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# Eusebi Impianti 集团

您的安全,我们的目标。

Eusebi Impianti集团在欧洲、亚洲、美洲等地拥有众多充满活力的公司,在国际消防领域,已经拥有了超过四十年的专业经验。 面对各类高难度的消防防护领域,包括能源行业、石油行业、石油化工行业、海军船舰领域、军工行业等,Eusebi Impianti集团 为世界上众多的客户提供综合消防设计方案、制造技术先进的消防系统、提供完善周到的配套服务。

Eusebi Impianti集团的众多消防系统,克服各种困难与阻碍,在世界各个国家和地区取得了产品认证及检验报告;这也证明我们 在项目经验中培养出了高超的专业技术能力,也为客户提供了最先进的专业解决方案。

从实验室中的技术人员到项目现场的工程师,Eusebi Impianti集团的每一位员工都在通过自己的努力工作完成每一个消防项目; 我们的工作目标只有一个:不断提升客户的生命和财产安全。

开拓创新的精神,价值体系的成长,先进熟练的技术能力以及可靠的责任感,将共同推进Eusebi Impianti集团不断提升产品及服务的质量品质,为客户提供可靠优质的消防解决方案。



# YOUR SAFETY IS OUR PASSION.

The Eusebi Impianti Group is composed of dynamic, integrated and flexible companies who have been operating internationally for over 40 years, designing firefighting systems in the complex energy, oil, petrochemical, naval and military fields.

The certifications we have received and the variety of systems we have designed all over the world, often in difficult conditions, are a testament to the expertise we have acquired and the innovative solutions we offer.

Each project is the result of everyone' s commitment, from lab technicians to site personnel, with the sole objective of improving the safety of properties and people.

A spirit of innovation, heightened by a system of values, proficiency and a sense of responsibility drives the Eusebi Impianti Group to continually raise their quality standards.



Eusebi 集团由分布在意大利,中国,俄罗斯,克罗地亚,哈萨 克斯坦,波兰等国在内的12个公司组成,致力于消防领域。

Eusebi Group is made of 12 companies, including headquarter, subsidiaries, joint ventures, distributors, branch offices and etc. They locate in Italy, China, Russia, Croatia, Kazakhstan, Poland and etc, contributing to the fire fighting industry.

- ★ Headquarter 总部
- ▲ subsidiary company 子公司
- Branch offices 分销处
- ★ International Distributors 海外办事处
- Joint Venter 合资公司





## YOUR FIRE PROTECTION PARTNER 您的火灾防护合作伙伴

在消防领域拥有超过40年的丰富经验, 为全世界客户设计生产供应上千套消防 系统,对于在高难度行业领域,需要专 业消防防护的客户来说,Eusebi Impianti集团是非常理想的合作伙伴。

Eusebi Impianti集团一直致力于在最具 有难度和挑战性的消防领域,为客户的 生命财产提供安全保障:核电厂及热电 厂、军用船舰、石油冶炼厂、钢铁厂、 历史文化古迹等。

Eusebi Impianti集团供应的各类消防系统,满足各个主要国家及地区的相关规定和产品标准。这也保证了Eusebi Impianti集团能够为客户提供最适合的消防系统解决方案,充分考虑客户的需要、 满足客户的要求,提供最优质可靠的产品和服务。

Eusebi Impianti集团一直以客户的消防 安全为己任,不论从功能上还是从结构 上都能为客户提供符合要求的综合消防 解决方案。 With 40 years' worth of experience in the field of firefighting and thousands of systems designed and installed all over the world, Eusebi Impianti is the ideal partner of clients who need a specialist in this complex field.

A persistent commitment to the safety of persons and objects in all the sectors where firefighting systems are the most challenging: nuclear and thermoelectric plants, military vessels, refineries, steel plants, historical buildings.

The expertise we have acquired, operating in compliance with the main national and international regulations, qualifies Eusebi Impianti's safety professionals to design the most suitable system of fire hazard prevention, always taking into account the client's needs and with the best quality.

Eusebi Impianti is a well-established company able to design the system which is most suited to the client's functional and structural needs.



### EXPERIENCE AND TECHNOLOGICAL RESEARCH ARE OUR KEYS TO SUCCESS

### 经验与技术研究是我们成功的关键

Eusebi Impianti集团在消防领域横跨若干个行业,表现突出,这都得力于Eusebi Impianti的经验、坚韧与创新。

Eusebi Impianti,作为集团公司总部,位于意大利安 科纳,是欧洲消防系统设计、生产与安装的领导企业 之一。

Eusebi Service也位于意大利安科纳,专注于消防系统的维护保养,为众多的油气田提供技术支持。

CMV位于意大利维琴察,生产各类用途的高压钢瓶, 包括消防用钢瓶。

OML位于意大利米兰,生产气体灭火系统需要的各种 阀门、喷头、启动装置和其他附件。

Eusebi Mediterraneo位于意大利巴里,主要业务为 安装消防系统,并完成系统的调试和启动。

Eusebi Impianti集团公司还在欧洲、亚洲和中南美洲 建立了众多的分支机构和代理商网络。 The Eusebi Impianti Group is a group of several industries in the firefighting field which stand out because of their experience, tenacity and innovation.

The leader, Eusebi Impianti, with headquarters in Ancona, is one of the European leaders in the design, production and installation of automatic fire fighting systems.

Eusebi Service located also in Ancona is specialized in the maintenance of fire fighting systems, in providing technical assistance on oil and gas wells.

CMV in Zanè (Vi) produces high-pressure cylinders for various uses, including fire suppression.

OML is located in Milan and constructs valves, nozzles, activators and other accessories used in gaseous firefighting systems.

Eusebi Mediterraneo, in the province of Bari, installs firefighting systems and is specialized in Fire and Gas commissioning and startup.

The Eusebi Impianti Group can count on a network of affiliates and agents throughout Europe, Asia and central South America.



## **CMV: A GROUP OF PROFESSIONALS SPECIALIZED IN THE PRODUCTION OF HIGH-PRESSURE CYLINDERS.**

### CMV: 生产高压钢瓶的专业厂商

2006年, Eusebi Impianti公司收购了当地一家 专门生产钢瓶的厂商,并以此成立了CMV公司。

CMV为诸多应用领域生产专用的高压钢瓶,比 如CNG压缩天然气、工业气体、消防领域等。钢 瓶生产的原料为铬钼钢无缝钢管,尺寸从 170mm开始、最大可达406mm,最大高度可 达2100mm。钢瓶容积从15L到200L均可提供, 最大工作压力350bar,最大测试压力可达 500bar。 CMV的质量控制系统通过了德国TUV 认证,生产的高压钢瓶通过了绝大多数世界范围 内知名标准的认证:R110、ISO11439、TPED 和PED。

此外, CMV还在专用领域取得了产品认证:船 用领域、固定消防灭火系统领域,在专门市场也 取得了认证:俄罗斯、乌克兰、哈萨克斯坦( GOST),美国(DOT),加拿大(TC)。 CMV也取得了阿尔及利亚ARH认证。

CMV was created in 2006 when the Eusebi Impianti Group acquired a local industry specializing in cylinder production.

CMV produces high-pressure cylinders for various sectors such as CNG, technical gases and fire fighting. The cylinders are seamless steel made with chromium-molybdenum tubes with diameters starting from 170mm and reaching 406 mm, length up to 2100mm, water capability from 15L up to 200L, working pressure up to 350 bar and pressure test reaching 500 bar. CMV's quality system has been certified by TUV and the cylinders are certified according to the most renowned international standards: R110, ISO11439 TPED and PED.

Furthermore, CMV has been granted certifications for specific applications in the maritime field, for fixed firefighting equipment and specific certification for the Russian, Ukrainian, Kazakh (GOST), American (DOT) and Canadian (TC) markets. CMV has also obtained the Algerian ARH certification.





### OML: A DYNAMIC, VERSATILE AND FLEXIBLE COMPANY, ABLE TO MEET ANY NEED

### OML:充满活力、功能齐全、全面灵活的公司, 能够满足任何需求

从1972年起,位于意大利米兰的OML,就开始专业 生产多品类的消防产品配件,也按照客户的特殊需 求生产加工特殊部件。

OML拥有先进的技术经验和高科技生产设备,保证 了Eusebi Impianti集团能够完全自主生产气体灭火 系统。

通过高效活力的运作方式,OML能够生产出高品质的灭火系统零部件、机械部件和电气部件之间的连接件。

自上个世纪90年代开始,OML的生产体系就通过了 公司质量控制系统认证。公司同时也取得了PED和 CPD认证。 Since 1972 OML, a company located in Milan, has specialized in the production of a wide range of firefighting products, as well as manufacturing special items at the client's request.

Thanks to its know-how and the use of high-tech equipment, OML can ensure that the Eusebi Impianti Group is completely autonomous in the production of gaseous firefighting systems.

Using an efficient and dynamic method of operating, OML can also offers high quality products for the implementation of extinguisher fire fighting systems and the connections between the electronic and mechanical parts.

Since the 90's OML production is certified for its own Company Quality Control. The company has also been granted the PED and CPD certifications.



# **EUSEBI IMPIANTI CHINA** EI(中国)组织架构

EUSEBI IMPIANTI一直以来非常重视中国客户的生命与财产安全,希望能够为中国客户提供品质可靠、服务周全的消防系统产品及



Eusebi Impianti always cares about the life and asset safety of China clients, in hopes of providing reliable products and excellent services in China. Now in Beijing, an office has been built up, in charge of all the sales and after-sales services work in China; and in Tianjin, El establishes a plant, which is mainly responsible for assemble and produce high pressure gas fire fighting systems and high pressure water mist systems of great reliability and good quality. With the constant business spread in China for Eusebi Impianti, new offices will be built up soon in Shanghai and Guangzhou. With joint efforts, we Eusebi Impianti offer you best fire protection products and services.

#### 检验报告

EI 天津工厂在中国生产的所有高压气体灭火系统,以及意大利EUSEBI IMPIANTI总部原装进口的高压细水雾灭火系统,均通过了 公安部天津消防科学研究所国家固定灭火系统和耐火构件质量监督检验中心,检验合格,取得形式检验报告。同时高压细水雾取 得了产品的CCC认证。

#### ISO9000认证

EI 天津工厂还取得了ISO9000质量管理体系认证,从供应商资质审核、采购质量管理、生产质量控制、售后质量保障等方面全方 位保证产品质量,为客户提供可靠优质的产品。

#### **CE**认证

气体灭火系统中采用的容器阀、选择阀、电磁阀、信号反馈装置均由EUSEBI GROUP旗下独资子公司OML进行生产制造,具有 **CE认证**。

#### TUV认证

EUSEBI GROUP旗下子公司CMV公司专业生产的高压钢瓶,质量控制系统通了德国TUV认证,高压钢瓶通过了绝大多数世界范围 内知名标准的认证: R110、ISO11439、TPED和PED。

#### **UL**认证

高压细水雾系统所使用的喷嘴通过了UL认证。



#### **ISO9000 Certificate**

El Tianjin Plant has achieved ISO9000 quality management system certification. El Tianjin Plant assures the products quality from all aspects: suppliers check and validation, procurement quality management, production quality control, after sales quality assurance and so on; so that we can provide good and reliable products to our clients.

### **CE** Certificate

In all the gas fire fighting systems, the cylinder valves, direction valves, solenoid valves, pressure switches are supplied by OML, owned by Eusebi Group, specialized in valves manufacturing, with CE certificate.

### **TUV Certificate**

CMV is a subsidiary company under Eusebi Group, specialized in high pressure cylinders production; CMV's quality system has been certified by TUV and the cylinders are certified according to the most renowned international standards: R110, ISO11439 TPED and PED

### **UL Certificate**

The nozzles in the high pressure water mist systems have been UL listed.

### **EI PRODUCTS CERTIFICATES**

Systems and Fire-resisting Building Components, and China Certification Center for Fire Products Ministry of Public Security; and CCC certificates have been achieved for high pressure water mist system.





# **EI PRODUCTS CERTIFICATES** EI 产品认证









# **EI PRODUCTS**





### EI产品分类

EI 先进技术引进业界方向,向中国市场提供高品质 哈龙替代灭火系统的全面解决方案。包括IG、 HFC227、CO2、细水雾等产品。

High Pressure CO2 Fire

Fighting System

High Pressure Water Mist Syste

El is one of the top leaders in fire fighting technology, and provides high quality fire fighting systems in China market, including IG system, HFC227 system, CO2 system and high pressure water mist system.

**EIMX 1230灭火系统** EI MXE1230 Fire Fighting System

# **El Inert Gas Fire Fighting System**

EI 惰性气体灭火系统

### 系统介绍 System Introductions

- ★ 惰性气体灭火系统包括IG01氩气灭火系统、IG100氮气灭火系统、 IG55氮气氩气混合气体灭火系统、以及IG541混合气体灭火系统。
- ★ 惰性气体灭火系统采用"全淹没"浸入式灭火原理, 使空气中氧 气浓度降至15%以下,使火势熄灭;该类系统可以根据防护区需 要,设计使用单元独立式系统或者组合分配式系统。气体存储于 90L钢瓶内, 20℃时储存压力为15MPa, 工作温度为0至50℃, 喷放时间48秒至60秒。灭火浓度设计计算软件由意大利EUSEBI IMPIANTI提供,经过德国vds认证。
- ★ Eusebi Impianti 还能提供工作压力达到30 MPa的IG惰性气体灭 火系统。采用EI集团旗下子公司CMV生产的无缝钢瓶,通过 T-PED认证, 钢瓶最大工作压力达到35 MPa、钢瓶最大试验压力 可达50MPa。30MPa工作压力的IG惰性气体灭火系统,与 20MPa或者15MPa工作压力的系统相比,采用的钢瓶数量更少、 工作压力更高、气体喷射距离更远,更易于安排钢瓶间和排布钢 瓶,节约空间、节省成本。
- Nitrogen & Argon Fire Fighting System, IG541 Mixed Gas Fire Fighting System.
- supplied by Eusebi Impianti, certified by German vds.



\* Inert Gas Fire Fighting System includes: IG01 Argon Fire Fighting System, IG100 Nitrogen Fire Fighting System, IG55

Inert Gas Fire Fighting System is a total flooding system; the inert gas reduces the Oxygen concentration down to less than 15%, to put out the fire. According to the different needs of protection zones, single system and distribution system can be designed and applied. The inert gas is stored in 90L cylinders; the storage pressure is 15MPa at 20°C; working temperature is 0 to 50°C; and discharge time is between 48 and 60 seconds. The fire fighting concentration design calculation is

\* Eusebi Impianti is also able to provide Inert Gas Fire Fighting System with 300 bar working pressure. Inert gases are pressurized in the seamless steel cylinders manufactured by CMV, a Eusebi Impianti company, specialized in cylinders production. All the cylinders are T-PED approved, maximum working pressure up to 350 bar, and test pressure reaching 500 bar. Compared with 200 bar or 300 bar working pressure IG systems, 300 bar IG systems uses less cylinders, with much higher working pressure which enables a much more distant discharge; choosing cylinders room and cylinders placement become easier, leaving more spaces for other usages and with less costs.





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    ★ IG系统生理反应浓度:
    生理反应浓度:NOAEL=43% LOAEL=52%
    NOAEL—无毒性反应浓度,观察不到由灭火剂毒性影响产生生理反应的灭火剂最大浓度。
    LOAEL— 有毒性反应浓度,能观察到由灭火剂毒性影响产生生理反应的灭火剂最小浓度。
    设计浓度为43%时,人员5分钟内撤离
    设计浓度为43%~52%时,人员3分钟内撤离
    设计浓度为52%~62%时,人员在该防护区不得滞留超过30S
    无工作人员的场合,设计浓度可以达到62%以上
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 Physiological Reaction Concentration for IG systems: Physiological Reaction Concentration: NOAEL=43% LOAEL=52% NOAEL - no observed adverse effect level LOAEL - lowest observed adverse effect level When design concentration reaches 43%, evacuate within 5 minutes.
 When design concentration is between 43% and 52%, evacuate within 3 minutes.
 When design concentration is between 52% and 62%, human beings are not allowed to stay in the protection areas more than 30 seconds.
 When design concentration is more than 62%, it is applied in the non-occupied areas.

### 惰性气体灭火系统适用性

Inert Gas Fire Fighting System Applications

电器、电子设备火灾 Electrical and electronic fire

易燃、可燃气体及液体火灾 Fire caused by flammable and combustible liquids and gases

固体火灾,如地板,吊顶等 Solid fire, such as floors, ceilings

高价值的设备和装置的建筑物

Buildings with high-value equipment and instruments

高要求的文化场馆 Buildings with high-value cultural assets

### 技术参数

Technical data

IG01	IG 100	IG55	IG541
100%氩气	100%氮气	50%氩,50%氮	52%氮,40%氩,8%CO2
14.0MPa	13.6MPa	14MPa	13.6MPa
17.2MPa	17.2MPa	17.2MPa	17.2MPa
259.22kg/m <sup>3</sup>	168.78kg/m³	212.33kg/m <sup>3</sup>	211.11kg/m³
90L			
0 ~ 50℃			
15MPa			
	100%氩气 14.0MPa 17.2MPa	100%氩气 100%氮气 100%氮气 14.0MPa 13.6MPa 13.6MPa 17.2MPa 17.2MPa 17.2MPa 17.2MPa 17.2MPa 90L 100 100 100 100 100 100 100 100 100 1	100%       100%       50%       <









#### 灭火剂为洁净气体,可长期使用,没有淘汰风险 Clean agent, long term use, no risk to be forbidden

氩气是空气中的组成部分,是环境友好气体,灭火后又回归大气,不破坏臭氧层,不产生温室效应。既不受"蒙特利尔协 议"的限制,也不受"京都议定书"的限制,没有被淘汰的风险,可长期使用。

Nitrogen and Argon exist in the air, are environment friendly gases. After fire extinguishing, they return to atmosphere. They do not harm the Ozone Layer, no Green House Effect. Neither restricted by Montreal Protocol, nor limited by Kyoto Protocol.

#### 灭火剂来源广泛,市场接受程度高 02 Easy to get agent, highly accepted by market

氮气、氩气直接从空气中提取,成本低,来源广泛,市场接受程度高。

Nitrogen and argon can be directly extracted from air with low cost, with wide sources. In the production process, reagents are not used; it leaves no residues. The agent is highly accepted by the market.



对贵重仪器、设备、资料无损害 No damage to high-value equipment, instruments or documents

物理式灭火,无腐蚀,无毒,不导电,不产生分解物,不腐蚀设备。灭火后,灭火剂没有任何残渣或残留物,火灾现场易于清理。

Fire is extinguished physically. Non-corrosive, non-poisonous, non-conductive, no secondary substances are produced, and there is no damage to equipment, instruments or documents. After fire extinguishing, there is no remaining substance or residue; it is easy to clean the fire site.

### 对人的生命不构成威害 No threat or risk for people life

可安全用于有人员的场合,惰性气体灭火剂喷放时,不产生白雾,视野清晰。

The system can be used in the places where people stay. When there is a discharge, no fog, the vision is clear for human beings.

No damage to high-value equipment, instruments or documents

> No threat or risk for 0 people life

# 惰性气体灭火系统 - El 独特优势

### El Uniqueness

- Gases systems.
- ★ EI IG01氩气和IG100氮气灭火系统为单气体灭火系统,只需要充装一种灭火剂,充装效率高,生产周期短。 time.
- 节约设备和启动管路安装空间,大大缩短安装周期。 space can be spared for equipment, to shorten installation time as well.
- manufacturer which is able to accomplish gas filling on site.

## 氮气、氩气灌装设备

Nitrogen, Argon gas filling equipment

#### 灭火剂储罐 ( 氩气、氮气、 CO2 Gas tanks (Nitrogen, Argon, CO2)



★ EI 惰性气体灭火系统产品系列最为全面,拥有IG01氩气、IG100氮气、IG55氮气氩气混合气体、IG541混合气体全套产品线。 El provides the most various inert gas fire fighting systems: IG01 Argon, IG100 Nitrogen, IG55 Nitrogen & Argon, IG541 Mixed

IG01 Argon and IG100 Nitrogen systems are with single kind of gas agent; the gas filing efficiency is high, with short production

★ EI的容器阀可以现场灌装药剂。我公司所设计制造的容器阀,设有专门的充气口,通过该接口,可以直接与充气设备连接对气 瓶进行灌装,而不用将瓶组全部拆卸,操作简便,节约资源。现场灌装药剂的功能仅仅是EI中国可以做到。

El cylinder valve enable on site gas filling possible. The cylinder valves are designed and manufactured by our own company, with special gas filling inlet. By connecting this inlet to gas filling station, agent recharge can be fulfilled. There is no need to disassemble the cylinder valve, easy to operate, and cost saving. Only EI China is capable of filling agent gas on site.

★ 采用意大利CE认证的电磁阀,直接实现系统自动启动喷放。无需氮气启动瓶组,无需启动紫铜管路。该技术减少启动瓶组设备

Solenoid valves with CE certification from Italy are used in the system, which can activate the automatic discharge directly, no need to use N2 pilot cylinder or red copper activation pipelines. Since the pilot cylinder and relevant pipelines are saved, more

★ EI IG100氮气系统和IG01氩气系统,具备现场充装灭火剂的功能。在中国,只有天津意安的产品具备现场充装的能力。

IG100 Nitrogen System and IG01 Argon System can be filled with gas agents on site. In China, El Tianjin Plant is the only



Evaporator

灌装台 Gas filling station







灭火剂储罐(氩气、氮气、CO2) Gas tanks (Nitrogen, Argon, CO2)

CO2 自动灌装机 CO2 filling station

## 先进设计计算软件VDS认证

Advanced design calculation software, VDS certified

	CLAS	SS B	CLASS	6 A
	灭火浓度 Fire extinguishing concentration	最低设计浓度 Minimum design concentration	灭火浓度 Fire extinguishing concentration	最低设计浓度 Minimum design concentration
IG01	37.5%	48.8%	29.2%	38.0%
IG100	33.6%	43.7%	31.0%	40.3%
IG541	33.8%	43.9%	28.1%	36.5%
IG55	32.3%	42.0%	29.1%	37.8%

### 氩气系统检验报告

IG01 Fire Fighting System Certificate

			4
不	硷 验	报	告
	No.Gn2	01200709	
受检单位	天津意安消防设	备有限公司	
产品名称	IG01气体灭火系	统	
检验类别	型式检验		

### 氮气系统检验报告 IG100 Fire Fighting System Certificate

MA	$\sim$		D B B
2011000465	金 验	报	
	No.Gn2	01200711	
	天津意安消防设 IG100气体灭火		
检验类别	型式检验		













## 氮气和氩气混合系统检验报告

IG55 Fire Fighting System Certificate





# 混合气体系统检验报告

IG541 Fire Fighting System Certificate





# **El High Pressure CO2 Fire Fighting System**

### EI 高压二氧化碳灭火系统

### 系统介绍 System Introductions

- ★ 高压二氧化碳灭火系统,采用液态二氧化碳作为灭火剂,二氧化碳 储存于70L钢瓶中,环境温度为20℃时,储存压力为5.5MPa;二氧 化碳灭火系统的工作温度为0至49℃,工作压力为15MPa,喷放时间 为60秒。
- ★ 灭火方式可设计为全淹没式或者局部应用式高压二氧化碳灭火系统。 根据防护区需要,系统型式可设计使用单元独立式系统或者组合分配 式系统。
- ★ 高压二氧化碳灭火系统不能助燃,可快速气化,同时,二氧化 碳可使环境温度急剧下降,显著增强了二氧化碳的灭火效果。
- discharge time is 60s.
- zone needs, single system and distribution system can be made.
- of CO2 remarkably.



\* In high pressure CO2 fire fighting system, liquid CO2 is stored in 70L cylinder as extinguishing agent. The storage pressure is 5.5 MPa, in 20°C. The working temperature for CO2 fire fighting system is 0 to 49°C, working pressure is 15MPa, and

\* CO2 fire fighting system can be designed as total flooding system or local application system. According to the protection

\* CO2 does not support combustion, causing a strong drop in temperature, a factor which increases the extinguishing effect



### 高压二氧化碳灭火系统适用性

High Pressure CO2 Fire Fighting System Applications





			<b>CO2系统参数</b> CO2 Fire Fighting System	
	容器容积 Cylinder volume	70L	工作温度 Working temperature	
	储存压力(20℃) storage pressure	5.7MPa	最大充装密度	
	最大工作压力(50℃) max working pressure	12.4MPa	Maximum agent filling density	
	电源电压 Power supply	DC24V	喷放时间 Discharge time	

### 安全提示 Safety notice

含氧化剂的化学制品火灾,如硝酸纤 维,火药等

Chemicals fire with oxidant, like nitrocellulose and gunpowder

活泼金属火灾,如锂、钠、钾、钛、 铀、钚等

Reactive metals fire, such as lithium, sodium, potassium, magnesium, titanium, uranium, and plutonium

#### 金属氢化物火灾(如氢化钾、氢

Metal hydride fire, like potassium hydride, sodium hydride and etc



### 二氧化碳具有窒息作用,浓度的 升高,使人头昏,意识不清。 CO2 causes breathing difficulties to human beings; with the increase of CO2 concentration, human beings will fade and become unconscious.

二氧化碳保护的区域,

一旦灭火剂实施喷放,人

员须立即撤离。

People must leave the protection zone immediately when CO2 discharge starts.

### 特点及适用场所

### Characteristics and applications





### 高压二氧化碳灭火系统 — EI独特优势

High Pressure CO2 Fire Fighting System — El Uniqueness

#### ★ ODP=0

无色无味、不导电、无腐蚀,不破坏臭氧层。 Colourless ness and tasteless ness, non-deductive, non-corrosive, no damage to Ozone Layer

#### ★ 启动装置 Activation device

采用意大利CE认证的电磁阀,直接实现系统自动启动喷放。无需氮气启动瓶组,无需启动紫铜管路。该技术减少启动瓶组设备, 节约设备和启动管路安装空间,大大缩短安装周期。

Solenoid valves with CE certification from Italy are used in the system, which can activate the automatic discharge directly, no need to use N2 pilot cylinder or red copper activation pipelines. Since the pilot cylinder and relevant pipelines are saved, more space can be spared for equipment, to shorten installation time as well.

#### ★ CE认证 CE certificate

采用的容器阀、选择阀、电磁阀、信号反馈装置,具有CE认证,优质可靠。 Cylinder valve, direction valve, solenoid valve, pressure switch are CE certified, good quality and reliable

#### ★ 多元设计 More design modes

不同防火需要,不仅可以设计为全淹没式,也可以设计为局部应用式。 Total flooding system or local application system, designed on needs

#### ★ 应急启动 Emergent activation

可以使用机械应急启动,为系统启动的可靠性多增加一重安全保障。 Emergent mechanical activation device, more safety assurance for system activation

### 检验报告

### Certificate





# **EI HFC227 Fire Fighting System**

EI 七氟丙烷灭火系统

### 系统介绍 System Introductions

- ★ 七氟丙烷灭火系统的灭火机理较为复杂,主要基于以下三种作用:化 学作用,冷却作用,降低氧气浓度。
- ★ 生理反应浓度: NOAEL=9% LOAEL=10.5% NOAEL— 无不良反应浓度,观察不到由灭火剂影响产生生理反应的 最大浓度。 LOAEL— 有不良反应浓度,能观察到由灭火剂不良影响产生生理反 应的最小浓度。
- ★ 防护区经常有人员出入,设计浓度不超过9%。
- ★ 防护区不经常有人员出入,设计浓度9%~10.5%时,喷放时,人员1分钟内撤离。
- ★ 无人员工作的场合,设计浓度可以达到10.5%以上
- concentration
- ★ 生理反应浓度: NOAEL=9% LOAEL=10.5% NOAEL : no observed adverse effect level LOAEL : lowest observed adverse effect level
- ★ People often in protection zones, design concentration not more than 9%
- within 1 minute
- ★ No people in protection zones, design concentration not more than 10.5%



\* The fire fighting dynamics of HFC227 fire fighting system: chemical actions, cooling effects, decreasing oxygen

\* People not often in protection zones, design concentration not more than 9% to 10.5%; people leave protection zones

EUSEBI IMPIANTI 29/30



### 技术参数 Technical data

HFC227 系统 技术参数 HFC227 Technical data					
七氟丙烷灭火系统 HFC227 Fire Fighting System 储存压力(20°C) Storage pressure Max working pressure		工作温度 Working temperature	最大充装率 Max agent filling density	气瓶容积 Cylinder volume	
管网式系统 Pipeline system	4.2MPa	5.3MPa/6.7MPa	0-50°C	950Kg/m <sup>3</sup>	90L, 120L, 150L
柜式系统 Cabinet system			0-50°C	1120Kg/m <sup>3</sup>	120L

#### 可在空气中迅速氧化的化学品和化学混合 物,如硝酸纤维,火药等

Chemicals or chemical mixtures those are capable of rapid oxidation in the absence of air

## 活泼金属火灾,如锂、钠、钾、钛、

Reactive metals such as lithium, sodium, potassium, magnesium, titanium, uranium,

### 自身可热分解的化学品,如某 些有机过氧化物或氨化物

Chemicals capable of auto-thermal

## 七氟丙烷灭火系统-EI 独特优势

El Uniqueness

### ★ 投资低 Low investment

七氟丙烷设计浓度低, 气瓶充装量大, 因此, 所用钢瓶数较少。初期投资较低。 HFC227 design concentration is low, and cylinder gas filling capability is big. Therefore, the cylinders quantity is not large, with a lower initial investment.



#### ★ CE认证 CE certificate

采用的容器阀、选择阀、电磁阀、信号反馈装置,具有CE认证,优质可靠。 cylinder valve, direction valve, solenoid valve, pressure switch CE certified,

good quality and reliable



activation

### ★ 安全 Safety

灭火剂无色无味、不导电,喷放后无残留、无腐蚀性。 colourless and tasteless, non-conductive, non-corrosive, no remaining substance or residue after discharge



### ★ 时间快 Quick discharge

喷放时间快,在10秒内喷放完毕。 discharge finished within 10 seconds



### ★ 应急启动 Emergent activation

可以使用机械应急启动,为系统启动的可靠性多增加一重安全保障。 emergent mechanical activation device, more safety assurance for system



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### EI 七氟丙烷容器阀优势及工作原理 EI Uniqueness

EI 七氟丙烷容器阀,源自意大利技术,阀门性能优异,结构简洁,安全可靠,且阀门上配置有微动压力开关,当气瓶内药剂发生 泄漏,钢瓶压力下降超过5%时,该设备能自动报警,将钢瓶泄露的报警信号发送至火灾控制盘。该技术目前处于世界领先地位, 使得EI产品的性能更加安全可靠。七氟丙烷容器阀不但具有中国型式检验报告,还具有CE认证。

EI HFC227 cylinder valve are quite safe and reliable, with simple structure and good performance, from Italian technology. The cylinder valve is equipped with a pressure alarm switch; when there is a leakage and pressure drops more than 5%, this pressure alarm switch can send the leakage alarm signal to fire control panel automatically. This is a world wide leading technology, assuring EI products more safe and reliable. HFC227 cylinder valve now is with Chinese certificate issued by TFRI, also CE certified.



### 系统设计 System design



全淹没灭火系统 Total flooding system





灭火浓度 亦采用10% 10% design concentration

图书、档案、票据等文物资料防护区 Libraries, museums, documents, archives and etc.

灭火浓度 亦采用9% 9% design concentration

油浸变压器室、带油开关的配电室和自 备发电机房等 防护区 Transformer room, power distribution

room, generator room and etc.

灭火浓度 亦采用8% 8% design concentration

通讯机房和电子计算机房等防护区 Telecom room, computer room and etc.

EUSEBI IMPIANTI 33/34







HFC227灌装机 HFC227 agent filling equipment

HFC227搅拌机 HFC227 mixing equipment











# **High Pressure Water Mist System**

意大利 「於於於書」 高压细水雾系统

### 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。
- ★ 细水雾系统100BAR到120BAR的压力下工作,水雾微粒径小于100 微米 (NFPA750)。试验证明,细水雾灭火系统可高效、快速灭火。

其灭火原理如下:

- 冷却作用:由于水雾颗粒非常微小,能够迅速蒸发,吸收大量热量
- 情化作用: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,所占据的空间超 过液态水占据空间的100倍,这样来控制和压制火灾。
- 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。
- intellectual property rights. The water mist nozzles are UL listed.
- effectively and rapidly.

#### The fire extinguishing dynamics:

parental extinguishing water, it helps to control and suppress the fire. the fire can not be spread and within control.



\* EI MIST high pressure water mist system is designed, developed and manufactured by Eusebi Impianti, with independent

\* 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

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

Shielding action: Shield the thermal radiation from the fire, and prevent other surrounding goods from combustion, so that





#### ★ 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 Impiati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

# 

### 零部组件 components

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,提升生产制造工艺,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。

El-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.





### 零部组件技术特点:

### 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 El-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.



# Applications



### 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



# El MIST高压水雾系统的应用领域

#### 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.





#### 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.





### El MIST高压细水雾系统已经取得了以下认证

The EI MIST HP fire extinguishing system testing has been carried out by

- 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

- VNIIPO全俄罗斯火灾防护研究所

- VNIIPO 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

- IM0 913, A800 and IMO/CIR. 1165
- FM Standard Appendix G and H

El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 MX 1230 Fire Fighting System

### EIMX 1230 灭火系统

Efficient - Fast - Smooth - Clean 高效-快速-顺畅-洁净

系统介绍 System Introductions

★ Eusebi Impianti生产的EI MX 1230灭火系统采用Novec™ 1230液 体作为灭火药剂。EI MX 1230系统在防护区内的喷放时间极短(不 超过10秒), 灭火效率极高。灭火剂本身无毒无害, 灭火后无残留, 所需的存放空间小。

#### ★ 灭火药剂Novec<sup>™</sup> 1230

Eusebi Impianti生产的EI MX 1230灭火系统采用Novec™ 1230液 体作为灭火药剂。EI MX 1230系统在防护区内的喷放时间极短(不 超过10秒), 灭火效率极高。灭火剂本身无毒无害, 灭火后无残留 所需的存放空间小。

- ★ 灭火药剂Novec™ 1230可用于防控A类火灾和B类火灾, 全淹没式系统采用的灭火 药剂。无腐蚀性,也不导电,因此不会对珍贵的数据资料和电器元件带来短路问 题, 灭火后也无残留。无色, 几乎无味, 在室温状况下呈气态。分子式中包括碳 元素、氟元素和氧元素。灭火药剂Novec™ 1230能够大量吸取燃烧产生的热量, 从而中断燃烧反应。

#### ★ The extinguishing agent Novec<sup>™</sup> 1230

The fire extinguishing agent Novec<sup>™</sup> 1230 acts both physically and chemically. Novec<sup>™</sup> 1230 is widely used throughout the world and thanks to its environmental properties it has become established in many countries as the extinguishing agent for manageable IT and electrical risks.

oxygen. Novec<sup>™</sup> 1230 deprives the flames of heat, thus interrupting the combustion reaction.

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Extinguishes without leaving any residue 灭火无残留



★ Eusebi Impianti Srl is proposing EI MX 1230 fire extinguishing system using 3M<sup>TM</sup> Novec<sup>TM</sup> 1230 Fire Protection Fluid. It is characterized by its fast flooding of the room (< 10 seconds) and its highly extinguishing efficiency. The extinguishing agent itself is toxicologically harmless; it extinguishes without leaving any residue and gets along with a small storage volume.

★ Novec<sup>™</sup> 1230 is suitable for class A and class B fire and is used as total flooding agent. It is neither corrosive nor electrically conductive and therefore causes no damage through short circuits or through residues left on sensitive components. It is colourless and almost odorless and is in gaseous form at room temperature. Its molecules consist of carbon, fluorine and

EUSEBI IMPIANTI 43/44

#### ★ 无毒性反应浓度10%

观察不到由灭火剂毒性影响产生生理反应的灭火剂最大浓度

#### ★ 有毒性反应浓度>10%

能观察到由灭火剂毒性影响产生生理反应的灭火剂最小浓度

#### NOAEL 10 % by volume

(no observed adverse effect level) The highest extinguishing gas concentration in % by vol., at which no detriments to health have been observed)

#### ★ LOAEL >10 % by volume

(lowest observed adverse effect level). The lowest extinguishing gas concentration in % by vol., at which detriments to health have been observed)

★ Chemical formula 化学分子式: CF3CF2C(O)CF{CF3)2 Specific weight 比重(20°C): 1.6 kg/l State of aggregation 状态: Liquid液态 (at 25 0C /1.013 bar) Boiling point 沸点: 49.2°C (1.013 bar) Environmental properties 环境特性: No ozone depletion potential (ODP 0) 臭氧消耗潜值为0 Low global warming potential (GWP I) 全球变暖潜值为1,较低 Atmospheric lifetime <5 days 在大气中存在的时间短,不超过5天



# EI MX 1230灭火系统的优势

### Advantages for EI MX 1230 Fire Fighting System

- ★ 非常高的环境相容性,无污染无残留 Very high environmental compatibility
- \* 洁净气体,在将来的使用中受到3M™"蓝天计划"的保护 An extinguishing agent where its use in the future is protected by the 3M<sup>™</sup> "Blue Sky Warranty"
- ★ 通过使用EI MX1230计算软件进行优化的系统设计 Optimized system design by using professional EI MX1230 calculation software
- ★ 坚固耐用的设计,安装与维护的成本低 Robust design, so low installation and maintenance costs
- ★ 灭火效果极快 Rapid extinguishing effect
- \* 绝对安全,可用于人员工作的场所 Exceedingly safe for use in occupied areas
- ★ 无灭火剂残留,无腐蚀性、不导电 No extinguishing agent residues, neither corrosive nor electrically conductive
- ★ 工作压力较高,可以支持较长的管网,可以用于多个保护区的防护
- ★ 结构紧凑,节省空间 Compact and space-saving
- ★ 系统通过德国VdS认证 Approved system (VdS)
- ★ 世界范围内广泛认可、推广商用的灭火药剂 World-wide recognized and approved extinguishing agent

## EI MX 1230系统齐全的规格型号

What you're looking for: EI MX 1230 system types from A to Z

Available cylinder sizes: 22, 25, 40, 50, 80. 100, 140, 180 liters 钢瓶体积:22、25、40、50、80、100、140、180升

-Pressure stages available: 25, 42. 50 bar 工作压力:25、42、50bar

-Single- or multi-cylinder systems 单瓶组或者多瓶组系统

-Single- or multi-zone systems 单防护区或者多防护区系统



Higher operating pressure possible than comparable systems, so longer pipe works and multi-zone systems can be achieved





# **A SHARED OBJECTIVE: ADEQUATELY RESPONDING TO OUR CLIENT'S CONSTANTLY EVOLVING NEEDS**

## 共同的目标: 不断回应并满足客户持续的消防需求

凭借在消防领域的丰富专业经验, Eusebi Impianti能够 在各种严酷的环境下提供可靠的消防安全保护。

在石油、天然气和能源领域, Eusebi Impianti为世界各 地,甚至许多危险地区的炼油厂、各种发电厂、天然气 输送管道、石油钻塔等提供着消防安全保护。

针对船舰和海上平台,我们也设计了高效、安全、环保 的多种消防解决方案。

Eusebi Impianti的通过工程经验的不断积累与专业技能 的持续进步,也能够为众多的军用领域提供消防保护, Eusebi Impianti为意大利和众多的其他国家提供消防服 务,保护着国际航运船队、机库、坦克和潜水艇。

公司持续多年进行新技术研发,针对历史古迹、博物馆、 古建筑和教堂形成了成熟的消防解决方案,能够同时保 护人员、古建筑结构和建筑内众多珍贵文物,确保其免 受火灾威胁。

石油与天然气 能源 船舰与海上平台 工业 民用建筑 历史建筑

Thanks to its substantiated experience in the field of fire fighting, Eusebi Impianti guarantees a fire safety service in heterogeneous circumstances.

In the oil, gas and energy fields Eusebi Impianti can offer high-tech fire protection to refineries, any type of power plant, gas pipelines and oil rigs situated all over the world, even in dangerous areas.

We have designed efficient, safe and eco-friendly firefighting options for the maritime and offshore fields.

Our experience and expertise have enabled Eusebi Impianti to also develop technologies for military applications, from Italian and international maritime fleets to hangars, tanks and submarines.

For years the company has been regularly investing in the development of new technologies for the protection of historical edifices, museums, ancient buildings and churches, in order to contemporaneously guarantee the safety of persons, structures and goods of great worth.

- Oil & Gas
- Energy
- Marine & Offshore
- Industrial
- Civil site
- Historical site



# **El Fire Fighting Equipment Application**

EI 消防设备领域应用

#### 民用及公共、古迹建筑领域

Civil, public and historical buildings applications



利比亚WAFA项目 WAFA project, Libya

探测设备。





EUSEBI系统公司在古迹建筑,博物馆,古宅以及教堂消防作了很多投入.在这些场所需要重点保护的不仅是其中的 人们,而且还有价值巨大的建筑和藏品

Fire fighting systems supplied by Eusebi Impianti are protecting a lot of historical buildings, fighting against the fire risks that threat to people's lives, and also preventing the valuable cultural relics and buildings from fire threats.

ENI公司米兰总部 ENI Company, Milan headquarter





# **El Fire Fighting Equipment Application**

### EI 消防设备领域应用

#### 工业及能源领域

Industrial and power applications



涡轮机组 Turbines

许多工厂,库房,物流中心 以及工业设施都采用 EUSEBI公司所生产的消 防系统保护。在这些区 域通常有大量的人员在 工作,因而必须有高效的 消防系统。

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Eusebi fire fighting systems are in a lot of plants, warehouses, logistic centers, and industrial facilities, where many people are working, and they need highly effective fire fighting protections.



意大利TORVISCOSA 电站的全部消防系统

TORVISCOSA Power Plant, all the fire fighting systems, Italy



意大利TURBIGO电站 的所有防火系统。

TURBIGO Power Plant, all the fire fighting systems, Italy



油田领域 Gas and oil field applications



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Large quantities of ships which are in the seas and oceans all over the world are being protected by Eusebi fire fighting systems. With rich experiences, there is no doubt that Eusebi Impianti is one of the most capable companies that supply complete marine fire fighting systems to all kinds of ships.



#### EUSEBI系统公司向世界上最重要的油气产区供应消防产品,提供消防保护。这些客户为沙漠 里的炼油厂,或者是穿越沙漠的天然气管道,需要的是高新技术的灭火系统。

Eusebi Impianti is protecting the most important and largest gas and oil fields all over the world. The clients needs to protect their refineries in the deep deserts, or the natural gas pipelines going through deserts; to protect those fields, high technical fire fighting products and services are a must.



意大利海军加富尔号航母 Aircraft Carrier Cavour, Italian Navy

EI是RINA认证的意大利海 军消防产品供应商。 El is RINA certified.



伊朗南部4&5区 Iran South Area 4 & 5





### 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<sup>®</sup> 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<sup>®</sup> system safeguards all the service ducts and technical tunnels, the public areas such offices, meeting rooms and the observation site, as well as the engineering rooms and warehouses.

EUSEBI IMPIANTI 51/52

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

## 米兰-意大利 摩天大楼

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Eusebi Impianti s.r.I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。



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 El Mist® system and a heliport with foam systems.

SIL



### 多功能导弹护卫舰

Eusebi的EIMX® 1230灭火系统使用Novec™ 1230灭火药剂对FREMM多功能导弹护卫舰进行消防安全保护。FREMM多功能导弹护卫舰是新一代的护卫舰舰型,是由意大利和法国共同合作开展的项目,其中Carlo Bergamini号导弹护卫舰就是已经完成的新一代护卫舰的代表舰艇。

EIMX® 1230灭火系统使用Novec™ 1230灭火药剂保护所有的电气设备间,为精密复杂的作战设备、 导航设备和航行设备等提供可靠安全的保护。



### FREMM

The Eusebi EIMX® 1230 systems which utilize Novec™ 1230 safeguard FREMM (Multi-Mission Frigate) ships, an abbreviation classifying a new generation frigate, which was constructed as a joint Italian-French project and features a completed prototype in the futuristic Carlo Bergamini.

The EIMX® 1230 systems using Novec™ 1230 fluid protection all the electrical rooms, such as those allocated to the maneuvering of sophisticated combat, navigation and sailing equipment.

USEBI IMPIANTI 55/56

### Kashagan石油项目-哈萨克斯坦 阿吉普国际财团

Eusebi Impianti的消防系统为Kashagan油田项目提供消防安全保护。Kashagan油田,位于哈萨克斯 坦阿特劳港东南80公里处,是过去三十年间全世界最重要的发现之一。为保护巨大而重要的Kashagan 油田项目,在石油行业采用了最先进的技术解决方案。直升机停机坪采用Eusebi泡沫系统进行保护,在 设备间则采用气体灭火系统进行保护。

Eusebi的各类固定式灭火系统在陆用和船用的各种场所均可应用,提供安全可靠的消防保护。



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# Kashagan - Kazakhstan AGIP KCO

Eusebi Impianti systems protects the immense Kashagan field, 80 km south-east of Atyrau (Kazakhstan), which is believed to be one of the greatest discoveries in the world in the past thirty years. The technological solutions adopted for the giant Kashagan oilfield are among the most innovative ones ever applied in the oil industry. Eusebi Foam systems has been installed to protect helidecks, and gas extinguishing systems for the protection of the equipment rooms.

Eusebi safety and fixed fire fighting equipments are used for the security of the on shore and off shore sites.

EUSEBI IMPIANTI 57/58

### 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,燃气涡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.

EUSEBI IMPIANTI 59/60

# FLEXIBILITY IS THE FOUNDATION OF OUR COMPANY

灵活性是公司的基石

持续的研究和不懈的发展帮助Eusebi Impianti成为值得信赖的合作伙伴, 也成为国际国内主要的工程总承包商之一。

每一个项目,从最初的设计阶段直到最后设备安装调试验收阶段,都是由 具备丰富消防技术经验的项目经理领导下,带领整个专业团队完成项目的 全部工作。

项目经理负责专业团队的整体协调以及项目管理,他们的职责在于保证团 队中每一位成员的专业技能和专业精神能够在整个项目周期内以最优化的 方式充分发挥。

产品质量、环境保护和技术创新正是Eusebi Impianti区别于其他公司的显 著优势。

Eusebi Impianti针对不同的项目和消防需求,提供设计和多种备选消防解决方案,同时对于各类消防应用领域,提供消防保护以及消防安全设备与服务,从项目设计、交钥匙工程直到售后维保。

Eusebi Impianti能够在消防领域提供任何种类的消防产品,能够为任何场所任何情形提供消防安全保障。

- ·交钥匙解决方案
- ·项目管理
- ·项目执行
- 按照国际标准
- ·调试与系统启用
- ·协助与维护服务
- ·在全球范围内提供产品与服务

Intensive research and development has allowed Eusebi Impianti to become a trusted partner with some the main national and international general contractors.

Each project, from the engineering up until the installation of the system, is monitored by a team experts led by a Project Manager with specific experience in fire fighting techniques.

The Project Manager is responsible for the coordination of a team entrusted with project management, and it is his responsibility to ensure the professionalism and expertise of each single t member is utilized in the best way possible throughout the entire project cycle.

Quality, environment and technological innovation are the distinguishing characteristics of Eusebi Impianti.



ed	Besides designing and creating fire fighting options to	
h	deal with any type of hazard, Eusebi Impianti also	
al	provides fire protection and safety for any type of	
	application, from pre-engineering to turnkey supply	
	and maintenance.	
m of	Eusebi Impianti offers every type of option in the field	
	of fire fighting, as well as a safety guarantee in every	
	location and every situation.	
	<ul> <li>Turn key solutions</li> </ul>	
	Project Management	
ire that	Executive projects	
e team	<ul> <li>pursuant to international standard</li> </ul>	
	<ul> <li>Commissioning and start up</li> </ul>	
	<ul> <li>Assistance and maintenance services</li> </ul>	

Global presence

# **Reference List in 2008 to 2012**

### 2008-2012 部分工程业绩表

GEORGIA- PACIFIC SRL - GAPAC	供应和安装水喷淋系统和喷淋水泵
TOO POINT A	低压CO2系统
THYSSENKRUPP ACCIAI SPECIALI TERNI SPA	供应和安装火灾探测系统和防电弧设备
FINCANTIERI CANTIERI NAVALI ITALIANI SPA	供应细水雾系统的部件-1
FINCANTIERI CANTIERI NAVALI ITALIANI SPA	供应细水雾系统的部件-2
FINCANTIERI CANTIERI NAVALI ITALIANI SPA	供应细水雾系统的部件-3
FINCANTIERI CANTIERI NAVALI ITALIANI SPA	供应细水雾系统的部件-4
ROSETTI MARINO SPA	CO2系统
TECNIMONT (EX MAIRE ENGINEERING SPA)	供应消火栓等系统
OOO EUSEBI IMPIANTI	供应全部防火系统
DANIELI & C. OFFICINE	供应CO2和氩气灭火系统
MECCANICHE SPA	供应和安装水蒸气收尘器
NUOVO PIGNONE SPA	供应二氧化碳系统,电气设备,火灾探测器等设备
TECNIMONT SPA	供应全部的灭火系统和火灾探测设备
ILVA SPA - RIVA FIRE SPA	供应和安装水灭火系统
DELICARTA SPA – SOFIDEL	供应和安装水喷淋系统
威尔德(北京)香精有限公司	IG01氩气灭火系统
天津社保中心服务器机房及数据中心	IG100氮气灭火系统
山西网络中心机房及数据中心	HFC227七氟丙烷



意大利	2008
哈萨克斯坦	2008
意大利	2008
克罗地亚	2008
阿尔巴尼亚	2008
俄罗斯	2008
乌克兰	2008
意大利	2008
伊拉克	2008
智利	2008
意大利	2008
意大利	2008
北京-中国	2008
天津-中国	2008
太原-中国	2008

SAIPEM SPA	1
中建六局机房及数据中心	I
Elplus company	(
大连华瑞公司	ł
天津静海电信机房 中国电信静海机房及数据中心	ł
广州萝岗区疾病预防控制中心	Ι
埃塞俄比亚DMC项目5000t/d 熟料水泥生产线项目	I
北辰世纪中心IT机房	1
广州宝津安消防公司	I
EUSEBI IMPIANTI	(
广州恒生照明科技有限公司 中国国电湖南邵阳宝庆电厂	I
天津宏大力丰消防工程设备有限公司	I
东方电气集团 东风电机有限公司 阿塞拜疆芭芭拉,明哥桥;越南 达克明水电站项目	(

供应全部消防系统	卡塔尔	2009
G100氮气灭火系统	天津-中国	2009
CO2系统	格鲁吉亚	2009
HFC227七氟丙烷	项目地点 瑞士	2009
HFC227七氟丙烷	天津-中国	2009
G100氮气灭火系统	广州-中国	2010
G100氮气灭火系统	埃塞俄比亚	2010
G01氩气灭火系统	北京-中国	2010
G541气体灭火系统	广州-中国	2010
CO2称重装置	意大利	2010
G541气体灭火系统	广州-中国	2010
G100氮气灭火系统	天津-中国	2010
CO2系统	阿塞拜疆 越南	2011

EUSEBI IMPIANTI AUTOMATIC FIRE FIGHTING SYSTEMS 63/64

Palazzo Lombardia 米兰 摩天大楼	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	意大利	2011
北京市朝阳区环保局监测站点	HFC227七氟丙烷	北京-中国	2011
中国石化胜利油田胜利工程建 设(集团)有限责任公司 阿尔及利亚工程	IG55氮气,氩气灭火系统	阿尔及利亚	2011
山东菏泽静亚 管路系统有限公司 辰坤集团 精密设备车间	IG01氩气灭火系统	菏泽-中国	2011
沈阳华晨宝马喷涂车间	CO2灭火系统	沈阳-中国	2011
上海华晖消防机电 工程有限公司 上海ING公司机房及数据中心	IG01氩气灭火系统	上海-中国	2011
上海招商银行机房及数据中心	HFC227灭火系统	上海-中国	2011
天津航空机电有限公司 隐蔽火试验台 油盘火试验台 密封腔	消防试验设备	天津-中国	2011
上海特孚贸易有限公司 山东东营汽车测试中心	CO2灭火系统	东营-中国	2011
上海优华劳斯喷涂车间	CO2灭火系统	上海-中国	2011
宝胜普睿司曼电缆有限公司 宝胜普睿司曼电缆有限公司 消防改造工程设计	消防工程设计	宝应-中国	2011
成都楠华东森科技有限公司 成都西子电梯	IG541气体灭火系统	成都-中国	2011

天津天利航空机电有限公司 天津时代奥城农业银行机房及数据中心	HFC227灭火系统	天津-中国	2011
北京汽车株洲分公司发动机厂	CO2灭火系统	天津-中国	2011
Ostankino电视塔	高压细水雾系统	俄罗斯	2012
石家庄烟草专卖局 物流中心仓库	HFC227灭火系统	石家庄-中国	2012
EUSEBI IMPIANTI SRL	火灾报警控制盘 烟感探测器	意大利	2012
乌镇大剧院	泵组式高压细水雾系统	嘉兴-中国	2012
中华艺术宫 2010年上海世博会 中国馆改造项目	IG541灭火系统	上海-中国	2012
上海昌兴消防设备有限公司 沙特阿拉伯商务展示项目	气体灭火系统	上海-中国	2012
EUSEBI IMPIANTI 美国通用电气 GE 中国邯郸钢铁项目	CO2灭火系统	邯郸-中国	2012
马拉维卡普拉奇电站	CO2灭火系统	马拉维	2012
哈萨克斯坦水泥厂项目	火灾报警系统	哈萨克斯坦	2012
北京中医药大学医院改造项目	HFC227灭火系统	北京-中国	2012
越南广福水电站项目	CO2灭火系统	越南	2012
凯普索实业有限公司 伊朗南部油田办公楼 机房电气室项目	IG55灭火系统	伊朗	2012

EUSEBI IMPIANTI AUTOMATIC FIRE FIGHTING SYSTEMS 65/66

### **Marine & Off-shore Platform Reference List**

舰船&海上平台部分业绩表

客户 CLIENT 客户所在国家 COUNTRY	描述 DESCRIPTION	项目 PROJECT 最终用户 END USER	项目所在地 SITE	最终用户 所在国家 COUNTRY	年度 YEAR
ROSETTI MARINO SPA ITALY 意大利	SUPPLY OF CO2, INERGEN, POWDER AND FOAM SYSTEMS 供应二氧化碳、氮气、干粉 及泡沫灭火系统	ANNAMARIA B PLATFORMS ANNAMARIA B海上平台	arbatax Tortoli' Rijeka	CROATIA 克罗地亚	2008
FINCANTIERI SPA ITALY 意大利	SUPPLY AND INSTALLATION OF WATER MIST SYSTEM 供应并安装高压细水雾灭火 系统	HULL 6146 – FREMM 6146号船 FREMM 多功能护卫舰	RIVA TRIGOSO (GE) GENOA 热那亚	ITALY 意大利	2008
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
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 DESIG N @ GDANSK CONSULTING		POLAND 波兰	2009
FINCANTIERI SPA ITALY 意大利	SUPPLY AND INSTALLATION OF HIGH PRESSURE CO2 SYSTEM AND SUPPLY OF SPARE PARTS 供应并安装高压二氧化碳灭 火系统及备品备件	HULL 6213 RUSSIAN SHIP FLEET TANKER 6213 号船 俄罗斯船舶 油槽船队	MUGGIANO (SP)	ITALY 意大利	2009

客户 CLIENT 客户所在国家 COUNTRY	描述 DESCRIPTION	项目 PROJECT 最终用户 END USER	项目所在地 SITE	最终用户 所在国家 COUNTRY	年度 YEAR
FINCANTIERI SPA ITALY 意大利	SUPPLY AND INSTALLATION OF NOVEC SYSTEMS 供应并安装 NOVEC1230 灭火系统	HULL 6211 – FREMM 6211 号船 FREMM 多功能护卫舰	RIVA TRIGOSO (GE) GENOA 热那亚	ITALY 意大利	2010
C.R.N. SPA ITALY 意大利	SUPPLY OF FIRE DETECTION SYSTEM AND CO2FIRE FIGHTING SYSTEM 供应火灾探测系统和二氧化 碳灭火系统	HULL M/Y CL112#17 M/Y CL112#17号船	ANCONA 安科纳	ITALY 意大利	2010
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 NO. 9 HALF FIXED NOVEC MODULES 供应并安装 9 套半固定式 NOVEC1230灭火系统	HULL 6211 – FREMM 6211 号船 FREMM 多功能护卫舰	RIVA TRIGOSO (GE) GENOA 热那亚	ITALY 意大利	2010
INTERMARINE SPA ITALY 意大利	SUPPLY AND INSTALLATION OF CO2 FIRE FIGHTING SYSTEM AND DETECTION SYSTEM TO PROTECT HYPERBARIC CHAMBER CRUISER 供应并安装二氧化碳灭火系 统和火灾探测系统 保护巡洋舰高压氧舱	"GAETA" MINESWEEPER "GAETA"号扫雷舰	SARZANA (SP)	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



客户 CLIENT 客户所在国家 COUNTRY	描述 DESCRIPTION	项目 PROJECT 最终用户 END USER	项目所在地 SITE	最终用户 所在国家 COUNTRY	年度 YEAR
FINCANTIERI SPA ITALY 意大利	SUPPLY AND INSTALLATION OF HIGH PRESSURE CO2 SYSTEM 供应并安装高压二氧化碳灭 火系统	HULL 6224 6224 号船	MONFALCONE (GO)	ITALY 意大利	2011
EUSEBI SERVICE SRL ITALY 意大利	SUPPLY OF HIGH PRESSURE WATER MIST SYSTEM 供应高压细水雾灭火系统	AGIP KCO 阿吉普国际财团	KAZAKHSTAN 哈萨克斯坦	ITALY 意大利	2011
CCI OIL & GAS CONTRACTORS INC. PANAMA 巴拿马	SUPPLY OF FIXED FOAM SYSTEM 供应固定式泡沫灭火系统	P-62 OFF-SHORE PLATFORM P-62 海上平台 PETROBRAS 巴西国家石油公司	PAPA TERRA CAMPOS BASIN	BRAZIL 巴西	2012
COCHIN SHIPYARD LTD INDIA 印度	SUPPLY OF CO2 HIGH PRESSURE SYSTEM 供应高压二氧化碳灭火系统	INDIAN NAVY 印度海军	COCHIN PORT 科钦港	INDIA 印度	2012
EIFFAGE CONSTRUCTION METALLIQUE FRANCE 法国	FIRE WATER FOAM SKIDS       OFQ LIVING         PACKAGE       QUARTER PLATFORM         N泡沫集成灭火系统       OFON PHASE 2         アACKAGE       OFON 二期         TOTAL E&P       NIGERIA LIMITED         道达尔勘探与生产尼日尼亚       有限公司		OFON FIELD 奥方油田	NIGERIA 尼日尼亚	2012
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
HIGHPOWER SYSTEMS INC. BRITISH VIRGIN ISLANDS 英属维京群岛	SUPPLY OF CO2 HIGH PRESSUR E SYSTEMS AND FOAM SYSTEMS 供应高压二氧化碳灭火系统 和泡沫灭火系统	FIXED PLATFORM PZHM-1 固定式海上平台 PZHM-1	FILANOVSKY FIELD - CASPIAN SEA 里海	RUSSIA 俄罗斯	2013

# **Oil & Gas Reference List**

石油石化部分工程业绩表

客户		项目				
CLIENT	描述	PROJECT	项目所在地	最终用户	年度	
客户所在国家	DESCRIPTION	最终用户	SITE	所在国家	YEAR	
COUNTRY		END USER		COUNTRY		
TECNOSISTEMI FZ LLC UAE 阿联酋	SUPPLY AND INSTALLATION OF CO2 FIRE FIGHTIN SYSTEMS AND FIRE DETECTION SYSTEMS TO PROTECT NO.11 SUBSTATIONS INSIDE CONTAINERS COMPRISING MEDIUM VOLTAGE ELECTRICAL PANELS 供应并安装二氧化碳灭火系 统和火灾探测系统,用以保 护11座位于集装箱内的变电 站,包括防护中压配电板	ZUBAIR FIELD PROJECT ZUBAIR项目 ENI IRAQ 意大利埃尼集团 伊拉克分公司	ZUBAIR	IRAQ 伊拉克	2013	
NEW VALLEY GENERAL TRADING COMPANY IRAQ 伊拉克	SUPPLY OF HFC227ea SYSTEMS 供应七氟丙烷灭火系统	SCOP		IRAQ 伊拉克	2013	
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	
PUBLIC JOINT - STOCK COMPANY RUSSIA 俄罗斯	SUPPLY OF HFC SYSTEMS, FOAM SYSTEMS, DELUGE SKID, PORTABLE AND WHEELED FIRE EXTINGUISHERS, HYDRANTS, HOSE BOXES, MONITORS, SAFETY SHOWERS, FIRST AID KIT AND WIND SLEEVES 供应七氟丙烷灭火系统、泡 沫灭火系统、雨淋集成式灭 火系统、手提式及推车式灭 火器、消火栓、消防水带、 监控器、安全淋浴、急救包等	NMAGEP NORTH MIDDLE AREA GAS EXPLOITATION PROJECT NMAGEP中北部地区天 然气开发项目 STROYTRANSGAZ	AL-RAKKA	SYRIA 叙利亚	2013	





客户 CLIENT 客户所在国家	描述 DESCRIPTION	项目 PROJECT 最终用户	项目所在地 SITE	最终用户 所在国家 COUNTRY	年度 YEAR
COUNTRY SAIPEM CONTRACTING NIGERIA LIMITED NIGERIA 尼日尼亚	SUPPLY OF FIRE FIGHITNG PUMPING STATION 供应消防泵站系统	END USER SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LTD NIGERIA 荷兰壳牌石油开发公司 尼日尼亚公司		NIGERIA 尼日尼亚	2012
SAIPEM SPA ITALY 意大利	SUPPLY OF NOVEC 1230 FIRE FIGHTING SYSTEMS WITH SPARE PARTS TO PROTECT SUBSTATION - COMMISSIONING & START-UP INTERVENTION 供应NOVEC 1230灭火系统, 用以保护变电站,提供调试 与启动服务	ARZEW LNG (GL3-Z) PROJECT ARZEW液化天然气 (GL3-Z)项目	ARZEW	ALGERIA 阿尔及利亚	2012
PETROFAC INTERNATIONAL LLC UAE 阿联酋	SUPPLY OF DELUGE VALVE SKID, WATER SPRAY NOZZLES AND FOAM GENERATOR, FOAM SKID FIRE FIGHTING EQUIPMENTS AND INERT GAS FIRE EXTINGUISHING SYSTEM - FIRE HYDRANTS, MONITORS, FIRE VALVES, FIRE HOSE CABINETS AND PORTABLE & MOBILE FIRE FIGHTING EQUIPMENTS 供应雨淋集成式系统、水喷 淋喷头、泡沫发生器、泡沫 集成式系统、IG惰性气体灭 火系统、消火栓、监控器、 消防阀门、消防水带、手提 式及移动式灭火设备	SOUTH YOLOTEN GAS FIELD DEVELOPMENT PROJECT 南部YOLOTEN天然气田 开发项目 SC TURKMENGAS		TURKMENISTAN 土库曼斯坦	2012
TSJ LIMITED MALTA 马耳他	SUPPLY OF FIRE FIGHTING SYSTEM ARGOSYSTEM 供应IG惰性气体灭火系统	3583 PP/PE RUWAIS (UAE) EPC BOROUGE 3 PROJECT	ABU DHABI 阿布扎比	UAE 阿联酋	2011

客户 CLIENT 客户所在国家 COUNTRY	描述 DESCRIPTION	项目 PROJECT 最终用户 END USER	项目所在地 SITE	最终用户 所在国家 COUNTRY	年度 YEAR
CHINA PETROLEUM ENGINEERING AND CONSTRUCTION 中国石油工程建设集 团公司 CHINA 中国	SUPPLY OF SPARE MATERIAL FOR FIRE FIGHTING SYSTEM 供应消防系统配件	OIL FIELD SURFACE FACILITIES DEVELOPMENT PROJECT 油田地面建设工程项目	AHDEB AHDEB油田	IRAQ 伊拉克	2010
BENTINI SPA ITALY 意大利	SUPPLY OF ARGOSYSTEM PLANT 供应IG惰性气体灭火系统	STABILIMENTO BENTINI BENTINI SPA PLANT	FAENZA (RA)	ITALY 意大利	2010

# **Power Plant Reference List**

发电厂部分工程业
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客户 CLIENT 客户所在国家 COUNTRY	描述 DESCRIPTION	项目 PROJECT 最终用户 END USER	项目所在地 SITE	最终用户 所在国家 COUNTRY	年度 YEAR
WELLSOFT IMPORT LLP UNITED KINGDOM 英国	SUPPLY OF CO2 FIRE FIGHTING SYSTEMS BIG PACK TO PROTECT BOILER 供应二氧化碳灭火系统	STAZIONE DI COMPRESSIONE GAS		RUSSIA 俄罗斯	2013
BBM AKUSTIK TECHNOLOGIE GMBH GERMANY 德国	SUPPLY OF CO2 FIRE FIGHTING SYSTEMS AND FIRE DETECITON SYSTEMS 供应二氧化碳灭火系统和火 灾探测系统	CENTRALE ELETTRICA NOVOGORKOVSKAYA TEZ ELECTRIC POWER PLANT		RUSSIA 俄罗斯	2013



客户 CLIENT 客户所在国家 COUNTRY	描述 DESCRIPTION	项目 PROJECT 最终用户 END USER	项目所在地 SITE	最终用户 所在国家 COUNTRY	年度 YEAR	客户 CLIENT 客户所在国家 COUNTRY	描述 DESCRIPTION	项目 PROJECT 最终用户 END USER	项目所在地 SITE	最终用户 所在国家 COUNTRY	年度 YEAR
BEDESCHI SPA 意大利柏岱斯蒂集团 ITALY 意大利	SUPPLY AND INSTALLATION OF FIRE DETECTION SYSTEMS, DELUGE AND ARGON FIRE FIGHTING SYSTEMS 供应并安装火灾探测系统, 雨淋系统以及氩气灭火系统	ENEL POWER PLANT OF BRINDISI 意大利ENEL电力公司 BRINDISI电站	BRINDISI	ITALY 意大利	2013	ANSALDO ENERGIA SPA ITALY 意大利	SUPPLY AND INSTALLATION OF CO2, DELUGE, FM200 AND DETECTION SYSTEM - VARIOUS MATERIAL 供应并安装二氧化碳灭火系	SORGENIA POWER - THERMOELECTRIC POWER PLANT 火电站	APRILIA (LT)	ITALY 意大利	2010
CTCI 中鼎工程股份有限公 司 CHINA TAIWAN 中国台湾	SUPPLY OF HYDRANTS, MONITORS, NOZZLES AND DELUGE VALVES 供应消火栓系统,监控器, 喷头及雨淋阀	FURNACES & ETHYLENE TANK PROJECTS		QATAR 卡塔尔	2012	HYUNDAI ENGINEERING & CONSTRUCTION	统、雨淋灭火系统、FM200 灭火系统、火灾探测系统 SUPPLY OF FIRE FIGHTING MATERIAL: MONITOR NOZZLES,				
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	韩国现代工程建设有限公司 KOREA 韩国	CRATES, VALVES, STAINERS, FOAM SKID AND FIRE DETECTION SYSTEM 供应消防防火设备:监控 喷头、板条箱、阀门、染 色机、泡沫集成式灭火系 统以及火灾探测系统	4 X 350 MW POWER PLANT PROJECT 4 X 350 MW 电站项目	AL KHALIJ	LIBYA 利比亚	2009
GE ENERGY PRODUCTS FRANCE SNC 美国通用电气 能源事业部 法国公司 FRANCE 法国	SUPPLY OF HIGH PRESSURE CO2 FIRE FIGHTING SYSTEM AND CONTROL PANEL 供应高压二氧化碳灭火系统 及控制盘	E1210 STALOWA WOLA POWER STATION E1210 STALOWA WOLA 电站	STALOWA WOLA	POLAND 波兰	2012	AEM GESTIONI SRL	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
SINERGIA SRL ITALY 意大利	SUPPLY OF CO2 SYSTEM 供应二氧化碳灭火系统	ELECTRICAL COMBINED CYCLE POWER PLANT 联合循环电站	QURAYYAH	SAUDI ARABIA 沙特阿拉伯	2011						
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						



