



**IVECO**  
**MAGIRUS**







# ANYONE FACING FIRE NEEDS GOOD STRONG FRIENDS.

Every day in all parts of the world, millions of fire fighters and emergency rescue workers give help to those that need it. Anyone who goes into a fire to battle the forces of nature and help people in danger needs courage and idealism, enthusiasm, good training and – above all – technical equipment which is 100% reliable in all situations.



At IVECO MAGIRUS, we regard ourselves as partners of the emergency services. For many decades now we have been supplying vehicles and equipment which not only guarantee effective help, but also make service on a day-to-day basis safer and more predictable. Again and again, innovations from IVECO MAGIRUS set new standards for the whole sector. The revolutionary aluminium AluFire superstructure system, special fire fighting chassis, innovative cabin solutions, the latest pump technology, convincing all-wheel drive concepts: these are all reasons for fire brigades and emergency services the world over putting their trust in IVECO MAGIRUS. We'll be staying a step ahead in the future too – and at the same time, where we belong: at your side.

# MANY STANDARDS, MANY WISHES, JUST ONE NAME: IVECO MAGIRUS.

Characteristics	
<b>Gross vehicle weight (GVW)</b>	11 – 40 t
<b>Crew</b>	1+2   1+5   1+8
<b>Extinguishing medium tank</b>	
Water with internal tank	500 – 4,000 l
Foam tank	max. 400 l; proportioning rate 0.1 – 6%
Water with external tank	4,000 – 18,000 l
Foam tank	200 – 18,000 l; proportioning rate 0.1 – 6%
<b>Pump output</b>	
with internal tank	1,000 – 7,000 l/min / 10 bar
with external tank	2,000 – 10,000 l/min / 10 bar

YOU TELL US WHAT YOU WANT:  
WE'LL BUILD YOUR VEHICLE.

No matter in what country in the world, whether north of the Arctic Circle or in the tropics, whether in the city, in the country or in the middle of a forest, whether on an industrial estate or for a special purpose, whether to a specific standard or national state regulations, IVECO MAGIRUS has the fire pumpers to suit your very special requirements.

Special fire fighting chassis to suit every type of terrain and in every weight class, various cabin versions and extremely flexible superstructure concepts make it possible for us to configure and design the ideal solution for every case.

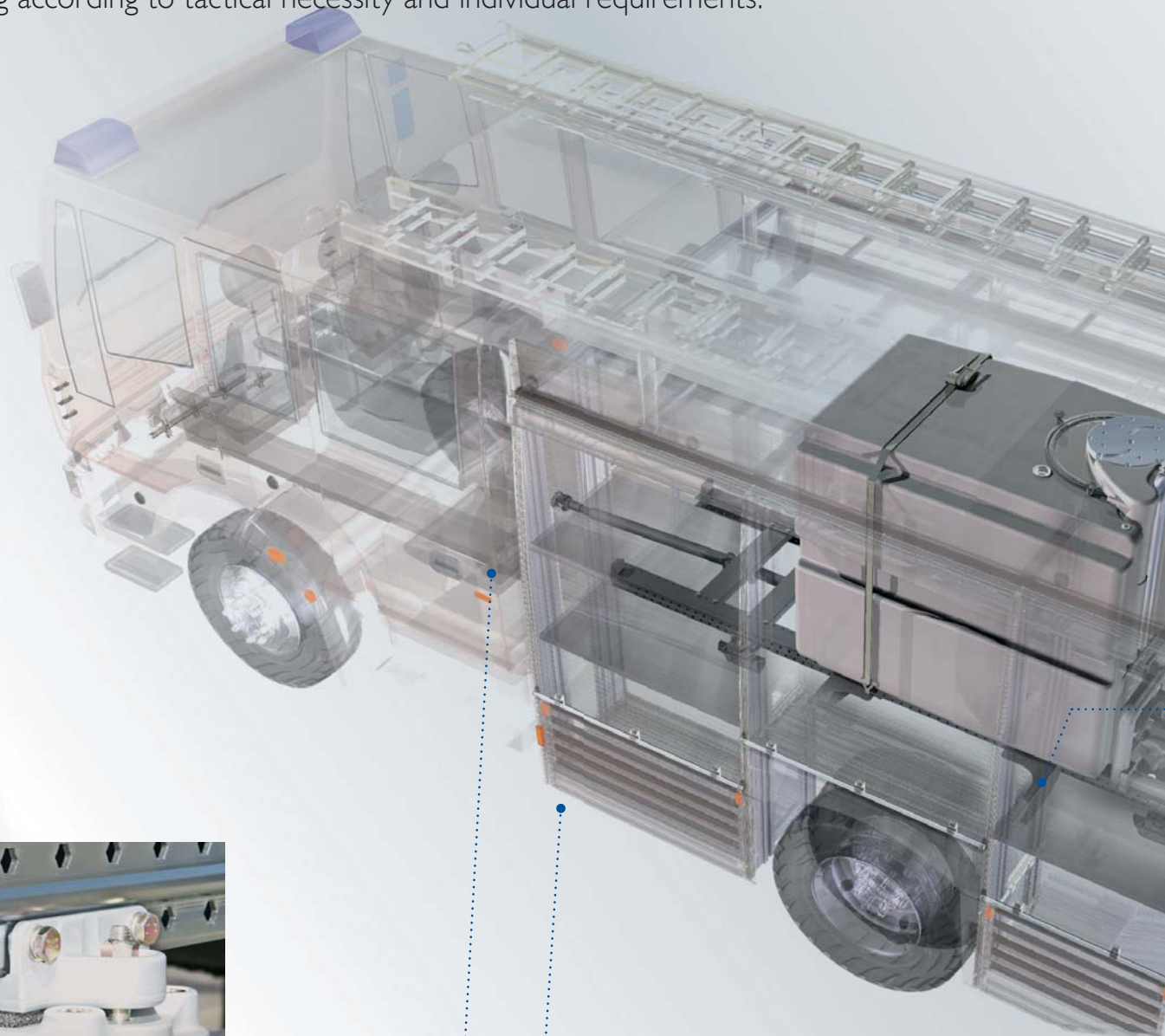
Pump technology and foam proportioning systems of our own design round off the range.





# THE PRINCIPLE “FLEXIBLE ALL-ROUNDER”.

If the accent is on equipment and the crew, then a superstructure concept with internal modular tank will be optimal. It offers plenty of storage space and maximum flexibility for loading according to tactical necessity and individual requirements.



## Flexible bodywork suspension

The superstructure is not directly connected to the chassis – for safer handling and greater torsional flexibility. The shock absorber with its specially-developed stainless steel mesh is totally unaffected by dirt, corrosion, salt or UV light.

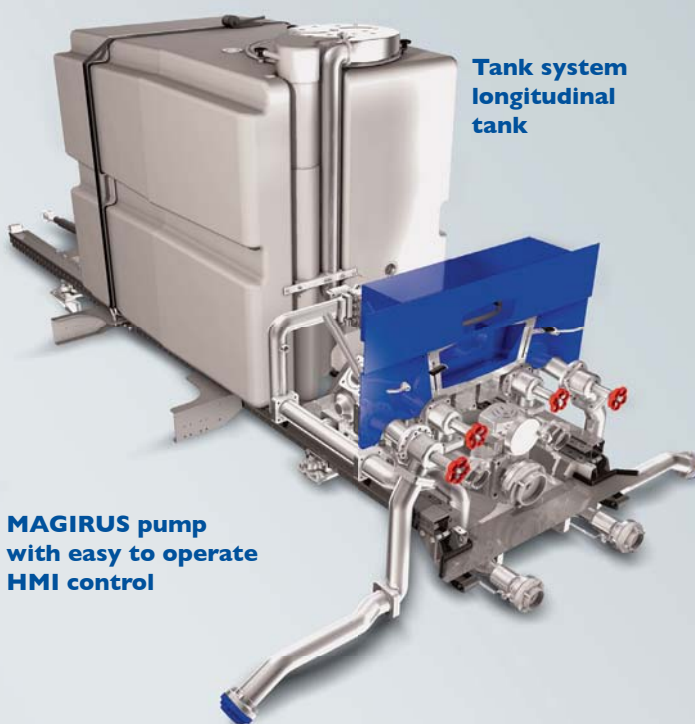
## High-volume superstructures

The concept offers plenty of storage space alongside the tanks. Lowered equipment lockers (some as an option) between and behind the axles supplement the space available additionally.



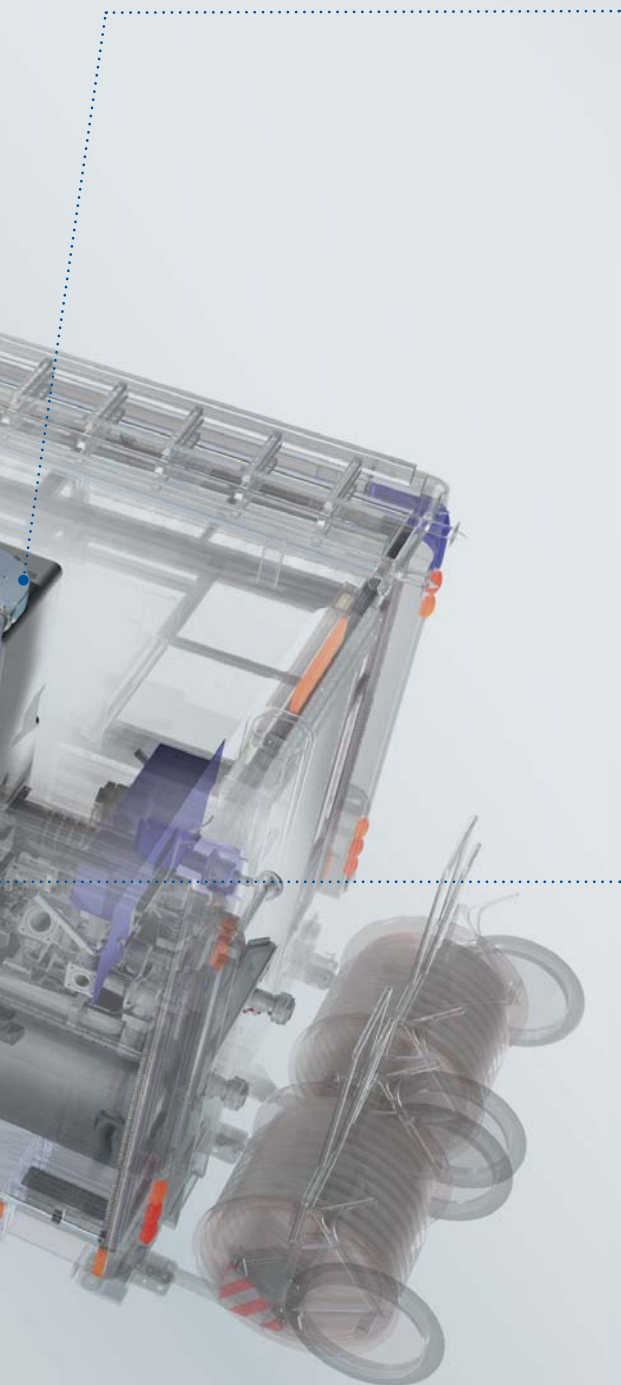
### Modular tank system

The modular system is flexible: both in the water and foam volumes and in the position of the tanks in the vehicle. There are three different tank widths possible. Narrow tanks leave a greater depth for equipment lockers. Through different tank widths and modular foam tank combinations, tailor-made extinguishing medium solutions are possible.



**Tank system  
longitudinal  
tank**

**MAGIRUS pump  
with easy to operate  
HMI control**



**MAGIRUS  
special profile**

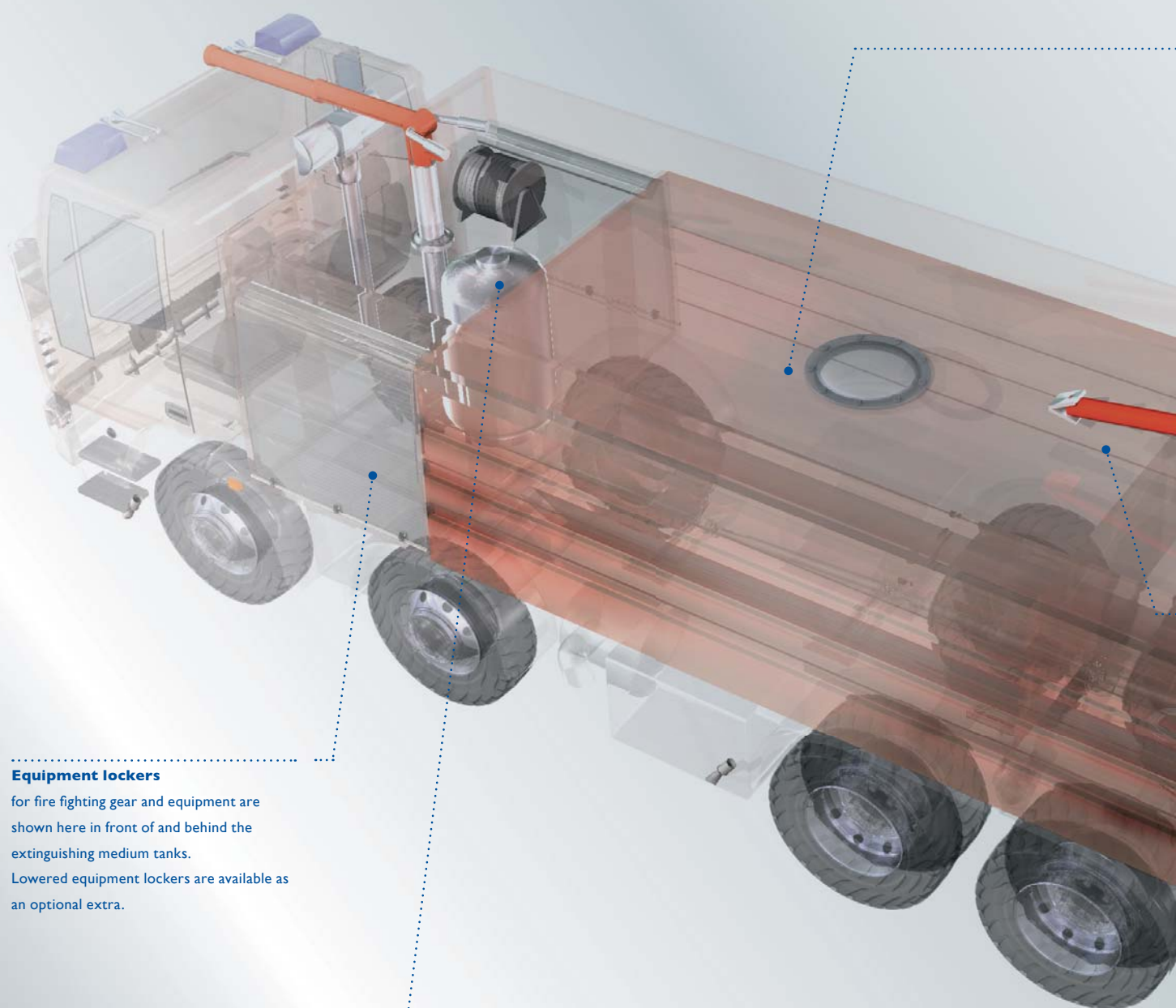
**Zinc-phosphated and  
cataphoretic immersion  
painted**

### Variable modular frame

The frame profile is a special design which is precisely made to suit the particular application. Due to the variable bolting layout and the adjustable width and length, the frame can be flexibly matched to the axle loading relationships of various chassis as well as different sizes of extinguishing medium tanks.

# THE PRINCIPLE “HIGH-PERFORMANCE EXTINGUISHING SPECIALIST”.

When large amounts of different extinguishing media are used, the superstructure concept with a external tank is the ideal answer. The additional equipment carried can either be used solely for fire fighting or can make the vehicle even more versatile.



## Equipment lockers

for fire fighting gear and equipment are shown here in front of and behind the extinguishing medium tanks. Lowered equipment lockers are available as an optional extra.

## Special extinguishing installations

dry powder, CO<sub>2</sub>, gels and similar are also possible, according to requirements.

## Foam proportioning system

MAGIRUS CaddiSys with electronic flow rate control



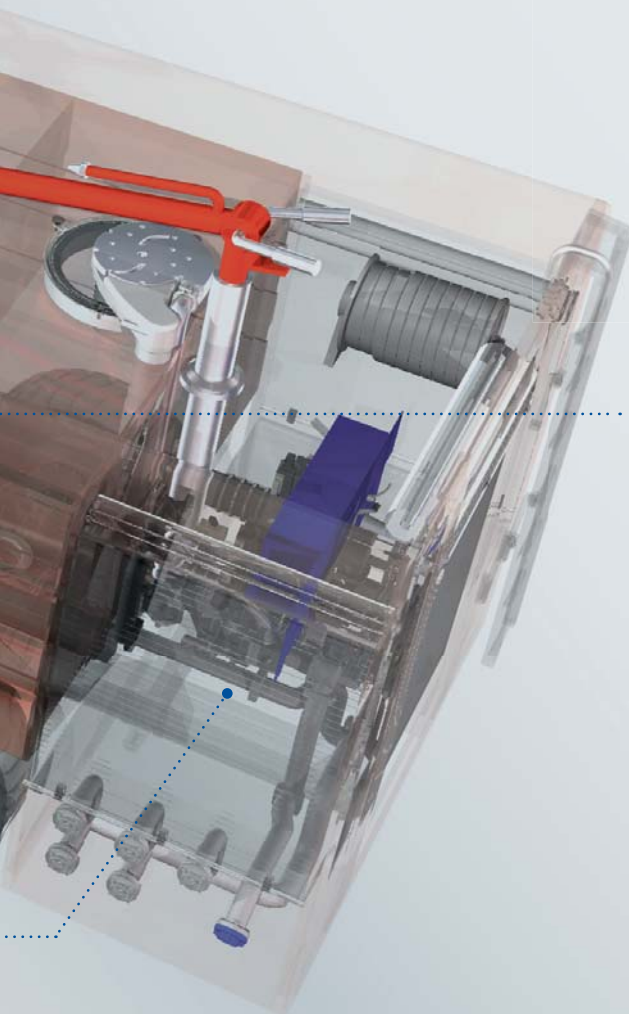
### Large tanks

transverse to the rear axle(s) make possible the realisation of up to 18,000 l of extinguishing medium. Individual solutions are available with special extinguishing installations such as foam, dry powder or CO<sub>2</sub> for example for works fire brigades.

**Tank system  
transverse tank**



**MAGIRUS pump with  
easy to operate  
HMI control**



### Powerful monitors

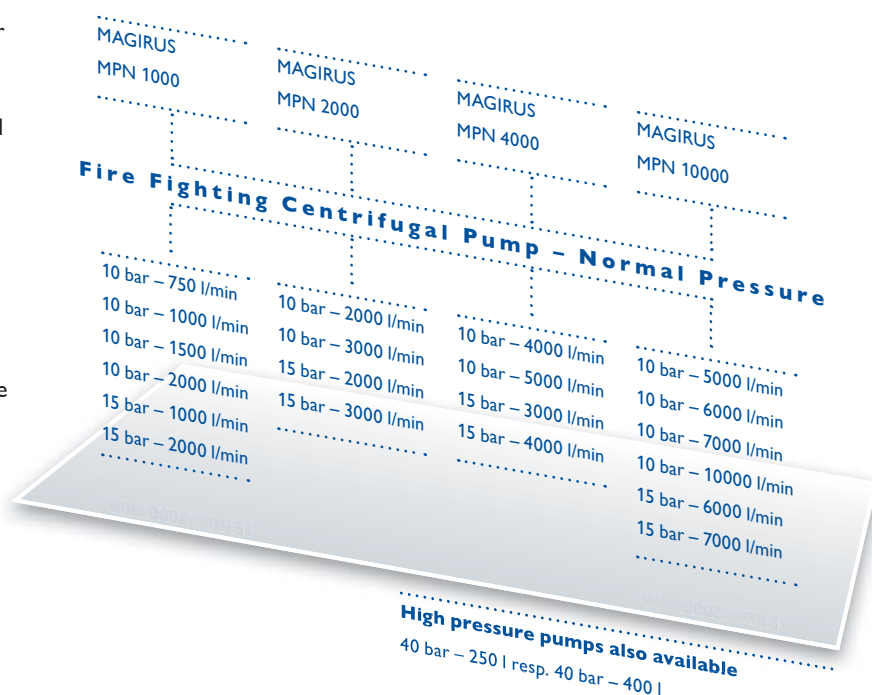
with throw ranging from 400 to 6,000 l/min they accurately control the great extinguishing power. They can be installed on the driver's cab, the body roof or on the bumper and they can be controlled either manually or remotely by radio or by wire. Various types of foam pipes are available including self-sucking type, as well as combined monitor with multiple pipes for using water, foam and powder.

# WE PUT THE FIRE UNDER REAL PRESSURE.

VARIOUS MODELS, ONLY ONE CLAIM:  
HIGH PERFORMANCE AS STANDARD.

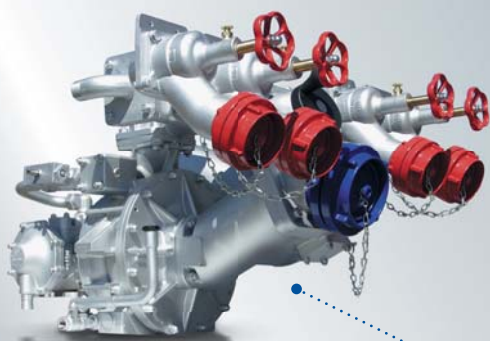
Our current range of pumps continues the tradition of the MAGIRUS pump technology at the highest level. From the lightweight standard fire pumper right through to the airport fire fighting vehicle, all pumper configurations can be fitted with the optimum equipment. Irrespective of the vehicle: what you get from MAGIRUS as standard is a two-stage centrifugal fire pump – with all these advantages:

- Modular design
- Compact, robust, sturdy construction
- Protecting the motor, low-noise, environmentally-friendly
- Not sensitive to cavitation
- MAGIRUS "Primatic" fully-automatic priming device
- Easy to maintain
- High level of operating reliability
- Suitable for pumping-out operations
- High suction capacity
- Not sensitive to soiled water
- Compact dimensions, light in weight



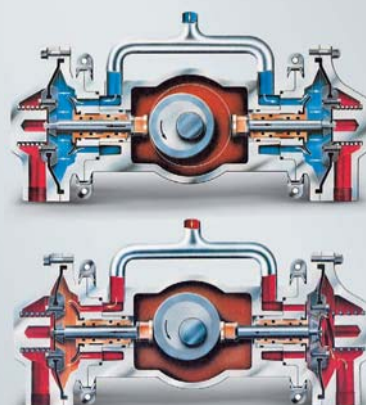
## MAGIRUS pump housing

- The low-level pump-control stand is ergonomically designed.
- The pump valve in the A-suction inlet permits an inlet pressure of up to 12 bar. That means that even higher hydrant pressures or transporting the water over long distances presents no problem.
- A flexible configuration in accordance with the customer's needs and with local regulations is also possible.



## The pump automatic priming system

MAGIRUS "Primatic" is the heart of our pumps. It works highly reliable and with extremely low wear. Its design is based on the membrane pump, which is well known for its resilience in the presence of dirt. Cutting in and out of the priming system is controlled directly from the pump working pressure – without any additional hydraulic or electrical assistance.

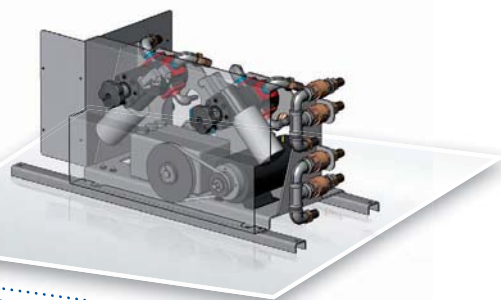






#### Practical foam proportioning

The MAGIRUS FireDos® proportioning system guarantees a constant level of foam proportioning – even at varying rates of flow or operating pressure.



#### CaddiSys: reliable, flexible, simple.

The user-friendly MAGIRUS system with electronic foam production permits fast and efficient intervention.

### MAGIRUS HMI PUMP CONTROL UNIT (HUMAN MACHINE INTERFACE)

- Modern, state-of-the-art control system which can be used quickly and without problems even without computer experience
- Logical, easily-understood combination of classically-learned pushbutton operation for the main functions and purely supportive display information
- Simplest possible menu-driven operation with flat hierarchies without complicated menu changes, without touch screen.
- Usable also as display for the rear view camera (option)
- Pushbuttons can be operated with gloves
- Display instruments, e.g. manometers, in familiar analogue design
- Remote diagnostics possible for telematic systems
- NEW - integrated operation of light masts
- Addressing all CAN-bus networking in the body-work and in components fitted additionally over FIRECAN
- Same control logic as the HMI control unit in the cab, simplify handling and training

- 1 Pump stand with MAGIRUS HMI control unit.
- 2 The operating system is easily understood and easy to operate – even with gloves.
- 3 Practical menu level for the operator delivers current operating data.



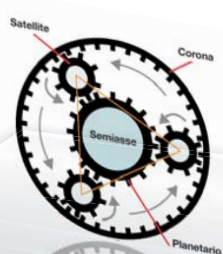






# TOWN, COUNTRY, AWAY FROM IT ALL: WE ARE PREPARED.

No matter where you are located: chassis for fire fighting and civil protection vehicles have to fulfil extraordinary demands. IVECO as one of the world's leading manufacturers of industrial vehicles therefore offers fire brigades a special, comprehensive chassis concept.



## Planetary hub reduction in the axles

is standard on the 4x4 chassis with full-time all-wheel drive. The unique all-wheel drive system gives greater ground clearance and causes less wear on the drive components. The front axle is always engaged at the same rotation speed as the rear axle.

That reduces stress on the driver, ensures a safe driveability on the road as well as ensuring more traction on different terrains, as the vehicle is "drawn into" curves. Twin tyres or single tyres are alternatively available.

## CHASSIS AND SUPERSTRUCTURE: WHEN THEY BOTH COME FROM THE SAME MANUFACTURER, THEY'LL BE PROPERLY MATCHED WITH ONE ANOTHER.

**1** Powerful, manoeuvrable, comfortable, well-laid-out: IVECO EuroCargo road chassis for fire fighting vehicles. Long wheelbases and high payloads permit more to be carried.

**2** Powerful traction, reliable and safe on all grounds: IVECO EuroCargo chassis for fire fighting vehicles with full-time all-wheel drive. Same track and single tyres ensure better progress away from made-up roads.

**3** The IVECO Stralis incorporates leading industrial vehicle technology. Design and function complement each other perfectly.

The IVECO Trakker combines the robust characteristics of the IVECO construction site vehicles with a high level of driver comfort and first-class performance figures.

**4** Power and reliability. IVECO engines are the basis for this success. The "steel heart" of every IVECO vehicle returns a reliably high performance which is available over a wide speed band. It's not the theoretical maximum values which are important, but a style of driving using few gear-changes, with low levels of noise and exhaust gas emissions.

The IVECO MAGIRUS fire-fighting chassis are specially developed for the purpose. There are chassis in various different weights and power classes for superstructures of the numerous fire pumper configurations. The optimum matching of chassis and superstructure concept makes sure of outstanding handling characteristics both on and off road.



# BUILD ON THE ORIGINAL: ALUFIRE 3.

MAGIRUS was the originator of aluminium superstructures for fire fighting vehicles. Now in its third generation, the AluFire-System which has sold in its thousands shows itself to be more flexible, more intelligent, more powerful and more successful than ever.

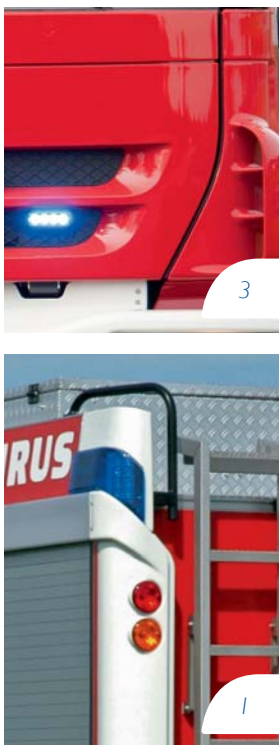
## MUCH MORE THAN JUST THE SUM OF INNOVATIVE DETAILS

Based on experience with the successful AluFire System, the third generation AluFire 3 has been completely newly developed. Functionality of the complete system and of its every detail in the hurly-burly of everyday service as well benefits for the user are right at the forefront.

One of the most compelling arguments for using AluFire 3 is its flexibility. The modular basic build-up of hardware and software makes it possible for optimum solutions to be implemented for quite different requirements, specifications and concepts. There is a uniform system – throughout the whole range of weights and types, from the TSF to the HLF, from the 4-tonner to the 40-tonner. Materials and structures specially developed for MAGIRUS are designed to withstand long-term heavy duty operation.

AluFire 3 is a modular system which has been thought through in the finest detail and even thinks for itself. Electronics is not a purpose in itself, but is deliberately used to enhance, support and safeguard the functionality. MAGIRUS CAN-bus control is a unique feature: redundant data wiring for all main functions (e.g., pump functions) guarantee in combination with highly-intelligent splitter modules the highest possible level of operational reliability and excellent error management. All functions are integrated and have a unified user interface.

The reduced wiring complexity which is needed helps to minimise the likelihood of failure of the system as a whole, and makes it easier to connect up extras.







#### Space-saving roller-shutter system

Narrow roller-shutter guides increase the usable space. You gain room for additional equipment. The mounting in the superstructure create more space on the roof for installing large-volume storage boxes.



#### Load-carrying solution

Highly-stable sandwich floors are extremely strong. Countersunk screws prevent injuries and damage to equipment.



#### Flexible in three dimensions

360° around aluminium supporting belts complete flexibility when loading: this can be carried through from the roof right to the floor.

Panel-shelves can also be inserted without the need to remove any components.

#### Robust. Light. Uncomplicated

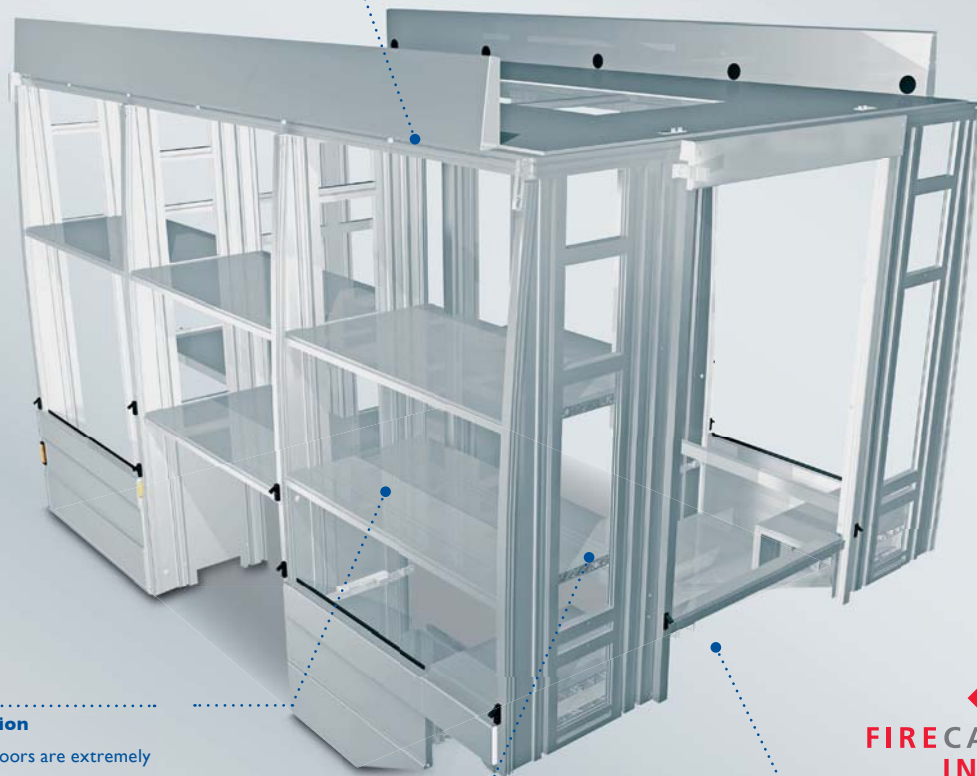
The anodised aluminium profiles are insensitive and therefore long-lasting. There are less components for less weight and this makes maintenance and repair easier. We also give a 12-year guarantee against corrosion through – only in combination with a maintenance contract.

#### Efficient

An Energy-Management-System permanently monitors that electrical systems not in use are switched off and thus helps keep the vehicle's energy consumption down.

#### See and be seen

All lighting systems both internal and external are available in the most modern LED technology.



#### FIRECAN-compatible

The standardised interface between superstructure and components enables the exchange of components from various manufacturers (Plug-and-Play) as well as a central diagnostic system for the built-in components.



# ON YOUR MARKS – AND GO.

How efficiently and safely an operation runs isn't decided when you arrive at the scene of action, but on your way there. This is why the practical layout of the driver's cab and crew compartment is just as important for us as the way in which the equipment lockers are designed. We offer two different technologies for three applications.

## ALL-STEEL TECHNOLOGY

From a single mould: the special IVECO MAGIRUS fire fighting chassis are fitted with crew cabs in all-steel technology, which are bolted as standard directly on the assembly line. As in mass-production, the cathaphoretic full immersion bath priming and several coats of paint guarantee an optimum level of corrosion protection. The cab can be tilted hydraulically and is mounted on silent blocks.

Thanks to generous side windows and an additional middle window, all the crew members have an unusually good all-round view.

The generous width and depth provide plenty of space for the crew. 3 BA sets can be fitted facing away from the direction of travel; additionally, 2 BA sets can be fitted facing forwards. They are integrated in the rear wall of the cab, so that there is no loss of space in the front wall of the body and the torsional flexibility of the vehicle is not adversely affected.

## ALUMINIUM TECHNOLOGY

For all other chassis by IVECO as well as chassis by other manufacturers, a special aluminium crew cab has been developed. The cab module can similarly be tilted by hydraulics and is fitted with a middle window for optimum all-round visibility. It can either be docked onto the rear wall of the driver's cab or onto the front wall of the superstructure. If it is integrated in the bodywork the driver's cab remains tiltable, and the crew module is then fixed.

3 BA sets can be installed in the direction of travel. If the rear wall of cab is lengthened, an additional 4 BA sets can be installed, also facing forwards.

### All-steel technology,

standard in IVECO fire fighting chassis



### Aluminium technology,

cabin module docked on driver's cab. Also on all other IVECO chassis and chassis by other manufacturers.



### Aluminium Integrale technology,

cab module is integrated in the superstructure. Also on all other IVECO chassis and chassis by other manufacturers.





## MAGIRUS CAB CONTROL UNIT HMI (HUMAN MACHINE INTERFACE)



The HMI display inside the driver's cab ensures an optimum view of all important information. Operation by simply pushing a button is uncomplicated and user friendly.

- Clear overview of all functions, status and possible warnings through easily understandable graphics and symbols
- The optimum display visibility ensures safe operating procedures of the functions for both the appliance operator and the truck driver
- No retrofitted wiring and switches in the dashboard are required - for the highest possible reliability
- Simple integration and control of additional units via FIRECAN
- Same operating logic as for the HMI pump control unit which simplifies handling and training purposes
- Highest system security in the branch through independent, double CAN control system as well as pneumatic and manual emergency operation



- 1 IVECO MAGIRUS cabs offer an optimum head height and leg-room.  
Advantages: more space when seated, when crew members put on breathing apparatus and other equipment.
- 2 Two sets of breathing apparatus can be integrated in the rear wall of cab (option). No space is lost in the front wall of the body and no torsional problems are caused between crew cab and bodywork. Legroom and freedom for the feet remain completely unaffected.

### Aluminium technology,

cab module docked on driver's cab.  
Shown here with MAN chassis.



### Aluminium technology,

cab module docked on driver's cab.  
Shown here with Mercedes chassis.



### M-flash integral blue lights,

as an up-to-date option are blue LED lights integrated in shapely and smooth designed roof domes available.



# WHATEVER YOU NEED: EVERYTHING IS THERE.

Thanks to options and a modular system of equipment, every fire brigade can specify their vehicles according to their own particular needs.

## FROM PRACTICE – FOR PRACTICE.

The AluFire 3 superstructure system creates large quantities of space.

You use this to the best advantage with a number of clever details, which are of such a nature that it's clear they came from practice. Of particular note are creative, individual solutions for the stowage of equipment and fittings, the ergonomic removal heights in all equipment lockers and the many ideas which save time during operations and make for enhanced safety levels.

- 1 Rotating walls and trays make it possible to best utilize the space available.
- 2 The stable rotating trays are free-running and can be locked in any position by one hand.
- 3 Alternatively, pump room can be fully panelled-in. Quick-attack hose-reels with fold-out hose guide are possible at the rear inside or sidewise in the equipment lockers.
- 4 Automatic ladder lowering in rest position controlled electronically via HMI.
- 5 Heavy-load lift for easy removal of heavy equipment such as portable fire-pumps.
- 6 Alternative rear design with external quick-attack hose-reel, external pump control stand as well one-man reels and rear warning panels.
- 7 The hygiene board for fire pumper and special vehicles can be installed in any equipment locker built in the AluFire 3 modular system.  
Easily-accessible cleaning tools are integrated such as wash-brushes, compressed air outlets and classic water taps with wash-hand basins and soap dispenser. There is also a compartment with rubbish bags, hand-towel dispenser and a leakproof disinfectant dispenser. Installation is simple with the customer providing water and compressed air connections.
- 8 Up to 200 m of B-hose can be reeled onto a MAGIRUS one-man reel. Max. two reels can be carried on the rear.









# ALL FROM ONE SOURCE. ALL IN YOUR VEHICLE.

## Light mast

- At the front in the bodywork or at the rear
- Can be extended either pneumatically or by manual crank
- A variety of lights available, e.g., halogen, xenon, LED or metal vapour lamps; or a combination of these
- Light bridge electrically rotatable/inclinable
- Controlled via HMI control unit
- FIRECAN-technology

## Traffic directional device

- In LED technology

## Integrated rear warning lights

- In state-of-the-art, CAN-bus-controlled LED technology
- AluFire 3 design elements as standard
- Rear lights also in LED technology

## Roof access ladder

- Safe access to the roof via inclined ladder

## Pump inlets and outlets

- Flexible in configuration

ONE LOOK AT THE DETAILS, AND YOU REALISE  
JUST HOW GOOD THE WHOLE THING IS.

Our guiding principle "Everything from one source" has always proved its value and shown itself to be a convincing selling point. Chassis, superstructure and accessories are all developments from the same source and are thus ideally matched to one another.

In us, you have the partner who takes on the complete responsibility and is there for you for just as long as your IVECO MAGIRUS vehicle stays in operation with you.



## Limber-up possibility

- For up to 2 one-man reels





# OUR RESPONSIBILITY DOESN'T END WITH THE SALE.

Our customer service is literally “service for the customer”. With a range of facilities which are supplied individually according to the needs of the different fire brigades, we make sure that your readiness for action is always unrestricted.

## ALL FROM ONE SOURCE ALSO MEANS: NO PRODUCT WITHOUT BACK-UP SERVICE.

Guaranteeing full service readiness and keeping down-times to an absolute minimum – for fire fighting vehicles, this is a vital necessity. IVECO MAGIRUS Customer Service therefore offers you far more than just maintenance and spare parts supply: total service for the customer.

### Maintenance contracts

IVECO MAGIRUS offers products from an annual inspection to a combined inspection and maintenance contract over a ten-year period which are all tailored to suit the individual requirements of the respective fire brigades.

### 12-year guarantee against rusting through

With annual inspections, we offer you a 12-year guarantee against rusting through.

### Remote diagnostics

The possibility of remotely checking the condition of vehicles and diagnosing sources of malfunction, carrying out inspections and correcting faults all reduce down-times and help cut costs.

### Field service

Over 100 service engineers support customers on site. There are four central workshops and more than 60 qualified service partners available around the world.

### Service hotline

You can reach us 24 hours a day, seven days a week, 365 days a year under the hotline number **+49 (0) 731 408 4080**.

### Spare parts

More than 13,000 different original spare parts are available round the clock. Our spare parts documentation ensures that the parts will have long-term availability.

### Repairs / general overhauls

We will take on a comprehensive repair of your vehicle for example following an accident. A general overhaul will bring even older vehicles back up to today's state-of-the-art.



UVV/GUV inspection



# PARTNERS SHARE EVERYTHING. KNOWLEDGE AND EXPERIENCE TOO.

Having the very latest equipment is one thing. Being able to make full use it, reliably and safely, is quite another. That's why we don't just sell our customers the vehicles; we also train them in additional skills.

FOR US, IT'S NOT THE TECHNOLOGY WHICH IS  
THE FOCUS OF ATTENTION,  
BUT THE PERSON WHO IS USING IT: YOU.

As a platform from which knowledge is spread, abilities are extended and skills are trained, the IVECO MAGIRUS Fire Fighter Academy offers our customers a real bonus.

While the VIP block is generally directed at the needs of senior members of the fire brigade, the basic block training is effectively a basic training course for all fire brigade personnel. It includes:

## Real fire training – fire behaviour training

Based on practice in a gas-fired heat acclimatisation unit, participants are confronted in three solid-fuelled fire containers with real conditions where temperature and sight conditions correspond exactly with those faced in a real room fire. An extreme challenge!

## Driver safety training

Since fire brigade drivers seldom have the chance in regular training to practise extreme situations with their vehicles, they get this opportunity with us. In road and 4WD training, participants can test out the limits of man and machine without danger, gaining in experience and self-confidence.

## Technology training courses

We train you and your team in safe, error-free operation of your IVECO MAGIRUS vehicles and equipment. You will benefit from the manufacturer's inside knowledge.

The Academy is an offer made by us to our customers – but it is by no means a one-way street. We also see ourselves in the role of learners. Our aim is to use the academy and its long-standing dialogue as a foundation for gaining pragmatic suggestions and constructive criticism to enable us to develop and construct even better products in the future.



## The Academy is open

to all fire fighters. On the purchase of an IVECO MAGIRUS vehicle, certain training courses are already included.





IVECO MAGIRUS supplies everything from under one roof:

- a globally unique, complete range of vehicles for fire fighting, aerial rescue and civil protection
- chassis, cabs, equipment compartment bodywork, outfitting and pumps
- 145 years experience and the power of continuous innovation

**[www.iveco-magirus.net](http://www.iveco-magirus.net)**

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