



# SOLUTIONS YOUR WAY.



PRODUCT PORTFOLIO

**NORTH  
AMERICA**

# FOR AMERICA. FOR CANADA. ON EVERY TRACK.

Heavy Haul

Highspeed

Metropolitan

all rail  
types

**WE PRODUCE  
AND DELIVER  
CONCRETE TIES.**

customized  
track solutions

max. speed of  
**350 mph**

**FOR**

all  
fastenings

slab and  
ballasted  
track systems

all  
signaling  
systems

axle load up to  
**79 kips /  
35.4 tons**

extreme  
climate  
conditions

## OUR BUSINESS UNITS

### FREIGHT & PASSENGER RAIL / HIGH SPEED

So that you always arrive safely:

Our customized systems for long-distance and freight transport are economical, sustainable and offer the highest quality standards.



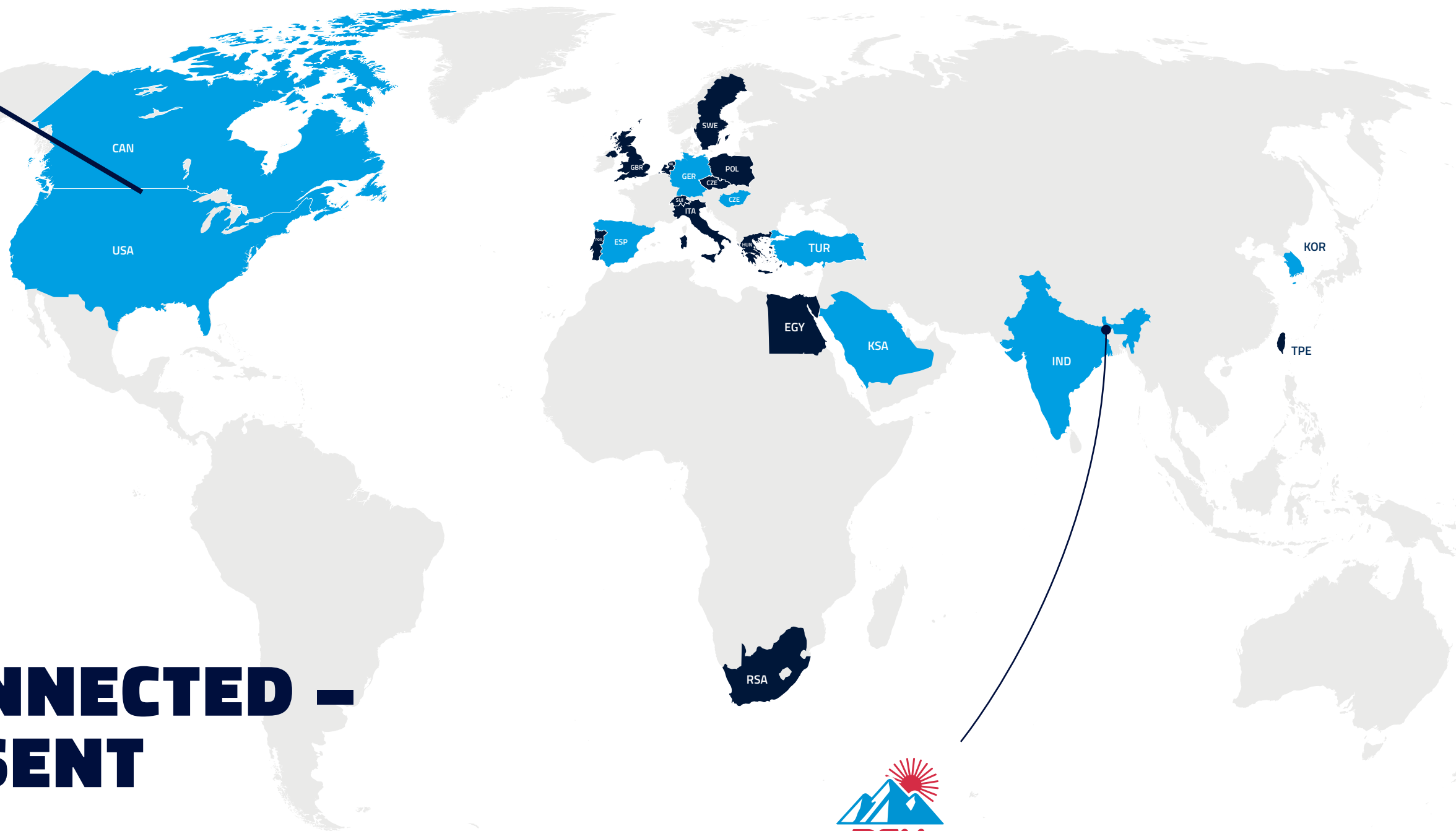
Cologne-Frankfurt, GER



### URBAN TRANSIT

At the **heart of the metropolis**, always comfortable and guaranteed to be environmentally friendly – that is modern local transport. Customized solutions for subways, commuter trains and trams make cities a tangible experience for everyone.

Dresden, GER



# GLOBALY CONNECTED – LOCALLY PRESENT

With an international network of locations across North America, Europe, Asia and Africa, RAILONE operates globally while staying close to its customers. Our teams collaborate across borders to develop innovative solutions tailored to each market.

Whether in the scorching heat of the Sahara, the freezing cold of Siberia or in vibrant metropolises, our expertise and global presence make us the ideal partner for railway projects worldwide. Together, we create connections that bring people, cities and continents closer together.



Since 2013, we have been a proud member of the **PCM Group of Industries**. This strong relationship enables us to act even more locally on an international basis for our customers.

- Country with its own production facility(ies)
- Country with distribution partner and/or licensed factory



# BALLASTED TRACK

Wisconsin, USA

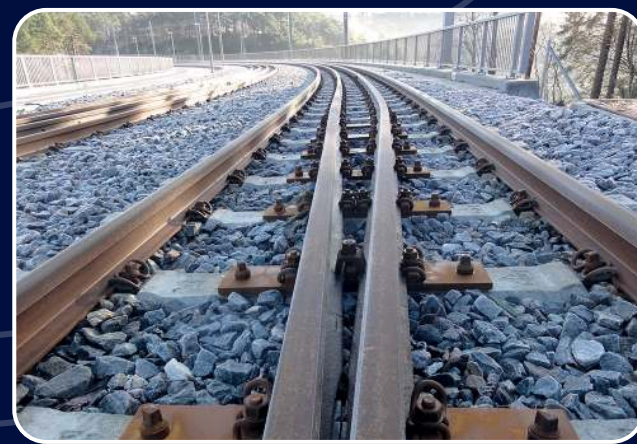
# THE TRADITIONAL SOLUTION FOR MAIN-LINE RAIL TRAFFIC

## ADVANTAGES & BENEFITS

- Heavy tie providing superior track stability for heavy haul operation
- Design based on AREMA manual chapter 30 in combination with the UPRR specification
- Meets requirements of Class 1 railroads
- Tested and approved in accordance with AREMA manual chapter 30
- Increased lateral track resistance due to scallops in the center tie section
- Compatibility with street construction
- Different fastening systems (W-Type, Safe Lock or e clip ) and rail types applicable
- Flexible rail seat inclination (1:40 and 1:20)
- Can be equipped with under tie pads (UTP)
- The production facility has implemented a QM/QA system and is certified acc. ISO 9001, AAR M 1003 and PCI

## RAILONE SCOPE OF SUPPLY

- Design verification for the dedicated application
- Clarification of the interfaces to the component suppliers (fastening, USP, etc.)
- Approval procedures in accordance with the technical specification and valid codes
- Production of the concrete ties
- Preassembling of the fastening systems (if fastening design allows it)
- QA documentation throughout the entire production process
- Planning and execution of logistics from the RAILONE production plant to the construction site



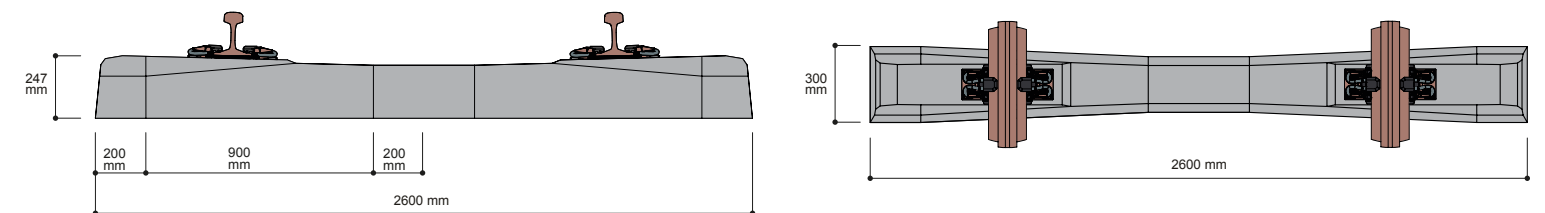
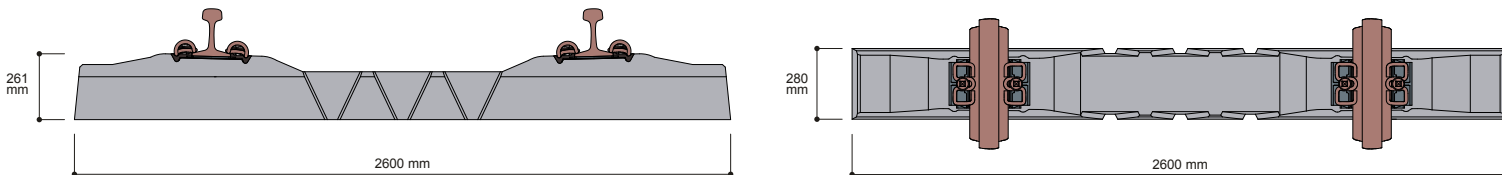
Bergen, Norway



Bergen, Norway

# HHT 15 – FOR HEAVY HAUL APPLICATIONS: INDIVIDUAL DESIGN FOR HIGH LOAD CAPACITY

# AI 04 – FOR OPTIMUM PERFORMANCE IN HIGH SPEED APPLICATION



## TECHNICAL FEATURES

<b>Application</b>	<b>Width</b>	<b>Approval</b>
Heavy haul	11 3/32" / 280 mm	Tested acc. to AREMA, chapter 30
<b>Max. speed</b>	<b>Weight</b>	<b>Safety</b>
100 mph / 160 km/h *)	789 lbs / 358 kg	Application of Guard and Guide Rails
<b>Axle load</b>	<b>Applicable fastening systems</b>	<b>N&amp;V</b>
79 kips / 35.4 tons *)	W-Type, Safe Lock, e clip	Application of USP's
<b>Gauge</b>	<b>Applicable rails</b>	<b>Power supply</b>
56.5" / 1,435 mm	141 AB and others	Application of Third Rail
<b>Length</b>	<b>Rail inclination</b>	
8'6 7/8" / 2,600 mm	1:40, 1:30 and 1:20	
<b>Height</b>	<b>Design</b>	
10 9/32" / 261 mm	Acc. Union Pacific Specifications and AREMA, chapter 30	
		*) Other combinations of speed and axle load may be verified on request

## TECHNICAL FEATURES

<b>Application</b>	<b>Width</b>	<b>Approval</b>
High speed	11.8" / 300 mm	Approved for high speed network of Spanish Railways ADIF (ES), Mecca Medina HSL (KSA)
<b>Max. speed</b>	<b>Weight</b>	<b>Safety</b>
>200 mph / >350 km/h *)	728 lbs / 330 kg	Aero-dynamic design for reduction of flying ballast
<b>Axle load</b>	<b>Applicable fastening systems</b>	<b>N&amp;V</b>
44 kips / 20 tons *)	W-Type, Fast Clip	Application of USP's
<b>Gauge</b>	<b>Applicable rails</b>	<b>Power supply</b>
56.5" / 1,435 mm	60 E1 (UIC), 60 E2	(OHL considered for high speed lines)
<b>Length</b>	<b>Rail inclination</b>	
102.4" / 2,600 mm	1:40, 1:20	
<b>Height</b>	<b>Design</b>	
9.7" / 247 mm	EN 13230-2 & -6 or AREMA, chapter 30	
		*) Other combinations of speed and axle load may be verified on request



## HHT 15 REFERENCE

**Location/Project name:** Various projects (USA and Canada)  
**Delivered (pcs):** >1,000,000  
**Year:** 2014 – 2019  
**Client:** Union Pacific Railroad / CN



## AI 04 REFERENCES

**Location/Project name:** Various projects (Spain)  
**Delivered (pcs):** 805,359  
**Year:** since 2019  
**Client:** Various

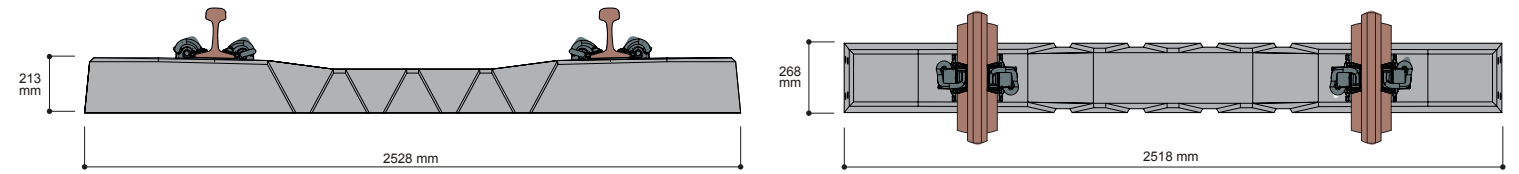
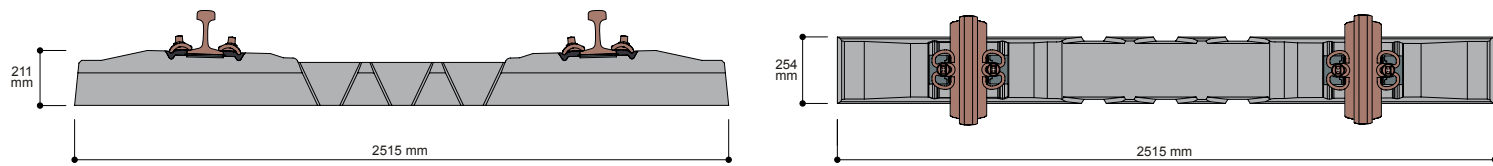
**Location/Project name:** Haramain Project Mecca – Medina (KSA)  
**Delivered (pcs):** 500,000  
**Year:** 2013 – 2017  
**Client:** SRO



## UTT 17 – BALLASTED TRACK SOLUTION FOR HIGH REQUIREMENTS IN URBAN TRANSIT



## UTT 21 – BALLASTED TRACK SOLUTION FOR HIGH REQUIREMENTS IN URBAN TRANSIT



### TECHNICAL FEATURES

<b>Application</b>	<b>Weight</b>	<b>Approval</b>
Urban Transit (UT)	578 lbs / 262 kg	Tested acc. to AREMA, chapter 30
<b>Max. speed</b>	<b>Applicable fastening systems</b>	<b>Safety</b>
60 mph / 95 km/h *)	W-Type, Safe Lock, e-clip	Application of Guard and Guide Rails
<b>Axle load</b>	<b>Applicable rails</b>	<b>N&amp;V</b>
55 kips / 25 tons *)	115 RE	Application of USP's
<b>Gauge</b>	<b>Rail inclination</b>	<b>Power supply</b>
56.5" / 1,435 mm	1:∞, 1:40, 1:30 and 1:20	Application of Third Rail
<b>Width</b>	<b>Design</b>	
10" / 254 mm	acc. to AREMA, chapter 30 and the TCRP Report 115	*) Other combinations of speed and axle load may be verified on request

### TECHNICAL FEATURES

<b>Application</b>	<b>Weight</b>	<b>Approval</b>
Urban Transit (UT)	613 lbs / 278 kg	Tested acc. to AREMA, chapter 30
<b>Max. speed</b>	<b>Applicable fastening systems</b>	<b>Safety</b>
100 mph / 165 km/h *)	W-Type, Safe Lock, e-clip	Application of Guard and Guide Rails
<b>Axle load</b>	<b>Applicable rails</b>	<b>N&amp;V</b>
66 kips / 30 tons *)	115 RE / 136 RE	Application of USP's
<b>Gauge</b>	<b>Rail inclination</b>	<b>Power supply</b>
56.5" / 1,435 mm	1:∞, 1:40, 1:30 and 1:20	Application of Third Rail
<b>Width</b>	<b>Design</b>	
10" / 254 mm	acc. to AREMA, chapter 30 and the TCRP Report 115	*) Other combinations of speed and axle load may be verified on request



### UTT 17 REFERENCE

**Location/Project name:** Hurontario (Canada)  
**Delivered (pcs):** 5,000  
**Year:** 2021 – 2022  
**Client:** Ontario, Canada



# BALLASTLESS TRACK

## TOP PERFORMANCE ON A FIRM FOUNDATION

### ADVANTAGES & BENEFITS

- Simple ballastless track system with high daily track-laying output; No gauge tie bars are needed during installation
- Maximum-possible precision of track geometry from the cross tie
- Capability for modification due to optimized track system design
- System solution to satisfy greater demands for production from noise and vibration, and for requirements for electrical isolation
- Great levels of safety and long service life
- Compatibility with street construction
- Defined elasticity of the track by employment of pre-selected components
- Possibility of discrete or continuous support of the rails
- Suitable for "build and ride" procedures

### RAILONE SCOPE OF SUPPLY

- Design of the system for the dedicated application
- Clarification of the interfaces to the component suppliers (fastening, N&V, signaling, power supply, etc.)
- Approval procedures in accordance with the technical specification and valid codes
- Production/delivery of the concrete ties and all system components
- Preassembling of the fastening systems
- QA documentation throughout whole production process
- Planning and execution of the logistic from RAILONE production plant to the construction site
- Method statements and installation support on site
- Engineering services for construction on a contractual basis



Medina-Mecca, SA



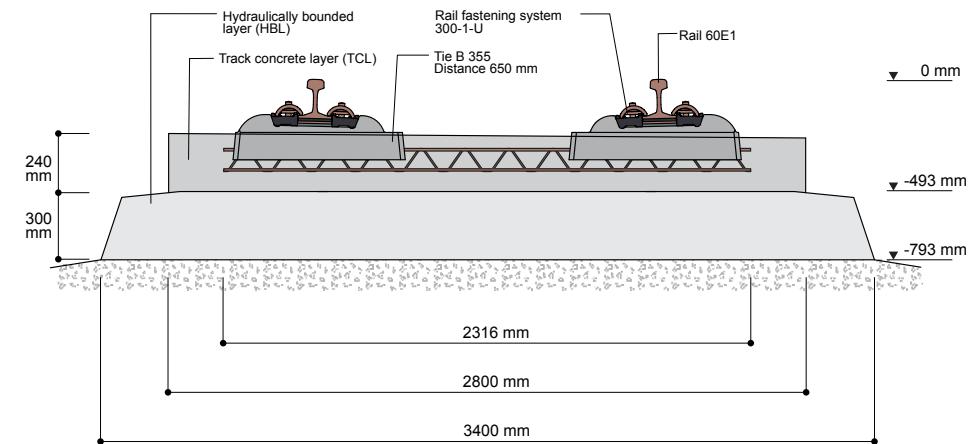
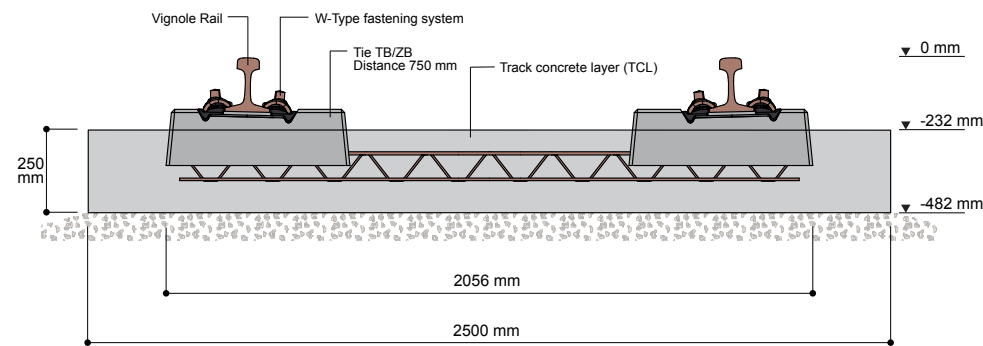
Medina-Mecca, SA



# RHEDA CITY – PROVEN RHEDA 2000® QUALITY FOR URBAN TRANSIT



# RHEDA 2000® – MAXIMUM PASSENGER COMFORT FOR MAXIMUM SPEEDS



## TECHNICAL FEATURES

<b>Application</b>	<b>System Width</b>	<b>Approval</b>
Urban Transit (UT)	98.4" / 2500 mm	Approved by several Transit Networks
<b>System type</b>	<b>System Height (on embankment)</b>	<b>Safety</b>
RHEDA Family with bi-block ties TB/ZB in in-situ concrete	18.8" / 480 mm	Application of Guard Rail possible
<b>Max. speed</b>	<b>Applicable fastening systems</b>	<b>N&amp;V</b>
75 mph / 120 km/h *)	ME26, W14	Design as mass spring system
<b>Axle load</b>	<b>Applicable rails</b>	<b>Power supply</b>
33 kips / 15 tons *)	Vignole and grooved rails	Application of third rail; earthing concept for OHL power supply
<b>Gauge</b>	<b>Rail inclination</b>	<b>Signaling</b>
56.5" / 1,435 mm different narrow gauges possible	1:40, 1:20 and 1:∞	Compatible with all signaling systems
	<b>Design</b>	
	Acc. EN 16432	
		*) Other combinations of speed and axle load may be verified on request

## TECHNICAL FEATURES

<b>Application</b>	<b>System Height (on embankment)</b>	<b>Approval</b>
High Speed Lines (HSL) and Conventional Lines	31.5" / 800 mm	Approved in the Network of German Railways (Deutsche Bahn), British Railways (Network Rail), Polish Railways (PKP PLK) and several project related approvals
<b>System type</b>	<b>Applicable fastening systems</b>	<b>N&amp;V</b>
RHEDA family with bi-block ties B 355 in in-situ concrete	System 300, System FCB	Application of noise absorbers Design as mass spring system
<b>Max. speed</b>	<b>Applicable rails</b>	<b>Power supply</b>
>200 mph / >350 km/h *)	60 E1, 136 RE, others	Earthing concept for OHL power supply
<b>Axle load</b>	<b>Rail inclination</b>	<b>Signaling</b>
55 kips / 25 tons	1:40 and 1:20	Compatible with all signaling systems
<b>Gauge</b>	<b>Design</b>	
56.5" / 1,435 mm	Acc. EN 16432	
<b>System Width</b>	<b>Safety</b>	
110.2" / 2,800 mm	Application of Guard and Guide Rail	
		*) Other combinations of speed and axle load may be verified on request



## SELECTED RHEDA CITY REFERENCES

**Location/Project name:**  
Hurontario (Canada)  
**Delivered (m):** 17,000  
**Year:** since 2021  
**Client:** Mobilinx

**Location/Project name:**  
REM Montreal (Canada)  
**Delivered (m):** 14,000  
**Year:** 2019 – 2020  
**Client:** Nouvlr

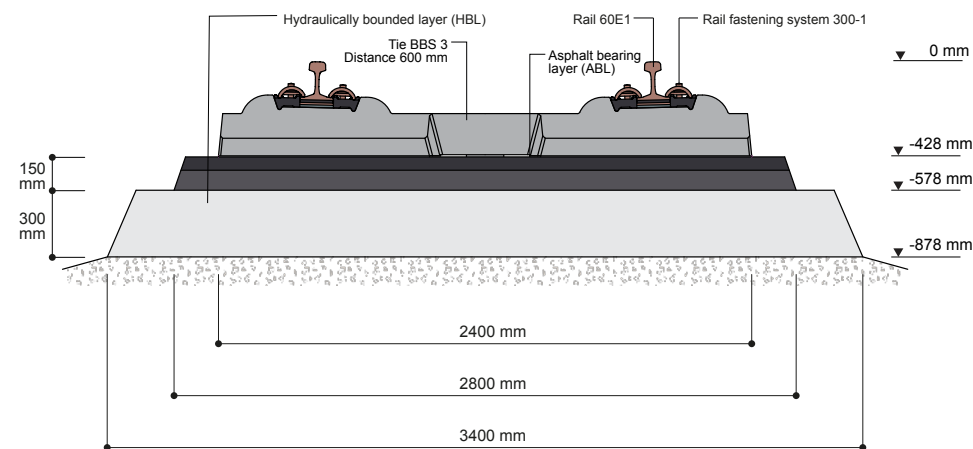


## RHEDA 2000® REFERENCES

**Location/Project name:**  
Mecca Medina, Haramain Line (KSA)  
**Delivered (m):** 2 × 80,000  
**Year:** 2012 – 2018  
**Client:** OHL Arabia

**Location/Project name:**  
Guadarrama Tunnel (Spain)  
**Delivered (m):** 60,000  
**Year:** 2008 – 2010  
**Client:** ADIF

# GETRAC® – INNOVATIVE ASPHALT TECHNOLOGY FOR ECONOMICAL ASSEMBLY



## TECHNICAL FEATURES

### Application

Conventional Lines and High Speed Lines (HSL)

### System type

Directly supported ballastless track system with asphalt supporting

### Max. speed

>186 mph / >300 km/h \*)

### Axle load

55 kips / 25 tons \*)

### Gauge

56.5" / 1,435 mm

### System Width

110.2" / 2,800 mm

### System Height (on embankment)

31.5" / 800 mm

### Applicable fastening systems

System 300, System FCB

### Applicable rails

60 E1, 136 RE, others

### Rail inclination

1:40 and 1:20

### Design

Acc. EN 16432

### Safety

Application of Guard Rail possible

### Approval

Approved in Network of German Railways (Deutsche Bahn) and several project related approvals

### N&V

Application of noise absorbers and mass spring system (GETRAC® A3.1)

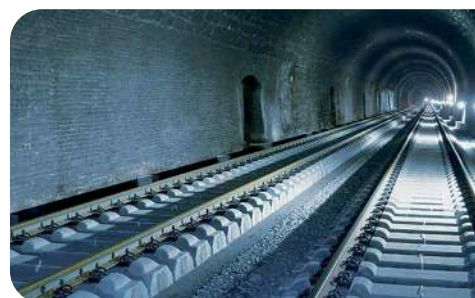
### Power supply

Earthing concept for OHL power supply

### Signaling

Compatible with all signaling systems

\*) Other combinations of speed and axle load may be verified on request



## GETRAC® REFERENCES

**Location/Project name:**  
Leverkusen (Germany)

**Delivered (m):** 1,800

**Year:** 2021

**Client:** Eiffage Rail

**Location/Project name:**

Hohenthurm – Peissen (Germany)

**Delivered (m):** 4,698

**Year:** 2016 - 2017

**Client:** Deutsche Bahn



Stuttgart, GER

**FROM HEAVY  
HAUL TO  
HIGH SPEED.**

**READY FOR  
EVERY LINE.**





# TURNOUT SLEEPER

# RELIABLE TIE SOLUTIONS

## ADVANTAGES & BENEFITS

- Universally applicable and ideal for standard tracks, heavyload applications, and high-speed rail networks
- Precise length options from 1 to 5 meters ensure compatibility with switches, crossings, and track connections
- High weight for improved track stability and reduced maintenance
- Easy maintenance allows replacement of individual turnout components without removing the ties

## RAILONE SCOPE OF SUPPLY

- Concrete turnout ties (switch ties)
- Suitable for ballasted and ballastless tracks
- Applicable for standard rail lines and high-speed systems
- High stability and durability
- Designed for complex turnout systems
- Seamless integration into rail infrastructure
- Length range: 1–5 meters
- Compatible with all common fastening systems
- High flexibility and precision
- Fully automated production
- Consistent product quality
- Meets the highest industry standards
- Reliable and efficient performance in modern rail networks

## LONG-DISTANCE AND FREIGHT TRANSPORT

**So that you always arrive safely:**  
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## URBAN TRANSIT

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# OUR ENGINEERING EXPERTISE

## FOR YOUR PROJECT

When you are dealing with an extensive infrastructure project, any help is welcome. Thanks to our decades of experience in national and international railway projects, we know exactly how we can lend you a hand most effectively.

Our strong network provides you with quick support around the world, knowledgeable personnel, and the engineering services you need to complete your project.

Optimize your project workflow, plan new track solutions, or modernize your infrastructure: Our experts are standing by with innovative spirit and fresh ideas to help you plan, prepare, implement, and monitor your projects. Together, we will prepare a package of services tailored to meet your unique challenges and requirements.

Benefit from the know-how of a technology leader and take advantage of our engineering services to bring success and efficiency to your projects.

### 01

#### CONSULTANCY



Based on deep expertise, RAILONE offers consultancy services in the fields of – including – noise and vibrations, geology, survey, LCC, RAMS and interoperability analysis.

### 02

#### DESIGN



From concept design to preliminary and detailed design. RAILONE provides calculations, reports and project documentation required for track construction.

### 03

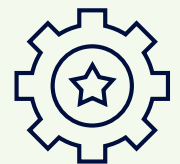
#### CONSTRUCTION SUPERVISION



RAILONE's experts support your track construction from preparation works to construction completion based on extensive experience with ballasted and ballastless track systems.

### 04

#### MAINTENANCE AND QUALITY ASSURANCE



RAILONE provides the maintenance and repair plans, quality assurance documentation etc. to ensure optimal construction quality and track performance.



### REFERENCES

**Location/Project name:**  
Etihad Rail Stage 2D (UAE)

**Planned track length (m):** 6,900

**Year:** 2022

**Client:** CRCC

**Location/Project name:**  
Rapur Tunnel (India)

**Planned track length (m):** 6,500

**Year:** 2019

**Client:** RVNL



# SOLUTIONS YOUR WAY.

The **PCM RAILONE Group** has been manufacturing concrete ties and track systems for urban transit and long-distance rail transportation for more than 70 years. The technology leader also offers its expertise in the fields of engineering and plant construction. Its customer-driven innovations fulfill the highest quality standards and are installed around the world.



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