



Quality Accuracy Assurance

Fenestration Testing Laboratory, Inc.

8148 N.W. 74th Avenue Medley, FL 33166 Phone: 305/885/3328 Fax: 305/885/3329
e-mail: ftldade@aol.com www.ftl-inc.com

Report Date: 11/15/2010
Completion Date: 11/12/2010
Expiration Date: 11/12/2014
File Number: 10-735
Page: 1
Lab. Number: 6382
Project Number: 10-2551

OFFICIAL TEST REPORT

MANUFACTURER: The Fortress Group, LLC

SPECIFICATIONS: ASTM E330, ASTM E1886, ASTM E1996

ADDRESS: P.O. Box 980
Madison, Mississippi 39130

PROJECT: Client Use

DESCRIPTION OF SAMPLE	
Model Designation:	Series; Lock Assembly
Base Extrusion:	Part No. 10-018-101
Slide Bolt:	Part No. 10-018-102
Handle:	Part No. 10-018-103
Cross Bar:	Part No. 10-018-104
Cap:	Part No. 10-018-105
Cap Mirrored:	Part No. 10-018-106
Plate/Striker:	Part No. 10-018-107
Washer/Bumper:	Part No. 10-018-108
Samples A-1, A-2 and A-3	

Hardware				
Quantity	Description	Distance	Location	Method of Attachment
One	surface mount metallic dead bolt, key operated on the exterior and thumb turn on the interior	39 1/2" from bottom	lockstile	(2) 10 by 3/4" SM thread cutting screw and (2) 10-32 by 2 1/2 OH MS
One	surface mount metallic handle	33 1/2" from bottom	hinge stile	(2) 10 by 3/4" SM thread cutting screw and (2) 8-32 by 1 1/4" PH MS



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Hardware (Continued)				
Quantity	Description	Distance	Location	Method of Attachment
Two	surface mount metallic strike plate	34 3/16" and 39 1/2" from bottom	right frame jamb	(2) 10 by 3/4" SM thread cutting screw
Three	surface mount metallic butt hinges	9 1/2", 40 1/4" and 90 5/8" from bottom	hinge stile	frame (3) 8 by 2 1/2" wood screw and panel (3) 10 by 1 1/4" FH SMS

Door Information
The lock assembly was installed in an Opaque Steel Door measuring 37 1/2" by 80 1/2" high manufactured by Jeld-Wen NOA No. 08-1015.05. The door panel measured 35 5/8" by 79" high. The RAM lock was located 41" from bottom.

Sample Installation
Sample was tested in a 2" by 12" wood test buck. The frame was installed using a single row of No. 14 by 3" flat head wood screws.

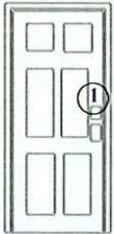
Sample: A-1	Temperature: 74.3°F	Barometric Reading: 30.74 inches Hg
Title of Test	Pressure	Notes
1/2 Structural Load Test Positive Load	45.0 psf	
	Results	Passed

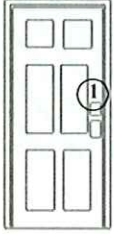
Sample: A-1	Temperature: 74.3°F	Barometric Reading: 30.74 inches Hg
Title of Test	Pressure	Notes
1/2 Structural Load Test Negative Load	45.0 psf	
	Results	Passed



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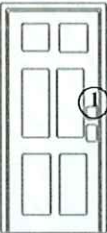
Sample: A-1	Temperature: 74.3°F	Barometric Reading: 30.74 inches Hg		
Title of Test		Pressure	Notes	
Design Load Test Positive Load		60.0 psf	Passed	
				
Reading#	Deflection	Permanent Set	Results	Add. Info
1	n/a	n/a	Passed	

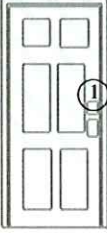
Sample: A-1	Temperature: 74.3°F	Barometric Reading: 30.74 inches Hg		
Title of Test		Pressure	Notes	
Design Load Test Negative Load		60.0 psf	Passed	
				
Reading#	Deflection	Permanent Set	Results	Add. Info
1	n/a	n/a	Passed	



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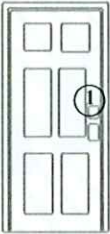
Sample: A-1	Temperature: 74.3°F	Barometric Reading: 30.74 inches Hg		
Title of Test		Pressure	Notes	
Uniform Structural Test Positive Load		90.0 psf	Passed	
				
Reading#	Deflection	Permanent Set	Results	Add. Info
1	n/a	n/a	Passed	

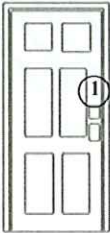
Sample: A-1	Temperature: 74.3°F	Barometric Reading: 30.74 inches Hg		
Title of Test		Pressure	Notes	
Uniform Structural Test Negative Load		90.0 psf	Passed	
				
Reading#	Deflection	Permanent Set	Results	Add. Info
1	n/a	n/a	Passed	



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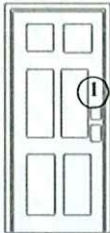
Sample: A-1	Temperature: 70.7°F	Barometric Reading: 30.68inches Hg		
Title of Test		Notes		
Large Missile Impact Test				
Missile Weight		Missile		
9.25 pounds		2" by 4" by 92" long		
				
Impact	Speed	Orientation	Results	Add. Info
1	49.6 ft/sec	2.904°	Passed	

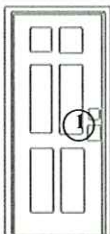
Sample: A-1	Temperature: 70.7°F	Barometric Reading: 30.68inches Hg				
Title of Test		Positive Pressure	Notes			
Cyclic Wind Load Test		60.0 psf				
						
Range	Cycle	Measured	Reading#	Deflection	Permanent Set	Results
0.2 - 0.5	3500	1.0 sec	1	n/a	n/a	Passed
0.0 - 0.6	300	1.0 sec				
0.5 - 0.8	600	1.0 sec				
0.3 - 1.0	100	1.0 sec				



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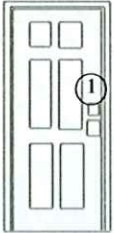
Sample: A-1	Temperature: 71.2°F	Barometric Reading: 30.68 inches Hg				
Title of Test		Negative Pressure			Notes	
Cyclic Wind Load Test		60.0 psf				
						
Range	Cycle	Measured	Reading#	Deflection	Permanent Set	Results
0.3 - 1.0	50	1.0 sec	1	n/a	n/a	Passed
0.5 - 0.8	1050	1.0 sec				
0.0 - 0.6	50	1.0 sec				
0.2 - 0.5	3350	1.0 sec				

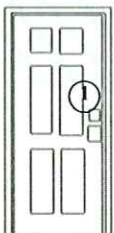
Sample: A-2	Temperature: 75.2°F	Barometric Reading: 30.71 inches Hg				
Title of Test		Notes				
Large Missile Impact Test						
Missile Weight		Missile				
9.0 pounds		2" by 4" by 92" long				
						
Impact	Speed	Orientation	Results	Add. Info		
1	49.0 ft/sec	1.718°	Passed			



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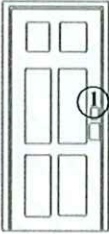
Sample: A-2	Temperature: 70.3°F	Barometric Reading: 30.25inches Hg				
Title of Test		Positive Pressure			Notes	
Cyclic Wind Load Test		60.0 psf				
						
Range	Cycle	Measured	Reading#	Deflection	Permanent Set	Results
0.2 - 0.5	3500	1.0 sec	1	n/a	n/a	Passed
0.0 - 0.6	300	1.0 sec				
0.5 - 0.8	600	1.0 sec				
0.3 - 1.0	100	1.0 sec				

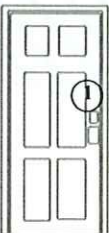
Sample: A-2	Temperature: 70.6°F	Barometric Reading: 30.25 inches Hg				
Title of Test		Negative Pressure			Notes	
Cyclic Wind Load Test		60.0 psf				
						
Range	Cycle	Measured	Reading#	Deflection	Permanent Set	Results
0.3 - 1.0	50	1.0 sec	1	n/a	n/a	Passed
0.5 - 0.8	1050	1.0 sec				
0.0 - 0.6	50	1.0 sec				
0.2 - 0.5	3350	1.0 sec				



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Sample: A-3	Temperature: 73.4°F	Barometric Reading: 30.62inches Hg		
Title of Test		Notes		
Large Missile Impact Test				
Missile Weight		Missile		
9.0 pounds		2" by 4" by 92" long		
				
Impact	Speed	Orientation	Results	Add. Info
1	49.2 ft/sec	2.577°	Passed	

Sample: A-3	Temperature: 71.6°F	Barometric Reading: 30.68inches Hg				
Title of Test		Positive Pressure		Notes		
Cyclic Wind Load Test		60.0 psf				
						
Range	Cycle	Measured	Reading#	Deflection	Permanent Set	Results
0.2 - 0.5	3500	1.0 sec	1	n/a	n/a	Passed
0.0 - 0.6	300	1.0 sec				
0.5 - 0.8	600	1.0 sec				
0.3 - 1.0	100	1.0 sec				



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Sample: A-3	Temperature: 71.6°F	Barometric Reading: 30.68 inches Hg				
Title of Test		Negative Pressure			Notes	
Cyclic Wind Load Test		60.0 psf				
						
Range	Cycle	Measured	Reading#	Deflection	Permanent Set	Results
0.3 - 1.0	50	1.0 sec	1	n/a	n/a	Passed
0.5 - 0.8	1050	1.0 sec				
0.0 - 0.6	50	1.0 sec				
0.2 - 0.5	3350	1.0 sec				

Revision	Description	Author	Effective Date
0	Initial Release	Mr. Jose Sanchez	11/15/2010

Notes

* designates measurements by laboratory
 ** as per manufacturer

Drawings referenced in this document are an integral part of this report, therefore, are required when distributing this test report. Test results obtained represent the actual value of the tested specimens and do not constitute opinion, endorsement or certification by this laboratory.

This test report is considered the exclusive property of the client named herein and is applicable to the sample tested. This report may not be reproduced without the approval of Fenestration Testing Laboratory, Inc.

At conclusion of above tests, there was no apparent damage to the RAM lock. Test specimens were covered with 1.5 mil plastic sheeting to seal from air leakage when load test were performed, however this had no effect on above results.



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Remarks

Representative samples of the test specimens, detailed drawings and test report will be retained by Fenestration Testing Laboratory for a period of four years from the original test date.

This product was tested in accordance with the ASTM E330-02, ASTM E1996-05, and ASTM E1886-05 with no deviations.

Testing was conducted as per instructions received from your company representative.

Witnessed by:
Mr. Murat Kizikli, P.E.

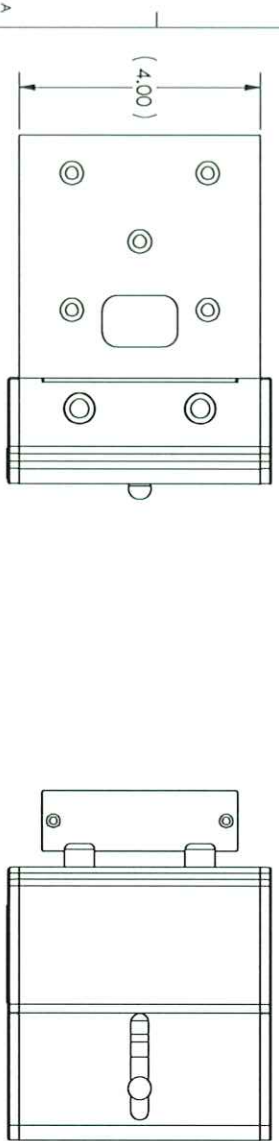
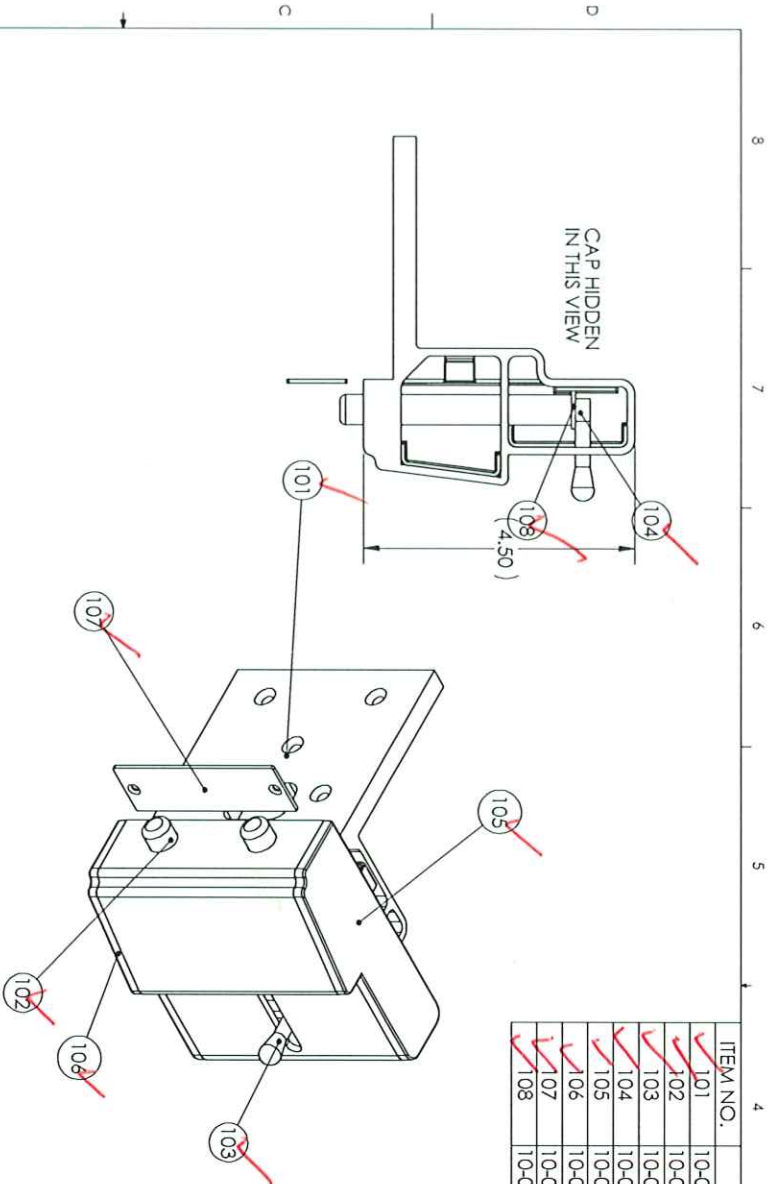
Michael Van Velkinburgh, The Fortress Group

Technicians:
Mr. Jose Sanchez
Mr. Brian Moss

FENESTRATION TESTING LABORATORY, INC.

Mr. Manny Sanchez
Chief Executive Officer

ITEM NO.	PART NUMBER	DESCRIPTION	Cross Bar/Qty.
✓ 101	10-018-101	Base Extrusion	1
✓ 102	10-018-102	Slide Bolt	2
✓ 103	10-018-103	Handle	1
✓ 104	10-018-104	Cross Bar	1
✓ 105	10-018-105	Cap	1
✓ 106	10-018-106	Cap Mirrored	1
✓ 107	10-018-107	Plate, Stiker	1
✓ 108	10-018-108	Washer, BUMPER	2



FENESTRATION TESTING LAB, INC

LAB # 6382

DATE: 11-16-10

DRAWING VERIFIED BY: LC

Only items checked in red have been
verified by laboratory

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UNLESS OTHERWISE SPECIFIED:	DATE	NAME	DRH
DIMENSIONS ARE IN INCHES			
TOLERANCES:			
FRACTIONAL: 1/32	CHECKED		
DECIMAL: .001	ENG APPR.		
ANGLE: .001	MG APPR.		
HOLE PLACE DECIMAL: .002			
HOLE PLACE DECIMAL: .005			
PLACEMENT OF DIMENSION LINES:			
TO: EXTERNAL			
TO: INTERNAL			
MATERIAL: ASME 1136-1994	COMMENTS:		
FINISH:			
DO NOT SCALE DRAWING			

HYPERION TECHNOLOGY GROUP, INCORPORATED
 398 East Main Street, Tupelo, MS 38804
 662.823.0605 www.hyperiontechgroup.com

Lock Assy
 TITLE:

SIZE DWG. NO. **B 10-018-100**
 SCALE: 1:2 WEIGHT: SHEET 1 OF 1

REV

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

FENESTRATION TESTING LAB, INC

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LAB # 6382

DATE: 11-16-16

DRAWING VERIFIED BY: W E



FOR QUOTE Undercut 1 Thrd Permissible

UNLESS OTHERWISE SPECIFIED:	
DIMENSIONS ARE IN INCHES	
TOLERANCES: 1/16"	
ANGULAR: MACH-D25 BEND ±1	
TWO PLACE DECIMAL, ± 0.005	
THREE PLACE DECIMAL, ± 0.005	
FINISH: THREE PLACE DECIMAL, ± 0.005	
MATERIAL: PLAIN CARBON STEEL	
TOLERANCES: ±0.005	
COMMENTS: Q.A.	

DATE	NAME	DESCRIPTION
4/5/10	DMH	DRAWN
1/1/10	INH	CHECKED
		ENG APPR:
		QTY 500 BOM

HYPERION TECHNOLOGY GROUP, INCORPORATED

 398 East Main St, Tupelo, MS 38804 PH: 662.822.0800

SLIDE BOLT

TITLE:

SIZE: B DWG. NO: 10-018-102

SCALE: 1:1 WEIGHT: SHEET 1 OF 1

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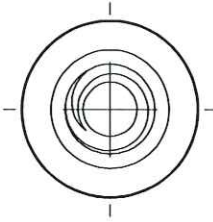
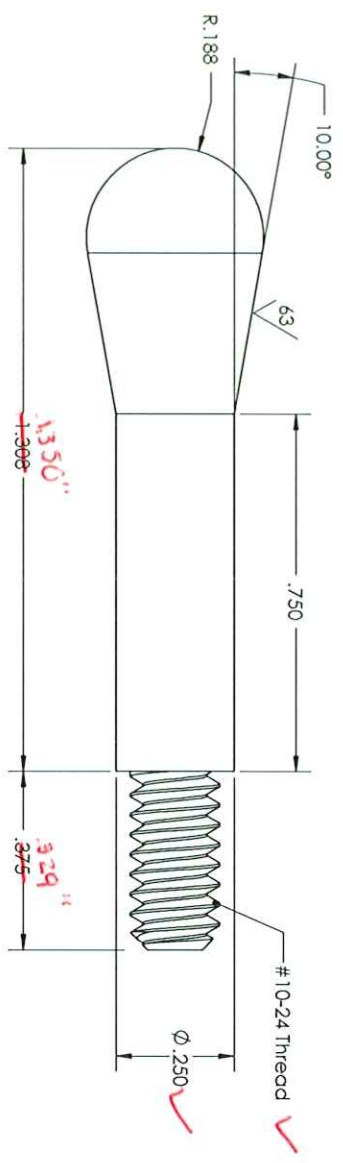
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

FENESTRATION TESTING LAB, INC

LAB # 63 82

DATE: 11-16-10

DRAWING VERIFIED BY: WJ



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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN	DRH	2/29/10
TOLERANCES FRACTIONAL ± 1/16"	CHECKED	INH	1/17/10
ANGULAR ± MACH-HQS BRAND ± 1°	ENG APPR.		
FINISH UNLESS OTHERWISE SPECIFIED	QTY	ONE BOM	
INTERPRET DIMENSIONS TO DRAWING PER	C.A.		
MATERIAL	COMMENTS:		
Finish: <u>Brushed</u>			
Material: <u>304 Stainless Steel (ferritic)</u>			
DO NOT SCALE DRAWING			

HYPERION TECHNOLOGY GROUP, INCORPORATED
 304 River Walk St. Lipso, MS 38904 Ph: 662-823-0800
Knob - Slide
 TITLE:
 SIZE: DWG. NO. **B 10-018-103** REV
 SCALE: 4:1 WEIGHT: SHEET 1 OF 1

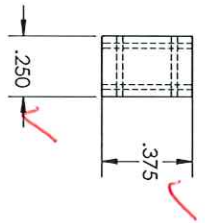
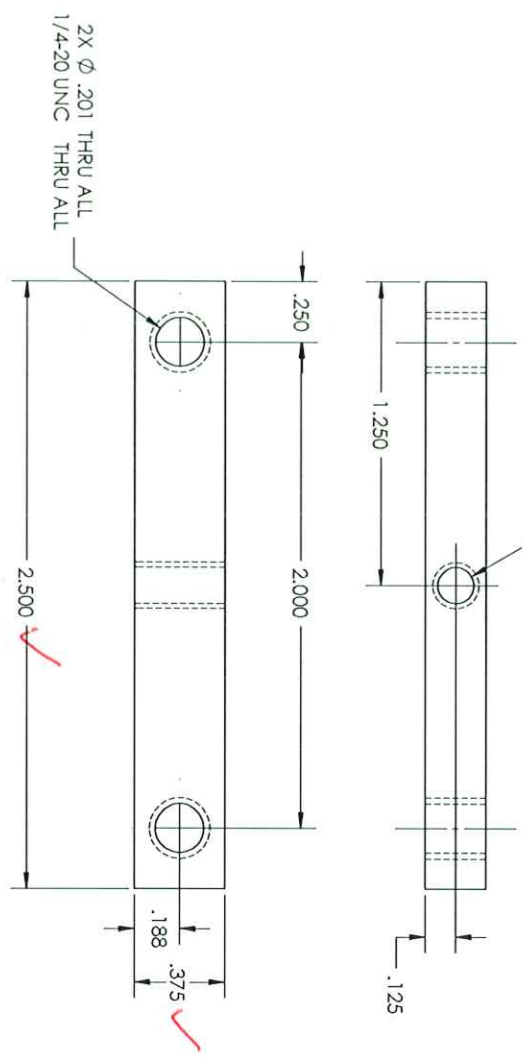
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FENESTRATION TESTING LAB, INC

LAB # 63 82

DATE: 11-16-10

DRAWING VERIFIED BY: WJC



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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		DRN	
TOLERANCES: 1/32		CHECKED	
ANGULARS: MAX CHG 1° 60ND 2°		ENG APPR:	
TWO PLACE DECIMAL ±0.02		MFG APPR:	
THREE PLACE DECIMAL ±0.005			
FITTING: CONVENTIONAL		COMMENTS:	
TOLERANCING: ASME Y14.5M-1994			
MATERIAL: Plain Carbon Steel			
FINISH:			
DO NOT SCALE DRAWING			

<p>HYPERION TECHNOLOGY GROUP, INCORPORATED</p> <p>398 East Main Street, Tupelo, MS 38804 662.823.0605 www.hyperiontechgroup.com</p>		<p>TITLE:</p> <p>Cross Bar</p>	
SITE DWG. NO.	REV	SCALE: 2:1	WEIGHT:
B	10-018-104		
		SHEET 1 OF 1	

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED

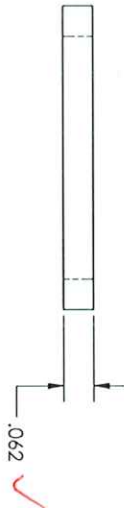
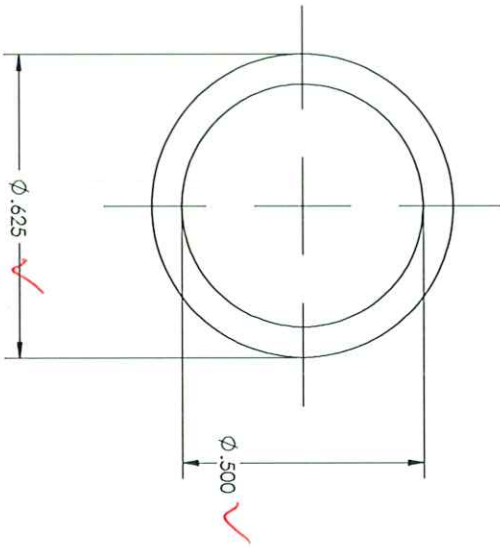
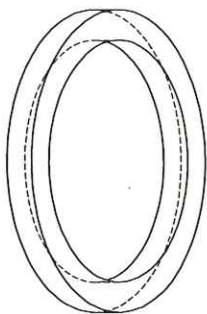
Only items checked in red have been
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LAB # 6382

DATE: 11-16-10

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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN	-DRH	
RADIUS: 1/32	CHECKED		
ANGULAR: MATCH 1" BEND 2"	DWG APPR:		
TWO PLACE DECIMAL: 30.00	MFG APPR:		
THREE PLACE DECIMAL: 50.000			
FIT: SHOOT GEOMETRIC	COMMENTS:		
TOLERANCES PER ASME Y14.5			
MATERIAL: PA Type 6			
FINISH: NONE			
DO NOT SCALE DRAWING			

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HYPERION TECHNOLOGY GROUP, INCORPORATED
 398 East Main Street, Tupelo, MS 38804
 662.823.0605 www.hyperiontechgroup.com
Washer, Bumper
 TITLE:
 SIZE: DWG. NO. **B 10-018-108** REV
 SCALE: 4:1 WEIGHT: SHEET 1 OF 1