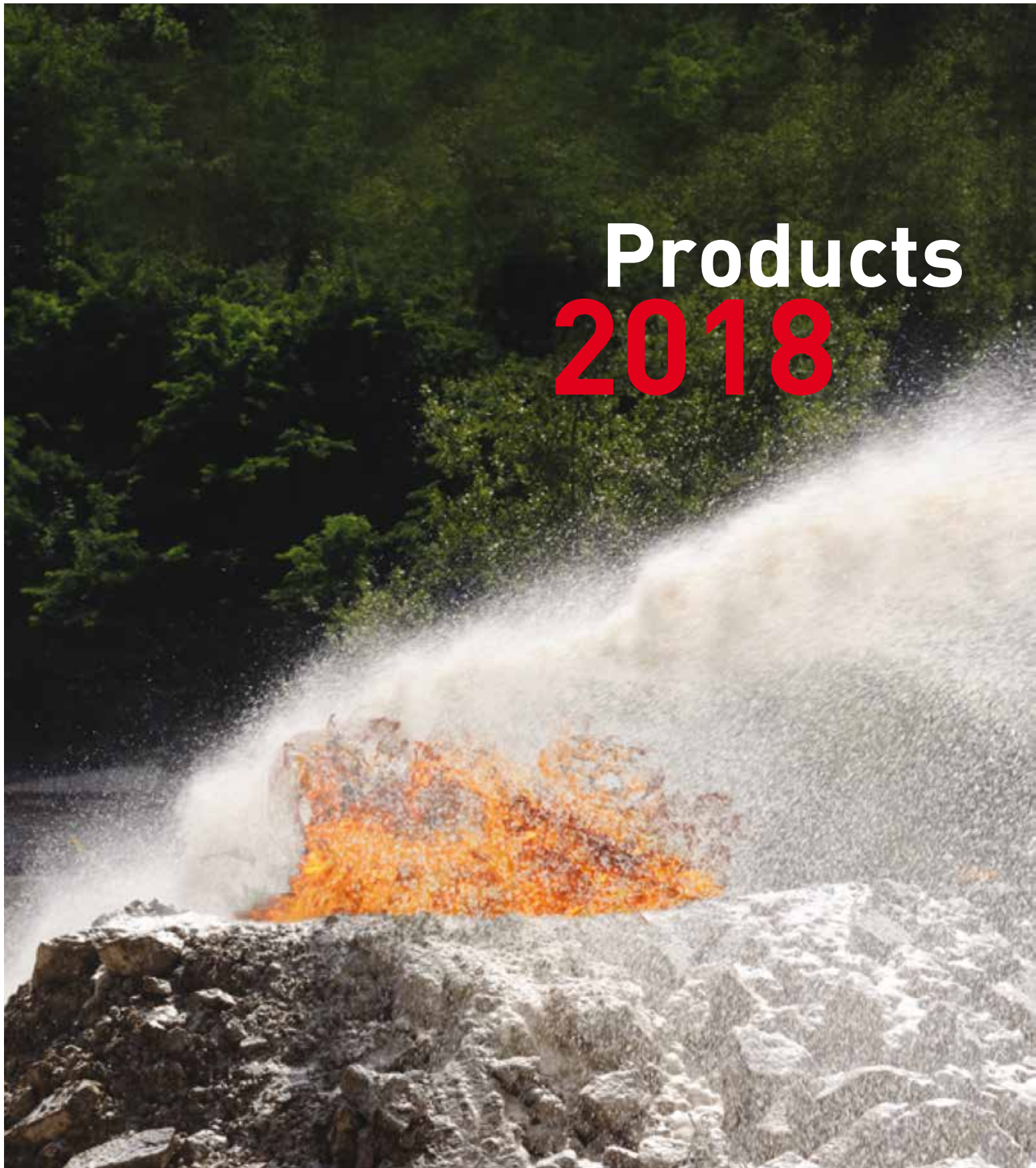


Products 2018



CACCIALANZA & C. 

Fire fighting security systems



If the inserted DVD has already
found a close friend we will be
happy to replace it.
Please send a short mail to
products@caccialanza.it
to request an additional copy
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www.caccialanza.eu

COMPANY PROFILE

The story of Caccialanza & Co. spans over 65 years, from the year 1950 when Caccialanza was first set up in Milan (Italy) to import and distribute fire fighting systems. Caccialanza soon won itself a significant slice of the medium-high segment of the market. A few years later, Caccialanza obtained licenses from some of the most prestigious german manufacturers to start assembly directly in Italy. By carefully monitoring and coordinating developments at home and abroad, at the end of the '70's, Caccialanza was able to expand into electronic fire detection systems. Contemporary the self designed production of a wide range of foam, powder and water extinguishing components reached an always increasing number of customers in the most different industrial fields. Development both in mechanical and electrical sectors received a major boost in 1981 when the company moved into its current premises in Segrate (near Milan). Caccialanza has developed and realized a complete program for command and control of remote controlled monitors and tank farms based on PLC architecture and optical fiber connections. The latest technologic development of Caccialanza is represented by the automatic fire extinguishing systems for tunnel protection with remote controlled monitors and by the signalization and visual guide system for emergencies in both motorway and railway tunnels. Caccialanza is also rightly famed for tailoring systems to the requirements of individual customer to handle a variety of high risk industrial applications offering a specific design.



Company site in Segrate



Products warehouse

Graphic design: **Emiliano Console, Francesca Müller** | Photographies: **Renzo Chiesa**
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FOAM AND WATER FIRE FIGHTING MONITORS



A1

A2

A3

A4

The Caccialanza & C. monitors are high performance units designed to operate in extremely hard conditions and in aggressive environments (refineries, chemical industries, offshore, etc.), where high foam/water flow rates and long ranges of jet are required.

The Caccialanza & C. fire fighting monitors are supplied for fixed installation (manually operated - remote controlled) or for mobile service (trailer mounted - portable). The flowrates cover a range from 50 to 30.000 lt/min with water or foam premix (with a range of jet up to 150 m).

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The monitors are provided both for manual operation (with hand lever or with hand wheels) and for remote operation (electric, hydraulic or pneumatic remote control).

The standard types of the monitors are listed on the following table:

Monitor Type		A1	A2	A3	A4	A6	A8
Nominal internal							
Flowrate range (l/min)		50 800	500 2000	1000 3000	2000 6000	5000 15000 (20000) ¹	20000 30000
Inlet flange	ANSI 150lbs RF	1½"	2½" 3"	3" 4"	4" 6"	6" 8"	8" 10"
	DIN (UNI) PN 16	DN40	DN65 DN80	DN80 DN100	DN100 DN150	DN150 DN200	DN200 DN250
Nozzle		x	x	x	x	x	x
Water pipe				x	x	x	x
Foam pipe				x	x	x	x

¹(with inlet flange 8"/DN 200 only)



A6



A8



The monitors are available with following body materials:

- seawater resistant Light Alloy EN AB 42000-Al Si 7 MgTA
- Bronze B ZN 7

The monitors can be equipped with following water and foam pipes and nozzles:

- water pipe and full jet nozzle
- water pipe and adjustable water nozzle for full jet/spray jet
- adjustable foam/water nozzle for full jet/wide fog jet
- combined foam/water pipe
- self priming combined foam/water pipe
- selector valve for foam/water operation with double pipe.

Following standard executions are provided:

Type Of Command		A1	A2	A3	A4	A6	A8
Manually operated monitors	Hand lever	-	-	x	x	-	-
	Hand wheels	-	-	x	x	x	x
	trailer mounted	-	-	x	x	x	-
	Portable	-	-	x	-	-	-
Water pressure operated auto-matic oscillating monitors	Hydraulic cylinder operated	-	-	x	x	-	-
	Trailer mounted	-	-	x	x	-	-
	Portable	-	-	x	-	-	-
Electric remote controlled monitors	Rotation 360° (±180°)	x	x	x	x	x	x
Hydraulic remote controlled monitors	Rotation 350° (±175°)	-	-	x	x	x	x
	Endless rotation	-	-	-	x	-	-
Pneumatic remote controlled monitors	Rotation 360° (±180°)	-	-	x	-	-	-

Caccialanza monitors are supplied as autonomous unit (directly connected to the pipe and with a support provided by the user) or equipped with a tetrapode for mechanical support with a pipe for connection to the water/foam feeding line or complete with standing pole, upper standing platform and rotating top platform.



The standing poles are supplied in all the lengths up to a total height of 25 m. The standing poles are dimensioned not only for the maximal reaction force of the monitor but also for the heaviest environment conditions (wind).



The standing poles are complete with protected access ladder. The platform at the top of the standing pole is complete with access opening with overturning lid with protective railing, like the eventual intermediate resting platforms usually foreseen for 10 m. and higher poles. The rotating top platform the monitor is connected to is provided with ball bearing and has a working surface of 1 x 1 m. and is complete with access opening with rotating access ladder that can be used in any position. The water/foam feeding pipe and the conduit for the protected passage of the electric cables or of the water pipes are located inside the pole. The standing pole and the platform are equipped with connections and bearings for all the electric or hydraulic command and control devices. A cooling system with spray nozzles protects the standing pole ladder, the platform and the command/control devices.

A1 Monitors

A1 type monitors are available in the following executions:

- for electric remote operation (A1-EL)
- for manual assist operation through local pushbuttons (A1-EL-P).

A1 type monitors can be equipped with following water/foam nozzles:

- water/foam nozzle with fixed flowrate, adjustable to full jet/fog jet
- water/foam nozzle with variable flowrate, adjustable to full jet/fog jet.



Main Technical Data of A1 type Monitors:

- flowrate: 50 - 800 lt/min pressure drop:
 - 0,3 bar with a flowrate of 100 lt/min
 - 0,7 bar with a flowrate of 200 lt/min
 - 1,2 bar with a flowrate of 400 lt/min
 - 2,0 bar with a flowrate of 600 lt/min
 - 2,8 bar with a flowrate of 800 lt/min
- inlet flange:
 - 1½" ANSI 150 lbs RF
 - DN 40 UNI PN 16
- body material:
 - seawater resistant light alloy EN AB 42000-Al Si 7 MgTA.

A2 Monitors

A2 type monitors are available in the following executions:

- electric remote operation (A2-El)
- manual assist operation through local pushbuttons (A2-El-P).

A2 type monitors can be equipped with following water/foam nozzles:

- water/foam nozzle with fixed flowrate, adjustable fo full jet/fog jet
- water/foam nozzle with variable flowrate,adjustable fo full jet/fog jet.

Main Technical Data of A2 type Monitors:

- flowrate: 500 - 2.000 lt/min
- pressure drop:
 - 0,2 bar with a flowrate of 500 lt/min
 - 0,4 bar with a flowrate of 800 lt/min
 - 0,8 bar with a flowrate of 1.000 lt/min
 - 1,6 bar with a flowrate of 1.600 lt/min
 - 2,2 bar with a flowrate of 2.000 lt/min
- max nominal pressure: 16 bar
- inlet flange:
 - 2½" or 3" ANSI 150 lbs RF
 - DN 65 or DN 80 UNI PN 16
- body material:
 - seawater resistant light alloy EN AB 42000-Al Si 7 MgTA.



A3 Monitors

The A3 type monitors are available in following executions:

- manually handlever operated (A3)
- manually handwheels operated (AS3)
- automatic oscillating (water pressure operated) (AU3)
- electric remote controlled (A3-El)
- hydraulic remote controlled (A3-Hy).



The A3 type monitors can be equipped with following water and foam pipes and nozzles:

- water pipe and full jet nozzle
- water pipe and adjustable water nozzle for full jet/spray jet
- adjustable foam/water nozzle for full jet/wide fog jet
- combined foam/water pipe
- self priming combined foam/water pipe



Main Technical Data of the A3 type monitors (for all executions):

- flowrate range: 1.000 - 3.000 lt/min
- pressure loss:
 - 0,2 bar at flowrate 1.000 lt/min
 - 0,6 bar at flowrate 1.600 lt/min
 - 0,9 bar at flowrate 2.000 lt/min
 - 1,3 bar at flowrate 2.400 lt/min
 - 2,0 bar at flowrate 3.000 lt/min
- max. operating pressure: 16 bar
- inlet flange:
 - 4" or 3" ANSI 150 lbs RF
 - DN 100 or DN 80 DIN PN 16
- body material:
 - seawater resistant light alloy EN AB 42000-Al Si 7 MgTA
 - bronze B ZN 7.

A4 Monitor

The A4 type monitors are available in following executions:

- manually handlever operated (A4)
- manually handwheels operated (AS4)
- remote or cab manually handwheels operated (ASC4)
- automatic oscillating (water pressure operated) (AU4)
- electric remote controlled (A4-El)
- hydraulic remote controlled (A4-Hy).



The A4 type monitors can be equipped with following water and foam pipes and nozzles:

- water pipe and full jet nozzle
- water pipe and adjustable water nozzle for full jet/spray jet
- adjustable foam/water nozzle for full jet/wide fog jet
- combined foam/water pipe
- self priming combined foam/water pipe
- with double outlet for foam/water double pipe operation with synchronized butterfly valves
- with double outlet for twin-agent dry powder/foam double pipe operation.

The A4 monitor in the twin agent version, designed for operations both with water foam compound and with dry powder, is equipped with two separate guns and with two separate



inlet flanges, one for the water foam compound and one for the dry powder. Inside the monitor body the transmission of the extinguishing media is performed by means of coaxial ducts, with no communication between them.

Main Technical Data of the A4 type monitors (for all executions):

- flowrate range: 2.000 - 6.000 lt/min
- pressure loss:
 - 0,2 bar at flowrate 2.000 lt/min
 - 0,3 bar at flowrate 2.400 lt/min
 - 0,6 bar at flowrate 3.000 lt/min
 - 1,0 bar at flowrate 4.000 lt/min
 - 1,6 bar at flowrate 5.000 lt/min
 - 2,2 bar at flowrate 6.000 lt/min
- max. operating pressure: 16 bar
- inlet flange:
 - 4" or 6" ANSI 150 lbs RF
 - DN 100 or DN 150 DIN PN 16
- body material:
 - sea-water resistant light alloy EN AB 42000-Al Si 7 MgTA
 - bronze B ZN 7.

A6 Monitor

The A6 type monitors are available in following executions:

- manually handwheels operated (AS6)
- electric remote controlled (A6-El)
- hydraulic remote controlled (A6-Hy)

The A6 type monitors can be equipped with following water and foam pipes and nozzles:

- water pipe and full jet nozzle
- water pipe and full jet nozzle with adjustable spraying head for full jet/spray jet
- adjustable foam/water nozzle for full jet/wide fog jet
- combined foam/water pipe



IER FIRE FIG

Main Technical Data of the A6 type monitors (for all executions):

- flowrate range: 5.000 - 15.000 lt/min (20.000 lt/min for FiFi1 monitors)
- pressure loss:
 - 0,3 bar at flowrate 5.000 lt/min
 - 0,7 bar at flowrate 8.000 lt/min
 - 1,0 bar at flowrate 10.000 lt/min
 - 1,5 bar at flowrate 12.000 lt/min
 - 2,2 bar at flowrate 15.000 lt/min
 - 4,0 bar at flowrate 20.000 lt/min
- max. operating pressure: 16 bar
- inlet flange:
 - 6" or 8" ANSI 150 lbs RF
 - DN 150 or DN 200 DIN PN 16
- material: body:
 - seawater resistant light alloy EN AB 42000-Al Si 7 MgTA
 - bronze B ZN 7
- rotating joints: bronze/aluminium G-Cu Al 11 Fe 4 (mat. ASTM B 148/954), ball bearings stainless steel AISI 304.



A8 Monitor

The Caccialanza & C. A8 type monitors are units for highest performances designed to operate in extremely hard conditions and in aggressive environments (refineries, chemical industries, offshore, etc.), where highest foam/water flowrates and very long ranges of jet (up to 150 m) are required.

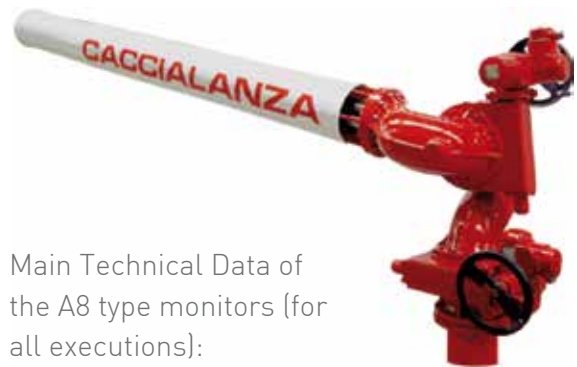
The A8 type monitors are available in following executions:

- manually handwheels operated (AS8)
- electric remote controlled (A8-El)
- hydraulic remote controlled (A8-Hy)



The A8 type monitors can be equipped with following water and foam pipes and nozzles:

- water pipe and full jet nozzle
- water pipe and full jet nozzle with adjustable spraying head for full jet/spray jet
- combined foam/water pipe.



Main Technical Data of the A8 type monitors (for all executions):

- flowrate range:
 - 20.000 - 30.000 lt/min (for FiFi1 and FiFi2 monitors)
- pressure loss:
 - 1,3 bar at flowrate 20.000 lt/min
 - 3,0 bar at flowrate 30.000 lt/min
- max. operating pressure: 16 bar
- inlet flange:
 - 8" or 10" ANSI 150 lbs RF
 - DN 200 or DN 250 DIN PN 16
- material: body:
 - sea-water resistant light alloy EN AB 42000-Al Si 7 MgTA
 - bronze B ZN 7
- rotating joints: bronze/aluminium G-Cu Al 11 Fe 4 (mat. ASTM B 148/954), ball bearings stainless steel AISI 304.

MONITORS COMMAND PANELS

Caccialanza can supply any type of command and control panels for monitors installation or for combined fire fighting systems.

Every panel can be supplied as a standard in execution for outdoor mounting with protection degree IP55

or in explosion proof execution Eexd/e/i for hazardous areas. Basically the complete range is subdivided in 3 model families:



Standard modular panels

Every panel is realized to control and power the two basic functions of the monitor (rotation and elevation) and if required a remote controlled full/jet spray nozzle or a wide/spread deflector. In addition it is possible to extend the control to the monitor pipe supply valve.

The panel can be supplied with command and control devices directly built on the front of it or without local commands but with

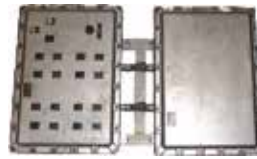
an additional wall mounting command and control box (to be installed at required range from the panel, depending on connection standard)



Standard modular panel EX-Pllosion Proof Eexd/i execution

All panels are intended for outdoor installation with mechanical protection degree IP55 and explosion proof protection. For all the power panel this is realized as protection Eexd II T2, with the

exception of separate boxes for command and controls only which are normally realized as Eexi execution.



Standard integrated command and control panels MSA2 for monitors A1 and A2 type

Monitors A1 and A2 type, as described in their technical features, are equipped with an innovative system of sensors and actuators allowing command and control of all their functions by

means of one single cable, through which also electric power supply is provided. MSA2 panels are supplied for connection of 1 or 2 of A1 or A2 monitors, eventually



equipped also with section valve. In large plants more



panels can be grouped in synoptic and self standing command panels.

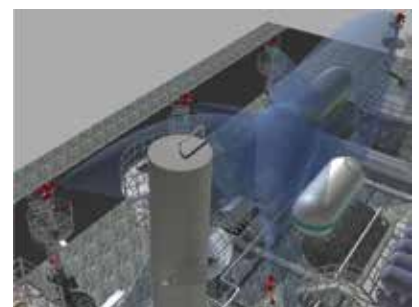
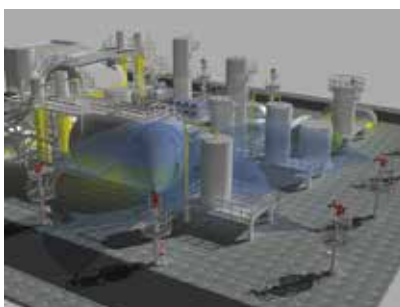
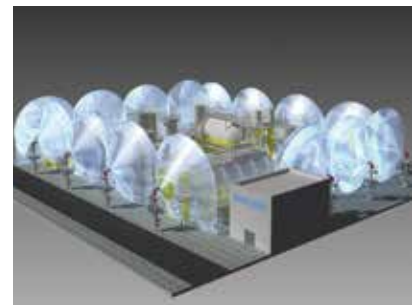
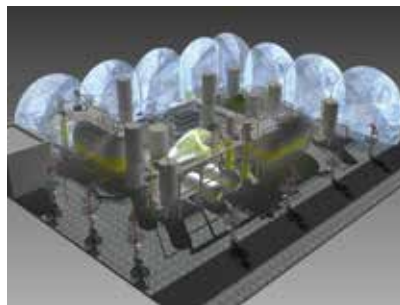
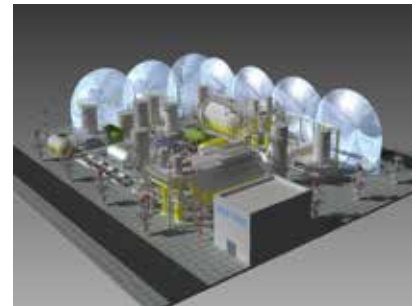
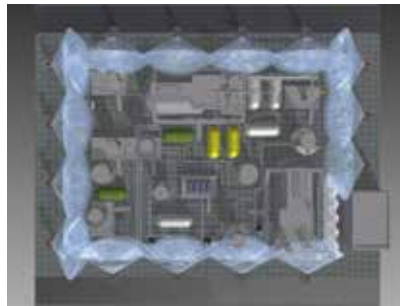
WATER WALL SYSTEM FOR MITIGATION AND DISPERSION OF GAS RELEASES

The accidental release of toxic gases can cause serious health effects or even death if an individual is exposed to low or to moderate concentrations. However, most of the toxic gases, and in particular HF, are very soluble in water and water mitigation is effective to combat any accidental toxic gas or HF release.

Caccialanza & C. designs and supplies water-wall systems consisting of rows of A6El or A4El monitors with specially designed adjustable water nozzles, which are installed around the unit on all sides to generate the water wall.

In the event of HF or toxic gas release, the gas detectors distributed in the protected plant will automatically activate the water mitigation system within seconds and deliver a large amount of water to form a mitigating wall that extends high into the air.

A logical unit selects the proper water-wall configuration based on meteorological conditions and automatically aims momentum-breaking monitors based on the location of the activated HF or toxic gas detector. At high wind the PLC will activate the aim-and-shoot strategy by selecting and aiming the most effective monitors.



TRAILER MOUNTED MONIT

TRAILER MOUNTED MONITORS

The Caccialanza & C. Trailer Mounted Monitors are designed to be quickly and easily moved inside industrial areas.

The Trailer Mounted Monitors are available in following executions:

- with A3/AS3/AU3 type monitors for flow rates 1.000÷3.000 lt./min.
- with A4/AS4/AU4 type monitors for flow rates 2.000÷6.000 lt./min.
- with AS6 type monitors for flow rates 5.000÷16.000 lt./min.



Mobile unit A3/A4

The light and compact trailers allow to move the monitors in proximity of the fires or of the plants and other objectives to be cooled, optimizing the performances (range of jet, height of jet) of the monitors.



Mobile unit "Monster" A6

The system consists of a special trailer suitable for being towed inside industrial areas, on which an electric remote controlled monitor A6 with nozzle, complete of all the equipments for operation both with water and foam, is mounted.



Main features of the system are the easy and fast transport, installation and startup possibilities.

For this reason the trailer is equipped with special hydraulic remote controlled stabilizers, ensuring the perfect stability of the system, while the monitor is in operation, on all types of ground, even on ice. The trailer is equipped with brakes, lights and approved towing eye and, therefore, can be towed according to international standards.



In order to be connected to the water supply line the system is equipped with 2½" hose connections. Hose connections reel with UNI or STORZ B75 couplings (different international Standards on request).

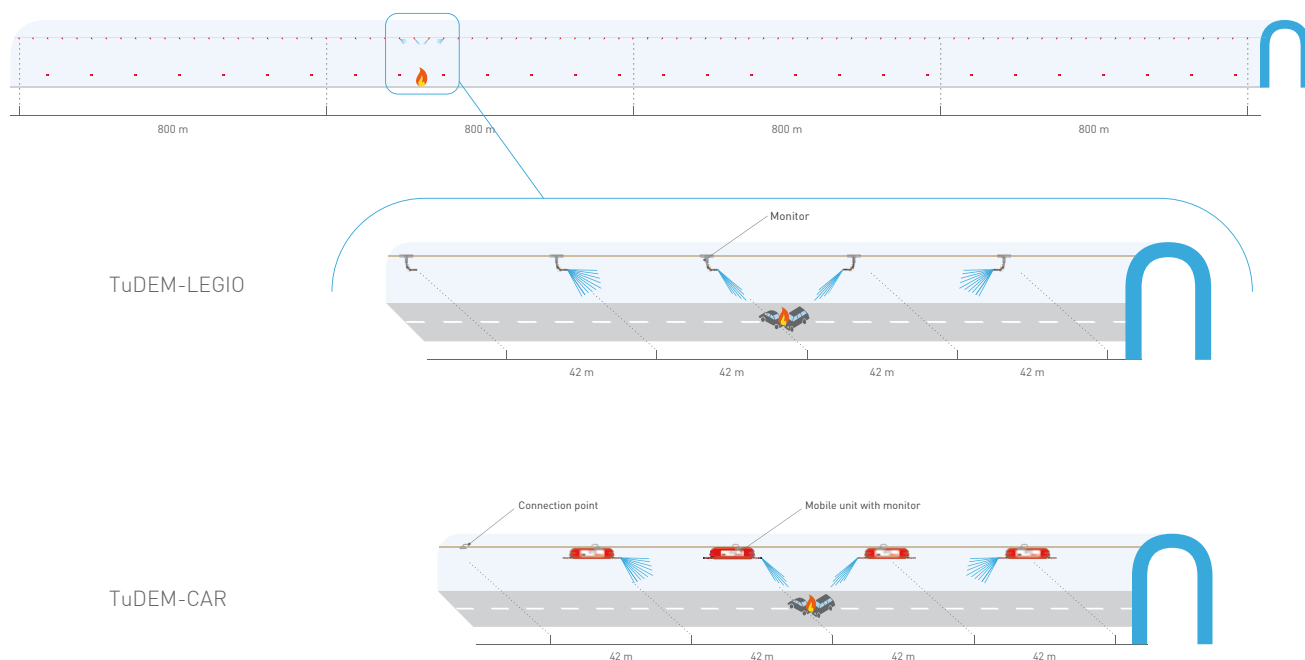
The trailer consists of a single axle, two rubber wheels and a retractable front jack wheel that ensures static support when the trailer is not coupled with the tractor.

A power generator 400V/3Ph/50 Hz with diesel engine, mounted on the trailer, provides power for the monitor movements and buffer charges the batteries required for the signalization and control devices.

The unit can also be supplied as manual version.



AUTOMATIC FIRE EXTINGUISHING SYSTEM FOR TUNNEL PROTECTION WITH REMOTE CONTROLLED MONITORS



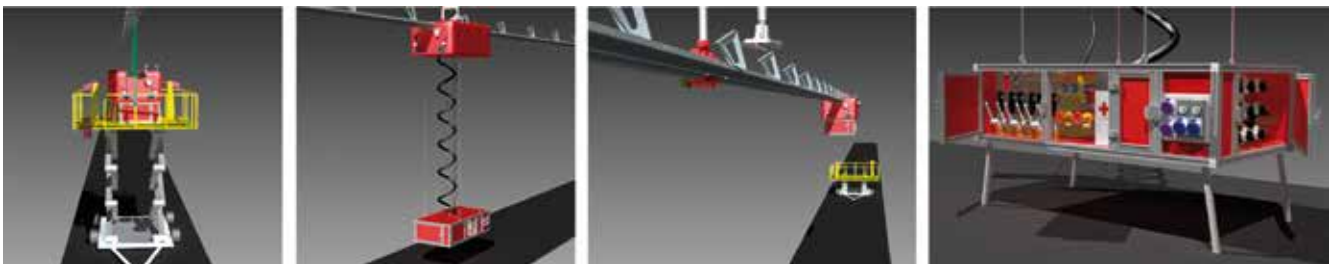
TuDEM LEGIO



TuDEM CAR

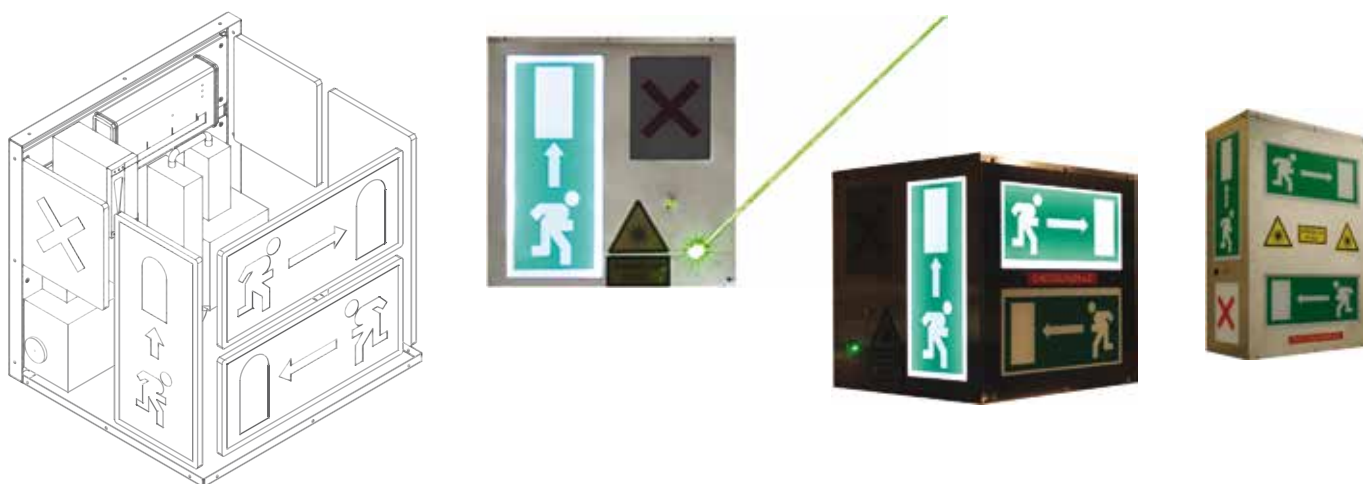


TuDEM RESCUE



Innovating fire extinguishing system for tunnel fires for fully automatic intervention or for remote operation from a remote Control Room. Available in a version with mobile remote controlled monitors on overhead trailer on a monorail (TuDEM-CAR) and in a version with remote controlled fixed monitors uniformly spaced along the tunnel (TuDEM-LEGIO).

ARIANNA



AUTOMATIC INTERACTIVE SIGNALLING AND VISUAL GUIDE SYSTEM FOR ESCAPE PATHS IN TUNNELS

The innovative Arianna system shows along the entire tunnel the evacuation route for the existing emergency, with continual, univocal optical signs that can be seen and followed continuously even in case of smoke, that may develop and spread inside the tunnel in case of fire emergencies.

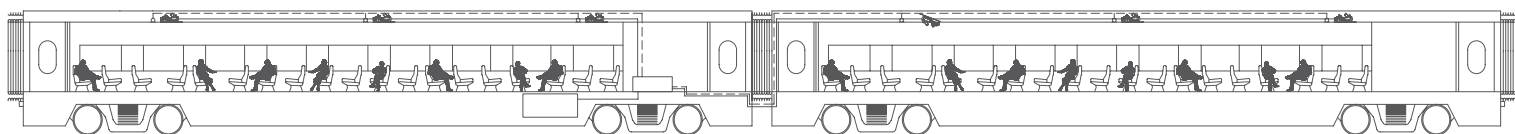
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VES



EXTINGUISHING SYSTEM WITH REMOTE CONTROLLED MONITORS FOR MOBILE UNITS AND VEHICLES

Innovating fire extinguishing system to be installed in vehicles and mobile units and designed to extinguish the fire in a fully automatic way. It is composed by fire detection modules, one module for data elaboration and driving of the various system elements and fire extinguishing modules whit retractile monitors.



FOAM COMPONENTS

Caccialanza & C. is producing the complete range of foam components for all different types of fixed fire fighting foam systems, such as:



Heavy foam-making branch Pipes (l-st type)

Their purpose is to add air to the foam/water premix stream forming a fire extinguishing heavy foam with an expansion rate of about 1:7.

Foam chambers (STO type)

Foam chambers are installed on top pouring foam systems for fixed roof tanks. Their purpose is to avoid the outflow of flammable vapors from the fixed roof storage tank through the air intakes of the foam pipes, and to allow the testing of the foam system without introducing foam into the fixed roof tank. For this purpose the foam chambers are provided with a sealing glass diaphragm (which in normal conditions avoids the outflowing of the flammable vapours from the tank and in fire conditions breaks due to the foam pressure allowing the inlet of the extinguishing foam into the tank) and with a removable cap.

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Foam pourers (SK, SKC and SKG type)

Foam pourers are designed to be installed at the end (outlet) of the foam lines of low expansion foam systems on fixed roof tanks (mounted inside the tank) or on floating roof tanks (mounted on a splash board). They are intended to bring the foam jet smoothly along the tank wall onto the surface of the flammable liquid inside the tank (without splashing on it).



Medium expansion foam making branchpipes (LM type)

Medium expansion foam making branch pipes for fixed installation are generally mounted in medium expansion foam systems for the protection of dyke areas, pump houses, loading bays, wharfs (foam at sea), plants and airport landing strips. Medium expansion foam making branchpipes are suitable for foam production and for pouring of the foam. Their purpose is to produce a high volume of foam (expansion rate about 1:80) which at the same time is sufficiently stable and heavy not to be blown up by wind or by the thermic of a fire.



High expansion foam generators (GT type)

High expansion foam generators for fixed installation are mounted on high expansion foam systems for the protection of big storage rooms and containing basins. Their purpose is to produce a very high volume of foam (expansion rate 1:1.100) containing a very little percentage of water in order to fill within shortest time big volumes (storage rooms) avoiding at the same time the water damage.



Low expansion foam nozzles (U3 type)

Low expansion foam nozzles are mounted on low expansion foam systems with open sprinkler for the protection of oil loading bays, airport hangars and big stores containing flammable liquids. Their purpose is to produce a rain of low expansion foam (expansion rate about 1:6).



COMPONENTEN

Self priming inline inductors (V type)

Inline inductors are suitable for foam systems with fixed flowrate (only 1 foam outlet or a fixed number of foam outlets which must work simultaneously). It is the simplest proportioning system. Its proper operation is connected to exactly defined working conditions (flowrate, pressure, pressure loss in the line between the premixer and the foam outlet), which must be contained in strict tolerances (about +/- 10%).



Around the pump proportioners (PP type)

Around the pump proportioners are utilized for foam systems on ships or on fire trucks where 1 or maximum 2 different flowrates are required (fire fighting ships with 2 monitors for FiFi 1 classification). The around the pump proportioners are mounted in parallel to the water pump and aspirate automatically a fixed flowrate of foam compound which is added to the water flowrate supplied by the pump.



Pressure proportioners or foam injectors (ZR type)

Foam injectors are utilized for foam systems with different independent foam outlets which can work simultaneously or separately and are particularly suitable if the requirement is given to operate simultaneously part of the outlets with water and part of the outlets with foam (remote controlled foam/water monitors systems).



Venturi balance pressure foam proportioners for variable flowrate (VZ-R type)

The Venturi balance pressure foam proportioners for variable flowrate are utilized for foam systems with different independent foam outlets which can work simultaneously or separately.



The balance pressure foam proportioner for variable flowrate regulate automatically the correct foam compound admixing percentage to a variable water flow in a range 1:10 (for example, the same foam proportioner is suitable for admixing automatically the proper foam compound percentage in a foam system with 10 monitors both if only 1 monitor is working singularly and if all monitors are working simultaneously).

Portable low expansion foammaking Branch pipes (LS type)

Portable low expansion foam generators are used in mobile hose lines with water/foam premix and are suitable to produce a low expansion foam for extinguishing fires of flammable liquids or of solid materials.

Their purpose is to add air to the foam/water premix stream forming a fire extinguishing low expansion foam with an expansion rate of about 1:7. Portable low expansion foammaking branch pipes can be self-inducting or can be used in connection with mobile inline inductors or with other foam proportioning systems.



BLADDER TANKS

Displacement liquid foam proportioners for variable flowrate - bladder tanks (MSL/E type, MSL type, MSL/O type)

The displacement liquid foam proportioners for variable flowrate (bladder tanks) are utilized for foam systems with different independent foam outlets which can work simultaneously or separately.



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The displacement liquid foam proportioners for variable flowrate regulate automatically the correct foam compound admixing percentage to a variable water flow in a range 1:8 (for example, the same foam proportioner is suitable for admixing automatically



the proper foam compound percentage in a foam system with 8 monitors both if only 1 monitor is working singularly and if all monitors are working simultaneously). Compared to the Venturi proportioners, the advantage of the displacement liquid foam proportioners is that

they don't require the installation of a foam compound pump (the admixing of the foam compound to the water flow is

automatically provided by the membrane in the bladder tank). Another advantage of the displacement liquid foam proportioners is that they include also the foam compound storage tank. Caccialanza & C. displacement liquid foam proportioners for variable flowrate are supplied:

- with vertical tank and membrane fixed only at the top of the tank (MSL/E type)
- with vertical tank and membrane fixed at the top and at the bottom of the tank (MSL type)
- with horizontal tank (MSL/O type)

In the versions:

- with single or double tank
- with capacity of the tanks from 400 lt. to 13.000 lt.

and are available for following water/premix flowrate ranges:

- DN 4" - 200÷1.600 lt/min
- DN 6" - 400÷3.200 lt/min
- DN 8" - 800÷6.400 lt/min
- DN 10" - 1.200÷9.600 lt/min
- DN 12" - 2.000÷16.000 lt/min
- DN 14" - 2.500÷20.000 lt/min



The MSL/E, MSL and MSL/O type displacement liquid foam proportioners for variable flowrate are provided with a foam compound admixing percentage regulating valve which allows the regulation of the admixing percentage between 1% and 6%.



WATER SPRAY

WATER SPRAY NOZZLES



Caccialanza & C. is manufacturing a very large range of water spray nozzles for fire fighting and industrial purposes.

Caccialanza & C. water spray nozzles are available in following materials.

- brass, bronze, stainless steel, Hastelloy, PVC, PTFE;

and with following shape of the jet:

- full cone, hollow cone, flat jet, square jet.

Flat jet spray nozzle type L/LB

L/LB type medium velocity flat jet water spray nozzles produce a horizontal or vertical flat jet for tanks cooling or water barriers.

Cone jet spray nozzle type C

C type high velocity water spray nozzles are designed for nebulization of liquids under pressure. The jet can be a full cone jet (CP) or a hollow cone jet (CC).

Cone jet spray nozzle type S

S type medium velocity full cone spray nozzles are designed for spray or deluge systems or for cooling of surfaces.

Flat jet spray nozzle type P

P type high velocity flat jet nozzles spray a water blade under high pressure.

Low expansion foam spray nozzle type U3

Foam spray nozzles U3 type are mounted on low expansion foam systems for protection of loading bays, airport hangars and large depots of flammable liquids.

FIRE HYDRANTS

Caccialanza & C. fire hydrants are manufactured for installation in heavy environmental conditions (refineries, chemical industries, etc.) and are designed to grant the highest reliability during operation.



The hydrants are in selfdraining and freezeproof execution for installation in very cold areas (up to -50°C).

Caccialanza & C: hydrants are provided with incorporated sectioning valve which allows the dismantling of the hydrant for maintenance or service operations without necessity of interrupting the main water supply line (the incorporated sectioning valve automatically closes like a check valve when the hydrant rod is removed avoiding the outcoming of the water from the main water supply line).

This is true also if the hydrant breaks due to an external impact.

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In order to increase the performances of the hydrants, the fire hydrants can be supplied with an additional outlet with elbow and manually operated water monitor which allows to reach a very long range of jet without utilizing the fire hoses and water branchpipes.



Caccialanza & C. fire hydrants are manufactured in following size:

- DN 3"
- DN 4"
- DN 6".



Caccialanza & C. fire hydrants can be supplied:

- with 2½", 3", 4" and 5" water outlets (up to max. 8 outlets)
- with gate valves or globe valves mounted on the water outlets
- with inlet flange ANSI 150 lbs RF or DIN PN 16
- with connecting couplings according to all different required standards (such as BS, NST, AFNOR, STORZ, GOST etc.).

Caccialanza & C. fire hydrants can be additionally equipped with self standing hose cabinets with water branchpipe for outdoor installation.

Dry powder extinguisher

Portable (P 12) and wheeled (P 100) dry powder extinguisher with high extinguishing power, big functional reliability and wide operating range, particularly suggested for petrochemical industries, refineries and heavy risk industries.

Conforming to the Technical Rules EN 3-7:2008 and to the Directive CE 97/23 (PED).



REHYDRANT

DRY CHEMICAL UNITS

Caccialanza & C. dry chemical units (powder units) are manufactured for the protection of industrial plants in refineries and chemical industries and are designed to grant the highest reliability during operation -



Caccialanza & C. dry chemical units are supplied for fixed or for skid vehicle mounted installation and for manual, electric and pneumatic release.

The dry powder pressure vessels can be dimensioned according to the different international codes and are approved by the relevant inspection agencies.

All units are manufactured with single or double (twin) tanks.



Following families of dry chemical units (powder units) can be supplied:

- PLA/A for fixed installation with rubber hose on wheel
- PLA/B for fixed installation with flexible hose
- PLA/AM for fixed installation with rubber hose on wheel and monitor flange
- PLA/BM for fixed installation with flexible hose and monitor flange
- PLF/A for vehicle mounted installation with rubber hose on wheel
- PLF/B for vehicle mounted installation with flexible hose
- PLF/AM for vehicle mounted installation with rubber hose on wheel and monitor flange
- PLF/BM for vehicle mounted installation with flexible hose and monitor flange.



installation with rubber hose on wheel

- PLF/B for vehicle mounted installation with flexible hose
- PLF/AM for vehicle mounted installation with rubber hose on wheel and monitor flange
- PLF/BM for vehicle mounted installation with flexible hose and monitor flange.

Caccialanza & C. dry chemical units can also be supplied without hose reels and pistol guns, but with a manifold for powder distribution to a fixed installation.



FMZ-DETECT SYSTEM

FMZ-Detect control panels are based on the concepts of modularity and distributed processing. They are capable of handling signals from all types of fire, alarm, and control field sensors, as well as supervising and controlling the status of field devices and logging local and remote signals. FMZ-Detect control panels use a multi-level architecture in which each function board has its own dedicated processor. Function board processors dialogue with a master processor on the control panel's main processor board. On higher levels, a number of sub-panels can be networked to a main control panel and even to a Host computer.

Fire control panel DC 3500

VDS APPROVAL G214222

Microprocessor controlled modular fire control panel for the use with the loop3000 fire detection system components.

- Panel and systems components according to EN 54-2,4 and 13
- Redundant connection of the fire control system components to ensure the highest reliability
- Configuration and programming by means of DPT software or diagnosis I-Check for the best functionality of the system
- Intuitive clear representation of notifications for the utmost ease of use according to EN 54
- Expandable up to max. 15 loops
- Possibility to address up to max. 1890 units
- Event log memory of up to 100.000 messages
- The powerful incorporated processor, support software based on Linux operating system and the configuration flexibility allow a high level of integration and functions customization.

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Multisensor optical-heat fusion technology

VDS APPROVAL G 208095



Intelligent optical and thermal multi sensor detector for loop3000 with 2 optical and 2 thermal sensors and a bidirectional isolator for earliest fire

detection and indication in all environments with difficult ambient conditions, according to EN 54-5, EN 54-7, EN 54-17 and EN 54-29.

Multisensor carbon monoxide gas & heat

VDS APPROVAL G 207005



Intelligent multi sensor detector for the loop3000 series featuring sensor technology for carbon monoxide detection in combination with two

thermal detectors and an integrated Isolator for earliest detection and indication for all environments with difficult ambient conditions, in accordance to EN 54-5 and EN 54-17.

Optical smoke detector with isolator

VDS APPROVAL G 202002



Optical smoke detector for loop3000 with 2 optical and 1 thermal sensor for earliest fire detection and indication and with bidirectional isolator

according to EN 54-5 and EN 54-17.

PYROVIEW INFRARED DIRECT DETECTION SYSTEM

The use of high resolution infrared cameras enable to detect fire as soon as it starts and to monitor its time development very precisely.



This system is usually used in waste depots for incineration plants and in solid fuel (wood or coal) depots for heating plants, both outdoor (with or without covering) and in indoor bunkers. High resolution infrared cameras are mounted in protective case, if required even in Ex-proof execution, equipped with a special compressed air device that

keeps the protective glass and lens of the system perfectly clean. In most



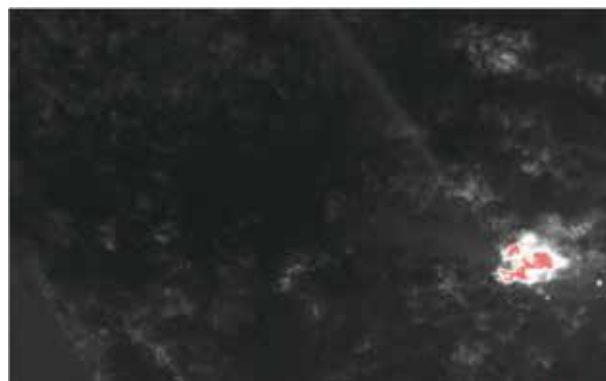
cases cameras and their cases are equipped with an automatic remote controlled special support with horizontal and vertical movement in order to monitor large areas by means of a very limited number of cameras.



The control panel is equipped with a dedicated software for automatic fire detection (right from its beginning) and localization (space coordinates of the fire are automatically determined).

The control panel can also drive (automatically or after operator's authorization) an automatic fire extinguishing system, for the above applications usually consisting of remote controlled water/foam monitors.

Besides the automatic operation, cameras can be manually driven by an operator that has one or more high resolution colour LCD screens displaying automatic and manual procedures. It is thus possible to monitor fire development, despite thick smoke usually caused by the existing materials, and optimize rescue and extinguishing procedures.



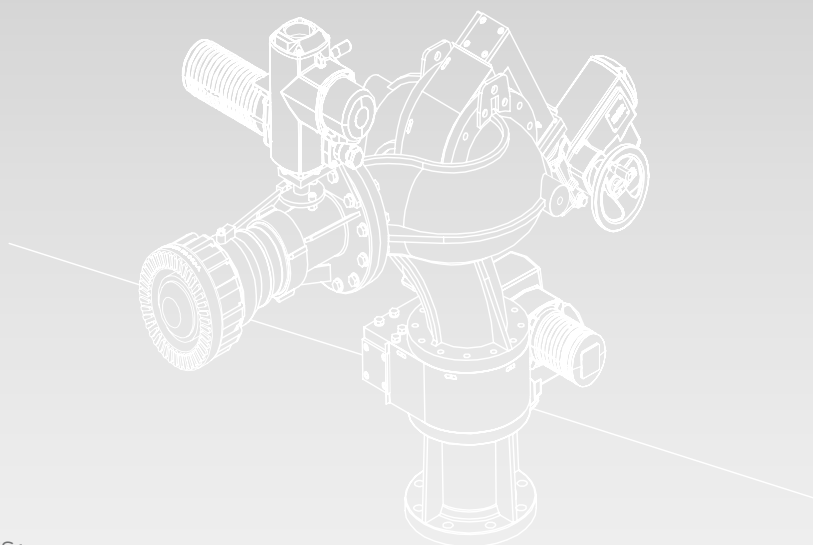
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A WORLD REFERENCE FOR FIRE
FIGHTING AND SAFETY IN INDUSTRIAL
HIGH RISK ENVIRONMENTS

PRODUCTS 2018

- Fire Fighting Monitors;
- Foam Systems;
- Mobile Foam Component;
- Mobile Foam Units;
- Fire Hydrants;
- Water Spray Nozzles;
- Dry powder unit;
- Powder and Twin Agent Monitors;
- Extinguishing Systems for Mobile Units and Vehicles;
- Water Wall System for mitigation and dispersion of HF and toxic gas;
- Systems for Tunnel Protection;
- Electronic Fire Detection and Security Systems;
- Multifunctional Foam Control System;
- Protection Systems for Large Sites;
- Access Control Systems.



CACCIALANZA & C 
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