



## CAUTION FOR FOUNDER:

1. BEFORE START OF MANUFACTURING, RUNNER BLADE SHALL BE CAST IN THE LATEST REVISION NO. OF DRAWING CONFIRMED BY THE CUSTOMER.
2. UTMOST CARE IS TO BE TAKEN TO AVOID ANY CHANCES OF PRODUCING BLADE WITH REVERSE PROFILE.

## TECHNICAL REQUIREMENTS:

1. RUNNER BLADE PROFILE SHOULD BE AS PER DRAWING NO-0204085901 & 3D MODEL.
2. DIRECTION OF ROTATION OF RUNNER IS COUNTERCLOCKWISE WHEN SEEN FROM GENERATOR END.
3. MATERIAL OF RUNNER BLADE IS STAINLESS STEEL (15% Cr AND 4% Ni) TO ASTM A 743 GRADE C40000.
4. RUNNER BLADE CASTING TO BE SUPPLIED IN HEAT TREATED CONDITION WITH TOLERANCE MACHINED FLANGE DIMENSIONS IN THE DRAWING SHALL BE FINALLY MACHINED AT BLADE MANUFACTURER. NO MACHINING ALLOWANCE SHALL BE PROVIDED ON \* MARKED DIMENSIONS. BLADE PROFILE AND THICKNESS SHALL BE AS PER 3D MODEL. TOLERANCES AND SURFACE FINISH OF SEAM-FINISHED GRIND BLADE (BLADE PROFILE AND SPHERICAL PORTION OF FLANGE) AND OTHER REQUIREMENTS SHALL BE AS PER BHEL SPECIFICATION H100243 (LATEST REV.).
5. NON DESTRUCTIVE TESTING:
  - a. D.P. ALL OVER - ACCEPTANCE STANDARD AS PER ISO 9001:2015 LEVEL 1.
  - b. D.P. ALL OVER - ACCEPTANCE STANDARD AS PER ISO 9001:2015 LEVEL 1.
  - c. RADIOGRAPHY OF THE BLADE WING PORTION LESS THAN 20 mm IN THICKNESS TO ASTM E 446 CLASS 1.
  - d. MPI ALL OVER TO ASTM E-125-43 GRADE 1/A. 0850134 LEVEL II.
  - e. TWO TEMPORARY LIFTING LUGS AND CENTRAL BOSS TO BE CAST INTERNALLY AND TO BE MACHINED OFF FINALLY AT BLADE WORKS. MACHINING CENTERS IN THE BOSS AND THE FLANGE ARE TO BE TRUE WITH RESPECT TO THE BLADE WING.
  - f. ADDITIONAL LIFTING LUGS MAY BE WELDED IF REQUIRED BY CASTING MANUFACTURER.
  - g. TWO SETS OF TEMPLATES ARE TO BE SUPPLIED AS PER BHEL SPECIFICATION H100243 FOR HANDING OVER TO THE CUSTOMER. ONE SET TO BE SUPPLIED WITH THE FIRST LOT OF BLADES.
  - h. HORIZONTAL AND VERTICAL CENTRE LINES CORRESPONDING TO ANGLE IN WHICH THE BLADE HAS BEEN CAST (WITH RESPECT TO THE BLADE WING) SHALL BE INDICATED ON THE BLADE WING. THE ANGLE AND THE P.P. ON THE TRP THE VERTICAL LINE SHALL BE POUNDED AS Z-AXIS AS INDICATED IN SECTION-PP CHECKING OF Z-AXIS MARKING IS CRITICAL TO QUALITY (CTQ).

CHECKING OF Z-AXIS MARKING IS CRITICAL TO QUALITY (CTQ).

REVISIONS		NO.	DATE	DESCRIPTION	BY	CHKD.
1		1	10/01/2024	ISSUED FOR MANUFACTURING		
2		2	10/01/2024	REVISION 1		
3		3	10/01/2024	REVISION 2		
4		4	10/01/2024	REVISION 3		
5		5	10/01/2024	REVISION 4		
6		6	10/01/2024	REVISION 5		
7		7	10/01/2024	REVISION 6		
8		8	10/01/2024	REVISION 7		
9		9	10/01/2024	REVISION 8		
10		10	10/01/2024	REVISION 9		
11		11	10/01/2024	REVISION 10		
12		12	10/01/2024	REVISION 11		
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100		100	10/01/2024	REVISION 99		

RUNNER BLADE CASTING  
0 204 07 21103 03  
(ROUGH MACHINED)

40 SIZE