



COSMA INNOVATIVE MANUFACTURING SOLUTIONS

REV	CHANGE	CHK'D
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THIS DRAWING MAY USE BOTH INCH AND METRIC
UNITS OF MEASUREMENT
(INDICATES INCH DIMENSIONS)

**MAXIMUM ALLOWANCE ROUGHNESS OF ALL
METRIC**

1 PLACE mm FINISH DIMENSIONS TO BE 3.2 MICRONS
2 PLACE mm FINISH DIMENSIONS TO BE 1.6 MICRONS
3 PLACE mm FINISH DIMENSIONS TO BE 0.5 MICRONS
ALL GROUND SURFACES TO BE 0.4 MICRONS.

METRIC - EXCEPT AS NOTED TOLERANCES SHALL BE:

1 MACHINING 0.3
2 PLACE FABRICATION 1.0
3 MACHINING 0.3

0.03 BETWEEN SINGLE DOWEL AND A HEEL SURFACE
0.03 BETWEEN DOWELS IN THE SAME PLANE
0.10 BETWEEN DOWELS IN DIFFERENT PLANS
0.13 TO SCREW HOLES, NON ACCUMULATIVE
**ALL Q SURFACES MUST BE FINISHED EXCEPT FOR COLD
DRAWN SURFACES**

**ALL EDGES OF PART CONTACT SURFACES ON LOCATING
BLOCKS AND FINGERS TO HAVE .125 INCH / 3.00 mm
AFTER SPOTTING.**

**MARK IDENTIFICATION AND MATERIAL NUMBERS ON DETAILS.
PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK.**


CRITICAL FEATURES ARE MARKED WITH ***

WELDMENTS

ALL WELD GROOVES TO BE 1/4 INCH.
ALL "V" FILLETS TO BE 90 DEGREE AS SHOWN.
**ADJACENT HOLES IN SHELF DIMENSIONS WHERE TRAPPED
AIR IS A POSSIBILITY I.E. TUBING CAPED AT BOTH ENDS,
BOXED FORMS ETC. SPOTFACE SCREW AND / OR BOLT
HOLES WITH MIN CLEARANCE 1/8 INCH. IF BOLT
HEAD AND / OR WASHERS IS INFRINGED UPON BY WELD BEADS.**

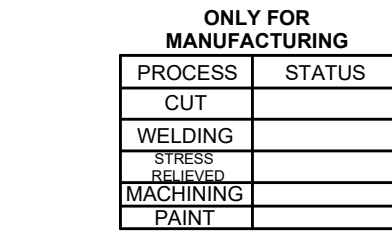
FOR BASES APPLY CONTINUOUS
WELDING AROUND OUTSIDE. FOR SUPPORTS APPLY
CONTINUOUS WELDING AROUND INSIDE AND AROUND THE
WELDMENT CONSTRUCTION MUST BE STRESS RELIEVED BY
NORMALIZED. WELDMENT CONSTRUCTION MUST BE MILLING
AND / OR TURNING AFTER WELDING. ALL WELDS TO BE APPROX
MICRO WELD WELD 0.45mm. WELD DIAMETER. BREAK SHARP EDGES

COTO: COTO NUMBER	
<input type="checkbox"/> MOVIL PART RAL	THIS MATERIAL IS PROPERTY OF MAGNA COSMA INTERNATIONAL NO RIGHTS ARE GRANTED TO USE SUCH MATERIAL FOR ANY PURPOSE OTHER THAN FURNISHING OF SERVICES AND SUPPLIES
<input checked="" type="checkbox"/> FIXED PART RAL	
<input type="checkbox"/> BLACK OXIDE	
<input type="checkbox"/> WITH OUT PAINT	
<input type="checkbox"/> POKA YOKE PAINT	

DESIGNER D. NAME	DETAILER D. NAME	 3RD ANGLE PROJECTION
PROJECT MGR. PM NAME	DESIGN SUP. F. NAME	CHECKER CK NAME

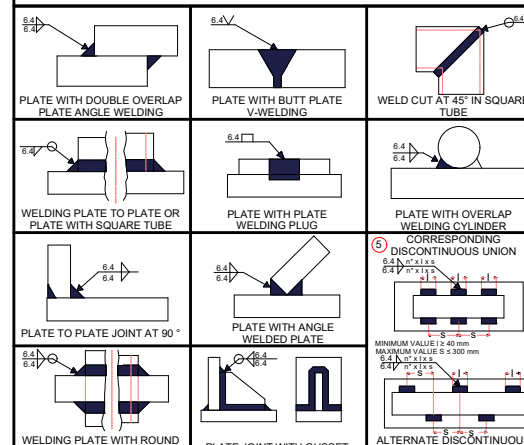
SCALE NONE	SHEET 1 OF 3	RELEASE DATE 3/1/2018
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Aplica: CIMS	FID-08-1, VER.4
Resp: L. Luna	Fecha: 09/09/2021

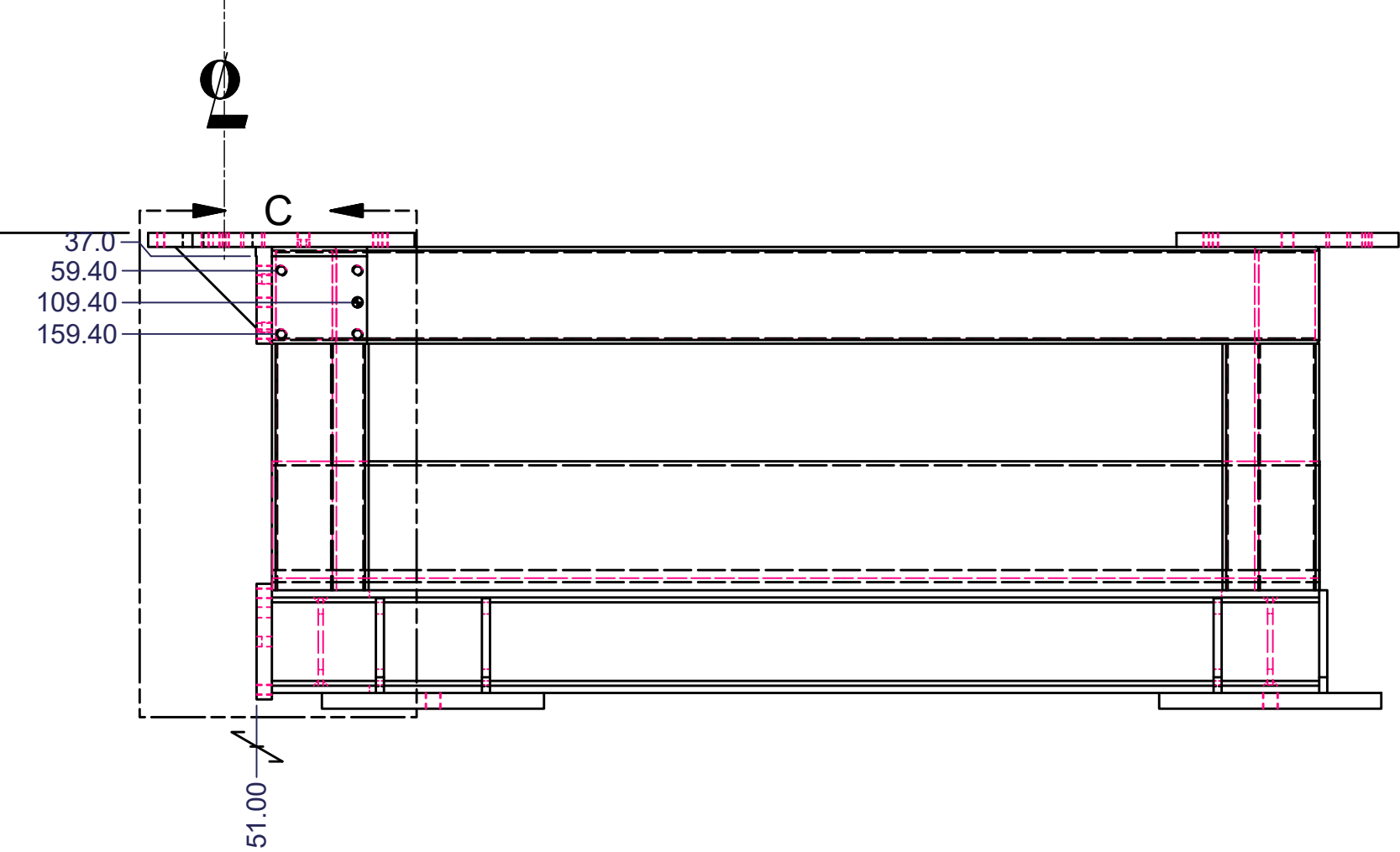
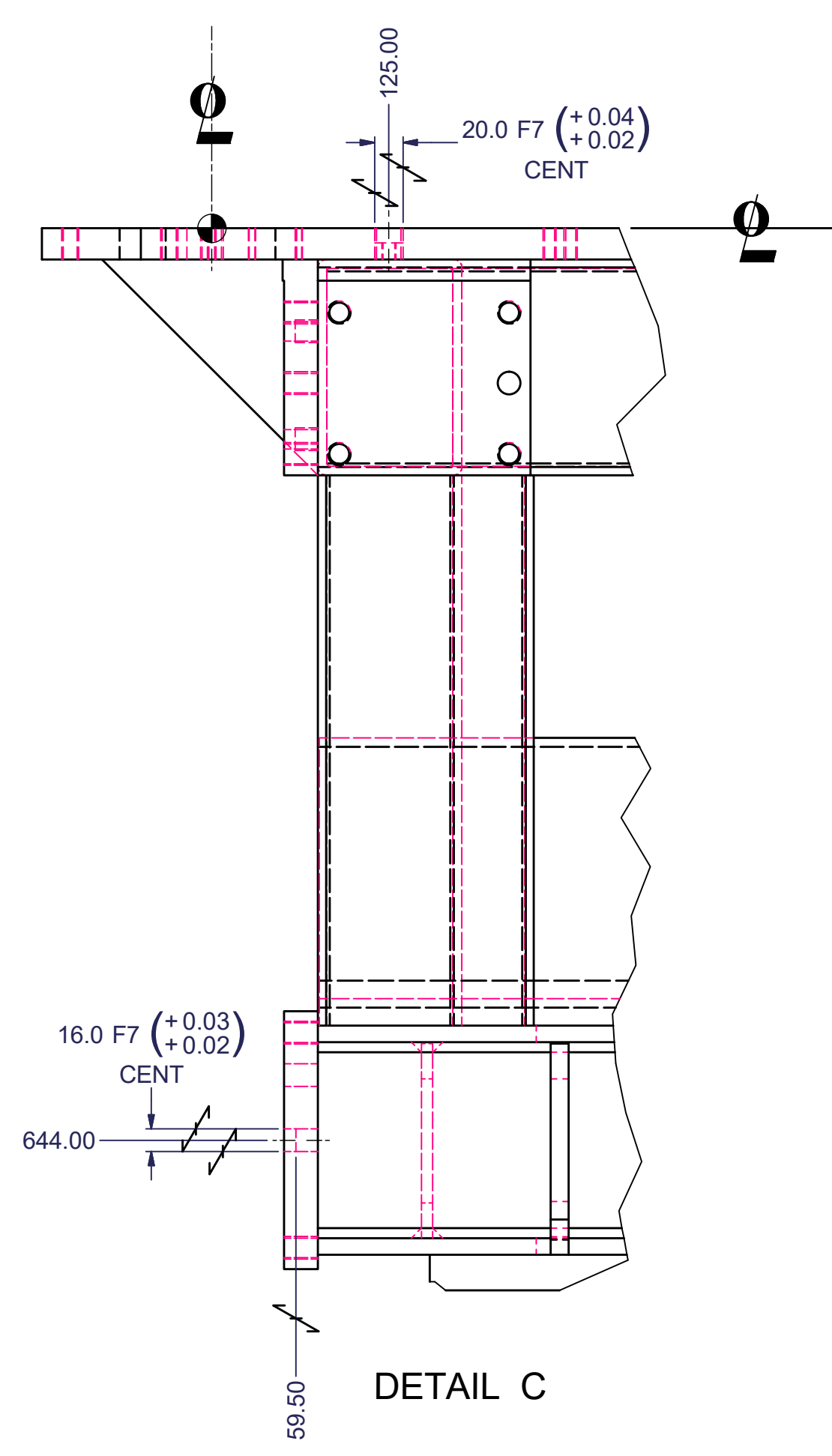
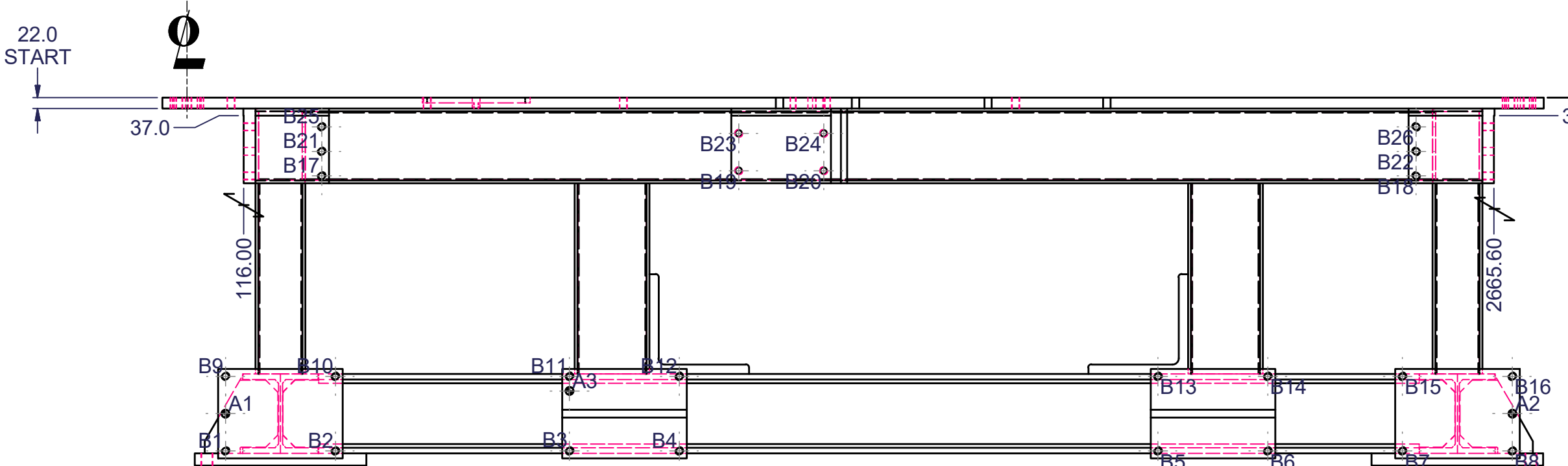
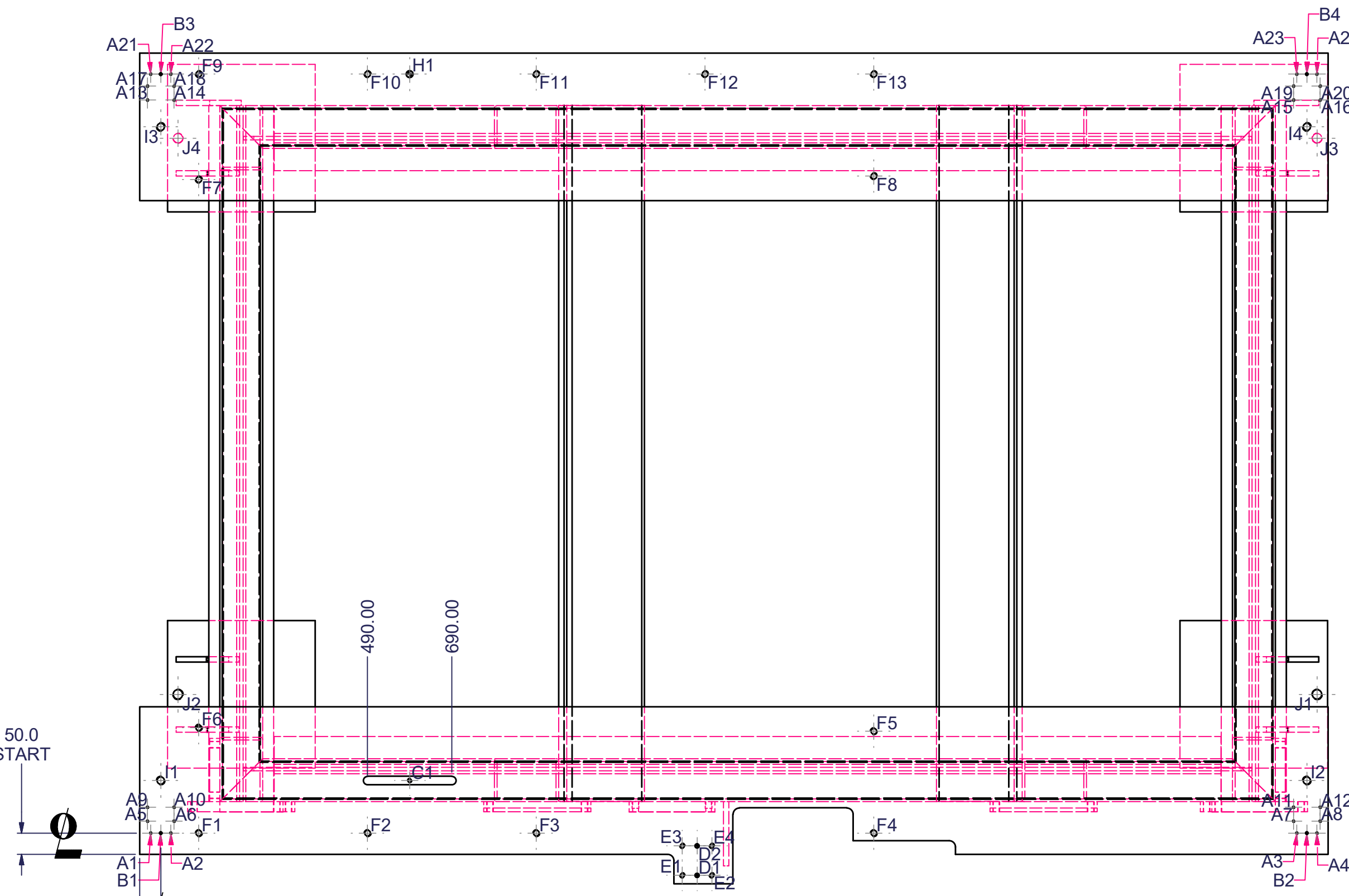


"ONLY FOR WELDMENTS"

1. THE WELDING APPLICATION IN MUST COMPLY WITH THE SPECIFICATION IN THE BOTTOM CHART
2. MUST INCLUDE VENTILATION HOLES IN ALL WELDS WHERE AIR IS TRAPPED
3. IS REQUIRED STRESS RELIEVED PROCESS IN THE WELDING AREA AFTER THE WELDING PROCESS AND AFTER MACHINING (CERTIFICATE MUST BE PROVIDED)
4. IS REQUIRED TO VISUAL REVIEW AND WITH PENETRATING LIQUID (CERTIFICATE MUST BE PROVIDED)
5. THE EXCEPTION FOR CONDITIONS DEFINED IN ITEM (5) IS THE CASE OF JOINTS EXPOSED TO HIGH STRESS, SHOCK, CYCLIC LOADS, STRUCTURES EXPOSED TO THE WEATHER OR AGGRESSIVE ENVIRONMENTS OR TEMPERATURES LOWER THAN OF THE LONGITUDINAL JOINTS OF TWO PIECES CAN BE CARRIED OUT BY DISCONTINUED WELDING PER INDICATION OF THE BOTTOM CHART



Hole Table			
HOLE	XDIM	YDIM	DESCRIPTION
A1	-23.876	0.000	M5x0.8 - TAP - THRU HOLES
A2	23.876	0.000	
A3	2692.724	0.000	
A4	2740.476	0.000	
A5	-31.500	28.500	
A6	31.500	28.500	
A7	2685.100	28.500	
A8	2748.100	28.500	
A9	-31.500	61.500	
A10	31.500	61.500	
A11	2685.100	61.500	
A12	2748.100	61.500	
A13	-31.500	1738.500	
A14	31.500	1738.500	
A15	2685.100	1738.500	
A16	2748.100	1738.500	
A17	-31.500	1771.500	
A18	31.500	1771.500	
A19	2685.100	1771.500	
A20	2748.100	1771.500	
A21	-23.876	1800.000	
A22	23.876	1800.000	
A23	2692.724	1800.000	
A24	2740.476	1800.000	
B1	0.000	0.000	FOR Ø6 -DWL H6- THRU - HOLES
B2	2716.600	0.000	
B3	0.000	1800.000	
B4	2716.600	1800.000	
C1	590.000	125.000	M10x1.5 - TAP - THRU HOLES
D1	1271.200	-100.000	FOR Ø10 -DWL H6- THRU - HOLES
D2	1271.200	-30.000	
E1	1236.200	-100.000	
E2	1306.200	-100.000	
E3	1236.200	-30.000	M12x1.75 - TAP - THRU HOLES
E4	1306.200	-30.000	
F1	90.000	0.000	
F2	490.000	0.000	
F3	890.000	0.000	M16x2 - TAP - THRU HOLES
F4	1690.000	0.000	
F5	1690.000	241.824	
F6	90.000	250.000	
F8	1690.000	1558.176	
F9	90.000	1800.000	
F10	490.000	1800.000	
F11	890.000	1800.000	
F12	1290.000	1800.000	
F13	1690.000	1800.000	
H1	590.000	1800.000	FOR Ø16 -DWL H6- THRU - HOLES
I1	0.000	125.000	M20x2.5 - TAP - THRU HOLES
I2	2716.600	125.000	
I3	0.000	1675.000	
I4	2716.600	1675.000	
J1	2740.800	329.000	M24x2 - TAP - THRU HOLES
J2	40.800	329.000	
J3	2740.800	1648.000	
J4	40.800	1648.000	



Hole Table			
HOLE	XDIM	YDIM	DESCRIPTION
A1	78.800	-644.000	FOR Ø16 -DWL H6- THRU - HOLES
A2	2702.800	-644.000	
A3	780.300	-598.000	
B1	78.800	-720.000	
B2	302.800	-720.000	M16x2 - TAP - THRU HOLES
B3	780.300	-720.000	
B4	1004.300	-720.000	
B5	1980.300	-720.000	
B6	2204.300	-720.000	
B7	2478.800	-720.000	
B8	2702.800	-720.000	
B9	78.800	-568.000	
B10	302.800	-568.000	
B11	780.300	-568.000	
B12	1004.300	-568.000	
B13	1980.300	-568.000	
B14	2204.300	-568.000	
B15	2478.800	-568.000	
B16	2702.800	-568.000	
B17	275.000	-159.400	
B18	2506.600	-159.400	
B19	1125.300	-149.000	
B20	1298.500	-149.000	
B21	275.000	-109.400	
B22	2506.600	-109.400	
B23	1125.300	-72.800	
B24	1298.500	-72.800	
B25	275.000	-59.400	
B26	2506.600	-59.400	

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(*INDICATES INCH DIMENSIONS)

MAXIMUM ALLOWANCE ROUGHNESS OF ALL METRIC:

1 PLACE mm FINISH DIMENSIONS TO BE 3.2 MICRONS
2 PLACE mm FINISH DIMENSIONS TO BE 1.6 MICRONS
3 PLACE mm FINISH DIMENSIONS TO BE 0.8 MICRONS
ALL GROUND SURFACES TO BE 0.4 MICRONS.

METRIC - EXCEPT AS NOTED TOLERANCES SHALL BE:

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1 PLACE FABRICATION: 1.5
2 PLACE: 0.08 BETWEEN MACHINED SURFACES
0.03 BETWEEN SINGLE DOWEL AND A HEEL SURFACE
0.03 BETWEEN DOWELS IN THE SAME PLANE
0.10 BETWEEN DOWELS IN DIFFERENT PLANES
0.13 TO SCREW HOLES, NON ACCUMULATIVE

ALL Ø SURFACES MUST BE FINISHED EXCEPT FOR COLD DRAWN SURFACES.

ALL EDGES OF PART CONTACT SURFACES ON LOCATING BLOCKS AND FINGERS TO HAVE: 12R INCH / 3.00 mm AFTER SPOTTING.

MARK IDENTIFICATION AND MATERIAL NUMBERS ON DETAILS. PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK.

CRITICAL FEATURES ARE MARKED WITH ""**"

UNIT No.:	UNIT NUMBER
WEIGHT (KG):	N/A

COTO: COTO NUMBER

☐ MOVIL PART RAL

☒ FIXED PART RAL

☐ BLACK OXIDE

☐ WITH OUT PAINT

☐ POKA YAKE PAINT

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DESIGNER	DETAILER	
D. NAME	D. NAME	
PROJECT MGR.	DESIGN SUP.	CHECKER
PM NAME	F. NAME	CK NAME

SYSTEM NAME

PROJECT NAME

DESCRIPTION

PRODUCT NAME

SCALE	SHEET	RELEASE DATE
NONE	2 OF 3	3/1/2018

SHOWN

E79_CAB_ST020_G0152-BFWCFX_

OPPOSITE

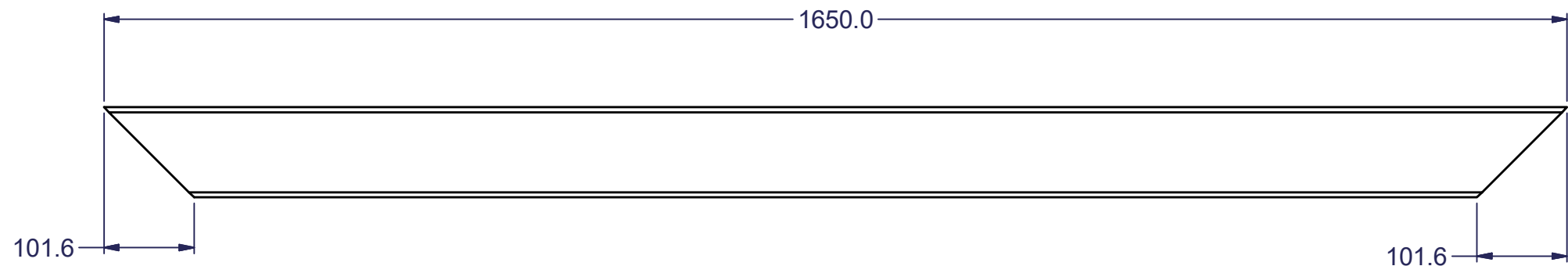
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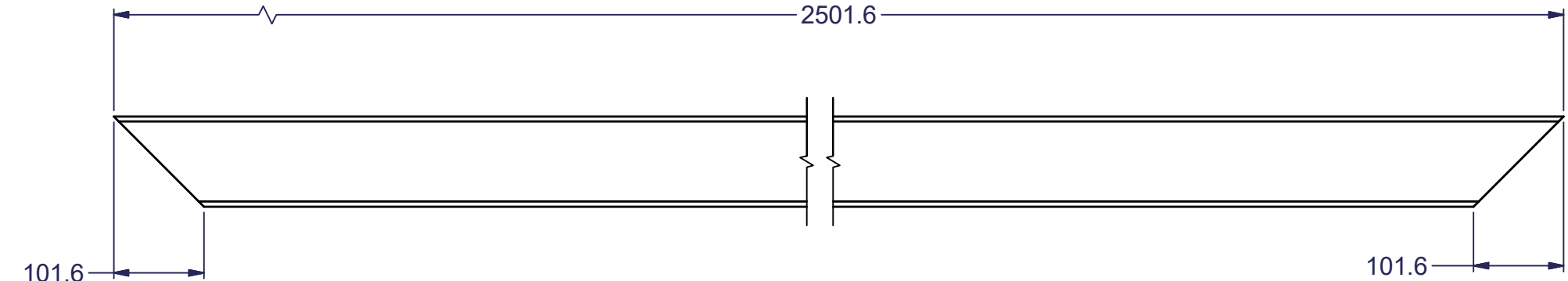
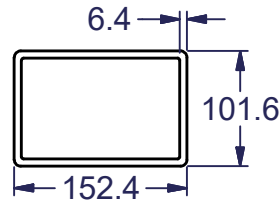
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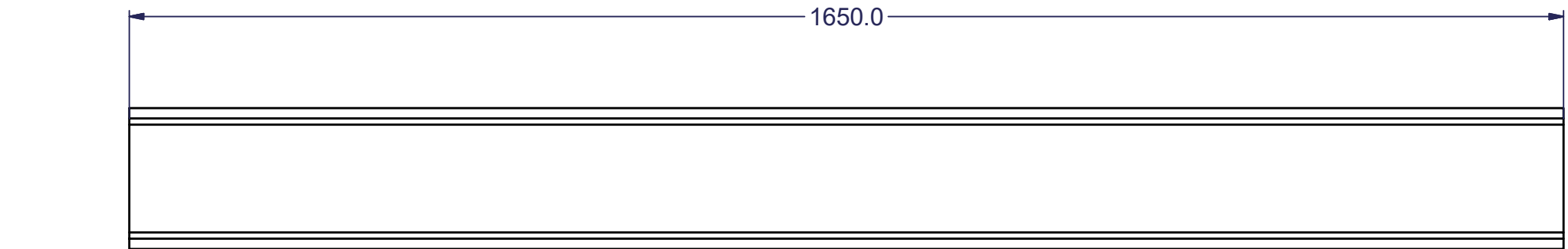
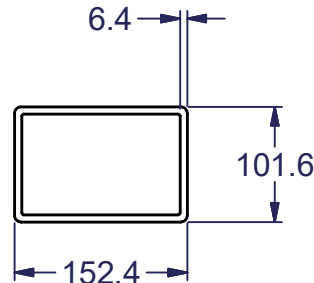
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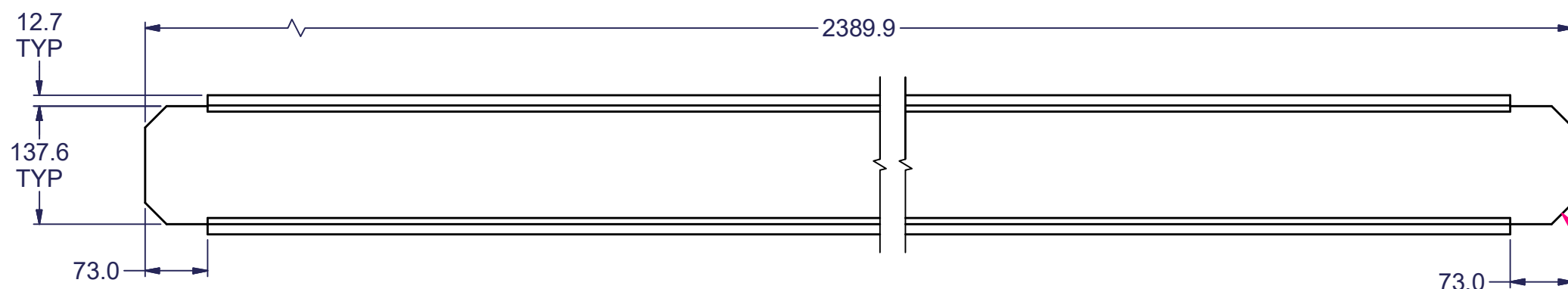
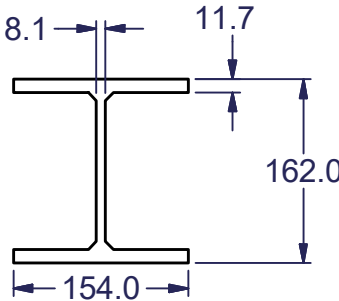
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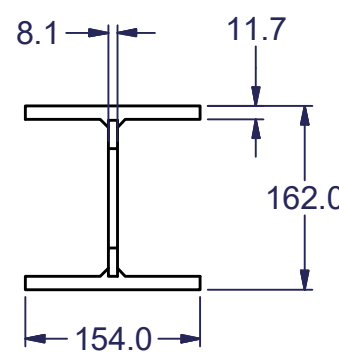
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ITEM "b"



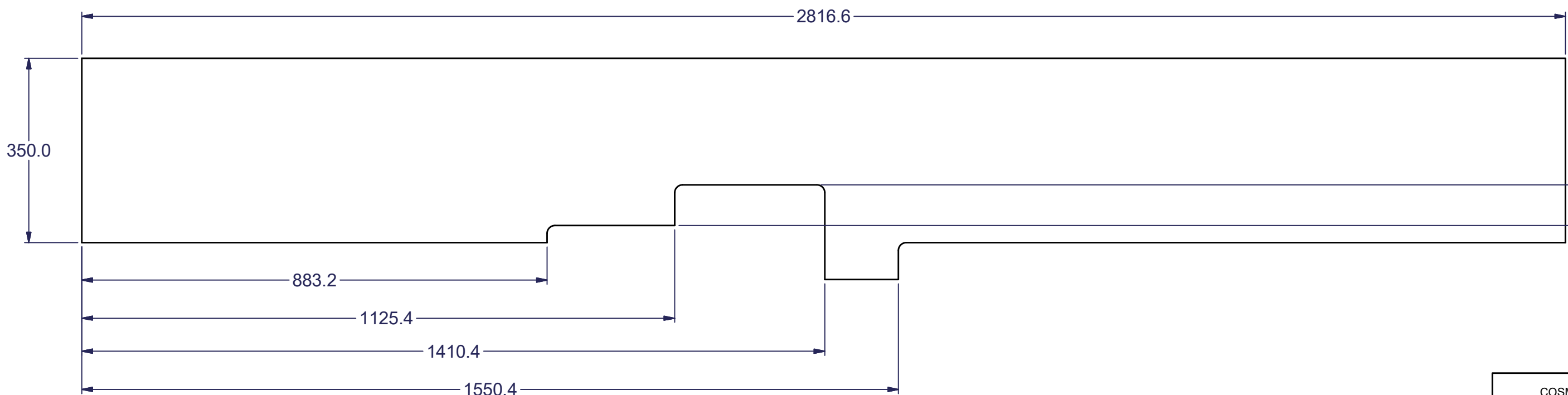
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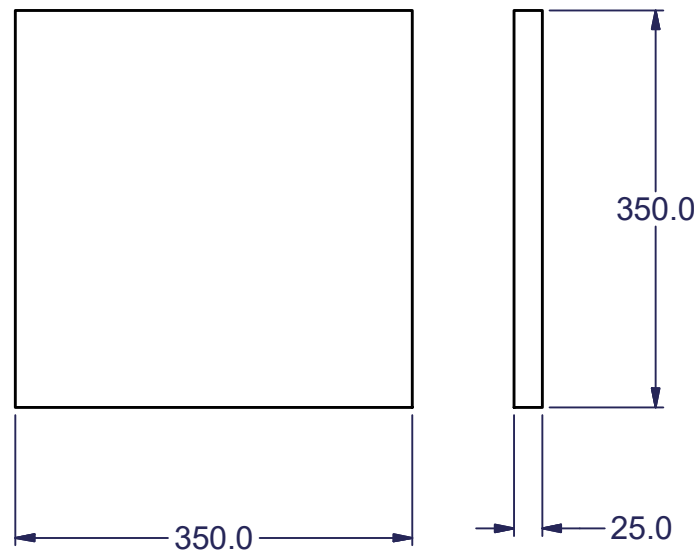
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TYP°



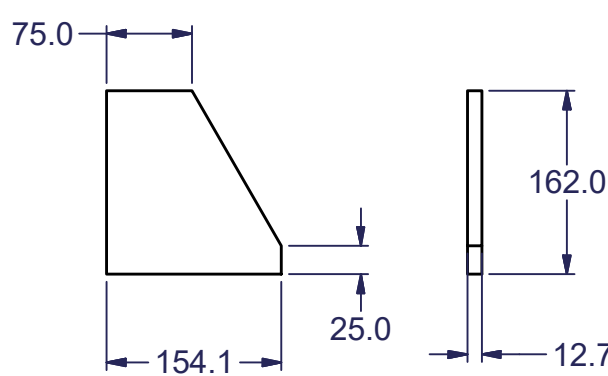
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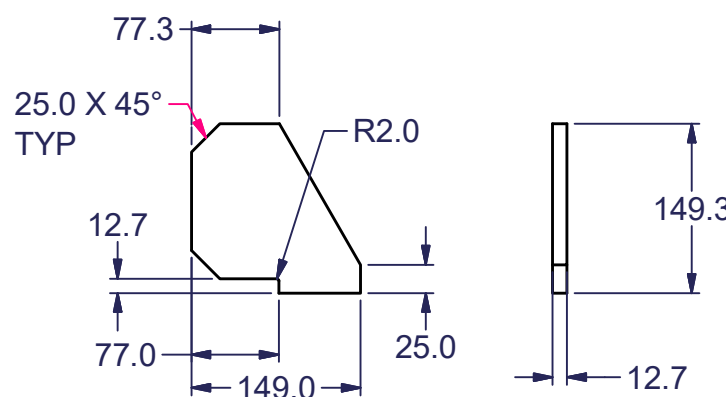
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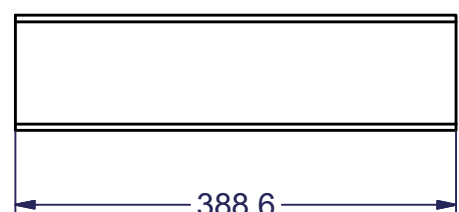
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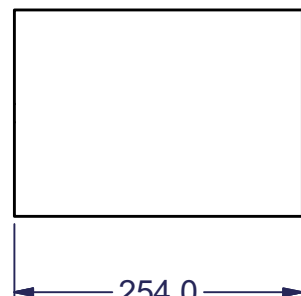
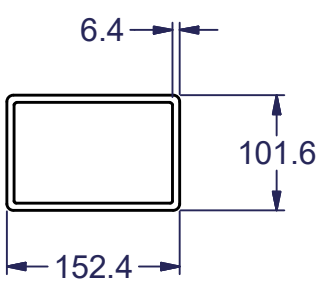
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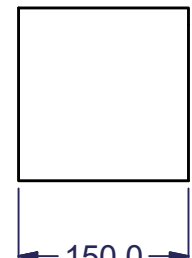
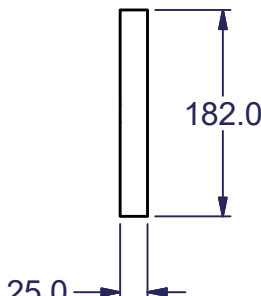
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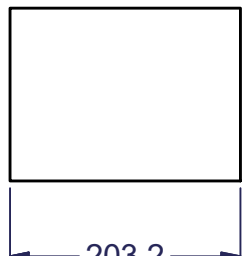
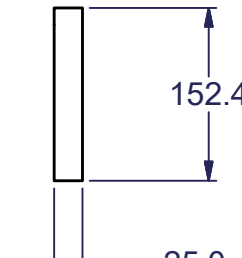
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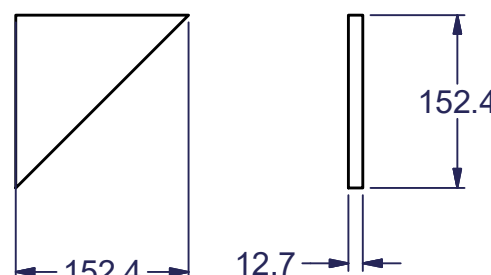
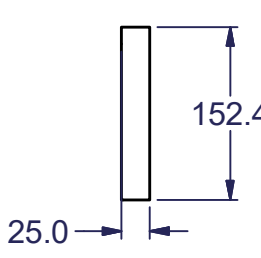
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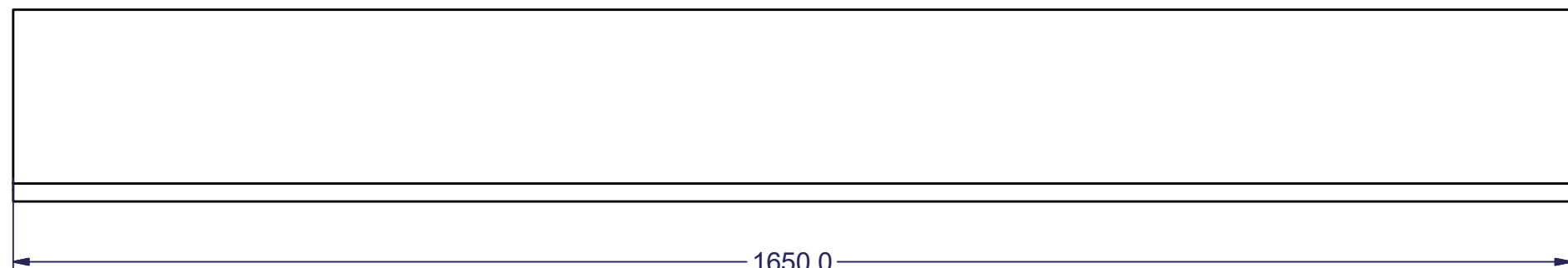
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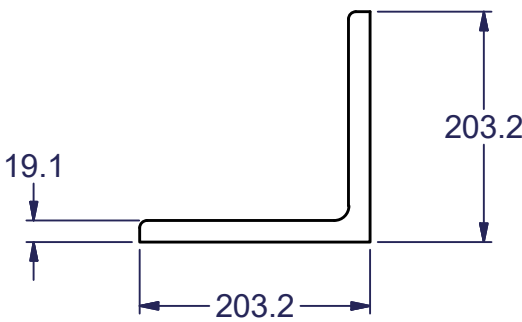
ITEM "s"



ITEM "t"



ITEM "v"



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REV	CHANGE	CHK'D	DATE

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DESIGN SOURCE	BUILD SOURCE	CUSTOMER
		CUSTOMER NAME

DESIGNER	DETAILER	3RD ANGLE PROJECTION
D. NAME	D. NAME	
PROJECT MGR.	DESIGN SUP.	CHECKER
PM NAME	F. NAME	CK NAME

SYSTEM NAME	
PROJECT NAME	
DESCRIPTION	
PRODUCT NAME	

SCALE	SHEET	RELEASE DATE
NONE	3 OF 3	3/1/2018

DRAWING No.	SHOWN	OPPOSITE
E79_CAB_ST020_G0151-BFWCFX_a		