survitec

HIGH PRESSURE CO_2

FIRE EXTINGUISHING SYSTEM

Extinguishing fires in enclosed spaces requires solutions that can be deployed quickly and effectively with minimal risk to the environment and equipment. The Survitec High Pressure CO_2 Fire Extinguishing System (Survitec CO_2 System) is a total flooding system for enclosed spaces. The system, proven to be fast and effective, has been supplied to numerous vessels worldwide.

FEATURES

- OPTIONS OF MANUAL OR PRESURE OPERATED CYLINDER TOP VALVES TO QUICKLY DISCHARGE THE CO_2 GAS
- OPERATED WITH SELF CONTAINED POWER SOURCE IN RELEASE CABINETS CO_2 PILOT CYLINDERS, NO NEED FOR AN EXTERNAL POWER SOURCE
- THE SYSTEM IS EQUIPPED WITH ALARM DEVICES WHICH WILL PRE-WARN THE CREW TO EVACUATE THE PROTECTED SPACE
- A SAFE RELEASE DELAY FUNCTION TO ENSURE THE SAFETY OF THE CREW
- SEQUENTIAL RELEASE DESIGN ENSURES SAFE ANDEFFECTIVE OPERATION ACCORDING TO CLASS RULES

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Benefits

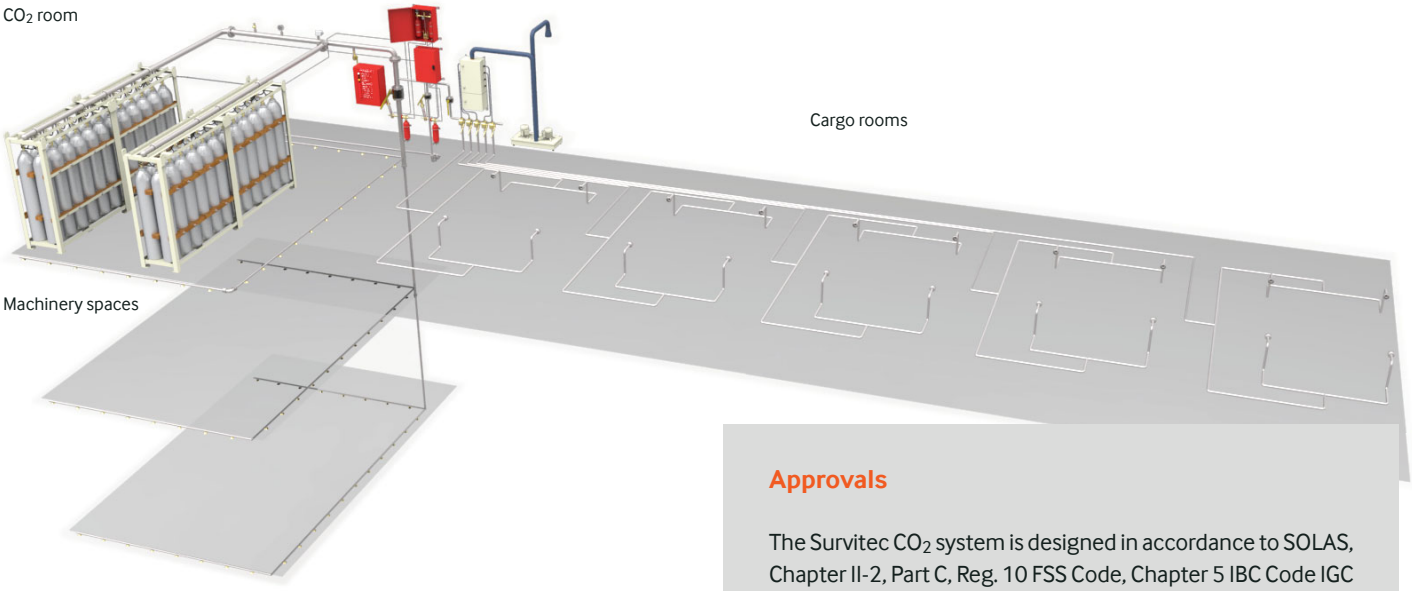
- A cost effective solution for optimal system performance, keeping both installation and operational costs low
- The system is available on rack modules to save on installation time and costs
- Quick discharge reduces potential cost of damages
- Minimal and easy maintenance keeps operational costs low

System description

The cylinder bank and manifold are stored in a well-ventilated and insulated room. The pressure operated valves are connected to the manifold using flexible high pressure hoses. From the main distribution valves, a piping system is used to distribute the gas to the discharge nozzles which are placed uniformly throughout the protected spaces. The top valves can be operated both pneumatically and manually. When releasing the system, the main distribution valve opens. The pilot gas to the pressure operated CO_2 cylinder top valve is delayed for a specified time. After the delay, the cylinder top valves open and the gas is discharged through the piping into the protected space. The valves can also easily be opened manually. CO_2 is highly suffocative and the protected space must be evacuated before any CO_2 is released. The Survitec CO_2 system is designed with a pre-alarm system and a time delay function to allow the evacuation of the hazard area and avoid danger to the crew. The system can be complemented by the NFF XFlow LAFF system to provide total fire protection for the engine room. Local systems for paint lockers and galley ducting are available and smoke sampling systems for cargo holds can also be incorporated in the CO_2 system package.

Extinguishing fire using CO_2

CO_2 gas suffocates fire by reducing the oxygen content, thereby breaking the combustion chain. It is a colourless, non-corrosive gas that causes no chemical reaction to metals, electrical equipment or oil. The gas makes no mechanical damage to applied surfaces and leaves no residue to clean up. It is compressed to liquid state in high pressure cylinders for storage and it can be stored for an indefinite time.



Approvals

The Survitec CO_2 system is designed in accordance to SOLAS, Chapter II-2, Part C, Reg. 10 FSS Code, Chapter 5 IBC Code IGC Code Classification societies rules and regulations Authorities rules and regulations other standards (EN, ISO, DOT, etc). The system is type approved by all major classification societies.

DNV·GL ABS BUREAU VERITAS ClassNK RINA

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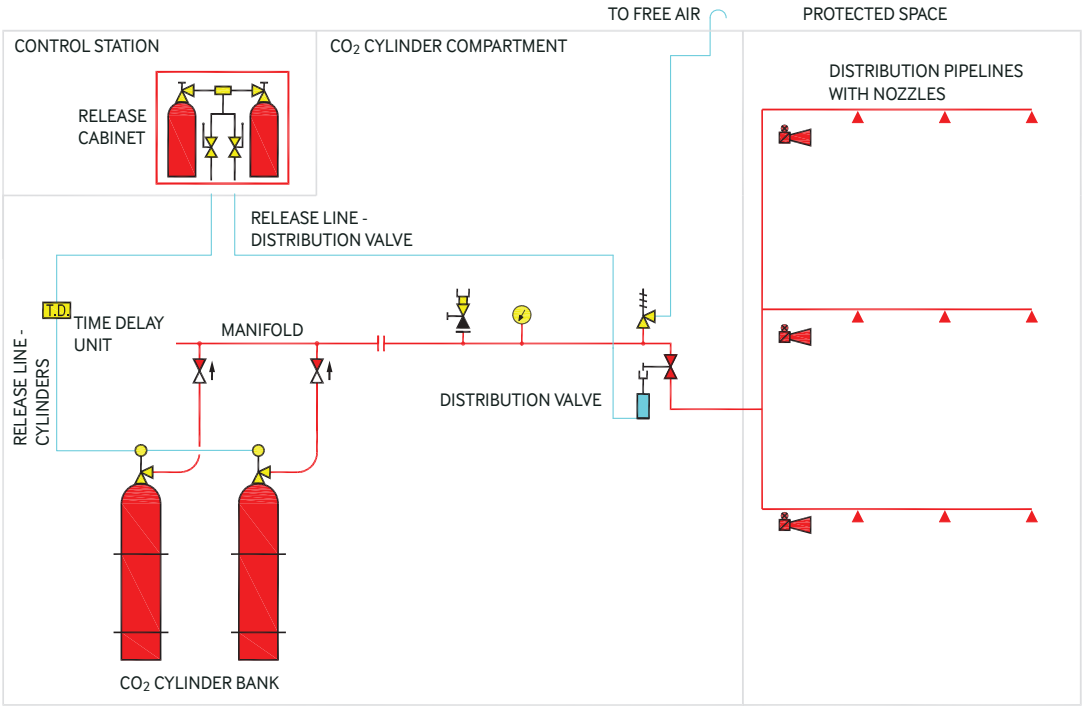
Standard configuration



Cylinders

TECHNICAL DATA	
Volume [ltr]	67.5/80
Weight of CO_2 gas [kg]	45/55
Weight of filled cylinder [kg]	125/140
Storage pressure@20˚C [bar]	60
Test pressure [bar]	250
Certificates	all major classes
Standard	ISO, DOT, EN

Distribution valves

TECHNICAL DATA	
Sizes	DN20 to DN150
Nominal pressure	PN100 and PN160
Material of construction body	steel
Stem and ball	stainless steel
Certificates	DNV or according to specifications

Release cabinet

TECHNICAL DATA	
Cylinders	2.68 ltr with 1.78 kg CO_2
Degree of protection	IP55

SETTING THE GLOBAL STANDARD FOR OVER 160 YEARS

Protecting over 1 million lives across the globe every day, our critical safety and survival solutions help marine, aviation, offshore, and defence personnel get home safely if the worst happens.

Taking responsibility for the entire product lifecycle – from precision engineering and R&D, to manufacturing and servicing – we never compromise when it comes to safety and survival. Committed to protecting lives, we know the small things matter.

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