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SYNTECHNICS

TRACK COLLECTOR PAN SYSTEMS

PROTECTION AGAINST SPILLS

Flat Pan System

Managers of industrial or railroad facilities handling oil, fuel and chemicals are aware that even the most careful procedures cannot totally eliminate spills in areas where rail cars and locomotives are loaded, unloaded, washed or fueled. It's a serious problem because the spilled substances can damage the environment as well as the cross ties and equipment.

SynTechnics FRP (Fiberblass Reinforced Plastic) Track Collector Pan Systems offer protection by collecting and isolating spills for treatment and disposal. Properly installed to connect with permanent waste treatment systems, they can limit environmental problems caused by uncollected spillage, and reduce downtime for equipment repair.

Flat Pan System Install with Crossdrain

SIMPLE, EFFICIENT SYSTEMS

System components include collector pans and Crossdrains that connect with pre-installed underground pipes or trenches. Substances flow to a sump pump or collection tank for treatment or disposal.

Through years of field experience and testing, the SynTechnics FRP Track Collector Pan Systems have been developed and refined to achieve design simplicity and system economy. The FRP Systems offer the following advantages over alternative methods:

- Easily installed modular sections ban be combined to provide any length and a variety of widths to meet customer requirements.
- Pans will fit most sizes of rail including the 90 pound rail often used at loading and unloading sites.
- All SynTechnics Track Collector Pans can be manufactured to fit curved tracks up to 21' and areas around switches.
- The pan walking surface can be made with a permanent "anti-skid" texture or smooth surface for maximum corrosion resistance.
- The greatest advantage of SynTechnics FRP Track Collector Pan Systems is the reasonable total installed cost.

Flat Pan System at Railroad Switch

CORROSION RESISTANCE

Fiberglass has earned a reputation for its resistance to corrosion from aggressive substances. The SynTechnics FRP Track Collector Pan System stands up against many chemicals what would prove highly destructive to steel or concrete systems. SynTechnics' manufacturing process makes use of specially selected resins which resist corrosion in customer-specified chemical environments. In these specific applications, customer testing for compatibility will verify the performance of the resins.

Type V Sloped Pan System

FIBERGLASS CONSTRUCTION

SynTechnics is one of the leading manufacturers of structural fiberglass reinforced plastic in the world. Materials and processes used in making track collector pan systems reflect more than three decades of experience in fiberglass technology. SynTechnics' expertise assures that every component is built for maximum durability and resistance to corrosion in oil and chemical environments specified by SynTechnics customers. Permanent "anti-skid" textured or smooth surfaces are available.

- Top and bottom resin rich surfaces provide the toughest possible protection from corrosive chemicals.
- Mats of reinforcing chopped fiberglass strands lend extra protection against corrosion.
- Inner layer of woven roving gives strength and stability to collector pans.

Type III Flat Pan System with Optional Grating

EASY INSTALLATION, MINIMAL MAINTENANCE

Installation of SynTechnics FRP Track Collector Pan Systems requires minimal downtime. Because fiberglass is lightweight, a small crew can install the system without heavy handling equipment. Components can be removed and replaced, without damage, if cross ties need repair.

System components require little maintenance. Durability is not affected by temperatures between -50˚F and +130˚F. Any damage to components can be repaired with simple hand tools. Replacement components can be reordered within a short lead time.

Crossdrain Install and Site Prep

TYPE II & III TRACK COLLECTOR PAN SYSTEM

Crossdrain with Drain Cover

TYPE II Flat Pan System

Type III System with Gravel Backfill

Center Pan Section

Sections are snapped into place and “float” between the rails. No fasteners or fixed connectors are used, so the system is not affected by track shift or road bed movement.

Side Pan Section

Pan sections are continuous between cross ties. There are no lateral joints to connect.

Drain Cover/Cross Walk

Liquids spilled on collector pans flow along the pan into the Crossdrain. The drain cover helps keep litter out of drains and is recessed for safety.

Crossdrain

Liquids collect in the Crossdrain, then flow through a tapered sleeve into previously installed underground pipes. Drains are fixed to cross ties by supports and lag screws.

Ballast and Tamped Gravel

Site preparation require ballast to 3” below the top of the cross ties and tamped gravel to the top of the cross ties.

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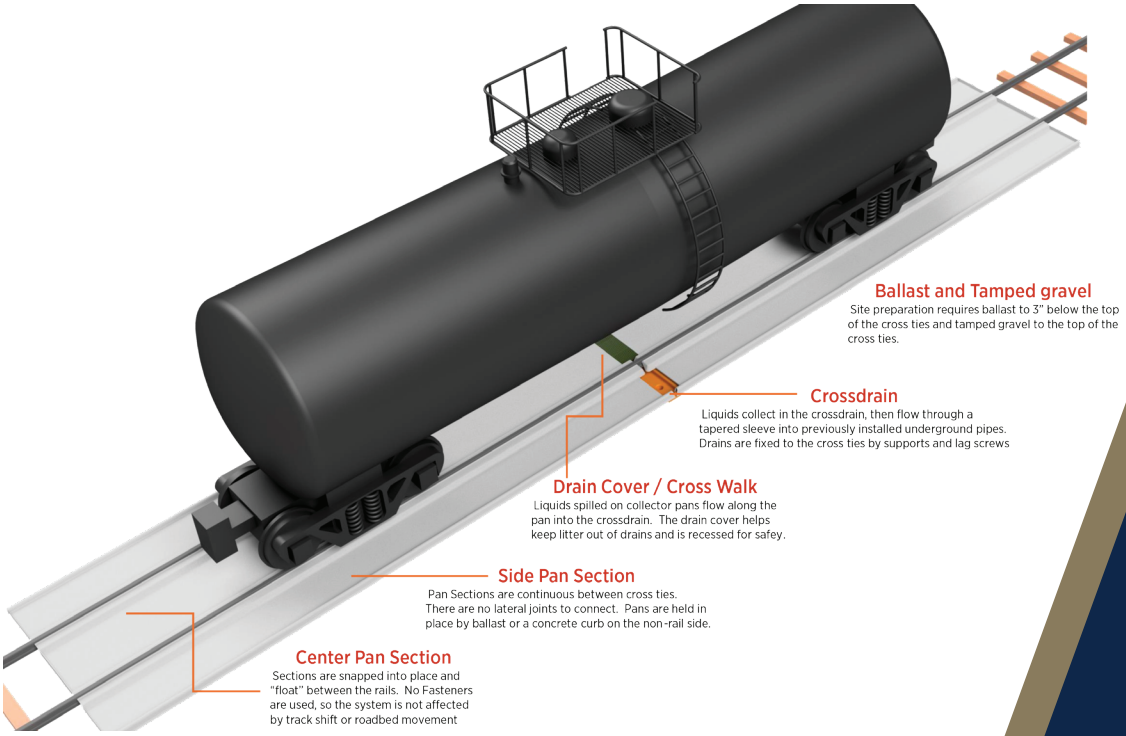
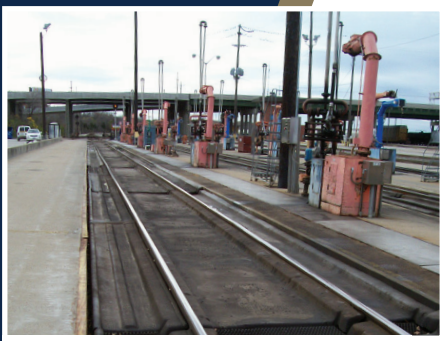
TYPE II & III TRACK COLLECTOR PAN SYSTEM

System Components include collector pans and crossdrains that connect with pre-installed underground pipes or trenches. Substances flow to a sump or collection tank for treatment or disposal. The FRP offer the following advantages over alternative methods.

- Systems are available in virtually any length with crossdrains on 20’ or 40’ normal spacing. System widths of 10’, 12’, 14’, and 16’ are available.
- Pans will fit most sizes of rail including the 90’ rail often used at loading and unloading sites.
- The pan walking surface can be made with a permanent “anti-skid” texture or smooth maximum corrosion resistance.
- Optional Grating can be added in the pans as a walking surface upon request.



TYPE IV & V SLOPED TRACK COLLECTOR PAN SYSTEM



Type IV System with Concrete Curb

Type V System with Gravel Backfill

Type V System against Concrete Curb

The “Sloped” system differs from “Flat” system in that there is a 1” per 10’ slope built into the pan to aid drainage of the spilled material. SynTechnics “Sloped” systems are identical to “Flat” systems in laminate construction and concept.

SynTechnics Sloped Track Collector Pan Systems for tank car loading/unloading stations and railroad refueling areas are composed of a center collector pan and a pair of side collector pans. The collector pans empty into crossdrains placed perpendicularly between pan sections. A combination drain cover/crosswalk grating covers the crossdrain.

Through years of field testing, the SynTechnics Sloped FRP Track Collector Pan Systems have been developed and refined to achieve design clarity and system efficiency. The Sloped FRP Systems offer the following characteristics:

- Systems are available in virtually any length with crossdrains on 20’ or 40’ normal spacing. System widths of 10’, 12’, 14’, and 16’ are available.
- For 20’ Nominal Systems, a single male pan is used that is 20’-1/2” total length.
- For 40’ nominal systems, two 20’ male pans are used with a cross drain between the two pans.

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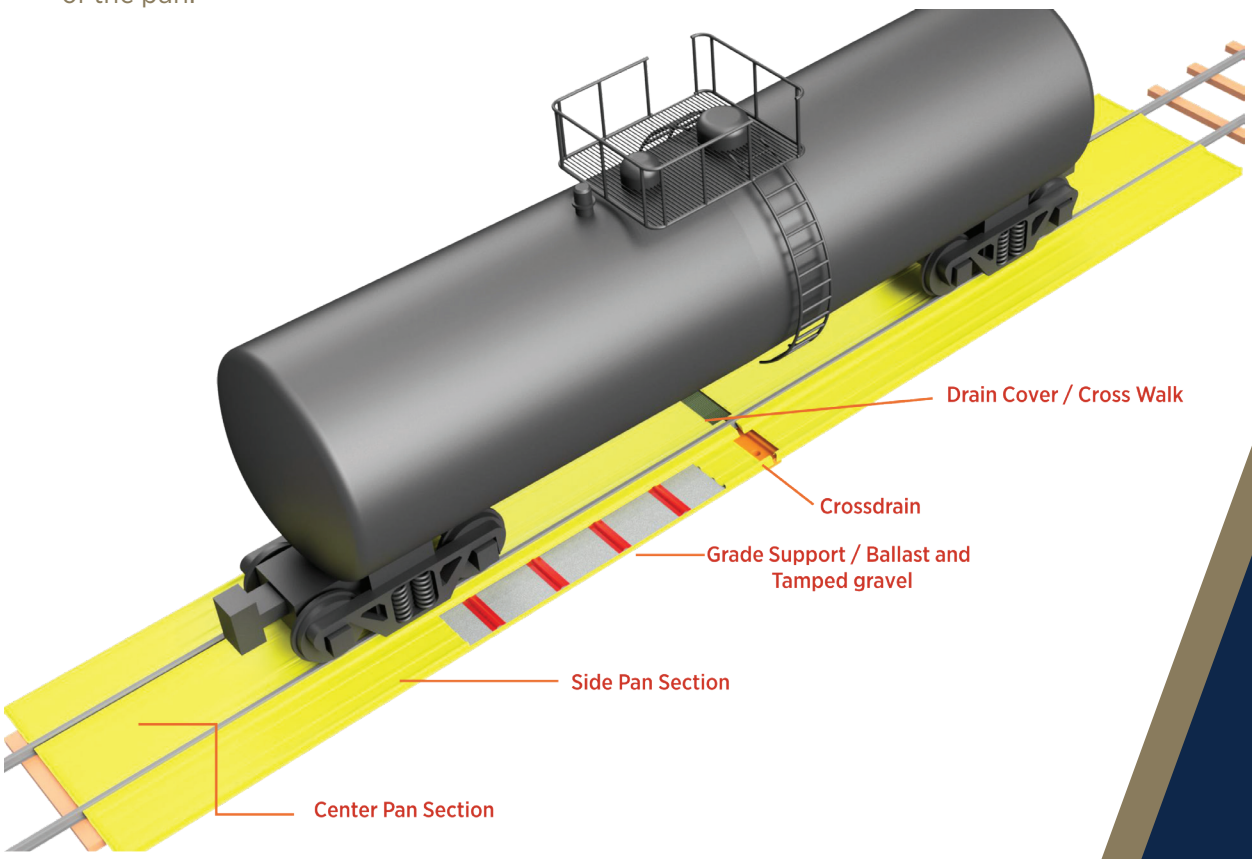
TYPE IV & V SLOPED TRACK COLLECTOR PAN SYSTEM

- For systems greater than 40', a combination of male and female pans are mated together to create a continuous system the desired length.
- Standard Male and Female Pans are 20' Nominal Length but can be manufactured shorter if needed.
- Grade supports are provided to support the surface of the pan.



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Type III Center Pan Installation

Specializing in large structural design SynTechnics' Engineers have successfully developed innovative Fiberglass Reinforced Plastic (FRP) covering systems for the railroad, the marine, and the waste water treatment industries. With an eye toward the future SynTechnics continues to explore new applications for its fiberglass products.

SynTechnics FRP Track Collector Pan Systems have been installed in thousands of locations throughout the United States, Canada, Mexico, and Europe.

40' Type III System with Center Drain

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