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# APPROVAL REPORT

## PIPE HANGER COMPONENTS FOR AUTOMATIC SPRINKLER SYSTEMS

### BEAM CLAMPS

MODELS SF2Z10T, SF2Z10D, SF3Z12T AND SF3Z12D

#### Prepared for:

Access Technologies Ltd.  
Unit A2, Cradley Business Park, Overend Road  
Cradley Heath, West Midlands  
B64 7DW United Kingdom

Project ID: 3027643

Class: 1951

Date of Approval: June 17, 2008

#### Authorized by:

Richard B. Dunne, Group Manager - Hydraulics

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**PIPE HANGER COMPONENTS FOR  
AUTOMATIC SPRINKLER SYSTEMS**

**BEAM CLAMPS  
MODELS SF2Z10T, SF2Z10D, SF3Z12T AND SF3Z12D**

**from**

**ACCESS TECHNOLOGIES LTD.  
UNIT A2, CRADLEY BUSINESS PARK, OVEREND ROAD  
CRADLEY HEATH, WEST MIDLANDS  
B64 7DW UNITED KINGDOM**

**I INTRODUCTION**

1.1 Access Technologies Limited requested Approval of their Models SF2Z10T, SF2Z10D, SF3Z12T and SF3Z12D beam clamps for use in automatic sprinkler systems as manufactured in Cradley Heath, West Midlands, United Kingdom.

1.2 This Report may be reproduced only in its entirety and without modification.

**1.3 Standards:**

Approval Standard Class 1951, Pipe Hanger Components for Automatic Sprinkler Systems, dated September 2003 was used for this examination.

**1.5 Listings:**

The listings for these pipe hanger components discussed in this Report will appear as shown below in the Automatic Sprinkler Systems' section of the FM Approval Guide under the heading "Pipe Hangers", under the company name:

**Access Technologies Ltd, Unit A2, Cradley Business Park, Overend Road, Cradley Heath, West Midlands, B64 7DW UK**

<i>Product Designation</i>	<i>Hanger Rod Size, in.</i>	<i>Component Description</i>	<i>For Nominal Pipe Sizes</i>
SF2Z10T	M10	Beam Clamp	3/4 through 4
SF2Z10D	M10	Beam Clamp	3/4 through 4
SF3Z12T	M12	Beam Clamp	5, 6 and 8
SF3Z12D	M12	Beam Clamp	5, 6 and 8

**II DESCRIPTION**

2.1 These beam clamp building attachment components are supplied with a clamping set screw and lock nut (manufacturer's drawing 0070). The beam clamps are available for use with an M10 threaded rod for pipe sizes 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, 3, 3-1/2, and 4 NPS sizes, or an M12 threaded rod for 5, 6 and 8 in. NPS sizes. The Models SF2Z10T and SF3Z12T are threaded to except M10 or M12 threaded

rod respectively. The Models SF2Z10D and SF3Z12D have a clearance hole to accept M10 or M12 threaded rod respectively. Models SF2Z10T and SF2Z10D are manufactured from Malleable Iron grade 350-10 to BS EN 1562:1997. The Models SF3Z12T and SF3Z12D are manufactured from SG (ductile) cast iron to BS EN 1563: Grade EN-GJS-450-10. All models are electro zinc plated to BS EN 12329:2000 Grade Fe/Zn8//A. These beam clamps are FM Approved as manufactured in Cradley Heath, West Midlands, United Kingdom.

- 2.2 These hanger assemblies are only FM Approved when installed according to the manufacturer's installation instructions.

### III EXAMINATIONS AND TESTS

Samples of the beam clamps, as manufactured in Cradley Heath, West Midlands, United Kingdom, with the appropriate set screw, threaded rod and nut, were tested on a universal tensile testing apparatus to determine their holding power with the satisfactory results shown below.

<i>Model</i>	<i>Pipe Size in.</i>	<i>Screw Position</i>	<i>Rod Size in.</i>	<i>Required Load lbs (N)</i>	<i>Deflection at Required Load in. (mm)</i>
SF2Z10T	4	Up	M10	1475 (6560)	0.0366 (0.95)
SF2Z10T	4	Up	M10	1475 (6560)	0.0272 (0.69)
SF2Z10T	4	Up	M10	1475 (6560)	0.0462 (1.17)
SF2Z10T	4	Down	M10	1475 (6560)	0.1081 (2.75)
SF2Z10T	4	Down	M10	1475 (6560)	0.1126 (2.86)
SF2Z10T	4	Down	M10	1475 (6560)	0.1071 (2.72)
SF3Z12T	8	Down	M12	3800 (16 905)	0.0714 (1.8)
SF3Z12T	8	Down	M12	3800 (16 905)	0.075 (1.9)
SF3Z12T	8	Down	M12	3800 (16 905)	0.1119 (2.85)
SF3Z12T	8	Down	M12	3800 (16 905)	0.1631 (4.15)
SF3Z12T	8	Up	M12	3800 (16 905)	0.0532 (1.35)
SF3Z12T	8	Up	M12	3800 (16 905)	0.0583 (1.48)
SF3Z12T	8	Up	M12	3800 (16 905)	0.0623 (1.58)

### IV MARKING

The following information is permanently-marked on these pipe hanger components, these markings are legible, and meet the Approval Standard requirements:

- Manufacturer's logo
- Model Designation ("SF2" or "SF3")
- Hanger Rod Size; mm (Marked on package label due to size)
- The FM Approvals Certification mark

## **V REMARKS**

- 5.1 Installations shall comply with the relevant requirements of the latest edition of the applicable FM Global Property Loss Prevention Data Sheets.
- 5.2 Installations shall comply with the latest edition the manufacturer's instruction manual.

## **VI FACILITIES AND PROCEDURES AUDIT**

The manufacturing and drawing control site in Cradley Heath, United Kingdom was audited as part of this examination and will be subject to regularly scheduled follow-up audit inspections. The facilities and quality control procedures in place have been found to be satisfactory to manufacture product identical to that examined and tested as described in this report. The plant is located at Kee Safety Logistics Ltd., Cradley Business Park, Overend Road, Cradley Heath, UK B64 7DW.

## **VII MANUFACTURER'S RESPONSIBILITIES**

- 7.1 Documentation considered critical to this Approval of these pipe hanger components is on file at FM Approvals and is listed in this Report. No changes of any nature shall be implemented unless notice of the proposed change has been given and written authorization obtained from FM Approvals. The Approved Product Revision Report, Form 797, shall be forwarded to FM Approvals as notice of proposed changes.
- 7.2 At least once per year the manufacturer shall check the composition of materials. The chemical or physical properties that are critical to the functioning of the item shall be sample tested. Testing shall be performed by the manufacturer or, on their behalf, by an agency independent of the vendor.
- 7.3 The manufacturer shall measure and record critical component dimensions, material thickness, markings, and threaded connections (as applicable) at the beginning of each production run. Thereafter, these measurements shall be recorded every 4 hours. The number of samples to be measured shall be based on the manufacturer's Quality Control Manual, but in no case shall be less than five samples. Measurements shall be compared to the latest revision of the component drawings.

## **VIII DOCUMENTATION**

Drawings describing these pipe hanger components are filed under P.I. 3027643 and are listed below.

<i><b>Drawing No</b></i>	<i><b>Drawing Title</b></i>	<i><b>Revision</b></i>
0151	SF2 Flange Clamp	3
0149	SF3 Flange Clamp	5
0070	Setscrew and Locknut	3

## IX CONCLUSION

The Models SF2Z10T, SF2Z10D, SF3Z12T AND SF3Z12D beam clamps for use in automatic sprinkler systems as detailed in Section II, as manufactured in Cradley Heath, UK, meet FM Approvals requirements. Since a duly signed Master Agreement is on file for this manufacturer, Approval is effective the date of this report.

**EXAMINATION BY:** P. J. Munslow

**FIRST AUDIT BY:** P. Bardsley

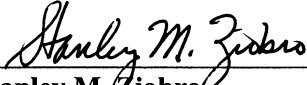
**TESTING BY:** J. Normington, J. Horn

**PROJECT DATA RECORD:** I. D. 3027643

**REPORT BY:**

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