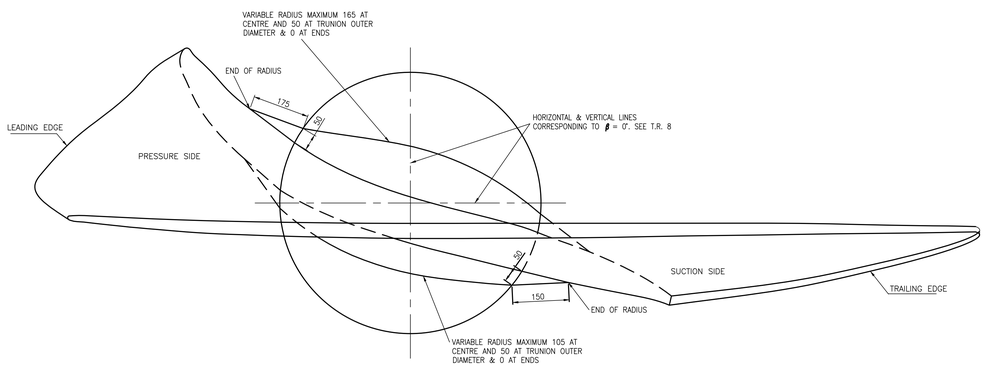
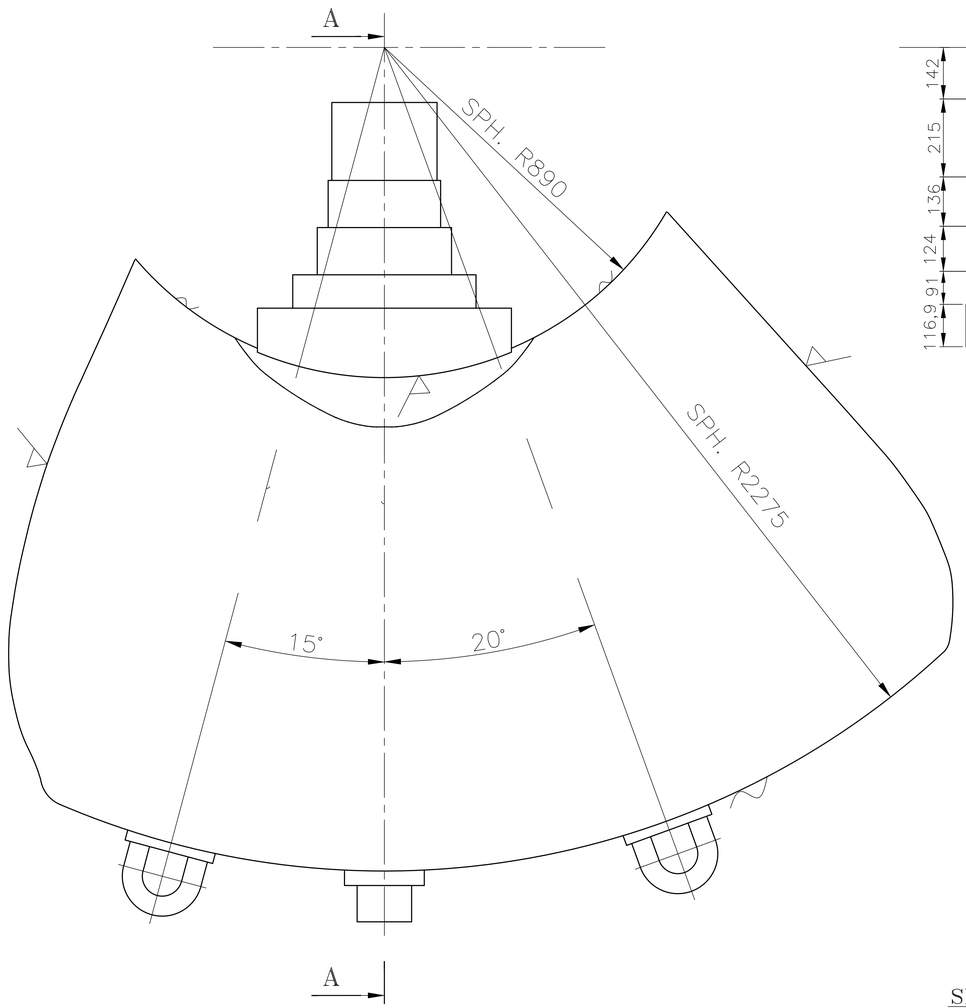
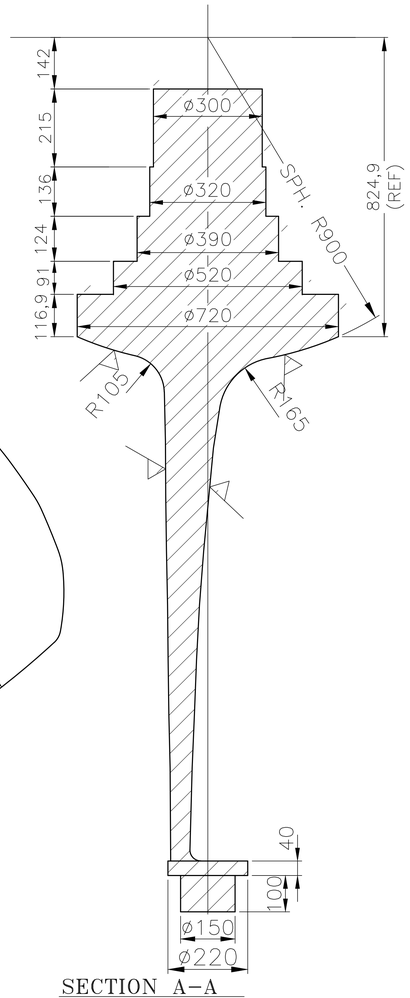


ELEVATION AT β = 0°





SECTION A–A

TECHNICAL REQUIREMENTS:

1. This drawing is issued for the purpose of machining of profile portion of Runner blade.
2. Scope of machining is as follows:
   (a) Machining of pressure and suction surface of the blade including the Leading and Trailing ends as per profile drawing No. 0–204–00–69002 Rev 00. Tolerance on these surfaces shall be +1/–0 mm and surface finish to be 3.2 microns.
   (c) The fillet joining trunnion to blade on both suction and pressure side to be machined to the tolerance of +1/–0 mm and surface finish of 3.2 microns.
3. Material availability for machining shall be 15–20 mm on trunnion face and diameter, 6 to 10 mm on pressure and suction side, and 15–20 mm on outlet and inlet edges.
4. Weight of casting before machining is estimated at 2900 kg and that after machining is 2473 kg.
5. Vertical and horizontal centrelines of the casting as marked by the foundry is to be taken as reference for setting of the blade for machining. These centrelines shall be marked based on the machined trunnion and checking of blade profile for material availability in foundry itself.
6. After machining, the casting shall be checked for accuracy of profile and other dimensions. For this purpose, full section length templates at Sections B, C, D, E, F, G and H shall be required for both pressure and suction side. Also templates at Sections 11, 12 and 13 is required for both Pressure and Suction side covering the spherical radius 900, the fillet radius and points upto Section C–C. These templates are to be made by the vendor to facilitate inspection of casting at their works.
7. The material grade of casting is ASTM A743 CA6NM (13%Cr–4%Ni stainless steel)

REV	DATE	ALTERED / CHECKED	REV	DATE	ALTERED / CHECKED	REV	DATE	ALTERED / CHECKED
ZONE			ZONE			ZONE		

BHARAT HEAVY ELECTRICALS. LTD.
CENTRAL FOUNDRY FORGE PLANT
RANIPUR HARDWAR

DEPTT. FDY.TECH. | SCALE N.T.S. | WEIGHT IN Kgs

	NAME	SIGN	DATE
DRN	/dwg/23/katende		
WKD	T DAVE	sd	6.7.13
CHD	R LAKRA	sd	6.7.13
APPD	T DAVE	sd	6.7.13

TITLE
MACHINING DRG (2nd stage) FOR RUNNER BLADE

PROJECT AND CUSTOMER NAME
KATENDE HEP
BHEL BHOPAL

TECHNOLOGY NO 23457

DRAWING NO.– 0–204–07–18903/M2

SHEET NO.– 1 | NO. OFF SHEETS– 1