

FORGESAIL

Delivering end-to-end crane rail solutions—from precision manufacturing to expert global installation.

Corporate Profile 2026

Group Overview

ForgeSail Rail Solutions Ltd

The Group's Design, Sales, and Operations Center. It designs various customized products required for projects, such as: CROSSOVER FORGING ASSY, MODULAR TRANSITION TRACK SYSTEM (MTTS), SETTLEMENT-RESISTANT TRACK SYSTEM (SRTS), and continuously optimizes existing product lines.



SINCHOLD Port Engineering Co., Ltd

The Group's Engineering Center in China. Holding comprehensive construction qualifications in China for mechanical and electrical engineering, special equipment, railways, and more, it maintains a complete construction workforce and primarily undertakes EPC projects in China.



SINCHOLD Railway solutions Co., Ltd.

Group Production Center. Featuring an 8,000-square-meter production facility equipped with multiple advanced manufacturing lines. Comprehensive systems for warehouse management, quality control, and laboratory operations ensure product quality.



SINCHOLD FOR CONTRACTING COMPANY

The Group Engineering Center in Saudi Arabia. It entered the Saudi market in 2021, participating in Saudi Aramco's MYP project, and subsequently established strategic cooperation agreements with Minimax, Sinopec, and others.





The company focuses on product research and development, technology accumulation, and has a certain market share and reputation in China, with stable growth. the company decided to tap into overseas markets while taking into account the domestic market.

Provided flexible track system and installation service for rocket operation platform for China Aerospace Wenchang Base, with installation precision reaching 0.5mm tolerance per 200m! In the same year, provided circular high-precision track system and installation service for the reactors of CNNC Fujian Nuclear Power Project.

We provided design and product supply of flexible track system for SEPCO's construction of Maritime Yard project owned by Saudi Aramco, based in Saudi Arabia, indicating the worldwide recognition of SINCHOLD brand and quality, marking the company's historic development.

As a key subcontractor to Somarail, SINCHOLD contributed to the MED Terminal Railway Modernization Project by supplying railway materials, track components, and on-site welding services, supporting critical installation works. This ensured the successful project implementation within the complex and demanding port environment.



Provided technical solutions, products and construction and installation services for Kawasaki's coal terminal bucket wheel machine project at its power plant in Myanmar.

We have reached a long-term partnership with Siemag Germany (SMS Group), and served in the design, supply and installation of automated steel coil conveyor lines in Formosa Plastics Fuxin Steel Plant in Fujian, China, which was highly appreciated by the Chief Engineer of Siemag.

Provided technical solutions, products, and construction of installation services for Kawasaki's coal terminal bucket machine project at its power plant in Japan.

SINCHOLD is participating in the COSIDER Group tender for two major rail infrastructure packages in Algeria, covering the supply and installation of UIC 60 (60E1) rails and complete track systems. Package 01 involves 2,350 tons of UIC 60 rails for the Algiers Metro Line 1 Extension (El Harrach – Bab Ezzouar – Airport section), while Package 02 includes 6,000 tons of UIC 60 rails for the Ksar El Boukhari – Boughezoul railway project.

Company Milestones

Application sectors of railway fasteners



Ballastless track for high speed rail (HSR)

The high-speed railway unballasted track fasteners features high strength, high stability, and high elasticity. The models of ballastless track fasteners for high-speed rail include type WJ-7 and WJ-8, etc. As technology continues to advance and innovate, future high-speed railway unballasted track fasteners will continue to develop towards higher performance, lower cost, and better eco-friendliness to meet the growing demands for high-speed rail transportation.



General railway ballasted track

Features of traditional railway ballasted track fasteners encompass excellent adaptability, robust stability, and economical maintenance. Models of these fasteners for conventional railway ballasted tracks include Type I and Type II etc. These ballasted track fasteners for general railways play a crucial role in railway transportation due to their strong adaptability, superior stability, and easy upkeep.



Urban subway track

Common fastener types in urban subway systems include the DT series, WJ series, spring fasteners, etc. The DT series are used for main subway lines and auxiliary tracks, featuring effective reduction in vibration and noise, suitable for routes with numerous curves. The WJ series exhibit good stability and durability, ideal for subway lines with heavy passenger traffic, providing reliable support. Spring fasteners are applied in sections requiring high vibration dampening, effectively absorbing shocks generated by train movements, minimizing the impact on the surrounding environment.



Urban light rail

Light rail, as a critical component of urban transit systems, has gained widespread application due to its agility and speed. In light rail systems, common types of fasteners include the type III e-clips, type IV e-clip fasteners, and type WJ fasteners. As technology advances and new materials are adopted, the design of future light rail fasteners will become increasingly optimized, better serving the evolving needs of urban rail transit development.



Heavy-haul freight rail

Heavy haul freight railways play a pivotal role in modern logistics and cargo transportation. A variety of fastener types are used, with the type VII e-clips, type I height-adjustable spring clips, type I elastic clips, type-63 rail clips, and type-70 rail clips being some of the most common types found on heavy load freight tracks.

Applications of Railway Rasteners



SkyRail track

AirRails, also known as suspended monorail systems, are a distinctive type of rail transport where the track structure is typically suspended from above, hence the name "AirRails". Major types of fasteners used in such systems include the WJ-1 type fasteners, DT series fasteners, and rigid fasteners.



Train yard track

Train depot track fasteners are critical components that ensure safe and smooth operation of trains, securing the tracks and preventing displacement during train passage. Primarily, bolted clip fasteners, welded rail clamp assemblies, type 63 and 67 clamp fasteners, and new high-elastic fasteners designed for metro use are employed.



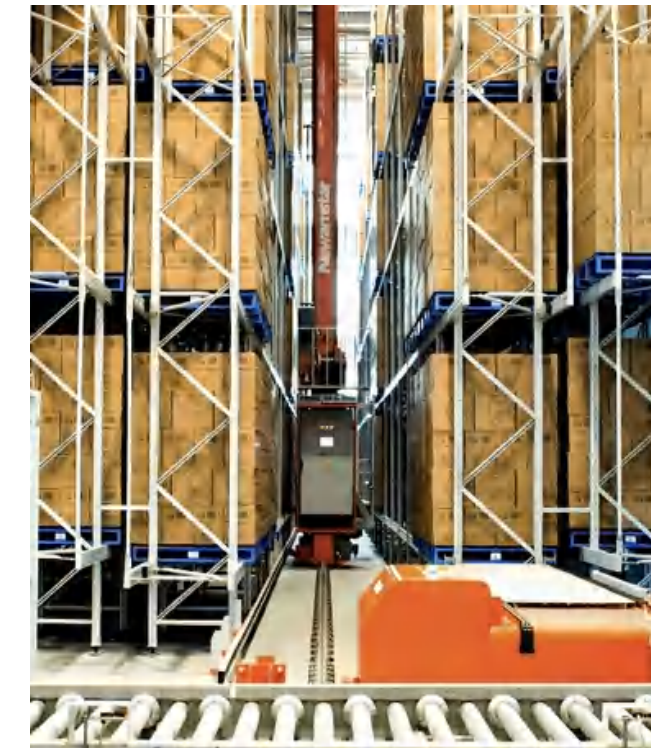
Heavy-duty industrial rail

Heavy-duty industrial tracks, featuring large spans, high loads, and frequent operations etc, necessitate robust rail fasteners that can withstand the harsh working conditions prevalent in the industry. Fasteners in this sector predominantly feature forged rail clip assemblies, which are continually upgraded to cope with the demanding environment. Typical models include the types 7220, 7216, 9220, and 9120, each engineered to deliver reliability and durability under extreme conditions.



Rail tracks for mines

Mining rail tracks are usually found in harsh production environments, with high working frequencies and significant external influences. In the industry, bolted clamps and spring clip fasteners are commonly used. All designs are based on low cost, easy replacement, and short maintenance cycles to meet the complex environment of mining rail tracks.



Automated warehousing track

SINCHOLD flexible rail clip assemblies are widely utilized in the field of rail-guided stacker cranes and precision tracks for intelligent robots. SINCHOLD products meet the stringent requirements for track accuracy demanded by high-precision equipment, thereby reducing the failure rate of automated systems.

Facility Overview

Enterprise Affiliation and Establishment Background: SRS is a fully-owned production entity of Sinchold, established in Tongzhou District, Nantong City in 2020.

Production Configuration and Staff Scale: It is equipped with state-of-the-art production lines, and has a total workforce of 56 employees as of May 2025.

Core Business Scope: It specializes in the forging of rail clips, fabrication of rubber pads and soleplates, as well as the production of various relevant rail fasteners.

Quality Control System: A testing laboratory equipped with advanced testing equipment is set up under the Quality Assurance (QA) Department. All Sinchold products undergo full-process quality control in accordance with the ISO Quality Management System (QMS).



Equipment



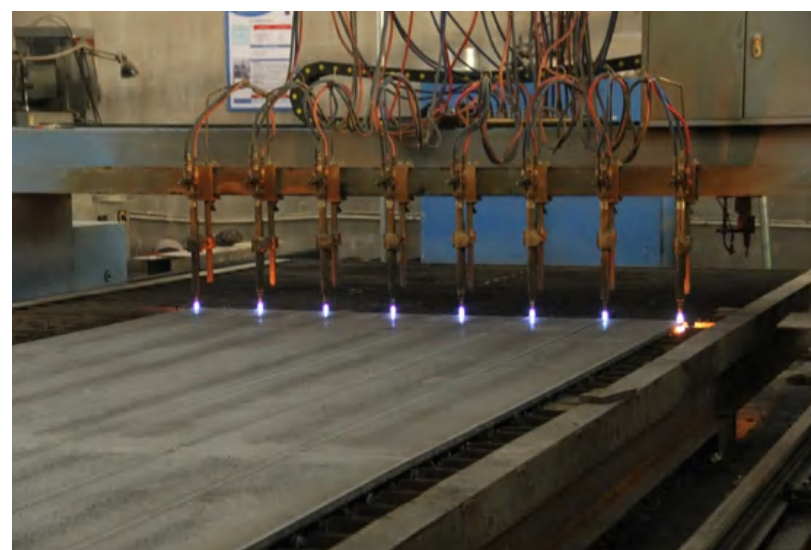
Forging press



Vulcanizer (for rubber nose)



Vulcanizer (for rubber pad)



Torch cutting machine



Laser cutting machine



Robotic welding system

Testing Lab



Testing lab, established in 2021, equipped with advanced test machines has been set up under the QA dept., to carry out quality control of all products in accordance with ISO QMS. Universal testing machine, densimeter, durometer, coating thickness gauge, thermal aging test chamber and vulcanization test machine are used for daily quality control.

A metallurgical microscope and side load test machine will be invested soon.

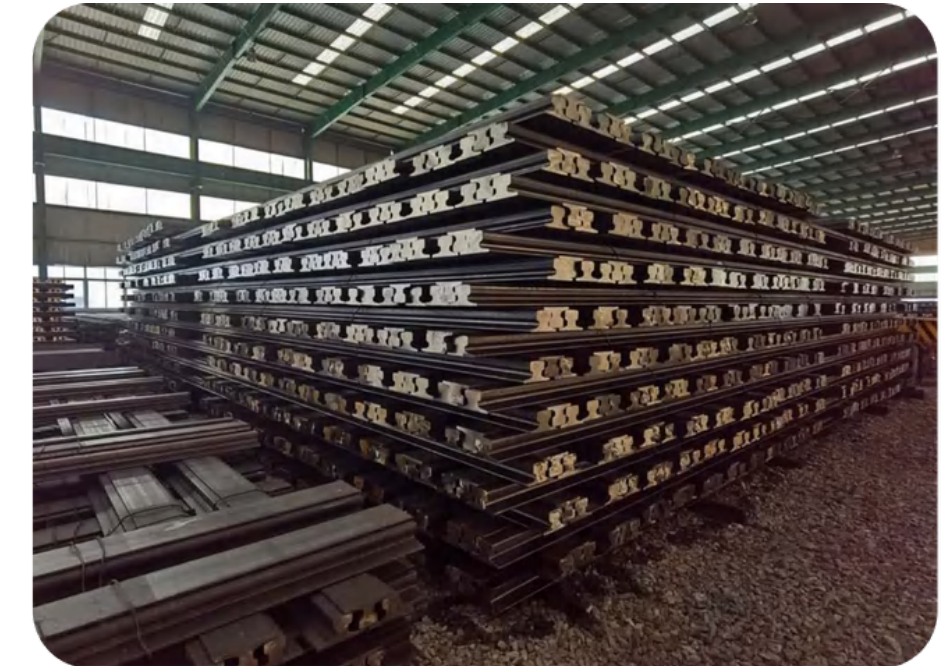
In this testing lab, the following tests will be completed:

1. Steel product test
 - Metallurgical analysis
 - Tensile strength
 - Side load
 - Salt spray test
2. Rubber pad
 - Rubber properties (tensile strength, elongation, density, thickness, hardness etc.)
 - Ageing test
3. Welding
 - UT testterminatio

Steel Rails

Sourcing **steel rails** for large-scale international projects requires a resilient and cost-effective supply chain. Here is why EPC contractors worldwide partner with us:

- **Global Mill Access & Factory-Direct Pricing** We provide direct access to the world's top-tier steel manufacturers, including **ArcelorMittal, Baowu, Ansteel, Pangang, and Yongyang**. This robust global network ensures you receive premium **rail profiles** at highly competitive prices, strictly complying with any international standard.
- **Ready-to-Install Systems & Advanced Processing** We deliver complete **rail systems** tailored to your exact site requirements. From precision cutting, drilling, and bending in our fully equipped workshop to supplying all matching accessories (like splice bars and **clips**), your **rails** arrive 100% ready for immediate installation.



Rail type	Bottom mm	Head mm	Height mm	Weight kg/m
CR73	140	100	135	73.3
CR100	155	120	150	100.2
JIS 22KG	93.7	50.8	93.7	22.3
JIS 30KG	122	63	122	37.2
JIS 37 A	122	63	122	37.2
JIS 50 N	127	64	153	50.4

RAIL CLIP

European-Standard Quality, Highly Competitive Pricing.

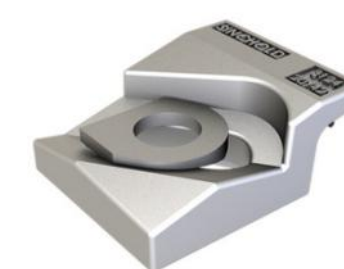
- **Materials:** Forged Q355B (hot-dip galvanized, ISO1461) for anti-corrosion; EPDM rubber tongue (ISO/TR17051) for elasticity/durability.
- **Functions:** Self-locking (anti-loosening bolts), flexible compression (no rigid rail damage), compatible with guided-wheel cranes (stable operation).
- **Installation:** Low height (space-saving), adjustable models (adapts to minor foundation settlement).



3116/13/36



3120/17/38



3124/20/42



3220/17/38



3222/17/44



3224/20/42



7116/20/38



7120/21/42



7216/10/39



7220/21/43



7224/21/45



8119/15/40



9116/08/37



9120/15/38



9216/08/40



9220/20/45

CORE PARAMETERS
BOLTED RAIL CLIPS



CLIP MODEL	MAX SIDE LOAD (kN)	BOLT SIZE	COMPATIBLE RAIL MODELS	ADJUSTMENT RANGE (mm)	HEIGHT (mm)	APPLICATION DUTY
3116	60	M16	A75, UIC54, UIC60, ASCE 80	13	36	Lightweight
3120	85	M20	A75, UIC60, P60, QU80, ASCE 80, JIS-50-N	17	38	Medium-lightweight
3124	150	M24	A100, P50, P60, QU80, QU100, JIS-50-N	15	42	Medium
3220	180	M20	A75, UIC54, UIC60, ASCE 80	13	38	Medium-heavyweight
3222	240	M22	QU120	17	44	Heavyweight

CORE PARAMETERS
WELDED RAIL CLIPS



CLIP MODEL	MAX SIDE LOAD (kN)	BOLT SIZE	COMPATIBLE RAIL MODELS	ADJUSTMENT RANGE (mm)	HEIGHT (mm)	APPLICATION DUTY
7116	120	M16	A75, A100, UIC54	20	38	Light to Medium
7120	195	M20	A120, QU80, QU100, P50, P60, JIS-50-N	21	42	Medium to Heavy
7216	235	M16	A75, A100, UIC60, P50, P60, QU100, ASCE 80, JIS-50-N	20	39	Heavy
7220	300	M20	A120, QU100	21	43	Extra Heavy
9116	85	M16	A75, UIC54, UIC60, ASCE 80	8	37	Light
9120	145	M20	A100, A120, P50, P60, QU80, QU100, JIS-50-N	15	38	Medium
9216	185	M16	A75, A100, UIC54, P50, P60, QU80, ASCE 80, JIS-50-N	8	40	Medium
9220	255	M20	A75, A100, A120, UIC54, P50, P60, QU80, QU120, ASCE 80, JIS-50-N	20	45 - 50	Heavy

Rubber Pad

- **Application:** Buffer component for rails & steel base plates.
- **Material/Process:** Weather/corrosion-resistant synthetic rubber (vulcanized) with 0.5mm steel plate composite core.
- **Service Life:** Over 10 years in track systems.
- **Performance:** Shock-absorbing/noise-reducing; extends track system operational lifespan significantly.



MK5

- ★ Material: Nitrile rubber
- ★ Thickness: 7mm



MK2

- ★ Material: EVA
- ★ Thickness: 7mm

MK5

Steel reinforced rubber pad 12m/roll

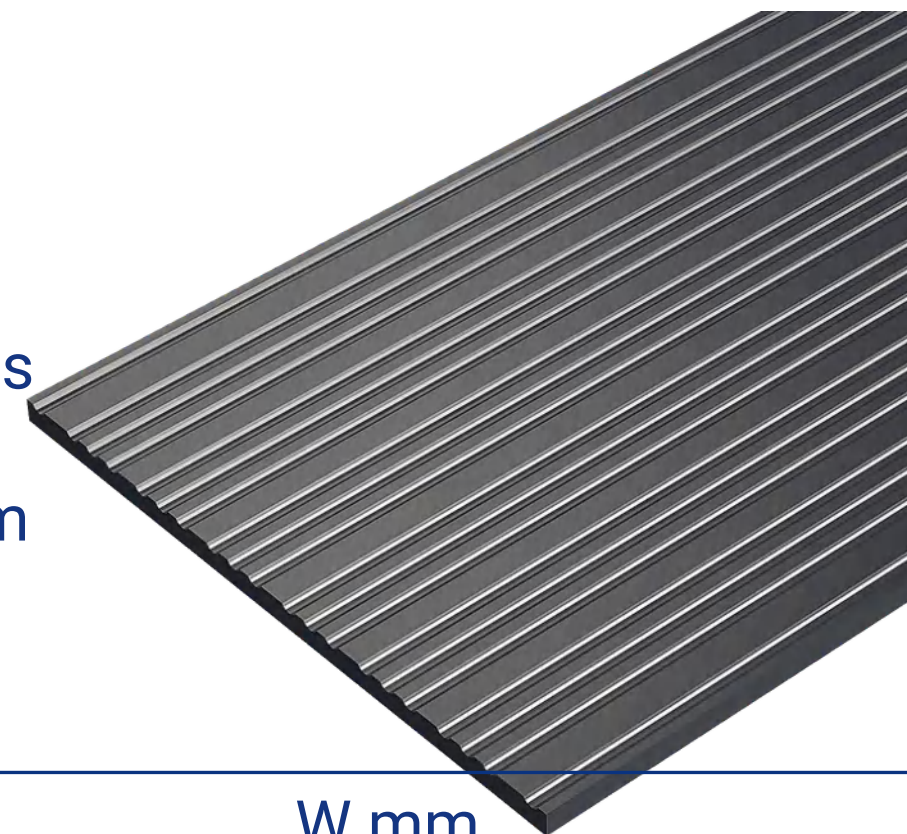
Technical data:

The pad width should be nomally 5mm less than the rail foot width .

Material: NBR with steel reinforcement Am

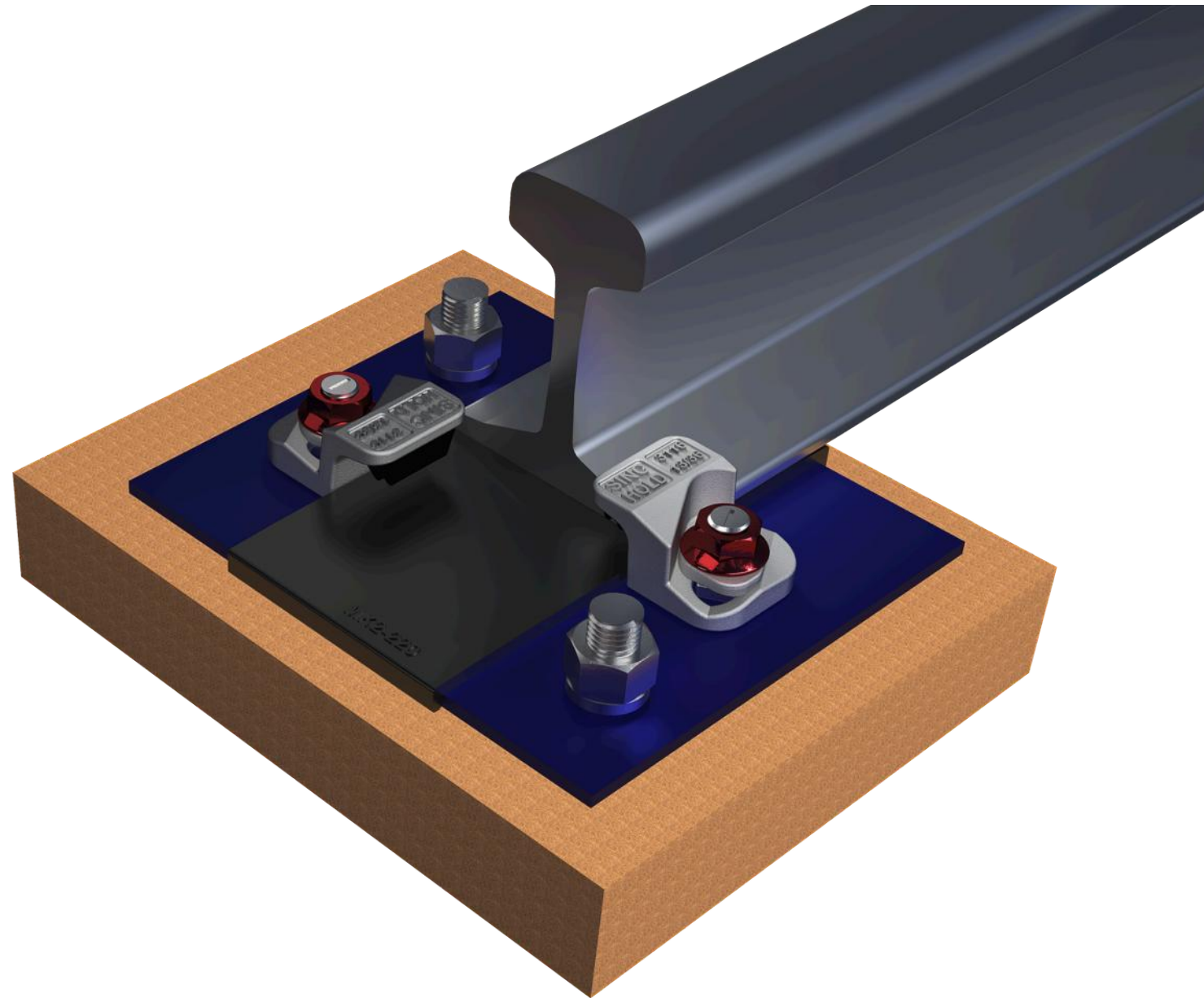
bient temp. range: -25°C to +100°C

Shore hardness: 75 degree $\pm$ 5



MK5 Assembly Drawing

Model	W mm
MK5-098	98
MK5-118	118
MK5-128	128
MK5-134	134
MK5-147	147
MK5-157	157
MK5-168	168
MK5-195	195
MK5-215	215



MK2 Assembly Drawing

MK2

Echnical data:

Width of soleplate shall match pad "L"

Material: EVA copolymer

Ambient temp. range: -25°C to +75°C



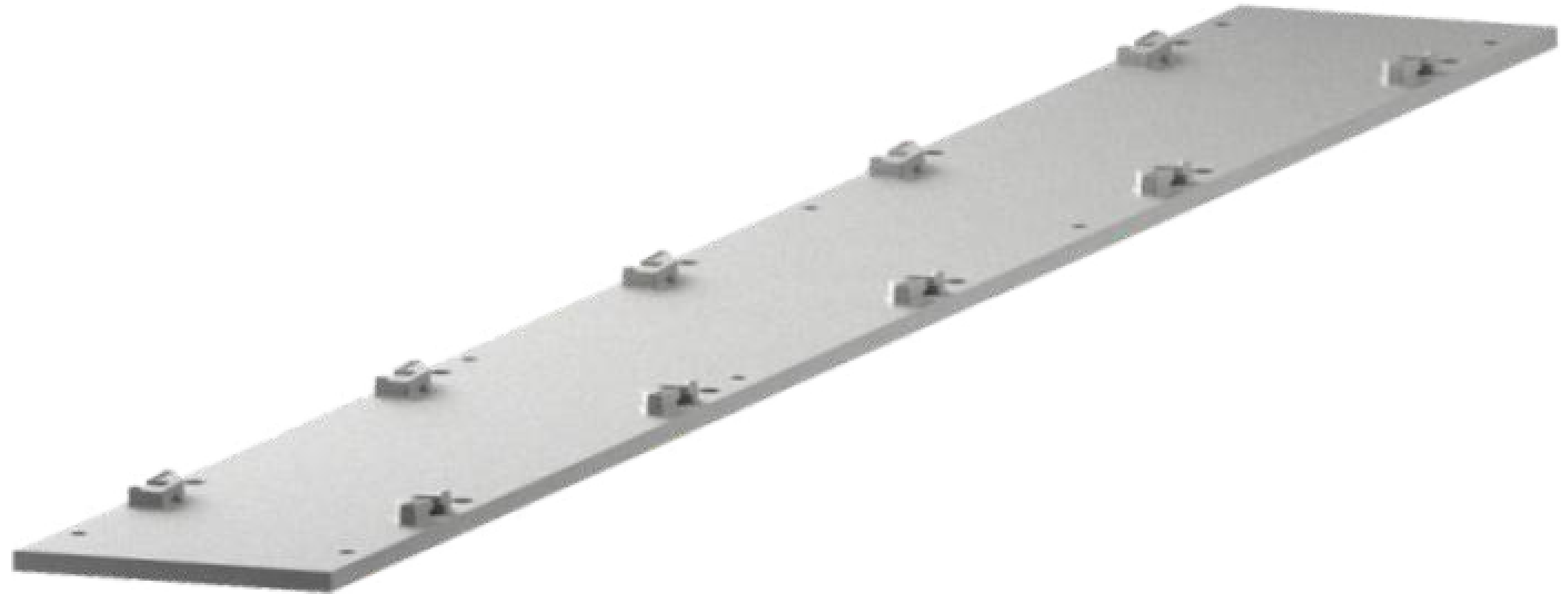
Model	L mm	W mm
MK2-110	110	5mm less than width of rail bottom
MK2-120	120	
MK2-160	160	
MK2-220	220	
MK2-250	250	
MK2-320	320	

SOLEPLATE Continuous

Material: Q235B

Surface treatment: HDG(80microns) Size:
customized (as per design)

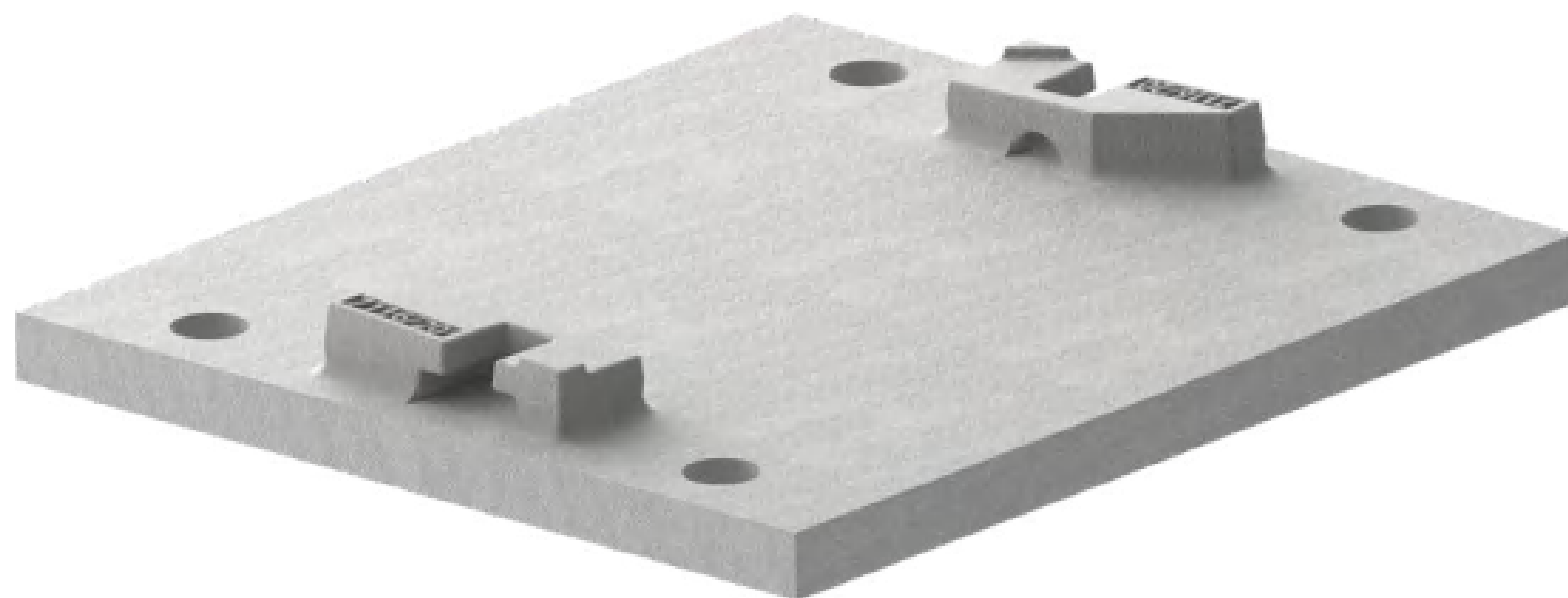
Common models include: 2980*270*20



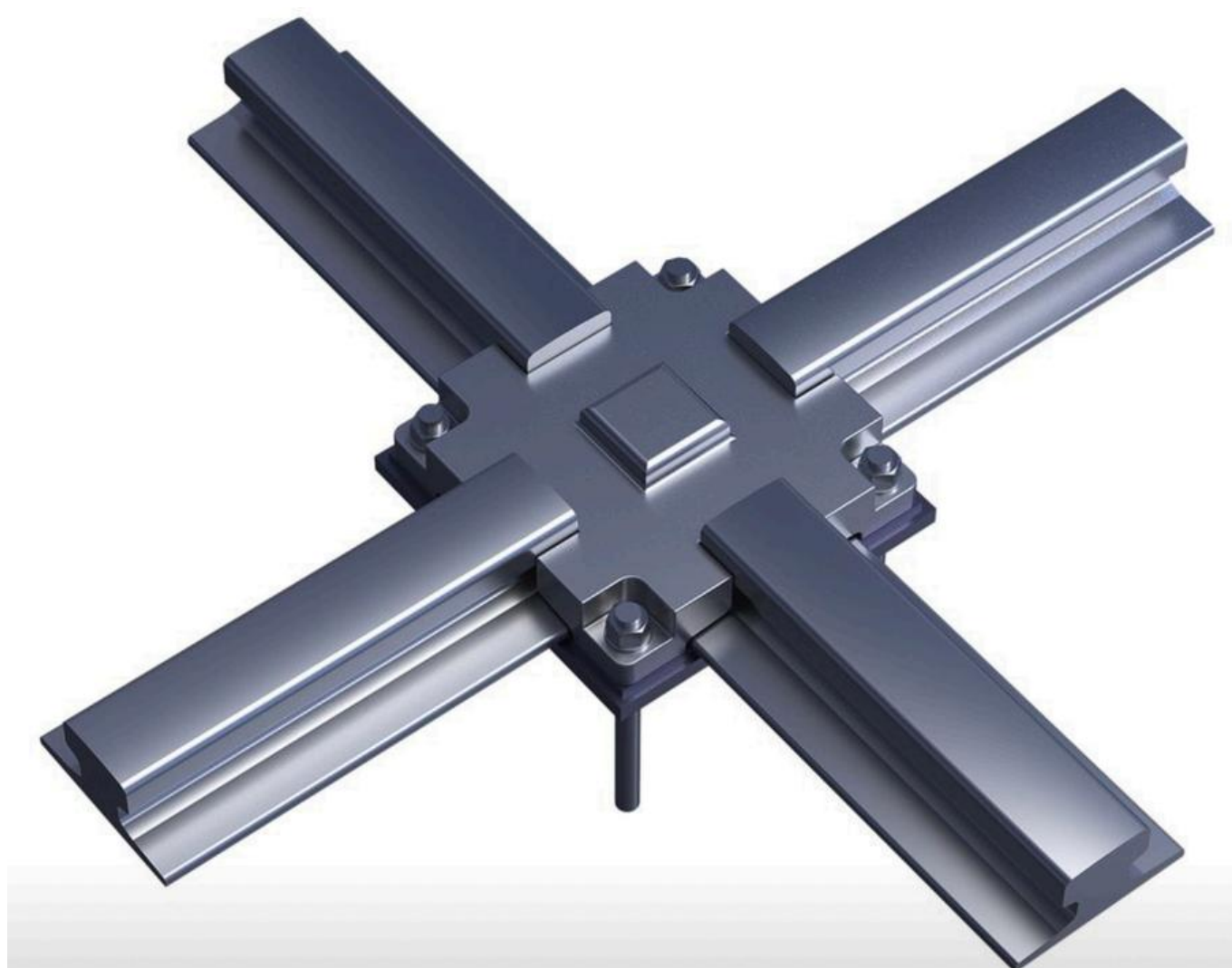
SOLEPLATE Discontinuous

Material: Q235B

Surface treatment: HDG(80microns) Size:
customized (as per design)



Crossover assembly



FORGESAIL's in-house developed crossover forging block (assembly), which is used as a turnout where two rail tracks meet and cross. This assembly is widely used in our MYP project in Saudi Arabia, fulfilling Aramco's demanding requirements.

Polyurethane buffer

Specifications for selected model JHQ-C products

No.	Model	Buffer Capacity (kNm)	Buffer Stroke (mm)	Buffer Force (kN)	Total Weight (kg)
1	JHQ-C-1	0.265	60	28	0.909
2	JHQ-C-2	0.4	60	42	1.53
3	JHQ-C-8	1.533	94	103	3.502
4	JHQ-C-11	3.215	120	169	5.809
5	JHQ-C-12	4.019	150	169	7.909
6	JHQ-C-13	5.024	120	265	9.829
7	JHQ-C-14	6.28	150	265	10.65
8	JHQ-C-15	7.85	188	265	11.85
9	JHQ-C-16	9.81	150	414	16.55
10	JHQ-C-17	12.266	188	414	18.15
11	JHQ-C-24	37.7	225	1054	53
12	JHQ-C-25	65.3	337	1218	71.4
13	JHQ-C-26	69.7	360	1218	74.3
14	JHQ-C-27	72.6	375	1218	76.2
15	JHQ-C-28	88.3	337	1647	107
16	JHQ-C-29	502.3	750	4218	290



- ★ Hardness Shore A: 60-80
- ★ rebound resilience: >95% (unloaded for 5 minutes after being compressed 75%)
- ★ Compressive strength: 1.2~2.5Mpa (50% compressed)
- ★ Working temperature: -30 °C ~ 60 °C

Hydraulic buffer



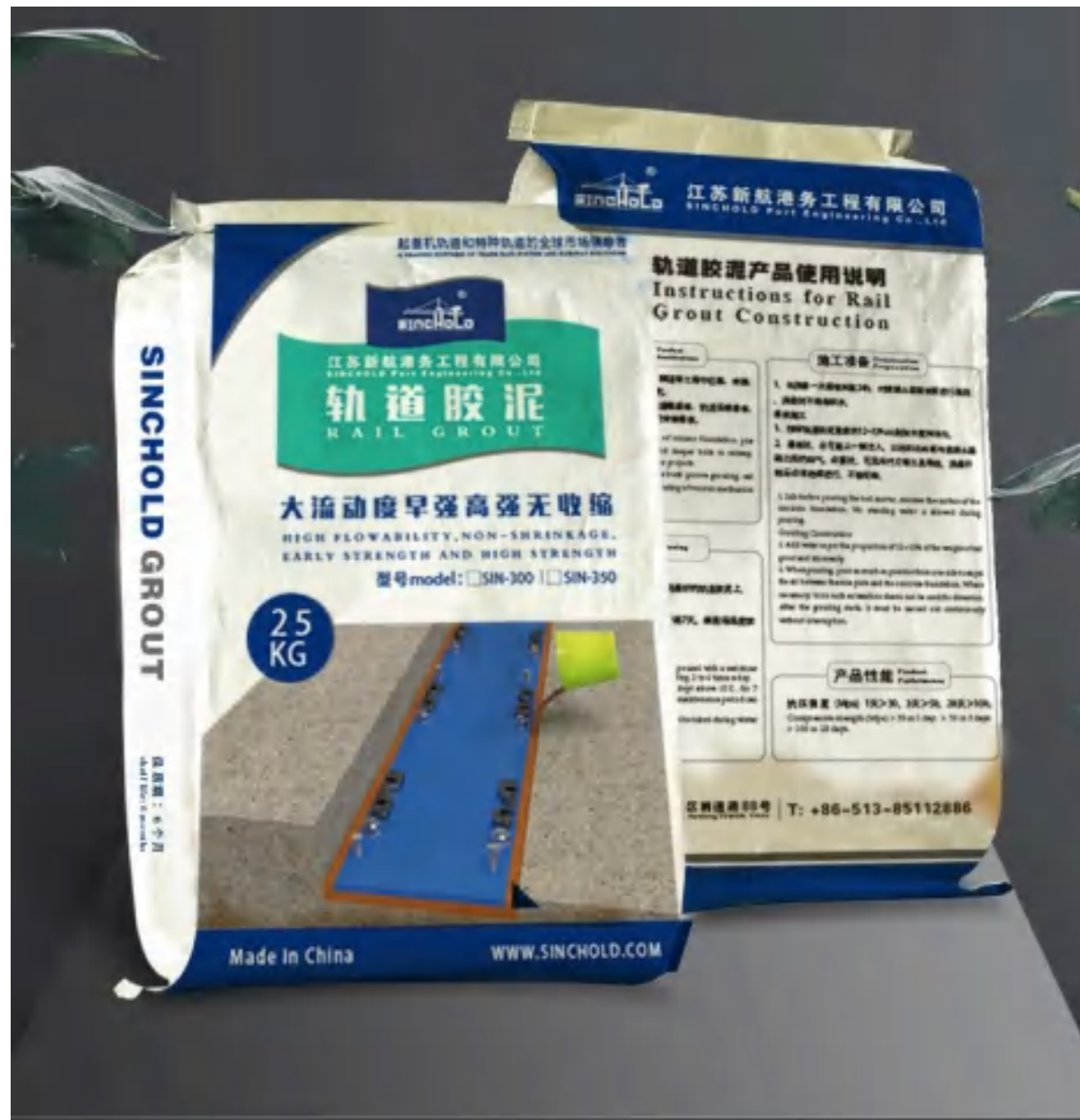
The hydraulic buffer adopts the international advanced gas-liquid buffer technology. During the impact, the hydraulic oil and nitrogen interact with each other to absorb the impact energy, providing perfect solutions for port machinery, automatic warehousing, and railway stoppers.



★ BHI series

★ Working temperature: -20°C to +80°C

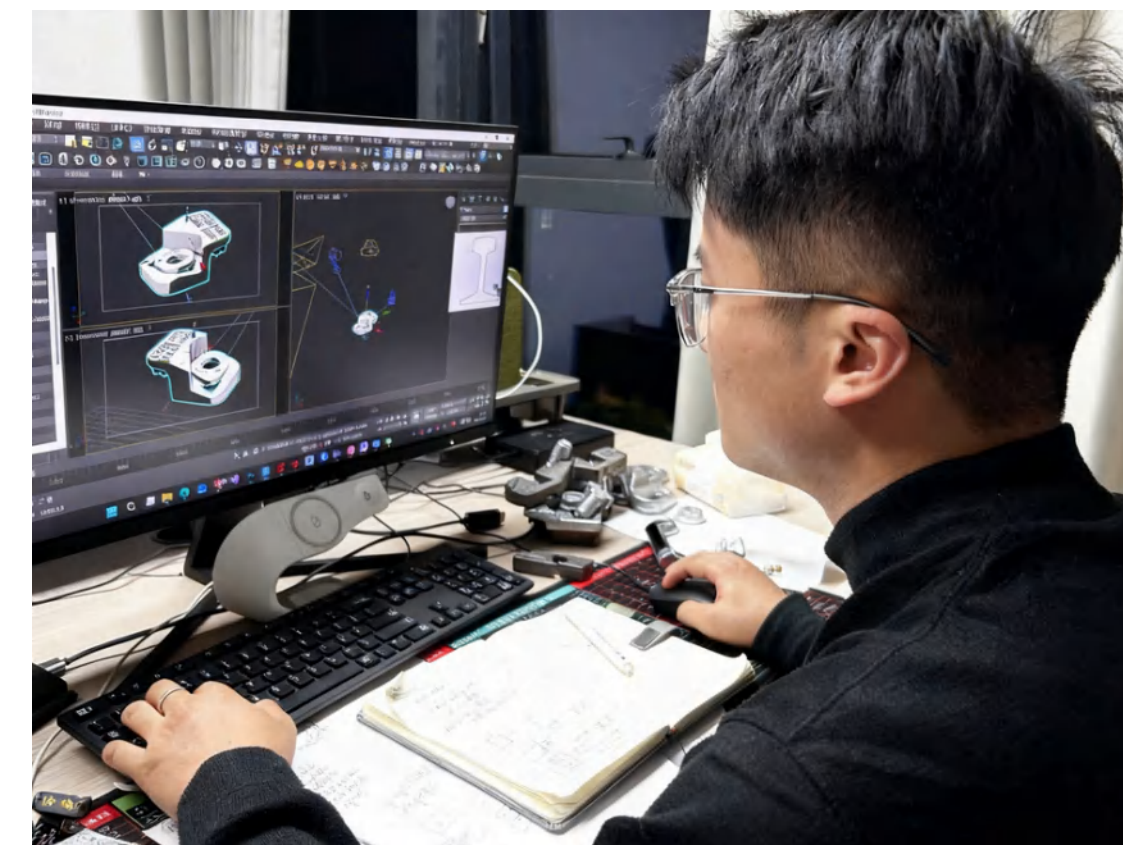
SIN-100 Rail grout



SIN-100 rail grout is a special grout made of high-strength cementing material, multiple admixtures and specially selected aggregates, featuring high flowability, non-shrinkage, early strength and high strength.

Items		Spec
flowability (mm)		≥ 290
Compressive strength (Mpa) ≥	1d	24
	3d	45
	28d	100
Bleeding rate		0

Customised design services



- Core service: Provide tailored, high-performance crane rail system solutions focused on safety, precision and long-term reliability.
- Expertise: Leverage deep industrial experience and advanced engineering tools to create custom rail layouts, structural calculations and technical drawings for high-demanding scenarios (ports, shipyards, steel plants, mining, automated logistics).
- Client collaboration: Collaborate closely with clients to align with site conditions, crane specs and project goals, ensuring optimal performance and cost efficiency.
- Full-cycle support: Offer end-to-end engineering support (concept to detailed design) including documentation, installation guidance

Technical Training & On-Site Guidance

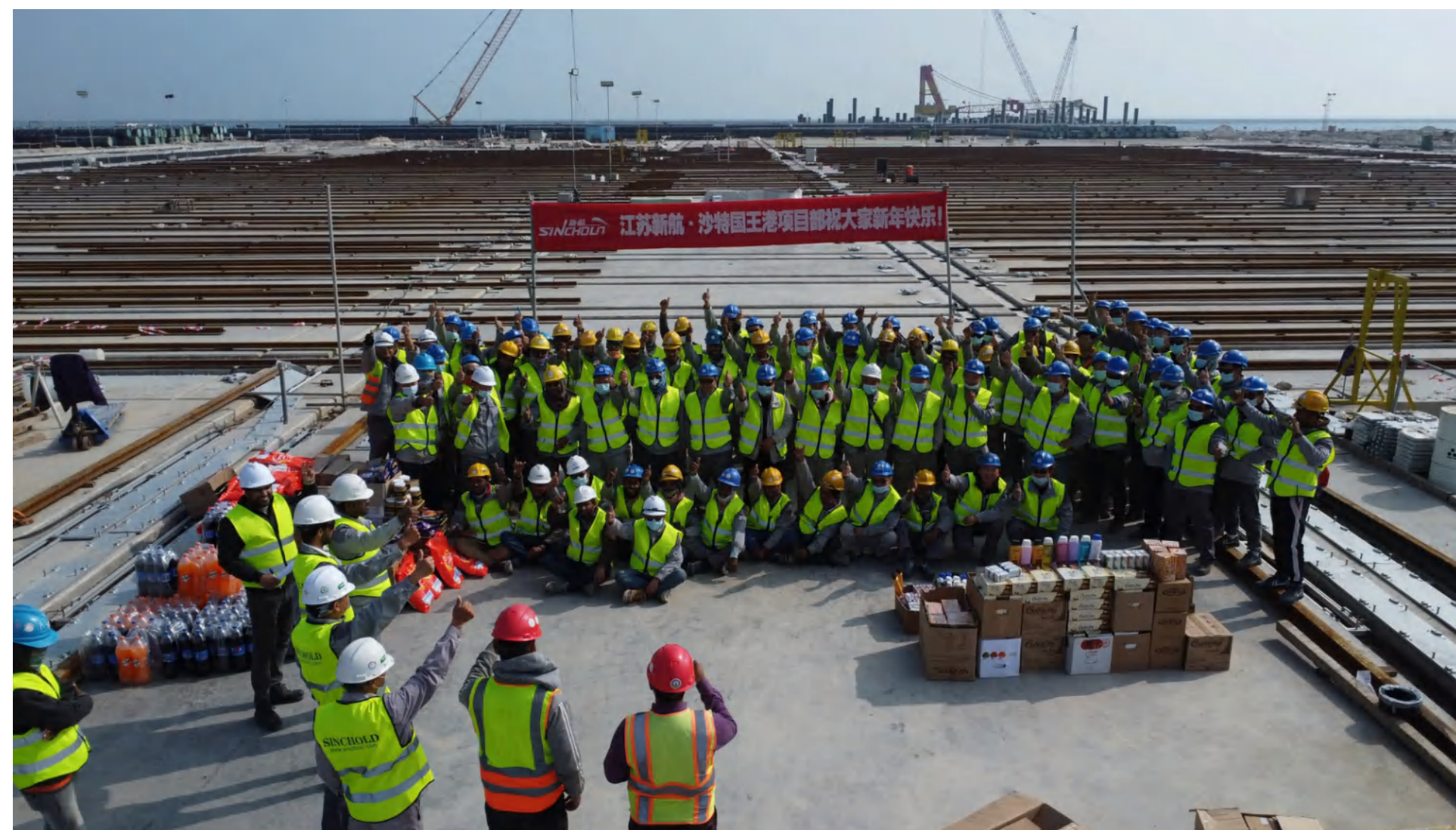
We recognize many clients lack on-site construction experience. To ensure safe, efficient crane rail projects meeting international standards, SINCHOLD provides targeted technical support and hands-on installation guidance for aluminothermic welding and crane rail installation—delivered either via on-site supervision/training at your project site or factory-based training sessions at our facility. Our engineers walk your team through the full process (installation, operation, welding, alignment, commissioning), with remote technical consultation also available to guarantee compliant, successful outcomes.



Rail Installation EPC Services

As a group vertically integrated in integrated track solutions, we holds Rail Construction General Contracting Qualifications in both China and Saudi Arabia, empowering us to deliver end-to-end EPC (Engineering, Procurement, and Construction) services for integrated track solutions — covering the full lifecycle from professional design and precision manufacturing to turnkey installation and construction.

We specialize in professional crane rail installation services engineered to ensure the utmost precision, safety, and reliability of your rail system performance.



We deliver end-to-end rail installation for ports, shipyards, and industrial sites. From initial surveying to final handover, our certified engineers handle precision alignment, heavy-duty fastening, welding, and grouting. A key milestone in our global portfolio is the **King Abdullah Port** project in Saudi Arabia, where we provided a complete rail system solution. Our supply included high-quality rails, rail clips, sole plates, rail pads, grouts, and aluminothermic welding kits. Beyond material supply, we delivered expert installation and welding services. Our commitment to excellence throughout the project was recognized by the owner with a Certificate of Appreciation, reflecting our unrivaled precision and reliability.

Electromechanical installations

Port of Nantong's New World Terminal #3-#4 berth renovation project, with a total investment of 1.39 billion yuan, among which, 400 million yuan was invested in equipment. The project makes use of 436.5 metres of shoreline to build one 70,000-tonne and one 10,000-tonne berths, with a total design throughput capacity of 7.749 million tonnes. The terminal is not only the first modern bulk cargo loading and unloading terminal for wood chips, fertilizers and grains, but also features application of three new technologies: "Conveyor with dust suppression and rainproof covering belt", "Self-cleaning bucket elevator for fertilizers with large capacity", "Bucket wheel machine stacking and reclaiming wood chips", setting a new national record. Sinchold was honoured to be contracted for the renovation project and provided services for installation of bucket wheel stacker reclaimer, and the construction quality was unanimously recognised by the owner.



Typical Clients



FORGESAIL

Delivering end-to-end crane rail solutions—from precision manufacturing to expert global installation.

Contact Us



+86 177 6833 9086



phil@forgesail.com

www.forgesail.com