



MXOne – high-performance firefighting turbine

Innovative fire protection using water mist from a safe distance

Optimal fire protection requires the best possible solution for every area of use. As a holistic fire protection solution provider, Minimax can draw on a unique range of proven, groundbreaking fire protection systems and components developed in the in-house development and manufacturing facilities. Minimax has been protecting people, property and the environment for more than 110 years.

The Minimax MXOne high-performance firefighting turbine represents a new generation of stationary fire protection systems. This unique system has a 360° operating range and enables the highly precise, targeted use of water mist from a safe and great distance. During a fire, the water mist absorbs a huge amount of energy, cools particularly effectively and also reaches hidden fire sources due to the three-dimensional mode of action. Compared to conventional monitors with compact jet spray pattern, the turbine can spread water mist rapidly and effectively across large areas without dispersing burning material. In addition it binds smoke gas, pollutants and odors.

MXOne uniquely meets the demands posed by special fire risks in numerous industry and risk areas, both inside and outside buildings – including:

- Recycling operations
- Wood-processing industry
- Chemical plants/refineries
- Airports/hangars
- Substations/transformers

MXOne can be operated with potable water, saltwater and with/without foam agent. This makes it possible to safely master a wide range of risk scenarios. The spray pattern ranges from a fine water mist to a full jet. The high-performance extinguishing system reaches a flow rate of up to 4,000 liters per minute with a discharge range of up to 80m.

MXOne can either be aimed at a fire source fully automatically controlled via IR camera or industrial fire detector technology or manually via remote control. Intelligent control allows a single turbine to target two or more adjacent areas in alternation with extinguishing water. This means that multiple fires can be fought in parallel, while nearby facilities threatened by fire can be specifically cooled at the same time. Accredited fire protection certification bodies such as DMT or MPA Dresden have tested and certified the effectiveness of the turbine.

Benefits

- Rapid firefighting and ambient cooling through sophisticated water mist technology
- Automatic or manual precision targeting
- Adjustable spray pattern, from water mist to full jet
- Flexible utilization of potable water/seawater and foam
- Targeted adjustment of spray pattern and extinguishing media to the burning material that needs protection
- Simple and secure remote control operation
- Large operating area:
360° rotation and up to 80m discharge range
- Can be easily integrated into operating facilities and existing fire-extinguishing systems

Characteristics

Length	mm ft	1,590 5.217
Width	mm ft	1,390 4.560
Height	mm ft	1,942 6.371
Weight	kg lbs	945 2,083
Temperature range	°C °F	-15 to +55 5 to 131
Maximum air flow	m³/h	31,000
Supply voltage	V	400 (50 Hz) 480 (60 Hz)
Nominal current	A	34
Operating pressure	bar psi	4 to 16 58 to 232
Maximum flow rate	l/min US gpm	4,000 1,057
Tilting angle	°	-19 to +43
Rotation angle	°	360
Water connection	DN in	125 5
Nozzles at nozzle ring	No.	20
LED lighting		1 wide angle flood light, 1 spotlight

Operating concept – stationary or mobile control

The turbine can be controlled and aligned fully automatically. Information from at least two fire detectors (e.g. UniVario industrial fire detectors or infrared cameras) is assessed in the fire detection control panel and the location of the source of the fire is accurately determined before MXOne is activated. Alternatively, manual control of the turbine is always feasible. Both stationary and mobile control variants can be implemented according to the operator's requirements.

Fully automatic firefighting mode, manual control and simplified commissioning

Fire detection and extinguishing control panel

- Control of single-zone and complex multi-zone suppression systems
- Touch display

Control panel

- MXOne control incl. soft start device (reduced starting current)
- Touch display
- On/off switch (emergency stop): turbine, monitor, nozzle ring, foam, LED spotlight
- Monitor: full/spray jet (open to closed)
- Optional switch scenarios (e.g. oscillating, sequential control)
- Joystick control turn/tilt

Wall panel

- Operating elements for manual control

Radio remote control

- Control elements for manual control, including predefined scenarios
- Industrial radio link

*Mobile devices: smartphone or tablet**

- Ease of commissioning, service and maintenance
- Measurement of project-specific spatial data and direct transfer to the system

