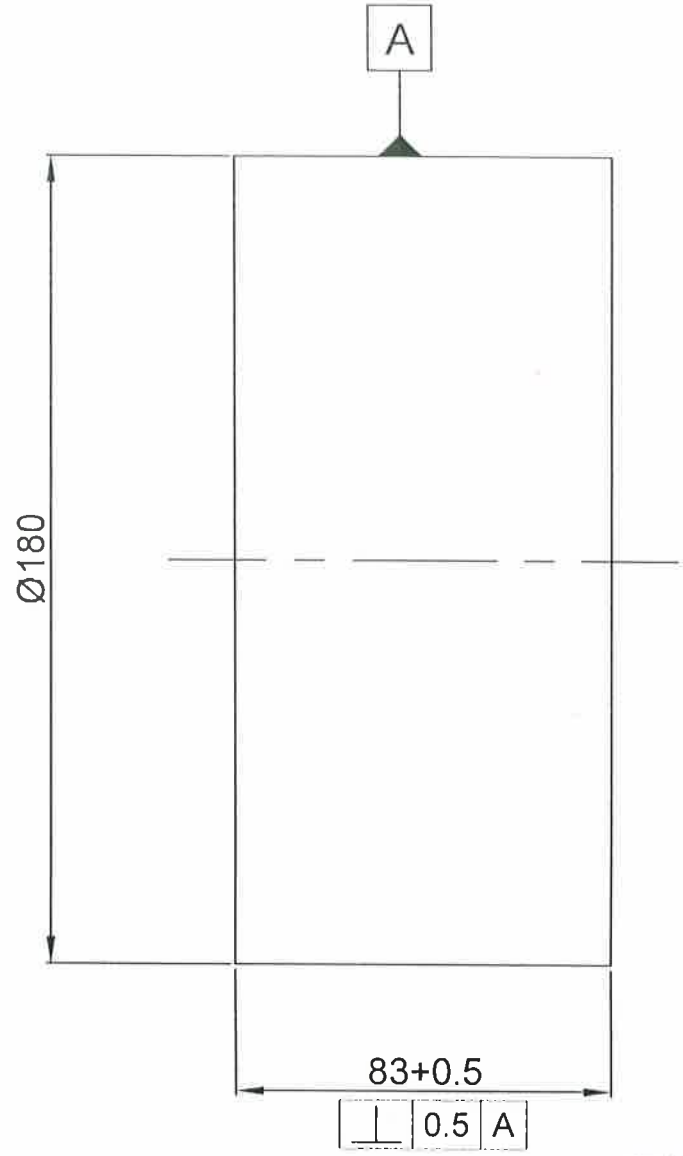
 28/05/2022  
**SREENIVASA RAO BODALA**  
 DGM/Q  
 CHAIRMAN / MI COMMITTEE

  
 Has/S/D



  
 Has/S/D

DRG.No.	REV
0 RGB 060 1 181 0	0



- Note:
1. Material to be supplied in hardened & tempered to 'U' condition.  
^ Ultrasonically tested as per IS 8791-98 Class 'A' in longitudinal & transverse direction.
  3. Surface should be smooth and free from burrs, cavities, cracks, scratches, foreign inclusion & dent marks.
  4. Suitable rust prevention medium to be applied to avoid rusting of material.

**ISSUED BY  
STANDARD CELL**

30/5/22  
DATE: SIGNATURE:

WPS No: 220021 dt: 2/2/22

ALL DIMENSIONS IN mm  
REMOVE ALL SHARP EDGES

MATERIAL				LATEST REF./DC NO.:	
BS 970 Pl -3:91 817M40(En24)					
HARDNESS				DRAWN	
269 to 331 HB				CHECK	
PROTECTIVE FINISH		ALTERATIONS		USER SEC.	
---		DATE		CHECK	
ROUGHNESS		TITLE :		HOS/SC	
---		BLANK FOR ADAPTER (RGB-60)		APPRD.	
EST.MASS		HIGH ENERGY PROJECTILE FACTORY		DATE	
PRO/FINAL		TRICHY		24.05.22	
---				SCALE	
				NTS	
				DRG. NO:	
				0 RGB 060 1 181 0	
				REV	
				0	

SHEET  
1 OF 1