Since 1980 30 years Know-How

Green Promise for the People

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ENVIRONMENT FRIENDLY

WATER MIST

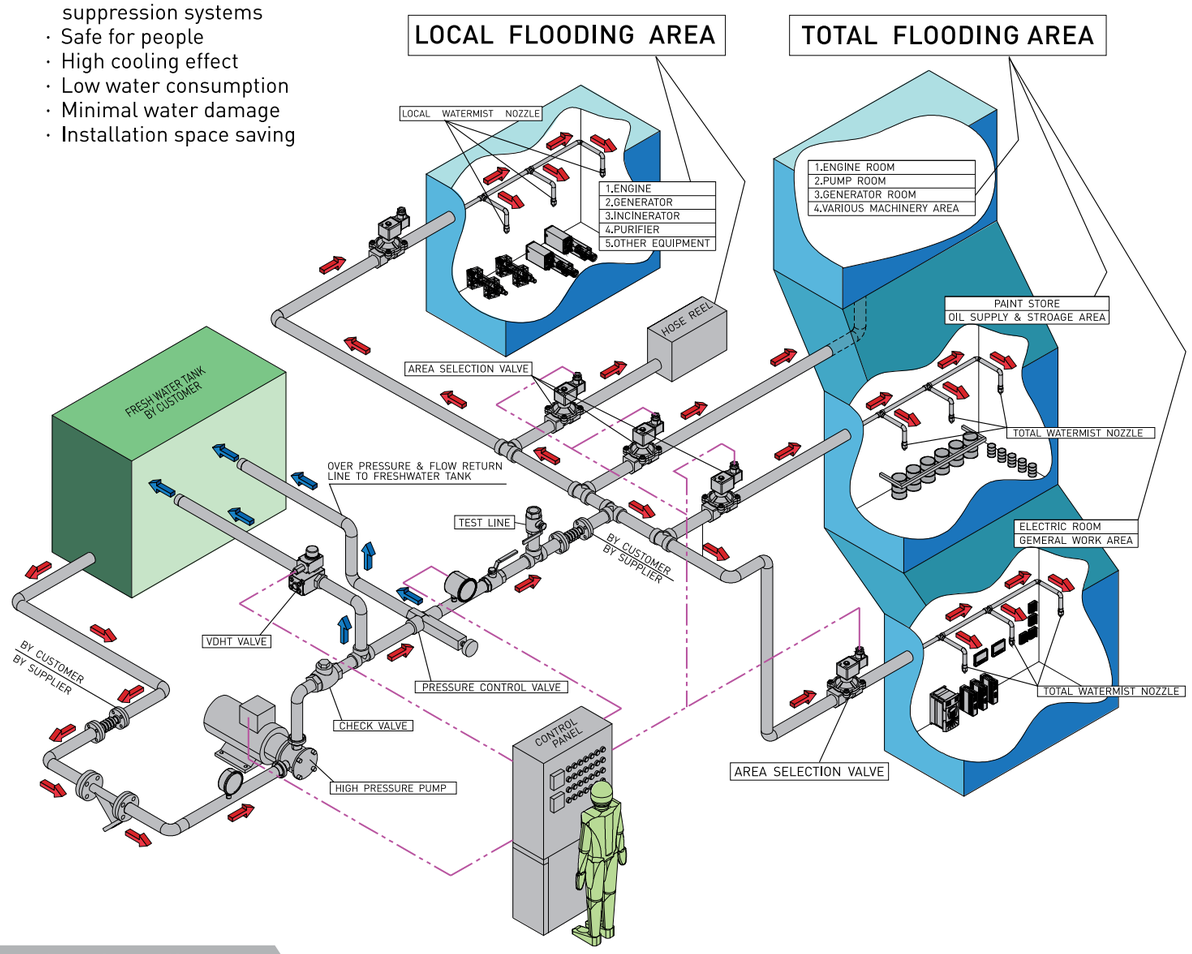
Fire Extinguishing System

WATER MIST SYSTEM

NK's water mist system is based on the principle that small water drips evaporate early over the course of the fire and in that way the heat in the areas is absorbed. The size of the droplets is classified as NFPA 750 Class1. This extremely small droplet size makes the watermist system highly effective and uses only small amount of water, which means water damage is limited. The key factors are the system ability to cool and the localized oxygen displacement effect.

Features

- Environmentally friendly
- Alternative to gas suppression systems
- Safe for people
- High cooling effect
- Low water consumption
- Minimal water damage
- Installation space saving



Design Figure

Related Regulation

1. Local application in machinery spaces (IMO MSC Circ.913, 1165 & 1387)
   - Low pressure system with 12 bar
   - Each Nozzle Capacity : 15 liter per min.

2. Total flooding of machinery spaces (IMO MSC Circ.1165 & 1269)
   - High pressure system with 100 bar
   - Cover volumes up to 3000 ㎥
   - Each Nozzle Capacity : 3 liter/min. for ceiling & bilge or 1 liter/min. for door way

WATER MIST NOZZLE

Nozzle Data

Model. No.	NKT LKD 4.33	NKT1017KD1.0	NKT1017KD0.3	PT1/4HAA-SUS313-8001
Application	Local Application		Total Flooding (Ceiling & Bilge)	Total Flooding (Door Way)
	MSC Circ.1165 & 1387	MSC Circ.913	MSC Circ.1165 & 1269	MSC Circ.1165 & 1269
Material	SUS316	SUS316	SUS316	SUS316
Working Pressure	12bar	80~100bar	80~100bar	80~100bar
Flow Rate	15 liter/min.	10liter/min.	3 liter/min.	1 liter/min.
Spray Angle	100~120 degree	100~120 dgree	100~120 degree	80~85 degree
Thread Connection	JIS16K-15A, SUS304	Locking Fitting 1/2"	JIS280K-15A SHB	JIS280K-15A SHB
K factor	4.33	1.104	0.337	0.113

Cooling Effect

As a result of the water being atomized at high pressure, the surface area available for cooling is considerably great.
The strong cooling effect serves not only to fight the fire but also to protect persons and property against the effects of radiated heat.

Oxygen Displacement

The small water droplets rapidly evaporate at the fire source. Evaporation occurs only where there is a high temperature. Where there is a low temperature there is a low temperature there is not steam generated so these areas may be used to escape. The vaporization of the water increases the water volume by 1640 times and the oxygen is displaced locally at the fire source. As a result, a localized inerting effect is generated at the fire source. This is comparable to the effect of an inert extinguishing gas, although when using such a gas, the air oxygen content has to be reduced in the whole area to be effective.

Approval

DNV · Lloyd's Register · ClassNK · RINA · BUREAU VERITAS