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Testing & Listing Field Labeling
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FIRE TESTING LABORATORIES, INC.

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FIRE TEST REPORT:	Fire Resistance Test On Asset Fire Protection, Ltd., Air Technologies, LLP., Pressure Relief Vent
CLIENT/MFG:	Asset Fire Protection, Ltd., Air Technologies, LLP. Unit 6, The Pinnacle, 23 Granville Road Sevenoaks, Kent TN13 1DQ
MODEL, NAME & NUMBER:	HIGH-X-100
STANDARD TESTED TO:	ASTM E 119-08a,
REPORT NO.:	GL 11010
REPORT TEST DATE:	2/26/07
REPORT DATE:	1/20/10
TEST RESULTS:	2-hour fire rating
REPORT PREPARED BY:	GUARDIAN FIRE TESTING LABORATORIES, INC 474 Hinman Ave. Buffalo, NY 14216

Preface

Guardian Fire Testing Laboratories, Inc.'s Engineer, R. Joseph Pearson, evaluated and accepted fire test report #232889 done by BRE Testing of Garaton, WD25 9XX.

Guardian has accepted the metric test report and converted the report's summary and the furnace temperatures to degrees Fahrenheit, to satisfy the changing of the report to the U.S. standard: ASTM E-119.

European Standard BS EN 1363-1 does not use a hose stream test. We accepted this fact as the vent's louvers are made of steel, and the louvers open toward the furnace.

There was no flaming on the unexposed side of the test panel. The deflections of the vent's louvers are acceptable.

BRE Testing of Garaton is accredited by UKAS as a test laboratory. UKAS is a signatory member of ILAC's Mutual Recognition Agreement.

Guardian Converted Summary

An Asset Fire Protection multi-blade pressure relief vent, model HIGH-X-100, nominally 39 3/8" x 39 3/8", installed into an aperture made in a 6" thick drywall partition system, was submitted to an ad-hoc fire resistance test of 2 hours 5 minutes on December 18, 2006. In the test, the appropriate general procedures and performance criteria of BS EN 1363-1 were adopted together with irradiance measurements as specified in BS EN 1363-2.

The vent was comprised of ten double skinned profiled blades within a galvanized steel casing. It was installed using a flanged sleeve around its perimeter/peripheral flange installation system. A 6" thick drywall partition system, nominally 9'-10" x 9'-10", was assembled with an aperture to accommodate the vent. The partition was comprised of a steel framework of 3 1/2" studs clad on each face with two layers of 5/8" thick type Firecheck plasterboard. The voids between the studs were insulated with a 1" thick layer of glass mineral wool blanket stated to have a nominal density of 8-lbs/cu.ft. The opening made near the center of the partition measured nominally 41 1/2" wide x 42 3/8" high. It was framed using steel sections, as are used in partition construction. This was faced with sections of plasterboard prior to installing the vent. A galvanized steel sleeve with a flanged upstand was installed into the aperture from the exposed face. It was screw-fixed to the exposed face of the partition. The vent was installed from the unexposed face. It was fixed in place using a galvanized steel flange fixed around the perimeter of the vent casing which was screw-fixed to the unexposed face of the partition. The vent was oriented to open towards the furnace.

Prior to the fire resistance test, the free movement of the vent blades was checked by generating an underpressure within the furnace using the furnace extract system.

For approximately the first 30 seconds of the fire resistance test, the vent blades were held in their closed configuration so as to prevent any inward movement towards the furnace caused by pressure fluctuations as the furnace burners were ignited at the start of the test.

Two electrical socket installation systems were also mounted on each face of the partition. These were included for information only. Their performance, deemed to have no influence on the behavior of the vent, is not reported here.

During the course of the test there was no failure of integrity either within the vent assembly or at the junction between the supporting construction and the vent installation system; therefore, in the orientation tested, the specimen satisfied the adopted criteria as follows:

Rating: 125 minutes = 2 hours 5 minutes

FURNACE TEMPERATURES COMPARISON

MINUTES TIME	EUROPEAN °C	EUROPEAN °F	ASTM E-119 °F
0	AMBIENT	AMBIENT	68
10	680	1256	1300
20	780	1436	1462
30	840	1544	1550
40	880	1616	1613
50	920	1688	1661
60	940	1724	1724
70	960	1760	1735
80	980	1796	1765
90	1010	1850	1792
100	1020	1868	1815
110	1040	1904	1835
120	1060	1940	1850

NOTE: European °C temperatures are approximate

°F = 1.8 x °C +32

Conclusion

Guardian concludes that BRE test report #232889 on the Fire Protection Qualities of the Asset Fire Protectiion, Ltd. Model # HIGH-X-100 meets the intent of the ASTM E-119 test standard.

Upon application by Asset Fire Protection, Ltd., Model HIGH-X-100 will qualify for certification under Guardian Fire Testing Laboratories' Listing and Labeling program.

BRE Test Report Review and ASTM E-119 Terminology Adjustments by:

R. Joseph Pearson
Fire Testing Engineer

Final Report Review By:

Dr. Lalit Kumar, P.E.
President

Uncertainty Measurement in Guardian's fire testing is less than 1% as per ASTM E 2536-06.

This test review is accredited and meets the requirements of ISO/IEC 17025 as verified by ANSI/ASQ National Accreditation Board/ACLASS. Refer to certificate and scope of accreditation Report AT1247.
Guardian also is accredited as an Inspection Agency and as a Product Certification Agency per ISO 17020 and ISO Guide 65 through IAS, Report AA 713 and PCA 104.

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