Preventive fire protection
Customized extinguishing systems for optimal protection.

Turret extinguishing systems
Stationary extinguishing systems.

Efficient solutions from one provider.

Preventative fire protection from Rosenbauer. Faster than fire.

Even before fire fighters arrive, stationary fire extinguishing systems from Rosenbauer quickly and effectively protect people and assets. As one of the world’s leading manufacturers of fire-fighting technology, Rosenbauer also ensures maximum efficiency and safety in preventative fire protection. Customized extinguishing systems from a single provider protect wherever conventional sprinkler and spray water systems cannot provide optimum protection.

Customized extinguishing systems for optimal protection.

More than 150 years of experience in the field of firefighting and extinguishing technology as well as continuous research and development have made Rosenbauer the technology and innovation leader in fire protection. Customer proximity and focus on the requirements and needs of the client are of utmost importance. For an efficient and tailor-made extinguishing system, the on-site conditions are analyzed together with the customer. To ensure that all extinguishing components are perfectly matched to one another and interact optimally when required, Rosenbauer manufactures core components such as the turret in house. As a specialist for extinguishing systems, Rosenbauer maintains its own assembly personnel for the installation and maintenance of the systems. This ensures consistent high quality and congruence of all parts.
Efficient solutions from one provider.

Turret extinguishing systems – Rosenbauer

All-round service package for customized special fire-fighting systems

Consultation and planning

Production

Support

Assembly and commissioning

Maintenance and repair

On-site analysis

All-round service package for customized special fire-fighting systems
Quality tested 1000-fold.

To ensure that Rosenbauer’s turrets deliver top performance under all conditions, they are subjected to intensive testing during prototype construction, which takes them to their load limits. They are, for instance, run in continuous duty for hours under full load to test the drives and ensure the functionality of the gearboxes. They also have to pass cold tests down to -40 °C/-40 °F. Each turret is also subjected to a complete mechanical and electronic functional test.
Quality from the global market leader.

Maximum extinguishing success with innovative turrets.

The turret as the core component.

Whether for the protection of aircraft in a hangar, for recycling plants, or storage areas: as the discharge device the turret itself plays a key role. Overcoming large distances and the quality with which the extinguishing agent arrives at the source of the fire is critical for extinguishing success.

Decades of experience in the development of turret mechanics and electronics as well as the highest demands on functionality, technology, and design are reflected in the quality and durability of Rosenbauer’s turrets. The turrets are produced fulfilling the highest industrial standards at our own factory. The close cooperation of highly qualified employees in product management, development, and production, as well as the implementation of customer feedback ensure that a wide variety of knowledge and experience is incorporated into the quality product.

- In-house development and design engineering
- State-of-the-art production methods
- Highest quality standards
Broad spectrum of application.

Maximum safety for people, buildings, and equipment.

Many requirements – one solution.

Rosenbauer turret extinguishing systems are used where large areas have to be protected and extinguishing agents have to be applied specifically to the source of the fire. Compared to conventional spray deluge systems, Rosenbauer’s turrets can apply the extinguishing agent to a specific location in the event of a fire. This reduces water damage and the associated disposal costs in the event of a fire. Another advantage is the low installation cost for turret extinguishing systems. A main line is required to supply the turret, which is mounted on ceilings, walls, or masts in outdoor areas and leads directly to the turret.

Planning, implementation, and assembly from a single source.

From A to Z, Rosenbauer plans and installs the entire extinguishing system with all components. The water supply for the turrets is either via a water tank or directly via the connection to an existing water network. Since fire extinguishing with foam is more effective, a foam compound is added to the water. Foam reduces the surface tension of the water and can penetrate deeper into the flammable material. The water in turn provides cooling, while the foam on the surface separates the flammable material from the oxygen, thereby suffocating the flames.

How the system works.

Rosenbauer turret extinguishing system with infrared temperature monitoring
Areas of application:

- Recycling plants
- Storage halls
- Waste bunkers
- External storage areas
- Airplane hangars
- Helicopter landing pads
- Tank farms

Manual control with remote control device joystick
The most effective way of firefighting?

Fire prevention!

Faster than fire.

Preventive measures are particularly required where highly flammable materials or machines at risk of fire are used. Rosenbauer’s turnkey fire protection concepts allow the hotspot to be handled professionally before a fire can even start. Smoldering fires or hotspots are localized within seconds to prevent a fire foam breaking out.

As the world’s leading full-service provider of fire-fighting technology, Rosenbauer has developed a system that locates hotspots at an early stage and, above all, with pinpoint accuracy. Automatic cooling of the potential danger zone prevents the outbreak of a fire. The name behind the revolutionary system for your preventive safety: IGNIS3D.

- Automatic cooling before the fire breaks out
- Targeted application of the extinguishing agent
- Protection also outside operating hours

Real early fire detection through automatic detection and targeted cooling of hazardous areas.
Turret extinguishing systems – Rosenbauer

Anything but standard.

Rosenbauer has always been unconventional and takes a completely new approach to product development. Building on state-of-the-art technology, Rosenbauer is always thinking ahead and creating added value. This also includes the support of operators via remote access when operating the system and analyzing alarms. Rosenbauer solutions are more efficient as a result. In addition, operators can carry out minor cleaning work and regular checks directly and thus reduce maintenance efforts.

The only compromise is your flexibility.

In an emergency you need reliability - 100% of the time and without compromise. The complete Rosenbauer IGNIS3D early fire detection system is manufactured in Germany to the highest standards. Optical sensor specialists in the competence center not only produce elementary core components, but also develop the control software.

Rosenbauer supplies turnkey solutions from a single source and can also respond to individual customer requirements thanks to its in-house development and production facilities.

Specific system concepts are developed together with the fire safety officers in your company and are consequently implemented with the responsible engineering offices, insurance companies, and authorities.

Inspection and maintenance of extinguishing systems by Rosenbauer

Visual monitoring in the control center
Operational readiness through innovation.

For industrial use.

For the harshest environmental conditions.

The heart of the system is a compact unit consisting of an infrared camera, a visual camera, and a laser device for distance measurement. A robust protective housing ensures operation even under the most adverse environmental conditions, such as those found in waste bunkers or recycling plants. Overpressure in the housing protects against dust and dirt and prevents the ingress of moisture. A purge air device keeps the protective windows clean and thus guarantees reliable temperature measurement. Even heat cannot harm the system thanks to active air cooling.

Advantages at a glance:

- Masters any structural challenge
- Offers maximum versatility as a standardized system
- Offers maximum independence spatially mounting of turret and infrared camera
Three strong partners complement each other for safety.

1. Infrared camera
   A high-sensitivity infrared camera from leading manufacturer FLIR continuously scans the surfaces in the danger area for signs of heat. The pan and tilt head allows the camera to rotate around two axes, massively expanding the monitored area. Temperature measurement is an important part of the IGNIS3D core system and a warning indicator for hazard identification and localization.

2. Visual camera
   The visual camera supports the operator with the analysis of the monitored areas. This also allows the subsequent evaluation of incidents.

3. Laser
   The critical component of the IGNIS3D is the distance measurement system, which uses laser technology and intelligent evaluation. This enables the system to determine the 3-dimensional coordinates of hotspots and pinpoint a potential source of danger.

Spatially independent positioning of camera systems and turrets.

The IGNIS3D can hardly be surpassed in terms of its flexible application possibilities. The powerful compact unit works reliably both in halls and outdoor areas. By transferring the IR camera and projector into a common coordinate system, the IGNIS3D is able to control one or more turrets regardless of their positioning in the space. The number of IGNIS3D infrared systems and fire monitors can vary. This way, structural and spatial challenges can be mastered effortlessly.

Thanks to the optimized positioning of the extinguishing turrets, the extinguishing agent can be targeted where it is needed, while the well-protected infrared camera system monitors the danger areas. The possibility of location-independent mounting and installation is a reliable solution for cutting costs.
Technology is in the details.

The first early fire detection system with distance measurement.

If IGNIS3D detects an unusual temperature increase caused by a subsurface heat source, it starts cooling precisely where needed. A specially developed software calculates the optimal trajectory of the water jet on the basis of the measured hotspot coordinates for a distance-independent extinguishing area. The targeted use of extinguishing agent thus ensures far less effort in the follow-up process (e.g. disposal of waste water), for example, in comparison to spray deluge systems.

An infrared camera for temperature measurement is combined with a laser for distance measurement and creates completely new possibilities as an innovative turnkey solution. This combination provides unprecedented precision in temperature measurement. A central server processes the collected data and aligns the turret precisely to the measured 3D coordinates. IGNIS3D convinces with the precise localization and size recognition of hotspots and enables efficient extinguishing agent application and resource-saving aftercare at the scene.
The new Rosenbauer object recognition feature can distinguish hotspots from moving and learned hot objects. The object recognition including vehicle recognition ensures that only objects which represent a danger are extinguished. Example: A hot surface of an exhaust system of a truck does not trigger an alarm. A hotspot, which can be even smaller than the exhaust system, triggers the system. IGNIS3D analyzes on the basis of an individual learning phase and thus offers true early fire detection.

The intelligence of the system.

The best hardware can only work as well as the intelligent software that controls it. In addition to the display unit for visual monitoring of the extinguishing areas using infrared and video images, Rosenbauer also supplies the control unit using an extinguishing and central server. With the help of the extinguishing server software, the turret can be controlled fully automatically or manually. The central server processes the data for pattern recognition and stores all images for subsequent evaluation and analysis.

Pinpoint accuracy.

Turret extinguishing systems from Rosenbauer feature a ballistic calculation of the extinguishing stream. The extinguishing server calculates the trajectory of the turret before each activation and can thus hit hotspots precisely even at great distances.
Rosenbauer turrets are optimally tailored to the customer’s requirements on site and set global standards, especially in terms of throw ranges and foam quality. Regardless of whether protecting airplanes, recycling plants, or storage halls – electronically controlled turrets from Rosenbauer impress with their innovative technical details:

**Manual, intuitive control**

The turret is manually controlled by means of a joystick for easy and intuitive operation. Sensitive motion sequences allow easy aiming and operating comfort.

**Portable joystick remote control device**

With the portable joystick remote control device, all functions can be called up for the operation of up to six turrets.

**Electronic full/spray jet adjustment**

Whether targeted full or spray jet, the stream pattern is adjusted to the requirements using the electronic adjustment.

**Fully automatic oscillating function**

The turret automatically releases extinguishing agent at predefined area and speed.

**Defined limits**

Area limits can be programmed to protect sensitive areas in the action radius. These are not exceeded during operation.

**Rosenbauer turret – tried and tested hundreds of times.**

Rosenbauer turrets are available with flow rates of up to 15,000 l/min / 4,000 gpm. The RM35C, tried and tested hundreds of times, is used in plant construction. It impresses with its compact design, excellent foam quality, and outstanding throw range. With its compact design and large radius of action, it is particularly suitable for the protection of waste bunkers, storage areas, and recycling plants.

A dust cover from which the turret extends automatically is available for areas with extremely high levels of dirt and dust. This also protects against mechanical stresses, such as crane clamps in the waste bunker.
Turret extinguishing systems – Rosenbauer

- High flow rate
- Excellent foam quality
- Excellent throw ranges
- Large radius of action

Technical data electronically-controlled turret

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<tr>
<th></th>
<th>RM15C</th>
<th>RM35C</th>
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<tbody>
<tr>
<td>Flow</td>
<td>600 – 2,000 l/min</td>
<td>1,500 – 4,750 l/min</td>
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<td></td>
<td>160 – 530 gpm</td>
<td>400 – 1255 gpm</td>
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<tr>
<td>Rotation range</td>
<td>360°</td>
<td>360°</td>
</tr>
<tr>
<td>Swivel range</td>
<td>-90°/ +45°</td>
<td>+90°/-90°</td>
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<tr>
<td>Nozzle</td>
<td>O-stream nozzle</td>
<td>O-stream nozzle</td>
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<tr>
<td>Jet adjustment</td>
<td>Electrical adjustment for full/spray jet</td>
<td>Electrical adjustment for full/spray jet</td>
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<tr>
<td>Dry powder nozzle</td>
<td>optional</td>
<td>optional</td>
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<tr>
<td>ChemCore</td>
<td>optional</td>
<td>optional</td>
</tr>
<tr>
<td>Usage temperature</td>
<td>-40 °C / +85 °C</td>
<td>-20 °C / +70 °C</td>
</tr>
<tr>
<td></td>
<td>-40 °F / +158 °F</td>
<td>-4 °F / +158 °F</td>
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The remote control unit for the stationary turret.

The remote control unit for operating turrets in stationary extinguishing systems can be designed as a pure cable remote control unit or as a combined radio/cable remote control unit. Up to six turrets can be controlled in one CAN bus system.

**Advantages.**

- Simple, intuitive operation
- Optimum and flexible operating position through radio remote control
- High safety standards

**The system at a glance**

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<th>Fully automated turret extinguishing system</th>
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<td>Water tank in required size</td>
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<td>Pump units (electric, diesel, underwater)</td>
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<td><strong>Foam agent proportioning</strong></td>
<td>Quantity-proportional admixing unit</td>
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<td>Drive without external energy via extinguishing water flow</td>
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<td></td>
<td>Admixture rate can be tested</td>
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<td></td>
<td>Foam agent: Class A</td>
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<td><strong>Alarm valves</strong></td>
<td>Spray water valve station</td>
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<td></td>
<td>Electrical initiation by means of pulse solenoid valve with reset</td>
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<td><strong>Turret</strong></td>
<td>Electronically controlled turret</td>
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<td>Intuitive operation via remote control</td>
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<td>Large vertical/horizontal swivel ranges</td>
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<td><strong>Infrared temperature monitoring</strong></td>
<td>Exact temperature measurement</td>
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<td></td>
<td>Real XYZ hotspot coordinates</td>
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<td>Calculation of the trajectory</td>
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<td>Adjustment of extinguishing area size</td>
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<td>Flexible assembly of IGNIS3D and turret</td>
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<td><strong>General contractor</strong></td>
<td>Rosenbauer – everything from a single source</td>
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<td><strong>Process support</strong></td>
<td>Concept development and consideration of standards and guidelines</td>
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<td>Planning and project management with hydraulic calculations</td>
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<td></td>
<td>Design, assembly, and installation by certified specialists</td>
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<td>Commissioning with the customer and acceptance by testing institute</td>
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<td>Customer training, on-demand maintenance</td>
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