

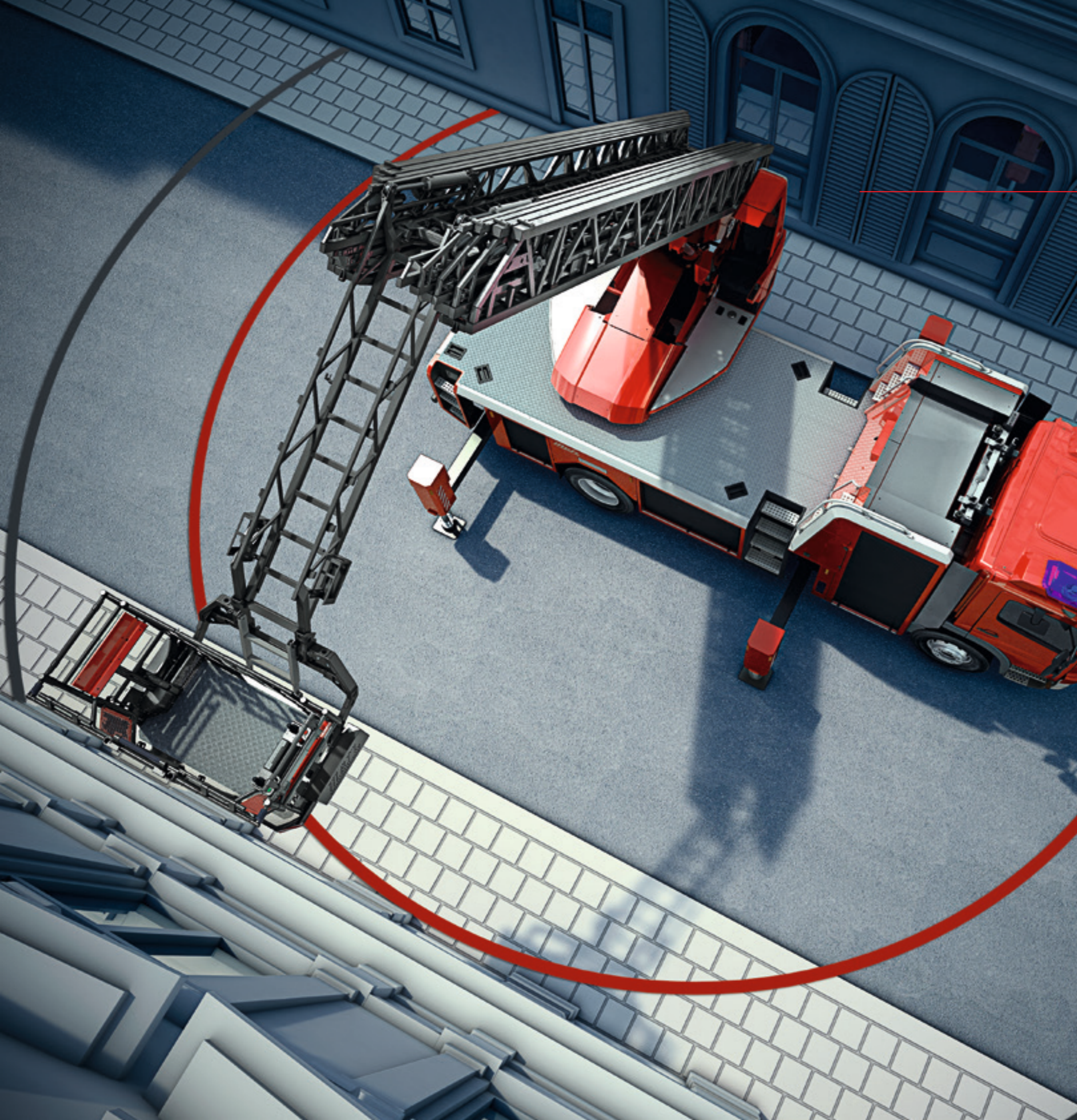


Aerials

High art.

Metz

Rosenbauer Group



A tower of stability.

From the field for the field.

Metz Aerials is the competence center for aerial rescue applications in the Rosenbauer Group.

New developments and refinements of Metz aerial ladders and hydraulic platforms are based on our direct experience in the field. We respond swiftly and accurately to evolving deployment conditions in conjunction with focussing on the needs of the firefighter. That is just one of the reasons why fire & rescue services across the world depend on Metz.

Metz aerials stand for

- Safety and dependability
- The highest quality
- Robust construction
- Intelligent functionality
- Innovation and cutting-edge technology
- Intuitive controls
- Sophisticated design

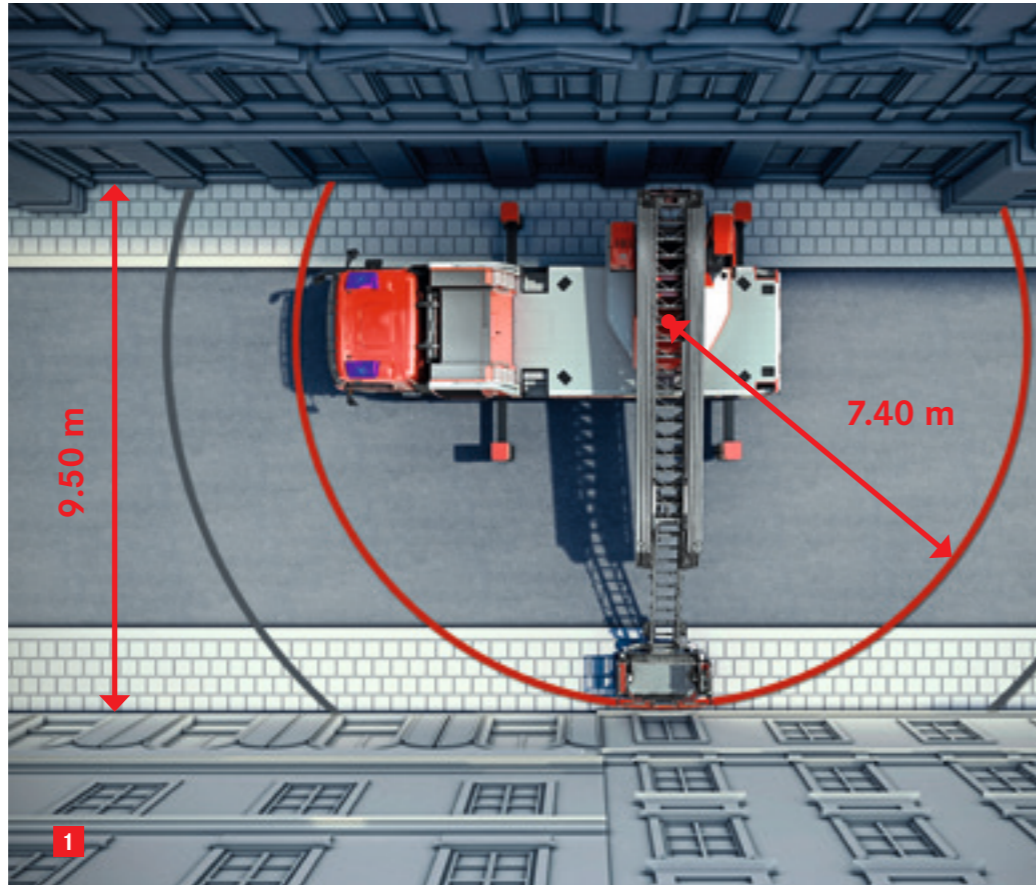
Metz

Rosenbauer Group

When the going gets tough, Metz represents dependability and safety the world over. Over the years, thousands of human lives have been saved using Metz aerials.

Metz redefines the action radius.

The Metz XS. Now even closer.



The Metz XS is in high form, and not just for high rescues. This aerial gets into tight spaces once thought impossible to reach.



1 Even in the tightest spots, the Metz XS reaches its goal. Thanks to its innovative new design, this aerial has an unheard of action radius of just 7.4 m between the center of the turret and the outer edge of the cage. This enables the aerial ladder to rotate 180° when its articulated boom is in the lowered position on a street just 9.5 m wide.

2 The compact action radius enables continuous, stepless alignment of the cage directly along a building façade at a distance of just 6.15 m.

3 Until now, operation in particularly close quarters resulted in a dead area inaccessible to the cage (grey semicircle).

4 The Metz XS requires just 2.5 m (approx.) of clearance to lower the cage down to the ground in front of the driver's cab. The cage can also be placed anywhere around the aerial ladder extremely close to the vehicle.

Lowering the cage to the ground makes lifting a stretcher to chest height quick and easy. And it can be done directly in front of the drivers cab.



The Metz L32A-XS.

The revolutionary articulation concept.

Parked cars, overgrown foliage, narrow streets. Aerial ladders are used in ever-tighter spaces. Our response to that is the Metz XS. It enables far more flexibility in deployment location. Its compact action radius gives first responders in the tightest of spaces access to deployment areas that were previously inaccessible.

And that's not all: Simple solutions are often the best. With the Metz XS, our engineers have once again proven that there are simple and uncomplicated ways to meet the demands of firefighters.

Ladder

The robustness of the Metz ladder set is what made the XS concept possible. Box-joint construction in combination with fine-grained steel give Metz ladders enormous reserves of strength.

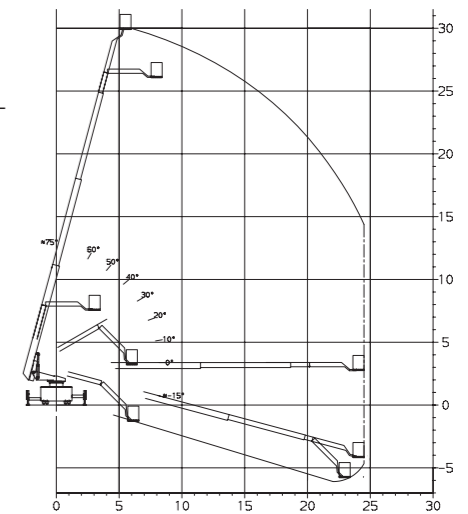


The Metz XS articulation concept

What's special about the Metz XS is its innovative articulated boom: The pivot point on the ladder moves inward, like a jack knife. The ladder sections open to a distance of three rungs. That enables the articulated section to be lowered at an angle, achieving a new dimension on maneuverability despite the additional 900 mm length of the cage boom.

The Metz XS has a cage boom length of up to 4.6 m without the need for an additional drive, which reduces the minimum action radius to an unprecedented 7.4 m.

Even with the new articulated boom, the Metz XS offers exemplary out-reach values:



Operation

The action radius and placement of the cage in front of the driver's cab do not require any extra operating steps. In the field every step can be performed intuitively.

Jacking system

The Metz horizontal-vertical jacking system is the ideal combination for the XS. It can be deployed flexibly over or between obstacles and at the same time secures the deployment area.

450 kg rescue cage

The XS is also equipped with our proven 450 kg rescue cage. This product, developed to meet the demands of firefighters, sets the standard for aerial ladders.

The Metz aerial product range.

From compact to way up high.



1 Metz L27 / Metz L32

The Metz L27 (DLAK 18/12) impresses with its compact design. With a width of just 2.4 m and approved total weight of just 13 tons, it is ideally suited to narrow streets and historic inner cities.

The Metz L32 (DLAK 23/12) achieves its maximum outreach at a jacking width of just 4.85 m. Its stable ladder and 450 kg cage have made the L32 the backbone of rescue operations.

2 Metz L39 / Metz L41

The Metz L39 and the Metz L41 are an extension of the L32 concept. The five-section ladder enables working heights of up to 41 m. At the same time these ladders are compact and maneuverable.

3 Metz L56 / Metz L62

With the Metz L56 and Metz L62, rescue capacity, lift speed, and safety equipment have the highest priority.

The added three-person lift capacity means that 50% more people can be rescued. These high-performance ladders reach their working height of 62 m extremely quickly at a lift speed of 1.4 m/s.



XF version: extra flat.

Old city alleyways, narrow tunnels, and historic fire stations with lower clearances – some working environments require aerials with the lowest possible height. This is where the Metz XS version proves invaluable.

Thanks to the ultra-flat, highly stable substructure the XF version scores high marks for total height. Depending on the kind of chassis and ladder used, the total height can be kept under 3 m.

The XF version is available for the L27, L32, L32A, L32A-XS and L39 Metz ladders.

First Attack combination vehicles.

Simultaneous water pumping and rescue.

The FA versions (First Attack) transform all of our ladders into universally deployable rescue engine/pumpers. Optional components can be individually outfitted with built-in pumps, fire extinguishing agent tanks, crew cabs, rapid attack winches and technical equipment, including hydraulic rescue tools for a range of applications.

Crew cabs

Depending on the overall concept, Metz ladders have the flexibility to be equipped with detachment, crew, or group cabs. This is made possible for Metz by drawing on the competence and experience of Rosenbauer firefighting vehicles.



Built-in pumps

Whether installed on the rear of the vehicle, the side, or centrally, Metz offers a comprehensive range of pumps from Rosenbauer with capacities ranging from 1,000 to 12,000 litres per minute.

Extinguishing agent tanks

Tank systems of various capacities built by Rosenbauer can meet the needs of any industrial or municipal requirement.

Other technical equipment

Customers not satisfied with the mere addition of a pump and tank can transform their First Attack (FA) vehicle into a rescue engine/pumper. The requirement determines the design.

Always a turn for the better.

Equipped for every need.

Aerial	Working height	Outreach 1-man limit with cage	max. cage payload	Deployment time	Jack width	FA version	Lift
L20	20.5 m	15.9 m	450 kg	60 sec.	2.50 m	Yes	-
L27	27.4 m	22.2 m	450 kg	68 sec.	4.50 m	Yes	-
L32	33.2 m	23.8 m	450 kg	70 sec.	4.85 m	Yes	-
L32A-XS	32.0 m	22.4 m	450 kg	70 sec.	4.85 m	Yes	-
L39	39.7 m	21.1 m	450 kg	85 sec.	4.85 m	Yes	Yes
L41	40.9 m	20.0 m	450 kg	87 sec.	4.85 m	Yes	Yes
L56	56.2 m	22.4 m	300 kg	120 sec.	5.70 m	Yes	Yes
L62	61.7 m	18.0 m	300 kg	130 sec.	5.70 m	Yes	Yes



From equator to pole.

Metz ladders in use the world over.

From the icy cold to the scorching heat, from -40°C to +50°C, from the Canadian winter to the Arabian summer: Metz ladders are built for every extreme and all in between. There isn't a continent in the world where firefighters are saving lives and protecting property without Metz aerials.



USA/Canada: Metz L32 Raptor

The Metz L32 Raptor was specially developed for the North American market. The aerial fulfills all of the requirements of American standards (NFPA). This was accomplished using the same high-quality technology found in every Metz aerial.



Italy: Metz L32A 4x4

Between the Ortler and Etna, natural and cultural heritage place high demands on the flexibility of firefighters. Wherever all-wheel drive is needed for traction, Metz aerial ladders always fit the bill.



Kazakhstan: Metz L32

In the land of vast expanses, supply security and delivery dependability play a decisive role. In Kazakhstan, the global service for Metz aerials is highly prized.



Kenya: Metz L56

Robust growth needs robust protection. That is why so many up-and-coming metropolitan areas in Africa reach for reliability made in Karlsruhe.



Mauritius: Metz L32A

Even in paradise all hell breaks loose from time to time. It's a good thing Metz aerials ensure fast and reliable safety there where others go on holiday.



China: Metz L32

Metz meets extreme conditions with extreme performance. In China, firefighters prefer the FA versions. Metz combination vehicles offer maximum flexibility in demanding situations.



Metz ladders.

High stability for maximum safety.



Box-joint construction

The patented box-joint construction distributes forces evenly across the upper and lower rails. This increases the torsion stiffness of the entire ladder set.



Highest quality workmanship

Every Metz ladder set is made from high-strength fine-grain steel and then powder coated. The hermetically sealed welding reliably protects the interior of the ladder set, protecting it from corrosion.



54 cm width

The interior width of the uppermost ladder section is a comfortable 54 cm. This enables first responders in full gear to climb the ladder unrestricted.



All rungs fully grippable

The generous spacing of the rungs ensures that the ladder can even be climbed when the rungs are positioned one over the other - for a safe grip, even when rungs are aligned.



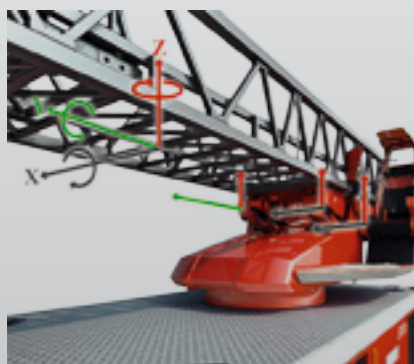
Optional: active hydraulic vibration damping

Metz aerials are so stable that they do not need any additional damping. Customers who want take advantage of this additional convenience, however, have the option of adding active hydraulic vibration damping.



3D load measurement

The ladder set is connected to the turret at three points. At these points, all of the loads applied to the ladder are recorded by load cells. The measuring system simultaneously detects rotational impacts and torsion loads. The precisely engineered bearings of the ladder set enable exact measurement. The result is better stability and safer operation.



Automatic terrain compensation

The automatic terrain compensation system keeps the ladder set in the horizontal position up to a longitudinal or lateral inclination angle of 8.5° in relation to the vehicle. The terrain compensation system switches on automatically when the aerial is deployed.



Use for bridging or as a recovery crane

The high stability of this ladder set makes it possible to lift, rotate, and lower payloads of up to 4,000 kg.

This enables the ladder to be used as a stable bridge in mass evacuations.

The 450 kg Rescue cage.

Attention to the smallest details.

When it comes to functionality, user-friendliness, safety, and spaciousness, Metz cage technology has always been in a class of its own. Through the process of continuous refinement, our engineers have now achieved yet another technological quantum leap. The Metz 450 kg cage is lighter, more convenient and offers enough space for up to four people.



Pivoting control panel

The control panel is located on the left side of the cage. This ensures that the cage operator is always in view of the person at the main control panel. This also frees up the middle of the cage to enable easy entry and exit.



Securing the stretcher

The stretcher is secured to the middle of the cage. This improves stability and prevents the cage from leaning to one side.



More space through flared sides

The flared sides of the cage ensure a comfortable amount of space for personnel in breathing apparatus.



Diverse accessories

Every fire station has its specialties. The Metz cage can be individually configured with custom equipment for any purpose. A range of accessories, such as lighting, pumping equipment, power supplies, stretchers and much more, makes every Metz a fire station's trusted comrade.



Four entry points

First responders can enter the cage from any side, depending on the situation. The rear entrance offers safe, convenient access to the ladder. The cage controls can be pivoted to the side to allow unhindered entry and create three entry points on the front of the cage.

Integrated ladder

A fold-out stepladder integrated into the middle entrance of the cage simplifies entry on uneven terrain and balconies.

Manual cage leveling from the main control panel

As standard equipment, Metz aerials have a separate cage-leveling control lever at the main control panel. This makes it possible to level the unmanned cage from a safe distance in special situations.

The jacking system.

A solid footing guarantees safety.

The Metz horizontal-vertical jacking system

For stability, every Metz aerial ladder is equipped with a hydraulic horizontal-vertical jacking system. The system offers stepless control of the horizontal and vertical movement of the jacks within the maximum jacking width.

Excellent visibility

No obstructions to trip first responders or pedestrians.

Ground pressure sensors

In every jack, sensors monitor ground pressure.



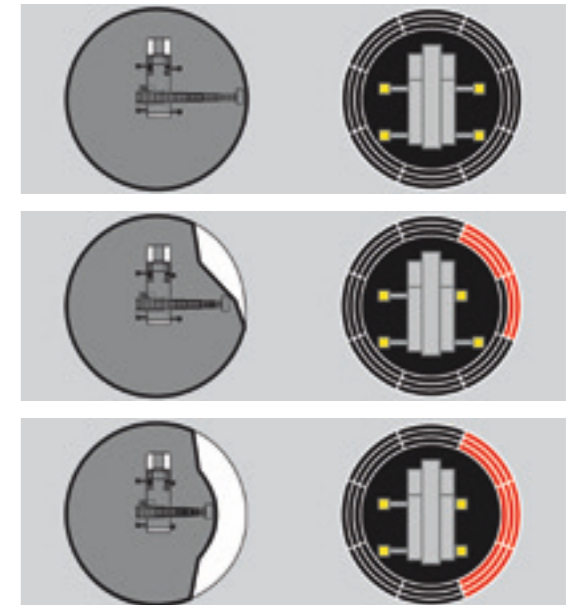
Ground pressure measurement for optimal stability

Ground pressure sensors in each jack precisely record the residual load. The computer then uses the data collected by the sensors to calculate stability. This calculation is combined with ladder torque data as an additional redundancy to ensure stability. The values can be viewed on the control panel.



Exact detection of jack width for optimal outreach

Jacking width detection on all of the Metz aerials is stepless and precise to the millimeter. The jacks are moved via joysticks on the jack control panels. These are integrated into the rear of the vehicle, with one on each side. This ensures that each individual jack can be precisely positioned. The individual jack widths are recorded by jack-width sensors and calculated in relation to the side of the vehicle. This ensures optimal outreach capability.



Use of the jacks in close quarters

By extending the jacks in line with the contours of the vehicle, they can be deployed in a space as narrow as 3 m while enabling a fully loaded cage which can be extended to the maximum ladder outreach and rotated 360°.



Rear wheels suspended in the jacking process

Once the wheels of the vehicle are suspended, four clearly defined jacking points create structurally secure and solid ground contact in any operating situation. The vehicle weight rests on all of the jacks and the rear axle can be used as a counterweight. The clearly defined jacking points allow Metz aerials to be operated with a 6% residual load, in accordance with the new EN 14043 standard.



Jacking in demanding situations

The jacking system can clear obstacles up to 300 mm high with no problem. Metz aerials can even achieve optimal stability on uneven ground because each jack can be adapted individually to the terrain or the road surface.



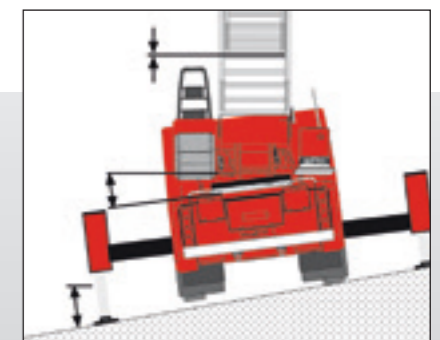
Clearing obstacles

The jacking system can be used to elevate the aerial high enough that the overhang of the turret can be tilted to clear obstacles.



Sub-ground-level applications

Thanks to their variable jacking capabilities, the ladders on Metz aerials can be lowered to angles of up to -22°. This enables rapid and safe sub-ground-level operations.



Extended terrain compensation

The automatic terrain compensation ensures that the aerial ladder remains horizontal at angles of up to 8.5°. The jacking system can increase this angle to up to 14° perpendicular to the direction of travel and up to 11° in the direction of travel.

The philosophy of Metz operator controls.

Keep it intuitive, focus on essentials.

Operation made easy

The displays on the control panels of our aerials are clearly laid out. Even in the stress of real-world operations, the interface is intuitive and easy to use. This has been proven over the past decade by hundreds of fire departments.

- The position of the display screen, joystick, and movement directions is identical on the main control panel and the cage control panel

- Large glove-friendly control buttons
- Ergonomic design of display and controls
- Information structured simply and clearly
- All that is displayed is the information necessary for the mission: “keep it simple,” “less is more.”
- All of the Metz control elements are nearly identical with Rosenbauer control elements. This has significantly reduced training times and familiarization periods.



Safety level

Block override, cage control release, emergency cut off

Info/display level

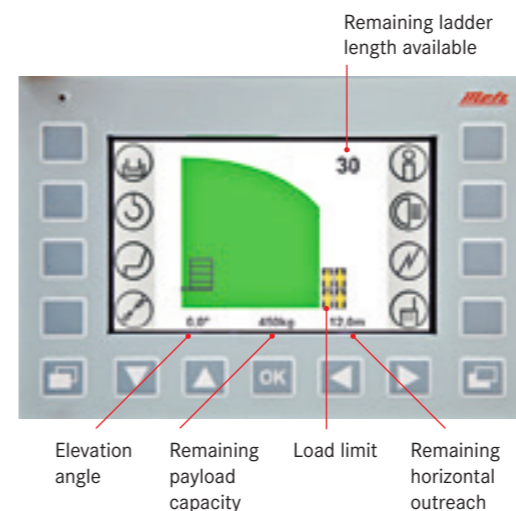
All of the relevant information for operating the aerial

Function level

All of the functions that are needed to control the aerial

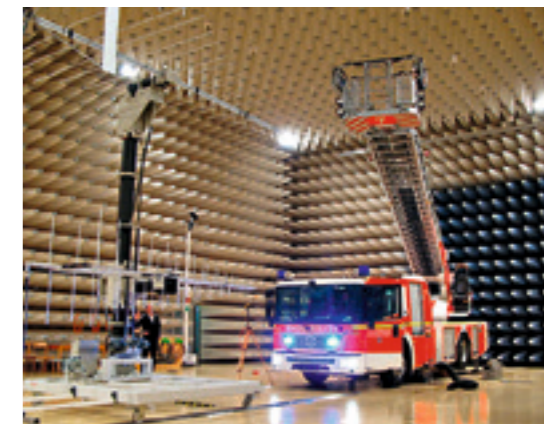
The Metz controls.

An intelligent interaction of components.



The Metz CAN bus system

All of the 3-D load data measurements, the ground pressure measurements and the jack width data are combined and analyzed via the CAN bus system. This guarantees maximum outreach and safety.



Reliable, even under extreme conditions

Metz aerials are exposed to high levels of electromagnetic radiation in then EMC test stand (electromagnetic compatibility). The test results are conclusive: the Metz CAN bus system can function safely and reliably, even in extreme situations.

The main control panel

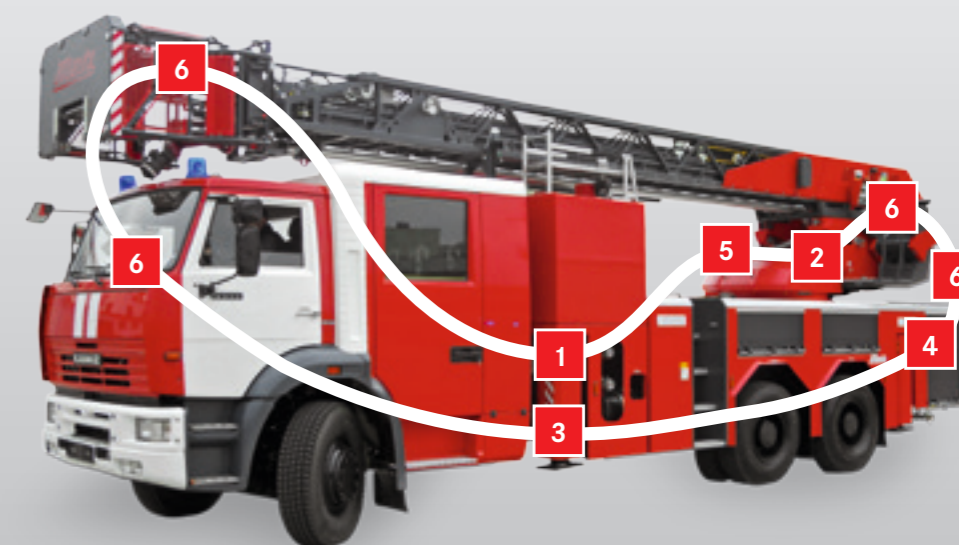
- Generous height and width to comfortably seat a large person
- Gooseneck microphone
- Two integrated loudspeakers
- Unobstructed view of the rescue cage and ladder during use

Optional features:

- ABA display on the ladder
- Transparent sliding roof element
- Heated seats
- Adjustable back- and head rest
- Seat tilts back when the ladder is mounted



- 1 Jack width
- 2 3D load measurement
- 3 Ground pressure measurement
- 4 Pump controller
- 5 Generator controller
- 6 Control unit

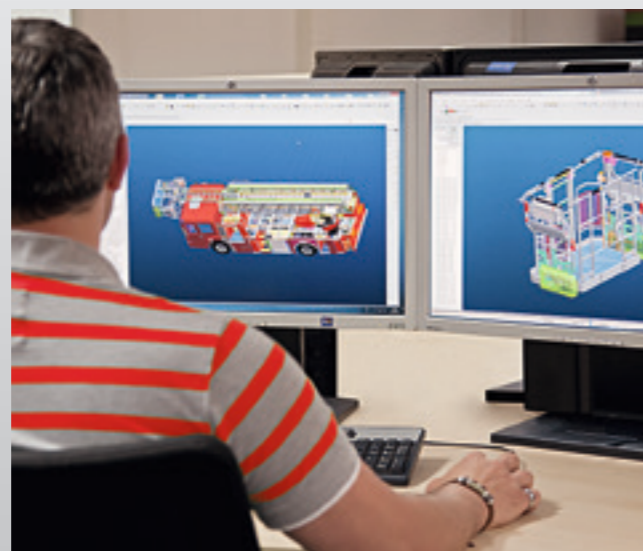


Metz, the company.

A burning passion to support the firefighter.



We don't just design aerials, we use them ourselves: Every fourth Metz employee is an active firefighter. That guarantees that our equipment is ready for whatever the job can throw at it - all the way to the smallest detail.



Ever since our firm was founded in 1842 by Carl Metz, our name proudly represents innovation and the highest standards of quality.

Carl Metz laid the cornerstone for a success story spanning more than 170 years with his practical focus on purpose-driven design. Because more than a quarter of our employees are themselves active firefighters, we know what first responders really need in the field. That is why Metz is the competence center for aerial rescue technology within the Rosenbauer group.

Of course, even beyond our own experience, the requirements of our customers are our primary concern. In order to fulfill those requirements, our manufacturing and design teams combine solid workmanship with the most modern methods, processes and systems. The result is high-tech products with leading-edge technology. Our global service ensures dependable spare parts and services, even in the remotest corners of the world.

Metz honours a partnership for the life of the vehicle and beyond.



**Augmented reality brings the
Metz XS on the title page to life!**

Just download the **Junaio Augmented Reality app** free of charge on your smart phone or tablet , view the title page of this brochure on the app and prepare to be surprised!

More information under: www.metz-xs.de

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