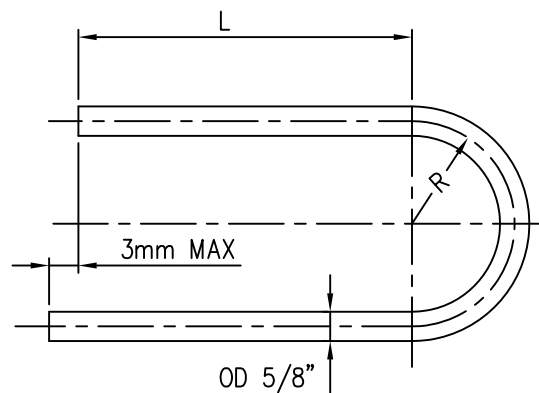


REV. 01	DATE 30.11.11	ALTERED CHD./APPD.	BHANU	REV.	DATE	ALTERED CHD./APPD.	REV.	DATE	ALTERED CHD./APPD.
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REVISED AS SHOWN AS REV.  $\triangle 01$ 

ROW No.	RADIUS 'R'	H.P.H - 1			H.P.H - 2		
		THK. in BWG.	DEV. L = (in mm.)	QTY	THK. in BWG.	DEV. L = (in Mtr.)	QTY
1	31.7	15 MIN.	22100	24	15 MIN.	16100	24
2	49.6	15 MIN.	22156	26	15 MIN.	16156	26
3	67.5	16 MIN.	22212	25	16 MIN.	16212	25
4	85.4	16 MIN.	22268	29	16 MIN.	16268	28
5	103.2	16 MIN.	22324	25	16 MIN.	16324	25
6	121.1	16 MIN.	22380	24	16 MIN.	16380	24
7	139.0	16 MIN.	22437	25	16 MIN.	16437	25
8	156.9	16 MIN.	22493	24	16 MIN.	16493	24
9	174.7	16 MIN.	22549	23	16 MIN.	16549	23
10	192.6	16 MIN.	22605	20	16 MIN.	16605	20
11	210.5	16 MIN.	22661	20	16 MIN.	16661	19
12	228.4	16 MIN.	22718	18	16 MIN.	16718	18
13	246.2	16 MIN.	22773	17	16 MIN.	16773	17
14	264.1	16 MIN.	22830	14	16 MIN.	16830	14
15	282.0	16 MIN.	22886	9	16 MIN.	16886	9
TOTAL U-TUBES				323			321
TOTAL DEV LENGTH 15BWG(MIN) FOR THE TUBE BUNDLE IN METERS				1106.44		806.441	
TOTAL DEV LENGTH 16BWG(MIN) FOR THE TUBE BUNDLE IN METERS				6142.669		4471.739	
ESTIMATED WEIGHT OF TOTAL No. OF TUBES IN Kg.				~4719		~3435	

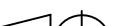
 $\triangle 01$ 

	TUBE STRAIGHT LENGTH	MATERIAL CODE
HPH-1	L = 11000	HE9718587802
HPH-2	L = 8000	HE9718587810

## NOTES:-

1. MATERIAL SPECIFICATION SA 688 TP 304 WITH CARBON MAX 0.05% AS PER ASME SEC-II PART-A UP TO AND INCLUDING ADDENDA LATEST AS PER P.O/INDENT.
2. TECHNICAL REQUIREMENTS AS PER PRODUCT STANDARD HE 5 1396 REVISION LATEST AS PER P.O/INDENT AND AS PER MATERIAL SPECIFICATION.
3. QUALITY REQUIREMENTS INSPECTION & CERTIFICATION AS PER QP. HY/HE/011/U-TUBES REVISION LATEST AS PER P.O/INDENT.
4. INSPECTION & CERTIFICATION:- CIB & M/S LLOYDS (NOCIB IF IMPORTED)
5. HYDROTEST PRESSURE (EACH TUBE) = 318Kg/SQ.CM. (g) AT ROOM TEMPERATURE.
6. a) 15 BWG (MIN) =  $1.8288^{+20\%}_{-0\%}$  b) 16 BWG (MIN.) =  $1.651^{+20\%}_{-0\%}$
7. DESIGN / WORKING PRESSURE ON CHANNEL SIDE IS 212 Kg/SqCm(g).
8. MAXIMUM WORKING TEMP.(DESIGN TEMP): 273°C
9. MEDIUM : STEAM & DRAIN ON SHELL SIDE AND FEED WATER ON TUBE SIDE.

BHARAT HEAVY ELECTRICALS LTD.  
HYDERABAD

DEPT. HE ENGG	UNTOL. DIM. GR. Ø/M/F		SCALE NTS	WEIGHT (KG)	REF. TO ASSY DRG.  NA	ITEM NO. NA	NO.OF ITEMS NA
CODE 405							
TITLE  U – TUBES  (HPHs-1&2)				CARD CODE  NA	DRAWING NO.  4-175-01-02852		REV.  01
					SHT No.      1		NO OF SHT.      1

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REF. DRG. NO.

FILE NAME 4F00654.DWG

INVENTORY NO