

*Really Good
Railway Goods*

Rail Fishplate/Rail Joint

Rail Clip

Rail Tie Plate

Rail Fastener

AGICO GROUP is an integrative industrial and trading enterprise which built up overseas markets earliest in the north area of Henan Province in China. It includes several wholly owned or holding subsidiaries, including Anyang General International Co., Ltd (AGICO), Anyang Gemco Energy Machinery Co., Ltd (GEMCO), Anyang Best Complete Machinery Engineering Co., Ltd (BEST), Henan Kingman M&E Complete Plant Co., Ltd (KMEC), Henan Century Network Technology Co, Ltd, Tianjin Anson International Co., Ltd, and cross-border E-commerce warehouse in Miami, USA. Core business of AGICO GROUP covers development & production of rail accessories, development & manufacturing of biomass energy machinery, designing & installation of grain & oil mechanical engineering project, import & export of food, chemicals, textiles and steel as well as third-party cross-border e-commerce services.

In all subsidiaries, Anyang General International Co., Ltd (AGICO) specialized in manufacturing and supplying railway products, including railway fishplates, railway fastening system, and related fastening parts for railroad construction. And with a history in resilient railroad fastener manufacturing, since 1958, AGICO has developed itself to a state-level and most competitive rail part supplier in China, especially with biggest DAILY rail clip and rail joint production capacity: 100,000pieces of rail clip and 100MTS of rail joints.



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Rail Joint

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Hook Twin Tie Plate

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Rail Clamp

Others

Part of AGICO Clients

Client Visiting

Who we are :

In China :

- About 70% market share in China railroad industry.
- Ranked No.1 in China State Railway Accessories Production System Competition.
- Appointed CRCC manufacturer for railway parts in China, qualified to bid for grant and medium rail projects.
- With approved license from China's Railway Ministry.

International Approach :

- With granted ISO9001-2000 certificate.
- Various product type and international standards available with dies ready such as AREMA, BS, GB, UIC and DIN.
- More than 50 export destinations in about 20 countries and areas.
- Long term partnership with CRCC and CCECC for overseas railroad building projects as rail fastener vendor.
- Signed cooperation agreements as rail track fastener vendor with 9 state rail corporations.
- Customized products are available according to drawings and technical requirements.



What we have :

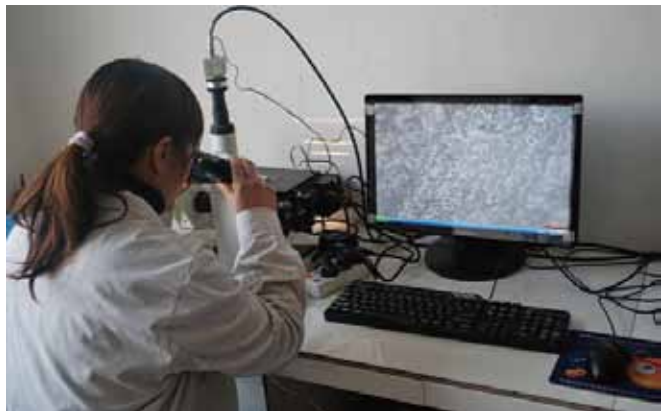
AGICO owns a total production area of over 60,000sq.m, including 30,000sq.m production mills and 10,000sq.m for warehouse. 10 production workshops are available for different product variety, such as steel rolling workshop; rail joint workshop; gauge baffle workshop; rail clip workshop; rail spike and bolt workshop; casting workshop for tie plates, rail anchors and shoulders; rail pad workshop; gauge tie rod workshop; anticorrosion workshop and maintenance workshop. 3 service systems for facility supply, transport and warehouse management, combined with 5 functional sectors including Quality Inspection Dept., Production & Technology Dept., Operation Dept., Financing Dept., and Administrative Office form a professional and orderly company structure. We own about 300 working staff, with 92 engineers and experts. Last year, by investing \$10,000,000, we upgraded our testing and inspection facilities to be more modern and precise to guarantee the product quality.

- Steel Rolling Workshop: we invested \$4,000,000 in 2006 and built a fully automatic production line of 450# rolling machines of most advanced in China. Annual production capacity reaches up to 200,000MTS.
- Rail Joint Workshop: we roll the structural steel for rail joints on our own, to be more cost-saving and quality controlled. A quality team is 24hours standby at the workshop in the process of quenching and tempering to ensure the 100% qualified of the produced rail joints according to standard requirements, to avoid any train passing dangers on the tracks with our products. 100MTS finished products can be completed daily.
- Rail Clip Workshop: our technology was innovated and updated in 2008, to be equipped with most modern production lines for rail clips, from material cutting, medium frequency heating, 3-time punch forming, quenching, tempering, inspection to packing, to reduce labor force, increase work efficiency, and what's more important to improve the product quality but lower the cost. 100,000pieces rail clips can be produced daily.
- Casting Workshop: \$5,000,000 was invested in 2010 to build a most modern casting production line of fully automatic, with more advanced machining for precise product dimensions under better circumstances with less dust and noise. Main casting products including tie plates, rail anchors, rail shoulders, etc. Annual production capacity is over 60 million tons.



Quality Inspection Center :

Guided by the principle of "Quality Goes First", we have taken various quality assurance measures in each steps of the production process, from procurement of raw material, manufacturing, delivery and after-sales service. For each product variety, we have specific quality control rules and manuals to follow, by the dedicated staff at Quality Inspection Dept. What's more, we have a Testing Center with full sets of inspection facilities for each produced product before shipment to any client. Facilities include German direct-reading spectrometer, metallographic image automatic analysis instrument, automatic impact testing machine, magnetic detector, fatigue testing machine, just to name a few.



Product

Rail Fastening System

Rail Fastening System

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SKL3/SKL12/SKL14 Rail Fastening System



Specifications for ONE unit of SKL type rail fastening system

Item	Quantity	Material
SKL tension clip	2	60Si2CrA, 60Si2CrA, 38Si7
Ss35 screw spike	2	Grade 4.6: Q235
		Grade 5.6: 35#
		Grade 8.8: 45#
Flat washer	2	Q235
Plastic dowel	2	HDPE, Reinforced Nylon 66 (PA66)
Guide plate	2	Reinforced Nylon 66 (PA66)
Rail pad	1	EVA, or rubber

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E-clip Fastening System

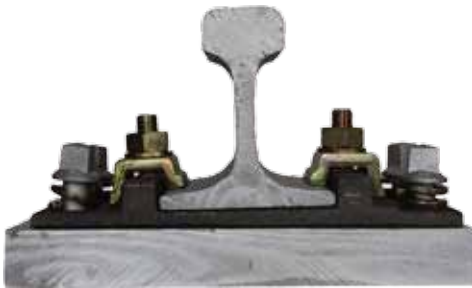


Item	Quantity	Material
E-clip	2	60Si2MnA, 60Si2CrA
Shoulder	2	QT500-7, QT450-10
Rail pad	1	HDPE, rubber or EVA
Insulator	2	Reinforced Nylon 66 (PA66)

Rail Fastening System

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KPO Rail Fastening System



Specifications for ONE unit of KPO rail fastening system

Item	Quantity	Material
KPO clip	2	Q235
Screw spike	2	Grade 4.6: Q235
		Grade 5.6: 35#
		Grade 8.8: 45#
HS bolt	4	Grade4.6: Q235
		Grade5.6: 35#
		Grade8.8: 45#
Hex nut	2	Grade 5: 35#
		Grade 8: 45#
Double coil spring washer	2	65Mn

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Spring Blade Fastening



Specifications for ONE unit of spring blade fastening

Item	Quantity	Material
Nabla clip	2	60Si2MnA, 60Si2CrA
Insulator	2	Reinforced Nylon 66 (PA66)
Screw spike	2	Grade5.6:35#
Spring washer	2	ML08Al

Rail Fastening System

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Rail Spike Fastening System



Specifications for ONE unit of rail spike fastening system

Item	Quantity	Material
Track/Cut Spike	5	Q235A
Tie plate	1	QT450-10 for casting Q235 for rolling

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High speed WJ-8 Rail Fastening System



Specifications for ONE unit of WJ-8 rail fastening system

Item	Quantity	Material
Rail clip	2	60Si2MnA
Screw spike	2	20MnTiB
Flat washer	2	Q235A
Rail Insulator	2	PA66
Guide plate	2	Reinforced Nylon 66 (PA66)
Rail pad	1	EVA, or rubber
Tie plate	1	QT450-10
Plastic dowel	2	HDPE, Reinforced Nylon 66 (PA66)
Rail Adjustable Pad	2	PE
Tie Plate adjustable pad	2	PE

Rail Fastening System

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High Speed WJ-7 Rail Fastening System



Specifications for ONE unit of WJ-7 rail fastening system

Item	Quantity	Material
Rail clip	2	60Si2MnA
T-bolt nut washer	2	Q235A
Rail Insulator	2	PA66
Tie plate	1	QT450-10
Insulated buffer plate	1	Rubber
Rail pad	1	EVA, or rubber
Anchor bolt	2	Q235A
Spring Washer	2	60Si2Mn
Plain washer	2	QT450-10
Plastic dowel	2	HDPE, Reinforced Nylon 66 (PA66)

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High Speed Type V Fastening System



Specifications for ONE unit of Type V rail fastening system:

Item	Quantity	Material
Rail clip	2	60Si2MnA
Screw spike	2	20MnTiB
Flat washer	2	Q235A
Space pieces	2	Q235A
Gauge apron	2	Rubber
Rail pad	1	EVA, or rubber
Adjustable pad	1	PE
Plastic dowel	2	HDPE, Reinforced Nylon 66 (PA66)

Rail Fastening System

Specifications for ONE unit of SKL type rail fastening system

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Type IV Fastening System



Item	Quantity	Material
Rail clip	2	60Si2MnA
Rail insulator	2	PA66
Rail shoulder	2	QT450-10
Rail pad	1	EVA, or rubber

Clip III fastening system applies to 60 kg/m rail of sleepers without shoulders, and it's a boltless system. It includes rail clips, rail shoulders and insulators.

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Clip III Fastening System



Specifications for ONE unit of Clip III rail fastening system:

Item	Quantity	Material
Rail clip	2	60Si2MnA
Rail insulator	2	PA66
Rail shoulder	2	QT450-10
Rail pad	1	EVA, or rubber

Rail Fastening System

Specifications for ONE unit of KPO rail fastening system

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Clip II /Clip I Fastening System



Item	Quantity	Material
Rail clip	2	60Si2CrA
Sleeper screw+ nut +washer	2	Q235A
Rail insulator	2	Q235
Baffle board	2	PA66
Rail pad	1	EVA, or rubber

Rail Clip

Rail Clip

Approved by China's Railway Ministry and certified by ISO9001-2008 and SGS authorities.

Developed into a biggest production base to for various types of rail clips.

Monthly production capacity up to 5,000,000 pieces, so with shorter delivery time.

Designed with high precision by imparting strong tensile strength and corrosion resistance.

Strict dimensional control and the use of high quality spring steel but best price for each buyer.

Various kinds of rail clips of E-type(E1609, E1809, E1817, E2007, E2009, E2055, etc), SKL tension clamps (SKL1, SKL3, SKL12, SKL14, SKL75, etc), PR series, Nabla clips, gauge lock clip, Deenik clip as well as other standard and non-standard clips (e.g. Pandrol and Vossloh) can be customized by drawings or samples.



Rail Clip

Production Process to Rail Clips



Rail Clip

Main Rail Clip Products

Model	Diameter	Weight	Material
Type III	ø18	0.80kg/pc	60Si2MnA
E1609	ø16	0.43 kg/pc	60Si2MnA
E1809	Ø 20	0.61kg/pc	60Si2MnA
E1813	Ø18	0.62kg/pc	60Si2MnA
E2001	Ø20	0.80kg/pc	60Si2MnA
E2007	Ø20	0.80kg/pc	60Si2MnA
E2009	Ø20	0.80kg/pc	60Si2MnA
E2039	Ø20	0.80kg/pc	60Si2MnA
E2055	Ø20	0.80kg/pc	60Si2MnA
E2056	Ø20	0.80kg/pc	60Si2MnA
E2063	Ø20	0.80kg/pc	60Si2MnA
PR85 RAIL CLIP	Ø13	0.25kg/pc	60Si2MnA
PR309A	Ø19	0.85kg/pc	60Si2MnA
PR401	Ø20	0.97kg/pc	60Si2MnA
PR415	Ø20	0.95kg/pc	60Si2MnA
PR601A	Ø 20	1.03kg/pc	38Si7
SKL 1	Ø13	0.48kg/pc	60Si2CrA
SKL 3	Ø13	0.48kg/pc	60Si2CrA
SKL 12	Ø13	0.53kg/pc	38Si7
SKL 14	Ø13	0.53kg/pc	60Si2MnA
Special Rail Clip	Ø13	0.48kg/pc	60Si2MnA
Russia Rail Clip	Ø18	0.58kg/pc	60Si2MnA
Deenik Clip	Ø25	0.49-0.68kg/pc	60Si2MnA
Single Anti-theft	Ø20	0.25kg/pc	60Si2MnA

Rail Joint

Rail Joint

Rail Joint Bar/Fishplate

1. Be supplier to A&K, ATT and UT for years for various key rail projects in America.
2. With over 80% market share in China Railway field as rail joint supplier.
3. We provide Semi-finished products without holes or finished products with holes.
4. Fish plate holes can be punched or drilled.
5. Both 4 hole 24 " and 6 hole 36 " with round or oval holes available
6. Standards: GB, AREMA, BS, UIC, AS, African standard, South American standard, etc.
7. Either common or insulated type available.
8. Over 100 types of dies ready, including those used for Thermit Welded Joints.



Rail Joint



AGICO can provide one-stop service for various rail joints including development, manufacture and export service. It is appointed supplier of CREC, CRCC, CCECC for contracted railway infrastructure construction projects both in China and overseas in 23 countries. Over 50 types of standard and nonstandard fishplate DIES available for global buyers. It is also fixed long term supplier for international companies such as A&K, ATT, Vossloh and UT.

AGICO has at least 500 containers export quantity annually. We can provide various rail joints of high quality according to the requirements of our clients, and our rail joints are up to international standards, such as BS, UIC, GB, AREMA and DIN, etc.

Rail Joint

Type	Size
GB standard (China)	43KG, 50KG, 60KG, 75KG
AREMA standard (USA)	115RE, 119RE, 132/136RE, 141RE, 100-8, 122CB
BS standard (UK)	BS75R, BS80A, BS90A, BS100A, BS113A
UIC (International Union of Railways) standard	UIC54, UIC60
DIN standard (Germany)	FI30, FI33, FI41, FI49
AS standard (Australia)	31KG, 41/47KG, 50KG, 53KG, 60KG, 68KG, NIJ-721, NIJ-722, 60AS, 85AS
Brazilian standard (Brazil)	TJ57, TJ ASCE 90, TJ UIC60
Peruvian standard (Peru)	75LBS A.S.C.E, 75 LBS BSS, 80 LBS A.S.C.E, TJ BS80A
African standard (Africa)	85LB, 85LB-80LB

Rail Tie Plate

Rail Tie Plate

Rail Tie Plate

Available to produce rail tie plates by forging, rolling or casting.

Most competitive forging tie plate producer in China.

Dozens of dies available for both forging and rolling.

Rail tie plate or base plate by forging:



At our plant, we own 300T~1600T forging friction press and 7 Die forging production lines with 5T electricity liquid hammers. Our forging annual capacity can reach up to 12000 tons at least, and 400,000 pieces of forging tie plates' capacity.



Rail Tie Plate

Rail tie plate or base plate by rolling:



Our company is the first company in China to try rolling processing onto baseplate production, based on our available rolling steel expertise, used for rail joint bar and gauge blocks. Up to now, we have successfully made out dies for rail tie plates for 11 inches, 14 inches and 14-3/4 inch for both 5-1/2 and 6 inch rail bases. Some more varieties are under negotiation with the clients as well. Based on this, we received 3 orders for rolling tie plates with total weight over than 3,000 tons.



Rail Tie Plate

Rail tie plate or base plate by casting:



Casting is a common technology to produce rail tie plates, which is also a cost saving way.

We have two casting workshops for casting materials especially. Tie plate is a prior and hot sales for us. We are capable to develop die from most modern way to ensure the precise dimensions, from hot pre-coated sand or machining way.



Track Spike

Track Spike

Track Spike

1. Both dog spike and screw spike available.
2. Over 30 dies available of standard GB, DIN, ISO, ANSI/ASTM, B7, BS, JIS etc.
3. Non-standard OEM is available if you provide a drawing or sample.

Dog Spike

The dog spike is used to fasten T-shaped rail road track to wooden ties, mainly used in North America. The common track spikes are the 5/8"×6" and the 9/16"×5-1/2" for smaller rail sections, and they are usually secured in either 200 lb. kegs or 50 lb. kegs.



Specification	Material	Surface	Standard
5/8×6 "	A3,Q235, 45#,55#, etc.	According to customer needs.	According to customer's drawings or samples
9/16×5-1/2 "			
3/8"×3-1/2 "			
1/2×3-1/2			
Other kinds			

Track Spike

Screw Spike

Railway screw spikes are usually used to fasten railway ties or sleepers and they also can be used in conjunction with plastic ferrules, casted into concrete ties /sleepers. Rail screw spikes can be various in thread profiles, lengths, diameters and drive heads based on specific geographic requirements.



Ss series Sleeper Screw

Ss series sleeper screw is one of our hot sales, with different dimensions as shown below:



Type	Specification	Weight/kg	Surface	Standard
Ss 1/130	M22*130	0.451	Natural	UIC
Ss 1/150	M22*150	0.478	Zinc	AREMA
Ss 2/180	M22*180	0.595	Paint	GB
Ss 5/150	M24*150	0.545	Oil	or
Ss 6/150	M26*150	0.702	According to your needs.	According to your drawings or samples.
Ss 7/180	M24*180	0.636		
Ss 8/140	M24*140	0.528		
Ss 8/150	M24*150	0.548		

Track Spike

Square head screw spike



Type	Specification	Material	Surface	Standard
Square head screw spike	M22*145	45#	Natural	UIC
	M22*155	55Q	Zinc	AREMA
	M22*165	Q235	Paint	DIN
	M22*185	or	Oil	GB
	M22*195	According to your needs.	According to your needs	or
	Other kinds			According to your drawings or samples.

Hexagon screw spike

Hexagon screw spike includes several different sizes such as: M22*145, M22*155, M22*165, M22*185, M22*195 and so on.



Track Spike

Grade	4.6	5 .6	8.8	10.9
Material	Q235	35#	45#	40Cr
Mechanical	Tensile strength: ≥ 400Mpa	Tensile strength: ≥ 500Mpa	Tensile strength: ≥ 800Mpa	Tensile strength: ≥1000Mpa
	Yield strength: ≥ 240Mpa	Yield strength: ≥ 300Mpa	Yield strength: ≥ 640Mpa	Yield strength: ≥ 900Mpa
	Elongation: ≥ 22%	Elongation: ≥ 20%	Elongation: ≥ 12%	Elongation: ≥ 9%
	Cold bending: 90 degree			
	Without Crack			
Surface	Plain (oiled) , Oxide black, Zinc, HDG, Wax, Bitumen, Dacromet, Sherardizing			

Double-head screw spike

The two-end-head screw spike is always used with Nabla clip fastening system, especially popular used in Africa. To meet the strict bending requirement, special raw material is applied by straightening it without any crack after bending 30 degrees or even more.



Track Spike

Size	23×174
Grade	4.6, 5.6, 8.8, 10.9
Raw Material	Q235, 35#, 45#
Surface Treatment	Plain (oiled), Bluing, Zinc, HDG, etc.

Hook Twin Tie Plate

Hook Twin Tie Plate

Hook twin tie plate (HTTP)

1. AGICO is the 1st AREMA hook twin tie plate producer of both 3/4" and 1" thick in China.
2. Fixed vendor for A&K USA for over 10 years.
3. High quality products with most competitive price.



Hook twin tie plate (HTTP for short) is kind of tie plate used for turnouts positioned behind the switch bottoms. They are often used in pairs to a single tie to ensure the tie spacing.

Up to today, our leading customers for HTTP are in north America, especially US market, following AREMA standard, with 3/4" and 1" thick varieties most popular. We have a especial workshop for HTTP with modern production lines and we are capable of producing such products for 1000MTS annually.

Available varieties for 3/4" thick hook twin tie plate: L23, L27, L31, LR23, LR27, LR31, H23, H27, H31.

Available varieties for 1" thick hook twin tie plate: L29, L33, L37, LR28, LR32, LR36, H29, H33, H37, H41.



Hook Twin Tie Plate

AREMA 1"thick HTTPs	
Model	Unit Weight (KG)
L29	13.93
L33	15.97
L37	18.01
LR28	13.42
LR32	15.46
LR36	17.5
H29	14.12
H33	16.16
H37	18.2
H41	20.24

AREMA 3/4" thick HTTPs	
Model	Unit Weight (KG)
L23	8.53
L27	10.07
L31	11.61
LR23	8.53
LR27	10.07
LR31	11.61
H23	8.66
H27	10.21
H31	11.75
H35	13.29

For the production, we have over 30 working staff only responsible for HTTPs, for every steps, especially the hole making and hook making process, aiming to ensure final good quality. In addition, we have Quality Control Team for the testing and inspection in process as well, especially on the finished products, following strict quality rules and system. Because of this, we have never got any complaint or dissatisfaction from our buyers up to now.



hook-twin-tie-plate-test

Rail Bolt

Rail Bolt

BHON Track Bolt

Material: Q235, 35#, 45#, 40Cr, C45

Grade: 4.8, 8.8, 10.9

Size: 22×135, 24×135, 24×145, etc.

Surface: Plain (oiled), Oxide black, Zinc, HDG

Types: BS standard, R54 rail in Indonesia, AS1085.4-1999, Russian standard, AREMA standard, etc.



Cup Head Oval Neck Fish Bolt

Size: M18, M20, M22, M24, L as ordered

Materials: Middle carbon steel

Standard refers: AS 1085.4, 6&7

Surface treatment: Black



Heavy Hex Head Frog Bolts

Size: Dia.3/4" – 1-3/8", Length up to 30"

Material: A325

Standard refers: ASTM A325

Surface treatment: Black, Zinc plated



Anchor Bolt

Size: M16 to M48, L=100 to 500mm

Material: Q235, C35, C45, 35CrMo, 42CrMo

Standard refers: DIN529, ISO898-1

Surface treatment: Oxide black, Zinc plated, Hot dip galvanized, Dacromet, Sherardized

Application: Anchored in concrete sleeper for K type fastening system.



Tunnel Bolt

Type :available by customers drawings and samples .

Surface: Plain (oil) black.Zin .HDG etc.

Class: 4.6.4.8.8.8.10.9

Types: Square flange bolts with round thread, Special curve bolt, Spear bolts with special pitches, etc.



Rail Clamp

Rail Clamp

Rail clamps are always fastened onto the rail ties with anchor bolts. For types, boltable rail clamps and weldable rail clamps are main varieties.



Boltable rail clamps



Weldable rail clamps

Our rail clamps can be well used in the acid rain area due to protection level over 9. Before shipping to customer every time, all clamps need to pass the 120h test of sulfur dioxide.

For materials of rail clamps, Q235 by forging, ZG35 of cast steel and QT500-7-cast iron are top 3 choices, based on our former production experiences.

Name	Rail Clamps		
Material	Q235-forging	ZG35-cast steel	QT500-7-cast iron
Chemical Composition(%)	C:0.12-0.20, Mn:0.30-0.70, Si:≤0.3, P:≤0.045, S:≤0.045	C: ≤0.4, Mn:≤0.9, Si: ≤0.5, P:≤0.04, S:≤0.04	C:3.60-3.80, Mn:≤0.6, Si:2.50-2.90, P:≤0.08, S:≤0.025



Crane Clamp 21/050 AN/BN



Crane Clamp 22/130 AN/BN



KPO Rail Clamp

Rail Clamp



Rail Clamp for North Africa

Such rail clamps are often used for rail lines or cranes in North Africa.



K Type Rail Clamp



MTH Clamp

Other Clamps depending on customers' requirements or drawings

Others

Others



Rail Shoulder



Rail Anchor

Rail Pad



Rail Insulator



Others



Rail Gauge Tie Rod

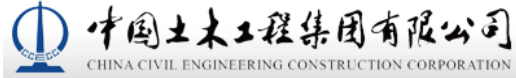


Rail



Sleeper

Part of AGICO Clients(China)



Part of AGICO Clients (Global)



Client Visiting



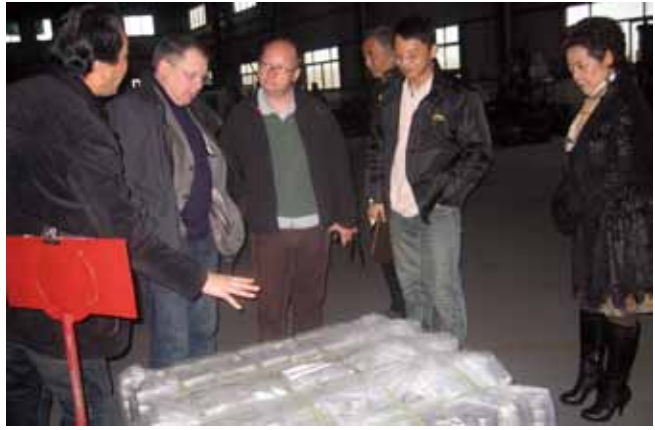
Clients from Portugal



Clients from Sudan



Client Visiting



Clients from Vossloh Germany



Clients from Mitsui Japan



Clients from L.B Foster America



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