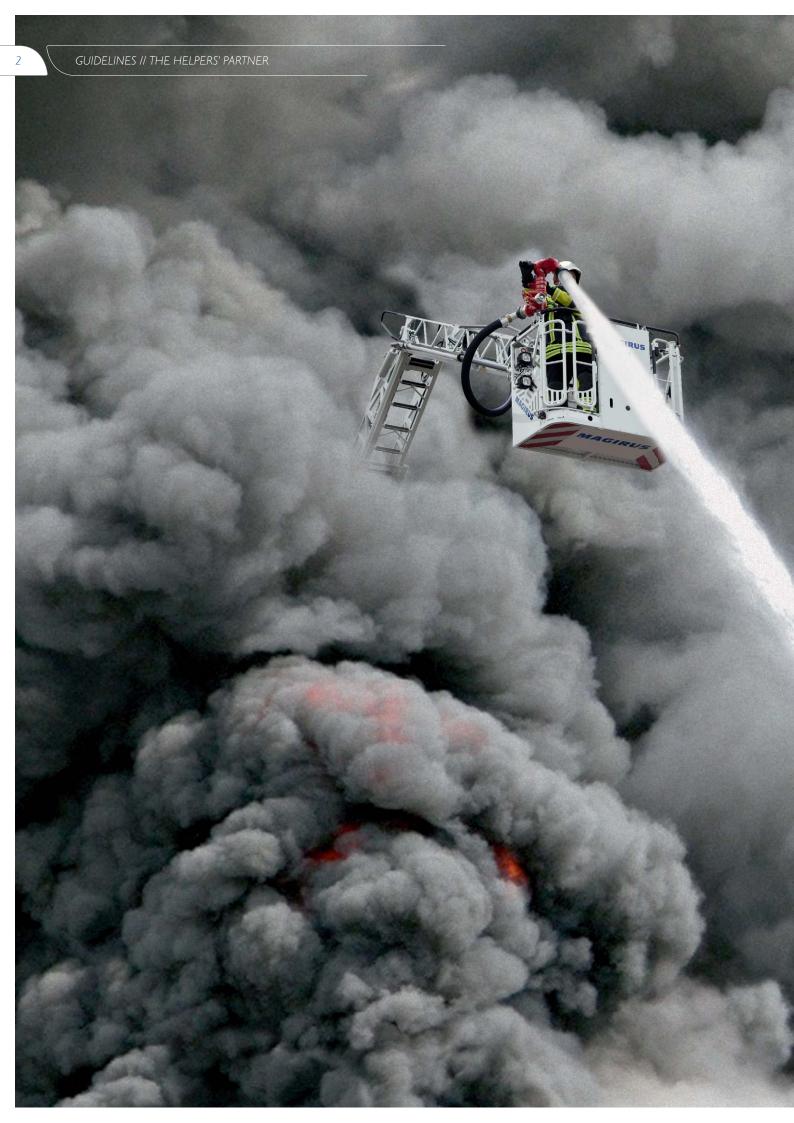
TURNTABLE LADDERS STANDARD AND ARTICULATED TURNTABLE LADDERS



IVECO MAGIRUS



# ON THE FRONT LINES YOU NEED STRONG ALLIES

Millions of fire fighters and emergency responders serve their neighbours every day. Going into fires, battling the forces of nature and helping people in emergencies takes courage, idealism, commitment and good training. But above all, it takes technical equipment that is 100% reliable in every situation.

At IVECO MAGIRUS we see ourselves as the helpers' partner. For many decades now, we've been supplying vehicles and equipment that not only guarantee effective assistance, but also make conditions safer, easier and more predictable during everyday operations. Our employees continuously maintain close contact with the people out on the front lines – whether in fire fighting or civil protection, in volunteer, professional or industrial fire brigades, in the world's more isolated regions or in its metropolises.

Everywhere throughout the world, fires rage in the same way, storms devastate entire swaths of land, traffic accident victims have to be extricated and people have to be rescued from dangerous situations. And everywhere throughout the world, MAGIRUS vehicles and equipment are in operation.

They are evolving together with their tasks – with constant improvements and also entirely new inventions. Our innovations and developments are based on the experience of those who actually face the flames – experience that motivates our technicians and engineers – keeping us one step ahead, also in the future, and right where we belong: at your side.

# WHEN YOU SAY "TURNTABLE LADDER", YOU MEAN MAGIRUS.

All over the world, the name MAGIRUS is synonymous with turntable ladders. Ever since 1872, when our legendary founding father Conrad Dietrich Magirus developed the first free-standing fire brigade ladder, we have continuously "dominated the airspace".



#### **Maximum flexibility**

IVECO fire fighting chassis form the optimal basis for our turntable ladders.

We also build superstructures for a wide range of other chasses, however.

Various crew cab solutions are possible as well.



## THE "ULM LADDER" WAS A REVOLUTION. STILL TODAY, ITS DESCENDENTS DEFINE WHERE "UP" IS.

Developing solutions that make conditions safer, easier and more predictable for our customers in their everyday operations is our mission, our drive and our passion. Above all, this has enabled us to commercialise turntable ladder innovations time and again over the course of many decades – innovations that have set new standards for the entire industry, whether it be the highest turntable ladder in the world, CS (computer stabilised) control or the still unsurpassed MAGIRUS articulation technology, which has now been optimised even further.

Advantages such as the unique VARIO jacking technology, the special finishing of the ladder set, and the AluFire superstructure platform have helped MAGIRUS turntable ladders become the best in the world. And for anyone who has been so highly appreciated for so long, there's also only one way to go in future: up.





#### High-tech and manufacturing

IVECO MAGIRUS is a high-tech company
In turntable ladder production we nevertheless
remain essentially a manufacturing operation.

High-tech and outstanding craftsmanship: we combine the two to deliver the quality that our customers have come to expect.





# WHERE EVEN "STANDARD" IS EXTRAORDINARY.

Our compact MAGIRUS 27 meters ladder and the popular ladders of the 32-metre class provide impressive results with unequalled performance, advanced features and all of the typical MAGIRUS advantages.

Characteristics	
Gross vehicle weight	13 – 16 t
Crew	1+2 · 1+5 · 1+8
Cage	3/4 persons
Operating height	27 – 32 m, choice of semi or fully automatic
Chassis	4x2   4x4
Pump	Optional



## TWO MODEL SERIES – MAGIRUS QUALITY THROUGHOUT

## Semi-automatic turntable ladders with sequential movements according to EN 14044

This technology enables different hydraulic movements to be performed consecutively, not simultaneously. It satisfies customer requirements in a few special markets and is available in configurations with operating heights of 27 m and 32 m.

## Fully automatic turntable ladders with combined movements according to EN 14043

With modern load-sensing hydraulic units and intelligent control and monitoring systems, this technology makes it possible to perform different hydraulically driven movements simultaneously. MAGIRUS fully automatic turntable ladders conform to the highest customer requirements all over the world. Available configurations include operating heights of 27 m, 32 m, 39 m, 42 m and 55 m and 60 m as well as articulated arm technology.

## MAGIRUS TURNTABLE LADDER TECHNOLOGY – SUPERIOR RUNG FOR RUNG:

- · Unique MAGIRUS CS (computer stabilised) oscillation damping system with all fully automatic ladders
- Electronic monitoring system of the complete ladder (CAN bus) including interactive menu programs for special customer requests along with remote diagnostics and service information; optional GPS and SMS
- · MAGIRUS VARIO jacking system for gliding outreach control
- AluFire superstructure platform with integrated work area lighting (optional), safety steps located at the centre and rear of the vehicle, and generously sized equipment lockers; torsion-resistant substructure for optimal stability
- · Ladder guides made of stainless steel profiles for corrosion-proof ladder extension system
- · Optimal corrosion protection via cataphoretic immersion coating for substructure, ladder set and cage
- Modular four-section ladder set with laser-welded stiles and rungs made of high-strength fine-grain steels



# A HIGHER CALLING – OUR "GROWN-UPS".

With operating heights of 39 to 55 m, our big ladders are in demand wherever fire brigades have to reach extremely high places. And despite their exceptionally high operating heights, MAGIRUS ladder trucks are fast, highly manoeuvrable and extraordinarily reliable – which makes them ideally suited for use in modern metropolises and conurbations.

Characteristics	
Gross vehicle weight	16 – 26 t
Crew	1+2   1+5   1+8
Operating height	39 – 55 m, fully automatic
Cage	3 / 4 persons (not with M 55 L)
Chassis	4x2   4x4   6x2   6x4
Pump	Optional

#### UNSURPASSED TURNTABLE LADDER TECHNO-LOGY BY MAGIRUS

MAGIRUS' big ladders offer all of the advantages of the turntable ladders of the smaller class. Of course convinces also the 55 meters ladder of MAGIRUS through:

- Greater active and passive safety through sophisticated computer technology and the highly sensitive levelling turntable that operates without the need for any adjustment whatsoever
- · Enhanced motion comfort and shorter set-up times through the load-sensing hydraulic system
- · Extremely high reliability and minimal maintenance costs through trouble-free digital signal processing
- · 2-person lift with automatic up-down rails for rapid, uncomplicated entry and exit







# ARTFUL DODGERS – OUR ARTICULATED LADDERS.

MAGIRUS commercialised the world's first articulated turntable ladder in 1994. Today the revolutionary technology represents an entire class of products.

## WE OPEN UP COMPLETELY NEW DIMENSIONS IN TURNTABLE LADDER TECHNOLOGY.

MAGIRUS turntable ladders with articulated arms and telescopic articulated arms extend the operating range of fire brigades considerably. They make it possible to provide more comprehensive help—faster and more securely—especially under difficult conditions and in particularly demanding situations. As the world's leading manufacturer of turntable ladders and the inventor of the articulated ladder, MAGIRUS is in a class of its own here as well. Both our ladder technology, which has now proven itself a thousand times over, and our model range are unsurpassed.

## THE CHARACTERISTICS OF MAGIRUS ARTICULATED TURNTABLE LADDERS:

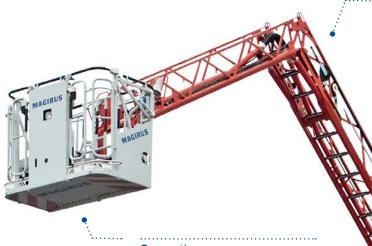
- · Inclinable resp. inclinable and telescopeable articulated arm
- 3- or 4-person rescue cage, removable, with
   2 multi-function columns for monitor and/or
   stretcher support, positive pressure ventilator, etc
- · Immediate entry via podium stand or front entry with cage set down
- · Pre-piped water delivery in the topmost ladder section for extinguishing and monitor operation
- Choice of podium with a lowered equipment locker or with an additional vertical equipment locker with extra large capacity
- · Significantly expanded rescue range







# MAGIRUS 30 L-A - 3.50-m long articulated arm can be inclined by 75° - 30% greater rescue range versus a standard DLK MAGIRUS 32 L-AT - Additional 1.20-m long telescoping, continuously extendable ladder section - 30% higher performance than the articulated ladder - 30% higher performance than the articulated ladder



#### **MAGIRUS 32 L-AS**

#### Integrated articulated section

The articulated section is integrated into the first section of the four-section ladder set, and the articulated arm reaches a length of  $4.70\,$  m without an additional telescoping section.

#### **User benefit:**

The reduced weight at the tip of the ladder where the cage is mounted extends the outreach.

- 32 meters working height with 4 section ladder set.
- · Reduced total weight more payload.
- Improved waterway with increased water output of 2,500 litres max.

MAGIRUS 32 L-AS
Single extension system

**User benefits:** 

Not all ladder sections are extended

simultaneously, but rather the topmost first

section is extended on its own first, and then all other ladder sections follow.

Articulated arm function with 4 section ladder set and less moving parts provides for enhanced reliability once more. It also improves the weight distribution between the front and the rear axles and raises the maximum payload in the rear axle area.

#### Cage options:

The tip of the ladder can be fitted with either a 3-person or a 4-person rescue cage.

Characteristics	
Gross vehicle weight	16 t
Crew	1+2   1+5   1+8
Operating height	32 m
Articulated section	3.50 m – 4.70 m
Cage	3   4 persons
Chassis	4x2   4x4
Pump	Optional

#### MAGIRUS 32 L-AS

 4.70-m long articulated arm can be inclined by 75° as single extension

#### User benefits:

- Larger outreach
- Material- and energy-saving design
- Reduced overall weight, increased payload in the turret area
- fast moving speed



# WITH OUR LADDERS, NOTHING IS BEYOND YOUR REACH.

## MORE OUTREACH. MORE OPERATING HEIGHT. MORE UNDERFLOOR DEPTH. MORE POSSIBILITIES.

MAGIRUS turntable ladders with articulated arm and telescoping articulated arm go to work where conventional turntable ladders reach their limits.

They make it possible to access:

- · Operating positions in narrow centre city spaces
- · Contorted industrial facilities
- · Dormers, eaves and skylights on the far side of gabled roofs
- · Recessed galleries and patios
- · Areas below the horizontal
- · Balustrades
- · Overhead electrical supply lines for tramways
- · Lighting and telephone cables

- Articulated ladders offer their full benefit in centre city areas or with objects that can only be approached from one side. With roof truss fires or rescue operations from attic apartments, an articulated arm in combination with a 3- or 4-person rescue cage represents an optimal attack route. They can access the far side of pitched roofs easily and reach even recessed windows or rescue routes.
- Maximum extinguishing power: With the MAGIRUS 32 L-AS, a newly designed pre-piped water delivery in the first ladder section and newly developed water monitors enable an increased output of up to 2,500 litres/minute.













- 3 The ability to reach beyond walls, fences and other barriers is decisively optimised. The ability to reach down into containers, silos, shafts, etc enhances tactical operating value. Option: Shaft rescue function.
- 4 Dormers and skylights are even more accessible. Obstacles can be overcome more easily.
- 5 The cage can be lowered over railings and down to the surface of water – ideal for removing obstacles or when using the cage as a work platform or as a diving platform.

# INTELLIGENCE WAS NEVER MORE PRAGMATIC.

The reason why MAGIRUS turntable ladders are widely considered to be the best in the world is easily explained: with a large number of clever, practical and unique details.

#### **Operator's control stand**

The ergonomically designed operator's control stand has a joystick control and a text-based display screen. The operator can change the inclination angle of the display housing and adjust it to his needs.



#### Jacking control unit

The clearly arranged outrigger control unit is integrated into the back of the vehicle where it is protected from the weather. Ergonomically designed for convenient use during operations, the joystick can also be easily actuated by an operator who is wearing gloves.





#### Ladder set

- Laser-welded stiles made of high-strength fine-grain steels
- Cataphoretic full immersion priming
- Extremely high handrails throughout, and trouble-free climbing without add-on assemblies

#### Retraction and extension with cable winch

• Trouble-free precision and cost-effective maintenance as hydraulic cylinder

#### Stainless steel profiles

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- Ladder guides made of stainless steel profiles for corrosion-proof ladder extension system
- Sliding elements specifically designed to wear, thereby protecting ladder set profiles.

#### **MAGIRUS VARIO** jacking system

The unique VARIO system makes it possible to set up the ladder's outriggers to any width – variable from 2,400 mm to 5,200 mm. With different jacking widths, the continuously variable outreach control system automatically switches to the largest respective outreach value possible. As the four outriggers can be controlled variably, the outrigger base can be adapted to the space available in an optimal manner. Differences in level of up to 700 mm can be compensated.



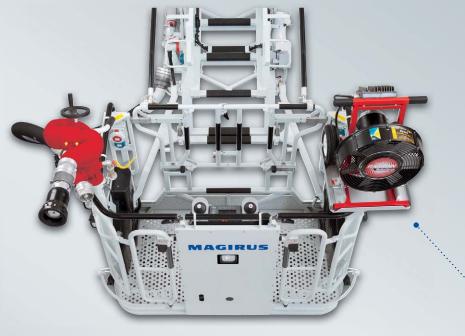




- 1 VARIO makes it possible: extending an outrigger underneath a barrier is no problem.
- In tight spaces, it is possible to climb over the outrigger arms unimpeded – even when carrying a heavy load.
- 3 Every centimetre of additional outrigger width increases the theoretical outreach, thereby also extending the working range and useful range of the turntable ladder. The levelling adjustment of up to 10° and the underfloor working range of –17° enable full outreach without having to dig out under the axles or resorting to other stopgap measures.

#### RC 300 3-person rescue cage

- Payload 300 kg
- Two multi-function columns positioned at
- Control stand at the centre of the cage
- Four electrical sockets (1 x 380 V, 3 x 220 V)
- Work area floodlight integrated into the front of the cage
- Removable water monitor; waterway runs outside of the cage; max. 2,500 l/min at 7 bar on monitor
- Practical corner entrances



#### RC 400 4-person rescue cage

- Payload 400 kg
- Two multi-function columns positioned at the sides
- Control stand at the centre of the cage
- Four electrical sockets (1 x 380 V, 3 x 220 V)
- Two work area floodlights integrated into the front of the cage (optional)
- Waterway for monitor integrated into the floor of the cage
- Removable water monitor; waterway runs outside in front of the cage; max. 2,500 l/ min at 7 bar on monitor
- Water monitor permanently installed in the front of the cage (optional); max. 2,500 l/min at 7 bar on monitor



#### Cage equipment

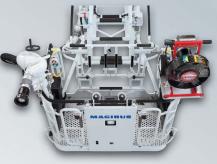
Two separate cage entrances with hinged gates and safety rails that can be swung out to the side enable unimpeded access – important for personnel wearing breathing

apparatuses. The left or right multi-function column can be used for the stretcher support with continuously adjustable brake. 200 kg payload capacity are available as option.

The two multi-function columns can be used to mount the stretcher support or the monitor and a positive pressure ventilator simultaneously.







# FROM THE TURNTABLE LADDER TO THE MULTIFUNCTIONAL APPLIANCE.

Two cage options and versatile, tailor-made accessories make your MAGIRUS turntable ladder into a tool that equips you perfectly for an extremely wide range of operations.







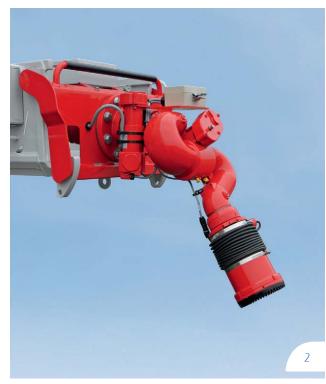
- The rescue cage can be manned rapidly via the quick entrance behind the driver's cab. The access ladders facilitate getting on the cage from the ladder set.
- 2 Both the 3-person cage as well the 4-person cage offer unimpeded access by means of safety rails that can be folded up out of the way.
- 3 In addition to the rescue cage, a 2-person lift is also available as an option.
- 4 Automatic up-down to ground rails ensure rapid, uncomplicated entry and

# EXTINGUISH. RESCUE. RECOVER. PROTECT.

Special equipments and functional accessoires really increase the chances to take action with a MAGIRUS turntable ladder - and impressively demonstrate the aerial rescue expertise of the market leader.

- 1 In the 4-person cage, the piping for the water monitor is integrated into the floor of the cage as serial equipment. The water monitor can either be inserted into one of the two multi-function columns in the usual way or as an option permanently installed in the front of the cage. One of the top design priorities here was to provide an extremely space-saving installation that preserves complete freedom of movement within the cage. The water monitor itself is another innovation. It is rated for a maximum output of 2,500 l/min. Water outlets and shut-off valves are conveniently located in the front area.
- When a major fire has to be extinguished, the cage can be removed and a high-performance MAGIRUS ViaGara monitor can be installed in its place. His output amounts to max. 4,000 l/min at 8 bar; the water delivery is effected by two B75 hoses with manifold. The hollow jet and full jet nozzle MZV 4000 is mounted; other nozzles are and foam pipes are possible. The ViaGara monitor is pivotable 130° in the vertical and ± 30° in the horizontal. It is controlled electrically from the main control stand.





- 3 The ladder rungs are coated with a slip-resistant, thermal insulation covering.
  There are no tripping hazards on the climbing area, and high handrails further enhance safety. For standard ladder, a pre-piped water delivery in the topmost ladder section is available as an option. This belong to series for articulated ladders.
- 4 Personnel on the ground simply attach the hose to the pre-piped riser. The hose is deployed up as the ladder is extended.
- 5 Installed fire pumps and foam proportioning systems make the turntable ladder into a high performance appliance during fire-fighting operations (Option).
- **6** Versatile options make possible to individual customize the equipment each MAGIRUS turntable ladder. Possible are among other higher podium lockers and additional equipments.
- 7 With the crane hook can the ladder lift or lower a load up to 4.000 kg. An additional load eye under the cage floor and the upper ladder section can transport loads or rescue oversized person with heavy duty stretcher. These stretcher can then lowered down to the ground.











# PARTNERS SHARE EVERYTHING. KNOWLEDGE AND EXPERIENCE TOO.

Having the very latest equipment is one thing. Being able to make full use of 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.



## WE FOCUS NOT ONLY ON THE TECHNOLOGY, BUT ALSO ON THE PERSON 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

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. On road and 4WD training, participants can test out the limits of man and machine without danger, gaining in experience and self-confidence.

#### **Technology training**

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.

#### Local training on turntable ladder tactics

MAGIRUS turntable ladder competence from the source: the training is conducted locally at the specific fire brigade and on their own vehicles – no training could ever be more practically oriented than this.

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.

















## OUR RESPONSIBILITY DOESN'T END WITH THE SALE.

Our customer service is literally "service to the customer". Our range of services addresses the individual needs of fire brigades and enables us to help you maintain your full operational readiness at all times.

## UNDER ONE ROOF ALSO MEANS: NO PRODUCT WITHOUT SERVICE.

Ensuring full operational readiness and keeping downtimes to a minimum – these are of vital importance with fire brigade vehicles. That's why IVECO MAGIRUS customer service offers far more than just maintenance and spare parts: complete service to the customer.

#### **Maintenance contracts**

From the annual check-up to the combined inspection and maintenance contract for a term of 10 years, IVECO MAGIRUS offers products that are individually tailored to the needs of fire brigades.

#### 12-year rust-through warranty

In connection with a maintenance contract, we grant a 12-year rust-through warranty with annual inspection.

#### Remote diagnostics

The ability to check the condition of the vehicle from a distance – diagnosing sources of error, carrying out inspections and eliminating malfunctions – reduces downtime and saves money.









UVV/GUV test

[UVV = Accident prevention regulations, GUV = Statutory accident insurance]

10 years of maintenance – contractually assured

12-year rust-through warranty with all AluFire superstructures, available only in combination with a maintenance contract

#### **Field Service**

More than 100 service technicians provide local customer support. Four central workshops and more than 60 qualified service partners are available worldwide.

#### Service Hotline

You can reach us under the hotline number **+49 (0) 731 408 4080** – 24 hours a day, 7 days a week, 365 days a year.

#### **Spare parts**

More than 13,000 different original spare parts are available around the clock. Spare parts documentation ensures long-term availability.

#### Repair / general overhaul

We take over responsibility for the complete repair of your vehicle, e.g. after an accident. A complete overhaul brings even time-worn vehicles back up to the latest revision level..

#### Used vehicles

An attractive alternative to new procurement: used vehicles that have been overhauled and checked by the manufacturer save money and require no compromise concerning quality, reliability or technology.









#### IVECO MAGIRUS supplies everything from under one roof:

- a globally unique, complete range of vehicles for fire fighting and disaster protection
- chassis, cabs, design of equipment compartments, outfittings and pump technology
- 145 years experience and the power of continuous innovation

www.iveco-magirus.net

