



# WIZARD

## ROAD-RAILERS

**RANGE OF ROAD-RAIL VEHICLES  
FOR ALL TYPES OF RAILWAY WORK**





# WIZARD ROAD-RAILERS



## > Road-rail vehicles, the ideal solution for fast and efficient operations

Allowing work equipment and personnel to be moved quickly and easily throughout the network, road-rail vehicles offer flexibility and versatility. Thanks to their road-going capabilities, they ensure swift action and move easily from one site to another, without having to change modes of transport. Their compact design combined with their compliance with railway standards make them the ideal tool for rapid and effective intervention, including in emergencies at any point on the track. Geismar road-rail vehicles are a sustainable and profitable investment, combining performance, safety and reliability. Adaptable to all types of worksite - whether construction, renovation or maintenance - our technology can be adapted to the demands of the terrain, even in the heart of urban areas.

## > The advantages of the Geismar offer

- ✓ **Comprehensive expertise**  
in railway operations
- ✓ **Solutions adapted**  
to your needs and constraints
- ✓ **A perfect match**  
to your network standards
- ✓ **Electric bi-mode technology**  
for optimum working conditions

# > Configurations to suit all your needs

## TRACK GAUGE



**U** | UIC Standard | 1,435 mm

**M** | Metric - Cap | 1,000 - 1,067 mm

## EQUIPMENT

**Platform**



**Cradle**



**Pantograph**



**Crane**



**Tray**



**Welding unit**



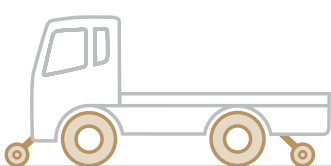
## ROAD INTERFACE

2 axles

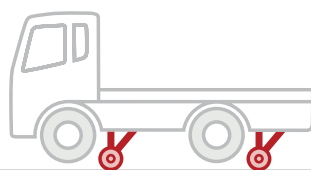
3 axles

4 axles

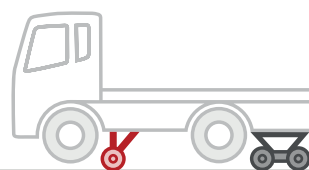
## RAIL INTERFACE



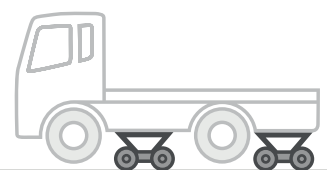
Tyres-axles



Single axle / Single axle



Single axle / Bogie



Bogie / Bogie



The ranges  
of road-rail vehicles

	Reference	Designation	Track gauge	Mini radius
MAINTENANCE & INSPECTION RANGE	<b>Universal Wizard</b> V2R U-940C N-GR	Multipurpose road-rail vehicle with platform, crane and accessories	1,435 mm	80 m
	<b>Multi Wizard</b> V2R U-1040 PM	Heavy tool-carrying modular road-rail vehicle	1,435 mm	100 m
	<b>Picker Wizard</b> V2R U-940 GR	Road-rail vehicle for railway equipment handling	1,435 mm	80 m
	<b>Flash Wizard</b> V2R U-1040 W	Road-rail welding vehicle	1,435 mm	100 m
	<b>Flash Wizard</b> V2R U-1030 W	Road-rail welding vehicle	1,435 mm	100 m
	<b>Flash Wizard</b> V2R M-1030 W	Road-rail welding vehicle	1,000 mm	100 m
	<b>Air Wizard</b> V2R M-840C N-GR	Road-rail maintenance vehicle for metric gauge electrified lines	1,000 mm	40 m
	<b>Air Wizard</b> V2R U-840C N-GR	Bi-mode road-rail overhead contact line maintenance vehicle for urban networks	1,435 mm	20 m
	<b>Air Wizard</b> V2R U-840C PF	Bi-mode road-rail overhead contact line maintenance vehicle for urban networks	1,435 mm	20 m
	<b>Clean Wizard</b> V2R U-700N	Road-rail cleaning vehicle for urban networks	1,435 mm	20 m
	<b>Runner Wizard</b> V2R U-300	Lightweight utility road-rail vehicle	1,435 mm	80 m
CUSTOM RANGE	<b>Runner Wizard</b> V2R U-530	Lightweight utility road-rail vehicle	1,435 mm	25 m
	<b>Hydro Wizard</b> V2R U-940 HY	Road-rail vehicle for cleaning hydraulic structures and railway equipment	1,435 mm	80 m
	<b>Spray Wizard</b> V2R U-940 PL	Weed spraying control road-rail vehicle	1,435 mm	60 m
	<b>Wire Wizard</b> V2R U-1040C EDR	Road-rail vehicle for catenary unwinding	1,435 mm	100 m
	<b>Fire Wizard</b> V2R U-830 LAI	Fire-fighting road-rail vehicle	1,435 mm	80 m



Construction	Renewal	Maintenance	Handling	In-track welding	Transport of personnel	Rerailing	Inspection of bridgework	Rescue	Surrounds	Hydrocleaning
Catenary		Track								
●	●●	●●	●		●	●	●		●	p.6
	●*	●*	●*		●*	●*	●*	●*	●*	p.7
		●	●●				●		●	p.7
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									●●	p.12
								●●		p.12
●●	●	●								p.13
							●●			p.13

●● Intensive use   ● Normal use   ● Occasional use   \* According to module



# MAINTENANCE & INSPECTION RANGE

The range of road-rail vehicles for the maintenance and inspection of railways and catenary benefits from proven expertise



V2R U-940C N-GR

MULTIPURPOSE ROAD-RAIL VEHICLE WITH PLATFORM, CRANE AND ACCESSORIES



On-railing: *Single axle/Bogie* | Track gauge: **1,435 mm** | Mini radius: **80 m** | Maximum cant in work: **160 mm**

- **The versatile railway solution** for all maintenance operations on electrified overhead lines
- **A complete suite of high-performance equipment and work tools** integrated into the vehicle for safe and efficient working in all conditions

## SPECIFICATIONS

Working platform	3.00 x 1.50 m (4.5 m <sup>2</sup> )
Radio-controlled handling crane	
Catenary maintenance tools	



✓ UIC 505-1 | EN 15746 | EN 280 | EN 15085 (on request)



# MULTI WIZARD

## V2R U-1040 PM

### HEAVY TOOL-CARRYING MODULAR ROAD-RAIL VEHICLE



On-railing: *Single axle/Bogie* | Track gauge: **1,435 mm** | Mini radius: **100 m** | Maximum cant in work: **180 mm**

- The modular railway solution for using specific, high-performance tools, **ideal for seasonal work**
- **Numerous tools adaptable** to your needs, with electrical and hydraulic connections

#### SPECIFICATIONS

Chassis and Twist-lock designed for 20-foot containers

Simple module exchange without lifting equipment

Module length 6.10 m

Maximum payload 15,000 kg  
More on rail upon request

UIC 505-1 | EN 15746 | EN 15085 (on request)



# PICKER WIZARD

## V2R U-940 GR

### ROAD-RAIL VEHICLE FOR RAILWAY EQUIPMENT HANDLING



On-railing: *Single axle/Bogie* | Track gauge: **1,435 mm** | Mini radius: **80 m** | Maximum cant in work: **180 mm**

- The Picker Wizard V2R can **handle a wide variety of equipment** such as unwinding reels, a herbicide tank, a cradle, and so on
- The addition of a **tilting loading bucket and folding side panels** makes this a complete truck

#### SPECIFICATIONS

Basic handling crane

Basic adaptable basket 1.35 x 0.65 m (0.88 m<sup>2</sup>)

Tilting loading bucket 6 x 2.30 m (13.8 m<sup>2</sup>)

Geismar telescopic pantograph

UIC 505-1 | EN 15746 | EN 280 | EN 15085 (on request)





**V2R U-1040 W**

ROAD-RAIL WELDING VEHICLE

On-railing: *Single axle/Bogie* | Track gauge: **1,435 mm** | Mini radius: **100 m** | Maximum cant in work: **60 mm**



- **A complete range of welding heads:** FLASH600 (600 kN), FLASH1000 (1,000 kN), FLASH1200 (1,200 kN)
- **Enclosure welds** during destressing operations to free up the traffic lane (FLASH1200)



**SPECIFICATIONS**

Maximum forging force	From 600 to 1,200 kN <i>depending on model and welding head</i>
Weld-on rail types	Vignole and groove <i>from 36 to 75 kg/m</i>
Technology	Flash Butt Welding
UIC 505-1   EN 15746   EN 15085 (on request)	

**VERSIONS**

**V2R U-1030 W** EURO 3 - UIC UIC 505-1

On-railing: *Lorry/Lorry* | Track gauge: **1,435 mm**  
Mini radius: **100 m** | Maximum cant in work: **180 mm**

**V2R M-1030 W** EURO 3 - METRIC UIC 505-1

On-railing: *Lorry/Lorry* | Track gauge: **1,000 to 1,067 mm**  
Mini radius: **100 m** | Maximum cant in work: **110 mm**



**V2R M-840C N-GR**

ROAD-RAIL MAINTENANCE VEHICLE FOR METRIC GAUGE ELECTRIFIED LINES

On-railing: *Single axle/Bogie* | Track gauge: **1,000 mm** | Mini radius: **40 m** | Maximum cant in work: **105 mm**



- **Rear rotating bogie technology** for simple, safe and quick on-tracking
- Complete set of working tools for **maintenance and monitoring of the line**

**SPECIFICATIONS**

Working platform	1.92 x 1.12 m (2.15 m <sup>2</sup> )
Radio-controlled handling crane	
Schunk pantograph	



UIC 505-1 | EN 15746 | EN 280 | EN 15085 (on request)







### V2R U-840C N-GR

## BI-MODE ROAD-RAIL OVERHEAD CONTACT LINE MAINTENANCE VEHICLE FOR URBAN NETWORKS



On-railing: *Single axle/Bogie* | Track gauge: **1,435 mm** | Mini radius: **20 m** | Maximum cant in work: **160 mm**



- The high-performance rail solution for **tram networks maintenance**
- **Hydrostatic advance and tyres off the rail** to respect the surface compliance
- **Bi-mode thermal and electric** motorization: cleaner and quieter

**BI-MODE**  
- DIESEL/ELECTRIC  
- CNG/ELECTRIC



### SPECIFICATIONS

Working platform	2.20 x 1.70 m (3.74 m <sup>2</sup> )
Geismar telescopic pantograph	
Handling crane (option)	300 to 1,000 kg

✓ EN 280 | EN 15746 | EN 15085 (on request)



### V2R U-840C PF

## BI-MODE ROAD-RAIL OVERHEAD CONTACT LINE MAINTENANCE VEHICLE FOR URBAN NETWORKS



On-railing: *Single axle/Bogie* | Track gauge: **1,435 mm** | Mini radius: **20 m** | Maximum cant in work: **160 mm**



- **Bi-mode thermal and electric** motorization: cleaner and quieter
- **Hydrostatic advance and tyres off the rail** to respect the surface compliance
- **Spacious, high payload platform** for all work needs

**BI-MODE**  
- DIESEL/ELECTRIC  
- CNG/ELECTRIC



### SPECIFICATIONS

Working platform	4.32 x 2.10 m (9.10 m <sup>2</sup> )
Geismar telescopic pantograph	

✓ EN 280 | EN 15746 | EN 15085 (on request)



# CLEAN WIZARD

## V2R U-700N

### ROAD-RAIL CLEANING VEHICLE FOR URBAN NETWORKS

On-railing: **Tyres-axles** | Track gauge: **1,435 mm** | Mini radius: **20 m** | Maximum cant in work: **160 mm**

- Versatile cleaning solution with high-pressure jets for **grooved rails and platform brushes**
- **Precise cleaning with the high-pressure gun**, the manual nozzle and the third detachable brush for station platforms

#### SPECIFICATIONS

Engine	Diesel, CNG or all electric
Tipper capacity	4,000 L
Water capacity	1,250 L
Maximum speed in forward sweeping	12 km/h



**BATTERY TECHNOLOGY**  
AVAILABLE



**EURO 6**

**CITYline**



# RUNNER WIZARD

## V2R U-300

### LIGHTWEIGHT UTILITY ROAD-RAIL VEHICLE

On-railing: **Tyres-axles** | Track gauge: **1,435 mm** | Mini radius: **80 m** | Maximum cant in work: **200 mm**

- The perfect road-rail solution for **carrying people and light material to & from site**
- Towing & propelling capabilities for trailers and specific measurement equipment
- Fully adjustable 450 kg rear cargo bed

#### SPECIFICATIONS

Loading in deck	- 150 kg: 6 x person mode - 450 kg: 2 x person mode
Number of seats	- On road: 5 - On rail: 6

In progress



**EURO 6**

**CITYline**



# WIZARD ROAD-RAILERS

## CUSTOM RANGE

Geismar is developing a range of bespoke vehicles for non-standard worksites requiring advanced R&D



# RUNNER WIZARD

## V2R U-400

### LIGHTWEIGHT UTILITY ROAD-RAIL VEHICLE

On-railing: Tyres-axles | Track gauge: 1,435 mm | Mini radius: 80 m | Maximum cant in work: 200 mm



- Perfect solution for transportation of people, materials & equipment to and from the worksite
- **High towing capacity** on rails
- **4x4 with no road restrictions** thanks to under-frame-mounted rail axles

### SPECIFICATIONS

Engine	Diesel - Auto Transmission
Maximum Speed	- on road: 112 km/h - on rail: 32 km/h
Towing capacity	- on road: 3,500 kg - on rails: 12,500 kg
Number of seats	5

✓ IVA | RIS 1530 PLT-7 (UK)







V2R U-940 HY

ROAD-RAIL VEHICLE FOR CLEANING DRAINAGE AND RAILWAY EQUIPMENT



On-railing: *Single axle/Bogie* | Track gauge: **1,435 mm** | Mini radius: **80 m** | Maximum cant in work: **180 mm**

- Maximum availability: **can be used on both rail and road**
- **Large storage capacity:** at least 8 hours of work
- Able to **access track on most level crossings:** 6 m minimum

SPECIFICATIONS

Tank capacity	10 m <sup>3</sup>
High-pressure cleaning	170 bar
Available tools	Device for clearing pipes, milling cutter, root cutter
Video inspection	
Emptying by tilting and opening tank	

✓ UIC 505-1 | EN 15746



V2R U-940 PL

WEED SPRAYING CONTROL ROAD-RAIL VEHICLE



On-railing: *Single axle/Bogie* | Track gauge: **1,435 mm** | Mini radius: **60 m** | Maximum cant in work: **180 mm**

- **Detection by plant recognition** with integrated AI based on Deep Learning
- **Spraying with electronic control of the different doses** for track and for banks
- Recording of treatments and areas treated

SPECIFICATIONS

Tank capacity	- Water: 4,000 L - Herbicide: 400 L - Pre-treatment: 200 L
Pump unit	3 bars - 80 litres/min
Treatment of the ballast zone	Widths up to 4 m: 1.40 m + 2 x 1.30 m

✓ UIC 505-1 | EN 15746 | EN 15085 (on request)





### V2R U-1040C EDR

## ROAD-RAIL VEHICLE FOR CATENARY UNWINDING

On-railing: *Single axle/Bogie* | Track gauge: **1,435 mm** | Mini radius: **80 m** | Maximum cant in work: **200 mm**



- The ideal road-rail solution **for catenary renewal**
- The universal reel stands can operate with any reel, including the less resistant wooden models when used with Geismar tensioner for high tensioning

### SPECIFICATIONS

Two independent tensioners	
Two motorized and independent reels	
Rewinding mast with guiding device	
Max tension <b>for winding</b>	- One single wire: 1 x 2,500 daN - Two wires at a time: 2 x 2,000 daN
Max tension <b>for unwinding</b>	- 500 daN per reel



✓ UIC 505-1 | EN 15746 | EN 280 | EN 15085 (on request)



### V2R U-830 LAI

## FIRE-FIGHTING ROAD-RAIL VEHICLE

On-railing: *Single axle/Single axle* | Track gauge: **1,435 mm** | Mini radius: **80 m** | Maximum cant in work: **180 mm**



- **Complete and dedicated solution to access in all parts of the railways** including tunnels, bridges, forested areas...
- For extra safety, **a rescue system allows firefighters to exit from the fire site** even in case of vehicle engine failure

### SPECIFICATIONS

Number of seats	6 to 8
Pressurized cabin (SCBA integrated)	
Tonne of water + additive	3,000 L
Detection and protection tools	

✓ UIC 505-1





# > OPTIMA SERIES

## CATENARY MOTORIZED ROAD-RAIL ACCESS PLATFORMS

The alternative to road-rail vehicles providing easy access to all points on the catenary (messenger & contact cables) whether they are located in front of or behind the poles.

Available in several versions, the Optima range allows rapid **on- and off-tracking without damaging the ballast**, thanks to its 4x4 chassis mounted on low-pressure tyres. A radio control system makes these operations easier and safer.



## OPTIMA 100

- ✔ Simultaneous access to catenary and its supports in most configurations
- ✔ Simple operation with on-screen user interface
- ✔ Easy transport with a light trailer
- ✔ Available in **double cradle, platform/cradle, tray and tray/crane** versions





# OPTIMA 300



- ✓ High capacity elevators for comfortable working even behind poles (load / height / offset capabilities)
- ✓ Catenary components to be changed in a single operation
- ✓ Comfortable loading of the basket from ground level
- ✓ Crossing high ballast banks
- ✓ Transport of 2 vehicles on a tank trailer



**FOR RENT**

AVAILABLE FOR RENTAL



MODULAR ELECTRIC ROAD-RAIL VEHICLE

Double basket Module



Platform + crane + pantograph module



- ✓ **Plug & Work system:** allowing simple, fast and secure module storage and exchange (2 people load a module without any help from a machine)

- ✓ **Wide range of modules:** catenary inspection, cable unwinding and renewals, on-track logistical assistance...



Platform + positioning arm module





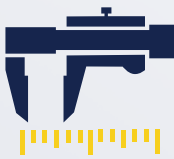
**RETROFIT**



**GEISMAR  
REBORN**



**COMMISSIONING /  
TRAINING**



**CALIBRATION**



**RENTAL**



**EXTENSION OF  
GUARANTEE**



**CERTIFIED  
SECOND HAND**



**SPARE PARTS**



**AFTER-SALES  
SERVICE / REPAIR**

From commissioning to spare parts, training and maintenance,  
**Geismar supports you throughout the life of your machines and projects**

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