

PROJECT NUMBER: TCT005481P
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DATE: January 31, 2011

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Investigative Chemistry Geotechnical Construction Materials
Non Destructive Testing Failure Analysis Product Evaluation
Metallurgical Analysis Materials Testing Welder Qualification

ANSI/BHMA A156.9-2003 PERFORMANCE TESTING
SHELF BRACKETS AND STANDARDS TEST
(Steel / B01-53XX1-224 Series, B01-59XX1-174 Series)

Prepared for:
ROCKFORD PROCESS CONTROL
Attn: Mr. Chuck Wilke
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Client Purchase Order Number: 814743

Prepared By:



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The test results contained in this report pertain only to the samples submitted for testing and not necessarily to all similar products.

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PROJECT NUMBER: TCT005481P**PAGE:** 2 of 3**DATE:** January 31, 2011**INTRODUCTION:**

This report presents the results of ANSI//BHMA A156.9-2003 testing conducted on Shelf Brackets and Standards. Mr. Chuck Wilke of Rockford Process Control submitted the test samples. Testing was completed on January 31, 2011.

SUMMARY OF RESULTS:

Brackets were tested in accordance with ANSI//BHMA A156.9-2003 Section 4.9 and **successfully MET the requirements for a Grade 2 Hinge.**

TEST METHODS:

Testing was conducted in accordance with ANSI//BHMA A156.9-2003 Section 4.9 "Test 8 Shelf Brackets and Standards and Ornamental Shelf Supports Test" specifications. Details of the methodology used for the tests are available on the individual test data sheets at the end of this report.

SAMPLE IDENTIFICATION:

The Test Samples were identified with Part Number:

BO1-53081-224 BRKT, 8" Single, Grade 2

BO1-53121-224 BRKT, 12" Single, Grade 2

BO1-53161-224 BRKT, 16" Single, Grade 2

BO1-53201-224 BRKT, 20" Single, Grade 2

B01-59241-174 Standard Single 24"

**INSTRUMENTATION:**

Vernier Caliper, MM 160-106

Transducer Techniques Load Cell and Indicator, MM 110-038

M-D Building Products, Digital Level

REMARKS:

The test specimens will be returned to the client.

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**Section 4.9 Test 8 -
Shelf Brackets and Standards and Ornamental Shelf Supports Test**

ANSI//BHMA A156.9-2003 Section 4.9

Sample Identification:

- BO1-53081-224 BRKT, 8" Single, Grade 2 – 125-lbs
- BO1-53121-224 BRKT, 12" Single, Grade 2 – 150-lbs
- BO1-53161-224 BRKT, 16" Single, Grade 2 – 180-lbs
- BO1-53201-224 BRKT, 20" Single, Grade 2 – 210-lbs

Test Method Summary:

The purpose was to test the ability of the brackets & standards to withstand abnormal loading. The supports were mounted on 16" on-centers. The shelf was constructed using 3/4" plywood to the correct depth for each bracket. The static test load was slowly applied to the shelf and allowed to settle for 5-minutes. With the shelf loaded, a 20-in-lbf impact load was applied at the middle of the shelf. The final deflection measurements were recorded under load.

Acceptance Level:

The shelf shall not deflect more than 3° under the loading conditions.

Test Results:

Bracket Part Number:	Deflection	Pass/Fail
BO1-53081-224 BRKT, 8", 125-lbs	0.1°	Pass
BO1-53121-224 BRKT, 12", 150-lbs	0.2°	Pass
BO1-53161-224 BRKT, 16", 180-lbs	0.2°	Pass
BO1-53201-224 BRKT, 20", 210-lbs	0.3°	Pass

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