

Firefighting Robot FMBOT 2400

The FMBOT 2400 is a compact, remote-operated firefighting robot engineered to support early-stage fire suppression and exterior incident reconnaissance. Built on a heavy-duty steel chassis with high-traction tracked drive and independent suspension, it extends operational reach into hazardous or hard-to-access areas while keeping crews at a safe standoff distance. Water supply can be provided from a municipal hydrant or directly from a fire appliance pump, with a remotely controlled water monitor delivering up to 2,400 L/min and a throw range up to 60 m.

KEY FEATURES

- Compact tracked platform for early-stage suppression and remote reconnaissance, improving crew safety through standoff operation.
- Wireless remote control with intuitive console and built-in obstacle-avoidance support for controlled manoeuvring.
- Communication range up to 1 km (terrain and environment dependent) with strong anti-interference performance and networking capability for data relay to a command centre.
- Compatible with municipal hydrants or direct fire appliance pump supply; high draw force supports towing and manoeuvring under load (incl. multiple charged 75 mm hoses).
- Heavy-duty steel structure with independent suspension and shock absorption; high-temperature-resistant, flame-retardant rubber tracks with internal metal reinforcement.
- Automatic double water-curtain cooling system for thermal protection during close-range suppression.
- Remote-controlled water monitor with adjustable jet/fog patterns (up to 2,400 L/min, up to 60 m); two switchable camera channels (video/infrared, 700 TVL) with optional HD wireless video transmission.



ADVANTAGES

- Safer standoff operation: Wireless remote control keeps crews out of the immediate hazard zone while maintaining effective water application.
- High-output exterior suppression: Up to 2,400 L/min with up to 60 m throw for fast knockdown and defensive cooling.
- Flexible nozzle patterns: Selectable jet/fog to match reach/penetration or wide-area cooling and vapour control.
- All-terrain tracked mobility: Designed for rough outdoor ground with strong climbing and side-slope capability plus 150 mm obstacle clearance.
- Endurance for longer incidents: Approx. 2.5 h continuous driving and up to 10 h total operating time.
- Rugged incident-ready build: Steel structure, IP65 protection, and water-curtain cooling to support work near heat sources.
- Exterior situational awareness: Dual channels video + infrared video support navigation and monitoring in low light.

TECHNICAL DATA

- Dimensions (L × W × H): 1100 × 650 × 1300 mm
- Weight: 250 kg
- Drive / traction system: All-terrain tracked drive (high-durability tracks)
- Structure / frame: Internal steel frame / skeleton
- Draw / towing force: 1900 N
- Travel speed: Approx. 7 km/h
- Obstacle clearance: Up to 150 mm
- Side slope capability (roll angle): 30°
- Climbing ability: 47% (25°)
- Turning radius / diameter: 1360 mm
- Control mode: Wireless remote control
- Continuous operating time (in motion): 2.5 h
- Total operating time: 10 h
- Communication range: Up to 1 km
- Wading depth: 250 mm
- Ingress protection: IP65
- Water monitor material: Body: stainless steel 304 • Nozzle head: anodised aluminium
- Water monitor operating pressure: 0.8 MPa (8 bar)
- Spray modes: Adjustable straight stream (jet) / fog (spray)
- Flow rate: 2400 L/min (40 L/s)
- Throw range: Up to 60 m
- Monitor movement: Horizontal: -30° to +30° • Vertical: 0° to +80° (±5°)
- Camera system: 2 cameras / 2 switchable video channels • 700 TVL • video + infrared
- Remote control console: 420 × 300 × 110 mm • 7 kg • 10-inch high-brightness LCD • 2 video channels (switchable) • operating time: 8 h

PRIMARY APPLICATIONS

Outdoor industrial incidents • Petrochemical and chemical plant exterior fires • Open-air storage yards and logistics areas • External cooling and exposure protection • Remote reconnaissance in hazardous open zones

PRODUCT-MARKET INSIGHT

With a 2,400 L/min remote-controlled monitor on a compact tracked chassis, the FMBOT 2400 offers a practical entry point into robotic support for municipal and industrial brigades. Its mobility, long-range control and water-curtain cooling make it well suited to exterior incidents where distance and heat exposure limit crew access.

