



**TEST REPORT**

**Report No.:** H6481.01-303-47

**Rendered to:**

CR LAURENCE CO., INC.  
Los Angeles, California

**PRODUCT TYPE:** Single Side Hinged Door  
**SERIES/MODEL:** Entice

<b>Title</b>	<b>Summary of Results</b>
Design Pressure	±1200 Pa (±25.06 psf)
Air Infiltration	1.2 L/s/m <sup>2</sup> (0.24 cfm/ft <sup>2</sup> )
Water Penetration Resistance Test Pressure	0 Pa (0.00 psf)
Uniform Load Structural Test Pressure	±1800 Pa (±37.59psf)

Reference must be made to Report No. H6481.01-303-47, dated 11/29/17 for complete test specimen description and detailed test results.

**1.0 Report Issued To:** CR Laurence Co., Inc.  
2503 E. Vernon Ave,  
Los Angeles, California 90058

**2.0 Test Laboratory:** Architectural Testing, Inc., an Intertek company ("Intertek-ATI")  
25800 Commercentre Dr.  
Lake Forest, California 92630  
949-460-9600

**3.0 Project Summary:**

**3.1 Product Type:** Single Side Hinged Door

**3.2 Series/Model:** Entice

**3.3 Compliance Statement:** Results obtained are tested values and were secured by using the designated test methods. Test specimen description and results are reported herein.

**3.4 Test Dates:** 02/16/16 – 10/13/17

**3.5 Test Record Retention End Date:** All test records for this report will be retained until February 13, 2021.

**3.6 Test Location:** CR Laurence Co., Inc. test facility in Vernon, California. Calibration of test equipment was performed by Intertek-ATI in accordance with AAMA 205-01 "In-Plant Testing Guidelines for Manufacturers and Independent Laboratories".

**3.7 Test Specimen Source:** The test specimen was provided by the client. Representative samples of the test specimen will not be retained by Intertek-ATI, customer opted to hold on to specimen.

**3.8 Drawing Reference:** The test specimen drawings were not reviewed by Intertek-ATI because of customer holding on to specimen. Drawings showing specimen construction are located in Appendix C.

**3.9 List of Official Observers:**

<u>Name</u>	<u>Company</u>
Garrett Osterode	CR Laurence Co., Inc.
Ron Wooten	CR Laurence Co., Inc.
Marco Ramirez	CR Laurence Co., Inc.
Charles Presley	Intertek-ATI
Jarod Hardman	Intertek-ATI

**4.0 Test Method(s):**

*ASTM E283-04 (2012), Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen*

*ASTM E330/E330M-14, Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

*ASTM E331-00 (2009), Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference*

*ASTM E2068-00 (2008), Standard Test Method for Determination of Operating Force of Sliding Windows and Doors*

*AAMA 925-13, Specification for Determining the Vertical Loading Resistance of Side-Hinged Doors*

*AAMA 1304-02, Voluntary Specification for Forced Entry Resistance of Side-Hinged Door Systems*

**5.0 Test Specimen Description:**

**5.1 Product Sizes:**

Overall Area: 3.23 m <sup>2</sup> (34.76 ft <sup>2</sup> )	Width		Height	
	millimeters	inches	millimeters	inches
Overall Size	1130	44-1/2	2858	112-1/2
Leaf	1067	42	2816	110-7/8

## 5.0 Test Specimen Description: (Continued)

### 5.2 Frame Construction:

Frame Member	Material	Description
Sill	Aluminum	Saddle threshold, Part No. 1GTH700ML.
Head	Aluminum	Header clad, Part No. 1GDCHCLAD.
Jamb	Aluminum	Wall jamb mount, Part No. 1GWJM300.
Jamb	Aluminum	Ultra-narrow vertical stile, Part. No. 1GVS.
Jamb	Aluminum	Ultra-narrow vertical stile cladding, Part No. 1GVSCCLAD.

	Joinery Type	Detail
All Corners	Coped	Secured with shear clips and cap screws and CRL 33S clear silicone applied to the corner joints

### 5.3 Leaf Construction:

Leaf Member	Material	Description
Top And Bottom Rail	Aluminum	1" IG DRS 4" rail housing, Part No. 1GSDR4SDU.
Top And Bottom Rail	Aluminum	Door rail glass clamp, Part No. 1GDRGCDU.
Vertical Stiles	Aluminum	Ultra-narrow vertical stile, Part. No. 1GVS.
Vertical Stiles	Aluminum	Ultra-narrow vertical stile cladding, Part No. 1GVSCCLAD.
Vertical Stiles	Aluminum	Stile glass attachment strip, Part No. 1GVSGC100DU.

	Joinery Type	Detail
All Corners	Flush	Secured with shear clips and cap screws.

### 5.4 Reinforcement: No reinforcement was utilized.

**5.0 Test Specimen Description: (Continued)**

**5.5 Weatherstripping:**

Description	Quantity	Location
0.187 x 0.310 Pile with Fin	1 row	Inserted into channel of top and bottom rails of leaf at exterior leg.
0.270 x 0.290 Pile with Fin	1 row	Inserted into channel of outside perimeter of panel stiles.
Amesbury Foam Filled Bulb Gasket	2 rows	Inserted into the interior and exterior side of the glazing pocket in channels of the door rail glass clamp.

**5.6 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	Aluminum Spacer	1/4" clear tempered	1/4" clear tempered	Channel glazed system with set screws at jambs and a roll in gasket at the head and sill interior and exterior (Part No. NP238)

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Panel	1	1010 x 2610	39-3/4 x 102-3/4	1/2"

**5.7 Drainage:** No drainage was utilized.

## 5.0 Test Specimen Description: (Continued)

### 5.8 Hardware:

Description	Quantity	Location
Riksen 180 Top Closure	1	Secured to the frame head and leaf top rail at each jamb with four 1/4" – 20 x 1-1/4" fasteners
CRL Bottom Mortised Pivot	1	Secured to the frame sill and leaf bottom rail at each jamb with four 1/4" – 20 x 1-1/4" fasteners.
CRL-Blumcraft "J" Exterior Top Securing Deadbolt Handle	1	Secured to glass of each leaf and to the top rail of each leaf with two 5/16" – 24 x 1-1/2" fasteners.
Zinc Lock	1	Inserted into the bottom rail of each leaf and secured with two 1/4" – 20 x 2-1/2" fasteners.

**5.9 Screen Construction:** No screen was utilized.

### 6.0 Installation:

The specimen was installed into a Pine wood buck. The rough opening allowed for a 1/4" shim space at the head and jambs. The exterior and interior perimeter of the door was sealed with silicone sealant.

Location	Anchor Description	Anchor Location
Through frame	#10 x 2" Phillips pan head screw	9" on center spacing.

**7.0 Test Results:** The temperature during testing was 21°C (70°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Note
<b>Operating Force,</b> per ASTM E2068	Force to Latch: 4.4 N (1.0 lbf) Deadbolt: 35.6 N (8.0 lbf)	Report only  Report only	
<b>Air Leakage,</b> per ASTM E283 at 75 Pa (1.57 psf)	1.2 L/s/m <sup>2</sup> (0.24 cfm/ft <sup>2</sup> )	5.0 L/s/m <sup>2</sup> (1.0 cfm/ft <sup>2</sup> ) max.	
<b>Water Penetration,</b> per ASTM E331 at 0 Pa (0.00 psf)	Pass	No leakage	1
<b>Uniform Load Deflection,</b> per ASTM E330 Deflections taken at lock stile +1200 Pa (+25.06 psf) -1200 Pa (-25.06 psf)	18.0 mm (0.71") 19.1 mm (0.75")	Report only	2, 3
<b>Uniform Load Structural,</b> per ASTM E330 Permanent sets taken at lock stile +1800 Pa (+37.59 psf) -1800 Pa (-37.59 psf)	0.3 mm (0.01") 0.0 mm (0.00")	Report only	2, 3
<b>Forced Entry Resistance,</b> per AAMA 1304, 1330 N (300 lbf) point load	Pass	No entry	
<b>Vertical Loading Resistance,</b> per AAMA 925 Pre-load – 200 N (45 lbf) Vertical deflection Vertical permanent set	0.0 mm (0.00") 0.0 mm (0.00")	Report only	
<b>Vertical Loading Resistance,</b> per AAMA 925 Test load – 1112 N (250 lbf) Vertical deflection Vertical permanent set	6.4 mm (0.25") 3.3 mm (0.13")	Report only	

**7.0 Test Results:** (Continued)

Title of Test	Results	Allowed	Note
<b>Vertical Loading Resistance,</b> per AAMA 925 Diagonal deformation	3.3 mm (0.13")	Report only	
<b>Vertical Loading Resistance,</b> per AAMA 925 Force to latch	Force to Latch: 4.4 N (1.0 lbf) Deadbolt: 35.6 N (8.0 lbf)	Report only  Report only	

**General Note:** All testing was performed in accordance with the referenced standard(s).

**Note 1:** Side hinged door configuration tested to Limited Water performance.

**Note 2:** Loads were held for 10 seconds.

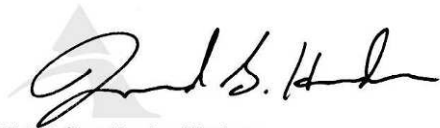
**Note 3:** Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.



Intertek-ATI will service this report for the entire test record retention period. Test records such as detailed drawings, datasheets, or other pertinent project documentation, will be retained by Intertek-ATI for the entire test record retention period.

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 specimen tested. This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For ARCHITECTURAL TESTING, INC.:



Digitally Signed by: Jarod Hardman

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Jarod S. Hardman  
Laboratory Manager

JSH:ms

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

- Appendix A: Location of air seal (1)
- Appendix B: Installation Instructions (35)
- Appendix C: Drawings (13)

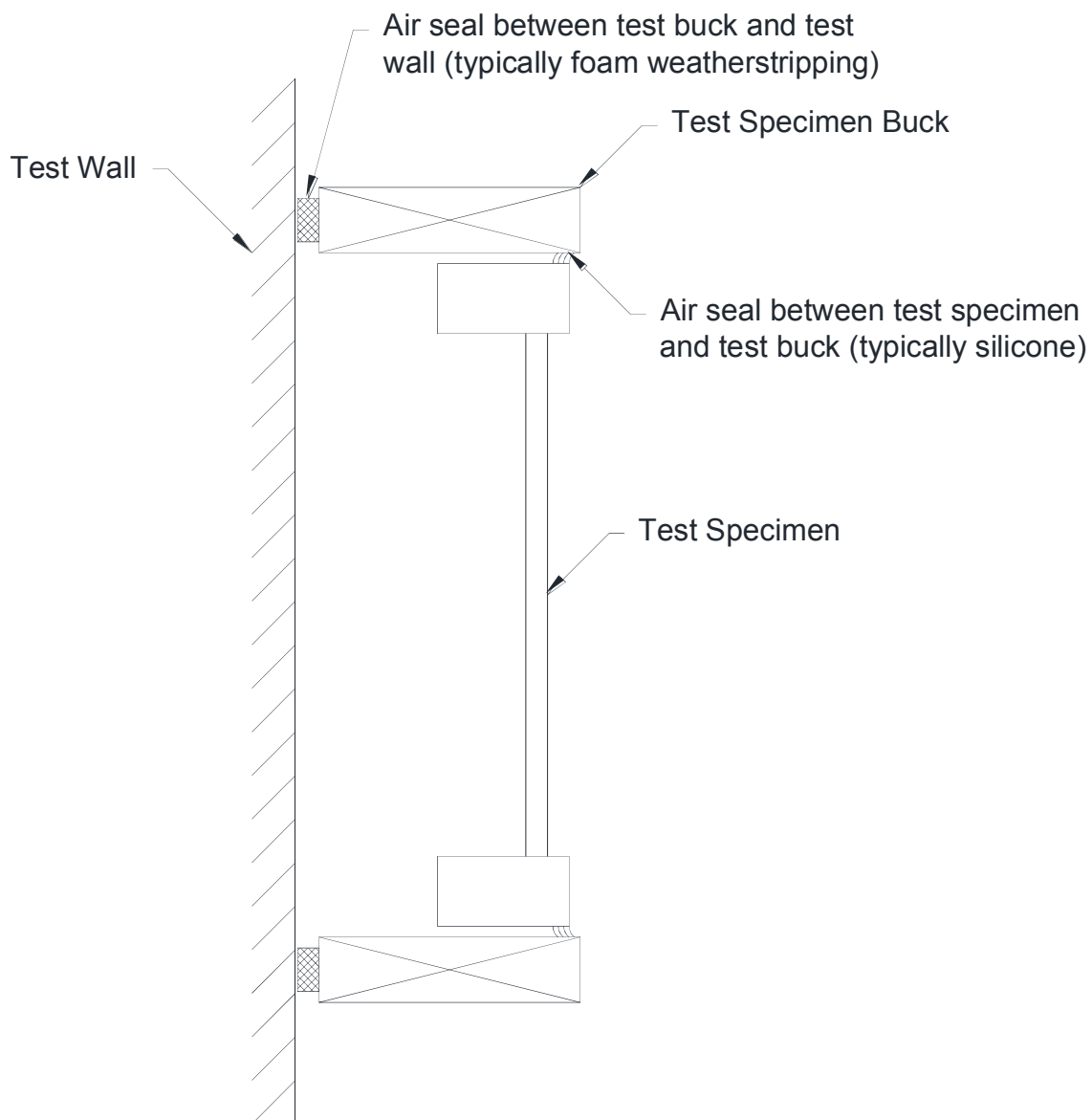
### Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	11/29/17	N/A	Original report issue.

This report produced from controlled document template ATI 00479, revised 06/19/15.

## Appendix A

**Location of Air Seal:** The air seal between the test specimen and the test wall is detailed below. The seal is made of foam weatherstripping and is attached to the edge of the test specimen buck. The test specimen buck is placed against the test wall and clamped in place, compressing the weatherstripping and creating a seal.



## **Appendix C**

### **Drawings**

Revisions By:

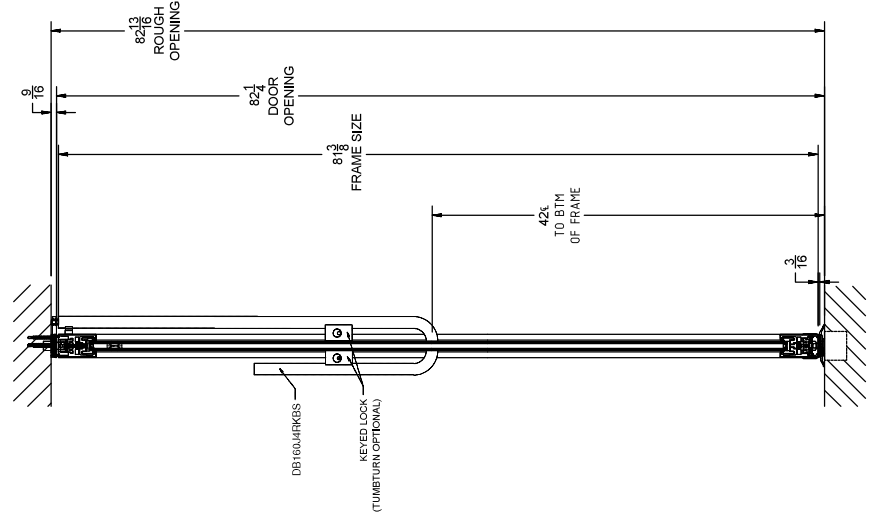
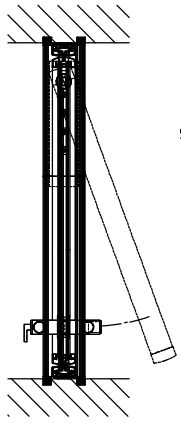
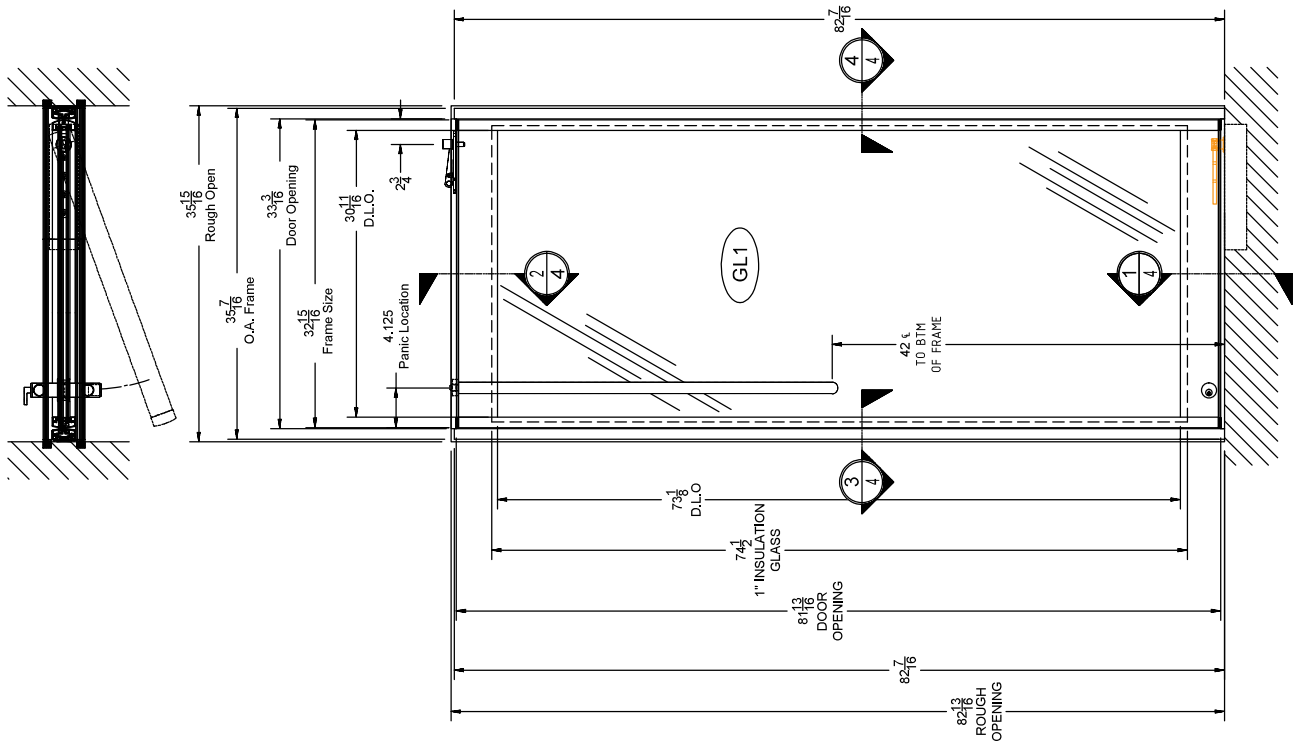

**C.R.L.**  
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C.R. LAURENCE CO. ARCHITECTURAL PRODUCTS  
2501 E. Ventura Avenue, Los Angeles, CA 90038-1877  
760-333-7244 / 760-333-0201 / www.crlaluminum.com

U.S. ALUMINUM  
"ENTICE" SINGLE SIDE HINGE DOOR  
AIR INFILTRATION (ASTM E283)

Description:

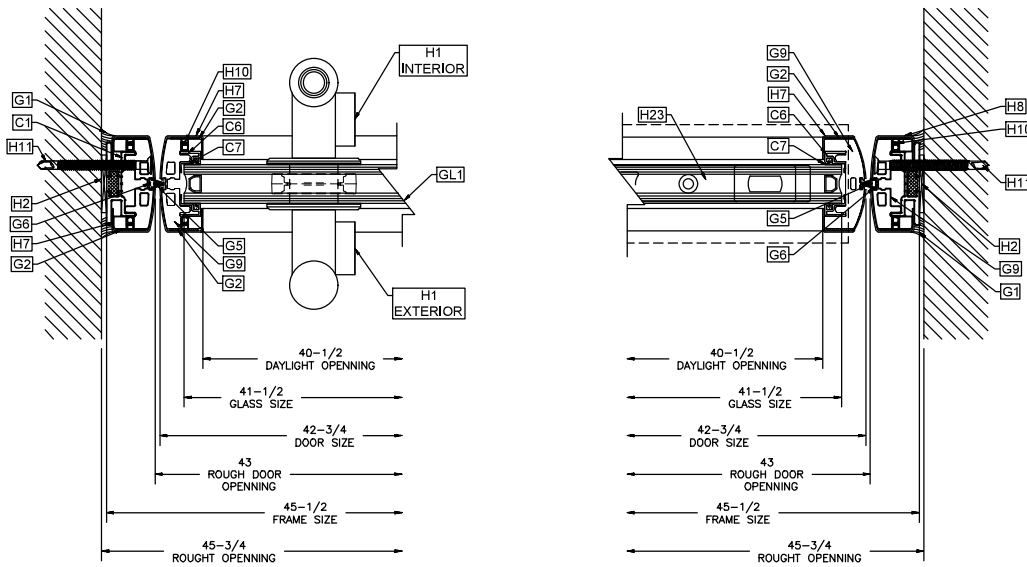
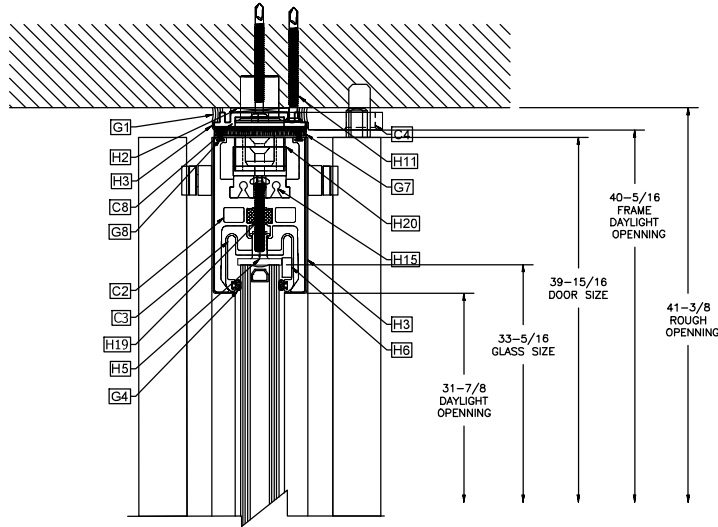
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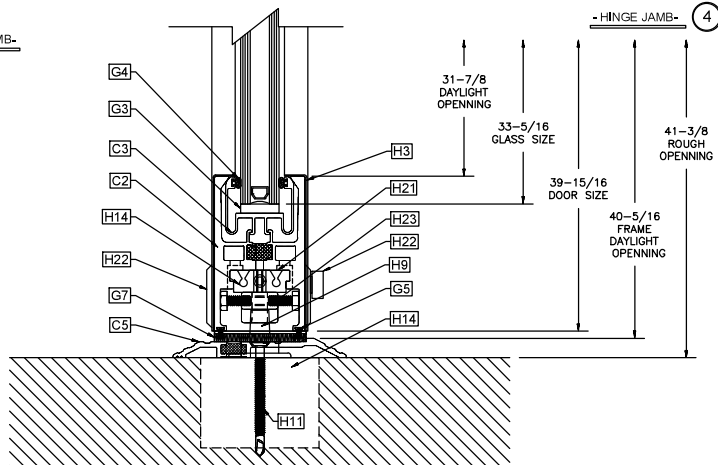




② -HEADER-

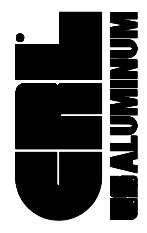


③ -LOCKING JAMB-



① -THRESHOLD-

Revisions By:



C.R. LAURENCE CO. ARCHITECTURAL PRODUCTS  
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Description:

U.S. ALUMINUM  
"ENTICE" SINGLE SIDE HINGE DOOR  
AIR INFILTRATION (ASTM E283)

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Revisions By:

BILL OF MATERIAL FOR ENTICE DOOR

ITEM#	PART NO:	DESCRIPTION:
C1	T1GWJM300SA	Entice - THERMAL FILL ONLY DOORWAY JAMB WALL MOUNT/ANCHOR, SA Finish, L=288"
C2	T1GTDRA4SDU	Entice FABRICATED Door Rail Glass Clamp L=41" Long, Dark Bronze Anodize Finish
C3	1G1DRGGDDU	DR31G / Entice - 1" Insulated Glass Door Rail GLASS CLAMP, 6063-T6 aluminum, Dark Bronze Commercial anodized for protection only / NO exposed surfaces; L=120"
C4	1GDRGCA40DU	Entice - THERMAL FILL ONLY 4" Square Door Rail HOUSING (SDB and other fabrication per Job only); DU finish (NO exposed surfaces); L=124"
C5	1GTH460DU	Entice - ~4 1/2" HALF SADDLE THRESHOLD; Material: 6063 T-6; DU Finish; L=172"
C6	1GVSGCC100DU	Entice - Vertical Stile GLASS CLAMP (no tape); Material: 6063 T-5; Dark Bronze Commercial Anodize for protection only / NO exposed surfaces; L=148"
C7	1GVSGCC	Entice - Vertical Stile Clamping Gasket Material: EPDM 75A Durometer Black; 1 RL = 1000 ft
C8	1GDCHDU	Entice - 7/16" HEADER; Material: 6063 T-6; Dark Bronze Commercial Anodize for protection only / NO exposed surfaces; L=172"
C9	EDR4DU	*C/S Entice Door Rail 4"; Dark Bronze Anodize Finish
C10	EDSCPDU	*C/S Entice Door Stile Center Pivot; Dark Bronze Anodize Finish
C11	1GHCLAD	*C/S Entice Door Stile Center Pivot; Dark Bronze Anodize Finish
H1	EDB160J3RKBS	*C/S ENTICE DEADBOLT HANDLE RHR RAIL MOUNT W CYL BOTH SIDES BS
H2	SHIM	1/8" SHIM
H3	1GDHCPCLAD_	*C/S Entice - 4" SQUARE DOOR RAIL CLAD; BS Finish
H4	LSC03	SPECIAL SCREW 1/4 X 20 F1H SHCS NYLON PATCH
H5	D02900	CAP,ADU-SET-BLK,1INGLZ
H6	TPR563	TPR BLOCKS 1/4 x 1/2 x 2
H7	1GVSGCC	Entice - Vertical Stile Clamping Gasket Material: EPDM 75A Durometer Black; 1 RL = 1000 ft
H8	1GDR4SCLADBS	*C/S Entice - 4" SQUARE DOOR RAIL CLAD; BS Finish
H9	DRA70BS	FLOOR BOLT OPERATOR BRUSHED S/S
H10	1024X14SETSCREWSNP	10-24 X 1/4 long socket set screw 18-8 SS w/yellow nylon patch
H11	MS23300	1/4-20FX1-3/4-PH,PH,MS,ZP
H12	DR31GCB	Entice - DOOR CORNER / SHEAR BLOCK used with SS/Brass Cladding (with P/N engraved)
H13	L77TS	ZINC LOCK 1 9/16
H14	1GDRHDM340	ENTICE CENTER HUNG PIVOT DOOR ADJUSTMENT/SLIDE BLOCK; FOR RIXSON 340; Non-Handled
H15	1GDRCAM	ENTICE - CYLINDER CAM SPACER FOR DRA w SCREWS
H16	1GECDU	ENTICE - CENTER PIVOT END CAP BODY
H17	EDSLDU	*C/S Entice Door Lead Offset Stile; Dark Bronze Anodize Finish
H18	1GVSDU	Entice - VERTICAL STILE (OFFSET PIVOT); Material: 6063 T-6 aluminum, Std Black Powder Painted for protection only / NO exposed surfaces; L=172"
H19	1420X112SHCFTMSBOXNP	1/4-20 x 1 1/2 long FULLY threaded socket cap screw alloy steel black oxide w/yellow nylon patch at the end
H20	CLR340ADP	RAIL ADAPTER BLOCK FOR JACKSON 20-680 (Packed)
H21	1GCFPSHM370	ENTICE CENTER HUNG PIVOT DOOR SHIM BLOCK; FOR BOTTOM RIXSON 370; Non-Handled
H22	DRA1020BS	BS CYLINDER/THUMBTURN COMBO
H23	CLR9040CB	CR/L Adjustable Center-Hung Floor Mounted Closer Arm
GL1	1GGLASS	Entice 1" Insulated Tempered Glass (25 X .50 X .25; INSULATED GLASS TEMPERED W/ ALUM SPACER DUAL GLAZE & MOISURE)
G2	7995BL	BLACK DOW 795 SILICONE (WOOD BUCK TO DOOR FRAME)
G3	494534	3/4 3M VHB FOAM TAPE-36YDS (RL)
G4	SB592	1/4 X 1-1/8 X 4 SETTING BLOCKS
G5	WH34200300	GSKT,BULB,7200-7400M/DWS,300
G6	29027045BKGB	.290 H X .270 W Black Pile, Black Quiet Fin, Extruded Backing (DRS advanced sealing system); 4000 ft roll/box
G7	1GVSG	Entice - Vertical Stile Inactive Door Leaf Filler Material: EPDM 75A Durometer Black; 1 RL = 1000 ft
G8	1GDUSTPAD	ENTICE DUST PAD
G9	31018745BKGET	.310 H X .187 W Black Pile, Black Quiet Triple Fin, Extruded Backing (DRS advanced sealing system ); 5000 ft roll / box
G10	1GVSCPDU	Entice - VERTICAL STILE CENTER PIVOT; Material: 6063 T-6 aluminum, Dark bronze Commercial Anodize for protection only / NO exposed surfaces; L=148"
	CLR335	STRUCTURAL SILICONE / SEALANT (SEAL ALL JOINTS AND CLADDING)

C.R. LAURENCE CO. ARCHITECTURAL PRODUCTS  
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