RMR-Railway Product Brochure

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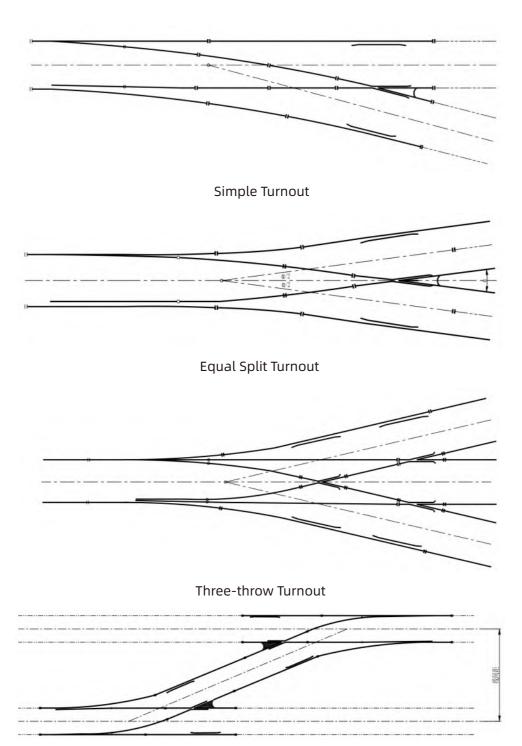
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4 LIFTING MACHINERY PRODUCTS

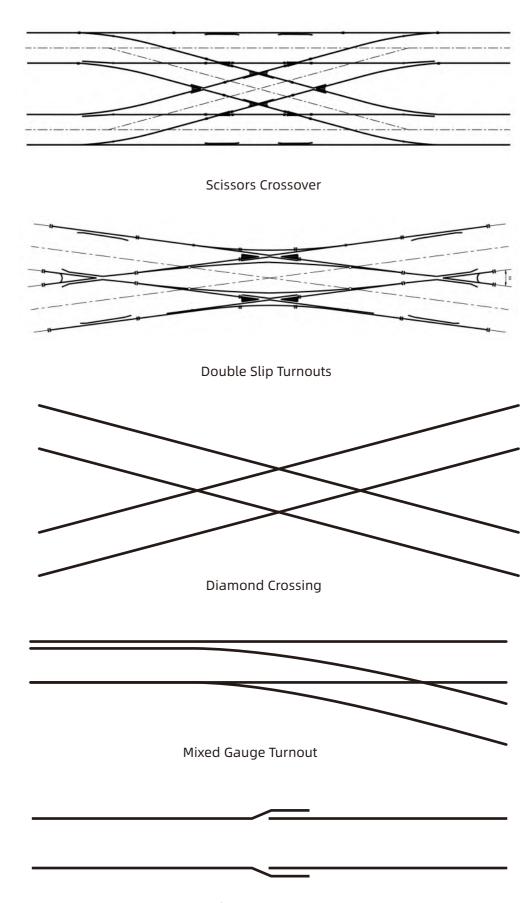
RAILWAY PRODUCT

TURNOUT

Note: It can be customized and adjusted according to customers' requirements or design.



Single Crossover



Rail Expansion Joint

RMR-RAILWAY PRODUCT PRODUCT BROCHURE



60kg/m Rail 1:42 Simple Turnout for 350km/h Passenger Dedicated Line (Ballastless)



60kg/m Rail 1:18 Simple Turnout for 350km/h Passenger Dedicated Line (Ballastless)



UIC60 1:18 Turnout for 220km/h High Speed Line Exported to Venezuela



CHN60 1:12 High Speed Turnout for Guangzhou-Shenzhen-Hongkong PDL (Hongkong MTR)

	High Speed Turnout			
Application	Application Passenger Dedicated Line, Mainline			
Track	CWR Line, Ballasted, Ballastless			
Standard	EN, UIC, BS, AREMA, JIS, SRT, TB			
Rail type	60kg/m, 75kg/m; P65, UIC54, UIC60, 54E1, 60E1, 115RE, 132RE, 136RE, etc.			
Passing speed in straight track	(1) passenger transport: 350km/h, 250km/h, 200km/h; (2) freight transport: 120km/h			
Axle load	(1) passenger transport: 17t; (2) freight transport: 23t, 25t			
Track gauge	1435mm			



60kg/m Rail 1:18



60kg/m Rail 1:12 Type II Speed-up Simple Turnout



54E1 Rail 1:8/1:10/1:12/1:16 Simple Turnout Exported to Thailand



60kg/m Rail 1:12 Simple Turnout with Moveable Crossing Exported to Laos



54E1 Rail 1:8/1:12/1:16 Simple Turnout Exported to Pakistan



54E1 Rail 1:9/1:12/1:15 Simple Turnout with Back-drive Exported to Malaysia

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BS100A 1:10 Simple Turnout Exported to Thailand



BS500 1:8.5 Simple Turnout Exported to Uganda



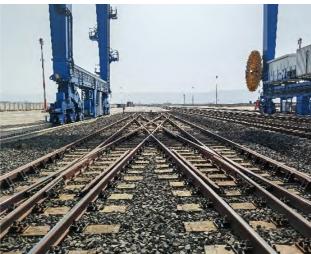
54E1 Rail 1:10/1:12 Simple Turnout Exported to Indonesia



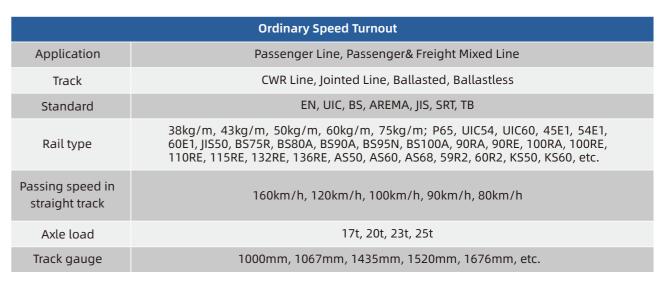
BS80R Rail 1:8.5/1:12 Simple Turnout Exported to Uganda



54E1 Rail 1:8/1:10 Diamond Crossing Exported to Indonesia



43kg/m Rail 1:9 Scissors Crossing with 4.4m Space Exported to Kenya





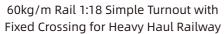
60kg/m Rail 1:7 Double Slip Turnout For Industry & Mining & Special Railway Line



38kg/m Rail 1:4 Simple Turnout Exported to Laos

Mining Turnout		
Application	Mining, Factory	
Track	Jointed Line, Ballastless, Ballasted	
Standard	EN, TB, MT	
Rail type	38kg/m, 43kg/m, 50kg/m, 54E1, etc.	
Passing speed	≤30km/h	
Axle load	20t	
Track gauge	1435mm, etc.	







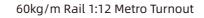
115RE Rail 1:15/1:20 Simple Turnout for Heavy-haul Railway Exported to Mexico



60E1 Rail 1:9/1:12/1:20 Simple Turnout for Heavy-haul Railway Exported to South Africa

	Heavy Haul Turnout
Application	Heavy Haul Line
Track	CWR Line, Jointed Line, Ballasted
Standard	EN, UIC, BS, AREMA, JIS, TB
Rail type	60kg/m, 75kg/m; P65, UIC60, 60E1, 115RE, 132RE, 136RE
Passing speed in straight track	200km/h, 160km/h, 120km/h, 100km/h, 80km/h
Axle load	27t, 30t, 32.5t, 35t, 40t, 45t
Track gauge	1067mm, 1435mm, 1520mm, 1676mm







60E1 Rail 1:9 LRT Simple Turnout Exported to Nigeria



54E1 Rail 1:4 LRT Simple Turnout at Depot Exported to Philippines



54E1 Rail 1:9 LRT Simple Turnout at Mainline Exported to Philippines

Metro & LRT Turnout				
Application	Metro Line, LRT			
Track	Jointed Line, Ballasted, Ballastless			
Standard	EN, UIC, BS, AREMA, JIS, TB			
Rail type	50kg/m, 60kg/m; P65, UIC54, UIC60, 45E1, 54E1, 60E1, 132RE, 136RE			
Passing speed in straight track	≤80km/h			
Axle load	17t			
Track gauge	1435mm			



59R2 Grooved Rail 1:6 Simple Turnout for Suburb Tramway

Shenzhen Longhua Tramway Turnout

Tramway Turnout		
Application	Tramway	
Track	Jointed Line, Ballastless	
Standard	EN, TB	
Rail type	59R2, 60R2, 54G1, 54G2, etc.	
Passing speed in straight track	≤30km/h	
Axle load	12.5t, 14t	
Track gauge	1435mm	





54E1 Rail 1435mm Gauge One-way Expansion Device for Suez Canal Ferdan Bridge

BMJ & REJ for Padma Main Bridge

	Rail Expansion Device		
Kait Expansion Device			
Application	Bridge, CWR line		
Track	CWR Line, Jointed Line, Ballasted, Ballastless		
Standard	EN, UIC, BS, AREMA, JIS, SRT, TB		
Rail type	38kg/m, 43kg/m, 50kg/m, 60kg/m, 75kg/m; P65, UIC54, UIC60, 45E1, 54E1, 60E1, JIS50, BS75R, BS80A, BS90A, BS95N, BS100A, 90RA, 90RE, 100RA, 100RE, 110RE, 115RE, 132RE, 136RE, AS50, AS60, AS68, 59R2, 60R2, KS50, KS60		
Passing speed in straight track	≤80km/h, ≤90km/h, ≤100km/h, ≤120km/h, ≤160km/h, ≤200km/h, ≤250km/h, ≤350km/h		
Axle load	17t, 20t, 23t, 25t, 27t		
Track gauge	1000mm, 1067mm, 1435mm, 1520mm, 1676mm, etc.		

RAILWAY PRODUCT

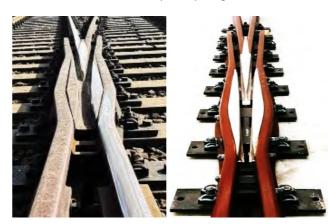
CROSSING



Solid Manganese Steel Self Guarded (SMSG) Frog



Rail Bound Manganese Steel (RBM) Frog Insert



Rail Bound Manganese Steel Frog



Leap-over High Manganese Steel Bolted Crossing

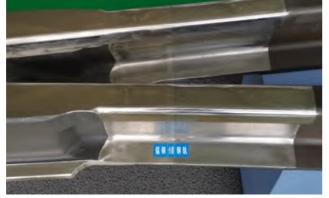


CMS Explosive Depth Hardness Crossing



Alloy Steel Crossing





Forged High Manganese Steel Crossing

CMS Crossing with Flash Butt Welding Legs

	Crossing
Mode	Cast Manganese Steel (CMS), Rail-Bound Manganese (RBM), Explosive Depth Hardness (EDH), Flash Butt Welding, Movable Crossing, Alloy Steel Crossing
Track	CWR Line, Jointed Line
Standard	EN, UIC, BS, AREMA, JIS, SRT, TB
Application type	China: 38kg/m, 43kg/m, 50kg/m, 60kg/m, 75kg/m; 59R2, 60R2 series crossing USA: Cast Manganese Steel (CMS), Solid Manganese Steel Self Guarded (SMSG), Rail Bound Manganese Steel (RBM), Explosive Depth Hardness (EDH), Flash Butt Welding, Movable Crossings/Frogs, 90RA SMSG Series Frogs, 100RA SMSG Series Frogs, 110RE SMSG Series Frogs, 115RE SMSG/RBM Series Frogs, 132RE SMSG/RBM Series Frogs and 136RE SMSG/RBM Series Frogs South Korea 60Kg Series Crossings, 50Kg Series Crossings, 60E1 EDH Series Crossings Hong Kong: BS90A Series CMS Crossing, BS90A Series RBM Crossing, 54E1 Series CMS Crossing with flash butt welding legs Thailand: BS80A Series CMS Crossing with flash butt welding legs, BS100A Series CMS Crossing with flash butt welding legs
Passing speed	\leq 80km/h, \leq 90km/h, \leq 100km/h, \leq 110km/h, \leq 120km/h, \leq 160km/h, \leq 200km/h, \leq 350km/h
Axle load	≤20t, ≤25t, ≤30t, ≤40t, ≤45t

RAILWAY PRODUCT

FASTENING SYSTEM



Туре	Axle Load	Running Speed	Clamping Force
W14HH	35 Tons	≤200km/h	≥10kN to EN 13146-7
E Type HH	40 Tons	≤80km/h	≥11kN to EN 13146-7
E 20 RA	≤180 kN	≤80km/h	≥11kN to EN 13146-7
China Type II	≤26 Tons	≤160km/h	≥10KN to EN 13146-7
C1 spring blade	≤26 Tons	≤80km/h	≥10KN to EN 13146-7
RN spring blade	≤26 Tons	≤80km/h	≥10KN to EN 13146-7
E 2055 WT	≤26 Tons	≤120km/h	≥12kN to AREMA spec.

Note: All products can be customized and adjusted according to customers' requirements.

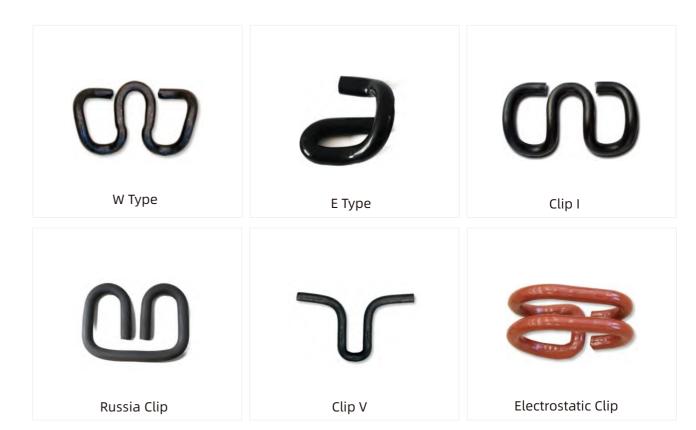
• 2 W14R Rail Clips • 2 Plastic Dowels W14HH Heavy Haul • 2 Guide Plates Rail Fastening • 2 Sleeper Screws • 2 E Type Rail Clips E Type Heavy Haul • 2 Cast In Shoulders Rail Fastening • 2 Insulators • 1 Rall Pad • 2 Rail Clips E20 Double Anti-vandal E 20 Rail Anti-Vandal • 2 Cast In Shoulders Rail Fastening • 2 Insulators • 1 Rail Pad • 2 China Type II Rail Clips 2 Hex Nuts • 2 Steel Guide Plates Improved China Type II • 2 Flat Washers • 2 Insulators • 1 Rail Pad Rail Fastening • 2 Double Lead Anchor • 2 Plastic Insert Dowels • 2 Spring Blades C1 Spring Blade • 2 Guide Plates Rail Fastening • 2 Carn Bolt with Hex Nut and Washers • 1 Rail Pad • 2 RN Spring Blades • 2 Insulators RN Spring Blade • 2 Cam Bolt with Hex Nuts and Washers Rail Fastening • 2 Insulated Bushings • 1 Rail Pad • 2 Rall E Clips E2055 • 4 Screw Spikes E 2055 Rail Fastening • 2 Insulators for wood tie • 1 Base Plate

Our fastening systems have been widely used for ballasted and ballastless rails, as well as turnouts with concrete sleepers. Our products can fit in different types of technical standards, such as 45E1, 54E1, 60E1, 115RE, 136RE, Chinese 50 rail, Chinese 60 rail, EN standard, AREMA standard, DIN standard, BS standard, and other national standards.

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RAILWAY PRODUCT

CLIP





Dacromet Clip

Type	E Type, W Type and Customized Type		
Material	60Si2Mn, 60Si2Cr and other material as per customer's requirements		
Surface	Plain (oiled), Oxide black, color painting, HDG, Zinc Plating, etc.		
Standard	EN standard, AREMA standard, DIN standard, BS standard and other national standard		

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RAILWAY PRODUCT

BASE PLATE

















Туре	Casting, Welding and Hot Forging
Material	Q235, QT400-15, QT450-10, QT500-7, QT600-3, QT700-2
Surface	Plain Oiled, Oxygen Black
Standard	EN standard, JIS standard, DIN standard and other national standard

RAILWAY PRODUCT

FISHPLATE



Fishplate



AREMA Fishplate



UIC Fishplate

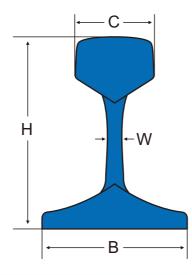


Compromise Fishplate

Туре	43KG, 50KG, 60KG, 75KG, UIC60, UIC54, 115RE, 119RE, 132RE, 136RE, 141RE, BS75R, BS80A, BS80R, BS90A, BS100A, BS113A, FL10, FL14, FL18, FL20, FL30, FL33, FL41-49, FL41-54, TJ57, TJ ASCE 90, TJ UIC60, ARA-A 90LB, TJ45, 85 LB, 85 LB-80 LB		
Material	Steel 45#, 50#, 55#, Q235		
Tensile Strength	Rm : ≥785 Mpa, Rm : ≥690 Mpa, Rm : 550-650 Mpa, Rm : ≥375 Mpa		
Holes design	4 holes, 6 holes and other requirements		
Surface	Plain Oiled, Oxygen Black, Zinc Plated, Hot Dip Galvanized, Dacro coating		
Standard	EN standard, AREMA standard, DIN standard, BS standard, UIC standard, and other national standard		

RAILWAY PRODUCT

RAIL



ТҮРЕ	STANDARD	DIMENSIONS(mm)			Theoretical	
OF RAIL		н	В	С	W	weight Kg/m
		EUROPEA	N STANDAR	D		
54E1 (UIC54)	EN 13674-1	140,00	70,00	16,00	54,77	159,00
54E2 (UIC54E)	EN 13674-1	125,00	67,00	16,00	53,82	161,00
60E1 (UIC60)	EN 13674-1	150,00	72,00	16,50	60,21	172,00
	AUSTRALIAN STANDARD					
AS60	AS 1085. 1	170,00	146,00	70,00	16,50	60,60
AS68	AS 1085. 1	185,70	152,40	74,60	17,50	67,50
		AMERICAI	N STANDAR	D		
90ARA-A (TR45)	AREMA	142.90	130.20	65.10	14.30	44.65
100 ARA-B	AREMA	143.30	130.66	67.50	14.30	49.64
100RE	AREMA	152.40	136.52	68.26	14.29	50.35
115RE (TR57)	AREMA	168.27	139.70	67.98	15.87	54.88
119RE	AREMA	173.03	139.70	67.47	15.87	58.86
132RE	AREMA	180.97	152.40	76.20	16.67	64.88
136RE (TR68)	AREMA	185.70	152.40	74.60	17.50	67.40
141AB	AREMA	188.91	152.40	77.79	17.46	69.74

TYPE	STANDARD	DIMENSIONS(mm)				Theoretical
OF RAIL		н	В	С	w	weight Kg/m
		RUSSIAN	STANDARD			
P50 (R50)	GOST	152,00	132,00	72,00	16,00	51,80
P65 (R65)	GOST	180,00	150,00	75,00	18,00	64,88
		CHINESE	STANDARD			
38KG	GB/T 2585	134.00	68.00	114.00	13.00	38.86
43KG	GB/T 2585	140.00	70.00	114.00	14.50	44.75
50KG	GB/T 2585	152.00	70.00	132.00	15.50	51.65
60KG	GB/T 2585	176.00	73.00	150.00	16.50	60.80
75KG	GB/T 2585	192.00	75.00	150.00	20.00	74.60
		BRITISH	STANDARD			
BS75R	BS 11-1985	128.59	61.91	122.24	13.10	37.20
BS80A	BS 11-1985	133.35	63.50	117.47	13.10	39.80
BS90A	BS 11-1985	142.88	66.67	127.00	13.89	44.10
BS95N	BS 11-1985	147.64	69.85	139.70	13.89	47.26
BS100A	BS 11-1985	152.40	69.85	133.35	15.08	50.18
		JAPANES	E STANDARI	ס		
JIS 15KG	JIS 1103-91	79.37	79.37	42.86	8.33	15.2
JIS 22KG	JIS 1103-91	93.66	93.66	50.8	10.72	22.3
JIS 37A	JIS 1103-91	122.24	122.24	62.71	13.49	37.2
JIS 50N	JIS 1103-91	153	127	65	15	50.4
CR 73	JIS 1103-91	135	140	100	32	73.3
INDIAN STANDARD						
ISCR 50	ISCR	90	90	51.2	20	29.8
ISCR 60	ISCR	105	105	61.3	24	40
ISCR 70	ISCR	120	120	70	28	52.8

RMR-RAILWAY PRODUCT PRODUCT BROCHURE

Standard	Steel Grade	Recommended Application		
	U71MnG	High Speed Line		
Railway Standard	U75VG	High Speed Line		
in China	U71Mn	Straight Section of Common Line		
	U75V	Straight Section of Passenger-freight Line and Heavy-haul Line		
	R260	Common Line		
EN13674	R350HT	Common Line, High Speed Line and Heavy-haul Line		
	R350LHT	Common Line, High Speed Line and Heavy-haul Line		
UIC860/BS	900A/900B	Common Line		
	SS	Common Line		
	НН	Common Line, High Speed Line and Heavy-haul Line		
AREMA	LA	Common Line and High Speed Line		
	LH	Common Line, High Speed Line and Heavy-haul Line		
JIS	HH370	High Speed Line and Heavy-haul Line		



RAILWAY PRODUCT

SLEEPER

Concrete Sleeper







Type III A Sleeper

Type III C Sleeper

Type IV A Heavy-duty Sleeper







Short Sleeper

Haeco Sleeper

Crossing Sleeper







Subway Sleeper

High-speed Rail Turnout Sleeper

Application

- Main line of a ballasted railway at a speed of 250km/h
- Railway bridge at a speed of 250km/h
- Railway bridge (pre-embedded nylon casing, environmental protection)
- Heavy-haul railway ballasted track at ≥30t axle load
- Turnout sleeper for ballast/ballastless railway and other customized requirement
- Track foundations of stackers and reclaimers in ports, mines, wharfs, etc.
- Level crossings of stations and freight yards

Standard

EN standard, AREMA standard, DIN standard, BS standard and other national standard

Wooden Sleeper





Type	Hardwood, Softwood
Surface	Oil distilled from coal tar
Standard	EN standard, AREMA standard and other national standard
Dimension	As per customized requirements

Synthetic Sleeper





Type	Glass Fiber Reinforced Polyurethane Foaming Sleepers	
Application	Turnout, main line, metro line and bridge	
Key Parameters	 1.Synthetic Sleepers with different speci-fications in a range of 600-1200 kg/m³; 2.Ultimate pull-out force of railway thread spikes ≥ 60 kN; 3.None abnormality after 100,000 times in fatigue test; 4.Bending strength ≥ 70 MPa, bending modulus ≥ 6 GPa. 	
Standard	EN standard, JIS standard and other national standard	
Dimension	As per customized requirements	

RAILWAY PRODUCT

BUFFER STOP



Mode	Shock Absorber for Sliding (Spring Type), Fixed Type, Hydraulic Sliding Type, Hydraulic-Pneumatic Type, Hydraulic-Pneumatic Sliding Type, Hydraulic-Pneumatic Sliding Type (Duplex), Straddle Type, Fixed Hydraulic-Pneumatic Type
Maximum Impact Speed	≤10km/h, 5~15km/h, 10~20km/h, 15~25km/h, ≤25km/h
Maximum Bearing Impact Mass	120t, 200t, 210t, 336t
Kinetic Energy absorbed by one buffer	200kJ, 228kJ, 240kJ, 260kJ, 520kJ
Maximum Sliding Distance	≤15m,≤20m
Minimum Horizontal Resistance	280kN, 420kN, 500kN, 560kN
Application	Metro, Light track, High-speed track

RAILWAY PRODUCT

OTHER SPARE PARTS

Gauge Plate



Rubber Pad

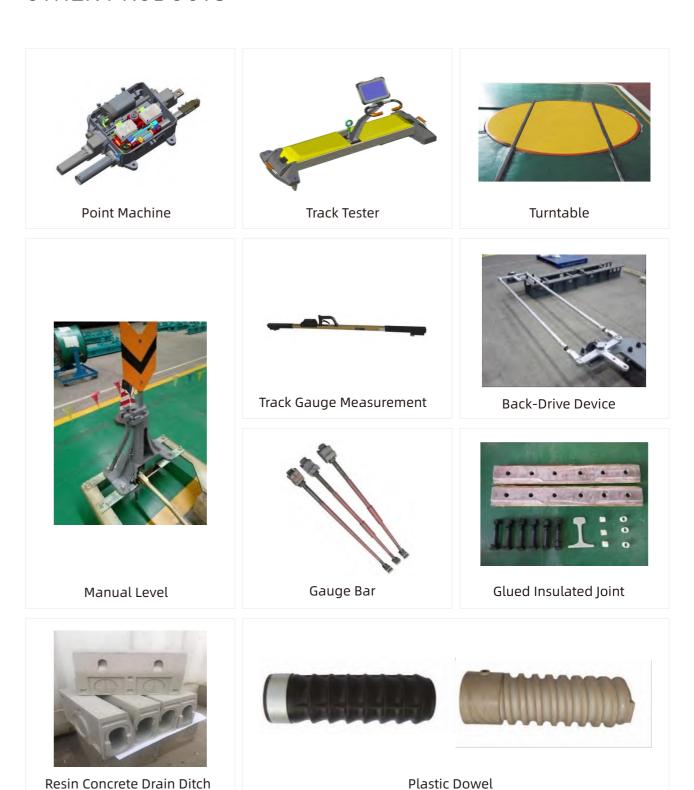


Bolt & Nut



RAILWAY PRODUCT

OTHER PRODUCTS



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RMR-RAILWAY PRODUCT PRODUCT BROCHURE

OTHER STEEL STRUCTURE PRODUCT

STEEL STRUCTURE CONSTRUCTION

RMR has achieved remarkable success in the field of construction steel structures, with its products widely used both domestically and internationally across various industries. Representative projects include highrise building steel structure frames, Xi'an Samsung Semiconductor FBA Plant, Myanmar Danieli Metallurgical Equipment Steel Plant, and power generator steel structure frames.



Xi'an Samsung Semiconductor FBA Plant



Nanjing Baose Plant



Power Generator Steel Structure Frames



PRODUCT

RMR-RAILWAY



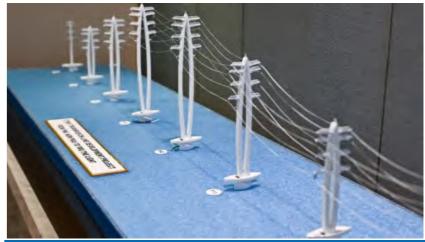
Nanjing Metro Building 25

OTHER STEEL STRUCTURE PRODUCT

POWER TRANSMISSION TOWER







Malaysia Penang Power TransmissionTower

EN standard Weight: 5,900t

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URBAN RAIL TRANSIT

MAGLEV TRANSPORTATION



BEIJING MAGLEV S1 LINE

• Length: 10km

• Designed speed: 100km/h

Medium and low speed maglev transportation

Medium and low speed maglev series turnout:

Straight passing speed: 100km/hLateral passing speed: 25km/h

• Switching time: 15s

• Length of maglev line track panels: 12.5m



• Length: 18km

• Designed speed: 100km/h



• Length: 9km

• Designed speed: 100km/h

High Speed Maglev Transportation



QINGDAO HIGH SPEED MAGLEV TESTING LINE





High-speed maglev turnout

Typical Product

High-speed maglev turnout:

- Straight passing speed: 600 km/h
- Length: nearly 80 meters
- Width: nearly 3 meters
- Switch distance: nearly 4 meters

For the first time, reaching a straight passing speed of 600km/h, this is currently the fastest maglev turnout in the world. RMR has completed the design, manufacturing, and installation tasks of the project, and produced this single opening flexible turnout.



SHANGHAI MAGLEV DEMONSTRATION OPERATION LINE

• Length: 30km

• Designed speed: 500km/h

Relative Equipment



Medium and low speed maglev simple turnout



Medium and low speed maglev single crossover turnout



Manufacturing of maglev track panels



Medium and low speed maglev engineering vehicle

URBAN RAIL TRANSIT

MONORAIL TRANSPORTATION

CHONGQING STRADDLE MONORAIL TRANSIT

Length: 98km

• Designed speed: 80km/h



Typical Products

Straddle type series turnouts

• Straight passing speed: 80km/h

• Lateral passing speed: 15km/h

• Single track switch time: 15s

• Four track switch time: 45s

Track beam tension bearings:

Vertical reaction force: 1239KN

Longitudinal horizontal force: 132KN

• Lateral horizontal force: 162KN

Angle of turning ≥15'

Straddle type monorail engineering vehicles:

• Total vehicle weight: 14t

• Load capacity: 1t

• Running speed: 40km/h



Cross seat monorail transit joint type five way turnout



Joint type simple turnout for straddle type monorail transit



Straddle type monorail transit track beam support



Straddle type monorail engineering vehicle

URBAN RAIL TRANSIT

SUSPENDED TRAFFIC SYSTEM



EPC OPTICAL VALLEY AIR RAIL

• Length: 10.5km

Designed speed: 60km/h

RMR has completed the production, on-site installation, and construction tasks for the project's track beams, steel structure piers, cover beams, supports, pins, expansion joints, turnouts, car stations, and large-span structural components.



DAYI AIR RAILWAY PROJECT

- Length: 1.4km
- Designed speed: 60km/h

RMR has completed the designing, manufacturing, and installation tasks of all track beams, columns, and turnouts.



XINGGUO SUSPENDED PERMANENT MAGNET MAGLEV TRACK TEST LINE

Designed speed: 70km/h

Known as the "Red Rail", this rail transit aims to explore high-quality, customized, and intelligent transportation, dealing with complex terrain with medium to low carrying capacity.





Turnout of Zhongtang Suspended Traffic System

Turnout of China Optical Valley Suspended Traffic System



Suspended monorail engineering vehicle

Typical products

Suspended series turnouts:

- Straight passing speed: 60km/h
- Lateral passing speed: 15km/h
- Single track switch time: 15s

• Weight: 7.5t

• Load capacity: 1.2t

• Running speed: 15km/h

URBAN RAIL TRANSIT

TOURISM AND SIGHTSEEING LIGHT RAIL SYSTEM



Xi'an Qujiang Tourist Light Rail Line

● Length: 10km

• Designed speed: 35km/h



Own Factory Area Tourism Light Rail System Test line

LIFTING MACHINERY PRODUCTS





1100t double beam gantry crane

Rated lifting capacity: 1100t

• Span: 24m

• Lifting height: 13m

Intelligent container gantry crane

Rated lifting capacity: 40t

• Span: 13.2m

• Lifting height: 12.5m





900 ton bridge erecting machine

• Rated lifting capacity: 900t

Span: 32m

500 ton beam lifting machine

Rated lifting capacity: 500t

• Span: 34m

• Lifting height: 11m