



GEISMAR®



Solutions for traditional networks

CLASSIC*line*



CLASSICline

> A range of solutions for traditional networks

Conventional train networks often place unconventional constraints: inspecting thousands of miles of track and catenary, laying, renewing, or maintaining large-scale infrastructures, dealing with ageing track sections, working far away from any home base, etc.

Based on nearly a century of experience working with the best railroad companies in the world, Geismar engineers have developed a comprehensive range of machines and equipment to ease every working operation across the entire railway infrastructure.

> Specific needs

Laying of the infrastructure,
track and catenary

pages 4 à 9

Maintenance and renewal

pages 10 à 27

Measurement and control

pages 28 à 35



CLASSIC*line*

Our selection for your network



KGT 280

POWERFUL ROAD-RAIL LOADER



Your benefits

- The KGT 280 is a multipurpose heavy duty road-rail loader specifically designed for your various railway applications including jobs requiring high lifting capacity
- It is capable of working with most hydraulic accessories even those with the most demanding of hydraulic power requirements
- You are assured of improved safety thanks to the automated lifting control system eliminating the risk of tilting or derailling
- Fitted with a hydrostatic transmission as well as a optimized engine management system, the KGT 280 benefits a simplified maintenance. Moreover, a remote maintenance system allows us to assist you along your journey with us to guarantee an extremely high availability rate

Specifications

Engine / Power	Diesel, 173 hp - 129 kW - Step IV Final
Speed	On track and On road: 19 mph (30 km/h)
Railway system	Pneumatic friction on wheels
Hydraulic power for attachments	148 hp (110 kW)
Maximum pressure and hydraulic flow	320 bar & 250 l/min 4,641 psi & 55 gpm
Gauge(s)	56 in. (1,435 mm) other on request
Boom	2 parts
Lifting capacity	On track & on road: 6 t at 23 ft. (7,2 m) longitudinal position
Motorized and steering axles	2
Steering wheels	8
Homologation	European - EN 15746
Mass	≈ 28 t



TRACK & TURNOUT PANEL LAYING METHOD FOR TILTING WAGON



Your benefits

- The PWP offers you the methodology to work quickly and efficiently in a safe manner to lay track, switches or turnouts from a panel transportation tilting wagon. The machines are compatible with other track laying methods (such as PEM-LEM & X-TRACK) and offer you the ability to work on any network in a wide variety of applications
- The PWP's unique design helps to avoid deformation of turnouts during handling and installation
- Keeping your safety first, the PWP is capable of working in safe conditions with a user friendly remote control, providing accuracy and safety together

Specifications

Engine	Soundproof diesel, 42 kW
Lifting force	20,000 daN (20 t)
Lifting stroke	106 in. (2,700 mm)
Lateral slewing stroke	79 in. (2,000 mm)
Longitudinal slewing stroke	39 in. (1,000 mm)
Maximum feet opening	236 in. (6,000 mm)
Lateral offset of the clamp box	71 in. (1,800 mm)
Auxiliary feet stroke	33 in. (830 mm)
Remote controlled	Yes
Mass	≈ 11 t



V2R

TRACK WELDING ROAD-RAIL VEHICLE



Your benefits

- The Flash Wizard V2R offers efficient in-track rail welding to suit all railway environments. The modular concept with proven clamping system guarantees you a high quality weld every time
- The welding operation is controlled by the specialised integrated software which records and analyses the various weld parameters to ensure the perfect weld
- The articulated weld head arm is manipulated by remote control allowing operation from a safe position, keeping your operators and site workforce safe while allowing great visibility of the weld area

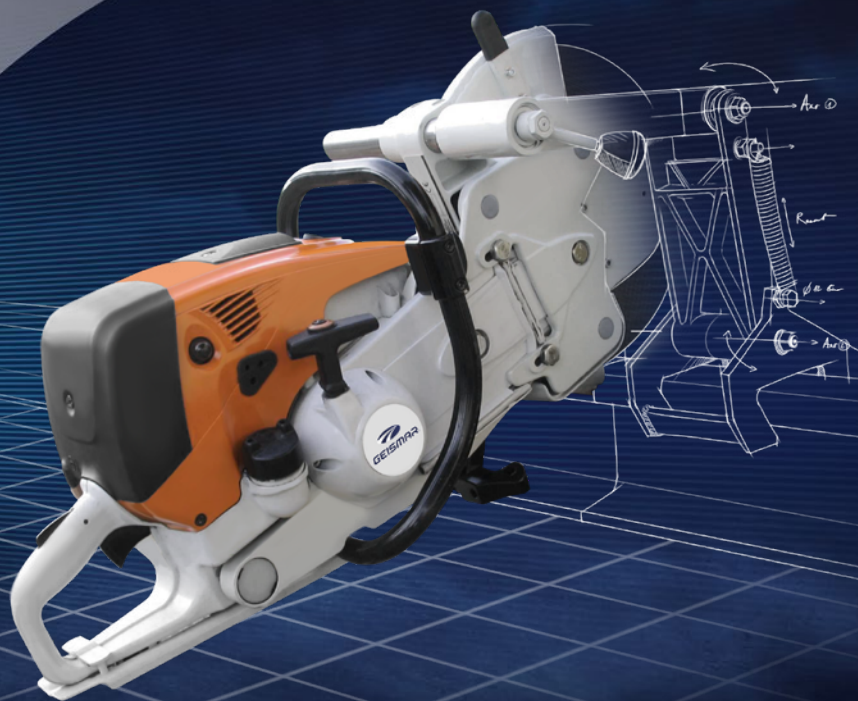
Specifications

Engine / Power	Diesel, 6 cylinders
Transmission	Hydrostatic
Maximum gradient	4%
Rail gauge	From 39 to 66 (1,000 to 1,678 mm)
Maximum rail speed	17 mph (30 km/h)
Maximum road speed	56 mph (90 km/h)
Maximum forging strength	1,200 kN min.
Maximum clamping strength	3,000 kN min.
Welding control parameters	<ul style="list-style-type: none"> • Voltage • Intensity • Forging force • Material consumption
Mass	≈ 32.5 t

**CUT
HORNET**

MTZ

LIGHTWEIGHT ABRASIVE RAIL SAW



Your benefits

- Extremely short cutting times thanks to the high power of the reliable and powerful Stihl engine, allowing high cutting speeds to be maintained on the construction site
- Cutting precision guaranteed in all circumstances by the use of the simple guide support which is easy and quick to position
- Increased safety: the machine cannot be operated without the guide bracket
- Unparalleled comfort of use thanks to the patented Comfort Cushion system that reduces vibrations transmitted to the operator

Specifications

Engine	Petrol, 2 stroke
Petrol engine	Stihl
Engine power	5 kW (9,000 tr/min)
Cutting disc diameter	14 or 16 in. (350 or 400 mm)
Spindle diameter	0.9 or 1 in. (22.2 or 25.4 mm)
Autonomy	6 cuts at minimum
Cutting time	< 90 s
Accuracy	<1% for horizontal or vertical cut
Dimensions (L x W x H)	<ul style="list-style-type: none"> • MTZ 350: 34 x 12 x 17 in. (860 x 315 x 430 mm) • MTZ 400: 35 x 12 x 18 in. (890 x 315 x 455 mm)
Mass	<ul style="list-style-type: none"> • MTZ 350: ≈ 35 lbs (16 kg) without accessories • MTZ 400: ≈ 37 lbs (17 kg) without accessories • Guiding arm: ≈ 13 lbs (6 kg)

**BOLT
HORNET**

TDH2

DIGITAL COACHSCREWING MACHINE



Your benefits

- The Bolt Hornet TDH2 offers you high precision and repeatability using electronic control and a hydrostatic transmission
- The Bolt Hornet TDH2 gives you auditable traceability with all tightening data and the GPS locations stored electronically
- With the integrated digital screen, the Bolt Hornet TDH2 allows simple preselection of tightening torque and fastening type while the height adjustable handling arms, allow your operators ergonomic comfort
- The output is maximised by using two tightening & thress untightening speeds allowing speedy installation of screws and high untightening torque capacity

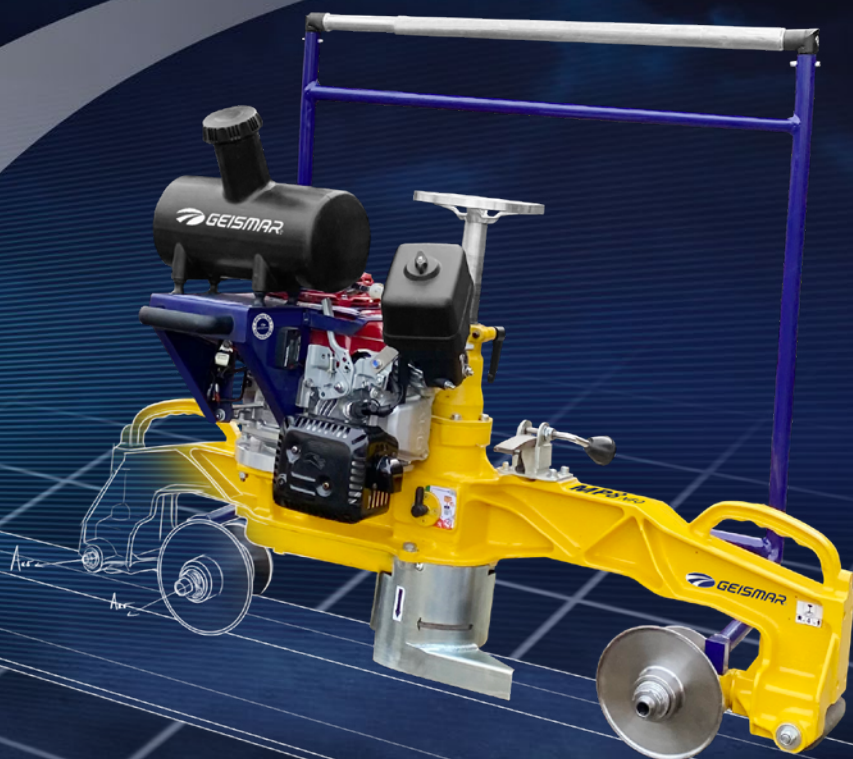
Specifications

Engine	Petrol, 4-stroke Honda GX
Power	6.4 hp (4.8 kW) at 3,600 rpm
Socket rotation speed	Low speed: 70 rpm High speed: 195 rpm
Maximum screwing torque	55 daN.m
Maximum unscrewing torque	110 daN.m
Traversing trolley	Yes
Dimensions (L x W x H)	82 x 21 x 36 in. (2,075 x 540 x 906 mm)
Mass	≈ 243 lbs (110 kg)

**METAL
HORNET**

MP8 NEO

RAIL PROFILE GRINDER



Your benefits

- The Metal Hornet MP8 NEO rail profile grinder guarantees you accurate grinding by hand wheel acting on the depth of pass
- The design of the machine allows you accurate and stable profile grinding up to 90° and 180° about the rail head by rotation of the machine using its turning device and its inclinable operating arm
- 4-stroke motorization for lighter weight and comfort of use by reduction of the vibration level < 5 m/s²
- Optimized working time thanks to the new quick-change grindstone device

Specifications

Engine	Petrol, 4-stroke - Honda GX200
Power	6.7 hp (5 kW)
Tilting range on both side	From -15° to +90°
Dimensions (L x W x H)	44 x 28 x 31.5 in. (1,120 x 720 x 800 mm)
Mass	132 lbs (60 kg)

Your benefits

- The MB8 AC gives you the ability to perform multiple tamping operations, allowing tamping of the track and turnouts in curve and cant
- You will achieve reliable high quality tamping with 8 tines and 46 Hz elliptic vibrations
- Tamping is remotely controlled from the road-rail loader to facilitate the operation

Specifications

Track gauge	39 to 65 in. (1,000 to 1,676 mm)
Maximum stroke of diving from the top of the rail	21 in. (525 mm)
Transversal stroke of each head	43 in. (1,100 mm)
Output	240 sleepers per hour
Dimensions (l x W x H)	98 x 79 x 71 in. (2,500 x 2,000 x 1,800 mm)
Mass	≈ 2.54 t

CR

RAIL LOADER WITH MOTORIZED WINCH



Your benefits

- Rail loader with motorized winch model CR-FP will allow you thanks to an easy set up on any standard flat wagons to load & unload rails from both sides of track
- The high level of customisation and the modularity of the CR-FP makes it a key equipment for all rail loading and unloading jobs thanks to its pivoting column or fixed column to be fitted on each side of the wagon
- A set of 12 rail loaders gives you the possibility to handle safely up to 120 meters long welded rails thanks to its self-tightening clamps, its locking of the jib in transport position and the possibility to use a remote control for synchronized movements

Specifications

Models	<ul style="list-style-type: none"> • CR-FP with pivoting column & motorized winch • CR-FPE with pivoting column, motorized winch & remote control • CR with manual winch & fixed column
Rail length	Up to 120 meters long welded rails (for longer rails, please ask us)
Lifting capacity	≈ 1 ton per rail loader
Engines	Petrol or electric
Dimensions	104 x 37 x 75 for CR-FP (2,645 x 940 x 1,900 mm) other dimensions on request
Mass	132 lbs (620 kg) for CR-FP

**PICKER
WIZARD**

V2R GR

**ROAD-RAIL VEHICLE FOR RAILWAY
EQUIPMENT HANDLING**



Your benefits

- Geismar Picker Wizard V2R is a must have for any handling operations on any type of network urban or traditional granting comfort and user-friendly controls to operators. For better safety or for catenary control purposes, it is possible to add an earthing and measuring photograph
- Thanks to its multi functional and customizable crane, our Picker Wizard V2R allows you to handle various type of equipment including unrolling drums, spray tank for weed killing, removable cradle...
- Adding a tilting platform with foldable sideboards makes our Road-Rail truck a multi function tool for all your requirements

Specifications

Engine / Thermal power	Diesel, 6 cylinders
Number of seats	3
Gross weight on platform	13,228 lbs (6,000 kg) depending of truck type
Loading platform dimensions	18 x 8 ft. (5.4 m x 2.3 m) to be defined according to the truck
Maximum crane range	≈ 33 ft. (10 m) others reaches on request
Maximum crane lifting capacities	<ul style="list-style-type: none"> • 8,422 lbs at 13 ft (3,820 kg at 4 m) • 3,131 lbs at 34 ft (1,420 kg at 10.30 m) • Others capacities on request
Maximum speed on rail	<ul style="list-style-type: none"> • 30 km/h (while travelling) • 5 km/h (in creep speed while working)
Maximum speed on road	90 km/h
Minimum curvature radius	262 ft. (80 m)
Maximum cant	7 for 56 in. (180 mm for 1,435 mm) gauge
Maximum gradient	4 % (other, kindly consult us)
Gauge	From 39 to 66 in. (1,000 to 1,676 mm)



V2R CC

RAIL-ROAD TRUCK FOR CATENARY WORK ON
CONVENTIONAL NETWORKS WITH COLUMN PLATFORM



Your benefits

- Rapid transport of a catenary maintenance team between the work base and the maintenance site
- Large work platform suitable for many different tasks
- Uses include preventive maintenance measures and corrective maintenance works

Specifications

Platform dimension	122 x 59 in. (3,100 x 1,500 mm)
Safety rail height	43 in. (1,100 mm)
Maximum permissible load in the vehicle axis	882 lbs (400 kg)
Maximum working height	26 ft. (8 m)
Maximum work offset	10 ft. (3 m)
Certified	IN 280

* Control of the platform and vehicle travel from the platform

W-E/D

ROLLING / UNROLLING WAGON



Your benefits

- The W-E/D offers you an automated catenary unrolling & rolling system using an electronic device to control the wire tension
- It offers you high output with numerous cable drums (up to 8 units) and uses a remote control device to ensure a quick set up of the system
- The W-E/D can be designed for you in various configurations suitable for any railway environment (urban, high speed...)
- It uses guiding masts and a cable distribution system to assure you an optimized production in safe working environment

Specifications

Engine	Diesel with hydraulic functions
Number of drums	2 to 8
Mechanical tension	Up to 5 t (4,600 daN), cable during unrolling
Mechanical tension accuracy	< 3%
Wagons length	39 to 85 ft. (12 to 26 m)
Unrolling speed	3 mph (5 km/h)
Rolling speed	3 mph (5 km/h)

SRC

HIGH OUTPUT CATENARY SUITE



Your benefits

- The High Output Catenary Suite allows the application of industrial principles to the renewal of overhead contact line infrastructure
- **1,500 V Systems** | *Replacement of catenary masts, laying a half tension length per night*
 - replacement of a catenary mast every 17 min
 - replacement of the anchoring posts
 - renewing of anchoring fasteners
 - measurement of height and stagger
- **25 kV Systems** | *Replacement of the catenary arms, laying a tension length per night*
 - replacement of a catenary arm every 10 min
 - replacement of tensioning apparatus
 - replacement of counterweights
 - replacement of anchor stays
 - replacement of the cantilever
 - measurement of height and stagger
- Partial use possible in electrification of existing tracks (crane + gantry)

Specifications

Chassis assembly on wagon	Twist lock system
Maximum cant	6 in. (160 mm) 56 in. (1,435 mm) gauge
Homologation	According to the 4th railway package (UIC gauge 505-1)
Type of catenary	Direct current (1,500 V), alternating (25 kV), other (15 kV, 3,000 V, ...)
Mechanical tension maintenance capacity	Up to 8,400 daN spread over 3 conductors

garnet

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	<ul style="list-style-type: none">• Gauge• Crosslevel• Twist• Rail/opposite check-rail• Flangeway clearance• Switchblade opening• Back-to-back check-rail
Autonomy	40 hours
Operating temperature	14 to 122 °F (-10 to +50 °C)
Gauge	Available for any one (1) of all gauges
Mass	7 lbs (3 kg)

emerald 

TOWED TRACK RECORDING UNIT



Your benefits

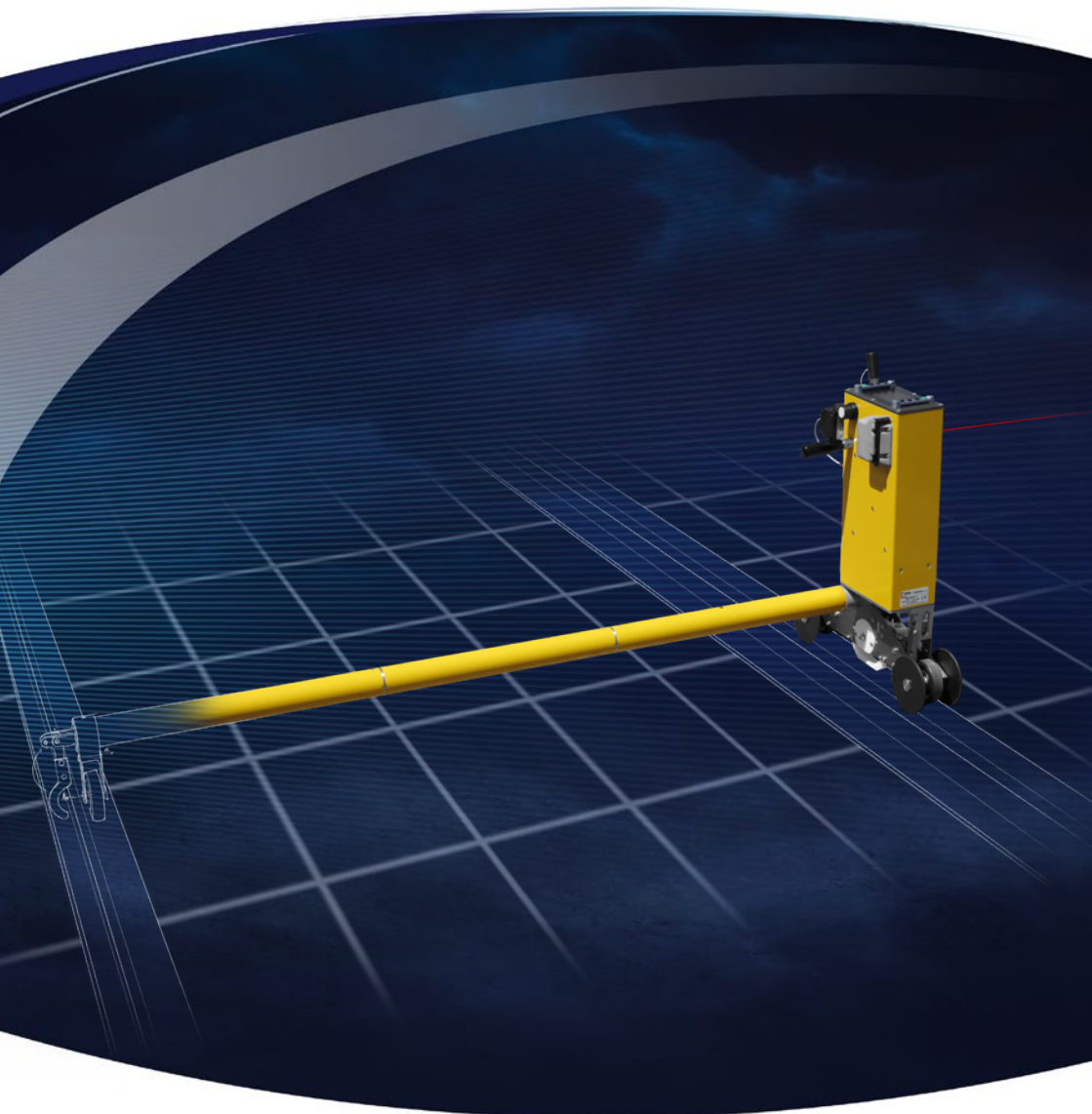
- The towed track recording unit is designed to measure the geometric parameters of the track towed either by road-rail vehicle or an inspection lorry at speeds up to 20 km/h (12 mph). The concept of the trolley makes it easy to pass through switches and crossings
- The EMERALD allows you to save time by intervening closer to your worksites with a road-rail vehicle and to work continuously over long distances through high memory capacity
- The display and recording of accurate geolocated measurements on the tablet enables intuitive operation. In addition, data is managed efficiently as the tablet is connected to the trolley by wireless technologies
- Its simple, robust and ergonomic design allows a single person to deploy it on site thanks to a Forklift pocket system

Specifications

Measurements	Gauge, cant, twist, warp, traveled distance, speed and GPS location
Measuring speed	12 mph (20 km/h) max
Accuracy	0.04 in. (1 mm) depending on speed and track
Display	All measurements are displayed on a 7 in. (18 cm) high resolution tablet
Contact point	0.6 in. (14 mm) below the rail running surface
Autonomy	8 hours
Operating temperatures	From 41 to 122 °F (5 to +50 °C)
Gauge	Available for any one (1) of all gauges
Dimensions (l x W x h)	64 x 30 x 13 in. (1,627 x 750 x 321 mm) for 57 in. (1,435 mm) gauge
Mass	≈ 139 lbs (63 kg)

MEPHISTO

LASER SURVEY RECORDER



Your benefits

- The Mephisto offers you precise track positional measurement taking reference from marker posts or fixed infrastructure to calculate track line and level. It can also be used to measure the position of OHL. These operations are achieved by means of a swiveling laser fitted with an accurate screw-adjuster
- The operation of the Mephisto trolley can be intuitively controlled by the ergonomic wired remote keypad
- This unit consists of a light and easily assembled elements that are stored and transported in its customized transit case

Specifications

Display	All measurements displayed on system screen
Measurements	<ul style="list-style-type: none"> • Position of track (fixed point, low point) • Track structure gauge • Infringements to track structure gauge • Position of reception areas (platform edges, walls) • Bridges curvature • OHL position • Position of the edge of platforms • Distance between tracks
Autonomy	8 hours
Operating temperature	23 to 122 °F (-5°C to +50°C)
Mass	< 26 lbs (13 kg)

VIGILIS 400_{MT-US}

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 conducteur pour la mesure et l'analyse in-situ des résultats

Specifications

Engine / Thermal power	4-cylinder engine: 85 hp (Diesel)
Transmission	Hydrostatic 4 wheel drive
Max. allowed load in flatbed/in towing	Up to 2 t
Minimum curve radius	197 ft. (60 m)
Maximum slope	5 %
Max. speed on rails (with trailer)	50 km/h (31 mph)
Maximal cant	5 in. (130 mm)
Number of transducers per rail	Wheel probes: 11
Number of ultrasonic channels per rail	Wheel probes: 14
US testing for rail head from 2 to 3 in. (50 to 80 mm)	0.1 in. (2 mm) sample rate at 10 km/h (6 mph)
RailScan™ Lite Track Geometry Measurement System	<ul style="list-style-type: none"> • GPS coordinates every 12 in. (304 mm) • Sample rate: 10 in. (250 mm) • Pitch: ± 0.04 in. (1 mm)

> 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

+33 3 69 85 05 05 | sav@geismar.com



LinkedIn



Instagram

geismar.com



GEISMAR | +33 1 41 43 40 40 | geismar@geismar.com

Proprietary GEISMAR | May 2022 | We reserve the right to make any alteration or improvement deemed necessary to this equipment. Illustrations may include optional equipment and are not contractual. Performance values are not contractual and binding.