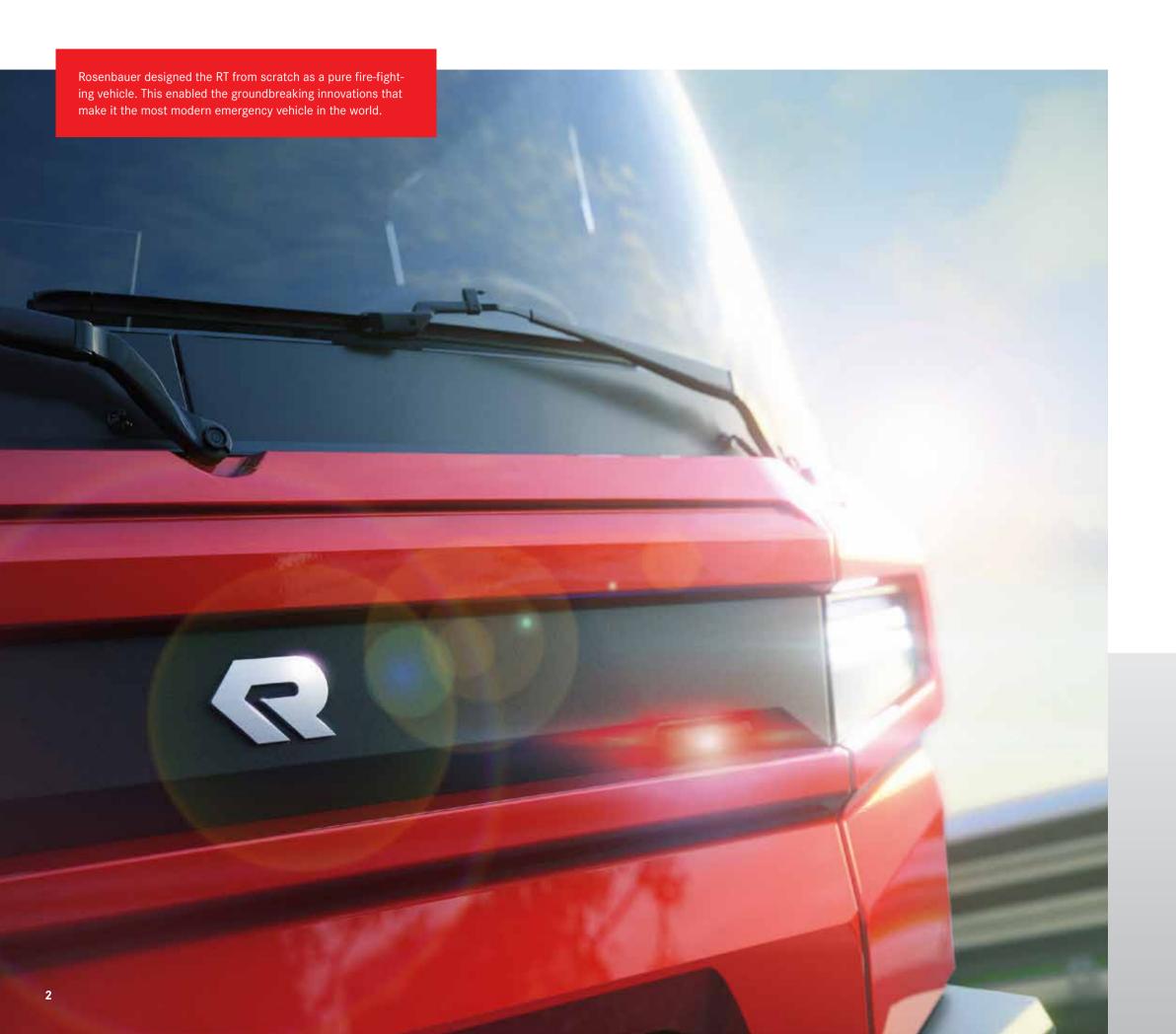


Rosenbauer - RT Revolutionary Technology



Revolutionary Technology

Pioneering spirit. 100%.

For many manufacturers, a new product is just the sum of its new individual parts – in most cases, this means the renewing of components and further development of existing ideas. Not so with Rosenbauer. For the RT, its developers not only improved what was already there, but they reconsidered the entire firefighting vehicle concept. The requirement was clear – this model had to represent the future of firefighting vehicles.

The RT - a game changer

Yes, the RT is electric. But that's not its only revolutionary quality. The electric drive is just the starting point of a long series of unique design features that offer important advantages: for deployment, the operations management system, the scene surroundings - and above all for the emergency crews.

The RT was not just designed to be state of the art in terms of technology. The goal was to meet the future requirements of today's fire services. This makes the RT not just a game changer for Rosenbauer, but also for the entire firefighting industry.

One name, one promise: Rosenbauer

For over 150 years, Rosenbauer has been a pioneer and a partner for emergency personnel. We are the only company to specialize in providing practical solutions during all fire and disaster events.

From preventive fire protection to vehicles for every scenario, from digital applications to personal and technical equipment. Rosenbauer covers it all with its expertise and experience as a system provider.

For Rosenbauer, perfection means staying out in front. For example, we set new standards in fire and disaster protection with technologically advanced innovations. Through intensive discussions with our customers, we develop the right solution and are on location when needed. We leave no stone unturned to ensure that you are optimally equipped when it matters.



RT Revolutionary Technology - Rosenbauer

Revolutionary agility.

Unprecedented driving dynamics and driving safety.

In the RT product line, the combustion engine has not just been replaced by an electric one. Instead, a completely new drive concept is revolutionizing the architecture of the rescue pumper firefighting vehicle, with numerous positive effects.

High torque right from the start

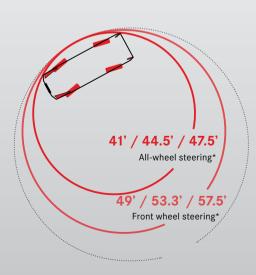
The two electric motors with a total output of 360 kW (490 hp) and up to 50,000 Nm torque ensure unprecedented longitudinal dynamics for a fire truck. This enables rapid acceleration, especially in heavy city traffic.



Low center of gravity, even axle load distribution

The drive concept enables a lower center of gravity and more balanced axle load distribution. This gives unprecedented cornering stability and thus reduces the risk of accidents.





Significantly improved turning radius

The suspension developed by Rosenbauer enables a significantly broader steering angle - even with all-wheel drive. The turning radius of the RT is significantly smaller than that of conventional vehicles of the same size. Thanks to all-wheel steering, maneuverability is increased dramatically.

* RT with 150" / 162" /173" /wheelbase (wall-to-wall)



 $\mathbf{6}$

Rosenbauer - RT Revolutionary Technology RT Revolutionary Technology - Rosenbauer

Revolutionary ergonomics.

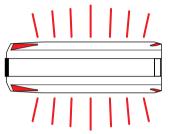
Functionality with the emergency crews in mind.

The revolutionary vehicle concept of the RT offers both ergonomic and tactical advantages for less physical strain on the emergency crews and for greater operational success.



Outstanding ambient lighting

The integrated high-performance LED strips, with their powerful luminosity, ensure shadowless illumination of the operating environment and, in many scenarios, eliminates the need for a light tower on the apparatus.





Improved in cab communication

The cockpit and crew cabin were also redesigned to improve interaction between the crew members:

- The cockpit has a rotatable commander seats.
- The crew cab is not spatially isolated from the cockpit.
- Both features enable an oval seating arrangement for improved communication.



Entry height only 10 inches

Convenient entry and reduced lifting strain

The driveshaft-free vehicle concept allows the equipment compartments to be extended downward. With level regulation, in operation mode the body can also be lowered to an entry height of just 10 inches. This enables easy access to the crew cabin. This improvement in ergonomics significantly reduces the long-term strain on the emergency crews.

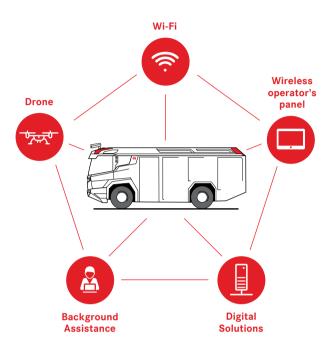
RT Revolutionary Technology - Rosenbauer

Revolutionary operation.

Intuitive. Digital. Connected.

Not only is the equipment and performance of a rescue pumper decisive for the success of an operation, but also its operability. With the RT, Rosenbauer is breaking new ground in order to make the vehicle's controls and firefighting equipment even safer and easier to use, as well as to improve the coordination of the emergency crews.





Fully connected

The RT is at the center of its own communication system. This includes an autonomous Wi-Fi network, permanent connection to the operations control center and the data center, and even the integration of drones for aerial photo-based analysis of an incident.

Optional RDS Connected Command

Advanced sensor technology

The driver of the RT is supported by an optional electronic mirror system, including a blind spot warning and rear view cameras. Distance warning sensors that detect obstacles can also be optionally installed.

Easiest operation

The RT features intuitive, easy-to-use touchscreens. In addition to conventional switches, a customizable actuation button ensures maximum simplification.





Reduced emissions.

Minimal emission of pollutants. Less noise.

An emergency vehicle that aims to meet the highest requirements must also be able to impress when it comes to protecting the environment and reducing noise pollution. Thanks to its innovative drive concept and the choice of materials used, the RT masters this with ease.

Low noise and exhaust emissions

The RT's electric motors are near-silent. In addition, when the vehicle is stationary, the engine is automatically shut down. That is because the lighting and equipment are powered directly from the batteries. This greatly reduces the noise level at the scene of the emergency, making work easier for rescue workers, reducing stress, and benefiting nearby residents. Furthermore, no exhaust gases are emitted when extended pumping operations are not required. This greatly improves the air quality in the vehicle's immediate surroundings.

Emission-free driving

The RT's electric drive is not only powerful, but also emission-free. The batteries ensure that no fuel has to be burned while driving. In addition, regenerative braking via the electric motors reduces brake wear, and thus the creation of fine dust particles. This is of significant benefit to people and the environment, especially in urban areas with many emergency incidents, high traffic volumes, and a high building density.

Zero glass fiber reinforced plastic

For reasons of sustainability, glass fiber reinforced plastic (GFRP) has been completely removed from the firefighting vehicle. The glass fiber particles contained in GFRP can be inadvertently inhaled, which could result in health issues. In addition, the plastics used in the RT are easier to recycle.





RT Revolutionary Technology – Rosenbauer

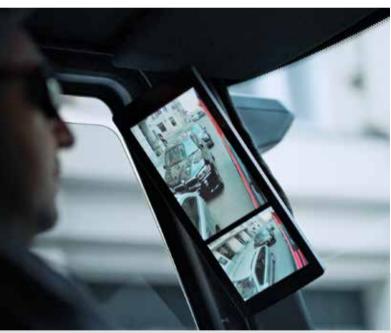
Safety first.

Safe drive. Safe operation.

The safety of the crews and all those involved in an operation takes top priority. And the RT uses an unprecedented set of measures to guarantee this.

Extremely high driving stability

Due to the drive concept, which incorporates an extremely low center of gravity, the RT is much more stable than conventional fire trucks during fast cornering. This facilitates a high degree of driving safety.



The electronic rearview mirror.

Active safety – the assistance systems

The drivers of RT vehicles from Rosenbauer are supported by a large number of assistance systems that help avoid accidents in difficult situations. These include:

- Electronic rearview mirrors with a significantly increased field of vision to eliminate blind spots
- Full rear view, thanks to an integrated rear camera
- Automatic object recognition to avoid collisions with people and objects
- Night vision function provides better view of the surrounding night-time traffic



Reduced risk of injury and health hazards

Due to the basic ergonomic specifications of the RT with its generous headroom, its low entry, and the easily accessible equipment compartments - especially when constantly used by a professional fire department - the risk of injury to emergency crews is significantly reduced. In addition, the vehicle's emissions are reduced to a minimum, as no exhaust gases are emitted during battery-powered operation.

Perfect illumination

A clear view around the fire truck during a deployment is a basic requirement for a successful safe operation. The RT's integrated LED lighting system ensures a level of brightness that could previously only be achieved through the use of powerful light masts.

Unparalleled agility.

Superior maneuverability. Minimal turning radius.

Manueverability is of the utmost importance for emergency vehicles. This is especially true in urban areas. With the RT, Rosenbauer engineers have pushed the limits of what is possible. No other vehicle with comparable extinguishing and transport capabilities has such compact dimensions or an equally small turning radius.



Parallel positioning of the wheels on both axles for maneuvers in confined spaces.

Narrow superstructure

Despite its spaciousness, the RT is only 92.5 inches wide. This ensures that the destination is reached quickly and reliably, even when traveling on narrow streets and through tight passages.

Rear axle steering

Optionally, the RT can be configured with switchable rear axle steering. This both reduces the turning radius even more and optimises manueverability through so-called 'crab steering'.



Minimal turning radius

Ordinary combustion engine firefighting vehicles have a defined turning clearance radius due to their design, which simply cannot be further reduced. This is due to the positioning of the chassis components and frame geometry. Thanks to its electric drive, the RT is not restricted by this. Its increased steering angle allows it to manuever even in the tightest of spaces and to reach closer than comparable emergency vehicles when space limits access.

* RT with 150" / 162" / 173" / wheelbase (wall-to-wall)



Rosenbauer – RT Revolutionary Technology – Rosenbauer

Electrical. And lasting.

The Rosenbauer hybrid system.

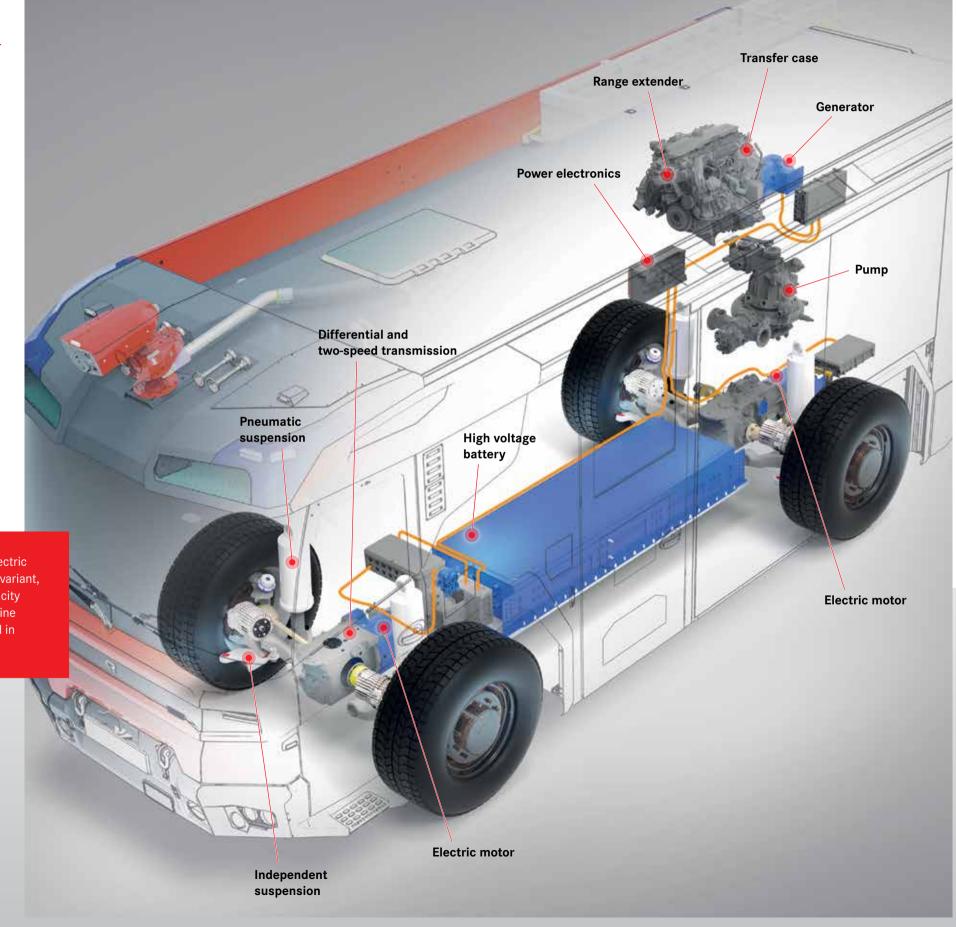
The RT has a charging capacity of up to 150 kW, which means that the batteries reach full efficiency once again in almost no time. This means that purely electric and therefore emission-free short-range operation is not a problem, even when used very frequently in big cities. Due to the onboard range extender, the RT can also run on diesel when needed, without any limitations.

Flexible charging

The batteries of the RT can be charged with a direct current (DC) charging station that ensures minimal charging times allowing for back to back deployments when needed.

With full power input of 150 kW, charging for just 15 minutes is enough to raise the level of the 100 kWh energy storage device from 50 % to 80 %.

The Rosenbauer RT has two electric motors and, depending on the variant, either one or two 50 kWh-capacity batteries. A modern diesel engine range extender is also installed in every vehicle.



21

RT Revolutionary Technology – Rosenbauer

The integrated power plant.

Energy in every operational scenario.



Thanks to its rechargeable batteries, the RT functions as its own power generator for equipment and auxiliary devices. All without any local emissions. The vehicle has a second engine - the range extender - so that the supply of energy is guaranteed even during longer deployments.

The power reserve: The range extender

The range extender consists of a state-of-the-art six-cylinder diesel engine and an electric generator. If more energy is consumed during use than is stored in the battery, the range extender automatically recharges it. The operating times of the RT thus far exceed the requirements of fire service standard NFPA 1901.

The batteries of the RT can also supply external devices with electrical energy. A range extender guarantees endurance during longer operations.

Function as emergency power generator

The high-performance, high-voltage batteries of the RT also provide sufficient output for external consumers. Several external devices with a combined power consumption of up to 9 kW can be operated simultaneously via the optional power supply system.

Rosenbauer - RT Revolutionary Technology - Rosenbauer

Enormous variety.

Extinguishing technology in a multitude of ways.

The RT is a vehicle that looks as though it has been cast in one piece. But Rosenbauer offers many configuration options. Especially in terms of firefighting equipment, each RT model can be individually tailored to the environment for which it is intended – with 500-750 gallon water tanks, as well as 20-30 gallon foam tanks available. A wide variety of foam proportioning systems and turrets are also available.

Fully electric pump operation possible

The pump can be operated either purely by means of the battery-powered electric motor or, especially in the case of longer operations, using the diesel-powered range extender.

STOP

PART

STORY

STOR

Rapid understanding of the operational situation thanks to the visualisation.



Rosenbauer - RT Revolutionary Technology - Rosenbauer

Spatial revolution.

Optimized ergonomics and efficiency.

Emergency crews are exposed to high levels of physical strain. Much of this stems from the transportation of equipment. An emergency vehicle designed with this in mind from the outset can provide noticeable relief. And this is the case with the Rosenbauer RT.

Step in instead of step up

With a distance of just 10 inches. between the road surface and the cabin floor in operational mode, it has never been easier to enter or exit a rescue pumper firefighting vehicle. The RT eliminates the need for fold-down steps, ladders, and stairs. This reduces the risk of injury and long-term stresses on the emergency personnel.



Rosenbauer - RT Revolutionary Technology - Rosenbauer

Embedded and networked.

The center point of the operational environment.



The coordination of operations is a complex undertaking. The RT is where all threads come together using state-of-the-art hardware and revolutionary software. As a result, the emergency crews are optimally informed and equipped for tasks unrelated to firefighting.

Digital solutions

This is what information technology is for – thanks to the optional RDS Connected Command system, the emergency crews are continuously fed the necessary data, such as incident reports, building plans, camera images, and much more. In addition, the emergency crews can communicate both with one another and with the operations center.

Constant updates

Rosenbauer customers benefit from constant innovations, even for existing vehicles. The RT will get even better with every software update.

IT security

For Rosenbauer, safety is a top priority
– in every area. Therefore, special
attention was paid to ensuring that, as
a fully networked vehicle, the RT also
functions reliably in digital terms.



Embedded in the Rosenbauer Digital Solutions environment.







