



**SLESSER ENGINEERING, INC.**

STRUCTURAL ENGINEERS

**REPORT OF TEST OBSERVATION**

**WireCrafters Panel**

**Impact Test**

**Purpose of Test:** To determine if the WireCrafters Panel Assemblies can withstand the impact from a falling weight dropped from differing heights.

**Date of Test:** September 24, 2010

**Location of Test:** WireCrafters Facility  
6210 Strawberry Lane  
Louisville, Kentucky

**Panel Assembly Set Up:** The WireCrafters panels that were tested consisted of 3'-6" wide x 5'-0" long steel mesh welded to angle frames around the perimeter. Five different types of mesh were used and two angle frame thicknesses were used for the panels tested. The five panel types tested are as follows:

**Panel Type:**

- A. 2 x 1 x 10ga. woven mesh with 1 1/4 x 1 1/4 x 1/8 angle frame
- B. 3 x 1 1/4 x 10ga. over 8ga welded wire with 1 1/4 x 1 1/4 x 13ga angle frame
- C. 2 x 2 x 10ga welded wire with 1 1/4 x 1 1/4 x 13ga angle frame
- D. 2 x 2 x 10ga welded wire with 1 1/4 x 1 1/4 x 1/8 angle frame
- E. 3 x 3/4 x 10ga. welded wire with 1 1/4 x 1 1/4 x 13ga angle frame

**Test Procedure:** Each wire mesh/angle frame was bolted to a 2 inch x 2 inch steel tube at each end of the five foot long sides of the frame (total of 4 bolts). The two support tubes were supported on two steel frame supports sitting on the floor, so that the wire mesh/angle frame was lying horizontally. A 9-inch diameter steel ball (fabricated from varying diameter steel plates bolted together) was dropped off of a fork truck tine from specified heights for each test. The weight of the steel ball was measured to be 92.9 pounds. A copy of the weigh slip and the scale calibration certificate are attached to this report. The distance from the floor to the steel mesh/angle frame was measured prior to the test and after the test to determine and record the permanent deflection that each panel sustained as a result of the impact of the falling weight.

**Criteria for Test Results:** The panel was considered to have passed the test if the falling weight did not penetrate through the wire mesh. Permanent deformation was anticipated and considered acceptable for a passed test. The panel was considered to have failed the test if the falling weight penetrated through the wire mesh.

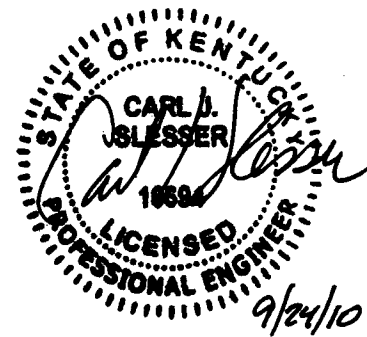
**Test Results:** The chart below gives the results of the nine impact tests conducted.

Test Number	Panel Type	Energy (joules)	Drop Height (inches)	Weight (pounds)	Total Deflection (deformation)	Test Result	Notes
1A	A	252	24	92.9	3 ½ inches	Passed	Weight impacted 7 inches off center
2A	A	504	48	92.9	6 ¼ inches	Passed	
1B	B	252	24	92.9	4 ¼ inches	Passed	
2B	B	504	48	92.9	6 3/8 inches	Passed	
1C	C	252	24	92.9	4 ½ inches	Passed	
2C	C	504	48	92.9	7 1/8 inches	Passed	
1D	D	252	24	92.9	3 ¾ inches	Passed	
2D	D	830	79	92.9	7 ½ inches	Passed	
1E	E	252	24	92.9	3 ¼ inches	Passed	

**Conclusions:** All of the nine steel wire mesh/angle frame panels successfully passed the impact test. Permanent deformations were measured and recorded.

Test Observed by  
 SLESSER ENGINEERING, INC.

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