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REV.	DATE	ALTERED	SUDHEER	REV.	DATE	ALTERED		REV.	DATE	ALTERED	
01	26-10-2019	CHECKED	SATISH			CHECKED				CHECKED	
		APPROVED	K.H.R.K			APPROVED				APPROVED	

S.F. of Impeller changed from 1.01 to 1

IMPELLER DIMENSION MEASUREMENT PROCEDURE (AFTER FINAL MACHINING)

REF. DRG.NO.

TYPE OF PRODUCT

CW PUMP

SIGN. &



**BHARAT HEAVY ELECTRICALS LTD.
HYDERABAD**

DRN.
CHD.
APPD.

NAME
SUDHEER
SATISH
K.H.R.K

SIGN
SD/-
SD/-
SD/-

DATE
05.12.2018
05.12.2018
05.12.2018

NO.
OF
VAR.
NA

INVENTORY NO.

DEPARTMENT
CODE

PUMPS ENGG.
410

SCALE
NA

WEIGHT (KG)
NA

REF. TO ASSY DRG.
NA

ITEM NO.
NA

NO. OF ITEMS
NA

TITLE

**IMPELLER DIMENSION MEASUREMENT
PROCEDURE
(AFTER FINAL MACHINING)**

DRAWING NO.

FP13580

SHEET NO.

01

NO. OF SHEETS

REV.

01

05

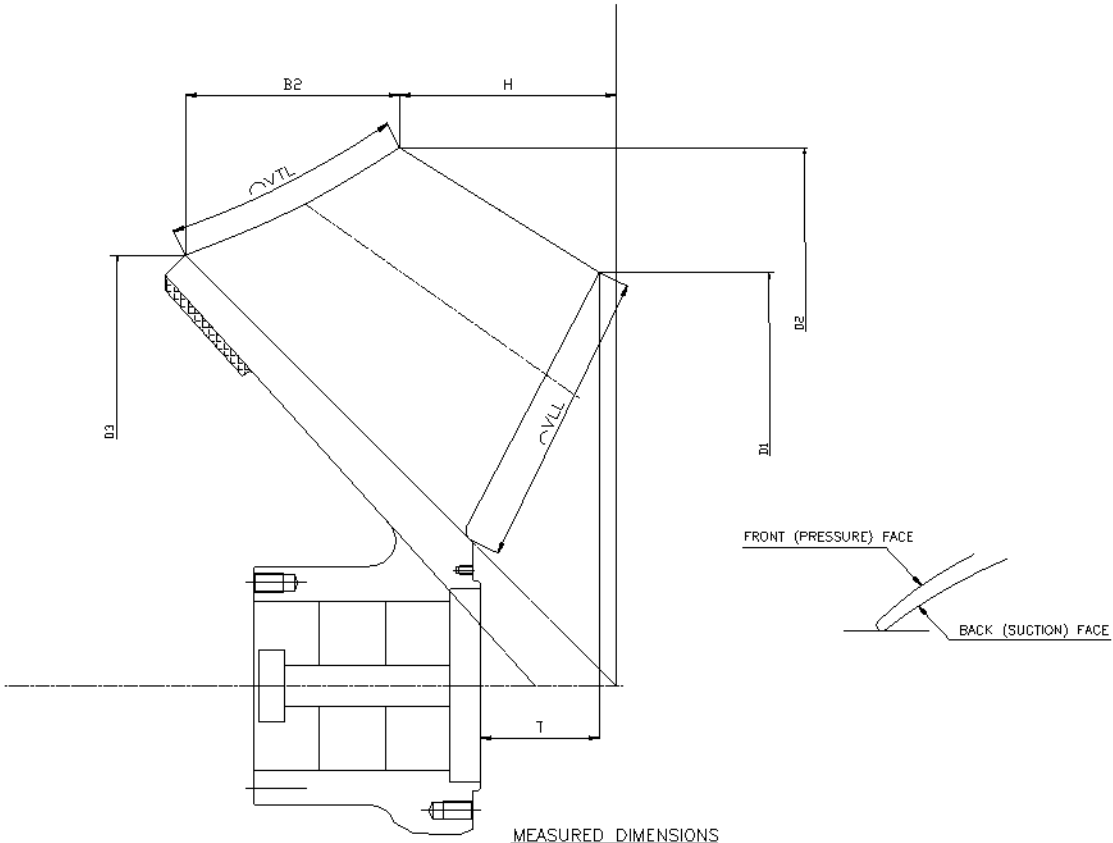
	PRODUCT STANDARD PUMPS		FP13580	
BHEL HYDERABAD	HYDERABAD		Rev	01
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1.0 INTRODUCTION:		The document shows the dimensional inspection procedure of CW Pump Impeller after final machining.		
2.0 REFERENCE DRAWINGS:		a) Impeller b) Impeller vane profile		
3.0 SCOPE:		All finish machined impellers shall be measured based on this document.		
4.0 GENERAL:		a) Dimensional check shall be carried out on each impeller. b) Vendor shall mandatorily submit the impeller wise dimensional report along with the dispatch of impeller. c) BHEL / BHEL nominated inspection agency shall ensure the same before clearing the material for dispatch from vendor works.		

TD-106-2 Rev.5	Form No.		PRODUCT STANDARD PUMPS HYDERABAD			FP 13580																																																																																								
						Rev. No. 01																																																																																								
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Ref. Doc.	COMP. FILE NAME	NOTES: 1) DESIGN VALUE DEPENDS ON THE IMPELLER DRAWING 2) NUMBER OF VANES = 4 3) CRITERIA SHALL BE ±0.20 MM FOR OUTLET DIAMETER (D2) 4) CRITERIA SHALL BE ±1.5 % FOR AVERAGE OF ALL PITCHES 5) CRITERIA SHALL BE ±0.3 % FOR VANE TIP (T)																																																																																												

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RECORD FORMAT NO.1

DIAMETER, HEIGHT, VANE TIP AND OUTLET WIDTH:



MEASURED DIMENSIONS

SNO.	PARAMETER	MARK	DESIGN (MM)	VANE-1	VANE-2	VANE-3	VANE-4	AVERAGE	CRITERIA (MM)	REMARKS
1	INLET DIAMETER	D1							±1.3	
2	OUTLET DIAMETER	D2							±0.2	
3	OUTLET DIAMETER AT HUB	D3							±1.2	
4	OUTLET WIDTH	B2							±0.6	
5	VANE HEIGHT	H							±0.6	
6	VANE TIP	T							±0.3	
7	FRONT SIDE VANE LENGTH (HUB)	VLH							+2.0 0	
8	FRONT SIDE VANE LENGTH (OUTER)	VLO							+2.0 0	
9	FRONT SIDE TRAILING EDGE VANE HEIGHT	VTL							±0.3%	
10	FRONT SIDE LEADING EDGE VANE HEIGHT	VLL							±0.3%	

NOTES:

AVERAGE RESULTS SHALL BE COMPARED WITH DESIGN VALUE

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PRODUCT STANDARD

PUMPS

HYDERABAD

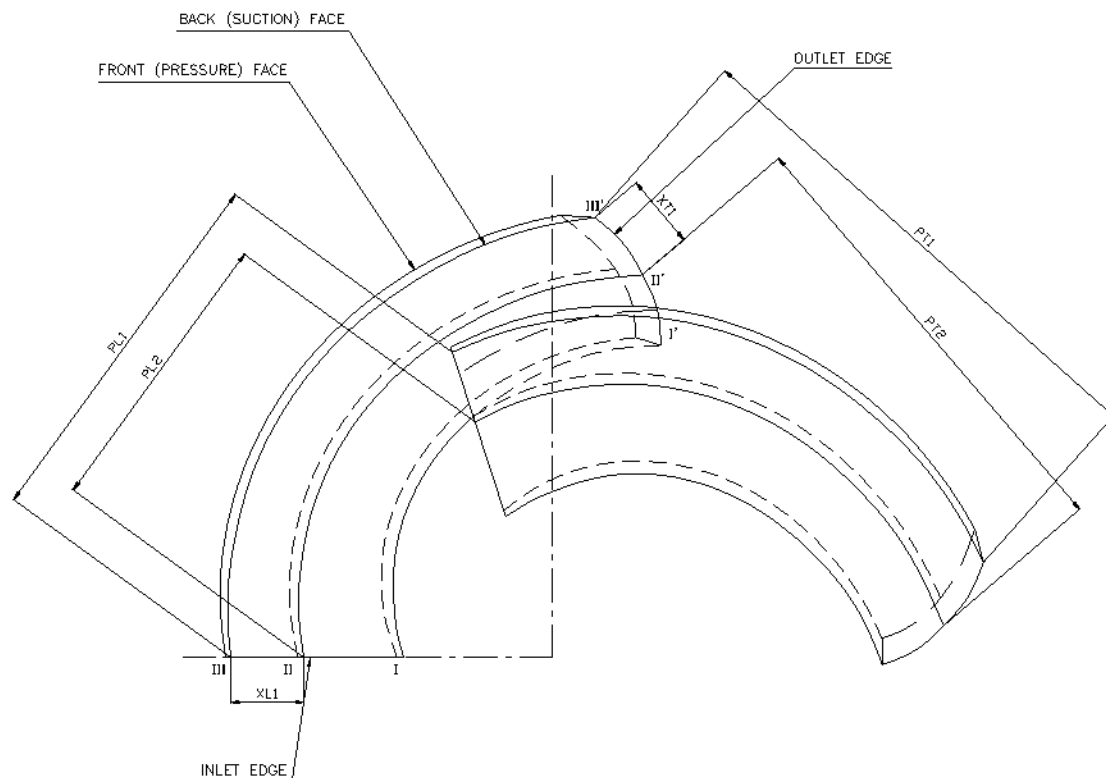
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RECORD FORMAT NO.2

VANE PITCH:

MEASURED DIMENSIONS

SNO.	PARAMETER	MARK	DESIGN (MM)	VANE PITCH				AVERAGE	CRITERIA (%)	REMARKS
				1-2	2-3	3-4	4-1			
1	INLET PITCH	PL1							±1.5	
		PL2							±1.5	
2	OUTLET PITCH	PT1							±1.5	
		PT2							±1.5	

NOTES:

NUMBER OF VANES = 4 (EQUALLY SPACED)

AVERAGE RESULTS SHALL BE COMPARED WITH DESIGN VALUE

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