

A small, four-wheeled industrial robot is shown in a narrow alleyway between metal walls. It is spraying a powerful, wide fan of water from a nozzle mounted on top. A thick orange hose is connected to the front of the robot. In the foreground, the out-of-focus shoulders and helmets of two firefighters in red and yellow gear are visible, framing the scene.

RTE Robot

Multifunctional operational robot.

Versatile. Strong. Durable.

 **rosenbauer**

Strong and resilient. Suitable for off-road use and waterproof.

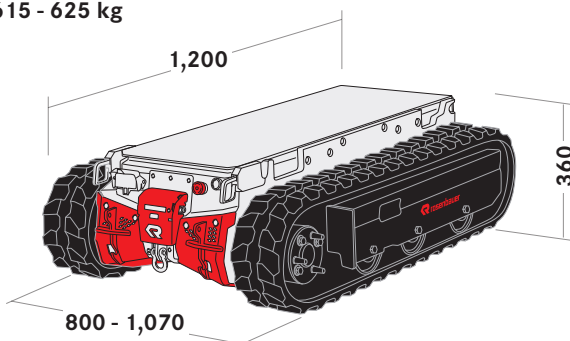


Impressive tractive force

The RTE Robot is powered by two electric motors, each with a peak output of 2.4 kW; this ensures propulsion on almost any surface via the rubber crawler tracks. It generates a tractive force of around 70% of the current dead weight on asphalt (i.e., 700 kg at a maximum total weight of 1,000 kg) and can therefore also pull damaged vehicles, for example. In firefighting operations, the tractive power is sufficient for one hose line (DN 75 filled) with a length of 180 m, or three lines with a length of 60 m each.



Chassis 375 - 385 kg
Load 615 - 625 kg



Huge payload

The chassis with electric track drive is 1,200 mm long, 360 mm high and available with a width of either 800 mm or 1,070 mm, whereby the wider track makes the robot even more stable when transporting loads with a high center of gravity off-road. It weighs in at 375 kg (or 385 kg in the wider version). With a permissible total weight of one ton, this results in an enormous payload of 625 kg (or 615 kg).



Tackles inclines, obstacles and water

Even with its maximum load, the RTE Robot can cope with steep inclines and, thanks to its crawler-type drive, can negotiate uneven terrain as well as steps and stairs. Depending on the position of the center of gravity, the lateral tilt angle is also very large, which means that the robot even has excellent longitudinal stability on steep slopes. Even water crossings based on DIN 14502-2 are no problem for the RTE Robot.

It can therefore also be used in flooded areas up to track height (220 mm), for example, without any adverse effects, and even partial complete submersion does not cause any damage to the chassis.



Remote Control. Wide ranging and flexible.

Large range, long operating time

The housing of the remote control is protected against dirt and moisture (protection class IP 65), and the built-in rechargeable batteries enable up to 20 hours of operation. The RTE Robot can be controlled interruption-free over a distance of up to 200 m. The exact range is heavily dependent on the weather, interfering magnetic fields, e.g., from power lines, obstacles in the radio path and the selected frequency, which in turn may be limited by the legal requirements of the respective country.



Modular remote control

Rosenbauer offers several expansion levels of its handy, robust and modular remote control for the RTE Robot. These range from the basic version with a joystick for operating the chassis only to a remote control with several joysticks and buttons, an integrated display, plus an additional tablet for video display. In addition to the RTE Robot Chassis, it can also be used to control all available payloads, such as the turret.





Limitless modularity. Maximum versatility.

Various add-on, payload and transport modules

The RTE Robot can be expanded using a variety of add-on modules for the sides, front and rear. These include a rail attachment kit that makes tracks usable (e.g., in streetcar tunnels), a trailer coupling, a cable winch, and brackets for add-on modules at the front and rear to expand the usable area. Furthermore, a whole range of payload modules are available that the RTE Robot can carry.

These include half and full modules (with 540 x 800 mm and 1,200 x 800 mm base areas respectively), with and without a wire mesh box, a holder for the safe transport of a Euro pallet, as well as any full modules based on the standard variants of the RTE RC Profile rolling container.

There are two separate transport modules for transporting Rosenbauer rolling containers themselves; one with a storage height of 270 mm (only for the chassis with a width of 1,070 mm) and one with 360 mm storage height. The RTE Robot can be easily loaded and unloaded with these containers via ramps.





Module for firefighting

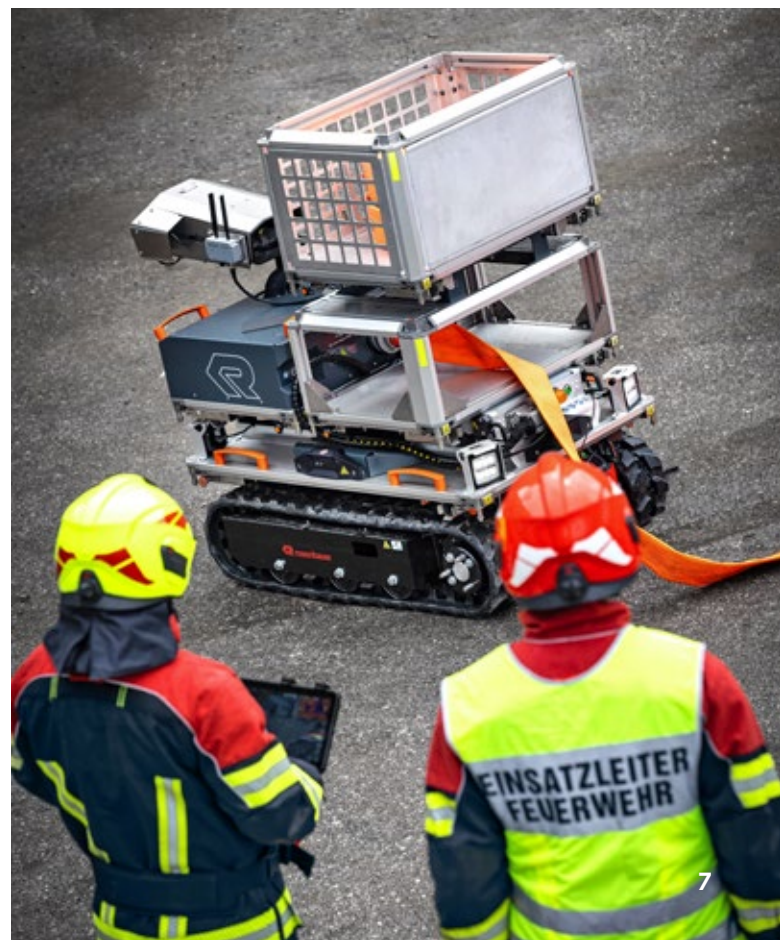
The RTE Robot can also be combined with turret modules to extinguish fires where it is simply too dangerous for the emergency crews. Rosenbauer offers the RM15 with a maximum flow rate of 2,000 l/min as a half and full module with self-protection nozzle, 2 LED floodlights, and an optional color and/or thermal camera. The RM35 provides up to 3,500 l/min as a full module. There is also an intermediate module for extinguishing operations, which can accommodate equipment and at the same time supply an attached turret with extinguishing agent. All intermediate modules are characterized by the fact that they are mounted on the chassis and themselves have mounting points for additional payload modules.

Power pack and fan

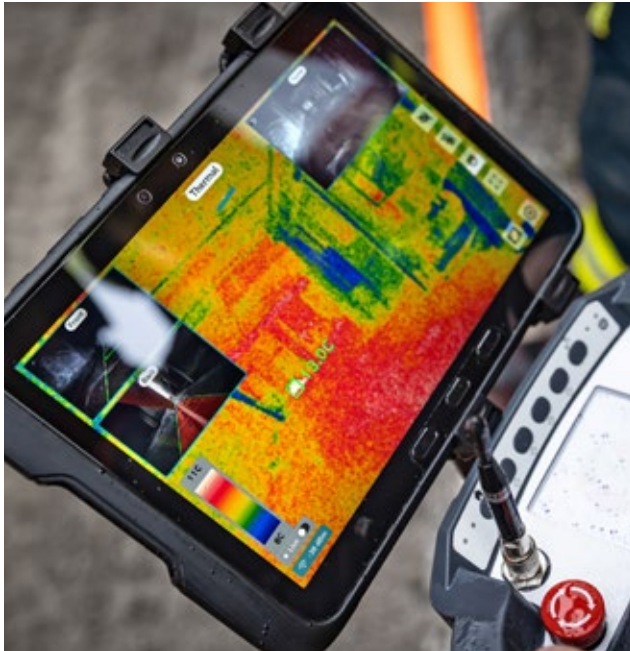
A half module with a separate Li-ion power pack and cable reel can be used to supply power to electrical equipment in remote areas. At the same time, it can also charge the robot itself while in operation. Another half module carries an electrically operated overpressure fan, which is powered by a power pack and can also be activated or deactivated via the remote control.

Practical payload exchange system

The Rosenbauer payload exchange system allows even fully loaded payload modules to be exchanged safely with minimal manpower. It works in a similar way to a swap body in container logistics: the payload module is easily lifted by one person using a simple mechanism and can then either be picked up by the RTE Robot and transported away or safely placed on a pallet for storage using its own adapter, for example.



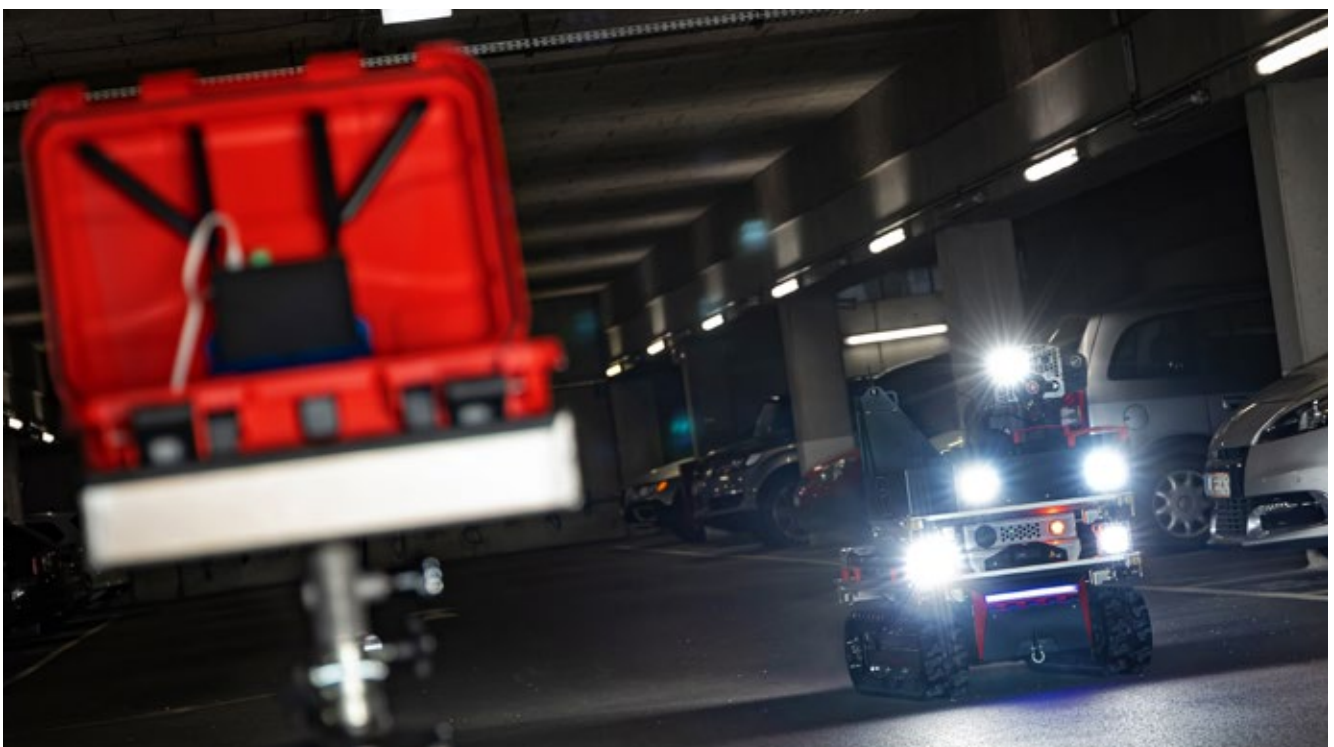
Autonomous Execution. For safety without visual contact.





Smart assistance system

Rosenbauer offers the Autonomous Execution (AX) extension for the safe and legally permissible use of the RTE Robot beyond the visual line of sight. This consists of an intermediate module with sensors for detecting the surroundings, a computing unit, and an expanded remote control with a large display. On the one hand, this enables straightforward operation, even without visual contact. On the other, the robot is able to see for itself, recognize obstacles, and react accordingly.



The RTE Robot on one page.

The work of the fire service is physically and mentally demanding, and can be extremely dangerous for emergency crews, especially during firefighting, rescue and hazmat operations. With the support of the RTE Robot, this burden can be significantly reduced. In operational situations where the multifunctional crawler type vehicle enters danger zones alone – instead of a human – the risk to life and limb is reduced to the absolute minimum. This enormous boost for the physical protection of emergency crews also provides psychological relief, as it means significantly less stress before and during operations. A firefighting robot also makes it possible to deploy the available personnel more efficiently, as fewer people are tied up in logistics in particular, and tasks can therefore be completed more quickly overall. These new possibilities mark a turning point in firefighting, which Rosenbauer is significantly advancing with the RTE Robot. It is a genuine multifunctional tool and, thanks to its modularity, provides immense support in practically all areas of firefighting.

The RTE Robot: Made for the fire service

The RTE Robot was specially designed for use by firefighters. This is evident from several key points: 1. Its dimensions mean that it fits into any logistics vehicle that can transport a Euro pallet. 2. It can carry out both transport and firefighting tasks. 3. Thanks to its modularity, it is also extremely versatile and can be used for a wide range of applications. In short: Although a specialized device for the fire department, the RTE Robot is a true all-rounder within this wide field: just like fire departments themselves.

The RTE Robot's chassis: Strong and durable

The RTE Robot is based on a compact chassis with electric crawler-type drive developed in-house by Rosenbauer. It is 1,200 mm long, 360 mm high and either 800 mm or 1,070 mm wide. The payload is an impressive 625 kg (or 615 kg). The RTE Robot is powered by two electric motors, each with a peak output of 2,4 kW; this ensures propulsion on almost any surface via the rubber crawler tracks. It generates a tractive force of around 70% of its actual weight on asphalt, and can therefore also pull damaged vehicles or hose lines, for example.

Will stop at nothing: Suitable for off-road use and waterproof

The RTE Robot can handle steep inclines even with its maximum load, overcome rough uneven surfaces thanks to its crawler-type drive, and has a very large tilt angle. Even water crossings are no problem. The integrated LED driving light with additional emergency light function ensures that the chassis is visible even in the dark.

Remote control: Full control over long distances

An important feature of a firefighting robot is that it can be precisely controlled by the emergency crews from a safe distance. Rosenbauer offers several expansion levels of its handy, robust and modular remote control. Its housing is protected against dirt and moisture (IP 65), the batteries last up to 20 hours, and the radio range is up to 200 m.

The RTE Robot's core competence: Versatility

What makes the RTE Robot a truly multifunctional device is its modularity. Thanks to a large selection of modules that can be quickly and easily connected to the chassis via a standardized interface, the RTE Robot can be transformed in no time at all into exactly the durable helper that the job requires – regardless of which task needs to be performed from the wide range of firefighting work.

Driving beyond visual line of sight

Rosenbauer offers the AX extension for the safe and legally permissible use of the RTE Robot beyond the visual line of sight. This consists of an intermediate module with sensors, a computing unit, and an extended remote control with a large display. This makes the robot easy to operate, and also allows it to detect obstacles and react accordingly.

Strong support at a fair price

In addition to its performance, robustness, versatility, and ease of use, what differentiates the RTE Robot is its affordability. Fire departments get a robust product with enormous potential for simplifying work and reducing risk at a fair price.

Would you like to learn more about the RTE Robot?
Then visit rosenbauer.com, or scan the QR code.



