



Member of the FM Global Group

CERTIFICATE OF CONFORMITY

1. FIRE PROTECTION EQUIPMENT

2. **Certificate No:** **FM23FPUS0285**
3. **Equipment:** **SFFECO Prime FK Fire Extinguishing System**
(Type Reference and Name)
4. **Name of Listing Company:** **Saudi Factory for Fire Equipment Co**
5. **Address of Listing Company:** **2nd Industrial Area Al-Kharj Rd,
PO Box 58469, Riyadh 11515, Saudi Arabia**

6. The examination and test results are recorded in confidential report number:

PR466290 dated 4 January 2024

7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

FM 5600:2023

8. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.

9. Approval Guide Listing Category:

Clean Agent Fire Extinguishing Systems

Certificate issued by:

J.E. Marquedant
VP, Manager - Electrical Systems

4 January 2024

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. One Technology Way, Norwood, MA 02062 USA

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F 320 (Jan 23)



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10. Description of Equipment:

System Designation:	SFFECO Prime FK Fire Extinguishing System
System Type:	Engineered
Agent Identification:	FK-5-1-12
Available Agent Container Pressure Stages:	25 bar, 42 bar, 50 bar
Available Discharge Valve Outlet Connections:	Valve Model B0482: DN40, 1-1/2" NPT Valve Model B0481: DN50, 2" NPT
Available Agent Container Sizes for Valve Model B0482:	25 bar: 22L, 40L, 52L 42 bar: 22L, 40L 50 bar: 22L, 40L
Available Agent Container Sizes for Valve Model B0481:	25 bar: 80L, 100L, 106L, 140L, 147L, 180L 42 bar: 80L, 100L, 140L, 180L 50 bar: 80L, 100L, 140L, 180L
Minimum and Maximum Agent Storage Temperatures:	0°F to 122°F (-18°C to 50°C)
Minimum and Maximum Temperature of Protected Spaces:	60°F to 80°F (15.6°C to 26.7°C)
Minimum and Maximum Nozzle Heights:	12 in (0.3 m) to 14.0 ft (4.3 m)*
Minimum Nozzle Design Pressure:	111 psi (7.65 bar)
Types of Nozzles Available:	180°, 360°
Maximum Area of Coverage for Nozzle Type:	180°: 32 ft x 32 ft (9.8 x 9.8 m), 35.8 ft (10.9 m) maximum radial throw 360°: 32 ft x 32 ft (9.8 x 9.8 m), 22.6 ft (6.9 m) maximum radial throw
Flow Calculation Software:	DesignManager
Flow Calculation Math Kernel:	MX 1230 Math Kernel V2.0, 01-Jan-2020
Flow Calculation Software Manual:	Operating Manual - Calculation Program DesignManager - Module 1230/200, Part No. 923411 (Doc. No. 100071073), Rev. 00, 07-2016
Design Manual:	Design Manual - Fire Extinguishing System SFFECO Prime FK, Part No. 4006654 (Doc. No. 100162966), Rev. 00, 10-2023
Installation and Maintenance Manual:	Installation and Maintenance Manual - Fire Extinguishing System SFFECO Prime FK, Part No. 4006655 (Doc. No. 100162967), Rev. 00, 10-2023

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Operating Manual:	Operating Manual - Fire Extinguishing System SFFECO Prime FK, Part No. 4006656 (Doc. No. 100162968), Rev. 00, 10-2023
Product Sheets	Product Sheets – Fire Extinguishing System SFFECO Prime FK, Part No. 4006657 (Doc. No. 100162969), Rev. 00, 10-2023
Limitations or Exceptions to the Approval:	* Discharge nozzle installation may also be extended up to a maximum height of 17.9 ft (5.45 m), but the design concentration and minimum system operating temperature must then be increased to compensate. See design manual listed above for details. Limitations as defined in the software and manuals listed above
Approved Filling Stations:	Saudi Factory for Fire Equipment Co. 2nd Industrial Area, Al Kharj Road Riyadh 11515 Saudi Arabia

11. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

12. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

13. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
4 January 2024	Original Issue.

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