

SOLATUBE INTERNATIONAL TEST REPORT

SCOPE OF WORK

OSHA FALL PROTECTION TESTING ON CURB MOUNT FIXED AND OPERABLE SKYLIGHT,
GLASS GLAZED SKYLIGHT

REPORT NUMBER

IK6417.01-303-44

TEST DATE(S)

02/05/20

ISSUE DATE

02/28/20

RECORD RETENTION END DATE

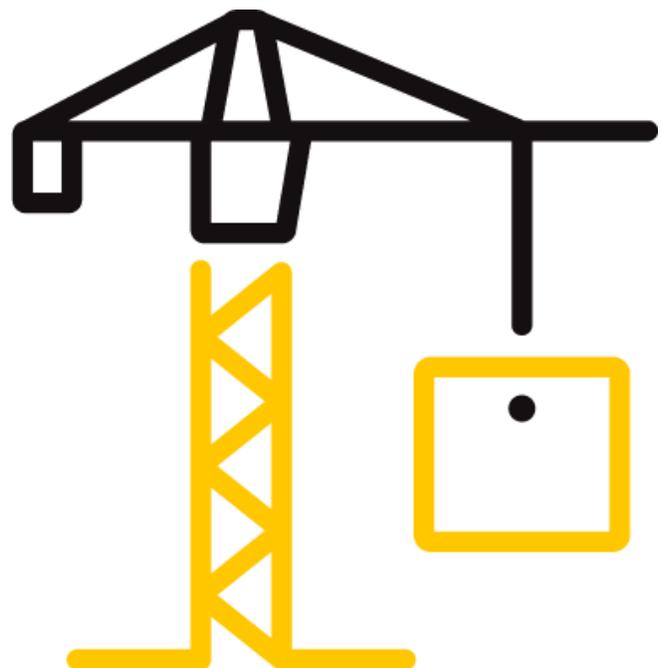
02/05/24

PAGES

72

DOCUMENT CONTROL NUMBER

ATI 00514 (08/24/17)
RT-R-AMER-TEST-2959
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TEST REPORT FOR SOLATUBE INTERNATIONAL

Report No.: IK6417.01-303-44

Date: 02/28/20

REPORT ISSUED TO

SOLATUBE INTERNATIONAL

2210 Oak Ridge Way
Vista, California 92081

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Solatube International, 2210 Oak Ridge Way, Vista, California 92081 to perform fall protection testing in accordance with Occupational Safety and Health Administration (OSHA)/U.S. Department of Labor Regulations Standard 29 CFR §1910.23(e)(8) and California Occupations Safety and Health Administration (CalOSHA) Title 8 Article 2 §3212.23(e)(5), on their Curb Mount Fixed and Curb Mount Operable Skylight. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at Intertek test facility in Lake Forest, California where testing was completed. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2

SUMMARY OF TEST RESULTS

Product Type: Glass Glazed Skylight

Series/Model: Curb Mount Skylight Fixed / Curb Mount Operable Skylight

The specimens tested successfully met the Safety Test and Safety Drop Test performance requirements of OSHA Standard 29 CFR §1910.23(e)(8) and CalOSHA Title 8 Article 2 §3212(e)(5).

For INTERTEK B&C:

COMPLETED BY:	Timothy Boyle	REVIEWED BY:	Jarod Hardman
TITLE:	Technician – Building & Construction	TITLE:	Operations Manager
SIGNATURE:		SIGNATURE:	
DATE:	02/28/20	DATE:	02/28/20

jsh:ab

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SECTION 3

TEST METHOD(S)

The specimens were evaluated in accordance with the following:

29 CFR Ch. XVII §1910.23(e)(8), *Guarding floor and wall openings and holes*. Occupational Safety and Health Administration/U.S. Department of Labor Regulations, 2012.

Title 8 Article 2 §3212(e)(5), *Floor Openings, Floor Holes, Skylights and Roofs*.

SECTION 4

MATERIAL SOURCE/INSTALLATION

Test specimen(s) were provided by the client. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of four years from the test completion date.

The specimen was installed into a Spruce-Pine-Fir wood buck. The rough opening allowed for a 1/4" shim space.

LOCATION	ANCHOR DESCRIPTION	ANCHOR LOCATION
Through curb flashing	#10 x 2 Truss head	12" from corner 27-3/4" o/c

SECTION 5

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Todd Anderson	Solatube International
James Hedgecock	Solatube International
Timothy Boyle	Intertek B&C

TEST REPORT FOR SOLATUBE INTERNATIONAL

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SECTION 6

TEST PROCEDURE

A 200 lbf weight, fabricated from a bag filled with sand, was placed on the center of the dome for a minimum of 60 seconds. The bag was removed, and the test unit was inspected for any signs of damage or failure.

A 400 lbf weight, fabricated from a bag filled with sand, was placed on the center of the dome for a minimum of 60 seconds. The bag was removed, and the test unit was inspected for any signs of damage or failure.

A 200 lbf weight, fabricated from a bag filled with sand, was dropped from varying heights above the skylight starting at 2' until permanent visible damage was noted. The highest impact load sustained was recorded.

SECTION 7

TEST SPECIMEN DESCRIPTION

Product Type: Glass Glazed Skylight

Series/Model: Curb Mount Skylight Fixed / Curb Mount Skylight Operable

Product Size(s):

Test Specimen #1 - Fixed

OVERALL AREA:	WIDTH		HEIGHT	
	millimeters	inches	millimeters	inches
1.7 m ² (18.4 ft ²)				
Overall Size	1308	51-1/2	1308	51-1/2
Curb Size	1302	51-1/4	1302	51-1/4

Test Specimen #2 - Operable

OVERALL AREA:	WIDTH		HEIGHT	
	millimeters	inches	millimeters	inches
1.7 m ² (18.4 ft ²)				
Overall Size	1308	51-1/2	1308	51-1/2
Curb Size	1302	51-1/4	1302	51-1/4

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Date: 02/28/20

**Test Specimen #1 - Fixed
Frame Construction:**

FRAME MEMBER	MATERIAL	DESCRIPTION
Base Flange	Aluminum Alloy	Part No. Varies.
Base Extrusion	Vinyl	Part No. 381091, secured to base flange with cleat.
Cleat	Aluminum Alloy	Riveted to base flange with rivet Part No. 700048.
Jointer Plate	Aluminum Alloy	Part No. 831162, secured to interior side of base flange.
	JOINERY TYPE	DETAIL
All Corners	Mitered	Sealed at corners and secured with jointer plates.

Reinforcement: *No reinforcement was utilized.*

Weatherstripping: *No weatherstripping was utilized.*

Glazing: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

GLASS TYPE	SPACER TYPE	INTERIOR LITE	EXTERIOR LITE	GLAZING METHOD
1" IG	Warm edge spacer	3 mm annealed – 0.76 mm PVB – 3 mm annealed	4 mm tempered	Dry set on closed cell foam (Part No. 381076), sealed at edge of glazing with sealant (Part No. 700358), and tape glazed at exterior surface (Part No. 620025).

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Test Specimen #2 - Operable

Frame Construction:

FRAME MEMBER	MATERIAL	DESCRIPTION
Base Flange	Aluminum Alloy	Part No. 381120.
Base Extrusion	Vinyl	Part No. 381091, secured to base flange with cleat.
Cleat	Aluminum Alloy	Riveted to base flange with rivet Part No. 700048.
Jointer Plate	Aluminum Alloy	Part No. 831162, secured to interior side of base flange.
Operable Flash	Aluminum Alloy	Part No. Varies, secured to extrusion skylight operable with #8 x 1/2" screws (Part No. 720093).
Motor Cover Coated	Steel	Part No. 381053, press fit onto extrusion skylight operable.
	JOINERY TYPE	DETAIL
All Corners	Mitered	Sealed at corners and secured with jointer plates.

Sash Construction:

SASH MEMBER	MATERIAL	DESCRIPTION
Extrusion Skylight Operable	Vinyl	Part No. 381083.
	JOINERY TYPE	DETAIL
All Corners	Mitered	Secured with corner connector (Part No. 381115) and corner binder (Part No. 381121).

Reinforcement: *No reinforcement was utilized.*

Weatherstripping:

DESCRIPTION	QUANTITY	LOCATION
Seal fin, Part No. 600235	1 row	Press fit around perimeter of extrusion skylight operable.
Seal hollow 'D', Part No. 600304	1 row	Press fit around perimeter of motor bracket.

Glazing: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

TEST REPORT FOR SOLATUBE INTERNATIONAL

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GLASS TYPE	SPACER TYPE	INTERIOR LITE	EXTERIOR LITE	GLAZING METHOD
1" IG	Warm edge spacer	3 mm annealed – 0.76 mm PVB – 3 mm annealed	4 mm tempered	Dry set on closed cell foam (Part No. 381076), sealed at edge of glazing with sealant (Part No. 700358), and tape glazed at exterior surface (Part No. 620025).

LOCATION	QUANTITY	DAYLIGHT OPENING		GLASS BITE
		millimeters	inches	
Fixed (Spec #1)	1	1238 x 1238	48-3/4 x 48-3/4	1-3/8"
Sash (Spec #2)	1	1238 x 1238	48-3/4 x 48-3/4	1-3/8"

Drainage: *No drainage was utilized.*

Hardware: *Operable Skylight Only*

DESCRIPTION	QUANTITY	LOCATION
Hinge, Part No. 381410	2	Secured to the top of extrusion skylight operable and base flange.
Motor and Chain Assy., Part No. 381130.	1	Secured to chain connector assy. with clevis pin (Part No. 381201).
Chain Connector Assy., Part No. 382055.	1	Secured to underside of extrusion skylight base.

Limit Stop Device: *No limit stop device was utilized, travel is restricted by motor and chain assy.*

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SECTION 8

TEST RESULTS

The temperature during testing was 18°C (65°F). The results are tabulated as follows:

OSHA Safety Test

Test Specimen #1

TEST METHOD	LOAD LOCATION	RESULTS
200 lbf	Center of Dome	No Visible Damage
400 lbf Static	Center of Dome	No Visible Damage

Test Specimen #2

TEST METHOD	LOAD LOCATION	RESULTS
200 lbf	Center of Dome	No Visible Damage
400 lbf Static	Center of Dome	No Visible Damage

Observations: The 200 lbf weight was gently applied perpendicular to the center of each dome; after 60 seconds of rest time, there was no visible damage to either skylight.

Observations: The 400 lbf weight was gently applied perpendicular to the center of dome, after 60 seconds of rest time, there was no visible damage to the skylight.

OSHA Safety Drop Test

Test Specimen #1

TEST METHOD	LOAD LOCATION	RESULTS
200 lbf	Center of Glass	No Penetration, Load Supported
400 lbf-ft (2' drop height)	Center of Glass	No Penetration, Load Supported
800 lbf-ft (4' drop height)	Center of Glass	No Penetration, Load Supported
1200 lbf-ft (6' drop height)	Center of Glass	No Penetration, Load Supported
1600 lbf-ft (8' drop height)	Center of Glass	No Penetration, Load Supported

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Test Specimen #2

TEST METHOD	LOAD LOCATION	RESULTS	NOTE
200 lbf	Center of Glass	No Penetration, Load Supported	
400 lbf-ft (2' drop height)	Center of Glass	No Penetration, Load Supported	
800 lbf-ft (4' drop height)	Center of Glass	No Penetration, Load Supported	
1200 lbf-ft (6' drop height)	Center of Glass	No Penetration, Load Supported	
1600 lbf-ft (8' drop height)	Center of Glass	Impact Penetration, Load Not Supported	1

Note #1: At the 8' drop height, the load broke through the glass and was not supported after impact.

SECTION 9

CONCLUSION

The specimens tested successfully met the Safety Test and Safety Drop Test performance requirements of OSHA Standard 29 CFR §1910.23(e)(8) and CalOSHA Title 8 Article 2 §3212(e)(5).



Total Quality. Assured.

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Lake Forest, California 92630

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Facsimile: 717-764-4129
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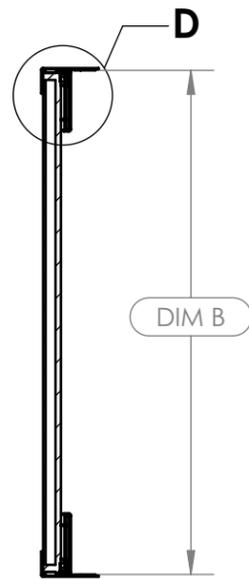
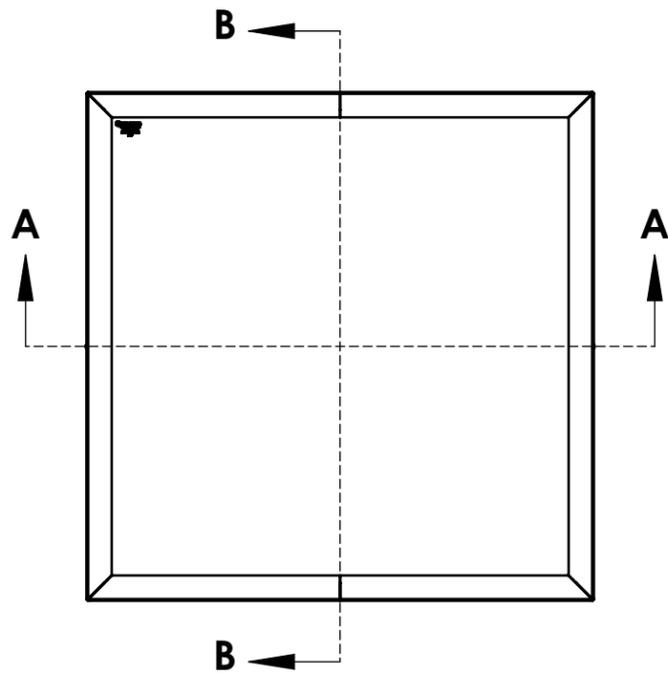
SECTION 10 DRAWINGS

The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

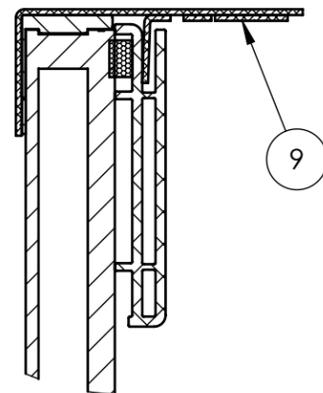
STANDARD SIZES (I.D.)				
PART NO.	MODEL	NOM.	DIM A	DIM B
380000	2020	1.5' x 1.5'	20.00"	20.00"
380120	2028	1.5' x 2'	20.00"	27.50"
380230	2052	1.5' x 4'	20.00"	51.50"
380370	2828	2' x 2'	27.50"	27.50"
380450	2836	2' x 3'	27.50"	36.00"
380510	2843	2' x 3.5'	27.50"	43.00"
380680	2852	2' x 4'	27.50"	51.50"
380740	3636	3' x 3'	36.00"	36.00"
380890	3652	3' x 4'	36.00"	51.50"
380960	4343	3.5' x 3.5'	43.00"	43.00"
381010	4352	3.5' x 4'	43.00"	51.50"
381120	5252	4' x 4'	51.50"	51.50"

HSE FIXED SERIES

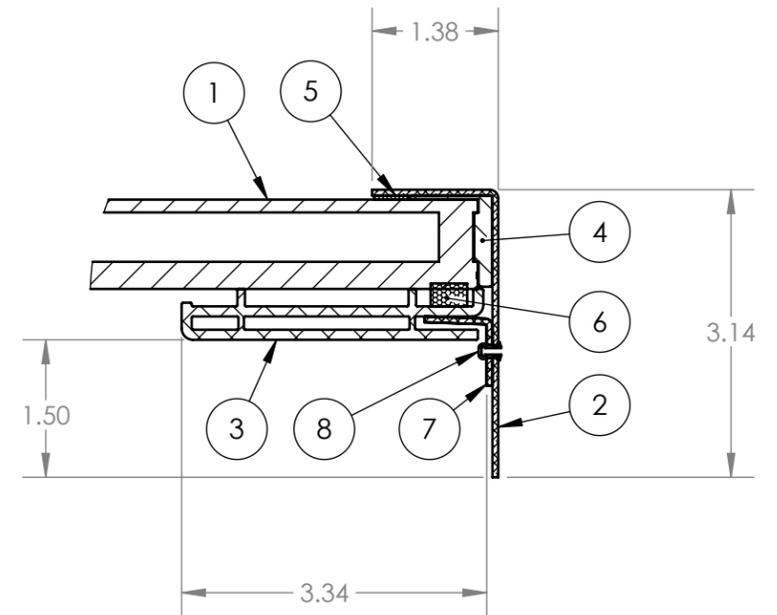
CURB MOUNT FIXED SKYLIGHT			
ITEM NO.	PART NO.	DESCRIPTION	MATERIAL
1	VARIES	INSULATED GLASS ASSEMBLY	4HT10- Tg14Ar - 33.2
2	VARIES	BASE FLANGE	PAINTED ALUMINUM ALLOY
3	381091	BASE EXTRUSION PROFILE	RIGID PVC
4	700358	SEALANT	POLYURETHANE
5	620025	TAPE ACRYLIC FOAM	ACYLIC FOAM
6	381076	CLOSED CELL FOAM	EPDM FOAM
7	VARIES	CLEAT	PAINTED ALUMINUM ALLOY
8	700048	RIVET	ALUMINUM ALLOY
9	831162	JOINER PLATE	PAINTED ALUMINUM ALLOY



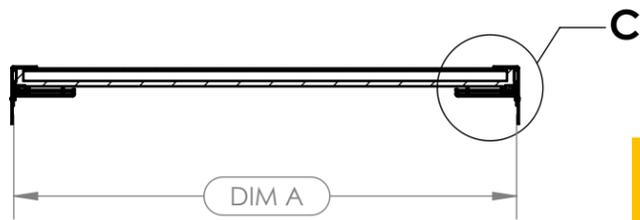
SECTION B-B



DETAIL D



DETAIL C



SECTION A-A

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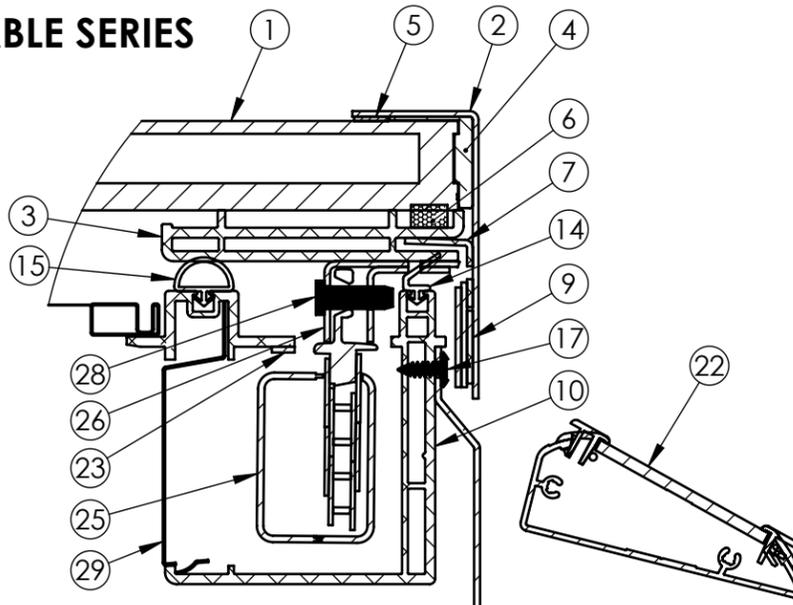
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.XX ± .01 [.XX] ± .25		CHECKED BY DATE	
.XXX ± .005 [.XXX] ± .125		-- --	
MATERIAL		INTERPRET DRAWINGS IAW: ASME Y14.5 - 1994	
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FINISH			
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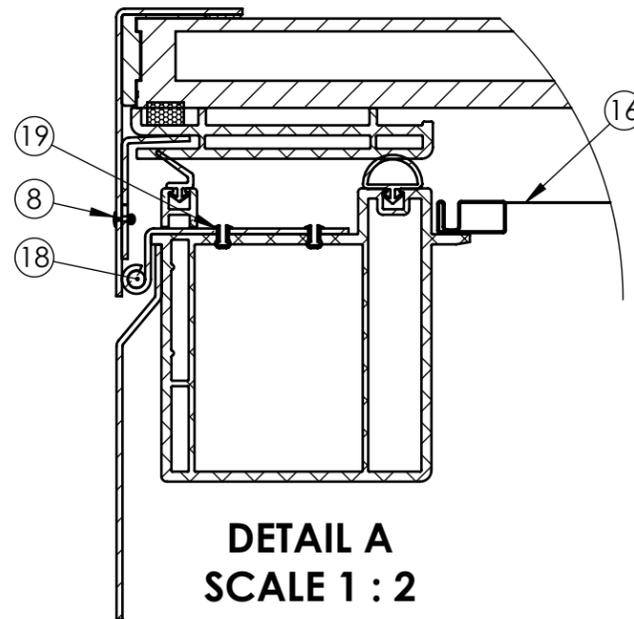
TITLE: CURB MOUNT FIXED SKYLIGHT			
SIZE B	PROJECTION ⊕ (3rd)	DWG. NO. HSE-FS	REV 1
UNIT INCH [MM]	SCALE: 1:10	SHEET 1 OF 1	

STANDARD OPERABLE SIZES (I.D.)				
PART NO.	MODEL	NOM.	DIM A	DIM B
382430	2020	1.5' x 1.5'	20.00"	20.00"
382510	2028	1.5' x 2'	20.00"	27.50"
382690	2052	1.5' x 4'	20.00"	51.50"
382730	2828	2' x 2'	27.50"	27.50"
382860	2836	2' X 3'	27.50"	36.00"
382980	2843	2' x 3.5'	27.50"	43.00"
383020	2852	2' x 4'	27.50"	51.50"
383170	3636	3' x 3'	36.00"	36.00"
383280	3652	3' x 4'	36.00"	51.50"
383350	4343	3.5' x 3.5'	43.00"	43.00"
384060	4352	3.5' x 4'	43.00"	51.50"
384110	5151	4' x 4'	51.50"	51.50"

HSE OPERABLE SERIES



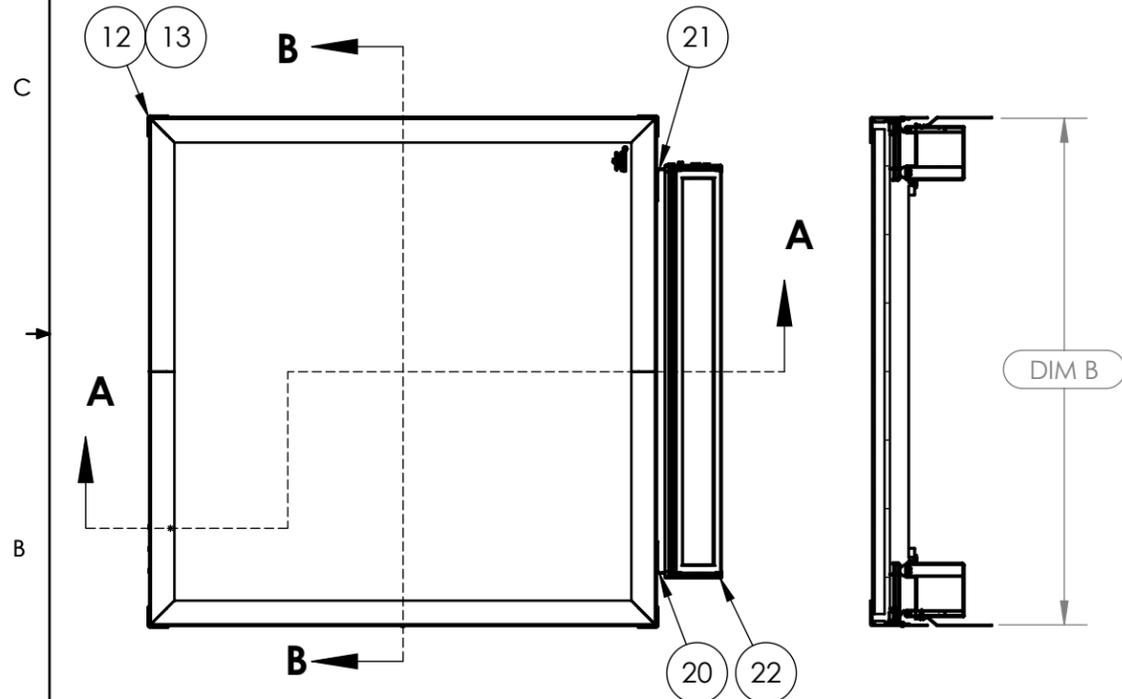
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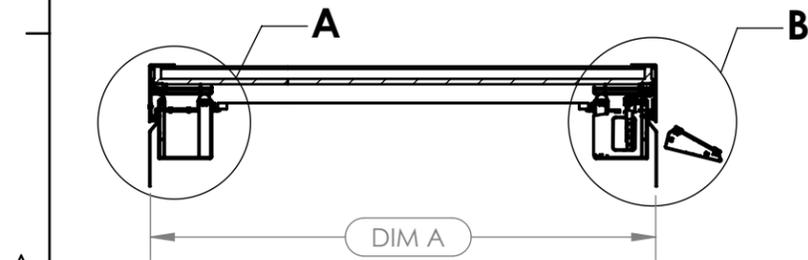
**DETAIL A
SCALE 1 : 2**

CURB MOUNT FIXED SKYLIGHT			
ITEM NO.	PART NO.	DESCRIPTION	MATERIAL
1	VARIES	INSULATED GLASS ASSEMBLY	4HT10- Tg14Ar - 33.2
2	VARIES	BASE FLANGE	PAINTED ALUMINUM ALLOY
3	381091	EXTRUSION SKYLIGHT BASE	RIGID PVC
4	700358	SEALANT	POLYURETHANE
5	620025	GLAZING TAPE	ACYLIC FOAM
6	381076	WEATHERSTRIP	EPDM FOAM
7	VARIES	CLEAT	PAINTED ALUMINUM ALLOY
8	700048	RIVET	ALUMINUM ALLOY
9	831162	JOINER PLATE	PAINTED ALUMINUM ALLOY

OPERABLE SKYLIGHT			
ITEM NO.	PART NO.	DESCRIPTION	MATERIAL
10	381083	EXTRUSION SKYLIGHT OPERABLE	RIGID PVC
11	VARIES	OPERABLE FLASH	PAINTED ALUMINUM ALLOY
12	381115	CORNER CONNECTOR	ASA
13	381121	CORNER BINDER (NOT SHOWN)	ASA
14	600235	SEAL FIN	TPE RUBBER
15	600304	SEAL HOLLOW 'D'	TPE RUBBER
16	VARIES	SCREEN	ALUMINUM / FIBERGLASS
17	720093	SCREW #8 X 1/2"	STAINLESS STEEL
18	381410	HINGE	STAINLESS STEEL
19	520050	RIVET	STEEL
20	382033	PV PANEL MOUNTING BRACKET (L)	STAINLESS STEEL
21	382028	PV PANEL MOUNTING BRACKET (R)	STAINLESS STEEL
22	381050	SKYLIGHT SOLAR PANEL ASSEMBLY	N/A
23	381208	MOTOR BRACKET	STAINLESS STEEL
24	700635	RIVET (FOR MOTOR BRACKET)	ALUMINUM
25	381130	MOTOR AND CHAIN ASSY.	N/A
26	382055	CHAIN CONNECTOR ASSY	STAINLESS STEEL
27	381320	RAIN SENSOR (NOT SHOWN)	N/A
28	381201	CLEVIS PIN	STEEL
29	381053	MOTOR COVER COATED	PAINTED STEEL



SECTION B-B



SECTION A-A

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MATERIAL	FINISH	INTERPRET DRAWINGS IAW: ASME Y14.5 - 1994	
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TITLE: **CURB MOUNT OPERABLE SKYLIGHT**

SIZE	PROJECTION	DWG. NO.	REV
B	(3rd)	HSE-OS	1
UNIT INCH [MM]	SCALE: 1:10	SHEET 1 OF 1	

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO SPEC
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

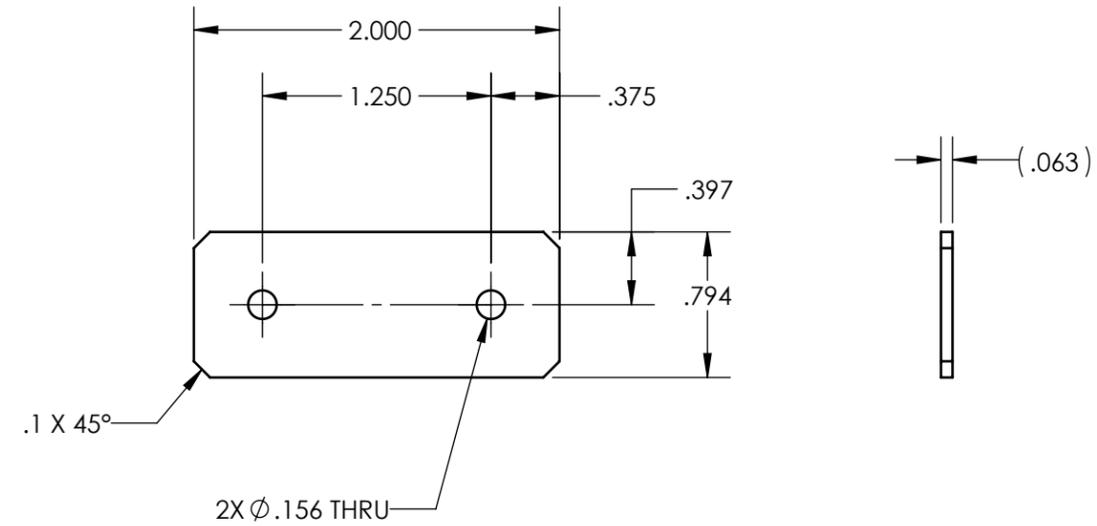
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY X.XXX .
- 4.2 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3138-1	5/29/2019	STEVENS		



 Total Quality. Assured.	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: $\pm 0.5^\circ$ <table border="0"> <tr> <td>INCH</td> <td>MILLIMETER</td> </tr> <tr> <td>.X \pm .03</td> <td>[.X] \pm .75</td> </tr> <tr> <td>.XX \pm .01</td> <td>[.XX] \pm .25</td> </tr> <tr> <td>.XXX \pm .005</td> <td>[.XXX] \pm .125</td> </tr> </table>		INCH	MILLIMETER	.X \pm .03	[.X] \pm .75	.XX \pm .01	[.XX] \pm .25	.XXX \pm .005	[.XXX] \pm .125	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		 SOLATUBE 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400		
INCH	MILLIMETER													
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.XXX \pm .005	[.XXX] \pm .125													
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NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

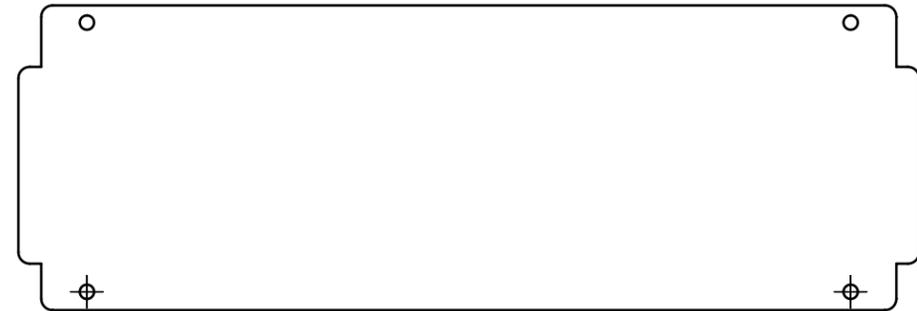
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

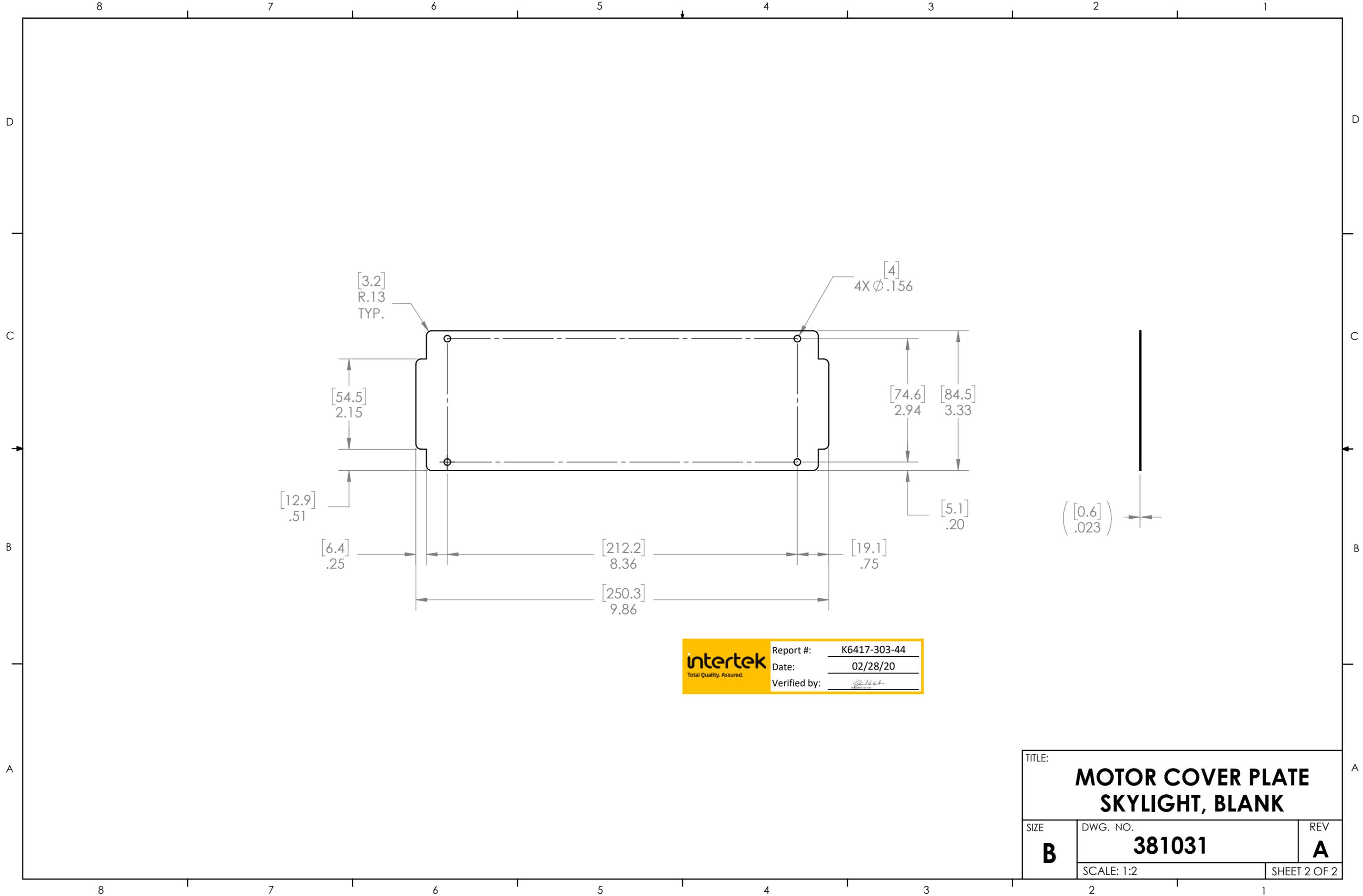
- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY Ⓧ.XXX .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY Ⓧ .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A		1/27/2020			



	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED:		PROPRIETARY AND CONFIDENTIAL		<p>2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400</p>	
TOLERANCES ANGULAR: $\pm 0.5^\circ$ INCH MILLIMETER .X \pm .03 [.X] \pm .75 .XX \pm .01 [.XX] \pm .25 .XXX \pm .005 [.XXX] \pm .125		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		TITLE: MOTOR COVER PLATE SKYLIGHT, BLANK	
MATERIAL 200965		DRAWN BY STEVENS	DATE 27 JAN 20	SIZE B	PROJECTION (3rd)
FINISH SEE NOTE 1		CHECKED BY	DATE	DWG. NO. 381031	REV A
DO NOT SCALE DRAWING		APPROVED BY	DATE	UNIT MM[INCH]	SCALE: 1:2
				SHEET 1 OF 2	



 <small>Total Quality. Assured.</small>	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

TITLE:		
MOTOR COVER PLATE SKYLIGHT, BLANK		
SIZE	DWG. NO.	REV
B	381031	A
SCALE: 1:2		SHEET 2 OF 2

NOTES: UNLESS OTHERWISE SPECIFIED.

△ 1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

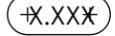
2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

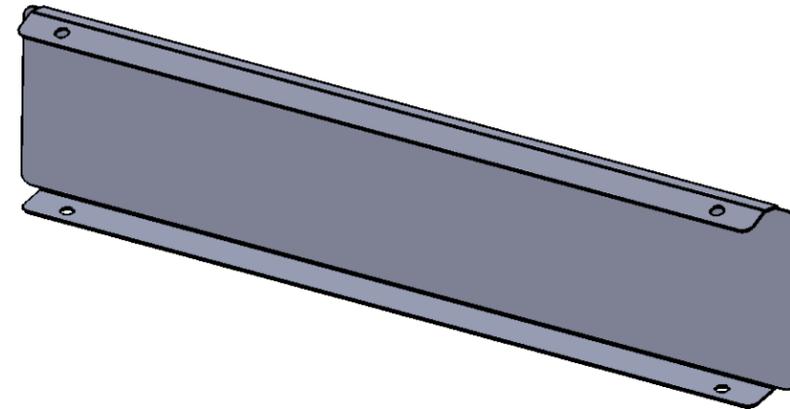
3. MARKING:

- 3.1  PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

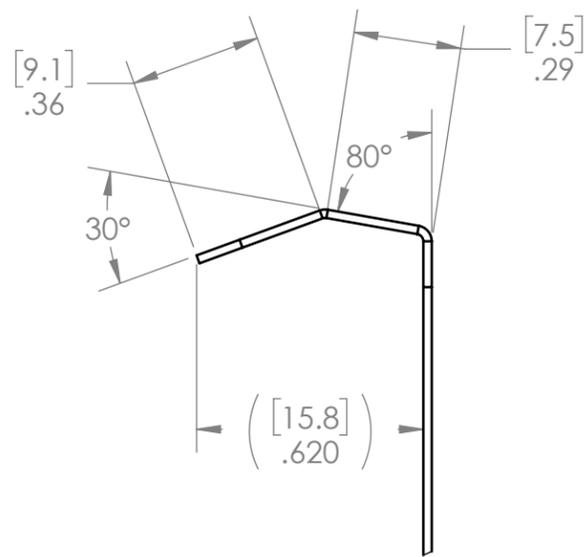
- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A		1/27/2020			

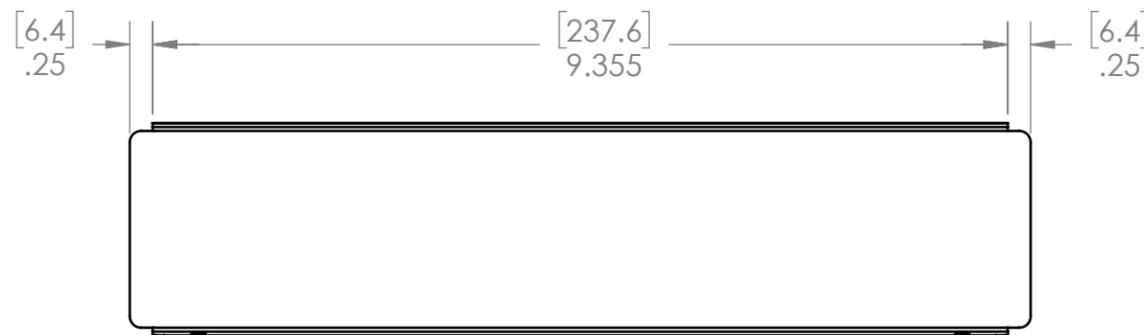
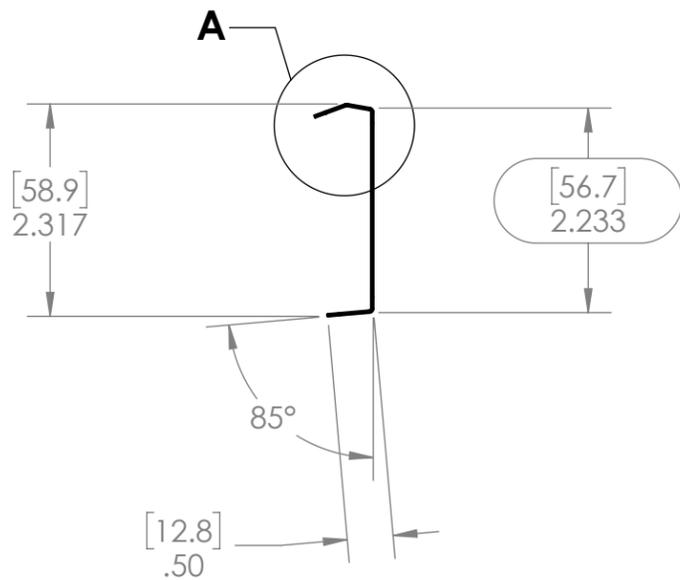
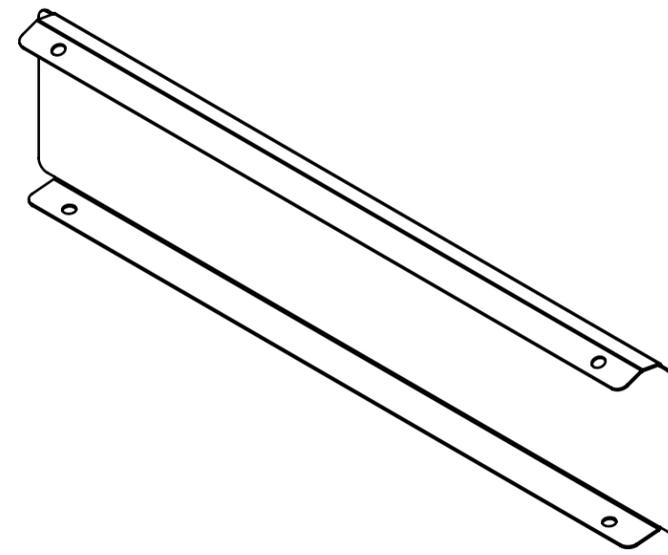


	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	

UNLESS OTHERWISE SPECIFIED:		PROPRIETARY AND CONFIDENTIAL		 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400	
TOLERANCES ANGULAR: ±0.5° INCH MILLIMETER .X ± .03 [.X] ± .75 .XX ± .01 [.XX] ± .25 .XXX ± .005 [.XXX] ± .125		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.			
MATERIAL		DRAWN BY	DATE	TITLE: <h3>MOTOR COVER PLATE SKYLIGHT BENT</h3>	
381031		STEVENS	27 JAN 20		
FINISH		CHECKED BY	DATE		
SEE NOTE 1		APPROVED BY	DATE	SIZE B	PROJECTION  (3rd)
DO NOT SCALE DRAWING				DWG. NO.	REV
				381042	A
				UNIT MM[INCH]	SHEET 1 OF 2
				SCALE: 1:4	



DETAIL A
SCALE 2 : 1



	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

TITLE:		
MOTOR COVER PLATE SKYLIGHT BENT		
SIZE	DWG. NO.	REV
B	381042	A
SCALE: 1:2		SHEET 2 OF 2

NOTES: UNLESS OTHERWISE SPECIFIED.

△ 1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO SPEC 892002
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

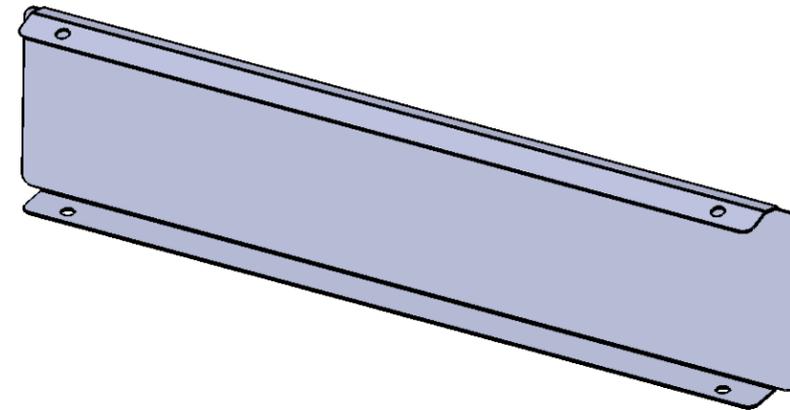
3. MARKING:

- 3.1  PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A		1/27/2020			



	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: ±0.5° <table border="0"> <tr> <td>INCH</td> <td>MILLIMETER</td> </tr> <tr> <td>.X ± .03</td> <td>[.X] ± .75</td> </tr> <tr> <td>.XX ± .01</td> <td>[.XX] ± .25</td> </tr> <tr> <td>.XXX ± .005</td> <td>[.XXX] ± .125</td> </tr> </table>		INCH	MILLIMETER	.X ± .03	[.X] ± .75	.XX ± .01	[.XX] ± .25	.XXX ± .005	[.XXX] ± .125	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		 SOLATUBE 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400		
INCH	MILLIMETER													
.X ± .03	[.X] ± .75													
.XX ± .01	[.XX] ± .25													
.XXX ± .005	[.XXX] ± .125													
MATERIAL 381042		DRAWN BY STEVENS	DATE 27 JAN 20	TITLE: MOTOR COVER PLATE SKYLIGHT, COATED										
FINISH SEE NOTE 1		CHECKED BY	DATE											
DO NOT SCALE DRAWING		APPROVED BY	DATE	SIZE B	PROJECTION  (3rd)	DWG. NO. 381053	REV A							
				UNIT MM[INCH]	SCALE: 1:4	SHEET 1 OF 1								

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

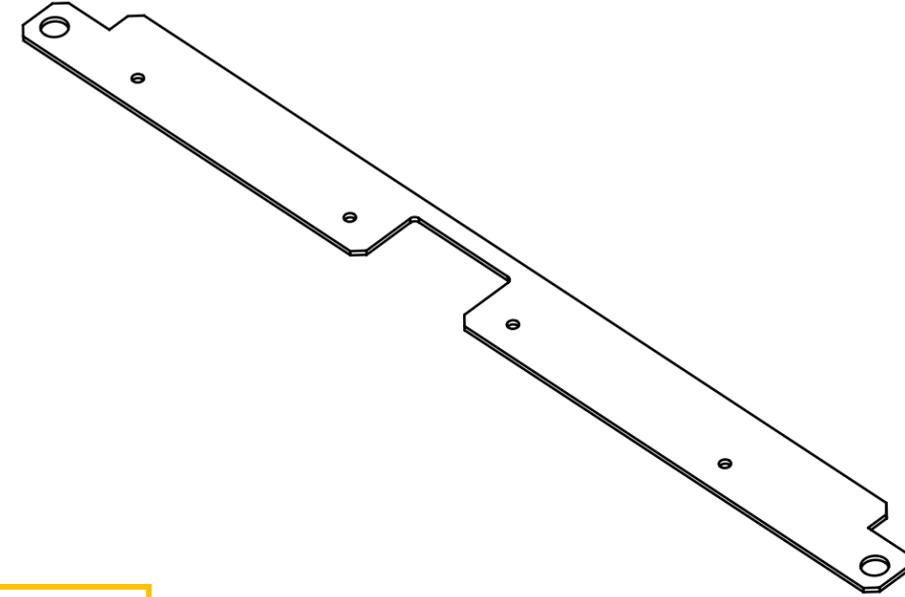
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY Ⓧ.XXX .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY Ⓧ .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
1		1/3/2020			



	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED:		PROPRIETARY AND CONFIDENTIAL		<p>2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400</p>	
TOLERANCES ANGULAR: $\pm 0.5^\circ$ INCH MILLIMETER .X \pm .03 [.X] \pm .75 .XX \pm .01 [.XX] \pm .25 .XXX \pm .005 [.XXX] \pm .125		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.			
MATERIAL		DRAWN BY	DATE	TITLE: MOTOR BRACKET BENT	
220320		STEVENS	3 JAN 20		
FINISH		CHECKED BY	DATE		
NONE		APPROVED BY	DATE	SIZE B	PROJECTION (3rd)
DO NOT SCALE DRAWING				DWG. NO. 381057	REV 1
				UNIT MM[INCH]	SCALE: 1:2 SHEET 1 OF 2

NOTES: UNLESS OTHERWISE SPECIFIED.

△ 1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING-
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

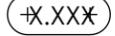
2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

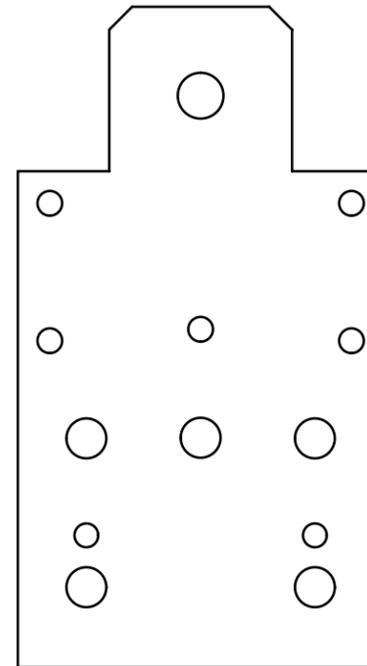
3. MARKING:

- 3.1  PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

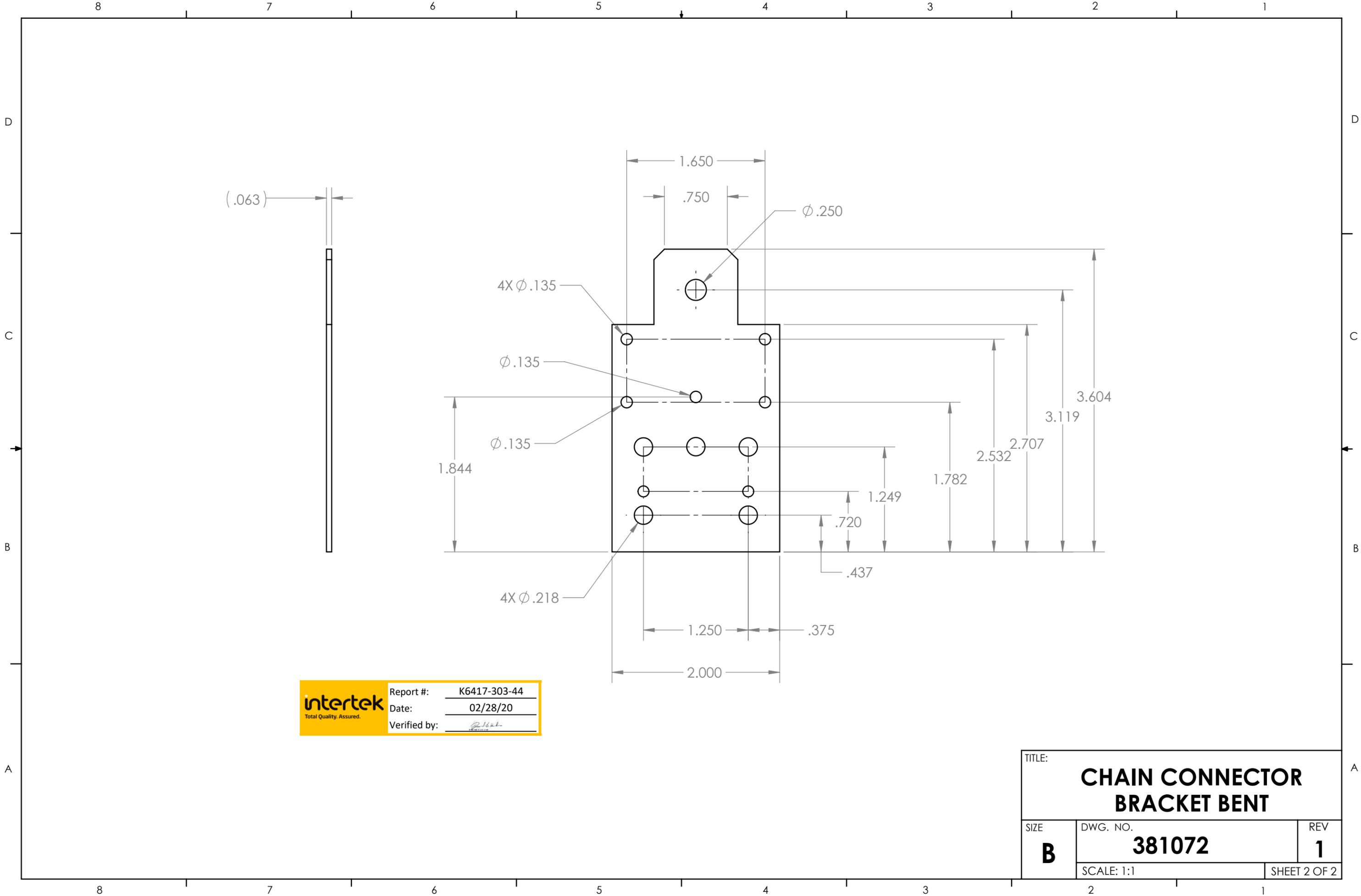
- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
1		1/6/2020			



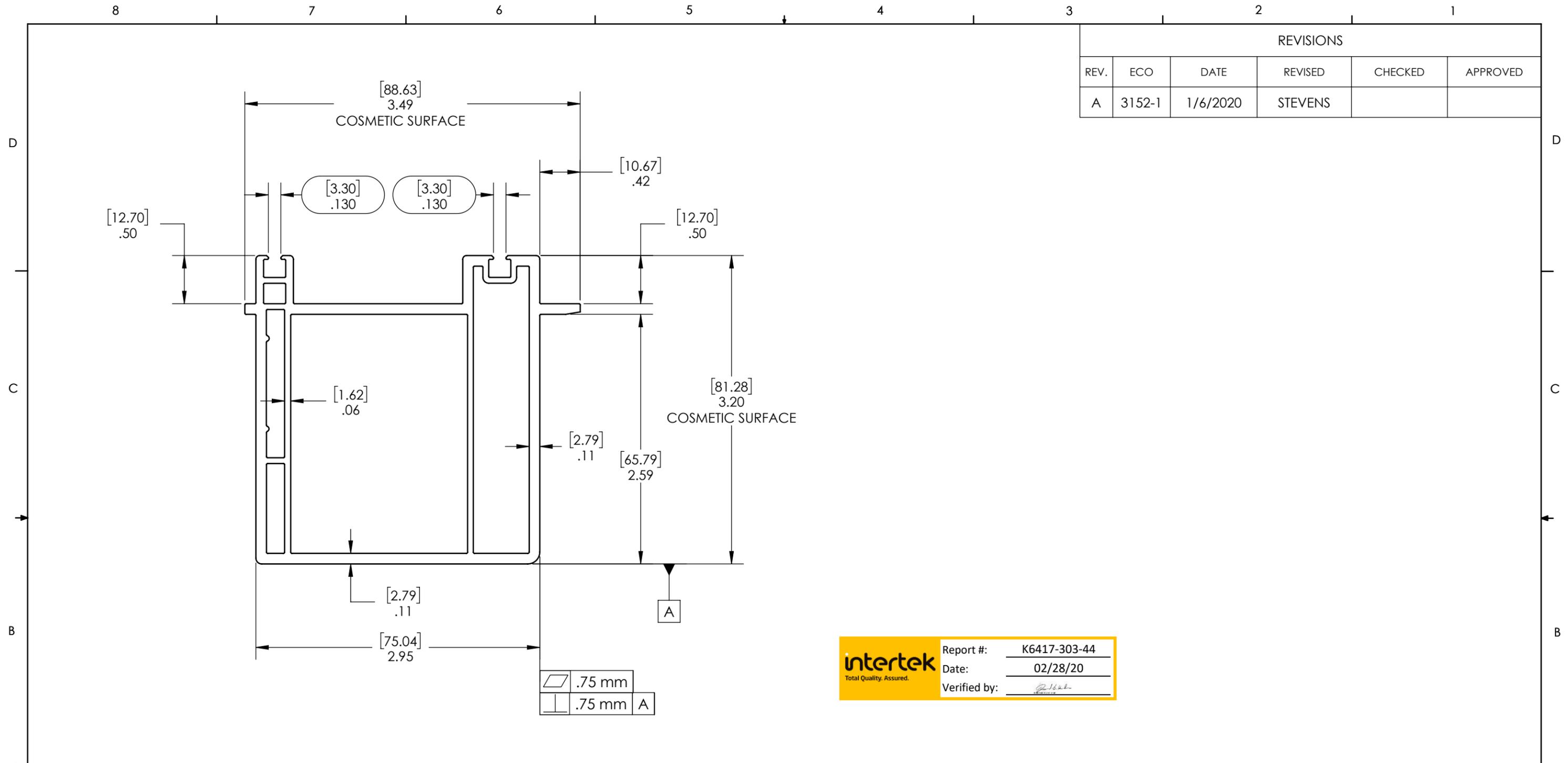
	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: ±0.5° <table border="0"> <tr> <td>INCH</td> <td>MILLIMETER</td> </tr> <tr> <td>.X ± .03</td> <td>[.X] ± .75</td> </tr> <tr> <td>.XX ± .01</td> <td>[.XX] ± .25</td> </tr> <tr> <td>.XXX ± .005</td> <td>[.XXX] ± .125</td> </tr> </table>		INCH	MILLIMETER	.X ± .03	[.X] ± .75	.XX ± .01	[.XX] ± .25	.XXX ± .005	[.XXX] ± .125	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400	
INCH	MILLIMETER												
.X ± .03	[.X] ± .75												
.XX ± .01	[.XX] ± .25												
.XXX ± .005	[.XXX] ± .125												
MATERIAL 220230		DRAWN BY STEVENS	DATE 6 JAN 20	CHAIN CONNECTOR BRACKET BENT									
FINISH NONE		CHECKED BY	DATE										
DO NOT SCALE DRAWING		APPROVED BY	DATE	SIZE B	PROJECTION  (3rd)								
				DWG. NO. 381072	REV 1								
				UNIT MM[INCH]	SCALE: 1:1								
				SHEET 1 OF 2									




 Report #: K6417-303-44
 Date: 02/28/20
 Verified by: *[Signature]*

TITLE:		
CHAIN CONNECTOR BRACKET BENT		
SIZE	DWG. NO.	REV
B	381072	1
SCALE: 1:1		SHEET 2 OF 2



REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3152-1	1/6/2020	STEVENS		

intertek Total Quality. Assured.

Report #: K6417-303-44
 Date: 02/28/20
 Verified by: *[Signature]*

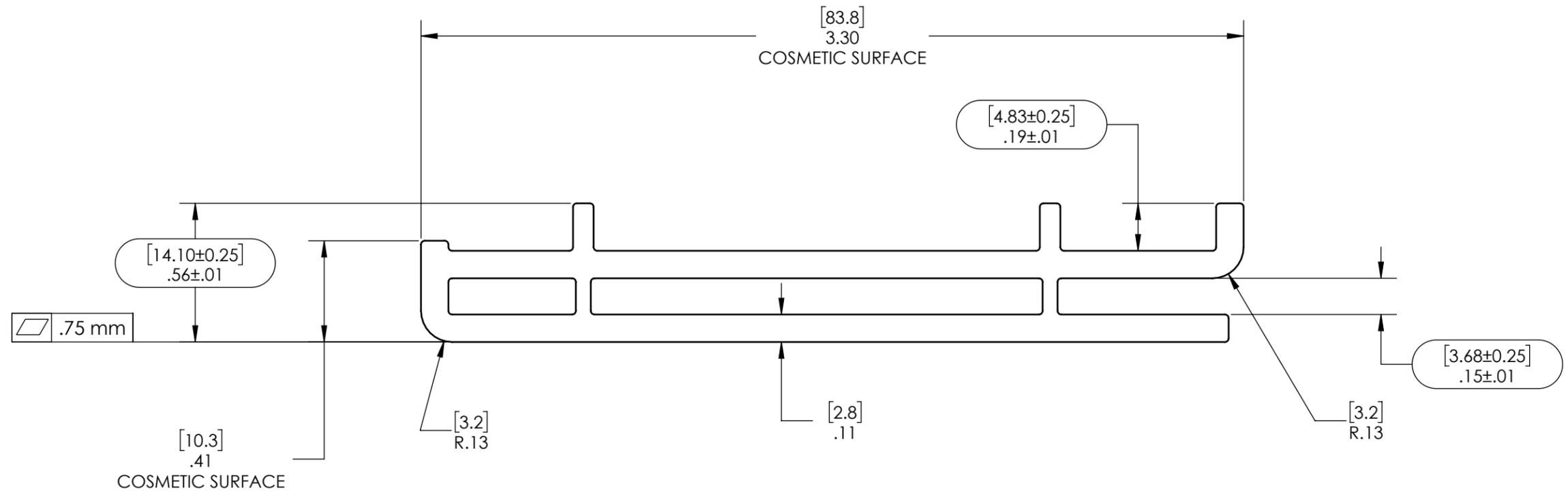
NOTES:

- COLOR MATCH PER SAMPLE APPROVED BY SOLATUBE
- STANDARD SHOP TOLERANCES FOR FLATNESS UNLESS NOTED OTHERWISE
- CUT LENGTH: 14.2 FEET (4.33 METERS); VERIFY LENGTH FOR TRIAL RUNS
- ALL RADII .3MM (.012 INCH) UNLESS NOTED OTHERWISE
- CRITICAL DIMENSIONS ARE DENOTED BY: **(X.XXX)**

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: ±0.5° INCH MILLIMETER .X ± .06 [.X] ± 1.5 .XX ± .02 [.XX] ± .50 .XXX ± .010 [.XXX] ± .25		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400	
MATERIAL 990935 --		DRAWN BY STEVENS	DATE 26 JUL 19	TITLE: <h2 style="text-align: center;">EXTRUSION SKYLIGHT OPERABLE</h2>	
FINISH -- --		CHECKED BY --	DATE --		
DO NOT SCALE DRAWING		INTERPRET DRAWINGS IAW: ASME Y14.5 - 1994		SIZE B	PROJECTION (3rd)
		DWG. NO. <h1 style="text-align: center;">381083</h1>	REV <h1 style="text-align: center;">A</h1>	UNIT INCH [MM]	SCALE: 1:1
				SHEET 1 OF 1	

8 7 6 5 4 3 2 1

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3101-1	24 JUL 19	STEVENS		
B	3152-1	12/19/2019	STEVENS		



intertek
Total Quality. Assured.

Report #: K6417-303-44
Date: 02/28/20
Verified by: *[Signature]*

NOTES:

- COLOR MATCH PER SAMPLE APPROVED BY SOLATUBE
- STANDARD SHOP TOLERANCES FOR FLATNESS UNLESS NOTED OTHERWISE
- CUT LENGTH: 14.2 FEET (4.33 METERS)
- ALL RADII .3MM (.012 INCH) UNLESS NOTED OTHERWISE
- CRITICAL DIMENSIONS ARE DENOTED BY: (X.XXX)

UNLESS OTHERWISE SPECIFIED:		PROPRIETARY AND CONFIDENTIAL		 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400	
TOLERANCES ANGULAR: $\pm 0.5^\circ$ INCH MILLIMETER .X \pm .03 [.X] \pm .75 .XX \pm .01 [.XX] \pm .25 .XXX \pm .005 [.XXX] \pm .125		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.			
MATERIAL 990935 --		DRAWN BY STEVENS	DATE 6/11/2019	TITLE: <h3>BASE EXTRUSION PROFILE - SKYLIGHT</h3>	
FINISH -- --		CHECKED BY --	DATE --		
DO NOT SCALE DRAWING		INTERPRET DRAWINGS IAW: ASME Y14.5 - 1994		SIZE B	PROJECTION (3rd)
		UNIT INCH [MM]	SCALE: 2:1	DWG. NO. 381091	REV B
		SHEET 1 OF 1			

8 7 6 5 4 3 2 1

NOTES: UNLESS OTHERWISE SPECIFIED.



FINISH:

1.1 ~~EXTERIOR SURFACES: SMOOTH PER SPI A-3 OR EQUIVALENT. ADD TEXTURE ONLY AFTER FIRST ARTICLE APPROVAL.~~

1.2 ALL SURFACES: SMOOTH PER SPI B-2 OR EQUIVALENT.

2. MECHANICAL REQUIREMENTS:

2.1 FILLET AND RADII SHALL BE .010 IN UNLESS OTHERWISE SPECIFIED. FILLETS AND ROUNDS NOT SHOWN FOR CLARITY.

2.2 PARTING LINE MISMATCH SHALL NOT EXCEED .005 IN ON EXPOSED SURFACES AND .005 IN ON OTHER UNEXPOSED SURFACES.

2.3 FLASH ALLOWANCE SHALL NOT EXCEED .010 IN.

2.4 GATES SHALL BE NO MORE THAN +.005/-0.10 IN FROM SURFACE.

2.5 NO SHRINK MARKS, HAZE MARKS, BLEMISHES, WELD LINES, OR DRAG MARKS PERMITTED WITHOUT WRITTEN APPROVAL FROM SOLATUBE INT'L.

3. QUALITY ASSURANCE REQUIREMENTS:

3.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.

3.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

4. MASS PROPERTIES

4.1 MATERIAL WEIGHT: GRAMS

4.2 PART VOLUME: CM³

5. MARKING:

5.1 ~~PART NUMBER AND CURRENT REVISION LEVEL DIAL AND DATE DIAL SHALL BE EMBOSSED ABOVE THE SURFACE IN LOCATION SHOWN.~~

5.2 IDENTIFY PARTS THAT CAN NOT BE MOLDED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

6. GENERAL REQUIREMENTS:

6.1 CRITICAL/INSPECTION DIMENSIONS ARE DENOTED BY $\textcircled{X.XXX+}$

~~6.2 INSPECTION DIMENSIONS ARE NOTED BY \textcircled{X} .~~

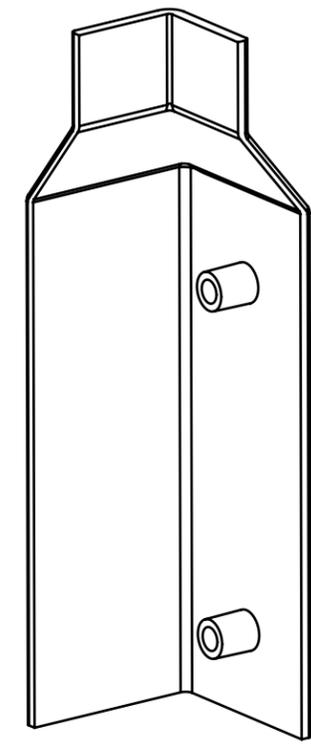
6.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

6.4 ALL DIMENSIONS ARE AFTER PART HAS COOLED AND STABILIZED PER INSPECTION PROCEDURES APPROVED BY SOLATUBE INT'L.

6.5 ALL MODEL TOLERANCES PER SOCIETY PLASTICS INDUSTRY FINE STANDARDS UNLESS NOTED OTHERWISE.

6.6 REF. MODEL CORNER CONNECTOR FOR DIMENSIONS NOT SPECIFIED

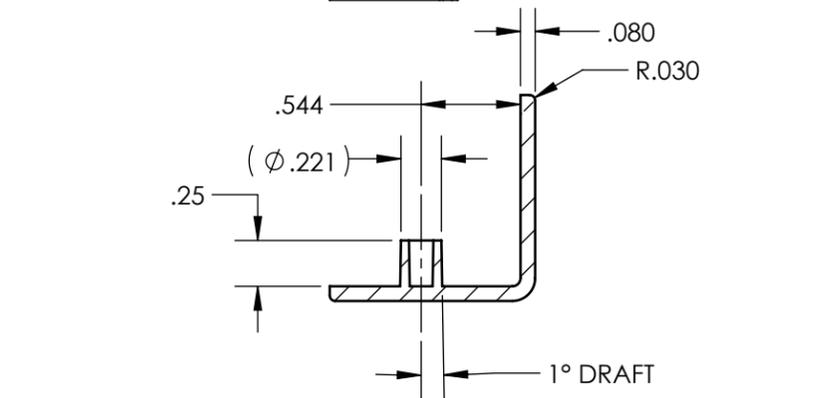
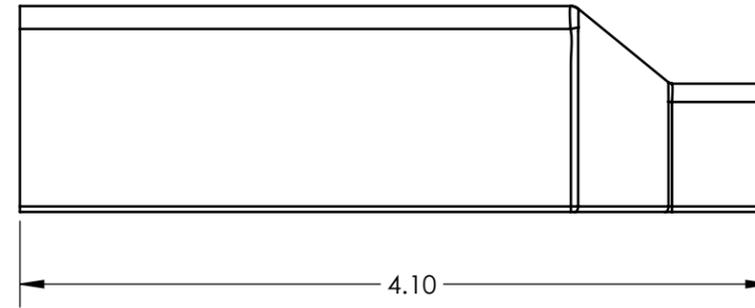
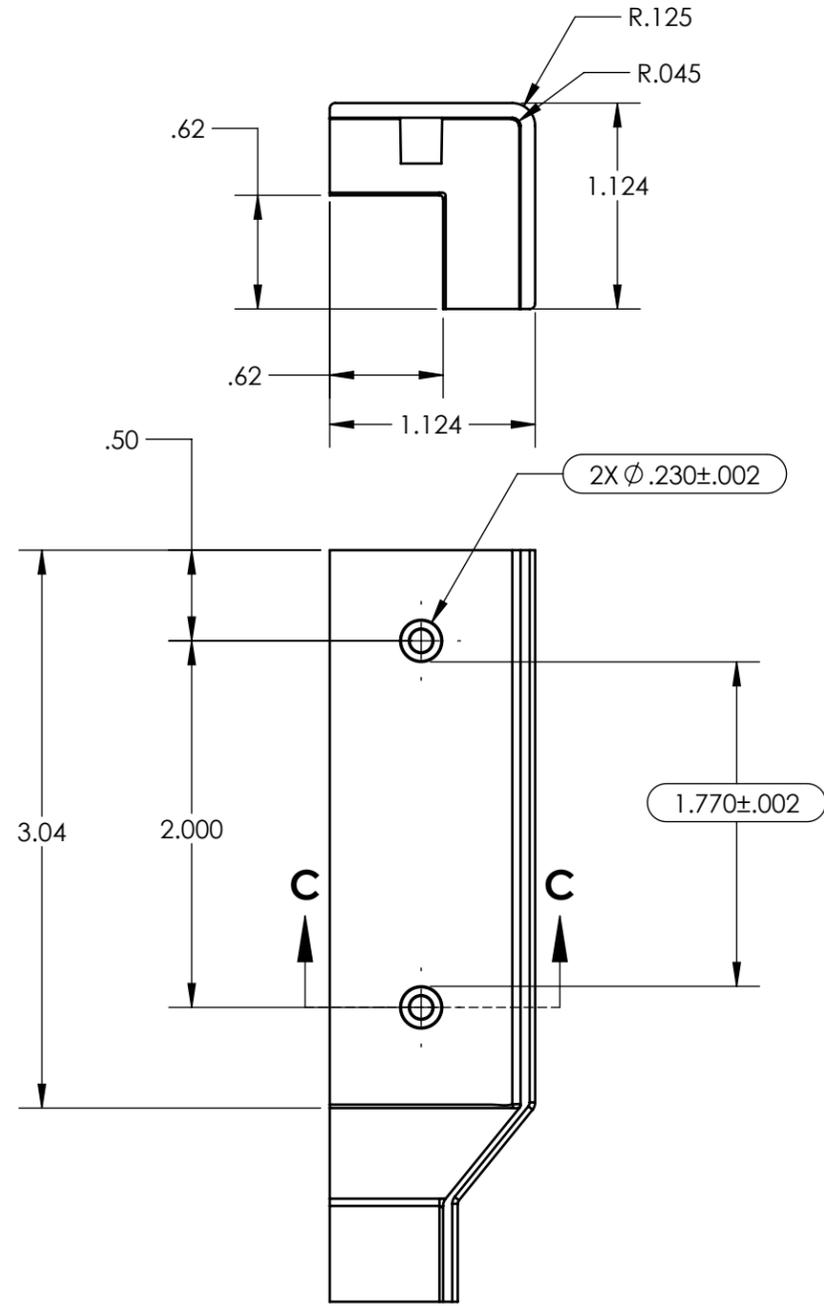
REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3154-1	1/10/2020	STEVENS		



	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: $\pm 0.5^\circ$ <table border="1"> <tr> <th>INCH</th> <th>MILLIMETER</th> </tr> <tr> <td>.X \pm .01</td> <td>[.X] \pm .3</td> </tr> <tr> <td>.XX \pm .005</td> <td>[.XX] \pm .12</td> </tr> <tr> <td>.XXX \pm .002</td> <td>[.XXX] \pm .050</td> </tr> </table>		INCH	MILLIMETER	.X \pm .01	[.X] \pm .3	.XX \pm .005	[.XX] \pm .12	.XXX \pm .002	[.XXX] \pm .050	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400	
INCH	MILLIMETER												
.X \pm .01	[.X] \pm .3												
.XX \pm .005	[.XX] \pm .12												
.XXX \pm .002	[.XXX] \pm .050												
MATERIAL 890010 --		DRAWN BY STEVENS		DATE 4 SEPT 19									
FINISH 		CHECKED BY --		SIZE B									
DO NOT SCALE DRAWING		APPROVED BY --		PROJECTION (3rd)									
				DWG. NO. 381115									
				REV A									
				UNIT MM[INCH] SCALE: 1:4									
				SHEET 1 OF 2									

TITLE: **CORNER CONNECTOR**



SECTION C-C

 <small>Total Quality. Assured.</small>	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

TITLE:		
CORNER CONNECTOR		
--		
SIZE	DWG. NO.	REV
B	381115	A
SCALE: 1:1		SHEET 2 OF 2

NOTES: UNLESS OTHERWISE SPECIFIED.



FINISH:

1.1 ~~EXTERIOR SURFACES: SMOOTH PER SPI A-3 OR EQUIVALENT. ADD TEXTURE ONLY AFTER FIRST ARTICLE APPROVAL.~~

1.2 ALL SURFACES: SMOOTH PER SPI B-2 OR EQUIVALENT.

2. MECHANICAL REQUIREMENTS:

2.1 FILLET AND RADII SHALL BE .010 IN UNLESS OTHERWISE SPECIFIED. FILLETS AND ROUNDS NOT SHOWN FOR CLARITY.

2.2 PARTING LINE MISMATCH SHALL NOT EXCEED .005 IN ON EXPOSED SURFACES AND .005 IN ON OTHER UNEXPOSED SURFACES.

2.3 FLASH ALLOWANCE SHALL NOT EXCEED .010 IN.

2.4 GATES SHALL BE NO MORE THAN +.005/-0.10 IN FROM SURFACE.

2.5 NO SHRINK MARKS, HAZE MARKS, BLEMISHES, WELD LINES, OR DRAG MARKS PERMITTED WITHOUT WRITTEN APPROVAL FROM SOLATUBE INT'L.

3. QUALITY ASSURANCE REQUIREMENTS:

3.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.

3.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

4. MASS PROPERTIES

4.1 MATERIAL WEIGHT: GRAMS

4.2 PART VOLUME: CM³

5. MARKING:

5.1 ~~PART NUMBER AND CURRENT REVISION LEVEL DIAL AND DATE DIAL SHALL BE EMBOSSED ABOVE THE SURFACE IN LOCATION SHOWN.~~

5.2 IDENTIFY PARTS THAT CAN NOT BE MOLDED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

6. GENERAL REQUIREMENTS:

6.1 CRITICAL/INSPECTION DIMENSIONS ARE DENOTED BY (+X.XXX+)

~~6.2 INSPECTION DIMENSIONS ARE NOTED BY (X.)~~

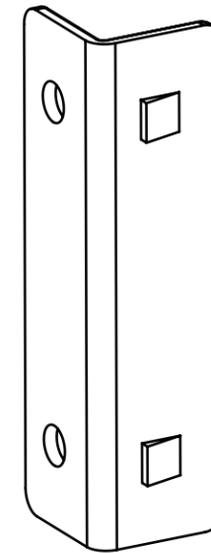
6.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

6.4 ALL DIMENSIONS ARE AFTER PART HAS COOLED AND STABILIZED PER INSPECTION PROCEDURES APPROVED BY SOLATUBE INT'L.

6.5 ALL MODEL TOLERANCES PER SOCIETY PLASTICS INDUSTRY FINE STANDARDS UNLESS NOTED OTHERWISE.

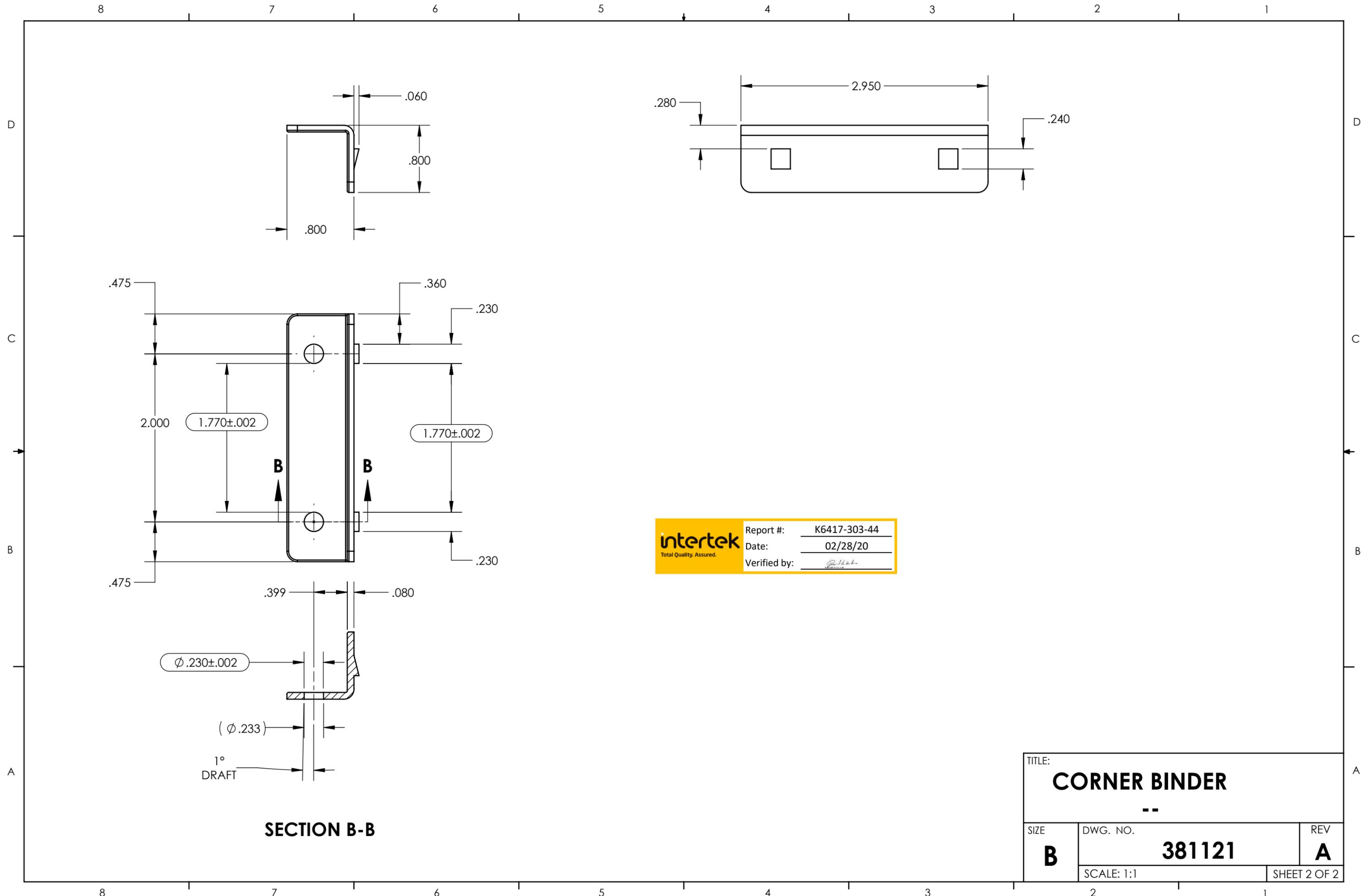
6.6 REF. MODEL CORNER BINDER FOR DIMENSIONS NOT SPECIFIED

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3154-1	9/4/2019	STEVENS		



	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED:		PROPRIETARY AND CONFIDENTIAL		<p>2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400</p>			
TOLERANCES ANGULAR: ±0.5° INCH MILLIMETER .X ± .01 [.X] ± .3 .XX ± .005 [.XX] ± .12 .XXX ± .002 [.XXX] ± .050		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		TITLE: CORNER BINDER --			
MATERIAL 890010		DRAWN BY STEVENS		DATE 4 SEPT 19		SIZE B	
FINISH 		CHECKED BY --		DATE --		PROJECTION (3rd)	
DO NOT SCALE DRAWING		APPROVED BY --		DATE --		DWG. NO. 381121	
						REV A	
						UNIT MM[INCH] SCALE: 1:1 SHEET 1 OF 2	



 <small>Total Quality. Assured.</small>	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

TITLE:		
CORNER BINDER		
--		
SIZE	DWG. NO.	REV
B	381121	A
SCALE: 1:1		SHEET 2 OF 2

SECTION B-B

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO-
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

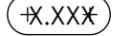
2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

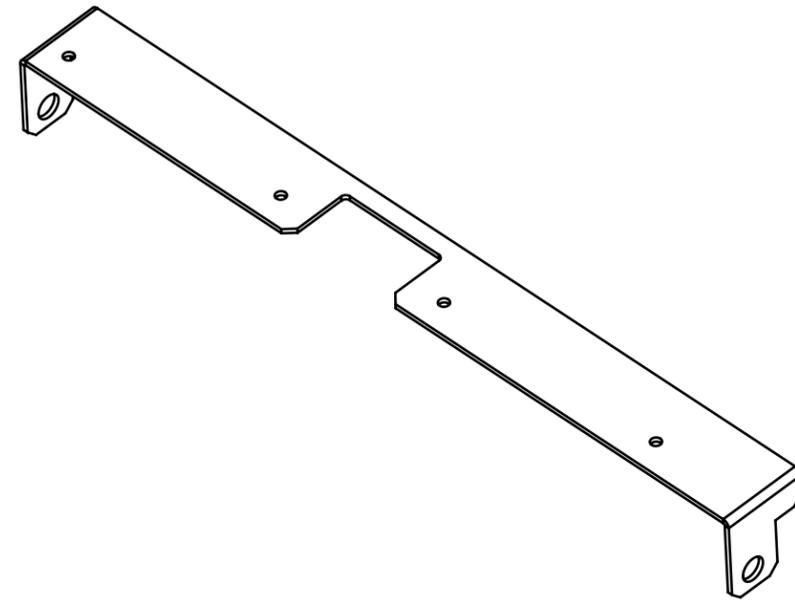
3. MARKING:

- 3.1  PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
1		1/3/2020			



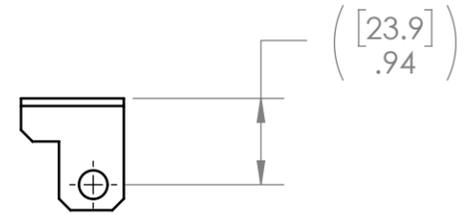
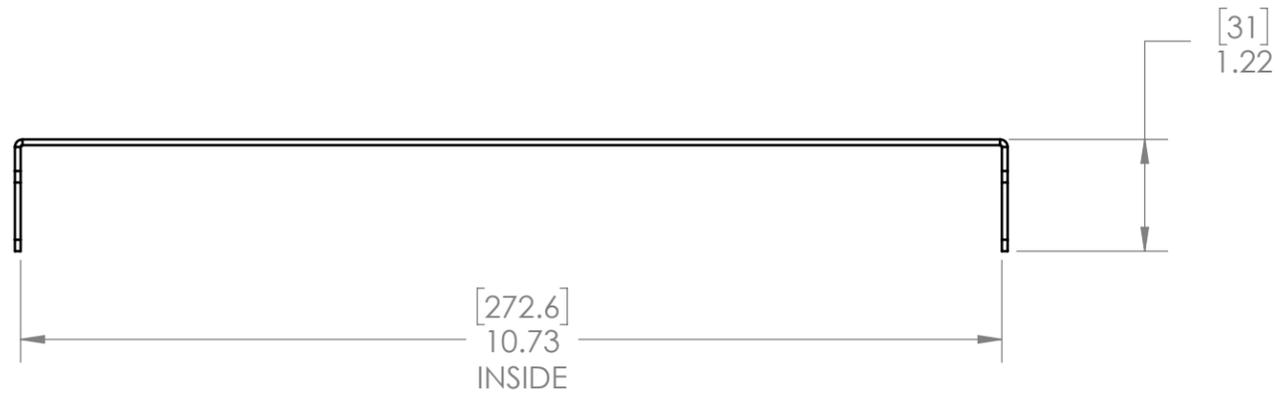
	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: $\pm 0.5^\circ$ <table border="0"> <tr> <td><u>INCH</u></td> <td><u>MILLIMETER</u></td> </tr> <tr> <td>.X \pm .03</td> <td>[.X] \pm .75</td> </tr> <tr> <td>.XX \pm .01</td> <td>[.XX] \pm .25</td> </tr> <tr> <td>.XXX \pm .005</td> <td>[.XXX] \pm .125</td> </tr> </table>		<u>INCH</u>	<u>MILLIMETER</u>	.X \pm .03	[.X] \pm .75	.XX \pm .01	[.XX] \pm .25	.XXX \pm .005	[.XXX] \pm .125	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		 SOLATUBE 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400	
<u>INCH</u>	<u>MILLIMETER</u>												
.X \pm .03	[.X] \pm .75												
.XX \pm .01	[.XX] \pm .25												
.XXX \pm .005	[.XXX] \pm .125												
MATERIAL 381057		DRAWN BY STEVENS	DATE 3 JAN 20	TITLE: <h2 style="text-align: center;">MOTOR BRACKET BENT</h2>									
FINISH NONE		CHECKED BY	DATE										
DO NOT SCALE DRAWING		APPROVED BY	DATE	SIZE B	PROJECTION  (3rd)								
				DWG. NO. <h1 style="text-align: center;">381208</h1>	REV <h1 style="text-align: center;">1</h1>								
				UNIT MM[INCH]	SCALE: 1:2								
				SHEET 1 OF 2									

8 7 6 5 4 3 2 1

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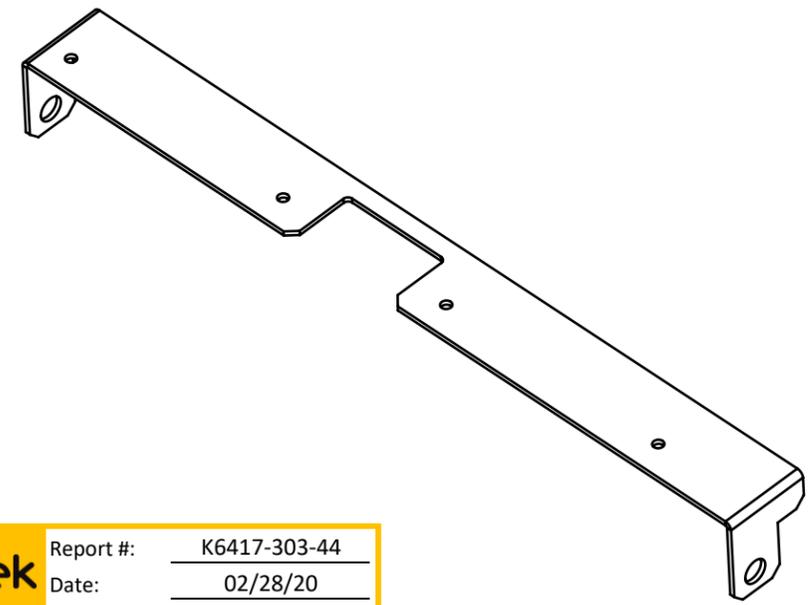
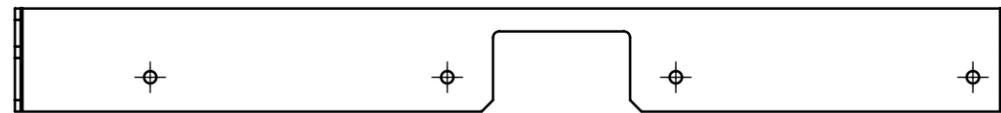


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 Total Quality. Assured.	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

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TITLE:		
MOTOR BRACKET BENT		
SIZE	DWG. NO.	REV
B	381208	1
SCALE: 1:2		SHEET 2 OF 2

8 7 6 5 4 3 2 1

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

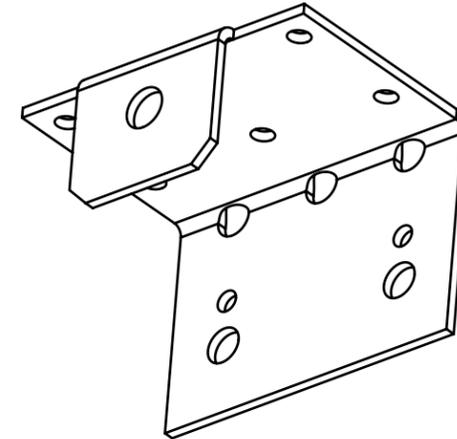
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY +X.XXX .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY (X) .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
1		1/24/2020			



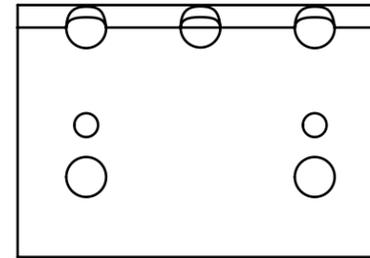
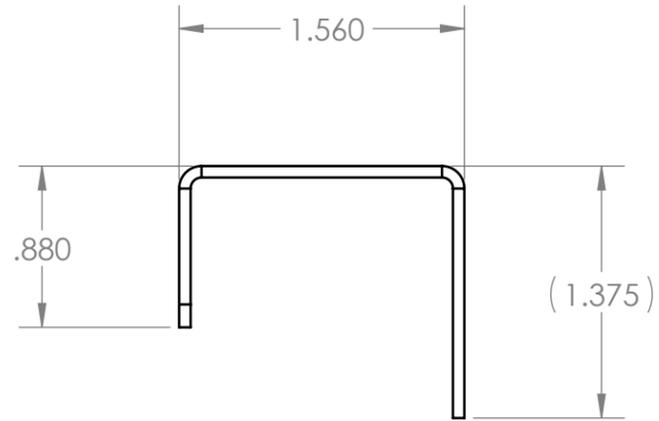
	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: $\pm 0.5^\circ$ <table border="0"> <tr> <td>INCH</td> <td>MILLIMETER</td> </tr> <tr> <td>.X \pm .03</td> <td>[.X] \pm .75</td> </tr> <tr> <td>.XX \pm .01</td> <td>[.XX] \pm .25</td> </tr> <tr> <td>.XXX \pm .005</td> <td>[.XXX] \pm .125</td> </tr> </table>		INCH	MILLIMETER	.X \pm .03	[.X] \pm .75	.XX \pm .01	[.XX] \pm .25	.XXX \pm .005	[.XXX] \pm .125	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400		
INCH	MILLIMETER													
.X \pm .03	[.X] \pm .75													
.XX \pm .01	[.XX] \pm .25													
.XXX \pm .005	[.XXX] \pm .125													
MATERIAL 381072		DRAWN BY STEVENS	DATE 6 JAN 20	CHAIN CONNECTOR BRACKET BENT										
FINISH NONE		CHECKED BY	DATE											
DO NOT SCALE DRAWING		APPROVED BY	DATE	SIZE B	PROJECTION (3rd)	DWG. NO. 381344	REV 1							
				UNIT MM[INCH]	SCALE: 1:1	SHEET 1 OF 2								

8 7 6 5 4 3 2 1

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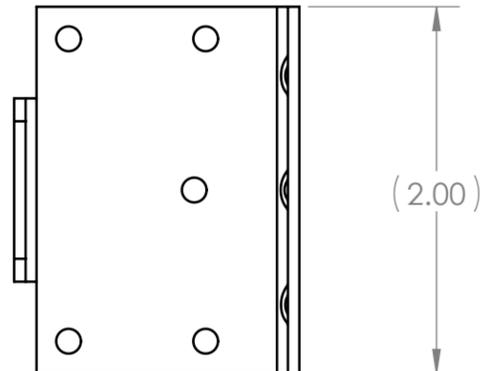
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	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

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TITLE:		
CHAIN CONNECTOR BRACKET BENT		
SIZE	DWG. NO.	REV
B	381344	1
SCALE: 1:1		SHEET 2 OF 2

8 7 6 5 4 3 2 1

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

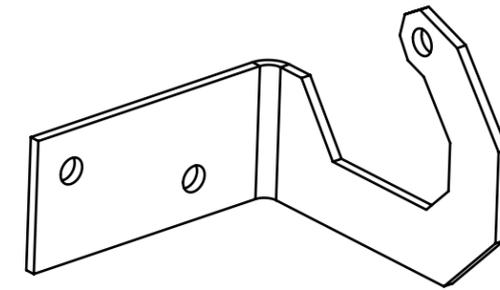
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY +X.XXX .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY (X) .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A		11/15/2019			



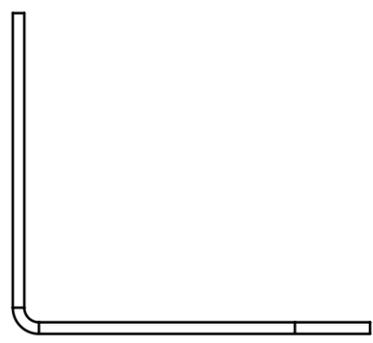
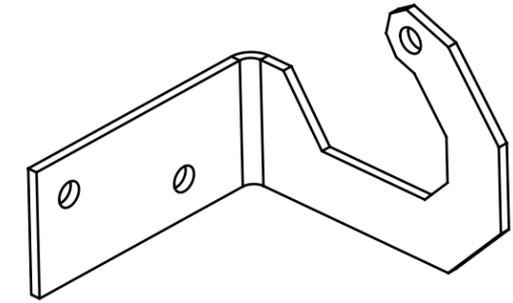
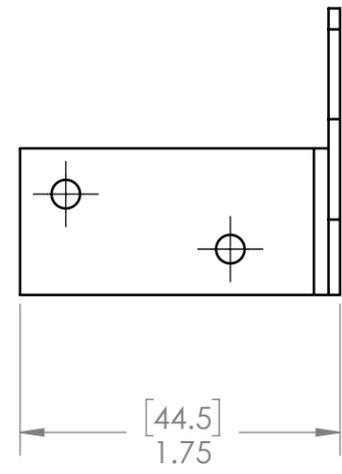
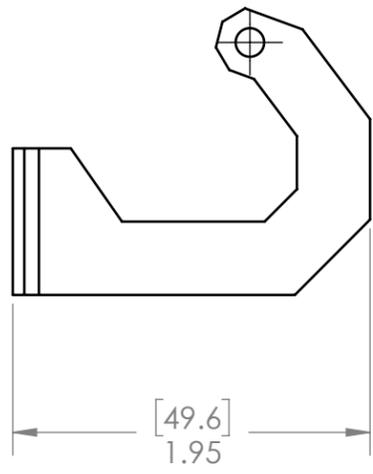
	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: $\pm 0.5^\circ$ <table border="0"> <tr> <td>INCH</td> <td>MILLIMETER</td> </tr> <tr> <td>.X \pm .03</td> <td>[.X] \pm .75</td> </tr> <tr> <td>.XX \pm .01</td> <td>[.XX] \pm .25</td> </tr> <tr> <td>.XXX \pm .005</td> <td>[.XXX] \pm .125</td> </tr> </table>		INCH	MILLIMETER	.X \pm .03	[.X] \pm .75	.XX \pm .01	[.XX] \pm .25	.XXX \pm .005	[.XXX] \pm .125	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.			
INCH	MILLIMETER												
.X \pm .03	[.X] \pm .75												
.XX \pm .01	[.XX] \pm .25												
.XXX \pm .005	[.XXX] \pm .125												
MATERIAL 382044		DRAWN BY STEVENS	DATE 11/12/19	TITLE: PV PANEL MOUNTING BRACKET RIGHT BENT									
FINISH --		CHECKED BY	DATE	SIZE B	PROJECTION (3rd)								
DO NOT SCALE DRAWING		APPROVED BY	DATE	DWG. NO. 382028	REV A								
				UNIT MM[INCH]	SCALE: 1:1 SHEET 1 OF 2								

8 7 6 5 4 3 2 1

D
C
B
A

D
C
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 <small>Total Quality. Assured.</small>	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

TITLE:		
PV PANEL MOUNTING BRACKET RIGHT BENT		
SIZE	DWG. NO.	REV
B	382028	A
SCALE: 1:1		SHEET 2 OF 2

8 7 6 5 4 3 2 1

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

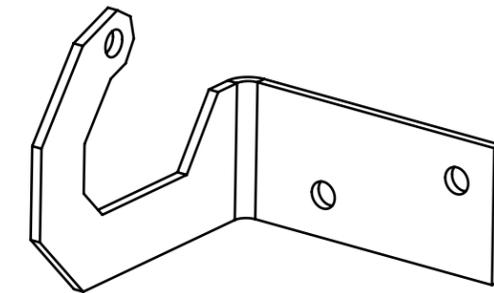
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY Ⓧ.XXX .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY Ⓧ .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A		11/15/2019			



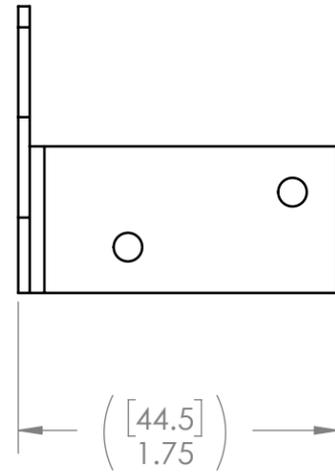
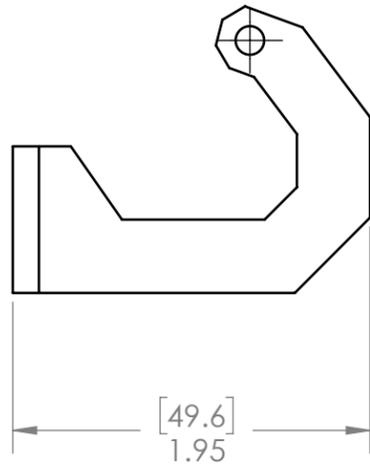
	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED:		PROPRIETARY AND CONFIDENTIAL		 SOLATUBE 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400			
TOLERANCES ANGULAR: $\pm 0.5^\circ$ INCH MILLIMETER .X \pm .03 [.X] \pm .75 .XX \pm .01 [.XX] \pm .25 .XXX \pm .005 [.XXX] \pm .125		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.					TITLE: PV PANEL MOUNTING BRACKET LEFT BENT
MATERIAL 382044		DRAWN BY STEVENS	DATE 11/12/19	SIZE B	PROJECTION  (3rd)	DWG. NO. 382033	REV A
FINISH --		CHECKED BY	DATE	UNIT MM[INCH]	SCALE: 1:1	SHEET 1 OF 2	
DO NOT SCALE DRAWING		APPROVED BY	DATE				

8 7 6 5 4 3 2 1

D

D

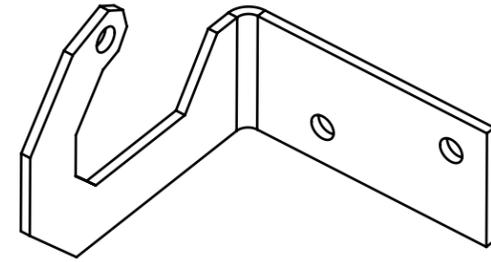
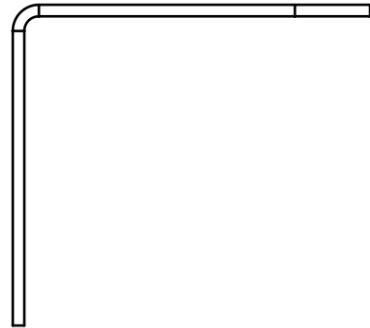


C

C

B

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B

B

A

A

	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

TITLE:		
PV PANEL MOUNTING BRACKET LEFT BENT		
SIZE	DWG. NO.	REV
B	382033	A
SCALE: 1:1		SHEET 2 OF 2

8 7 6 5 4 3 2 1

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

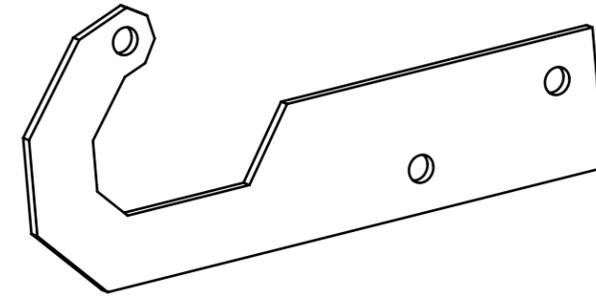
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

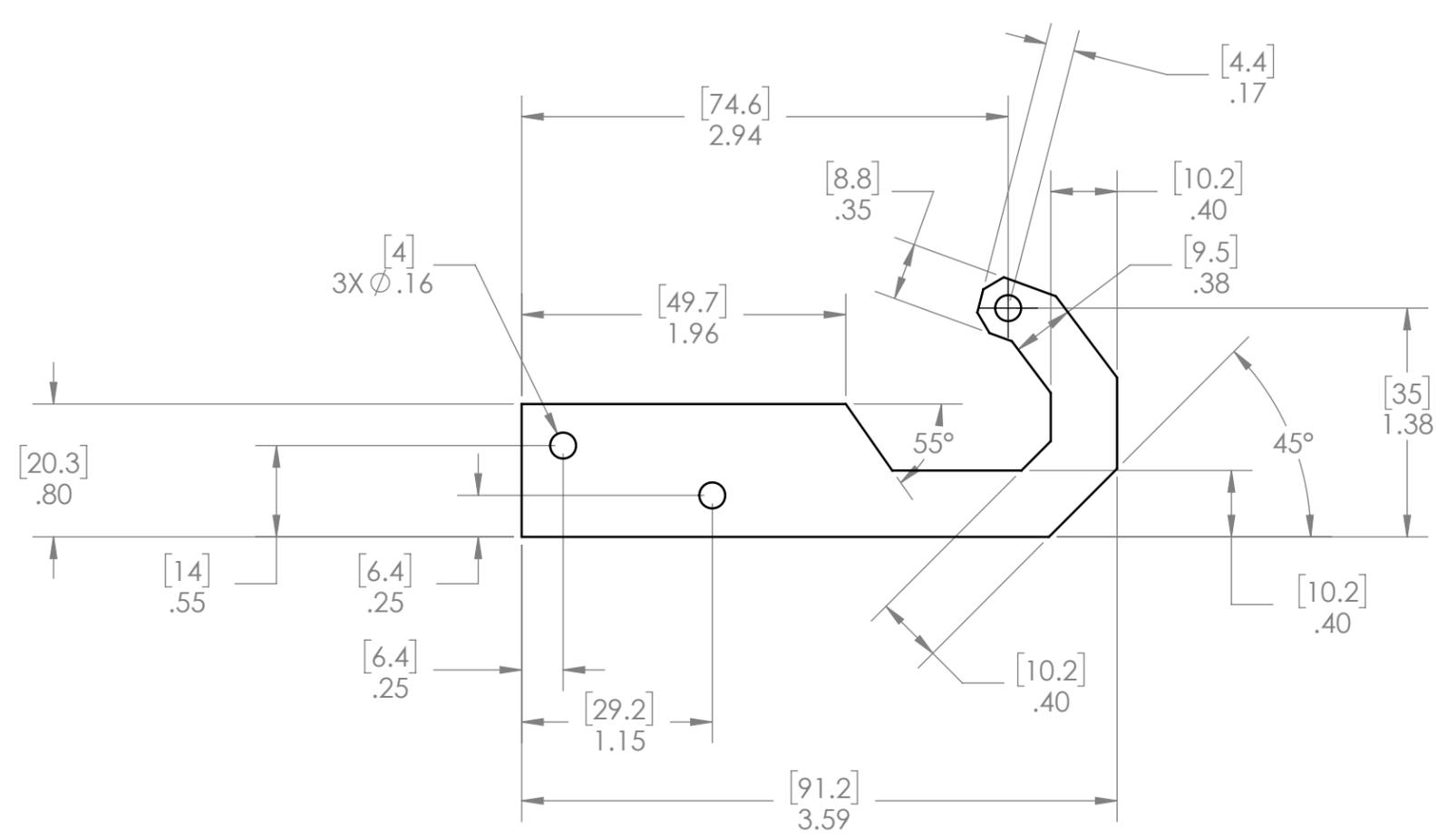
- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY +X.XXX .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY (X) .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A		11/15/2019			



	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: $\pm 0.5^\circ$ <table border="0"> <tr> <td>INCH</td> <td>MILLIMETER</td> </tr> <tr> <td>.X \pm .03</td> <td>[.X] \pm .75</td> </tr> <tr> <td>.XX \pm .01</td> <td>[.XX] \pm .25</td> </tr> <tr> <td>.XXX \pm .005</td> <td>[.XXX] \pm .125</td> </tr> </table>		INCH	MILLIMETER	.X \pm .03	[.X] \pm .75	.XX \pm .01	[.XX] \pm .25	.XXX \pm .005	[.XXX] \pm .125	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400	
INCH	MILLIMETER												
.X \pm .03	[.X] \pm .75												
.XX \pm .01	[.XX] \pm .25												
.XXX \pm .005	[.XXX] \pm .125												
MATERIAL 220320		DRAWN BY STEVENS	DATE 11/12/19	TITLE: PV PANEL MOUNTING BRACKET BLANK									
FINISH --		CHECKED BY	DATE	SIZE B	PROJECTION  (3rd)								
DO NOT SCALE DRAWING		APPROVED BY	DATE	DWG. NO. 382048	REV A								
				UNIT MM[INCH]	SCALE: 1:1 SHEET 1 OF 2								




 Report #: K6417-303-44
 Date: 02/28/20
 Verified by: *[Signature]*

TITLE:		
PV PANEL MOUNTING BRACKET BLANK		
SIZE	DWG. NO.	REV
B	382048	A
SCALE: 1:1		SHEET 2 OF 2

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO PART
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

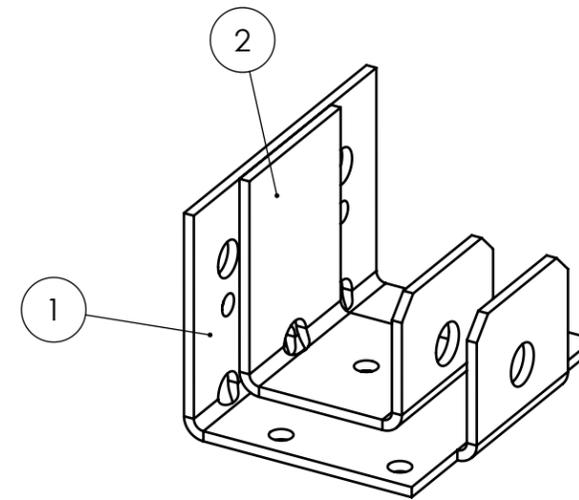
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY +X.XXX .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY (X) .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
1		1/24/2020			



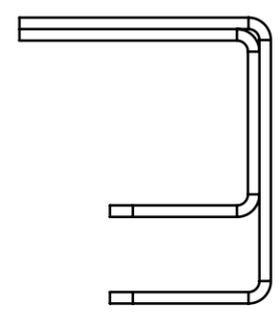
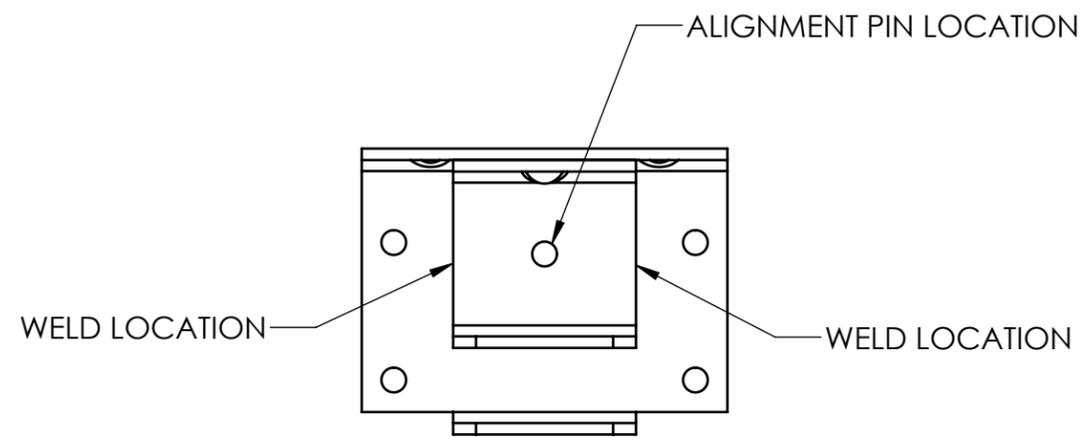
ITEM	PART NO.	DESCRIPTION	MATERIAL	QTY.
1	382062	CHAIN CONNECTOR LOCK BENT	381072	1
2	382076	CHAIN CONNECTOR BENT	382076	1

	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: $\pm 0.5^\circ$ <table border="0"> <tr> <td>INCH</td> <td>MILLIMETER</td> </tr> <tr> <td>.X \pm .03</td> <td>[.X] \pm .75</td> </tr> <tr> <td>.XX \pm .01</td> <td>[.XX] \pm .25</td> </tr> <tr> <td>.XXX \pm .005</td> <td>[.XXX] \pm .125</td> </tr> </table>		INCH	MILLIMETER	.X \pm .03	[.X] \pm .75	.XX \pm .01	[.XX] \pm .25	.XXX \pm .005	[.XXX] \pm .125	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.			
INCH	MILLIMETER												
.X \pm .03	[.X] \pm .75												
.XX \pm .01	[.XX] \pm .25												
.XXX \pm .005	[.XXX] \pm .125												
MATERIAL SEE BOM		DRAWN BY STEVENS	DATE --	CHAIN CONNECTOR ASSEMBLY TITLE:									
FINISH --		CHECKED BY	DATE										
DO NOT SCALE DRAWING		APPROVED BY	DATE	SIZE B	PROJECTION (3rd)								
				DWG. NO. 382055	REV 1								
				UNIT MM[INCH]	SCALE: 1:1 SHEET 1 OF 2								

8 7 6 5 4 3 2 1

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 <small>Total Quality. Assured.</small>	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

TITLE:		
CHAIN CONNECTOR ASSEMBLY		
SIZE	DWG. NO.	REV
B	382055	1
SCALE: 1:1		SHEET 2 OF 2

8 7 6 5 4 3 2 1

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

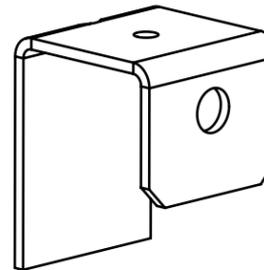
- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY Ⓧ.XXX .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY Ⓧ .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS



REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
1		1/6/2020			

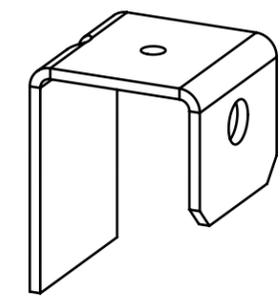
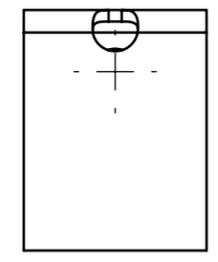
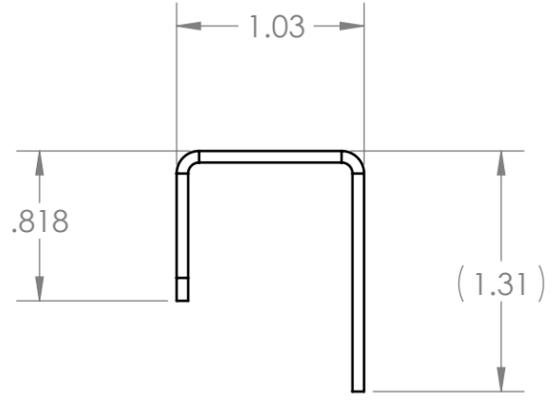
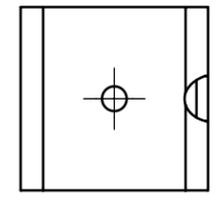
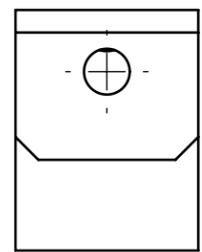
	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED:		PROPRIETARY AND CONFIDENTIAL		<p>2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400</p>	
TOLERANCES ANGULAR: $\pm 0.5^\circ$ INCH MILLIMETER .X \pm .03 [.X] \pm .75 .XX \pm .01 [.XX] \pm .25 .XXX \pm .005 [.XXX] \pm .125		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.			
MATERIAL		DRAWN BY	DATE	TITLE: CHAIN CONNECTOR LOCK BENT	
382076		STEVENS	6 JAN 20		
FINISH		CHECKED BY	DATE		
NONE		APPROVED BY	DATE	SIZE B	PROJECTION (3rd)
DO NOT SCALE DRAWING				DWG. NO. 382062	REV 1
				UNIT MM[INCH]	SCALE: 1:1 SHEET 1 OF 2

8 7 6 5 4 3 2 1

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 <small>Total Quality. Assured.</small>	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

TITLE:		
CHAIN CONNECTOR LOCK BENT		
SIZE	DWG. NO.	REV
B	382062	1
SCALE: 1:1		SHEET 2 OF 2

8 7 6 5 4 3 2 1

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

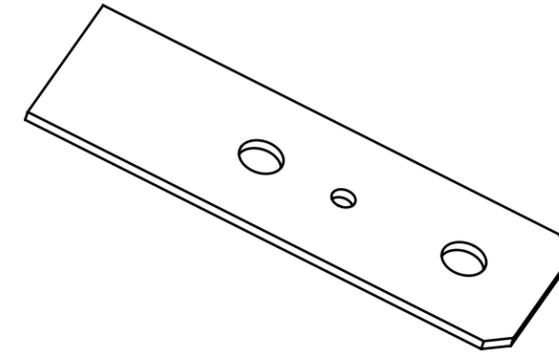
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

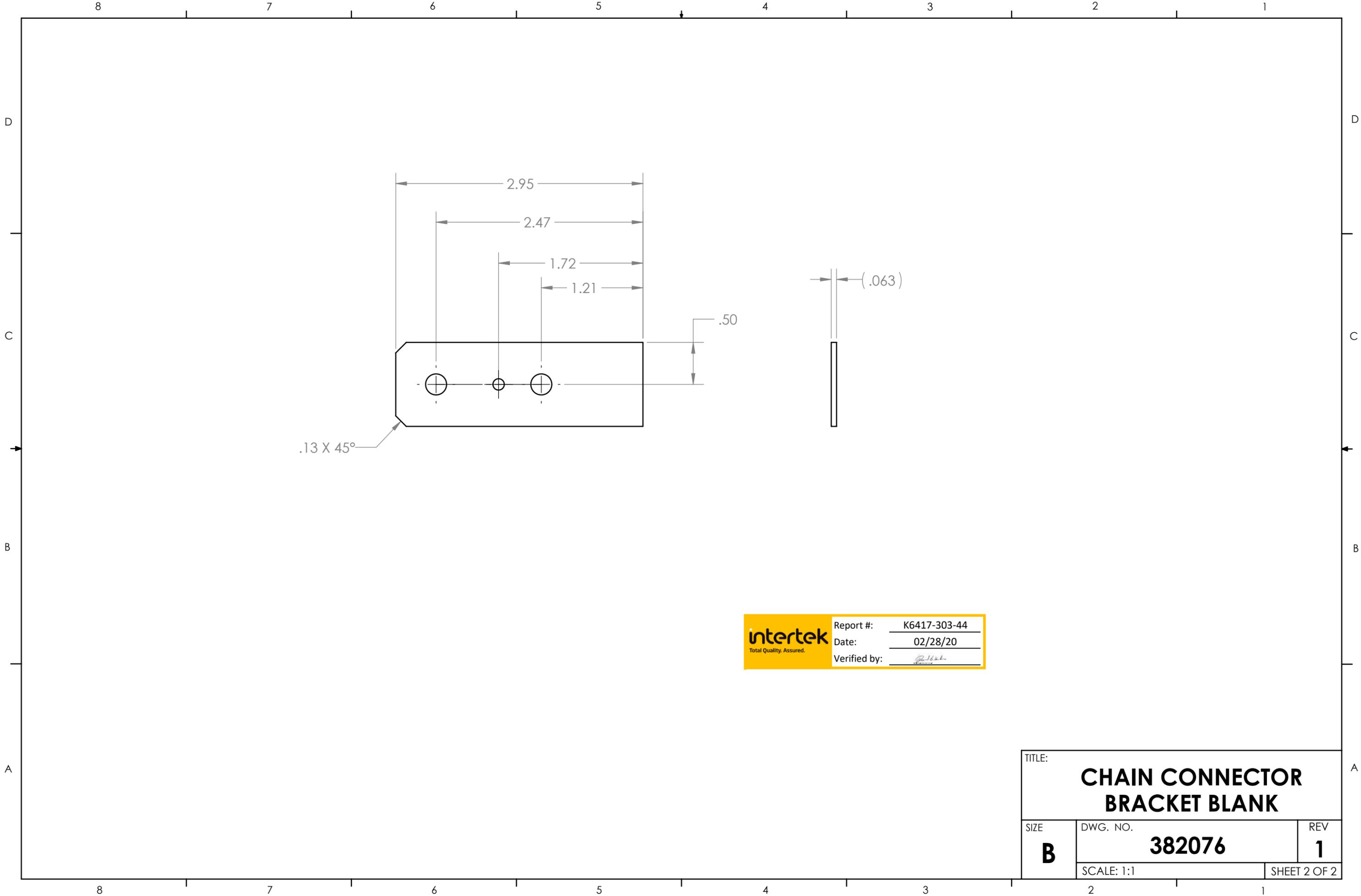
- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY ⓈX.XXX .
- 4.2 INSPECTION DIMENSIONS ARE NOTES BY Ⓧ .
- 4.3 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
1		1/6/2020			



	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: $\pm 0.5^\circ$ <table border="0"> <tr> <td><u>INCH</u></td> <td><u>MILLIMETER</u></td> </tr> <tr> <td>.X \pm .03</td> <td>[.X] \pm .75</td> </tr> <tr> <td>.XX \pm .01</td> <td>[.XX] \pm .25</td> </tr> <tr> <td>.XXX \pm .005</td> <td>[.XXX] \pm .125</td> </tr> </table>		<u>INCH</u>	<u>MILLIMETER</u>	.X \pm .03	[.X] \pm .75	.XX \pm .01	[.XX] \pm .25	.XXX \pm .005	[.XXX] \pm .125	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.				
<u>INCH</u>	<u>MILLIMETER</u>													
.X \pm .03	[.X] \pm .75													
.XX \pm .01	[.XX] \pm .25													
.XXX \pm .005	[.XXX] \pm .125													
MATERIAL 220320		DRAWN BY STEVENS	DATE 6 JAN 20		TITLE: CHAIN CONNECTOR BRACKET BLANK									
FINISH NONE		CHECKED BY	DATE		SIZE B									
DO NOT SCALE DRAWING		APPROVED BY	DATE		PROJECTION (3rd)									
					DWG. NO. 382076									
					REV 1									
					UNIT MM[INCH] SCALE: 1:1 SHEET 1 OF 2									

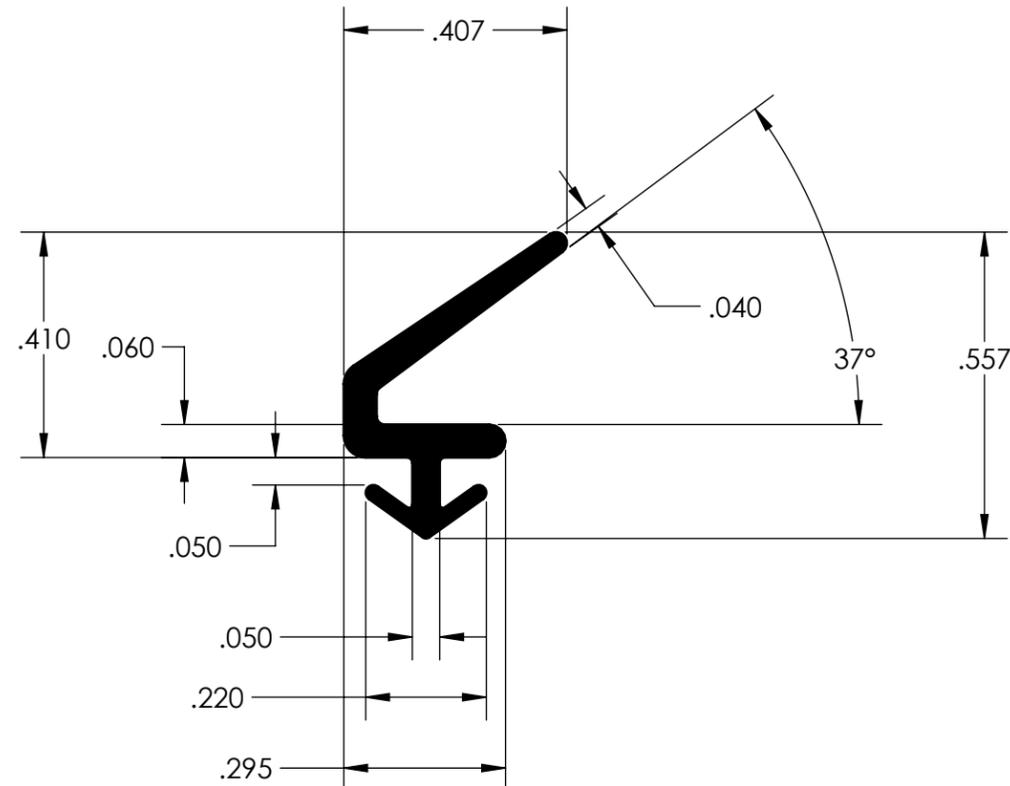



 Report #: K6417-303-44
 Date: 02/28/20
 Verified by: *[Signature]*

TITLE:		
CHAIN CONNECTOR BRACKET BLANK		
SIZE	DWG. NO.	REV
B	382076	1
SCALE: 1:1		SHEET 2 OF 2

8 7 6 5 4 3 2 1

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3094-1	6/27/2019	STEVENS		



intertek Total Quality. Assured. Report #: K6417-303-44 Date: 02/28/20 Verified by: *[Signature]*

NOTES:

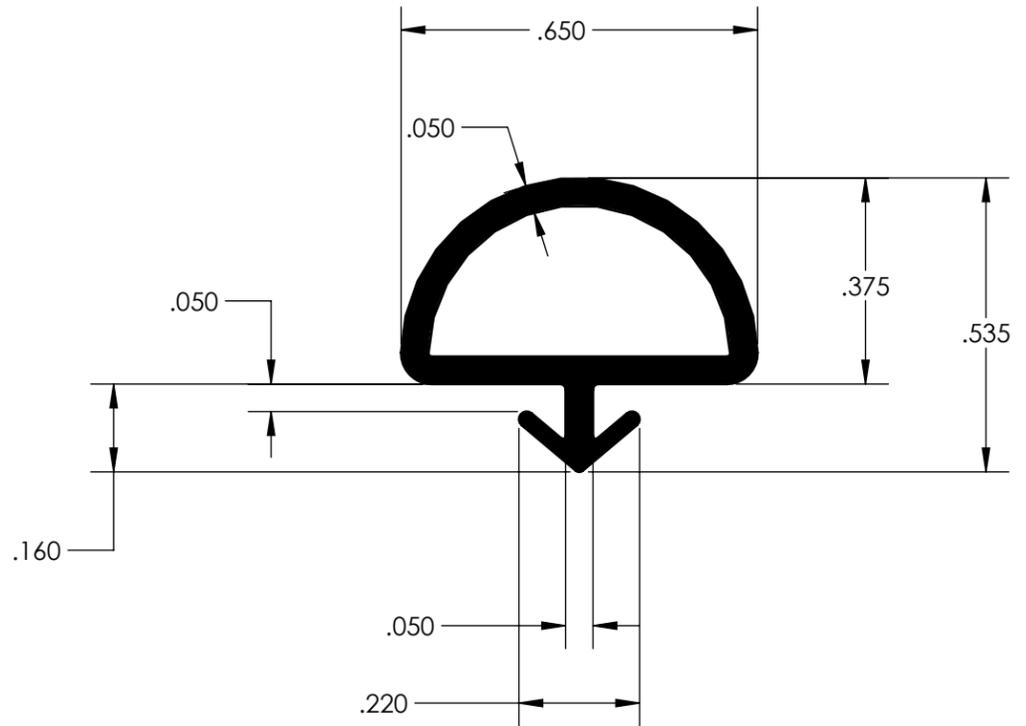
1. PACKAGED IN CARDBOARD BOX, LOOSE; APPROX. 350FT (100m) LENGTHS

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: ±0.5° INCH MILLIMETER .X ± .06 [.X] ± 1.5 .XX ± .02 [.XX] ± .50 .XXX ± .010 [.XXX] ± .25		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400	
MATERIAL PACREL TPE 6365N 65 SHORE A (BLACK)		DRAWN BY STEVENS	DATE 27 JUN 19	TITLE: <h2>SEAL FIN</h2> <h3>.338 X .597 CUSTOM</h3>	
FINISH -- --		CHECKED BY --	DATE --		
DO NOT SCALE DRAWING		INTERPRET DRAWINGS IAW: ASME Y14.5 - 1994		SIZE B	PROJECTION (3rd)
		DWG. NO. 600235	REV A	UNIT MM[INCH]	SCALE: 3:1
				SHEET 1 OF 1	

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3094-1	11 JUL 19	STEVENS		



intertek Total Quality. Assured.

Report #: K6417-303-44
 Date: 02/28/20
 Verified by: *[Signature]*

NOTES:

1. PACKAGED IN CARDBOARD BOX, LOOSE; APPROX. 350FT (100m) LENGTHS

UNLESS OTHERWISE SPECIFIED:		PROPRIETARY AND CONFIDENTIAL		 <p>2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400</p>	
TOLERANCES ANGULAR: ±0.5° INCH MILLIMETER .X ± .06 [.X] ± 1.5 .XX ± .02 [.XX] ± .50 .XXX ± .010 [.XXX] ± .25		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.			
MATERIAL PACREL TPE 6365N 65 SHORE A (BLACK)		DRAWN BY STEVENS	DATE 11 JUL 19	TITLE: <h2>SEAL HOLLOW D .650 X .522 CUSTOM</h2>	
FINISH -- --		CHECKED BY --	DATE --		
DO NOT SCALE DRAWING		INTERPRET DRAWINGS IAW: ASME Y14.5 - 1994		SIZE B	PROJECTION  (3rd)
				DWG. NO. 600304	REV A
				UNIT MM[INCH]	SCALE: 3:1
				SHEET 1 OF 1	

8 7 6 5 4 3 2 1

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO SPEC
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

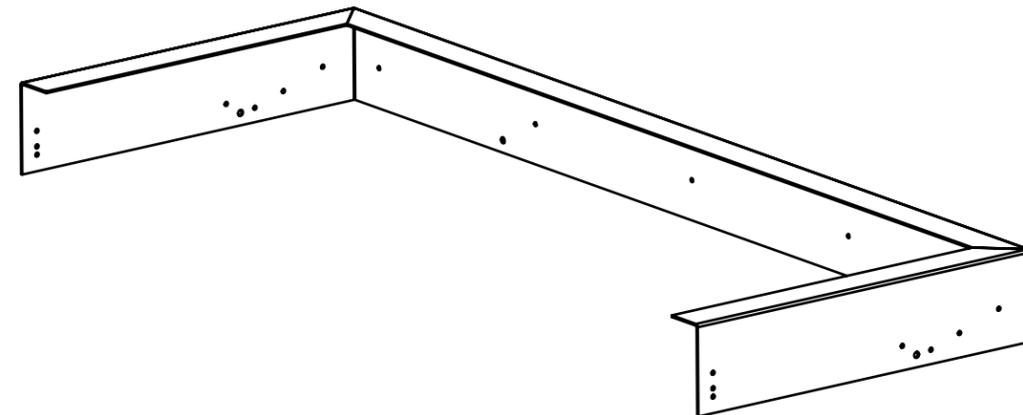
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY Ⓧ.XXX .
- 4.2 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3129-1	5/29/2019	CS		
B	3154-1	1/8/2020	CS		



BENT PART NO.	DESCRIPTION	MATERIAL
381251	BASE FLANGE 1.5' X 1.5' BENT	381134
381262	BASE FLANGE 1.5' X 2' BENT	381148
381273	BASE FLANGE 1.5' X 4' BENT	381152
381284	BASE FLANGE 2' X 2' BENT	381166
381295	BASE FLANGE 2' X 3' BENT	381177
381306	BASE FLANGE 2' X 3.5' BENT	381189
381317	BASE FLANGE 2' X 4' BENT	381191
381328	BASE FLANGE 3' X 3' BENT	381205
381339	BASE FLANGE 3' X 4' BENT	381218
381346	BASE FLANGE 3.5' X 3.5' BENT	381222
381353	BASE FLANGE 3.5' X 4' BENT	381237
381362	BASE FLANGE 4' X 4' BENT	381246

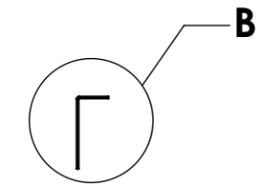
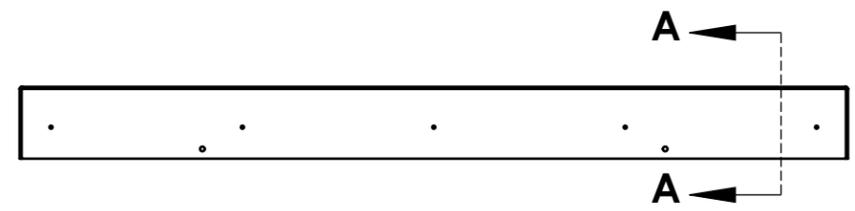
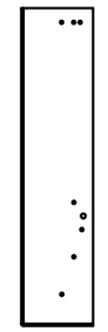
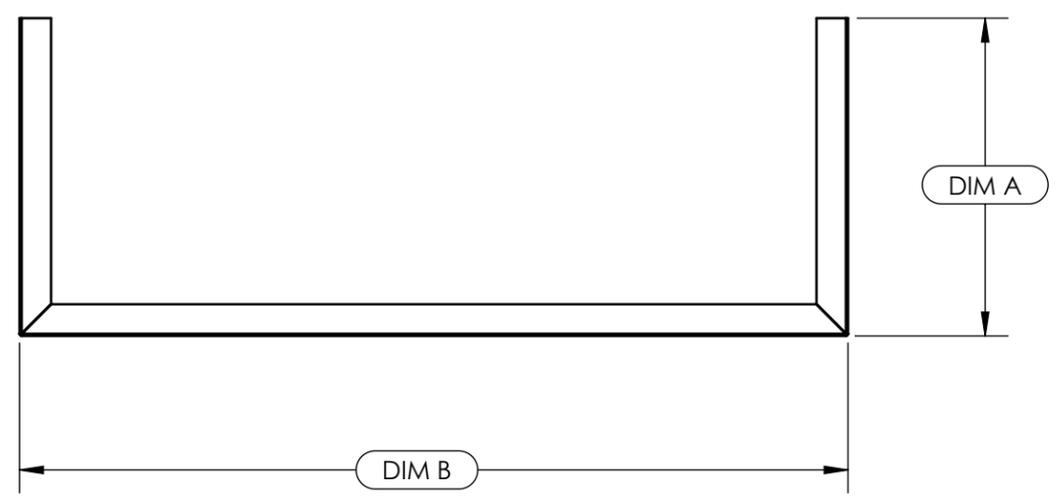
intertek Total Quality. Assured.

Report #: K6417-303-44
 Date: 02/28/20
 Verified by: *[Signature]*

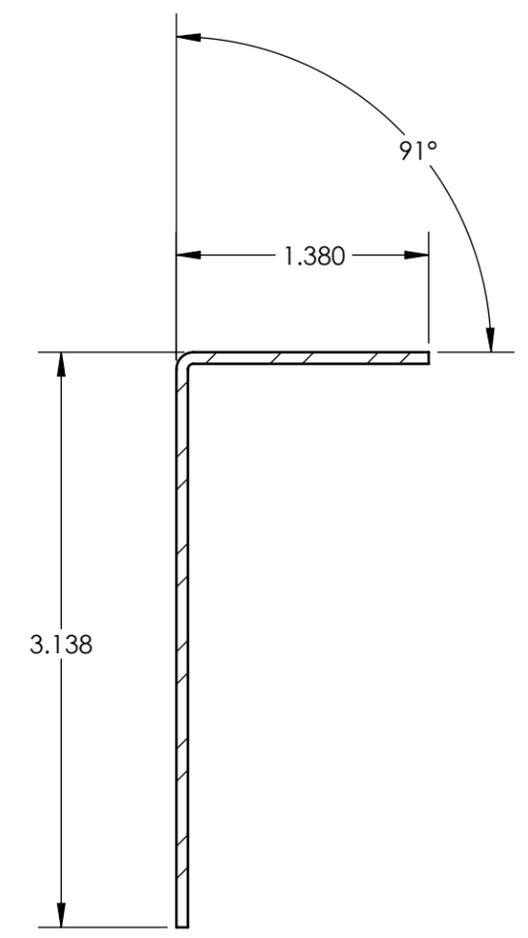
UNLESS OTHERWISE SPECIFIED:		PROPRIETARY AND CONFIDENTIAL		<p>2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400</p>	
TOLERANCES ANGULAR: $\pm 0.5^\circ$ INCH: .X \pm .03, .XX \pm .01, .XXX \pm .005 MILLIMETER: [.X] \pm .75, [.XX] \pm .25, [.XXX] \pm .125		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.			
MATERIAL: SEE TABLE		DRAWN BY: STEVENS	DATE: 9/24/19	TITLE: BASE FLANGE BENT	
FINISH: --		CHECKED BY: --	DATE: --		
DO NOT SCALE DRAWING		APPROVED BY: --	DATE: --	SIZE: B	PROJECTION: (3rd)
				DWG. NO. VARIES	REV B
				UNIT MM[INCH]	SCALE: 1:6
				SHEET 1 OF 2	

8 7 6 5 4 3 2 1

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**SECTION A-A
SCALE 1 : 8**



**DETAIL B
SCALE 1 : 1**

NOM. SIZE	BENT PART NO.	DESCRIPTION	DIM A	DIM B
1.5 X 1.5	381251	BASE FLANGE 1.5' X 1.5' BENT	10.120	20.254
1.5 X 2	381262	BASE FLANGE 1.5' X 2' BENT	10.120	27.754
1.5 X 4	381273	BASE FLANGE 1.5' X 4' BENT	10.120	51.754
2 X 2	381284	BASE FLANGE 2' X 2' BENT	13.870	27.754
2 X 3	381295	BASE FLANGE 2' X 3' BENT	13.870	36.254
2 X 3.5	381306	BASE FLANGE 2' X 3.5' BENT	13.870	43.254
2 X 4	381317	BASE FLANGE 2' X 4' BENT	13.870	51.754
3 X 3	381328	BASE FLANGE 3' X 3' BENT	18.120	36.254
3 X 4	381339	BASE FLANGE 3' X 4' BENT	18.120	51.754
3.5 X 3.5	381346	BASE FLANGE 3.5' X 3.5' BENT	21.620	43.254
3.5 X 4	381353	BASE FLANGE 3.5' X 4' BENT	21.620	51.754
4 X 4	381362	BASE FLANGE 4' X 4' BENT	25.870	51.754

intertek Report #: K6417-303-44
 Total Quality Assured. Date: 02/28/20
 Verified by: *[Signature]*

TITLE: BASE FLANGE BENT		
SIZE B	DWG. NO. VARIES	REV B
SCALE: 1:12		SHEET 2 OF 2

8 7 6 5 4 3 2 1

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

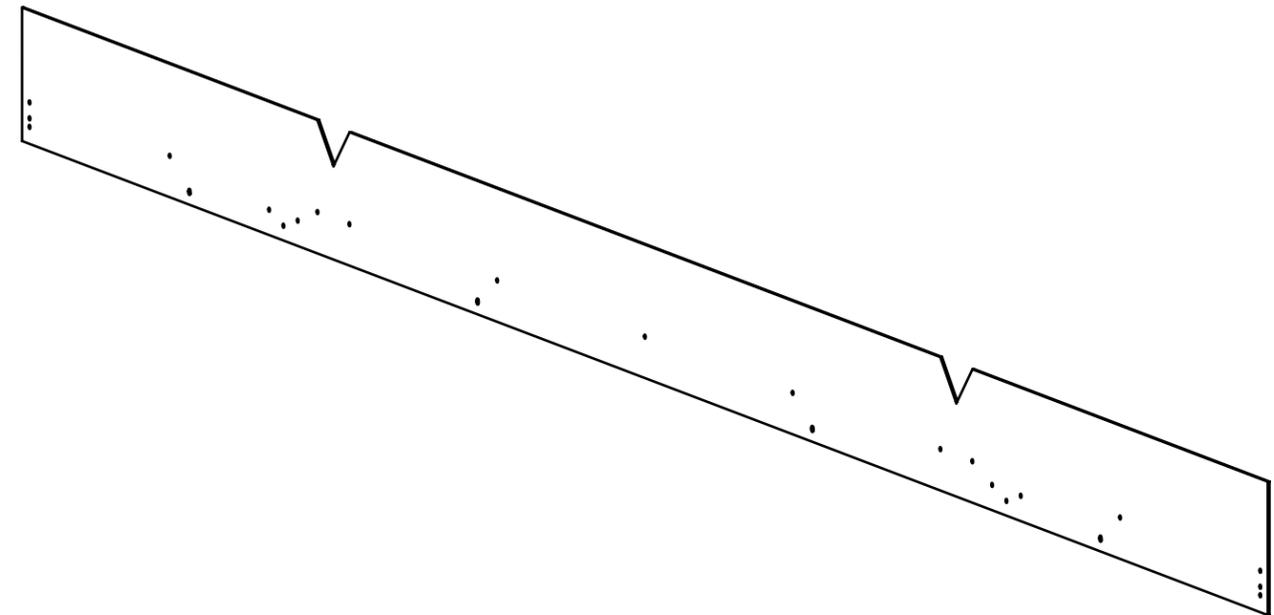
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY X.XXX .
- 4.2 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3129-1	5/29/2019	STEVENS		
B	3154-1	1/9/2020	STEVENS		

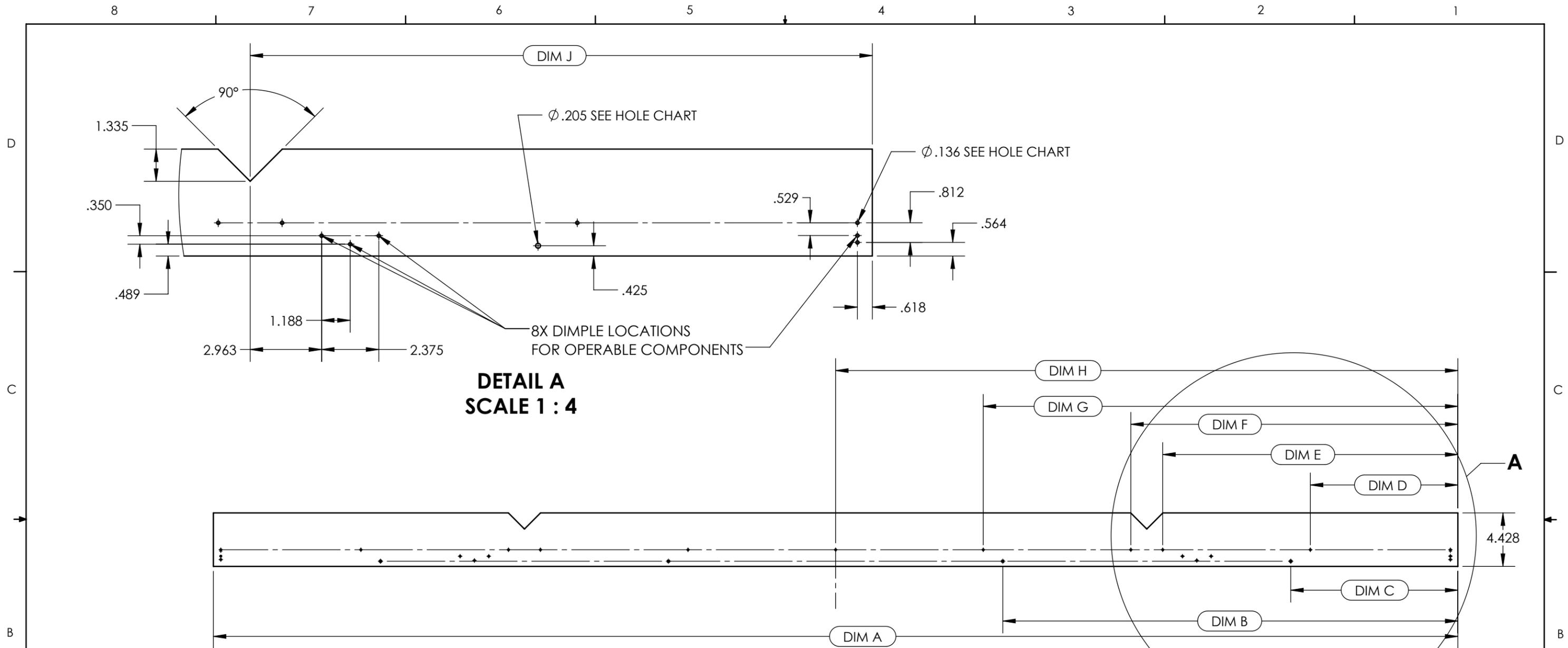


BLANK PART NO.	DESCRIPTION	MATERIAL
381134	BASE FLANGE 1.5' X 1.5' BLANK	201895
381148	BASE FLANGE 1.5' X 2' BLANK	201895
381152	BASE FLANGE 1.5' X 4' BLANK	201903
381166	BASE FLANGE 2' X 2' BLANK	201895
381177	BASE FLANGE 2' X 3' BLANK	201903
381189	BASE FLANGE 2' X 3.5' BLANK	201903
381191	BASE FLANGE 2' X 4' BLANK	201903
381205	BASE FLANGE 3' X 3' BLANK	201903
381218	BASE FLANGE 3' X 4' BLANK	201927
381222	BASE FLANGE 3.5' X 3.5' BLANK	201927
381237	BASE FLANGE 3.5' X 4' BLANK	201927
381246	BASE FLANGE 4' X 4' BLANK	201927

intertek Total Quality. Assured.

Report #: K6417-303-44
 Date: 02/28/20
 Verified by: *[Signature]*

UNLESS OTHERWISE SPECIFIED:		PROPRIETARY AND CONFIDENTIAL		<p>2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400</p>	
TOLERANCES ANGULAR: $\pm 0.5^\circ$ INCH: .X \pm .03, .XX \pm .01, .XXX \pm .005 MILLIMETER: [.X] \pm .75, [.XX] \pm .25, [.XXX] \pm .125		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.			
MATERIAL: SEE TABLE		DRAWN BY: STEVENS	DATE: 9/24/19	TITLE: BASE FLANGE BLANK	
FINISH: --		CHECKED BY: --	DATE: --		
DO NOT SCALE DRAWING		APPROVED BY: --	DATE: --	SIZE: B	PROJECTION: (3rd)
				DWG. NO. VARIES	REV B
				UNIT MM[INCH]	SCALE: 1:6
				SHEET 1 OF 2	



**DETAIL A
SCALE 1 : 4**

HOLE DIA.	QTY. OF HOLES PER CONFIGURATION											
	1.5 x 1.5	1.5 x 2	1.5 x 4	2 x 2	2 x 3	2 x 3.5	2 x 4	3 x 3	3 x 4	3.5 x 3.5	3.5 x 4	4 x 4
0.136	9	9	11	9	11	11	11	13	13	13	13	13
0.205	4	4	4	4	4	4	4	4	4	4	4	4

intertek Report #: K6417-303-44
 Total Quality. Assured. Date: 02/28/20
 Verified by: *[Signature]*

NOM. SIZE	BENT PART NO.	DESCRIPTION	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H	DIM J
1.5 X 1.5	381134	BASE FLANGE 1.5' X 1.5' BLANK	40.286	14.016	-	-	8.744	11.392	-	20.143	10.068
1.5 X 2	381148	BASE FLANGE 1.5' X 2' BLANK	47.786	14.016	6.12	-	8.744	11.392	-	23.893	10.068
1.5 X 4	381152	BASE FLANGE 1.5' X 4' BLANK	71.786	22.016	6.12	-	8.744	11.392	-	35.893	10.068
2 X 2	381166	BASE FLANGE 2' X 2' BLANK	55.286	17.766	9.87	-	12.494	15.142	-	27.643	13.818
2 X 3	381177	BASE FLANGE 2' X 3' BLANK	63.786	21.766	9.87	-	12.494	15.142	23.518	31.893	13.818
2 X 3.5	381189	BASE FLANGE 2' X 3.5' BLANK	70.786	23.766	9.87	-	12.494	15.142	25.268	35.393	13.818
2 X 4	381191	BASE FLANGE 2' X 4' BLANK	79.286	25.766	9.87	-	12.494	15.142	27.393	39.643	13.818
3 X 3	381205	BASE FLANGE 3' X 3' BLANK	72.286	26.016	10.12	8.368	16.744	19.392	27.768	36.143	18.068
3 X 4	381218	BASE FLANGE 3' X 4' BLANK	87.786	30.016	10.12	8.368	16.744	19.392	31.643	43.893	18.068
3.5 X 3.5	381222	BASE FLANGE 3.5' X 3.5' BLANK	86.286	31.516	11.62	10.118	20.244	22.892	33.018	43.143	21.568
3.5 X 4	381237	BASE FLANGE 3.5' X 4' BLANK	94.786	33.516	11.62	10.118	20.244	22.892	35.143	47.393	21.568
4 X 4	381246	BASE FLANGE 4' X 4' BLANK	103.286	37.766	13.87	12.243	24.494	27.142	39.393	51.643	25.818

TITLE: **BASE FLANGE BLANK**

SIZE: **B** DWG. NO.: **VARIES** REV: **B**

SCALE: 1:12 SHEET 2 OF 2

NOTES: UNLESS OTHERWISE SPECIFIED.

△ 1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO SPEC 892000
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

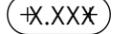
2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

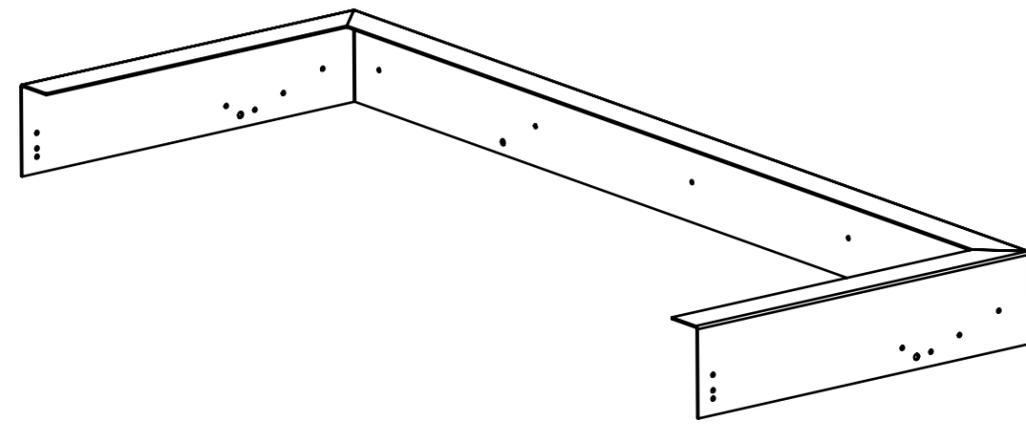
3. MARKING:

- 3.1  PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY .
- 4.2 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3129-1	9/29/2019	STEVENS		



COATED PART NO.	DESCRIPTION	MATERIAL
381375	BASE FLANGE 1.5' X 1.5' COATED	381251
381384	BASE FLANGE 1.5' X 2' COATED	381262
381399	BASE FLANGE 1.5' X 4' COATED	381273
381407	BASE FLANGE 2' X 2' COATED	381284
381413	BASE FLANGE 2' X 3' COATED	381295
381429	BASE FLANGE 2' X 3.5' COATED	381306
381431	BASE FLANGE 2' X 4' COATED	381317
381443	BASE FLANGE 3' X 3' COATED	381328
381455	BASE FLANGE 3' X 4' COATED	381339
381468	BASE FLANGE 3.5' X 3.5' COATED	381346
381472	BASE FLANGE 3.5' X 4' COATED	381353
381484	BASE FLANGE 4' X 4' COATED	381362

	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: ±0.5° INCH MILLIMETER .X ± .03 [.X] ± .75 .XX ± .01 [.XX] ± .25 .XXX ± .005 [.XXX] ± .125		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		 SOLATUBE 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400	
MATERIAL SEE TABLE		DRAWN BY STEVENS	DATE 9/24/19	TITLE: <h2 style="text-align: center;">BASE FLANGE COATED</h2>	
FINISH --		CHECKED BY --	DATE --		
DO NOT SCALE DRAWING		APPROVED BY --	DATE --	SIZE <h1 style="font-size: 2em;">B</h1>	PROJECTION  (3rd)
				DWG. NO. <h1 style="font-size: 2em;">VARIES</h1>	REV <h1 style="font-size: 2em;">A</h1>
				UNIT MM[INCH]	SCALE: 1:6
				SHEET 1 OF 1	

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO SPEC
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

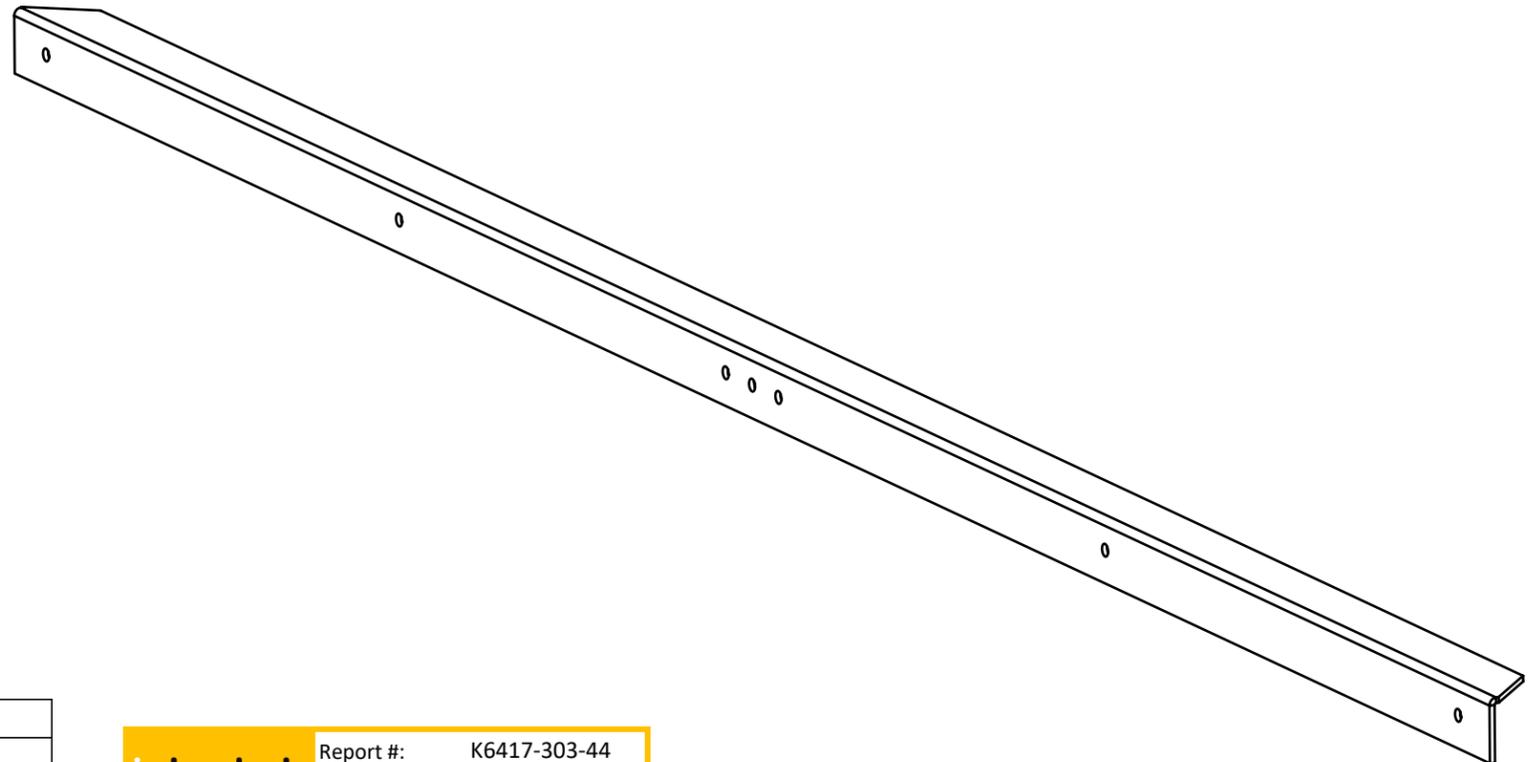
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY $\textcircled{\times.XXX}$.
- 4.2 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3138-1	9/23/2019	STEVENS		



BENT PART NO.	DESCRIPTION	MATERIAL
381414	CLEAT SKYLIGHT 1.5' BENT	381368
381423	CLEAT SKYLIGHT 2' BENT	381371
381439	CLEAT SKYLIGHT 3' BENT	381387
381458	CLEAT SKYLIGHT 3.5' BENT	381396
381465	CLEAT SKYLIGHT 4' BENT	381402

	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: $\pm 0.5^\circ$ <table border="0"> <tr> <td>INCH</td> <td>MILLIMETER</td> </tr> <tr> <td>.X \pm .03</td> <td>[.X] \pm .75</td> </tr> <tr> <td>.XX \pm .01</td> <td>[.XX] \pm .25</td> </tr> <tr> <td>.XXX \pm .005</td> <td>[.XXX] \pm .125</td> </tr> </table>		INCH	MILLIMETER	.X \pm .03	[.X] \pm .75	.XX \pm .01	[.XX] \pm .25	.XXX \pm .005	[.XXX] \pm .125	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.			
INCH	MILLIMETER												
.X \pm .03	[.X] \pm .75												
.XX \pm .01	[.XX] \pm .25												
.XXX \pm .005	[.XXX] \pm .125												
MATERIAL SEE TABLE		DRAWN BY STEVENS	DATE 9/23/19	TITLE: CLEAT SKYLIGHT BENT									
FINISH		CHECKED BY	DATE	SIZE B	DWG. NO. VARIES								
DO NOT SCALE DRAWING		APPROVED BY	DATE	UNIT MM[INCH] (3rd)	REV A								
				SCALE: 1:2	SHEET 1 OF 2								

8 7 6 5 4 3 2 1

D

D

C

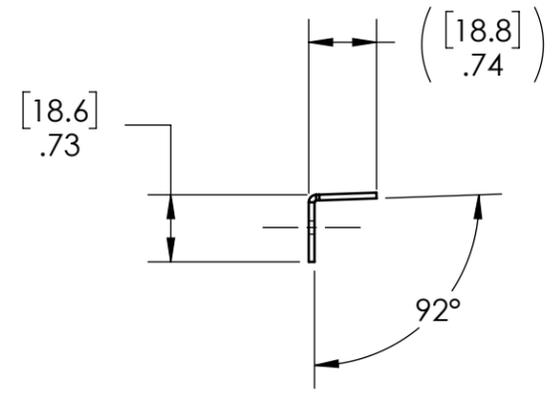
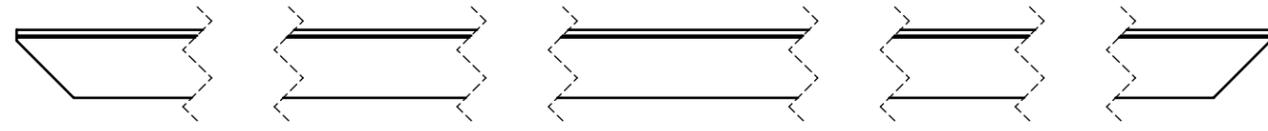
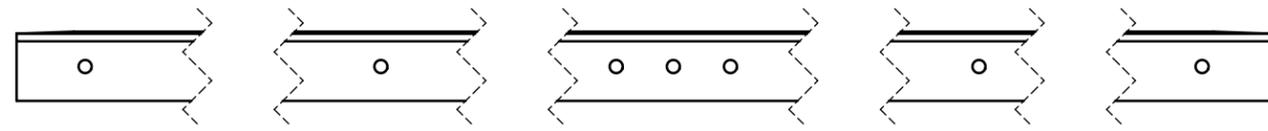
C

B

B

A

A



	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

TITLE:		
CLEAT SKYLIGHT BENT		
SIZE	DWG. NO.	REV
B	VARIES	A
SCALE: 1:2		SHEET 2 OF 2

8 7 6 5 4 3 2 1

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO SPEC
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
- 2.2 FIRST ARTICLE: FIRST ARTICLE VERIFICATION IS REQUIRED PRIOR TO INITIAL TOOL APPROVAL OR APPROVAL OF A TOOL CHANGE.

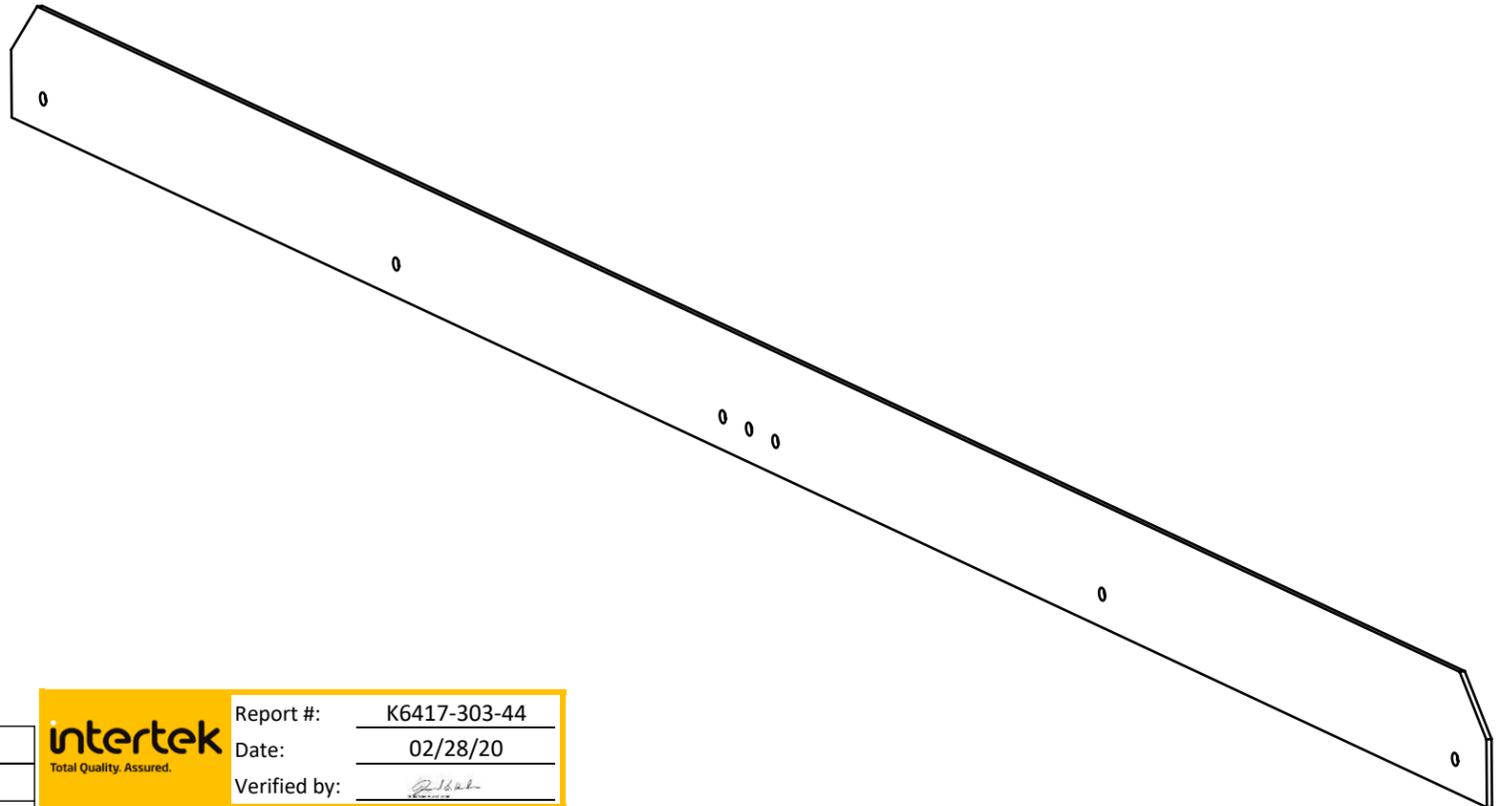
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY Ⓧ.XXX .
- 4.2 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3138-1	9/23/2019	STEVENS		



BLANK PART NO.	DESCRIPTION	MATERIAL
381368	CLEAT SKYLIGHT 1.5' BLANK	201903
381371	CLEAT SKYLIGHT 2' BLANK	201895
381387	CLEAT SKYLIGHT 3' BLANK	201903
381396	CLEAT SKYLIGHT 3.5' BLANK	201895
381402	CLEAT SKYLIGHT 4' BLANK	201895

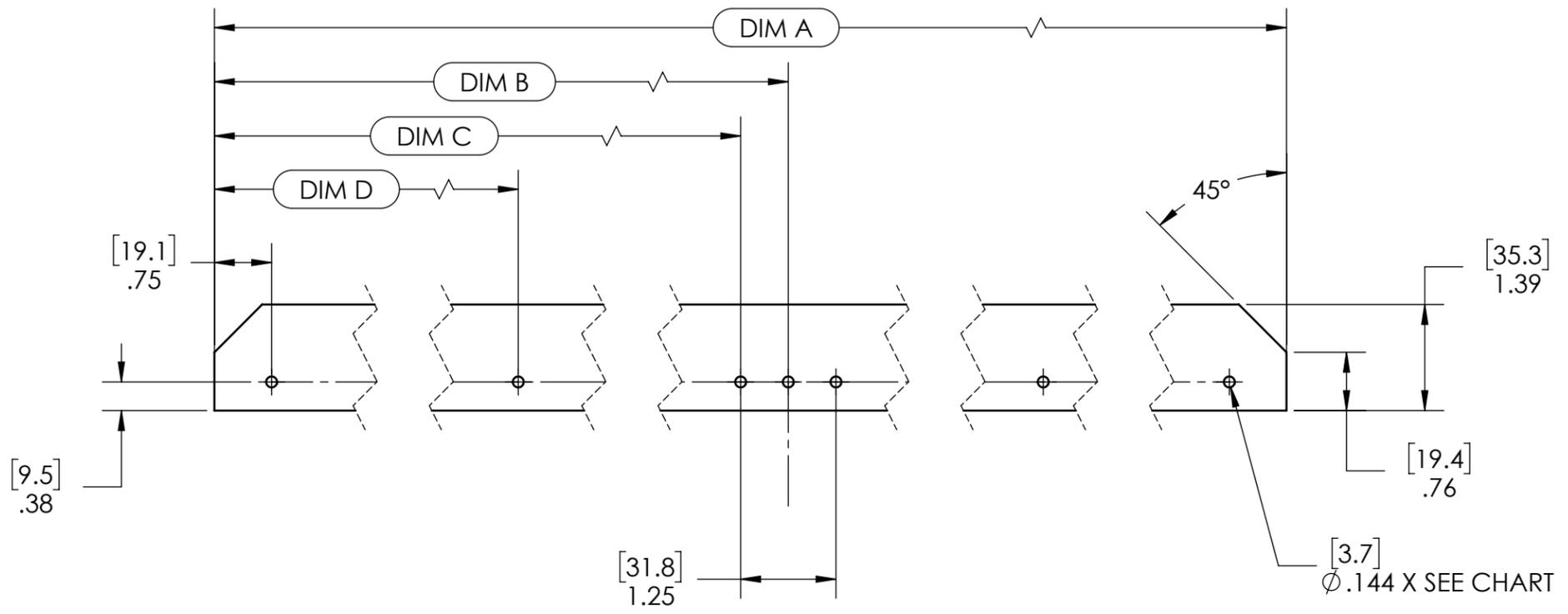
intertek Total Quality Assured.

Report #: K6417-303-44
 Date: 02/28/20
 Verified by: *[Signature]*

UNLESS OTHERWISE SPECIFIED:		PROPRIETARY AND CONFIDENTIAL		 2210 OAK RIDGE WAY VISTA, CALIFORNIA 92081-8341 PH (760) 597-4400	
TOLERANCES ANGULAR: $\pm 0.5^\circ$ INCH: .X \pm .03, .XX \pm .01, .XXX \pm .005 MILLIMETER: [.X] \pm .75, [.XX] \pm .25, [.XXX] \pm .125		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.			
MATERIAL: SEE TABLE		DRAWN BY: STEVENS	DATE: 9/23/19	TITLE: CLEAT SKYLIGHT BLANK	
FINISH:		CHECKED BY:	DATE:		
DO NOT SCALE DRAWING		APPROVED BY:	DATE:	SIZE: B	PROJECTION:  (3rd)
				DWG. NO. VARIES	REV A
				UNIT MM[INCH]	SCALE: 1:2 SHEET 1 OF 2

8 7 6 5 4 3 2 1

D
C
B
A



NOM.	BLANK PART NO.	DIM A	DIM B	DIM C	DIM D	HOLE QTY.
1.5	381368	19	9.5	9.13	-	5
2	381371	26.5	13.25	12.88	-	5
3	381387	35	17.5	17.13	9.38	7
3.5	381396	42	21	20.63	11.13	7
4	381402	50.5	25.25	24.88	13.25	7

intertek
Total Quality Assured.

Report #: K6417-303-44
Date: 02/28/20
Verified by: *[Signature]*

TITLE: CLEAT SKYLIGHT BLANK		
SIZE B	DWG. NO. VARIES	REV A
SCALE: 1:2		SHEET 2 OF 2

8 7 6 5 4 3 2 1

NOTES: UNLESS OTHERWISE SPECIFIED.

1 FINISH:

- 1.1 POWDER COAT SPEC ACCORDING TO SPEC 892000
- 1.2 BREAK ALL CORNERS AND SHARP EDGES

2. QUALITY ASSURANCE REQUIREMENTS:

- 2.1 THE SUPPLIER MUST MAINTAIN STATISTICAL PROCESS CONTROL (SPC) OR 100% INSPECTION ON CRITICAL PARAMETERS DURING PRODUCTION.
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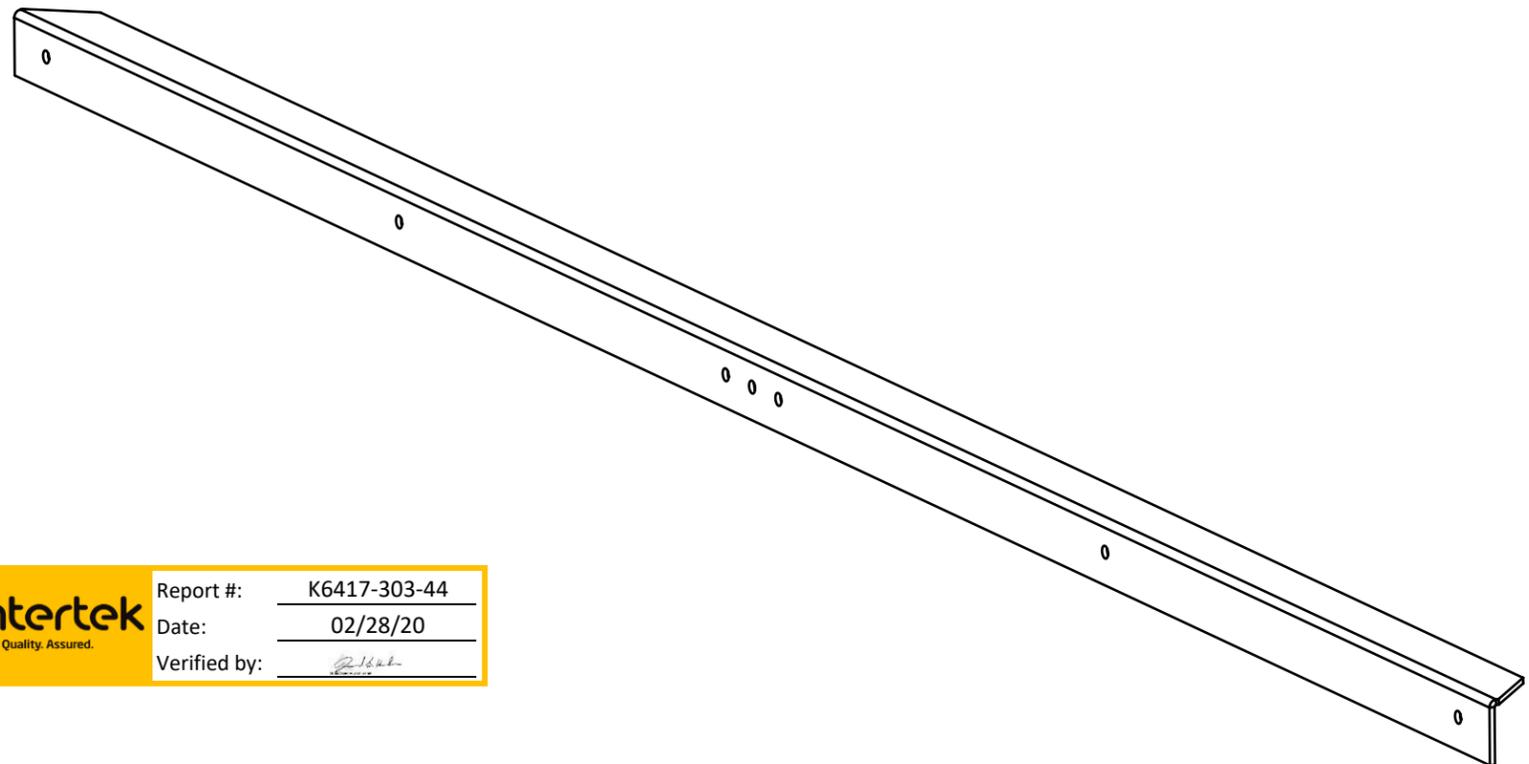
3. MARKING:

- 3.1 PART NUMBER AND CURRENT REVISION LEVEL SHALL BE STAMPED IN CONTRASTING INDELIBLE INK AT LOCATION SHOWN.
- 3.2 IDENTIFY PARTS THAT CANNOT BE STAMPED WITH PART NUMBER AND REVISION LEVEL BY BAG AND/OR TAG METHOD.

4. GENERAL REQUIREMENTS:

- 4.1 CRITICAL DIMENSIONS ARE DENOTED BY X.XXX .
- 4.2 PART DIMENSIONED PER ANSI Y14.100-2000 STANDARDS

REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3138-1	9/25/2019	STEVENS		



	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

COATED PART NO.	DESCRIPTION	MATERIAL
381476	CLEAT SKYLIGHT 1.5' COATED	381414
381481	CLEAT SKYLIGHT 2' COATED	381423
381497	CLEAT SKYLIGHT 3' COATED	381439
381509	CLEAT SKYLIGHT 3.5' COATED	381458
381516	CLEAT SKYLIGHT 4' COATED	381465

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: $\pm 0.5^\circ$ <table border="0"> <tr> <td>INCH</td> <td>MILLIMETER</td> </tr> <tr> <td>.X \pm .03</td> <td>[.X] \pm .75</td> </tr> <tr> <td>.XX \pm .01</td> <td>[.XX] \pm .25</td> </tr> <tr> <td>.XXX \pm .005</td> <td>[.XXX] \pm .125</td> </tr> </table>	INCH	MILLIMETER	.X \pm .03	[.X] \pm .75	.XX \pm .01	[.XX] \pm .25	.XXX \pm .005	[.XXX] \pm .125	PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.		
	INCH	MILLIMETER									
.X \pm .03	[.X] \pm .75										
.XX \pm .01	[.XX] \pm .25										
.XXX \pm .005	[.XXX] \pm .125										
MATERIAL SEE TABLE	DRAWN BY STEVENS	DATE 9/23/19	TITLE: CLEAT SKYLIGHT COATED								
FINISH	CHECKED BY	DATE	SIZE B								
DO NOT SCALE DRAWING	APPROVED BY	DATE	DWG. NO. VARIES								
			REV A								
			UNIT MM[INCH] (3rd)								
			SCALE: 1:2								
			SHEET 1 OF 1								

INSULATED GLAZING ASSEMBLY SPECIFICATION

PERFORMANCE CHARACTERISTICS

- U-FACTOR: ≤ 0.5 (BTU/H FT² °F) OR ≤ 2.84 (W/M² °C)
- SHGC: ≤ 0.28
- VT: 60% MIN
- UV PROTECTION: 95% BLOCKAGE MIN

MATERIAL / CONSTRUCTION

- REFERENCE INTERNAL DOCUMENT 990885

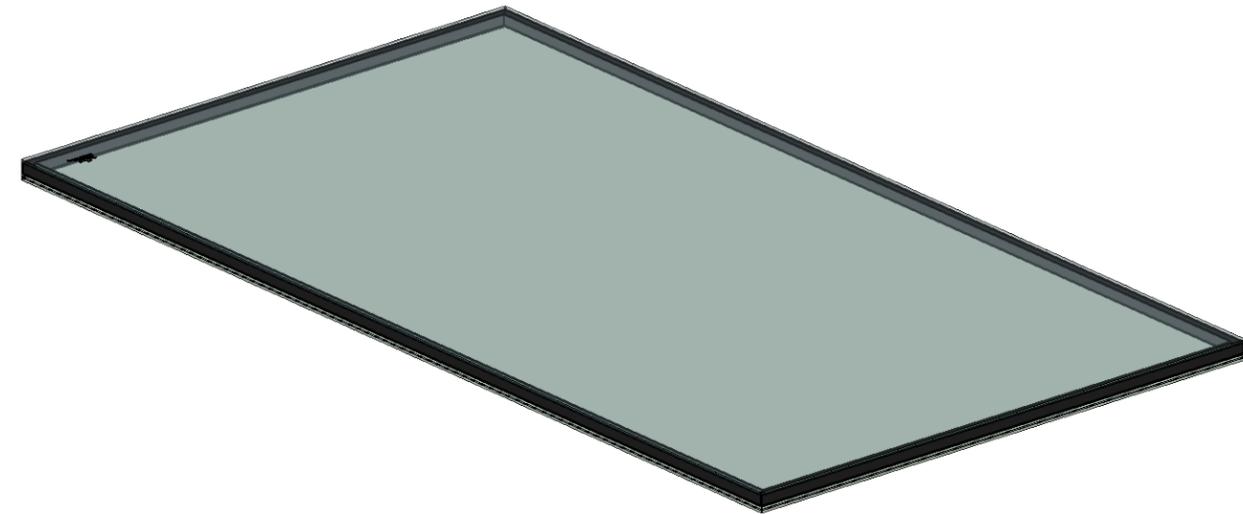
SUPPLIER REQUIREMENTS

- NAFS SPECIFICATIONS REQUIRE THAT IGUS SHALL BE EVALUATED FOR CONFORMANCE WITH ASTM E2190, STANDARD SPECIFICATION FOR INSULATING GLASS UNIT PERFORMANCE AND EVALUATION. NFRC 706-2010 PROVIDES DETAILS FOR CERTIFICATION PROGRAMS.
- NFRC 700 AND NFRC 705 REQUIRE THAT IGUS BE CERTIFIED WITH A PARTICIPATING IG CERTIFICATION PROGRAM. SUPPLIER PF IGU MUST BE LISTED IN THE "IGC DIRECTORY."

MARKING & ETCHING

- SOLATUBE LOGO (FONT SIZE: AS DIMENSIONED)
- MARKINGS PER ANSI STANDARDS (WILL COMPLY WITH ANSI Z97.1 - 2015); FONT SIZE PER MANUFACTURER STANDARD
- INSULATED GLASS WILL HAVE A GAS CONTENT INITIAL AND AFTER WEATHERING (GCIA) REPORT

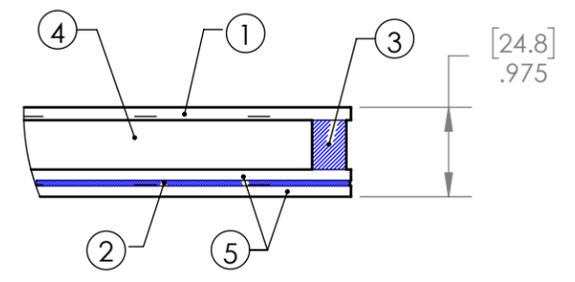
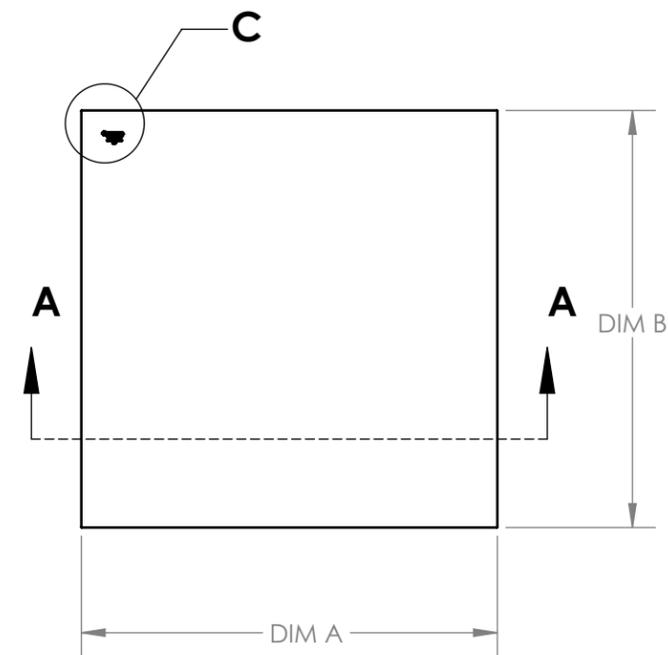
REVISIONS					
REV.	ECO	DATE	REVISED	CHECKED	APPROVED
A	3132-1	9/14/2019	STEVENS		



	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>

UNLESS OTHERWISE SPECIFIED: TOLERANCES ANGULAR: $\pm 0.5^\circ$ INCH MILLIMETER .X \pm .06 [.X] \pm 1.5 .XX \pm .01 [.XX] \pm .25 .XXX \pm .005 [.XXX] \pm .125		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SOLATUBE. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SOLATUBE IS PROHIBITED.					
MATERIAL 990885 --		DRAWN BY STEVENS	DATE 9/17/19	TITLE: <h2 style="text-align: center;">INSULATED GLASS ASSEMBLY</h2>			
FINISH -- --		CHECKED BY --	DATE --			SIZE <h3 style="font-size: 2em;">B</h3>	PROJECTION (3rd)
DO NOT SCALE DRAWING		INTERPRET DRAWINGS IAW: ASME Y14.5 - 1994		UNIT MM[INCH]	SCALE: 1:8	SHEET 1 OF 2	

8 7 6 5 4 3 2 1

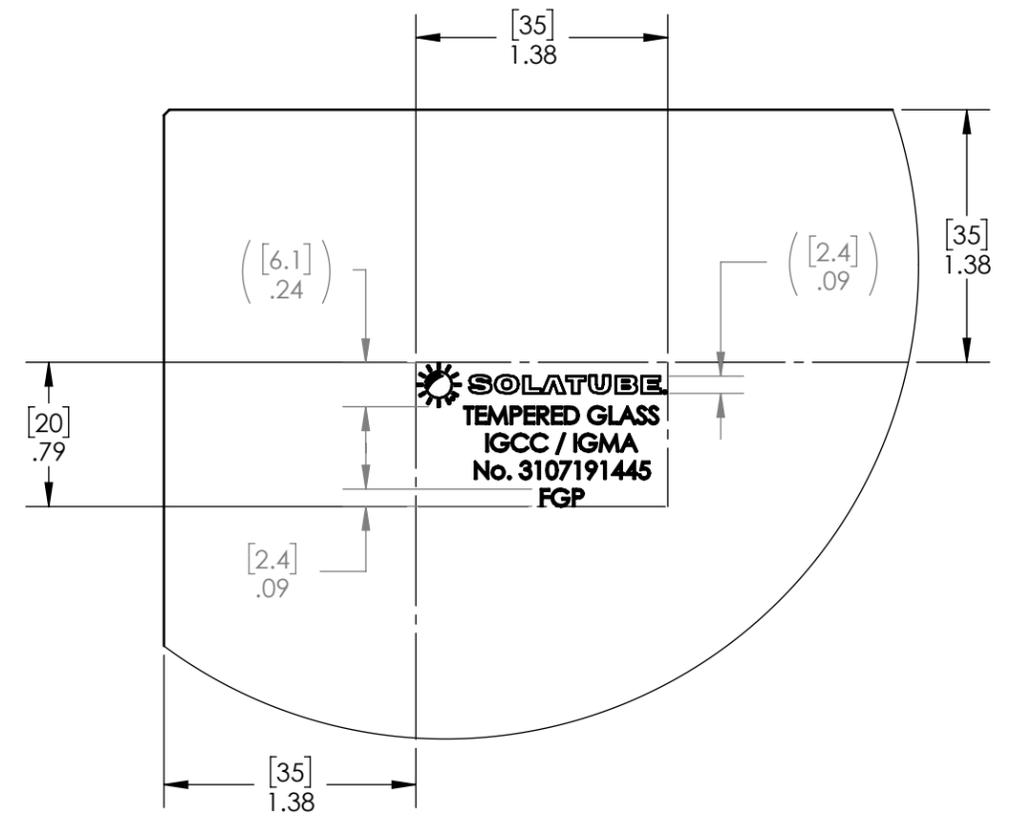


**DETAIL B
SCALE 1 : 2**

ITEM	DESCRIPTION	THICKNESS
1	LOW-E; TEMPERED GLASS	4 mm (0.157 in.)
2	PVB	.76 mm (0.03 in.)
3	WARM EDGE SPACER	14 mm (0.55 in.)
4	ARGON GAS	-
5	FLOAT GLASS	3 mm (0.12 in.)



SECTION A-A



**DETAIL C
SCALE 1 : 1**

Nom. (ft)	PN	DIM A (INCH)	DIM B (INCH)	DIM A (MM)	DIM B (MM)
1.5 x 1.5	381515	19.806	19.806	503	503
1.5 x 2	381520	19.806	27.306	503	694
1.5 x 4	381540	19.806	51.306	503	1303
2 x 2	382020	27.306	27.306	694	694
2x3	382030	27.306	35.806	694	909
2 x 3.5	382035	27.306	42.806	694	1087
2 x 4	382040	27.306	51.306	694	1303
3 x 3	383030	35.806	35.806	909	909
3 x 4	383040	35.806	51.306	909	1303
3.5x 3.5	383535	42.806	42.806	1087	1087
3.5 x 4	383540	42.806	51.306	1087	1303
4 x 4	384040	51.306	51.306	1303	1303

intertek Total Quality Assured.

Report #: K6417-303-44
 Date: 02/28/20
 Verified by: *[Signature]*

TITLE: INSULATED GLASS ASSEMBLY		
SIZE B	DWG. NO. VARIES	REV A
SCALE: 1:1		SHEET 2 OF 2

8 7 6 5 4 3 2 1



Solatube International
2210 Oak Ridge Way
Vista, CA 92081

SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
A		INITIAL RELEASE			

REGULATORY CONTROLLED: NO / YES

CERTIFICATE OF CONFORMANCE : Required once per year

SHELF LIFE : 6 months.

STORAGE: Store in closed container in a dry and cool area. Keep away from heat source and sources of ignition.

HANDLING: Handle in accordance with good industrial hygiene and safety practice. Provide appropriate exhaust ventilation and dust collection at machinery. Avoid dust formation. All metal parts of the mixing and processing equipment must be earthed.

 <small>Total Quality. Assured.</small>	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	

APPROVED MANUFACTURERS: 1. INEOS STYROLUTION GROUP 2. 3.	MANUFACTURER PART NO.: 1. LURAN S 757G 2. 3.
---	---

SUPPLIER:	SUPPLIER PART NO.:
-----------	--------------------

PART NO.: 890010	DESCRIPTION (30 CHARACTERS PER LINE): Line 1: RESIN ASA BLACK Line 2:	REV: A
----------------------------	--	------------------

ATTACHMENTS:
 CATALOG PAGE VENDOR SPECIFICATION DRAWING OTHER: **MSDS**
 QUOTE MATERIAL CERTIFICATION FIRST ARTICLE

ORIGINATOR DATE:	APPROVED BY/ DATE:	SHEET 1 OF
------------------	--------------------	------------



Solatube International

2210 Oak Ridge Way
Vista, CA 92081

SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
C	2250-1	CHANGE SIZE	CS		12 SEP 13
D	2345-1	ADD REQUIREMENTS	CS		24JUN14
E	2415-1	REMOVE GAGE REFERENCE	MM	CS	21 JAN 15

REGULATORY CONTROLLED: NO / YES – REFERENCE ATI TEST REPORT
C5760.01-301-44

SHEET STEEL

TYPE: STEEL GRADE CS (COMMERCIAL STEEL) TYPE B, COLD ROLLED, COATING AZ-50

THICKNESS: 0.0276" +/- .004"

SIZE: 48.0" (+0.69"/-.0) x 45.0" (+0.75"/-.0) SHEET

REQUIREMENTS:

1. COMPLIES WITH EU (RoHS DIRECTIVE) AND ASTM A792/A792M
2. THICKNESS CANNOT BE REDUCED WITHOUT CHANGE NOTICE, TESTING AND/OR APPROVAL FROM 3rd PARTY COMPLIANCE & CERTIFICATION TEST;
3. STEEL SHALL BE CORROSION RESISTANT; IBC SECTION 1503
4. CERTIFICATE OF CONFORMANCE REQUIRED W/ P.O

NOTE: "ZINCALUME PLUS STEEL" IS RESIN COATED; RESIN COATING OFFERS SOME CORROSION PROTECTION AND LUBRICATION PROPERTIES.

APPROVED MANUFACTURERS:

1. **STEEL SCAPE**

2.

3.



Report #: K6417-303-44
Date: 02/28/20
Verified by: *[Signature]*

MANUFACTURER PART NO.:

1. **ZINCALUME PLUS**

2.

3.

SUPPLIER:

SUPPLIER PART NO.:

PART NO.:

200965

DESCRIPTION (30 CHARACTERS PER LINE):

Line 1: **SHEET STEEL ZINCALUME PLUS**

Line 2: **24 GAUGE**

REV:

E

ATTACHMENTS:

- CATALOG PAGE VENDOR SPECIFICATION DRAWING OTHER
 QUOTE MATERIAL CERTIFICATION FIRST ARTICLE

ORIGINATOR DATE:

C STEVENS 20 FEB 13

APPROVED BY/ DATE:

SHEET 1 OF 1



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Vista, CA 92081

SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
A	3094-1	INITIAL RELEASE	CS		
B	3107-1	ADD TOLERANCE	CS		

REGULATORY CONTROLLED:

MATERIAL: ALUMINUM ALLOY 3105

TEMPER: H24

THICKNESS: 14 GAUGE (~.063 INCH)

FINISH: MILLED FINISH

PAINT: NONE

TOLERANCE: LENGTH AND WIDTH: -0/+0.0625"; FLATNESS: 6.7 i-UNITS (1/16" per 12")

 <small>Total Quality. Assured.</small>	Report #: <u> K6417-303-44 </u>
	Date: <u> 02/28/20 </u>
	Verified by: <u> <i>[Signature]</i> </u>

MANUFACTURER: _____ MANUFACTURER PART NO.: _____

SUPPLIER: _____ SUPPLIER PART NO.: _____

PART NO.: 201895	DESCRIPTION (30 CHARACTERS PER LINE): Line 1: SHEET ALUM 48 X 56.6 3105 H24 Line 2: 14 GAUGE	REV: B
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Attachments:
 CATALOG PAGE **VENDOR SPECIFICATION** DRAWING OTHER
 QUOTE MATERIAL CERTIFICATION FIRST ARTICLE

ORIGINATOR DATE: CSTEVENS 10 JUL 19	APPROVED BY/ DATE:	SHEET 1 OF 1
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SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
A	3094-1	INITIAL RELEASE	CS		
B	3107-1	ADD TOLERANCE	CS		

REGULATORY CONTROLLED:

MATERIAL: ALUMINUM ALLOY 3105

TEMPER: H24

THICKNESS: 14 GAUGE (~.063 INCH)

FINISH: MILLED FINISH

PAINT: NONE

TOLERANCE: LENGTH AND WIDTH: -0/+0.0625"; FLATNESS: 6.7 i-UNITS (1/16" per 12")

 <small>Total Quality. Assured.</small>	Report #: <u> K6417-303-44 </u>
	Date: <u> 02/28/20 </u>
	Verified by: <u> <i>[Signature]</i> </u>

MANUFACTURER:	MANUFACTURER PART NO.:
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SUPPLIER:	SUPPLIER PART NO.:
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PART NO.: 201903	DESCRIPTION (30 CHARACTERS PER LINE): Line 1: SHEET ALUM 48 X 80.6 3105 H24 Line 2: 14 GAUGE	REV: B
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Attachments:

CATALOG PAGE
 VENDOR SPECIFICATION
 DRAWING
 OTHER
 QUOTE
 MATERIAL CERTIFICATION
 FIRST ARTICLE

ORIGINATOR DATE: CSTEVENS 10 JUL 19	APPROVED BY/ DATE:	SHEET 1 OF 1
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SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
A	3094-1	INITIAL RELEASE	CS		
B	3107-1	ADD TOLERANCE	CS		

REGULATORY CONTROLLED:

MATERIAL: ALUMINUM ALLOY 3105

TEMPER: H24

THICKNESS: 14 GAUGE (~ .063 INCH)

FINISH: MILLED FINISH

PAINT: NONE

TOLERANCE: LENGTH AND WIDTH: -0/+0.0625"; FLATNESS: 6.7 i-UNITS (1/16" per 12")

 <small>Total Quality. Assured.</small>	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	

MANUFACTURER: _____ MANUFACTURER PART NO.: _____

SUPPLIER: _____ SUPPLIER PART NO.: _____

PART NO.: 201927	DESCRIPTION (30 CHARACTERS PER LINE): Line 1: SHEET ALUM 48 X 104.5 3105 H24 Line 2: 14 GAUGE	REV: B
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Attachments:
 CATALOG PAGE VENDOR SPECIFICATION DRAWING OTHER
 QUOTE MATERIAL CERTIFICATION FIRST ARTICLE

ORIGINATOR DATE: CSTEVENS 10 JUL 19	APPROVED BY/ DATE:	SHEET 1 OF 1
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SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
A		INITIAL RELEASE	CS		

REGULATORY CONTROLLED:

MATERIAL: 304 STAINLESS STEEL

THICKNESS: 16 GAUGE (~.063 INCH)

SURFACE FINISH: 2B DULL

PAINT: NONE

LENGTH AND WIDTH TOL: -0/+0.0625"

FLATNESS TOL.: MAX. 1/2" VARIANCE OVER 48"

 <small>Total Quality. Assured.</small>	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	

MANUFACTURER:	MANUFACTURER PART NO.:
---------------	------------------------

SUPPLIER:	SUPPLIER PART NO.:
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PART NO.: 220320	DESCRIPTION (30 CHARACTERS PER LINE): Line 1: SHEET STAINLESS STEEL 304 16GA Line 2: 48" X 48"	REV: A
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Attachments:

CATALOG PAGE
 VENDOR SPECIFICATION
 DRAWING
 OTHER
 QUOTE
 MATERIAL CERTIFICATION
 FIRST ARTICLE

ORIGINATOR DATE: CSTEVENS 20 OCT 19	APPROVED BY/ DATE:	SHEET 1 OF 1
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SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
A	3141-1	INITIAL RELEASE	CS		11/8/19

REGULATORY CONTROLLED: NO / YES –

CLOSED CELL FOAM EXTRUSION

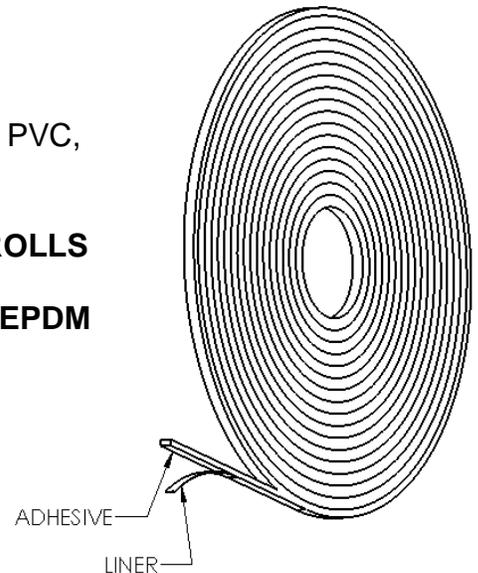
SIZE: 0.250" X 0.375" (+/- .032) RECTANGLE

MATERIAL: 2A1 EPDM (preferred), NEOPRENE, NBR, SBR, PVC, (OR BLEND) FOAM/SPONGE; BLACK

ADHESIVE: ACRYLIC PSA ON 0.375" SIDE; 50 TO 100 FT ROLLS

NOTE: ADHESIVE FACING OUTWARD IS STANDARD FOR EPDM

	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	<i>[Signature]</i>



APPROVED MANUFACTURERS:

- 1.
- 2.
- 3.

MANUFACTURER PART NO.:

- 1.
- 2.
- 3.

SUPPLIER:

SUPPLIER PART NO.:

PART NO.:
381076

DESCRIPTION (30 CHARACTERS PER LINE):
 Line 1: **CLOSED CELL FOAM**
 Line 2: **1/4" X 3/8"**

REV:
A

ATTACHMENTS:

- CATALOG PAGE
 VENDOR SPECIFICATION
 DRAWING
 OTHER
 QUOTE
 MATERIAL CERTIFICATION
 FIRST ARTICLE

ORIGINATOR DATE:
C. STEVENS 20 JUL 19

APPROVED BY/ DATE:

SHEET 1 OF



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SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
A	3101-1	INITIAL RELEASE			

REGULATORY CONTROLLED: NO / YES -

RIVET

SIZE: 0.125" (3.2mm) BODY DIA. X BODY LENGTH 0.313" (8 mm)
GRIP RANGE: 0.126" (3.2mm) - .0187" (4.8mm)
TYPE: OPEN / DOME HEAD
MATERIAL: 5052 ALUMINUM BODY / STEEL MANDREL
FINISH: ANODIZED BLACK (BODY)
NOTES: RECOMMENDED WORK HOLE DIA.: 0.129" – 0.133"



Nominal Rivet Diameter	(L) Nominal Rivet Body Length	(F) Nominal Blind Side Protrusion	Grip Range	Rivet Part Number	Hole Size	Rivet Dimensions				Shear Strength	Tensile Strength
						(D) Body Diameter	(H) Flange Thickness	(E) Flange Diameter	(W) Nominal Mandrel Diameter		
In. (mm)	In. (mm)	In. (mm)	In. (mm)		In. (mm)	Lbs. (N)	Lbs. (N)				
5056 Aluminum Body/Steel Mandrel – Domed Head – Finish: Black / Plain											
1/8 (3.2)	.313 (8.0)	.433 (11.0)	.126-.187 (3.2-4.8)	AD 43 BS	.129-.133 (3.28-3.38)	.122-.128 (3.10-3.25)	.032-.040 (.081-1.02)	.238-.262 (6.05-6.66)	.076 (1.93)	210 (934)	325 (1445)

APPROVED MANUFACTURERS:

- 1.
- 2.
- 3.

intertek
 Total Quality. Assured.

Report #: K6417-303-44
 Date: 02/28/20
 Verified by: [Signature]

MANUFACTURER PART NO.:

- 1.
- 2.
- 3.

SUPPLIER:

SUPPLIER PART NO.:

PART NO.:
700048

DESCRIPTION (30 CHARACTERS PER LINE):
 Line 1: **RIVET 1/8" x 5/16" AL/ST BLACK**
 Line 2: **OPEN/ DOME HEAD**

REV:
A

ATTACHMENTS:

- CATALOG PAGE VENDOR SPECIFICATION DRAWING OTHER
 QUOTE MATERIAL CERTIFICATION FIRST ARTICLE

ORIGINATOR DATE:

APPROVED BY/ DATE:

SHEET 1 OF 1



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SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
A	3141-1	INITIAL RELEASE	CS		11/8/19

REGULATORY CONTROLLED: NO / YES -

POLYURETHANE ADHESIVE SEALANT

MATERIAL: SINGLE COMPONENT POLYURETHANE

COLOR: BLACK

PACKAGE STYLE: 20 OZ. (310 ml SAUSAGE) CARTIRIGE

ELONGATION AT BREAK (ASTM D412): 400% (min)

 <small>Total Quality. Assured.</small>	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	

APPROVED MANUFACTURERS:

1. **3M**
2. **BASF**
- 3.

MANUFACTURER PART NO.:

1. **595**
2. **TX-1**
- 3.

SUPPLIER:

SUPPLIER PART NO.:

PART NO.:
700358

DESCRIPTION (30 CHARACTERS PER LINE):
Line 1: **SEALANT, POLYURETHANE SEALANT**
Line 2:

REV:
A

ATTACHMENTS:

- CATALOG PAGE
 VENDOR SPECIFICATION
 DRAWING
 OTHER
 QUOTE
 MATERIAL CERTIFICATION
 FIRST ARTICLE

ORIGINATOR DATE:
CSTEVENS 11/8/19

APPROVED BY/ DATE:

SHEET 1 OF 1



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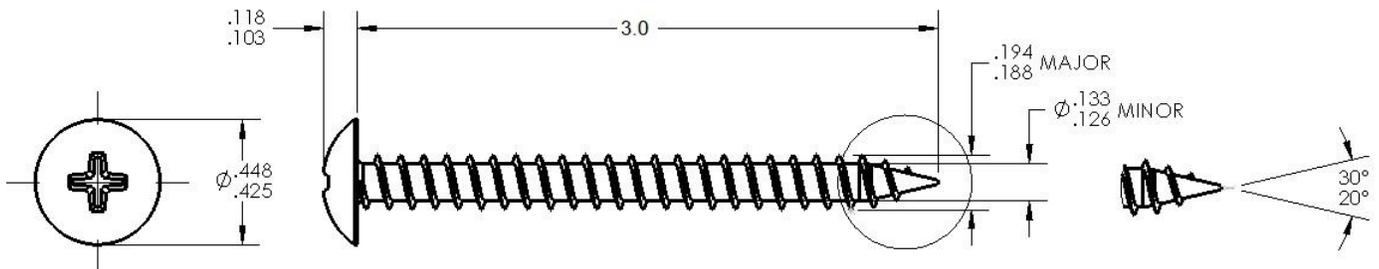
SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
A	3142-1	INITIAL RELEASE	CS		11/11/19

REGULATORY CONTROLLED: NO / YES – **CERTIFICATE OF CONFORMANCE REQUIRED**

SCREW

- **TYPE: #10 X 3" SELF PIERCING, PHILLIPS, TRUSS HEAD**
- **THREAD / POINT: TYPE A; 12 THREAD PER INCH; SELF PIERCING TIP (25° ±5°)**
- **MATERIAL: CARBON STEEL AISI 1018-1022 OR EQUAL**
- **FINISH / COATING: REFERNCE STI SPECIFICATION NO. 990005**
- **HARDNESS: SURFACE ROCKWELL C45 MIN. ; CORE ROCKWELL C28-38**



APPROVED MANUFACTURERS:

- 1.
- 2.
- 3.



Report #: K6417-303-44
Date: 02/28/20
Verified by: [Signature]

MANUFACTURER PART NO.:

- 1.
- 2.
- 3.

SUPPLIER:

SUPPLIER PART NO.:

PART NO.:
700442

DESCRIPTION (30 CHARACTERS PER LINE):
Line 1: **SCREW #10 X 3"SELF PIERCE, PHILLIPS**
Line 2: **TRUSS HEAD**

REV:
A

ATTACHMENTS:

- CATALOG PAGE VENDOR SPECIFICATION DRAWING OTHER
 QUOTE MATERIAL CERTIFICATION FIRST ARTICLE

ORIGINATOR DATE:
CSTEVENS 11/11/19

APPROVED BY/ DATE:

SHEET 1 OF 1



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SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
A	2167-1	INITIAL RELEASE	CS		2/13/13

REGULATORY CONTROLLED: NO / YES -

RIVET

SIZE: 1/8 DIA. X 1/4 (0.121 – 0.125 DIA.) X (0.031 – 0.187 GRIP)

TYPE: BLIND, MULTI-GRIP, BUTTON HEAD/ DOME HEAD

MATERIAL: ALUMINUM BODY / STEEL ZINC COATED MANDREL

NOTES:

Shear: 165 lbf (Pound Force)

Tensile: 230 lbf (Pound Force)

 <small>Total Quality. Assured.</small>	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	

APPROVED MANUFACTURERS:

1. **AVDEL AVEX**
2. **MARSON**
- 3.

MANUFACTURER PART NO.:

1. **1661 - 00410 or 1691- 00410**
2. **AB41-43MGV**
- 3.

SUPPLIER:

SUPPLIER PART NO.:

PART NO.:
700635

DESCRIPTION (30 CHARACTERS PER LINE):
Line 1: **RIVET 1/8" X 1/4" BLIND, MULTI-GRIP**
Line 2: **ALUM/STEEL, LOW PROFILE**

REV:
A

ATTACHMENTS:

- CATALOG PAGE
 VENDOR SPECIFICATION
 DRAWING
 OTHER
 QUOTE
 MATERIAL CERTIFICATION
 FIRST ARTICLE

ORIGINATOR DATE:

STEVENS 2/13/13

APPROVED BY/ DATE:

SHEET 1 OF 1

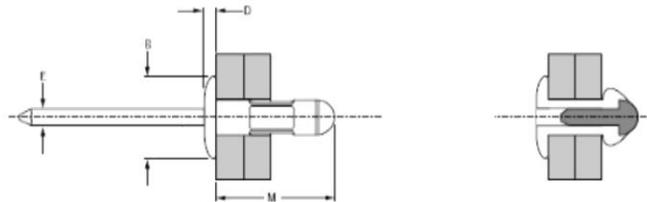
Avex® 1661



For installation information please refer to the tooling overview and manuals on our website www.avdel-global.com.
 Pour les conditions de pose, merci de vous référer à la description de l'outil et aux manuels disponibles sur notre site Web.
 Angaben zur Verarbeitung entnehmen Sie bitte der Geräteübersicht und den Betriebsanleitungen auf unserer Website.
 Per informazioni sull'installazione preghiamo consultare i manuali e la panoramica degli attrezzi sul nostro sito web.
 Para ver información sobre máquinas de colocación, consulte nuestra página web, apartados visión general de máquinas y manuales.

English	Français	Deutsch	Italiano	Español
Dome head	Tête plate	Flachrundkopf	Testa tonda	Cabeza alomada
Body: Aluminium alloy* (2.5 % Mg) Natural	Corps: Alliage d'aluminium* (2.5% Mg) Brut	Hülse: Aluminium* (2.5 % Mg) Blank	Corpo: Lega di alluminio* (2.5% Mg) Nessuna finitura	Cuerpo: Aluminio* (2.5% Mg) Natural
Stem: Low carbon steel**	Tige: Acier bas carbone**	Dorn: Stahl**	Gambo: Acciaio a basso tenore di carbonio**	Vástago: Acero bajo en carbono**
Zinc coated	Revêtement zingué	Verzinkt	Zincato	Zincado

*: AA 5052, DIN 1725, AlMg2.5, Werkstoff 3.3523
 **: BS3111 Type 0, SAE 1015/1018/1022, DIN 1654, Cq15/Cq22



Ø	Ø		M		M	B	D	E	lb ^f	lb ^f	Part No/ref
	min.	max.	min.	max.							
3.0 mm	.031	.172	.122	.130	.360	.262	.051	.066	157	220	01661-05307
1/8" (3.2 mm)	.031	.187	.128	.133	.410	.262	.051	.070	165	230	01661-00410
	.047	.250			.540						01661-00412
	.157	.312			.630						01661-00414
	.219	.375			.770						01661-00416
5/32" (4.0 mm)	.020	.125	.161	.166	.370	.321	.061	.084	255	375	01661-00508
	.031	.187			.420						01661-00510
	.047	.250			.490						01661-00512
	.157	.375			.640						01661-00516
	.250	.500			.770						01661-00521
3/16" (4.8 mm)	.062	.250	.193	.198	.550	.396	.071	.112	345	525	01661-00613
	.187	.437			.740						01661-00619
	.187	.500			.800						01661-00621
	.500	.781			1.11						01661-00631
1/4" (6.4 mm)	.060	.325	.261	.275	.660	.530	.105	.158	700	560	01610-04506 ²⁾

all dimensions in inches / en pouces / alle Maße in Zoll / in pollici / en pulgadas
 1) typical values / valeurs moyennes / typische Werte / Valori tipici / resistencias máximas recomendadas
 2) stem: zinc plated, clear trivalent passivated / tige: revêtement zingué, passivation claire trivalente / Dorn: verzinkt, klar chromatiert Cr6-frei / gambo: zincato, passivazione chiara trivalente / vástago: zincado, pasivado claro trivalente

	Report #:	K6417-303-44
	Date:	02/28/20
	Verified by:	



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Data shown is subject to change without prior notice as a result of continuous product development and improvement policy.
 Your local Avdel representative is at your disposal should you need to confirm latest information.

Marson Multi-Grip Blind Rivets

Multi-Grip Aluminum Rivet, Clear Zinc Plated Steel Mandrel Buttonhead

Part #	Grip Range	Drill No. & Hole Size	Bulk Stock Number	Std. Ctn. Quantity	500-Pack Stock No.	Package Quantity
AB41-43MGV	.031-187	#30 Drill (.129-.133)	M76315	10M	M44751	500
AB43-45MGV	.125-315		M76320	10M	M44756	500
AB44-46MGV	.189-377		M76321	10M	M44757	500
AB52-54MGV	.062-250	#20 Drill (.160-.164)	M76335	8M	M44771	500
AB62-64MGV	.062-250		M76347	4M	M44783	500
AB63-67MGV	.189-437	#11 Drill (.192-.196)	M76351	4M	M44787	500
AB66-68MGV	.315-500		M76352	4M	M44788	500
AB68-612MGV	.440-750		M76359	4M	M44795	500

Multi-Grip Aluminum Rivet, Clear Zinc Plated Steel Mandrel Large Flange

Part #	Grip Range	Drill No. & Hole Size	Bulk Stock Number	Std. Ctn. Quantity	500-Pack Stock No.	Package Quantity
ABL41-43MGV	.031-187	#30 Drill (.129-.133)	M76314	10M	M44752	500
ABL43-45MGV	.125-315		M76322	8M	M44755	500
ABL62-64MGV	.062-250		M76350	3M	M44785	500
ABL65-68MGV	.315-500	#11 Drill (.192-.196)	M76353	3M	M44790	500
ABL68-612MGV	.440-750		M76360	2M	M44797	500

Multi-Grip Aluminum Rivet, Clear Zinc Plated Steel Mandrel 120° Countersunk

Part #	Grip Range	Drill No. & Hole Size	Bulk Stock Number	Std. Ctn. Quantity	500-Pack Stock No.	Package Quantity
AC41-43MGV	.031-187	#30 Drill (.129-.133)	M76318	10M	M44754	500
AC43-45MGV	.125-315		M76324	8M	M44759	500
AC62-65MGV	.062-315	#11 Drill (.192-.196)	M76361	5M	M44789	500
AC66-68MGV	.315-500		M76362	4M	M44791	500

intertek
Total Quality. Assured.

Report #: K6417-303-44

Date: 02/28/20

Verified by: *[Signature]*

Terms:

We reserve the right to substitute Marson brand for Value Rivet brand at any time.

Terms of Sale — Net 30 days.

Freight Terms — Freight prepaid by our chosen carrier on shipments of \$750.00 within the Continental U.S.A. Tools and fasteners may be combined for prepaid freight. Minimum order \$50.00; \$5.00 for repair parts.

Returns — No returns accepted without prior written approval. All returns subject to 15% handling, restocking and inspection charge.

Warranty — Alcoa warrants its product(s) to be free from defects in material and workmanship. Alleged defective material is subject to inspection. Material will be replaced or credit issued at our option after inspection. Alcoa is not responsible for secondary operations performed after the sale of product.

Pricing — Different rivets and/or tools may be combined to qualify for volume pricing. Prices subject to change without notice.

Monobolt, Interlock and Hemlock are registered trademarks of Textron Fastening Systems.
Ultra-Grip is a registered trademark of Emhart Fastening Technologies.
Tigerbolt is a registered trademark of Celus Fasteners Mfg.



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 2210 Oak Ridge Way
 Vista, CA 92081

SPECIFICATION / SOURCE CONTROL DRAWING (SCD)

REV	ECO	DESCRIPTION	REV BY	CHECK'D	DATE
A	3142-1	INITIAL RELEASE	CS		

REGULATORY CONTROLLED: NO / YES -

SCREW

- **TYPE: #8 X 1/2" SELF TAPPING, PHILLIPS, TRUSS HEAD**
- **THREAD / POINT: SELF TAPPING SHEET METAL SCREW**
- **MATERIAL: 304 STAINLESS STEEL OR EQUAL**
- **FINISH/COATING: BLACK OXIDE COATING WITH WAX OR OIL FINISH**

intertek <small>Total Quality. Assured.</small>	Report #: <u> K6417-303-44 </u>
	Date: <u> 02/28/20 </u>
	Verified by: <u> <i>[Signature]</i> </u>



APPROVED MANUFACTURERS: 1. 2. 3.	MANUFACTURER PART NO.: 1. 2. 3.
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SUPPLIER:	SUPPLIER PART NO.:
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PART NO.: 720093	DESCRIPTION (30 CHARACTERS PER LINE): Line 1: SCREW #8 X 1/2" SELF TAPPING, PHILLIPS Line 2: TRUSS HEAD	REV: A
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ATTACHMENTS:
 CATALOG PAGE VENDOR SPECIFICATION DRAWING OTHER
 QUOTE MATERIAL CERTIFICATION FIRST ARTICLE

ORIGINATOR DATE: CSTEVENS 11/5/19	APPROVED BY/ DATE:	SHEET 1 OF 1
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Total Quality. Assured.

25800 Commercentre Drive
Lake Forest, California 92630

Telephone: 949-460-9600
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR SOLATUBE INTERNATIONAL

Report No.: IK6417.01-303-44

Date: 02/28/20

SECTION 11

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	02/28/20	N/A	Original Report Issue