

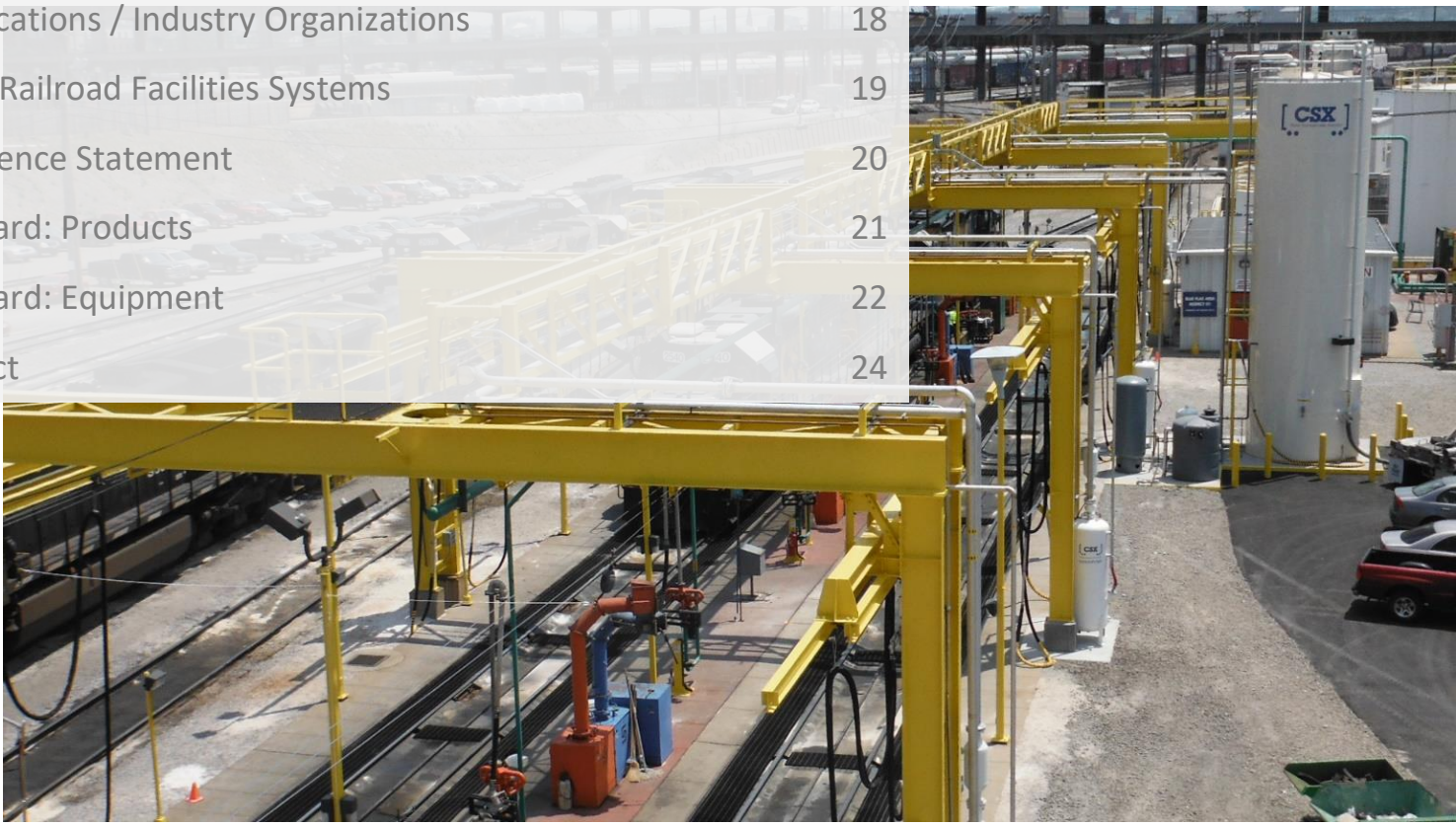
Brochure

Railroad Sand Systems



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About

RYSX Railroad Equipment Specialists (CWI Railroad System Specialists) is a premier manufacturer and supplier of specialized railroad sand systems to Class 1's, Regional Rail, and Short Lines all over the USA. Whether your site uses 200 Tons per month or ½ Ton every 3 months, we work with you to design a sand system that will best meet your needs. If your service center could process a locomotive 30 minutes faster, what would that do for on-time performance? When you combine our proven engineered designs for your next Sand System with our experienced installation crews, you will have purchased the best Locomotive Sand System money can buy. But CWI does not stop at the design and build phase, we provide specific On-Site Service plans to keep your Sand System reliably operating for years to come. Our experts are standing by to discuss systems to maximize the productive service of your locomotives, call today!

Experienced Professionals with Proven Systems

- ✓ Since 1984, our systems have been trusted by America's Class 1 Railroads

Engineering & Design

- ✓ Engineering staff for capital projects and individual pieces of equipment

Fabrication

- ✓ All equipment custom fabricated at our Pennsylvania, USA Headquarters

Construction & System Startup

- ✓ Licensed and Insured railroad contractors

Rail Yard Data Management (RYDM)

- ✓ Proprietary railroad systems monitoring and industrial controls system

Service & Support

- ✓ Routine service contracts, emergency repairs, & free phone support

Product Distribution

- ✓ Offering all the industrial replacement products needed at the best prices

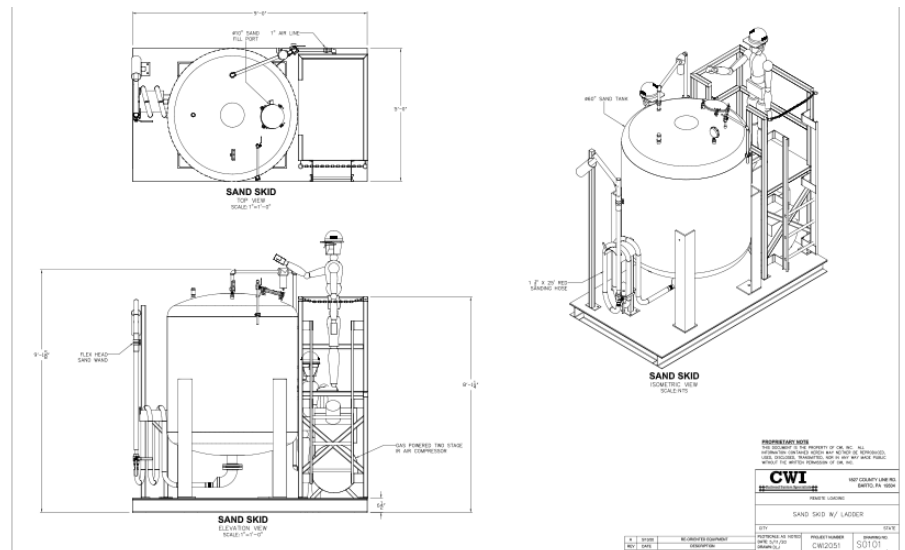


SRSS Series: Locomotive Sand Skid

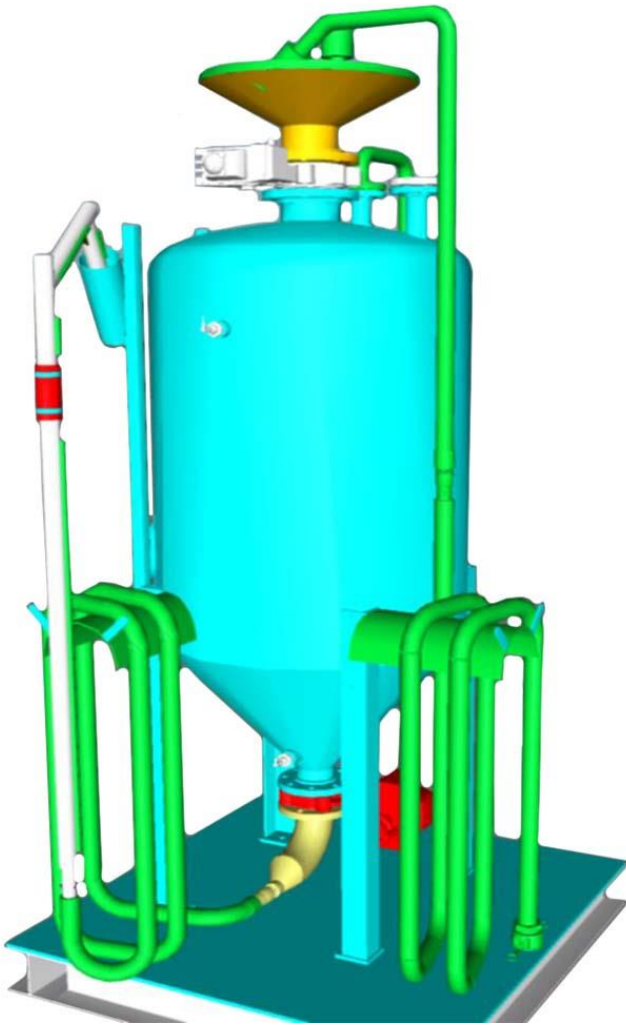


- ✓ Tank capacities from ½ Ton to 5 Ton
- ✓ Forklift Movable
- ✓ Locomotive Sand Wand Nozzles
- ✓ Auto Wand Shut-Off Controls
- ✓ Level Indication Controls
- ✓ Weather Protection Systems
- ✓ Pressure Purge Systems
- ✓ Various Fill Methods
- ✓ Integrated Air Compressors
- ✓ Outsourced Air Reels
- ✓ Elevated Platforms and Safety Steps
- ✓ Multi-Wand Capable
- ✓ Locomotive Sand Reclamation

Sand System Skids offer a large range of customization and are easily maneuverable in small yards with forklifts, tractors, and other machinery. These systems increase safety while decreasing locomotive sanding time. Our experts will work with you to identify an appropriate system based on your sanding requirements, monthly usage, geographical location, onsite features, and more.

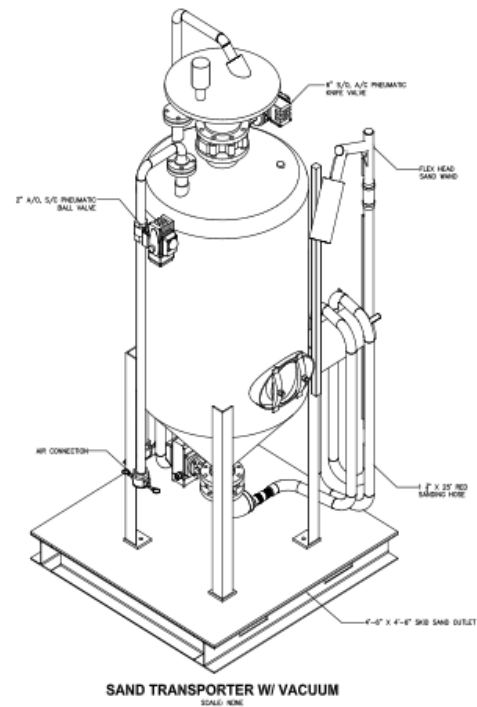


TIIRSS Series: 2 in 1 Vacuum Pump Sand Systems

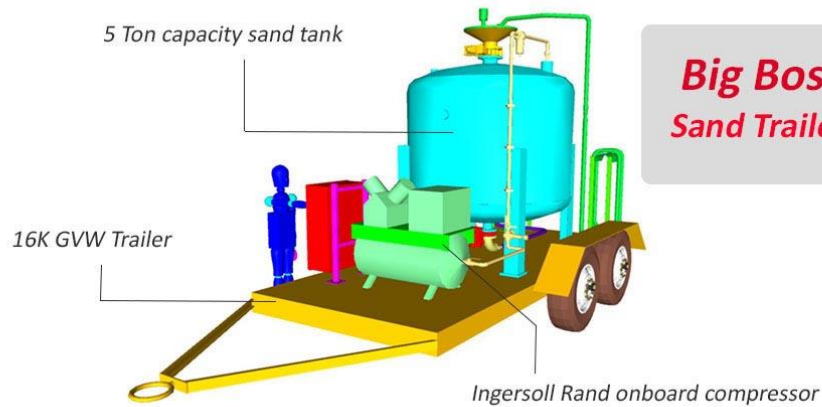


We originally developed **2 in 1 Vacuum Pump Sand Systems** for locomotive remanufacturing facilities. The system reclaims hazardous silica sand from locomotive sand boxes when they are admitted to the remanufacturing facility. The sand is then stored and re-dispensed into the locomotive sand box prior to leaving the facility. This system eliminates the need to dispose of silica sand in hazardous materials disposal facilities.

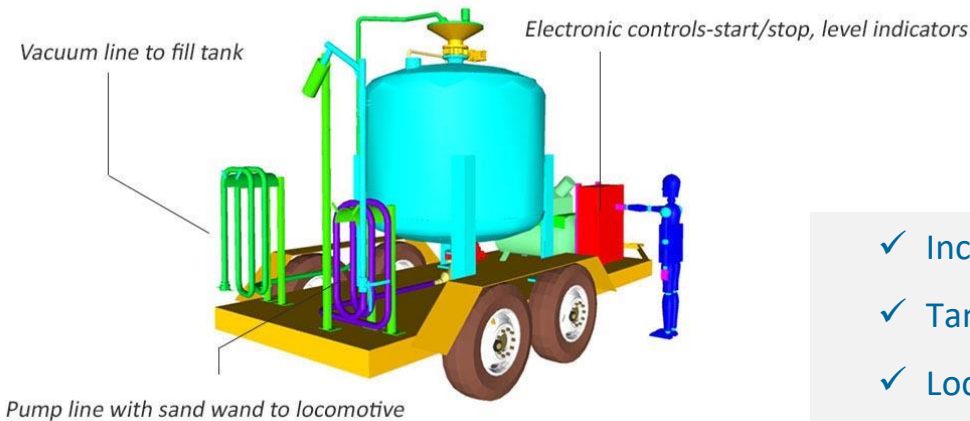
- ✓ Sand Vacuum Tank Fill Line
- ✓ Sand Pump Line
- ✓ ASME Pressure Vessel
- ✓ Locomotive Sand Wand Nozzle
- ✓ Actuated Valves
- ✓ Industrial Controls



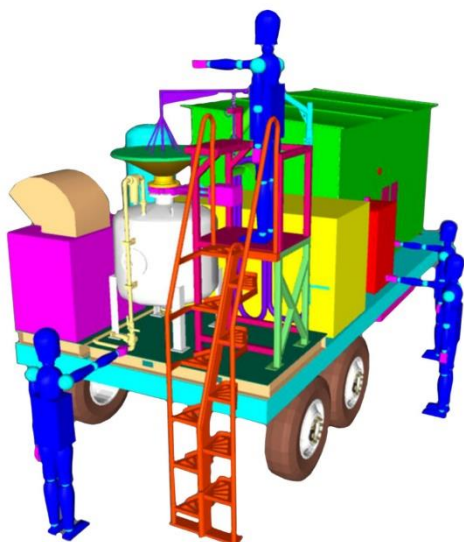
STRSS Series: Locomotive Sand Trailer Systems



Our **Locomotive Sand Trailer Systems** are a great way to spot sand locomotives in smaller yards and siding tracks. These trailers are conveniently towed by your existing trucks and easily stored when not in use. A great system starts with a great design. RYSX has the years and field experience in the Sand System arena to confidently state that we will design the best complete Sand System for your Locomotive Service Center. It is all in the experience and the details. Ask about other locomotive servicing systems that can be combined to produce a multi-use trailer system.



- ✓ Increased Mobility vs. Sand Skid Systems
- ✓ Tank capacities from ½ Ton to 5 Ton
- ✓ Locomotive Sand Wand Nozzles
- ✓ Auto Wand Shut-Off Controls
- ✓ Level Indication Controls
- ✓ Weather Protection Systems
- ✓ Pressure Purge Systems
- ✓ Various Fill Methods
- ✓ Integrated Air Compressors
- ✓ Outsourced Air Reels
- ✓ Elevated Platforms and Safety Steps
- ✓ Multi-Wand Capable



DTLRSS Series: DTL Truck Sand Systems

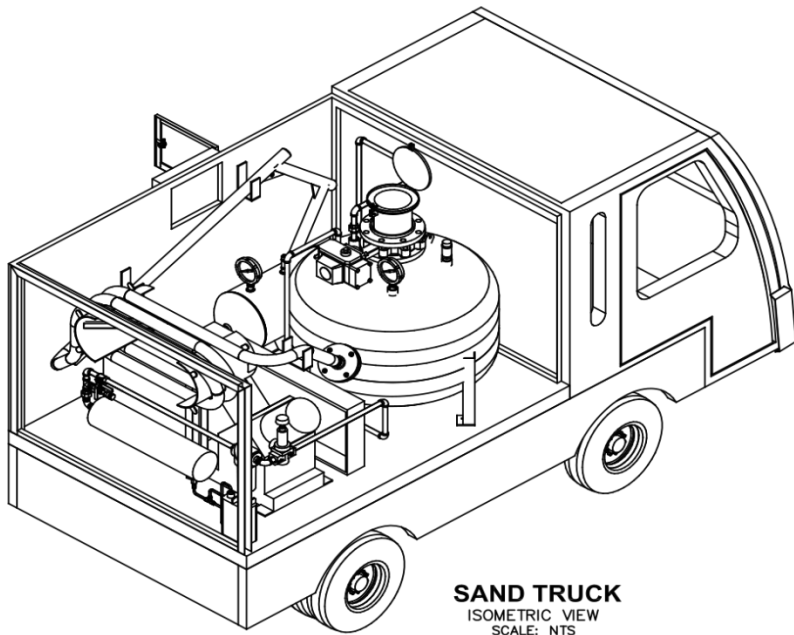
DTL Truck Sand Systems are permanently mounted, along with other locomotive servicing systems, on trucks dedicated to mobile Direct-To- Locomotive Servicing. We can integrate a mobile sand system into your existing truck or any other piece of equipment you have. Our experts will work with you to properly size a system that complies with safety policies and DOT regulations.



- ✓ Left & Right Side Sand Wand Access
- ✓ Integrated PTO Compressor System
- ✓ Tank Access Elevated Safety Platform
- ✓ Custom Branding Available
- ✓ Multiple Tank Fill Options
- ✓ Electronic Controls Options
- ✓ Designed for Locomotive Sanding

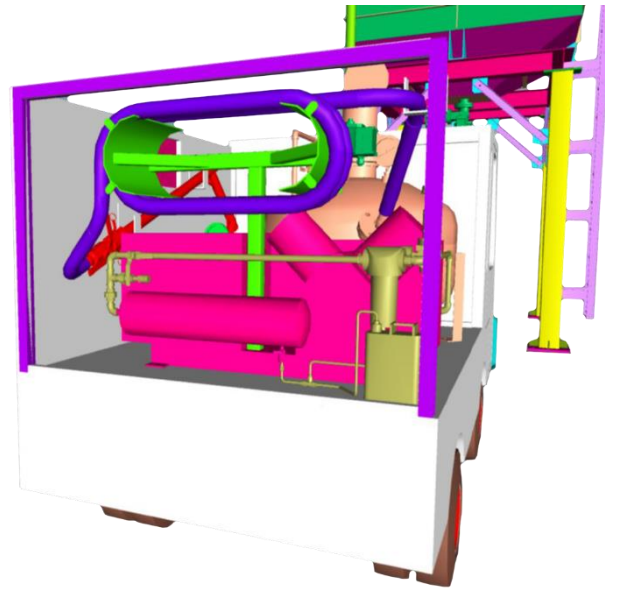


MEVRSS Series: EV Mini Sand System Trucks



- ✓ Taylor-Dunn BF-3000 48V Utility Vehicle
- ✓ 1,000 lbs. Silica Sand 75 psig Rated Tank
- ✓ 30 Linear Feet Sand Hose w/ Locomotive Sand Wand
- ✓ Reciprocating Compressor w/ Wet & Dry Receivers
- ✓ PLC Driven Integrated Operator Controls

Self-Propelled EV (Electric Vehicle) Mini Sand System Trucks are designed for low volume sites where quick, jump in the driver seat and go, locomotive sanding is required. Internal views are shown, however, these units are walled off from the elements. Options can include a drive-under hopper system for replenishing the sand tank. Ask about yours today!

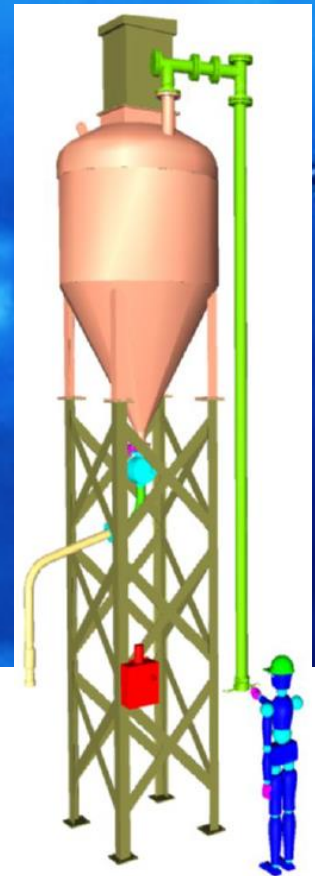


GFERSS Series: Elevated Sand Storage & Dispensing

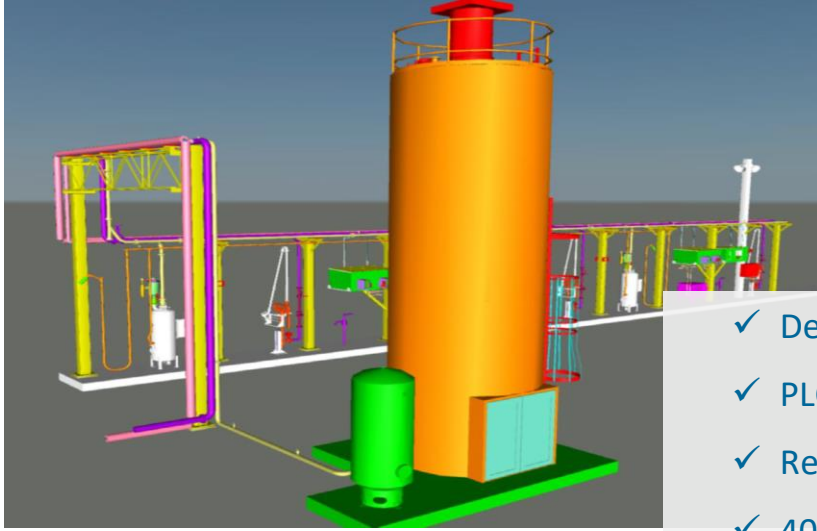
Elevated Sand Storage and Dispensing Systems are designed to gravity feed sand tanks on DTL and LST equipment. We offer systems ranging in silica sand capacities from 2 Tons to 75 Tons. Each system features a pneumatic truck fill port, dust collection system, level detection, and more. Call our experts today to discuss a system appropriate for your site!



- ✓ Pneumatic Truck Delivery Fill Port
- ✓ Dust Collector System
- ✓ Designed for Silica Sand
- ✓ Keeps Sand Dry
- ✓ Level Indication
- ✓ Manual, Automatic Mechanical, or Pneumatic Actuated Valves
- ✓ Custom Designed Per Site
- ✓ Remote Monitoring and Controls Systems



DPC1RSS Series: Dense-Phase Class 1 Sand Systems



- ✓ Designed for World's Busiest Railyards
- ✓ PLC Driven Controls
- ✓ Remote Monitoring Capabilities
- ✓ 40 & 75 Ton Silos
- ✓ Silo and Secondary Dust Collection Systems
- ✓ Locomotive Sand Box Full Auto-Shutoff
- ✓ Automated Secondary Tank Replenishment
- ✓ Automated Emails to Vendors when Sand Needed

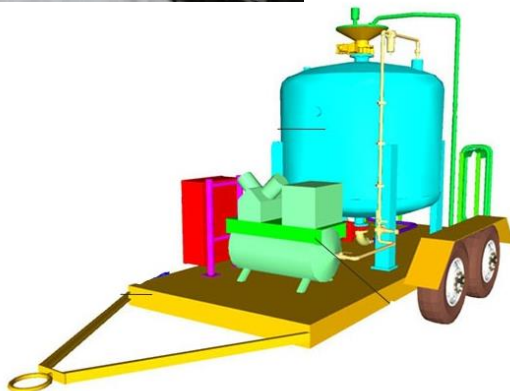
Dense-Phase Class 1 Sand Systems, depending on the region, can be one of the most important systems at a Locomotive Service Center. The only problem is it is usually the most unreliable system because of the extensive wear damage caused by conveying sand. CWI's proven dense phase type sand system helps minimize Sand System downtime due to worn parts. The reliability of any system is dependent upon a proper design and a quality installation. CWI has an extensive reputation for custom designed Sand Systems, designed specifically for each site's requirements.

CWI takes care of all facets of a sand system; sand delivery, silo storage, sand transport to Service Center sanding spots and advanced sand wand technology with automatic shutoff and sand retaining and dust preventer. All subsystems are PLC controlled and linked together to a main PLC. Our 'pier-to-pier' filling guarantees that all remote Sanding Spot tanks are full all the time. We design our system to refill at a rate greater than 1.0 cu.ft./min. this will keep even your most active Service Center ready to service that next locomotive. After all, the capital required to install a new Sand System must be justified and with a new CWI Sand System you get an always ready for use, easy to operate and a very low cost of maintenance system.



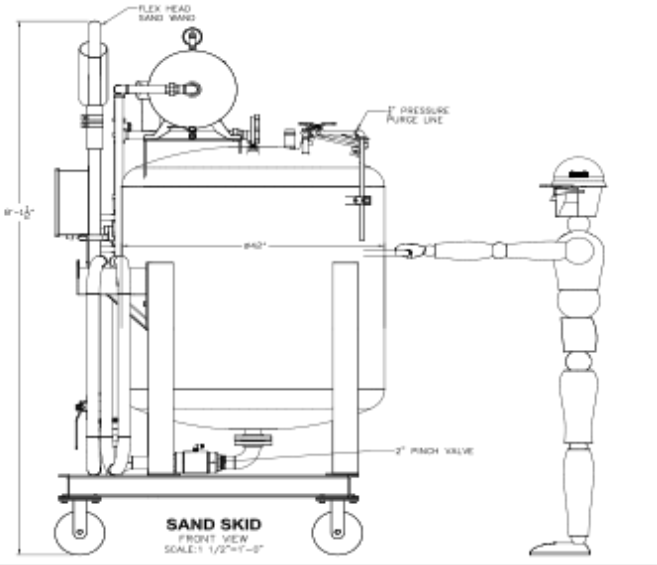
MFCRSS Series: Mobile Fixed Combination Sand Systems

- ✓ Extends Sand Conveying Reach
- ✓ Access Hard to Reach Locomotives
- ✓ Increased Inventory Control
- ✓ Better Protection for Main Sand Storage
- ✓ Greater Flexibility
- ✓ Lower Costs
- ✓ Advanced and Simple Controls Options
- ✓ Decreased Labor Time
- ✓ Improves Safety



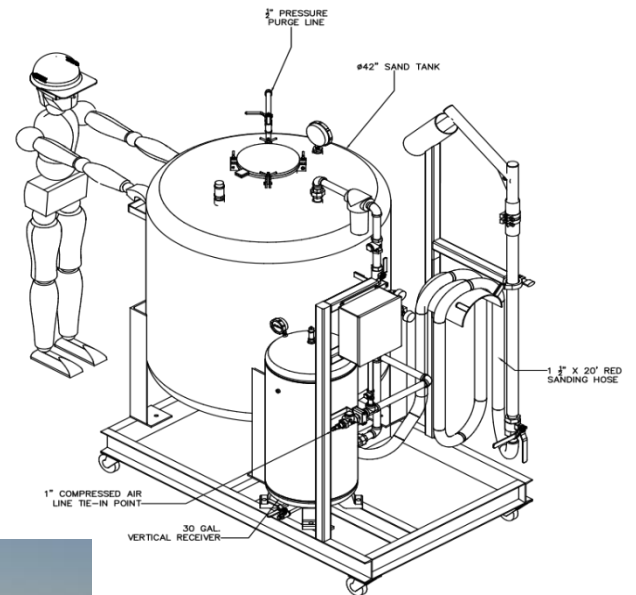
Mobile Fixed Combination Sand Systems provide safe and convenient access when sanding locomotives. MFCRSS Series systems compliment skided systems as an expansion module. We install fixed sand pipe bridge stations with a locomotive dispensing end and sand transporter quick connect feed end. Move your mobile sand system to each fixed station to ultimately dispense sand to hard to reach locomotive staging areas. Designed with a mid-range traction sand consuming customer in mind, they are a great fit when a large investment in a fixed dense phase system is not practical and a small sand skid is not able to access the locomotive. Railroads benefit from decreased labor time, smaller initial investments, improved worker safety, and great flexibility. Design your system today with advanced electronic controls, such as locomotive full automatic shutoff, or simple manual controls.

SCRSS Series: Shop Cart Sand Systems



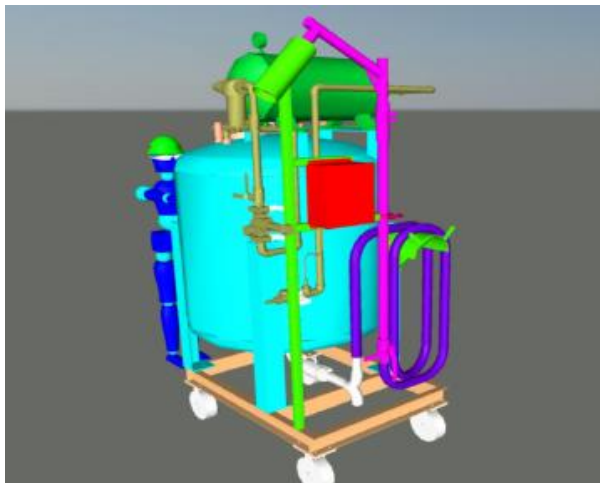
- ✓ Compact Design
- ✓ Electronic Controls
 - Start / Stop
 - Auto-Shutoff
 - Tank Full Alarms
- ✓ Maneuverable in tight shop areas
- ✓ Custom Features Available

Shop Cart Sand Systems are designed to be easily maneuverable in tight locomotive shops. HD castors and ergonomic handling rails allow employees to move the sand system from locomotive to locomotive without the use of forklifts or other power equipment. These units allow for a minimal investment when a fixed dense phase system is not justifiable. Railroads benefit from decreased labor time, smaller initial investments, improved worker safety, and great flexibility. Design your system today with advanced electronic controls, such as locomotive full automatic shutoff, or simple manual controls.



SAND SKID
ISOMETRIC VIEW
SCALE: NTS

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Integrating CWI Sand System Controls to Old Systems

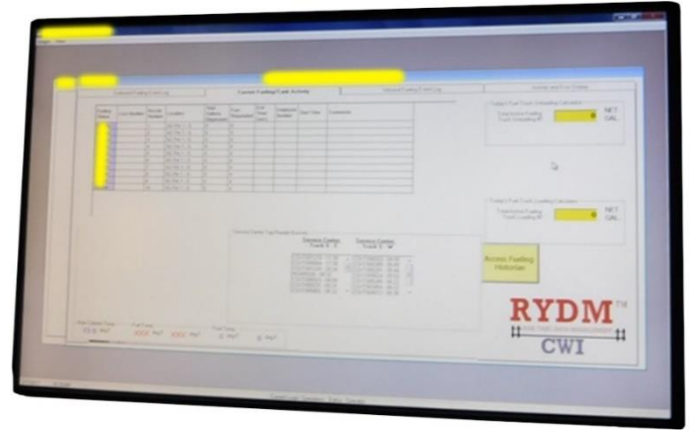
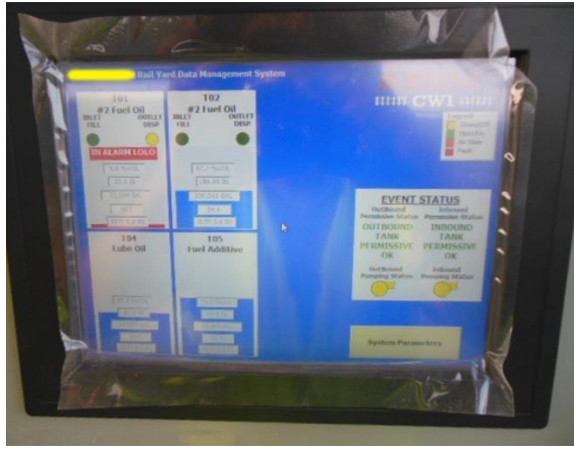


- ✓ Dense-Phase Conveying Concepts
- ✓ PLC Based Main and Sub System Controls
- ✓ Overbuilt for the Toughest Applications
- ✓ Time-Tested Designs Proven with America's Class 1 Freight Railroads
- ✓ Single-Source Sand System Vendor...
 - Engineering
 - Custom Fabrication
 - Individual Parts Distribution
 - Installation & Commissioning
 - Service Contracts
 - Emergency Repairs

Upgrading old systems with new **CWI Dense Phase Sand System Controls** is second nature for our experienced team. At any given day CWI has several crews working in several different rail yards. There probably is a crew at one of your sites. All our crews are road worker trained and are led by an experienced foreman that not only has years of experience with CWI Sand Systems but also is very well versed in the competition's sand systems. Do you have an old sand system due for some TLC? We will work with you to determine which components are salvageable and can provide full custom fabrication, installation, and servicing moving forward.

RYDM Sand System Monitoring

(Rail Yard Data Management)



RYDM, short for Rail Yard Data Management, is our modular-based, web-enabled, proprietary monitoring and controls system designed to integrate into any industrial system found on the railyard. RYDM features a Sand System Module to view silo sand levels in realtime, reporting, and level sensor faults. An interesting feature is automated emails to sand vendors when 1 or 2 trucks are needed to keep your silica sand silo full. Call to find out more about what RYDM can do for your other systems; Locomotive Fueling Systems, Lube Oil Systems, Water Systems, Compressed Air Systems, Waste Systems, Leak Detection Systems, AEI Locomotive Yard Tracking Systems, and more. Free access to the RYDM Demo website is available upon request.



- ✓ Realtime Dry Bulk Level Access from any Internet Enabled Device
- ✓ Sensor Fault Email Notifications
- ✓ Daily Reporting
- ✓ Automated Vendor Emails when Sand Delivery Needed
- ✓ Other Railyard Facility Systems Monitoring and Controls
- ✓ Free Access to RYDM Demo Website

Sand System Replacement Parts



- ✓ Custom Piping & Parts
- ✓ Dust Collectors & Filters
- ✓ Sand Valves
- ✓ Controls & Panels
- ✓ Hoses & Pipe
- ✓ Sand Wands
- ✓ Pneumatic Parts
- ✓ Pinch Valves
- ✓ Internet Enabled Data Monitoring
- ✓ Structural Components
- ✓ Hose Protection
- ✓ Tanks & Silos
- ✓ And More... Just Ask!



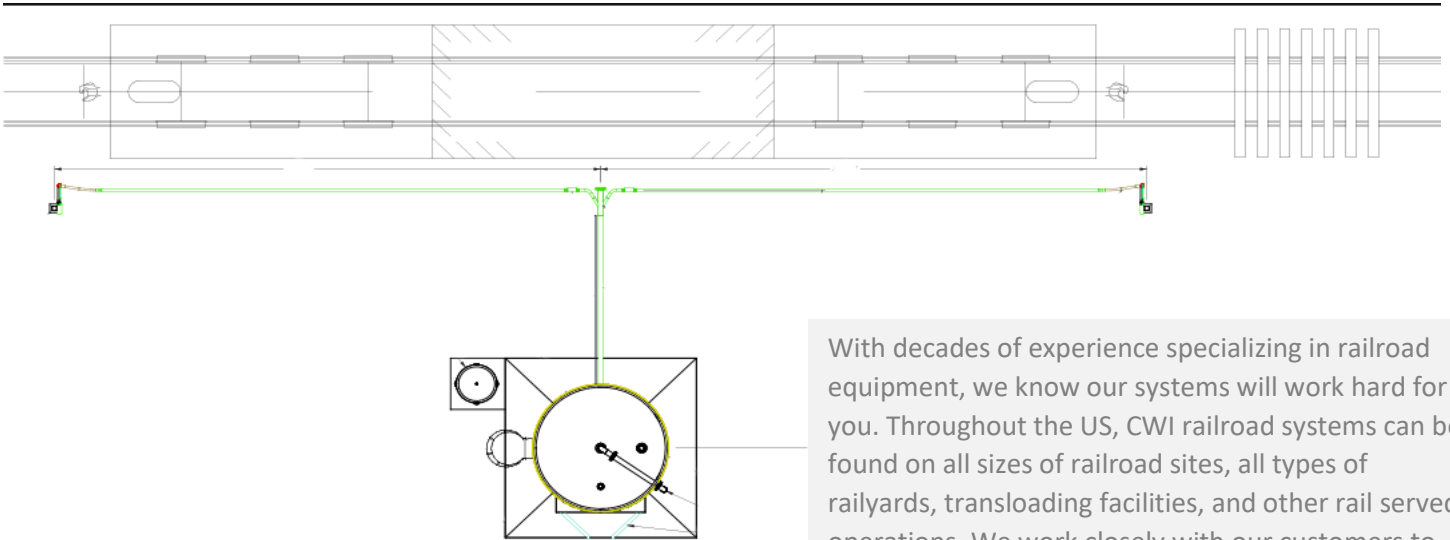
Service & Contracts: Sand Systems



We offer **routine service contracts and emergency repairs** for sand systems and other railroad systems across the United States. A typical sand system service contract includes semi-annual onsite visits to perform full system assessments, replace worn parts (filters/ valves/ hoses/ sand wands/ etc.), provide reports, and more. Quotes will be provided for major repairs, including fabricating custom assemblies at our Pennsylvania Headquarters. Call today to learn more about service contracts for sand systems, fuel systems, meter calibrating, and other systems at your railroad sites. We travel the entire US to service each of your locations.

- ✓ Service Area= Entire United States
- ✓ Routine Service / Maintenance
- ✓ Full System Assessments & Reports
- ✓ Emergency Repairs
- ✓ Replacement Parts
- ✓ Custom Fabricated Assemblies
- ✓ Other Service Contracts
 - Fuel Systems
 - Tank Services
 - Meter Calibrations
 - Lube & Water Systems

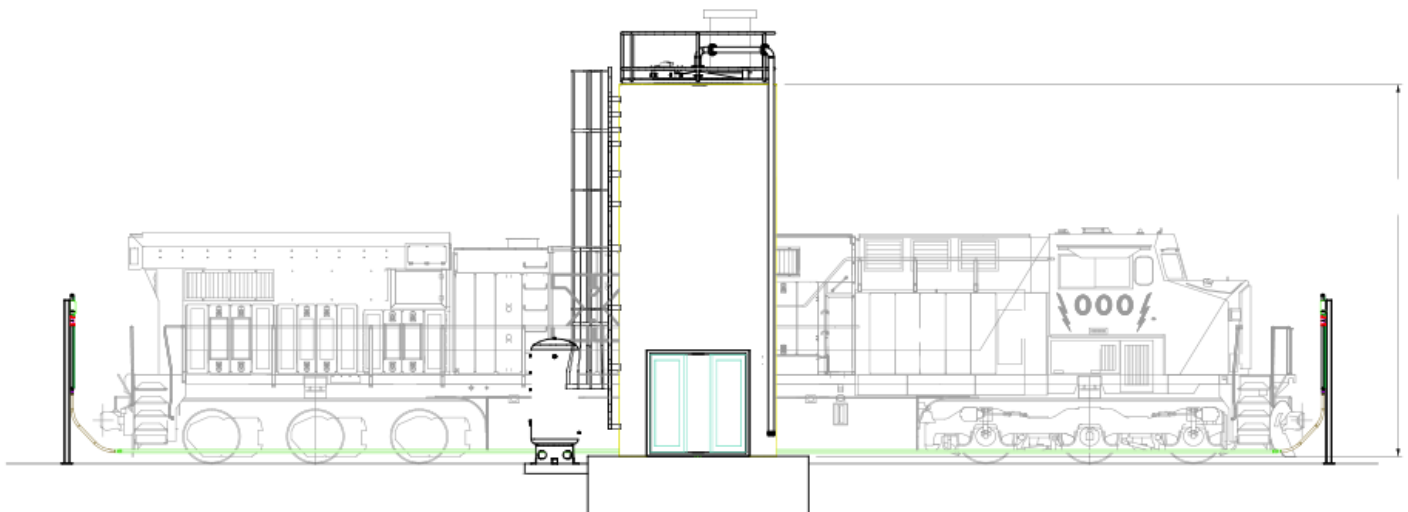




With decades of experience specializing in railroad equipment, we know our systems will work hard for you. Throughout the US, CWI railroad systems can be found on all sizes of railroad sites, all types of railyards, transloading facilities, and other rail served operations. We work closely with our customers to **custom design sand systems** that will meet and exceed expectations. Let us be your first call to consult, engineer, fabricate, install, and service your next system.

- ✓ World-Class Designs
- ✓ Consultation
- ✓ Engineering & Design
- ✓ Custom Fabrication
- ✓ Installation & Construction
- ✓ Service & Support
- ✓ Replacement Product Distribution

True Railroad System Specialists



All Employees Hold Current Certifications In...



Industry Organizations & Marketing



RAILROAD MECHANICAL FACILITIES
SYSTEMS & EQUIPMENT

RYSX

Railroad Equipment Specialists

SERVICE CABINETS & ENCLOSURES

LOCOMOTIVE FUELING SYSTEMS

LOCOMOTIVE SERVICE CENTERS

RAILROAD SAND SYSTEMS

PUMP & METERING SYSTEMS

TANK FARM SYSTEMS

LOADING / UNLOADING SYSTEMS

DRAIN & WASTE SYSTEMS

FILTER SYSTEMS

DATA MONITORING SYSTEMS - RYDM

INDUSTRIAL CONTROLS - RYDM

AIR/GAS PRODUCTION & TREATMENT

MODIFIED CONTAINER SYSTEMS

MOBILE DTL & LST SYSTEMS

ELEVATED PLATFORMS & GANGWAYS

CROSSTIE/RAILCAR COATING SYSTEMS

DERAIL SYSTEMS

AIR ELIMINATOR SYSTEMS

DEF SYSTEMS



CWI, your Railroad System Specialist, has provided dedicated service and quality equipment to the railroad industry since 1984. With a foundation in the meter proving industry combined with an "I can do that" attitude, CWI has grown to be a premier provider of numerous requirements of a Locomotive Service Center. When you partner with CWI you are adding to your team a complete design and build group that specializes in engineered Railroad specific equipment.

Our Mission is to be the safest, most innovative, and reliable supplier of specialized materials, equipment, and services for **Locomotive Service Facilities, Locomotive Shops** and **Rail Yards**.

CWI is dedicated to providing quality products, services, and solutions to the Railroad Industry. We are committed to the continual improvement of our products and processes to achieve our quality objectives, minimize costs to our customers and realize a reasonable profit that will provide a stable future for our Corporation and our Employees. Within this framework, we will establish and review Quality Objectives as we strive to grow and enhance our business, products, solutions, customer relationships and industry recognition.

Our extensive experience in locomotive specific systems, integrating custom controls, decades of rail yard site experience and civil and mechanical expertise make CWI your full service Engineering solution. The future and past success of CWI was through partnering with our customers and following one basic rule; give the customer what they want. Allow CWI Engineering the opportunity to partner with you on your next project, at any capacity, and we will prove that our experience with locomotive systems, our understanding of Engineering basics and our professionalism will provide you with the cost justification to have CWI Engineering on all of your future projects.

Our number one goal: help our customer to define their requirements then provide the best solutions and installations necessary to meet or exceed their needs. Our success depends upon repeat business and this can only be achieved through a "doing what we say and standing behind what we do" attitude.

We guarantee our quality of work and when given the opportunity to provide a turnkey solution, we also guarantee the performance of everything we install. We back these promises up with the fact that we provide On-site Services and have been doing so for the railroad industry since 1984. We are here with you for the long haul.

CWI's top priority is the safety of our employees and customers. Every Employee at CWI is empowered to stop production or hold a shipment or pause a project if they have any concerns about the safety, quality, or conformance of any item, service, or process. In addition to being licensed and insured to work on railroad properties, each CWI employee is up to date with CPR/AED/First Aid Certifications, Roadway Worker Training, Browz Training, Amtrak Contractor Training, and eRailSafe Training.

CWI possesses all the necessary financial resources to deliver on all aspects of this project.

CWI Inc fabrication shop, onsite work, and all other aspects pertaining to the business meet and exceed all guidelines set forth by ISO and ASME standards.

Line Card



METERS & REGISTERS



PROCESS PRODUCTS



GAS DRYERS



TANKS



PUMPS



GAUGES, ALARMS, SENSORS



FILTERS



TANK ACCESSORIES



VALVES



COMPRESSORS



TOOLS



HEAT TRACE



REELS



CONDENSATE MGMT.



PPE



HOSE, PIPE, FITTINGS



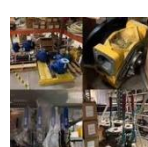
LOADING EQUIP.



DERAILS



HOSE PROTECTION



USED & SURPLUS



TERMINAL PRODUCTS



SPECIALTY COATINGS



SPILL CONTAINMENT



PEDESTALS & MANHOLES



SWIVEL JOINTS



AIR INSTRUMENTATION



POWER & BATTERY



LOCOMOTIVE PARTS



LOK PRODUCTS



AIR DRYERS



OEM CUSTOM FAB.



NOZZLES



RYSX (CWI) specializes in railroad facilities & mechanical systems focused towards locomotive service centers and rail serviced facilities. We provide Engineering, Custom Equipment, Installation/Construction, Support/Service, and Product Distribution to provide full 360-degree service, keeping our customers' facilities operating at the most efficient level. Our systems are designed to decrease locomotive processing time and transloading times, while providing the safest working environments for employees.

+ LOCOMOTIVE FUELING SYSTEMS

+ SERVICE CABINETS & ENCLOSURES

+ LOCOMOTIVE SERVICE CENTERS

+ PUMP & METERING SYSTEMS

+ LOADING / UNLOADING SYSTEMS

+ DRAIN & WASTE SYSTEMS

+ FILTER SYSTEMS

+ DATA MONITORINGB – RYDM

+ INDUSTRIAL CONTROLS - RYDM

+ AIR / GAS PRODUCTION & TREATMENT

+ RAILROAD SAND SYSTEMS

+ MODIFIED CONTAINER SYSTEMS

+ DIRECT TO LOCOMOTIVE SYSTEMS

+ ELEVATED PLATFORMS & GANGWAYS

+ MOW EQUIPMENT

+ CROSSTIE & RAILCAR COATING SYSTEMS

+ DEF SYSTEMS

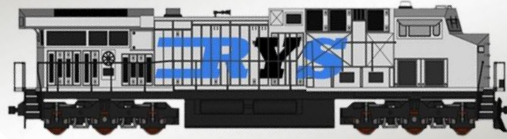
+ TANK FARM SYSTEMS



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RAILROAD FACILITIES SYSTEMS



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CWI

Railroad System Specialists
Integration • Sales • Service

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