

INVENTORY NO. _____ SIGN. AND DATE _____ REF. DRG. NO. _____ THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY

FIRST ANGLE PROJECTION

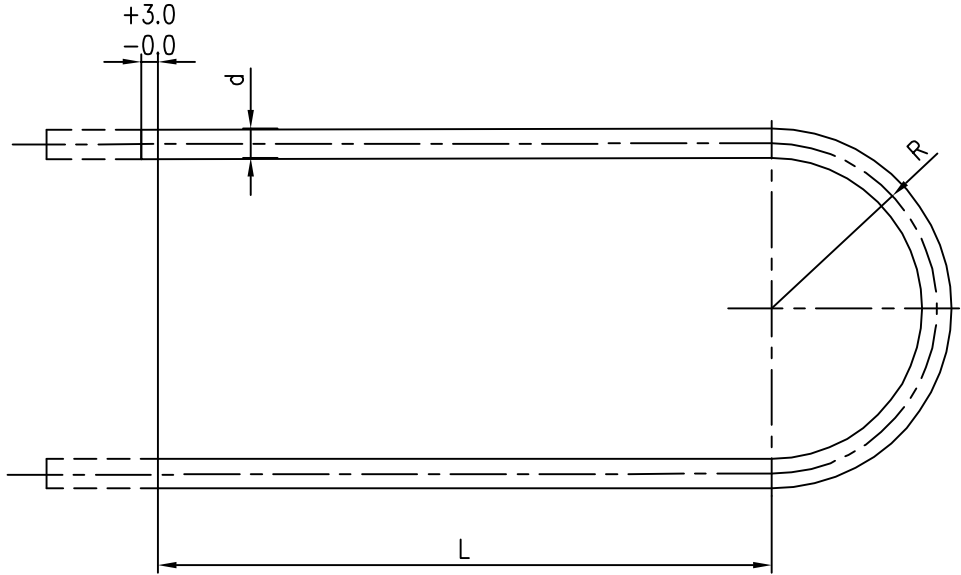
(ALL DIMENSIONS ARE IN mm)

DRG. NO. 3-175-01-01214

SL.NO.	RADIUS "R"	H.P.HEATER NO. 5		H.P.HEATER NO. 6		DEVELOPED LENGTH	DEVELOPED LENGTH
		THK / BWG	QTY.	THK / BWG	QTY.	H.P HEATER-5	H.P HEATER-6
1	31.7	14 Min.	30	14 Min.	30	16100	19300
2	49.6	14 Min.	33	14 Min.	33	16156	19356
3	67.5	14 Min.	34	14 Min.	34	16212	19412
4	85.4	14 Min.	33	14 Min.	34	16268	19468
5	103.2	14 Avg.	34	14 Min.	34	16324	19524
6	121.1	14 Avg.	33	14 Min.	33	16380	19580
7	139.0	14 Avg.	34	14 Min.	34	16437	19637
8	156.9	14 Avg.	35	14 Min.	35	16493	19693
9	174.7	14 Avg.	34	14 Avg.	34	16549	19749
10	192.6	14 Avg.	33	14 Avg.	33	16605	19805
11	210.5	14 Avg.	30	14 Avg.	31	16661	19861
12	228.4	14 Avg.	29	14 Avg.	29	16718	19918
13	246.2	14 Avg.	28	14 Avg.	28	16773	19973
14	264.1	14 Avg.	29	14 Avg.	29	16830	20030
15	282.0	14 Avg.	26	14 Avg.	26	16886	20086
16	299.9	14 Avg.	25	14 Avg.	25	16942	20142
17	317.7	14 Avg.	22	14 Avg.	23	16998	20198
18	335.6	14 Avg.	19	14 Avg.	19	17054	20254
19	353.5	14 Avg.	16	14 Avg.	16	17111	20311
20	371.4	14 Avg.	10	14 Avg.	10	17167	20367
TOTAL / HEATER			567 U		570 U	—	—
TOTAL DEVELOPED LENGTH FOR 14 BWG (MIN.) TUBES IN METERS.						2104.193	5206.537
TOTAL DEVELOPED LENGTH FOR 14 BWG (AVG.) TUBES IN METERS.						7290.686	6062.270
TOTAL DEVELOPED LENGTH FOR THE TUBE BUNDLE IN METERS.						9394.879	11268.807
ESTIMATED WEIGHT OF TOTAL NUMBER OF TUBES IN Kgs.						6985.0	8538.0

H.P.HEATER-5	H.P.HEATER-6
L = 8000	L = 9600
d = 5/8 INCH	d = 5/8 INCH
MATERIAL CODE HEAA06197003	MATERIAL CODE HEAA06197004

REV.	DATE	ALTERED	CHECKED/APPD	REV.	DATE	ALTERED	CHECKED	APPD	REV.	DATE	ALTERED	CHECKED	APPD
03	07.07.13	BHANU	KIRAN/BScrub	02	18.08.08	M. Laksh	BScrub	BScrub	01	11.05.05	ABILASH	MATHEW	B.SRINIVAS
ZONE REVISED AS SHOWN				ZONE REVISED AS SHOWN				ZONE REVISED AS SHOWN					




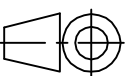
NOTES: -

1. MATERIAL SA 688 TP 304 WITH CARBON MAX. 0.05% AS PER ASME SEC-II PART A. (YEAR & ADDENDA AS PER INDENT/PO)
2. TECHNICAL REQUIREMENTS AS PER PRODUCT STANDARD HE 5 1103 REV. 17. AND AS PER MATL. SPECIFICATION.
3. QUALITY REQUIREMENTS INSPECTION & CERTIFICATION AS PER QUALITY PLAN :- HY/ HE/ 004/U-TUBES REV. 04.
4. INSPECTION :- AS PER P.R./P.O.
5. HYDRO TEST PRESSURE ON EACH TUBE = 405 Kg/sq.cm (g)
6. a) MINIMUM WALL THICKNESS = +20% , Avg. WALL THICK. = ±10%
-0%
b) 14 BWG = 2.11mm.
7. a) MAX. WORKING PRESSURE :- 270 Kg/Cm² (g).
b) MAX. WORKING TEMP. :- 270°C.
c) OPERATING MEDIUM: -
SHELL SIDE :- STEAM & DRAIN.
TUBE SIDE :- FEED WATER.

TYPE OF PRODUCT
OR
NAME OF CUSTOMER/PROJECT



BHARAT HEAVY ELECTRICALS LTD.
HYDERABAD

<div><div>बी एच ई एल</div><div></div></div>		BHARAT HEAVY ELECTRICALS LTD.		DRN.		NAME	SIGN.	DATE	NO.OF
		HYDERABAD		CHD.	MATHEW			16.03.04	VAR.
		APPD.	B.SRINIVAS			10.04.04	NA		
DEPT. HEE		GRADE OF TOL.DIM. C/M/F		SCALE NTS	WEIGHT (KG) NA	REF. TO ASSY DRG. NA		ITEM NO. NA	NO.OF ITEMS NA
CODE 405									
TITLE					CARD CODE	DRAWING NO.			REV.
U - TUBE FOR H.P.HEATER 5 & 6						3-175-01-01214			
					SHEET No. 1		NO OF SHEETS 1		