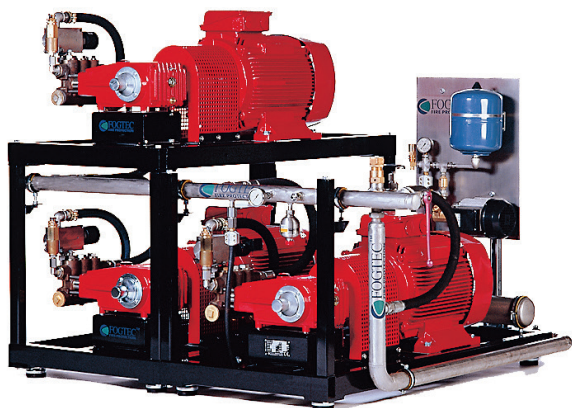


Fogtec Pumps & Configurations

HIGH PRESSURE WATER MIST SYSTEM



Product Overview

FOGTEC pump systems operate at a pressure of 80, 120, 140 bar in some cases. The high pressure is utilized in two ways, to split the water into fine droplets and to create momentum for the droplets created.

The pump units are comprised of individual pump modules. Since FOGTEC uses pump modules with flow rates between 25 and 800 l/min, the total performance of a system can be optimally adapted to site requirements.

The use of large numbers of small pumps is avoided to minimize possible sources of failure. To reduce the number of moving parts to a minimum, there is one drive motor directly connected to each pump. No gearboxes are used.

The FOGTEC high-pressure water mist pump system has a modular design and consists of one or more robust triplex plunger pumps, a break tank and a control and indicating cabinet which can be interfaced to a fire detection and alarm system control panel.

Pump systems are used when larger areas are to be protected with a high-pressure water mist system or a continuous high-pressure water mist discharge is required on the basis of the protection concept. Depending on the configuration and application the system can also be supplemented by a jockey pump and compressor.

Pump systems can be configured in different varieties to suit multiple applications:

1. Open (Deluge) type systems; these systems use open deluge water mist nozzles and always require a fast acting independent detection system for automatic system activation.
2. Wet (Closed) type systems; these are activated in a similar way to conventional sprinklers by a fast acting glass bulb and a drop in pressure, they are always filled with water and maintained to a standby pressure by a pressure maintenance jockey pump.
3. Dry (Closed) type systems; these are activated in a similar way to conventional sprinklers by a fast acting glass bulb and a drop in pressure, dry systems are always filled with air instead of water, the air pressure is maintained to a standby pressure by an air compressor.
4. Pre-action Dry (Closed) type systems are similar to dry systems which use fast acting glass bulb and are used in combination with an external fire detection system. Water pressure in the system is maintained to a stand by pressure by a pressure maintenance jockey pump, the air pressure is maintained to a standby pressure by an air compressor. When a fire is detected, the corresponding pre-action valve is opened by the fire alarm system and the high-pressure water mist pumps are started. Water mist will only discharge by additional activation of an automatic nozzle by the heat of a fire.

Generally with pump system applications, two different objectives are usually pursued in consideration to the risk being protected.

Fire Extinguishment:

This is understood to be the complete elimination of the fire by inerting and cooling, so that no further re-ignition occurs.

Typical Applications:

- Fuel and lubricant fires in engine test beds and machinery rooms
- Oil fires in deep fat fryers
- Combustible liquids in warehouses and production facilities
- Thermal oils in transformers
- Fuels and lubricants in turbines / diesel engines etc.

In these fields of application it is possible to use high-pressure water mist instead of gas or foam extinguishing systems which are commonly used, as well as deluge systems in some cases.

Fire control and Suppression:

This is understood to be a significant reduction in temperatures around the area of the fire, as well as minimisation of the spread of the fire until the remaining fire and the embers are extinguished by the fire brigade.

Typical Applications:

- Office areas
- Road and Rail Tunnels.
- Hotels
- Hospitals and laboratories
- Archives and libraries
- Historic buildings
- Garages

In these fields of application, high-pressure water mist represents an alternative to conventional sprinkler or deluge systems.

FEATURES & BENEFITS

- Scalable Design.
- Automatic Release
- Fine water mist droplet production.
- High kinetic energy of water droplets.
- Available in 50,120 & 170 Litre system configurations
- 120 & 140 Bar High Pressure Pump
- Easy & economic to maintain.

APPROVALS

- Independent Specific Application approvals
- FM5560 Factory Mutual Testing Standard
- VdS Approved

SPECIFICATIONS

Technical Data

Operating Pressure	80, 120 & 140 Bar
Pump Capacity (single units)	50, 120 & 170 Litre/minute
Pump Suction Connection	316 Stainless Steel on Water Inlet Port
Pump Delivery Connection	316 Stainless Steel on Water Outlet Port
Release Methods	230 Volt Solenoid Valve
Electric Motor	11kW (50 Litre) 30kW (120 Litre) 4 x 11kW (170 Litre)
Electrical Components	230 Volt Pump Start Solenoid
Pump Control Panel	3 Phase 415 Volt Supply required

