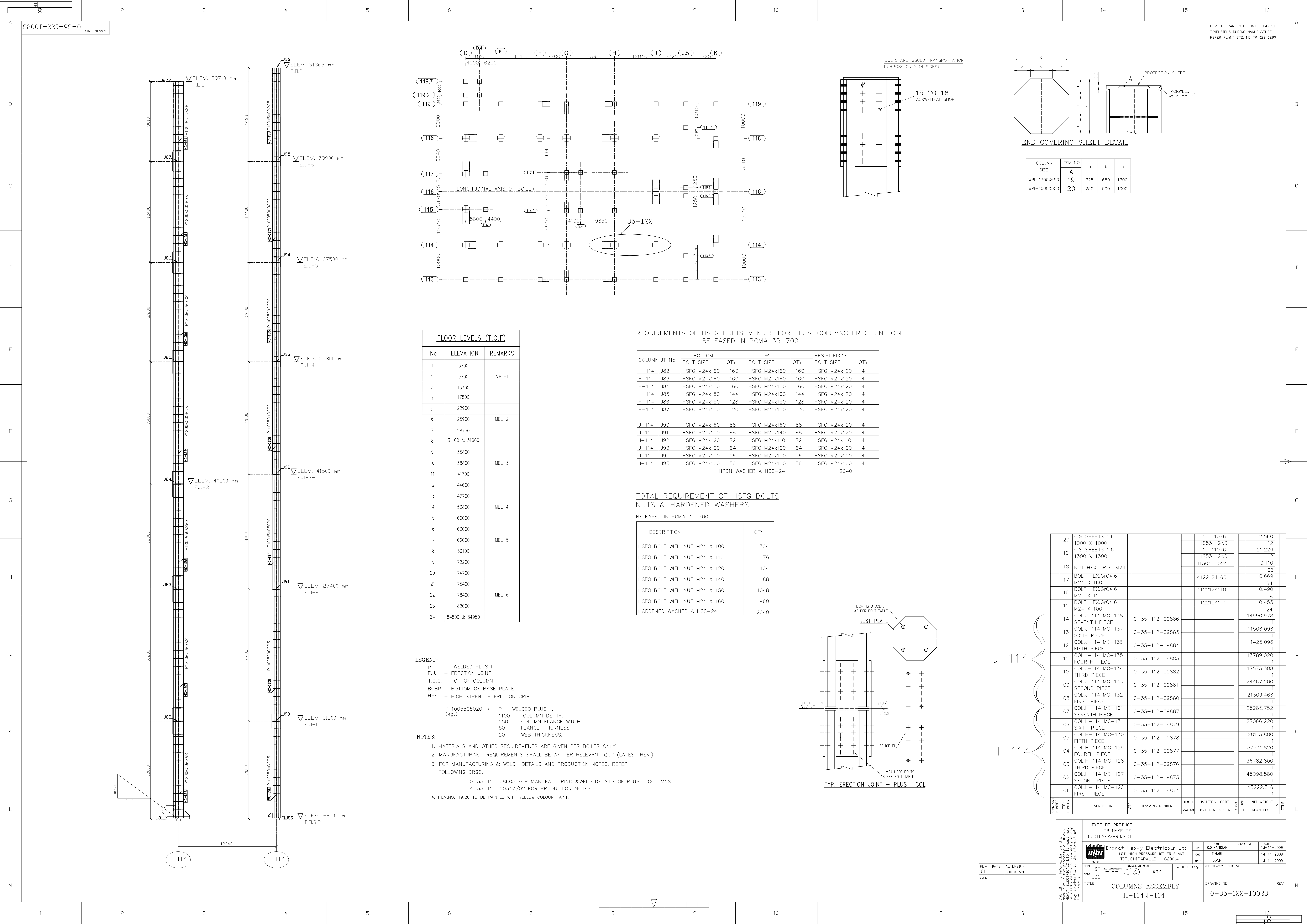




FLOOR LEVELS (T.O.F)		
No	ELEVATION	REMARKS
1	5700	
2	9700	MBL-1
3	15300	
4	17800	
5	22900	
6	25900	MBL-2
7	28750	
8	31100 & 31600	
9	35800	
10	38800	MBL-3
11	41700	
12	44600	
13	47700	
14	53800	MBL-4
15	60000	
16	63000	
17	66000	MBL-5
18	69100	
19	72200	
20	74700	
21	75400	
22	78400	MBL-6
23	82000	
24	84800 & 84950	

REQUIREMENTS OF HSFG BOLTS & NUTS FOR PLUS-I COLUMNS ERECTION JOINT
RELEASED IN PGMA 35-700

COLUMN	JT No.	BOTTOM		TOP		RES.PL.FIXING	
		BOLT SIZE	QTY	BOLT SIZE	QTY	BOLT SIZE	QTY
H-114	J82	HSFG M24x160	160	HSFG M24x160	160	HSFG M24x120	4
H-114	J83	HSFG M24x160	160	HSFG M24x160	160	HSFG M24x120	4
H-114	J84	HSFG M24x150	160	HSFG M24x150	160	HSFG M24x120	4
H-114	J85	HSFG M24x150	144	HSFG M24x160	144	HSFG M24x120	4
H-114	J86	HSFG M24x150	128	HSFG M24x150	128	HSFG M24x120	4
H-114	J87	HSFG M24x150	120	HSFG M24x150	120	HSFG M24x120	4
J-114	J90	HSFG M24x160	88	HSFG M24x160	88	HSFG M24x120	4
J-114	J91	HSFG M24x150	88	HSFG M24x140	88	HSFG M24x120	4
J-114	J92	HSFG M24x120	72	HSFG M24x110	72	HSFG M24x110	4
J-114	J93	HSFG M24x100	64	HSFG M24x100	64	HSFG M24x100	4
J-114	J94	HSFG M24x100	56	HSFG M24x100	56	HSFG M24x100	4
J-114	J95	HSFG M24x100	56	HSFG M24x100	56	HSFG M24x100	4
HRDN WASHER A HSS-24						2640	

TOTAL REQUIREMENT OF HSFG BOLTS
NUTS & HARDENED WASHERS

RELEASED IN PGMA 35-700

DESCRIPTION	QTY
HSFG BOLT WITH NUT M24 X 100	364
HSFG BOLT WITH NUT M24 X 110	76
HSFG BOLT WITH NUT M24 X 120	104
HSFG BOLT WITH NUT M24 X 140	88
HSFG BOLT WITH NUT M24 X 150	1048
HSFG BOLT WITH NUT M24 X 160	960
HARDENED WASHER A HSS-24	2640

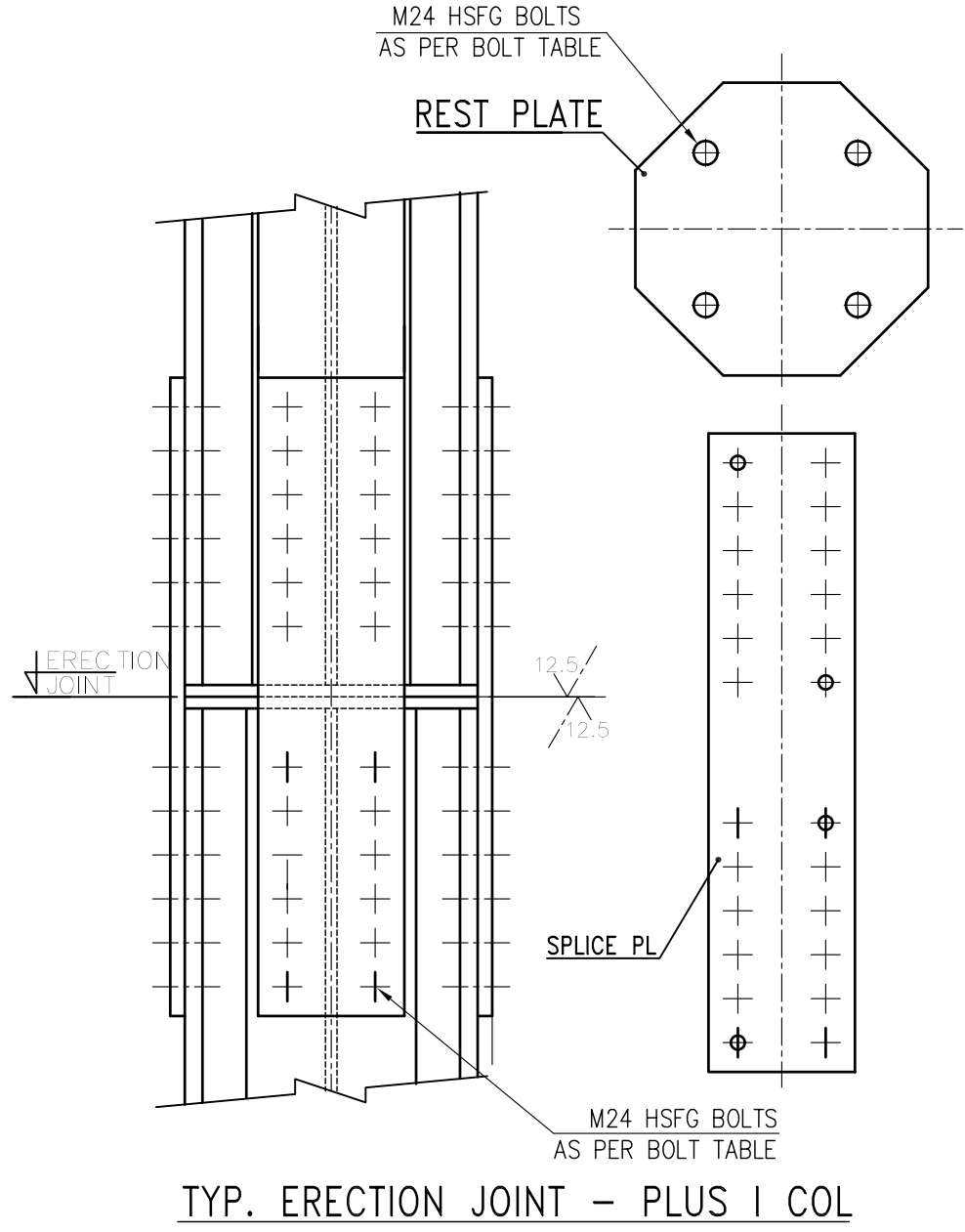
LEGEND:-

P - WELDED PLUS-I.
E.J. - ERECTION JOINT.
T.O.C. - TOP OF COLUMN.
BOBP. - BOTTOM OF BASE PLATE.
HSFG. - HIGH STRENGTH FRICTION GRIP.

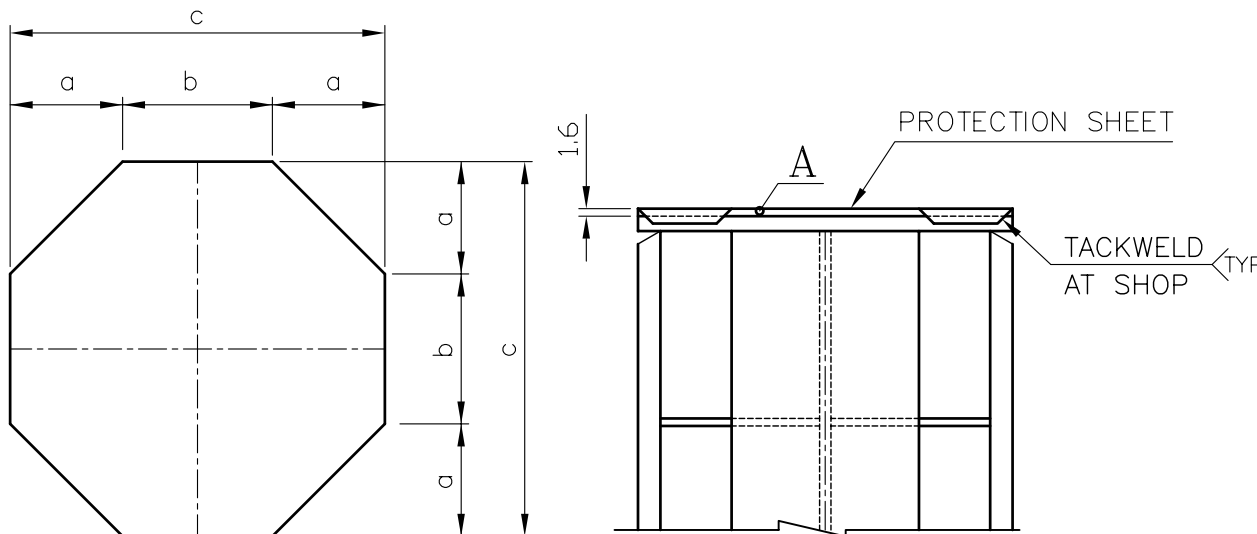
P11005505020-> P - WELDED PLUS-I.
(eg.) 1100 - COLUMN DEPTH.
550 - COLUMN FLANGE WIDTH.
50 - FLANGE THICKNESS.
20 - WEB THICKNESS.

NOTES:-

- MATERIALS AND OTHER REQUIREMENTS ARE GIVEN PER BOILER ONLY.
- MANUFACTURING REQUIREMENTS SHALL BE AS PER RELEVANT QCP (LATEST REV.)
- FOR MANUFACTURING & WELD DETAILS AND PRODUCTION NOTES, REFER FOLLOWING DRGS.
0-35-110-08605 FOR MANUFACTURING & WELD DETAILS OF PLUS-I COLUMNS
4-35-110-00347/02 FOR PRODUCTION NOTES
- ITEM.NO: 19,20 TO BE PAINTED WITH YELLOW COLOUR PAINT.



J-114
H-114



END COVERING SHEET DETAIL

COLUMN SIZE	ITEM NO	a	b	c
	A			
WPI-1300X650	19	325	650	1300
WPI-1000X500	20	250	500	1000

20	C.S. SHEETS 1.6			15011076		12.560
	1000 X 1000			ISS31 Gr.D		12
19	C.S. SHEETS 1.6			15011076		21.226
	1300 X 1300			ISS31 Gr.D		12
				4130400024		0.110
18	NUT HEX GR C M24					96
						64
17	BOLT HEX.GrC4.6			4122124160		0.669
	M24 X 160					64
				4122124110		0.490
16	BOLT HEX.GrC4.6					8
	M24 X 110					8
15	BOLT HEX.GrC4.6			4122124100		0.455
	M24 X 100					24
14	COL.J-114 MC-138	0-35-112-09886				14990.978
	SEVENTH PIECE					1
13	COL.J-114 MC-137	0-35-112-09885				11506.096
	SIXTH PIECE					1
12	COL.J-114 MC-136	0-35-112-09884				11425.096
	FIFTH PIECE					1
11	COL.J-114 MC-135	0-35-112-09883				13789.020
	FOURTH PIECE					1
10	COL.J-114 MC-134	0-35-112-09882				17575.308
	THIRD PIECE					1
09	COL.J-114 MC-133	0-35-112-09881				24467.200
	SECOND PIECE					1
08	COL.J-114 MC-132	0-35-112-09880				21309.466
	FIRST PIECE					1
07	COL.H-114 MC-161	0-35-112-09887				25985.752
	SEVENTH PIECE					1
06	COL.H-114 MC-131	0-35-112-09879				27066.220
	SIXTH PIECE					1
05	COL.H-114 MC-130	0-35-112-09878				28115.880
	FIFTH PIECE					1
04	COL.H-114 MC-129	0-35-112-09877				37931.820
	FOURTH PIECE					1
03	COL.H-114 MC-128	0-35-112-09876				36782.800
	THIRD PIECE					1
02	COL.H-114 MC-127	0-35-112-09875				45098.580
	SECOND PIECE					1
01	COL.H-114 MC-126	0-35-112-09874				43222.516
	FIRST PIECE					1

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT		DATE	
Bharat Heavy Electricals Ltd		13-11-2009	
UNIT: HIGH PRESSURE BOILER PLANT		14-11-2009	
TIRUCHIRAPALLI - 620014		14-11-2009	
DEPT	ST	PROJECT	SCALE
CODE	122		
TITLE		DRAWING NO	
COLUMNS ASSEMBLY		0-35-122-10023	
H-114,J-114		REV	