

www.eusebi-impianti.cn



高压细水雾系统 High Pressure Water Mist System

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 **EUSEBI IMPIANTI**
AUTOMATIC FIRE FIGHTING SYSTEMS

意大利 EI MIST 高压细水雾系统

High Pressure Water Mist System

系统介绍

System Introduction

★ EI MIST高压细水雾系统由EUSEBI IMPIANTI公司自行设计、研发并制造，具有自主知识产权；系统中使用的高压细水雾喷头通过了UL认证。

★ EI MIST高压细水雾系统工作压力为100bar至120bar，在上述压力下，去矿物质水通过喷头形成直径小于100μm（NFPA要求）的微水雾滴，通过以下三个作用进行灭火：

冷却作用：由于喷嘴喷射出的水滴颗粒极细小，非常易于蒸发和汽化，在从液态水变化为气态水的过程中，将会吸收火灾产生的大量热量。

惰化作用：由于火灾的高温，大量的水滴将会蒸发汽化变为气体；水蒸气将会发挥如同惰性气体相同的功效，所占的空间超过液态水占据空间的100倍，以此来控制和压制火灾。

隔离作用：隔离火源对周围的热辐射，防止火源附近其他货物被引燃，使火势不能肆无忌惮的扩散蔓延。

★ EI MIST high pressure water mist system is designed, developed and manufactured by Eusebi Impianti, with independent intellectual property rights, an revolutionary fire fighting system with leading advanced technology all over the world. The water mist nozzles are UL listed.

★ The high pressure water mist system working pressure is between 100 bar and 120 bar; the diameter of the water mist droplets is less than 100μm (NFPA750). Proved by fire fighting tests, high pressure water mist system can put out the fire effectively and rapidly.

The fire extinguishing dynamics:

Cooling action: the water particles, as a consequence of their very small size, are subject to rapid evaporation, with the consequent strong removal of a large quantity of thermal energy from the fire.

Inerting action: the huge quantity of water vapour generated due to the high temperatures and very small droplets, behaves just like an inert gas and, since it occupies a volume that is a hundred times greater than that of the parental extinguishing water, it helps to control and suppress the fire.

Shielding action: Shield the thermal radiation from the fire, and prevent other surrounding goods from combustion, so that the fire can not be spread and within control.



EI MIST 高压细水雾系统的优势

Unique advantages of EI MIST high pressure water mist system

★ 绝缘好 Non-conductive

将来自于灭火介质所带来的损失降至最小，使用去矿物质水作为灭火介质，不导电

minimize the damage caused by the extinguishing agent, demineralized water as agent, not conduct electricity



★ 环保 Environmental friendly

用水量小，无污染，无腐蚀，环境友好型产品

small water volume used, neither pollution nor corrosion, friendly for environment

★ 维护方便 Easy maintenance

系统所使用的管路规格尺寸小，易于组装和拆卸，维护方便。
pipelines sizes are small, easy to assemble and disassemble



★ 减少成本 Cost saving

减少使用大型水塔、水泵等大型消防设施，减少成本。
eliminate the cost of large water storage tanks and pressure pumps

★ 适用广范 Wide application

不仅适用于封闭式空间的防护，也可用于开放式空间的保护。
can be used in both closed protection zones and open areas





独特的水雾喷嘴

Unique Water Mist Nozzles

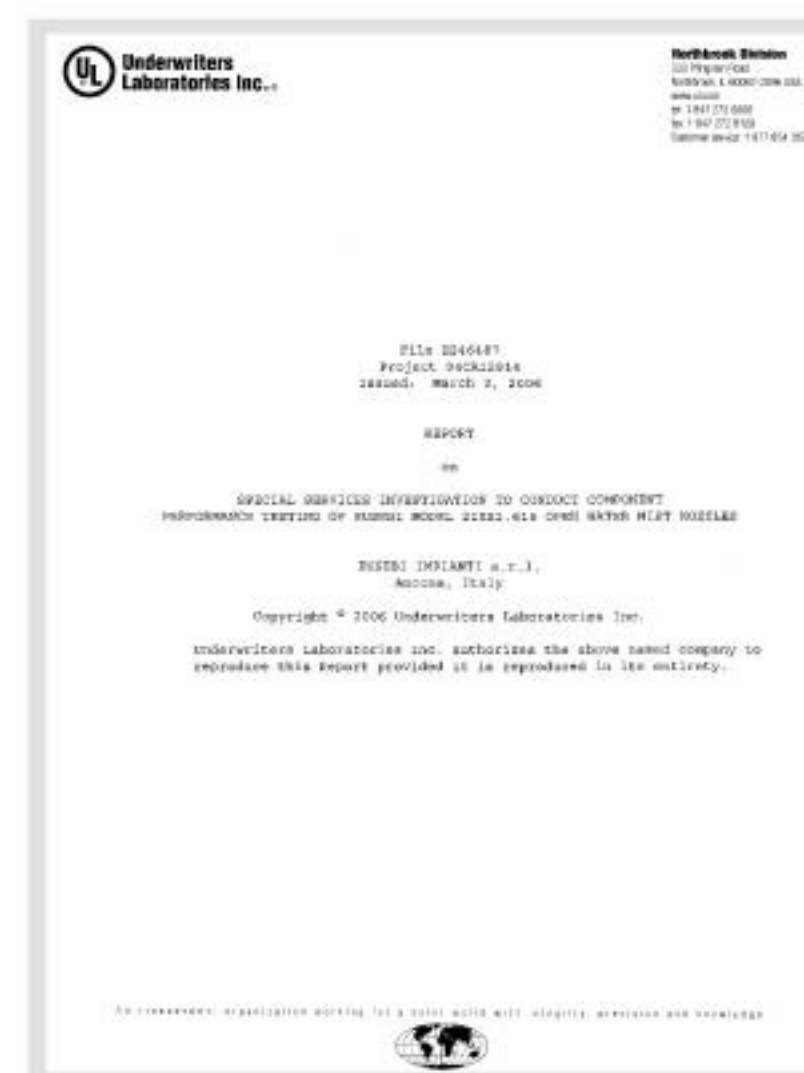
- ★ EI-MIST高压细水雾喷头是由Eusebi Impianti公司自行设计、研发、制造的，处于世界领先水平，能够与EI-MIST高压细水雾系统精密配合，发挥最佳灭火效果。
- ★ The EI-MIST high pressure water mist nozzles are designed, developed and manufactured all by Eusebi Impianti, technically leading all over the world; EI-MIST nozzles work perfectly well with EI-MIST high pressure water mist system, helping the system to achieve best fire fighting protection effects.
- ★ 水雾颗粒直径：系统工作压力100BAR~120BAR，水雾微粒径小于100微米（NFPA750）由于水雾颗粒非常微小，能够迅速蒸发，吸收大量热量；
- ★ Diameter of water mist particles: system working pressure 100 bar to 120 bar, diameter of water mist particles less than 100 μm (NFPA750), the water particles, as a consequence of their very small size, are subject to rapid evaporation, with the consequent strong removal of a large quantity of thermal energy from the fire.
- ★ 喷嘴已通过UL认证
- ★ Water Mist Nozzles are UL listed.



闭式喷嘴
Close nozzle



开式喷嘴
Open nozzle



储水水箱 Water tank



整个管网系统与一个备用水箱相连，备用水箱由不锈钢AISI 304制成，并进行了加固。由市政供水管网向该水箱供水。

所有的EI MIST高压细水雾系统管网是由不锈钢AISI 316L制成的。高压管件也是由Eusebi Impianti供应的；使得这些管网管件能够组成完整的管道系统，并能够与喷嘴正确连接。

与普通的水喷淋系统管网相比较，EI MIST高压细水雾管网拥有各类尺寸的管道，从10mm到40mm不等，能够在较为狭小的空间内进行安装。

选择阀适用于将EI MIST高压细水雾系统进行不同分区的保护。选择阀一直处于系统的监控之下，由控制盘通过电子信号控制，在火灾时进行相应的动作，以扑灭不同保护区内的火灾。

系统还配备了一个水箱，尺寸从1立方米到10立方米不等，用于为EI MIST高压细水雾系统提供水源。水箱与公共供水管网相连，由电动泵组或者是柴油泵组从水箱抽取水源向整个系统供水。

EI MIST高压细水雾系统也可以使用瓶组式系统，将水瓶组中的水作为水源，瓶组中将提前充装去矿物质水作为灭火介质。

The pressure system is connected to a back-up tank which is built with AISI 304 stainless steel plates and reinforcing bars. This is fed by the public water main network.

All EI MIST pipes are made from AISI 31 6L stainless steel. High-pressure fittings are also supplied by Eusebi Impianti to give to the customer the package for completing the tubing network and mounting the sprinkler.

EI MIST pipes compared to traditional sprinkler system pipes, are very small from 10 to 40mm, enabling discrete installation in tight space.

Directional valves are used to divide an EI MIST system into sections. They are monitored and normally open for wet and dry systems and closed, electrically actuated, for deluge systems.

A tank, from 1 to 10 cubic meter is dedicated to the EI MIST system and connected to a mains feed to supply water to an electrical or diesel-driven pump unit.

The water supply for EI MIST self contained systems consists of water cylinders that are pre-filled with demineralized water.

EI-Mist高压细水雾系统及其零部件组件是由Eusebi Impianti自行设计、研发、试验和制造的，为了使细水雾系统的安装维护与灭火效能达到最优，Eusebi Impianti投入巨大资金与人力，与不锈钢生产商、管材管件制造商一同开展了大量的性能试验，优化不锈钢配方，提升生产工艺，使得EI-Mist高压细水雾系统中所使用的管网与组件，不仅能够充分满足系统工作的各项要求，也为系统的安装、调试、维护创造了大量便利。

EI-Mist High Pressure Water Mist System and its components are completely designed, developed, tested and manufactured by Eusebi Impianti, in order to achieve the best fire fighting effects and make installation and maintenance much easier. Having invested a lot of money and human resources, Eusebi Impianti, stainless steel manufacturers and water mist system pipelines and fittings manufacturers do large quantity of tests and experiment, optimize the stainless steel recipe, and better the manufacturing processing methods; all those efforts not only make the EI-Mist pipelines, fittings and components fully meet the working requirements of the system, but also bring a lot of advantages and conveniences in the system installation, commissioning and maintenance.



零部件技术特点：

EI-MIST components technical characteristics:

★ 螺纹丝扣连接 Threaded connection between components

不锈钢管网、集流管、喷头接口、高压细水雾喷头的连接，均采用螺纹丝扣连接，密封性能优异，无需使用工业胶。

Stainless steel pipelines, manifolds, sockets, nozzles are connected by threaded connections, with good seamless performances, no need to use industrial glue.

★ 90度弯折 90° bending directly, no elbow

EI-Mist高压细水雾系统使用的不锈钢管网直径小，易于在狭小密闭空间中安装，节省空间；安装过程中无需使用弯头，可以直接将不锈钢管弯折90度使用，节约管件用量，减少安装时间，降低安装难度，减少系统潜在的泄露点数量。

The diameters of stainless steel pipelines used in EI-Mist High Pressure Water Mist System are quite small, easy to install them in narrow and sealed rooms, saving a lot of spaces. In the installation, no need to use elbows, and the pipelines can be bended directly. Fittings are saved, installation time is reduced. Much easier for installation, the quantity of potential leakage points are limited.

★ 螺旋型管网设计 Spiral pipeline design

用于天花板安装的独特螺旋型管网设计，具有良好的伸缩性，能够顺利与天花板高度无缝契合。

Special spiral pipeline structure is designed for ceiling nozzles installation. Easy adjustment for the spiral structure assures the nozzles installation to perfectly stay at the same height with the ceiling.

★ 独特的喷头接口设计 special structure design for socket

不锈钢喷头接口采用独特的设计和内部结构。安装喷头后，接头内部保持常开状态，保证系统的正常运行。卸下喷头后，喷头接口关闭。在管网压力试验中，无需安装堵头，省时省料。拆卸高压细水雾喷头进行检修维护时，无需担心管网内的蒸馏水从喷头处泄露，易于维护。

The socket, used for connecting nozzles, is designed with special inner structure. When nozzles are installed, the socket is open and system can work properly. When nozzles are disassembled, the socket goes closed. So that in the pressure test for the pipelines, there is no need to install nuts to block the nozzles connections, saving time and materials. No need to worry about water leakages coming from the pipelines when disassembling the nozzles and doing the system maintenance.





产品型式 System types



EI MIST瓶组式高压细水雾系统

EI MIST high pressure water mist self contained system

★ EI MIST瓶组式高压细水雾系统 EI MIST high pressure water mist self contained system

该系统包括充装有200bar压力的氮气瓶以及蒸馏水瓶。空气压缩机使得整个管网处于压力之中。当系统处于准工作状态时，蒸馏水只储备在高压钢瓶内，以防止水从管网系统泄漏。

因此，该系统也可以安装用来保护各类机械设（例如电力柜，数字设备，变压器等等）。

有火灾发生时，环境温度达到57摄氏度时，闭式喷嘴上的热敏感球将会破裂。系统管网内部的压力下降，低压开关立即开启，从而启动水 / 氮气储存装置的电磁阀开关，系统开始灭火。

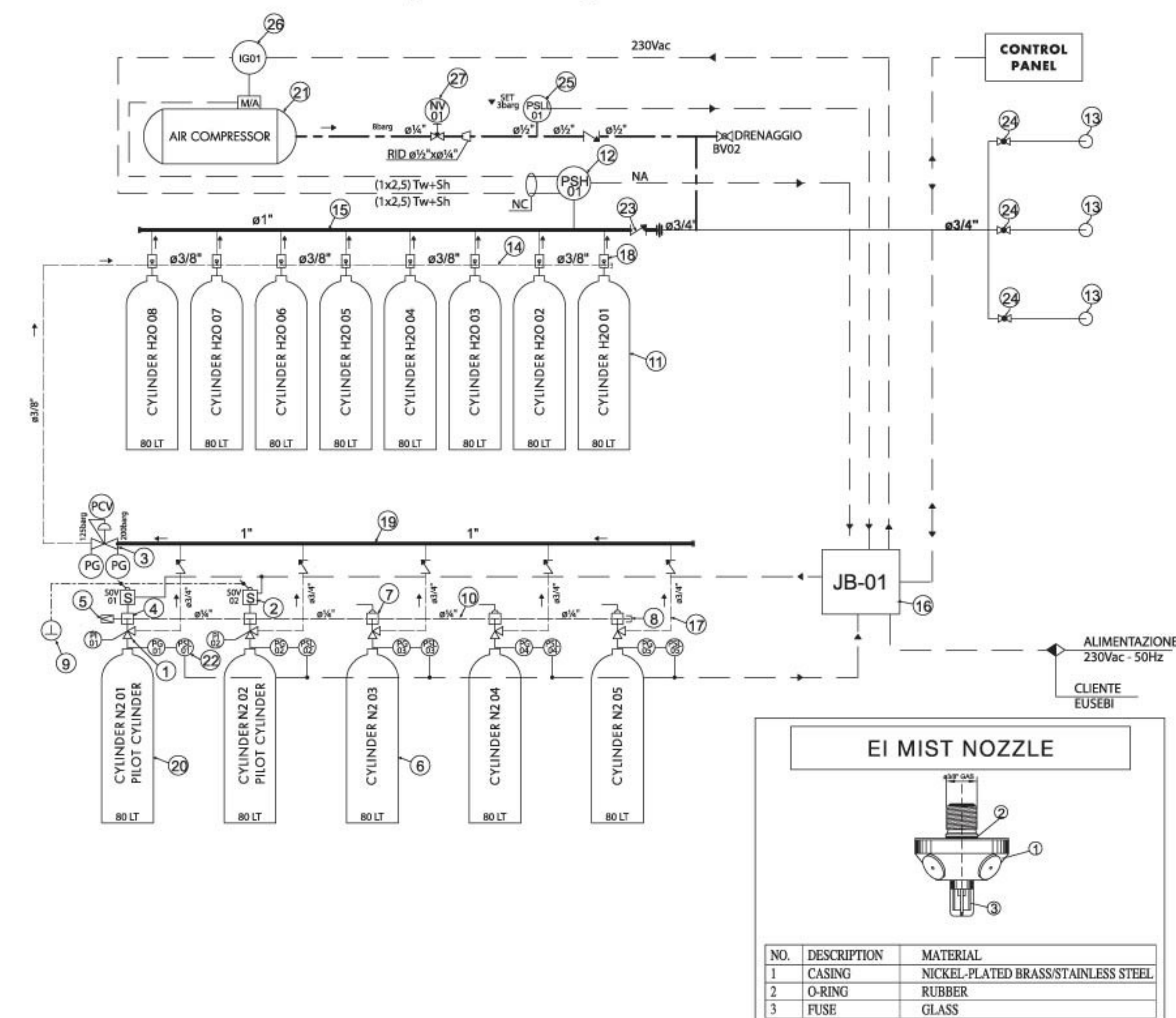
The system consists in cylinders filled with nitrogen at 200 bar and cylinders filled with demineralized water. A pressurized air compressor keeps the discharging piping net under pressure. When the system is in stand-by, the water is only inside the cylinders in order to avoid leakage in the piping network, therefore the system can also be installed in protection of particular equipments (like electrical cabinets, DECs, transformers and etc.).

优势：
价格优势
较小的电力消耗
高安全性，避免错误报警

Advantages:
-Low-cost
-Minimal consumption of electricity
-Safety against false alarms

EI MIST瓶组式原理图

EI-MIST Self Contained System Diagram



NO.	DESCRIPTION	NO.	DESCRIPTION
1	RAPID FLOW VALVE FOR N2	15	MANIFOLD FOR H2O IN SS AISI 316 API 5L Sch.80
2	ELECTRIC DRIVER	16	JUNCTION BOX
3	PRESSURE REDUCER	17	HOSE FOR N2 IN SAE 100 R2AT
4	PNEUMATIC/MANUAL DRIVER	18	VALVE FOR 80-L CYLINDER FOR H2O
5	BLEEDER VALVE	19	MANIFOLD FOR N2 IN SS AISI 316 API 5L Sch.80
6	80-L CYLINDER FOR N2 (FILLED AT 200 bar)	20	PILOT CYLINDER N2 (FILLED AT 200bar)
7	PNEUMATIC/MANUAL HEAD WITH BLEEDER HOLE	21	COMPRESSOR
8	CAP	22	LOW PRESSURE SWITCH FOR N2 CYLINDERS
9	BOX WITH HANDLE FOR MANUAL ACTIVATION	23	RETAINER VALVE FOR H2O NP>160bar
10	PIPING SAE 100 R2AT (FOR ACTIVATING N2 CYLINDERS)	24	RETAINER VALVE FOR H2O NP>160bar
11	80-L CYLINDER FOR H2O WITH INTERNAL TREATMENT	25	LOW AIR PRESSURE SWITCH
12	DISCHARGE INDICATION PRESSURE SWITCH	26	MAIN 230 Vac SWITCH
13	CLOSED SPRAYING NOZZLE	27	REGULATOR VALVE
14	HOSE SAE 100 R1AT (FOR ACTIVATING H2O CYLINDERS)		



EI MIST泵组式高压细水雾系统

EI MIST high pressure water mist pump unit system

- ★ EI MIST泵组式高压细水雾系统
EI MIST high pressure water mist pump unit system

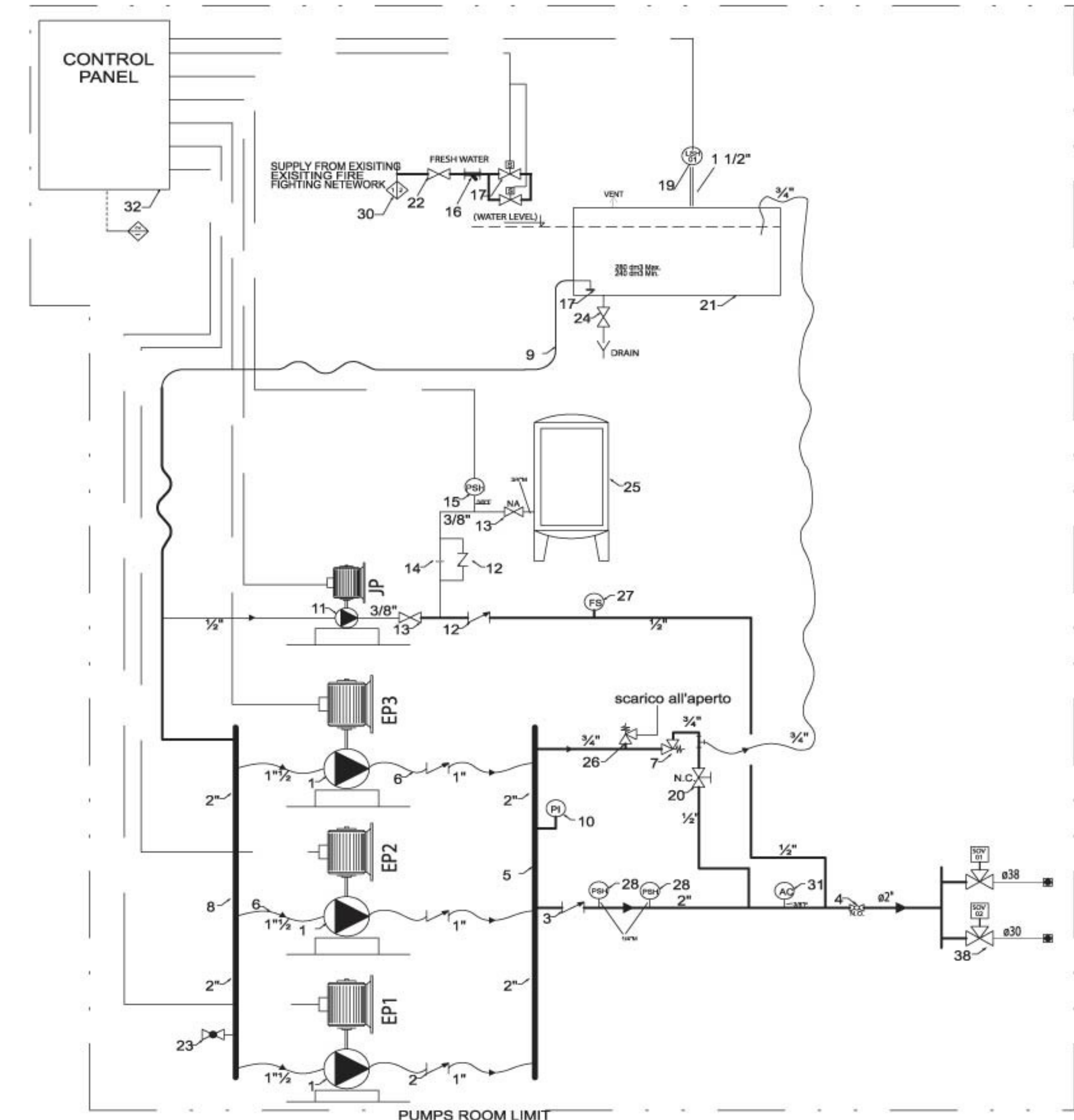
系统包括至少一台以上的高压泵组，装配于专用支架上。

在泵组系统的上方安装有集流管，集流管中设置有单向阀。管路中的压力调节阀，能够保证多余的水不进入管路，并回流到储水水箱中，使得水流流量总是与集流管流量相匹配。当整个系统处于待机状态时，管路中从泵组到喷嘴都充满去矿物质水。当火灾发生时，喷嘴处的热敏感球破裂，导致管路内压力下降，低压开关会立即启动，一个或者多个高压水泵将会开始工作。

The pressurizing system consists of at least one high-pressure pump fitted on a self-supported skid. The water is transported from the pump by means of a check valve in the manifold at the top of the pumping system. A pressure regulation valve, which regulates the excess water by carrying it back to the back-up tank, is fitted to this manifold. When the whole system is at rest, the water is present in the entire network with intact discharge nozzles. A possible fire can cause the bulb of the discharge nozzle to break and the decrease in the system's pressure will be signaled immediately by the low pressure switch, which allows one or more high pressure pumps to start.

EI MIST泵组式原理图

EI-MIST Pump Unit System Diagram



N	SKID DESCRIPTION	N	SKID DESCRIPTION
1	HIGH PRESSURE PUMP, H=120bar Q=120 l/min.	20	PUMP TEST VALVE
2	CHECK VALVE ø1"	21	1000lt (MINIMAL) AISI 304 STAINLESS STEEL RESERVOIR TANK
3	CHECK VALVE ø2"	22	ø1" REFILLING BALL VALVE
4	MAIN BALL VALVE	23	ø½" DRAIN VALVE
5	ø2" AISI 316 STAINLESS STEEL MANIFOLD SUPPLY WITH CUT RINGS	24	ø½" RESERVOIR TANK DRAIN VALVE
6	ø1" FLEXIBLE HOSE	25	6lt BUFFER TANK
7	PRESSURE REGULATING VALVE	26	SAFETY VALVE
8	ø2" AISI 316 STAINLESS STEEL MANIFOLD SUCTION WITH CUT RINGS	27	FLOW TRANSMITTER 0-250 Bar G
9	ø1½" FLEXIBLE SUCTION PIPE	28	HIGH PRESSURE SWITCH
10	PRESSURE INDICATOR	29	HIGH PRESSURE SPRAY NOZZLE WITH BULB
11	PILOT PUMP, 10 l/min. AT 15 bar	30	SUPPLY LIMIT 1=CUSTOMER 2= EUSEBI
12	CHECK VALVE ø3/8"	31	ACCUMULATOR Q= 160 cm³ (OPTIONAL)
13	BALL VALVE ø3/8"	32	CONTROL PANEL FOR SYSTEM PUMPS UNIT
14	RESTRICTOR WITH ORIFICE	33	ACCUMULATOR Q= 160 cm³ (OPTIONAL)
15	PRESSURE SWITCH FOR PILOT PUMP (SET AT 10 bar) THE PILOT PUMP START AFTER 10sec. WHEN THE HIGH PRESSURE PUMP IT'S ON RUN	34	WET HIGH PRESSURE SPRAY NOZZLE WITH BULB K=1 T=57°C
16	ø2" SUCTION STRAINER	35	DRY HIGH PRESSURE SPRAY NOZZLE K=1
17	SOLENOID VALVE FOR REFILLING	36	(NO) BALL VALVE
18	ZONE FLOW SWITCH	37	FLOW-SWITCH
19	LEVEL SWITCH	38	(NC) SOLENOID VALVE

高压细水雾系统船级社认证

High Pressure Water Mist System Marine Certificates

序号	认证机构	认证说明
1	法国 BV 认证	认证的对象是泵组式高压细水雾系统，同时以瓶组式系统为备用系统 试验的标准为 IMO 主要应用的场所：客舱、走廊、公共空间、购物空间、储存空间
2	法国 BV 认证	泵组式系统 主要应用场所：深油厨房设备
3	意大利 RINA 认证	主要应用场所：厨房，保护商用厨房设备
4	意大利 RINA 认证	主要应用场所：A 类机器设备间、游船泵房
5	意大利 RINA 认证	主要应用场所：A 类机器设备间
6	意大利 RINA 认证	工作压力：120bar 主要应用场所：深油厨房设备
7	意大利 RINA 认证	工作压力：100bar 主要应用场所：客舱阳台
8	意大利 RINA 认证	主要应用场所：客舱、走廊、公共空间、购物空间、储存空间



01
法国BV认证



02
法国BV认证



03
意大利RINA认证



04
意大利RINA认证



05
意大利RINA认证



06
意大利RINA认证



07
意大利RINA认证



08
意大利RINA认证



高压细水雾系统已取得的其它认证

High Pressure Water Mist System Other Certificates Achieved

- SP瑞典火灾防护国家测试研究实验室
- SP Swedish National Testing and Research Institute for Fire Protection

- VNIIP全俄罗斯火灾防护研究所
- VNIIP All Russian Institute for Fire Protection

以上的研究所均是EGOLF欧洲火灾测试检测认证组织的成员机构。

The above institutes are members of EGOLF the European Group of Organization for Fire Testing, Inspection and Certification.

在这些实验室中，Ei公司的工程师按照以下的国际标准进行了相关的测试，Ei高压细水雾系统完全符合相关的国际标准：

In these laboratories, Eusebi Impianti s.r.l. engineers, carried out several type of tests following the international protocols. The EI MIST HP complies with:

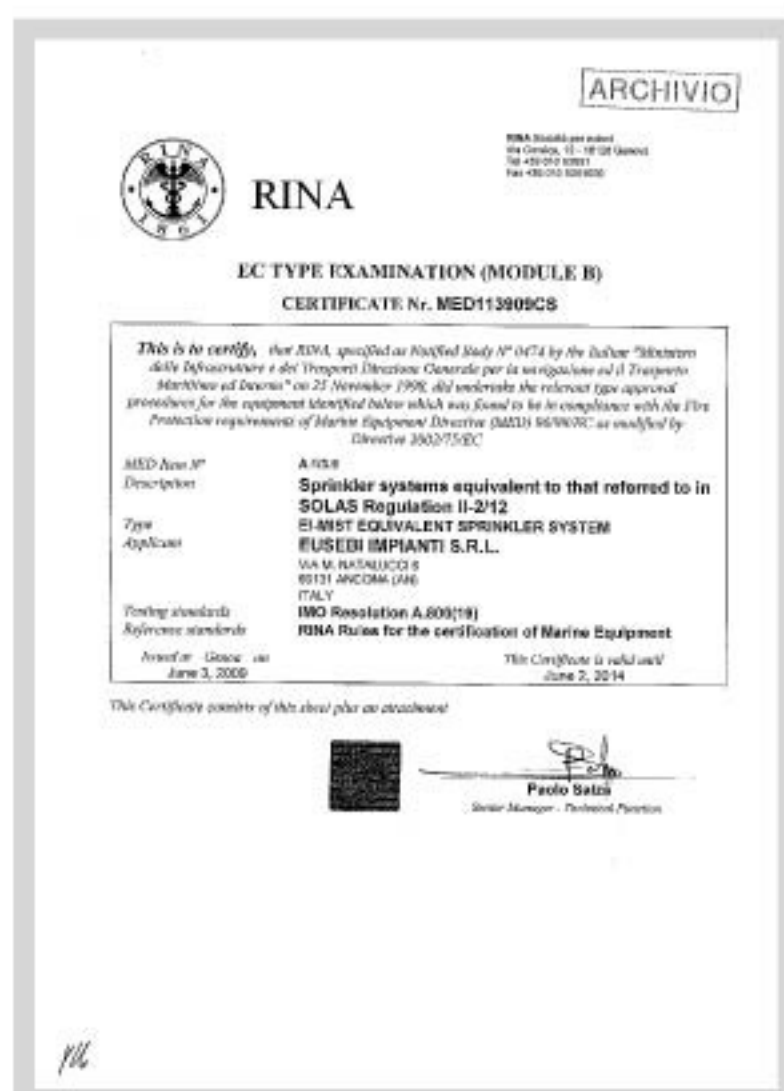
- NFPA 750
- IMO 913, A800 and IMO/CIR. 1165
- FM Standard Appendix G and H

Ei细水雾系统还取得了BV(Bureau Veritas)认证。

The EI MIST HP is certified by BV (Bureau Veritas).

系统所采用的喷嘴也通过了UL认证，在文物古迹和电缆方面也通过了RINA的相关测试。Ei高压细水雾系统的雾滴属于I类细水雾雾滴的直径小于100微米，同时适用于A类火灾（固体燃烧物火灾，如纸张、木材等）以及B类火灾（液体燃烧物火灾，如原油，汽油，碳氢化合物等等）。

The spray nozzles have been tested following the UL standards and it was performed tests for archives and electrical cables by RINA Industry. The system is classified as class I (droplets size less than 100 microns) and also suitable for extinguishing Class A fires (solid combustibles such as paper, wood, etc.) and Class B fires (liquid combustible such as crude, oils, hydrocarbons, etc.).



EI MIST高压水雾系统的应用领域

Applications



民用及公共建筑领域

Civil and public architectures and buildings

地铁列车及车站、公路铁路隧道、机库、档案馆、图书馆、酒店、历史文化建筑、办公楼、仓库、计算机房、电信机房等；

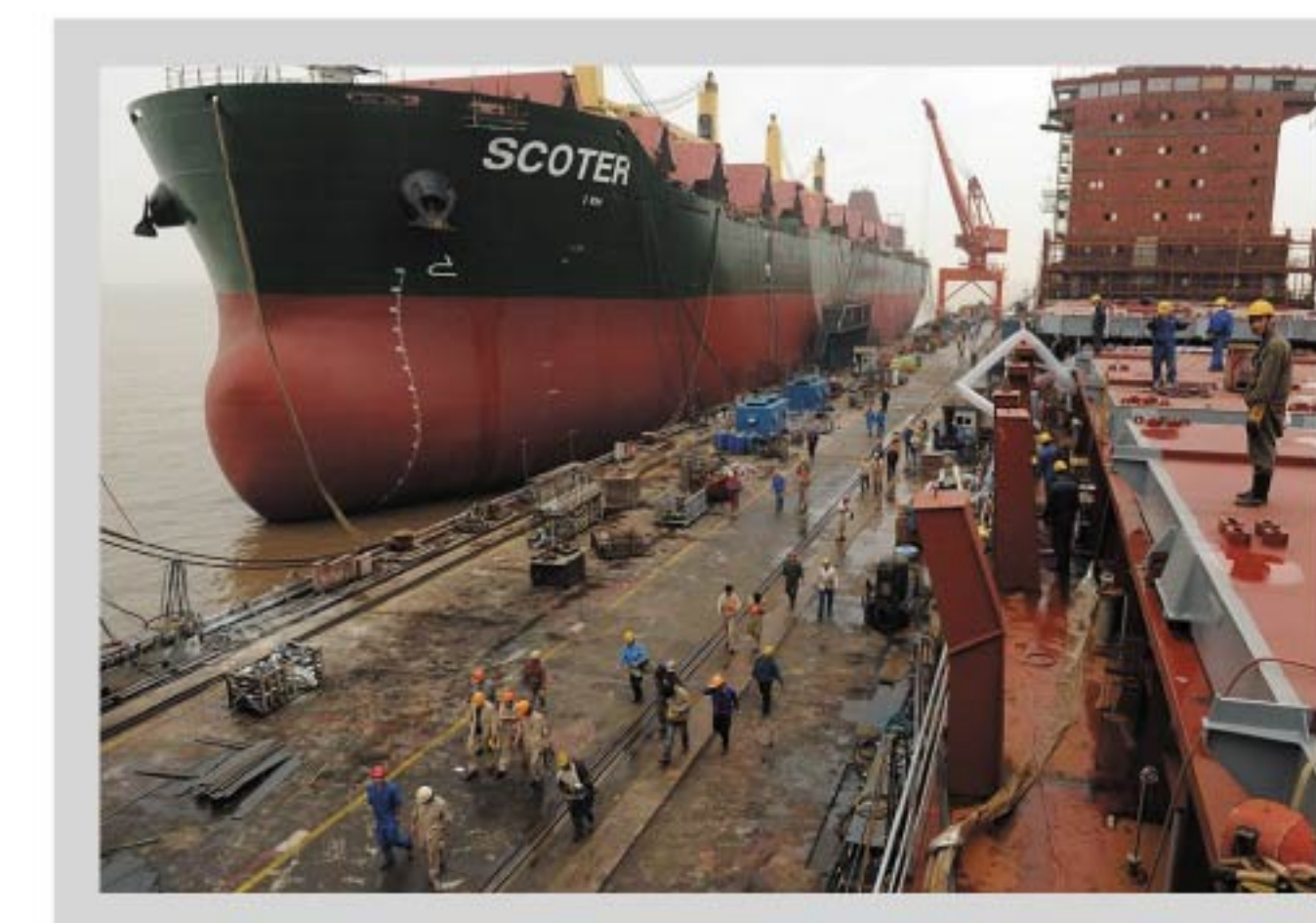
subway carriages and stations, road and railway tunnels, hangars, archives, libraries, hotels, historical & cultural architectures, office buildings, warehouses, computer rooms, telecom rooms and etc.

船用领域

Marine application

军舰、油轮、渡轮、货轮、帆船游艇、海上平台等；

military ships, tankers, ferries, cargo ships, sailing yachts, offshore platforms



工业及能源领域

Industrial and power application

涡轮机、柴油发电机、石油石化、机器设备间、变压器、开关设备间、线缆隧道等。

turbines, diesel generators, oil and petro-chemical, machinery equipment rooms, transformer rooms, switches equipment rooms, cables tunnels and etc.

莫斯科-俄罗斯 莫斯科塔

EI-MIST高压及低压细水雾系统对Ostankino电视塔进行了全方位的消防保护，该电视塔高540米，是欧洲最高的建筑，同时名列世界高塔前五位；不幸的是在2000年8月，高塔曾经历了一场严酷的火灾。

EI-MIST细水雾系统对所有的服务管路和通信线缆隧道进行了保护，同时也保护诸如办公室、会议室以及观景台等公共空间，以及设备控制间、仓库等。

电视塔内所有的内部消火栓系统也是使用EI-MIST消防水龙，使用去矿物质水作为灭火介质。

Moscow - Russia MOSCOW TOWER

The EI MIST® high and low pressure water mist system protects the Ostankino TV Tower which, at 540 meters, is the tallest in Europe and one of the five tallest in the world, and which suffered a dreadful fire in August 2000.

The EI MIST® system safeguards all the service ducts and technical tunnels, the public areas such as offices, meeting rooms and the observation site, as well as the engineering rooms and warehouses.

The inner fire hydrant network is also based on the EI-Mist Hose Reel® using vaporized water.



米兰-意大利 摩天大楼

Eusebi Impianti s.r.l.对Palazzo Lombardia摩天大楼进行了全方位的消防保护，意大利伦巴第大区的政府总部及各类机构均在该大楼内办公。

大楼内防护的区域包括：26000平方米的地下停车场，采用水喷淋灭火系统和消火栓进行保护；6500平方米的档案室和1500平方米的设备间使用IG惰性气体灭火系统进行保护；560平方米的图书馆采用Novec1230进行保护，整个大楼的玻璃幕墙及幕墙后的反光挡板通过使用EI-MIST高压细水雾系统，实现了各防护区的有效隔离；楼顶的直升机停机坪则是采用泡沫系统进行保护的。

Milan - Italy PALAZZO LOMBARDIA

Eusebi Impianti has fully protected Palazzo Lombardia, Lombardy's regional committee headquarters which includes the presidency and the whole department body.

The Area is comprised of over 26,000 square meters of underground parking, which is protected by sprinklers and fire hydrants, 6,500 square meters of archives and 1,500 square meters of equipment rooms which are protected by inert gaseous systems, 560 square meters of libraries protected by the Novec™ 1230 systems, partitioning of the climatic walls with the EI Mist® system and a heliport with foam systems.

米兰-意大利 Turbigo发电厂

Eusebi Impianti为Turbigo发电厂从850MW改造成联合循环电站项目中，提供了各种消防系统进行消防保护。发电厂位于米兰大区的Turbigo和Robecchetto市，占地56公顷。

变压器和油盒采用高压细水雾系统进行保护，二氧化碳灭火系统保护变压器站，燃气轮机采用高压细水雾预作用系统进行保护，在综合控制室和控制设备间采用IG惰性气体灭火系统进行保护。所有的消防灭火系统都由Eusebi Impianti制造的火灾探测报警系统控制。

Milan - Italy TURBIGO POWER STATION

Eusebi Impianti has safeguarded the initial environmental requalification phase of the Turbigo power plant, while it was changed from 850 MW into a combined cycle. The power plant covers an area of 56 hectares and is situated in the territories of the Municipalities of Turbigo and Robecchetto, in the province of Milan.

Water mist systems have been installed to protect the transformers and oil boxes, CO2 systems to protect the MT stations, pre-action systems to protect the turbine bearings, inert gas systems in the control rooms and panel rooms. All the systems are managed by Eusebi Impianti's fire detection systems.

高压细水雾部分工程业绩表

EI MIST Reference List

客户 CLIENT	描述 DESCRIPTION	项目 PROJECT	项目所在地 SITE	最终用户 所在国家 COUNTRY	年度 YEAR
客户所在国家 COUNTRY		最终用户 END USER		最终用户 所在国家 COUNTRY	
WORLEY PARSONS EUROPE LIMITED 沃利帕森斯工程公司 欧洲分公司 UNITED KINGDOM 英国	SUPPLY OF HIGH PRESSURE WATER MIST SYSTEMS, FOAMS SYSTEMS, WATER SPRAY SYSTEMS 供应高压细水雾系统, 泡沫系统, 水喷雾系统	ESKENE WEST RAIL PROJECT AGIP KCO 阿吉普国际财团		KAZAKHSTAN 哈萨克斯坦	2013
FINCANTIERI SPA ITALY 意大利	SUPPLY AND INSTALLATION OF HIGH PRESSURE WATER MIST SYSTEM 供应并安装高压细水雾灭火系统	HULL 6231 6231号船	MONFALCONE (GO) 蒙法尔科内	ITALY 意大利	2013
ENEL PRODUZIONE SPA ITALY 意大利	SUPPLY AND INSTALLATION OF HIGH PRESSURE WATER MIST SYSTEMS 供应并安装高压细水雾系统	HYDROELECTRIC POWER PLANTS OF DEVERO AND ROVESCA DEVERO AND ROVESCA 水电站	DEVERO E ROVESCA (VB)	ITALY 意大利	2012
MOSCOW 莫斯科	HIGH AND LOW PRESSURE WATER MIST SYSTEM 高压及低压细水雾系统	OSTANKINO TV TOWER OSTANKINO电视塔	RUSSIA 俄罗斯	MOSCOW 莫斯科	2012
ITALY 意大利	WATER MIST SYSTEMS CO2 SYSTEMS 高压细水雾系统 二氧化碳灭火系统	TURBIGO POWER STATION Turbigo发电厂	MILAN 米兰	ITALY 意大利	2011
ITALY 意大利	SPRINKLER FIRE FIGHTING SYSTEM IG FIRE FIGHTING SYSTEM WATER MIST SYSTEMS 水喷淋灭火系统 IG惰性气体灭火系统 高压细水雾灭火系统	MILAN-ITALY PALAZZO LOMBARDIA 米兰-意大利 摩天大楼	MILAN 米兰	ITALY 意大利	2011

客户 CLIENT	描述 DESCRIPTION	项目 PROJECT	项目所在地 SITE	最终用户 所在国家 COUNTRY	年度 YEAR
客户所在国家 COUNTRY		最终用户 END USER		最终用户 所在国家 COUNTRY	
SUDPROGETTI SPA ITALY 意大利	SUPPLY OF AMMONIA ABATEMENT SYSTEM THROUGH A HIGH PRESSURE WATER MIST SYSTEM 供应高压细水雾系统作为氨消减系统	RAFFINERIA DI GELA ISLE NO. 5	GELA (CL)	ITALY 意大利	2010
FINCANTIERI SPA ITALY 意大利	SUPPLY AND INSTALLATION OF HIGH PRESSURE WATER MIST SYSTEM 供应并安装高压细水雾灭火系统	CARNIVAL - HULL 6223 6223号船	MONFALCONE (GO)	ITALY 意大利	2010
OOO PLAMYA E1 RUSSIA 俄罗斯	SUPPLY OF HIGH PRESSURE WATER MIST SYSTEM TO PROTECT ACCOMODATION AREAS 供应高压细水雾系统以保护住宿区	SAILING YACHT SCV-64 CHOREN DESIGN @ CONSULTING	GDANSK	POLAND 波兰	2009
AEM GESTIONI SRL ITALY 意大利	SUPPLY AND INSTALLATION OF WATER MIST SYSTEM WITH HIGH PRESSURE CYLINDERS 供应并安装瓶组式高压细水雾系统	TURBINES 涡轮机	CREMONA	ITALY 意大利	2009
FINCANTIERI SPA ITALY 意大利	SUPPLY AND INSTALLATION OF TURNKEY WATER MIST SYSTEMS RANGE TC2I AND TECHNICAL ASSISTANCE 高压细水雾灭火系统交钥匙工程, 供货安装、技术支持	HULL 6212 - FREMM 6212号船 FREMM 多功能护卫舰	RIVA TRIGOSO (GE) GENOA 热那亚	ITALY 意大利	2008