Track & Services Co., Inc.
Company Profile

Joint Venture of Atlantic Track & Turnout Co. and ThyssenKrupp GfT Gleistechnik GmbH
With over 80 years of experience, Atlantic Track & Turnout Co. is a major supplier of rail and trackwork to American railroad and transit organizations. Atlantic Track also provides complete third rail systems and offers assistance in pre-project planning. In addition, Atlantic Track’s knowledge of American transit systems lends an in-depth market perspective to MRT Track & Services.

ThyssenKrupp GfT Gleistechnik, the railroad division of ThyssenKrupp, is a leading special trackwork manufacturer and international single source supplier of railroad track materials and services. ThyssenKrupp GfT has the technical know-how to provide product solutions to subway, LRT and MRT systems worldwide. ThyssenKrupp GfT’s speciality is the supply of custom designed and engineered track and turnout systems.
### Capabilities

#### Planning and Engineering
- Individual design of special trackwork
- Feasibility studies
- Project management support

#### Materials Supply
- Rail (T-rails, 3rd rail, girder rails, special rail sections)
- Turnouts, crossings
- Ties
- Fastening systems
- Accessories

#### Value-added Service
- Warehousing
- Maintenance
- Mobile flash butt welding
- Just-in-time delivery
Innovative and state-of-the-art solutions for Mass Rapid Transit systems

- Rails
- Special trackwork
- Rail fastening systems
- Ties (wood, concrete, steel, Y-steel ties)
- Planning and engineering
## T-rails

Most commonly used T-rail sections:

<table>
<thead>
<tr>
<th>Rail section</th>
<th>Weight lbs/yd (kg/m)</th>
<th>Height (H)</th>
<th>Rail base (B)</th>
<th>Rail head (C)</th>
<th>Rail web (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 RA (ARA-A90)</td>
<td>89.98 (44.64)</td>
<td>5-5/8&quot; (142.88 mm)</td>
<td>5-1/8&quot; (130.18 mm)</td>
<td>2-9/16&quot; (65.09 mm)</td>
<td>9/16&quot; (14.29 mm)</td>
</tr>
<tr>
<td>100 RB (ARA-B 100)</td>
<td>100.00 (49.61)</td>
<td>5-41/64&quot; (143.27 mm)</td>
<td>5-9/64&quot; (130.57 mm)</td>
<td>2-21/32&quot; (67.47 mm)</td>
<td>9/16&quot; (14.29 mm)</td>
</tr>
<tr>
<td>115 RE</td>
<td>115.00 (57.05)</td>
<td>6-5/8&quot; (168.28 mm)</td>
<td>5-1/2&quot; (139.7 mm)</td>
<td>2-23/32&quot; (69.06 mm)</td>
<td>5/8&quot; (15.88 mm)</td>
</tr>
<tr>
<td>132 RE</td>
<td>132.00 (65.49)</td>
<td>7-1/8&quot; (180.98 mm)</td>
<td>6&quot; (152.4 mm)</td>
<td>3&quot; (76.2 mm)</td>
<td>21/32&quot; (16.67 mm)</td>
</tr>
<tr>
<td>136 RE</td>
<td>136.00 (67.47)</td>
<td>7-5/16&quot; (185.74 mm)</td>
<td>6&quot; (152.4 mm)</td>
<td>2-15/16&quot; (74.61 mm)</td>
<td>11/16&quot; (17.46 mm)</td>
</tr>
<tr>
<td>41E1 (S41-R10)</td>
<td>83.13 (41.24)</td>
<td>5.4331&quot; (138 mm)</td>
<td>4.9213&quot; (125 mm)</td>
<td>2.6378&quot; (67 mm)</td>
<td>0.4724&quot; (12 mm)</td>
</tr>
<tr>
<td>49E1 (S49)</td>
<td>99.56 (49.39)</td>
<td>5.8661&quot; (149 mm)</td>
<td>4.9213&quot; (125 mm)</td>
<td>2.6378&quot; (67 mm)</td>
<td>0.5512&quot; (14 mm)</td>
</tr>
<tr>
<td>54E1 (UIC54)</td>
<td>110.40 (54.77)</td>
<td>6.2598&quot; (159 mm)</td>
<td>5.5118&quot; (140 mm)</td>
<td>2.7559&quot; (70 mm)</td>
<td>0.6299&quot; (16 mm)</td>
</tr>
</tbody>
</table>
## Girder Rails

Most commonly used girder rail sections:

<table>
<thead>
<tr>
<th>Rail section</th>
<th>Weight lbs/yd (kg/m)</th>
<th>Height (H)</th>
<th>Rail base (B)</th>
<th>Rail head (C)</th>
<th>Groove (G)</th>
<th>Rail web (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>51Ri1 (RI52-13)</td>
<td>103.55 (51.37)</td>
<td>5.1181&quot; (130 mm)</td>
<td>5.9055&quot; (150 mm)</td>
<td>4.4488&quot; (113 mm)</td>
<td>1.6740&quot; (42.52 mm)</td>
<td>0.4724&quot; (12 mm)</td>
</tr>
<tr>
<td>57Ri1 (Ph37)</td>
<td>113.97 (56.54)</td>
<td>7.1654&quot; (182 mm)</td>
<td>5.9055&quot; (150 mm)</td>
<td>5&quot; (127 mm)</td>
<td>2.3803&quot; (60.46 mm)</td>
<td>0.4331&quot; (11 mm)</td>
</tr>
<tr>
<td>59Ri2 (RI59-13, Ri59N)</td>
<td>117.19 (58.14)</td>
<td>7.0866&quot; (180 mm)</td>
<td>7.0866&quot; (180 mm)</td>
<td>4.4488&quot; (113 mm)</td>
<td>1.6740&quot; (42.52 mm)</td>
<td>0.4724&quot; (12 mm)</td>
</tr>
<tr>
<td>59Ri1 (RI59-10, Ri59)</td>
<td>118.87 (58.97)</td>
<td>7.0866&quot; (180 mm)</td>
<td>7.0866&quot; (180 mm)</td>
<td>4.4488&quot; (113 mm)</td>
<td>1.6535&quot; (42 mm)</td>
<td>0.4724&quot; (12 mm)</td>
</tr>
<tr>
<td>60Ri2 (RI60-13, Ri60N)</td>
<td>120.44 (59.75)</td>
<td>7.0866&quot; (180 mm)</td>
<td>7.0866&quot; (180 mm)</td>
<td>4.4488&quot; (113 mm)</td>
<td>1.4307&quot; (36,34 mm)</td>
<td>0.4724&quot; (12 mm)</td>
</tr>
<tr>
<td>60Ri1 (RI60-10, Ri60)</td>
<td>122.13 (60.59)</td>
<td>7.0866&quot; (180 mm)</td>
<td>7.0866&quot; (180 mm)</td>
<td>4.4488&quot; (113 mm)</td>
<td>1.4173&quot; (36 mm)</td>
<td>0.4724&quot; (12 mm)</td>
</tr>
<tr>
<td>67Ri1 (Ph37A)</td>
<td>134.87 (66.91)</td>
<td>7.0866&quot; (180 mm)</td>
<td>7.0866&quot; (180 mm)</td>
<td>5.3150&quot; (135 mm)</td>
<td>2.3858&quot; (60.60 mm)</td>
<td>0.5118&quot; (13 mm)</td>
</tr>
<tr>
<td>New Flat rail</td>
<td>xx (xx)</td>
<td>3.9370&quot; (100 mm)</td>
<td>6.4961&quot; (165 mm)</td>
<td>5.3150&quot; (135 mm)</td>
<td>1.6535&quot; (42 mm)</td>
<td>2.1654&quot; (55 mm)</td>
</tr>
</tbody>
</table>
Special Rail Sections

Most commonly used special rail sections:

<table>
<thead>
<tr>
<th>Rail section</th>
<th>Weight lbs/yd (kg/m)</th>
<th>Height (H)</th>
<th>Rail base (B)</th>
<th>Rail head (C)</th>
<th>Rail web (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>33C1 (UIC33, RI1-60, U69)</td>
<td>66.50 (32.99)</td>
<td>3.6614&quot; (93 mm)</td>
<td>1.5748&quot; (40 mm)</td>
<td>3.1496&quot; (80 mm)</td>
<td>0.7874&quot; (20 mm)</td>
</tr>
<tr>
<td>49E1A1 (Zu2-49)</td>
<td>127.27 (63.14)</td>
<td>4.5669&quot; (116 mm)</td>
<td>5.5118&quot; (140 mm)</td>
<td>2.6378&quot; (67 mm)</td>
<td>1.5748&quot; (40 mm)</td>
</tr>
<tr>
<td>54E1A1 (ZuUIC54B)</td>
<td>138.98 (68.95)</td>
<td>5.0787&quot; (129 mm)</td>
<td>5.7874&quot; (147 mm)</td>
<td>2.7559&quot; (70 mm)</td>
<td>1.5748&quot; (40 mm)</td>
</tr>
<tr>
<td>60E1A1 (Zu1-60)</td>
<td>147.08 (72.97)</td>
<td>5.2756&quot; (134 mm)</td>
<td>5.5118&quot; (140 mm)</td>
<td>2.8346&quot; (72 mm)</td>
<td>1.7323&quot; (44 mm)</td>
</tr>
</tbody>
</table>
Contact Rail

Contact rail
MRT Track & Services offers a wide range of contact rail used for power transmission in transit systems from the traditional 150-lb. rail to the more advanced 85C and 84C composite rail sections.

Insulators
Insulators are available in molded fiberglass or porcelain, in different heights with multiple base designs and can accommodate the various types of contact rail currently in use. MRT Track & Services will custom design to meet your specific requirements.

Coverboard
Pultruded fiberglass coverboards come in many different shapes and sizes. While lightweight fiberglass coverboards are both strong and durable by design, UV protection can be added to give the coverboards even longer life when required. A wide range of engineering and testing services are available to ensure that your specific needs are met.

Brackets
Brackets for holding the coverboards in place are available in designs to match the requirements of any third rail, coverboard and insulator system. Brackets can be manufactured from molded fiberglass or fabricated metal.
Y-steel Tie

- 7' - 2'1/2"
- Special cold formed steel section IB 100Sv
- Fork with flexible deflection
- Lower crossbar to generate lateral resistance
- Intermediate spacer with supports and exchangeable inlays
- Pandrol e-clip rail fastening
Advantages and Application of Y-steel Tie

Application

• Ballasted and slab track
• Areas of restricted height and width (e.g. tunnels, urban areas)
• Steep gradients
• Tight curvature radii
• Turnouts
• Level crossings
• Narrow gauge and cog RR
• Tracks with conductor rail, ramps and guide rails

Advantages

• High lateral resistance to transverse displacement
• Low height
• Entire electrical insulation
• Longer service life - life expectancy 70 years
• Fully recyclable material
• Economic solution. Compared to standard wooden ties, a Y-steel tie track requires:
  a) 50 % fewer ties per mile of track
  b) 30 % less ballast
  c) 30 % fewer fastening points
Bumping Posts

- ISO 9001 licensed manufacturer
- Individually engineered
- Suitable for T-rail as well as girder rail
- Hydraulic or friction designs available
- Fast installation, no torque wrench required
Ties and Track Panels

Track panels provide a quick and economical way to replace tracks in busy, high-volume areas. Panels can be built with either new or relay rail and with various rail fastening systems.

Panels are available with wood and concrete ties.
Turnouts and Crossings

Products and capabilities:
- Design/manufacture of:
  - T-rail turnouts and crossings for urban transit and long-distance rail traffic with American and European rail sections
  - Girder rail turnouts
  - Switches
  - Crossings
  - Switch Points
  - Guard Rails
  - Expansion Joints
  - Compromise Joints
- Heat treatment of rails and turnout components
Trackwork

- Planning and manufacturing of complete track systems
- Turnout design tailored to customer specifications
- Modern 2D and 3D CAD systems
- State of the art production line with CNC controlled cutting, planing and shaping machines
- Head hardening by perlitical heat treatment
Product Development

Wear resistant steel XAR®- Crossings, switch points and stock rails

XAR® insert
leading edge
Characteristics of XAR® Steel

The wear resistant steel XAR® can increase product service life to five times that of conventional structural steel. XAR® combines high wear resistance with good weldability.

Chemical composition (heat analysis, %)

<table>
<thead>
<tr>
<th>C</th>
<th>Si</th>
<th>Mn</th>
<th>P</th>
<th>S</th>
<th>Cr</th>
<th>Mo</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤0.20</td>
<td>≤0.80</td>
<td>≤1.50</td>
<td>≤0.025</td>
<td>≤0.010</td>
<td>≤1.00</td>
<td>≤0.50</td>
<td>≤0.005</td>
</tr>
</tbody>
</table>

Hardness at room temperature in delivery condition: **360 - 440 BHN**

Turnout components made of XAR® are the solution for problems and cost increases resulting from wear and abrasion. Due to the high level of hardness of the XAR® steel and the quenching and tempering heat treatment, abrasion can be minimized and product service life extended.
Crossing with Linear Displaceable Frog (LDF)

The Linear Displaceable Frog (LDF) was developed to reduce the wear inside the frog to a minimum. Due to slideable frog centers, the crossing with Linear Displaceable Frogs always simulates a normal track and allows for a continuous rail running without interruptions. The use of guard rails is no longer required. It is possible to omit track guiding and the application of specially hardened material for the frog. A reduction of running speed in the crossing area is not required.

Crossings with Linear Displaceable Frogs are most suitable for all track gauges requested for urban traffic and long-distance traffic. The Linear Displaceable Frog can be combined with any rail section.

The installation of the Linear Displaceable Frog not only enhances the riding comfort by simulating a normal track, but reduces wear to a minimum. This finally increases the safety of the track system while at the same time reducing the maintenance costs.
Accessories

• Tie plates
• Joint bars
• Insulated joints
• Switch stands
• Grating and hand railing
• Track tools
• Derails/rerails
• Wheel stops
• Signs
Track & Services Co., Inc.

Locations

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