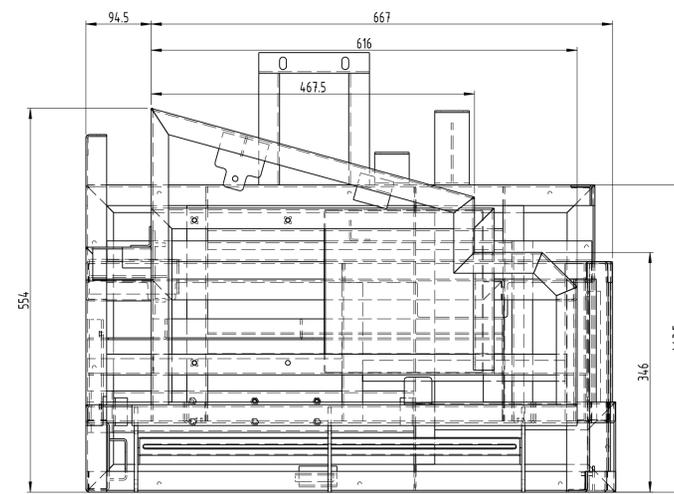
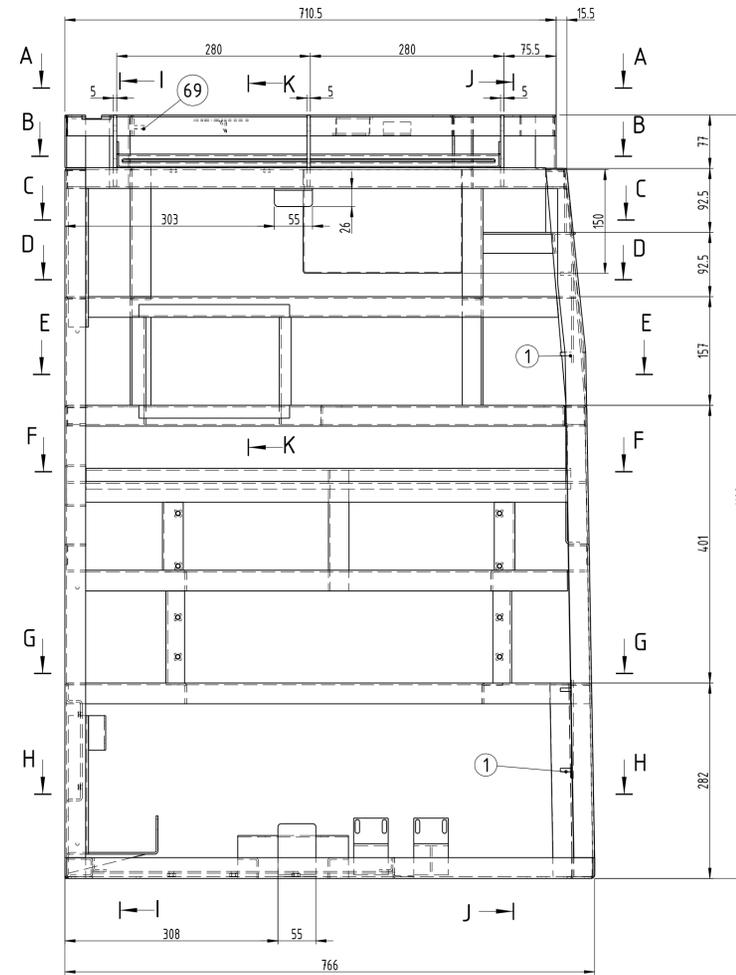
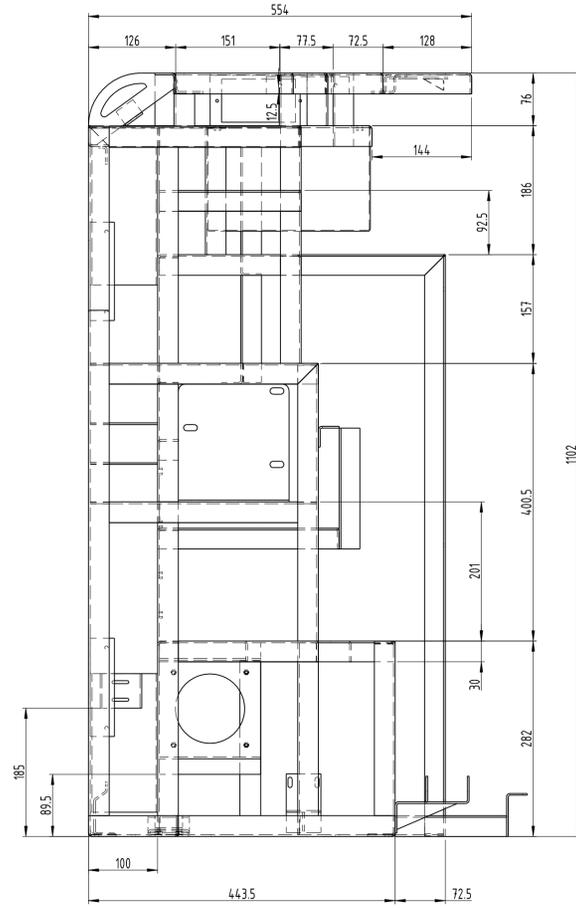


MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
TOLERANCE		±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-3) (MEDIUM)										
QUALITY OF WELD JOINTS REF. RD 230 MEDIUM										
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD. DS. 1012.C										
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										
STATUS:									PROTO/PRODUCTION	



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 11 10 9 8 7 6 5 4 3 2 1 A1

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./IS	Wt. (Kg)
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304-2B FINISH		
			HEAT TREAT			
			SURFACE TREAT			
			TITLE	AUX, DESK FRAME		
			SCALE	1:5	SHEET	1 OF 6
			DRWN	18.07.2019		
			CHKD	18.07.2019		
			APPD	18.07.2019		
			REV D	18.07.2019		
			REV C	18.07.2019		
			REV B	18.07.2019		
			REV A	18.07.2019		
			REV	18.07.2019		
			APPD	18.07.2019		
			DATE	18.07.2019		
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			CHKD	18.07.2019		
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			BY	18.07.2019		
			CHKD	18.07.2019		
			APPD	18.07.2019		
			DATE	18.07.2019		

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	TOLERANCE									
		0 - 6	6 - 30	30 - 120	120 - 315	315 - 1000	1000 - 2000	2000 - 4000	ABOVE 4000	RA	
		±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~	

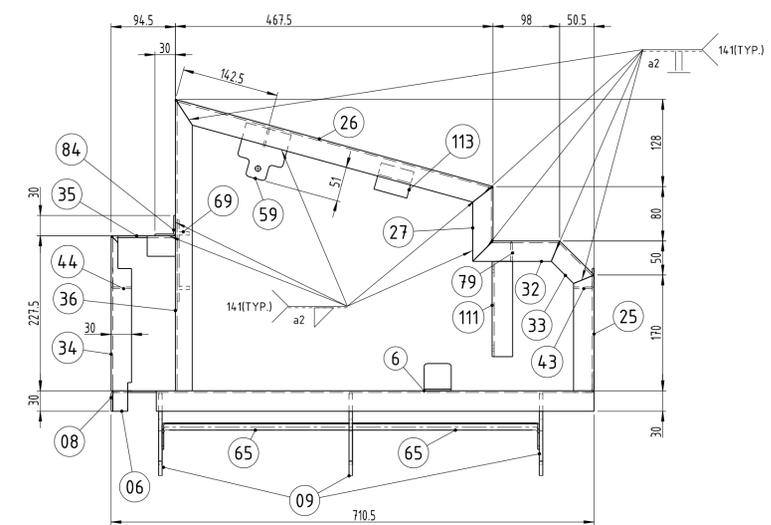
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)

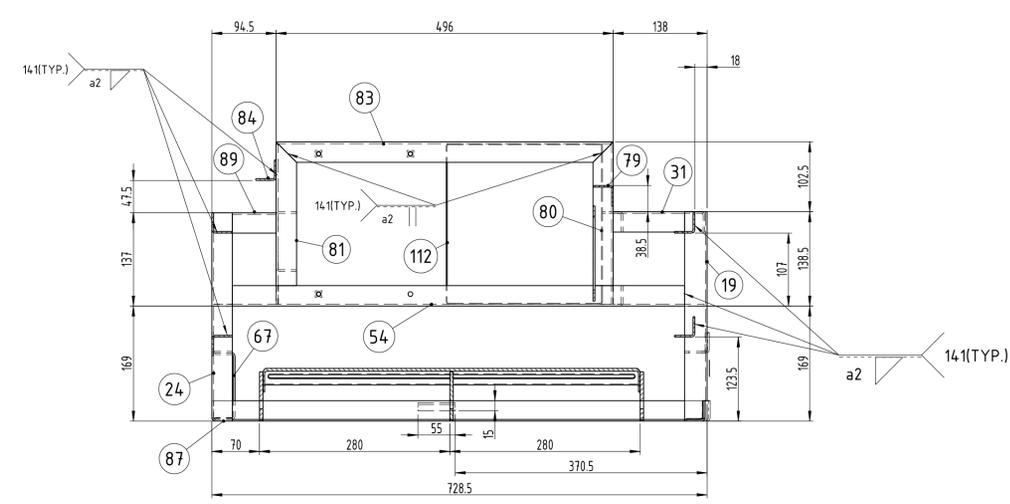
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD. DS. 1012.C

WELDING SHALL BE CARRIED OUT AS PER IS. 9595-96

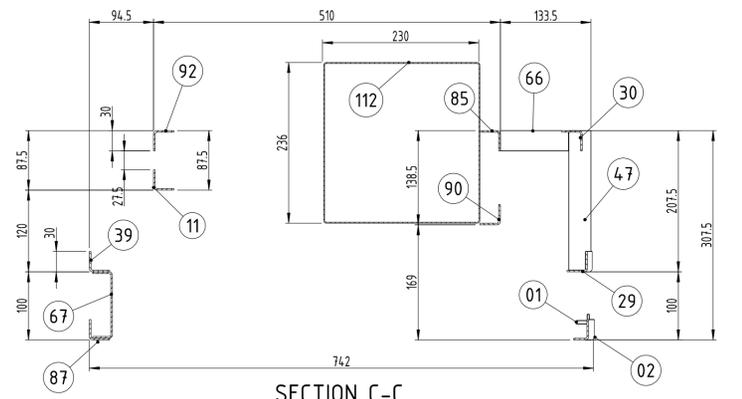
STATUS: **PROTO/PRODUCTION**



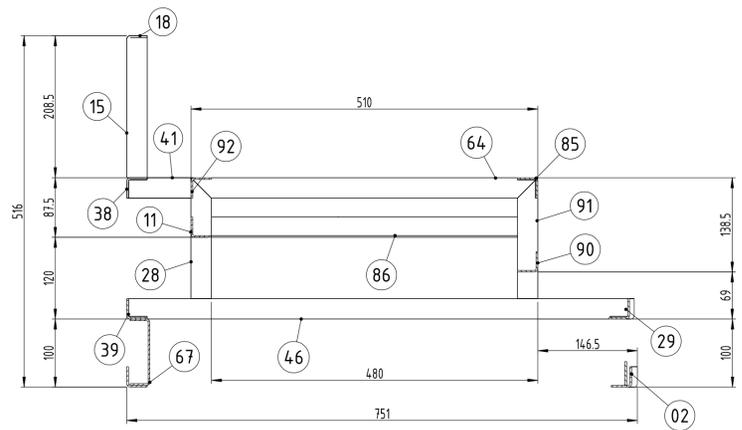
SECTION A-A



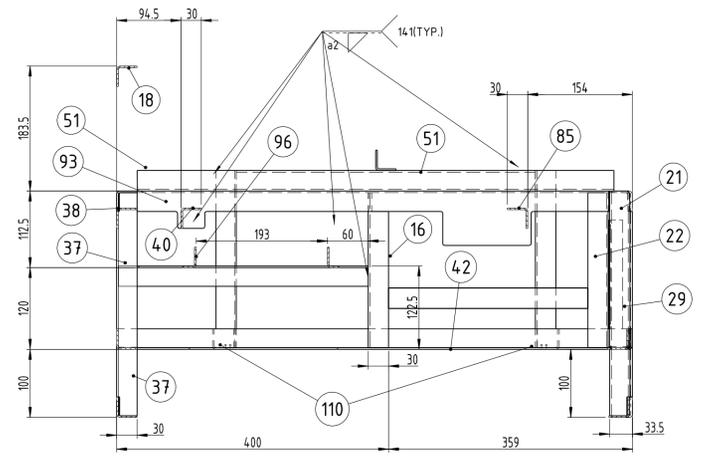
SECTION B-B



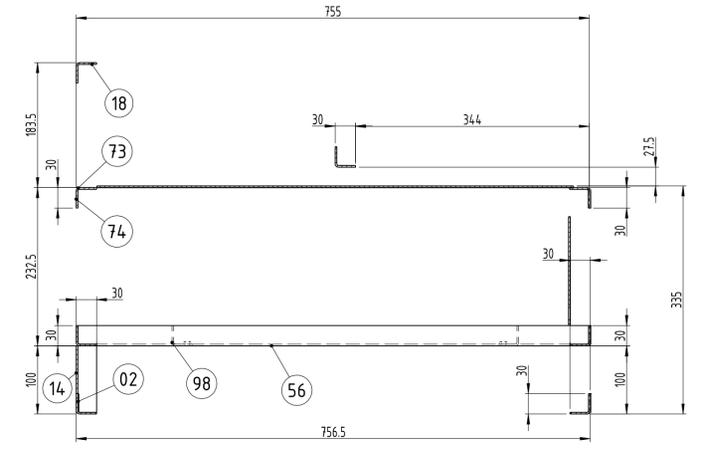
SECTION C-C



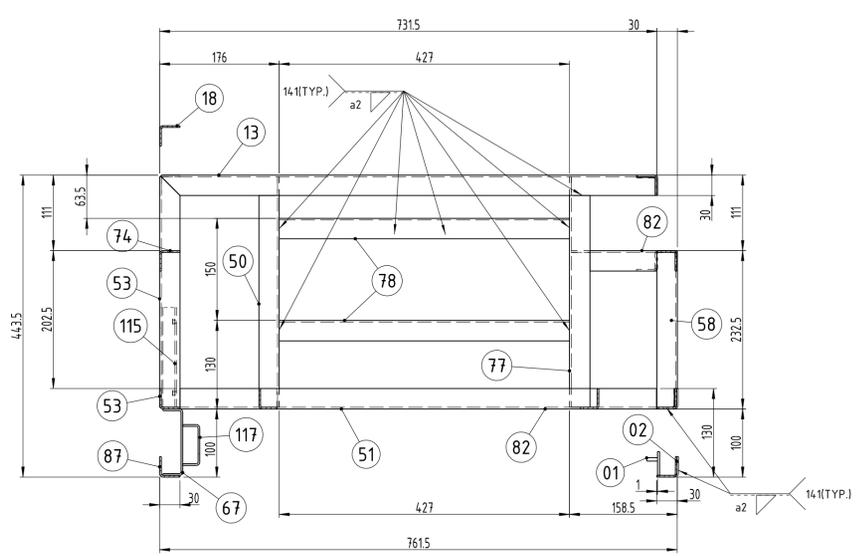
SECTION D-D



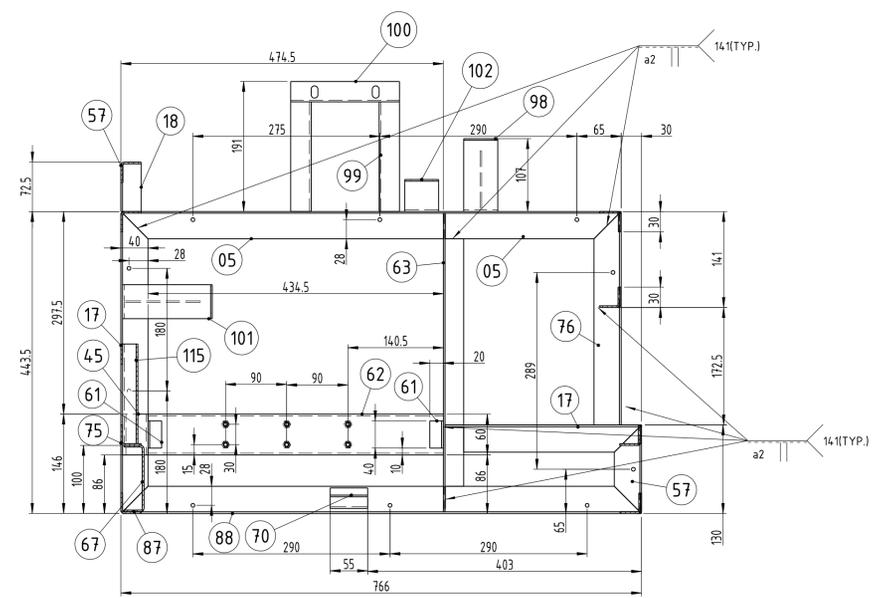
SECTION E-E



SECTION F-F



SECTION G-G



SECTION H-H

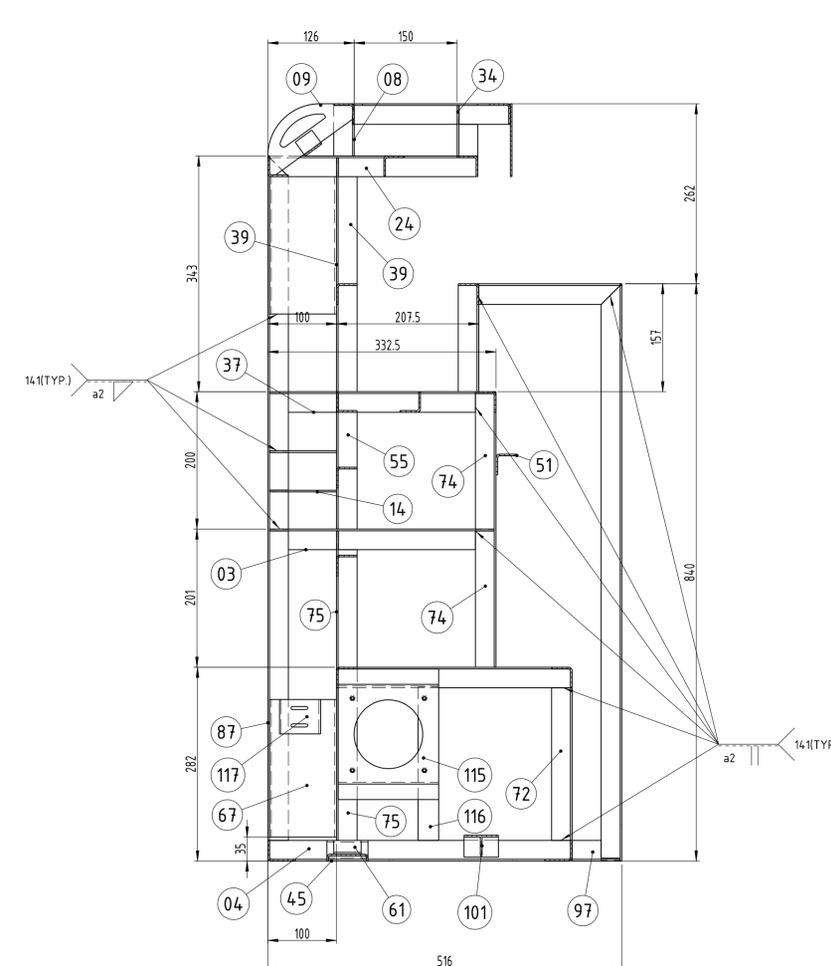
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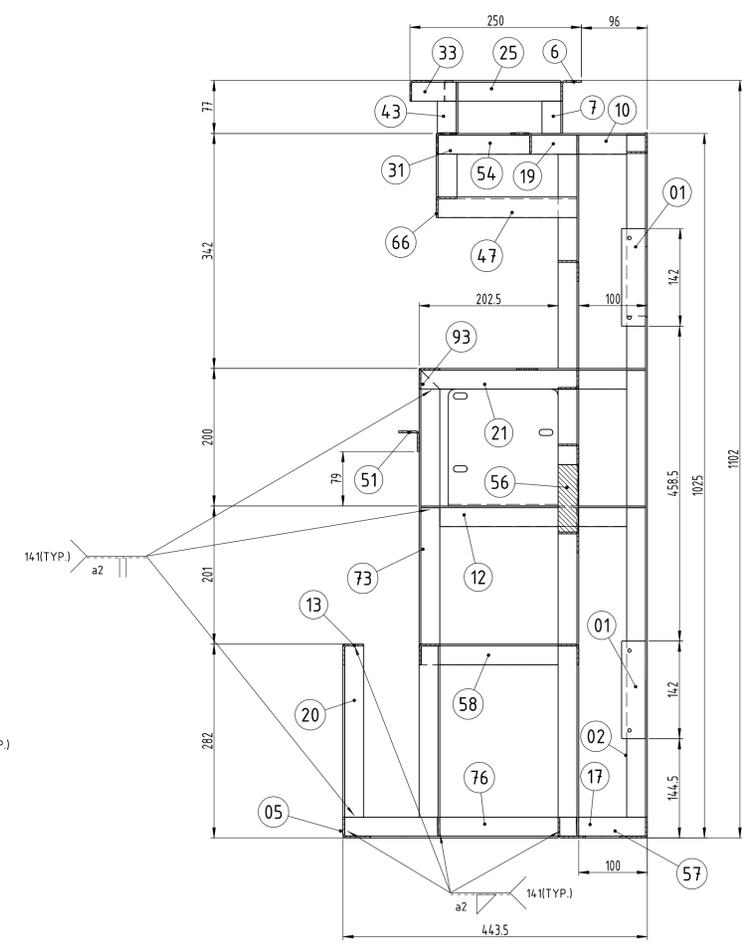
SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./S.	Wt. (kg)
△			PRODUCT	MUMBAI METRO CARS - L2 & L7		
△			REF DRG			
△			MATERIAL	SUS304/AISI304-2B FINISH		
△			HEAT TREAT	APPD		18.07.2019
△			SURFACE TREAT	REVD		18.07.2019
△			TITLE	CHKD		18.07.2019
△				DRWN		18.07.2019
△			SCALE	1:5	SHEET	2 OF 6
△			DRG No.	525-18126		
ALT			BEM BEM L LIMITED			

GRADE No. 102
 VALUE 102
 SYMBOL
 SURFACE ROUGHNESS

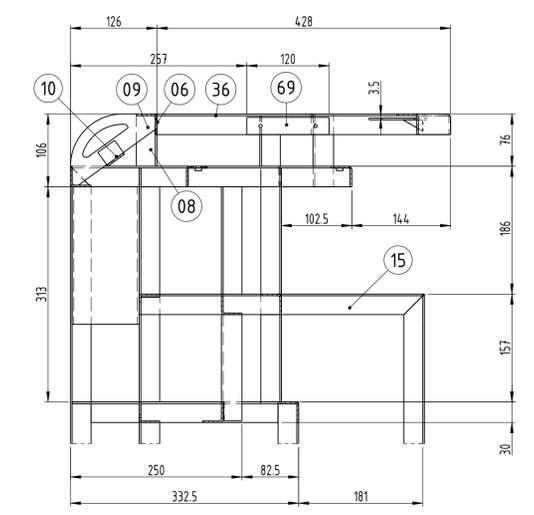
MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	TOLERANCE						STATUS	QUALITY OF WELD JOINTS REF. RD 230 MEDIUM	
		0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000			2000-4000
		±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)										
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C										
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										
								STATUS	PROTO/PRODUCTION	



SECTION I-I



SECTION J-J



SECTION K-K

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SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./IS	WT. (Kgs)
△			PRODUCT	MUMBAI METRO CARS - L2 & L7		
△			REF. DRG			
△			MATERIAL	SUS304/AISI304-2B FINISH		
△			HEAT TREAT.	APPD		18.07.2019
△			SURFACE TREAT.	REVD		18.07.2019
△			TITLE	CHKD		18.07.2019
△			AUX, DESK FRAME	DRWN		18.07.2019
△			SCALE	1:5	SHEET	3 OF 6
△			DRG No.	525-18126		ALT
ALT.No.	ECN NO/CHANGES	DATE	BY	CHKD	APPD	

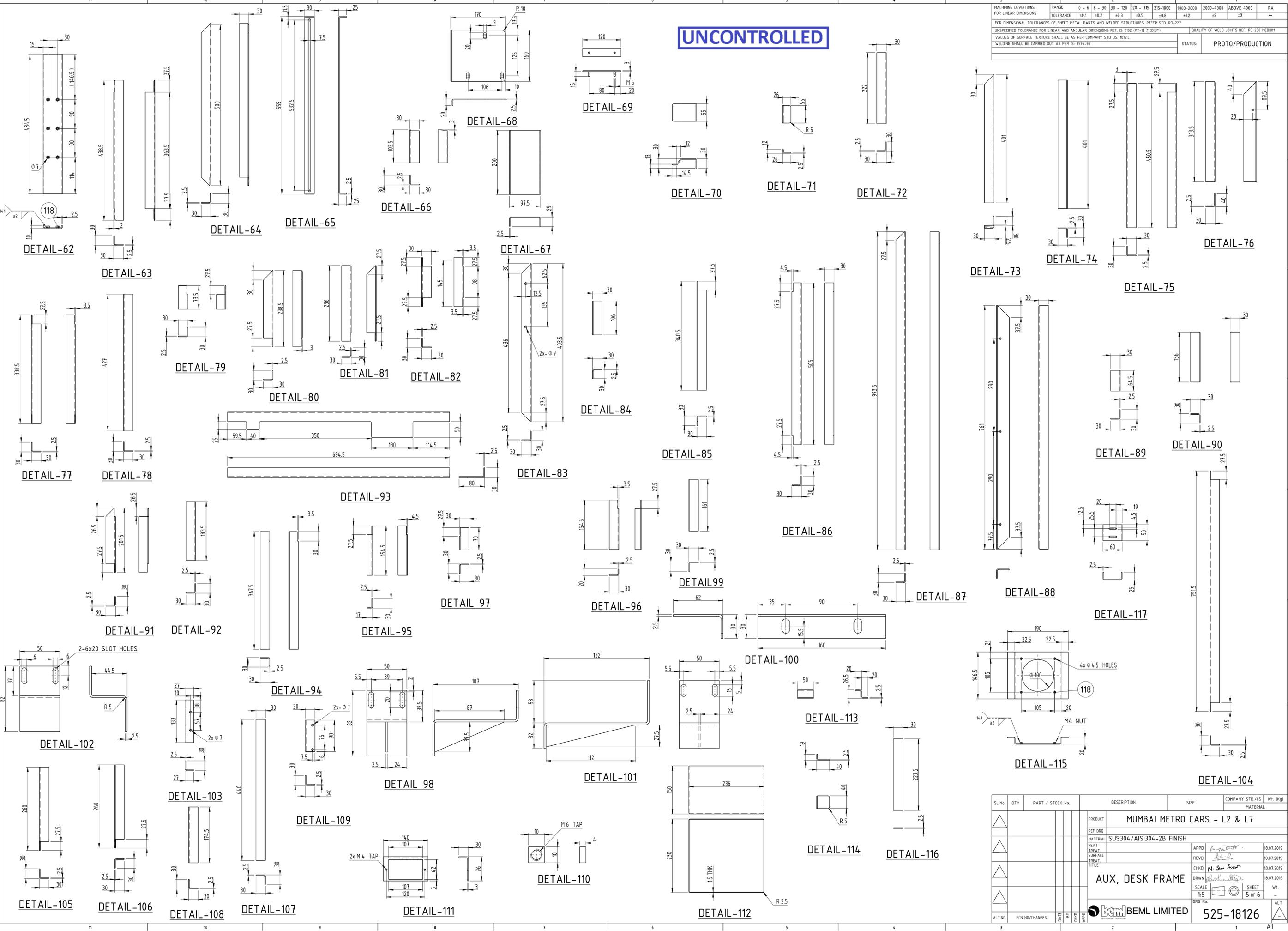


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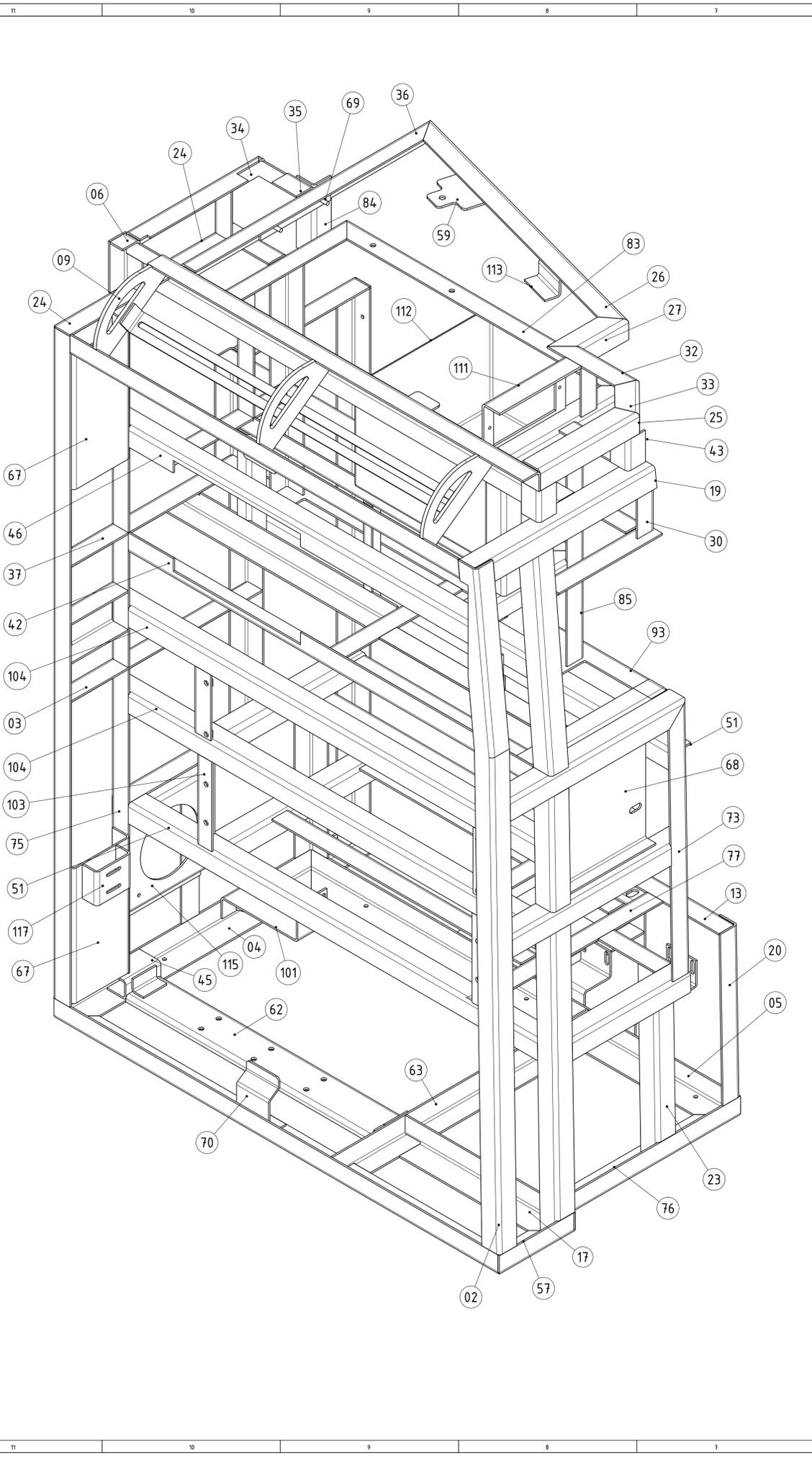
MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE										RA
	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000			
TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3			
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227											
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-II) (MEDIUM)											
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C											
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96											
STATUS										PROTO/PRODUCTION	

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SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./IS	WT. (kg)
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF. DRG			
			MATERIAL	SUS304/AISI304-2B FINISH		
			HEAT TREAT.	APPD: [Signature] 18.07.2019		
			SURFACE TREAT.	REVD: [Signature] 18.07.2019		
			TITLE	CHKD: [Signature] 18.07.2019		
				DRWN: [Signature] 18.07.2019		
				SCALE: 1:5 SHEET: 5 OF 6		
				WT.:		
				ALT:		
ALT. NO.	EEN NO./CHANGES	DATE	BY	CHKD	APPD	

BHEL LIMITED
 525-18126



UNCONTROLLED

SL.No	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./S	WT. (kg)
118	6	-	HEX HEAD FLANGE NUT	M6	ISO:7044-83/MATL: ISO: 3506, Gr. A2-70, SS	
117	1	-	BRACKET	2.5t, 25x25x60 L=50	SUS304 / AISI304	
116	1	-	BRACKET	2.5t, 223.5X30	SUS304 / AISI304	
115	1	-	BRACKET	2.5t	SUS304 / AISI304	
114	1	-	BRACKET	2.5t, 19x40 L=40	SUS304 / AISI304	
113	1	-	BRACKET	2.5t, 20x20 L=50	SUS304 / AISI304	
112	1	-	TRAY	1.5t, 150x230x230	SUS304 / AISI304	
111	1	-	BRACKET	3t	SUS304 / AISI304	
110	12	-	NUT PAD	5t	SUS304 / AISI304	
109	2	-	FRAME	2.5t 30x30 L=98	SUS304 / AISI304	
108	1	-	FRAME	2.5t 30x30 L=174.5	SUS304 / AISI304	
107	1	-	FRAME	2.5t 30x30 L=440	SUS304 / AISI304	
106	1	-	FRAME	2.5t 30x30 L=260	SUS304 / AISI304	
105	1	-	FRAME	2.5t 30x30 L=260	SUS304 / AISI304	
104	1	-	FRAME	2.5t 30x30 L=751.5	SUS304 / AISI304	
103	2	-	FRAME	2.5t 30x30 L=133	SUS304 / AISI304	
102	1	-	FRAME	2.5t	SUS304 / AISI304	
101	1	-	FRAME	2.5t	SUS304 / AISI304	
100	1	-	FRAME	2.5t 62x30 L=160	SUS304 / AISI304	
99	2	-	FRAME	2.5t 30x30 L=161	SUS304 / AISI304	
98	1	-	FRAME	2.5t	SUS304 / AISI304	
97	1	-	FRAME	2.5t 30x30 L=70	SUS304 / AISI304	
96	1	-	FRAME	2.5t, 30x30 L=154.5	SUS304 / AISI304	
95	1	-	FRAME	2.5t, 30x30 L=154.5	SUS304 / AISI304	
94	1	-	FRAME	2.5t, 30x30 L=367.5	SUS304 / AISI304	
93	1	-	FRAME	2.5t, 80x30 L=694.5	SUS304 / AISI304	
92	1	-	FRAME	2.5t, 30x30 L=183	SUS304 / AISI304	
91	1	-	FRAME	2.5t, 30x30 L=201.5	SUS304 / AISI304	
90	1	-	FRAME	2.5t, 30x30 L=156	SUS304 / AISI304	
89	1	-	FRAME	2.5t, 30x30 L=64.5	SUS304 / AISI304	
88	1	-	FRAME	2.5t, 30x30 L=761	SUS304 / AISI304	
87	1	-	FRAME	2.5t, 30x30 L=993.5	SUS304 / AISI304	
86	1	-	FRAME	2.5t, 30x30 L=505	SUS304 / AISI304	
85	1	-	FRAME	2.5t, 30x30 L=340.5	SUS304 / AISI304	
84	1	-	FRAME	2.5t, 30x30 L=106	SUS304 / AISI304	
83	1	-	FRAME	2.5t, 30x30 L=493.5	SUS304 / AISI304	
82	1	-	FRAME	2.5t, 30x30 L=145	SUS304 / AISI304	
81	1	-	FRAME	2.5t, 30x30 L=236	SUS304 / AISI304	
80	1	-	FRAME	2.5t, 30x30 L=238.5	SUS304 / AISI304	
79	1	-	FRAME	2.5t, 30x30 L=73.5	SUS304 / AISI304	
78	2	-	FRAME	2.5t, 30x30 L=427	SUS304 / AISI304	
77	1	-	FRAME	2.5t, 30x30 L=338.5	SUS304 / AISI304	
76	1	-	FRAME	2.5t, 30x30 L=313.5	SUS304 / AISI304	
75	1	-	FRAME	2.5t, 30x30 L=450.5	SUS304 / AISI304	
74	1	-	FRAME	2.5t, 30x30 L=401	SUS304 / AISI304	
73	1	-	FRAME	2.5t, 30x30 L=401	SUS304 / AISI304	
72	1	-	FRAME	2.5t, 30x30 L=222	SUS304 / AISI304	
71	1	-	BRACKET	2.5t, 26x12 L=55	SUS304 / AISI304	
70	1	-	BRACKET	2.5t	SUS304 / AISI304	
69	1	-	BRACKET WITH STUDS	3t, M5x15	SUS304 / AISI304 FOR STUDS -SS, Gr. A2-70	

- NOTE:**
1. ALL DIMENSIONS ARE IN mm.
 2. THE ASSY SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. WELDING SYMBOLS ACCORDING TO ISO:2553.
 4. WELD AREAS SHALL BE PICKLED AND PASSIVATED.
 5. REMOVE SHARP EDGES AND BURRS.
 6. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS		RANGE										RA						
TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	±5	±10	±20	±30	±50	±100	±200	±500	±1000	
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227																		
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 1102 (PT-0) (MEDIUM)																		
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD. Q5. 1012.C.																		
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96																		
STATUS															PROTO/PRODUCTION			

SL.No	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./S	WT. (kg)
68	1	-	BRACKET	2.5t	SUS304 / AISI304	
67	2	-	BRACKET	20x20x97.5 L=200	SUS304 / AISI304	
66	1	-	FRAME	2.5t, 30x30 L=104	SUS304 / AISI304	
65	1	-	FRAME	2.5t, 30x30 L=555	SUS304 / AISI304	
64	1	-	FRAME	2.5t, 30x30 L=500	SUS304 / AISI304	
63	1	-	FRAME	2.5t, 30x30 L=438.5	SUS304 / AISI304	
62	1	-	FRAME	2.5t, 10x10 L=434.5	SUS304 / AISI304	
61	1	-	FRAME	2.5t, 20x20 L=40	SUS304 / AISI304	
60	1	-	FRAME	2.5t 290x30	SUS304 / AISI304	
59	1	-	FRAME	2.5t, 68x75.5	SUS304 / AISI304	
58	1	-	FRAME	2.5t, 30x30 L=230	SUS304 / AISI304	
57	1	-	FRAME	2.5t, 30x30 L=130	SUS304 / AISI304	
56	1	-	FRAME	2.5t, 30x30 L=197.5	SUS304 / AISI304	
55	1	-	FRAME	2.5t, 30x30 L=197	SUS304 / AISI304	
54	1	-	FRAME	2.5t, 30x30 L=723.5	SUS304 / AISI304	
53	1	-	FRAME	2.5t, 30x30 L=338.5	SUS304 / AISI304	
52	1	-	FRAME	2.5t, 30x30 L=478.5	SUS304 / AISI304	
51	2	-	FRAME	2.5t, 30x30 L=701.5	SUS304 / AISI304	
50	1	-	FRAME	2.5t, 30x30 L=338.5	SUS304 / AISI304	
49	1	-	FRAME	2.5t	SUS304 / AISI304	
48	1	-	HEX NUT	M6	SUS304 / AISI304	
47	1	-	FRAME	2.5t, 30x30 L=205	SUS304 / AISI304	
46	1	-	FRAME	2.5t, 30x30 L=736.3	SUS304 / AISI304	
45	1	-	FRAME	2.5t, 30x30x37.5 L=60	SUS304 / AISI304	
44	1	-	FRAME	2.5t, 30x30 L=73.5	SUS304 / AISI304	
43	1	-	FRAME	2.5t, 30x30 L=73	SUS304 / AISI304	
42	1	-	FRAME	2.5t, 30x30x30 L=750	SUS304 / AISI304	
41	1	-	FRAME	2.5t, 30x30 L=92	SUS304 / AISI304	
40	1	-	FRAME	2.5t, 30x30 L=127	SUS304 / AISI304	
39	1	-	FRAME	2.5t, 30x30 L=340.5	SUS304 / AISI304	
38	1	-	FRAME	2.5t, 30x30 L=157	SUS304 / AISI304	
37	1	-	FRAME	2.5t, 30x30 L=327.5	SUS304 / AISI304	
36	1	-	FRAME	2.5t, 30x30 L=428	SUS304 / AISI304	
35	1	-	FRAME	2.5t, 30x30 L=94.5	SUS304 / AISI304	
34	1	-	FRAME	2.5t, 30x30 L=227.5	SUS304 / AISI304	
33	1	-	FRAME	2.5t, 30x30 L=71	SUS304 / AISI304	
32	1	-	FRAME	2.5t, 30x30 L=128	SUS304 / AISI304	
31	1	-	FRAME	2.5t, 30x30 L=104.5	SUS304 / AISI304	
30	1	-	FRAME	2.5t, 30x30 L=90	SUS304 / AISI304	
29	1	-	FRAME	2.5t, 30x30 L=343.5	SUS304 / AISI304	
28	1	-	FRAME	2.5t, 30x30 L=205	SUS304 / AISI304	
27	1	-	FRAME	2.5t, 30x30 L=80	SUS304 / AISI304	
26	1	-	FRAME	2.5t, 30x30 L=484.5	SUS304 / AISI304	
25	1	-	FRAME	2.5t, 30x30 L=170	SUS304 / AISI304	
24	1	-	FRAME	2.5t, 30x30 L=306	SUS304 / AISI304	
23	1	-	FRAME	2.5t, 30x30 L=277	SUS304 / AISI304	
22	1	-	FRAME	2.5t, 30x30 L=227.5	SUS304 / AISI304	
21	1	-	FRAME	2.5t, 30x30 L=330	SUS304 / AISI304	
20	1	-	FRAME	2.5t, 30x30 L=252	SUS304 / AISI304	
19	1	-	FRAME	2.5t, 30x30 L=305	SUS304 / AISI304	
18	1	-	FRAME	2.5t, 30x30 L=840	SUS304 / AISI304	
17	1	-	FRAME	2.5t, 30x30 L=289	SUS304 / AISI304	
16	1	-	FRAME	2.5t, 30x30 L=227.5	SUS304 / AISI304	
15	1	-	FRAME	2.5t, 30x30 L=200	SUS304 / AISI304	
14	1	-	FRAME	2.5t, 30x30 L=97.5	SUS304 / AISI304	
13	1	-	FRAME	2.5t, 30x30 L=726.5	SUS304 / AISI304	
12	1	-	FRAME	2.5t, 30x30 L=327.5	SUS304 / AISI304	
11	1	-	FRAME	2.5t, 30x30 L=156	SUS304 / AISI304	
10	1	-	FRAME	2.5t, 30x30 L=723.5	SUS304 / AISI304	
9	3	-	BRACKET	3t	SUS304 / AISI304	
8	1	-	FRAME	2.5t, 30x30 L=76	SUS304 / AISI304	
7	1	-	FRAME	2.5t, 30x30 L=47	SUS304 / AISI304	
6	1	-	FRAME	2.5t, 30x30 L=708	SUS304 / AISI304	
5	1	-	FRAME	2.5t, 30x30 L=731	SUS304 / AISI304	
4	1	-	FRAME	2.5t, 30x30 L=438.5	SUS304 / AISI304	
3	1	-	FRAME	2.5t, 30x30 L=327.5	SUS304 / AISI304	
2	1	-	FRAME	2.5t, 30x30 L=995	SUS304 / AISI304	
1	2	-	BRACKET WITH STUDS	3t, M5x15	SUS304 / AISI304 FOR STUDS -SS, Gr. A2-70	

PRODUCT MUMBAI METRO CARS - L2 & L7

REF. ORG. SUS304/AISI304-2B FINISH

MATERIAL SUS304/AISI304-2B FINISH

TREAT. APPD

SURFACE REV D

TREAT. CHKD

TITLE DRWN

AUX, DESK FRAME

SCALE 1:5 SHEET 6 OF 6

DATE 18.07.2019

BY

CHKD

DRWN

APPD

SCALE

SHEET

WT.

ALT

BEM BEM LIMITED

525-18126

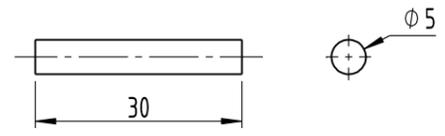
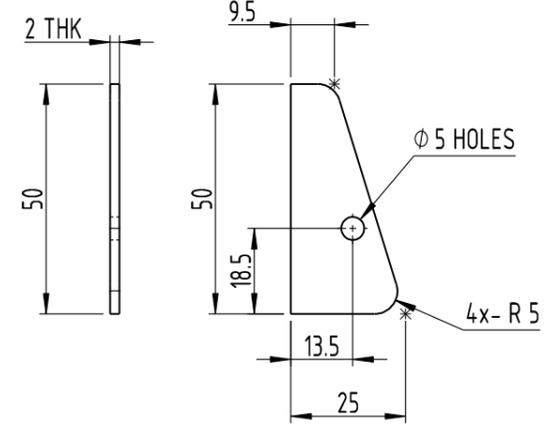
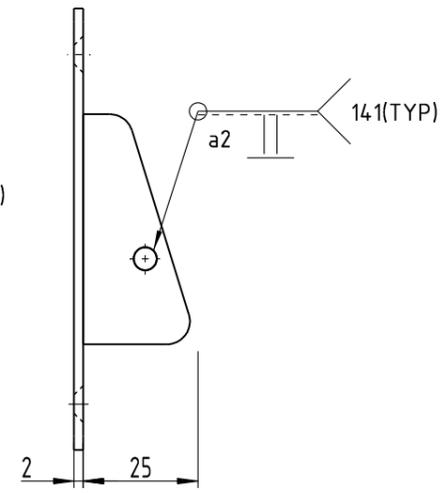
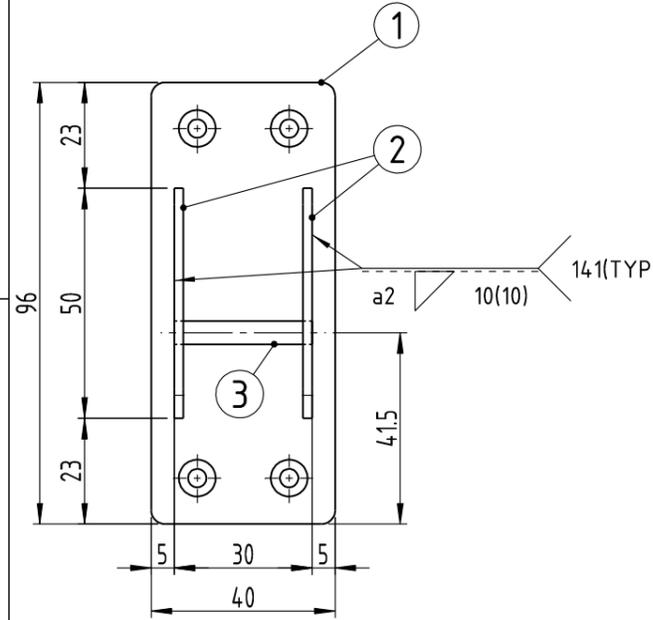
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GRADE No.	VALUE	SYMBOL
IR1	12.5	▽
IR2	10	▽
IR3	7.5	▽
IR4	5	▽
IR5	3.2	▽
IR6	2.5	▽
IR7	1.6	▽
IR8	1.25	▽
IR9	0.8	▽
IR10	0.63	▽
IR11	0.5	▽
IR12	0.4	▽
IR13	0.315	▽
IR14	0.25	▽
IR15	0.2	▽
IR16	0.15	▽
IR17	0.125	▽
IR18	0.1	▽
IR19	0.075	▽
IR20	0.063	▽
IR21	0.05	▽
IR22	0.04	▽
IR23	0.0315	▽
IR24	0.025	▽
IR25	0.02	▽
IR26	0.015	▽
IR27	0.0125	▽
IR28	0.01	▽
IR29	0.0075	▽
IR30	0.0063	▽
IR31	0.005	▽
IR32	0.004	▽
IR33	0.00315	▽
IR34	0.0025	▽
IR35	0.002	▽
IR36	0.0015	▽
IR37	0.00125	▽
IR38	0.001	▽

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GRADE No.	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12
VALUE	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
SYMBOL												
SURFACE ROUGHNESS												

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)								QUALITY OF WELD JOINTS REF, RD 230 MEDIUM		
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.								STATUS: PROTO/PRODUCTION		
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										



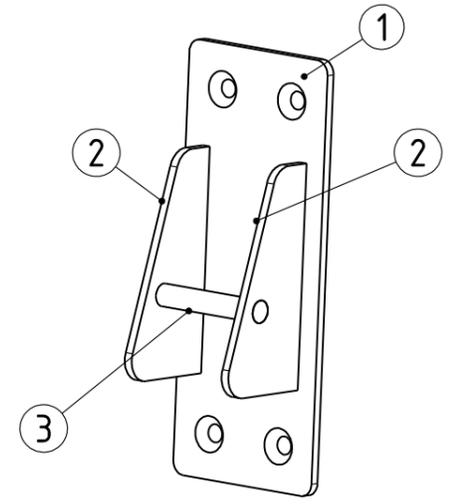
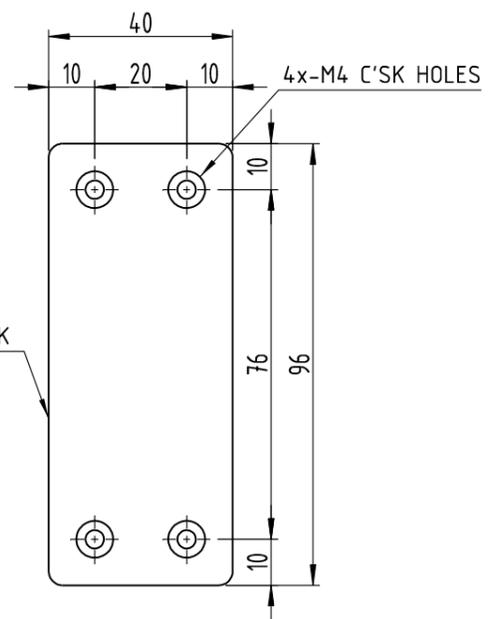
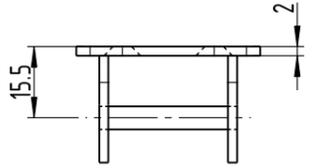
DETAIL 3

DETAIL 2

UNCONTROLLED

NOTE:

1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. WELDING SYMBOLS ACCORDING TO ISO:2553.
4. WELD AREAS SHALL BE PICKLED AND PASSIVATED.
5. REMOVE SHARP EDGES AND BURRS.
6. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.



ISOMETRIC VIEW

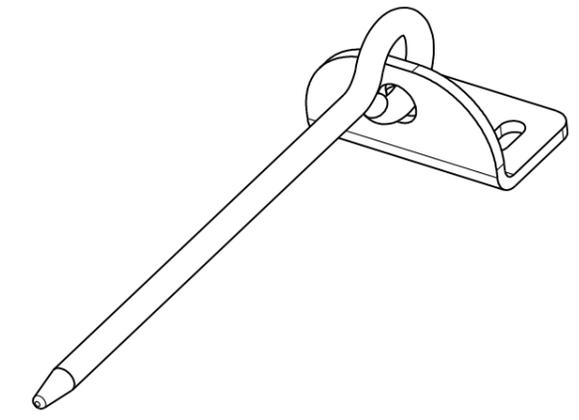
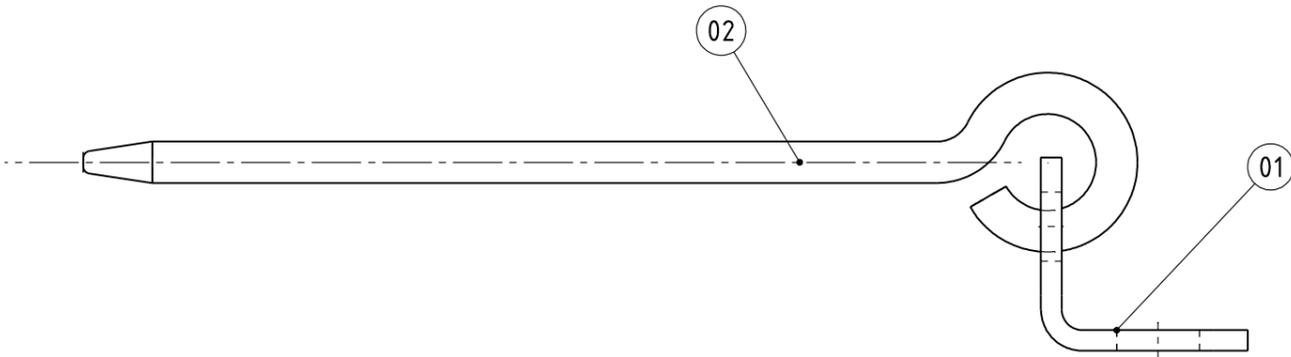
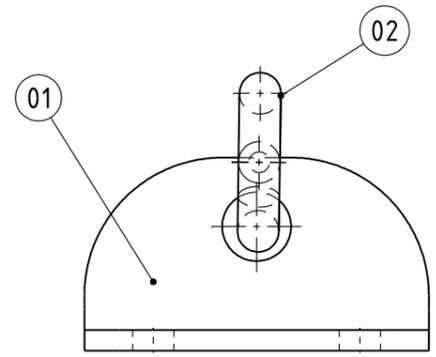
DETAIL-1

3	1	-	PIN	DIA. 5x30	SUS304/AISI304-2B FINISH	
2	2	-	BRACKET	2THK	SUS304/AISI304-2B FINISH	
1	1	-	PLATE	96x40x2THK	SUS304/AISI304-2B FINISH	
SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304-2B FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	10.06.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	10.06.2020
			TITLE	CHKD	<i>[Signature]</i>	10.06.2020
			BRACKET ASSY	DRWN	<i>[Signature]</i>	10.06.2020
				SCALE		SHEET
				1:1.5	1 OF 1	-
			DRG No.	525-18134		
			beml BEML LIMITED			ALT

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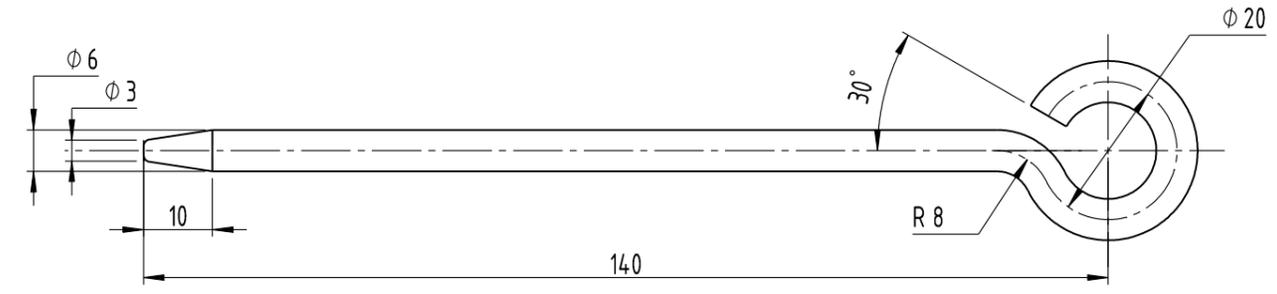
GRADE No.	N1	0.025
VALUE	N2	0.05
SYMBOL	N3	0.1
	N4	0.2
	N5	0.4
	N6	0.8
	N7	1.6
	N8	3.2
	N9	6.3
	N10	12.5
	N11	25
	N12	50
SURFACE ROUGHNESS		

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)								QUALITY OF WELD JOINTS REF. RD 230 MEDIUM		
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.										STATUS: PROTO/PRODUCTION
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										



ISOMETRIC VIEW

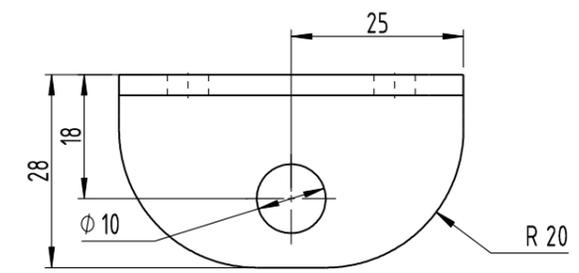
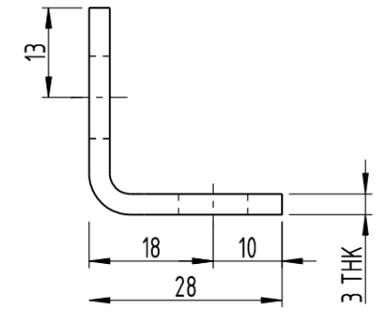
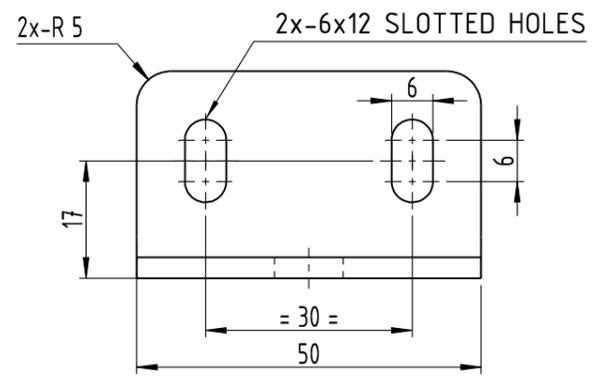
UNCONTROLLED



DETAIL '2'

NOTE:

1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. REMOVE SHARP EDGES AND BURRS.
4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.



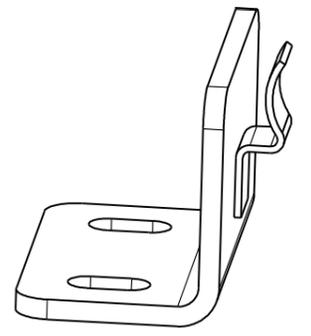
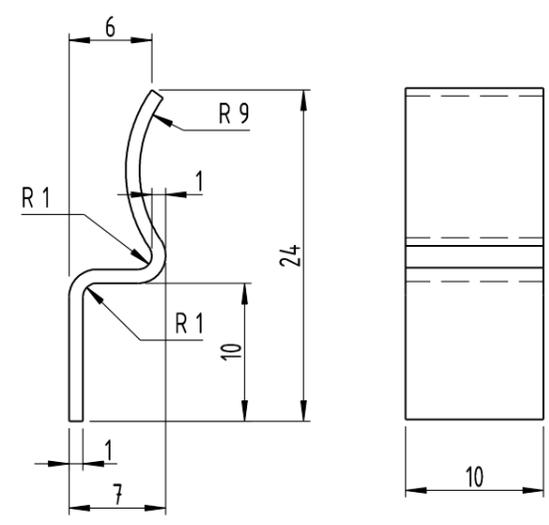
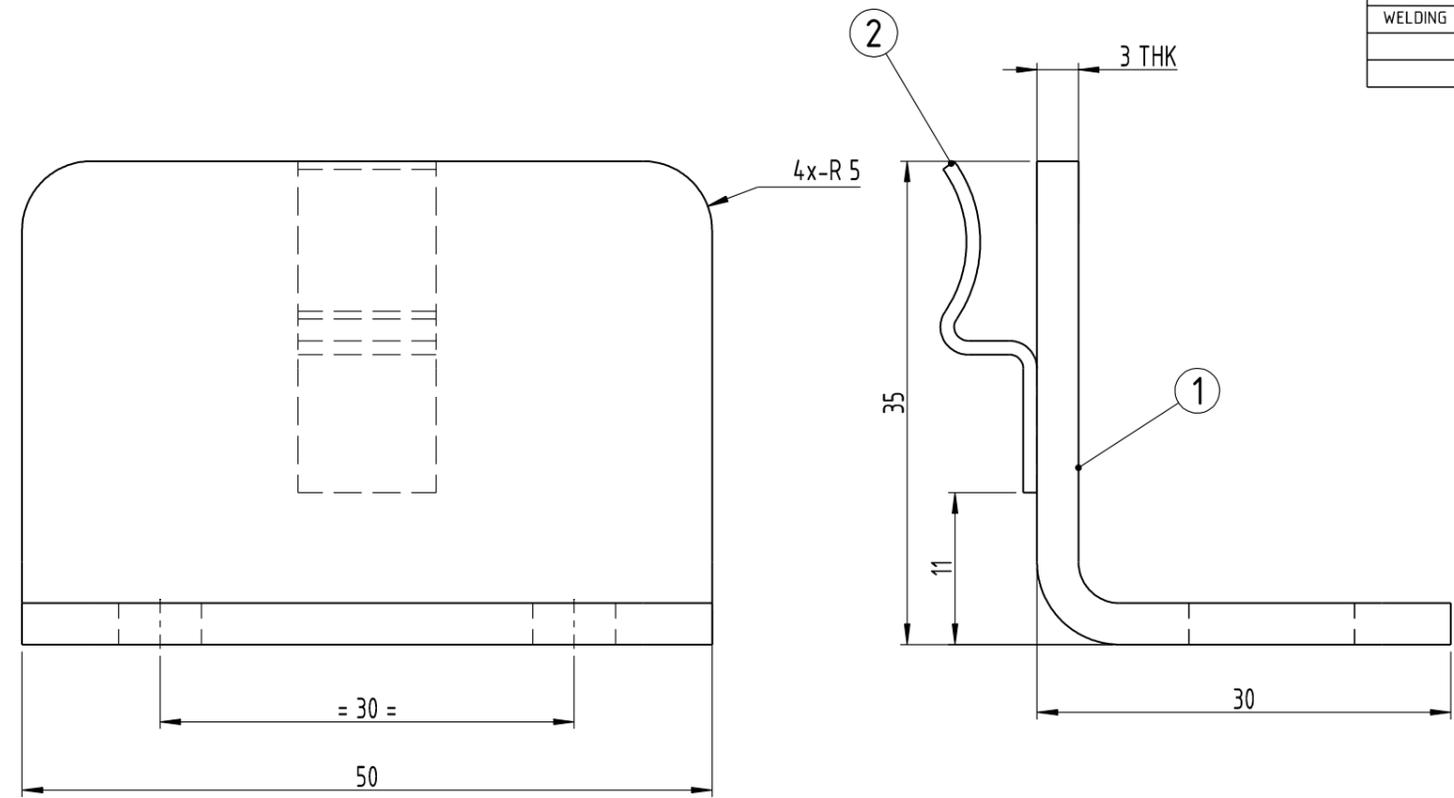
DETAIL '1'

2	1	-	SUPPORT	Ø6	SUS304/AISI304-2B FINISH	
1	1	-	BRACKET	PL 30x28x3t,L=50	SUS304/AISI304-2B FINISH	
SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
					MATERIAL	
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304-2B FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	11.06.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	11.06.2020
			TITLE	CHKD	<i>[Signature]</i>	11.06.2020
			BRACKET ASSY	DRWN	<i>[Signature]</i>	11.06.2020
				SCALE	1:1	SHEET 1 OF 1
			DRG No.	525-18135		
ALT.No.	ECN NO/CHANGES	DATE	BY	CHKD	APPD	ALT
			BEML LIMITED <small>NEW FRONTIERS. NEW DREAMS</small>			

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GRADE No.	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12
VALUE	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
SYMBOL												
SURFACE ROUGHNESS												

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)								QUALITY OF WELD JOINTS REF, RD 230 MEDIUM		
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.								WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96		
								STATUS:		PROTO/PRODUCTION

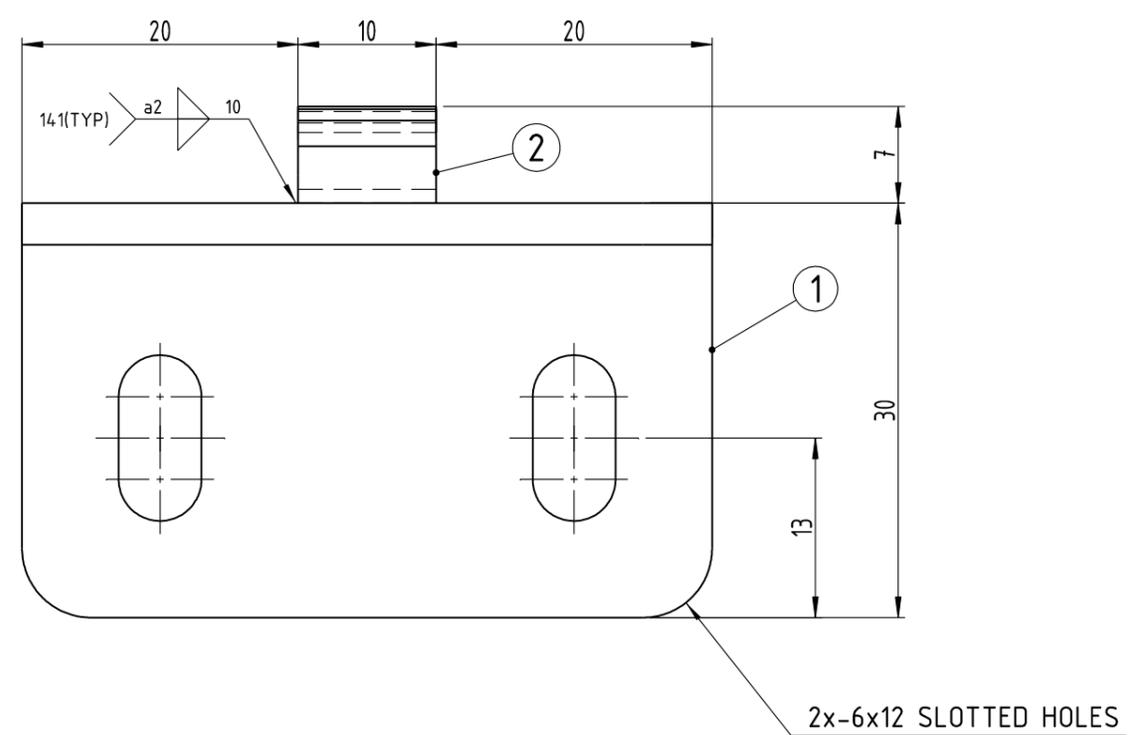


ISOMETRIC VIEW

UNCONTROLLED

NOTE:

1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. WELDING SYMBOLS ACCORDING TO ISO:2553.
4. WELD AREAS SHALL BE PICKLED & PASSIVATED.
5. REMOVE SHARP EDGES AND BURRS.
6. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

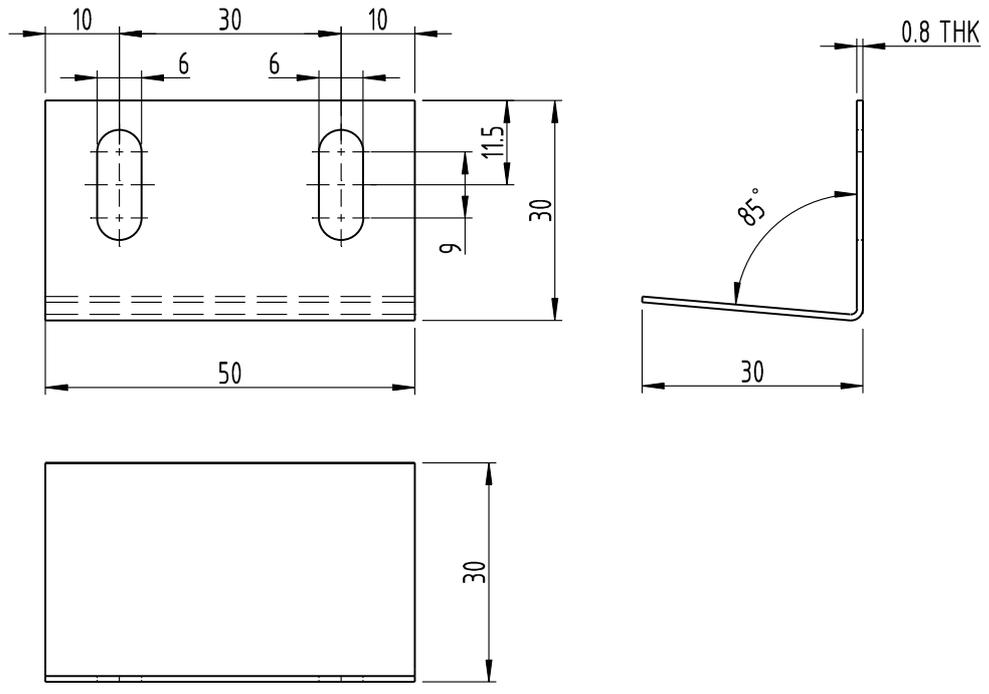


2	1	-	BRACKET	1t	SUS304/AISI304-2B FINISH	
1	1	-	BRACKET	65x50x3t	SUS304/AISI304-2B FINISH	
SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304-2B FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	11.06.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	11.06.2020
			TITLE	CHKD	<i>[Signature]</i>	11.06.2020
				DRWN	<i>[Signature]</i>	11.06.2020
				SCALE		SHEET
				1:1		1 OF 1
				DRG No.	525-18136	
ALT.No.	ECN NO/CHANGES	DATE	BY	CHKD	APPD	ALT

BEML LIMITED
NEW FRONTIERS. NEW DREAMS

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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)							QUALITY OF WELD JOINTS REF, RD 230 MEDIUM			
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.										
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96							STATUS:	PROTO/PRODUCTION		



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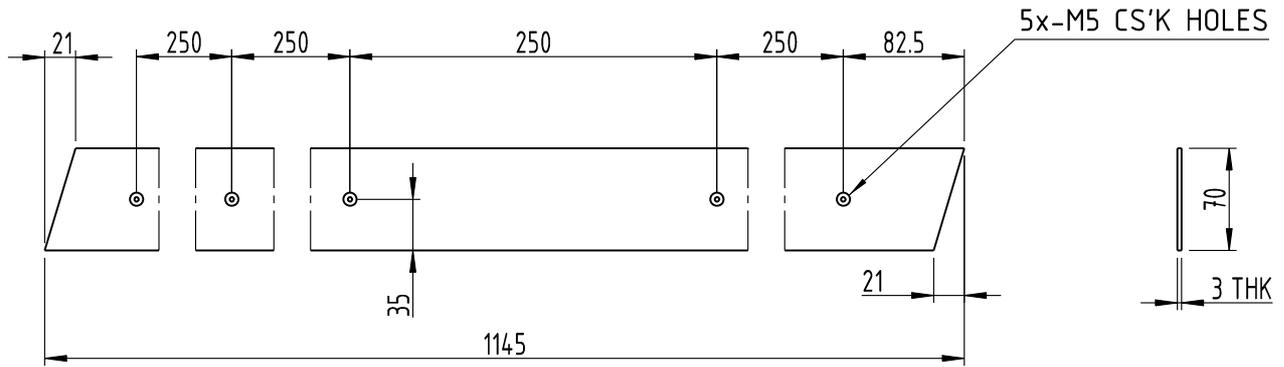
- NOTE:**
1. ALL DIMENSIONS ARE IN mm.
 2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. REMOVE SHARP EDGES AND BURRS.
 4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

GRADE No.	VALUE	SYMBOL
N1	0.025	▽
N2	0.05	▽
N3	0.1	▽
N4	0.2	▽
N5	0.4	▽
N6	0.8	▽
N7	1.6	▽
N8	3.2	▽
N9	6.3	▽
N10	12.5	▽
N11	25	▽
N12	50	▽
SURFACE ROUGHNESS	ALT.NO.	ECN NO/CHANGES

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304-2B FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	11.06.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	11.06.2020
			TITLE	CHKD	<i>[Signature]</i>	11.06.2020
			BRACKET	DRWN	<i>[Signature]</i>	11.06.2020
				SCALE	1:1	SHEET
				DRG No.	525-18137	
						ALT
			BEML LIMITED			

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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)							QUALITY OF WELD JOINTS REF, RD 230 MEDIUM			
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.										
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96							STATUS:	PROTO/PRODUCTION		



SL NO.	PART NO.	DESCRIPTION	WT (KG)	REMARKS
1	525-18155-300	PANEL PLATE-LH	1.89	AS DRAWN
2	525-18155-301	PANEL PLATE-RH	1.89	OPPOSITE

UNCONTROLLED

NOTE:

1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. REMOVE SHARP EDGES AND BURRS.
4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

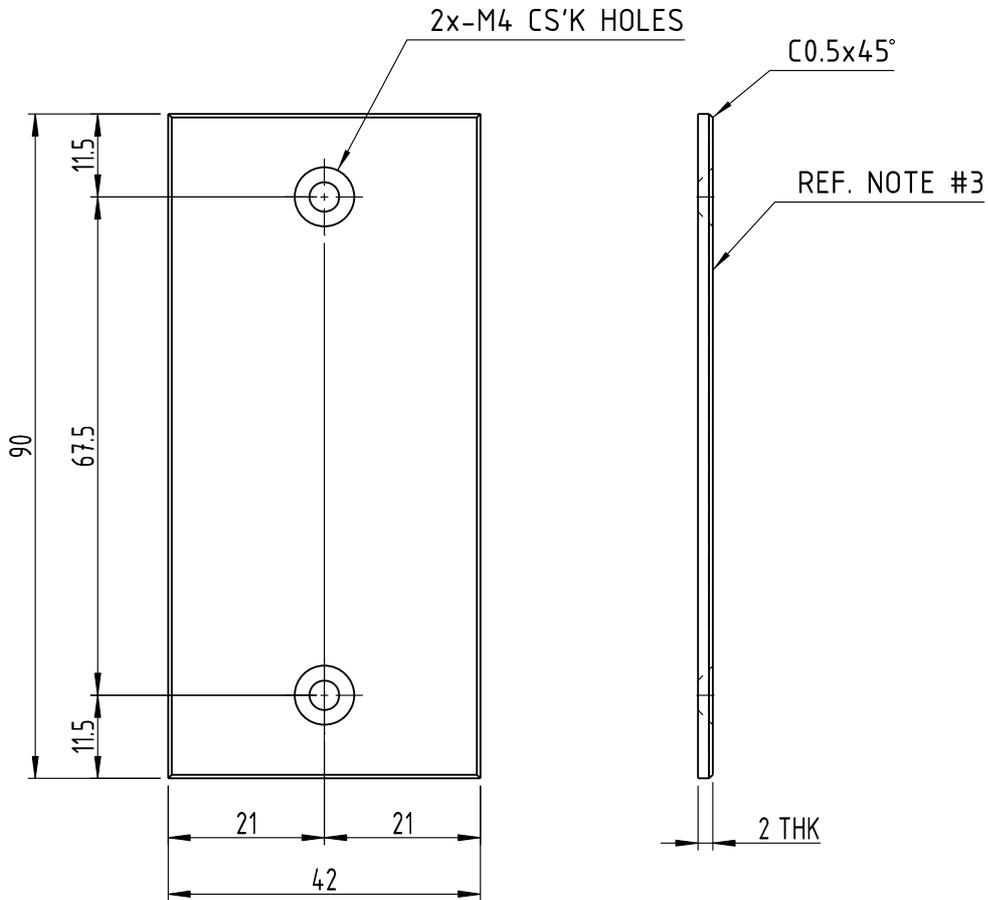
N1	0.025	▽
N2	0.05	▽
N3	0.1	▽
N4	0.2	▽
N5	0.4	▽
N6	0.8	▽
N7	1.6	▽
N8	3.2	▽
N9	6.3	▽
N10	12.5	▽
N11	25	▽
N12	50	▽
GRADE No.		▽
VALUE		▽
SYMBOL		▽
SURFACE		▽
ROUGHNESS		▽

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
					MATERIAL	
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304-2B FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	21.04.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	21.04.2020
			TITLE	CHKD	<i>[Signature]</i>	21.04.2020
				DRWN	<i>[Signature]</i>	21.04.2020
				SCALE		SHEET
				NTS		1 OF 1
				DRG No.	525-18155	
					ALT	

BEML LIMITED
NEW FRONTIERS. NEW DREAMS

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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)							QUALITY OF WELD JOINTS REF, RD 230 MEDIUM			
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.							STATUS: PROTO/PRODUCTION			
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										



UNCONTROLLED

NOTE:

1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. THE EXPOSED SURFACE SHALL BE BRUSH FINISHED TO ASTM A480. NO.6 FINISH.
4. REMOVE SHARP EDGES AND BURRS.
5. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

GRADE No.	N1	0.025	▽
VALUE	N2	0.05	▽
SYMBOL	N3	0.1	▽
	N4	0.2	▽
SURFACE ROUGHNESS	N5	0.4	▽
	N6	0.8	▽
ALT. NO.	N7	1.6	▽
	N8	3.2	▽
ECN NO/CHANGES	N9	6.3	▽
	N10	12.5	▽
DATE	N11	25	▽
	N12	50	▽

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	90x42x2THK	COMPANY STD./I.S	Wt. (Kg)	
						MATERIAL		
			PRODUCT	MUMBAI METRO CARS - L2 & L7				
			REF DRG					
			MATERIAL	SUS304/AISI304-BRUSH FINISH AS PER ASTM A480 NO.6 FINISH				
			HEAT TREAT.	APPD	<i>[Signature]</i>	12.05.2020		
			SURFACE TREAT.	REVD	<i>[Signature]</i>	12.05.2020		
			TITLE	CHKD	<i>[Signature]</i>	12.05.2020		
			COVER PLATE	DRWN	<i>[Signature]</i>	12.05.2020		
				SCALE		SHEET	Wt.	
				1:1	1 OF 1	0.059 kg		
				DRG No.	525-18163		ALT	
			BEML LIMITED					

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GRADE No.	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12
VALUE	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
SYMBOL												
ROUGHNESS												

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~

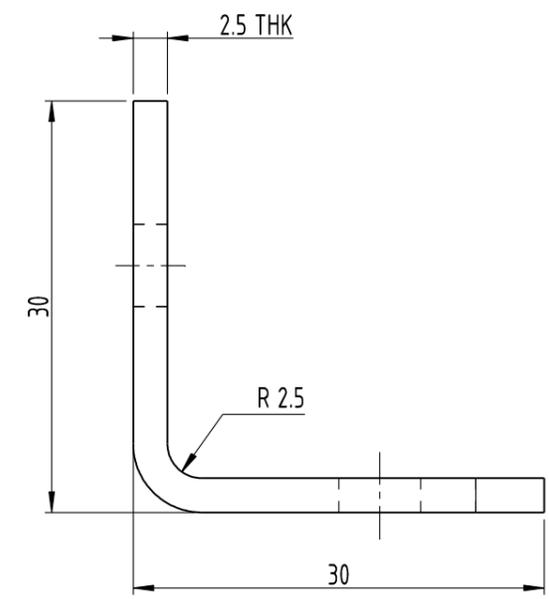
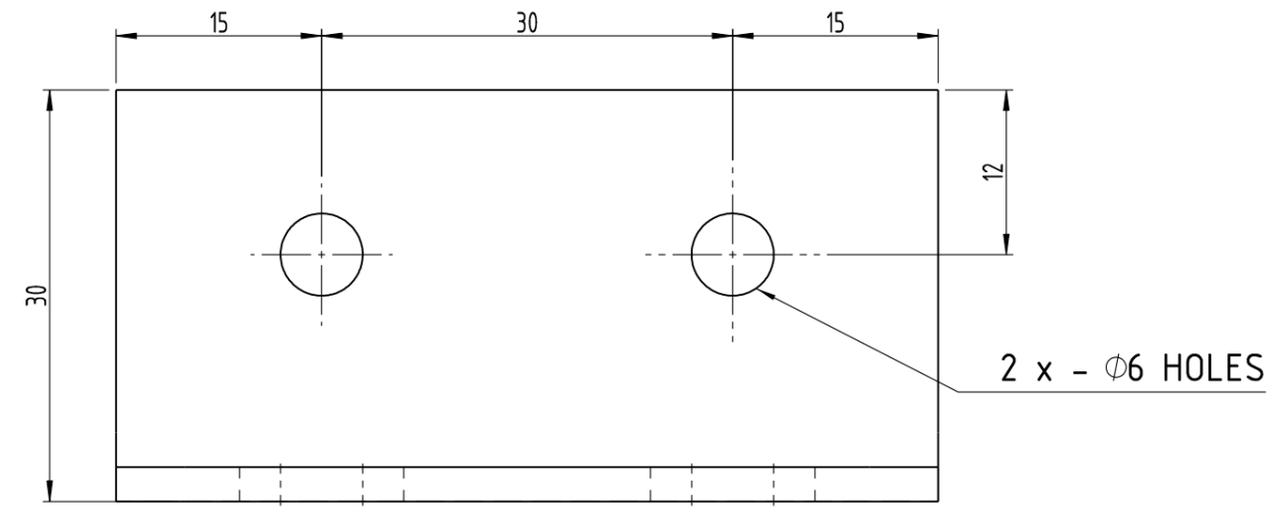
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM) QUALITY OF WELD JOINTS REF, RD 230 MEDIUM

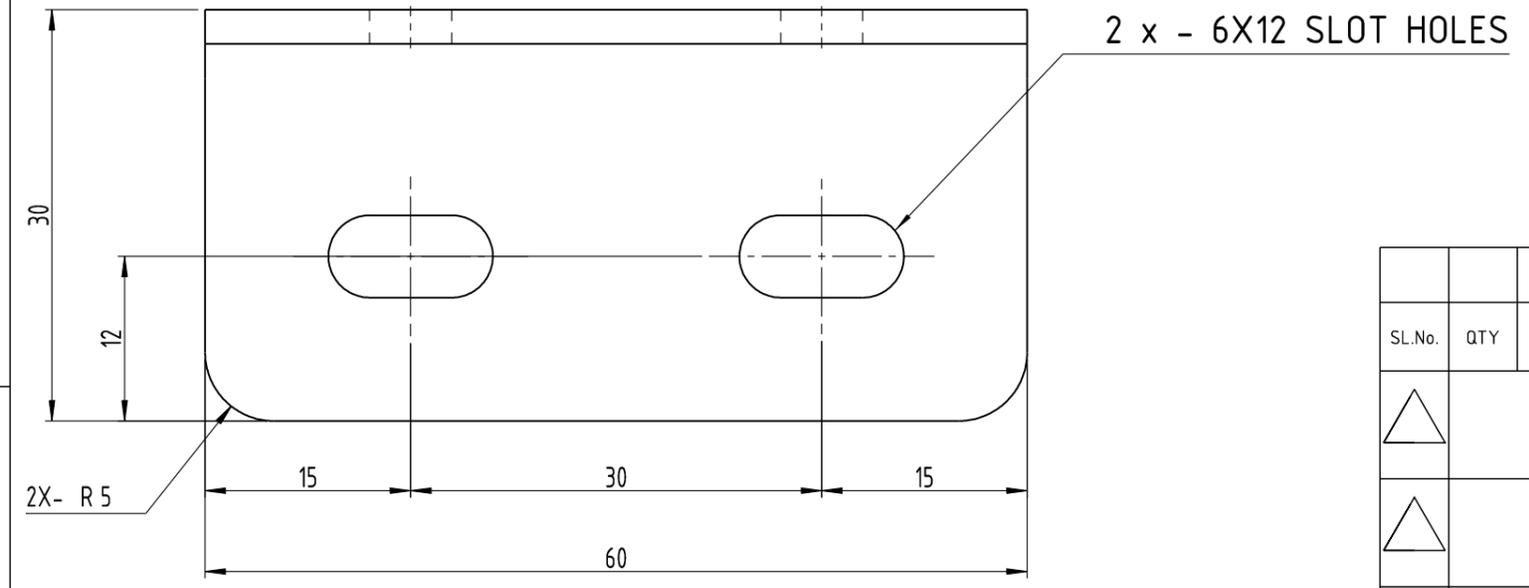
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96

STATUS: **PROTO/PRODUCTION**



UNCONTROLLED



- NOTE:**
1. ALL DIMENSIONS ARE IN mm.
 2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. REMOVE SHARP EDGES AND BURRS.
 4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304-2B FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	11.06.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	11.06.2020
			TITLE	CHKD	<i>[Signature]</i>	11.06.2020
				DRWN	<i>[Signature]</i>	11.06.2020
				SCALE	1:1	
				SHEET	1 OF 1	
				DRG No.	525-18165	
ALT.No.	ECN NO/CHANGES	DATE	BY	CHKD	APPD	



BRACKET

SCALE: 1:1

SHEET: 1 OF 1

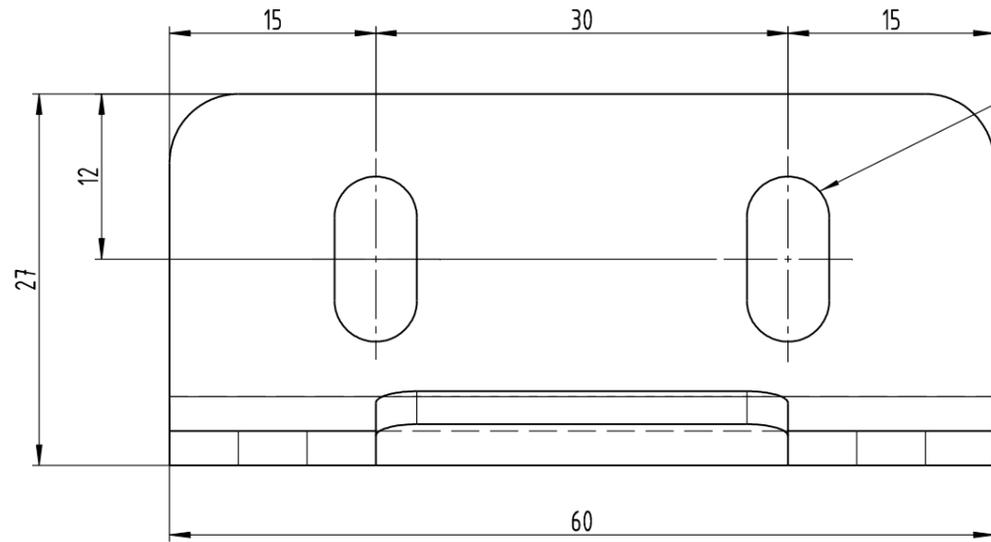
DRG No. 525-18165

ALT: -

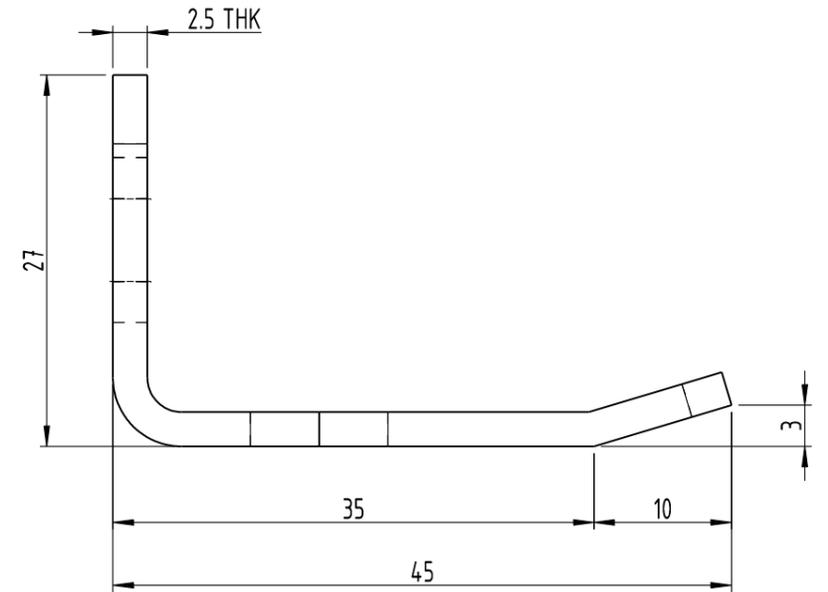
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GRADE No.	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12
VALUE	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
SYMBOL												
SURFACE ROUGHNESS												

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)								QUALITY OF WELD JOINTS REF. RD 230 MEDIUM		
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.										
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										
STATUS:								PROTO/PRODUCTION		



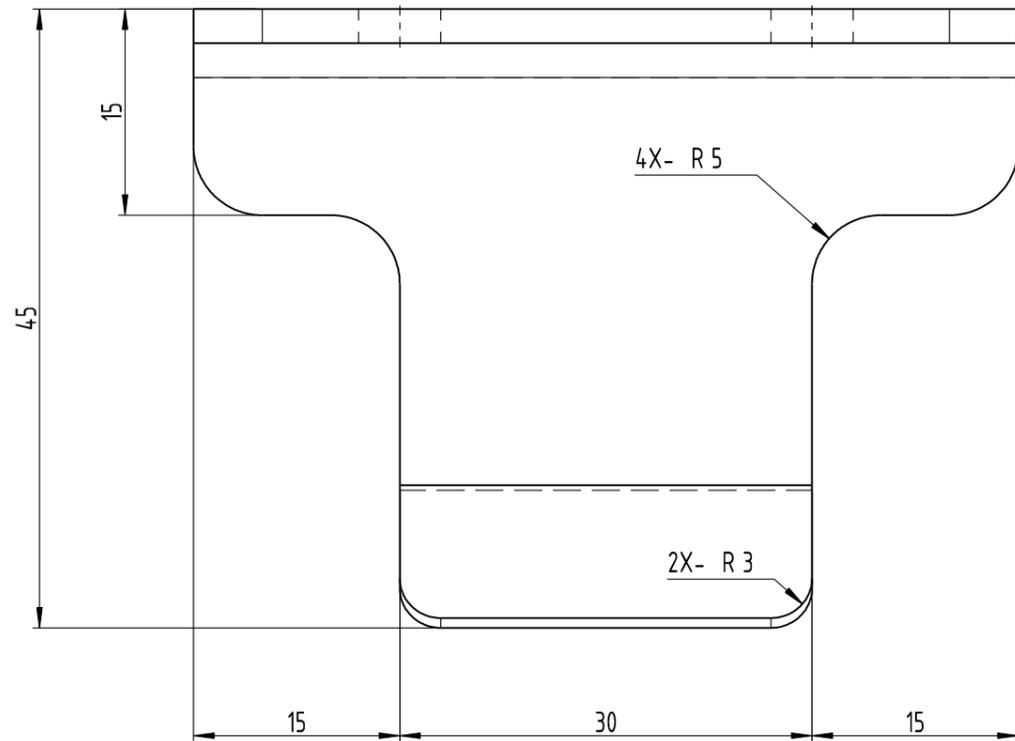
2 x - 6X12 SLOT HOLES



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NOTE:

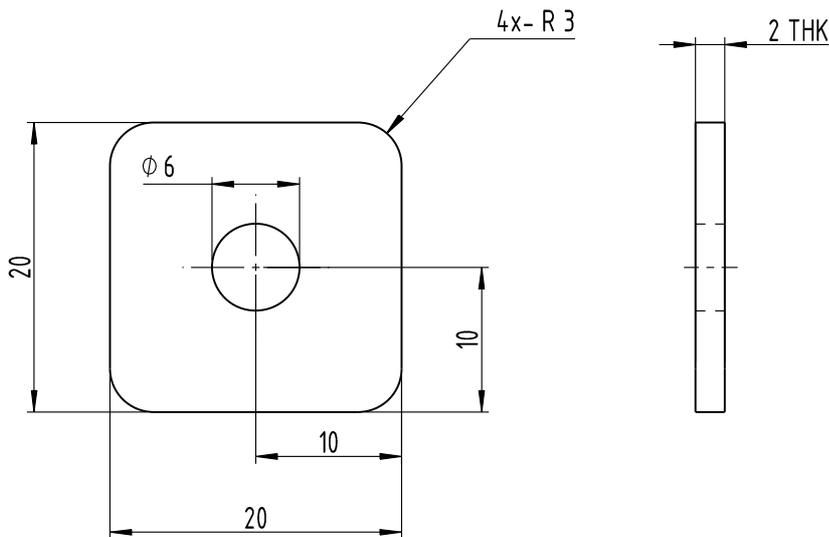
1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. REMOVE SHARP EDGES AND BURRS.
4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.



SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
					MATERIAL	
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304-2B FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	11.06.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	11.06.2020
			TITLE	CHKD	<i>[Signature]</i>	11.06.2020
				DRWN	<i>[Signature]</i>	11.06.2020
				SCALE	1:1	
				SHEET	1 OF 1	
				DRG No.	525-18166	
ALT.NO.	ECN NO/CHANGES	DATE	BY	CHKD	APPD	
				BEML LIMITED <small>NEW FRONTIERS. NEW DREAMS</small>		

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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)							QUALITY OF WELD JOINTS REF, RD 230 MEDIUM			
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.							STATUS: PROTO/PRODUCTION			
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										



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NOTE:

1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. REMOVE SHARP EDGES AND BURRS.
4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

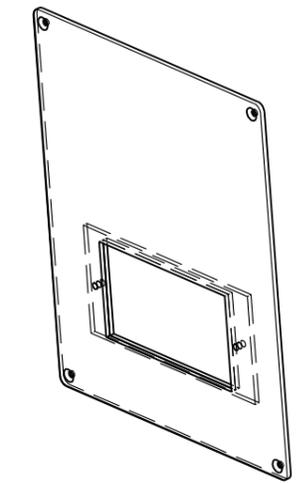
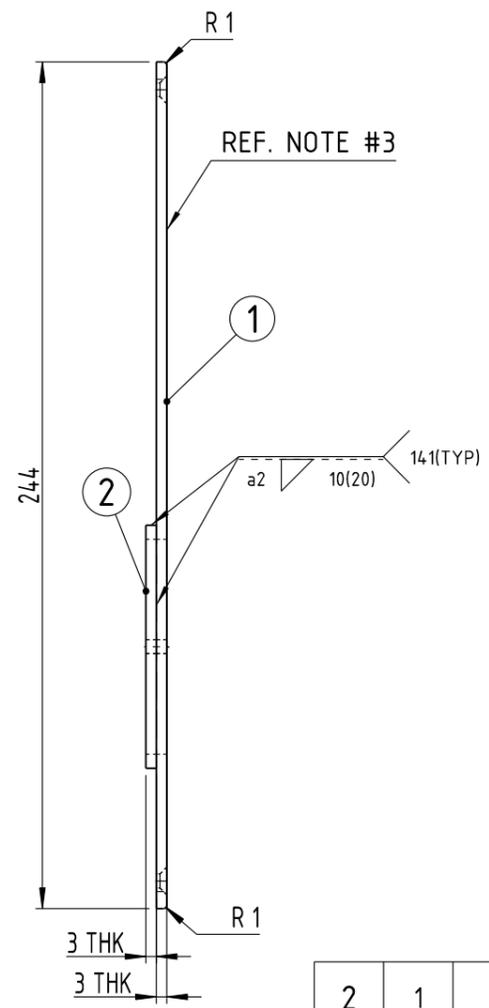
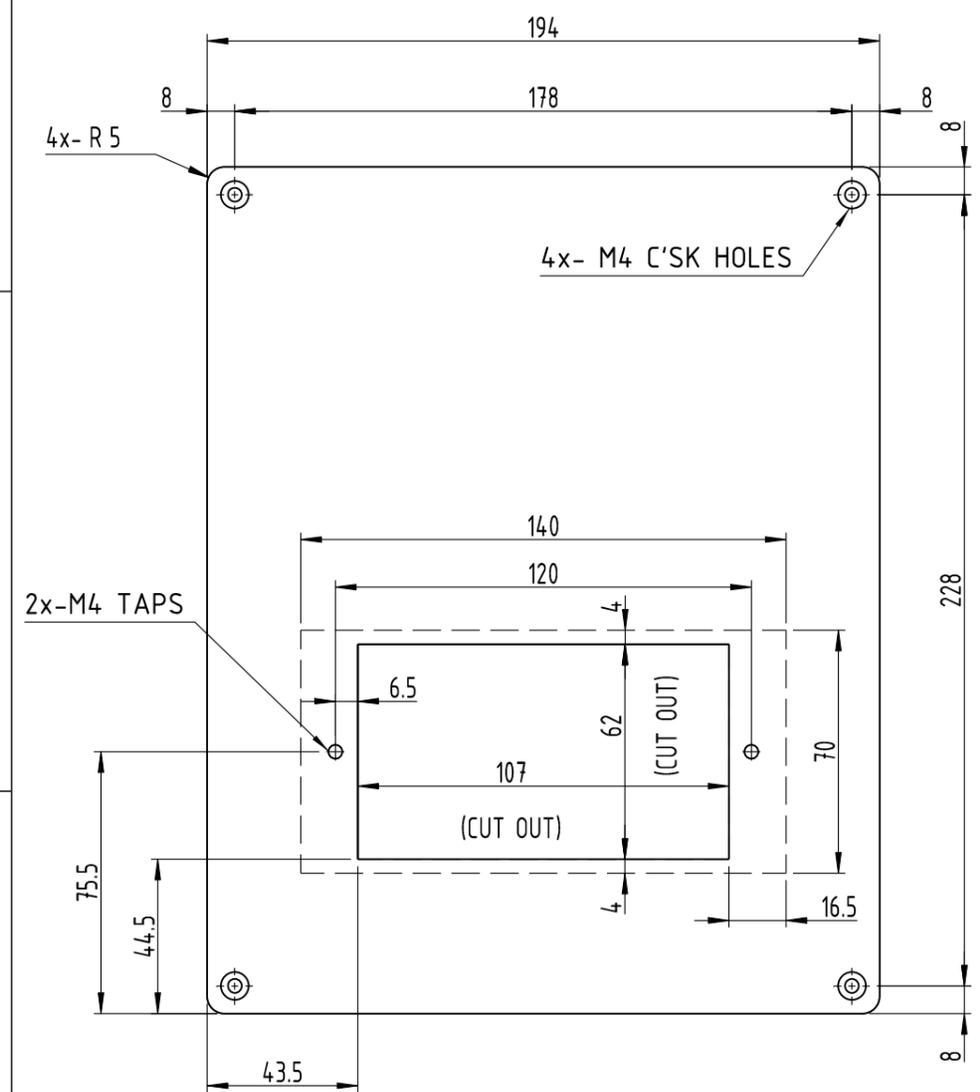
N1	0.025	▽
N2	0.05	▽
N3	0.1	▽
N4	0.2	▽
N5	0.4	▽
N6	0.8	▽
N7	1.6	▽
N8	3.2	▽
N9	6.3	▽
N10	12.5	▽
N11	25	▽
N12	50	▽
GRADE No.		
VALUE		
SYMBOL		
SURFACE		
ROUGHNESS		

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)	
			PRODUCT	MUMBAI METRO CARS - L2 & L7			
			REF DRG				
			MATERIAL	SUS304/AISI304-2B FINISH			
			HEAT TREAT.	APPD	<i>[Signature]</i>	01.07.2019	
			SURFACE TREAT.	REVD	<i>[Signature]</i>	01.07.2019	
			TITLE	CHKD	<i>[Signature]</i>	01.07.2019	
			LINER	DRWN	<i>[Signature]</i>	01.07.2019	
				SCALE		SHEET	Wt.
				NTS	1 OF 1	0.0063 kg	
				DRG No.	ALT		
			BEML LIMITED			525-18181	
			<small>NEW FRONTIERS. NEW DREAMS</small>				

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GRADE No.	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12
VALUE	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
SYMBOL												
SURFACE ROUGHNESS												

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)								QUALITY OF WELD JOINTS REF, RD 230 MEDIUM		
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.								STATUS: PROTO/PRODUCTION		
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										



ISOMETRIC VIEW

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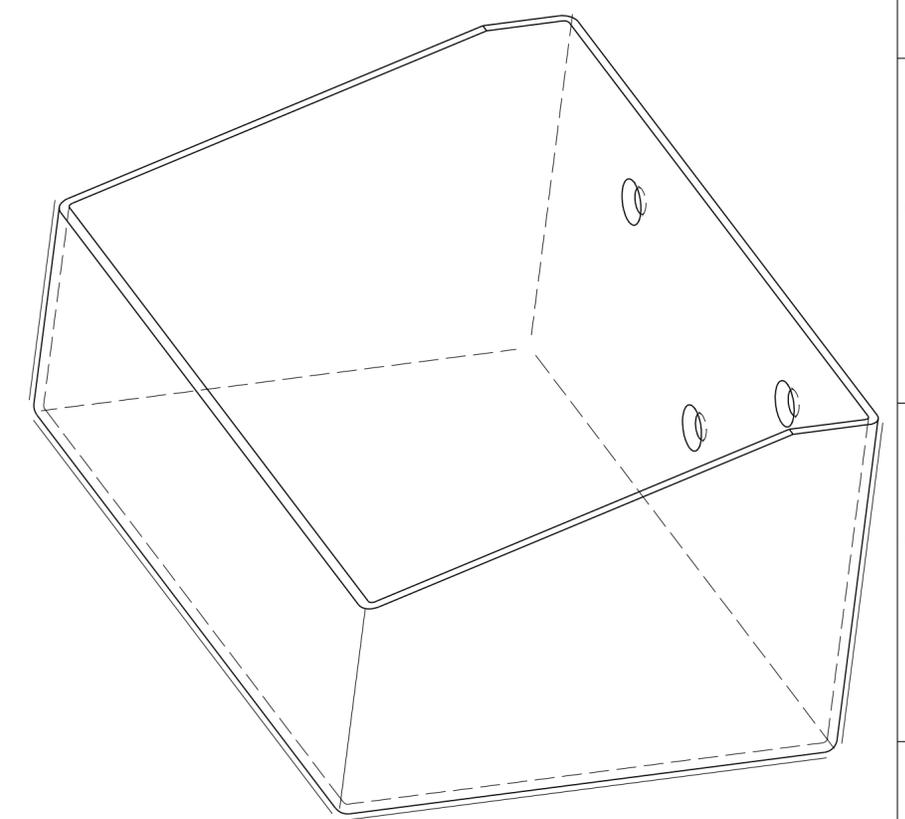
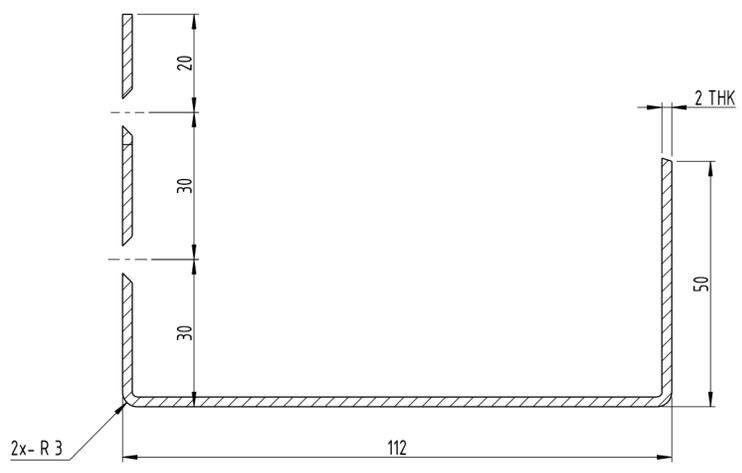
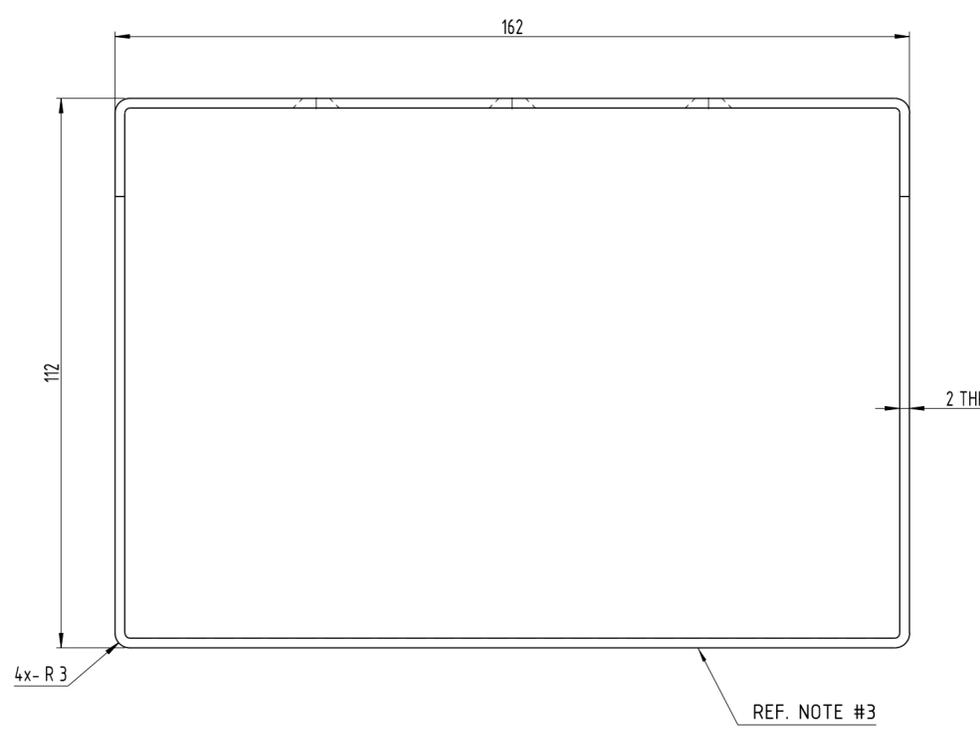
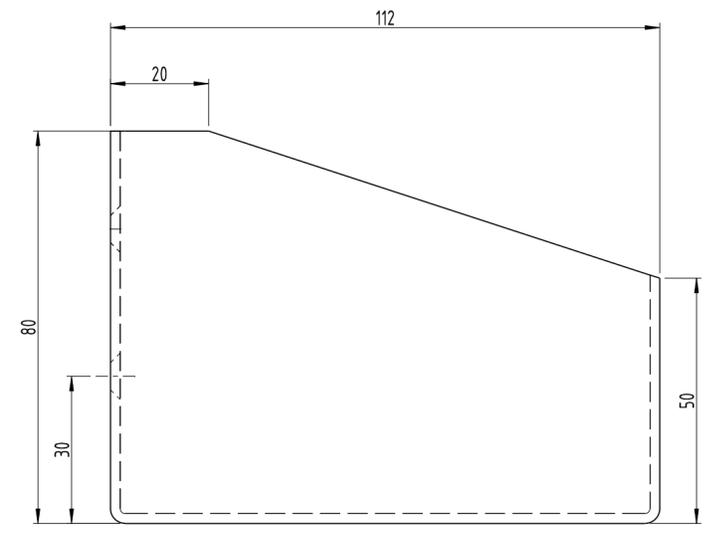
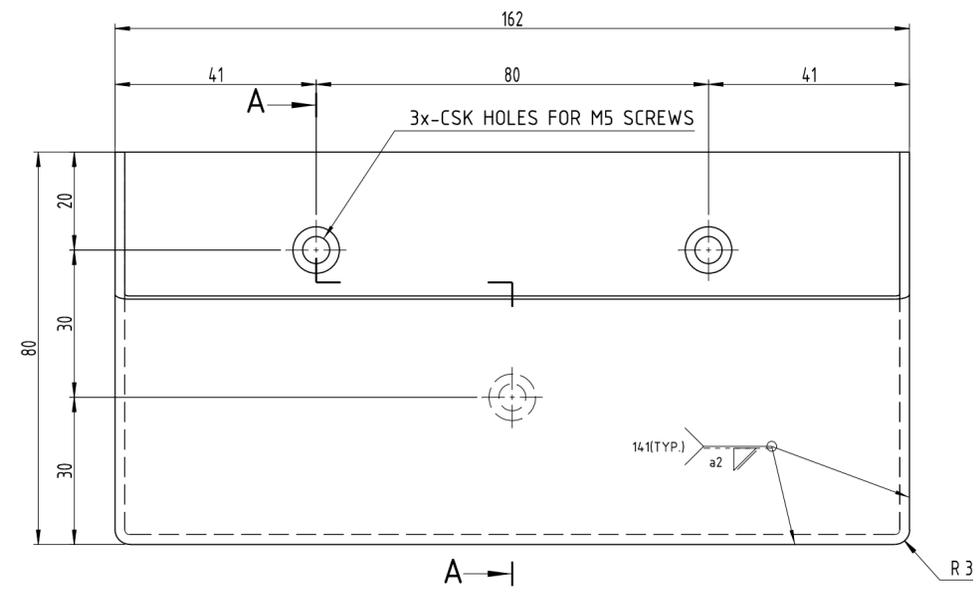
- NOTE:**
1. ALL DIMENSIONS ARE IN mm.
 2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. THE EXPOSED SURFACE SHALL BE BRUSH FINISHED TO ASTM A480, NO.6 FINISH.
 4. THE WELDING SYMBOLS ACCORDING TO ISO:2553.
 5. REMOVE SHARP EDGES AND BURRS.
 6. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

2	1	-	NUT PLATE	140x70x3t	SUS304/AISI304	
1	1	-	COVER PLATE	224x194x3t	SUS304/AISI304	
SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
					MATERIAL	
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304-BRUSH FINISH AS PER ASTM A480 NO.6 FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	12.05.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	12.05.2020
			TITLE	CHKD	<i>[Signature]</i>	12.05.2020
			COVER PLATE, SOCKET	DRWN	<i>[Signature]</i>	12.05.2020
				SCALE		SHEET
				1:1	1 OF 1	1.034 kg
ALT.No.	ECN NO/CHANGES	DATE	BY	CHKD	APPD	DRG No.
						525-18203
BEML LIMITED						ALT

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GRADE No.	
VALUE	
SYMBOL	
ROUGHNESS	

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)								QUALITY OF WELD JOINTS REF. RD 230 MEDIUM		
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C										
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										
STATUS:									PROTO/PRODUCTION	



ISOMETRIC VIEW

UNCONTROLLED

- NOTE:
1. ALL DIMENSIONS ARE IN mm.
 2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. THE OUTER EXPOSED SURFACE SHALL BE BRUSH FINISHED TO ASTM A480, NO.6 FINISH.
 4. WELDING SYMBOLS ACCORDING TO ISO:2553.
 5. THE WELDS SHALL BE GROUND FINISHED.
 6. REMOVE SHARP EDGES AND BURRS.
 7. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
△			PRODUCT	MUMBAI METRO CARS - L2 & L7		
△			REF DRG			
△			MATERIAL	SUS304/AISI304-BRUSH FINISH AS PER ASTM A480 NO.6 FINISH		
△			HEAT TREAT.	APPD		16.07.2019
△			SURFACE TREAT.	REVD		16.07.2019
△			TITLE	CHKD		16.07.2019
△			DRWN			16.07.2019
△			SCALE	1:1		
					SHEET	1 OF 1
					Wt.	0.821 kg
				DRG No.		
ALT.						

bem BEM LIMITED

525-18225

A2

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GRADE No.	VALUE	SYMBOL
N1	0.025	▽
N2	0.05	▽
N3	0.1	▽
N4	0.2	▽
N5	0.4	▽
N6	0.8	▽
N7	1.6	▽
N8	3.2	▽
N9	6.3	▽
N10	12.5	▽
N11	25	▽
N12	50	▽

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE		±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3

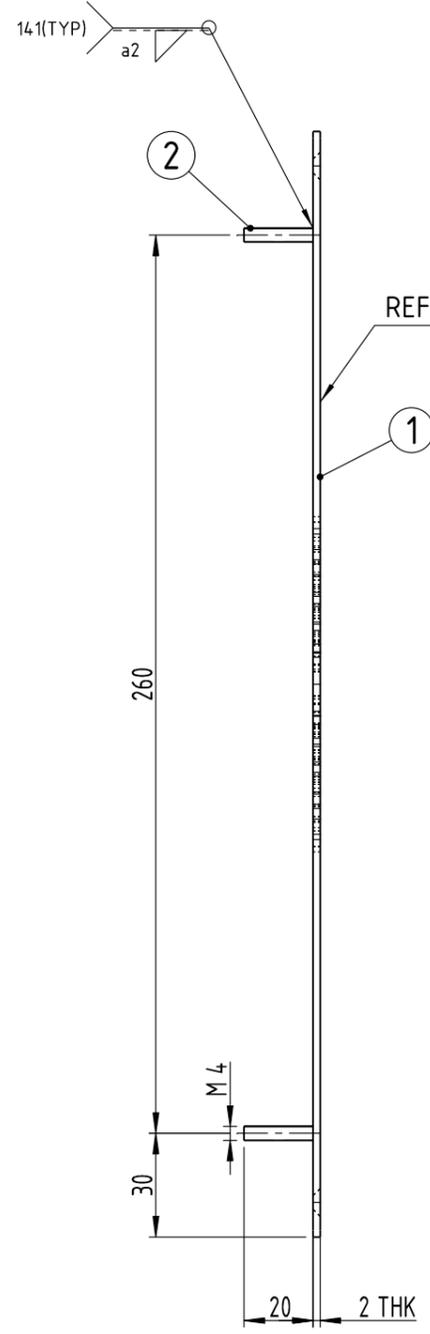
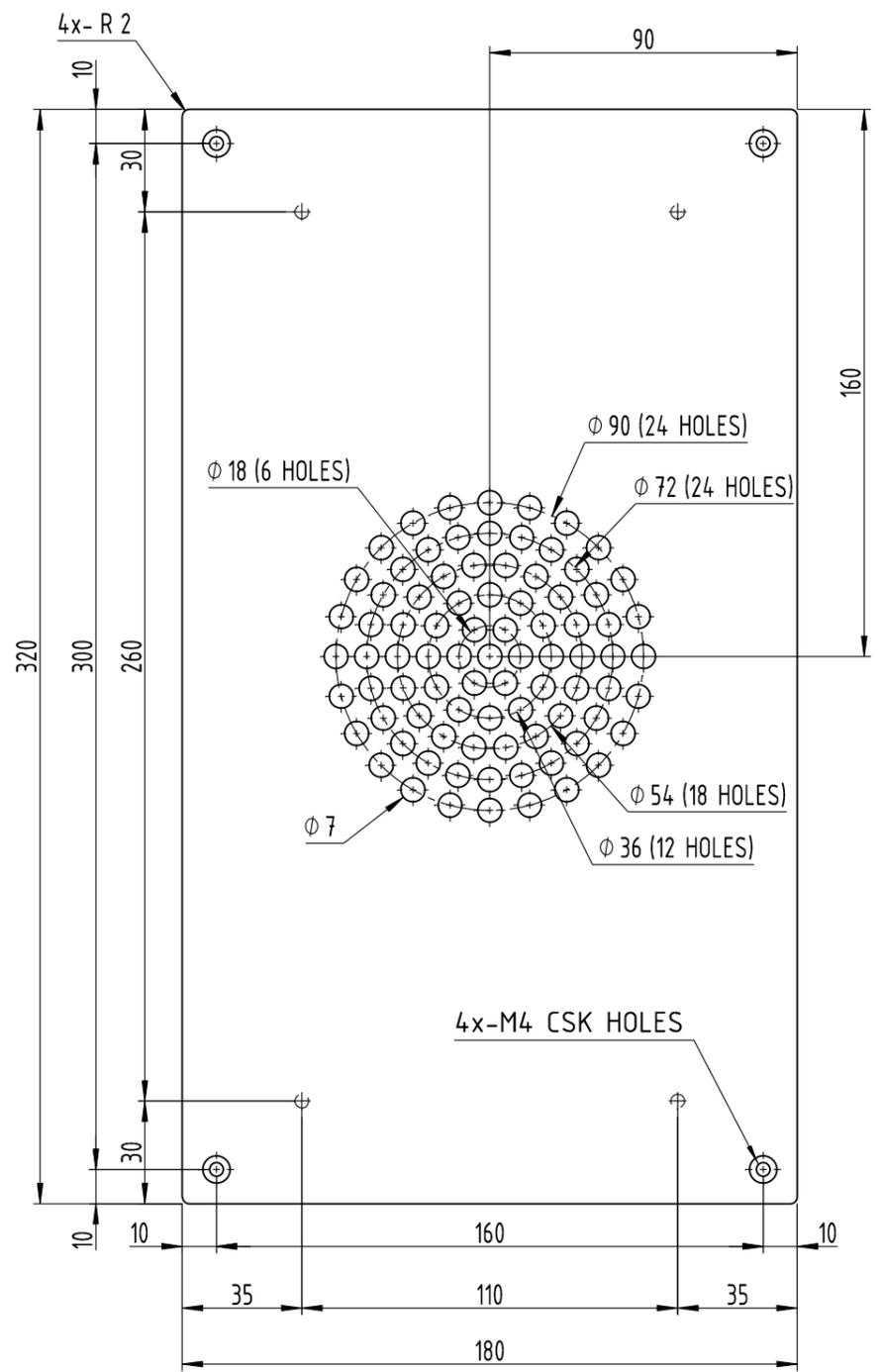
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM) QUALITY OF WELD JOINTS REF, RD 230 MEDIUM

VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96

STATUS: **PROTO/PRODUCTION**



UNCONTROLLED

- NOTE:**
- ALL DIMENSIONS ARE IN mm.
 - THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 - THE EXPOSED SURFACE SHALL BE BRUSH FINISHED TO ASTM A480. NO.6 FINISH.
 - WELDING SYMBOLS ACCORDING TO ISO:2553
 - REMOVE SHARP EDGES AND BURRS.
 - SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
2	4	-	STUD BOLT	M4x20	Gr A2-70, SS	
1	1	-	PLATE	320x180x2t	SUS304/AISI304	

PRODUCT	MUMBAI METRO CARS - L2 & L7		
REF DRG			
MATERIAL	SUS304/AISI304-BRUSH FINISH AS PER ASTM A480 NO.6 FINISH		
HEAT TREAT.	APPD	<i>[Signature]</i>	15.05.2020
SURFACE TREAT.	REVD	<i>[Signature]</i>	15.05.2020
TITLE	CHKD	<i>[Signature]</i>	15.05.2020
	DRWN	<i>[Signature]</i>	15.05.2020
	SCALE	1:1	SHEET
	NTS	1 OF 1	Wt.
	DRG No.	525-18230	ALT

CLP SPEAKER PLATE

BEML LIMITED NEW FRONTIERS. NEW DREAMS.

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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~

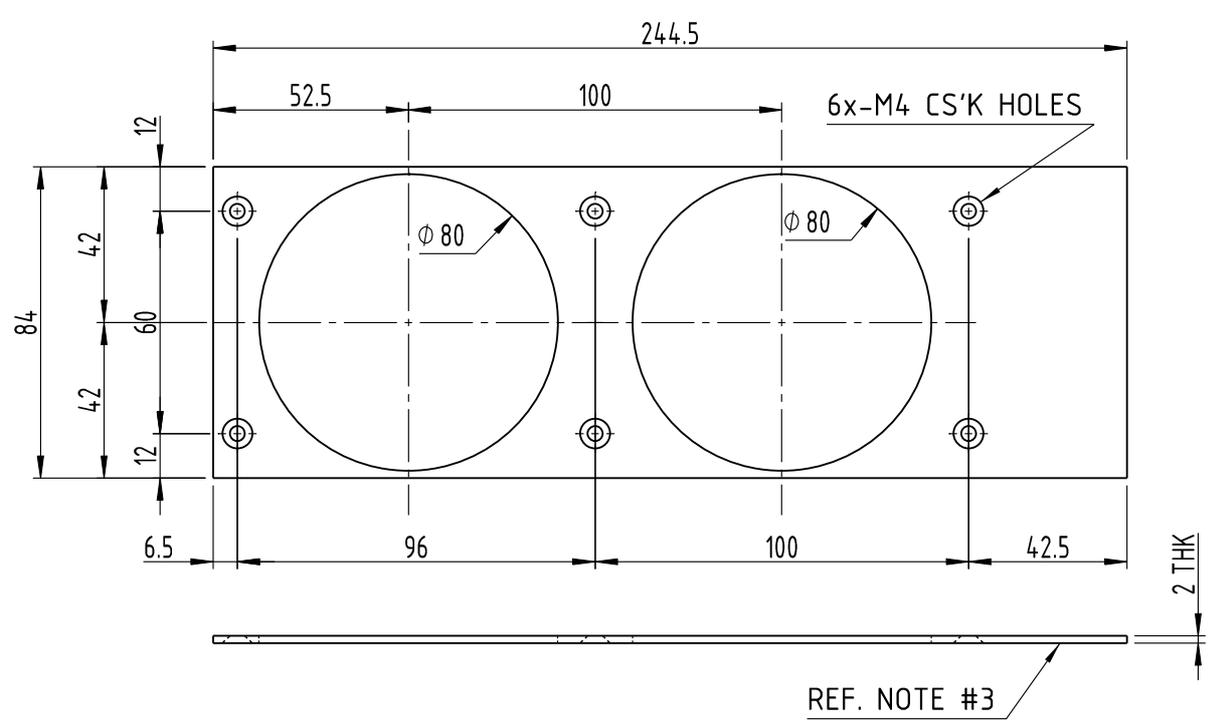
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM) QUALITY OF WELD JOINTS REF, RD 230 MEDIUM

VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96

STATUS: **PROTO/PRODUCTION**



UNCONTROLLED

NOTE:

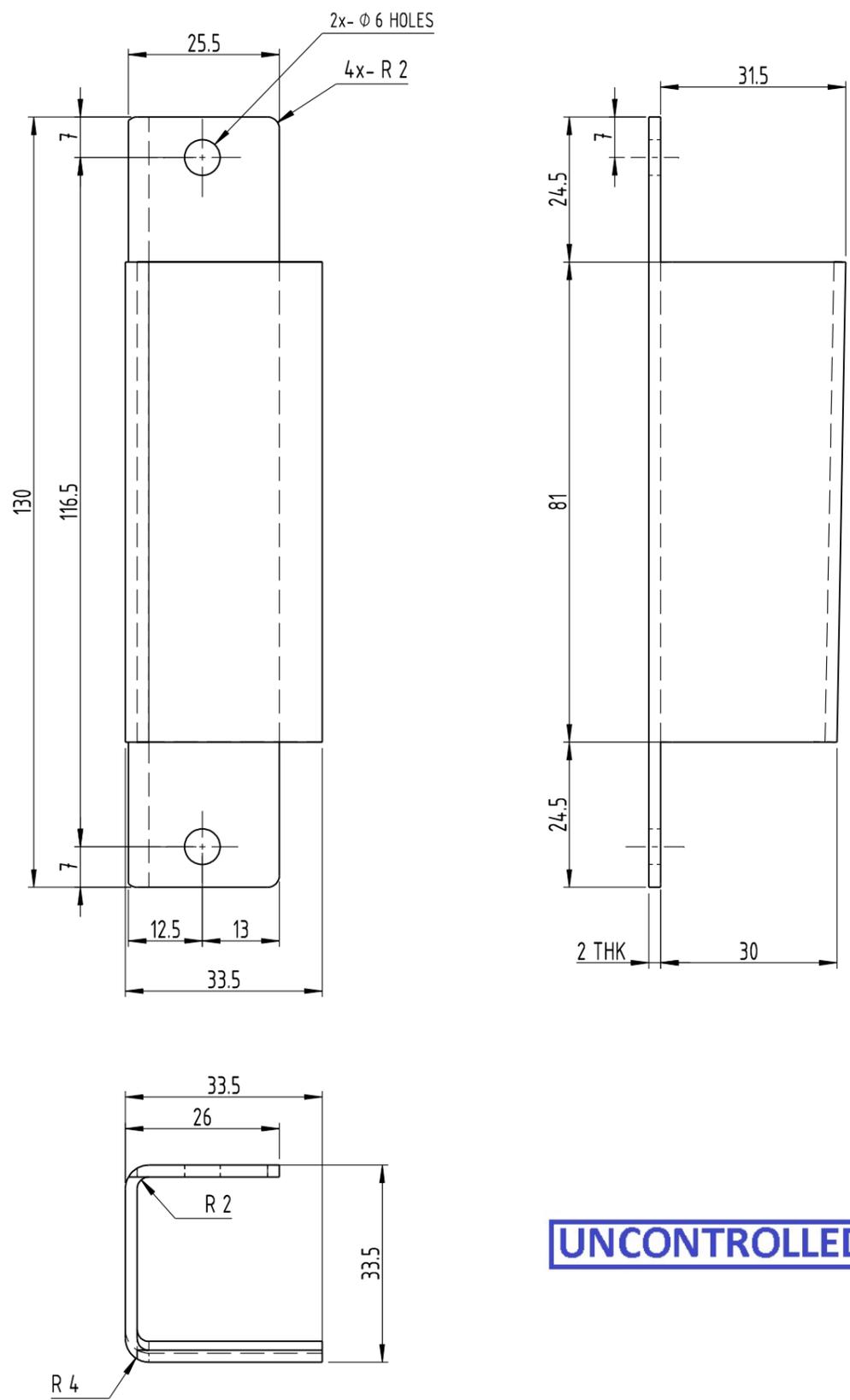
1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. THE EXPOSED SURFACE SHALL BE BRUSH FINISHED TO ASTM A480. NO.6 FINISH.
4. REMOVE SHARP EDGES AND BURRS.
5. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

GRADE No.	N1	0.075	▽
VALUE	N2	0.05	▽
	N3	0.1	▽
	N4	0.2	▽
	N5	0.4	▽
	N6	0.8	▽
	N7	1.6	▽
	N8	3.2	▽
	N9	6.3	▽
	N10	12.5	▽
	N11	25	▽
	N12	50	▽
SURFACE ROUGHNESS			▽

						244.5x84x2THK			
SL.No.	QTY	PART / STOCK No.	DESCRIPTION			SIZE	COMPANY STD./I.S		Wt. (Kg)
							MATERIAL		
			PRODUCT	MUMBAI METRO CARS - L2 & L7					
			REF DRG						
			MATERIAL	SUS304/AISI304-BRUSH FINISH AS PER ASTM A480 NO.6 FINISH					
			HEAT TREAT.	APPD	<i>[Signature]</i>				15.05.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>				15.05.2020
			TITLE	CHKD	<i>[Signature]</i>				15.05.2020
			GUAGE PLATE	DRWN	<i>[Signature]</i>				15.05.2020
				SCALE	1:1.5		SHEET	1 OF 1	
				DRG No.		525-18263		Wt.	0.163 kg
				ALT					
ALT.NO.	ECN NO/CHANGES	DATE	BY	CHKD	APPD	BEML LIMITED <small>NEW FRONTIERS. NEW DREAMS</small>			

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GRADE No.	VALUE	SYMBOL
N1	0.025	
N2	0.05	
N3	0.1	
N4	0.2	
N5	0.4	
N6	0.8	
N7	1.6	
N8	3.2	
N9	6.3	
N10	12.5	
N11	25	
N12	50	



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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~

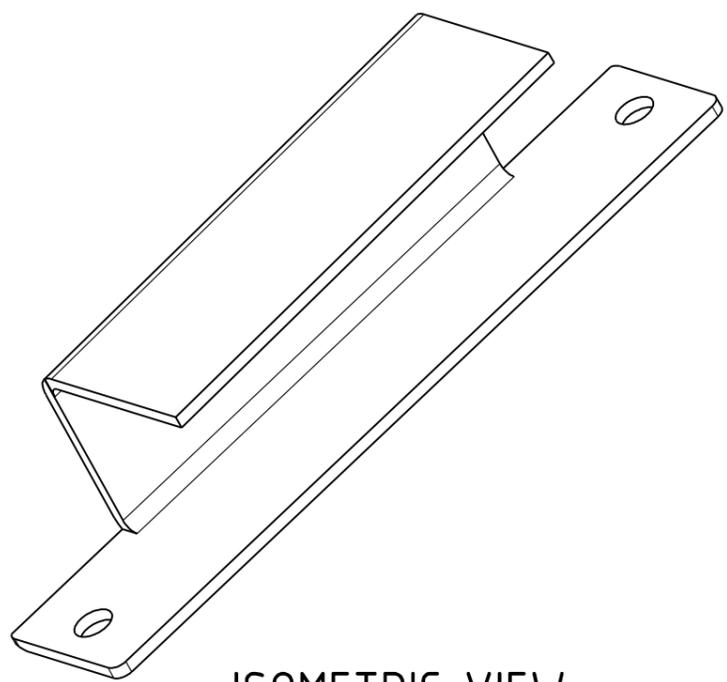
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM) QUALITY OF WELD JOINTS REF. RD 230 MEDIUM

VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96

STATUS: **PROTO/PRODUCTION**



ISOMETRIC VIEW

- NOTE:**
1. ALL DIMENSIONS ARE IN mm.
 2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. REMOVE SHARP EDGES AND BURRS.
 4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304-2B FINISHED		
			HEAT TREAT.	APPD	<i>[Signature]</i>	02.05.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	02.05.2020
			TITLE	CHKD	<i>[Signature]</i>	02.05.2020
				DRWN	<i>[Signature]</i>	02.05.2020
				SCALE		SHEET
				1:1		1 OF 1
				DRG No.		ALT
ALT.No.	ECN NO/CHANGES	DATE	BY	CHKD	APPD	

beml BEML LIMITED
NEW FRONTIERS. NEW DREAMS

525-18265



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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~

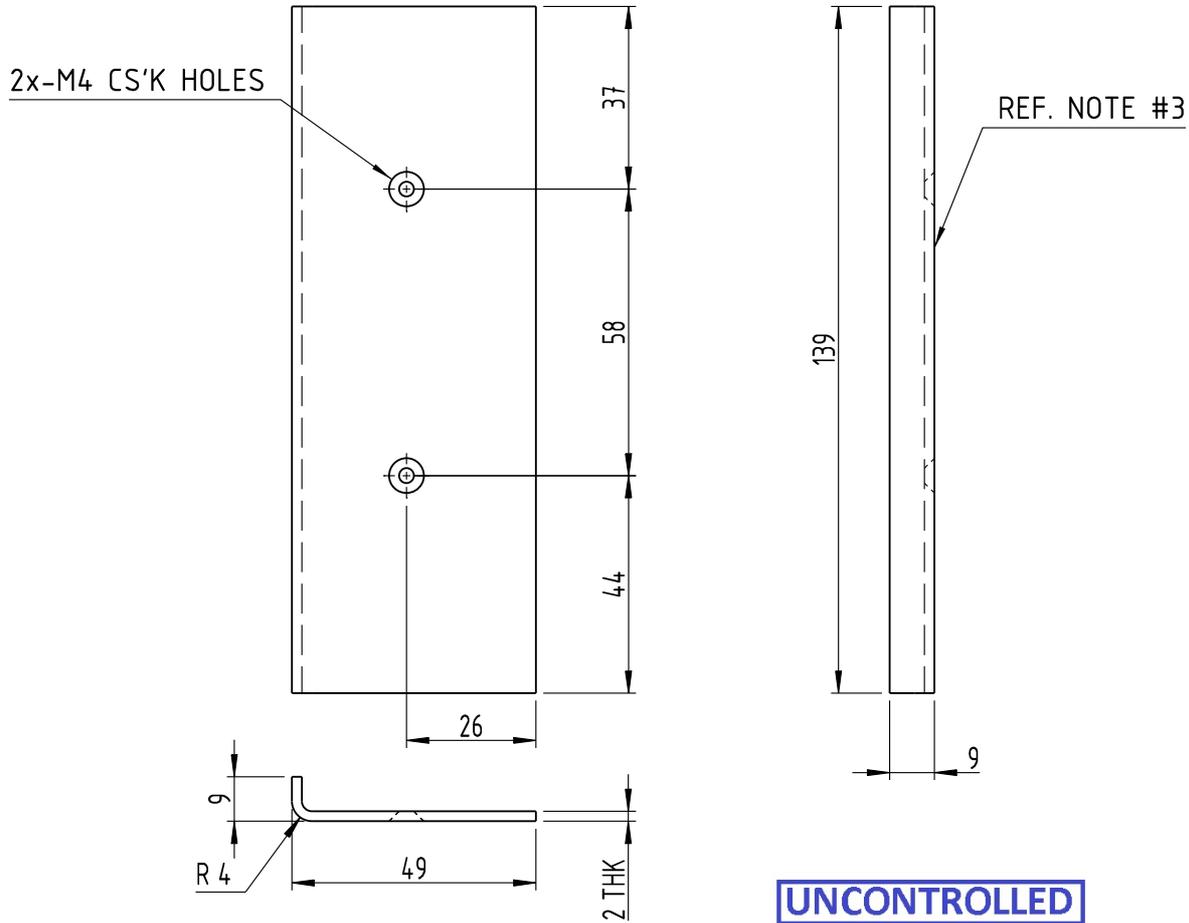
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM) QUALITY OF WELD JOINTS REF, RD 230 MEDIUM

VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96

STATUS: **PROTO/PRODUCTION**



UNCONTROLLED

NOTE:

1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. THE EXPOSED SURFACE SHALL BE BRUSH FINISHED TO ASTM A480. NO.6 FINISH.
4. REMOVE SHARP EDGES AND BURRS.
5. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

GRADE No.	N1	0.025	▽
VALUE	N2	0.05	▽
SYMBOL	N3	0.1	▽
	N4	0.2	▽
	N5	0.4	▽
	N6	0.8	▽
	N7	1.6	▽
	N8	3.2	▽
	N9	6.3	▽
	N10	12.5	▽
	N11	25	▽
	N12	50	▽
SURFACE ROUGHNESS			▽

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
					MATERIAL	

PRODUCT	MUMBAI METRO CARS - L2 & L7							
	REF DRG							
MATERIAL	SUS304/AISI304-BRUSH FINISH AS PER ASTM A480 NO.6 FINISH							
HEAT TREAT.		APPD	<i>[Signature]</i>	02.05.2020				
SURFACE TREAT.		REVD	<i>[Signature]</i>	02.05.2020				
TITLE	COVER PLATE, HINGE			CHKD	<i>[Signature]</i>	02.05.2020		
				DRWN	<i>[Signature]</i>	02.05.2020		
SCALE				1:1.5	SHEET	1 OF 1	Wt.	0.145 kg
DRG No.				525-18266			ALT	-
SURFACE ROUGHNESS								
ALT.NO.	ECN NO/CHANGES	DATE	BY	CHKD	APPD			

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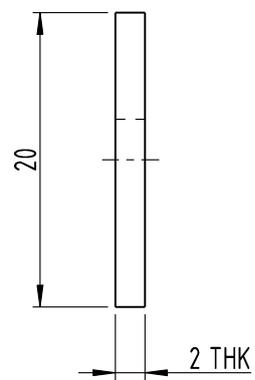
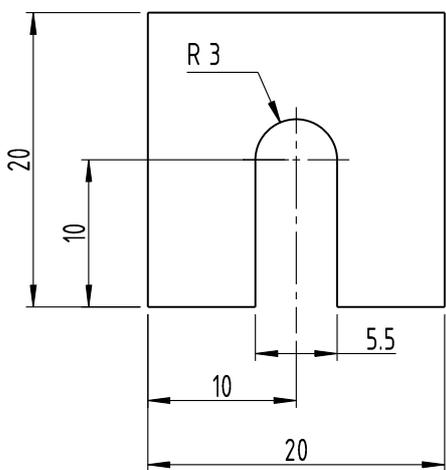
MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~

FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM) QUALITY OF WELD JOINTS REF, RD 230 MEDIUM

VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96 STATUS: **PROTO/PRODUCTION**



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NOTE:

1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. REMOVE SHARP EDGES AND BURRS.
4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

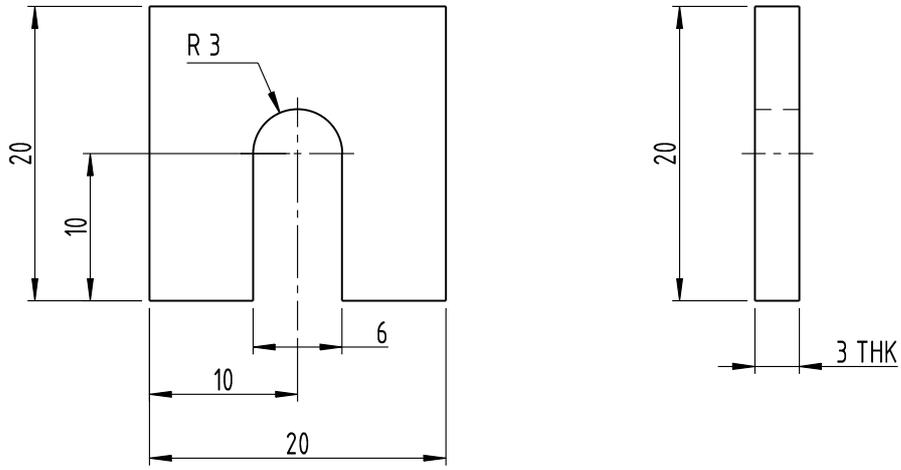
GRADE No.	N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12
VALUE	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
SYMBOL												
SURFACE ROUGHNESS												

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
					MATERIAL	
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304 2B FINISH		
			HEAT TREAT.	APPD		28.04.2020
			SURFACE TREAT.	REVD		28.04.2020
			TITLE	CHKD		28.04.2020
				DRWN		28.04.2020
				SCALE		SHEET
				1:0.5		1 OF 1
				DRG No.	Wt.	
				525-18296	0.0063kg	
				ALT		
				-		



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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)							QUALITY OF WELD JOINTS REF, RD 230 MEDIUM			
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.							STATUS: PROTO/PRODUCTION			
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										



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- NOTE:**
1. ALL DIMENSIONS ARE IN mm.
 2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. REMOVE SHARP EDGES AND BURRS.
 4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

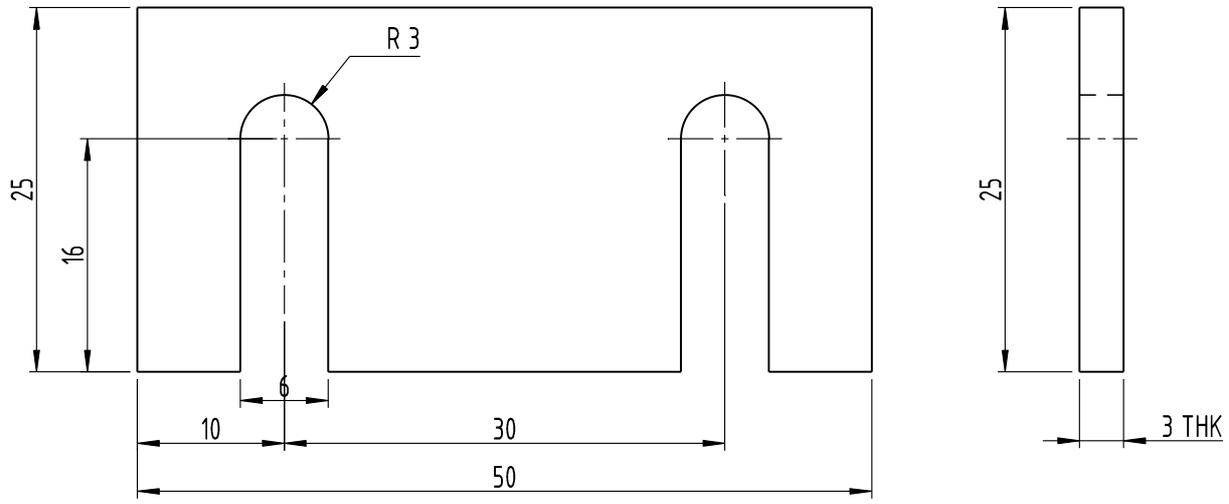
N1	0.025	▽
N2	0.05	▽
N3	0.1	▽
N4	0.2	▽
N5	0.4	▽
N6	0.8	▽
N7	1.6	▽
N8	3.2	▽
N9	6.3	▽
N10	12.5	▽
N11	25	▽
N12	50	▽
GRADE No.		▽
VALUE		▽
SYMBOL		▽
SURFACE ROUGHNESS		▽

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304 2B FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	28.04.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	28.04.2020
			TITLE	CHKD	<i>[Signature]</i>	28.04.2020
				DRWN	<i>[Signature]</i>	28.04.2020
				SCALE	1:0.5	
				SHEET	1 OF 1	
				Wt.	0.0094kg	
				DRG No.	525-18297	
				ALT	-	



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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)							QUALITY OF WELD JOINTS REF, RD 230 MEDIUM			
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.							STATUS:	PROTO/PRODUCTION		
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										



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NOTE:

1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. REMOVE SHARP EDGES AND BURRS.
4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

N1	0.025	✓
N2	0.05	✓
N3	0.1	✓
N4	0.2	✓
N5	0.4	✓
N6	0.8	✓
N7	1.6	✓
N8	3.2	✓
N9	6.3	✓
N10	12.5	✓
N11	25	✓
N12	50	✓
GRADE No.		✓
VALUE		✓
SYMBOL		✓
SURFACE		✓
ROUGHNESS		✓

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
					MATERIAL	
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304 2B FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	27.04.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	27.04.2020
			TITLE	CHKD	<i>[Signature]</i>	27.04.2020
			LINER SIDE FIXING	DRWN	<i>[Signature]</i>	27.04.2020
				SCALE	1:0.5	SHEET
				DRG No.	525-18298	Wt.
						0.03kg
						ALT
						-

BEML LIMITED
NEW FRONTIERS. NEW DREAMS

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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~

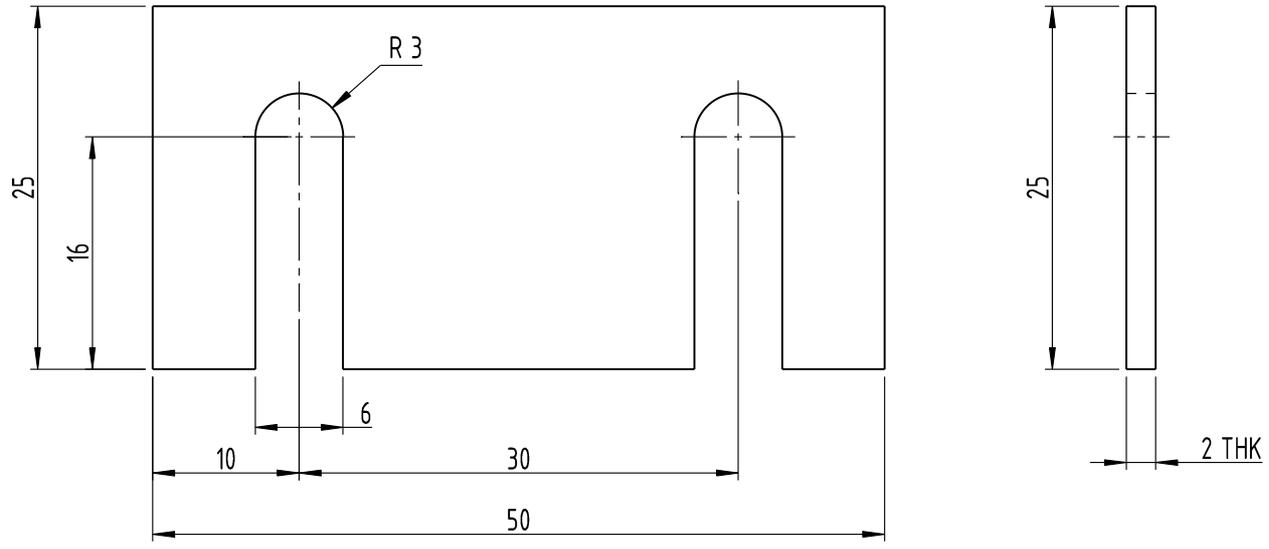
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM) QUALITY OF WELD JOINTS REF, RD 230 MEDIUM

VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96

STATUS: **PROTO/PRODUCTION**



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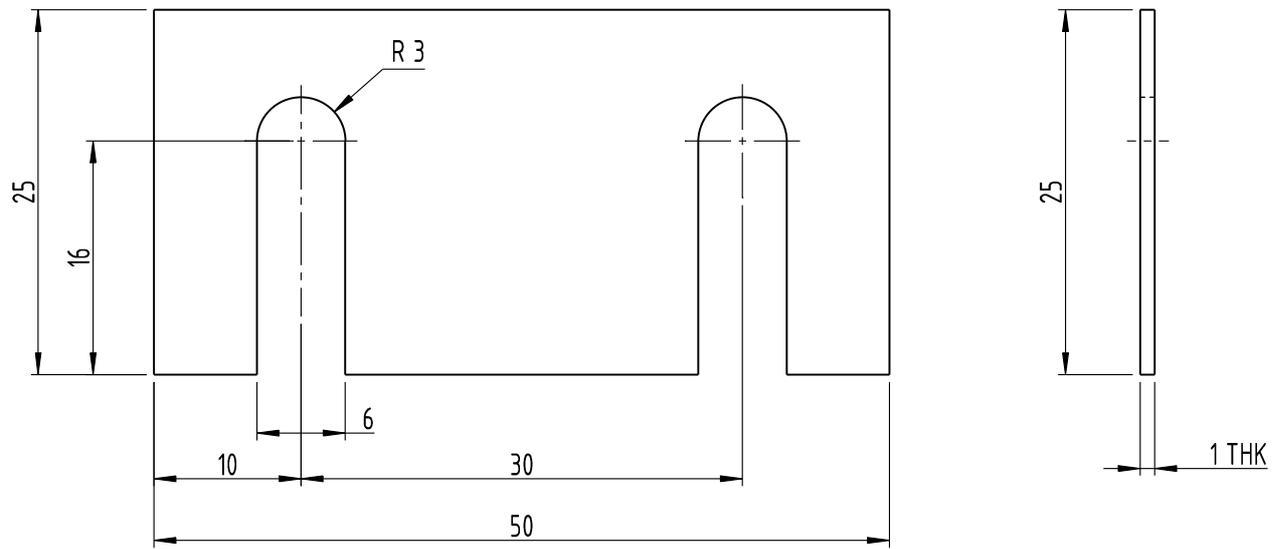
- NOTE:**
1. ALL DIMENSIONS ARE IN mm.
 2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. REMOVE SHARP EDGES AND BURRS.
 4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

N1	0.025	▽
N2	0.05	▽
N3	0.1	▽
N4	0.2	▽
N5	0.4	▽
N6	0.8	▽
N7	1.6	▽
N8	3.2	▽
N9	6.3	▽
N10	12.5	▽
N11	25	▽
N12	50	▽
GRADE No.		▽
VALUE		▽
SYMBOL		▽
SURFACE ROUGHNESS		▽

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)	
			PRODUCT	MUMBAI METRO CARS - L2 & L7			
			REF DRG				
			MATERIAL	SUS304/AISI304 2B FINISH			
			HEAT TREAT.	APPD	<i>[Signature]</i>	27.04.2020	
			SURFACE TREAT.	REVD	<i>[Signature]</i>	27.04.2020	
			TITLE	CHKD	<i>[Signature]</i>	27.04.2020	
			LINER SIDE FIXING	DRWN	<i>[Signature]</i>	27.04.2020	
				SCALE	1:0.5	SHEET	1 OF 1
				DRG No.	525-18299	Wt.	0.02 kg
						ALT	▽
			BEML LIMITED				

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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)							QUALITY OF WELD JOINTS REF, RD 230 MEDIUM			
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.										
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96							STATUS:		PROTO/PRODUCTION	



UNCONTROLLED

NOTE:

1. ALL DIMENSIONS ARE IN mm.
2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
3. REMOVE SHARP EDGES AND BURRS.
4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

N1	0.025	▽
N2	0.05	▽
N3	0.1	▽
N4	0.2	▽
N5	0.4	▽
N6	0.8	▽
N7	1.6	▽
N8	3.2	▽
N9	6.3	▽
N10	12.5	▽
N11	25	▽
N12	50	▽
GRADE No.		▽
VALUE		▽
SYMBOL		▽
SURFACE ROUGHNESS		▽

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304 2B FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	27.04.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	27.04.2020
			TITLE	CHKD	<i>[Signature]</i>	27.04.2020
			LINER SIDE FIXING	DRWN	<i>[Signature]</i>	27.04.2020
				SCALE	1:0.5	SHEET
					Wt.	0.01 kg
				DRG No.	525-18300	
				ALT	-	
			BEML LIMITED <small>NEW FRONTIERS. NEW DREAMS</small>			

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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~

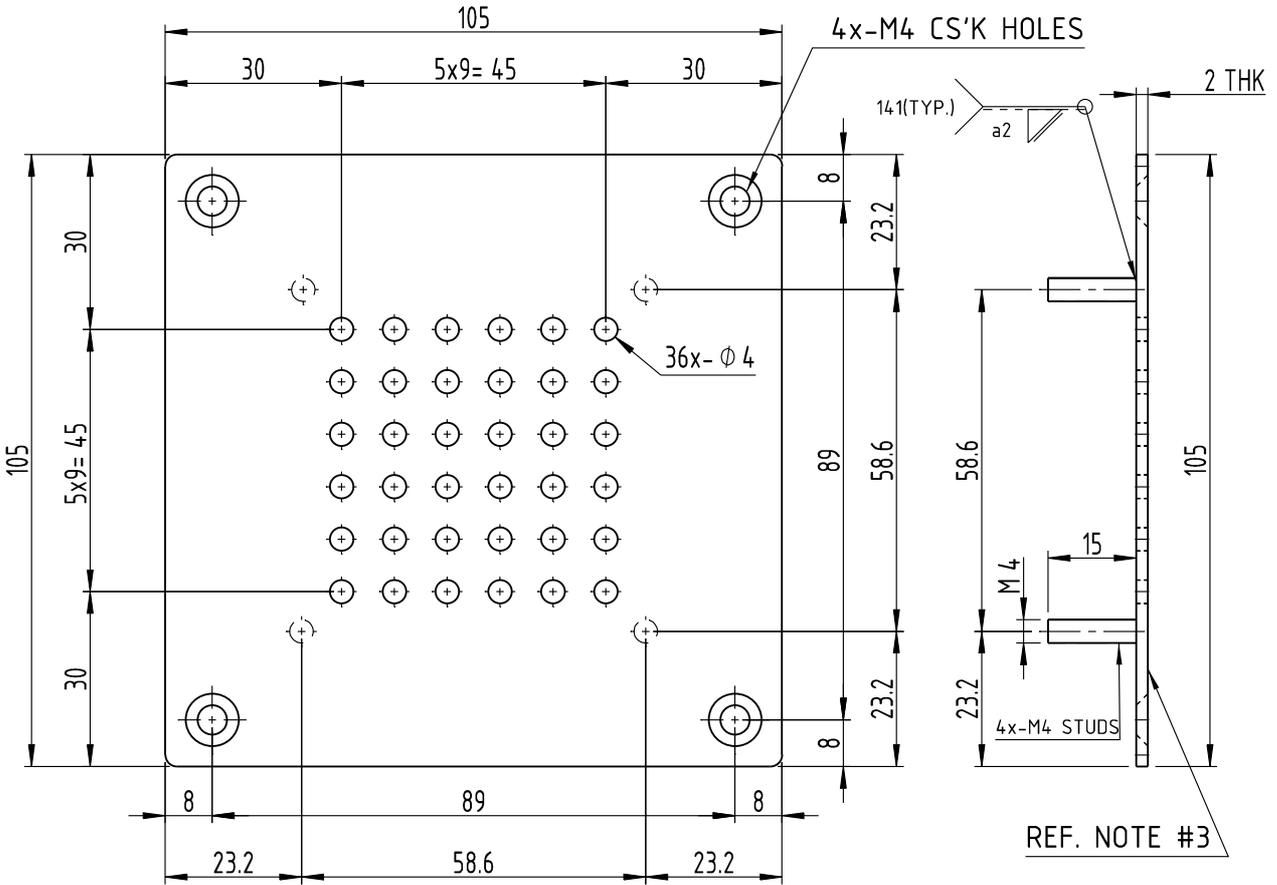
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)

VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96

STATUS: **PROTO/PRODUCTION**



- NOTE:**
1. ALL DIMENSIONS ARE IN mm.
 2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. THE EXPOSED SURFACE SHALL BE BRUSH FINISHED TO ASTM A480. NO.6 FINISH.
 4. WELDING SYMBOLS ACCORDING TO ISO:2553
 5. REMOVE SHARP EDGES AND BURRS.
 6. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

UNCONTROLLED

N1	0.025	▽
N2	0.05	▽
N3	0.1	▽
N4	0.2	▽
N5	0.4	▽
N6	0.8	▽
N7	1.6	▽
N8	3.2	▽
N9	6.3	▽
N10	12.5	▽
N11	25	▽
N12	50	▽
GRADE No.		▽
VALUE		▽
SYMBOL		▽
SURFACE ROUGHNESS	ALT.NO.	ECN NO/CHANGES

				105X105X2THK			
SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)	
				MUMBAI METRO CARS - L2 & L7			
				SUS304/AISI304-BRUSH FINISH AS PER ASTM A480 NO.6 FINISH			
				HEAT TREAT.	APPD	16.05.2020	
				SURFACE TREAT.	REVD	16.05.2020	
				TITLE	CHKD	16.05.2020	
					DRWN	16.05.2020	
				PLATE, BUZZER SPEAKER		SCALE	SHEET
						1:1	1 OF 1
						Wt.	0.17 kg
						DRG No.	ALT
				BEML LIMITED		525-18313	
						▽	

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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~

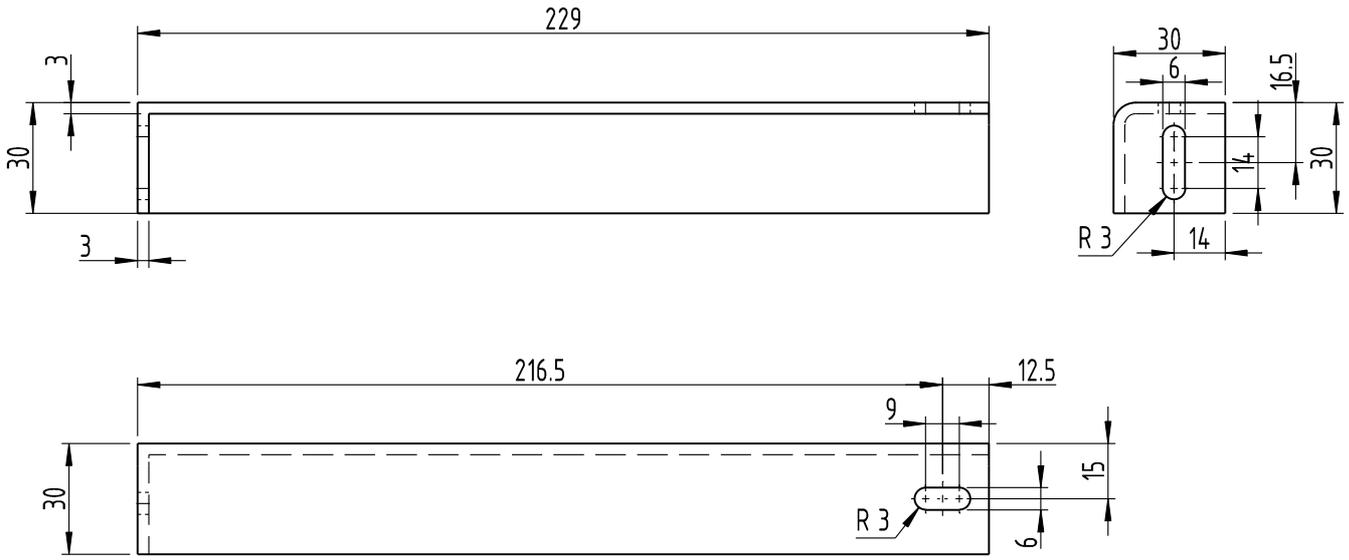
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM) QUALITY OF WELD JOINTS REF, RD 230 MEDIUM

VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96

STATUS: **PROTO/PRODUCTION**



UNCONTROLLED

- NOTE:**
1. ALL DIMENSIONS ARE IN mm.
 2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. REMOVE SHARP EDGES AND BURRS.
 4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

N1	0.025	▽
N2	0.05	▽
N3	0.1	▽
N4	0.2	▽
N5	0.4	▽
N6	0.8	▽
N7	1.6	▽
N8	3.2	▽
N9	6.3	▽
N10	12.5	▽
N11	25	▽
N12	50	▽
GRADE No.		▽
VALUE		▽
SYMBOL		▽
SURFACE ROUGHNESS		▽

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I.S	Wt. (Kg)
					MATERIAL	
			PRODUCT	MUMBAI METRO CARS - L2 & L7		
			REF DRG			
			MATERIAL	SUS304/AISI304-2B FINISH		
			HEAT TREAT.	APPD	<i>[Signature]</i>	27.04.2020
			SURFACE TREAT.	REVD	<i>[Signature]</i>	27.04.2020
			TITLE	CHKD	<i>[Signature]</i>	27.04.2020
			SUPPORT BRACKET	DRWN	<i>[Signature]</i>	27.04.2020
				SCALE		SHEET
				NTS	1 OF 1	0.25kg
				DRG No.	525-18344	
					ALT	



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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~

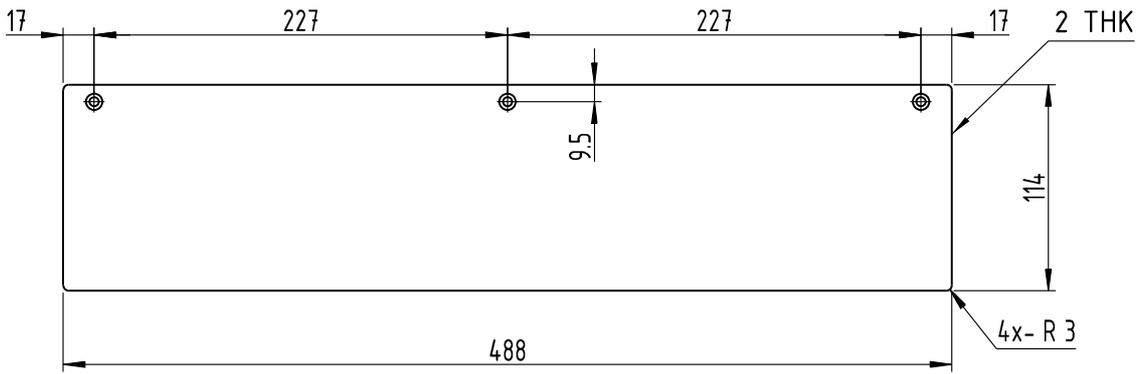
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM) QUALITY OF WELD JOINTS REF, RD 230 MEDIUM

VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C.

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96

STATUS: **PROTO/PRODUCTION**



UNCONTROLLED

- NOTE:**
1. ALL DIMENSIONS ARE IN mm.
 2. THE ITEM SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. REMOVE SHARP EDGES AND BURRS.
 4. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

GRADE No.	N1	0.025	▽
VALUE	N2	0.05	▽
SYMBOL	N3	0.1	▽
	N4	0.2	▽
	N5	0.4	▽
	N6	0.8	▽
	N7	1.6	▽
	N8	3.2	▽
	N9	6.3	▽
	N10	12.5	▽
	N11	25	▽
	N12	50	▽
SURFACE ROUGHNESS			▽

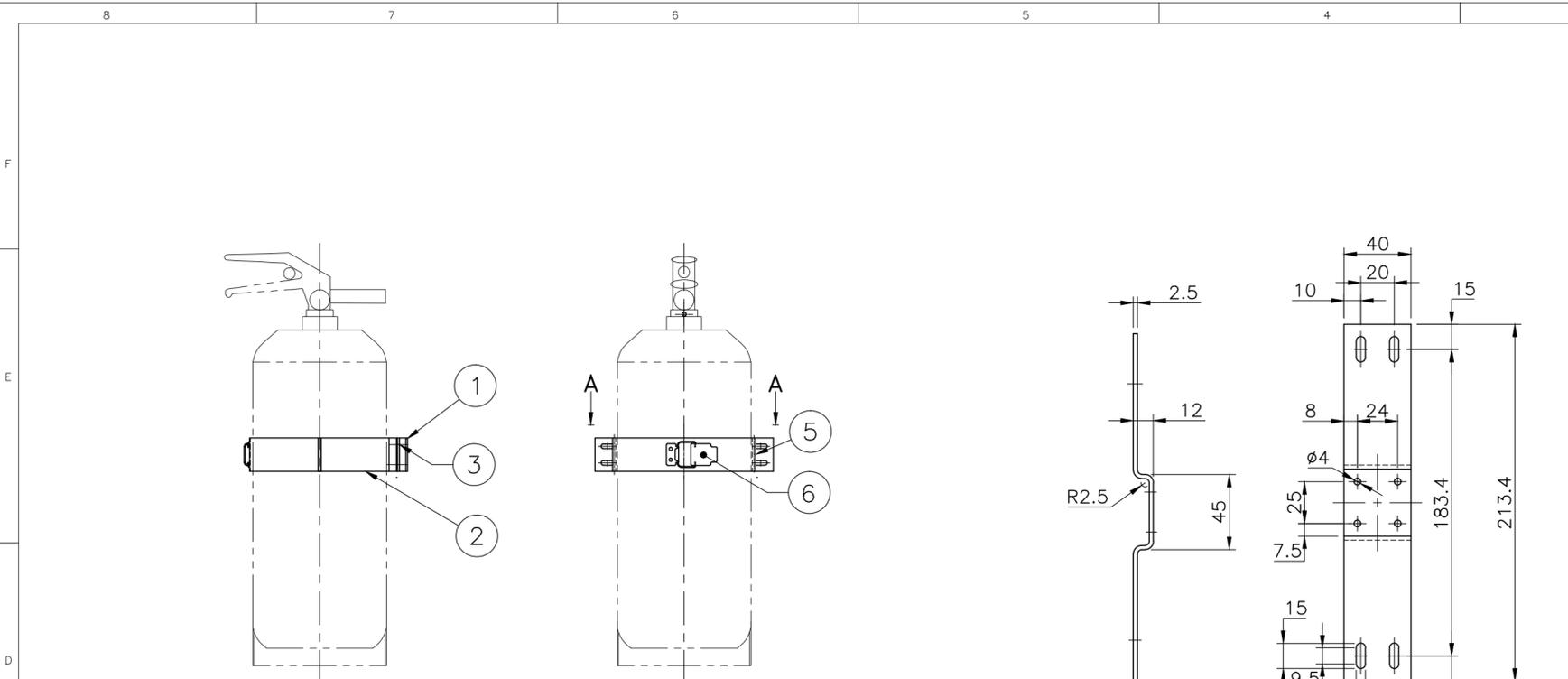
SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./I/S	Wt. (Kg)	
			PRODUCT	MUMBAI METRO CARS - L2 & L7			
			REF DRG				
			MATERIAL	SUS304/AISI304-2B FINISH			
			HEAT TREAT.	APPD	<i>[Signature]</i>	02.05.2020	
			SURFACE TREAT.	REVD	<i>[Signature]</i>	02.05.2020	
			TITLE	CHKD	<i>[Signature]</i>	02.05.2020	
			COVER PLATE	DRWN	<i>[Signature]</i>	02.05.2020	
				SCALE		SHEET	Wt.
				NTS		1 OF 1	0.87 kg
				DRG No.	525-18346		
					ALT		



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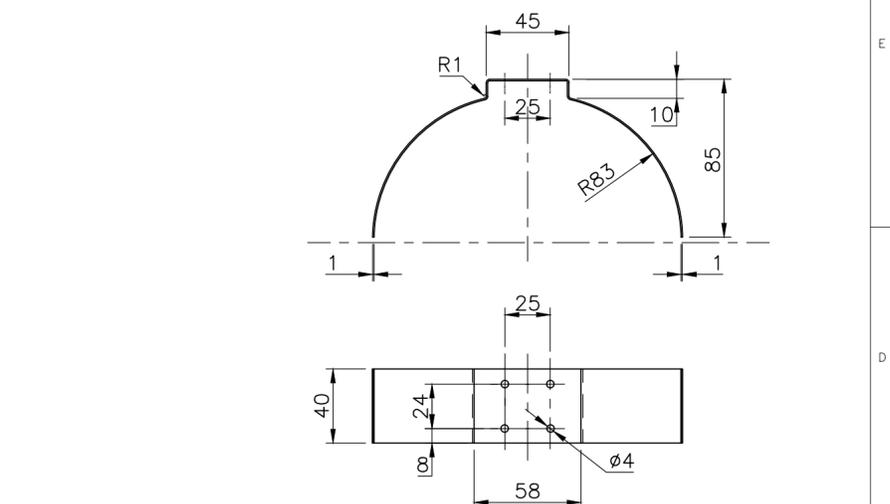
NT1	0.025
N2	0.05
N3	0.1
N4	0.2
N5	0.4
N6	0.8
N7	1.6
N8	3.2
N9	6.3
N10	12.5
N11	25
N12	50

GRADE No.	VALUE	SYMBOL
SURFACE ROUGHNESS		



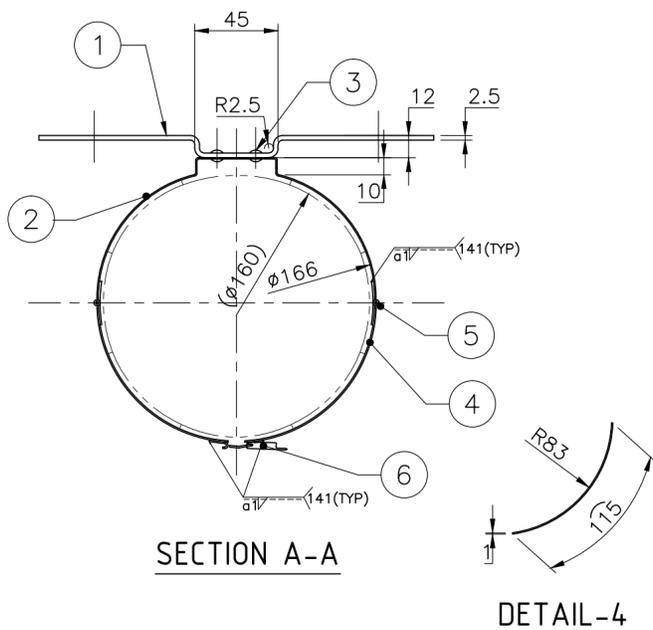
DETAIL-1

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
	TOLERANCE	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227										
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)										
VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C										
WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96										
									STATUS:	PROTO/PRODUCTION



DETAIL-2

UNCONTROLLED



SECTION A-A

DETAIL-4

- NOTE:**
- ALL DIMENSIONS ARE IN mm.
 - THE ASSY SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 - REMOVE ALL SHARP EDGES AND BURRS.
 - PLUG/SPOT WELD ITEM NO 5 & 6 WITH ITEM 2 & 4 SUITABLY.
 - WELD AREAS SHALL BE PICKLED & PASSIVATED.
 - RIVET ITEM 2 TO ITEM 1 USING ITEM 3.
 - THE BRACKET ASSY SHALL BE BRUSH FINISHED AS PER ASTM A480 TO NO. 6 FINISH.
 - THIS ITEM SHALL BE APPROVED BEFORE MASS PRODUCTION.

SL.No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./LS	Wt. (Kg)
6	1	-	SS LATCH-COMMERCIAL	-	SUS304/AISI304	
5	2	-	SS HINGE-COMMERCIAL	40x40x1t	SUS304/AISI304	
4	2	-	BAND	115x40x1t	SUS304/AISI304	
3	4	-	RIVET	Ø4x8L	DIN 7337,TYPE-A,SS	
2	1	-	BAND	280x40x1t	SUS304/AISI304	
1	1	-	BRACKET	2.5t	SUS304/AISI304	

PRODUCT		MUMBAI METRO CARS L2 & L7			
REF DRG					
MATERIAL		SUS304/AISI 304, BRUSH FINISHED AS PER ASTM A480 TO NO.6 FINISH			
HEAT TREAT.	APPD	APPROVED	DATE		
SURFACE TREAT.	REVD	REVISION	DATE		
TITLE	CHKD	CHECKED	DATE		
BRACKET, FIRE EXTINGUISHER-6KG (NON-UTO)		DRWN	DATE		
SCALE	NTS	SHEET	Wt.(Kg)		
DRG No.		1 OF 1	-		
BEML LIMITED		525-18348		ALT	

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MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	0 - 6	6 - 30	30 - 120	120 - 315	315-1000	1000-2000	2000-4000	ABOVE 4000	RA
TOLERANCE		±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	

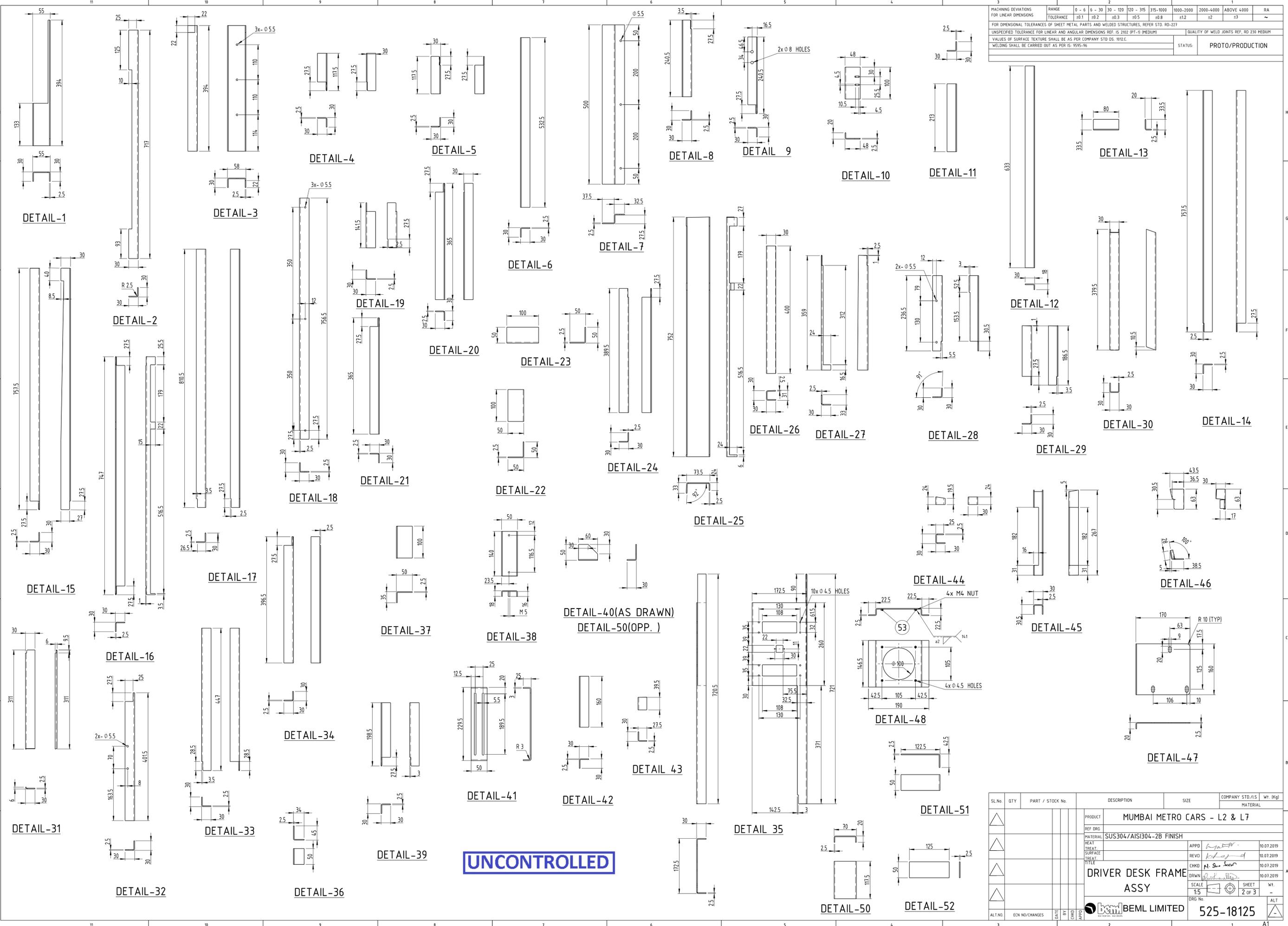
FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)

VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS. 1012.C

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96

STATUS: **PROTO/PRODUCTION**



SL No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	COMPANY STD./S.	Wt. (kg)
			MUMBAI METRO CARS - L2 & L7		MATERIAL	
			PRODUCT			
			REF. DRG.			
			MATERIAL	SUS304/AISI304-2B FINISH		
			HEAT TREAT			
			SURFACE TREAT.			
			TITLE	DRIVER DESK FRAME ASSY		
			SCALE	1:5	SHEET 2 OF 3	WT.
			DRG No.			ALT.
ALT NO.	ECN NO/CHANGES	DATE	BY	APPRO	BEM BEM LIMITED	
					525-18125	

MACHINING DEVIATIONS FOR LINEAR DIMENSIONS	RANGE	TOLERANCE										QUALITY OF WELD JOINTS REF. RD 230 MEDIUM
		0 - 6	6 - 30	30 - 120	120 - 315	315 - 1000	1000 - 2000	2000 - 4000	ABOVE 4000	RA		
		±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	±3	~		

FOR DIMENSIONAL TOLERANCES OF SHEET METAL PARTS AND WELDED STRUCTURES, REFER STD. RD-227

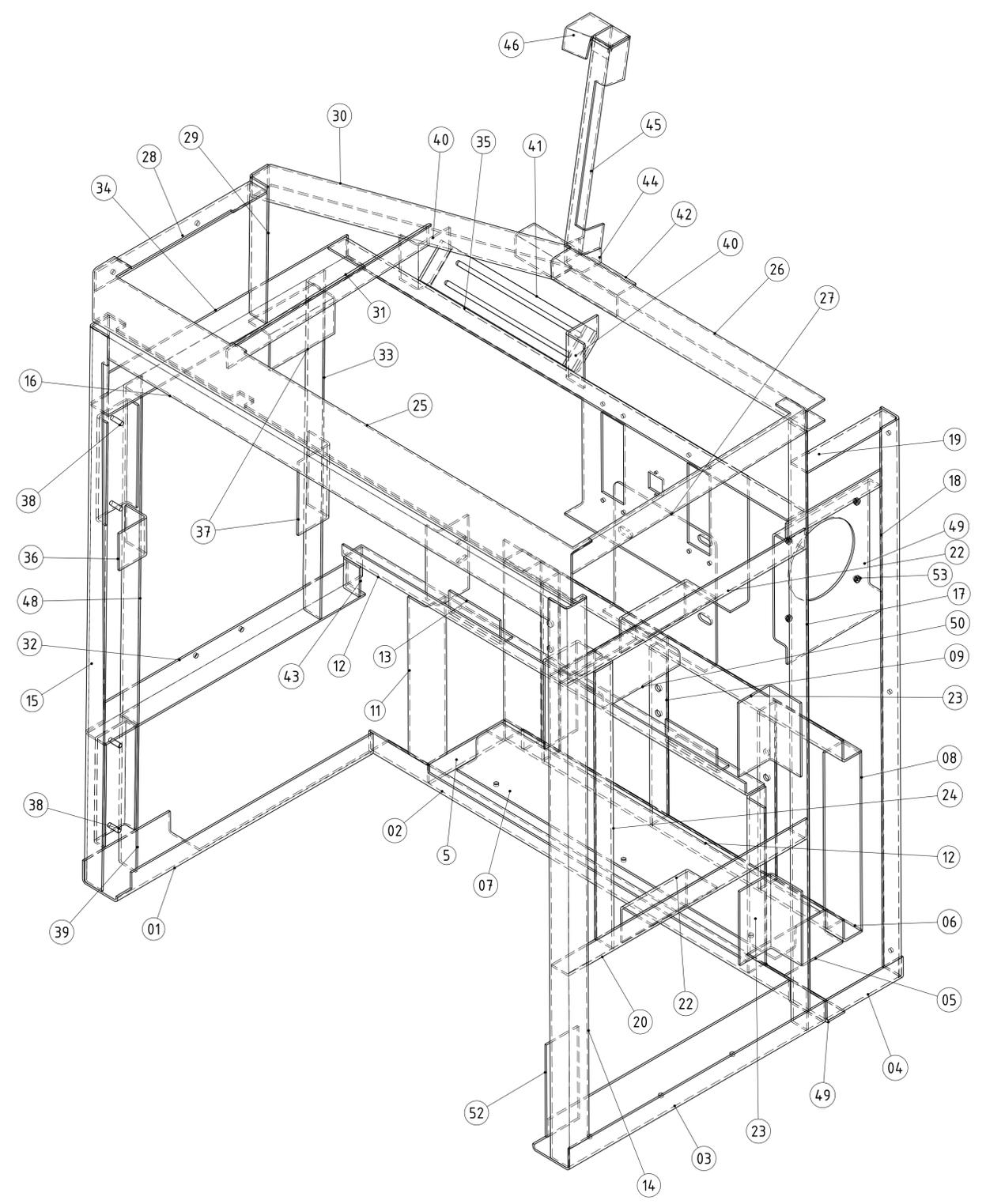
UNSPECIFIED TOLERANCE FOR LINEAR AND ANGULAR DIMENSIONS REF. IS 2102 (PT-1) (MEDIUM)

VALUES OF SURFACE TEXTURE SHALL BE AS PER COMPANY STD DS 1012

WELDING SHALL BE CARRIED OUT AS PER IS: 9595-96

STATUS: **PROTO/PRODUCTION**

UNCONTROLLED



SL No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	MATERIAL
53	4	-	HEX. HEAD FLANGE NUT	M4	ISO:7044-83/MATL: ISO: 3506, Gr A2-70, SS
52	1	-	BRACKET	2.5t, 50x125	SUS304 / AISI304
51	1	-	BRACKET	2.5t, 122.5x42.5 L=50	SUS304 / AISI304
50	1	-	BRACKET	2.5t, 20x20x70 L=117	SUS304 / AISI304
49	1	-	BRACKET	2.5t	SUS304 / AISI304
48	1	-	FRAME, ANGLE	2.5t, 30x30 L=44.7	SUS304 / AISI304
47	1	-	FRAME, ANGLE	2.5t, 4.7x120 L=160	SUS304 / AISI304
46	1	-	FRAME, ANGLE	2.5t, 57x60	SUS304 / AISI304
45	1	-	FRAME, CHANNEL	2.5t, 23x23x25 L=267	SUS304 / AISI304
44	1	-	FRAME, CHANNEL	2.5t, 25x25x25 L=24	SUS304 / AISI304
43	1	-	FRAME, ANGLE	2.5t, 30x30 L=139.5	SUS304 / AISI304
42	1	-	FRAME, ANGLE	2.5t, 30x30 L=160	SUS304 / AISI304
41	1	-	FRAME, ANGLE	3t, 25x25x225 L=230	SUS304 / AISI304
40	2	-	FRAME, ANGLE	2.5t, 30x50 L=60	SUS304 / AISI304
39	1	-	FRAME, ANGLE	2.5t, 30x30 L=198.5	SUS304 / AISI304
38	1	-	FRAME, CHANNEL	2.5t, 18x18x50 L=140	SUS304 / AISI304
37	2	-	FRAME, ANGLE	2.5t, 35x50 L=100	SUS304 / AISI304
36	1	-	FRAME, ANGLE	2.5t, 45x34 L=50	SUS304 / AISI304
35	1	-	FRAME, ANGLE	2.5t, L=721	SUS304 / AISI304
34	1	-	FRAME, ANGLE	2.5t, 30x30 L=396	SUS304 / AISI304
33	1	-	FRAME, ANGLE	2.5t, 50x50 L=44.7	SUS304 / AISI304
32	1	-	FRAME, ANGLE	2.5t, 30x30 L=401.5	SUS304 / AISI304
31	1	-	FRAME, ANGLE	2.5t, 25x25 L=311	SUS304 / AISI304
30	1	-	FRAME, ANGLE	2.5t, 30x30x32 L=379	SUS304 / AISI304
29	1	-	FRAME, ANGLE	2.5t, 30x30 L=186	SUS304 / AISI304
28	1	-	FRAME, ANGLE	2.5t, 30x30 L=237	SUS304 / AISI304
27	1	-	FRAME, ANGLE	2.5t, 30x30 L=360	SUS304 / AISI304
26	1	-	FRAME, CHANNEL	2.5t, 30x30x32 L=400	SUS304 / AISI304
25	1	-	FRAME, CHANNEL	2.5t, 25x35x70 L=752	SUS304 / AISI304
24	1	-	FRAME, ANGLE	2.5t, 30x30 L=389.5	SUS304 / AISI304
23	2	-	FRAME, ANGLE	2.5t, 50x50 L=100	SUS304 / AISI304
22	2	-	FRAME, ANGLE	2.5t, 50x50 L=100	SUS304 / AISI304
21	1	-	FRAME, ANGLE	2.5t, 30x30 L=365	SUS304 / AISI304
20	1	-	FRAME, ANGLE	2.5t, 30x30 L=365	SUS304 / AISI304
19	1	-	FRAME, ANGLE	2.5t, 30x30 L=141.5	SUS304 / AISI304
18	1	-	FRAME, ANGLE	2.5t, 30x30 L=756.5	SUS304 / AISI304
17	1	-	FRAME, ANGLE	2.5t, 30x60 L=810.5	SUS304 / AISI304
16	1	-	FRAME, ANGLE	2.5t, 30x30 L=74.7	SUS304 / AISI304
15	1	-	FRAME, ANGLE	2.5t, 30x30 L=757.5	SUS304 / AISI304
14	1	-	FRAME, ANGLE	2.5t, 30x30 L=757.5	SUS304 / AISI304
13	2	-	FRAME, ANGLE	2.5t, 33x20 L=80	SUS304 / AISI304
12	1	-	FRAME, ANGLE	2.5t, 30x18 L=633	SUS304 / AISI304
11	2	-	FRAME, ANGLE	2.5t, 30x30 L=213	SUS304 / AISI304
10	1	-	FRAME, ANGLE	2.5t, 20x48 L=100	SUS304 / AISI304
9	1	-	FRAME, ANGLE	2.5t, 30x30 L=240.5	SUS304 / AISI304
8	2	-	FRAME, ANGLE	2.5t, 30x30 L=240.5	SUS304 / AISI304
7	1	-	FRAME, CHANNEL	2.5t, 25x35x35 L=500	SUS304 / AISI304
6	1	-	FRAME, ANGLE	2.5t, 30x30 L=532.5	SUS304 / AISI304
5	2	-	FRAME, ANGLE	2.5t, 30x30 L=117.5	SUS304 / AISI304
4	1	-	FRAME, ANGLE	2.5t, 30x30 L=117.5	SUS304 / AISI304
3	1	-	FRAME, CHANNEL	2.5t, 58x30x30 L=394	SUS304 / AISI304
2	1	-	FRAME, ANGLE	2.5t, 30x30 L=717	SUS304 / AISI304
1	1	-	FRAME, CHANNEL	2.5t, 55x30x30 L=394	SUS304 / AISI304

- NOTE:**
1. ALL DIMENSIONS ARE IN mm.
 2. THE ASSY SHALL COMPLY TO TDC DOC NO. GR/TD/5025.
 3. WELDING SYMBOLS ACCORDING TO ISO:2553.
 4. WELD AREAS SHALL BE PICKLED AND PASSIVATED.
 5. REMOVE SHARP EDGES AND BURRS.
 6. SAMPLE APPROVAL SHALL BE OBTAINED BEFORE BULK PRODUCTION.

SL No.	QTY	PART / STOCK No.	DESCRIPTION	SIZE	MATERIAL
<p>PRODUCT: MUMBAI METRO CARS - L2 & L7</p> <p>REF DRG: SUS304/AISI304-2B FINISH</p> <p>MATERIAL: SUS304/AISI304-2B FINISH</p> <p>HEAT TREAT: APPD</p> <p>SURFACE TREAT: REVD</p> <p>TITLE: CHKD</p> <p>DRIVER DESK FRAME ASSY</p> <p>SCALE: 1:5 SHEET: 3 OF 3 WT: -</p> <p>DRG No. 525-18125</p> <p>BEMBL LIMITED</p>					
ALT NO.	EEN NO/CHANGES	DATE	BY	APPD	ALT

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