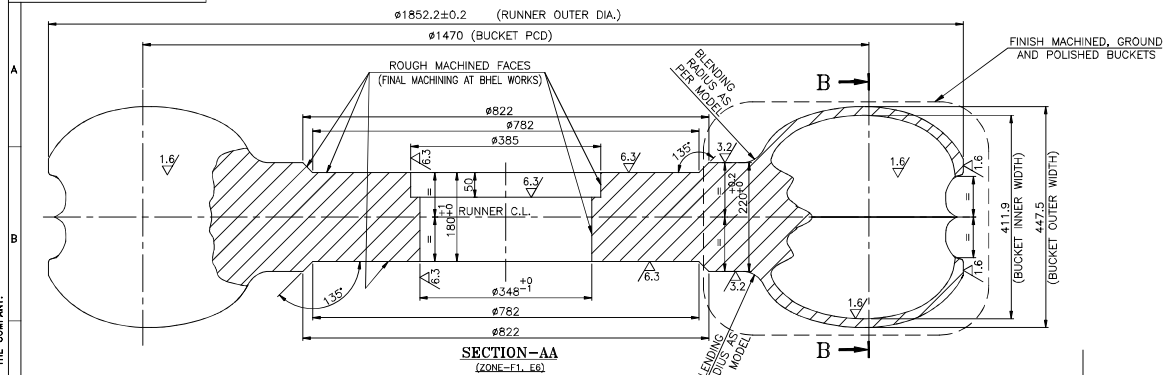


FIRST ANGLE PROJECTION

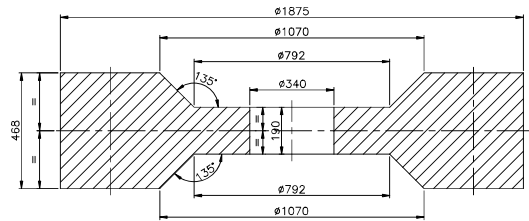
(ALL DIMENSIONS ARE IN mm)

80-80-002-02-20-102-TON '080

3.2/ ALL OVER UNLESS OTHERWISE STATED.



FOR 20 BUCKETS:-
SURFACE AREA FOR GRINDING
(INSIDE) IS APPROX. 5 m².
SURFACE AREA FOR GRINDING
(OUTSIDE) IS APPROX. 6.2 m².



DIMENSIONS OF DISC FORGING FOR PELTON RUNNER
(APPROX WEIGHT = 8513 kg)

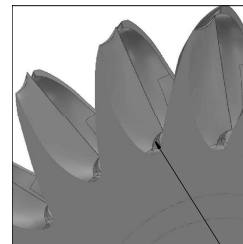
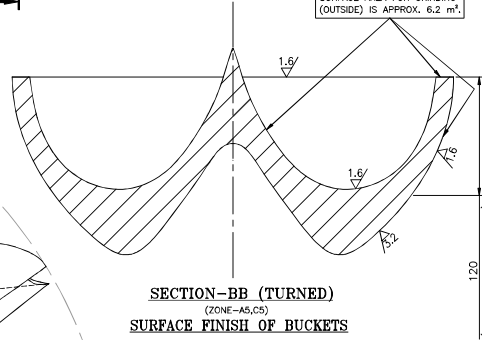
TECHNICAL REQUIREMENTS:-

- FORGING MATERIAL: STAINLESS STEEL DISC FORGING TO SPECIFICATION ASTM A 473 M TYPE S41500.
- SCOPE OF SUPPLY-
 - MACHINED RUNNER AS PER T.R. NO. 3, PELTON RUNNER HAVING 20 NOS. BUCKETS SHALL BE MACHINED FROM SINGLE DISC FORGING. SHAPE OF FORGED DISC IS SHOWN IN THE DRAWING.
 - TEMPLATES (TWO SETS) AS PER INSPECTION SHEETS SHALL BE SUPPLIED IN EVENT OF ORDER. ONE SET OF TEMPLATES SHALL BE USED BY VENDOR FOR INSPECTION AT HIS WORKS AND SHALL BE DISPATCHED ALONG WITH THE LAST RUNNER. THE OTHER SET SHALL BE DISPATCHED WITH THE FIRST RUNNER.
- SUPPLY CONDITION FOR RUNNER:
 - RUNNER FORGING SHALL BE SUPPLIED WITH FULLY FINISH MACHINED GROUND AND POLISHED BUCKETS AND ROUGH MACHINED COUPLING FACES AND CENTRAL BORE AS SHOWN IN SECTION-AA.
 - NO CHIPPING OR SLING MARKS ARE TO BE LEFT ON RUNNER.
 - TOOL MARKS OR TEARING OF METAL BY FINISHING TOOL, IS NOT ACCEPTABLE ON THE SURFACE OF INNER AND OUTER BUCKET PROFILE SUCH MARKS IF ANY SHALL BE REMOVED BY GRINDING & POLISHING.
 - BUCKETS ARE TO BE PROTECTED SUITABLY TO AVOID ANY DAMAGE DURING HANDLING & TRANSIT.
- INSPECTION AT VENDOR'S WORK-
 - TEMPLATES SHALL BE MANUFACTURED AS PER INSPECTION SHEET.
 - TEMPLATES SHALL BE PUNCHED MARKED FOR IDENTIFICATION.
 - VISUAL SURFACE FINISH AND DIMENSIONAL INSPECTION AS PER THIS DRAWING.
 - PROFILE INSPECTION AS PER RUNNER INSPECTION SHEET.
- DOCUMENTS TO BE FURNISHED BY BHEL IN EVENT OF ORDER :
 - 3D MODEL FOR BUCKET PROFILE AND HUB DETAILS (IN EVENT OF ORDER)
 - INSPECTION SHEETS OF PELTON RUNNER.

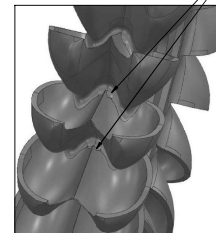
NOTE-

- BEFORE START OF MACHINING VENDOR TO GET THE LATEST REVISION NO. OF DRAWING, CONFIRMED FROM HYDRO TURBINE ENGINEERING, BHEL, BHOPAL.
- IN CASE OF SLIGHTEST DOUBT, CONSULT HYDRO TURBINE ENGINEERING, BHEL, BHOPAL.
- INSPECTION AT SUPPLIER'S WORK SHALL BE CARRIED OUT AS PER APPROVED QUALITY PLAN.

SECTION-BB (TURNED)
(ZONE-A5, C5)
SURFACE FINISH OF BUCKETS



BUCKET ROOT JUNCTION TO BE GROUND SMOOTH TO SURFACE FINISH OF 1.6 MICRON OR BETTER. CHIPPING, WELD-REPAIR AND SLING MARKS ARE NOT ALLOWED.



SPLITTER SECTION

20 BUCKETS

PLAN

BUCKET SURFACE TOTAL AREA FOR GRINDING
(INSIDE+OUTSIDE) = 0.56 m² PER BUCKET.

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INVENTORY NO. : 1000 & DATE : 19.08.26

VAR.00	REMARKS	VAR. NO.	ITEM NO.	DESCRIPTION	REV.	DRAWING NO.	DATE	UNIT WT.	UNIT QTY.	ZONE
28	CARD TYPE-1									
28	CARD TYPE-2									
ADDITIONAL INFORMATION							TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT			
STATUS OF DRAWING							NAME			
DISTRIBUTION OF PRINTS							SIGN			
DEPT. : AS PER DRG. 32000049014							DATE			
SCALE : 1:5							NO. OF			
TITLE : RUNNER MACHINING (STAGE-1)							REV. 0			
DRAWING NO. 1-204-07-25-200-08-03							SHT. NO. 1 NO. OF SHT. 1			

A1 SIZE