

FORTRESS RAILING PRODUCTS TEST REPORT

SCOPE OF WORK

STRUCTURAL PERFORMANCE TESTING ON THE *FE26 TRADITIONAL* GUARDRAIL SYSTEM
UTILIZING *CB-04-ADJ* AND *CBS-04-ADJ* BRACKETS

REPORT NUMBER

J6881.02-119-19 R0

TEST DATES

07/17/19 - 11/08/19

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TEST REPORT FOR FORTRESS RAILING PRODUCTS

Report No.: J6881.02-119-19 R0

Date: 04/17/20

REPORT ISSUED TO

FORTRESS RAILING PRODUCTS

1720 North 1st Street
Garland, Texas 75040

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Fortress Railing Products to perform structural performance testing in accordance 2015 International Residential Code on their *Fe26 Traditional* railing system utilizing *CB-04-ADJ* and *CBS-04-ADJ* brackets. This report is in conjunction with Intertek report No. B2564.01-119-19 which include structural performance testing of the *Fe26 2* in post mount. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at Intertek test facility in York, PA.

Intertek B&C in York, Pennsylvania has demonstrated compliance with ISO/IEC International Standard 17025 and is consequently accredited as a Testing Laboratory (TL-144) by International Accreditation Service, Inc. (IAS). Intertek B&C is accredited to perform all testing reported herein.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

For INTERTEK B&C:

COMPLETED BY:	Adam J. Schrum
TITLE:	Project Manager
SIGNATURE:	
DATE:	04/17/20

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SIGNATURE:	
DATE:	04/17/20

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TEST METHOD(S)

The specimens were evaluated in accordance with the:

2015 *International Residential Code*®, International Code Council

For the loads required for one- and two-family dwellings specified in:

2015 *International Building Code*®, International Code Council

Limitations

All tests performed were to evaluate structural performance of the railing assembly to carry and transfer imposed loads to the supports (posts). The test specimen evaluated included the pickets, rails, rail brackets, and attachment to the supporting structure. Posts (steel and wood) were included in the test specimen only to facilitate anchorage of the rail brackets.

Testing is limited to satisfying the IRC - One- and Two-Family Dwellings requirements only.

Anchorage of support posts to the supporting structure is not included in the scope of this testing and would need to be evaluated separately.

SECTION 3

MATERIAL SOURCE/INSTALLATION

Test samples 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 railing assembly was installed and tested as a single railing section by directly securing the posts to a rigid steel test fixture, which rigidly restrained the posts from deflecting. The railing was assembled by an Intertek B&C technician. Transducers mounted to an independent reference frame were located to record movement of reference points on the railing system components (ends and mid-point) to determine net component deflections. See photographs in Section 10 for test setups.

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SECTION 4 EQUIPMENT

The guardrail was tested in a self-contained structural frame designed to accommodate anchorage of the guardrail assembly and application of the required test loads. The specimens were loaded using an electric winch mounted to a rigid steel test frame. High strength steel cables, nylon straps, and load distribution beams were used to impose test loads on the specimens. Applied load was measured using an electronic load cell located in-line with the loading system. Electronic linear motion transducers were used to measure deflections.

SECTION 5 LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Adam J. Schrum	Intertek

SECTION 6 TEST PROCEDURE

Each test specimen was inspected prior to testing to verify size and general condition of the materials, assembly, and installation. No potentially compromising defects were observed prior to testing.

An initial load, not exceeding 50% of design load, was applied and transducers were zeroed. Load was then applied at a steady uniform rate until reaching 2.0 times design load in no less than 10 seconds. After reaching 2.0 times design load, the load was released. After allowing a minimum period of one minute for stabilization, load was reapplied to the initial load level used at the start of the loading procedure, and deflections were recorded and used to analyze recovery. Load was then increased at a steady uniform rate until reaching 2.5 times design load or until failure occurred. The testing time was continually recorded from the application of initial test load until the ultimate test load was reached.

Deflection and permanent set were component deflections relative to their end-points; they were not overall system displacements. All loads and displacement measurements were horizontal, unless noted otherwise.

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TEST SPECIMEN DESCRIPTION

The *Fe26 Traditional* Railing guardrail system is comprised of pre-galvanized formed steel top and bottom rails, pickets spaced between the rail members, and posts. Drawings are included in Section 11 to verify the overall dimensions and other pertinent information of the tested product, its components, and any constructed assemblies. Photographs are provided in Section 10.

SERIES/MODEL	<i>Fe26 Traditional</i> Railing
COLOR	Bronze
MATERIAL	Steel
RAIL LENGTH	95 in (level-Series No. 1; inside of post to inside of post) 96 (level- Series No.'s 2 and 3; inside of post to inside of post) 95-1/2 in (stair; inside of post to inside of post)
RAIL HEIGHT	40 in (level; top of top rail to bottom of bottom rail) 42 in (stair; top of top rail to bottom of bottom rail, measured parallel to the balusters)
TOP/BOTTOM RAIL	1 in square by 0.055 in thick rail
BALUSTERS	5/8 in square by 0.039 in thick steel picket
COLLAR BRACKETS	- <i>CBS-04-ADJ</i> die cast aluminum socket bracket (level application) - <i>CB-04-ADJ</i> die cast aluminum socket bracket (stair application)
POST	2 in square by 0.091 in thick steel tube connected to a 4 in square by 0.23 in thick steel base plate with a 1/8 in continuous fillet weld; the base plate included four 3/8 in diameter holes and one 15/16 in diameter hole Preservative treated Southern Pine 4x4 wood post

Fastening Schedule

CONNECTION	FASTENER
Rail Bracket to Steel Post*	Two #12-24 by 3/4 in, Torx drive, flat-head, Type F thread cutting point, steel screws
Rail Bracket to Wood Post	Two #12-10 by 2-1/2 in (0.153 in minor diameter) Torx drive, flat-head, Type A point, steel screws
Rail Bracket to Rail*	One #12-24 by 3/4 in, Torx drive, flat-head, Type F thread cutting point, steel screw
Steel Post Mount to Substructure	Four 3/8 in Grade 5 hex-head bolts with washer

* 5/32 in diameter pre-drill used

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**SECTION 8
TEST RESULTS**

Key to Test Results Tables:

Load Level: Target test load

Test Load: Actual applied load at the designated load level (target).

Elapsed Time (E.T.): The amount of time into the test with zero established at the beginning of the loading procedure.

Test Series No. 1

8 ft (95 in) by 42 in Fe26 Traditional Level Railing Using CBS-04-ADJ Brackets (90° Bracket at One End and 45° Bracket at the Other) Installed Between SYP 4x4 Posts Limited to Use in IRC - One- and Two-Family Dwellings

Test No. 1 - 11/08/19

Design Load: 50 lb / 1 Square ft at Center of In-fill (on 2 Pickets)

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	101	00:30	--	1.38	--	--
Initial Load	25	02:02	--	0.01	--	--
99% Recovery from 2.0 x Design Load						
2.5x Design Load	129	02:20	Achieved Load without Failure			

Test No. 2 - 11/08/19

Design Load: 50 lb / 1 Square ft at Bottom of In-fill (on 2 Pickets)

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	102	00:26	--	1.38	--	--
Initial Load	25	01:51	--	0.01	--	--
99% Recovery from 2.0 x Design Load						
2.5x Design Load	128	02:10	Achieved Load without Failure			

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Test No. 3 - 11/08/19

Design Load: 200 lb Concentrated Load at Midspan of Top Rail

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET ¹
Initial Load	50	00:00	0.00	0.00	0.00	0.00
2.0x Design Load	405	01:04	0.02	6.22	0.06	6.18
Initial Load	51	02:43	0.00	2.22	0.00	2.22
64% Recovery from 2.0 x Design Load						
2.5x Design Load	502	03:28	Achieved Load without Failure			

¹ Net displacement was mid-rail displacement relative to the rail at the support posts.

Test No. 4 - 11/08/19

Design Load: 200 lb Concentrated Load at Ends of Top Rail (Brackets)

LOAD LEVEL ¹	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)	
			RAIL END NO. 1	RAIL END NO. 2
Initial Load	80	00:00	0.00	0.00
(2.0x Design Load) x 2	810	00:39	0.27	0.32
Initial Load	80	02:36	0.01	0.02
96% (Rail End No. 1) / 94% (Rail End No. 2) Recovery from 2.0 x Design Load				
(2.5x Design Load) x 2	1005	03:05	Achieved Load without Failure	

¹ A spreader beam was used to impose loads on both ends of the railing system; therefore, loads were doubled.

Test Series No. 2

8 ft (96 in) by 42 in Fe26 Traditional Level Railing Using CBS-04-ADJ Brackets (90° Bracket at One End and 45° Bracket at the Other) Installed Between 2 in Fe26 Post Mounts Limited to Use in IRC - One- and Two-Family Dwellings

Test No. 1 - 07/17/19

Design Load: 50 lb / 1 Square ft at Center of In-fill (on 2 Pickets)

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	102	00:23	--	0.97	--	--
Initial Load	25	01:58	--	0.00	--	--
100% Recovery from 2.0 x Design Load						
2.5x Design Load	128	02:29	Achieved Load without Failure			

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Test No. 2 - 07/17/19

Design Load: 50 lb / 1 Square ft at Bottom of In-fill (on 2 Pickets)

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	100	00:19	--	1.04	--	--
Initial Load	25	01:57	--	0.00	--	--
100% Recovery from 2.0 x Design Load						
2.5x Design Load	127	02:25	Achieved Load without Failure			

Test No. 3 - 07/17/19

Design Load: 200 lb Concentrated Load at Midspan of Top Rail

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET ¹
Initial Load	80	00:00	0.00	0.00	0.00	0.00
2.0x Design Load	402	01:04	0.07	5.29	0.06	5.23
Initial Load	80	02:35	0.01	1.71	0.00	1.71
67% Recovery from 2.0 x Design Load						
2.5x Design Load	501	03:24	Achieved Load without Failure			

¹ Net displacement was mid-rail displacement relative to the rail at the support posts.

Test No. 4 - 07/17/19

Design Load: 200 lb Concentrated Load at Ends of Top Rail (Brackets)

LOAD LEVEL ¹	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)	
			RAIL END NO. 1	RAIL END NO. 2
Initial Load	80	00:00	0.00	0.00
(2.0x Design Load) x 2	804	00:34	0.32	0.34
Initial Load	80	02:08	0.00	0.00
100% (Rail End No. 1) / 100% (Rail End No. 2) Recovery from 2.0 x Design Load				
(2.5x Design Load) x 2	1004	02:49	Achieved Load without Failure	

¹ A spreader beam was used to impose loads on both ends of the railing system; therefore, loads were doubled.

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Test Series No. 3

8 ft (96 in) by 42 in Fe26 Traditional Level Railing Using CBS-04-ADJ Brackets (90° Bracket at One End and 45° Bracket at the Other) Installed Between SYP 4x4 Posts Limited to Use in IRC - One- and Two-Family Dwellings

Test No. 1 - 07/17/19

Design Load: 50 lb / 1 Square ft at Center of In-fill (on 2 Pickets)

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	106	00:18	--	0.96	--	--
Initial Load	25	01:46	--	0.00	--	--
100% Recovery from 2.0 x Design Load						
2.5x Design Load	126	02:10	Achieved Load without Failure			

Test No. 2 - 07/17/19

Design Load: 50 lb / 1 Square ft at Bottom of In-fill (on 2 Pickets)

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	104	00:20	--	0.96	--	--
Initial Load	25	01:47	--	0.00	--	--
100% Recovery from 2.0 x Design Load						
2.5x Design Load	128	02:09	Achieved Load without Failure			

Test No. 3 - 07/17/19

Design Load: 200 lb Concentrated Load at Midspan of Top Rail

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET ¹
Initial Load	80	00:00	0.00	0.00	0.00	0.00
2.0x Design Load	402	00:51	0.07	4.94	0.00	4.91
Initial Load	80	02:26	0.01	1.42	0.00	1.42
71% Recovery from 2.0 x Design Load						
2.5x Design Load	502	03:22	Achieved Load without Failure			

¹ Net displacement was mid-rail displacement relative to the rail at the support posts.

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Test No. 4 - 07/17/19

Design Load: 200 lb Concentrated Load at Ends of Top Rail (Brackets)

LOAD LEVEL ¹	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)	
			RAIL END NO. 1	RAIL END NO. 2
Initial Load	80	00:00	0.00	0.00
(2.0x Design Load) x 2	807	00:36	0.37	0.33
Initial Load	80	02:24	0.02	0.02
95% (Rail End No. 1) / 94% (Rail End No. 2) Recovery from 2.0 x Design Load				
(2.5x Design Load) x 2	1003	03:04	Achieved Load without Failure	

¹ A spreader beam was used to impose loads on both ends of the railing system; therefore, loads were doubled.

Test Series No. 4

8 ft (95-1/2 in) by 42 in by 40° Fe26 Traditional Stair Railing using CB-04-ADJ Brackets Installed Between 2 in Fe26 Post Mounts

Limited to Use in IRC - One- and Two-Family Dwellings

Test No. 1 - 08/02/19

Design Load: 50 lb / 1 Square ft at Center of In-fill (on 2 Pickets)

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	101	00:18	--	0.72	--	--
Initial Load	25	01:56	--	0.00	--	--
100% Recovery from 2.0 x Design Load						
2.5x Design Load	126	02:16	Achieved Load without Failure			

Test No. 2 - 08/02/19

Design Load: 50 lb / 1 Square ft at Bottom of In-fill (on 2 Pickets)

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	103	00:23	--	0.79	--	--
Initial Load	25	01:53	--	0.00	--	--
100% Recovery from 2.0 x Design Load						
2.5x Design Load	127	02:21	Achieved Load without Failure			

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Test No. 3 - 08/02/19

Design Load: 200 lb Concentrated Load at Midspan of Top Rail

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET ¹
Initial Load	80	00:00	0.00	0.00	0.00	0.00
2.0x Design Load	402	00:51	0.29	3.46	0.00	3.32
Initial Load	80	02:35	0.02	0.69	0.00	0.68
80% Recovery from 2.0 x Design Load						
2.5x Design Load	500	03:30	Achieved Load without Failure			

¹ Net displacement was mid-rail displacement relative to the rail at the support posts.

Test No. 4 - 08/02/19

Design Load: 200 lb Concentrated Load at Ends of Top Rail (Brackets)

LOAD LEVEL ¹	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)	
			RAIL END NO. 1	RAIL END NO. 2
Initial Load	80	00:00	0.00	0.00
(2.0x Design Load) x 2	803	00:56	0.81	0.66
Initial Load	80	02:34	0.02	0.02
98% (Rail End No. 1) / 97% (Rail End No. 2) Recovery from 2.0 x Design Load				
(2.5x Design Load) x 2	1009	03:20	Achieved Load without Failure	

¹ A spreader beam was used to impose loads on both ends of the railing system; therefore, loads were doubled.

Test Series No. 5

8 ft (95-1/2 in) by 42 in by 40° Fe26 Traditional Stair Railing Using CB-04-ADJ Brackets Installed Between SYP 4x4 Posts

Limited to Use in IRC - One- and Two-Family Dwellings

Test No. 1 - 08/02/19

Design Load: 50 lb / 1 Square ft at Center of In-fill (on 2 Pickets)

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	103	00:16	--	0.87	--	--
Initial Load	25	01:53	--	0.10	--	--
89% Recovery from 2.0 x Design Load						
2.5x Design Load	126	02:19	Achieved Load without Failure			

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Test No. 2 - 08/02/19

Design Load: 50 lb / 1 Square ft at Bottom of In-fill (on 2 Pickets)

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	100	00:24	--	0.83	--	--
Initial Load	25	01:45	--	0.01	--	--
99% Recovery from 2.0 x Design Load						
2.5x Design Load	127	02:06	Achieved Load without Failure			

Test No. 3 - 08/02/19

Design Load: 200 lb Concentrated Load at Midspan of Top Rail

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET ¹
Initial Load	80	00:00	0.00	0.00	0.00	0.00
2.0x Design Load	402	00:43	0.33	3.18	0.00	3.02
Initial Load	80	02:27	0.01	0.57	0.00	0.57
81% Recovery from 2.0 x Design Load						
2.5x Design Load	502	03:09	Achieved Load without Failure			

¹ Net displacement was mid-rail displacement relative to the rail at the support posts.

Test No. 4 - 08/02/19

Design Load: 200 lb Concentrated Load at Ends of Top Rail (Brackets)

LOAD LEVEL ¹	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)	
			RAIL END NO. 1	RAIL END NO. 2
Initial Load	80	00:00	0.00	0.00
(2.0x Design Load) x 2	805	00:48	0.80	0.61
Initial Load	80	02:23	0.03	0.04
96% (Rail End No. 1) / 93% (Rail End No. 2) Recovery from 2.0 x Design Load				
(2.5x Design Load) x 2	1004	03:06	Achieved Load without Failure	

¹ A spreader beam was used to impose loads on both ends of the railing system; therefore, loads were doubled.

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SECTION 9

CONCLUSION

Using performance criteria of withstanding an ultimate load of 2.5 times design load, the test results substantiate compliance with the design load requirements of the noted building code for the guardrail configurations shown in the following table:

<i>Fe26</i> TRADITIONAL GUARDRAIL SYSTEM	GUARDRAIL TYPE	SUPPORT POSTS	BRACKET TYPE AND ORIENTATION	BALUSTER	CODE OCCUPANCY CLASSIFICATION
8 ft (96 in) by 42 in	Level	2 in <i>Fe26</i> Square Steel Post Mount (Steel or Concrete Mounted) or Preservative Treated Southern Pine 4x4 Wood Post	<i>CBS-04-ADJ</i> 90° or 45°	5/8 in square steel picket	IRC - One- and Two-Family Dwellings
8 ft (95-1/2 in) by 42 in by 40°	Stair		<i>CB-04-ADJ</i> N/A		

Anchorage of support posts to the supporting structure is not included in the scope of this testing and would need to be evaluated separately.

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SECTION 10 PHOTOGRAPHS



Photo No. 1
In-Fill Load Test at Center of Two Pickets

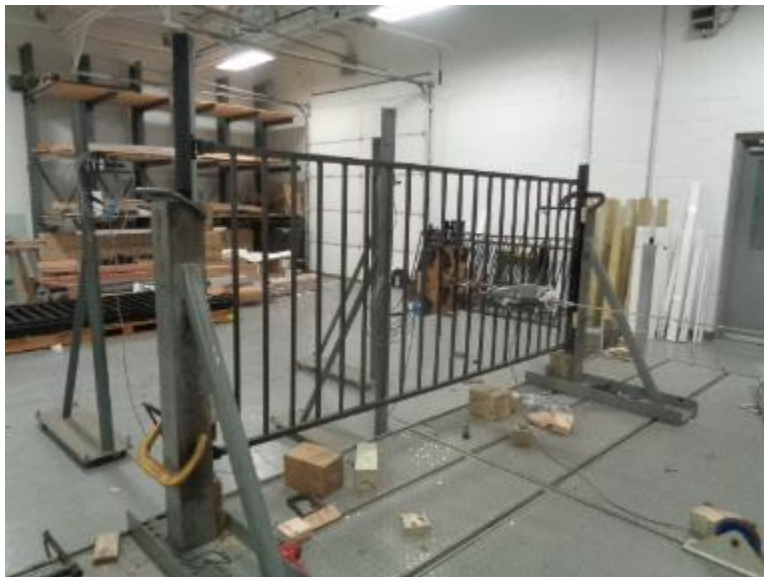


Photo No. 2
In-Fill Load Test at Bottom of Two Pickets

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Photo No. 3
Concentrated Load Test at Mid-Span of Top Rail

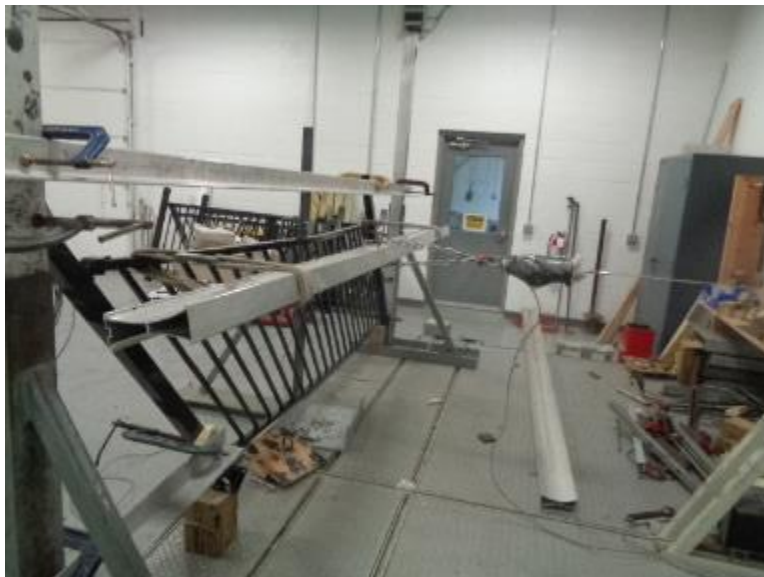


Photo No. 4
Concentrated Load Test at Ends of Top Rail (Brackets)

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Photo No. 5
Stair Bracket Attached to Wood Post



Photo No. 6
Stair Bracket Attached to Fe26 Post

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Photo No. 7

Top Rail Bracket Attached to Fe26 Post Oriented 45°

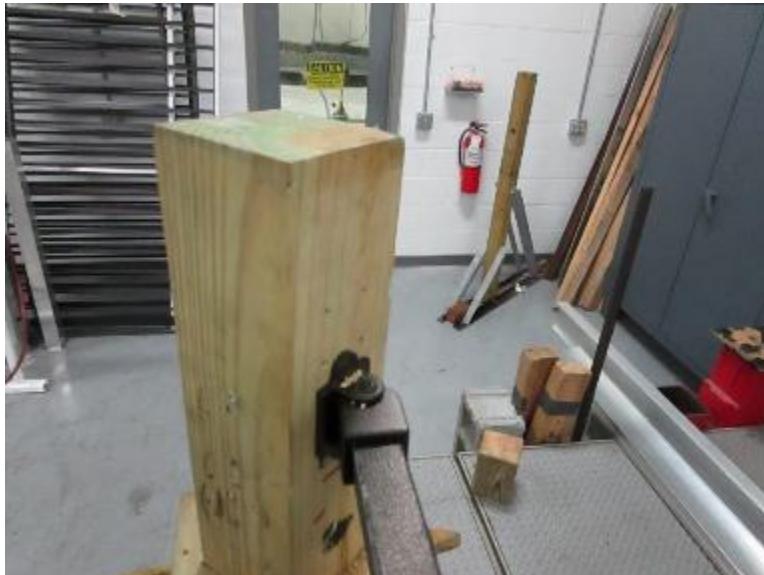


Photo No. 8

Top Rail Bracket Attached to Wood Post Oriented 45°

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Photo No. 9

Top Rail Bracket Attached to Wood Post Installed In-line



Photo No. 10

Top Rail Bracket Attached to Fe26 Post Installed In-line



Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

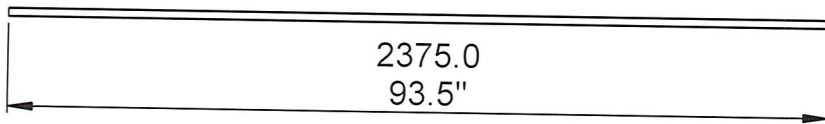
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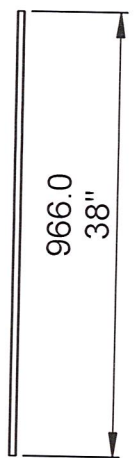
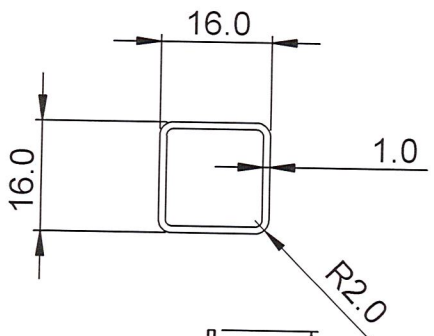
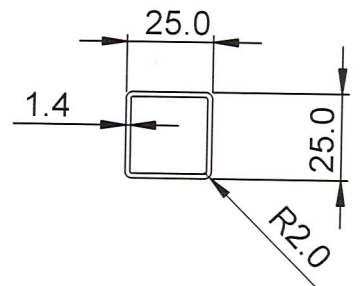
Date: 04/17/20

SECTION 11 DRAWINGS

The "As-Built" drawings for the *Fe26 Traditional* guardrail with *CB-04-ADJ* and *CBS-04-ADJ* brackets which follow have been reviewed by Intertek B&C and are representative of the project reported herein. Project construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.



Item 1 - Fe26 8' Rail



Item 2 - Fe26 Picket - 40" Panel

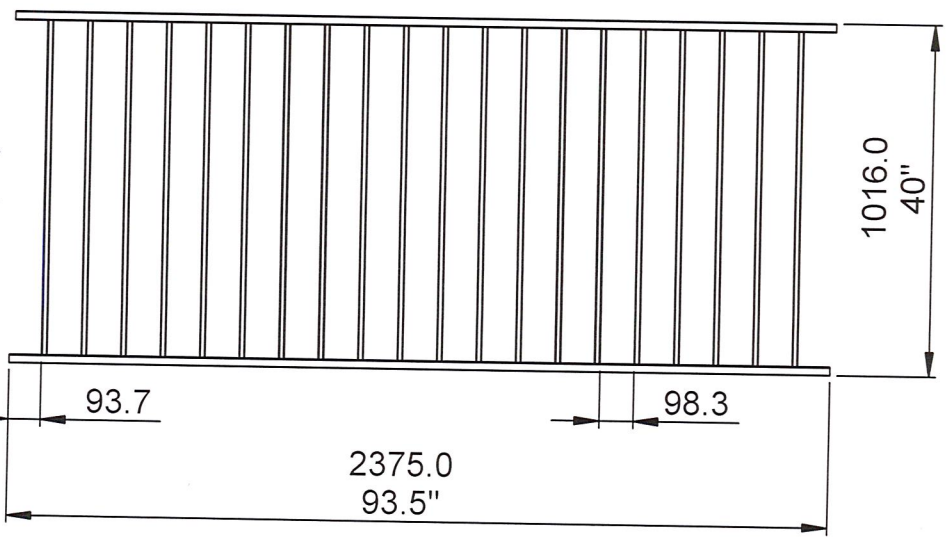
intertek

Test sample complies with these details.
Deviations are noted.

Report # J6881.02-1A-19

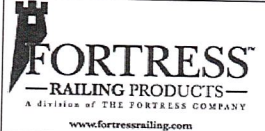
Date 4/16/20 Tech STG

*Test samples weren't retained
Dimensions couldn't be verified*



All Dimensions are Metric - mm
All Dimensions are ± 0.5 mm

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Fortress Iron, LP
1800 Jay Ell, Suite 200
Richardson, TX 75081

REV	DATE	BY	DESCRIPTION
0	09/01/12	DI	Initial Drawing

TITLE: Fe26 Railing Family
Railing Panel Parts

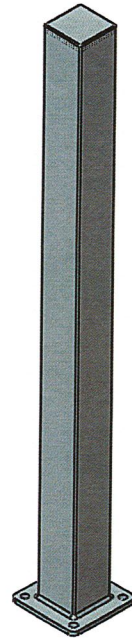
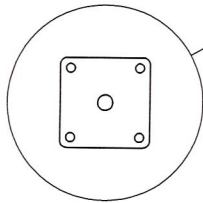
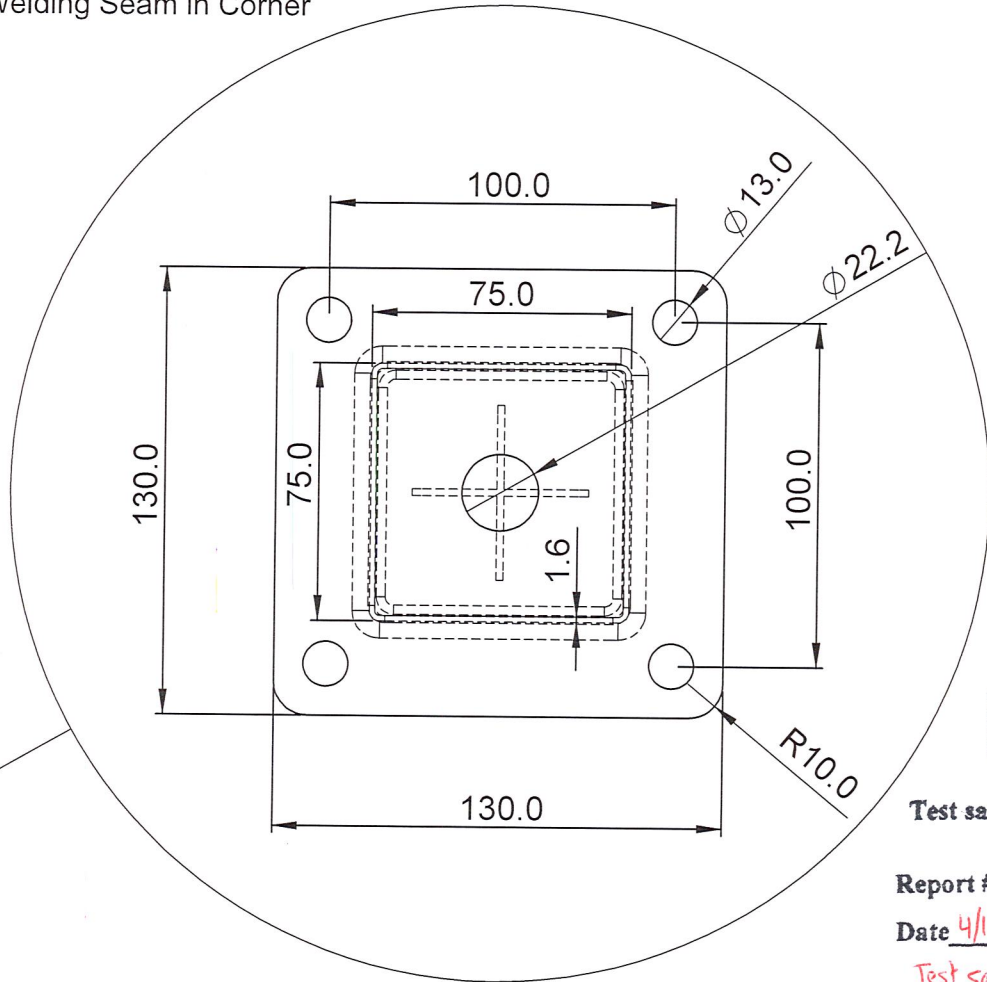
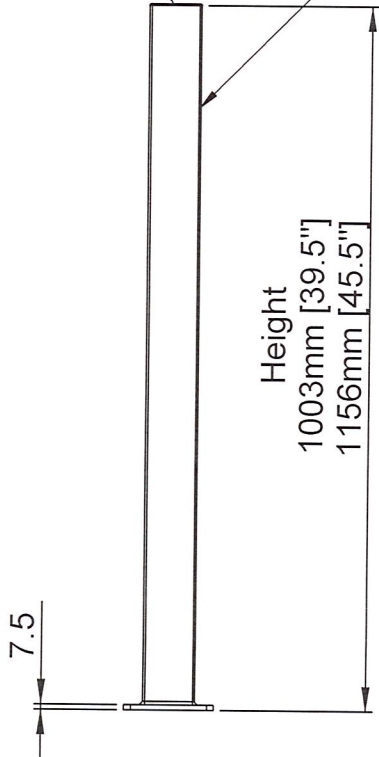
DRAWN BY: David Irick
DATE: 09/01/12

SCALE: AS SHOWN

Sheet: 2 OF 2
PART #: XXXXXX
DWG NAME: Parts for Fe26 40" RES 8'
REV: 0

With color matching nylon cap

75mm X 75mm X 1.6mm
Pregalvanized Tube, G60
Welding Seam in Corner



intertek

Test sample complies with these details.
Deviations are noted.

Report # J6881.02-119-19

Date 4/16/20 Tech STC

Test samples were not retained
Dimensions could not be verified

All Dimensions are Metric - mm
All Dimensions are ± 0.5 mm

1 03/08/11 DI Revised for Base of 7.5mm
0 10/29/10 DI Initial Drawing

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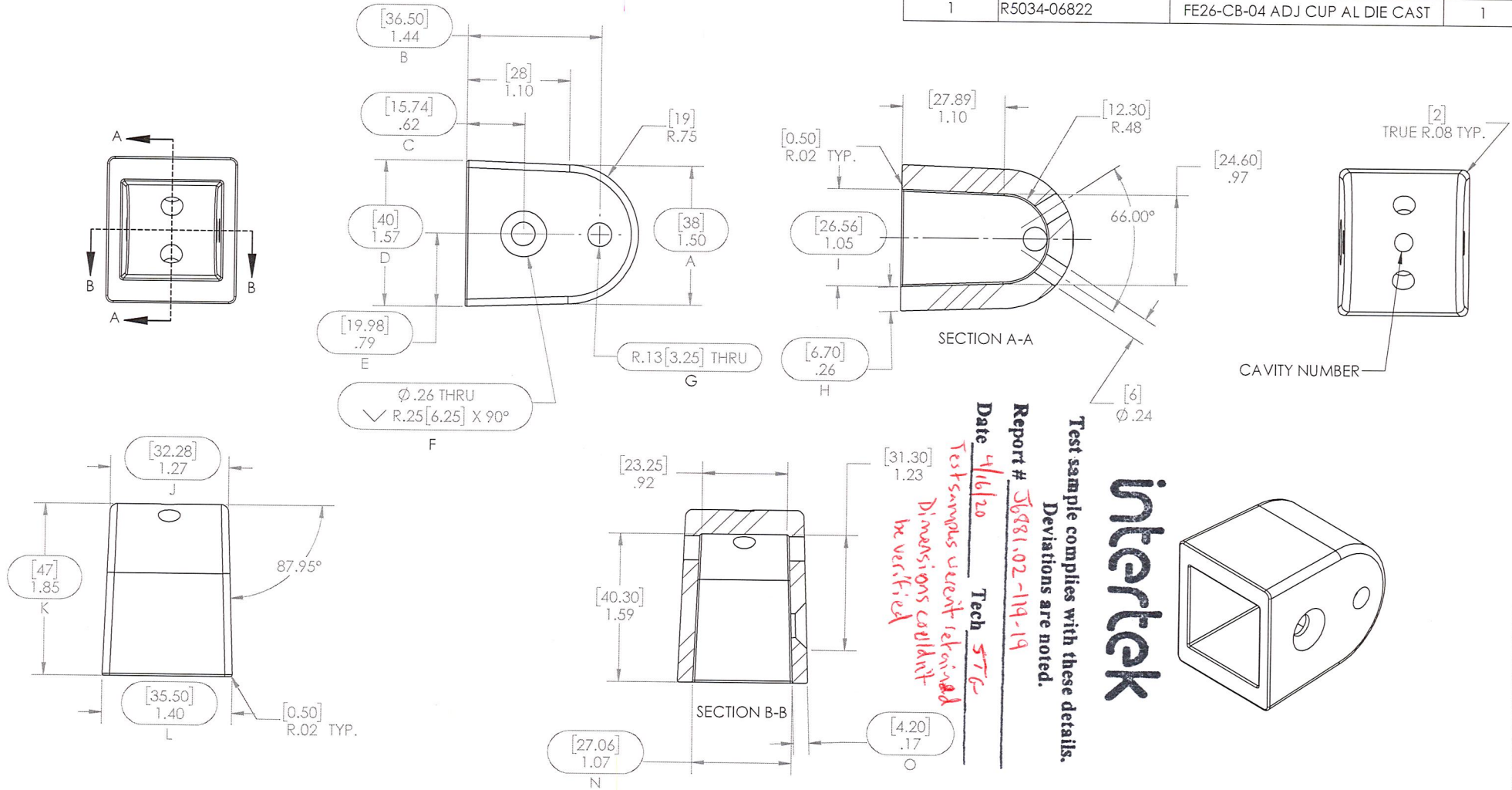
Fortress Iron, LP
1800 Jay Ell, Suite 200
Richardson, TX 75081

REV	DATE	BY	DESCRIPTION
1	03/08/11	DI	Revised for Base of 7.5mm
0	10/29/10	DI	Initial Drawing

TITLE: Iron Post		SCALE:
3" X 39.5", 45.5" X 1.6mm Tube, 7.5mm Base		AS SHOWN
DRAWN BY: David Irick		
DATE: 10/29/10		
PART #: XXXXXXX	DWG NAME: IP 3" X 39.5", 45.5"W/5.25 Base	REV: 1

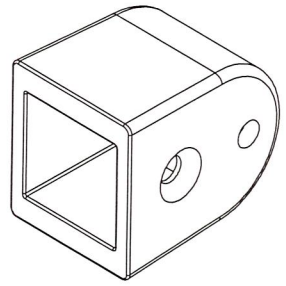
TITLE: FE26-CB-04 ADJ CUP AL DIE CAST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	R5034-06822	FE26-CB-04 ADJ CUP AL DIE CAST	1



Test sample complies with these details. Deviations are noted.

intertek



Date 4/16/20 Tech 576
 Report # 36881.02-119-19

GENERAL NOTES:
 1. ALL DIMENSIONS ARE SHOWN IN INCHES [mm]
 2. ALL DIMENSIONS ARE BEFORE ANY FINISHING OR COATING
 3. ALL DIMENSIONS ARE ± 0.5mm [UNLESS OTHERWISE NOTED]
 4. SEE PRODUCT LINE NOTES PAGE R5000-00001
 5. MATERIAL: ADC12
 6. WEIGHT: 0.19 LBM
 7. WARRANTY: N/A

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 1720 N 1st Street
 Garland, Tx 75040

REV	DATE	BY	DESCRIPTION
B	8/24/19	KB	CRITICAL DIMENSION LETTERS

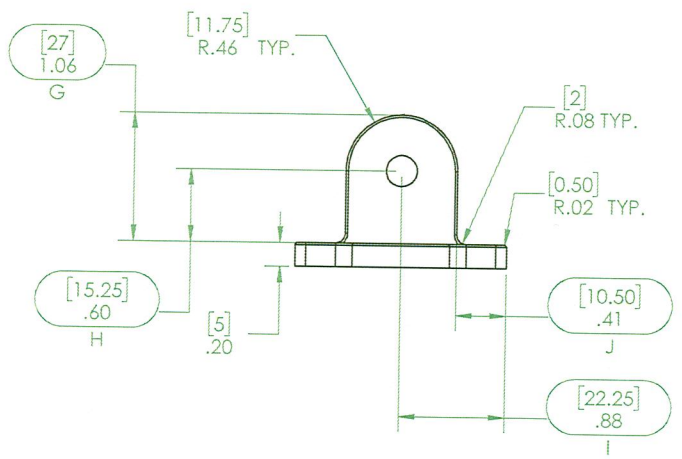
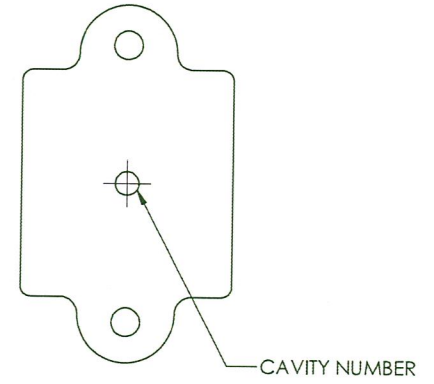
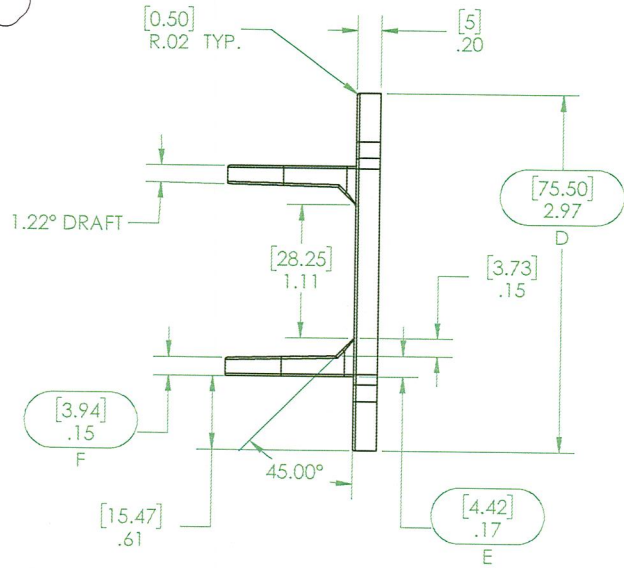
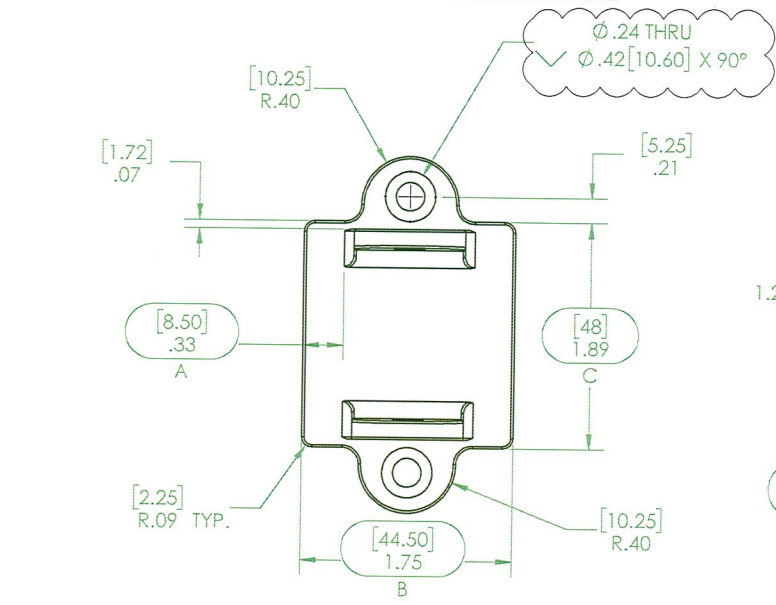
DESCRIPTION:
 FE26-CB-04 ADJ CUP AL DIE CAST

DRAWN BY: KevinF
 DATE: 11/27/2017 DIVISION: Fortress Railing SCALE: 1:1
 ITEM #: FILE NAME/PART #: R5034-06822 REV: B

Sheet: 1 OF 1

TITLE: FE26-CBS-04 ADJ BASE PLATE AL DIE CAST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	R5034-06865	FE26-CBS-04 ADJ BASE PLATE AL DIE CAST	1



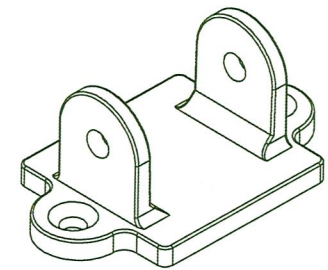
intertek

Test sample complies with these details.
Deviations are noted.

Report # J6881.02-114-19

Date 4/16/20 Tech STG

Test samples weren't retained
Dimensions couldn't be verified



- GENERAL NOTES:
1. ALL DIMENSIONS ARE SHOWN IN INCHES [mm]
 2. ALL DIMENSIONS ARE BEFORE ANY FINISHING OR COATING
 3. ALL DIMENSIONS ARE ± 0.5mm (UNLESS OTHERWISE NOTED)
 4. SEE PRODUCT LINE NOTES PAGE R5000-00001
 5. MATERIAL: ADC12
 6. WEIGHT: 0.11 LBM
 7. WARRANTY: N/A

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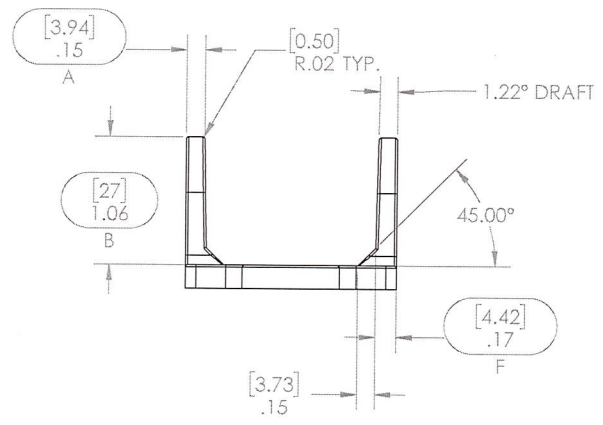
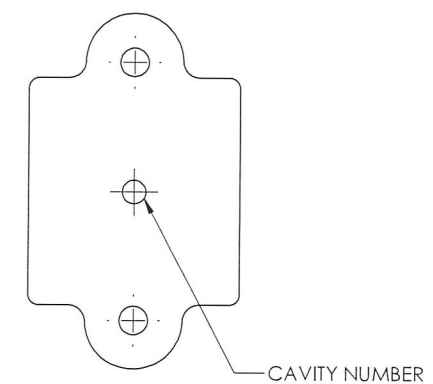
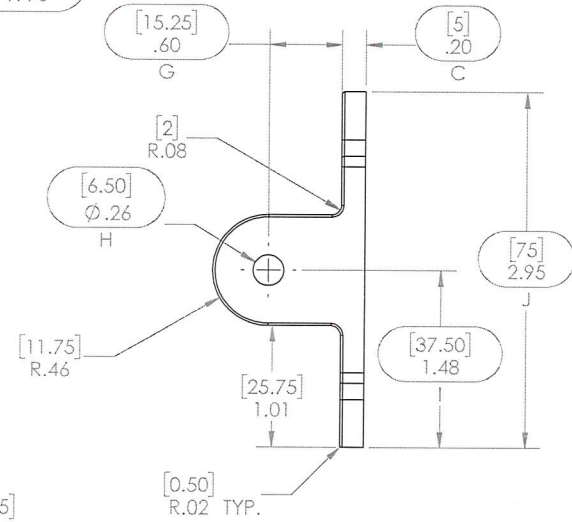
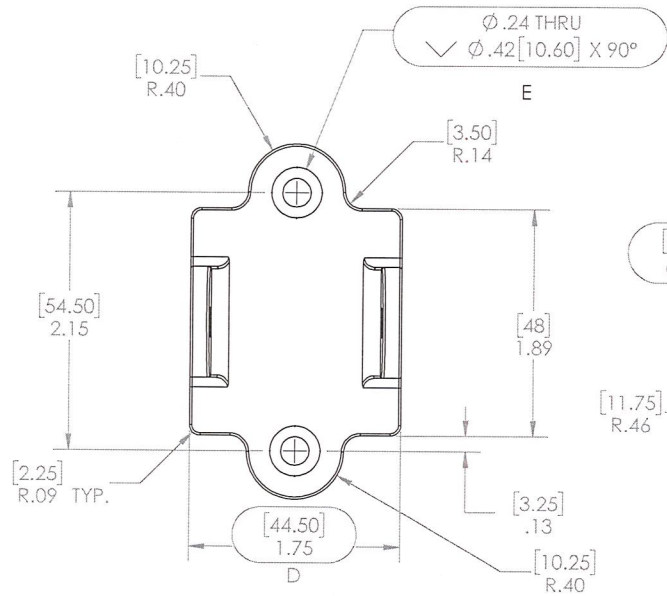
Fortress Iron, LP
1720 N 1st Street
Garland, TX 75040

REV: A	DATE: 12/05/18	BY: KF	DESCRIPTION: CHANGED TO MATCH FAI
DESCRIPTION: FE26-CBS-04 ADJ BASE PLATE AL DIE CAST			
DRAWN BY: KevinF		SCALE: 1:1	
DATE: 12/01/2017		DIVISION: Fortress Railing	
ITEM #: R5034-06865	FILE NAME/PART #:	REV: A	

Sheet: 1 OF 1

TITLE: FE26-CB-04 ADJ BASE PLATE AL DIE CAST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	R5034-06821	FE26-CB-04 ADJ BASE PLATE AL DIE CAST	1



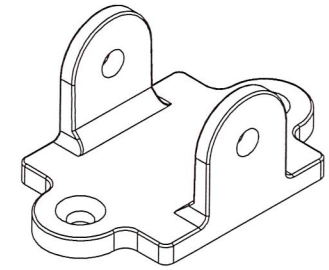
intertek

Test sample complies with these details.
Deviations are noted.

Report # J6881.02-1A-19

Date 4/16/20 Tech STG

Test samples weren't retained
Dimensions couldn't be verified



- GENERAL NOTES:
1. ALL DIMENSIONS ARE SHOWN IN INCHES [mm]
 2. ALL DIMENSIONS ARE BEFORE ANY FINISHING OR COATING
 3. ALL DIMENSIONS ARE ± 0.5mm [UNLESS OTHERWISE NOTED]
 4. SEE PRODUCT LINE NOTES PAGE R5000-00001
 5. MATERIAL: ADC12
 6. WEIGHT: 0.11 LBM
 7. WARRANTY: N/A

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Garland, TX 75040

REV	DATE	BY	DESCRIPTION
B	8/29/19	KB	UPDATED PER FAI
DESCRIPTION:			
FE26-CB-04 ADJ BASE PLATE AL DIE CAST			
DRAWN BY: KevinF			SCALE:
DATE: 11/27/2017			DIVISION: Fortress Railing
ITEM #: R5034-06821			1:1
			REV:
			B

Sheet: 1 OF 1



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TEST REPORT FOR FORTRESS RAILING PRODUCTS

Report No.: J6881.02-119-19 R0

Date: 04/17/20

SECTION 12

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	04/17/20	N/A	Original Report Issue