



Z-Class 

Specialists for airport fire departments

Z-Class Airport Rescue and Firefighting vehicles – guarantee for airfield security



**Wir geben
Sicherheit.**

www.ziegler.de



We are ZIEGLER

As a future-oriented group, the ZIEGLER Group focuses on long-term business based on performance, reliability and sustainability.

A firefighting vehicle is an investment in the future. To ensure that this investment pays off for our customers, we guarantee the highest level of quality and innovation. That means: perfect craftsmanship, outstanding stability, optimal corrosion protection and flexibility for individual customer requirements.

This is complemented by our extensive range of firefighting equipment and components, which also meet the highest quality standards.



We provide security.

Our brand promise makes clear what ZIEGLER stands for: We see the protection of public security as our ultimate objective. In order to accomplish this task, it is our motivation and our approach to offer the best and most competitive portfolio of firefighting and emergency management solutions. We assume responsibility with respect to customer requirements and their satisfaction.

Z-Class

Airport Rescue and Firefighting vehicles

One platform – three types – many variants



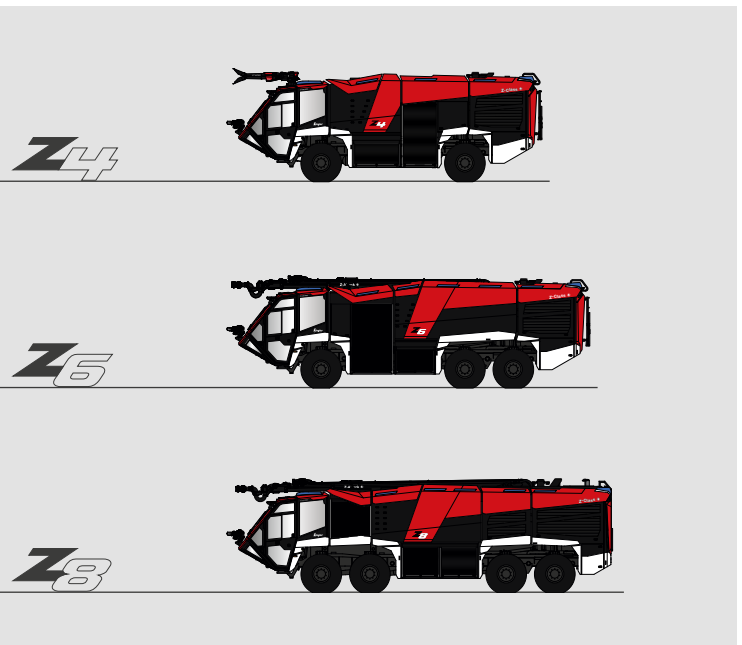
Perfect acceleration
thanks to our drive
concept

The modular concept,
weight distribution and
low center of gravity
allow **largest quantities
of extinguishing agent**
of up to 19 tons

Pump and roll in any
driving state and at any
speed

**Extremely spacious
cabin** with a headroom
of 1.8 meters and best
panoramic view due
to almost 11 m² glass
surface

**Unique user-friend-
liness** thanks to clear
control arrangement
on dashboard, center
console and roof console
in the Z-Cab AiR



Airfield all-rounder

With the Z-Class, we are able to offer the perfect Airport Rescue and Firefighting vehicle for the different requirements at the airport. A modular concept allows the configuration of 4×4 up to 8×8 vehicles in accordance with ICAO on a uniform platform.

As flexible as the operational situations

Z-Class vehicles fulfill a wide range of tactical requirements in terms of vehicle size, extinguishing agent quantity and special attachments and installations.

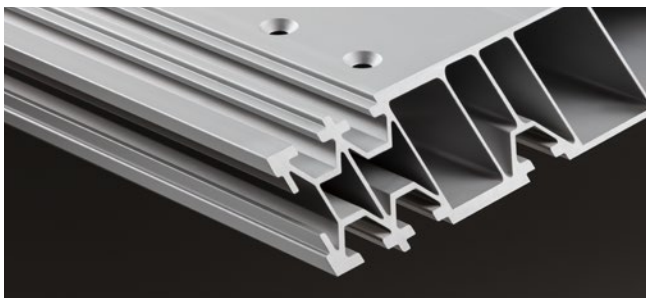
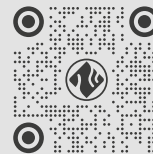
ALPAS

Aluminum Panel System

The latest generation of the proven
ZIEGLER superstructure system



Scan to
discover
ALPAS



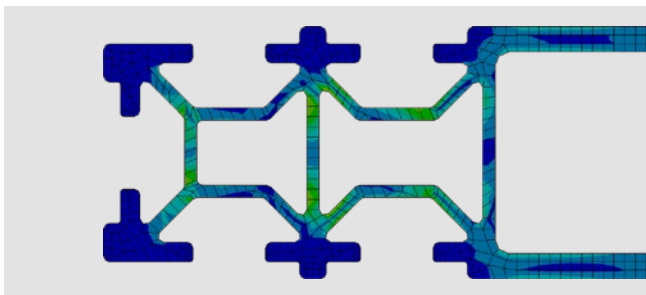
Assembly without drilling

Channels on both sides, called load paths, allow stepless mounting inside and outside the superstructure without drilling. A conversion by the customer is possible at any time.



Durable

After the panels are cut to size and drilled, they receive an extra strong 20 µm anodizing treatment. This provides sealed cutting edges and long-lasting protection against scratches and corrosion. Even after a long time, aluminum is recyclable and therefore sustainable.



As stable as the everyday work demands

Many years of design experience, computer calculations and measurements under real conditions ensure excellent stability.



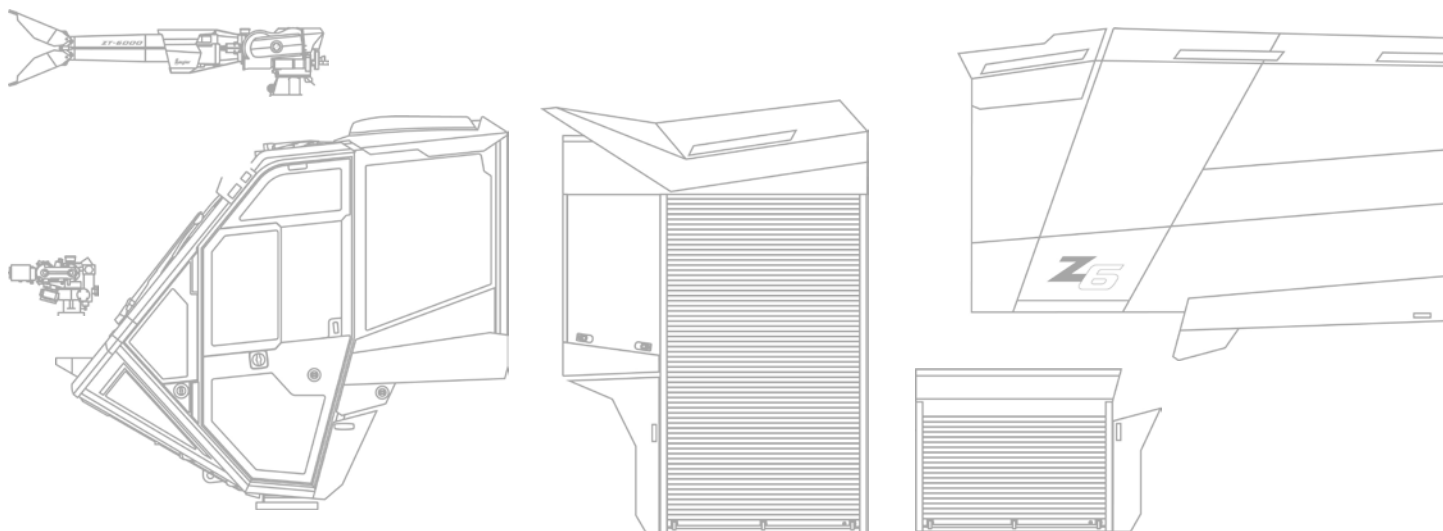
Individual and intelligent

Various items of equipment can be stored individually in the equipment compartments thanks to the tried-and-tested Aluminum Panel System. Due to the intelligent integration of ALPAS into the Z-Class, the payload is maximized by the low tare weight of the superstructure.

Superstructure

Modules provide flexibility

Customized to your requirements



The modular design of our Z-Class allows for customer-specific configuration across the entire series from Z4 to Z8 – precisely tailored to your application requirements. Whether the focus is on the highest possible quantity of extinguishing

agent or on loading capacity, the combination of all modules always offers the best possible performance. The use of series components guarantees consistently high quality and functional safety, while the large number of identical parts ensures an optimal supply of spare parts.

Loading



Rapid attack device

Designed as a reel and available in normal and high pressure, it can be ergonomically locked at 45° and 90°. Alternatively, the quick-acting bays offer automatic activation when fully unwound.



Equipment

There is space on the vehicle for specialized fire-fighting and personal protective equipment in up to 7 compartments as well as in the cab and on the vehicle roof. Our vehicles are always loaded in consideration of their purpose and ergonomic aspects.





Crash tested superstructure

Crew protection is our main focus. Accordingly, the Z-Cab AiR is developed and built according to the latest insights and state-of-the-art methods. At no time during the ECE R29-3 crash test the crew was at risk through deformation – survival space is guaranteed at all times. This test also confirmed the calculated rigidity of the cabin in the physical test and exceeded the requirements of ECE regulations.



Ergonomics in the cockpit

Supported by ergonomic studies and simulations, the cockpit provides perfect accessibility, visibility and position of all controls. The control elements are arranged according to their purpose and function: driving mode, extinguishing mode, secondary functions.

Z-Cab AiR

Security through optimal visibility

This cabin has been designed, developed and constructed in consideration of ergonomics and requirements for airport rescue and firefighting vehicles. Excellent panoramic view, the highest standards for passenger safety, confirmed by crash tests in accordance with ECE R29-3 and the user-guided operating concept Z-Control of the latest generation characterize this cabin. It can be configured according to your requirements: with a pneumatic bus door or an electric sliding window.



Z-Protec

ZIEGLER crew protection

With two systems, Z-Protec ensures maximum protection for the crew. An airbag system with one airbag in the head area of each of the outer seats with tested and certified ZIEGLER airbags protects against serious head injuries in an emergency. In addition, a seat belt tensioning system intervenes when necessary and secures the crew by pulling them firmly onto their seats.



Z-Control

Operating concept

One system for all needs



Scan to
discover
Z-Control



Flexibility through modularity

Due to the modular user interface, a maximum of flexibility is given. Single modules are used in the control panel of the pump control unit, in the cockpit control panels and in manual control units.



Z-Control manual control unit

Large buttons ensure safe and easy operation even when wearing gloves. The manual control unit allows turret operation from outside the vehicle with a direct view at the roof or front turret.



Light mast

The pneumatic light mast can be also extended via a manual control unit. The powerful LED spotlights can be rotated up to 360° in the desired direction and tilted into two separate areas.



Intuitive and modern operation

At the push of a button, the extinguishing functions necessary to extinguish a fire are executed. Thanks to Z-Control, the machine operator has an overview of the work processes, the operating status, the flow rates and the proportioning rate at all times.



Smart user guidance

The very clear structure characterizes Z-Control. Driver and operator have all functions in view and are supported by a user-guided operating sequence. The assisting system only shows activatable functions on the user interface.



Z-Control as modular operating interface offers a maximum of flexibility. The modern, standardized and modular software architecture allows Z-Control of the latest generation to offer outstanding quality, flexibility and future reliability. It has never been so easy to arrange functions to specific customer needs or add extra functions later. Z-Control is the best user interface on the market with supporting user guidance.

ZIEGLER Remote Service

High operational readiness thanks to fast support when you need it

Based on Z-Connect, Z-Remote offers access to the vehicle's CAN communication for direct diagnostics and fast troubleshooting. The combination of digital service packages with a classic maintenance contract sets a new standard in customer service.



Our intelligent concept

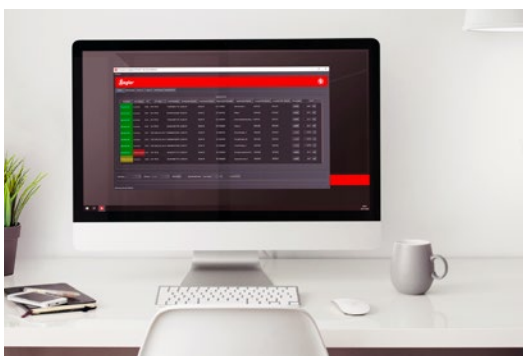
With Z-Remote, remote diagnosis of faults is possible. It forms the basis for digital service packages. Thanks to precise fault analysis via Z-Remote, you receive fast service support and save unnecessary trips to service points.

Service and immediate error analysis worldwide without having to be on-site

Parameter and function adjustment flexibly possible

Extremely short service and fast dispatch of spare parts leads to **increased operational readiness of your vehicles**

Future-proof system with high standards

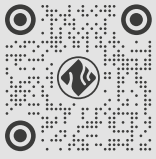


Connected everywhere

No matter whether via Wi-Fi or mobile data: thanks to encrypted data and two-sided authentication, you are securely connected. The high level of fail-safety – whether during the operation or on duty – ensures optimum monitoring at all times.



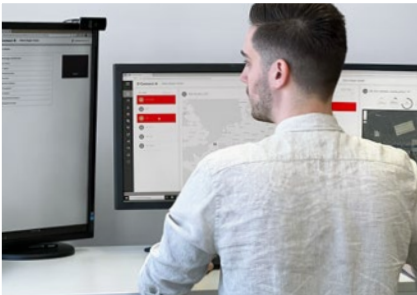
Scan to
discover
Z-Connect



Z-Connect

All-round connectivity

Vehicle management, digital situation map
and other services



Z-Connect offers connectivity for almost all ZIEGLER products and is supplemented by an extensive hardware and software portfolio. Data collected from connected devices, vehicles and people, regardless of manufacturer, is visualized in real time on a situation map and offers the incident command team optimum support for current situation assessment.

Thanks to the constantly growing application portfolio, a live overview of the emergency personnel and equipment as well as the vehicle status can be viewed, for example. Information on fill levels, critical vehicle KPIs, an automatic logbook and a situation map are all available.

What makes it special: Z-Connect networks and digitizes all emergency and rescue services. For the first time, vehicles, equipment and people are centrally networked.



Our products are IMBOS ready

ZIEGLER is a founding member of the non-profit association IMBOS e.V. and part of the IMBOS Cloud network. IMBOS is the innovative and forward-looking information management system for authorities and organizations with security tasks. It networks all the information that is crucial for a security assessment of a situation and efficient operational management.

Further information under www.imbos.eu

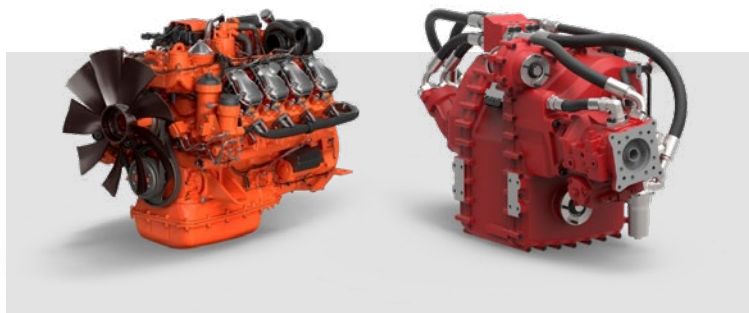


Drive concept

Powerful in every situation



When every second counts in an emergency, a powerful drive concept is just as important as efficient extinguishing technology. Our Z-Class impresses with unrivaled acceleration, excellent driving characteristics and safe handling. The ECE-R13-certified braking system and our ECE-R79-certified steering ensure safe deceleration and maneuvering in any situation.



Drive technology

We selected specific components to design the drive train for the special requirements of an airport rescue and firefighting vehicle: excellent acceleration values in connection with the highest possible vehicle load. Thanks to the innovative drive concept, the pump and roll mode can be activated at any speed.



Steering rear axle

The optional, co-steering rear axle also makes tight cornering possible and guarantees maximum maneuverability on control and operational routes.



ZIEGLER has also made a point of ensuring that, in the development of new technologies in the spirit of environmental awareness, performance does not have to be sacrificed. With the Z6 HYBRIDdrive, ZIEGLER sets a milestone in the revolution of Airport Rescue and Fire Fighting vehicles.

Unrivalled acceleration values in case of an emergency drive:
Intervention time is at the level of an 8x8 chassis

Emission-free driving for movement drives or control drives

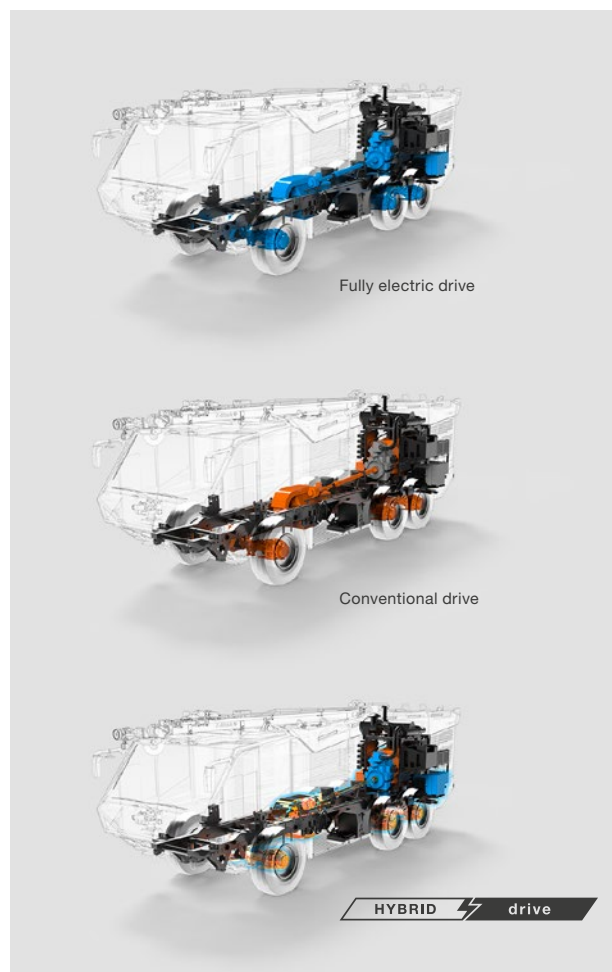
Conventional operation (diesel) **remains unrestricted**

Contribution by ZIEGLER on “Green Airports” and added value for airport operators

Three different types of drive

The Z6 HYBRIDdrive can be driven in three different ways: Exclusively with an electric motor, conventionally with an internal combustion engine (diesel) or with HYBRIDdrive technology. In the latter, the electric motor and combustion engine work together intelligently. This means that the Z6 HYBRIDdrive usually drives purely electrically at airports.

Depending on the driving profile, a corresponding range even allows more than 80 % of trips to be made electrically.



Extinguishing technology

Front and roof turrets



Front turret

Various front turret configurations with up to 4,000 liters of extinguishing agent per minute offer maximum extinguishing power, whether water, foam or powder. Features such as camera systems provide additional support during operation.



Low Attack

The lowerable Low Attack front turret is specially designed for low extinguishing positions. The center of the nozzle can be positioned up to 450 mm above the ground. Predefined rapid attack positions with an adjusted discharge rate make positioning easier.



Z-Turret

ZIEGLER roof turret

Proven ZIEGLER turrets complete the extinguishing system from one single source. Output rates of up to 6,000 l/min with the ZT-6000 and up to 8,000 l/min with the ZT-8000 are possible.

Our turrets can be configured with a foam pipe or multi-purpose nozzle. In addition to water and foam, powder can also be used for firefighting at up to 10 kilograms per second with a multi-purpose nozzle.





Z-Attack

Depending on the vehicle type, our Z-Attack high reach extendable turret is available in two highest possible extinguishing positions above the ground: 17 and 20 meters. Flow rates of up to 6,000 liters per minute and the choice of water, foam or powder as extinguishing agent make it an efficient component in airport firefighting.

Our Z-Attack can be optionally equipped with a piercing unit for piercing the aircraft skin.

Intuitive joystick control and pre-programmed auto positions enable convenient, fast operation.



Extinguishing agent tank

The extinguishing agent tank holds up to 19 tons of combined extinguishing agents (water-foam). The newly designed tank is positioned at a low point in the vehicle and plays a key role in maintaining the vehicle's low center of gravity and optimizing its driving dynamics and safety.



Centrifugal firefighting pump

The heart of the extinguishing technology are the ZIEGLER built-in pumps which have proven themselves thousands of times. They are robust, extremely reliable, low-wear, designed for dirt water and therefore easy to maintain. The ZIEGLER admixing system, developed and tested for all foaming agents, is perfectly matched.

Features

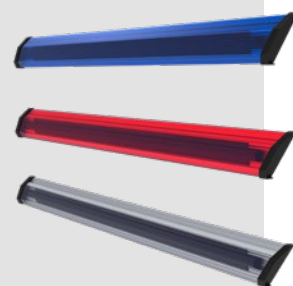
Designed to the last detail

Smart solutions for
maximum security

Z-Vision

ZIEGLER signal and lighting concept

The innovative lighting system offers numerous configuration options. Up to 7 LED light elements per vehicle side guarantee the visibility of the vehicle in use. The luminous intensity exceeds the required standard value by far. ICAO-compliant as well as blue and yellow flashing together with Top Integro and Tailfin ensure the best signaling effect from front to rear.



Roll-off type ladder frame

As a practical solution for optimum handling, the roll-off type ladder frame offers the option of conveniently and safely removing the ladders stored on the vehicle roof from the ground. This eliminates the need to access the roof and minimizes the risk of accidents. A mechanical or electro-hydraulic version, which can be controlled via Z-Control, are available as required.



Fall protection

If roof access is necessary, safety is paramount. Our fall protection can be configured as a separate, mechanically pluggable version, as a mechanically folding version or as a pneumatically folding version. The latter is conveniently set up automatically at the touch of a button or by folding down the access ladder.



Mirror replacement system

A mirror replacement system is available as an option, which ensures even greater safety when maneuvering and on emergency drives. Blind spots are reduced to a minimum and the vehicle's surroundings can be seen as clearly as possible. In the area of indirect vision, the Z-Class is certified according to ECE-R46.



Self-protection system

The self-protection system is used to protect the vehicle, in particular the tires, in the event of ground fires and is available in different versions. Nozzles in front of the front axle and on the rear axles with a capacity of up to 125 liters per minute per nozzle are supplied either by the vehicle's internal pump or a separate self-protection pump. If required, self-protection of the cab with up to 300 liters per minute can also be configured and switched on.



Developer, manufacturer,
trader and service provider –
all from one source.



Extinguishing technology



Control and Operation



Firefighting vehicles



Hoses and Equipment



Service



Albert Ziegler GmbH
We provide security.
Albert-Ziegler-Strasse 1
89537 Giengen/Brenz
Germany
Phone +49 (0)7322 951-0
Fax +49 (0)7322 951-211
info@ziegler.de
www.ziegler.de



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