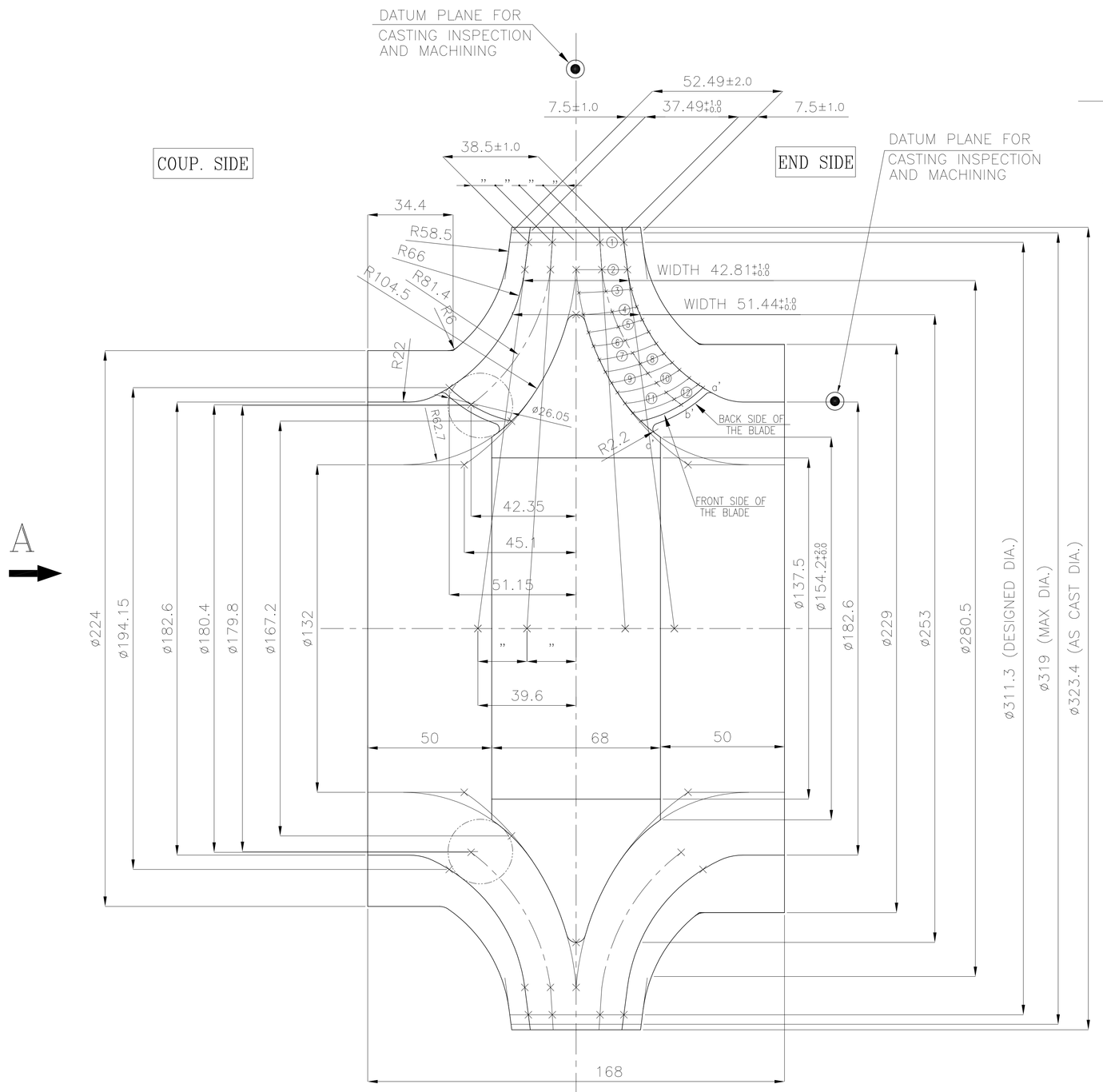
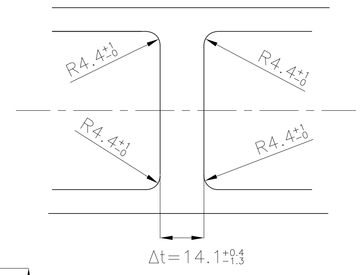
FIRST ANGLE PROJECTION

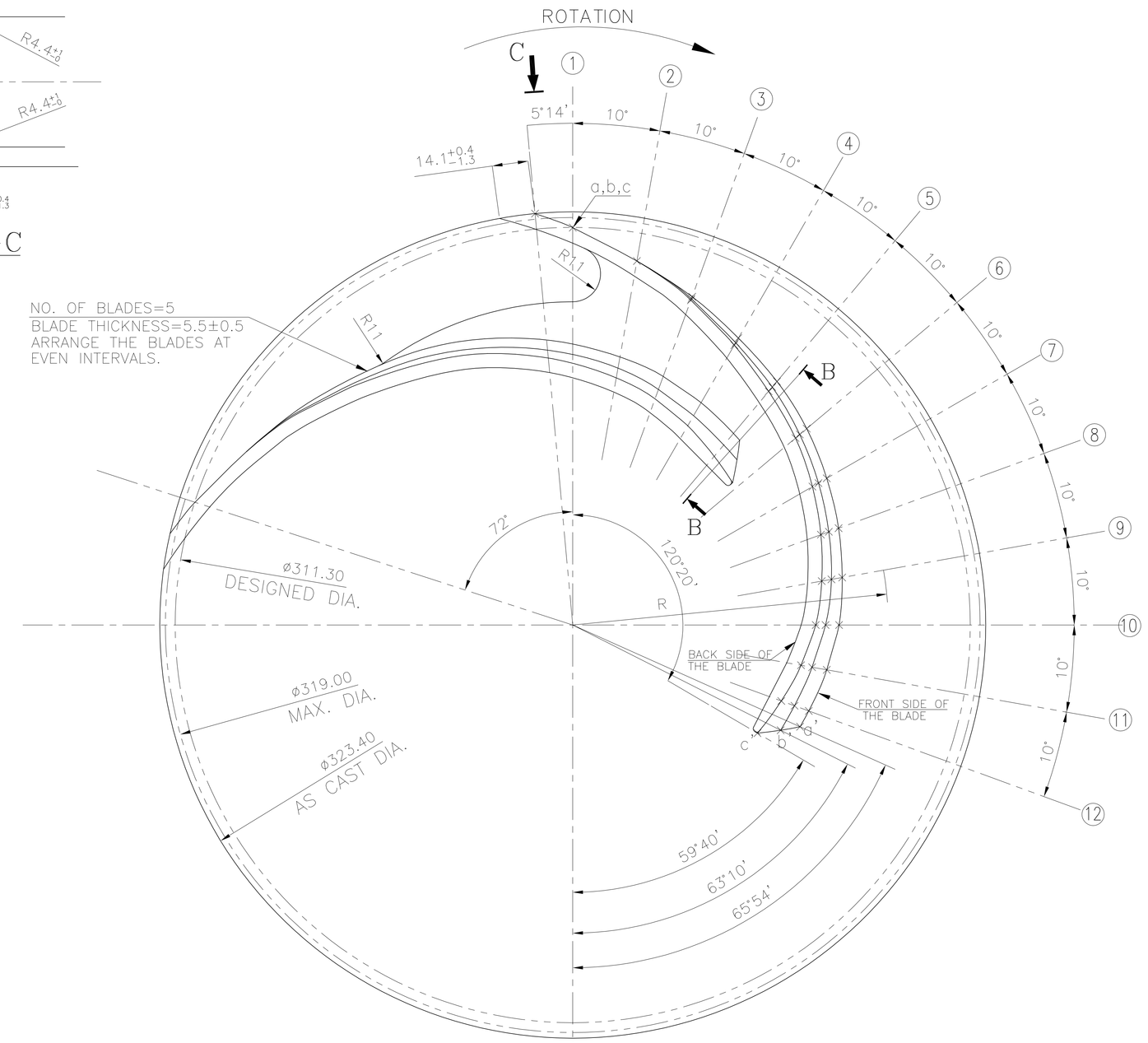
(ALL DIMENSIONS ARE IN mm)

DRG. NO. 0 180 40 2 4633

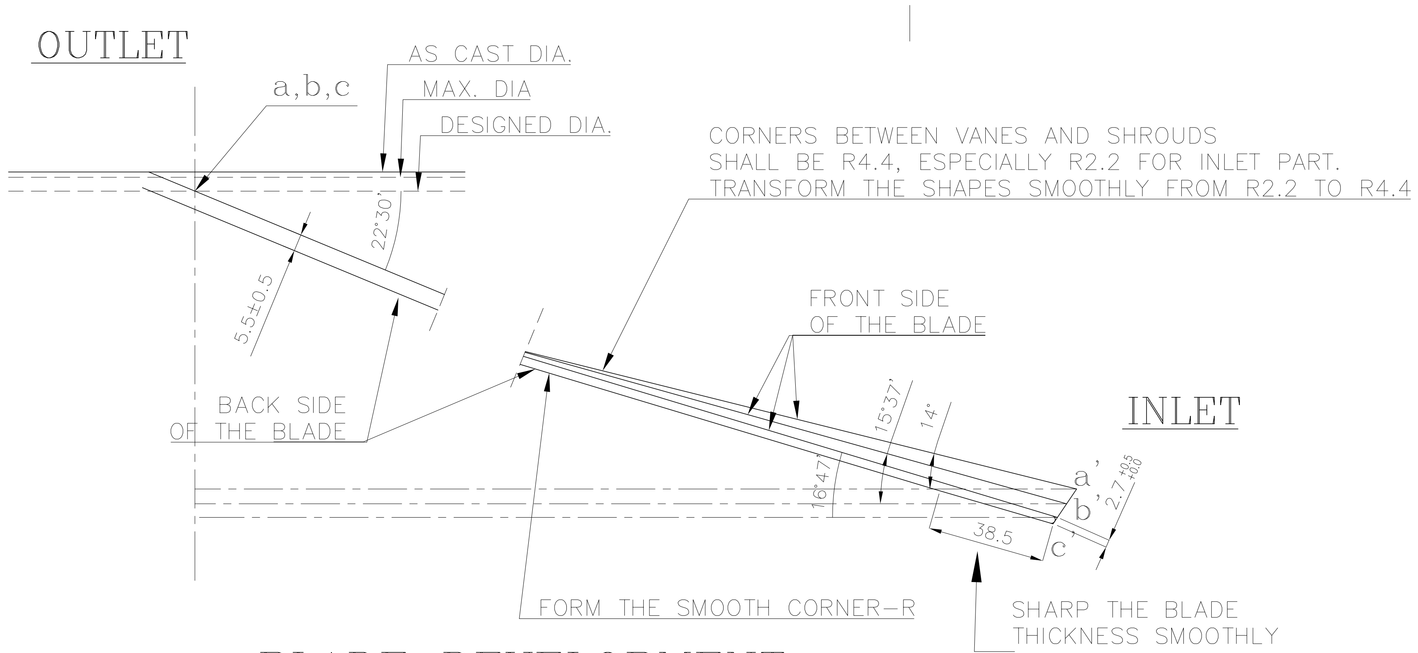




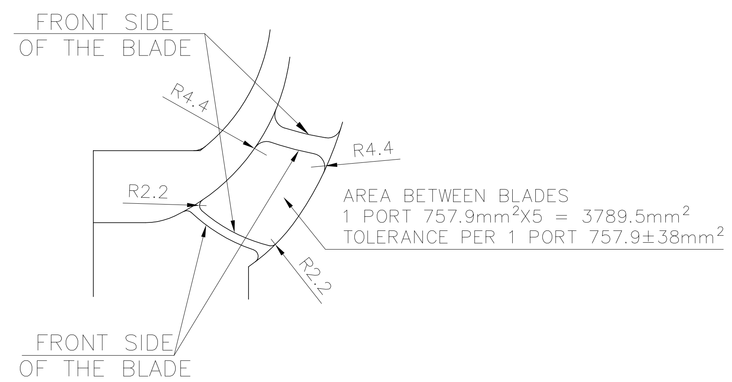
VIEW–C



VIEW–A



BLADE DEVELOPMENT



SECTION–BB

NOTE TO SUPPLIER:

1. CASTING SHALL BE SUPPLIED IN ROUGH MACHINED CONDITION AS PER THIS DRAWING DIMENSIONS.
2. THE CHAIN DOUBLE–DASHED LINE INDICATES THE FINAL DIMENSIONS TO BE MACHINED. THE FINISHING ALLOWANCE IS ABOUT 2MM.
3. SURFACE ROUGHNESS OF MACHINED SURFACES SHALL BE NOT OVER 6.3 MICRONS. SURFACE ROUGHNESS OF VANE&FLOW PASSAGE SHALL BE NOT OVER 5 MICRONS.
4. BEWARE OF THE MISALIGNMENT OF THE BLADE PITCH AND DIMENSIONS AND CAST THE IMPELLER SO THAT THE CENTER OF MASS SHALL BE CLOSE TO THE CENTER OF FIGURE, IN ORDER TO MAKE THE RESIDUAL UNBALANCE SMALLER.
5. MANUFACTURE THIS IMPELLER BY PRECISION CASTING WITH THE GIVEN 3D–DATA.
6. 100% MPI ON CASTING SHALL BE DONE AS PER STD AA0850133 AND ACCEPTANCE AS PER AA0850134 LEVEL–II.
7. RADIOGRAPHY TEST SHALL BE CONDUCTED AS PER ASTM E142 AND ACCEPTANCE NORMS AS PER ASTM E446 LEVEL–II.
8. ADDITIONAL QUALITY REQUIREMENTS SHALL BE AS PER FP60288.

RADIUS RADIAL COORDINATE (AT THE FRONT SIDE OF THE BLADE)

	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
T°	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°	110°
a–a'	155.65	144.65	136.73	129.69	124.41	119.57	114.84	110.77	107.14	104.28	100.98	98.34
b–b'	155.65	144.65	135.85	127.60	121.55	116.05	111.10	106.70	102.85	99.00	95.15	92.40
c–c'	155.65	144.65	135.30	126.50	119.35	113.85	108.35	103.40	99.00	95.15	90.75	86.90

ITEM NO	DESCRIPTION	DRAWING NO.	VAR. NO.	RAW MATERIAL SIZE OR CASTING DRG.NO. OR FORGING DRG.NO.	MATERIAL CODE	NET WT.	GROSS WT.
					FP9219324636	26.0	
					HY19593		
					MATERIAL SPECN.	QUANTITY	

THE FOLLOWING CONDITIONS APPLY EXCEPT OTHERWISE STATED...
1. REF.TO HY0230261 FOR UNSPECIFIED TOLERANCES.
2. CHAMFER M/CD SHARP EDGES 1.2 TO 1.0 AT 45°.
3. INTERNAL M/CD CORNER RADII 1 TO 0.7.
4. THE SURFACE ROUGHNESS WHEREVER NOT SHOWN SHALL BE TAKEN FROM THE SURFACE ROUGHNESS SHOWN OUT SIDE BACK SLASHES GIVEN AT THE TOP MOST RIGHT CORNER OF THE DRG.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT: MDG366N

भारत हेवी इलेक्ट्रिकल्स लिमिटेड हैदराबाद
BHEL BHARAT HEAVY ELECTRICALS LTD. HYDERABAD

	NAME	SIGN.	DATE	NO.OF VAR.
DRN.	PRANAV		07.05.19	
CHD.	M.S.RAM		07.05.19	
APPD.	M.S.RAM		07.05.19	NA

DEPT.	SCALE	WEIGHT (KG)	REF. TO ASSY DRG.	ITEM NO.	NO.OF ITEMS
PUMPS					
CODE 410	NTS	NA	NA	NA	NA

TITLE: IMPELLER 1ST STAGE (CASTING)

DRAWING NO. 0 180 40 2 4633 REV. 01

SHEET NO. 01 NO OF SHEETS 01

REV.	DATE	ALTERED	CHECKED	APPD.
ZONE				

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INVENTORY NO | SIGN. AND DATE | REF. DRG. NO. P1–CA121–R0 | COMPUTER FILE NAME: FP0180402633–01