

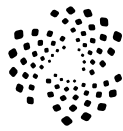


TAF35-C/60/60X

FIREFIGHTING ROBOT
WITH WATER MIST TURBINE
SMALL DROPS, BIG IMPACT.







INCREASING SAFETY LEVELS IN FIREFIGHTING – **THANKS TO WATER MIST**

Our innovative firefighting solutions are revolutionizing safety and efficiency in modern fire response. By distributing water mist through a powerful jet of air generated by a turbine, fires can be extinguished far more effectively and with significantly less water.

The firefighting turbine can be mounted on a remotely operated tracked vehicle (for example, a robot), providing unmatched flexibility and enhanced safety for operators.

Water mist is a very versatile and particularly safe extinguishing medium: it cools the fire area efficiently while minimizing water consumption. The main challenge until now has been its limited range. Thanks to our advanced turbine technology and propeller-driven mist projection, this limitation has been overcome – enabling water mist to reach greater distances and provide superior fire control.

TAF-SERIES **FIRE**

ONE ROBOT MANY POSSIBLE APPLICATIONS

Firefighting Operations (also with Foam)

- › Conventional application using water mist extinguishing/fogging technology
- › Minimizes danger and increases safety for firefighting personnel
- › Boosts extinguishing efficiency through optimized water usage and distribution
- › Versatile foam application (low, medium and high expansion)

Cooling, Shielding & Protection from Radiation

- › Water Mist Barrier: Creates a protective mist curtain against heat radiation
- › Prevents Fire Spread: Reduces heat transfer, limiting fire expansion
- › Preventive cooling and humidification of materials (under extreme heat conditions)
- › Effectively mitigates thermal radiation, protecting personnel and assets
- › High cooling effect also for liquid fires with fire load
- › Safe for electrical fires – ultra-fine water droplets are non-conductive and residue-free

Turbine Aided Firefighting

A TAF is not just a firefighting machine – it's a multifunctional, modular robot designed for maximum flexibility, innovation, and adaptability in a wide range of operations. Its additive construction system allows customization for every challenge and individual operational requirement.

Ventilation and Precipitation of Smoke, Gases and Pollutants

- › Positive and Negative Pressure Ventilation for flexible airflow control
- › Ensures rapid smoke control and gas extraction
- › Improves air quality in hard-to-reach or confined spaces

Remote Monitoring and Exploration

- › Real-time video transmission for improved situational awareness
- › Precise thermal imaging
- › Safely explores hazardous or inaccessible areas
- › Protects personnel by assessing danger zones remotely
- › Detects injured persons, hotspots, and gas accumulations in advance

Obstacle Removal, Rescue and Logistics Support

- › Safely transports or removes hazardous, bulky, or heavy materials
- › Facilitates equipment transport during challenging operations
- › Provides logistical support in complex or high-risk environments

The tracked vehicle is the perfect companion for challenging operations across a wide range of environments.

ADVANTAGES OF TURBINE WATER MIST

Great Penetration Depth

Reaches the fire effectively, even behind obstacles and also reaches hidden sources of fire.

Obstacle “Back” Enclosure Effect

Unlike single water jets, turbine water mist penetrates and suppresses fire from multiple angles and envelopes objects.

No Blockages

Traditional water jets lose effectiveness on impact, while turbine mist adapts and surrounds the fire.

Gentle & Efficient

Smooth, even and controlled application without excessive force.

WATER FLOW SPRAY PATTERNS

The water flow rate can be flexibly controlled thanks to the turbine's design, which allows independent operation of the outer nozzle ring, the internal spray head mechanism, the head monitor, or all components simultaneously.





ADDITIONAL HEAD MONITOR "X"

RECYCLING PLANTS



SUBSTATIONS AND TRANSFORMERS



URBAN AREAS



THE ALL-ROUNDER TO RELY ON FOR EVE



CHEMICAL INDUSTRY
AND REFINERIES



TUNNEL SYSTEMS



SUBWAY AND
UNDERGROUND
TRAIN SHAFTS

WILDFIRES



PERSON-PROTECTIVE
OPERATIONS IN HIGH-RISK
AREAS/DISASTER CONTROL



AIRPORTS AND HANGARS



RY OPERATION



LARGE INDUSTRIAL HALLS



PARKING GARAGES



TAF35^c FIRE

MAXIMIZING SAFETY IN MODERN FIRE RESPONSE

The TAF35-C combines a high-performance firefighting turbine with a robust tracked vehicle, creating an agile, versatile, and exceptionally safe unit for a wide range of fire scenarios. The turbine features an external nozzle ring that atomizes water into a fine mist and distributes it efficiently using propeller-driven airflow. This advanced system enables rapid cooling by removing heat from the fire and significantly reducing ambient temperatures within moments.



Our TAF35-C in Action





TAF60 FIRE

HIGH-VOLUME WATER ATOMIZATION FOR LARGE-SCALE FIRE CONTROL

The TAF60 sets new standards in firefighting performance, delivering up to 6,000 liters of water per minute. This exceptional output makes it ideal for large-scale fires in challenging environments such as chemical plants, refineries, and industrial complexes.

With an overall height of under two meters, the TAF60 combines a compact, all-terrain chassis with a powerful water mist turbine, ensuring outstanding flexibility and safety in demanding conditions.

An optional central monitor, which can be swiveled laterally, further expands operational possibilities – enabling new tactical approaches and improved precision during firefighting missions.





TAF60X FIRE

SUPERIOR FLEXIBILITY FOR CHALLENGING FIRE SITUATIONS

The TAF60X represents the next evolution in our firefighting robot series, delivering unmatched flexibility and performance for challenging fire scenarios. Building on the proven strength of the TAF60, the “X” version includes all its advantages while introducing an additional head monitor mounted directly on the turbine. This head monitor can be swiveled sideways and operated independently from the turbine, complementing the central monitor and nozzle ring. With an inclination range of -17° to $+17^{\circ}$ (left, right, up, and down), the TAF60X dramatically expands the effective extinguishing area, enabling even greater control, coverage, and efficiency during firefighting operations.

OPTIONALS FOR FIREFIGHTING ROBOT

To meet diverse operational requirements, the TAF can be equipped with a variety of optional modules. These options enhance functionality, improve handling, and enable greater flexibility in demanding firefighting scenarios.



Our
Railway Kit
in Action



Railway Kit



Various monitor and nozzle configurations



Camera Kit: Thermal and Video Transmission



Various Air-ducting hoses up to 100 m

Additional extras available upon request

APPLICATION OF THE “X” ENHANCING EMERGENCY RESPONSE

The TAF60X sets new standards in emergency response operations by combining power, precision, and adaptability in one intelligent system.

- › **Dual-Function System:** The additional head monitor (“X”) provides expanded control for simultaneous firefighting and rescue support.
- › **Targeted Fire Suppression:** While the main turbine’s water mist nozzles create safe access or escape routes, the head monitor can independently extinguish hotspots along these paths.
- › **Safe & Efficient:** The gentle water mist application ensures effective fire suppression without endangering people nearby.
- › **Optimized for Critical Operations:** Engineered to enhance safety, flexibility, and operational efficiency in the most demanding emergency scenarios.



Our TAF60X in Action



Self-protection Kit



Carrier box



Cable winch



Forklift kit



TECHNICAL INFORMATION

Capabilities and key performance metrics, helping you identify the model that most effectively meets your operational needs.

TURBINE FIGURES	TAF35C	TAF60	TAF60X
Turbine power	25 kW	25 kW	25 kW
Inclination angle	-19° to +43°	-19° to +43°	-19° to +43°
Inclination angle of additional head monitor (TAF60X)	-	-	-17° to +17° (horizontal and vertical)
Turbine can be raised	up to 4 m	up to 4 m	up to 4 m
Water flow, adjustable in 3 stages Water mist (nozzle ring): Full jet (monitor):	up to 1,500 l/min 0 - 4,700 l/min at 16 bars	up to 1,500 l/min up to 6,000 l/min at 16 bars	up to 1,500 l/min up to 6,000 l/min at 16 bars
Throw distance with water mist	up to 60 m	up to 60 m	up to 60 m
Throw distance with full jet	up to 80 m	up to 90 m	up to 90 m
Airflow (infinitely adjustable)	60,000 m ³ /h (net)	60,000 m ³ /h (net)	60,000 m ³ /h (net)
Air volume effective (max.)	220,000 m ³ /h	220,000 m ³ /h	220,000 m ³ /h
VEHICLE FIGURES	TAF35C	TAF60	TAF60X
Level of pollutant emissions	EU Stage 5, EPA Tier 4 Final	EU Stage 5, EPA Tier 4 Final	EU Stage 5, EPA Tier 4 Final
Traction force	3.8 t (3,800 daN)	3.8 t (3,800 daN)	3.8 t (3,800 daN)
Power	53 kW	53 kW	53 kW
Cooling	Water	Water	Water
Fuel supply	Diesel	Diesel	Diesel
Tank size	52l	52l	52l
Noise level (LpA at 10 m safety distance)	84 dB(A)	84 dB(A)	84 dB(A)
Main water connection or any other required connection	4 x Storz B NH, GOST, ...	6 x Storz B NH, GOST, ...	6 x Storz B NH, GOST, ...
Speed	0 - 9 km/h	0 - 9 km/h	0 - 9 km/h
DIMENSIONS (WITHOUT OPTIONALS)	TAF35C	TAF60	TAF60X
Operating weight	3,820 kg	3,830 kg	3,880 kg
Step	1,275 mm	1,275 mm	1,275 mm
Length	3,110 mm	3,110 mm	3,140 mm
Width	1,640 mm	1,640 mm	1,640 mm
Height	2,000 mm	2,000 mm	2,160 mm
Height when lifted up	-	3,714 mm	3,880 mm





SMALL DROPS, BIG IMPACT.

YOUR MOST RELIABLE PROTECTION AGAINST FIRES.

The **TAF series of firefighting robots** combines firefighting expertise with advanced turbine and spray technology, enabling the development of specialized solutions designed to meet even the most demanding operational challenges.

In addition to robotic systems, EmiControls also provides **mobile turbine units** such as the **FT60h/hX**, which can be seamlessly integrated into a wide range of firefighting vehicles – from tank fire trucks to tracked carriers.

For **stationary fire protection**, we offer complete and fully automated suppression solutions. This includes engineering, project planning, and the integration of tailored turbine technology, along with various other components required for a fully functioning extinguishing system. The result is fire protection at the highest level for every need – both mobile and stationary.



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