

AAMA 507-15 THERMAL PERFORMANCE REPORT

Rendered to:

GAMCO CORPORATION

SERIES/MODEL: FG451T Flush Glaze Thermal Storefront

TYPE: Glazed Wall System

Report No: G2028.01-116-45
Report Date: 9/9/2016



AAMA 507-15 THERMAL PERFORMANCE REPORT

Rendered to:

GAMCO CORPORATION
131-10 Maple Avenue
Flushing, New York 11355

Report No: G2028.01-116-45
Report Date: 9/9/2016
Simulation Date: 09/09/16

Project Summary:

Architectural Testing, Inc., a subsidiary of Intertek (Intertek-ATI), was contracted by Gamco Corporation to provide U-Factor and Solar Heat Gain Coefficient thermal performance ratings on the FG451T Flush Glaze Thermal Storefront Glazed Wall System. The thermal performance ratings were determined in accordance with AAMA 507-15, Standard Practice for Determining the Thermal Performance Characteristics of Fenestration Systems Installed in

Reference Documents:

AAMA 507-15, Standard Practice for Determining the Thermal Performance Characteristics of Fenestration Systems Installed in Commercial Buildings

ANSI/NFRC 100-2014, *Procedure for Determining Fenestration Product U-Factors*

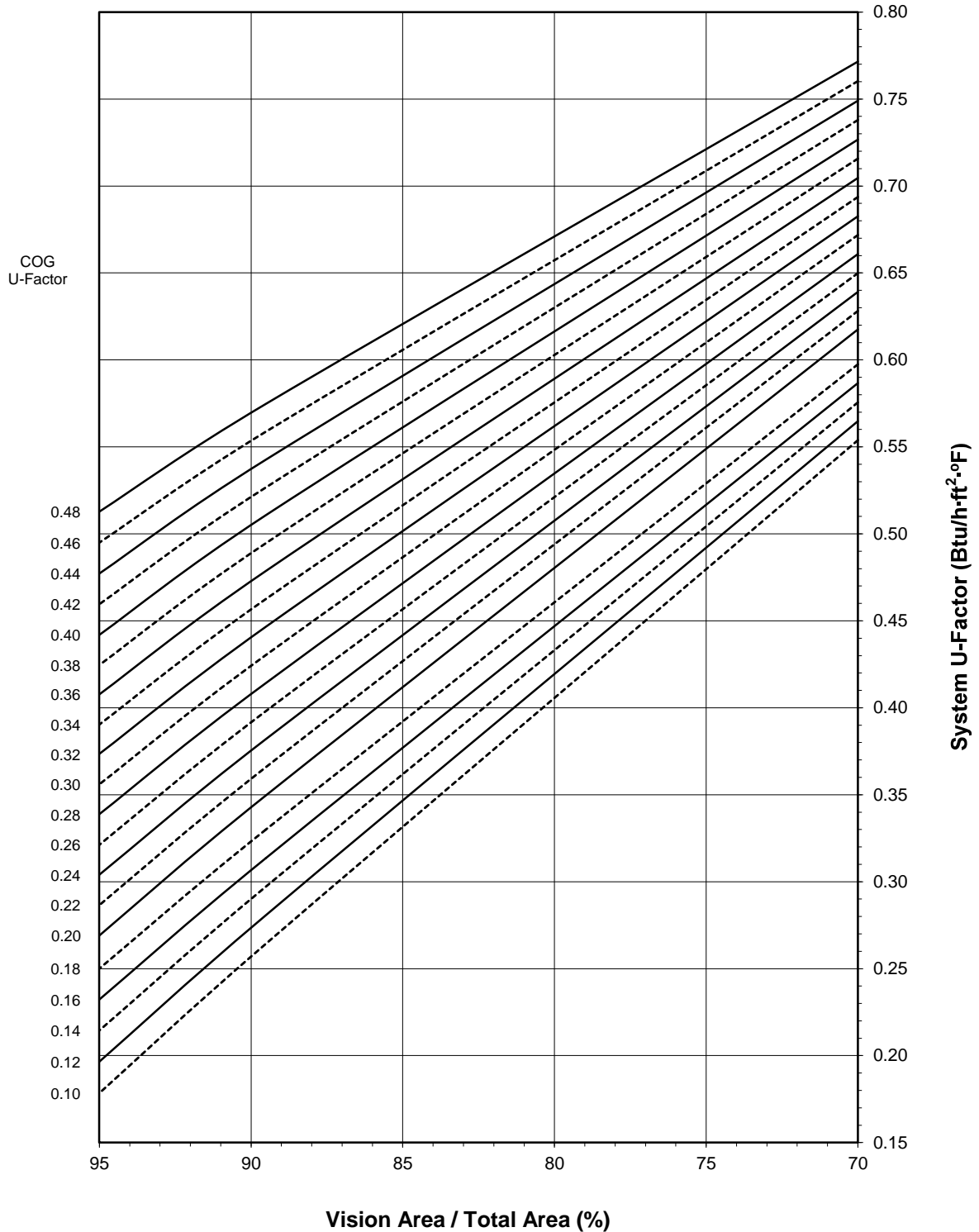
ANSI/NFRC 200-2014, *Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence*

Simulation Specimen Description:

Series/Model: FG451T Flush Glaze Thermal Storefront
Type: Glazed Wall System
Frame Material: Aluminum Thermally Broken Framing System
Material Finish: Painted Aluminum
Specimen Size: 2000mm wide by 2000mm high (78-3/4" by 78-3/4")
Configuration: Two vision lites separated by one intermediate vertical
Drawing Reference: Gamco Drawing Flush Glazing FG451T Series w/ Mullion, dated 07-29-2016

**Gamco Corporation
FG451T Flush Glaze Thermal Storefront - Glazed Wall System**

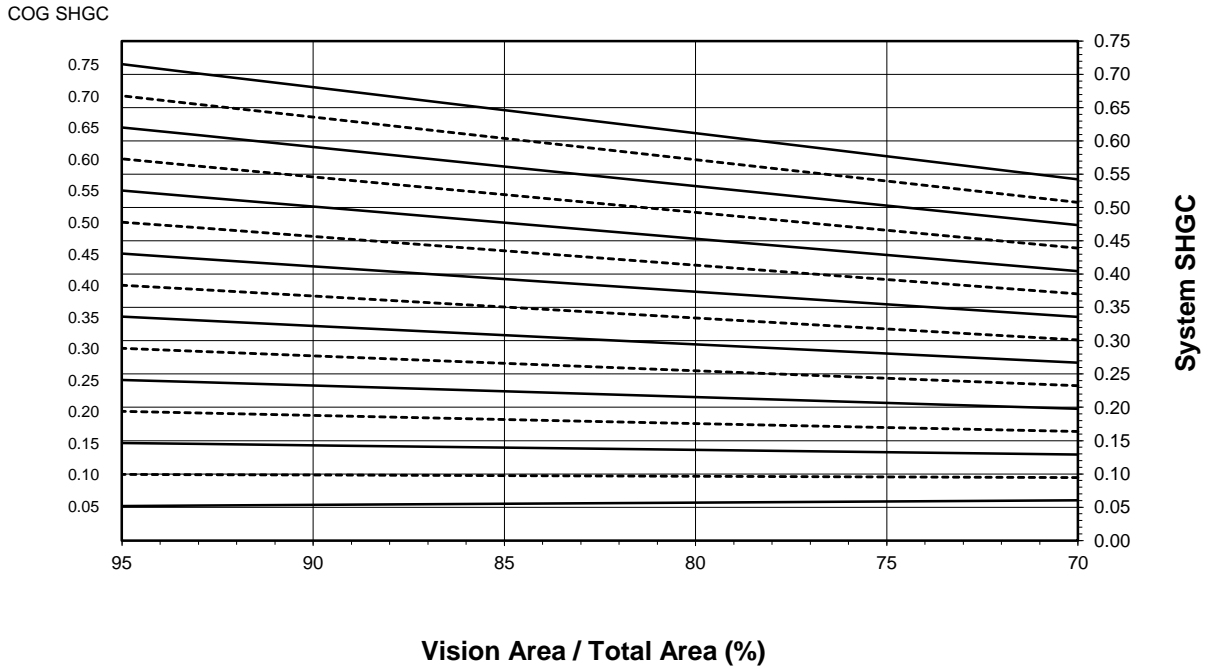
System U-Factor vs. Percentage of Vision Area



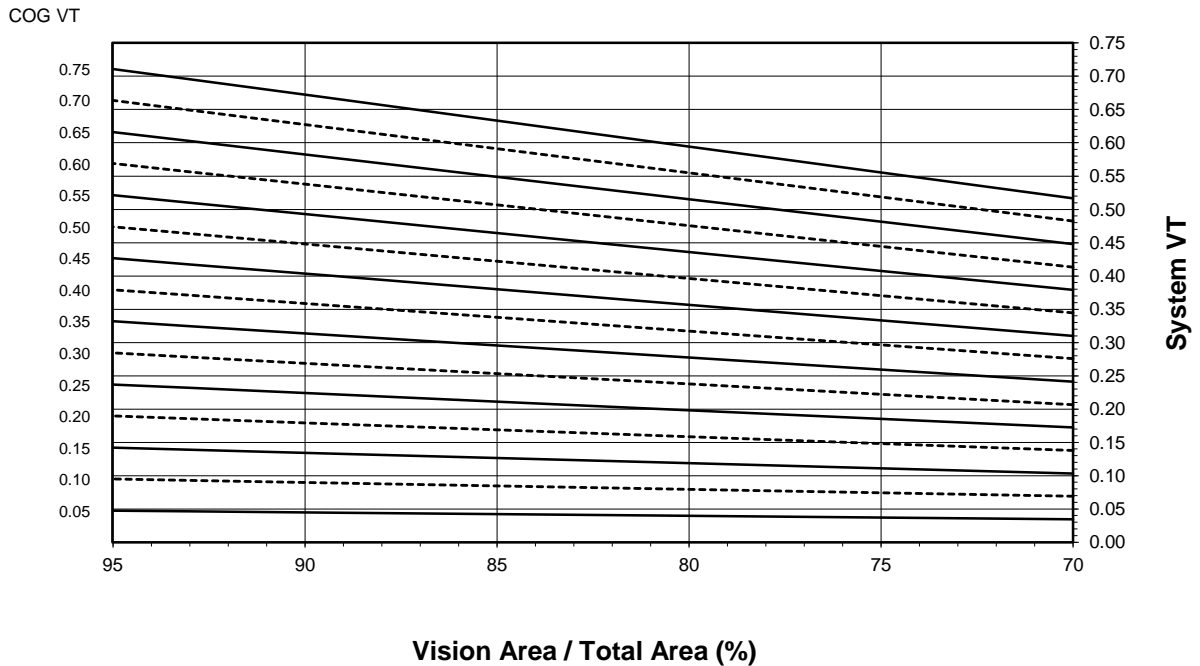
Note: 1 inch Overall - Dual Glazed Glass (0.48-0.20 COG) with Aluminum Spacer, Dual Glazed Glass with Heat Mirror (0.18-0.10 COG) with Aluminum Spacer

Gamco Corporation
FG451T Flush Glaze Thermal Storefront - Glazed Wall System

System SHGC vs. Percentage of Vision Area



System VT vs. Percentage of Vision Area



**Gamco Corporation
FG451T Flush Glaze Thermal Storefront - Glazed Wall System**

Size Specific U-Factor Matrix*

Glazing Option	Center of Glass U-Factor	Overall U-Factor
1	0.48	0.57
2	0.46	0.56
3	0.44	0.54
4	0.42	0.53
5	0.40	0.51
6	0.38	0.49
7	0.36	0.48
8	0.34	0.46
9	0.32	0.45
10	0.30	0.43
11	0.28	0.41
12	0.26	0.40
13	0.24	0.38
14	0.22	0.37
15	0.20	0.35
16	0.18	0.33
17	0.16	0.31
18	0.14	0.30
19	0.12	0.28
20	0.10	0.26

Note: 1 inch Overall - Dual Glazed Glass (0.48-0.20 COG) with Aluminum Spacer, Dual Glazed Glass with Heat Mirror (0.18-0.10 COG) with Aluminum Spacer

**Gamco Corporation
FG451T Flush Glaze Thermal Storefront - Glazed Wall System**

Size Specific SHGC Matrix*

Center of Glass SHGC	Overall SHGC
0.75	0.68
0.70	0.63
0.65	0.59
0.60	0.54
0.55	0.50
0.50	0.45
0.45	0.41
0.40	0.37
0.35	0.32
0.30	0.28
0.25	0.23
0.20	0.19
0.15	0.14
0.10	0.10
0.05	0.05

Size Specific VT Matrix*

Center of Glass VT	Overall VT
0.75	0.67
0.70	0.62
0.65	0.58
0.60	0.53
0.55	0.49
0.50	0.45
0.45	0.40
0.40	0.36
0.35	0.31
0.30	0.27
0.25	0.22
0.20	0.18
0.15	0.13
0.10	0.09
0.05	0.04

*Size Specific U-Factor, SHGC, and VT Matrices are based on the standard Glazed Wall System specimen size of 2000mm wide by 2000mm high (78-3/4" by 78-3/4"). This represents 89.5% Vision Area / Total Area.

Vision Area Data

Option No.	COG U-Factor	COG Temperature	Cross Section	Frame Height	Frame U-Factor	Edge U-Factor	Total Product U-Factor		
							70% Vision Area	NFRC 100-2010	95% Vision Area
							25.97" by 25.97"	78.74" by 78.74"	167.36" by 167.36"
1	0.48	43.7	Head	2.0571	1.3433	0.5185	0.7715	0.5747	0.5128
			L. Jamb	1.0571	1.5812	0.5212			
			R. Jamb	1.0571	1.6290	0.5122			
			Mullion	2.1142	1.6051	0.5167			
			Sill	2.5408	1.0157	0.5120			
2	0.46	44.8	Head	2.0571	1.3435	0.5053	0.7602	0.5586	0.4950
			L. Jamb	1.0571	1.5811	0.5078			
			R. Jamb	1.0571	1.6290	0.4988			
			Mullion	2.1142	1.6050	0.5033			
			Sill	2.5408	1.0155	0.4986			
3	0.44	45.8	Head	2.0571	1.3438	0.4922	0.7490	0.5426	0.4773
			L. Jamb	1.0571	1.5810	0.4945			
			R. Jamb	1.0571	1.6290	0.4854			
			Mullion	2.1142	1.6050	0.4900			
			Sill	2.5408	1.0154	0.4852			
4	0.42	46.8	Head	2.0571	1.3441	0.4794	0.7379	0.5267	0.4596
			L. Jamb	1.0571	1.5809	0.4816			
			R. Jamb	1.0571	1.6290	0.4724			
			Mullion	2.1142	1.6050	0.4770			
			Sill	2.5408	1.0153	0.4722			
5	0.40	47.9	Head	2.0571	1.3444	0.4662	0.7267	0.5106	0.4420
			L. Jamb	1.0571	1.5809	0.4682			
			R. Jamb	1.0571	1.6291	0.4591			
			Mullion	2.1142	1.6050	0.4637			
			Sill	2.5408	1.0152	0.4589			
6	0.38	48.9	Head	2.0571	1.3447	0.4535	0.7157	0.4946	0.4246
			L. Jamb	1.0571	1.5809	0.4554			
			R. Jamb	1.0571	1.6292	0.4462			
			Mullion	2.1142	1.6050	0.4508			
			Sill	2.5408	1.0151	0.4460			
7	0.36	50.0	Head	2.0571	1.3450	0.4406	0.7046	0.4786	0.4077
			L. Jamb	1.0571	1.5809	0.4424			
			R. Jamb	1.0571	1.6293	0.4332			
			Mullion	2.1142	1.6051	0.4378			
			Sill	2.5408	1.0144	0.4333			
8	0.34	51.0	Head	2.0571	1.3453	0.4278	0.6936	0.4624	0.3904
			L. Jamb	1.0571	1.5810	0.4294			
			R. Jamb	1.0571	1.6295	0.4202			
			Mullion	2.1142	1.6053	0.4248			
			Sill	2.5408	1.0150	0.4200			
9	0.32	52.0	Head	2.0571	1.3457	0.4151	0.6826	0.4465	0.3735
			L. Jamb	1.0571	1.5811	0.4166			
			R. Jamb	1.0571	1.6297	0.4073			
			Mullion	2.1142	1.6054	0.4119			
			Sill	2.5408	1.0150	0.4071			

Vision Area Data

Option No.	COG U-Factor	COG Temperature	Cross Section	Frame Height	Frame U-Factor	Edge U-Factor	Total Product U-Factor		
							70% Vision Area	NFRC 100-2010	95% Vision Area
							25.97" by 25.97"	78.74" by 78.74"	167.36" by 167.36"
10	0.30	53.1	Head	2.0571	1.3460	0.4024	0.6717	0.4303	0.3560
			L. Jamb	1.0571	1.5812	0.4038			
			R. Jamb	1.0571	1.6299	0.3945			
			Mullion	2.1142	1.6056	0.3992			
			Sill	2.5408	1.0150	0.3943			
11	0.28	54.2	Head	2.0571	1.3464	0.3898	0.6608	0.4142	0.3388
			L. Jamb	1.0571	1.5814	0.3911			
			R. Jamb	1.0571	1.6302	0.3817			
			Mullion	2.1142	1.6058	0.3864			
			Sill	2.5408	1.0150	0.3816			
12	0.26	55.2	Head	2.0571	1.3468	0.3772	0.6499	0.3980	0.3213
			L. Jamb	1.0571	1.5815	0.3783			
			R. Jamb	1.0571	1.6305	0.3689			
			Mullion	2.1142	1.6060	0.3736			
			Sill	2.5408	1.0150	0.3688			
13	0.24	56.3	Head	2.0571	1.3472	0.3646	0.6391	0.3819	0.3040
			L. Jamb	1.0571	1.5817	0.3657			
			R. Jamb	1.0571	1.6308	0.3562			
			Mullion	2.1142	1.6063	0.3609			
			Sill	2.5408	1.0150	0.3561			
14	0.22	57.3	Head	2.0571	1.3477	0.3520	0.6282	0.3657	0.2867
			L. Jamb	1.0571	1.5822	0.3529			
			R. Jamb	1.0571	1.6313	0.3434			
			Mullion	2.1142	1.6068	0.3481			
			Sill	2.5408	1.0152	0.3433			
15	0.20	58.4	Head	2.0571	1.3481	0.3395	0.6175	0.3495	0.2691
			L. Jamb	1.0571	1.5825	0.3403			
			R. Jamb	1.0571	1.6317	0.3308			
			Mullion	2.1142	1.6071	0.3355			
			Sill	2.5408	1.0152	0.3307			
16	0.18	59.5	Head	2.0571	1.3361	0.3169	0.5975	0.3299	0.2501
			L. Jamb	1.0571	1.5643	0.3167			
			R. Jamb	1.0571	1.6156	0.3050			
			Mullion	2.1142	1.5900	0.3108			
			Sill	2.5408	1.0042	0.3068			
17	0.16	60.6	Head	2.0571	1.3366	0.3040	0.5866	0.3135	0.2322
			L. Jamb	1.0571	1.5647	0.3037			
			R. Jamb	1.0571	1.6161	0.2920			
			Mullion	2.1142	1.5904	0.2978			
			Sill	2.5408	1.0043	0.2938			
18	0.14	61.7	Head	2.0571	1.3376	0.2903	0.5756	0.2971	0.2145
			L. Jamb	1.0571	1.5662	0.2898			
			R. Jamb	1.0571	1.6177	0.2782			
			Mullion	2.1142	1.5920	0.2840			
			Sill	2.5408	1.0049	0.2800			

Vision Area Data

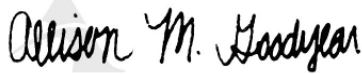
Option No.	COG U-Factor	COG Temperature	Cross Section	Frame Height	Frame U-Factor	Edge U-Factor	Total Product U-Factor		
							70% Vision Area	NFRC 100-2010	95% Vision Area
							25.97" by 25.97"	78.74" by 78.74"	167.36" by 167.36"
19	0.12	62.8	Head	2.0571	1.3380	0.2774	0.5647	0.2807	0.1965
			L. Jamb	1.0571	1.5664	0.2768			
			R. Jamb	1.0571	1.6181	0.2652			
			Mullion	2.1142	1.5923	0.2710			
			Sill	2.5408	1.0050	0.2670			
20	0.10	63.9	Head	2.0571	1.3385	0.2644	0.5538	0.2642	0.1785
			L. Jamb	1.0571	1.5668	0.2637			
			R. Jamb	1.0571	1.6185	0.2521			
			Mullion	2.1142	1.5927	0.2579			
			Sill	2.5408	1.0051	0.2540			

Intertek-ATI will service this report for the entire test record retention period. Test records that are retained such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation will be retained by Intertek-ATI for the entire test record retention period. The test record retention end date for this report is September 9, 2021.

Results obtained are simulated values and were secured by using the designated test methods. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the product simulated. This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For INTERTEK-ATI:

SIMULATED BY:



Digitally Signed by: Allison M. Goodyear

Allison M. Goodyear
Simulation Technician

REVIEWED BY:



Digitally Signed by: Kevin Louder

Kevin S. Louder
Manager - Thermal Testing & Simulations

AMG:AMG

G2028.01-116-45

Attachments (pages): This report is complete only when all attachments listed are included.

Appendix A: Drawings and Bills of Material (7)

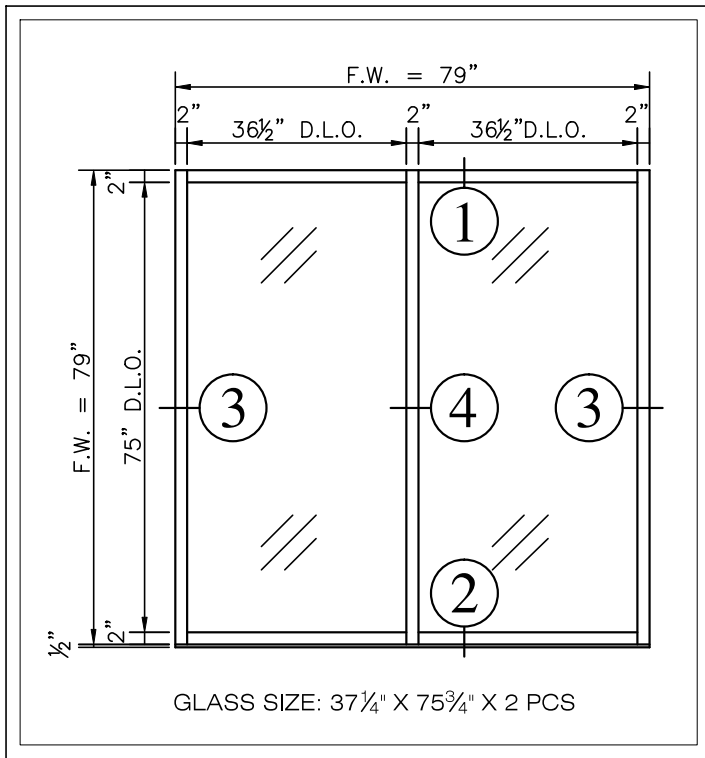
Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
.01R0	09/09/16	All	Original Report Issued to Gamco Corporation

All drawings and Bills of Material used in simulating this product are enclosed in this Appendix.

Appendix A

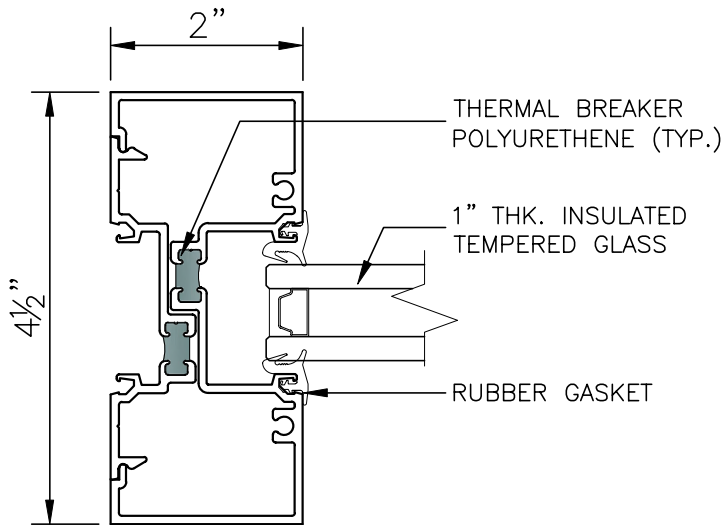
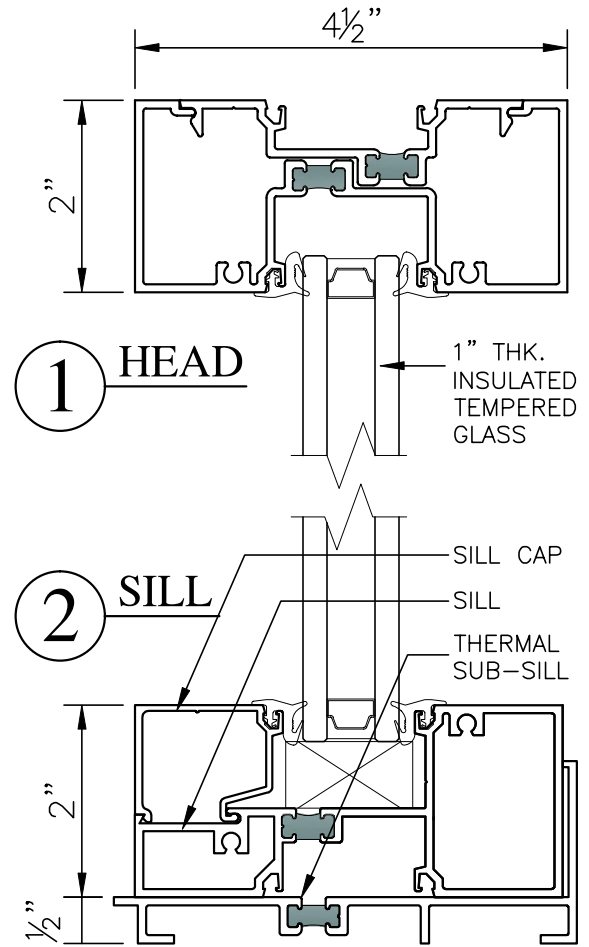
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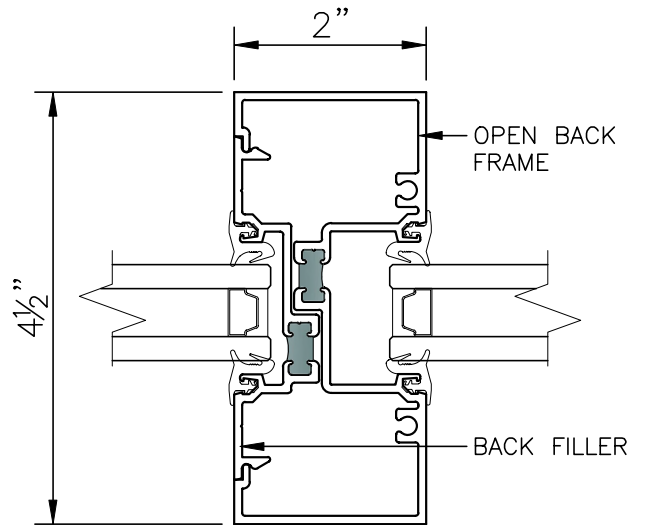
**FLUSH GLAZING
FG451T SERIES W/ MULLION**

Report #: G2028-116-45
 Date: 09/09/16
 Verified by: Allison M. Goodfear

Intertek IBS MT



3 JAMB



4 MULLION

SHEET #	Drawn by: HOWARD N.	Customer	Revisions		
	Checked by: CHARLIE C.		No.	Date	Description
Date: 07-29-2016	Project: THERMAL PERFORMANCE TESTING SAMPLE				
Scale: 1:2					



GAMCO CORPORATION
 MANUFACTURERS OF FENESTRATION PRODUCTS
 131-10 MAPLE AVE. FLUSHING, N.Y. 11355
 TEL: (718)359-8833 FAX: (718)359-8661
 info@gamcocorp.com www.gamcocorp.com

01	REV. A - .070 WALL REMOVED	12-29-98	11
02	REV. B - F&D REVERSED/WALL MOVED	05-04-99	12
03	FACTOR CORRECTED (SJS)	06-14-99	13
04	TOL. ADDED (SJS)	03-15-04	14
05			15
06			16
07			17
08			18
09			19
10			20

SUB. NUMBERS		H-05406	
PRESS	IV	Time in Box	6
DIE	11 X 4.25	Start Billet	10" AT 960 DEG.
		2nd Billet	20" AT 920 DEG.
BACKER	11 X 1.75	Balster in Box	YES
WELD CHAMBER	H5406	Use Gauge	
BOLSTER	15 X 6		
SUP BOLSTER	H2718		
	15 X 3		
	00027		

FGLAZE
4.500
2.000
SILL

HARMON INC.
052111
HF G451T

.134
508100

H-05406
HARMON INC.

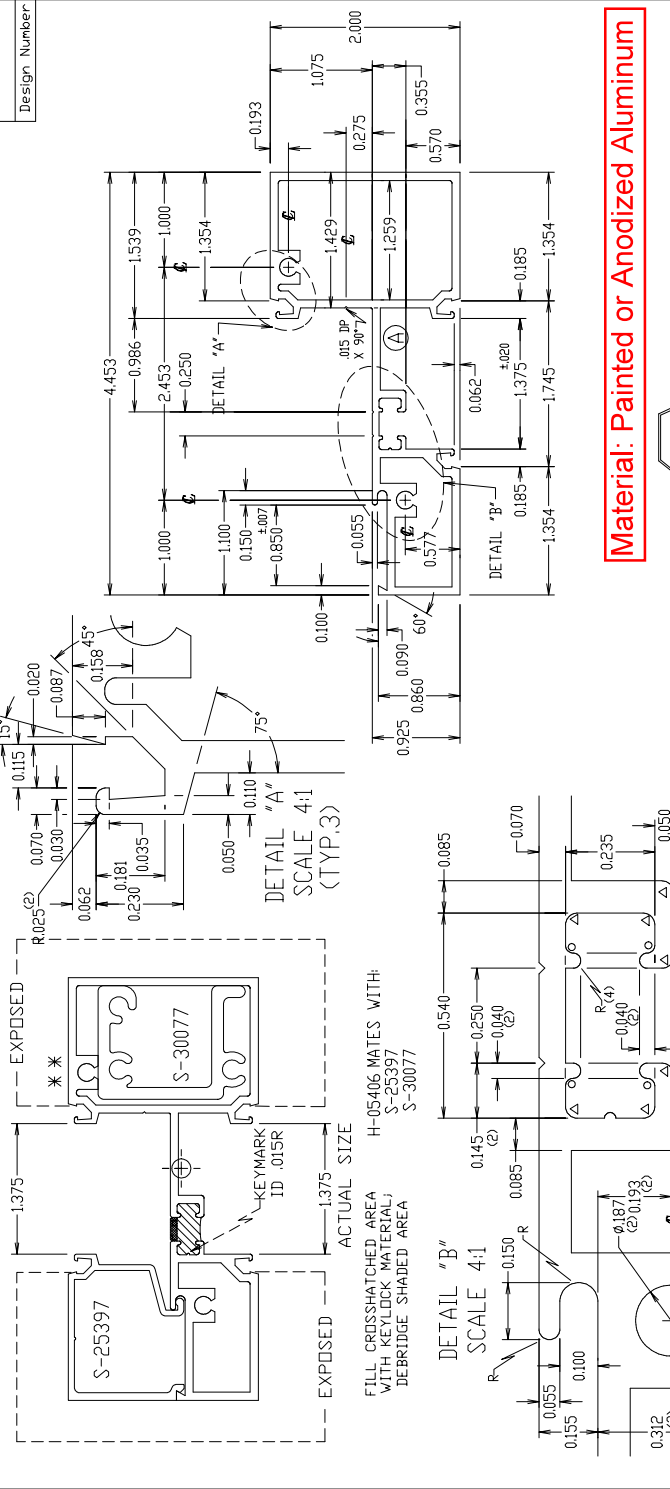
A2-00

H-05406	
Die Number	
Design Number	

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

UNIFORM PAINT COVERAGE NOT EXPECTED IN THIS AREA

STRUCTURAL STREAKING IS EXPECTED



Material: Painted or Anodized Aluminum

Unspecified Wall Thickness: .085
Break All Corners Radius or as Noted: .015

Customer's Part Number: 052111

KEYMARK CORPORATION
FONDA, NEW YORK
J.P. 451T
Phone: 518-853-3421
E-MAIL: eng@keymarkcorp.com

Print Title: HORIZONTAL / SILL

Date: 08-15-04

Revisions:

Sym.	Date	Description
4	07-10-98	PRINT REVISION
A	12-29-98	OTO WALL REMOVED
B	05-04-99	F&D REVERSED/WALL MOVED

Customer's Part Number: 052111
Scale: 1:1
Finish: Penetrator
Date: 07-31-96
Est. Price: \$6,852.00
Est. Weight: 20.755 lbs
Ext. Dimension: 4.8 in
Circle Size: 17,860 in
Checked: SJS

Estimated Reference Qty	Ix = 0.495	Iy = 2.540	Alouine	Factor 20	Type: 00
	Sx = 0.416	Sy = 1.040	Cmp		

EMPIRE ARCH.
700
KEYMARK CORPORATION
FG451T

#12
452-103

REED/3678
TREMCO/IR-2860-E
REED/3678
TREMCO/IR-2860-E

FG451T

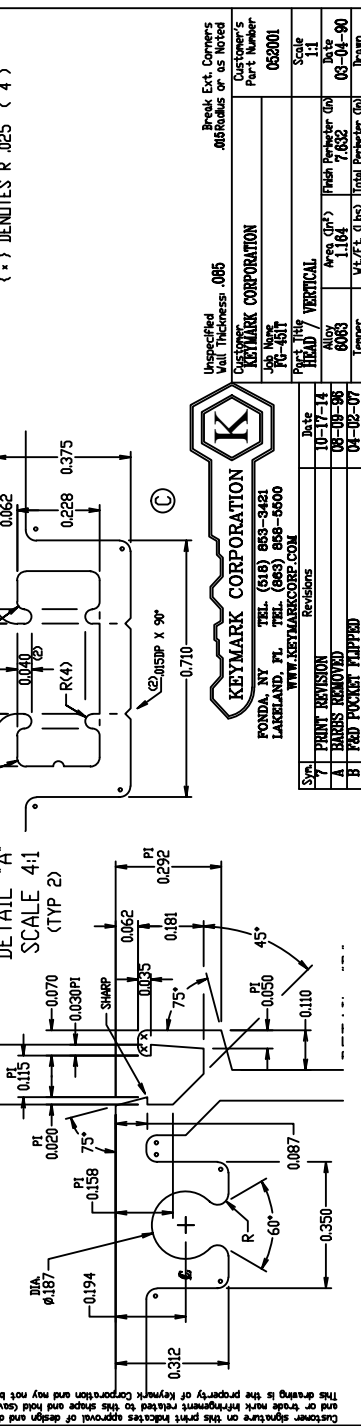
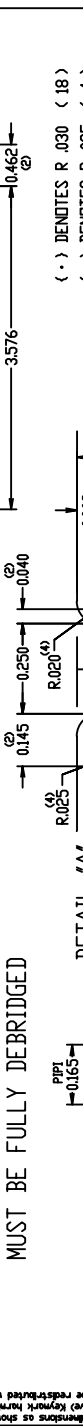
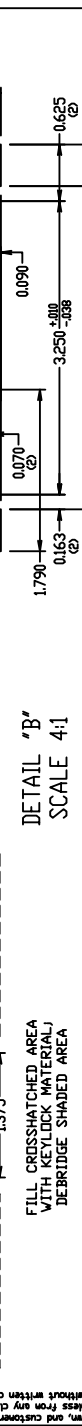
01	TRANSFER	09-26-95	11
02	REV. A - BARBS REMOVED	08-09-96	12
03	PRINT REDRAWN SJS - A1	03-18-97	13
04	I.V. ADDED (SJS)	12-31-99	14
05	PRINT REDRAWN JR - A2	06-25-04	15
06	REV. B - F&D POCKET FLIPPED	04-02-07	16
07	REV. C - F&D POCKET FLIPPED BACK (AD)	10-17-14	17
08			18
09			19
10	PRINT REDRAWN JR - A2	06-25-04	20

S-15300		S-15300	
SUB NUMBERS	1	2	3
PRESS	III		
DIE	10 X 2		
Holes	I		
Size	10 X 4		
Number	15300		
Size	.75 POKCKET		
Number	13 X 0.25		
Size	15 X 1.5		
Number	NS082		

Notes:
 6 HRS.
 SHORT AT 900 DEG.
 REGULAR
 Bolster in Box NO
 Use Gauge

Notes:
 F GLAZE
 4.500
 2.000
 VERT/HEAD

Notes:
 S-15300 MATES WITH:
 S-07108 050026
 S-15303
 S-15304
 S-15395 051429
 S-15426 051431
 S-15916 052002
 S-17509 052026



Estimated For:	Lx = 0.477	Ty = 2.882	Type: 00
Reference:	Sx = 0.989	Sy = 1.269	Factor: 20
Material:	Alu. <input type="checkbox"/> In. <input type="checkbox"/> An. <input type="checkbox"/> Dr. <input type="checkbox"/> Dr. <input type="checkbox"/> In. <input type="checkbox"/> Pt. <input type="checkbox"/> Solid <input type="checkbox"/> Semi-hollow <input type="checkbox"/> Class <input type="checkbox"/> Hollow <input type="checkbox"/> Class <input type="checkbox"/> PP		
Customer's Part Number:	052001	Scale:	1:1
Customer's Part Name:	KEYMARK CORPORATION	Area (sq in):	1.104
Customer's Part Description:	HEAD / VERTICAL	VOL (cu in):	3.380
Customer's Part Material:	6063	Weight (lb):	0.179
Customer's Part Finish:	Finish Per Order On	Order Size (in):	27.479
Customer's Part Date:	03-04-90	Customer's Part S.I.S. 06	

01	PRINT REDRAWN S.J.S. - A1	03-18-97	11
02	I.V. CORRECTED (S.J.S.)	01-19-00	12
03	PRINT REDRAWN JR - A2	06-25-04	13
04	REV. A - F & D POCKET FLIPPED (DSS)	09-03-04	14
05	I.V. ADDED (JR)	10-24-04	15
06			16
07			17
08			18
09			19
10			20

S-15302		SUB STILL	
1	1	2	3
PRESS			
Size	9 X 2		
Holes	1		
BACKER			
Size	9 X 3		
Number	15302		
WELD			
Number	.5 POCKET		
Size	13 X 6.5		
BOLLSTER			
Number	B0001		
Size	13 X 1.5		
BOLLSTER			
Number	00790		

Notes:
S-15302
5 HRS
REGULAR AT 900 DEG.
REGULAR
Bollster in Box NO
Use Gauge

HARMON INC.
052137
HFG451T

.134
508100

* STRUCTURAL STREAKING IS EXPECTED	UNIFORM PAINT COVERAGE NOT EXPECTED IN THIS AREA
------------------------------------	--

STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

S-15302 MATES WITH:
H-02630 142111
H-03092

S-15302
Die Number

Temp. Number

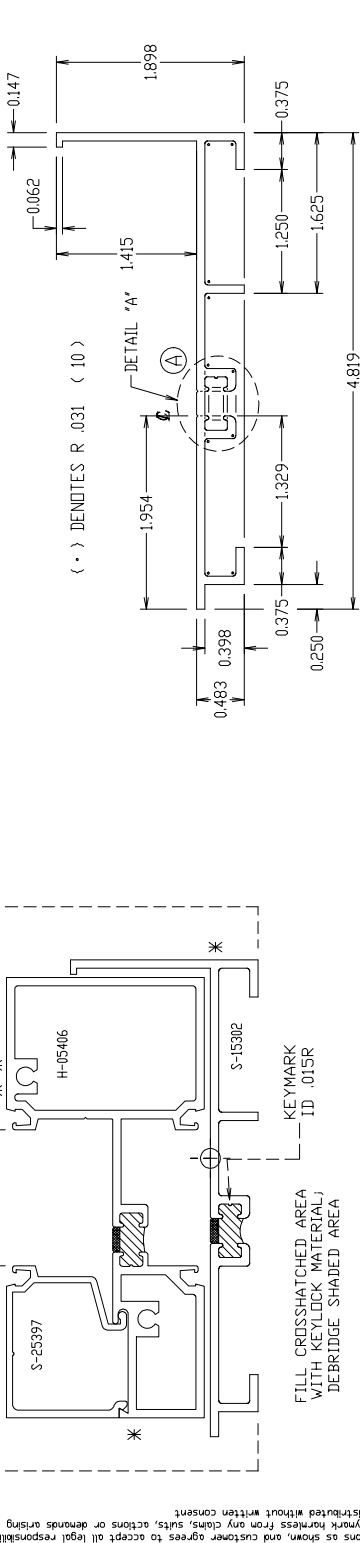
Design Number

A2-00

THERMAL FLUSH GLAZED SYSTEM 2.0 X 4.5
FG1451T
FG3451T
FG451T

Temp. Number
Design Number

A2-00



Report #: G2028-116-45
Date: 09/09/16
Verified by: *William Th. Stouffer*

Material: Painted or Anodized Aluminum

Unspecified Wall Thickness .085		Break Ext. Corners R0.8 Radius or as Noted	
Customer: KEYMARK CORPORATION		Customer's Part Number: 052126	
Job Name: FG-451T/1451T/3451T		Scale: 1:1	
Part Title: SUB STILL		Date: 03-05-90	
Alloy: 6063	Area (In ²): 0.768	Finish Perimeter (In): 2.778	Drawn: 700
Temper: T-5	Wt./Ft. (Lbs): 0.922	Total Perimeter (In): 18.172	Checked: C.J.T.
Cavity Size	Circle Size (In): 5.1	Ext. Perimeter (In): 18.172	S.J.S.

KEYMARK CORPORATION
TEL: (516) 853-3421
LAKELAND, FL TEL: (863) 858-5500
WWW.KEYMARKCORP.COM

Revisions
5 PRINT REVISION 10-24-04
PRINT REDRAWN JR 06-23-04
A F&D POCKET FLIPPED 09-03-04

Material: Solid Semi-hollow Hollow Class: PP

Estimated I_e = 0.115 I_y = 1.956 Alcoid = Type: 00
Reference S_e = 0.081 S_y = 0.695 Cmp = Factor: 20

Customer signature on this part indicates approval of design and dimensions as shown and customer agrees to accept all legal responsibilities for part. This drawing is the property of Keymark Corporation and may not be redistributed without written consent. Keymark reserves the right to change design and dimensions without notice. Keymark does not warrant the fitness of this design and tool (die) for any other use. Keymark is not responsible for any damage, loss, or injury resulting from the use of this design and tool (die).

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01	TRANSFER	10-25-96	11
02	PRINT REDRAWN SJS - A1	03-18-97	12
03	REV. A - SNAPS REVISED	12-09-97	13
04	I.V. CORRECTED (SJS)	01-19-00	14
05	PRINT REDRAWN JR - A2	06-28-04	15
06	REV. B - F&D POCKET FLIPPED (DSS)	09-03-04	16
07	I.V. ADDED (SJS)	11-18-04	17
08			18
09			19
10			20

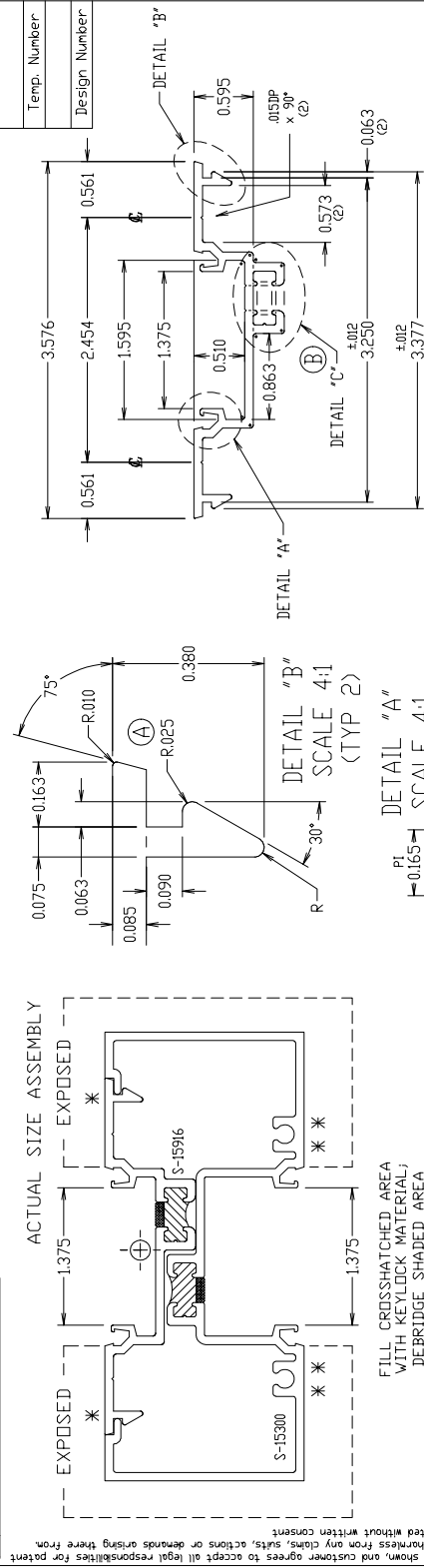
S-15916		DIE DATA	
SUB NUMBER(S)	1	2	3
PRESS	IV		
Size	10 X 1		
Holes	2		
BACKER	10 X 4		
Number	13438		
WELD	10 X 1		
Number	00802		
BOLSTER	15 X 7.5		
Number	00802		
SUB	15 X 1.5		
BOLSTER	00092		

Notes:
 S-15916
 Time in Box 6 HRS
 Start Billet REGULAR AT 900 DEG.
 2nd Billet REGULAR
 Bolster in Box ND
 Use Gauge

FGLAZE 4.500
 HARMON INC.
 052002
 HF G451T
 MULL ADAPTER

S-15916
 HARMON INC.

* STRUCTURAL STREAKING IS EXPECTED	UNIFORM PAINT COVERAGE NOT EXPECTED IN THIS AREA
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STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

(.) DENOTES R .031 (8)

S-15916 MATES WITH:
 S-15300 052001

Report #: G2028-116-45
 Date: 09/09/16
 Verified by: *Oliver M. Lindgren*

Material: Painted or Anodized Aluminum

Unspecified Wall Thickness: .085
 Customer: KEYMARK CORPORATION
 Job Name: POC-431
 Part Name: MULLION ADAPTER

Break Ext. Corners: .015 Radius or as Noted

Estimated I _x = 0.040	I _y = 0.549	Alodine	Type: 00
Reference S _x = 0.072	S _y = 0.297	Cmp	Factor: 20
Revisions		Material: <input type="checkbox"/> Solid <input checked="" type="checkbox"/> Semi-Hollow <input type="checkbox"/> Class: <input type="checkbox"/> Hollow <input type="checkbox"/> Class: <input type="checkbox"/> PP	
Y	Rev	Date	By
A	PRINT REDRAWN JR	11-18-04	
B	SNAPS REVISED	06-28-04	
C	F&D POCKET FLIPPED	12-09-97	
D		09-03-04	

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KEYMARK CORPORATION
 FONDA, NY TEL. (518) 853-3421
 LAKELAND, FL TEL. (863) 856-5500
 WWW.KEYMARKCORP.COM

Customer's Part Number: 052002

Scale: 1:1
 Date: 05-31-90
 Drawn: M.C.M.
 Checked: S.J.S.

01	DIM. ADDED (SJS)	08-15-98	11
02	I.V. ADDED (SJS)	07-19-99	12
03			13
04			14
05			15
06			16
07			17
08			18
09			19
10			20

S-25397		DIE DATA	
SUB NUMBERS(S)	1	2	3
II	4	5	6
Size	9 X 2		
Holes	2		
Size	9 X 3		
Number	27647		
Size	.5 POCKET		
Number	13 X 6.5		
Number	00792		
Number	13 X 1.5		
Number	00790		

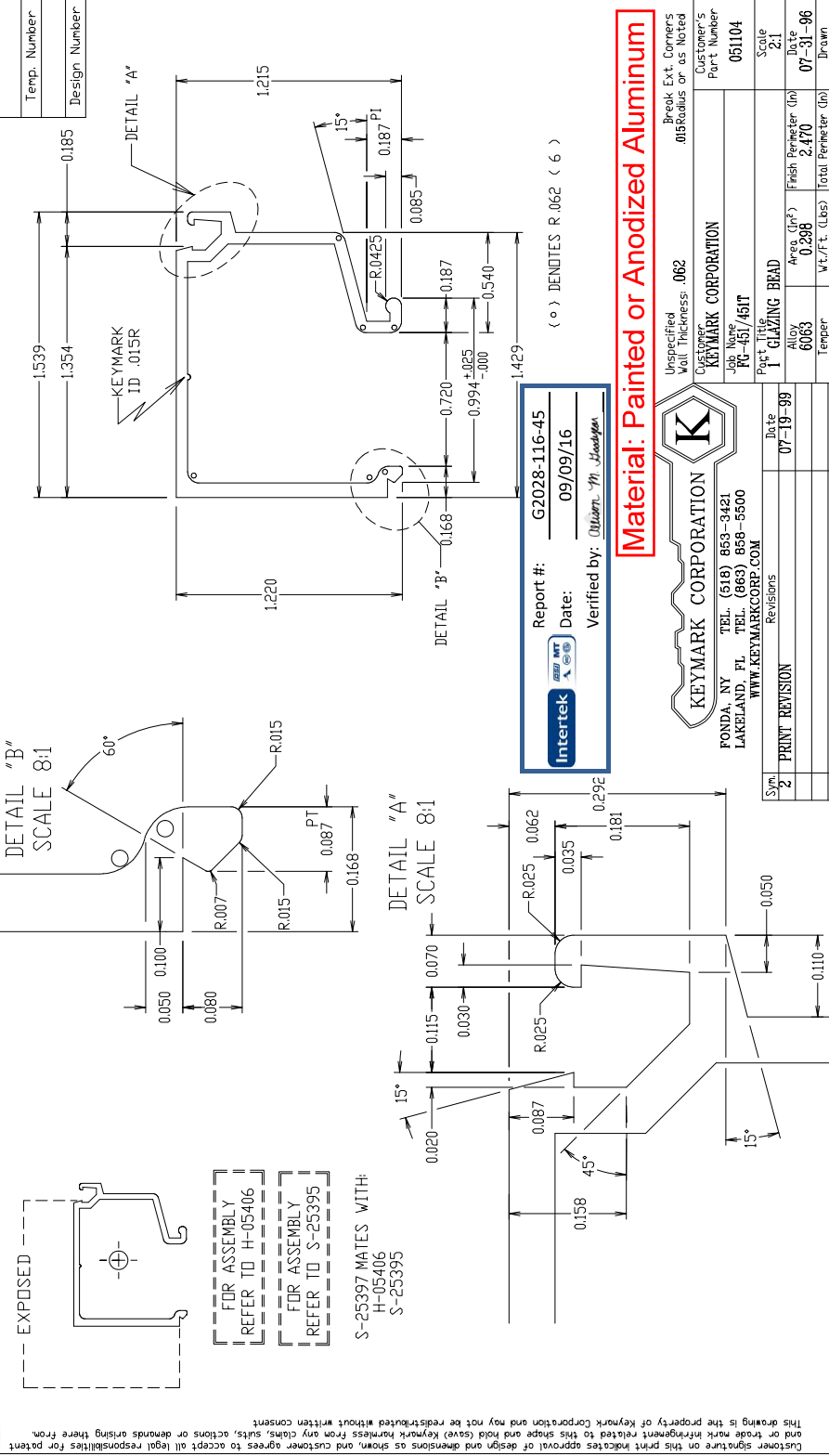
Notes:
 5 HRS.
 REGULAR AT 900 DEG.
 REGULAR
 Bolster in Box ND
 Use Gauge

FGLAZE
 4.500
 2.000
 BEAD

HARMON INC.
 051501
 HF G451

S-25397
 HARMON INC.
 508100

S-25397	
Die Number	S-25397
Temp. Number	
Design Number	



STANDARD COMMERCIAL TOLERANCES FOR EXTRUDED PRODUCTS APPLY UNLESS SPECIFIED OTHERWISE

KEYMARK ID .015R

DETAIL 'A'

DETAIL 'B'

UNIFORM PAINT COVERAGE NOT EXPECTED IN THIS AREA

STRUCTURAL STREAKING IS EXPECTED

EXPOSED

FOR ASSEMBLY REFER TO H-05406

FOR ASSEMBLY REFER TO S-25395

S-25397 MATES WITH H-05406 S-25395

Report #: G2028-116-45
 Date: 09/09/16
 Verified by: William Th. Hoedgen

Material: Painted or Anodized Aluminum

KEYMARK CORPORATION
 FONDA, NY TEL. (518) 853-3421
 LAKELAND, FL TEL. (863) 858-5500
 WWW.KEYMARKCORP.COM

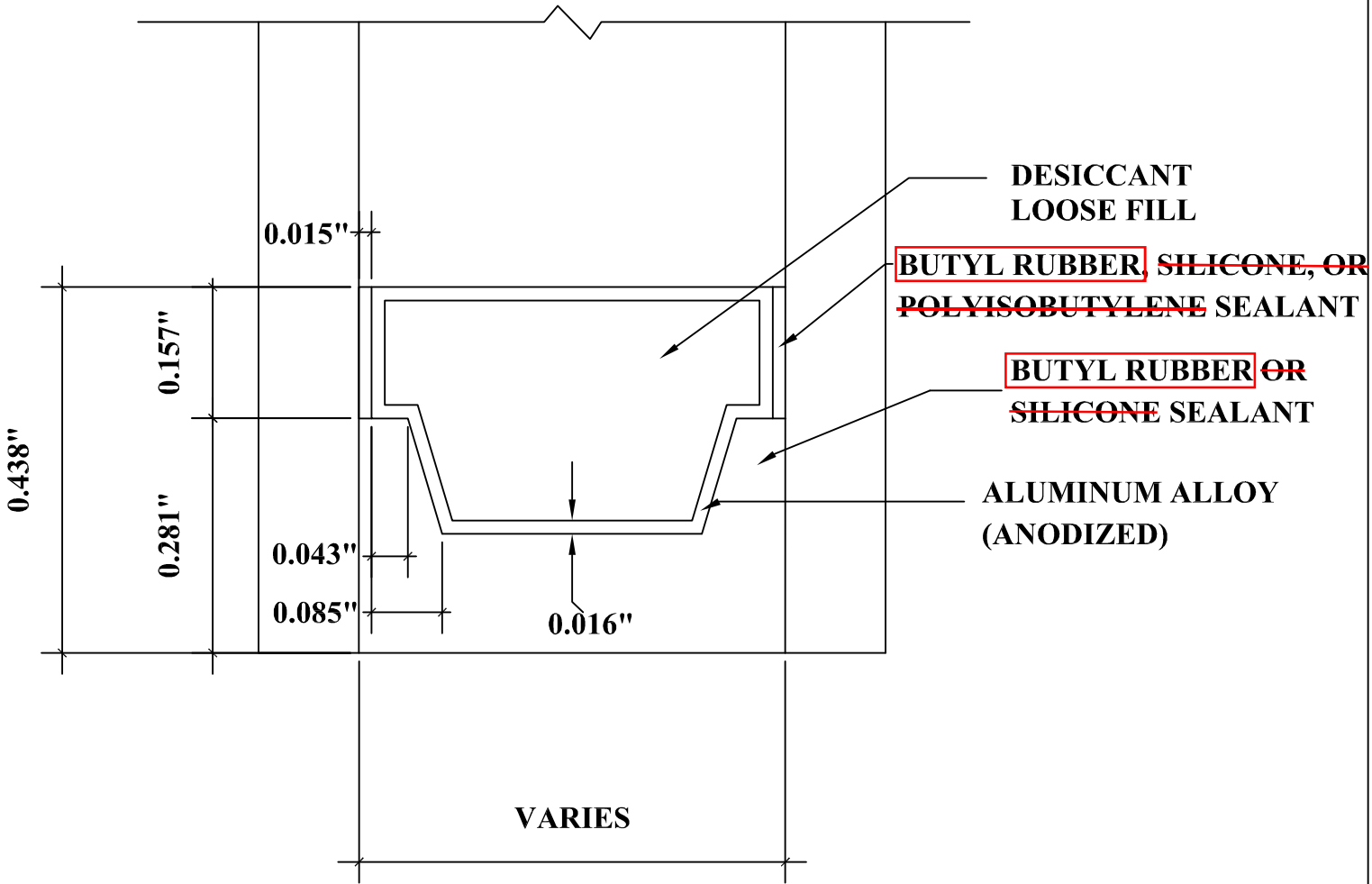
Unspecified Wall Thickness: .062
 Break Ext. Corners .015 Radius or as Noted

Customer's Part Number: 051104
 Scale: 2:1
 Date: 07-31-96
 Drawn: S.J.S.
 Checked: S.J.S.

Empire Arch.
 600/700
 KEYMARK CORPORATION
 FG451/FG451T

Print Revision	2	Date	07-19-99
Material	6063	Finish Penknifer (in)	2.470
Temper	T-5	Total Penknifer (in)	9.141
Cavity Size	1.8	Circle Size (in)	9.141
Circle Size (in)	1.8	Exterior Penknifer (in)	9.141

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DETAIL FOR THERMAL MODELING OF
ALUMINUM SPACER (A1-D)