



**GEISMAR®**

*Solutions for urban networks*

**CITY**line



# CITYline

## > A range of solutions for urban networks

**At Geismar, we understand the specific challenges posed by urban transit networks:** narrow curves, steeper inclines, narrow running envelopes, high traffic intensity, short maintenance times, demanding regulatory constraints, etc.

As one of the essential components of urbanisation, Geismar complies with the most demanding urban railway infrastructures. Providing best-in-class solutions and equipment which are particularly well suited for urban networks, whatever your standards. All this with one thought in mind: support a more sustainable railway world, ensuring greener operations in our cities.

## > Specific needs

Laying of the infrastructure,  
track and catenary

*pages 4 to 11*

Measurement and control

*pages 12 to 19*

Maintenance and renewal

*pages 20 to 33*

Safety and rescue

*pages 34 to 35*



# CITYline

Our selection for your network





CATERPILLAR GANTRY FOR LAYING RAILS



## Your benefits

- Self-propelled caterpillar gantry with a variety of installation and equipment options
- Hydraulic beam with 20 sleepers (optional), with fixed or variable stroke, which can also transport track panels
- Laser positioning system for precise laying of concrete slabs on the ground (optional)
- Fully radio-controlled system with 6 on-board cameras (optional), for fast and efficient implementation
- Safe working and easy control of the equipment

## Specifications

Engine	Diesel, 100 KW
Lifting force	12,000 daN (12 t)
Number of transportable sleepers (see options)	20 sleepers
Lifting stroke	2,380 mm
Slewing stroke	975 mm
Maximum feet opening	3,516 mm
Maximum speed while working	<ul style="list-style-type: none"> <li>• Up to 4 km/h (2.5 mph) on caterpillars</li> <li>• Up to 15 km/h (9.3 mph) on rails (option)</li> </ul>
Remote controlled	Yes
Mass	20 t



HANDLING GANTRY ON WAGON



## Your benefits

- The PMW wagon-handling gantry crane can be adapted to your railway maintenance handling needs (lifting beam for taking track panels, switchgear parts, catenary components, etc.) in the most confined environments (tunnels)
- Motorized for movement on wagons, the PMWs are secured with anti-tilt side clamps allowing them to be locked during transport phases
- Fully remote-controlled solution, the PMW allows you to precisely handle track panels by automatically positioning the gantry above the loads

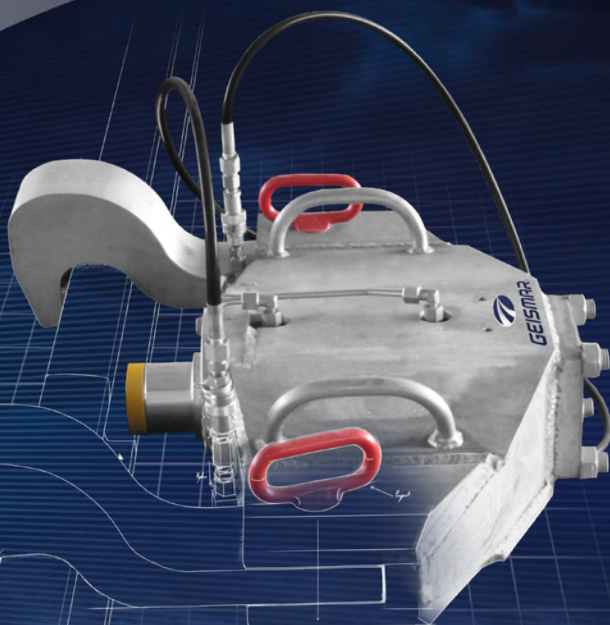
## Specifications

Moving speed on wagon	Up to 2 km/h
Maximum load capacity	8,000 kg (17,637 lbs)
Spreader lifting stroke	3,700 mm (147 in.)
Longitudinal translation stroke	5,000 mm (197 in.)
Lateral slewing stroke	± 600 mm (24 in.) (according to spreader axis)
Mass	16,7 t



JLP 75

LIGHTWEIGHT HYDRAULIC RAIL  
AND SWITCHBLADE STRAIGHTENER





## Your benefits

- The multifunctional Bend Hornet JLP 75 rail bender is composed of a robust light alloy frame and offers you a range of rail bending applications
- The modular design allows you to vertically and horizontally bend or straighten flat bottom rails, switchblades and contact rails with the use of various bending & straightening kits
- The machine has a powerful bending and straightening capacity of 75 kN

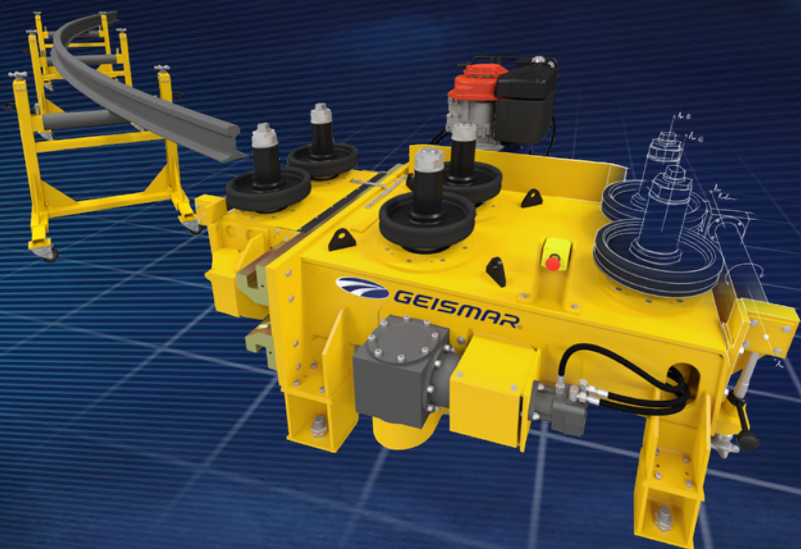
## Specifications

Bending capacity	75 t (750 kN)
Operating pressure	665 bars (9,645 psi)
Cylinder stroke	150 mm (6 in.)
Dimensions (L x W x H)	830 x 625 x 265 mm (33 x 25 x 10 in.)
Mass	47 kg (104 lbs), frame



VO 406

WORKSHOP HYDRAULIC HORIZONTAL RAIL BENDER



## Your benefits

- The Hydraulic Horizontal Rail Bender model Curve Titan VO 406 is a highly efficient workshop machine designed for bending or straightening flat bottom and grooved rails in both directions and in the horizontal plane (single curves and reverse curves)
- Precise and efficient bending of the rail by a single operator thanks to the easily accessible interchangeable rollers
- The bending machine is equipped with a measuring system for measuring the feed rate of the bending rollers, including a pointer and one ruler, in compliance with EC directives

## Specifications

Engine	Petrol: Bridge & Stratton 217907 - 4-stroke - 6.7 kW at 3,000 rpm or 3-phase electric motor: 400 V or 230 V, 50 Hz - 5.5 kW at 3,000 rpm
Number of rollers	6
Roller diameter	350 mm (13.8 in.) variable for grooved rails
Bending force	400 kN
Maximum bending moment	15,000 daN.m
Bending stroke	± 200 mm (7.9 in.)
Linear bending speed	≈ 9.3 m/min
Minimum bending radius	5 m (16.4 ft.), flat bottom rail
Height of the rails to be bent	650 to 710 mm (above ground or from top of rail in workshop track)
Dimensions (L x W x H)	2,135 x 1,690 x 1,140 mm (79 x 67 x 45 in.)
Mass	3,6 t



**GARNET-DL**

**DIGITAL TRACK GAUGE FOR TRACK AND SWITCH GEOMETRY MEASUREMENT**



## Your benefits

- This gauge provides you with precise measurements with a clear display preventing operator misinterpretation
- The measurements are displayed on the smartphone screen using Bluetooth technology, while the measurements are also registered and stored for later analysis on your computer
- You will find this gauge perfect in all circumstances being waterproof, fully insulated and suitable for all types of track even in a 3rd rail environment

## Specifications

Display	16 x 2 characters as well as a smartphone display
Measurements	Gauge, crosslevel, twist, Rail/opposite check-rail, flangeway clearance, switchblade opening, back-to-back check-rail
Autonomy	40 hours
Operating temperature	-10 to +50 °C (14 to 122 °F)
Gauge	Available for any one (1) of all gauges
Mass	3 kg (7 lbs)

# RECTIRAIL DL2

PORTABLE ELECTRONIC STRAIGHTNESS MEASURER



## Your benefits

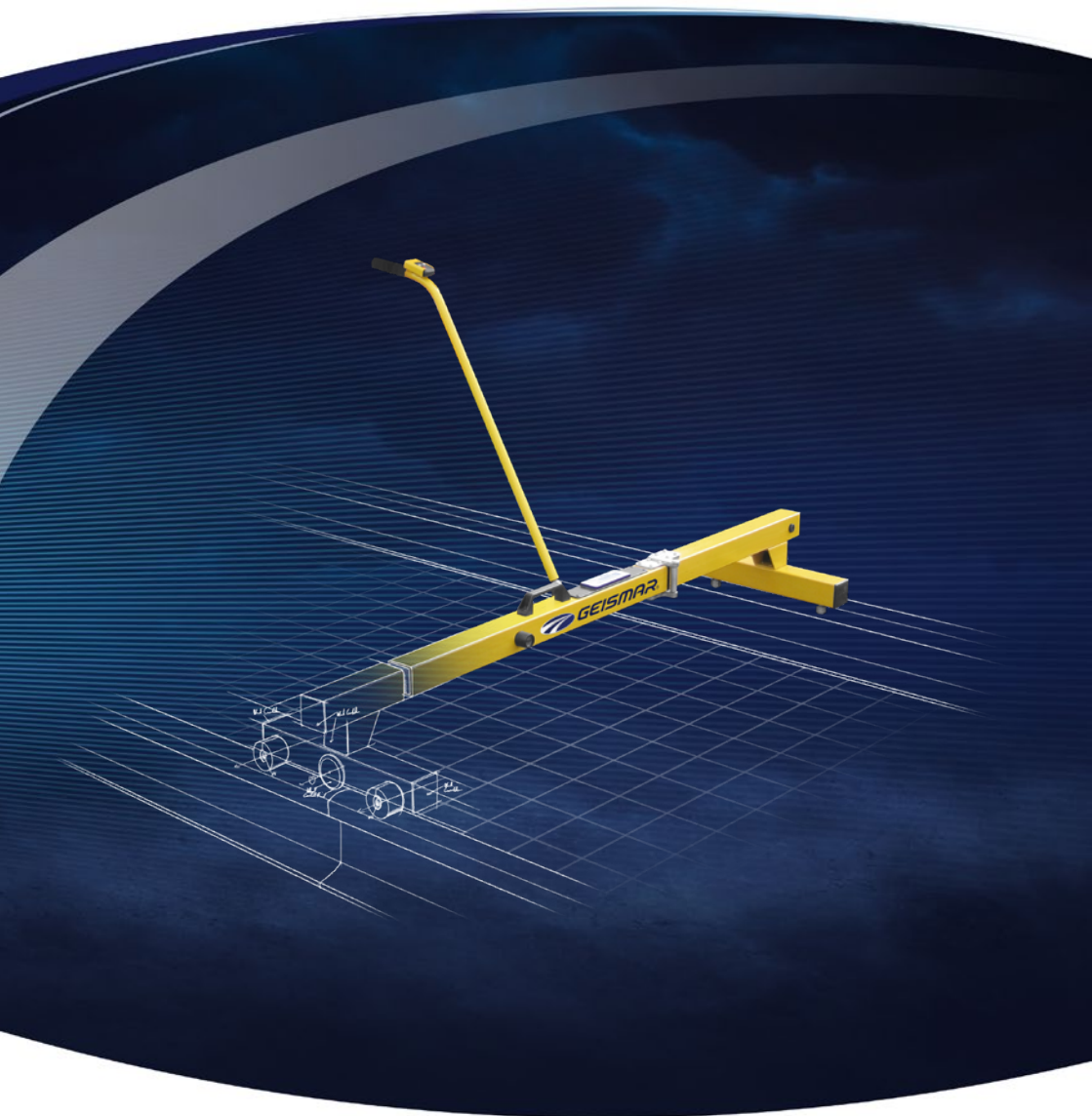
- The Rectirail DL2 provides you with an easy and reliable way to measure rail head straightness. Using the ergonomic joystick and two control buttons on its frame, it offers you a simple way to acquire and store data
- The Rectirail DL2 is connected by Bluetooth technology to an Android GPS enabled rugged smartphone, while the data displayed and stored on the device can be easily transferred to a PC for later analysis
- Two magnetic pins allow you to perfectly position the unit on the rail allowing the 100 sensors (over a 1 metre base) to provide accurate measurements at the push of a button

## Specifications

Display	All data shown on smartphone screen
Measurements	100 sensors over a one meter base, each sensor 10 mm apart
Accuracy	$\pm 12.5 \mu\text{m}$
Autonomy	Minimum 8 hours
Operating temperature	0°C to +45°C
Mass	5 kg (11 lbs)



MANUAL TRACK RECORDING UNIT





## Your benefits

- Robust and lightweight, the trolley is manufactured from glass reinforced plastic (GRP) and is designed to assure you of accurate and reliable measurements
- You will find it extremely simple to set up, the folding mechanism provides you ease of transport
- Display and storage of accurate measurements on intuitive and easy to use smartphone connected by Bluetooth allows you efficient data management

## Specifications

Display	All measurements displayed on smartphone
Measurements	<ul style="list-style-type: none"> <li>• Gauge</li> <li>• Crosslevel</li> <li>• Twist</li> <li>• Speed</li> <li>• Distance</li> </ul>
Contact point	14 mm (0.6 in.) below rail head (others available on request)
Autonomy	40 hours
Operating temperature	-5 to +50 °C (23 to 122 °F)
Gauge	Available for any one (1) of all gauges
Mass	≈ 13 kg (29 lbs)

# VIGILIS 400<sub>MT-US</sub>

TRACK MEASUREMENT AND ULTRASONIC  
INSPECTION TROLLEY



## Your benefits

- Compact, self-propelled and versatile solution to automatically inspect and measure all track parameters
- The VIGILIS 400 will allow you to perform ultrasonic inspections up to 20 km/h. The user-friendly on-board system will detect and mark rails if integrity defects are detected
- The VIGILIS 400 ensures fast and accurate inspection and recording of track parameters up to a speed of 50 km/h
- The cab of the VIGILIS 400 can transport up to 4 people as well as one driver for in-situ measurement and analysis of results

## Specifications

Engine / Thermal power	Diesel, 4-cylinder - 85 hp
Transmission	Hydrostatic 4 wheel drive
Max. allowed load in flatbed/in towing	Up to 2 t
Max. speed on rails (with trailer)	50 km/h (31 mph)
Maximal cant	130 mm (5 in.)
Number of transducers per rail	Wheel probes: 11
Number of ultrasonic channels per rail	Wheel probes: 14
US testing for rail head from 50 to 80 mm	2 mm (0.1 in.) sample rate at 10 km/h (6 mph)
RailScan™ Lite Track Geometry Measurement System	<ul style="list-style-type: none"> <li>• GPS coordinates every 304 mm (12 in.)</li> <li>• Sample rate: 250 mm (10 in.)</li> <li>• Pitch: ± 1 mm (0.04 in.)</li> </ul>

# CL1

## ALUMINIUM LIGHTWEIGHT TROLLEY



## Your benefits

- The lightweight trolley is designed to help you carry heavy loads with ease
- The design meets the expectations of demanding markets and is compatible with high speed lines
- A dead-man brake integrated into the push-bar ensures your safety

## Specifications

Load capacity	1 t
Plate type	Light alloy plate mechanically welded grating
Integrated carrying handles	Yes
Braking type	Manual or with dead man type (option)
Compliant to	EN13977
Dimensions (L x W x H)	1,678 x 837 x 315 mm (66 x 33 x 12 in.)
Mass	≈ 29 kg (64 lbs)

# PSR

RAIL CHANGER



## Your benefits

- You will find using the PSR to be the most simple method to change or to move rails laterally due to an efficient design
- It offers you user-friendly operation with its lightweight and robust design but easily adjustable for a good working height and horizontal positioning
- Suitable for all environment, its versatile design assures you perfect operation with any flat bottom or grooved rails

## Specifications

Lifting type	Chain winch or electric
Stroke of the vertically adjustable leg	400 mm (from 920 mm to 1,320 mm) 16 in. (from 36 to 52 in.)
Useful transversal stroke	1,520 mm (60 in.)
Lifting force	1 t (1,000 daN)
Type of rails	Flat bottom or grooved
Certification	SNCF
Mass	115 kg (254 lbs), without accessories
Mass of the heaviest element	≈ 76 kg (168 lbs)



BATTERY-POWERED ABRASIVE RAIL SAW





## Your benefits

- Rail cutting is efficient thanks to the high power of the battery (6 to 8 cuts per full charge)
- Activion technology ensures reduced noise emissions, eliminates polluting gases and facilitates maintenance
- Perfect cutting accuracy and safety thanks to the no-disassembly turning system
- The work procedures are identical to those of thermal chainsaws
- Built-in electronic safety device to prevent misuse (uncoupling of the vice, misalignment of the chainsaw)

## Specifications

Start-up	Immediate via On/Off button
Maximum engine power	9.5 hp (7 kW)
Cutting time	75-90 s
Weight	21 kg (47 lbs)
Noise level	(Laeq) 95 dB(A) (Lwa) 109 dB(A)
Number of cuts per full charge	6 to 8 cuts according to conditions
Dimensions (L x W x H)	990 x 333 x 435 mm (38.9 x 13.1 x 17.1 in.)

# BARRACUDA

BATTERY-POWERED RAIL PROFILE GRINDER

**BATTERY**  
TECHNOLOGY



## Your benefits

- A precise and easy-to-use battery-powered rail profile grinder
- Optimized work cycles thanks to its powerful Activion electric motor
- Ergonomic turning around system allowing the grinder to be used by one single operator without being lifted
- Powered by the unique and high-performance Activion battery
- Activion technology ensures reduced noise emissions, eliminates polluting gases and facilitates maintenance

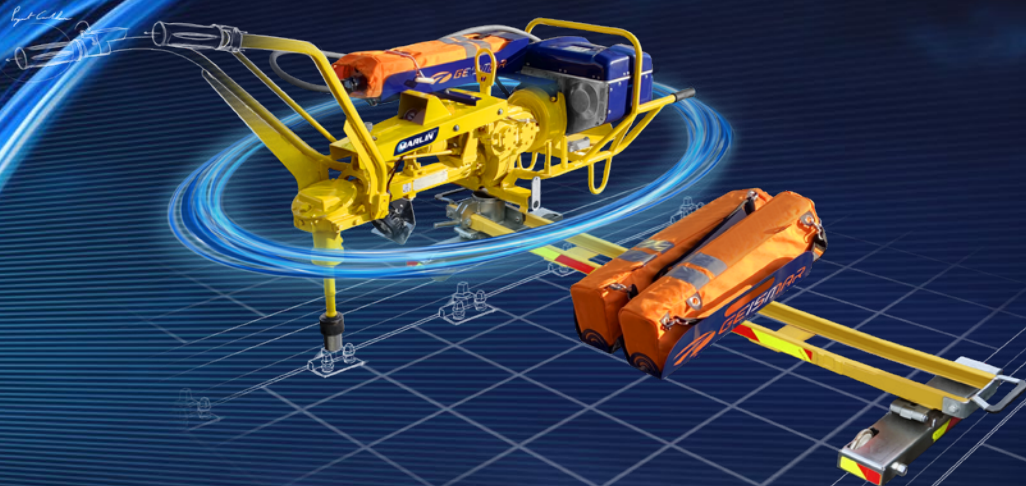
## Specifications

Engine	Activion (patented)
Power	6.3 kW
Autonomy	20 min continuous grinding
Mass (without battery)	68 kg (150 lbs)
Tilting range on both side	From -15° to +90°
Dimensions (L x L x H)	1,120 x 770 x 900 mm (44 x 30 x 35 in.)



BATTERY-POWERED COACHSCREWING MACHINE

**BATTERY**  
TECHNOLOGY



## Your benefits

- A battery-powered coachscrewing machine featuring a proven and trustworthy mechanics on site
- Activion® technology ensures reduced noise emissions, eliminates polluting gases and facilitates maintenance
- Great ease of use for the operators thanks to an accurate and highly efficient tightening
- Exceptional autonomy allowing to transport up to 5 batteries simultaneously

## Specifications

Number of batteries that can be carried	Up to 5 batteries
Engine	Activion (patented)
Autonomy of 1 Marlin with 1 battery	<ul style="list-style-type: none"> <li>• Tightening: up to 540 cycles</li> <li>• Untightening: up to 900 cycles</li> </ul>
Mass	<ul style="list-style-type: none"> <li>• 93 kg (205 lbs) without trolley</li> <li>• ≈ 36 kg (77 lbs) without battery</li> </ul>
Dimensions (L x L x H)	2,030 x 500 x 950 mm (80 x 20 x 37 in.) in working order
Maximum tightening torque	60 daN.m
Maximum untightening torque	>100 daN.m
Max. rotation speed	200 tr/min



V2R CX

ROAD-RAIL VEHICLE FOR CATENARY WORK  
WITH SCISSOR PLATFORM



## Your benefits

- The AIR WIZARD «CX» scissor catenary range is dedicated to OCS and catenary work on urban networks
- The scissor platform allows a team of 5 people to work on catenary installations
- Several options are available which can be configured to meet the needs of the network

## Specifications

Platform dimensions	4,500 x 2,300 mm (177 x 90 in.)
Maximum permissible load in the vehicle axis	1.3 t
Maximum permissible load in offset	750 kg (1653 lbs)
Maximum working height	9.5 m
Maximum working offset	4.5 m
Minimum curve	20 m
Track gauge	from 1,000 mm to 1,676 mm (from 39 in. to 66 in.)
Maximum gradient	8 %
Number of seats	3



VMB 1608 GR

TRACK MOTOR CAR FOR WORKSITES





## Your benefits

- The Picker Dragon VMT/VMB is custom designed to ensure complete versatility on your network
- The vehicle guarantees optimal performance with high quality components and equipment designed to meet your needs and highest standards
- The advanced designs ensure compliance with safety standards and railway regulations throughout the world

## Specifications

Crane lifting capacity	From 5 up to 100 t.m
Platform surface	In accordance with customer requirements
Maximum gradient	70 ‰
Speed	From 60 to 100 km/h (from 37 to 62 mph)
Suspension	Coil springs or rubber/steel
Transmission	Hydrostatic, hydrodynamic, electric or dual-mode
Track gauge	1,435 mm (56 in.) and from 1,000 mm to 1,676 mm (from 39 in. to 66 in.)
Qualification & certification	UIC, EN, AAR and OSHA standards
Mass	From 20 to 80 t



ROAD-RAIL SERVICE VEHICLE



## Your benefits

- The Rescue Wizard V2R road-rail service vehicle has been specially designed for maintenance works or breakdown services
- Numerous truck configurations are available including a double cab for personnel transport
- The rear cabin can be fitted out as required, giving you a choice of either a workshop facility including a workbench, kitchen facilities, toilets facilities, etc...

## Specifications

Engine / Power	Diesel, 6 cylinders 374 hp (279 kW) at 1,900 rpm
Number of seats	7
Maximum load on the deck column lif	750 kg (1,653 lbs)
Maximum load on the jib crane	200 kg (441 lbs)
Towing Capacity	20 t
Maximum speed on rail	• 30 km/h travelling (19 mph) • 5 km/h towing (3 mph)
Maximum speed on road	90 km/h (56 mph)
Minimum curve radius	20 m (66 ft.)
Maximum gradient	5%
Rail gauge	from 1,000 mm to 1,676 mm (39 to 66 in.)
Maximum cant	160 mm (6.3 in.)

## > Services & support

- ✓ Remote technical support
- ✓ On-site intervention
- ✓ Training in the use and maintenance of equipment  
*(approved training centre)*
- ✓ Renovation and overhaul of equipment
- ✓ Equipment rental



- ✓ Supply of spare parts
- ✓ Long-term maintenance  
*(preventive, curative, ...)*
- ✓ Service man: a dedicated technician integrated into the customer's teams
- ✓ Periodic visits



Global coverage



Single point of contact



Multidisciplinary team

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