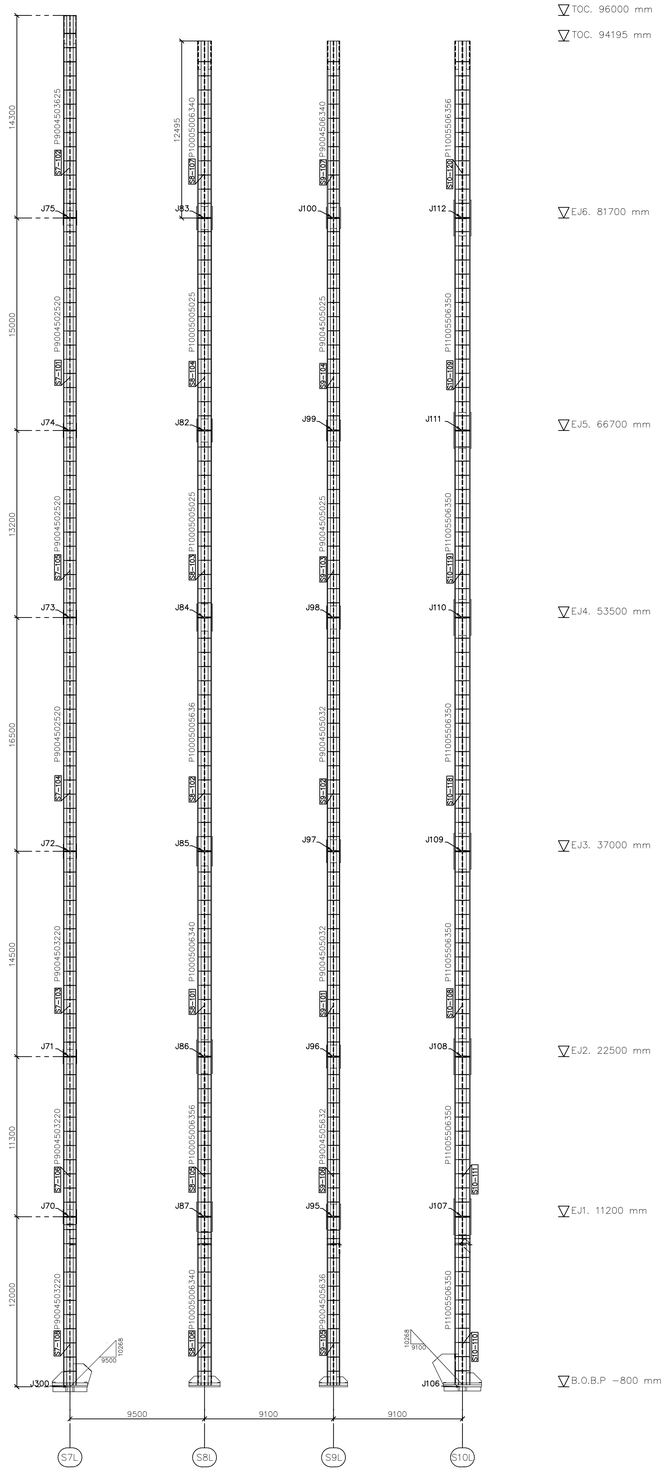
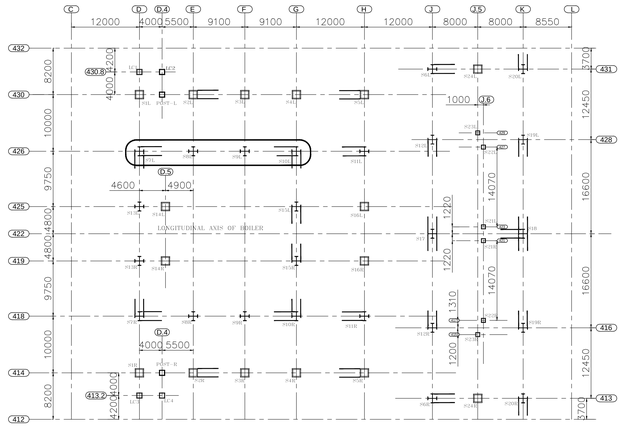
TP-DG-0-35-111-085257Z
CORPORATE DRG IDWX

DRAWING NO: 0-35-111-08525



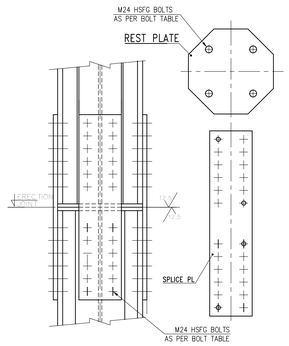
FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER PLANT STD. NO TP 023 0299



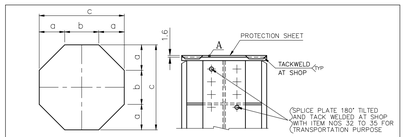
KEY PLAN

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

COLUMN	JT No.	BOTTOM BOLT SIZE	BOTTOM QTY	TOP BOLT SIZE	TOP QTY	RES.PL.FIXING BOLT SIZE	QTY
S7L	J70	HSFG M24x100	48	HSFG M24x100	48	HSFG M24x100	4
S7L	J71	HSFG M24x100	48	HSFG M24x100	48	HSFG M24x100	4
S7L	J72	HSFG M24x100	48	HSFG M24x90	48	HSFG M24x100	4
S7L	J73	HSFG M24x90	48	HSFG M24x90	48	HSFG M24x100	4
S7L	J74	HSFG M24x90	48	HSFG M24x90	48	HSFG M24x100	4
S7L	J75	HSFG M24x100	48	HSFG M24x110	48	HSFG M24x110	4
S8L	J87	HSFG M24x160	104	HSFG M24x160	104	HSFG M24x120	4
S8L	J86	HSFG M24x160	120	HSFG M24x160	120	HSFG M24x120	4
S8L	J85	HSFG M24x160	104	HSFG M24x150	104	HSFG M24x120	4
S8L	J84	HSFG M24x140	96	HSFG M24x140	96	HSFG M24x120	4
S8L	J82	HSFG M24x140	72	HSFG M24x140	72	HSFG M24x120	4
S8L	J83	HSFG M24x150	72	HSFG M24x160	72	HSFG M24x120	4
S9L	J95	HSFG M24x150	88	HSFG M24x150	80	HSFG M24x120	4
S9L	J96	HSFG M24x140	80	HSFG M24x140	80	HSFG M24x120	4
S9L	J97	HSFG M24x140	80	HSFG M24x140	80	HSFG M24x120	4
S9L	J98	HSFG M24x140	80	HSFG M24x140	72	HSFG M24x120	4
S9L	J99	HSFG M24x140	72	HSFG M24x140	72	HSFG M24x120	4
S9L	J100	HSFG M24x150	72	HSFG M24x160	96	HSFG M24x120	4
S10L	J107	HSFG M24x160	128	HSFG M24x160	128	HSFG M24x120	4
S10L	J108	HSFG M24x160	128	HSFG M24x160	128	HSFG M24x120	4
S10L	J109	HSFG M24x160	128	HSFG M24x160	128	HSFG M24x120	4
S10L	J110	HSFG M24x160	128	HSFG M24x160	128	HSFG M24x120	4
S10L	J111	HSFG M24x160	128	HSFG M24x160	128	HSFG M24x120	4
S10L	J112	HSFG M24x160	128	HSFG M24x160	128	HSFG M24x120	4
HRDN WASHER A HSS-24						4128	



TYP. ERECTION JOINT - PLUS I COL



END COVERING SHEET DETAIL FOR PLUS I COLUMN

COLUMN SIZE	ITEM NO A	a	b	c
WPI-900X500	29	200	500	900
WPI-1000X500	30	250	500	1000
WPI-1100X550	31	275	550	1100

FLOOR LEVELS (T.O.F)

No	ELEVATION	REMARKS
01	4700,5500	
02	8900,9700	MBL-1
03	13250,14200	
04	17600	
05	20500,21000	MBL-2
06	25000	
07	28000,29200	
08	32200,33400	
09	35500	MBL-3
10	38500	
11	42500	
12	45300,45900	
13	48000	
14	48900	
15	52000,53600	MBL-4
16	58000	
17	61400	
18	65100	MBL-5
19	68100	
20	71100	
21	74100	
22	77300	
23	80200	MBL-6
24	83500	
25	86700,88600,89550	
26	95900	

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.

P11005506363-> (eg.)
P - WELDED PLUS-I.
1100 - COLUMN DEPTH.
550 - COLUMN FLANGE WIDTH.
63 - FLANGE THICKNESS.
63 - WEB THICKNESS.

NOTES: -

1. MATERIALS AND OTHER REQUIREMENTS ARE GIVEN PER BOILER ONLY.
2. MANUFACTURING REQUIREMENTS SHALL BE AS PER RELEVANT QCP (LATEST REV.)
3. 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 FOR PRODUCTION NOTES
4. BLACK BOLTS AND NUTS ISSUED ARE ONLY FOR TRANSPORTATION PURPOSE.

VARIANT NUMBER	ITEM NO	DESCRIPTION	STD	DRAWING NUMBER	MATERIAL CODE / MATERIAL SPECN	UNIT WEIGHT / QUANTITY	QS	ZONE
	34	NUT HEX Gr.C M24			4130400024	No 0.110 / 192		
	33	BOLT HEX Gr.C M24X160			4122124160	No 0.669 / 144		
	32	BOLT HEX Gr.C M24X100			4122124100	No 0.455 / 48		
	31	C.S SHEETS 1.6 1100X1100			15011076 / IS531 Gr.D	No 15.198 / 12		
	30	C.S SHEETS 1.6 1000X1000			15011076 / IS531 Gr.D	No 12.560 / 12		
	29	C.S SHEETS 1.6 900X900			15011076 / IS531 Gr.D	No 10.174 / 24		
	28	COL.S10 S10L-120 SEVENTH PIECE		0-35-111-08528		No 31142.416 / 1		
	27	COL.S10 S10L-109 SIXTH PIECE		0-35-111-08522		No 31798.680 / 1		
	26	COL.S10 S10L-119 FIFTH PIECE		0-35-111-08527		No 28365.388 / 1		
	25	COL.S10 S10L-118 FOURTH PIECE		0-35-111-08526		No 34615.200 / 1		
	24	COL.S10 S10L-108 THIRD PIECE		0-35-111-08521		No 30815.412 / 1		
	23	COL.S10 S10L-111 SECOND PIECE		0-35-111-08524		No 24748.700 / 1		
	22	COL.S10 S10L-110 FIRST PIECE		0-35-111-08523		No 41734.119 / 1		
	21	COL.S9 S9L-107 SEVENTH PIECE		0-35-111-08520		No 21701.412 / 1		
	20	COL.S9 S9L-104 SIXTH PIECE		0-35-111-08517		No 17370.712 / 1		
	19	COL.S9 S9L-103 FIFTH PIECE		0-35-111-08516		No 15553.696 / 1		
	18	COL.S9 S9L-102 FOURTH PIECE		0-35-111-08515		No 20423.000 / 1		
	17	COL.S9 S9L-101 THIRD PIECE		0-35-111-08514		No 18129.600 / 1		
	16	COL.S9 S9L-106 SECOND PIECE		0-35-111-08519		No 15595.720 / 1		
	15	COL.S9 S9L-105 FIRST PIECE		0-35-111-08518		No 20285.312 / 1		
	14	COL.S8 S8L-107 SEVENTH PIECE		0-35-111-08513		No 24551.300 / 1		
	13	COL.S8 S8L-104 SIXTH PIECE		0-35-111-08510		No 19662.308 / 1		
	12	COL.S8 S8L-103 FIFTH PIECE		0-35-111-08509		No 17737.116 / 1		
	11	COL.S8 S8L-102 FOURTH PIECE		0-35-111-08508		No 25822.120 / 1		
	10	COL.S8 S8L-101 THIRD PIECE		0-35-111-08507		No 25688.300 / 1		
	09	COL.S8 S8L-105 SECOND PIECE		0-35-111-08511		No 22653.780 / 1		
	08	COL.S8 S8L-106 FIRST PIECE		0-35-111-08512		No 25244.204 / 1		
	07	COL.S7 S7L-102 SEVENTH PIECE		0-35-111-08501		No 15919.900 / 1		
	06	COL.S7 S7L-101 SIXTH PIECE		0-35-111-08500		No 10738.020 / 1		
	05	COL.S7 S7L-105 FIFTH PIECE		0-35-111-08504		No 9519.212 / 1		
	04	COL.S7 S7L-104 FOURTH PIECE		0-35-111-08503		No 11717.600 / 1		
	03	COL.S7 S7L-103 THIRD PIECE		0-35-111-08502		No 11816.584 / 1		
	02	COL.S7 S7L-106 SECOND PIECE		0-35-111-08505		No 9382.820 / 1		
	01	COL.S7 S7L-108 FIRST PIECE		0-35-111-08506		No 21.078.221 / 1		

REV	DATE	ALTERED : K.PRAKASH
01	09.06.12	CHD & APPD : M.PENCHAL
ZONE	ITEM No.29 TO 35 TRANSPORTATION MATERIAL ADDED.	

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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT

Bharat Heavy Electricals Ltd
UNIT: HIGH PRESSURE BOILER PLANT
TIRUCHIRAPALLI - 620014

	NAME	SIGNATURE	DATE
DRN	K.PRAKASH		25.02.2009
CHD	M.PENCHAL		25.02.2009
APPD	R.RAMASAMY		26.02.2009

DEPT	ALL DIMENSIONS ARE IN MM	PROJECTION	SCALE	WEIGHT (Kg)	REF TO ASSY / OLD DWG
ST / CODE 122			N.T.S		

TITLE: COLUMN ASSY. S7L,S8L,S9L&S10L

DRAWING NO : 0-35-111-08525 REV 01

CORPORATE DRG IDVX
TP-DG-XX0-35-111-08525