

1.0 INTRODUCTION

1.1 GENERAL

- 1.1.01 This manual is to be used by trained and competent personnel only.
- 1.1.02 The function of this manual is to provide Operation and Maintenance information for use by suitably qualified personnel within the organisation.
- 1.1.03 The scope of this manual covers gas pump driven HI-FOG systems installed at 30 Gresham Street for the protection of the ground and lower ground floor Main Equipment Rooms (MER's).
- 1.1.04 The system arrangement contained herein is intended to comply, wherever practicable with the requirements of the most current editions of NFPA 750, Installation of Water Mist Fire Protection Systems, and NFPA 13, Installation of Sprinkler Systems. The system reflects the extensive research, development, testing and independent appraisal carried by Marioff Oy.
- 1.1.05 Users of this manual should ensure themselves of familiarity with the system and have a general mechanical and electrical background before carrying out any maintenance operations.
- 1.1.06 Marioff cannot be held responsible for any consequence due to any action being taken by unauthorised personnel.
- 1.1.07 Marioff Oy reserve the right to revise and improve its products and recommended system configurations as it deems necessary without notification to the end user.
- 1.1.08 The information contained herein is intended to describe the state of Marioff products and system configurations at the time of its publication and may not reflect the product and/or system configurations at all times in the future.
- 1.1.09 This is a single volume technical manual arranged in Seven (7) Sections followed by an Appendix containing additional product and system arrangement details. Reference thus(App 01) contained in the text pages of this manual indicate reference to information contained within the Appendix Section.
- 1.1.10 All the information contained herein is confidential and property of Marioff Oy and it shall not, in whole or in part, be reproduced, copied, disclosed or used as the basis for manufacture or sale without a prior written consent of Marioff Oy. HI-FOG® is a registered trademark of Marioff Oy. Copyright 2001. Marioff Ltd.
- 1.1.11 Any questions concerning information presented in this manual should be addressed to: Marioff Ltd. Contact details as shown previously.

COMPANY PROFILE

Marioff HI-FOG Oy is the world leader in the development of water mist fire extinguishing systems.

Furthermore, Marioff is by far the largest supplier of fog type fire extinguishing systems.

Numerous ships and offshore structures are equipped with HI-FOG.

Our reference list also includes a large number of land based machinery spaces, stores, computer rooms, telecom suites, gas turbines, and local fire hazards. In all, more than 1,000,000 sprinklers and spray heads have been installed to date.

Marioff was founded in 1985, specializing in hydraulic products and services for the marine and offshore industry. The client group set the quality standard that still is one of the key elements of the company's activities.

In the early 90's Marioff brought its hydraulic expertise to focus on the development of high-pressure water fog as a fire extinguishing media. This principle had been known before, but had not led to any significant applications. The main reason for this was the difficulties in combining the small droplet size with efficient penetration of flue gases in fires.

Marioff's background in high-pressure hydraulics offered the ideal combination for the development of an efficient fire extinguishing system. By forcing water at high speed through specially developed sprinkler nozzles, the water fog is able to penetrate the flue gases of even a flashover fire condition.

The combination of correct water droplet size and, water flow, sprinkler spacing and discharge speed, are key factors for the performance of an effective fog system. This naturally makes the sprinklers and spray heads a most vital component of the system. At the same time their size and weight have been minimized to allow for easy installation. Other innovative components developed from this programme are the different types of valves and storage arrangements required for different applications. The HI-FOG system is based on a combination of unique components and system solutions. These are protected by more than 600 patent applications.

Features of the HI-FOG System

The HI-FOG system is used at sea, onshore and offshore. It is available in many different configurations, taking into account the hazard, the fire protection objective, and external constraints such as space and power availability:-

The system is particularly suitable for accommodation and public space protection. The system can be supplied with electric and/or diesel driven pumps, gas driven pumps or cylinder supplied units.

Low water usage means minimal secondary damage and quick clean up.

Small tube sizes allow less obtrusive installations.