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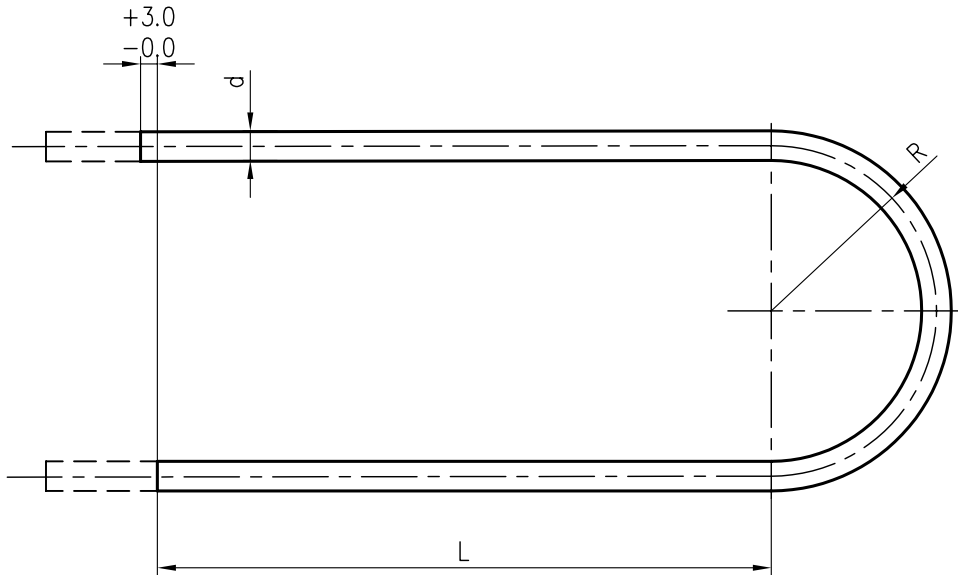
FIRST ANGLE PROJECTION

(ALL DIMENSIONS ARE IN mm)

DRG. NO. 3-175-01-01919

SL.NO.	RADIUS "R"	H.P.HEATER NO. 5			H.P.HEATER NO. 6		
		THK / BWG	QTY.	DEVELOPED LENGTH	THK / BWG	QTY.	DEVELOPED LENGTH
1	31.7	14 Min.	30	21100	14 Min.	30	21100
2	49.6	14 Min.	33	21156	14 Min.	33	21156
3	67.5	14 Min.	34	21212	14 Min.	34	21212
4	85.4	14 Avg.	33	21268	14 Min.	34	21268
5	103.2	14 Avg.	34	21324	14 Min.	34	21324
6	121.1	14 Avg.	33	21380	14 Min.	33	21380
7	139.0	14 Avg.	34	21437	14 Avg.	34	21437
8	156.9	14 Avg.	35	21493	14 Avg.	35	21493
9	174.7	14 Avg.	34	21549	14 Avg.	34	21549
10	192.6	14 Avg.	33	21605	14 Avg.	33	21605
11	210.5	14 Avg.	30	21661	14 Avg.	31	21661
12	228.4	14 Avg.	29	21718	14 Avg.	29	21718
13	246.2	14 Avg.	28	21773	14 Avg.	28	21773
14	264.1	14 Avg.	29	21830	14 Avg.	29	21830
15	282.0	14 Avg.	26	21886	14 Avg.	26	21886
16	299.9	14 Avg.	25	21942	14 Avg.	25	21942
17	317.7	14 Avg.	22	21998	14 Avg.	23	21998
18	335.6	14 Avg.	19	22054	14 Avg.	19	22054
19	353.5	14 Avg.	16	22111	14 Avg.	16	22111
20	371.4	14 Avg.	10	22167	14 Avg.	10	22167
TOTAL / HEATER			567 U	—		570 U	—
TOTAL DEVELOPED LENGTH FOR 14 BWG (MIN.) TUBES IN METERS.				2052.34			4206.04
TOTAL DEVELOPED LENGTH FOR 14 BWG (AVG.) TUBES IN METERS.				10177.54			8088.77
TOTAL DEVELOPED LENGTH FOR THE TUBE BUNDLE IN METERS.				12229.88			12294.81
ESTIMATED WEIGHT OF TOTAL NUMBER OF TUBES IN Kgs.				~ 9045			~ 9178

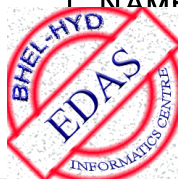
H.P.HEATER-5	H.P.HEATER-6
L = 10500	L = 10500
d = 15.875mm	d = 15.875mm
MATERIAL CODE HE9718585010	MATERIAL CODE HE9718585028



NOTES:-

- MATERIAL SA 688 TP 304 WITH CARBON MAX. 0.05% AS PER ASME SEC-II PART A. (YEAR & ADDENDA AS PER INDENT/PO)
- TECHNICAL REQUIREMENTS AS PER PRODUCT STANDARD
HE 5 1103 REV. (LATEST AS PER P.O/INDENT). AND AS PER MATL. SPECIFICATION.
- QUALITY REQUIREMENTS INSPECTION & CERTIFICATION AS PER
QUALITY PLAN :- HY/ HE/ 004/ U-TUBES REV(LATEST AS PER P.O/INDENT) .
- INSPECTION :- M/S LLOYD'S .& CIB. (NO CIB IF IMPORTED)
- HYDRO TEST PRESSURE ON EACH TUBE = 397.5 Kg/sq.cm (g)
- a) MINIMUM WALL THICKNESS = $+20\%$, Avg. WALL THICK. = $\pm 10\%$
-0%
b) 14 BWG = 2.1082mm.
- a) MAX. WORKING PRESSURE :- 265 Kg/Cm² (g).
b) MAX. WORKING TEMP. :- 280°C.
c) OPERATING MEDIUM:-
SHELL SIDE :- STEAM & DRAIN.
TUBE SIDE :- FEED WATER.

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT 150MW(WELDED TUBES)



BHARAT HEAVY ELECTRICALS LTD.
HYDERABAD

DRN.	NAME A K SAHOO	DATE 23.04.11	NO.OF VAR.
CHD.	K KIRAN KUMAR	23.04.11	NA
APPD.	B.SRINIVAS	23.04.11	

RESTRICTED USE

REV.	DATE	ALTERED	CHECKED	APPD	REV.	DATE	ALTERED	CHECKED	APPD
					01	03.05.11	RAJESH	A K S	K KIRAN KUMAR
ZONE					ZONE				
					NOTE 2 & 3 ARE REVISED AS SHOWN AS 01				

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 U - TUBE FOR H.P.HEATER 5 & 6				CARD CODE	DRAWING NO. 3-175-01-01919	
					SHEET No. 1	NO OF SHEETS 1
						REV. 01

03-05-2011
15:54:19

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