



Shielding Resources Group, Inc.

**ULTRA-RF/A* DOOR SERIES “SWINGING DOOR
STATIC LOAD TEST”
TEST REPORT**

TEST REPORT NUMBER UCD-SDSLT

Submitted To:

Prepared For:

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** US PATENT NUMBER 9,828,798*

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1.0 INTRODUCTION

This document is a report of "Swinging Door Static Load Test" which is required by certain United States Government agencies. The test was performed on a "ULTRA-RF/A (radio frequency/acoustic), US Patent Number 9,828,798 door assembly which is located at the production facility of Shielding Resources Group, Inc., Tulsa, Oklahoma. The "test door" used for this test is fully functional.

2.0 REQUIREMENT

The testing requirement typically is as follows:

Swinging Door Static Test

"The door shall be mounted and latched to its frame, then set down in a horizontal position such that it will open downward with only the frame rigidly and continuously supported from the bottom. A load of 40 lb/psf shall be applied uniformly over the entire surface of the door for at least 10 minutes. The door will not be acceptable if this load causes breakage, failure, or permanent deformation which causes the clearance between door leaf and stops to vary more than 1/16 inch from the original dimension".

3.0 DESCRIPTION OF TEST DOOR

The door utilized for the "Swing Door Static Load Test" was a (cancelled) production door. The dimensions of the door leaf are 3'-6" X 7'-0" (42" X 84"). The total surface square footage of the door leaf is 24.5 square feet. The door was fitted with a Schlage commercial lever handle passage lock (stock option for this door series). The door frame manufactured with 12 gauge galvanized steel and is a custom profile which is proprietary to Shielding Resources Group, Inc.

4.0 DESCRIPTION OF TEST PROCEDURE UTILIZED

As required, a total weight of 981 pounds ($24.5 \times 40 = 980$) was placed uniformly on the face of the door leaf. A series of "indicators or gauges", (eight locations, four on the hinge side and four on the strike side) were clamped to the door stop. The bottom edge of indicators or gauges was placed in a manner that they contacted the stop. Since the "indicators or gauges" were fixed, any movement of the door leaf would be noticeable.

With the door leaf loaded, measurements and or observations were made at 10 minute intervals. The test start time was 9:15 AM, October 9, 2015. The first measurement or observation was made at 9:25 AM, with additional observations made at 9:35AM, 9:45 AM, and 9:55 AM on October 9, 2015. The door was allowed to remain in the "loaded" condition until 9:55 AM, October 10, 2015 and 7:40 AM, October 12, 2015.

5.0 PICTORIAL INFORMATION AND RESULTS

Following are pictures which show the test process and items utilized for the test.



"981 pounds of solder bars"



"Indicator or gauge locations"



"Close up of indicator or gauge"



"View of loaded door"



"View of loaded door"



9:15 AM Start Time



9:25 AM 10 Minute Requirement



9:35 AM 20 Minute Check



9:45 AM 30 Minute Check



9:55 AM 40 Minute Check



9:55 AM 24 Hour Check



7:40 AM 69+ Hour Check

6.0 CONCLUSION

Based upon the test results and visual observations, it was found that the “test door” did not suffer any breakage, deformation or vary dimensionally from the starting position or location. The door, hinge and frame were inspected and there was no deformation or damage to the door leaf and or frame after the 69 (+/-) hour load test.