EMACO

THE HOME OF FIRE SOLUTIONS

CATALOG

ABOUT US

EMACO IS A GLOBAL BRAND BASED IN THE USA. IT PROVIDES THE FULL SPECTRUM OF FIRE SAFETY PRODUCTS AND SOLUTIONS FOR BUILDINGS AND INDUSTRIAL PREMISES. EACH PREMISE IS UNIQUE, AND WE DESIGN SOLUTIONS THAT BEST FIT THE MARKET AND CATER TO ALL PRESENT AND FUTURE NEEDS.

EMACO PRODUCTS ARE GLOBALLY ACCREDITED TO PROVIDE YOU WITH STATE-OF-THE-ART BREAKTHROUGH SOLUTIONS. MOST OF OUR PRODUCTS ARE ACCREDITED BY UL, FM, LPCB AND COMPLY WITH NFPA AND OTHER INTERNATIONAL AND COUNTRY-SPECIFIC STANDARDS.

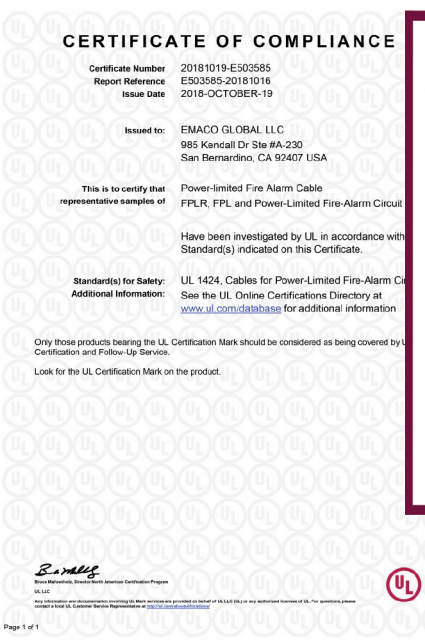
EMACO products & solutions cover almost all standard and specialised fire protection systems like Fire Hydrant & Hose, Auto Sprinkler & Fixed Spray Nozzle, Foam Fire Protection, Monitor & Nozzle, Fire Extinguishers, Valve & Flow Control, Pump Sets, Fire Alarm Cables, Water & Foam Spray Fixed System, Foam Bladder Tank, Compressed Air Foam System, Water Mist Fire Protection System, Pre-action System, Clean Agent Fire Extinguishing System, Wet Chemical Extinguishing System and many more. Besides that, our creative R&D team consistently incorporates the latest and greatest products and solutions into our product and solution portfolio.

EMACO operates on a global scale to serve our partners and clients competently. Our global network bridges the USA, UAE, Malaysia, Bangladesh, and partners in other countries. With our expertise, knowledge, and global reach, we can support you in your country as trade partners to support complete fire solution needs for power stations, oil and gas, chemical industries, textiles, garments, pharmaceuticals, processing plants, airports, marine facilities, warehouses, commercial buildings, and any range of setups that require fire protection to save lives and investments.

Projects are becoming more challenging in terms of scale, cost, and technical complexity. We address this challenge by embracing change, focusing on transformation, and working differently than before. This approach earned us the reputation of being "customer-oriented".

EMACO HAS A RESPONSIBILITY TO HELP ENABLE A SUSTAINABLE FUTURE THROUGH ITS LEADERSHIP ROLE, OUR OPERATIONS, AND THE SERVICES WE PROVIDE. WE ARE EMBEDDING THE KEY SUSTAINABILITY PRINCIPLES OF RESPONSIBLE BUSINESS. WE ARE COMMITTED TO PROMOTING SAFE, GREEN, AND SUSTAINABLE INTEGRATED SOLUTIONS AS WELL AS A SOCIETY FOR OUR FUTURE–INSPIRING THE NEXT GENERATION, DEVELOPING SUSTAINABILITY KNOWLEDGE AND SKILLS, AND CREATING A HEALTHY, SAFE, AND SECURE WORKPLACE.

CERTIFICATE OF COMPLIANCE



CERTIFICATE OF COMPLIANCE

Certificate Number 20181019-E503585
Report Reference E503585-20181016
Issue Date 2018-OCTOBER-19

Issued to: EMACO GLOBAL, LLC
985 Kendall Dr Ste #A-230
San Bernardino, CA 92407 USA

This is to certify that representative samples of: Power-limited Fire Alarm Cable
FPLR, FPL and Power-Limited Fire-Alarm Circuit

Have been investigated by UL in accordance with Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 1424, Cables for Power-Limited Fire-Alarm Ci
Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by U Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program
UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at http://ul.com/aboutul/locations/

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FM APPROVED

Certificate of Compli

This certificate is issued for the followir

Fire Hose Assemblies

Single and Double Jacket Fire H

Models E0111, E0112, E0113, E0114, E

Prepared for:

EMACO USA LLC
145 Linda Lake Ln
St. Augustine, FL 32095
USA

FM Approvals Class: 2111

Approval Identification: 3060553 Approval Gr

To verify the availability of the Approved product, please refer to

Said Approval is subject to satisfactory field performance, continuing Surveilla constructions as shown in the Approval Guide, an online resou

FM Approvals
Member of the FM Global Group

David Fuller
AVP – Manager of Fire Protection
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062 USA

LPCB

www.redbooklive.com

Certificate of Product Approval
Certificate Number: 1092Ka Issue: 01

LOSS PREVENTION CERTIFICATION BOARD
LPCB

EMACO GLOBAL LLC
985 Kendall Drive Suite #A-230
San Bernardino
CA 92407
USA

is certified by BRE Global Ltd. and is authorised to use the LPCB mark in association with the product(s) listed in this certificate and appendix having complied with the requirement(s) of the standards as detailed below:

Products
'EMACO' Portable Fire Extinguishers
(Refer to attached appendix for details)

Standards
EN 3-7:2004+A1:2007
Portable fire extinguishers. Characteristics, performance requirements and test methods
EN 3-8:2006
Portable fire extinguishers. Additional requirements to EN 3-7 for the construction, resistance to pressure and mechanical tests for extinguishers with a maximum allowable pressure equal to or lower than 30 bar
EN 3-9:2006
Portable fire extinguishers. Additional requirements to EN 3-7 for pressure resistance of CO2 extinguishers

This certificate and appendix is maintained and held in force through regular surveillance activities

Signed for BRE Global Ltd. Sarah Colwell Verifier 20 July 2018 Date of Issue 20 July 2018 Date of First Issue

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To check the validity of this certificate and appendix please visit www.redbooklive.com/check, scan the QR tag or contact us.
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UL LISTED · LPCB APPROVED · FM APPROVED · NFPA · CE · VdS

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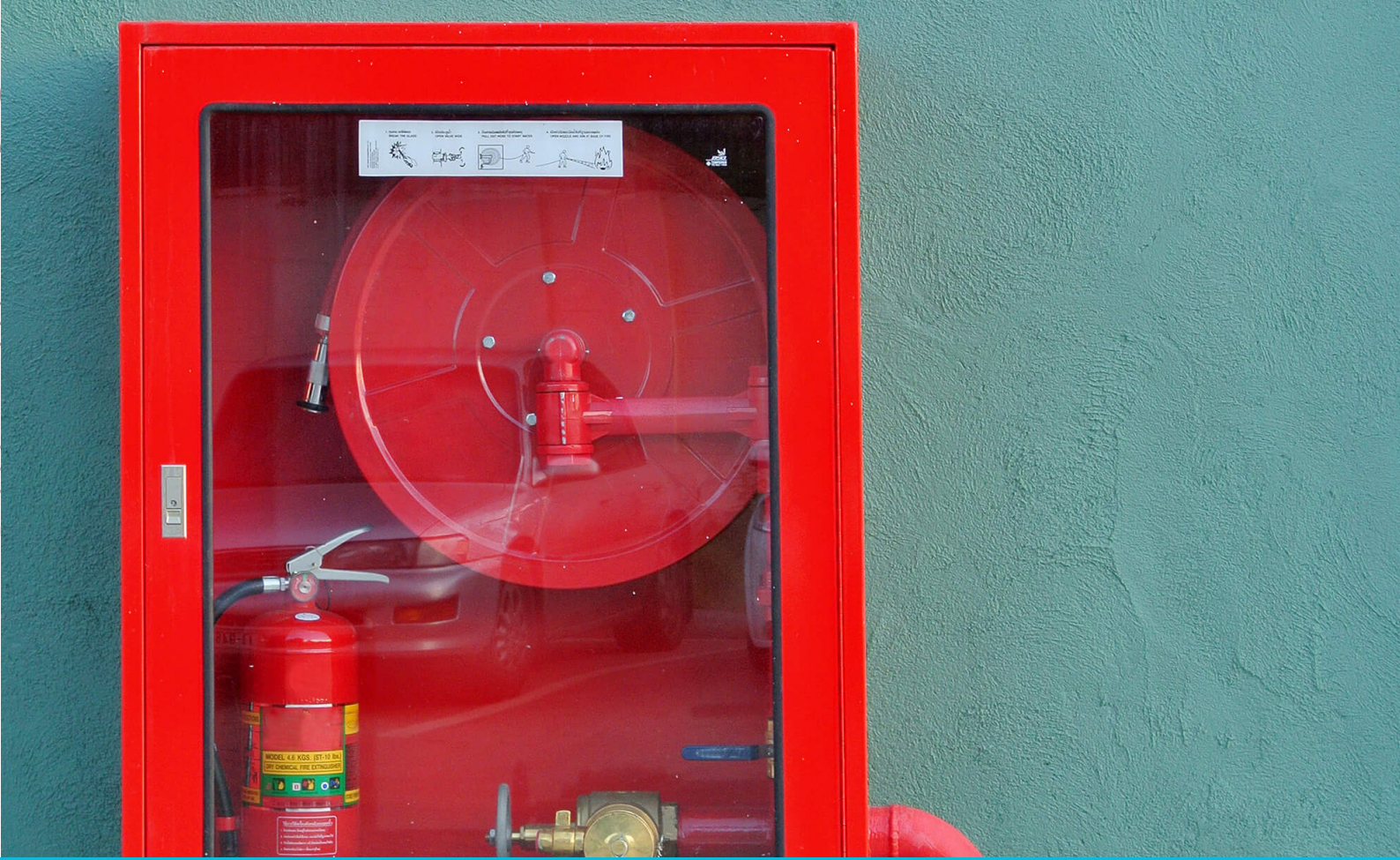
PRODUCTS



FIRE HYDRANT AND HOSE

ANGLE HOSE VALVE

LISTED
EX27322

EMACO Angle Hose valve (90 degrees pattern) features all brass construction with forged valve body with red hand wheel for rigidity and light weight. Our UL listed angle hose valves manufactured in accordance with UL 668 Hose Valve for Fire protection service standards and body material standard ASTM B283 C37700.

OPTIONS

MODEL	APPROVAL	MATERIAL	SIZE	WORKING PRESSURE	AVAILABLE THREADED
E0101	UL	Body Brass, Hand Wheel Ductile Iron (Body ASTM Standard)	1.5" (40mm), 2.5" (65mm)	300psi (21bar)	FNPT x MNST or FNPT x FNPT
EN0101	Standard				

- Finishing Rough brass, Polished brass. Royal chrome plated and polished - chrome

APPLICATION- Used with hose rack assembly or as a fire department outlet connection

PRESSURE RESTRICTING VALVE

Pressure Restricting Valves are intended to reduce the water pressure in standpipe systems or in the supply piping for sprinkler systems.

OPTIONS

MODEL	APPROVAL	MATERIAL	SIZE	RATED WORKING PRESSURE	AVAILABLE THREADED
EN0102	Standard	Body Brass (ASTM Standard)	1.5" (40mm), 2.5" (65mm)	175psi (12bar) & 300psi (21bar)	FNPT x MNST or FNPT x FNPT

- Finishing Polished brass. Royal chrome plated and polished chrome plated

OBLIQUE LANDING VALVE

BS 5041-1 LPCB Cert ref. 1153Je

EMACO Oblique Landing Valve is a type of globe pattern hydrant valve. These oblique type landing valves are available with flanged inlet or screwed inlet. The landing valves are classified under low pressure. Manufacturer Standard BS 5041 Part 1.

OPTIONS

MODEL	APPROVAL	MATERIAL	SIZE	RATED WORKING PRESSURE	AVAILABLE THREADED
E0190-198A1-00	LPCB	Body Copper Alloy (BS Standard)	2.5" (65mm)	200psi (15bar)	Flanged
E0190-198B1-00	LPCB				Threaded
EN0190-198A1-00	Standard				Flanged
EN0190-198B1-00	Standard				Threaded

- Available Inlet BSP Thread or Flanged as BS 4504 Part 2:1974 Table: 16/21 and Outlet BS 336 Instantaneous Female.
- Finishing Red

APPLICATION

Suitable for fire hydrant systems at Internal or External places on wet risers with permanently charged water from a pressurized supply with water.

LAY-FLAT FIRE HOSE

UL LISTED
FM APPROVED

EMACO Fire Hose is manufactured in accordance with UL 19 or NFPA 1961 standard. Double jacket fire hose has two covers to protect the liner for increased durability and Single jacket has one cover protecting the inner rubber liner. Fire Hoses are lined with a high-tech EPDM tube or TPU tube. Maintenance free, highly flexible and light weight 100% Polyester Jacket.

SINGLE JACKET FIRE HOSE (Type 1 and Type 2)

MODEL	APPROVAL	LINING MATERIAL	NOMINAL DIAMETER	SERVICE PRESSURE, BURST PRESSURE	COUPLING
E0111	UL & FM	Polyurethane	1.50" (40/38mm)	250psi (17bar), 750psi (51bar)	BS/NST/Ghost Coupling
E0113	FM	Polyurethane	1.50" (38mm)		
E0112	FM	EPDM	1.50" (38mm)		
E0114	FM	EPDM	1.50" (38mm) 1.75" (44mm) 2.50" (64mm)		

DOUBLE JACKET FIRE HOSE (Type 1 and Type 2)

MODEL	APPROVAL	LINING MATERIAL	NOMINAL DIAMETER	SERVICE PRESSURE, BURST PRESSURE	COUPLING
E0115	FM	Polyurethane	1.50" (38mm) 1.75" (44mm) 2.50" (64mm)	400psi (28bar), 1200psi (83bar)	BS/NST/ Ghost Coupling
E0116	UL & FM	EPDM	1.50" (38mm) 1.75" (44mm) 2.50" (64mm)		

- Available Length: 15m (50ft), 30m (100ft), 45m (148ft)
- Custom length with various coupling of Brass or Aluminum according to requirements.

APPLICATION

Single Jacket used at fire hydrants, standpipes, and similar places and also for wash down, maintenance, mill discharge, and construction.
Double Jacket used for Industrial and Municipal firefighting, also for Military, Commercial, Civil Engineering, and Agricultural fluid transmission.

FIRE HOSE REEL

EN 671-1:2012 LPCB Cert ref 1038ALa

EMACO hose reels provide an on hand firefighting facility with a continuous supply of water available immediately. High-quality standard fire hose reels come with all the standard features ready for installation and have different finish options to suit your specifications. The manufacturing standard is NFPA 1961 and EN694 to fulfill the requirements for fire protection in buildings. Working Pressure 12bar (174psi) and Test Pressure 18bar (261psi).

OPTIONS

MODEL	APPROVAL	DRUM MATERIAL	HOSE MATERIAL	HOSE PIPE SIZE	AVAILABLE HOSE LENGTH
E0161-08-A	LPCB	Powder Coated Mild Steel (Material EN Standard)	Double Braided Polyester Cord Reinforced Rubber	¾" (19mm)	30 Meter
E0161-07-B	LPCB			1" (25mm)	
EN0161-08-A	Standard			¾" (19mm)	
EN0161-07-B	Standard			1" (25mm)	

- Accessories Included: Brass or Plastic Jet/Spray Nozzle, Mounting Bracket, Ball Valve.
- Suitable for surface, recess or cabinet mounting
- Finishing Red Color.

APPLICATION

Widely used in indoor application such as in most commercial, industrial and public buildings as they can be operated by the building owners, occupants, tenants and the fire brigade as a first response to a small developing fire.

LEXUS HOSE / NITRILE RUBBER ATTACK HOSE

Nitrile rubber covered fire hose is manufactured using a unique process that permanently bonds the nylon 6.6 reinforcement to the nitrile rubber cover/liner. Hose Standard UL19, NFPA, FM, BS6391 standard. Type 3 Hose.

OPTIONS

MODEL	APPROVAL	COVER AND TUBE	REINFORCEMENT	STANDARD LENGTH
EN0121	Standard	Nitrile/PVC blend tube	Synthetic yarn	15m (50ft) to 30m (100ft)

- Hose Standard: Meet or exceed UL19, NFPA, FM, BS6391 standard
- Available size upon request
- Color: Red.

APPLICATION

Large diameter hoses for water supply Municipal and Industrial firefighting, Premium solution.

FOG NOZZLE/SPRAY NOZZLE

EMACO industrial fog nozzles are basic spray nozzle made of cast bronze, manufactured in accordance with ANSI/UL401 to control water flow from shut-off to adjustable fog and straight-stream.

OPTIONS

MODEL	APPRO.	SIZE	BODY MATERIAL	OPERATING PRESSU.	DISCHA.	DISCHARGE ADJ. FOG	THREADED INLET
E0131B2	UL	2.5" (65mm)	Synthetic yarn Bronze (ASTM standard)	100 PSI (7bar) (Max.)	280 GPM (max.)	30°, 60° or 90°	NST (NH) Female or NPSH Female (ANSI B2.4)
E0131B1	UL	1.5" (40mm)			130 GPM (max.)		
EN0131B2	Standard	2.5" (65mm)	Bronze (EN Standard)		280 GPM (max.)		
EN0131B1	Standard	1.5" (40mm)			130 GPM (max.)		

- NST to BS336 male adaptor (on demand)
- Finishing Brass and Chrome

APPLICATION

Used with lined fire hose in most industrial applications, including hose rack and reel assemblies and Fire Hose mounted on Standpipe Systems.

BRANCH PIPE NOZZLE WITH CONTROL VALVE

EMACO Lever Operated Jet-Spray Nozzle is a selectable gallon age branch pipe nozzle made from Aluminum Alloy and PVC which lightweight compact design. Manufactured in reference to IS903, are supplied with a detachable 9mm nozzle which can be removed to reveal a 12mm nozzle.

OPTIONS

MODEL	APPRO.	BODY MATERIAL	SIZE	OPERATING PRESSURE	DISCHARGE	AVAILABLE THREADED INLET
EN0132A1	Standard	Aluminum (BS Standard)	2" (50mm)	100psi (7bar) Max.	130~250 GPM (Max.)	BSP Female or NST Female
EN0132A2			2.5" (65mm)			
EN0132B1		PVC	2" (50mm)			
EN0132A2			2.5" (65mm)			

- BSP or NST to BS336 male adaptor (on demand)

APPLICATION

Use in fire brigades as the fundamental firefighting nozzle. Also use for wash-down cooling, dust suppression work and for all general purpose requirements.

HOSE CABINETS

Fire hose cabinets manufacture with high quality steel materials. The rugged and durable construction of cabinets combines to produce a dependable and virtually airtight enclosure that will last much longer than wood, steel, aluminum, or plastic cabinets.

OPTIONS

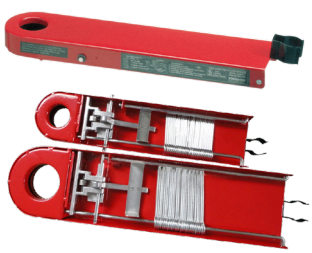
MODEL	STABDARD	MATERIAL	DIMENSION	SHEET THICKNESS
EN0151	NFPA, BS Standard	ST12 mild steel, IP56 Rating Compliant Weatherproof	HxWxD 950x750x300 mm HxWxD 750x750x200 mm HxWxD 950x750x250 mm	1mm to 2mm

- Finishing Red Color

APPLICATION

Used to protect fire hose and associated fire hose hardware such as nozzles, valves, and spray heads from exposure to harsh UV rays, effects of sun, rain, chemicals, moisture, dust, salt air, insects, and temperature extremes.

HYDRANT BOX ACCESSORIES

HOSE PIN RACK	ADAPTER	RACK NIPPLE
Model EN0155-R (Standard)	Model EN0156 (Standard)	Model EN0155-N (Standard)
		
Fire Hose Rack is a semi-automatic pin rack.	Fire Hydrant Adapter is a connector accessory.	Rack Nipple is a cast brass hex nipple connector accessory.
Pre-loaded with movable pins and an automatic release mechanism that keeps water out of the hose until the last fold is removed.	It has female NST threads on one side and BS 336 female instantaneous on the other.	It has male NST threads on one side and male hose thread on the other.
Body Material: Red enameled steel	It is used to connect fire hose to pipe threads in conjunction with the swinging hose rack or with a hose valve for hydrant box.	It is used to connect fire hose to pipe threads in conjunction with the swinging hose rack.

PILLAR HYDRANT

Two Way Fire (Pillar) Hydrants are Wet-barrel fire hydrants with two valve openings above the ground line. Under normal operating conditions the entire interior of the hydrant is subjected to water pressure at all times. Made according to BS750 Standard.

OPTIONS

MODEL	MATERIAL	MODEL EN0151-C3	OUTLET
EN0190	Body Cast Iron	4" (100mm) BS4504 Standard	With two Standard 2½" (65mm) hydrant landing valves
E0190			With two LPCB approved 2½" (65mm) hydrant landing valves

- Outlet BS 366 Female Instantaneous
- Finishing Red

APPLICATION

Wet fire hydrant is a water supply facility connected with fire-fighting system network outside building. It can also be connected to nozzles to prevent fire.

BREECHING INLET

EN 671-1:2012 LPCB Cert ref 1038ALa

Breeching Inlets known as fire department connections (FDC) give the fire department the capability of supplying the necessary water to the automatic sprinkler or standpipe system at a sufficient pressure without pressurizing the underground supply. Manufactured to comply with BS 5041 PART-3:1975.

OPTIONS

MODEL	APPROVAL	MATERIAL	INLET SIZE	OUTLET	INLET
E0191-202-00	LPCB	Body Cast Iron	2Way – 4" (100mm)	BS Flanged	BS 336 Instantaneous Male
E0191-203-00	LPCB		4Way – 6" (150mm)		
EN0191-202-00	BS Standard		2Way – 4" (100mm)		
EN0191-203-00	BS Standard		4Way – 6" (150mm)		

- Vertical or Horizontal mountable
- Finishing Red Color

APPLICATION

Used by the local fire department, intended to be used by the fire brigade personnel to provide them readily available means of water inconsiderable quantities to prevent the spread of fire.

FIRE HYDRANT ADAPTERS

SPRINKLERS AND NOZZLES

SPRINKLER

PENDENT

SIDEWALL

UPRIGHT

CONVENTIONAL

Pendent, Upright, Conventional and Sidewall sprinklers are designed for use in automatic sprinkler systems (NFPA13). The temperature response is standard response (5mm bulb) and fast response (3mm bulb). The sprinklers feature compact design, different finishes and temperature ratings.
Pendent, Conventional and Sidewall sprinklers are installed with adjustable or non-adjustable escutcheon plates. These are intended to be installed below finished ceilings.

OPTIONS

MODEL/SIN	RESPONSE TYPE	SPRINKLER STYLE	TEMPERATURE RATING	MATERIAL	K FACTOR	WORKING PRESSURE	NOMINAL THREAD SIZE
EM001	SR	Sidewall	57 °C 68 °C 79 °C 93 °C 141 °C	Brass	5.6 (80)	175psi (12bar)	1/2 " NPT or 1/2 " BSPT
EM002	QR	Sidewall					
EM003	SR	Upright					
EM004	QR	Upright					
EM005	SR	Pendent					
EM006	QR	Pendent					
EM007	SR	Conventional					

Finish: Brass or Chrome Plated or White Plated Available

LISTED

FM APPROVED

MEDIUM VELOCITY FIXED SPRAY NOZZLE

Medium Velocity Water Spray Nozzles are open type non-automatic nozzles. Medium velocity water spray nozzle has an external deflector, which discharges water in a directional cone shaped pattern of small droplet size.

The nozzle is used in deluge water spray system for special hazard fire protection application.

OPTIONS

Working Pressure: 175psi (12bar) End Connection: ½" (15mm) BSPT/

MODEL	APPR0.	BODY MATERIAL	K FACTOR	SPRAY ANGLE	FINISH
EM-A & EM-AS	UL/FM	Brass	18, 22, 30, 35, 41, 51, 64, 79, 91, 102	65°, 80°, 90°, 100°, 110°, 120°, 140° & 160°	Natural Brass finish, Chrome plated Nickel, Electroless Nickel plated, Epoxy powder coated
EM-B & EM-BS	UL/FM	Stainless Steel			Natural finish
EM-E	UL/FM	Aluminum Bronze			Natural finish

LISTED

Reverse Action (RA) Medium Velocity Water Spray Nozzles are open type (non-automatic) nozzles, designed for directional spray application in fixed fire protection system.

The Nozzles are effectively designed to apply water to exposed vertical, horizontal, curved and irregular shaped surfaces to allow cooling to prevent excessive absorption of heat.

OPTIONS

Working Pressure: 175psi (12bar)

MODEL	APPR0.	BODY MATERIAL	K FACTOR	SPRAY ANGLE	END CONNECTION	FINISH
EM CB	UL	Brass	18, 22, 30, 51, 64, 79, 102	120° & 140°	½" (15mm) BSPT	Natural Brass finish, Chrome plated brass, Electroless Nickel plated, Epoxy coated
EM CBS	UL	Brass with Copper Strainer				
EM C, EM CS	UL	Stainless Steel			½" (15mm) BSPT	Natural finish
EM CE	UL	Aluminum Bronze				

LISTED

HIGH VELOCITY FIXED SPRAY NOZZLE

High Velocity Water Spray Nozzles are internal swirl plate type open nozzles designed for use in fixed water spray or deluge system for the fire protection application. These nozzles produce solid uniform and dense core of high velocity water spray to effect fire control.

OPTIONS

Working Pressure: 175psi (12bar)

MODEL	APPR0VAL	BODY MATERIAL	K FACTOR WITH SPARAY ANGLE	END CONNECTION	FINISH
EM-HA	UL	Brass	K-22 x 75°, K-18 x 80°, K-26 x 100°, K-32 x 90°, K-42 x 115° and K-23 x 120°	3/4" (20mm) BSPT/NPT	Natural Finish Nickel Chrome Plated
EM-HS	UL	Stainless Steel			
EM-HB	UL	Brass	K-48 x 100°, K-58 x 100°, K-61 x 75°, K-78 x 90°	1" (25mm) BSPT/ NPT	Brass Finish, Nickel Chrome Plated (optional)
EM-H	UL	Stainless Steel			Natural

FOAM FIRE PROTECTION

FOAM CONCENTRATES

Foam Concentrates are designed for rapid fire knockdown by producing a thin aqueous film layer which prevents the release of fuel vapors. The foam blanket extinguishes the fire and prevents re-ignition. The water content of the foam provides a cooling effect. Provides excellent penetrating and wetting qualities and extinguish fires of non-polar hydrocarbon fuels.

OPTIONS

MODEL (UL Listed)	MODEL (Standard)
E0307-FFFP 3%	EN0307-AFFF 3%
E0307-AFFF 1%	
E0307 AR-AFFF 1x3%	
E0307-AFFF 3% F	
E0307-AFFF 3%	
E0307-AFFF 6%	
E0307 AR-AFFF 3x3%	
E0307 AR-AFFF 3x6%	
E0307-FP 3%	
E0307-FP 6%	
E0307-AFFF 3% LT	

UL LISTED EX28149

LISTED EX28126

FM APPROVED

FOAM BLADDER TANK

Foam Bladder Tank requires no outside power source other than an adequate water supply. It is designed to inject foam concentrate into the water supply of a fire protection system.

- UL Listed and FM Approved
- Require less space than foam pump skid
- Designed for maximum agent discharge
- Permanently welded lifting lugs for easy tank movement and positioning
- Tanks are Externally Red enamel coated

AVAILABILITY

- Material: Carbon Steel/ Stainless Steel (ASME Standard)
- Finishing Red

CAPACITY

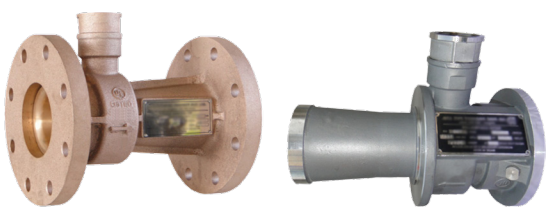
- **Vertical Type :** 36 -2000 Gallons (140 - 7500 Liters)
- **Horizontal Type :** 36 - 4000 Gallons (140 - 15000 Liters)

FOAM RATIO CONTROLLER

LISTED

FM APPROVED

Ratio Controller is used to produce constant preset foam solution in pressure proportioning systems. It is designed to inject automatically the correct quantity of foam concentrate into a water stream over a wide flow rates by balancing the pressure of the foam concentrate with that of the water supply.



OPTIONS

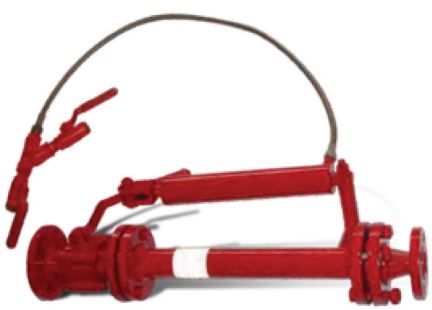
MODEL	APPROVAL	MATERIAL	WORKING PRESSURE	SIZE	TYPE	FLOW LPM	
						UL	FM
E0306-FB, E0306- FS	UL/FM	B-Bronze S- Stainless Steel	200psi (14bar) max.	2.5" (65mm)	Flange Style	AFFF 3% (100 -1550), AR-AFFF 3x3% (421 to 1460)	AFFF 3% (102 to 1590), AR-AFFF 3x3% (500 to 1030)
E0306-WB, E0306-WS	UL/FM				Wafer Style		
E0306-FB, E0306- FS	UL/FM	B-Bronze S- Stainless Steel	200psi (14bar) max.	3" (65mm)	Wafer Style	AFFF 3% (260-3000), AR-AFFF 3x3% (787-3060)	AFFF 3% (102 to 1590), AR-AFFF 3x3% (500 to 1030)
E0306-WB, E0306-WS	UL/FM				Flange Style		
E0306-FB, E0306- FS	UL/FM	B-Bronze S- Stainless Steel	200psi (14bar) max.	4" (100mm)	Wafer Style	AFFF 3% (650-6000), AR-AFFF 3x3% (1140-6060)	AFFF 3% (600-6050) AR-AFFF 3x3% (1810-6140),
E0306-WB, E0306-WS	UL/FM				Flange Style		

E0306-FB, E0306- FS	UL/FM	B-Bronze S- Stainless Steel	200psi (14bar) max.	6" (150mm)	Wafer Style	AFFF 3% (1200-12000)	AFFF 3% (1200-11460), AR-AFFF 3x3% (5000-12300)
E0306-WB, E0306-WS	UL/FM				Flange Style		

MODEL	APPROVAL	MATERIAL	WORKING PRESSURE	SIZE	TYPE	FLOW LPM	
						UL	FM
E0306-FBM, E0306-FSM	UL/FM	B-Bronze S- Stainless Steel	200psi (14bar) max.	2.5" (65mm)	Flange Style	AR-AFFF 3x3% (160-582)	AR-AFFF 3x3% (165-528)
E0306-WBM, E0306-WSM	UL/FM				Wafer Style		
E0306-FBM, E0306-FSM	UL/FM	B-Bronze S- Stainless Steel	200psi (14bar) max.	3" (65mm)	Flange Style	N/A	AR-AFFF 3x3% (820-3080)
E0306-WBM, E0306-WSM	UL/FM				Wafer Style		
E0306-FBM, E0306-FSM	UL/FM	B-Bronze S- Stainless Steel	200psi (14bar) max.	6"	Flange Style	AR-AFFF 3x3% (2370-12210)	N/A
E0306-WBM, E0306-WSM	UL/FM				Wafer Style		

- Finishing: Red epoxy coated
- Connection Flange: ANSI B16.5 Class 10#

FOAM HYDRAULIC CONTROL VALVE



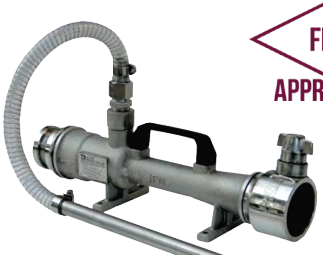
Hydraulic Concentrate Valve is designed for use in bladder tank foam systems or inline balance pressure proportioning system.

OPTIONS

MODEL	MATER.	SIZE	RATED PRESSURE	TYPE
EN0307-H	Stainless Steel	1", 1.5", 2" (25,40, 50mm)	50 to 175psi (3.44 to 12bar)	Without remote indication
EN0307-CV				With remote indication

- End connection: Flanged end to ANSI B 16.5 Class 150#

PORTABLE INLINE INDUCTOR



FM APPROVED

Hand held/portable inductors are designed primarily for use in the manual firefighting operation to provide a simple and reliable method of proportioning in constant flow applications. Designed for a set water discharge rate at a set water pressure

OPTIONS

MODEL	APPROVAL	MATERIAL	SIZE	INLET PRESSURE	FLOW	MATCHING BRANCH PINE
E0308-7S	FM	Stainless Steel	2.5" (65mm)	100 psi (7bar)	225lpm	E0309-4.2
E0308-12S	FM			175psi (12bar)	225lpm	E0309-7
E0308-7S1	FM			100 psi (7bar)	450lpm	E0309-B4.2
E0308-12S1	FM			175psi (12bar)	450lpm	E0309-B7

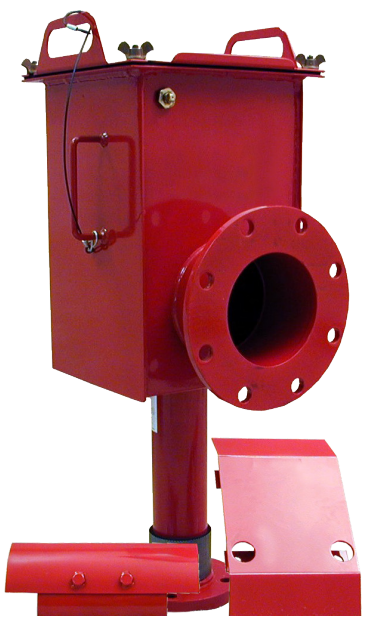
MODEL	APPROVAL	MATERIAL	SIZE	INLET PRESSURE	FLOW	MATCHING BRANCH PINE
E0308-7B	FM	Bronze	2.5" (65mm)	100 psi (7bar)	225lpm	E0309-4.2
E0308-12B	FM			175psi (12bar)	225lpm	E0309-7
E0308-7B1	FM			100 psi (7bar)	450lpm	E0309-B4.2
E0308-12B1	FM			175psi (12bar)	450lpm	E0309-B7

CONNECTION

- Inlet 2-1/2" (65mm) male instantaneous coupling (as per BS: 336 and IS: 903)
- Outlet 2-1/2" (65mm) female instantaneous coupling at outlet (as per BS: 336 and IS: 903)
- Finishing Yellow

FOAM CHAMBER

UL LISTED FM APPROVED



Foam Chamber a discharge device is designed to apply an expanded foam blanket over the surface of a flammable liquid fire as gently as possible to achieve extinguishment and/or vapor suppression. It protects vertical fixed roof (cone) liquid storage tanks, with or without internal floating roof.

OPTIONS

MODEL	APPROVAL	MATERIAL	INLET X OUTLET SIZE	RANGE OF FLOW
E0303-C65	UL/FM	Carbon Steel	2.5"x 4" (65mm x 100mm)	From 150 to 3300litres per minute at 2.74 to 6.86 bar inlet pressure
E0303-C80	UL/FM		3"x 6" (80mm x 150mm)	
E0303-C100	UL/FM		4"x 8" (100mm x 200mm)	
E0303-C150	UL/FM		6"x 10" (150mm x 250mm)	

MODEL	APPROVAL	MATERIAL	INLET X OUTLET SIZE	RANGE OF FLOW
E0303-CS65	UL/FM	Stainless Steel, Vapor Seal: Glass/ Graphite	2.5"x 4" (65mm x 100mm)	From 150 to 3300litres per minute at 2.74 to 6.86 bar inlet pressure
E0303-CS80	UL/FM		3"x 6" (80mm x 150mm)	
E0303-CS100	UL/FM		4"x 8" (100mm x 200mm)	
E0303-CS150	UL/FM		6"x 10" (150mm x 250mm)	

- Connection flange: ANSI B16.5 Class 150#
- Finishing: Red Epoxy Coated or Natural Finish

FOAM MAKER

Foam Maker is an air aspirating foam generator connected to the foam pourer to deliver the aspirated foam gently into the tank seal area. Foam maker are defined by NFPA 11 as type II discharge outlets for delivering the low expansion aspirated foam to the seal.

OPTIONS

MODEL	APPROVAL	MATERIAL	WORKING PRESSURE	INLET X OUTLET SIZE
E0303-M50 E0303-MS50	UL/FM	Stainless Steel	40-100 PSI	2" x 3" (50mm x 80mm)
E0303-M65 E0303-MS65	UL/FM			2.5" x 4" (65mm x 100mm)

- Connection flange: ANSI B16.5 Class 150#
- Finishing: Red Epoxy Coated or Natural Finish

FOAM WATER SPRINKLER – PENDENT TYPE

Foam Water Sprinkler is used in the deluge foam system to protect the risk where foam is required to be applied from overhead sprinklers. It protects the loading and unloading area in the event of a spill fire with low expansion foam systems.

These are useful in other wide applications i.e. air craft hangers, warehousing.

OPTIONS

MODEL	APPROVAL	MATERIAL	WORKING PRESSURE	STANDARD COVERAGE	K-FACTOR
E1	UL/FM	Stainless Steel	175psi (12bar)	100 sq. ft.	42
EH	UL/FM	Bronze			

AVAILABILITY

- Mounting: Pendent Open and air aspirating type
- End connection: ½" BSPT (½" NPT optional)

RIM SEAL FOAM POURER

Rim Seal Foam Pourer consists mainly of Foam Maker, a windshield and an integral deflector. The Pourer is designed to deliver fully aspirated foam directly to the annular seal area of open top floating roof tank.

Rim Seal Pourer is designed to discharge foam gently as it expands and slides down inside of the tank shell and directly in the rim seal area.

OPTIONS

Model	APPROVAL	Material	SIZE	WORKING PRESSURE	FLOW
E0303-P65	UL/FM	Carbon Steel	2.5" (65mm)	AFFF 3% [UL listed] - 2.74 to 2.64 bar, AFFF 3% [FM Approved] - 4.8 to 6.86 bar,	50 to 550lpm
E0303-PS65	UL/FM	Stainless Steel			

- Finishing Epoxy painted

FOAM BRANCH PIPE

Hand line foam branch pipe is a hand held nozzle used in all types of low expansion foam systems. It is generally used where the foam is required to be applied manually. The branch pipe is used to protecting loading racks, tank farms, chemical plants, spill fires.

OPTIONS

MODEL	APPR.	MATERIAL	INLET PRESSURE	INLET FLOW	INLET CONNECTION	MODEL	DESCRIPTION	FLOW RATE
E0309-4.2	FM	Light weight high strength aluminum alloy	60 psi (4.12bar)	225lpm	2.5" (65mm) BS Male (Instantaneous)	EN0309-A4	Medium Expansion Foam Expansion Foam	60GPM/230LPM/4LPS
E0309-7	FM		100 psi (7bar)	225lpm		EN0309-A8		125GPM/475LPM/8LPS
E0309-B4.2	FM		60 psi (4.2bar)	450lpm		EN0309-A16		250GPM/950LPM/16LPS
E0309-B7	FM		100 psi (7bar)	450lpm				

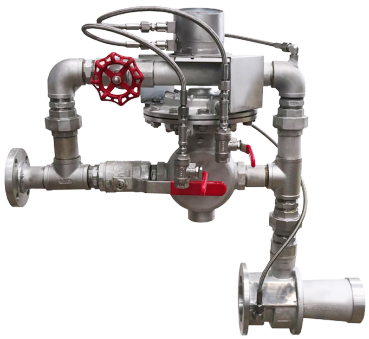
INLINE BALANCE PRESSURE PROPORTIONER

UL LISTED

In-Line Balanced Pressure Proportioner is a foam proportioning device which is used to balance the higher foam concentrate to the lower system water pressure on pilot pressure regulating systems or foam pump proportioning systems.

OPTIONS

MODEL	APPROVAL	MATERIAL	SIZE	MAXIMUM SERVICE PRESSURE	FLOW IN LPM	
					AFFF 3%	AR-AFFF 3x3%
E0306-BP 65	UL	Stainless Steel	2.5" (65mm)	175psi (12bar)	409 to 1467	510 to 1608
	UL		3" (80mm)		371 to 3186	745 to 3125
	UL		4" (100mm)		668 to 6254	806 to 6216
	UL		6" (150mm)		1683 to 13299	1441 to 12798
	UL		8" (200mm)		3062 to 17392	3675 to 17440
E0306-BPS65	UL		2.5" (65mm)			178 to 683



COMPRESSED AIR FOAM SYSTEM

- MODEL: EN0310-CAFS
- Stored Capacity 10 Gallon
- Agent AFFF3% Foam
- Discharge Distance 14m
- Fire Hose Reel 1/2"x25m, Automatic
- Nozzle 1" Pistol
- Discharge Time 150s
- Tank material Stainless Steel with red painting

APPLICATION

- Gas Station, Industry, Fire Departments, Agriculture, Petrol Station, Factory warehouse, Business and Home Owners, Mini Fire Fighting Truck.

FOAM GENERATOR

Foam Generator is a high expansion foam generator which is suitable for total flooding applications, (e.g. Basements, mines, tunnels, cable ducts, warehouses). It is powered by water turbine and aero foil fan, all that is required for operation is a pressurized water supply and a high expansion foam concentrate, ideally suited for rapid smoke extraction and positive pressure ventilation.

MODEL	TYPE	INLET PRESSURE, bar	TOTAL WATER FLOW litres/min	FOAM EXPANSION RATIO
EN0317-100P	Portable	3.5-7	180-227	250-800
EN0317-300(FRP)	Portable with system induction	4.0-10		425-1000
EN0317-300P(SS)	Portable with/with-out system induction			400-960

FOAM CONCENTRATE STORAGE TANK

- Capacity: 200 to 15000 liters (53 to 4000 gal.)
- Horizontal unit
- Stainless Steel 304/316 material
- Comes with ladder, sight glass and air vent
- Expansion dome of 2% tank capacity
- Flat end or dome end
- Natural, Custom or Red RAL 3000 epoxy painted
- Tank can be custom made with inline inductor mounted on the tank

MOBILE FOAM UNIT

- 160litres capacity in Fiber Glass Foam Tank
- 120 to 220litres capacity in Stainless Steel Foam Tank
- Two solid rubber wheels for easy maneuver by one person
- Mounted with bronze or stainless-steel foam inductor
- Flow rate of 225/450lpm (60/120 USGPM) at 7 kg/cm2
- Provision of mounting two fire hoses
- Fire hoses and Foam concentrate supply (optional)

FOAM EDUCTOR

Foam Eductors have a metering head with easy-read knob for use with Class A Foam and that introduces foam concentrate into the water stream. Water coming in the inlet of the eductor is directed through a tapered section and out through a small orifice into a larger chamber thus creating a low-pressure area within the chamber.

Built-in by-pass chamber, allows the operator to change from water to foam without shutting down.

Large, easy to read, and removable metering dial with settings between 0% and 6%. Detents at 1/4, 1/2, 1, 3 and 6%

- Rated to 125 USGPM (475lpm) at 200 psi (14 bar) inlet pressure

MONITORS & NOZZLES

FOAM MONITOR

Fire Monitors are designed to accommodate foam which has been injected in the upstream piping. Fire monitors can be used in trucks and fixed fire protection systems to protect high hazards.

- **Type :** Fixed, Portable and Remote-Controlled
- **Operation :** Single Wheel, Double Wheel, Lever and Electric.

UL LISTED EX28125

MODEL	APPROVAL	MATERIAL	SIZE	NOZZLE MODEL	NOZZLE TYPE
E0304	UL	Stainless Steel	4" (100mm)	E0304-N	Fixed
				E0304-NV	Variable
E0304-M	UL	Cast Bronze	3" (80mm)	E0304-NU-500	Self-Inducing
				E0304-NU-750	Self-Inducing
				E0304-N40U-500	Non Self-Inducing
				E0304-N40U-750	Non Self-Inducing
				E0304-N40U-1000	Non Self-Inducing

FOAM MONITOR

MODEL	EN0304
TYPE	Fixed
MATERIAL	Ductile Iron
FLOW	500GPM
WORKING PRESSURE	0.8-1.0Mpa
INLET	DN100 ANSI

These monitors are durable mnaual controlled low profile monitor for fixed installation as well as trailer mounted unit.

APPLICATION

Suitable for use in petrochemical, industrial and municipal environments with foam system suppression system.

REMOTE CONTROLLED FIRE MONITOR

MODEL	EN0312-24B	EN0312-32B	EN0312-40B
W.PRESSURE	0.8MPa	0.8MPa	0.8MPa
FLOW RATE	24L	32L	40L
FOAMING EXPANSION	≥ 6 times		
25% DRAINAGE TIME min(20°C)	≥2.5		
POWER SUPPLY	AC220V		
POWER DISSIPATION	Standby15W Max. 115W		
MATERIAL	Monitor body & Nozzle Aluminum alloy hard anodized		
INLET	DN65 Flange		
INSTALLATION	Mounted		

SELF - EDUCTION FOAM MONITOR

- Aluminum alloy construction
- 24LPS/ 32LPS/ 40LPS/ 48LPS/ 64LPS flow rate for option
- Available for water and foam, equipped with foam self-eduction device.
- 360° rotation, -45° to +85° Elevate
- Stainless steel handle control.

Model	EN0304-NY
FOAM JETTING RANGE	40/45/50/55/60
WATER JETTING RANGE	45/50/55/60/65
FLOW	500 to 2000 GPM
WORKING PRESSURE	1.0MPa

FOAM MONITOR

- Aluminium alloy construction, hard coated anodized
- Flow Rate: Constant or Selectable 20 - 30 - 40 LPS;
- Jetting Pattern: Straight stream,Fog;
- 360° rotation horizontally.

MODEL	MATERIAL	WORKING PRESSURE	FLOW RATE	MONITOR INLET
E0304-PS	Hard coated anodized aluminium alloy	8 bar	1200/1800/2400 LPM	Flange 4"

FOAM MONITOR

- Aluminium alloy construction
- Flow Rate adjustable;
- Jetting Pattern: Straight stream, Fog;
- 360° rotation horizontally.

MODEL	MATERIAL	WORKING PRESSURE	FLOW RATE	MONITOR INLET
E0304-PS	Aluminium alloy	10 bar	1800/2400/3000 LPM	Flange 4"

FOAM MONITOR

- 304 Stainless Steel construction
- Flow Rate adjustable;
- Jetting Pattern: Straight stream,Fog;
- 360° rotation horizontally.

MODEL	MATERIAL	WORKING PRESSURE	FLOW RATE	MONITOR INLET
E0304-PS	Stainless Steel	10 bar	1200/1800/2400 LPM	Flange 4"

FOAM MONITOR

- 304 Stainless Steel construction
- Flow Rate: 80 LPS (Automatic Nozzle);
- Jetting Pattern: Straight stream, Fog;
- 360° rotation horizontally.

MODEL	MATERIAL	WORKING PRESSURE	FLOW RATE	MONITOR INLET
E0304-PS	Stainless Steel	10 bar	4800 LPM Automatic Nozzle	Flange 4"

FOAM MONITOR

- Aluminium alloy construction
- Hand Wheel control
- Flow Rate: 24/32/40/48/64 LPS (optional);
- Available for water and foam both
- 360° rotation horizontally.

MODEL	MATERIAL	WORKING PRESSURE	FLOW RATE	MONITOR INLET
E0304-PL	Aluminium alloy construction	10 bar	4800 LPM Automatic Nozzle	Flange 4"

FOAM MONITOR

- 304 Stainless Steel construction;
- Double Hand Wheel control
- Flow Rate: 24/32/40/48/64 LPS (optional);
- Available for water and foam both
- 360° rotation horizontally.

MODEL	MATERIAL	WORKING PRESSURE	FLOW RATE	MONITOR INLET
E0304-PL	Aluminium alloy construction	10 bar	4800 LPM Automatic Nozzle	Flange 4"

PORTABLE FOAM MONITOR

- Hard Anodized Aluminum alloy construction
- Flow Rate: 1200 - 1800 -2400 LPM (Adjustable);
- Jetting Pattern: Straight stream, Fog;
- 20°swing left and right from the center.

MODEL	MATERIAL	WORKING PRESSURE	FLOW RATE	MONITOR INLET
E0304-PSY	Hard coated anodized aluminium alloy	10 bar	1200/1800/2400 LPM	2.5" GOST, STORZ, NH (Optional)

FOAM MONITOR

- SS340 stainless steel construction
- Flow Rate: 80 LPS (Automatic Nozzle);
- Double Hand Wheel
- Jetting Pattern: Straight stream,Fog;
- 350° rotation horizontally.

MODEL	MATERIAL	WORKING PRESSURE	FLOW RATE	MONITOR INLET
E0304-PS	Stainless Steel	10 bar	4800 LPM	2x2.5" GOST, STORZ, NH (Optional)

FOAM MONITOR

- 304 Stainless Steel construction
- Flow Rate adjustable;
- Jetting Pattern: Straight stream,Fog;
- 360° rotation horizontally.

MODEL	MATERIAL	WORKING PRESSURE	FLOW RATE	MONITOR INLET
E0304-PS	Stainless Steel	10 bar	1200/1800/2400 LPM	Flange 4"

TRAILER MOUNTED MONITOR

The trailers are custom designed and manufactured to meet individual plant requirement. Trailer is having two-wheel or four-wheel pneumatic tyres, depending on load on the trailer. The trailer can be supplied in various combination of EMACO monitors with flow of 500 to 2,000 GPM and with or without concentrate storage tank. The monitor nozzle can be fixed-flow or variable flow type with selfinducting or with JRCP (Jet Ratio Controller Pump).

MODEL	EN0312
TYPE	Fixed
FRAMING	Structural steel
FLOW	500 to 2000 GPM
WORKING PRESSURE	350 PSI (25 Bar)
FINISH	Red Epoxy painted

SELECTABLE FLOW FIRE NOZZLE

- Flow Rate: 15 - 950 LPM - Flush (Selectable);
- Jetting Pattern: Straight stream,Narrow fog,Wide fog;
- 1/4 turn from straight stream to wide fog;
- Coupling standard: Storz, NH, INST, GOST, MACHINO, etc.

MODEL	MATERIAL	WORKING PRESSURE	INLET SIZE	MAX. REACH
E0304-QL	Hard coated anodized aluminium alloy	6 bar	40, 50, 65 mm	35 m @ 6 bar

WATER WALL FIRE NOZZLE

- Flow Rate: Straight Stream 500 LPM, 900LPM;
- Water Spray Angle: 180°;
- 78 feet width, 23 feet height wall of water;
- Coupling Standard: Storz, NH, INST, GOST, MACHINO, etc.

MODEL	MATERIAL	WORKING PRESSURE	INLET SIZE	MAX. REACH
E0304-FR	Hard anodized anodized aluminium alloy	7 bar	50, 65 mm	40 m @ 7 bar

HYDRO FOAM NOZZLE FOR MONITOR

EMACO Hydro Foam Nozzles are fixed flow nozzles, simple and rugged with superior stream and reach. The straight stream from maximum reach can be easily changed to wide fog pattern under flow condition by rotation of the nozzle pattern adjustment sleeve. It is a self inducting nozzle equipped with a foam concentrate pick up tube of 3.0 meters long with a swivel connection.

APPLICATION

The nozzle can be used as a water nozzle and when foam supply is established, it acts as a self inducting Foam Nozzle. The performance data shows effective stream trajectory in stand still air condition. The maximum overall reach of last drop is approximately 3-5% more than

MODEL	E0304-N with 500/750/1000 GPM
INDUCTION	3%
MATERIAL	Stainless Steel
FLOW RATE	500/750/1000 GPM
WORKING PRESSURE	12 bar (175 PSI)
WATER INLET CONNECTION	Swivel Female 4" BSP
FOAM CONCENTRATE CONNECTION	Female 1¼"BSP

UL LISTED

MODEL	E0304-NV-500-750 E0304-NV-750-1000 E0304-NV 500/750/1000
INDUCTION	3%
MATERIAL	Stainless Steel
FLOW RATE	500/750/1000 GPM
WORKING PRESSURE	12 bar (175 PSI)
WATER INLET CONNECTION	Swivel Female 4" BSP

MODEL	E0304-NU-500 E0304-NU-700
INDUCTION	3%
MATERIAL	Stainless Steel
FLOW RATE	500/ 750 GPM
WORKING PRESSURE	14bar (200 PSI)
WATER INLET CONNECTION	Swivel female 3"BSP
Foam Concentrate Connection	Female 1¼" BSP
JET/SPR PATTERN	Max.120 degree angle

FIRE EXTINGUISHERS PORTABLE, MOBILE & AUTOMATIC TYPE

A portable (or mobile) fire extinguisher is an effective first line of defense in controlling small fires within your home or business. Fire extinguishers can be an effective tool, but only when you select the correct type for your needs. For maximum effectiveness, choosing the right extinguisher for your situation is very important.

In fact, determining what kind of fire is burning is the initial step in figuring out which fire extinguisher to use.

Many people assume that a fire extinguisher will put out any type of fire and this is not the case. Specific types of fires require a specific type of fire extinguisher. Some fire extinguishers will leave a mess behind and damage sensitive equipment, while other fire extinguishers will leave hardly a trace and not damage sensitive equipment such as computers.

ABC DRY POWDER EXTINGUISHER

EN 3 CERT ref. 1092Ka

OPTIONS

EXTINGUISHER TYPE	PORTABLE TYPE						MOBILE TYPE		
MODEL	E0801-PD1E	E0801-PD2S	E0801-PD4S	E0801-PD6S	E0801-PD9S	E0801-PD12	E0801-PD25	E0801-PD50	E0801-PD100
CAPACITY(kg)	1	2	4	6	9	12	25	50	100
PROPELLANT TYPE	Nitrogen								
EXTINGUISHING MEDIUM	ABC Powder 51%								
HEIGHT (MM)	315	383	490	540	556	672	870	1200	
SHELL DIAMETER (MM)	85	110	130	154	182	190	250	300	400
FULL WEIGHT (KG)	1.90	3.60	6.80	9.30	13.70	17.40	40	77	140
DISCHARGE TIME APPROX.	6.5 s	13.5 s	17 s		19 s	30 s	30 s	35 s	
FIRE RATING	8A 34B C	13A 89B C	27A 144B C	43A 233B C	55A 233B C	55A 233B C	A IIB C	A IV B C	
TEMPERATURE RANGE	-30°C to +60°C						-30°C to +60°C		
WORKING PRESSURE (BAR)	15						15		
TEST PRESSURE (BAR)	27						26		

FOAM EXTINGUISHER

OPTIONS

EXINGUISHER TYPE	PORTABLE TYPE		MOBILE TYPE	
MODEL	E0804-FM6S	E0804-FM9S	E0804-FM50	E0804-FM100
CAPACITY (KG)	6	9	50	100
PROPELLANT TYPE	Nitrogen			
EXTINGUISHING MEDIUM	AFFF 1.5-2%			
HEIGHT (MM)	537	620	1200	
SHELL DIAMETER (MM)	162	182	300	400
FULL WEIGHT (KG)	9.60	14.0	77	140
DISCHARGE TIME APPROX.	22 s	30 s	35 s	
FIRE RATING	21A 144B	27A 233B C	AIV B	
WORKING PRESSURE (BAR)	15			
TEST PRESSURE (BAR)	27			
TEMPERATURE RANGE	5°C to +60°C		-30°C-+ 60°C	
STANDARD	BS EN3		EN 1866	

EN 3 CERT ref. 1092Ka

CARBON DIOXIDE EXTINGUISHER

EN 3 CERT ref. 1092Ka

OPTIONS

EXINGUISHER TYPE	PORTABLE TYPE		MOBILE TYPE		
MODEL	E0803-CD2	E0803-CD5	E0803-CD10	E0803-CD20	E0803-CD30
CAPACITY (KG)	2	5	10	20	30
PROPELLANT TYPE	Carbon Dioxide				
EXTINGUISHING MEDIUM	CO_2				
HEIGHT (MM)	565	745	1220	1305	1590
SHELL DIAMETER (MM)	103	136	152	219	
FULL WEIGHT (KG)	6.20	14.40	46	100	117
FIRE RATING	34B	70B	144 B	183B	
DISCHARGE TIME APPROX.	≥6 s	≥9 s	35 s		
WORKING PRESSURE (PSI)	150				
TEST PRESSURE (PSI)	250				
TEMPERATURE RANGE	-30°C to +60°C				

PORTABLE WATER EXTINGUISHER

EN 3 CERT ref. 1092Ka

OPTIONS

PROPELLANT TYPE	STORE PRESSURE	
MODEL	E0802-WT6	E0802-WT9
EXTINGUISHING MEDIUM	WATER	WATER
CAPACITY (KG)	6	9
HEIGHT (MM)	537	620
SHELL DIAMETER(MM)	162	182
FULL WEIGHT(KG)	9.6	14.0
DISCHARGE TIME APPROX. (S)	45	22
FIRE RATING	13A	21A
WORKING PRESSURE(BAR)	15	
TEST PRESSURE(BAR)	27	
TEMPERATURE RANGE	5°C to +60°C	
APPROVED TO BS EN3 & LPCB	√	

AUTOMATIC ABC DRY POWDER EXTINGUISHER

OPTIONS

PROPELLANT TYPE	STORE PRESSURE					
EXTINGUISHING MEDIUM	ABC POWDER					
MODEL	EN0807-APD1	EN0807-APD2	EN0807-APD4	EN0807-APD6	EN0807-APD9	EN0807-APD12
CAPACITY (KG)	1	2	4	6	9	12
HEIGHT (MM)	120	163	195	207	255	315
SHELL DIAMETER(MM)	160	190	250	250	270	270
FULL WEIGHT(KG)	2.3	3.5	7.0	8.6	11.8	15.8
DISCHARGE TIME APPROX. (SECOND)	8	10	15	20	20	30
WORKING PRESSURE (BAR)	15					
TEST PRESSURE (BAR)	27					
TEMPERATURE RANGE	-30°C to +60°C					

AUTOMATIC HFC227 EXTINGUISHER

OPTIONS

Below data refers to regular temperature at 20 centigrade and atmospheric pressure at 1 bar.
The max coverage would vary a little from the ambient temperature and pressure on the real condition.

THERMAL SENSOR CONTROLLED (CEILING/WALL MOUNTED STYLE)					
MODEL	FILLING AMOUNT (KG)	MAXIMUM WORKING PRESSURE (MPA)	STORAGE PRESSURE (MPA)	MAXIMUM COVERAGE (M3)	STARTING MODE
EN0806-MW6/1.6	6	2.5	1.6	9.20	Temperature Sensor Activating Temperature : 680°C
EN0806-MW8/1.6	8			11.11	
EN0806-MW10/1.6	10			13.89	
EN0806-MW16/1.6	16			22.22	
EN0806-MW20/1.6	20			27.78	
EN0806-MW30/1.6	30			41.67	

- Discharge Time ≤10s
- Maximum filling Density 1 kg/L
- Ambient Torking Temperature 0°C~50°C
- Water supply manifold with 2.5" (65mm) or 4" (100mm) inlet connections
- 2.5" (65mm) BSP instantaneous coupling

AUTOMATIC AEROSOL EXTINGUISHER

OPTIONS

MODEL	FILLING AMOUNT (G)	PROTECTION SPACE (M3)	DISCHARGE TIME (S)	SHELL MATERIAL	WEIGHT (G)
EN0809-S-AAE-03	30	0.2	5	ABS	285
EN0809-S-AAE-06-C3	60	0.6	10	SS304	570
EN0809-S-AAE-10-C2	100	0.8	10	ABS	850
EN0809-S-AAE-10-CS3	100	0.8	10	SS304	1130
EN0809-S-AAE-16-C3	160	1.6	10	SS304	1070
EN0809-S-AAE-25-C3	250	2.0	20	SS304	1750
EN0809-S-AAE-50-C3	500	3.5	30	SS304	2700

- Service Life 10years
- Certificates ISO, CE

VALVE & FLOW CONTROL

DELUGE VALVE

LISTED

FM APPROVED

Deluge valve known as automatic water control valve delivers large quantities of water over a large area in a relatively short period of time, used for fast application in deluge, pre-action, foam protection, fixed spray and other automatic water control

TYPE OF ACTIVATION

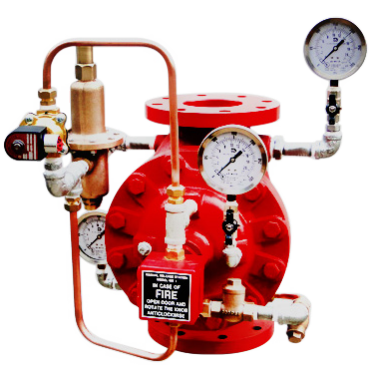
- Hydraulic Activation, Electrical Activation, Electro-Pneumatic Activation, Manual

TRIM TYPE

- Basic Trim
- Wet Pilot Trim (Hydraulic Release)
- Dry Pilot Trim (Pneumatic Release)
- Electric Release Trim
- Test And Alarm Trim With Sprinkler Alarm.

OUR AVAILABLE SYSTEMS WITH DELUGE VALVE SYSTEM OPERATION

- Pre-action System
- Foam Suppression System
- Water Spray System,



MODEL	APPR.	VAVLE TYPE	MATERIAL	SIZE (Outside Diameter)	MAXIMUM SERVICE PRESSURE
E0302- DA	UL	Angle Type	Cast Iron ASTM A216 WCB	2" (50mm)	250 psi (17.16bar)
E0302-DH3	UL	Globe Type	Ductile Iron ASTM A536	3" (80mm)	
EN0302-DA	Standard	Angle Type	Cast Iron ASTM A216 WCB	4" (100mm)	175 psi (11.76bar)
EN0302-DH3	Standard	Globe Type	Ductile Iron ASTM A536	6" (150mm)	
				8" (200mm)	

ACCESSORIES

- Soliniod Valve
- Pressure Switch
- Pressure Guage
- Pressure Relief Valve and Fittings.

APPLICATIONS

- Flammable Liquid Handling
- Storage Areas for Valuable Artifacts
- Aircraft Hangars
- High-Hazard Installations Using Water as Extinguishing Agent
- Computer Rooms
- Libraries
- Archives
- Refrigerated Areas

ALARM CHECK VALVE

UL LISTED FM APPROVED

The Alarm Check Valve that prevents backflow and holds back water pressure to keep it steady in the piping system. Besides, when a flow of water from the system equals or exceeds that of a single sprinkler, the valve actuates electric and/or hydraulic alarms apart from reducing the possibility of false alarm.

PROVIDES

- A check against the fire dept. connection,
- An alarm service in case of flow,
- A main drain, and
- A test connection.

APPLICATION

Used in Wet pipe sprinkler/Automatic Sprinkler System.

SYSTEM COMPONENT

Alarm Check Valve, Retarding Chamber, Alarm Bell, Standard Trim, Drain Valve, Ball Valve, Gauges, Pressure switch, Fittings and Nipples.

- Body retains components
- Clapper opens and closes in changes of pressure

OPTIONS

MODEL		APPROVAL	NOMINAL SIZE	MAXIMUM WORKING PRESSURE	END CONNECTION
Alarm Check Valve	E0301	UL & FM	3" 80mm 4" 100mm 6" 150mm 8" 200mm	250 Psi 17.5 Bar	Flanged x Flanged Flanged x Grooved Grooved x Grooved
Alarm Check Valve	EN0301	Standard			
Retard Chamber	E0301-RC	UL & FM			
Retard Chamber	EN0301-RC	Standard			

MODEL	APPROVAL	WATER WORKING PRESSURE	INLET CONNECTION	DRAIN
E0301-WG	UL & FM	250psi (17.5Bar)	3/4" (20mm) BSPT (3/4" NPT)	1" (25mm) BSPT (1" NPT)
EN0301-WG	Standard			

Finish : Red RAL 3000

PRESSURE RELIEF VALVE

This valve is used for the high building firefighting system. When the pressure in the water supply pipeline is over the one set for pressure relieving, the pressure relieving valve is opened to prevent both pipeline and equipment from getting damaged due to an excessive pressure.

- Used as a pressure relieving valve and also a pressure holding valve.

OPTIONS

MODEL	APPROVAL	BODY MATERIAL	SIZE	WORKING PRESSURE
EN0280	Standard	Ductile Iron	2”- 10” (50-250mm) (Globe, Angle)	240psi/PN16 (16bar)

- Type: Pilot operated, Spring loaded, Pressure Relief Valve Bellow Type.
- End connection: Flanged, Threaded, Grooved is available.

APPLICATION

Used in the Fire protection system, petroleum refining, petrochemical and chemical manufacturing, natural gas processing and power generation industries, the term relief valve is associated with the pressure safety issue

PRESSURE REGULATING/ REDUCING VALVE

Adjust and control the outlet pressure of the master valve. The said pressure will not be changed along with the change with the inlet pressure, neither along with the change of the flow on the master valve outlet.

- Flow and leakage reduction
- Cavitation damage protection
- Temperature Range: Up to 80
- Throttling noise reduction

OPTIONS

MODEL	APPROVAL	BODY MATERIAL	SIZE	WORKING PRESSURE
EN0281	Standard	Ductile Iron	2”- 10” (50-250mm) (Globe, Angle)	240psi/PN16 (16bar)

- Type: Direct acting Pilot operated, Pilot Piston Operated,
- Solder, threaded, flanged, grooved end connections

APPLICATION

Applicable for the living water supply, fire-fighting system and industrial water supply system.

TEST & DRAIN VALVE

UL LISTED

Test & Drain Valve features single handle ball valve inspector's test with large & integral sight glass allowing for maximum visibility when operated of which compact and integrated form allow for installation in both horizontal and vertical orientations in a minimal occupation of space.

- Positive positioning of handle for off, test, or drain.
- Heavy duty bronze construction ensures extended service
- Available in threaded NPT (F-F) with 1/2" & 17/32" Test Orifice

OPTIONS

MODEL	APPROVAL	SIZE	FITTING	WORKING PRESSURE
E-81	UL	1" (25mm) 1.25" (32mm) 1.5" (40mm) 2" (50mm)	Threaded Test & Drain Fitting	300psi/cwp (21bar)
EN-81	Standard			
E-82	UL	1.25" (32mm) 1.5" (40mm) 2" (50mm)	Grooved Test and Drain Fitting	
EN-82	Standard			

APPLICATION

For testing of water flow through sprinklers and express drain function required for wet fire sprinkler systems in multistory buildings where water flow alarm devices are required on each floor or at each riser.

BALL VALVE

Ball valve is a form of quarter-turn valve which uses a hollow, perforated and pivoting ball to control flow through it.

- Long life cycle
- Low torques

OPTIONS

MODEL	APPROVAL	BODY MATERIAL	SIZE (Nominal Diameter)	PRESSURE RATING
EN0265	STANDARD	Brass	0.5" – 12" (15mm- 300mm)	600 (400) WOG

- Body: One, two and three pieces available upon request.
- Materials: Brass, Bronze, Carbon Steel, SS is available.

APPLICATION

Commercial, industrial and residential applications

GATE VALVE

UL LISTED



Gate valves serve to cut the medium flow in the piping system. On opening the gate valve, the flow path is enlarged in a highly nonlinear manner with respect to percent of opening.

- Material: Ductile Iron
- Temperature Range 0-80°
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550

OPTIONS

PATTERN	MODEL		SIZE (Nominal Diameter)	END CONNECTION	RATED PRESSURE
	UL	STANDARD (EN-GJS-450-10 /ASTM A536, 65-45-12)			
OS&Y	E0201-300	EN0201-300	2"- 12" (50 - 300 mm)	F by F (ANSI Flange)	300psi (21bar)
OS&Y	E0201-250	EN0201-250		F by F (ANSI Flange)	250psi (17bar)
OS&Y	E0201-200	EN0201-200		F by F (ANSI Flange)	200psi (14bar)
OS&Y	E0201-PN16-300	EN0201-PN16-300		F by F (BS Flange)	300psi (21bar)
OS&Y	E0201-PN16-250	EN0201-PN16-250	10", 12" (250, 300mm)	F by F (BS Flange)	250psi (17bar)
OS&Y	E0201-PN16-200	EN0201-PN16-200	2"- 12" (50 - 300 mm)	F by F (BS Flange)	200psi (14bar)
NRS	E0203-300	EN0203-300	2.5" – 12" (65-300mm)	F by F (ANSI Flange)	300psi (21bar)
NRS	E0203-250	EN0203-250		F by F (ANSI Flange)	250psi (17bar)
NRS	E0203-200	EN0203-200		F by F (ANSI Flange)	200psi (14bar)
NRS	E0203-PN16-300	EN0203-PN16-300	2.5" – 8" (65–200mm)	F by F (BS Flange)	300psi (21bar)

PATTERN	MODEL		SIZE (Nominal Diameter)	END CONNECTION	RATED PRESSURE
	UL	STANDARD (EN-GJS-450-10 /ASTM A536, 65-45-12)			
NRS	E0203-PN16-250	EN0203-PN16-250	10", 12" (250, 300mm)	F by F (BS Flange)	250psi (17bar)
NRS	E0203-PN16-200	EN0203-PN16-200	2.5" – 12" (65-300mm)	F by F (BS Flange)	200psi (14bar)
OS&Y	E0205-300	EN0205-300	2"- 12" (50 - 300 mm)	G by G	300psi (21bar)
OS&Y	E0205-250	EN0205-250		G by G	250psi (17bar)
OS&Y	E0205-200	EN0205-200		G by G	200psi (14bar)
OS&Y	E0205-PN16-300	EN0205-PN16-300	2.5" – 8" (65–200mm)	G by G	300psi (21bar)
OS&Y	E0205-PN16-250	EN0205-PN16-250	10", 12" (250, 300mm)	G by G	250psi (17bar)
OS&Y	E0205-PN16-200	EN0205-PN16-200	2"- 12" (50 - 300 mm)	G by G	200psi (14bar)
NRS	E0207-300	EN0207-300	2.5" – 12" (65-300mm)	G by G	300psi (21bar)
NRS	E0207-250	EN0207-250		G by G	250psi (17bar)
NRS	E0207-200	EN0207-200		G by G	200psi (14bar)
NRS	E0207-PN16-300	EN0207-PN16-300	2.5" – 8" (65–200mm)	G by G	300psi (21bar)
NRS	E0207-PN16-250	EN0207-PN16-250	10", 12" (250, 300mm)	G by G	250psi (17bar)
NRS	E0207-PN16-200	EN0207-PN16-200	2.5" – 12" (65-300mm)	G by G	200psi (14bar)
OS&Y	E0209-300	EN0209-300	2"- 12" (50 - 300 mm)	F by G (ANSI Flange)	300psi (21bar)
OS&Y	E0209-250	EN0209-250		F by G (ANSI Flange)	250psi (17bar)
OS&Y	E0209-200	EN0209-200		F by G (ANSI Flange)	200psi (14bar)
OS&Y	E0209-PN16-300	EN0209-PN16-300	2" – 8" (50 – 200mm)	F by G (BS Flange)	300psi (21bar)
OS&Y	E0209-PN16-250	EN0209-PN16-250	10", 12" (250, 300mm)	F by G (BS Flange)	250psi (17bar)
OS&Y	E0209-PN16-200	EN0209-PN16-200	2"- 12" (50 - 300 mm)	F by G (BS Flange)	200psi (14bar)
NRS	E0210-300	EN0210-300	2.5" – 12" (65-300mm)	F by G (ANSI Flange)	300psi (21bar)
NRS	E0210-250	EN0210-250	2.5" – 12" (65-300mm)	F by G (ANSI Flange)	250psi (17bar)
NRS	E0210-200	EN0210-200		F by G (ANSI Flange)	200psi (14bar)
NRS	E0210-PN16-300	EN0210-PN16-300	2.5" – 8" (65–200mm)	F by G (BS Flange)	300psi (21bar)
NRS	E0210-PN16-250	EN0210-PN16-250	10", 12" (250, 300mm)	F by G (BS Flange)	250psi (17bar)
NRS	E0210-PN16-200	EN0210-PN16-200	2.5" – 12" (65-300mm)	F by G (BS Flange)	200psi (14bar)
OS&Y	E0213-300	EN0213-300	2"- 12" (50 - 300 mm)	MJ by MJ	300psi (21bar)
OS&Y	E0213-250	EN0213-250		MJ by MJ	250psi (17bar)
OS&Y	E0213-200	EN0213-200		MJ by MJ	200psi (14bar)
OS&Y	E0202-300	EN0202-300		F by F	300psi (21bar)
OS&Y	E0202-250	EN0202-250		F by F	250psi (17bar)
OS&Y	E0202-200	EN0202-200		F by F	200psi (14bar)
OS&Y	E0206-300	EN0206-300		G by G	300psi (21bar)
OS&Y	E0206-250	EN0206-250		G by G	250psi (17bar)
OS&Y	E0206-200	EN0206-200		G by G	200psi (14bar)
OS&Y	E0206-PN16	EN0206-PN16		G by G	232psi (16bar)

PATTERN	MODEL		SIZE (Nominal Diameter)	END CONNECTION	RATED PRESSURE
	UL	STANDARD (EN-GJS-450-10 /ASTM A536, 65-45-12)			
OS&Y	E0202-PN16-300	EN0202-PN16-300	2" – 8" (50 – 200mm)	F by F (BS Flange)	300psi (21bar)
OS&Y	E0202-PN16-250	EN0202-PN16-250	10", 12" (250, 300mm)	F by F (BS Flange)	250psi (17bar)
OS&Y	E0202-PN16	EN0202-PN16	2"- 12" (50 - 300 mm)	F by F (BS Flange)	232psi (16bar)
OS&Y	E0202-PN10	EN0202-PN10	8" - 12" (200–300mm)	F by F (BS Flange)	175psi (12bar)
OS&Y	E0201-PN16	EN0201-PN16	2"- 12" (50 - 300 mm)	F by F (BS Flange)	232psi (16bar)
OS&Y	E0201-PN10	EN0201-PN10	8" - 12" (200–300mm)	F by F (BS Flange)	175psi (12bar)
OS&Y	E0201-F4-PN16	EN0201-F4-PN16	2"- 12" (50 - 300 mm)	F by F (DIN Flange)	232psi (16bar)
OS&Y	E0201-F4-PN10	EN0201-F4-PN10	8" - 12" (200- 300mm)	F by F (DIN Flange)	175psi (12bar)
OS&Y	E0202-F4-PN16	EN0202-F4-PN16	2"- 12" (50 - 300 mm)	F by F (DIN Flange)	232psi (16bar)
OS&Y	E0202-F4-PN10	EN0202-F4-PN10	8" - 12" (200–300mm)	F by F (DIN Flange)	175psi (12bar)
NRS	E0211-300	EN0211-300	3" – 12" (80-300mm)	MJ by MJ	300psi (21bar)
NRS	E0211-250	EN0211-250		MJ by MJ	250psi (17bar)
NRS	E0211-200	EN0211-200		MJ by MJ	200psi (14bar)
NRS	E0212-300	EN0212-300		MJ by MJ	300psi (21bar)
NRS	E0212-250	EN0212-250		MJ by MJ	250psi (17bar)
NRS	E0212-200	EN0212-200		MJ by MJ	200psi (14bar)
NRS	E0212-2-300	EN0212-2-300	4" – 12" (100-300mm)	MJ by MJ	300psi (21bar)
NRS	E0212-2-250	EN0212-2-250		MJ by MJ	250psi (17bar)
NRS	E0212-2-200	EN0212-2-200		MJ by MJ	200psi (14bar)
NRS	E0208-2-300	EN0208-2-300		G by G	300psi (21bar)
NRS	E0208-2-250	EN0208-2-250		G by G	250psi (17bar)
NRS	E0208-2-200	EN0208-2-200		G by G	200psi (14bar)
NRS	E0203-1-F4-PN16	EN0203-1-F4-PN16	2" – 12" (50-300mm)	F by F (DIN Flange)	232psi (16bar)
NRS	E0203-1-F4-PN10	EN0203-1-F4-PN10	8" - 12" (200–300mm)	F by F (DIN Flange)	175psi (12bar)
NRS	E0203-1-PN16	EN0203-1-PN16	2.5" – 12" (65-300mm)	F by F (BS Flange)	232psi (12 bar)
NRS	E0203-1-PN10	EN0203-1-PN10	8" - 12" (200–300mm)	F by F (BS Flange)	175psi (12bar)
NRS	E0203-1-PN16-300	EN0203-1-PN16-300	2" – 8" (50 – 200mm)	F by F (BS Flange)	300psi (21bar)
NRS	E0203-1-PN16-250	EN0203-1-PN16-250	10", 12" (250, 300mm)	F by F (BS Flange)	250psi (17bar)
NRS	E0204-F4-PN16	EN0204-F4-PN16	2.5" – 12" (65-300mm)	F by F (DIN Flange)	232psi (16bar)
NRS	E0204-F4-PN10	EN0204-F4-PN10	8" - 12" (200–300mm)	F by F (DIN Flange)	175psi (12bar)
NRS	E0204-PN16	EN0204-PN16	2.5" – 12" (65-300mm)	F by F (BS Flange)	232psi (16bar)
NRS	E0204-PN10	EN0204-PN10	8" - 12" (200–300mm)	F by F (BS Flange)	175psi (12bar)
NRS	E0204-PN16-300	EN0204-PN16-300	2.5" – 8" (65-200mm)	F by F (BS Flange)	300psi (21bar)
NRS	E0204-PN16-250	EN0204-PN16-250	10", 12" (250, 300mm)	F by F (BS Flange)	250psi (17bar)
NRS	E0204-300	EN0204-300	2.5" – 12" (65-300mm)	F by F (ANSI Flange)	300psi (21bar)
NRS	E0204-250	EN0204-250	2.5" – 8" (65–200mm)	F by F (ANSI Flange)	250psi (17bar)

PATTERN	MODEL		SIZE (Nominal Diameter)	END CONNECTION	RATED PRESSURE
	UL	STANDARD (EN-GJS-450-10 /ASTM A536, 65-45-12)			
NRS	E0204-200	EN0204-200	2.5" – 12" (65-300mm)	F by F (ANSI Flange)	200psi (14bar)
NRS	E0204-2-300	EN0204-2-300	4" – 12" (100–300mm)	F by F (ANSI Flange)	300psi (21bar)
NRS	E0204-2-250	EN0204-2-250		F by F (ANSI Flange)	250psi (17bar)
NRS	E0204-2-200	EN0204-2-200		F by F (ANSI Flange)	200psi (14bar)
NRS	E0204-2-PN16	EN0204-2-PN16	4" – 8" (100 – 200mm)	F by F (BS Flange)	300psi (21bar)
NRS	E0204-2-PN16-250	EN0204-2-PN16-250	10", 12" (250, 300mm)	F by F (BS Flange)	250psi (17bar)
NRS	E0204-2-PN16	EN0204-2-PN16	4" – 12" (100–300mm)	F by F (BS Flange)	233 psi (16.1bar
NRS	E0204-2-PN10	EN0204-2-PN10	8" - 12" (200–300mm)	F by F (BS Flange)	175psi (12bar)
NRS	E0204-2-F4-PN16	EN0204-2-F4-PN16	4" – 12" (100–300mm)	F by F (DIN Flange)	233 psi (16.1bar
NRS	E0204-2-F4-PN10	EN0204-2-F4-PN10	8" - 12" (200–300mm)	F by F (DIN Flange)	175psi (12bar)
NRS	E0203-PN16	EN0203-PN16	2.5" – 12" (65-300mm)	F by F (BS Flange)	232psi (16bar)
NRS	E0203-PN10	EN0203-PN10	8" - 12" (200–300mm)	F by F (BS Flange)	175psi (12bar)
NRS	E0203-F4-PN16	EN0203-F4-PN16	2.5" – 12" (65-300mm)	F by F (DIN Flange)	232psi (16bar)
NRS	E0203-F4-PN10	EN0203-F4-PN10	8" - 12" (200–300mm)	F by F (DIN Flange)	175psi (12bar)
OS&Y	E0214	EN0214	2" – 12" (50-300mm)	F BY MJ	300psi (21bar)
NRS	E0215	EN0215	3" – 12" (80–300mm)	F BY MJ	300psi (21bar)
NRS	E0216	EN0216		F BY MJ	300psi (21bar)
NRS	E0216	EN0216	4" – 12" (100–300mm)	F BY MJ	300psi (21bar)

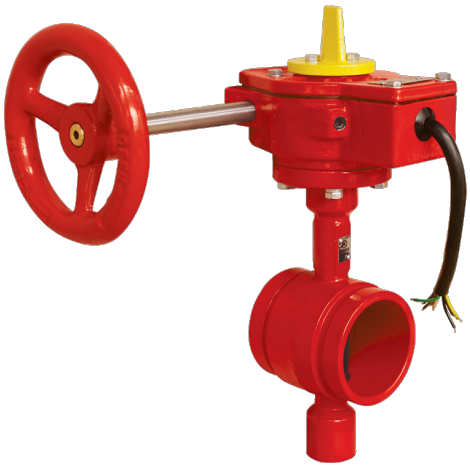
End Connection: Flange by Flange, Grooved by Grooved, Grooved by flanged, threaded by threaded, F by MJ, MJ by MJ Available.

APPLICATION

Widely used in the field of potable water, water supply and drainage, sewage disposal, irrigation, air conditioning, fire protection as well as chemical and energy industry.

BUTTERFLY VALVE

UL LISTED



Butterfly Valve is a valve that isolates or regulates the flow of a fluid. Design Standard: BS EN 593 and Top Flange standard: ISO 5211.

- Temperature Range : 0-80°
- Coating : Fusion bonded epoxy coating in accordance with ANSI/AWWA C550 or painting upon request.

OPTIONS

Butterfly Valve without Supervisory Switch

MODEL		SIZE NOMINAL PIPE SIZE	BODY TYPE	PRESSURE RATING
UL	EN STANDARD			
E0240-250	EN0240-250	2" – 12" (50-300mm)	Groove	250psi (17bar)
E0240-200	EN0240-200			200psi (14bar)
E0240-175	EN0240-175			175psi (12bar)
E0240-PN16	EN0240-PN16			300psi (21bar)
E0240-PN10	EN0240-PN10			300psi (21bar)

MODEL		SIZE NOMINAL PIPE SIZE	BODY TYPE	PRESSURE RATING
UL	EN STANDARD			
E0242-300	EN0242-300	2" – 8" (50 – 200mm)	Wafer	300psi (21bar)
E0242-250	EN0242-250	2" – 12" (50 – 300mm)		250psi (17bar)
E0242-200	EN0242-200			200psi (14bar)
E0242-175	EN0242-175			175psi (12bar)
E0242-PN16	EN0242-PN16	2" – 8" (50 – 200mm) 10"-12" (250, 350mm)		300psi (21bar) 250psi (17bar)
E0242-PN10	EN0242-PN10			
E0242-10K	EN0242-10K			

MODEL		SIZE NOMINAL PIPE SIZE	BODY TYPE	PRESSURE RATING
UL	EN STANDARD			
E0244-300	EN0244-300	2" – 8" (50 – 200mm)	Lug	300psi (21bar)
E0244-250	EN0244-250	2" – 12" (50 – 300mm)		250psi (17bar)
E0244-200	EN0244-200			200psi (14bar)
E0244-175	EN0244-175			175psi (12bar)
E0244-PN16	EN0244-PN16	2" – 8" (50 – 200mm) 10"-12" (250, 350mm)		300psi (21bar) 250psi (17bar)
E0244-PN10	EN0244-PN10			
E0244-10K	EN0244-10K			

Butterfly Valve without Supervisory Switch

MODEL		SIZE NOMINAL PIPE SIZE	BODY TYPE	PRESSURE RATING
UL	EN STANDARD			
E0241-300	EN0241-300	2" – 12" (50-300mm),	Groove	300psi (21bar)
E0241-250	EN0241-250			250psi (17bar)
E0241-200	EN0241-200			200psi (14bar)
E0241-175	EN0241-175			175psi (12bar)
E0241-PN16	EN0241-PN16			300psi (21bar)
E0241-PN10	EN0241-PN10			300psi (21bar)

MODEL		SIZE NOMINAL PIPE SIZE	BODY TYPE	PRESSURE RATING
UL	EN STANDARD			
E0243-300	EN0243-300	2" – 8" (50 – 200mm)	Wafer	300psi (21bar)
E0243-250	EN0243-250	2" – 12" (50 – 300mm)		250psi (17bar)
E0243-200	EN0243-200			200psi (14bar)
E0243-175	EN0243-175			175psi (12bar)
E0243-PN16	EN0243-PN16	2" – 8" (50 – 200mm) 10"-12" (250, 350mm)		300psi (21bar) 250psi (17bar)
E0243-PN10	EN0243-PN10			
E0243-10K	EN0243-10K			

MODEL		SIZE NOMINAL PIPE SIZE	BODY TYPE	PRESSURE RATING
UL	EN STANDARD			
E0245-300	EN0245-300	2" – 8" (50 – 200mm)	Lug	300psi (21bar)
E0245-250	EN0245-250	2" – 12" (50 – 300mm)		250psi (17bar)
E0245-200	EN0245-200			200psi (14bar)
E0245-175	EN0245-175			175psi (12bar)
E0245-PN16	EN0245-PN16	2" – 8" (50 – 200mm) 10"-12" (250, 350mm)		300psi (21bar) 250psi (17bar)
E0245-PN10	EN0245-PN10			
E0245-10K	EN0245-10K			

- Valve type: Grooved butterfly valve with or without tamper switch, Lugged wafer butterfly valve with or without tamper switch, Wafer Butterfly Valve with or without tamper switch, Threaded Butterfly Valve with or without tamper switch is available.
- End connection: Groove to ISO 6182, BS EN 1092 PN10/PN16, Thread to ISO 7-1.

APPLICATION

Widely used in the field of potable water, water supply and drainage, sewage disposal, irrigation, air conditioning, fire protection as well as chemical and energy industry.

SWING CHECK/NON-RETURN VALVE

UL LISTED

Check Valves serve to prevent the backflow of medium in the piping system for protection of important equipment.

- Material : Ductile Iron EN-GJS-450-10
- Temperature Range : 0°- 80°
- Coating : Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550

OPTIONS

Swing Type with Elastomeric Valve Seat Facing

MODEL		SIZE NOMINAL PIPE SIZE	BODY TYPE	PRESSURE RATING
UL	EN STANDARD			
E0220-16	EN0220-16	2" – 12" (50 – 300mm)	F by F	300psi (21bar)
E0220-300	EN0220-300			
E0220-200	EN0220-200			200psi (14bar)

MODEL		SIZE NOMINAL PIPE SIZE	BODY TYPE	PRESSURE RATING
UL	EN STANDARD			
E0221-300	EN0221-300	2" – 12" (50 – 300mm)	G by G	300psi (21bar)
E0221-250	EN0221-250			250psi (17bar)
E0221-200	EN0221-200			200psi (14bar)
E0221-PN16	EN0221-PN16			233
E0221-PN10	EN0221-PN10			175

- Flanged Resilient Swing check valve, Grooved Resilient Swing check valve.
- Connection Ends: Flange to BS EN 1092-2:1997, Groove to ISO 6182.

APPLICATION

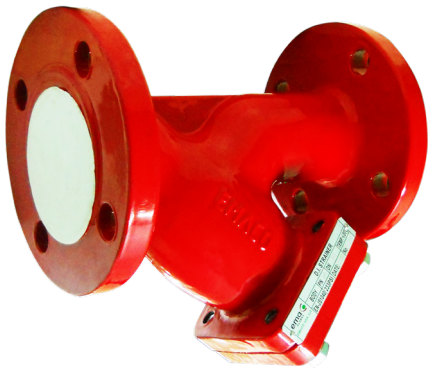
Pumps, Industrial processes, Domestic use.

Y STRAINER

UL LISTED

Strainers are important components of piping systems to protect equipment from potential damage due to dirt and other particles that may be carried by the process fluid.

- Temperature Range: -10°- 200° (graphite gasket), 0°- 80° (rubber gasket)
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



OPTIONS

MODEL		END CONNECTION	SIZE NOMINAL PIPE SIZE	RATED WORKING PRESSURE
UL	STANDARD			
E0230 (BS EN 1092-2 flange)	EN0230 (EN standard)	Flange	2" – 12" (50 – 300mm)	233psi (16.1bar)
E0230 (ASME/ANSI B 16.1 flange)				300psi (21bar)
E0231-300	EN0231-300	Groove end configuration	2" – 12" (50 – 300mm)	300psi (21bar)
E0231-250	EN0231-250			250psi (17bar)
E0231-200	EN0231-200			200psi (14bar)
E0231-PN16	EN0231-PN16			233psi (16.1bar)
E0231-PN10	EN0231-PN10			175psi (12bar)

- Grooved Y-strainer, Flanged Y-strainer is available.
- End connection: Groove to ISO 6182, Flange to BS EN 1092 PN10/PN16.

APPLICATION

EMACO UL Strainer used in many Industries, including: Chemical processing, Petroleum, Power.

GLOBE VALVE

Globe valve main characteristic is to ensure the total elimination of leaks from the stem. This saves energy, maintain a safe plant and a clean environment.

- Face to face: DIN 3202 F1
- Test & inspection: EN 12266-1

OPTIONS

MODEL	BODY MATERIAL	SIZE	CONNECTION	NOMINAL PRESSURE
EN0260- CI	Cast Iron	0.5" – 8" (15–200mm)	DIN FLANGES 2543	240psi (16bar)
EN0260- SS	SS			

Globe valve with bellow or without bellow sealed, piston type valve available.

APPLICATION

Steam plant, Overheated water, Thermal fluid, Vacuum, Hot and cold

FOOT VALVE

Foot valve is virtually a second suction valve placed at the bottom or foot of the suction pipe. Foot valves are check valves that make sure that the pump is always primed.

- Optional fusion bonded epoxy
- FLANGED ANSI CLASS 125 OR CLASS 250
- Flanged and Threaded available

OPTIONS

MODEL	APPROVAL	MATERIAL	SIZE	SUITABLE PRESSURE
EN0250	STAND.	Body Cast Iron, Heavy Duty SS	0.5" – 300" (15 -300mm)	Class 150/300

APPLICATION

Municipal Water Treatment, Rural Fire Protection, Irrigation/Agriculture, Industrial, HVAC, Car Wash Systems.

AIR RELEASE VALVE

FM APPROVED

The air release valve is designed to use in the fire sprinkler system to vent trapped air that stores at high points in a pipeline.

- Sizes 15, 20, 25MM,
- FM Approved,
- Body Material: Ductile Iron,
- Connection Ends NPT/BSPT/BSPP
- Easiest solution for reducing corrosive oxygen

OPTIONS

MODEL	APPROVAL	SIZE	FITTING	WORKING PRESSURE
E0290	FM	1/2" (15mm) 3/4" (20mm) 1" (25mm)	Threaded Test & Drain Fitting	200psi

AIR RELEASE/VENT VALVE

Air vent valve is a safety device that discharges air at the water supply piping in order to avoid air related problems in the water piping systems.

- Thread Type
- Body according to UNE-EN 12164
- Manual vent mechanism
- Max. working temperature 100 °C.

OPTIONS

MODEL	BODY MATERIAL	MATERIAL	SIZE	WORKING PRESSURE
EN0290	BS Stand.	Body : Brass	1" (25mm)	232 psi (16bar)

VORTEX INHIBITOR

Vortex Inhibitor is a specialized pipe fitting used to prevent initiation of vortices within free suction tank and air entrap into suction pipe. This allows the maximum possible drawdown of the liquid's surface level and ensures the largest flow rate transmission.

- Compact design.
- Lightweight and robust construction.
- Reliable performance with no maintenance required
- Suitable for suction lift or positive head condition

OPTIONS

MODEL	APPROVAL	MATERIAL	SIZE	FLANGE CONNECTION
EN0271	Standard	Galvanized Mild Steel or Stain-less Steel	2" – 12' (50 – 300mm)	BS 10 Table E

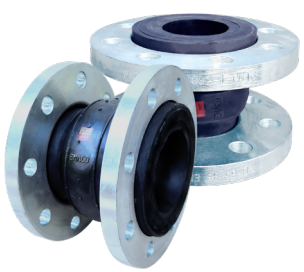
FLEXIBLE/EXPANSION JOINT

An expansion joint or movement joint is an assembly designed to safely absorb the heat-induced expansion and contraction of construction materials, to absorb vibration, to hold parts together, or to allow movement due to ground settlement.

- Connection Ends: Flange to BS EN 1092-2:1997
- Temperature Range: -10° - 115°
- Vacuum Capacity: 700MM/HG

OPTIONS

MODEL	APPRO.	MATERIAL	SIZE, IN	VACUUM CAPACITY	WORKING PRESSURE
EN0270	BS Stan.	Galvanized Carbon Steel Flange	1.25"–24" (32–600mm)	700 MM/HG	PN10/16



FIRE ALARM CIRCUIT CABLE

Fire alarm riser cable from EMACO are suitable to use in a vertical-runs in signaling & fire alarm system. It works at high-temperature levels. Our cable constructed with FR-PVC insulation and outer jacket with aluminum and PE tape shielding meeting UL 1666 specifications. This cable complies with VW -1 Flame Test requirements in ANSI/UL 1581 and ANSI/UL 1666 for flame Propagation Height of Electrical and Optical - Fiber Cables Installed Vertically in Shafts.

TYPE	APPROVAL	OPERATING VOLTAGE	CONDUCTOR
FPL and FPLR	UL Listed	300 V RMS	Solid bare copper

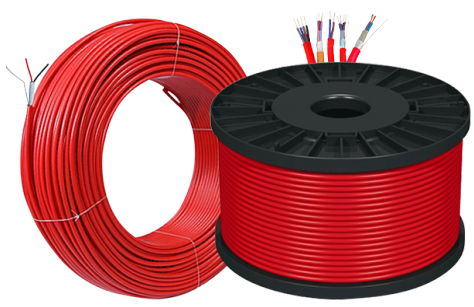
ELECTRICAL RESISTANCE OF CONDUCTOR

ITEM	DIMENSION OF CONDUCTOR	MAXIMUM DC RESISTANCE (Ω/KM 20°C) ACCORDING TO IEC 60228-2004	BROWN	RED
2CX1.5mm²	1.38mm	≤12.1	11.5	11.5
2CX2.5mm²	1.78mm	≤7.41	6.9	6.9

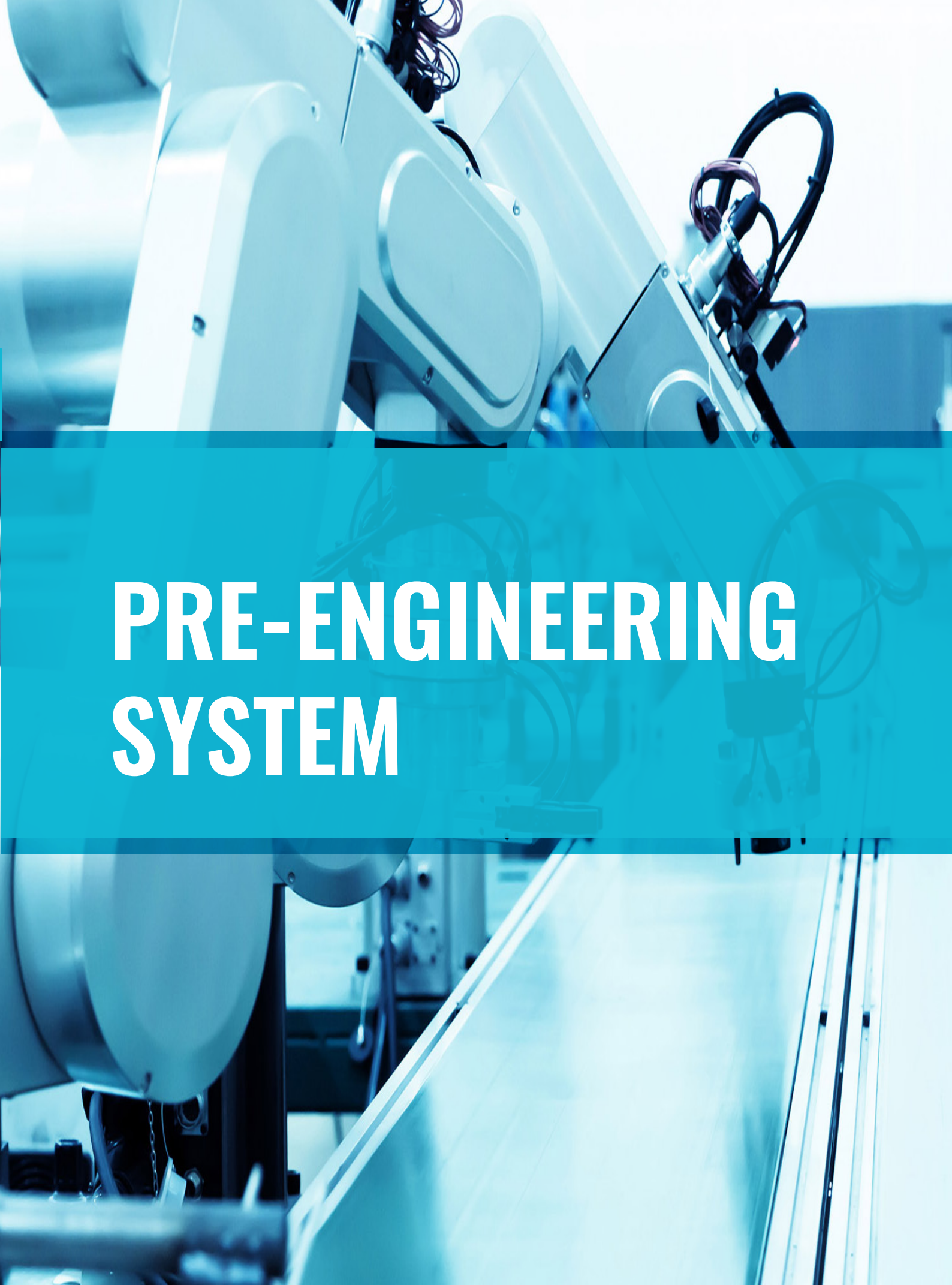
FIRE RESISTANT CABLE

Fire Resistant Cable may be categorized by a letter (e.g. C) or series of symbols (e.g. CWZ) in according to the requirements for fire resistance characteristics which they meet, the selected test temperature and duration of the test for resistance to fire in according to BS 6387 as below:

Maximum DC resistance (Ω/km 20°C) According to IEC 60228-2004	SYMBOL
Resistance to fre alone 950°C for 3 hours	C
Resistance to fre with water	W
Resistance to fre with mechanical shock 950°C for 15 minutes	Z



- Conductor Bare Copper
- Insulation Material FR-LSZH
- Shielding AL Tape
- Color Red



PRE-ENGINEERING SYSTEM



PRE-ACTION SYSTEM ASSEMBLY

Pre-Action Fire Sprinkler System Designed for Water Sensitive Areas That Require Protection from Inadvertent Water Flow into the Sprinkler System Piping.

APPLICATION

pre-action system used in Libraries, Museums, Data centers, Computer rooms, Freezer warehouses, Process control rooms, clean rooms, Storage areas, Telecommunications centers, Archives.

ACCESSORIES

The system consists of deluge pre-action valve, riser check valve, pre-action trim, fail safe valve, butterfly valve, pressure switches, solenoid valve, air compressor and a releasing panel.

FEATURES

- Semi-assembled System
- Designed to protect water sensitive areas
- Quick and convenient installation
- UL listed

OPTIONS

- Sizes: 2", 3", 4", 6", 8"
- End Connection: Groove/Flange
- System Variations
- Single Interlock Pre-Action System (Electric Release)
- Single Interlock Pre-Action System (Dry Pilot Actuation)
- Double Interlock Pre-Action System (Electric-Electric Actuation)
- Double Interlock Pre-Action System (Electric-pneumatic Actuation)

PRE-PACK PRE-ACTION SYSTEM ASSEMBLY

Pre-Pack Pre-action system is perfect system to be used in applications where you need protection against inadvertent flooding due to sprinkler systems. Professionally pre-assembled cabinet with or without in built oil-less compressor with control panel. Pre-Pack is pre-assembled Pre-Action System enclosed in free standing cabinet. The cabinet is pre-wired and requires water inlet,outlet valve riser and drain. All connections are groove-type to provide minimal installation time.

ACCESSORIES

Pre-Pack includes Deluge Valve,Riser Check Valve, Water Supply Stop Valve, Water Flow Supervisory Switch, Pressure Gauges, Built-in Air Compressor and Control Panel with battery backup. The cabinet comes with windows for viewing the release panel function and pressure gauges.

FEATURES

- Professionally pre-assembled and factory tested
- Internally wired
- Quick and convenient installation
- Compact, space saving and aesthetically pleasing appearance
- Custom manufactured All sides & door

TRIM CONFIGURATIONS

- Single Interlock Pre-Action System with Supervised Wet Pilot Actuation
- Single Interlock Pre-Action System with Supervised Dry Pilot Actuation
- Single Interlock Pre-Action System with Supervised Electric Release Actuation.
- Double Interlock Pre-Action System with Electric-Electric Actuation
- Double Interlock Pre-Action System with Electric-Pneumatic Actuation

ZONE CONTROL VALVE ASSEMBLY

Zone Control Valve is a combined unit of signal butterfly valve, water flow indicator, pressure gauge and test & drain valve assembled on fire protection pipeline network of sprinkler system.

Zone Check Valves are obligatory used in the sprinkler system. It separates an area into small distribution zone for indication and control the fire moreover for maintenance.

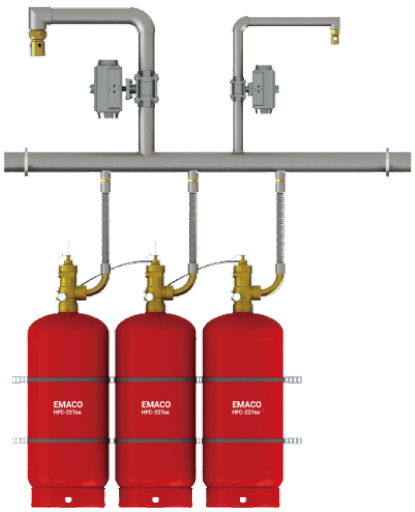
UL ASSEMBLE MODEL	BUTTERFLY VALVE	WATER FLOW SWITCH	TEST AND DRAIN VALVE
E0141-80	3" (80mm)	3" (80mm)	1" (25mm)
E0141-100	4"(100mm)	4"(100mm)	1" (25mm)
E0141-150v	6"(150mm)	6"(150mm)	2" (50mm)

BUTTERFLY VALVE	WATER FLOW SWITCH	TEST AND DRAIN VALVE	PRESSURE GAUGE
			
Approval: UL Listed/Standard Standard: UL 1091 Size: NPS 2" to 8" Connection: Full lug/ wafer type/ grooved Working pressure: 175psi (12bar)	Approval: UL Listed/Standard Standard: ANSI/ UL 346 Type: Vane type Size: NPS 2" to 8" Flow sensitivity range: 4-10 USGPM for signal Maximum surge: 18 FPS (5.5m/s)	Approval: UL Listed/Standard Standard: UL Subject 258 Size: NPS 1" to 2" Connection: Threaded/ grooved Working pressure: 300psi (21bar)	Approval: UL Listed/Standard Standard: UL 393 Connection: 1/4" NPT Dial diameter: 3.5" (90mm) Full scale value: 300psi (21bar) Working pressure: Max 225psi (16bar)


SOLUTIONS

HFC227EA CLEAN AGENT SYSTEM

LISTED



Bank Vaults, Libraries, Rare Book Stores, Electronic Data Processing, Telephone Exchanges Studios, COmmunication Centre, Transformer and Switch rooms, Control Rooms, Test Laboratories, Flammble Liquid Stores, in these areas, traditional water-based fire protection systems could severely damage the sensitive assets apart from the fact that sometimes it may spread the fires rather than suppression.

HFC-227ea is a clean, gaseous agent containing no particles or oily residues. It is produiced under ISO 9002 guidlines to strict manufacturing specifications ensuring product purity. HFC-227ea leaves no residue or oily deposits on on delicate elctronic equipment and can be removed from the protected space by ventilation.

TECHNICAL INFORMATION

40, 50, 60, 70, 80, 90, 100, 120, 150 & 180 L containers are manufactured in accordance with TPED.

Material	
Carbon %	0.200% max
manganese %	1.500% max
Phosphorus %	0.025% max
Sulphur %	0.025% max

TPED	
Hydraulic test pressure	69.0 bar (1000 psi)
Working Pressure	34.5 bar (500 psi)
Hydraulic test pressure	138.0 bar (2000 psi)
Working Pressure	69.0 bar (1000 psi)

SYSTEM COMPONENT

A typical manifold system of HFC-227ea gas fire extinguishing system includes the cylinder kit, manual release device, pilot hose, discharge hose, check valve, manifold, relief device of distributor manifold, direction valve, pressure operating switch, pipe ware, and nozzle which connected to the utomatic alarm system. Some items are optional depending on the application. 40, 50, 60, 70, 80, 90, 100, 120, 150 & 180 L containers are manufactured in accordance with TPED.

SYSTEM STANDARD

HFC-227ea consist of several HFC-227ea containers, manifolded together and conected via a pipe network to a number of discharge nozzles. System may be activated mechanically or ecletrically. Mechanical manual actuation is via a handle attached to the container valve. Electrical actuation is via a removable solenoid. Actuator the solenoid actuator can be energised automatically by a signal from a fire detection and alarm control panel.

The UL listed HFC-227ea system should be designed, installed, inspected, maintained, tested and recharged by qualified, trained personnel in accordance with NFPA-2001.

SPECIALTIES

- The low concentration of HFC-227ea required means less visual obscurity and minimal risk to personnel.
- The small quantity of agent discharged minimises over-pressurisation of the protected area.
- Maximum safety for personnel due to low toxicity.
- Most effective when used with automatic detection to introduce HFC-227ea with a 10 second discharge.
- The ability to prevent re-ignition as long as concentration levels are maintained.
- Two kind of working pressure system are available (25bar/ 360psi and 42 bar/600 psi), make the system has superiror economy.

HFC-227EA CLEAN AGENT

HFC-227ea is an odorless, colorless, liquefied compressed gas. (See Physical Properties) Table for additional information). It is stored as a liquid and dispensed into the hazard as a colorless, electrically non-conductive vapor that is clear and does not obscure vision. It leaves no residue and has acceptable toxicity for use in occupied spaces at design concentration. HFC-227ea extinguishes a fire by a combination of chemical and physical mechanisms. HFC-227ea does not displace oxygen and therefore is safe for use in occupied spaces without fear of oxygen deprivation.

APPROVALS

- HFC-227ea is recognized with NFPA Standard 2001.
- UL Listed - EX29026

PERFORMANCE

HFC-227ea is a powerful fire suppressant that works well on a variety of fire types. It works well for many surface fires, including those caused by flammable liquids and the majority of solid combustibles.

HFC-227ea is a highly effective gaseous extinguishing agent when measured in terms of weight of agent. For typical Class A combustibles, the extinguishing concentration of HFC-227ea is 6.25 by volume. For entire flood applications, the minimum design concentration should follow NFPA 2001.

PHYSICAL PROPERTIES

Chemical Name	Heptafluoropropane (CF3CHFCF3)
Molecular Weight	170.03
Boiling Point @ 760 mm Hg	3.9°F (-15.6°C)
Freezing Point	-204°F (-131.1°C)
Critical Temperature	215°F (101.7°C)
Critical Pressure (psia)	422 psia (2912 kPa)
Critical Volume (ft3/lbm) (cc/mole)	0.0258 (274)
Critical Density (lbm/ft3)	38.8 (621 kg/m3)
Specific Heat, Liquid (BTU/lb-F°) @ 77°F (25°C)	0.283 (1.184 kj/kg/°C)
Vapor Pressure (psia) @ 77°F (25°C)	66.4 (457.7 kPa)
Ozone Depletion Potential	0
Estimated Atmospheric Lifetime (years)	31-42
LC50 (Rats; 4hrs - ppm)	>788,000

APPLICATION AND USES

Applications where cleaning up other media poses a challenge, where weight versus suppression potential is a consideration, where an electrically non-conductive medium is required, and where user compatibility is the most important consideration, are all excellent candidates for HFC-227ea. HFC-227ea is very helpful when considering environmental impact. It has no capacity to deplete the ozone layer, no potential to cause global warming, and a brief atmospheric lifetime. These qualities make it appropriate for Halon 1301 replacement applications in addition to new installations using EMACO's entire flooding systems. health, and the environment. NFPA 2010 standard for Fixed Aerosol Fire Extinguishing system covered the full system guideline.

WATER SPRAY FIXED SYSTEM

Nothing is more important than safety. Power plants, substations, oil and gas industries, manufacturing consisting of high-risk areas for fire hazards, and therefore reliable fireextinguishing systems are essential to ensure safety in such places.

Water Spray Fixed System for Fire Protection is a different variant of Sprinkler System, effective in the areas where thespread of fire is apparently swift and rapidly goes out of control within a short time.

It is a particular fixed pipe system that discharges water under pressure and in a specific directional pattern, equipped withdetectors, deluge valves, water spray nozzles connected to a reliable source of pressurized water supply.

MAIN COMPONENT

Deluge Valve

UV IR/Beam/Quartzoid Detector

High Velocity Nozzles

Medium Velocity Nozzles

SPECIALTIES

The water spray system is rapid in response, high water discharge but less damage compared to the conventional sprinkler system. No chemicals, no risk of asphyxiation compared to gas suppression systems.

A fixed spray system is perfect for oil & gas and power sectors that contain flammable gaseous and liquid materials, electrical hazards, combustible materials, and propellants.

This system is very specific, works well in high hazards areas because of its quick flood ability to prevent fire. But for an efficient result, the K factor and specific psi should be considered correctly during design and installation.

APPLICATION SCOPE

EMACO high and medium velocity water spray fixed system for protection of specific fire hazards and equipment such as Transformers, Turbines, Coal Conveyor belts, Boiler/Switchgear/Generator rooms, Oil and Gas reserve tanks, and combustibles such as Paper, Wood and Textiles.

FOAM FIRE SUPPRESSION SYSTEM

Not all businesses need the same type of fire suppression system; in some cases, the traditional wet sprinkler system would be ineffective, even dangerous. In those areas that have highly flammable substances, foam fire suppression is the best choice.

The foam suppression system is made up of foam concentrate, water, and air that mixes to create a blanket of foam that protects the flammable fuel from combusting. The effectiveness of the solution depends on the correct selection of foam concentrates and discharge devices.

The foam blanket's thin layer prevents oxygen contact from fuel fire to mitigate flammable vapor as well as fire.

SPECIALITIES

Foam fire suppression system is ideal for large areas that need to be filled quickly in case of a fire hazard. The system automatically and constructively extinguishes fire by smothering.

This system is more effective on hotter fires compared to traditional sprinklers and gives the most significant advantage in preventing massive loss of property.

The primary specialty of the foam system is the foam blanket that efficiently creates a barrier between fuel and fire.

It is less toxic, minimal water damage to structure and tools, but not applicable for electrical equipment. Besides, one has to be careful in the cleaning process after suppression.

If your plant handles flammable liquids or power generating equipment, a foam fire suppression system could be an essential factor in keeping your space safe.

FOAM FIRE SUPPRESSION APPLICATION SCOPES

You can use EMACO Foam fire extinguishing systems effectively for fire protection at large and hazardous facilities, including power stations, refineries, oil, gas chemical, and industrial facilities, processing areas, petrochemicals tank farms, aircraft hangars, marine applications, storage facilities, warehouses, and similar entities and protect lives, investment and guarantee continuity of operation.

FIXED AEROSOL FIRE SUPPRESSION

Until the next century, Halon required the best place of the fire suppression system, but in 1989 the Montreal Protocol determined that Halon depleted the ozone layer. Following the decision U.S. Environmental Protection Agency subsequently banned its production. So, given alternative Halon, several fire suppression representatives and technology have developed. Among them, aerosol currently in growing popularity.

Aerosol suppression shows new innovative features to increase safety level while also drive down costs. It doesn't require any complex pipework, storage pressure, or even no bulky cylinder banks. Therefore, this system widely applying different sectors to save lives, wealth,

FIXED AEROSOL FIRE SUPPRESSION SYSTEM WITH ADVANTAGES

Aerosol fire extinguishes technology to create a combination of microparticles with gaseous matter to reduce the heat that energizes fire, actually aerosol affected area to hinder oxygen, fuel, and chain reaction as soon as possible; thus, fire can't be dangerous. This fire preventing agent is in high demand in the market in comparison to others since only in America, numerous fire protection engineers recognize it for protecting special hazards. It is environmentally friendly, simple to install, no maintenance requires also cost effective. There are two types of method for applying this technology Condensed Aerosol, Dispersed Aerosol.

WHICH ONE IS MOST EFFECTIVE?

Though aerosol is beneficial to pull up fires, condensed aerosol systems get more preference because they assume too small (<10 µm) but equally manure to different shaped generators, not pressurized systems. And it is remarkably potassium-based, including five times as effective as Halon. Let's discuss the condensed method in detail.

APPLICATION AND USES

Aerosol suppression methods are equally useable to both total flooding and local application fire-suppression systems with much sustainability to fight against the fire classes A, B, C, E, and F. But for class C fires, the aerosol may bring some problematic issues under certain conditions to extinguish a burning jet of flammable gases without first shutting off its supply.

The application of aerosol firefighting systems widely used at present time. Typically, potential fire hazards include Power station, Ships, Welding machines, Electric cabinet, Electric equipment box or room, Cable trenches, Computer rooms, Ups systems, Engine Room of Vehicle, New Energy Battery Compartment, Small-sized precise instrument cabinets, Automobiles,

KITCHEN FIRE PROTECTION SOLUTION

Effective Kitchen fire suppression systems required to protect a wide variety of kitchen appliances, such as stoves or deep fat fryers. The wet chemical suppression system is used in restaurants, commercial or institutional kitchens hoods for the safety and security of life and property.

The wet chemical system effectively works when the liquid spray hits a burning surface and quickly reacts with fats and oils to produce foam that cools the surface to prevent the re-igniting of a fire.

The system comprises of Cylinder, Control Module, Mechanical Gas Shutoff Valve, Manual Pull Station, Fusible Link and Nozzles. The nozzles for the fire suppression system are installed in the kitchen hood exhaust. The nozzles will discharge chemicals. The wet chemical very quickly mitigates the fire and removes smoke by covering flames and cutting out oxygen. Both Automatic and Manual activation systems are available in the system.

TECHNICAL DATA

AGENT TYPE	APPLICATION SCOPE	AGENT CAPACITY	WORKING PRESSURE	TEST PRESSURE	CYLINDER MATERIAL	ACTIVATION TEMPERATURE
Wet Chemical	Kitchen	2L/6L/9L/12L	15bar	27bar	SS304 or St12	140deg C

SPECIALTIES

WET CHEMICAL SYSTEMS CAN BE USED TO PROTECT:

- Restaurant, commercial, and institutional kitchen hoods
- Plenums, ductwork, and filters of cooking appliances
- Grease removal devices
- Odor control device
- Energy recovery devices installed in the cooking appliance exhaust systems

This system creates very limited collateral damage, no cleanup issue, eliminates the fuel and electrical source of fire instantly.

WET CHEMICAL APPLICATION SCOPE

Wet Chemical system is used in Domestic or Commercial Kitchen's Hoods, Ducts, Plenums, Cooking appliances. Our goal at EMACO is to design the system well so that you can have the confidence that your system is in compliance and will function properly when you need it.

HFC227 SUPPRESSION SYSTEM
(ELECTRIC CABINET PROTECTION)

Fires incidents in electrical panels, server room rack may cause severe disruption to business operations or constant threat to buildings and human lives.

HFC227 suppression system provides early detection and automatic fire extinguishing. Reliable & cost-effective protection.

SPECIALTIES

- Non-Toxic, Harmless to Humans.
- Environmentally Friendly.

APPLICATION

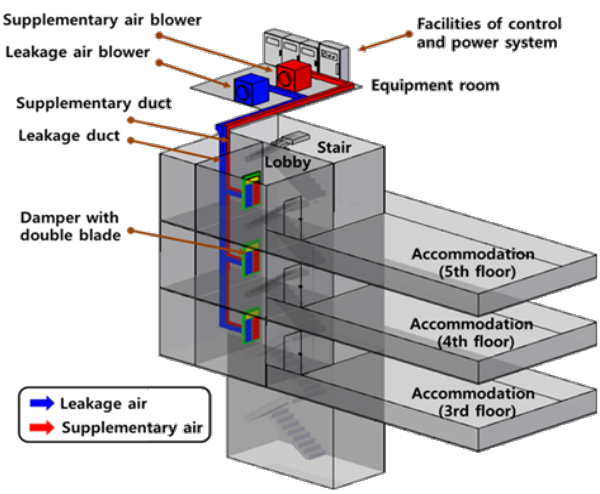
Used in Electrical Cabinet, Electronic Equipment, Server Room, Vertical Battery Room area.

TECHNICAL DATA

Agent Type	Agent Capacity	Working Pressure	Test Pressure	Cylinder Material	Activation temp.
HFC227	2L/6L/9L/12L	15bar	27bar	SS304 or St12	140deg C

SMOKE MANAGEMENT SYSTEM

- Designed to provide a negative pressure on the fire floor.
- Positive pressurization of all stairwells.
- Maintain the smoke layer a minimum of six feet above the
- Highest walking surface.



APPLICATIONS

Power Geneartion

Oil & Gas

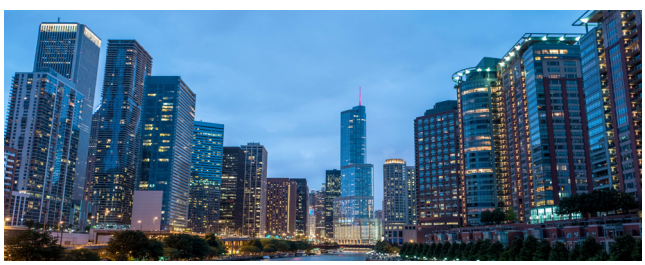
Transportation

Heavy Industries

High-rise Commercial

Data Center

Warehouses



Residential

Healthcare

History & Culture

EMACO

THE HOME OF FIRE SOLUTION

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