



Material Transfer Vehicle

SB-2500

ENGINE

SB-2500e: Tier 4F; Cummins® QSL9 300 hp (224 kW) @ 2,000 rpm
SB-2500ex: Tier 3; Cummins® QSL9 300 hp (224 kW) @ 2,000 rpm*

** ex machines for lesser regulated countries*

OPERATING WEIGHT

77,240 lbs (35,035 kg)



Roadtec — An Astec Industries Company

Roadtec is a proud part of the family of companies that make up Astec Industries, Inc. Founded in 1972, Astec is America's leading manufacturer of equipment for asphalt road building, aggregate processing, wood processing, and oil, gas and water well drilling. Roadtec leads the industry by applying Astec's model of creative thinking bolstered by a corporate culture that puts the customer first.



THE ROADTEC DIFFERENCE: QUALITY AND INNOVATION PAIRED WITH A CUSTOMER FIRST APPROACH

Quality and Reliability

Since 1981 we've manufactured innovative, heavy-highway equipment. We offer the most reliable and maintenance-free pavers in the industry. Our heavy-duty designs keep your machine working longer, lowering your maintenance and operating costs. Your operators work comfortably and confidently with our user-friendly, ergonomic designs.

Leading Innovation

Our Shuttle Buggy® material transfer vehicles provide the latest in pavement placement technology, facilitating continuous, nonstop paving and eliminating segregation. Our patented Stealth™ gravity-fed paver saves money by eliminating the need for hopper wings, conveyors and tandem front bogies. Our cold planers provide the optimum balance between horsepower, production and maneuverability. Additionally Roadtec's Guardian Telematics System is the industry's only live 2-way telematics solution. Guardian enables you to monitor your Shuttle Buggy MTV in real time through a wireless signal, reducing downtime and costs.

Customer Focus

As we grow and develop new products, our personal connection to our customers remains steadfast. Our field service technicians live in the regions where they work. Our engineering, manufacturing and service departments are in the same building, enabling all teams to work together and provide quick and comprehensive customer service, 24/7. Our skilled and experienced technicians provide comprehensive training at our state-of-the-art training facility or your location.

EFFICIENCY YIELDS SUPERIOR MAT QUALITY



Roadtec MTVS

In 1989 paving technology was transformed when Roadtec debuted the first Material Transfer Vehicle, the Roadtec Shuttle Buggy® MTV. Not since the first paver was introduced in 1935 had the paving industry experienced such a monumental advancement.

Today, Roadtec material transfer technology continues to lead the way to dramatically improved pavement life and quality, making Roadtec MTVs an essential tool for today's road builders.

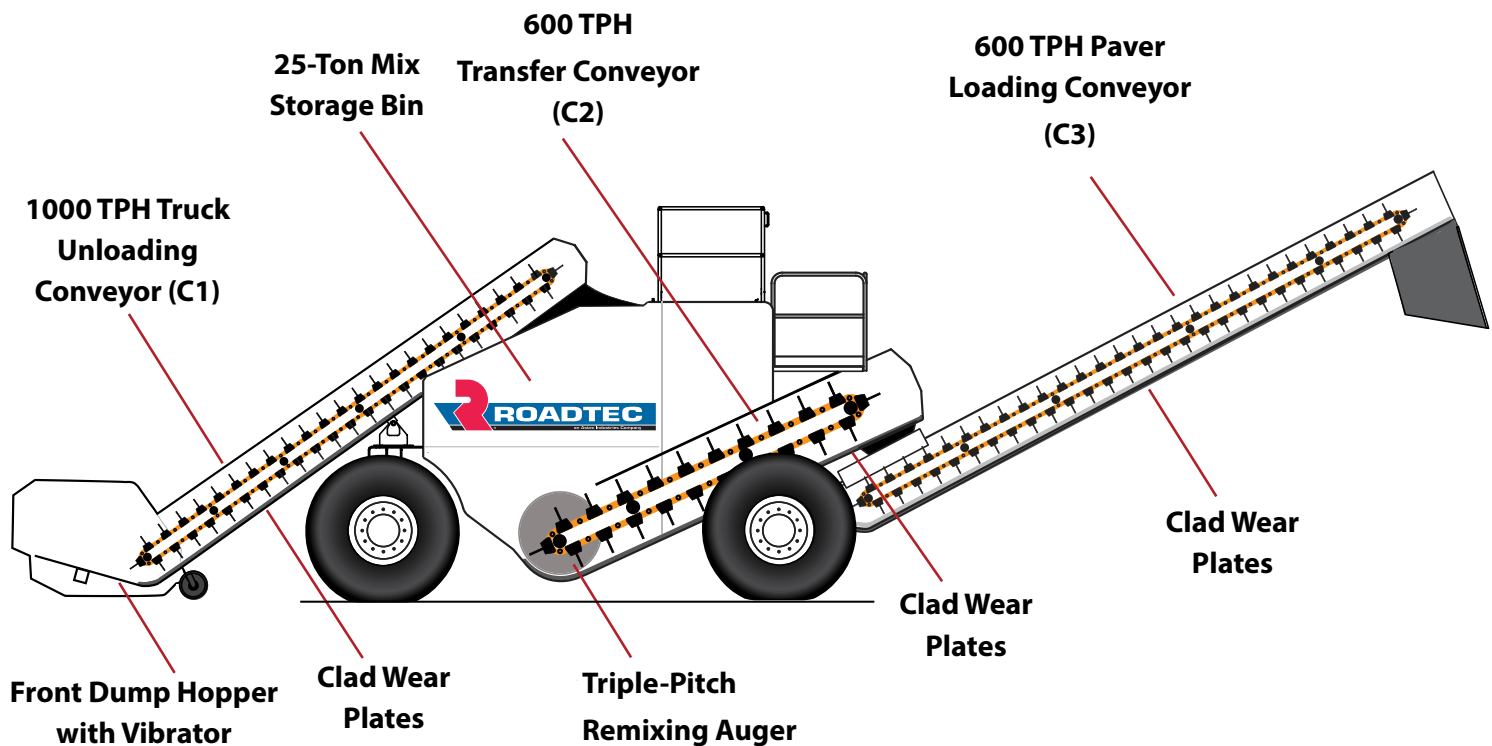
Shuttle Buggy® MTV

The Shuttle Buggy material transfer vehicle shuttles between the asphalt truck and the paver, saving time, money, and yielding an improved result.

- **Save Time:** The Roadtec Shuttle Buggy MTV allows continuous paving, meaning there is less stopping which yields a smoother surface.
- **Save Money:** The Shuttle Buggy's 25-ton (22.7 metric tons) main hopper capacity reduces truck cycles and haul costs.
- **Improve Results:** The Roadtec Shuttle Buggy's remixing action eliminates material segregation problems.

Truck unloading capacity is 1,000 tons per hour (907 metric tons/hour) and paver loading capacity is 600 tons per hour (544 metric tons/hour).





Road Builders Rely on Shuttle Buggy MTVs

With a 25 ton capacity in the main hopper, the Shuttle Buggy acts as an on-site silo, enabling nonstop paving while remixing hot mix asphalt (HMA) for the best possible mat.

- Twenty tons of HMA are dumped into the Shuttle Buggy in a minute.
- The Shuttle Buggy mixes the material to achieve consistent temperature.
- The Shuttle Buggy feeds the paver at rates of up to 600 tons per hour, maintaining contactless nonstop paving.

Truck handling, temperature changes, and segregation contribute to poor pavement quality. The Roadtec Shuttle Buggy MTV provides a solution for these issues by remixing material on site, while allowing the paver to operate at a constant speed without stopping.

- Temperature segregation during transport cannot be avoided. Without remixing in the SB-2500, the colder material will screed out together, forming a potential trouble spot in the mat.
- The SB-2500 has a storage capacity of 25 tons (22.7 metric tons). This large capacity allows the contractor to use fewer trucks, saving time and money.
- The SB-2500 allows continuous paving, resulting in a much smoother surface.

ON-SITE MIX STORAGE ELIMINATES DELAYS



Lower Costs

Three or four trucks waiting to unload at a job site is fairly common, but it is unnecessary and expensive. A Shuttle Buggy MTV drives profits because you'll need fewer trucks. The Shuttle Buggy MTV provides on-site mix storage and reduces paving delays caused by unloading trucks.

A wait time of more than 15 minutes per truck at the job site is common for jobs without a Shuttle Buggy MTV. Even if you calculate a very conservative cost of one dollar per minute of truck time, that's \$15 extra for each truckload each delay.

With a Shuttle Buggy MTV, trucks can be unloaded quicker, typically in a fourth the time. This results in the need for fewer trucks and increased production.

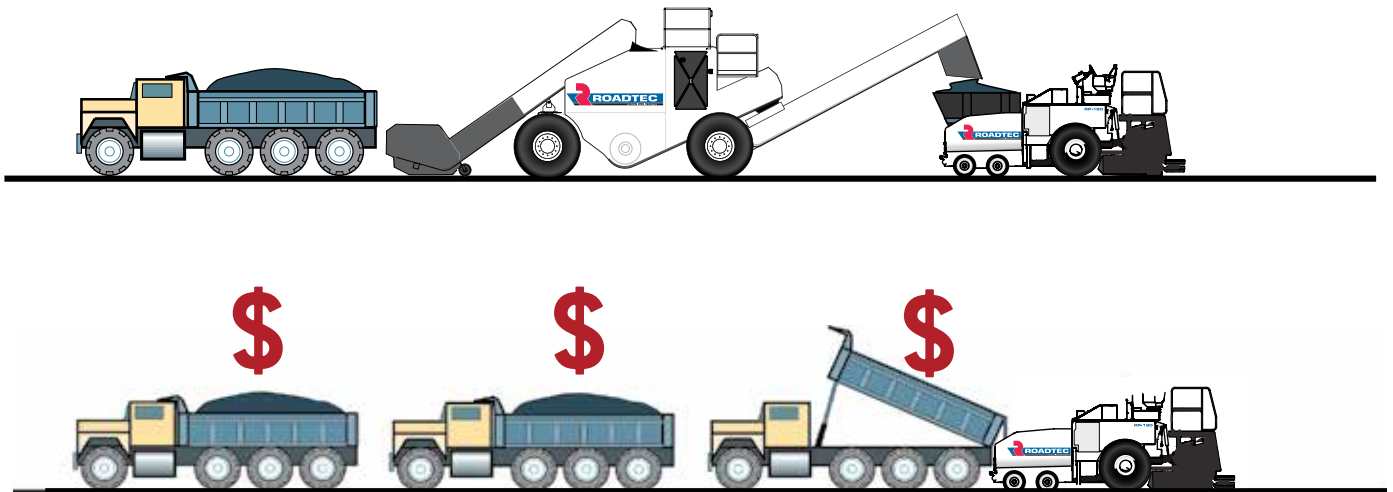
Continuous Paving

Keeping your paver moving increases efficiency and improves mat quality.

- When a paver stops, the screed has a chance to settle.
- The head of mix cools, creating a bump in the mat when the paver moves again.
- Whenever a truck backs up to unload into an idle paver, there can be another bump.

All these issues, which affect smoothness measurements, can be mitigated by the Shuttle Buggy MTV.

If you can create a buffer of material at the job site by using a Shuttle Buggy MTV, you won't have to use trucks as storage bins to keep the paver supplied with mix. Don't let money sit on the road. Use fewer trucks.



Maximum Storage Capacity

The Shuttle Buggy MTV has a 25-ton storage bin; add an insert to the paver and you have an additional 10-15 tons of capacity, sufficient for continuous paving.

- Trucks can be stopped 100-200 feet away from the paver and dump safely into the Shuttle Buggy MTV without moving.
- Being able to unload without moving also makes it possible to use bigger trailers, further reducing the number of trucks needed.

Example assumes: 10-hour workday. Mix usage rate 2,400 tons per day. 20-ton truck capacity. Truck cost \$60/hr = \$1.00 per minute. Distance to hot mix plant 10 miles.

Use the job calculator on our website to run the numbers on your projects.

Go to www.roadtec.com and click on the "training" tab.

TRUCK CYCLE CALCULATION

	Without Shuttle Buggy	With Shuttle Buggy
Delay at Plant	0 min.	0 min.
Loading Time	1 min.	1 min.
Ticket, Tarp & Sampling	5 min.	5 min.
Haul to Job	20 min.	20 min.
Delay at Job	15 min.	0 min.
Truck Exchange	2 min.	0 min.
Dump	3 min.	2 min.
Return to Plant	20 min.	20 min.
Total Minutes per Truck Cycle	66 min.	48 min.
Cost per Truck Cycle	\$66.00	\$48.00
Cost per Ton	\$3.30	\$2.40
Cycles per Truck	9	12
Cycles Required	120	120
Number of Trucks Required	14	10
Total Cost	\$8,400	\$6,000

REMIXING TECHNOLOGY ACHIEVES UNIFORMITY

Roadtec is the Solution

Thermal and material segregation compromise the surface and structure of the asphalt mat. This can result in pavement failure which creates cracking, raveling, stripping and rutting. Segregation can be corrected before the surface is paved. With Roadtec's material transfer technology you can depend on thoroughly remixed material that is evenly distributed as it is paved.

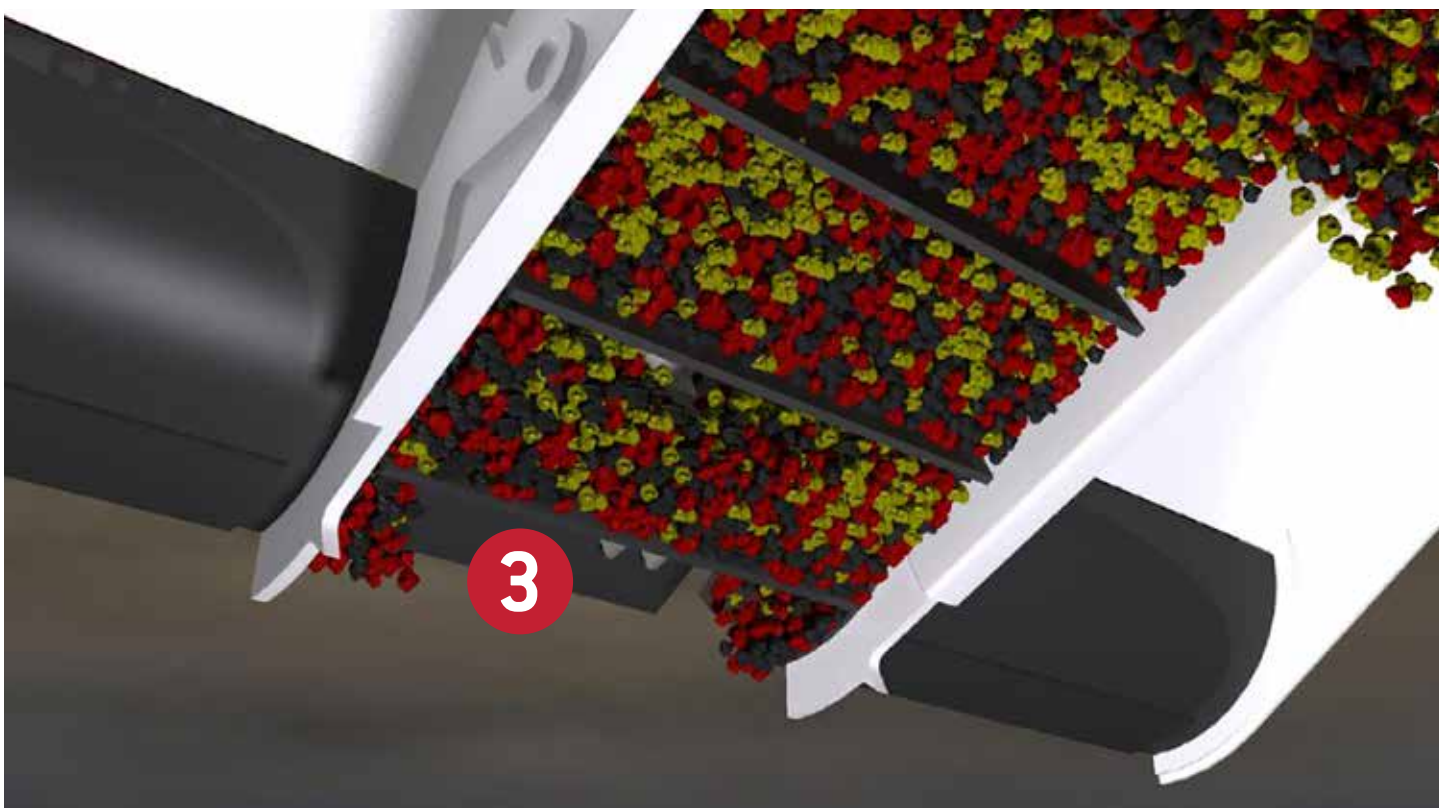
Issues Caused by Single Pitch Augers

MTVs with single pitch augers often have problems with segregation. The flighting on a single pitch auger pulls material from the sides of the bin, which causes the spaces between flights to stay full of material. The contents of the bin are unable to be remixed, which leads to uneven temperatures and inadequate mixing of large and small particles.

Roadtec Triple Pitch Augers Prevent Issues

The Shuttle Buggy material transfer vehicle uses a triple pitch auger design to eliminate segregation issues caused by single pitch augers. The triple pitch auger provides uniform remixing across the width of the entire hopper. The auger remixes the contents of the storage hopper as the material moves through.





- 1**
 - The triple pitch auger is located in the bottom of the main hopper.
 - The auger remixes the contents of the storage hopper using the variable pitch.
- 2**
 - Some material is pulled from the outermost portion of the hopper with the steepest pitch augers.
 - As that material moves toward the center, the next pitch of auger allows room for more material to mix in.
- 3**
 - Finally at the center of the hopper, the hottest material is mixed in as material gets to the shallowest pitch of auger.
 - This mixing action equalizes material temperatures and evenly mixes large and small particles.
 - A slat conveyor runs from the bottom of the hopper and feeds the mixed material to the discharge conveyor.



DURABLE DESIGN COUPLED WITH FUNCTIONALITY



Sized for mass discharge from standard haul trucks, the front hopper allows trucks to unload fast. A steep slope and vibrating bottom plate prevent material build-up.



Roadtec conveyors are outfitted with offset durable roller bushing chains.

Dump Hopper Performance Features

- Heavy-duty, swiveling support casters under the hopper assure smooth movement.
- Ground operators can adjust the hopper position from control boxes on either side.
- Operators can adjust the push roller position for varying truck designs.

Powerful Engine Meets Emission Standards

- A 300 hp Tier 4F diesel engine.
- Robust power while incorporating the latest technology offers maximum fuel efficiency.
- Low cost of operation coupled with maximum performance.

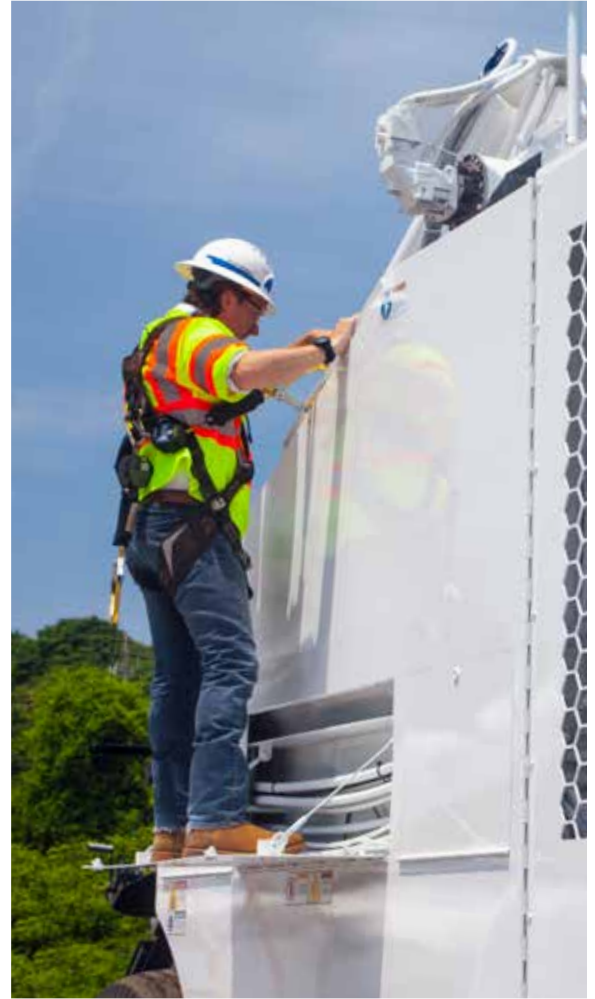
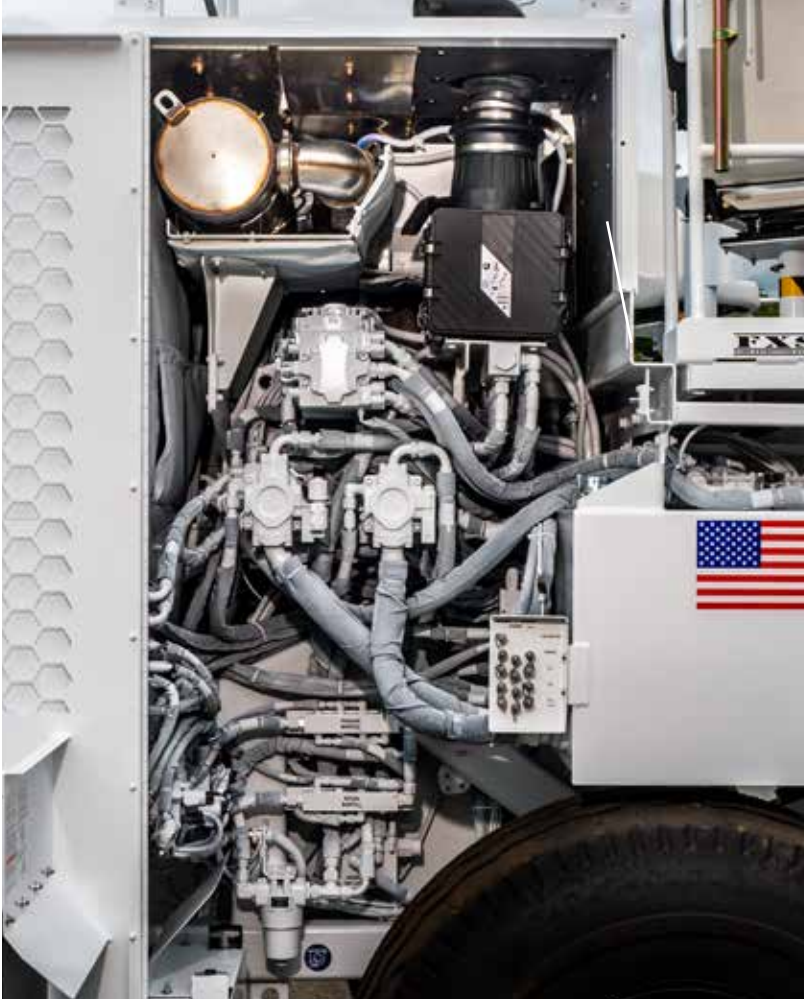
Moving Parts Made for Durability

- Flights are made of abrasion-resistant steel.
- Thick wear plates line the conveyor floors.
- Paver-loading conveyor floor insulated against heat loss.
- Rails at the bottom of conveyor protect from damage caused by impact with paver.

Ergonomic and Nimble Drive Features

- The Shuttle Buggy MTV rides on four 21" wide x 25" high flotation tires.
- Steering wheel controls the front wheels of the all-wheel drive machines.
- Hydrostatic drive mechanism offers two speed ranges (working and travel).
- Speed is continuously variable.

DESIGNED FOR SAFE AND SIMPLE OPERATION



Easy Maintenance Access

- Engine access is gained by hydraulically lifting the one-piece hood.
- Hinged access doors make oil cooler, radiator, and pumps easy to reach.
- Remote lube points for all the conveyors.

Safe & Convenient Operation

- Telescopic flashing amber beacon calls attention.
- Safety brackets at machine's front keep personnel from entering area between tires and dump hopper.
- Safety bars at operator station prevent falls.
- Mirrors to see both sides of the machine.
- Emergency shut-off switches at ground level and main operator stations.
- Sunshade umbrella increases operator comfort.
- Control panels are fully backlit for safe control at night.

Ideal Operator Visibility

- Dual operator stations allow the operator to occupy the left or right side.
- Ergonomic control panels increase operator safety and comfort.
- Operator platform slides 16" (406 mm) left and right of center for excellent visibility down sides of machine.
- FXS® fume extraction system increases operator comfort.

Operator and ground level control boxes feature improved layouts and are backlit.





Easy Clean Up

- Full-width 3 part cleanout door with hydraulic access on C1 conveyor.
- Easy access to remixing augers and C2 conveyor decreases cleanup time.
- Hydraulic access door on C3 conveyor.
- Full-width bomb bay style cleanout doors on storage hopper.
- Wash-down system includes a retractable hose.

Easy access to the C1 & C2 with a wash-down system improves cleanup time at the end of the day.





DURABLE WEAR COMPONENTS INCREASE PRODUCTIVITY

Long-Lasting Wear Components

Road construction is not a delicate business. Machines are expected to perform countless hours in difficult environments. Roadtec's solid, wear resistant components reduce long-term operating costs.



Floor Liners

- Bolt-on chromium carbide floor plates on all three conveyors.
- Abrasion resistance of chromium carbide radically increases the wear life of the floor plates.
- Eliminates need for wear liners.

Augers

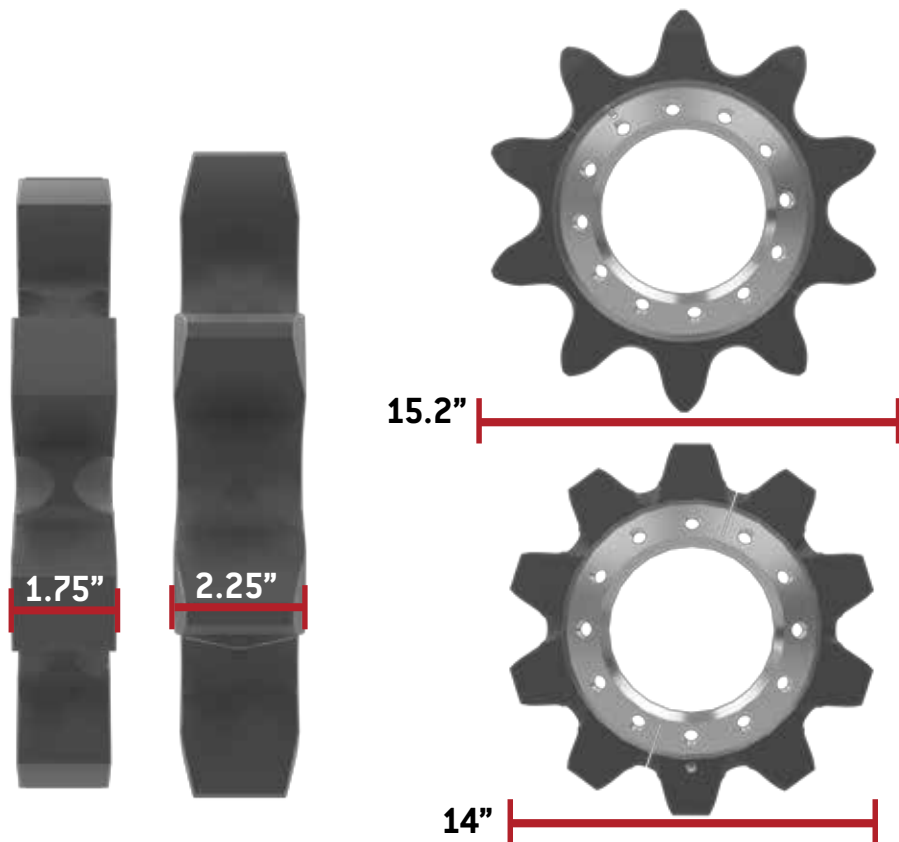
- 29" diameter cast augers.
- 38% more wear surface.
- Superior remixing ability.

Chains

- Offset chains used throughout machine.
- Substantial increase in tensile strength compared to straight link chains.
- More durable than partially offset chains in other models.
- Larger flights transfer more material and keeps the chain free from the mix.

Sprockets

- Larger and thicker.
- 38% more surface area.



WEAR PARTS GUARANTEE

We stand behind our parts and workmanship. The proof is in our SB-2500e Special Wear Guarantee. This special wear guarantee is in addition to and does not replace our standard 1,000 warranty against material defects and workmanship.

- This 250,000 ton guarantee covers: conveyor chains, sprockets, conveyor floors, side liners, head shaft bearings, tail shaft bearings, idler bearings, and augers.
- Should any of the above components fail or “wear-out” beyond a reasonable service life during the first 150,000 tons or 1,000 hours of operation we will replace the item free of charge.
- For the remaining 100,000 tons or 500 hours of operation, the guarantee will be prorated.
- Ask your Roadtec representative for more details today.

SIMPLIFY DIFFICULT JOBS AND INCREASE PRODUCTIVITY

Master Specialty Work

- **Specialty projects**, such as high-banked racetracks or airports requiring string lines on both sides, are paved much easier with Roadtec’s standard pivoting conveyors.
- **The discharge conveyor swings 50° right or left**, allowing you to do offset paving and to save significant time and dollars when adding lanes, or working with string lines or barriers. This feature also lets you keep trucks off the milled edge and off the tack coat.

Speed Up Handwork

- At times, there are spots that a paver can’t reach, no mater what, and handwork is required.
- Roadtec MTVs are able to carefully dispense material where workers need it because the discharge conveyor can be lowered and pivoted from side to side.

Make Tricky Paving Projects Easy

- **Intersections:** Intersection work is typically slow, and getting trucks to the paver is often difficult. The Shuttle Buggy is able to improve the maneuverability of your pavers on intersection work by freeing them from trucks.
- **Parking Areas:** Islands and peninsulas are difficult to pave around. Overhead power lines, tunnels, overpasses, and other obstructions can present a different challenge. It’s often impossible to form a good paving train and get the material in front of the paver. When you have a Shuttle Buggy MTV the truck can unload at a convenient spot and the Shuttle Buggy can bring the mix to the paver.

STAY INFORMED WITH GUARDIAN TELEMATICS SYSTEM

Protect your investment and keep operating costs low by monitoring your Shuttle Buggy MTV in real time through a wireless signal with the Guardian® Telematics System. Owners, service managers, and Roadtec customer service can view the Shuttle Buggy MTV in real time from anywhere at anytime. Diagnosing a Shuttle Buggy MTV equipped with Guardian is faster and more efficient than sending technicians to the job site.

The screenshot displays the Guardian Telematics System interface. At the top, there is a 'Back to Overview' link and the Guardian logo. The right side shows 'Select Application: LiveSchematics' and 'LOGOUT' buttons. Below this, the model 'SB 2500' and serial number 'S/N 4000' are listed. A navigation bar includes tabs for Start, Braking, C-1 & C-1 Conv, C-3 Conv, Propel, Aux Functions, Engine, GPS, Options, and Data. The main content area is titled 'C1 & C-2 Conveyor' and features a 'Pave Mode' button. It displays 'C-1 C-2 INPUT STATUS' with various control buttons for baffle raises/lowers, lifts, dump hoppers, flow gates, and cleanouts. Below this is the 'C-1 C-2 OUTPUT STATUS' section, which shows 'C-2 Output On' and 'C-1 Output On' indicators, along with runtime and estimated work time for both conveyors.

C-1 C-2 OUTPUT STATUS		
C-2 Output On	C-2 Conveyor Total Runtime	169:57:46
	C-2 Conveyor Estimated Work Time	109:36:55
C-1 Output On	C-1 Conveyor Total Runtime	270:2:35
	C-1 Conveyor Estimated Work Time	133:00:29

- Monitor Shuttle Buggy MTV location through GPS location services.
- Receive fault codes, service reminders, and production reports via email.
- View machine's speed, location, engine load, and fuel usage, all in real time.
- View runtime of individual conveyors.
- Perform electronic troubleshooting and diagnosis.

Lower Cost

Guardian Telematics is for Roadtec customers who want to dramatically lower operating costs and increase productivity.

Remote Access

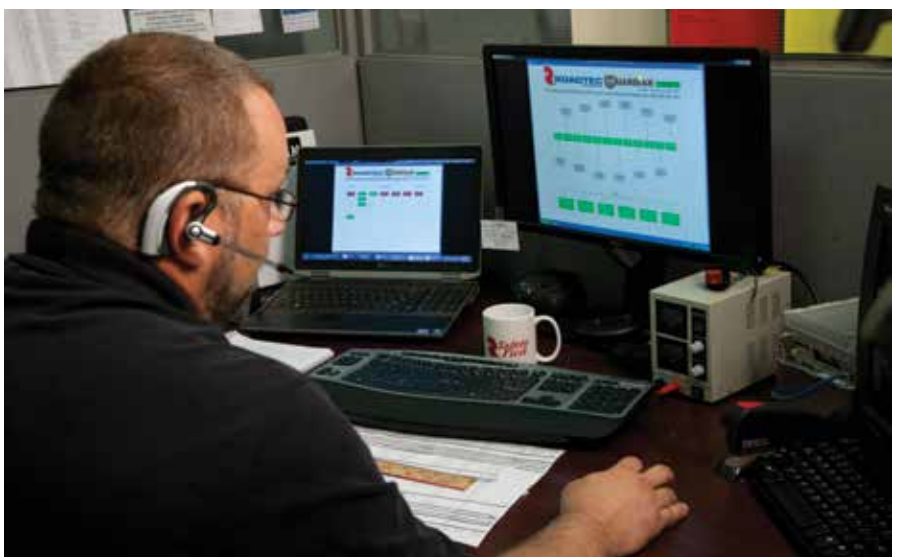
Log into the machine from any Internet connected device to view machine data remotely.

Know What's Happening

Guardian delivers real time reporting via a cellular signal. Owners and service technicians can monitor electrical and hydraulic systems, grade/slope control, engine performance, and more. Designate someone to receive notifications about fault codes and your team can log into the machine and address the issue immediately. You can also contact Roadtec and our technicians will remotely access the machine and resolve any issues.

Benefit Your Bottom Line

Save on sending mechanics out into the field to find issues. Minimize the time the machine is down with the ability to isolate and fix problems within minutes. Increase machine life and uptime by never missing a scheduled maintenance. Eliminate false alarms and wasted trips.



TRAINING EXPERTISE

Training to be your best can be the key to increased pay, job advancement, and more. Whether it is service and maintenance training, or operations and best practices training, Roadtec's training and demo specialists fill that need.

Roadtec's Paving Professionals Workshops and Technical Service Schools provide education and instruction in all areas of paving. Individualized schools throughout the year are also provided at our customers' requests.

That translates into: **increased bonuses, positive reputation, and increased production.**

Roadtec training helps you run a more efficient job site and complete quality jobs on time, every time.

Paving Professionals Workshops

Paving Professionals Workshops focus on the tools and skills needed to be an expert paving professional. Attendees have direct access to experienced instructors and skilled authorities who provide detailed classroom instruction and hands on demonstrations.

Course are:

- Taught by authorities in paving, milling, and operating Roadtec machinery.
- Focused on paving best practices.
- Designed to encourage questions and welcome dialog.

PPW is ideal for those wishing to learn about proper surface preparation, asphalt laydown, preventative maintenance, and more.



Technical Service Schools

Roadtec's Technical Service Schools are the asphalt industry's most comprehensive technical training programs. At Service Schools, you will gain experience in the operation and maintenance of Roadtec equipment.

Attendees gain experience in the use and care of Roadtec equipment through instruction from experienced and skilled factory specialists.

Courses are:

- Designed specifically for advanced mechanics, field technicians, and service technicians.
- Specific to product line: Pavers, Mills, or Roadtec Shuttle Buggy® MTV.
- Formatted to include direct access to those who know exactly how to operate your paving equipment.

Help your crew create a better product, on time, every time.



ESTABLISHED DEALER NETWORK

Convenient Access to Roadtec Service

With dealers in 28 states, the Roadtec Dealer Network is accessible to all customers, including those in rural and less populated areas. Our dealers are trained to provide exceptional service and support to all our customers, wherever they are located.

Dealers are selected only after meeting rigorous criteria and aligning with Roadtec's core principles of serving customers with honesty, integrity, and respect. Through the dealer network, customers have access to Roadtec expertise close to home.

- Get the best of both worlds with local dealers and Roadtec's factory direct support.
- Build strong relationships with local sales and service.
- Roadtec will always maintain 24/7 tech support and supply parts and service from the factory when needed.

INCREASE COMFORT & PRODUCTION WITH VALUABLE OPTIONS

C1 Quick Change System

- Optional adaptation for C1
- Quickly and easily change between windrow head and dump head
- Saves time - change conveyor head in just hours
- Easily keep spare head together – no lost parts

Switch between a windrow head and dump head in less than 4 hours.



Additional Lighting

- Light Package – Five lights mounted at machine corners and C3
- Truck Dump Signal Light Package – LED Signal Light (Dump, Stop, or Lower)
- Dump Hopper Landing Lights – located on both sides of hopper opening for trucks to use as a guide

Camera Package

- Magnetic mounted camera enables customized placement
- Dedicated screen displays images on operator station
- Provides operator with greatly increased visibility

C2 Level Indicator

- Communicates data about storage level in main bin
- Five red, yellow and green lights indicate storage level progression
- Quick and easy reference for operator and crew



Camera package includes a magnetic mounted camera that links to a dedicated screen on the operator station for clear visibility.

Release Agent Spray-Down System

- Automated system to spray release agent on key wear parts
- Facilitates quick clean up to help extend machine life
- Replaces standard wash down
- Includes 55 gallon tank, pump and retractable hose reel with 50' hose length

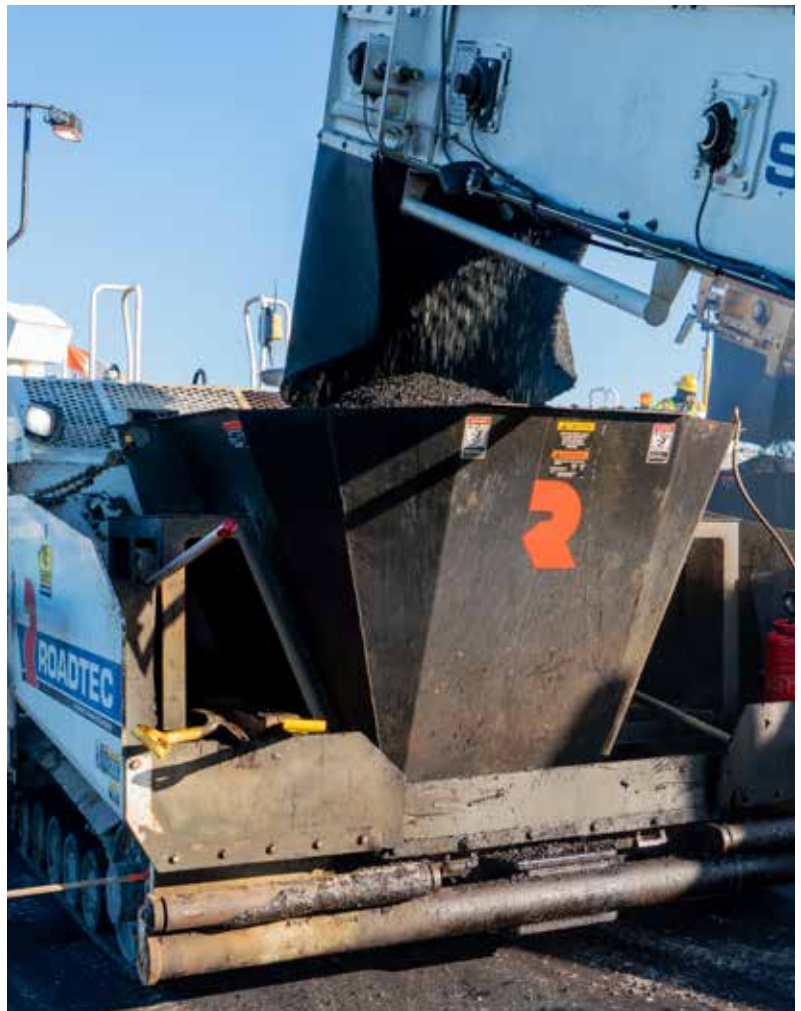
Additional Valued-Added Options

- Automated lubrication system
- Truck hitch instead of push rollers
- Main hopper level indicator
- Tire spray systems

Mass Flow Hopper Inserts

- Low Profile Hopper Insert for Roadtec Pavers
- Low Profile Universal Hopper Insert
- Mass Flow Hopper Side Wall Extensions

The patented, self-relieving hopper insert prevents segregation within the hopper.





Buggy Paver Autotracking

- Wireless sensors mounted on paver front allow buggy and paver to move simultaneously
- Eliminates bumping
- Ability to specify distance between paver and Shuttle Buggy MTV
- Paver sets the pace to ensure paving train stays together
- Allow operators to focus on production and safety

Auto Feed Capability

- Sensors on conveyor monitor pile height in paver
- Allows operator to accurately monitor material flow and pile height

EDGE EXTENDED EQUIPMENT WARRANTY



The EDGE® Extended Equipment Warranty is an industry leading warranty that demonstrates our confidence in the quality and reliability of Roadtec's dedication to success. To further protect your equipment investment from unplanned repairs, the Edge™ warranty goes above and beyond current industry warranties. With Roadtec's extended warranty, parts and labor are covered for 2 years, and up to 2,000 hours beyond Roadtec's standard warranty period of 1-year/1,000 hours. The EDGE™ warranty gives owners a competitive edge by lowering their operating costs by covering most parts at full replacement cost, not including wear components.

SPECIFICATIONS

ENGINE

- SB-2500e: Tier 4F; Cummins® QSL9 300 hp (224 kW) @ 2,000 rpm
- SB-2500ex: Tier 3; Cummins® QSL9 300 hp (224 kW) @ 2,000 rpm*

* ex machines for lesser regulated countries

COOLING SYSTEM

- Quiet operation, dual, variable speed hydraulically driven fans

WEIGHT

- 77,240 lbs (35,035 kg)

CONSTRUCTION

- Stability without unnecessary weight
- Heavy duty conveyor flights and chain
- Replaceable wear plate in all high wear areas

ELECTRICAL SYSTEM

- Two 4D batteries & 95 amp alternator
- 24v system with master disconnect switches.
- Electric-over-hydraulic solenoids with manual override

PROPEL SYSTEM

- Hydrostatic drive with continuously variable speed control with two speed ranges
- Front-wheel steer

SPEED

- Working: 0-3.0 mph (0-4.8 kph)
- Travel: 0-9 mph (0-14.5 kph)

BRAKE SYSTEM

- Hydrodynamic disc caliper brakes, and parking brake

TIRES

- 21" (533 mm) wide x 25" (635 mm) interior diameter high-flotation tires

OPERATOR STATIONS

- Two operator stations (left & right side) with deluxe adjustable seats
- Operator stations can slide 16" (400 mm) out past edge of machine for visibility
- Center control console pivots to right or left

GROUND CONTROLS

- (2) front dump hopper control boxes

FUME EXTRACTION SYSTEM

- Clearview FXS® system with dual fans to draw fumes away from operator

TRUCK DUMP HOPPER

- Front hopper has swivel support casters. Vibrating floor plate. 9'2" (2,794 mm) wide truck opening
- Adjustable width option available
- Hydraulic, adjustable push rollers
- Hydraulic front hopper baffle adjustable for optimal material flow
- 29" (737 mm) o.d. cast, ni-hard, segmented auger

DUMP HOPPER UNLOADING CONVEYOR (C1)

- Drag conveyor with 1,000 tph (907 mtph) capacity
- Dual roller bushing offset link chain
- Conveyor floors lined with replaceable chrome-carbide clad wear plates

SURGE BIN & REMIXING AUGER

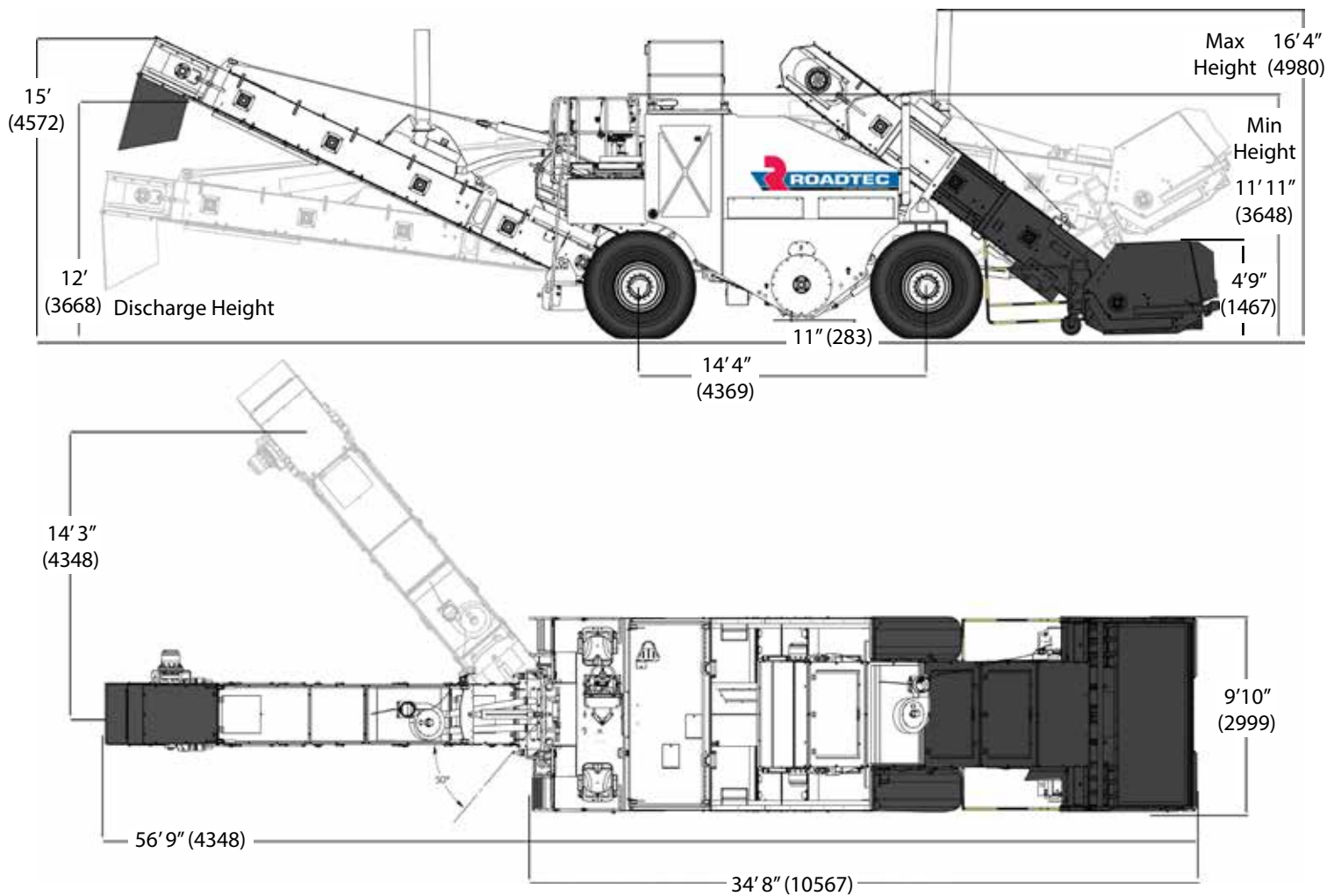
- 25 tons (22.7 mt) storage capacity.
- 29" (737 mm) o.d. cast, ni-hard, variable triple pitch augers
- Drag conveyor with 600 tph (544 mtph) capacity
- Dual roller bushing offset link chain
- Conveyor floors lined with replaceable chrome-carbide clad wear plates

PAVER LOADING CONVEYOR (C3)

- Drag conveyor with 600 tph (544 mtph) capacity
- Dual roller bushing offset link chain
- Conveyor floors made of chromium carbide clad plate
- Insulated conveyor floor
- Controls interlock with surge bin unloading conveyor
- Conveyor can be positioned up to 50° to either side of center
- Conveyor guard rails

SERVICE CAPACITIES

- Fuel Tank 150 gal (568 l)
- Hydraulic Fluid Tank..... 96 gal (363 l)



Dimensions in parentheses are mm.

Specifications are subject to change without notice.



ROADTEC.COM

ROADTEC an Astec Industries Company

800 MANUFACTURERS RD • CHATTANOOGA, TN 37405 USA • 800.272.7100 • FAX 423.267.7104 • roadtec.com

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