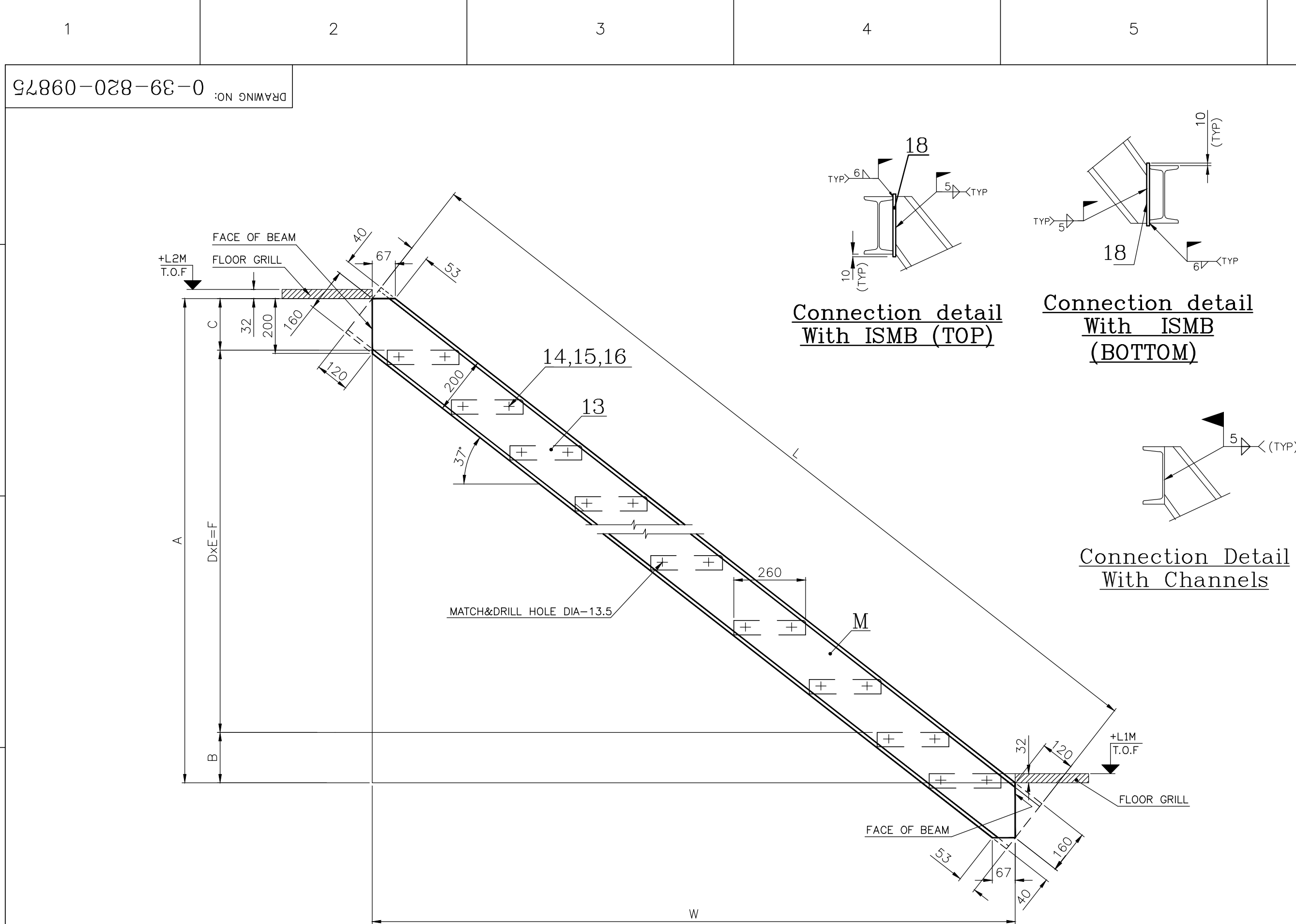
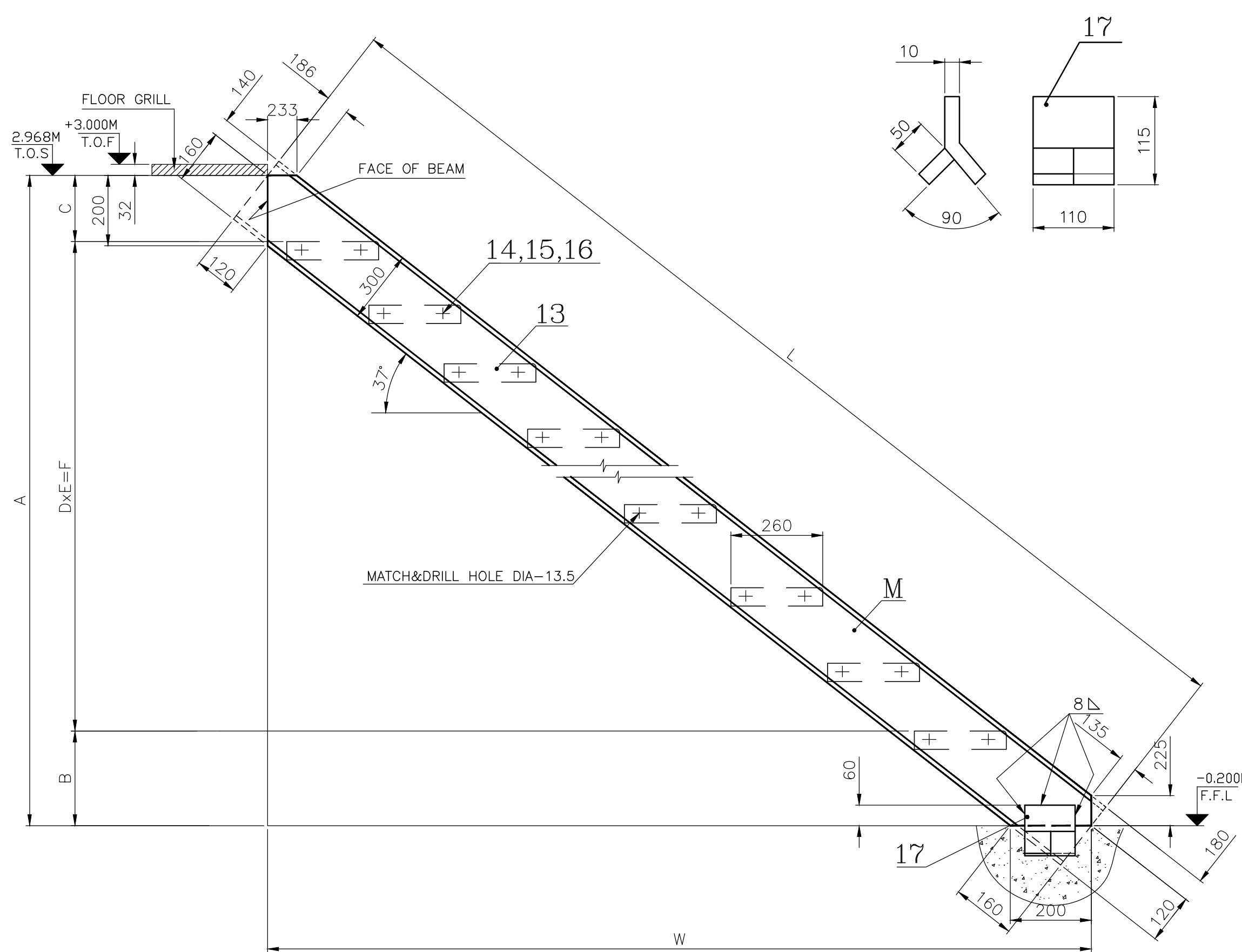




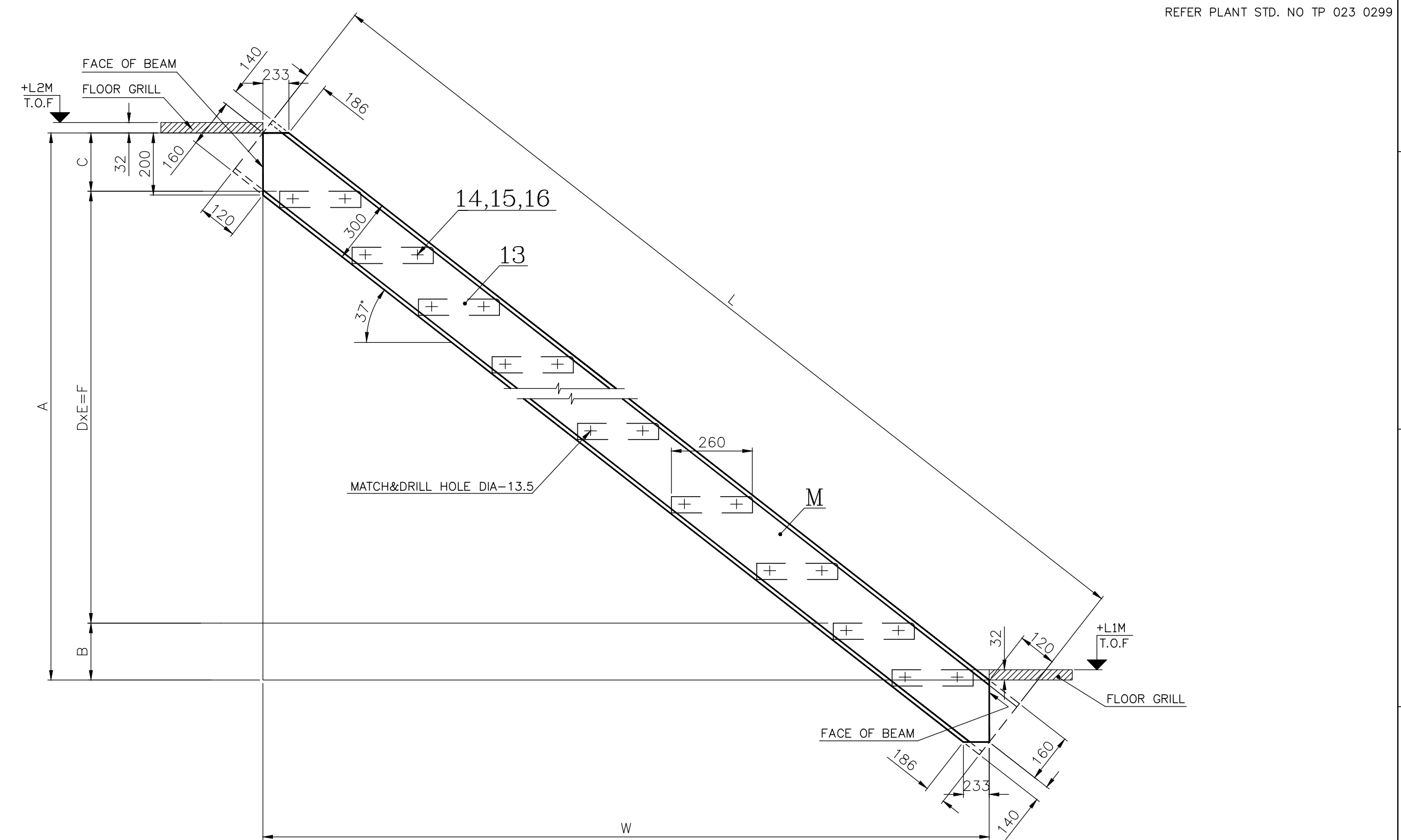
STAIR STYLE-2

STAIR STYLE-2													
DESCRIPTION OF STAIR	LEVEL +L2 IN METERS	LEVEL + L1 IN	A	B	C	D	E	F	NO OF STAIRS	NO OF STEP	W	L	ITEM NO.M
STAIR-2	17.120	14.920	2200	170	171	169	11	1859	5	65	2986	3829	2
STAIR-3	21.000	20.000	1000	168	168	166	4	664	4	24	1394	1835	3



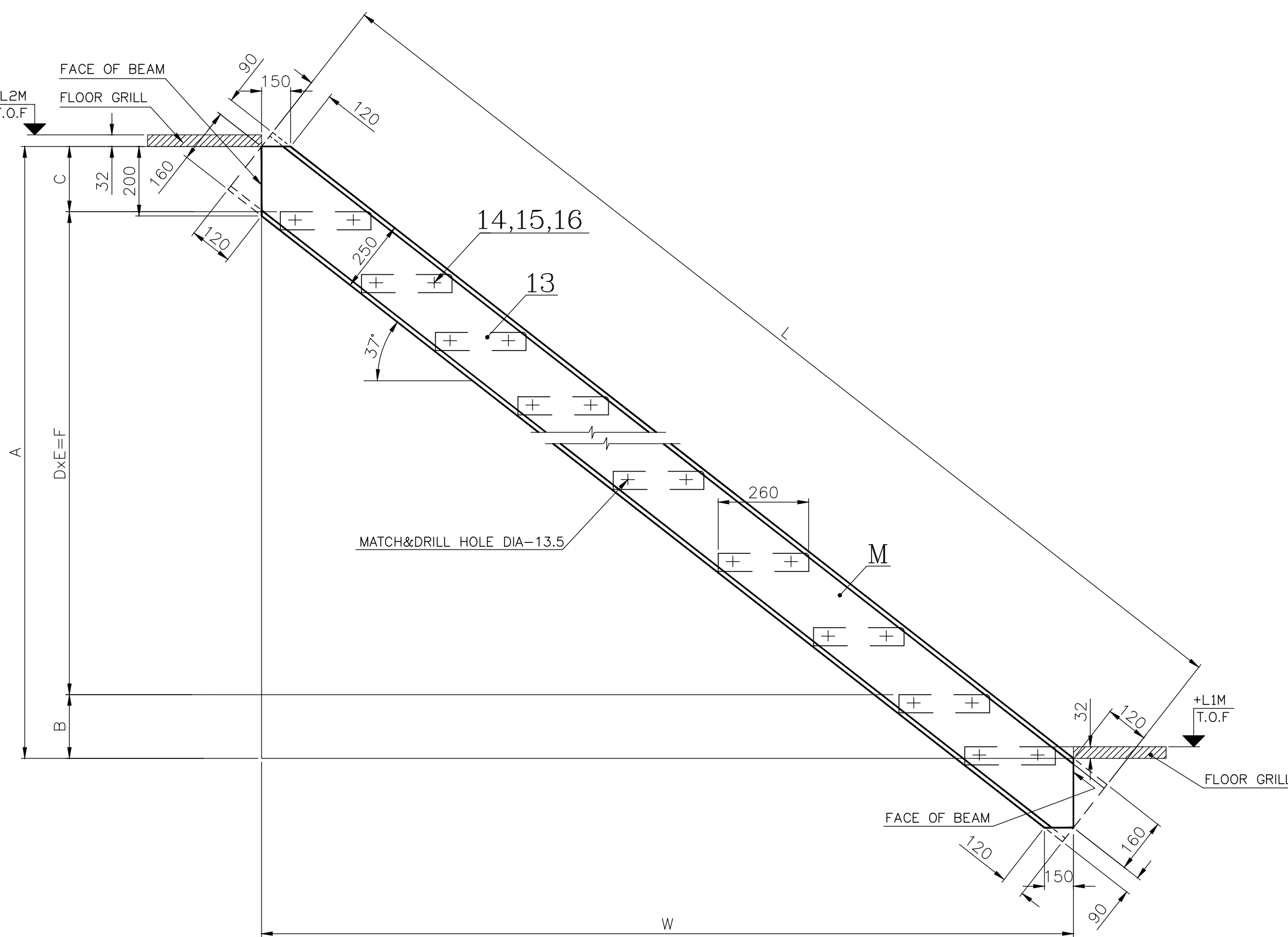
STAIR STYLE-1

STAIR STYLE-1													
DESCRIPTION OF STAIR	LEVEL +L2 IN METERS	LEVEL + L1 IN	A	B	C	D	E	F	NO OF STAIRS	NO OF STEP	W	L	ITEM NO.M
STAIR-1	3.000	-0.200	3168	168	168	177	16	2832	4	72	4141	5213	1



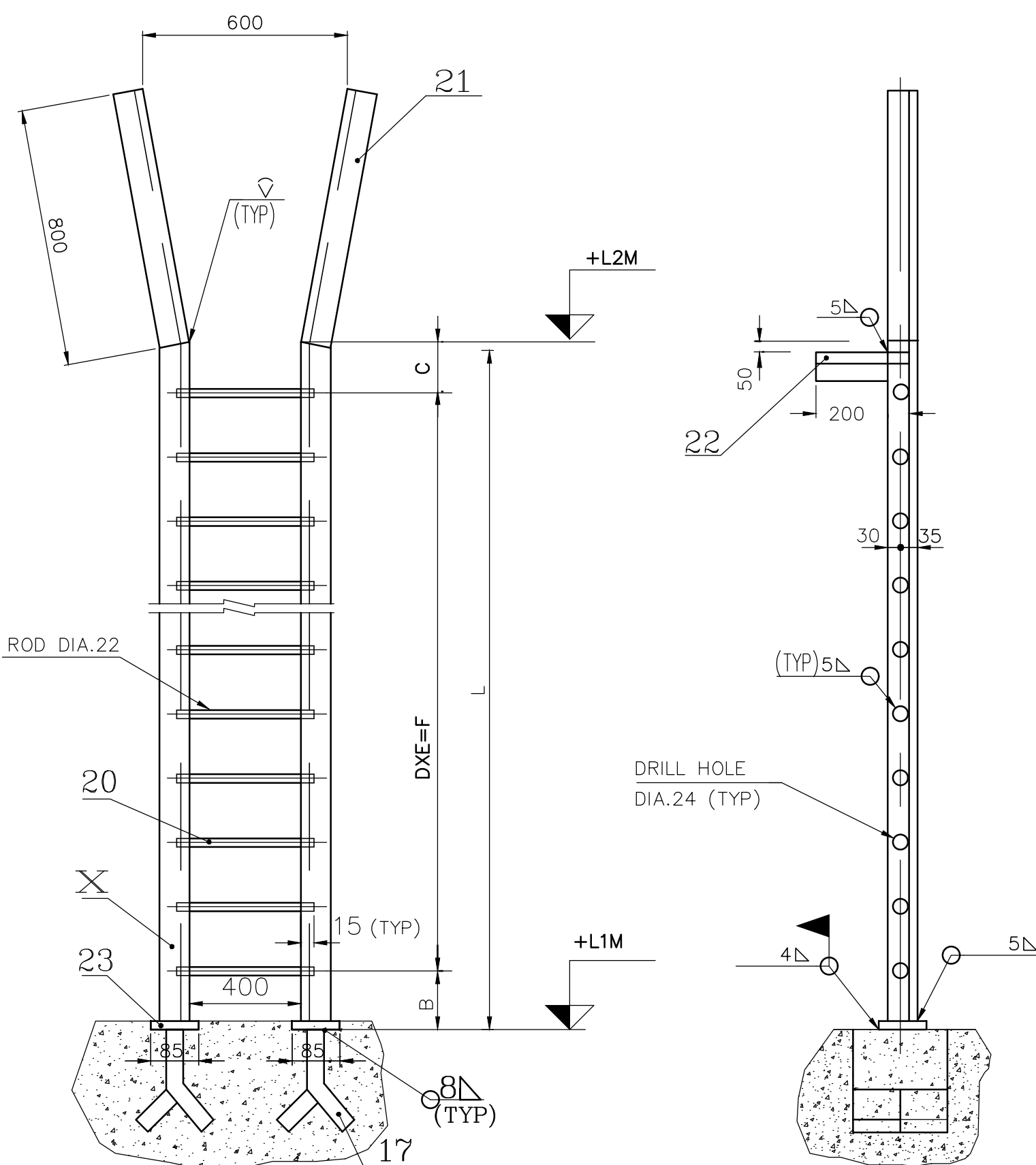
STAIR STYLE-3

STAIR STYLE-3													
DESCRIPTION OF STAIR	LEVEL +L2 IN METERS	L1 IN METERS	A	B	C	D	E	F	STAIR S	STEP TREADS	W	L	ITEM NO.M
STAIR-4	6.000	3.000	3000	170	175	177	15	2655	4	68	4214	5291	4
STAIR-5	9.000	6.000	3000	170	175	177	15	2655	4	68	4214	5291	5
STAIR-6	12.240	9.000	3240	175	175	170	17	2890	2	38	4533	5690	6
STAIR-7	20.000	16.500	3500	175	175	175	18	3150	5	100	4878	6122	7



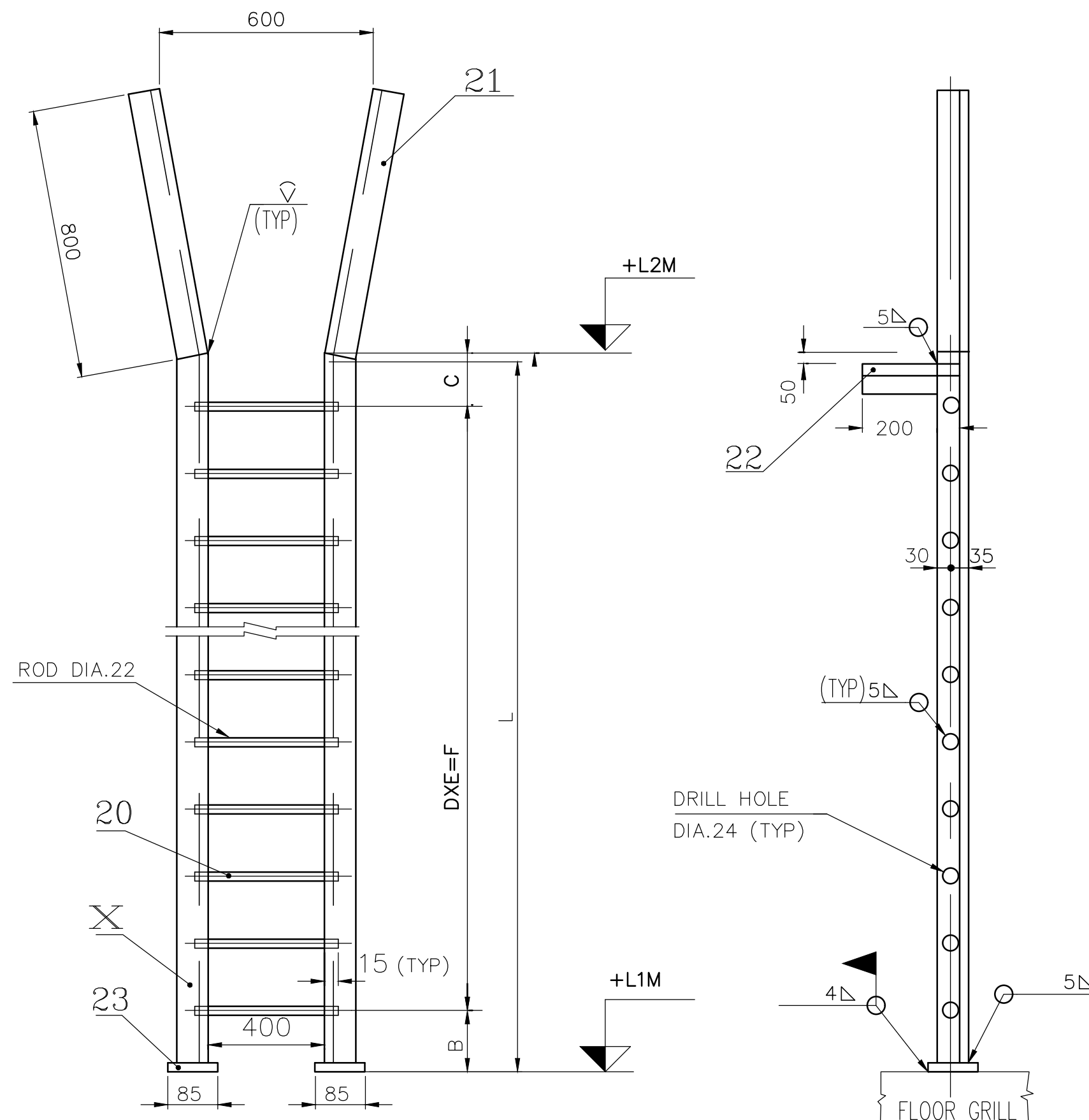
STAIR STYLE-4

STAIR STYLE-4													
DESCRIPTION OF STAIR	LEVEL +L2 IN METERS	L1 IN METERS	A	B	C	D	E	F	STAIR S	STEP TREADS	W	L	ITEM NO.M
STAIR-8	11.500	9.000	2500	170	170	180	12	2160	2	28	3467	4394	8
STAIR-9	14.000	11.500	2500	170	170	180	12	2160	2	28	3467	4394	9
STAIR-10	14.920	12.240	2680	177	176	179	13	2327	2	30	3706	4693	10
STAIR-11	19.500	17.120	2380	170	170	170	12	2040	5	70	3308	4195	11
STAIR-12	16.500	14.000	2500	170	170	180	12	2160	2	28	3467	4394	12



VERTICAL LADDER STYLE-1

VERTICAL LADDER STYLE-1											
Description of Vertical Ladder	Level +L1 In Meters	Level +L2 In Meters	L	B	C	D	E	F	No. of Vertical Ladder	IT.NO: 20 Qty	IT.NO: X
Vertical Ladder 01	-0.200	2.400	2600	285	285	290	7	2030	4	32	19



VERTICAL LADDER STYLE-2

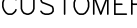
VERTICAL LADDER STYLE-2											
Description of Vertical Ladder	Level +1 in Meters	Level +2 in Meters	L	B	C	D	E	F	No of Vertical Ladder	IT.No: 20 Qty	IT.No: X
Vertical Ladder-2	11.500	13.000	1500	250	250	250	4	1000	1	5	24

NOTES:

- 1) MATERIALS AND OTHER REQUIREMENTS ARE GIVEN FOR PER BOILER ONLY.
- 2) MANUFACTURING REQUIREMENTS SHALL BE AS PER RELEVANT Q.C.P.(LATEST REVISION)
- 3) FOR LOCATION OF STAIRS REFER LAYOUT DRAWINGS.
- 4) FOR PRODUCTION NOTES REFER DRAWING NO. 3-35-110-00995 (LATEST REV).
- 5) ITEM NO:18 IS SENT IN EXCESS SIZE, IT MAY BE CUT TO SUIT AS PER NECESSARY REQUIREMENT AT SITE.

REV	DATE	ALTERED : MANTU DUTTA
01	05-02-18	CHD & APPD : R.D.K.K.N
ZONE	DRAWING REVISED	

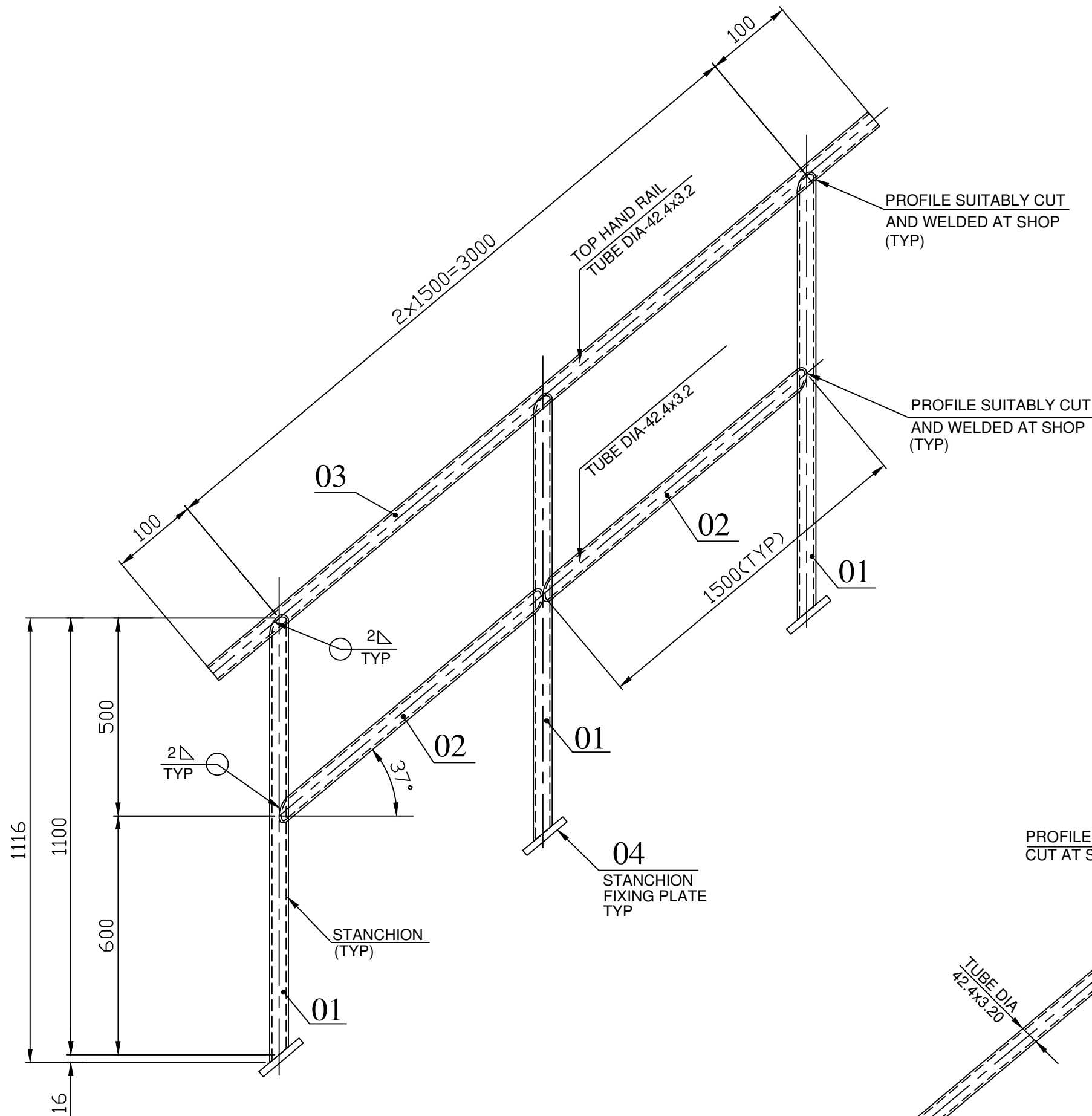
CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT				D/W NAME MANTU DUTTA DATE 20-01-18		SIGNATURE DATE 20-01-18	
 Bharat Heavy Electricals Ltd UNIT- HIGH PRESSURE BOILER PLANT TURIPALLI - 620014				D/W DESK POKHI / RAMADHAS DATE 20-01-18		APPROV M SHAMMUGAM DATE 20-01-18	
SPEC NO- 355-092 ST ALL subgroups REF TO 122				PROJECTION SCALE  (N.T.S.)		WEIGHT (Kgs) REF TO 405 / 2 / 042 000	
TITLE				DRAWING NO :			
STAIRS & VERTICAL LADDERS				0 - 39 - 820 - 09875			
				01			

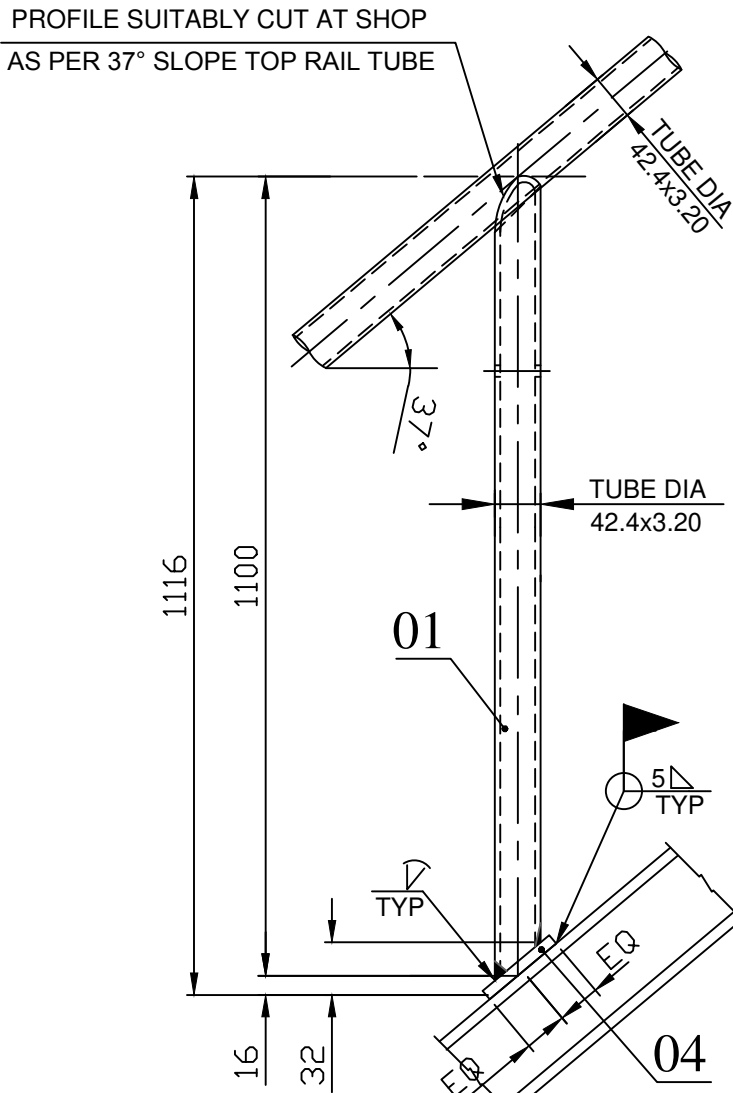
2-35-851-42859

DRAWING NO.

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



ASSEMBLY OF HANDRAILS FOR STAIRS

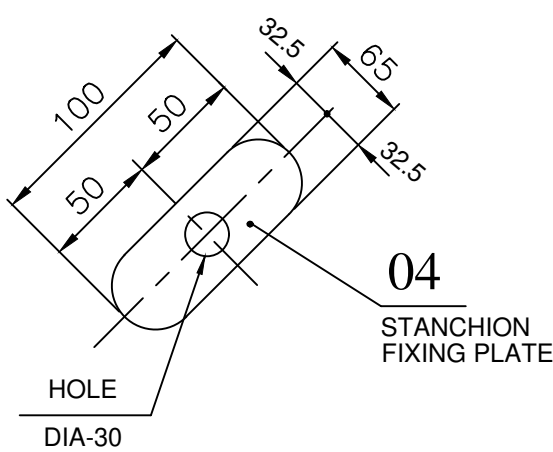


HANDRAIL POST / STANCHION
FOR STAIR

NOTES

1. MANUFACTURING REQUIREMENTS SHALL AS PER APPLICABLE Q.C.P (LATEST REV.)
2. ALL SHOP BURRS TO BE REMOVED AND SURFACES TO BE CLEANED BEFORE PAINTING OF FINISHED PRODUCTS.
3. M.S. MATERIALS CONFORMING TO NB32 MEDIUM CLASS EN 10296-1:2003 ARE TO BE USED FOR HAND RAILS AND POSTS.
4. GALVANISING 610g/SQM.
5. HANDRAIL DESIGN AS PER BS EN ISO 14122-3:2016.

VARIANT NUMBER	ITEM NUMBER	DESCRIPTION	STD	DRAWING NUMBER	ITEM NO	MATERIAL CODE	A/C/P	UNIT	UNIT WEIGHT	CS	ZONE
					VAR NO	MATERIAL SPECN		DI	QUANTITY		
	04	PLATE 8 100 X 65				150111770000 ASMESAI2062E250A			0.408		
									3		
	03	ERW TUBE DIA.42.4x3.2 3200				150381792001 EN 10296-1:2003			9.920		
									1		
	02	ERW TUBE DIA.42.4x3.2 1500				150381792001 EN 10296-1:2003			4.639		
									2		
	01	ERW TUBE DIA.42.4x3.2 1116				150381792001 EN 10296-1:2003			3.452		
									3		



MIDDLE RAIL / KNEE RAIL
FOR STAIR

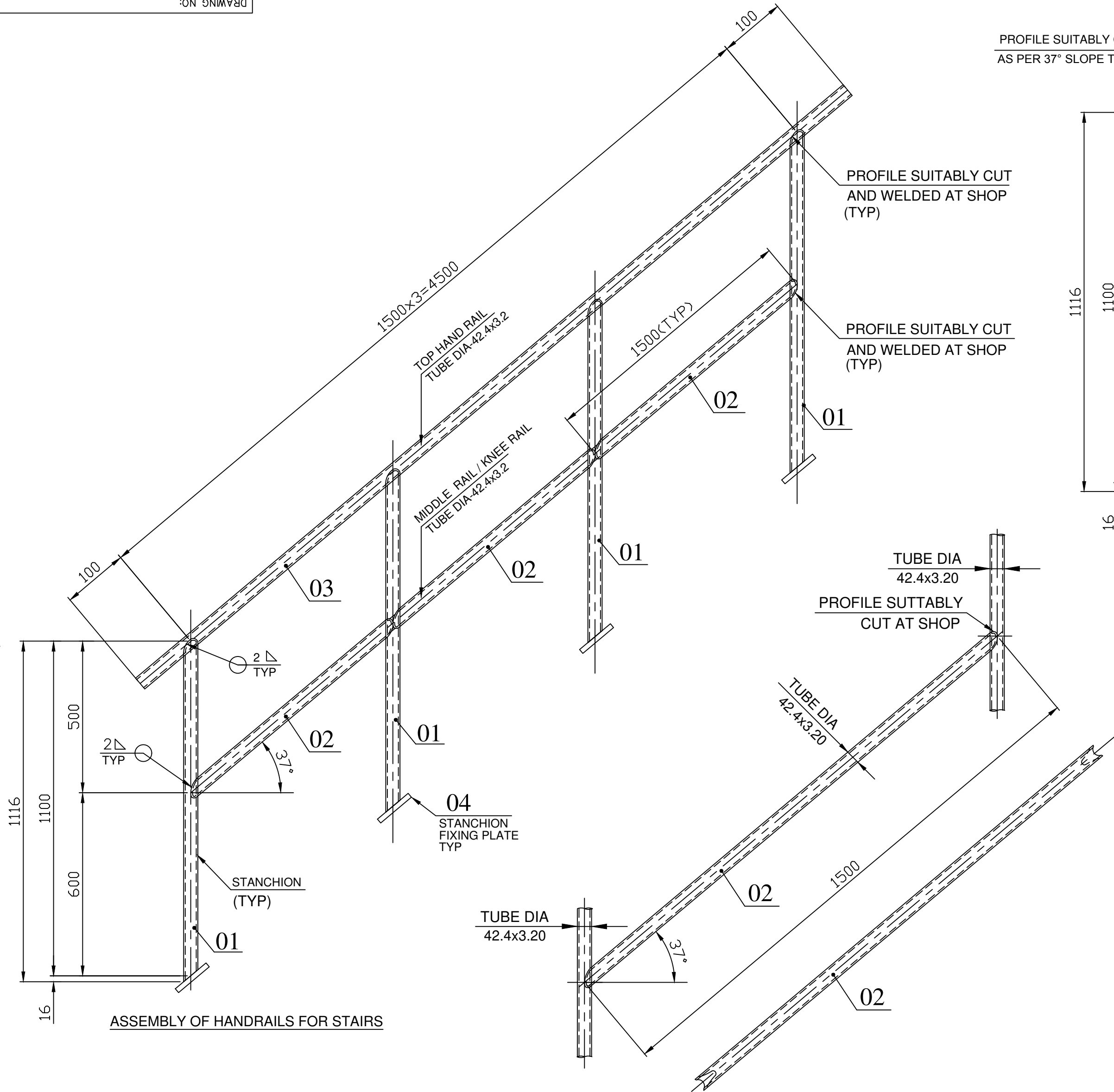
REV	DATE	ALTERED :
01		CHD & APPD :
ZONE		

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.	TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT						
	Bharat Heavy Electricals Ltd UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014		DRN	NAME K.S.PANDIAN			
			CHD	SIGNATURE S.MUTHU SUBRAMANIAN			
			APPD	DATE 26-12-2017			
			APPD	DATE 26-12-2017			
DEPT ST		ALL DIMENSIONS ARE IN MM	PROJECTION N.T.S	SCALE N.T.S	WEIGHT (Kg)	REF TO ASSY / OLD DWG	
CODE 122		TITLE HANDRAIL ASSEMBLY FOR STAIRS (3M ASSY)				DRAWING NO : 2-35-851-42859	
						REV	

2-35-851-42860

DRAWING NO.:

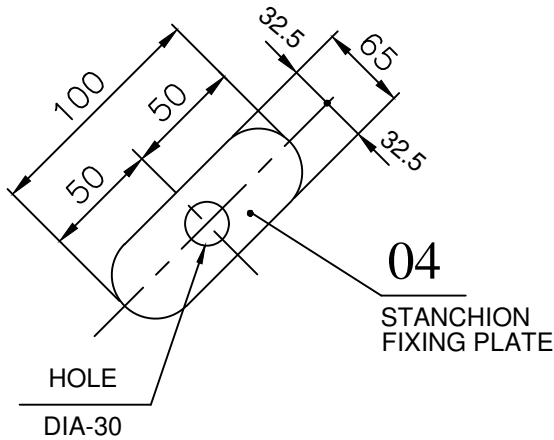
FOR TOLERANCES OF UNTOLERANCED
DIMENSIONS DURING MANUFACTURE
REFER PLANT STD. NO TP 023 0299



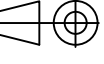
NOTES

1. MANUFACTURING REQUIREMENTS SHALL AS PER APPLICABLE Q.C.P (LATEST REV.)
2. ALL SHOP BURRS TO BE REMOVED AND SURFACES TO BE CLEANED BEFORE PAINTING OF FINISHED PRODUCTS.
3. M.S. MATERIALS CONFORMING TO NB32 MEDIUM CLASS EN 10296-1:2003 ARE TO BE USED FOR HAND RAILS AND POSTS.
4. GALVANISING 610g/SQM.
5. HANDRAIL DESIGN AS PER BS EN ISO 14122-3:2016.

VARIANT NUMBER	ITEM NUMBER	DESCRIPTION	STD	DRAWING NUMBER	ITEM NO	MATERIAL CODE	A/C/P	UNIT	UNIT WEIGHT	CS	ZONE
04	PLATE 8 100 X 65					150111770000			0.408		
						ASMESAI52062E250A			4		
03	ERW TUBE DIA.42.4x3.2 4700					150381792001			14.537		
						EN 10296-1:2003			1		
02	ERW TUBE DIA.42.4x3.2 1500					150381792001			4.639		
						EN 10296-1:2003			3		
01	ERW TUBE DIA.42.4x3.2 1116					150381792001			3.452		
						EN 10296-1:2003			4		



REV	DATE	ALTERED :
01		CHD & APPD :
ZONE		

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. it must not be used directly or indirectly in any way detrimental to the interest of the company.	TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT							
		Bharat Heavy Electricals Ltd UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014		DRN	K.S.PANDIAN	SIGNATURE	DATE	26-12-2017
		CHD	S.MUTHU SUBRAMANIAN		26-12-2017			
		APPD	M.SHANMUGAM		27-12-2017			
	DEPT	ST	ALL DIMENSIONS ARE IN MM	PROJECTION	SCALE	WEIGHT (Kg)	REF TO ASSY / OLD DWG	
CODE	122			N.T.S				
TITLE						DRAWING NO :		REV
HANDRAIL ASSEMBLY FOR STAIRS (4.5M ASSY)						2-35-851-42860		

2-35-851-42861

DRAWING NO.:

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

PROFILE SUITABLY CUT AT SHOP
AS PER 37° SLOPE TOP RAIL TUBE

PROFILE SUITABLY CUT
AND WELDED AT SHOP
(TYP)

PROFILE SUITABLY CUT
AND WELDED AT SHOP
(TYP)

PROFILE SUITABLY
CUT AT SHOP

HANDRAIL POST / STANCHION
FOR STAIR

NOTES

1. MANUFACTURING REQUIREMENTS SHALL AS PER APPLICABLE Q.C.P (LATEST REV.)
2. ALL SHOP BURRS TO BE REMOVED AND SURFACES TO BE CLEANED BEFORE PAINTING OF FINISHED PRODUCTS.
3. M.S. MATERIALS CONFORMING TO NB32 MEDIUM CLASS EN 10296-1:2003 ARE TO BE USED FOR HAND RAILS AND POSTS.
4. GALVANISING 610g/SQM.
5. HANDRAIL DESIGN AS PER BS EN ISO 14122-3:2016.

VARIANT NUMBER	ITEM NUMBER	DESCRIPTION	STD	DRAWING NUMBER	ITEM NO VAR NO	MATERIAL CODE MATERIAL SPECN	A/C/P DI	UNIT QUANTITY	UNIT WEIGHT	CS	ZONE
04	PLATE 8 100 X 65					150111770000 ASMESAIS2062E250A		0.408 5			
03	ERW TUBE DIA.42.4x3.2 6200					150381792001 EN 10296-1:2003		19.177 1			
02	ERW TUBE DIA.42.4x3.2 1500					150381792001 EN 10296-1:2003		4.639 4			
01	ERW TUBE DIA.42.4x3.2 1116					150381792001 EN 10296-1:2003		3.452 5			

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT



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

DRN	K.S.PANDIAN	SIGNATURE	DATE
CHD	S.MUTHU SUBRAMANIAN		26-12-2017
APPD	M.SHANMUGAM		27-12-2017

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

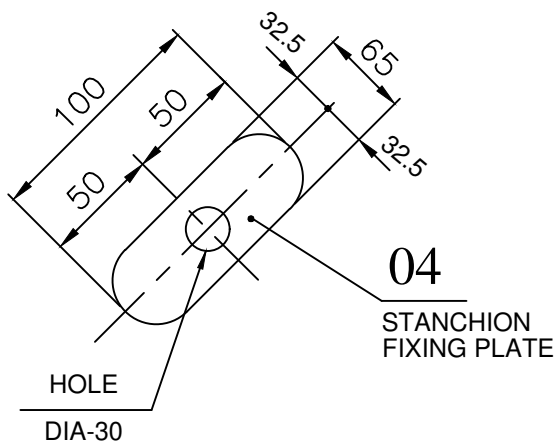
TITLE
HANDRAIL ASSEMBLY FOR
STAIRS (6M ASSY)

DRAWING NO :
2-35-851-42861

REV

REV	DATE	ALTERED :
01		CHD & APPD :
ZONE		

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ASSEMBLY OF HANDRAILS FOR STAIRS

MIDDLE RAIL / KNEE RAIL
FOR STAIR

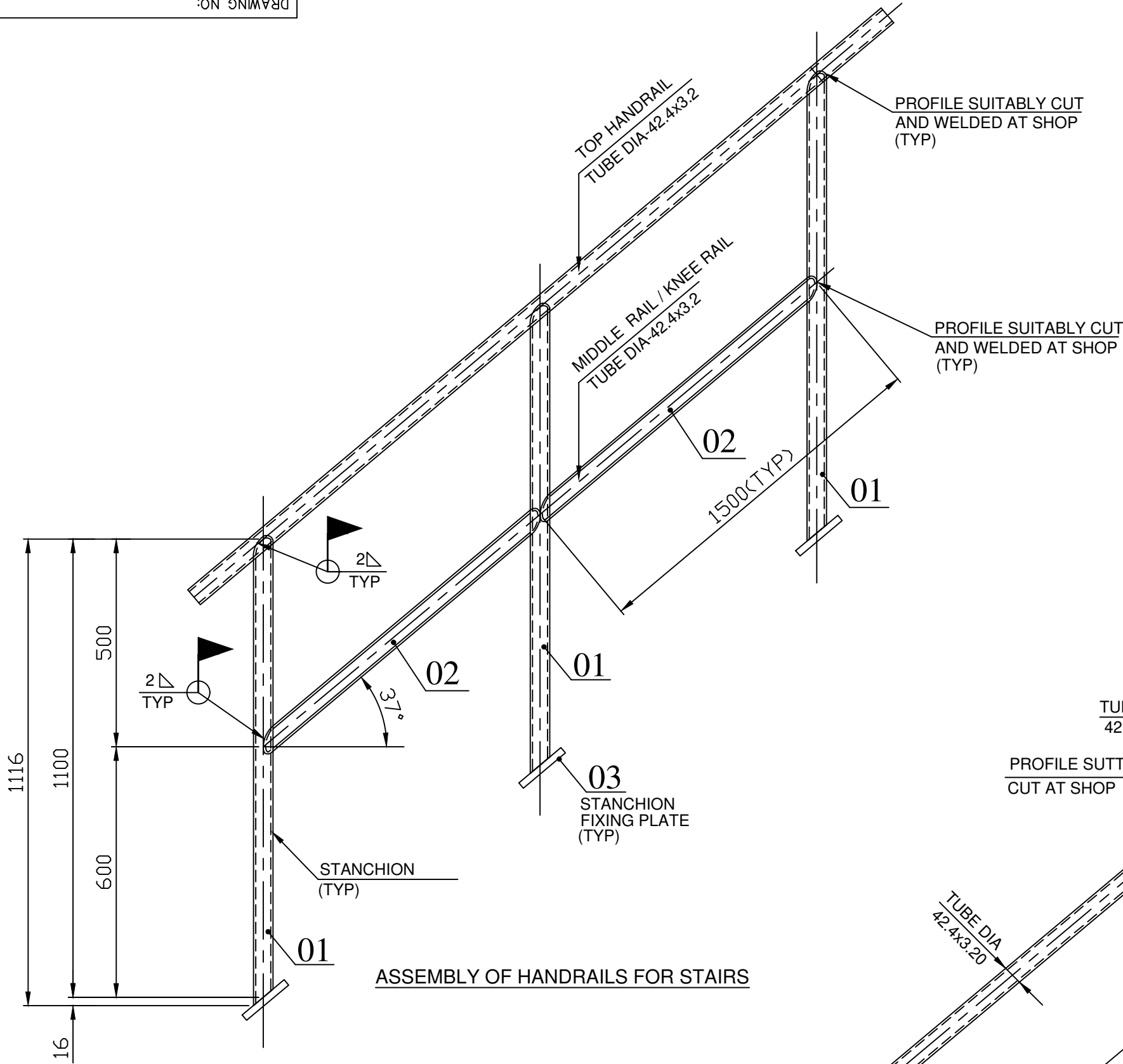
A
B
C
D
E
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A
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C
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E
F

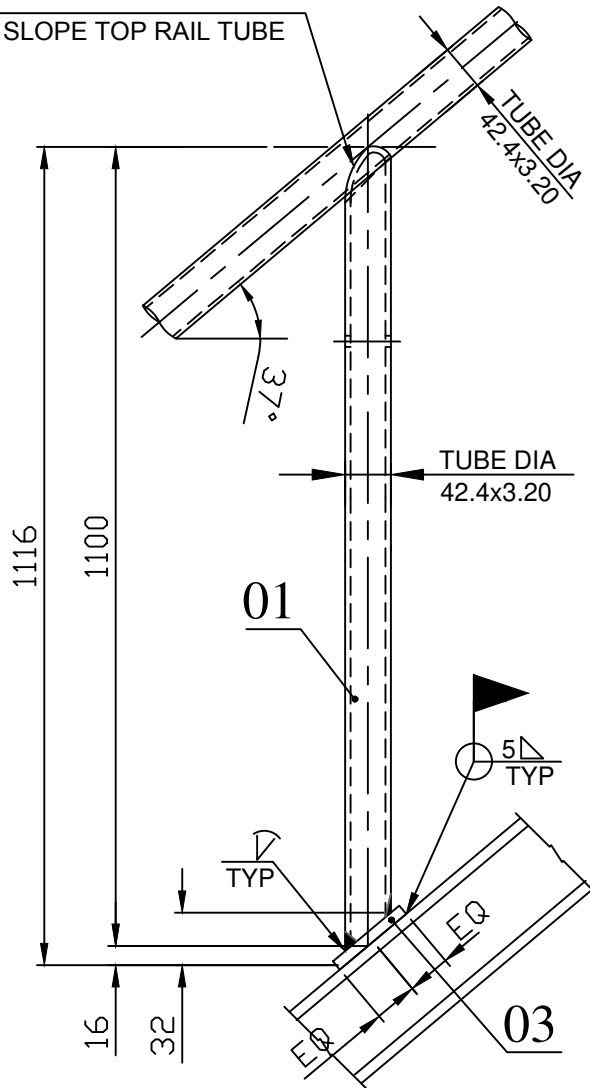
2-35-851-42862

DRAWING NO.:

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

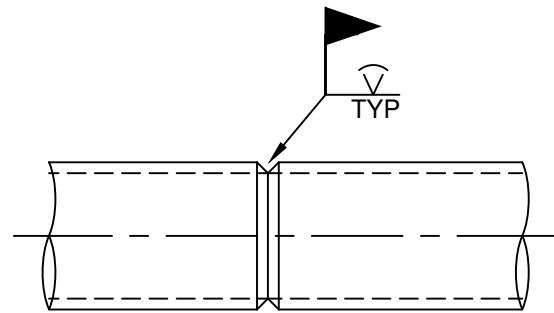


PROFILE SUITABLY CUT AT SHOP
AS PER 37° SLOPE TOP RAIL TUBE

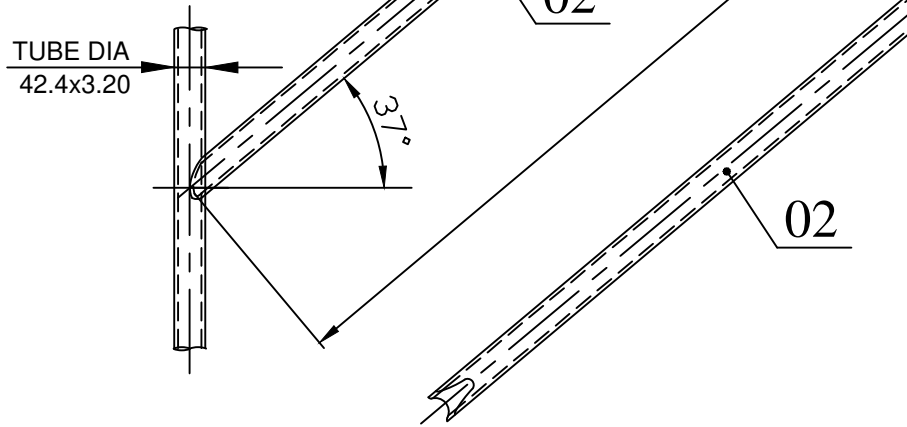


HANDRAIL POST / STANCHION
FOR STAIR

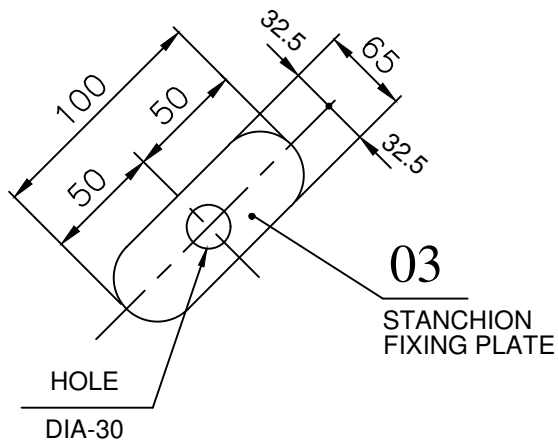
- NOTES
1. MANUFACTURING REQUIREMENTS SHALL AS PER APPLICABLE Q.C.P (LATEST REV.)
 2. ALL SHOP BURRS TO BE REMOVED AND SURFACES TO BE CLEANED BEFORE PAINTING OF FINISHED PRODUCTS.
 3. M.S. MATERIALS CONFORMING TO NB32 MEDIUM CLASS EN 10296-1:2003 ARE TO BE USED FOR HAND RAILS AND POSTS.
 4. GALVANISING 610g/SQM.
 5. HANDRAIL DESIGN AS PER BS EN ISO 14122-3:2016.



TYPICAL SITE JOINT OF
HAND RAIL TUBE



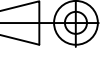
MIDDLE RAIL / KNEE RAIL
FOR STAIR



03
STANCHION
FIXING PLATE

VARIANT NUMBER	ITEM NUMBER	DESCRIPTION	STD	DRAWING NUMBER	ITEM NO	MATERIAL CODE	A/C/P	UNIT	UNIT WEIGHT	CS	ZONE
	03	PLATE 8 100 X 65				150111770000			0.408		
						ASMESAI52062E250A			1		
	02	ERW TUBE DIA.42.4x3.2 1500				150381792001			4.639		
						EN 10296-1:2003			1		
	01	ERW TUBE DIA.42.4x3.2 1116				150381792001			3.452		
						EN 10296-1:2003			1		

REV	DATE	ALTERED :
01		CHD & APPD :
ZONE		

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.	TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT				
			NAME K.S.PANDIAN		
	Bharat Heavy Electricals Ltd UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014		SIGNATURE		
	355-054		DATE 26-12-2017		
	DEPT ST		CHD S.MUTHU SUBRAMANIAN		
CODE 122		APPD M.SHANMUGAM		DATE 27-12-2017	
ALL DIMENSIONS ARE IN MM		PROJECTION 		SCALE N.T.S	
WEIGHT (Kg)		REF TO ASSY / OLD DWG			
TITLE STANCHION AND KNEE RAIL FOR STAIRS				DRAWING NO : 2-35-851-42862	
				REV	

DRAWING NO:
82820-011-95-3

FABRICATION TOLERANCE TO BE FOLLOWED FOR STRUCTURAL ITEMS

SQPNP06 – INDIVIDUAL COLUMNS / GIRDERS

1	Column / girder section depth upto 1mtr	±3mm
2	Column / girder section depth from 1mtr to upto including 2 mtr.	±5mm
3	Column / girder section depth. 2mtr	±8.0mm/-5.0mm
4	Flange width	:±3mm
5	Web shift	:2mm
6	Bow in base plate of column	3mm or 1mm /m of diagonal, whichever is higher
7	Section depth	Up to 1m :±3.0mm 1m to 2m :±5.0mm Above 2m :+8.0mm/-5.0mm Flange width :±3.0mm Web shift :2mm

8	Length	±5mm
9	Twist	0.005h per 5m length or 10 mm whichever is less where "h" is the height of beam / girder in mm
10	Camber	1mm/m and max of 10mm
11	Sweep	1mm/m and max of 10mm
12	Combined warpage and tilt of flange	w/100 or 6mm (whichever is greater) where "w" is width of flange
13	Bow in base plate of column	3mm or 1mm /m of diagonal, whichever is higher
14	Section depth	Up to 1m :±3.0mm 1m to 2m :±5.0mm Above 2m :+8.0mm/-5.0mm Flange width :±3.0mm Web shift :2mm

NOTES:
THIS DRAWING IS TO BE READ ALONG WITH DRAWING NO: 3-35-110-00995

REV	DATE	ALTERED :
01		CHD & APPD :

SQPNP07 – GENERAL STRUCTURES

1	Length	For members where ends are free- ±1mm/m subject to 5mm max Members connecting between two structural members -+0mm -3mm
2	Web shift	2mm
3	Combined warpage and tilt of flange of WB	Shall not exceed 1/100 of total width of flange or 6mm whichever is greater.
4	Twist	0.005h/5m length subject to a maximum of 10mm (where "h" is the height of beam)
5	Out of straightness	Length upto 15m: 1mm/m and max . 10mm length over 15m:10mm+1mm/m for the length in excess of 15m

FRAMES OF GENERAL STRUCTURES

1	Length and width	± 1.5mm /m,max. 6mm
2	Difference between diagonals	2mm/m, max . 8mm
3	Height	+ 1.5mm/m,max. 6mm
4	Spacing of intermediate members	± 3mm

HANDRAILS

1	Length	±3mm
2	Bow	±2mm

MONORAIL BEAMS

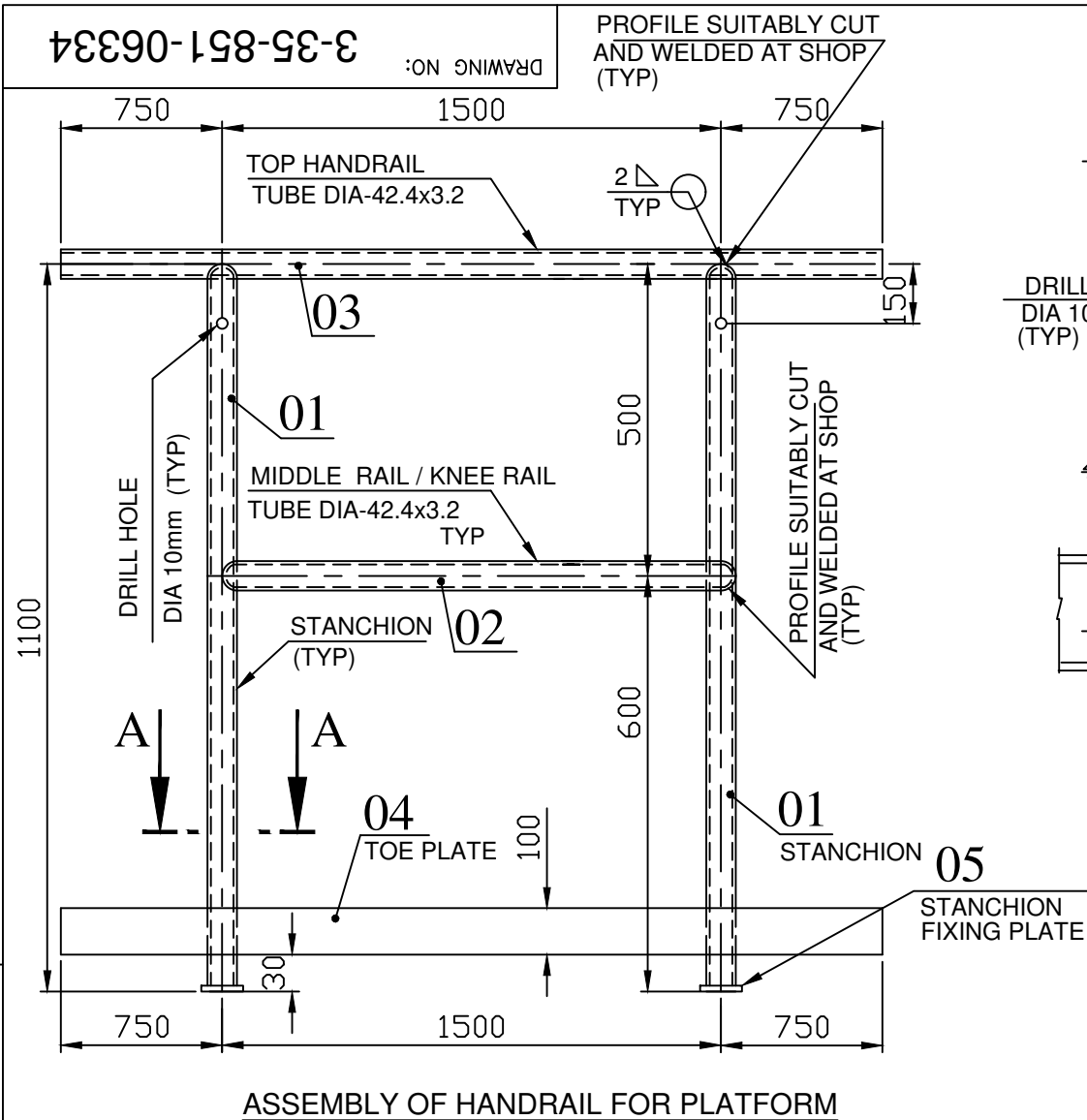
1	Depth of section	±3mm (Applicable for all beams)
2	Flange width	±3mm (Applicable for all beams)
3	Flange width for monorail	+2/-0mm
4	Web shift	2mm
5	Combined war page and tilt	3mm max.
6	Sweep/camber	5mm max
7	Length: Runways connected in between two structures (span up to 12m)	+0/-2mm

CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company.

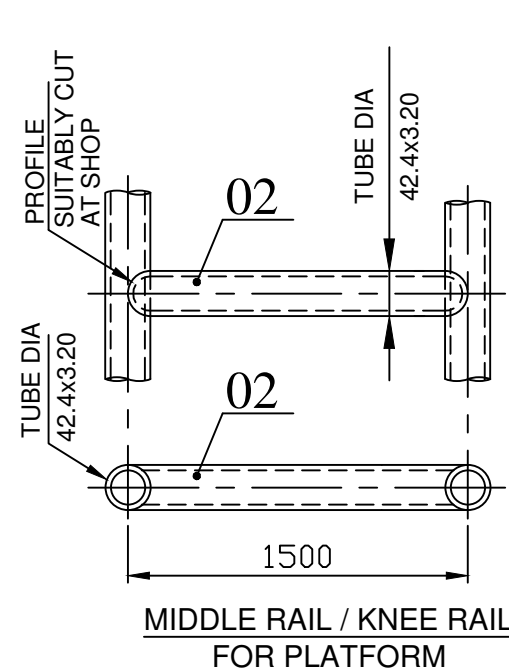
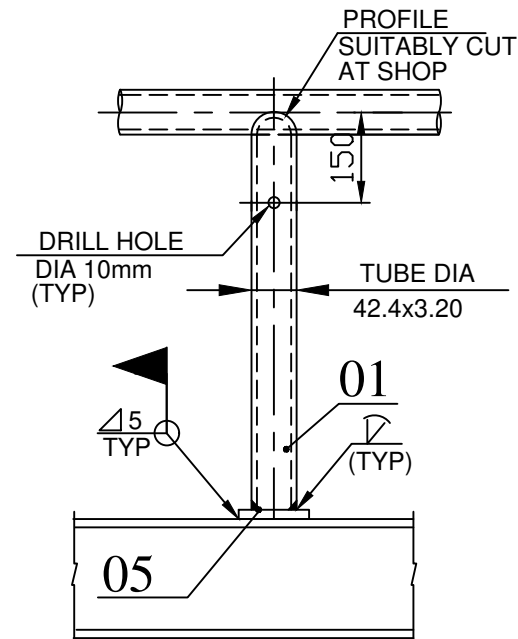
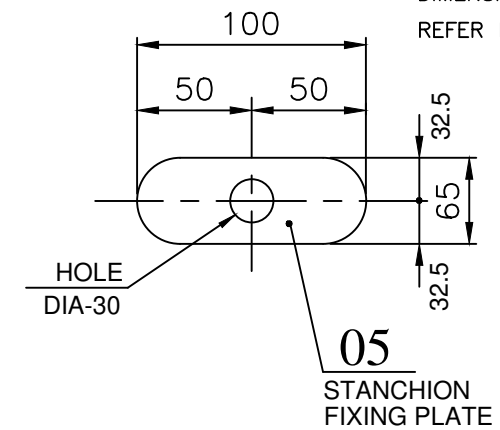
TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT						
 355-055	Bharat Heavy Electricals Ltd UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI – 620014		DRN	NAME P.SHAMNARAJ	SIGNATURE	DATE 21.04.14
			CHD	JITENDRA KUMAR		22.04.14
			APPD	J.SOMU		22.04.14
DEPT ST	ALL DIMENSIONS ARE IN MM	PROJECTION 	SCALE	WEIGHT (Kg)	REF TO ASSY / OLD DWG	
CODE 122	TITLE FABRICATION TOLERANCE FOR STRUCTURAL ITEMS				DRAWING NO : 3-35-110-02828	
					REV 00	

3-35-851-06334

DRAWING NO:

PROFILE SUITABLY CUT
AND WELDED AT SHOP
(TYP)

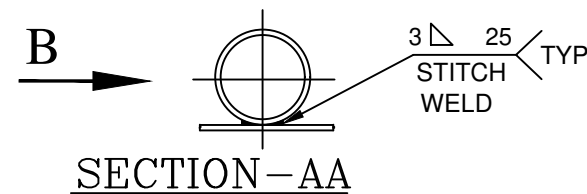
ASSEMBLY OF HANDRAIL FOR PLATFORM

MIDDLE RAIL / KNEE RAIL
FOR PLATFORMHANDRAIL POST / STANCHION
FOR PLATFORMSTANCHION
FIXING PLATE

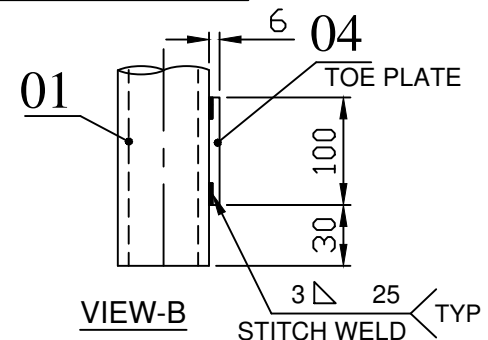
NOTES

1. MANUFACTURING REQUIREMENTS SHALL AS PER APPLICABLE Q.C.P (LATEST REV.)
2. ALL SHOP BURRS TO BE REMOVED AND SURFACES TO BE CLEANED BEFORE PAINTING OF FINISHED PRODUCTS.
3. M.S. MATERIALS CONFORMING TO NB32 MEDIUM CLASS EN 10296-1:2003 ARE TO BE USED FOR HAND RAILS AND POSTS.
4. GALVANISING 610g/SQM.
5. HANDRAIL DESIGN AS PER BS EN ISO 14122-3:2016.

VARIANT NUMBER	ITEM NUMBER	DESCRIPTION	STD	DRAWING NUMBER	ITEM NO	MATERIAL CODE	A/C/P	UNIT	UNIT WEIGHT	QTY
					VAR NO	MATERIAL SPECN		DI	QUANTITY	
	05	PLATE 8 100 X 65				150111770000			0.408	
						ASMESAIS2062E250A			2	
	04	PLATE 6 100 X 3000				150111760000			14.130	
						ASMESAIS2062E250A			1	
	03	ERW TUBE DIA.42.4x3.2 3000				150381792001			9.300	
						EN 10296-1:2003			1	
	02	ERW TUBE DIA.42.4x3.2 1500				150381792001			4.639	
						EN 10296-1:2003			1	
	01	ERW TUBE DIA.42.4x3.2 1092				150381792001			3.377	
						EN 10296-1:2003			2	



SECTION-AA



VIEW-B

REV	DATE	ALTERED :
01		CHD & APPD:
ZONE		

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TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT

355-055

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

DRN	NAME	SIGNATURE	DATE
K.S.PANDIAN			26-12-2017
CHD	S.MUTHU SUBRAMANIAN		26-12-2017
APPD	M.SHANMUGAM		27-12-2017

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

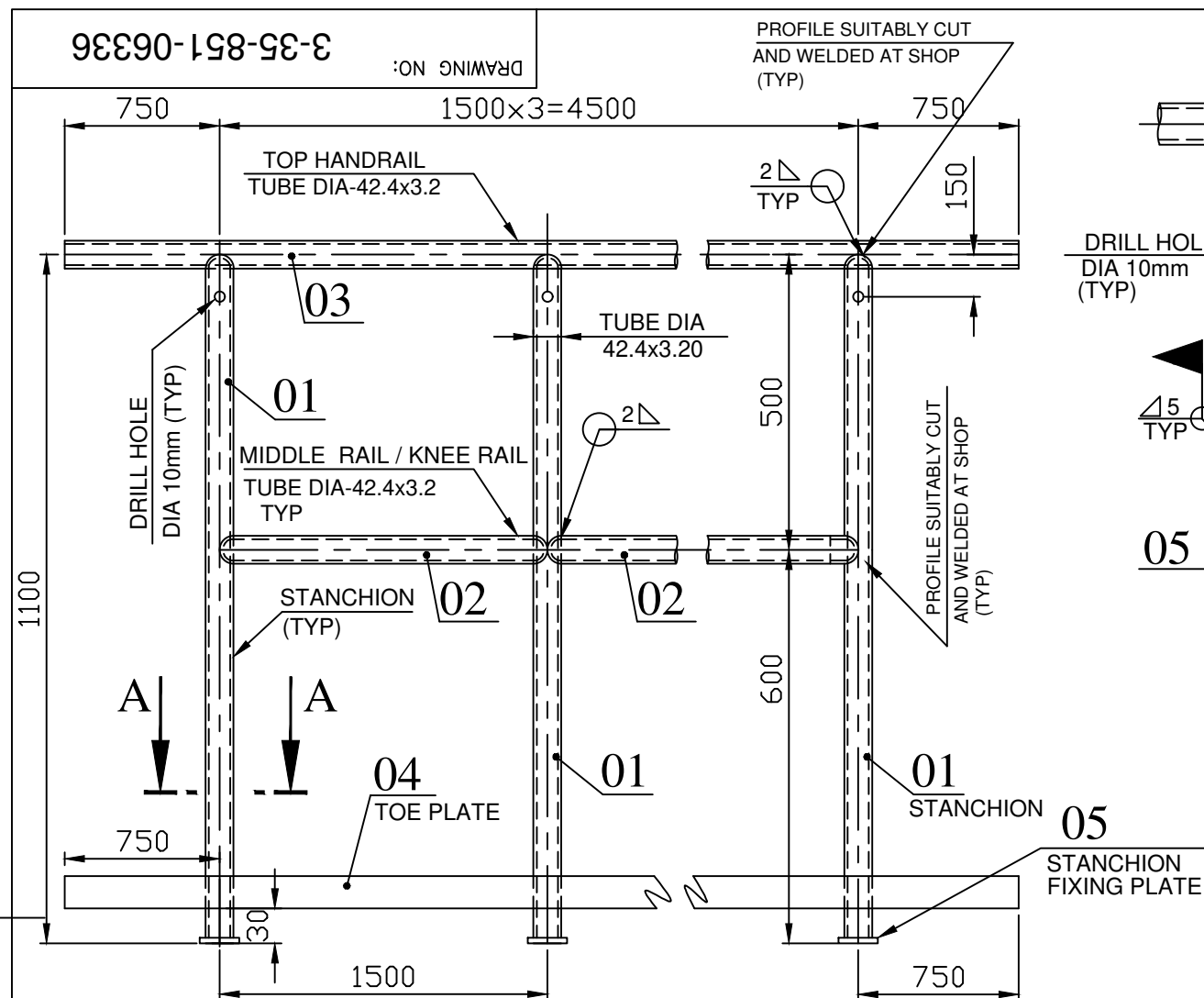
TITLE	DRAWING NO :	REV
HANDRAIL ASSEMBLY FOR PLATFORM (3M ASSY)	3-35-851-06334	

DRAWING NO :	REV
3-35-851-06335	

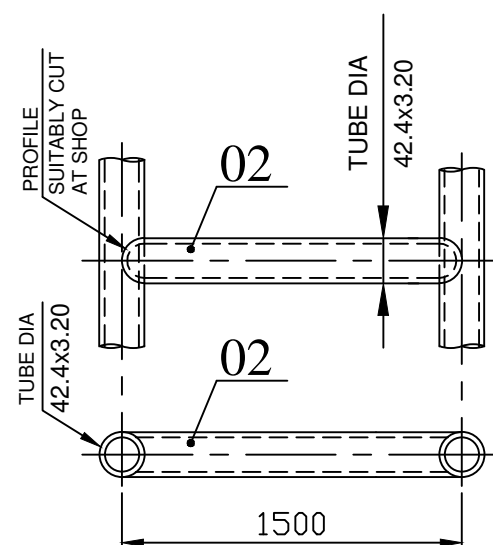
3-35-851-06336

DRAWING NO.

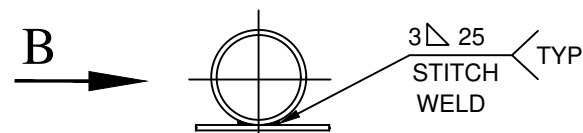
PROFILE SUITABLY CUT
AND WELDED AT SHOP
(TYP)



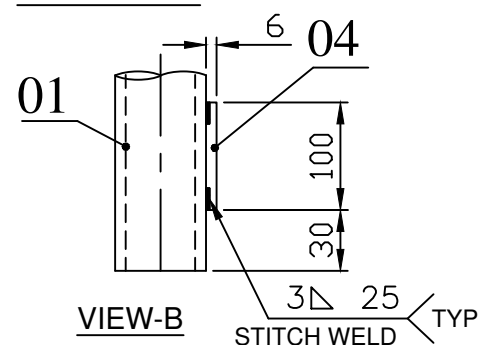
ASSEMBLY OF HANDRAIL FOR PLATFORM



MIDDLE RAIL / KNEE RAIL
FOR PLATFORM

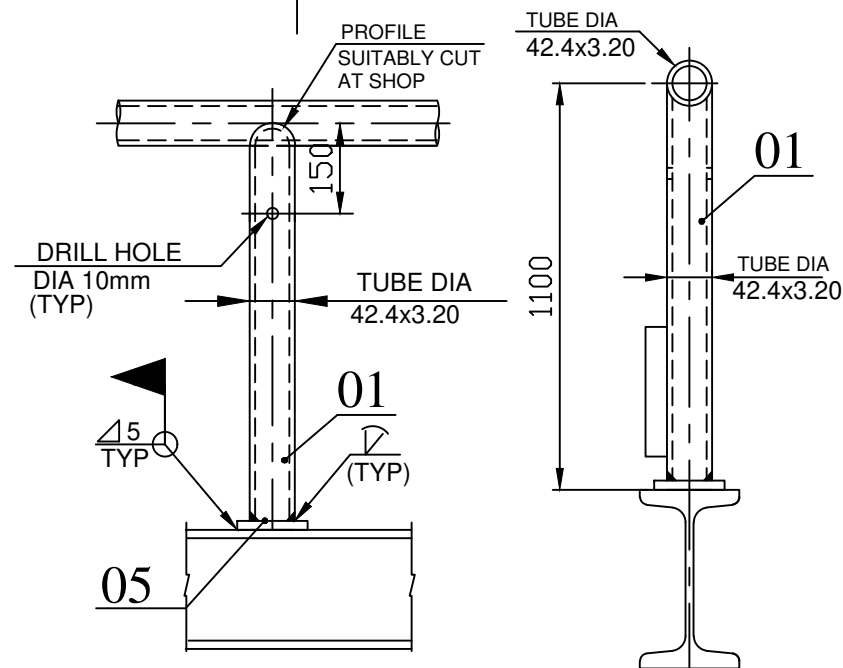


SECTION-AA

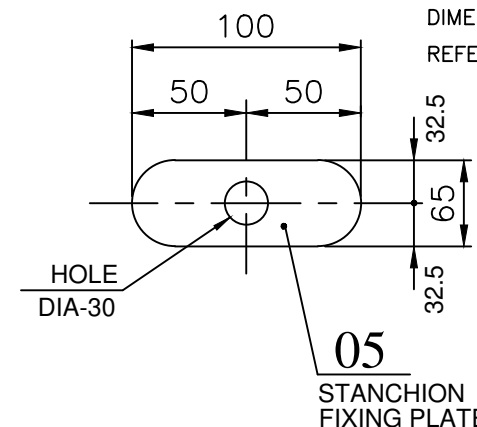


VIEW-B

REV	DATE	ALTERED :
01		CHD & APPD:
ZONE		



HANDRAIL POST / STANCHION
FOR PLATFORM



STANCHION
FIXING PLATE

NOTES

- MANUFACTURING REQUIREMENTS SHALL AS PER APPLICABLE Q.C.P (LATEST REV.)
- ALL SHOP BURRS TO BE REMOVED AND SURFACES TO BE CLEANED BEFORE PAINTING OF FINISHED PRODUCTS.
- M.S. MATERIALS CONFORMING TO NB32 MEDIUM CLASS EN 10296-1:2003 ARE TO BE USED FOR HAND RAILS AND POSTS.
- GALVANISING 610g/SQM.
- HANDRAIL DESIGN AS PER BS EN ISO 14122-3:2016.

VARIANT NUMBER	ITEM NUMBER	DESCRIPTION	STD	DRAWING NUMBER	ITEM NO	MATERIAL CODE	A/C/P	UNIT	UNIT WEIGHT	QTY
					VAR NO	MATERIAL SPECN		DI	QUANTITY	
05	PLATE 8 100 X 65					150111770000			0.408	
						ASMES AIS2062E250A			4	
04	PLATE 6 100 X 6000					150111760000			28.260	
						ASMES AIS2062E250A			1	
03	ERW TUBE DIA.42.4x3.2 6000					150381792001			18.600	
						EN 10296-1:2003			1	
02	ERW TUBE DIA.42.4x3.2 1500					150381792001			4.639	
						EN 10296-1:2003			3	
01	ERW TUBE DIA.42.4x3.2 1092					150381792001			3.377	
						EN 10296-1:2003			4	

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TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT



355-055

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

DRN	NAME	SIGNATURE	DATE
K.S.PANDIAN			26-12-2017
CHD	S.MUTHU SUBRAMANIAN		26-12-2017
APPD	M.SHANMUGAM		27-12-2017

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

TITLE
**HANDRAIL ASSEMBLY FOR
PLATFORM (6.0M ASSY)**

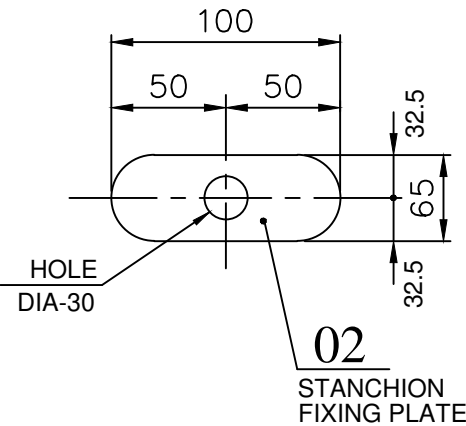
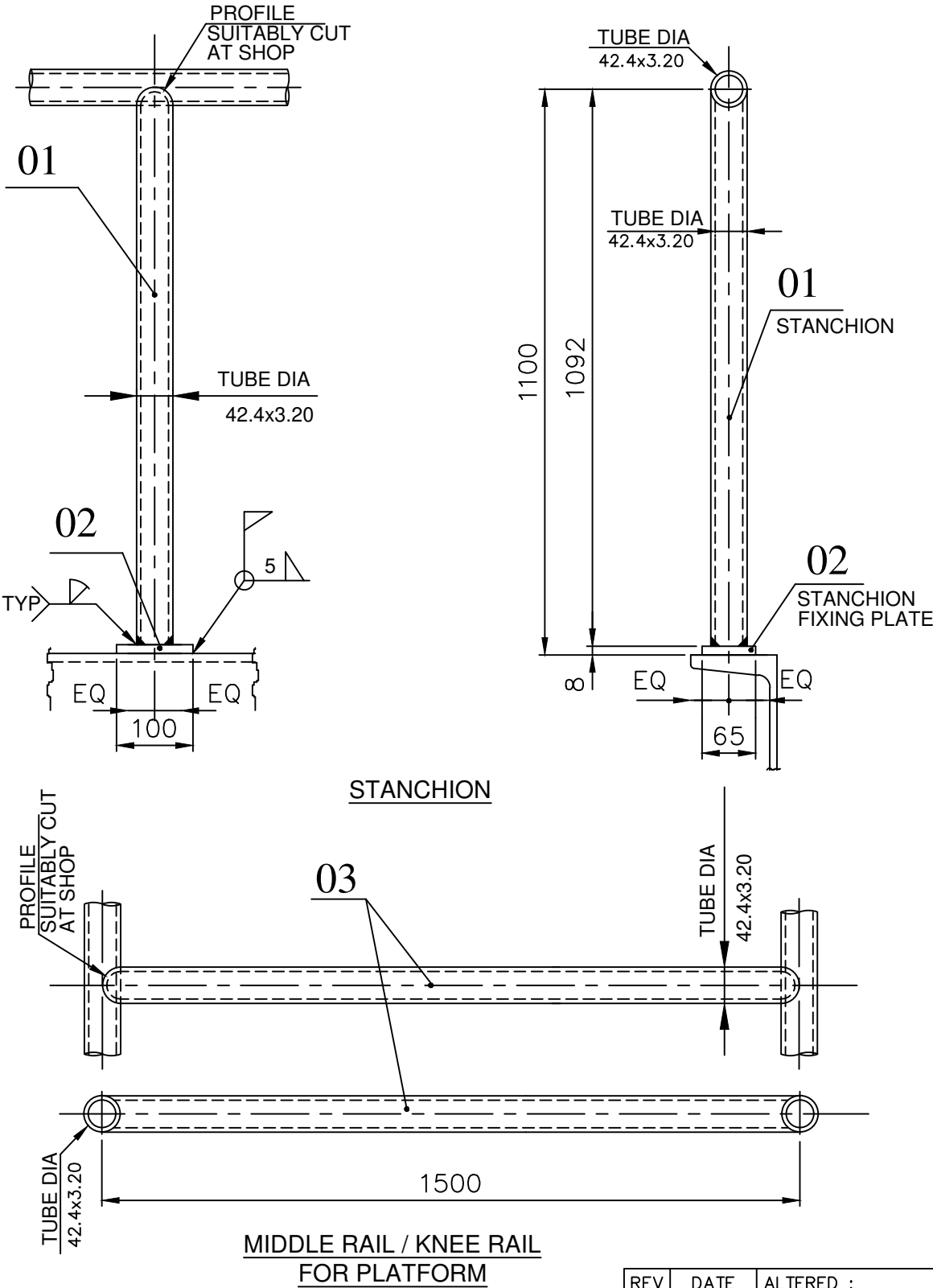
DRAWING NO :
3-35-851-06336

REV

3-35-851-06337

DRAWING NO:

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



- NOTES
1. MANUFACTURING REQUIREMENTS SHALL AS PER APPLICABLE Q.C.P (LATEST REV.)
 2. ALL SHOP BURRS TO BE REMOVED AND SURFACES TO BE CLEANED BEFORE PAINTING OF FINISHED PRODUCTS.
 3. M.S. MATERIALS CONFORMING TO NB32 MEDIUM CLASS EN 10296-1:2003 ARE TO BE USED FOR HAND RAILS AND POSTS.
 4. GALVANISING 610g/SQM.
 5. HANDRAIL DESIGN AS PER BS EN ISO 14122-3:2016.

	03	ERW TUBE DIA.42.4x3.2 1500				150381792001			4.650	
						EN 10296-1:2003			1	
	02	PL ATE - 8 100 X 65				150111770000			0.408	
						ASMESAIS2062E250A			1	
	01	ERW TUBE DIA.42.4x3.2 1092				150381792001			3.377	
						EN 10296-1:2003			1	
VARIANT NUMBER	ITEM NUMBER	DESCRIPTION	STD	DRAWING NUMBER	ITEM NO	MATERIAL CODE	A/C/P	UNIT	UNIT WEIGHT	QTY
					VAR NO	MATERIAL SPECN		DI	QUANTITY	

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TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT																					
 Bharat Heavy Electricals Ltd UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014 <table><tr><td>DRN</td><td>K.S.PANDIAN</td><td>SIGNATURE</td><td>DATE</td></tr><tr><td>CHD</td><td>S.MUTHU SUBRAMANIAN</td><td></td><td>26-12-2017</td></tr><tr><td>APPD</td><td>M.SHANMUGAM</td><td></td><td>27-12-2017</td></tr></table>										DRN	K.S.PANDIAN	SIGNATURE	DATE	CHD	S.MUTHU SUBRAMANIAN		26-12-2017	APPD	M.SHANMUGAM		27-12-2017
DRN	K.S.PANDIAN	SIGNATURE	DATE																		
CHD	S.MUTHU SUBRAMANIAN		26-12-2017																		
APPD	M.SHANMUGAM		27-12-2017																		
DEPT	ST	ALL DIMENSIONS ARE IN MM	PROJECTION	SCALE	WEIGHT (Kg)	REF TO ASSY / OLD DWG															
CODE	122			NTS																	
TITLE						DRAWING NO :		REV													
STANCHION AND KNEE RAIL FOR PLATFORM						3-35-851-06337															

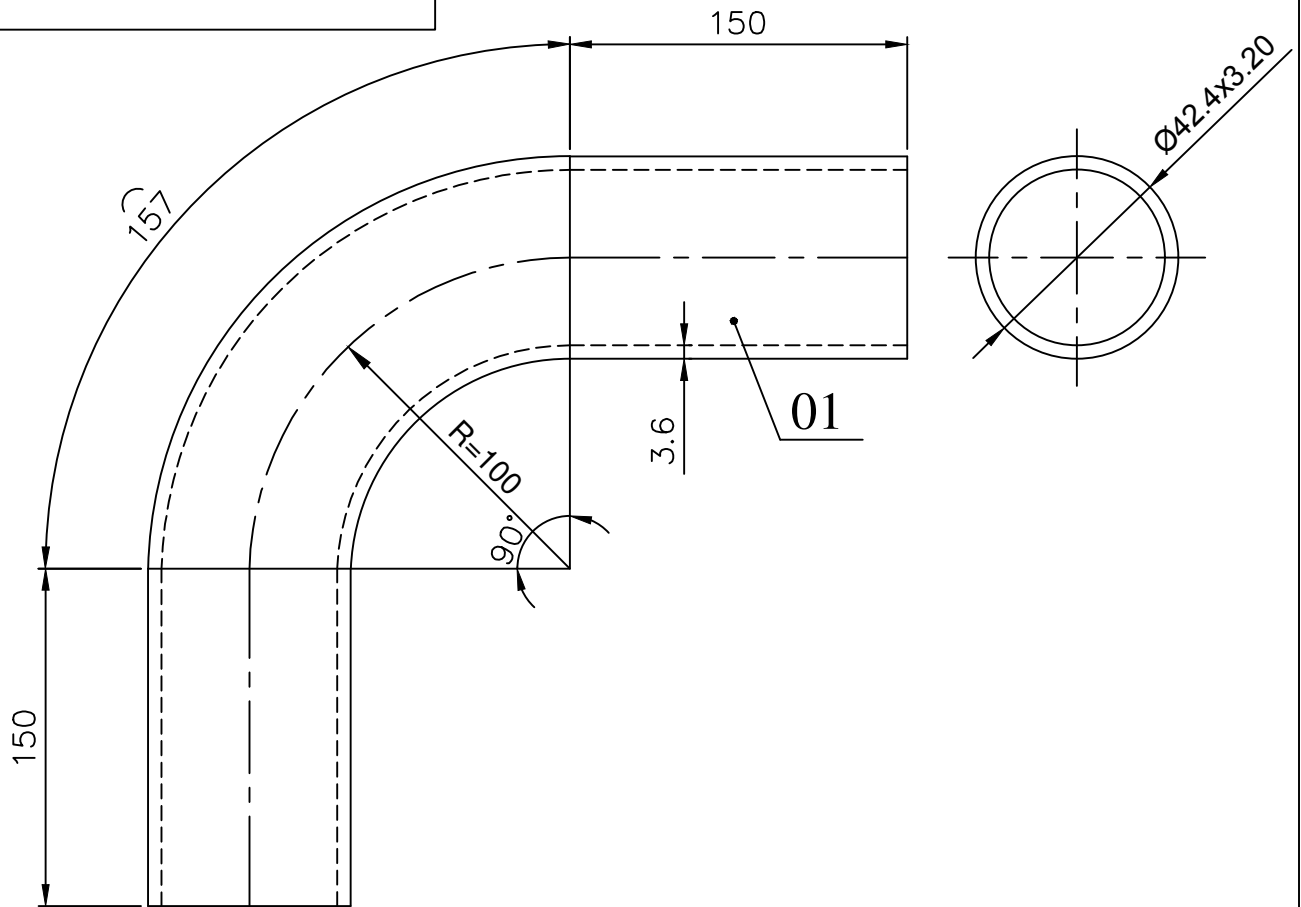
DRAWING NO:

REV 01	DATE	ALTERED :
		CHD & APPD:
ZONE		

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REV	DATE	ALTERED :
01		CHD & APPD :

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



NOTE:

FOR NOTES REFER DRG. No: 3-35-851-06337

01	ERW TUBE DIA.42.4x3.2 457	150381792001 EN 10296-1:2003	1.417 1
VARIANT NUMBER	DESCRIPTION	STD	MATERIAL CODE MATERIAL SPECN
		A/C/P	UNIT
			UNIT WEIGHT QUANTITY



355-056

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

DRN	NAME K.S.PANDIAN	SIGNATURE	DATE 26-12-2017
CHD	S.MUTHU SUBRAMANIAN		26-12-2017
APPD	M.SHANMUGAM		27-12-2017

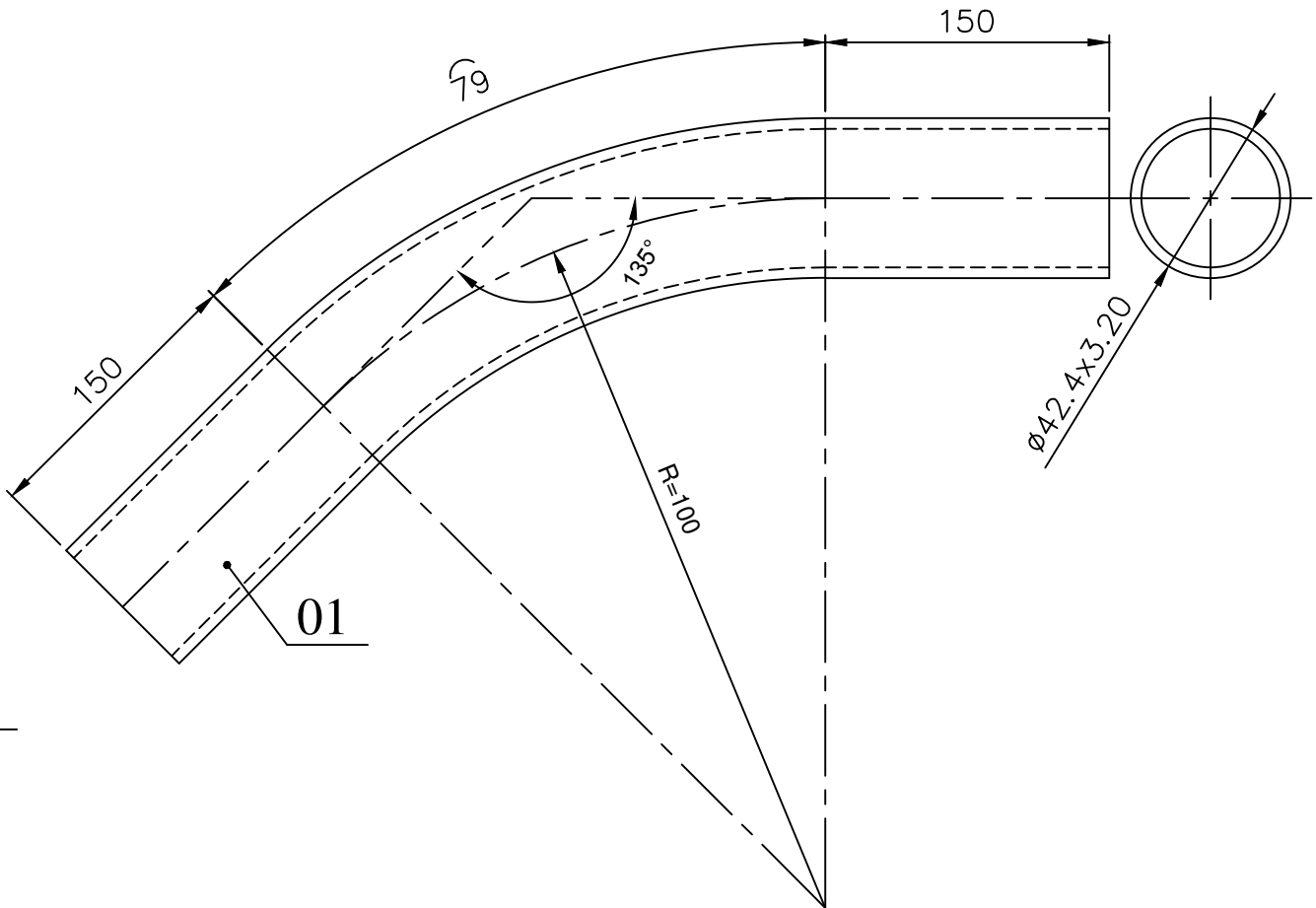
DEPT ST	ALL DIMENSIONS ARE IN MM	PROJECTION 	SCALE N.T.S	WEIGHT (Kg)	REF TO ASSY / OLD DWG
CODE 122					
TITLE 90 DEGREE BEND (DIA 42.4x3.20)				DRAWING NO : 4-35-851-00372	REV

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CAUTION:

REV	DATE	ALTERED :
01		CHD & APPD :

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



NOTE:

FOR NOTES REFER DRG. No: 3-35-851-06337

01	ERW TUBE DIA.42.4x3.2 379		150381792001			1.175
			EN 10296-1:2003			1
VARIANT NUMBER	DESCRIPTION	STD	MATERIAL CODE	A/C/P	UNIT	UNIT WEIGHT
			MATERIAL SPECN			QUANTITY



355-056

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

DRN	NAME K.S.PANDIAN	SIGNATURE	DATE 26-12-2017
CHD	S.MUTHU SUBRAMANIAN		26-12-2017
APPD	M.SHANMUGAM		27-12-2017

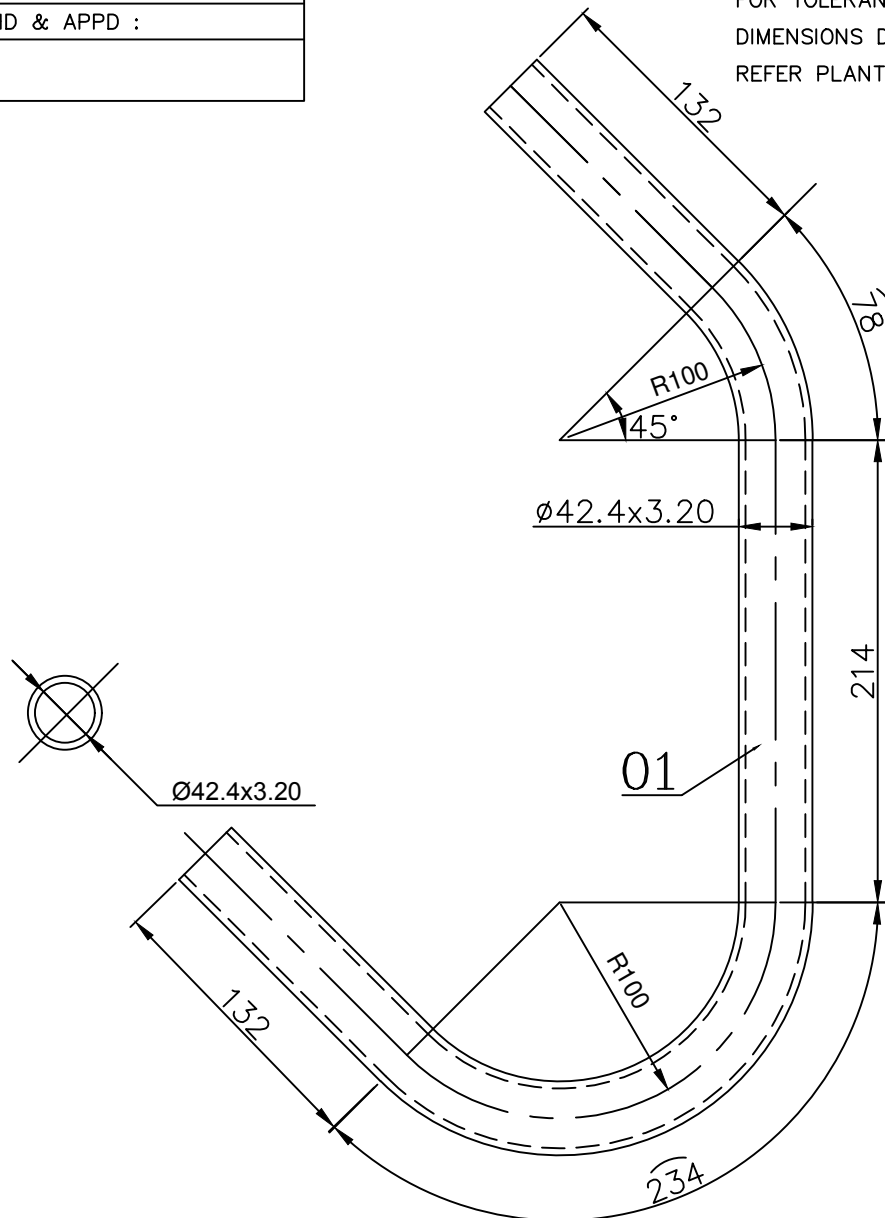
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CODE 122					
TITLE 135 DEGREE BEND FOR FLOORS (DIA 42.4x3.20)					DRAWING NO : 4-35-851-00373
					REV

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CAUTION:

REV	DATE	ALTERED :
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FOR TOLERANCES OF UNTOLERANCED
DIMENSIONS DURING MANUFACTURE
REFER PLANT STD. NO TP 023 0299



NOTE:

FOR NOTES REFER DRG. No: 3-35-851-06337

01	ERW TUBE DIA.42.4x3.2	150381792001		2.449
	790	EN 10296-1:2003		1
VARIANT NUMBER	DESCRIPTION	MATERIAL CODE	A/C/P	UNIT WEIGHT
		MATERIAL SPECN	UNIT	QUANTITY



355-056

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

DRN	NAME	SIGNATURE	DATE
CHD	K.S.PANDIAN		26-12-2017
APPD	S.MUTHU SUBRAMANIAN		26-12-2017
	M.SHANMUGAM		27-12-2017

DEPT	ST	ALL	PROJECTION	SCALE	WEIGHT (Kg)	REF TO ASSY / OLD DWG
CODE	122	DIMENSIONS ARE IN MM		N.T.S	1.912	
TITLE	SPECIAL BEND FOR STAIRS (DIA 42.4x3.20)					DRAWING NO : 4-35-851-00374
						REV