



PERFORMANCE TEST
EFCO SERIES D-300 SINGLE DOOR
REPORT #CCLI-03-124

September 26, 2003

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All performance values shown on this report are for products of a standard configuration, tested in accordance with AAMA specifications, in a laboratory environment under optimum conditions. They are provided for purposes of comparison only. Performance values will vary according to project specifications, such as but not limited to, quality installation workmanship, product size, configuration, hardware, glass type, and accessories. When field testing is required, it is recommended that all EFCO products be tested in accordance with AAMA 502-02 unless otherwise specified.

Project: EFCO Series D-300 Single Door
Performance Test Observation

Date of Testing: July 28, 2003

Tested For: EFCO Corporation
1000 County Road
Monett, MO 65708

Witnessed By: (All or Partial Viewing)

Jeff Boucher	EFCO Corporation
Terry Key	EFCO Corporation
Jeff Litchfield	EFCO Corporation
Shannon Keeler	EFCO Corporation

Jeffrey Crump	Construction Consulting Laboratory, <i>International</i>
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2. INTRODUCTION

This report presents the performance results of an EFCO Series D-300 Single Door. Tests were conducted at EFCO Corporation testing facility in Monett, MO.

3. SCOPE

Construction Consulting Laboratory, *International*, (CCLI) was requested to witness and report the testing results for an EFCO Corporation Series D-300 Single Door. Tests were conducted in accordance with ASTM E 283-91 "Test Method for Determining Rate of Air Leakage Through Exterior Window, Curtain Wall and Door Under Specified Pressure Differences Across the Specimen" and ASTM E 330-02 "Test for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference."

4. SUMMARY

The EFCO Series D-300 Single Door was tested in accordance with ASTM E 283-91 and ASTM E 330-02 and achieved a positive and negative test load of 105 PSF.

5. TEST SPECIMEN

PRODUCT TYPE:	Aluminum Swing Door, Product Drawings, Appendix A
SERIES/MODEL:	EFCO Series D-300 Single Door
SPECIFICATION:	ASTM E 283-91 & ASTM E 330-02
FRAME SIZE:	3'-3½" x 7'-1¾"
DOOR SIZE:	3'-0" x 7'-0"
CONFIGURATION:	X

Refer to Mock-Up drawing in **Appendix A**. This report is not complete unless this drawing is stamped and initialed by **CCLI** as illustrated below.

Construction Consulting
Laboratory, International
1601 Luna Road
Carrollton, Texas 75006
Phone (972) 242-0556
Report # 03124 Reviewed By [Signature]
Date: 9/26/03

WEATHER-STRIP: One row bulb vinyl (part # W138) at the exterior face of center leg on frame head and jambs. Vinyl leaf (part #W113) attached to door sweep.

GLASS: ¼" tempered glass.



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GLAZING: Captured glazed with aluminum snap-in glazing bead and three-flap glazing vinyl (part # W137) at the interior and exterior of glass lite.

WEEP ARRANGEMENT: None

SEALANT: Silicone with backer rod at perimeter interior and exterior. Silicone sealant at all frame and panel corner connections. Threshold set in bed of sealant across back and along jambs.

HARDWARE: One key operated security lock at panel lock stile 41½" from panel bottom rail. One five-knuckle butt hinge (part #HY90) with butt hinge backer plate (part #K900), 10¾" from sill and 8½" from head and one at mid-span of panel hinge stile. One (1) aluminum exterior pull handle and one (1) 1990 D.O.M. exit device.

REINFORCEMENT: None

OTHER FEATURES: Frame head to jamb corner attached with aluminum shear block package (part #K120). Shear block attached to frame head with two (2) #12-11 x ¾" screws, and attached to jambs with three (3) #8-15 x 1¾" screws. Door top rail attached to door stile by corner clip (part #K103) and two (2) ¼"-20 x 1" HX-MS 18-8 per connection. Door bottom rail attached to door stile by four (4) corner clips (part #K103) and two (2) ¼"-20 x 1" HX-MS 18-8 per connection. Door sweep attached to door bottom rail by #8-18 x 9/16" PL-PH-SMS ZC tek/2 screws. Corner plate (part #K105) at door top rail and bottom rail. Threshold clip (part #K124) located at frame jamb to threshold connection, attached with five (5) #12 x ½" per corner.

INSTALLATION FEATURES: Test specimen was installed in a #2 (2" x 12") yellow pine wood test buck with #12 wood-screws 6" from each end and on 24" centers.

Date testing started: July 28, 2003

Date testing completed: July 28, 2003

Testing performed at: EFCO Corporation testing facility in Monett, MO.



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6. PERFORMANCE RESULTS

<u>Title Of Test</u>	<u>Test Method</u>	<u>Measured</u>	<u>Allowed</u>
Air Infiltration @ 1.57 PSF	ASTM E 283-91	0.15 cfm/sf	
Uniform Load Structural @ 105.00 PSF	ASTM E 330-02		
-Positive		No Damage	No Damage
-Negative		No Damage	No Damage
-Permanent Set		Negligible	0.336"

Detailed extrusion and assembly drawings indicating measured wall thickness and corner construction are on file and have been compared to the test sample submitted. These records will be retained at **CCLI** for a period of four years.

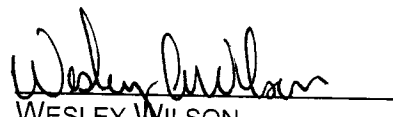
7. CONCLUSION

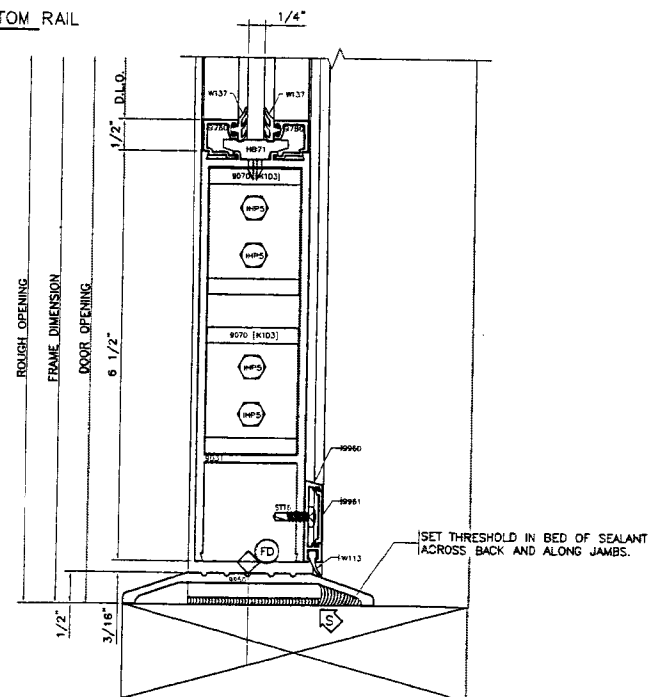
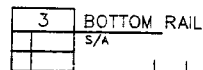
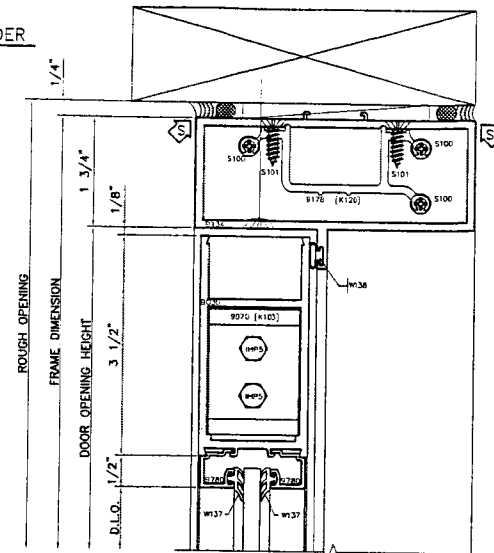
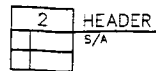
The test specimen meets the manufacturer prescribed test requirements. The tests noted in Section 6 of this report were conducted in accordance with ASTM E 283-91 and ASTM E 330-02.

Respectfully submitted,

CONSTRUCTION CONSULTING LABORATORY, *INTERNATIONAL*


JEFFREY CRUMP
TECHNICIAN


WESLEY WILSON
LABORATORY MANAGER



Laboratory, International
1601 Luna Road
Carrollton, Texas 75006
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Port # 0312 Reviewed By 43603

Page #

Reviewed By _____

410603

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PROJECT: MOCK-UP D-300 SINGLE

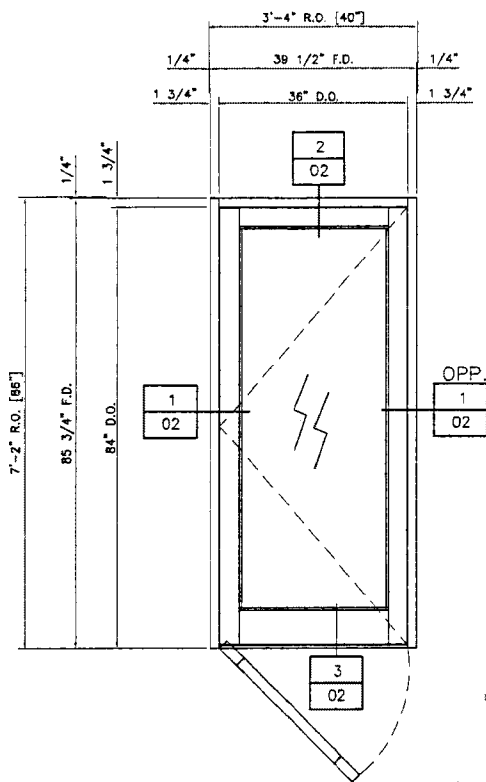
EFCO CORPORATION
1000 County Road
Monett, Missouri 65708
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D-300 SINGLE

100

100



Laboratory, International
 1601 Luna Road
 Carrollton, Texas 75006
 Phone (972) 242-0556

Port # *B-12* Reviewed By *[Signature]*
 Date *9/26/03*

401 DOOR FRAME

ITEM #	PART	QTY.	ITEM DESCRIPTION	LENGTH/SIZE
1	9109	2	DOOR JAMB	85 3/4"
2	9134	1	DOOR HEADER	36"
3	K120	2	HEADER SHEAR BLOCK PACKAGE	
4	W138	1	DOOR STOP WEATHERING	204"

D-300 SINGLE

ITEM #	PART	QTY.	ITEM DESCRIPTION	LENGTH/SIZE
ITEM#	PART#	QTY.	ITEM-DESCRIPTION	LENGTH
1	9002	2	DOOR STILE	83.1875"
2	9030	1	DOOR TOP RAIL	28.8125"
3	9031	1	DOOR BOTTOM RAIL	28.8125"
4	9780	2	EXT. HORIZONTAL GLASS STOPS	28.8125"
5	9780	2	INT. HORIZONTAL GLASS STOPS	27.8125"
6	9780	2	EXT. VERTICAL GLASS STOPS	72.1875"
7	9780	2	INT. VERTICAL GLASS STOPS	73.1875"
8	W137	1	DOOR STOP GASKET	404"
9	HB71	4	SETTING BLOCK	
10	K105	4	TOP & BOT. RAIL CORNER PLATE	
11	K103	2	TOP RAIL CORNER CLIP	
12	K103	4	BOTTOM RAIL CORNER CLIP	
13	IHP5	12	CORNER CLIP SCREWS	

DOOR HARDWARE

ITEM #	PART	QTY.	ITEM DESCRIPTION	LENGTH/SIZE
1	K900	6	BUTT HINGE BACKER PLATE	
2	HY90	3	4 1/2" x 4" BUTT HINGES	
3	H542	1	1990 D.O.M. EXIT DEVICE	
4	H220	1	MORTISE CYLINDER	
5	K200	1	DOOR SWEEP PACKAGE	
6	9950	1	DOOR THRESHOLD	36"
7	K124	2	THRESHOLD CLIPS	

CLEAR ANODIZE AA-M10-C22-(A41)

GLASS" .25" CLEAR TEMPERED 28.4375" x 72.8125"

PROJECT	LOCATION	DESIGNER	CONTRACTOR	CHECKER	TITLE
EFCO CORPORATION 1000 County Road Morett, Missouri 65708 Phone: 1-800-231-4169 FAX: 417-235-7313 www.efcoinc.com					
					
DATE	DATE				
SHEET NO: 01					