

Crane and Crane Runway Products



Melt Shop Crane Runway

Quality on Track[®]

Gantrex is a supplier of problem-solving products for heavy duty crane and crane runways supported by steel or concrete structures.

“Quality On Track” is the ultimate Gantrex goal and emphasizes the Company’s commitment to its valued customers.

After more than three decades of progress in North America, Gantrex customers have developed a loyalty and trust in “The Gantrex Solution” to crane and crane runway problems. These solutions have become the state of the art in industries such as:

- Steel
- Ports and Shipyards
- Aluminum
- Pulp and Paper
- Retractable Roof Stadiums
- Cement
- Automotive
- Power Generation
- AS & RS
- Metal Buildings

Gantrex products are critical to the processes they serve. They focus on preventing problems commonly associated with high activity crane usage. Reduced down-time and associated maintenance and lost-opportunity costs put profit dollars into the numerous industries served by Gantrex.



Log Handling Crane Runway

Corporate History

The Gantrex story begins with a challenge in 1955 -- a challenge that provided the opportunity to create a line of products that would establish the standard for crane rail fastening throughout the industrialized world. The result was the creation of the Gantrex product line, which began manufacturing and sales operations in North America in 1975.

In keeping with its policy of continuous improvement and growth, Gantrex formed strategic alliances and joint ventures with other world-class organizations to add compatible products to its quality rail fastening system. The Gantrex tie-back assemblies, specially formulated epoxy grout, extensive fabrication capabilities, Oleo hydraulic bumpers, rail products and installation support are a few of the key products and services added to enhance the problem solving capabilities Gantrex provides to its customers.

Looking Ahead

On January 1, 2008, The Gantry Group (www.gantry.com) purchased the operations of Gantrex in the U.S., Canada, Mexico and Central and South America. The Gantry Group is the largest worldwide designer and manufacturer of crane runway products and services. This new venture brings the Gantrex product name under one international umbrella and provides unit responsibility and a more complete package of products and services to its customers.

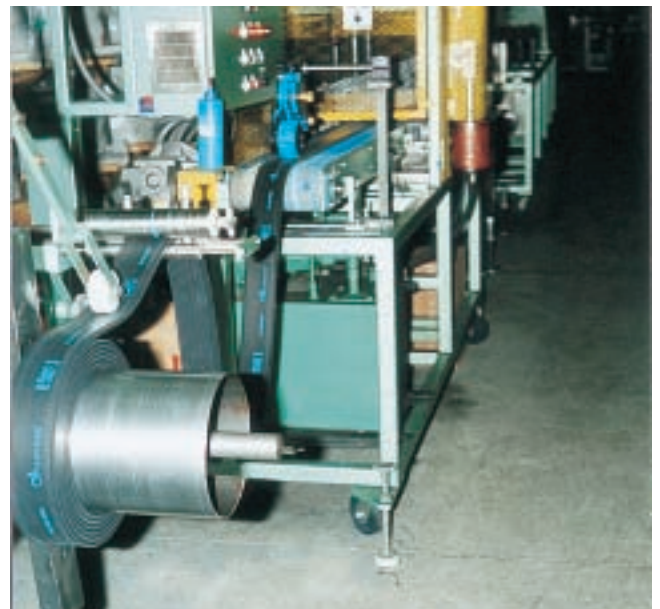
Through Gantry's involvement, Gantrex will continue its tradition of excellence in manufacturing, product development and service to maintain its global leadership role. Free trade in North America and the explosive growth of many international markets are some of the opportunities that will propel Gantrex into the future.

Quality Commitment

Gantrex is proud of its commitment to high quality standards, which has allowed the company to attain the important distinction of ISO-9001: 2000 certification.

Gantrex manufactures its own adjustable crane rail clips and rail pad, ensuring consistently high product quality. In-house quality control procedures ensure that only superior products are produced and distributed.

Gantrex quality management processes are enhanced by the spirit and determination of its employees, who are committed to offering our customers the consistent high quality service expected from a world class organization.



High Quality Pad Extruded from New Production Line

Rail - a key component of the crane support system

Gantrex has over 30 years of experience in assisting in the selection of rail profiles to suit numerous and varied applications on both steel and concrete supported runways.

Since a rail profile is the surface on which cranes and other material handling machines operate, it is a most fundamental element of the structure: In general, the rail selection must satisfy criteria such as reliability, economy and life expectancy. We can assist in selecting the rail characteristics to meet specific design parameters. Gantrex is supported by an experienced Engineering staff and associated rail mill technical expertise, backed by university testing and dedicated laboratories. Our calculations, dimensioning and diagnoses are all essential elements required to choose a rail to ensure longevity of the crane support structure.

Our technical and sales specialists further contribute by designing the most efficient crane support system (ie., rail profile, clips, pad, soleplates, epoxy grout and anchor bolts). In addition, an experienced field group provides project and design coordination, supervision and rail welding (flash butt, thermite and puddle arc) capabilities.

Depending on the individual customer requirements (quantity, grade, profile and delivery), Gantrex is normally in a good position to provide rail from local stock, preferred suppliers or directly from the mill.



Rail going through the ultra-sonic testing machine.



Our access to large rail inventories can provide short delivery times.

Crane Rail Welding Guidelines



Gantrex Flash-Butt Welding Overhead Rail.



Thermite welding in action.

A number of different rail welding processes have been used to produce efficient crane runways. Gantrex has the history, experience and capability to field weld using Puddle Arc, Calorite Thermal and Flash-Butt procedures. Below is a short overview of the most common methods:

Puddle Arc- an electro-slag process used extensively in Europe where it lends itself to the joining of relatively low carbon "A" rails. It is skill dependent, where the weld is puddled into the rail gap and retained by "coppers" matched to the rail profile. The "coppers" are individually shaped by the welder to match his own "puddling" technique. Puddle Arc Welding can result in a good joint, but is dependent on the skill of the welder. It also creates a larger heat-affected zone than thermal or flash-butt rail welding. Battering can be a problem on higher cycle runways. Larger profiles may take up to 10 hours per weld. Not commonly used today.

Calorite Thermal- a thermal-slag process using a chemical heat source. Rail ends are square cut and sand molds are set on the sides and bottom of the rail. After preheat of the ends, a thermal charge is ignited in a crucible and the molten steel is allowed to flow into the cavity. The rail ends are joined via a casting during the welding process. This weld is good, affords portability and 4-5 welds can be made by a two-man crew in a normal shift.

Flash-Butt- technically, the best weld. It produces the smallest heat-affected zone, minimizing joint batter, and uses electric current and hydraulic rams to butt the rail ends together at the upset temperature. As many as 4 welds per hour may be possible for overhead runways and 4-6 welds per hour for ground tracks. This system is most effective when the rail is fed from a fixed location and advanced down the runway on rollers. Used on runways where all the rail is replaced.



Crane Rail Fasten



Overhead Cranes

Portal Cranes



The Gantrex crane rail soft mounting system has been developed over the last 40 years with the objective of reducing the all too frequent problems associated with crane rail installations.

The Gantrex system consists of

Gantrex Adjustable Rail Clips



**Weldlok Single Bolt Series
Weldable Clip**



**Weldlok Double Bolt Series
Weldable Clip**



**Stelcam Series
Bolttable Clip**



**3000 Series
Bolttable Clip**

- Accommodate initial rail and girder installation tolerances and provide accurate rail and gauge alignment with an adjustment range of up to 3/4", allowing easy re-railing or realignment,
- Reduce crane skewing effects and prevent pad movement by providing positive lateral resistance of up to 43 kips/clip,
- Prevent clip bolt fatigue, allow predictable and controlled longitudinal rail movement and ensure maximum pad benefit with synthetic rubber nose, and
- Provide maintenance-free service through self-locking, self-tightening, anti-rotational design.

ing Systems

Today's designs of rail pads and clips are sophisticated, proven and easy to install. They result in predictable structural stresses, reduced mechanical wear, minimal maintenance, lower impact due to shock loading, less vibration, and a quieter installation.

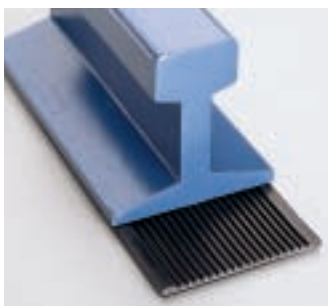
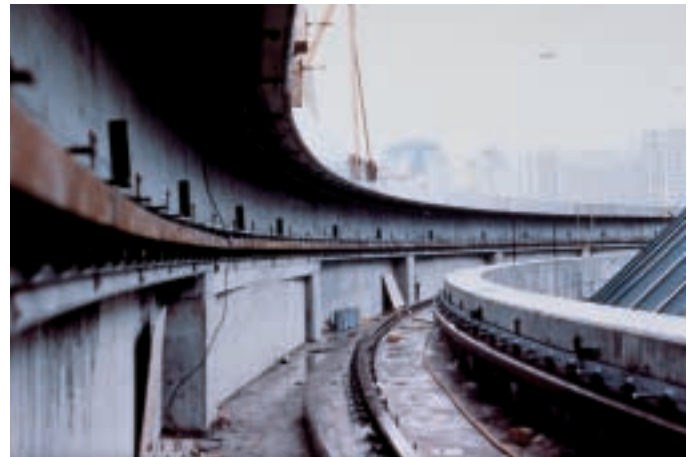
the following two products:

Gantrex Rail Pads

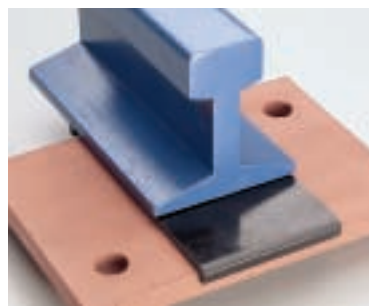


AS/RS Stacker Cranes

Unique Applications – Retractable Dome Roof System



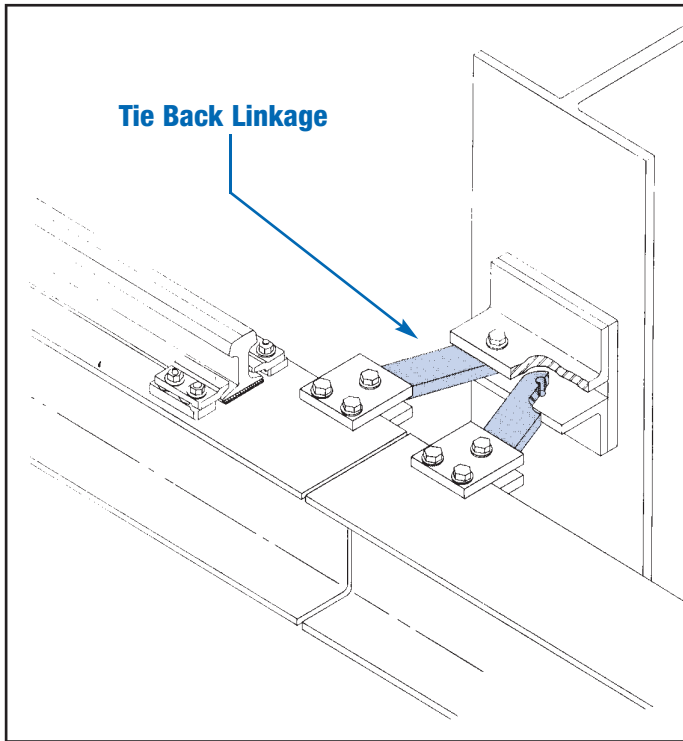
MK 6 RFS Pad
For rail on continuous support



MK 2 Pad
For rail on discontinuous support

- Ensure uniform contact between rail and support, providing improved and predictable longitudinal and lateral load distribution and reduced stress levels in the steel or concrete support structure,
- Provide soft ride, extending life of the structure, rails, crane wheels, bearings and axles,
- Accommodate relative motion between the rail and its support, eliminating fretting corrosion,
- Reduce impact, vibration and noise, and
- Available for all rail sizes.

Gantrex Girder Tie-Back Assemblies



Caster Runout Crane Aisle

A common area of failure with active crane runways is the crane girder to building column connection. The crane runway girders deflect and rotate in multiple planes, fatiguing traditional connections and causing high repair and down-time costs. The Gantrex tie-back system, in use in steel mills for over 30 years, provides proven solutions to this problem by:

- Eliminating diaphragms and the associated maintenance and fatigue problems,
- Allowing girder end rotation and longitudinal and vertical movement without inducing secondary stresses in the connection,
- Transmitting up to 135 kips side thrust in tension or compression, and
- Fitting any girder/column configuration design.

Gantrex Engineering Department will assist in sizing and selecting the best details for your unique requirements.

Gantrex Hydraulic Bumpers

Energy Absorbers for Industry



Transfer Car



Gantry Crane



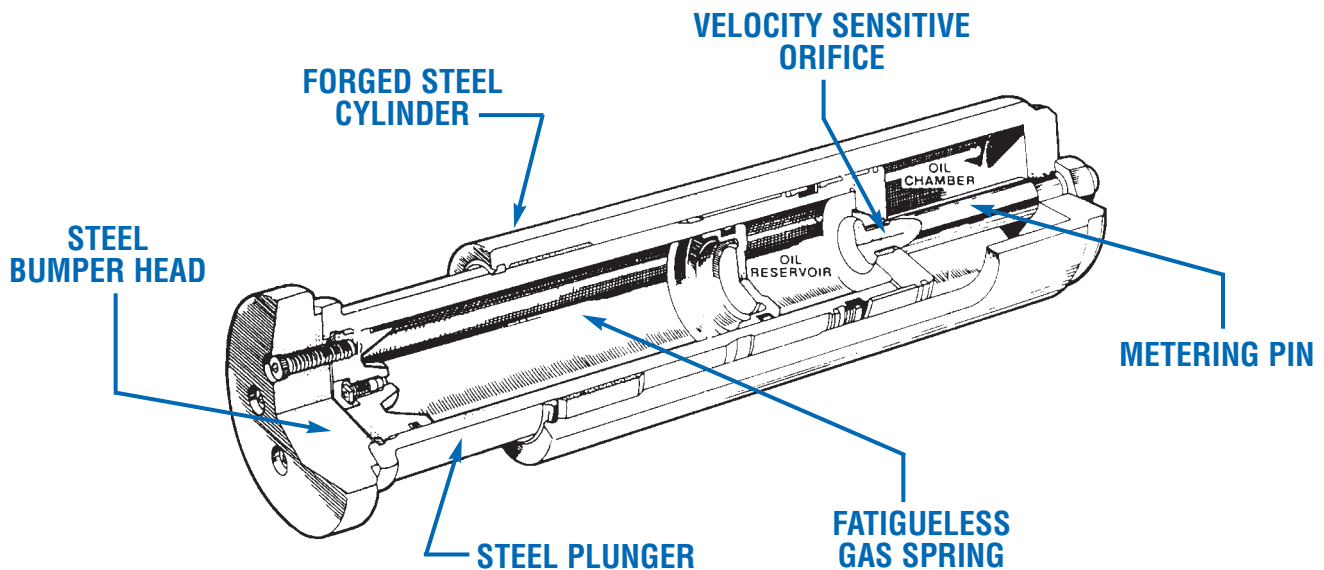
Overhead Crane



Billet End Stop

Controlling impacts and reducing resultant damaging effects have historically been a problem in heavy crane applications. Gantrex hydraulic bumpers are efficient and effective energy absorbers that:

- Provide uniform deceleration and low end forces, with over 95% efficiency in energy absorption,
- Allow easy drive down for maximum end approach, through fatigueless gas spring return,
- Provide reliability and durability even in severe environments due to their heavy-duty, forged steel construction,
- Are available in a full range of standard bumper sizes up to 1,000,000 ft/lbs of energy capacity.



Gantrex Epoxy Grout

Gantrex Epoxy Grout is a 100% solids epoxy grout consisting of epoxy resin, hardener and carefully graded aggregate. Gantrex Epoxy Grout may be used where a pourable, non-shrink, chemical-resistant, high-strength grout is required. Typical applications include ports, shipyards, pulp and paper machinery, compressors and refinery equipment.

FEATURES:

- Readily pourable, self-leveling
- High early strengths
- Excellent flow characteristics
- Soap and water clean up
- Available in 1 cubic foot or 3 cubic foot units



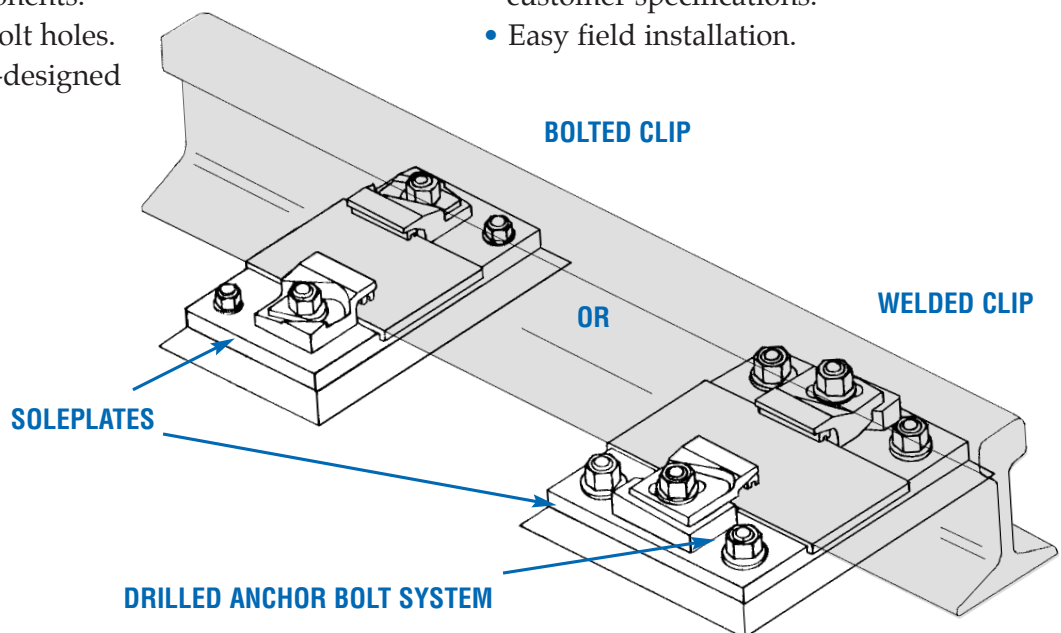
Gantrex Soleplate & Anchor Bolt System

Soleplate Features:

- Intermittent or continuous soleplates.
- Pre-assembled with studs or welded lower components.
- Pre-drilled anchor bolt holes.
- Standard or custom-designed to suit all rails.

Anchor Bolt Features:

- 2-part polyester resin.
- Steel grade and coating to customer specifications.
- Easy field installation.





Complete Runway Rebuild



Surveying



Container Crane ground track

Production runways require quality products and installation performed by expert personnel. Too often rail systems are installed with non-specified products or by installers with limited experience.

Gantrex construction superintendents offer worldwide experience unparalleled in the industry. The field division is supported by a team of technical experts committed to solving rail system problems, from the initial inspection to the final rail installation. Our specialists can provide proven solutions to such problems as rail misalignment, failed grout, broken anchors, improper rail fasteners, etc. on existing production runways.

PRODUCTS

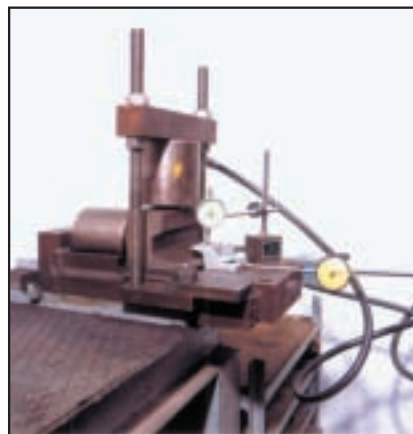
- Gantrex Crane Rail Clips & Pad
- Crane Rails (standard or heat-treated)
- Soleplate Fabrication
- Gantrex Epoxy Grout
- Anchoring Systems
- Rail Welding Kits

SERVICES

- Complete Installation - Ground & Overhead Runways
- Engineering Design Coordination
- Thermal, Flash Butt & Puddle Arc Welding
- Installation Supervision
- Inspection/Survey of Rail Systems



Thermal Rail Welding



Product Testing



Seismic Testing



The GANTRY Group all over the world :

Gantrex Inc., **USA, Mexico, Central & South America**
Gantrex Canada Inc., **Canada**
Gantry S.A., **Belgium**
(Belgium, France, Netherlands, Luxemburg, Finland, Norway, Sweden)
Gantry SGM GmbH, **Germany**
(Germany, Austria, Denmark, Switzerland)
Gantry Krantechnik GmbH, **Germany**
(Bulgaria, Poland, Rumania, Russia, Slovakia)
Gantry Hungaria GmbH, **Hungary**
Gantry CZ s.r.o., **Czechia**
Gantry Española, **Spain** (Spain, Portugal, Morocco)
Gantry Middle East Ltd, **United Arab Emirates**
(Turkey, Africa, Middle-East, Iran, Pakistan, ...)
Cranequip Ltd, **England** (United Kingdom, Ireland)
SGM Gantry S.p.A., **Italy** (Italy, Far East*)
SGM Magnetics Corporation, **United States**
Gantrex Asia Ltd, **Hong Kong**
Gantrex (Pte) Ltd, **Singapore**
(Singapore, Taiwan, Indonesia, Malaysia, Thailand, Philippines, Vietnam...)
Gantrex Shanghai Office, **China**
Gantrex Korea, **Korea**

* for SGM products only

USA HEADQUARTERS - PITTSBURGH

2000 Oxford Drive-Suite 400
Pittsburgh, PA 15102
PH: (800) 242-6873
FAX: (412) 655-3814

CANADA HEADQUARTERS - TORONTO

12 Barr Road
Ajax, Ontario L1S 3X9
PH: (905) 686-0560
FAX: (905) 686-0962

Web site: www.gantrex.com

Email: sales@gantrex.com

GANTREX - NORTH AMERICA

1 (800) 242-6873

Phoenix, AZ
San Francisco, CA
Chicago, IL
Houston, TX
Toronto, ON
Montreal, QC
Halifax, NS
Monterrey-Mexico
Rio De Janeiro-Brazil
Santiago-Chile
Buenos Aires-Argentina