

ROADTEC
SB-2500 SHUTTLE BUGGY®
MATERIAL TRANSFER VEHICLE



ROADTEC SB 2500 MTV

GIVES YOU SUPERIOR MAT QUALITY AND EFFICIENCY ON THE JOBSITE



Material Transfer Vehicles (MTVs) : A Must-Have

In 1935 Harry Barber launched his invention, the very first asphalt paver. As you might imagine road building was forever changed for the better. However, road paving technology would not significantly change again until 1989 when Roadtec introduced the very first material transfer vehicle, the Roadtec Shuttle Buggy® MTV. Roadtec material transfer technology led the way to dramatically improved pavement life and quality, making Roadtec MTVs an essential tool for today's road builders.

The Shuttle Buggy® MTV

The Shuttle Buggy® material transfer vehicle is designed to “shuttle” between the asphalt haul truck and paver. Thermal and/or material segregation problems are eliminated thanks to the machine's remixing action. The Roadtec Shuttle Buggy® MTV also allows continuous paving, which leads to a much smoother surface. The machine has a storage capacity of 25 tons (22.7 metric tons) in the main hopper, allowing the contractor to smooth out truck cycles and reduce haul costs. Truck unloading capacity is rated at 1,000 tons per hour (907 metric tons/hour) and paver loading capacity at 600 tons per hour (544 metric tons/hour).

THE LEGEND RETURNS

You Spoke, We Listened

The legend is back—because you asked for it. The Roadtec SB-2500 Shuttle Buggy returns with the same trusted dependability that made it a staple in quality road construction. We heard your feedback loud and clear: operators wanted familiar controls, proven reliability, and the performance they've counted on for decades. So we went back to basics—reviving the original control system that crews know and love. Legendary. Again.

Field-Tested Performance

Built for the toughest jobs, the SB-2500 delivers unmatched throughput and material consistency. Whether you're paving highways or tackling urban infrastructure, this machine is engineered to keep your crew moving and your results flawless. With operator-centric design and optimized location for visibility and control, the SB-2500 is more than a machine—it's a trusted partner in the field. And with the SB-3000 in our lineup, we offer a full spectrum of solutions to meet every jobsite need.

Tried and True Operation

Astec created the material transfer vehicle category—and we're still leading it. The SB-2500 and SB-3000 represent decades of innovation, field experience, and customer trust. These machines are built to perform, built to last, and built to deliver. From legendary reliability to versatile jobsite adaptability, this is the equipment that sets the standard. The legend returns. And it's ready to work.



THE ROADTEC DIFFERENCE:

DELIVERING QUALITY AND INNOVATION WITH SUPERIOR CUSTOMER SERVICE

Dependability

Roadtec has been manufacturing innovative, heavy-highway equipment since 1981. We continue to grow and add new products, yet our personal connection to our customers and our ability to respond immediately to your needs is even stronger.

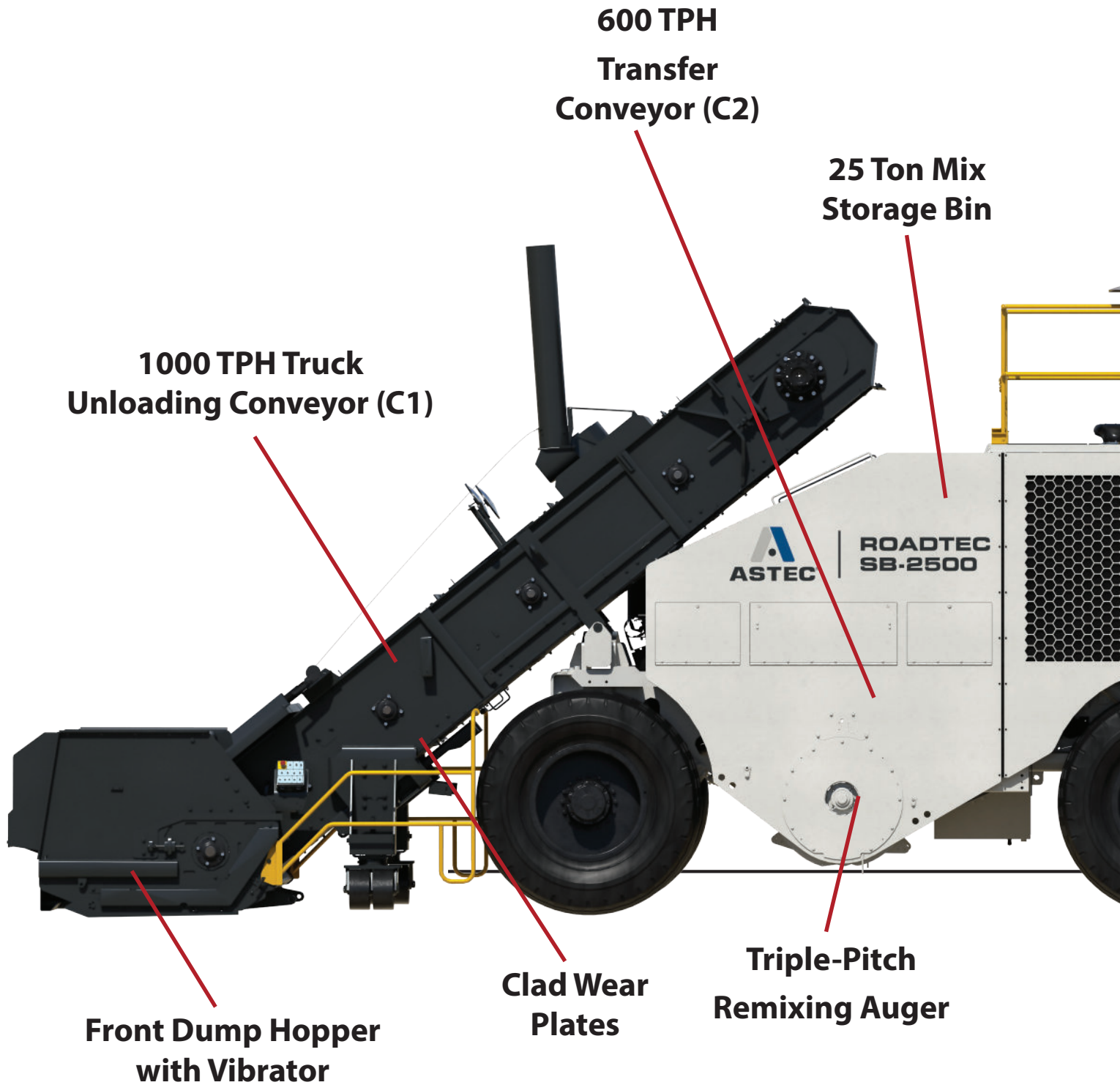
Customer Service

Our customers benefit from our strong focus on customer support after the sale. In-the-field service technicians live in the regions where they work and respond quickly. 24/7 parts support will get you the right parts fast, and at a fair price. Our product specialists will train your people on any newly purchased machine, and we also offer industry-leading training at our state-of-the-art training facility or in the field.

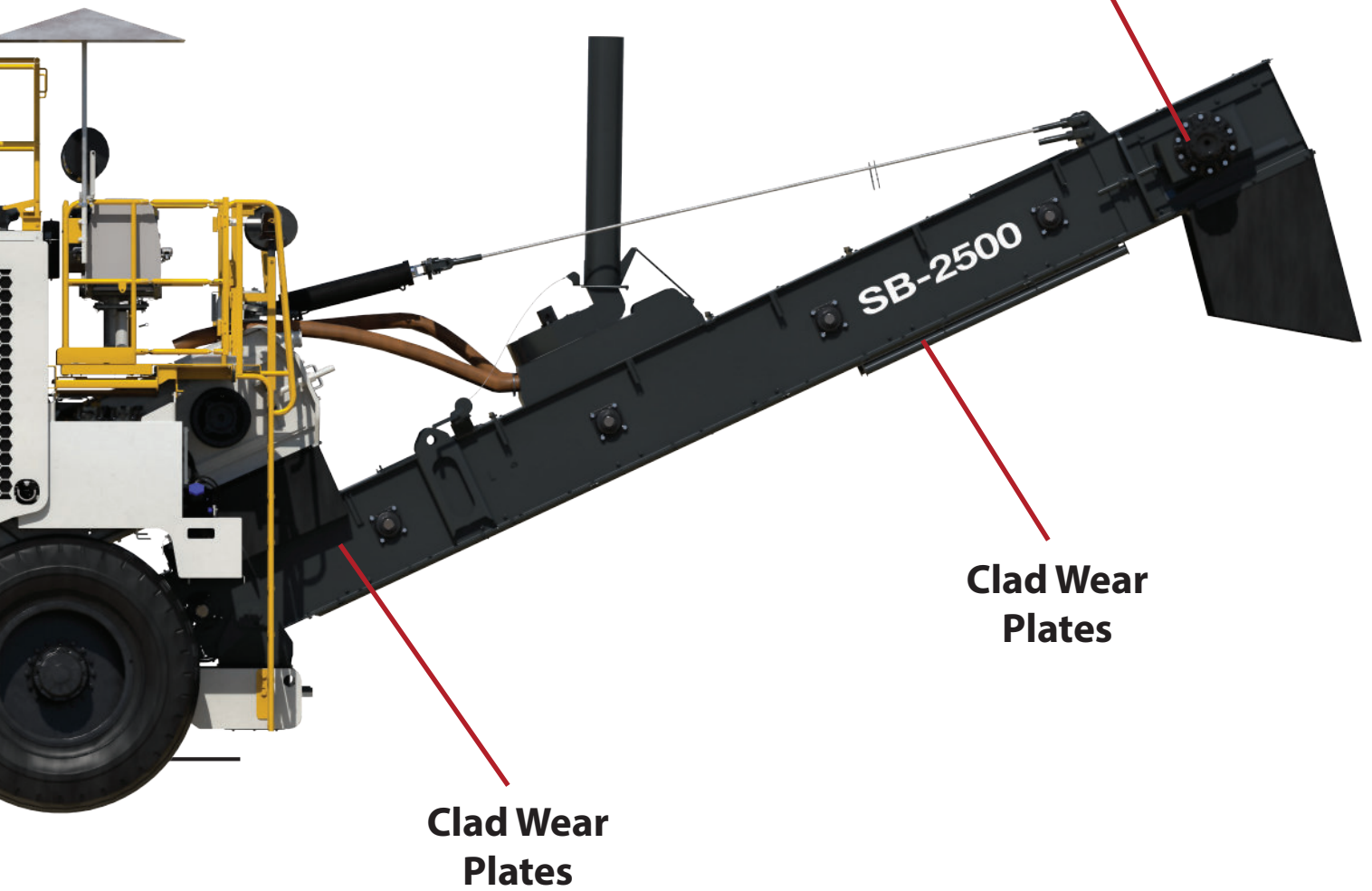
Count on Roadtec Equipment

We don't build roads. We make the equipment so you can cost-effectively build and maintain the world's roads. With the Roadtec heavy-duty design, we are able to keep your machine working longer while lowering maintenance and operating costs. We are also able to make your operators more comfortable and confident with our user-friendly design and our customization for special projects.

KEY FEATURES

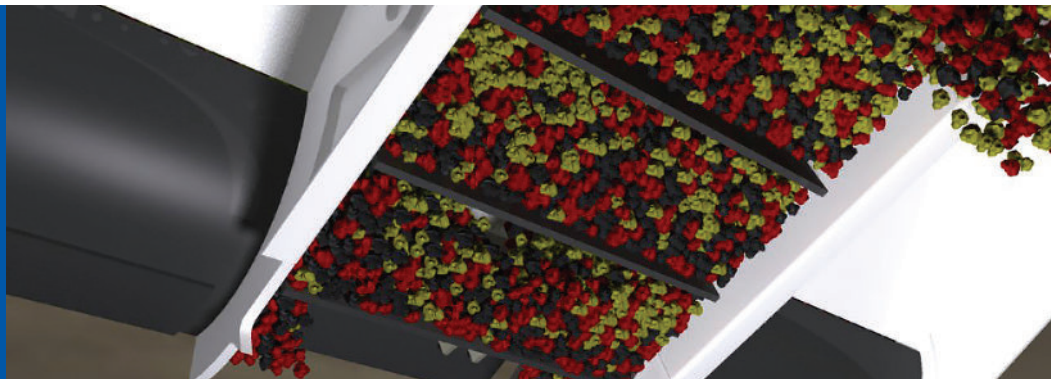
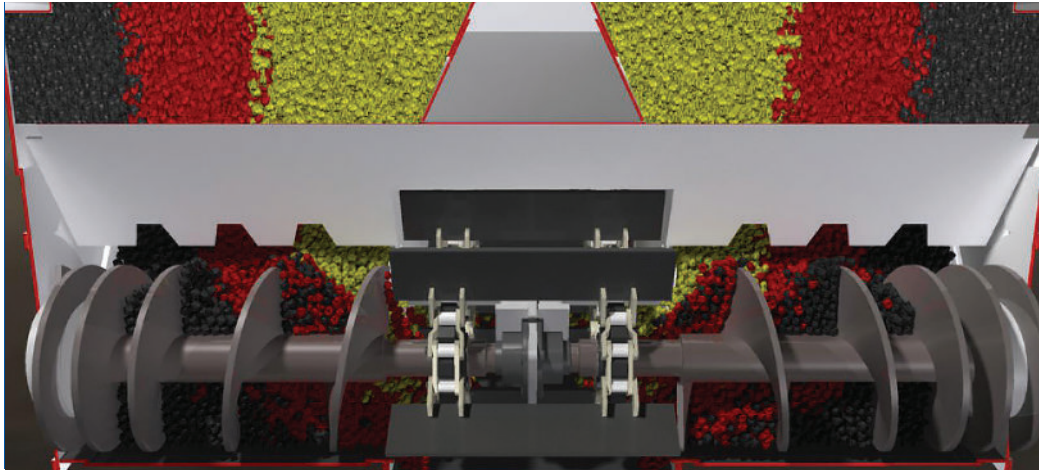


**600 TPH Paver
Loading Conveyor (C3)**



ACHIEVE UNIFORM REMIXING

AND MEET YOUR TOUGHEST JOB SPECIFICATIONS



Shuttle Buggy SB-2500 MTV Triple Pitch Auger Design

The triple-pitch auger flighting design used in Roadtec Shuttle Buggy® MTVs provides uniform remixing across the width of the entire hopper. The triple-pitch auger located in the bottom of the hopper remixes the contents of the storage hopper. The mixing action equalizes temperatures and evenly mixes large and small particles. A slat conveyor runs from the bottom of the hopper and feeds the discharge conveyor.

Why Segregation is a Problem

Segregation in asphalt pavements will compromise their surface and structure. Cracking, raveling, stripping, and rutting are all pavement failures linked to segregation. Temperature and material segregation have also been known to hinder the compaction of the asphalt mat, and non-uniform density will result in pavement failure.

Control Over Segregation

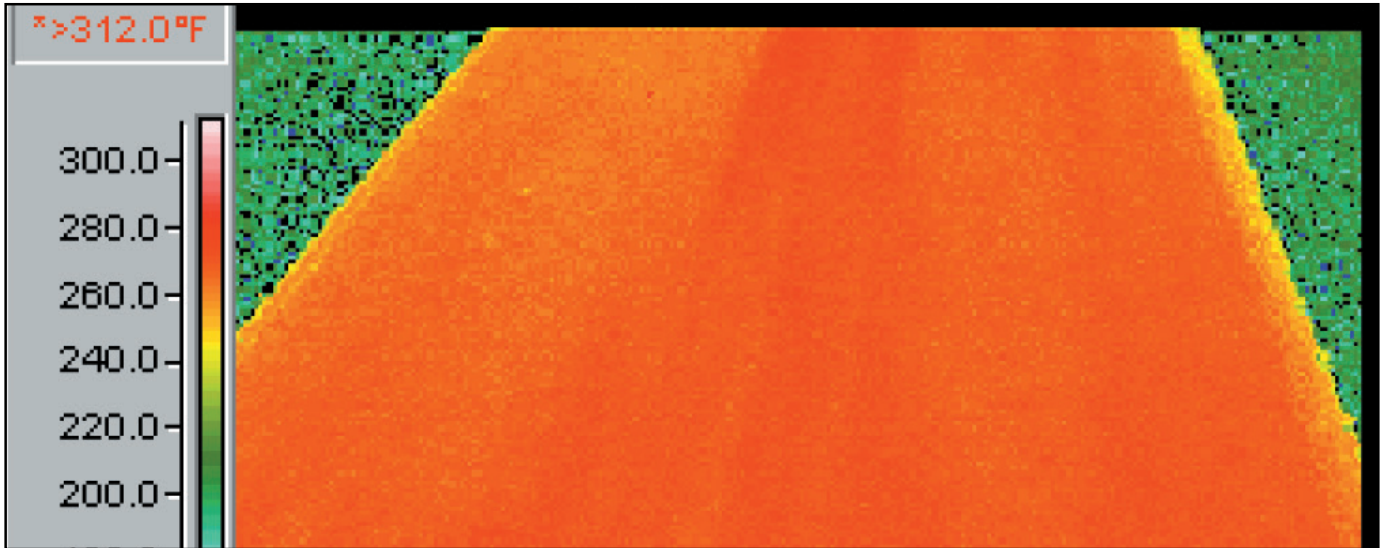
It is extremely difficult to eliminate all the potential causes of segregation in asphalt mixes. However, the presence of thermal and/or material segregation can be corrected before the new surface is paved. With Roadtec's material transfer technology, you can depend on thoroughly remixed material that is evenly distributed as it's paved.

Single-Pitch Augers Don't Remix

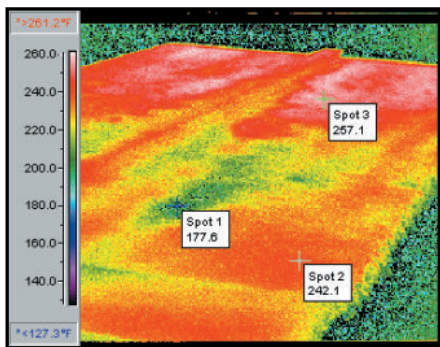
Single-pitch flighting pulls material primarily from the sides of the bin. The spaces between flights fill up and the auger just tunnels through. The contents of the bin are not remixed, and therefore segregation remains a problem. The Roadtec Shuttle Buggy® material transfer vehicles use a triple-pitch auger design. This Roadtec innovation is key for achieving the best mixing results, and will help you meet the tightest temperature segregation specifications.

Proof in Thermal Imaging: Achieve superior results

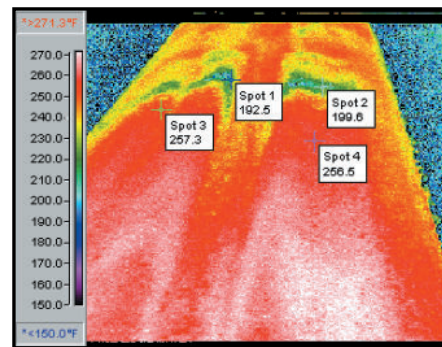
Infrared images show the quality of remixing that takes place with different devices. Time after time Roadtec machines have consistently performed better than others. Roadtec mixing technology is better engineered and achieves superior results. Infrared images have been taken behind numerous machines and are shown below. Color variations in the infrared photos show temperature variations. Uniform density cannot be achieved when mix temperatures vary. Cold spots become potholes.



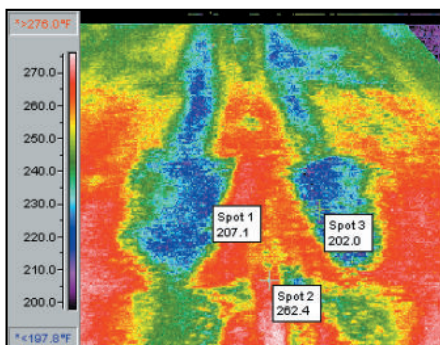
Roadtec SB-2500 MTV - Virtually no temperature difference.



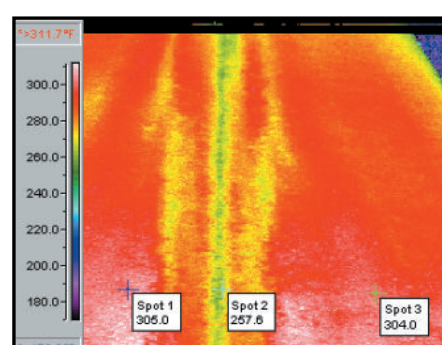
Windrow Pickup Machine



Windrow Pickup Machine with
Truck Dumping Head



Belt Conveyor Type Material
Transfer Vehicle



Belt Conveyor Type Material Transfer
Vehicle with add-on pugmill

DRIVE PROFITS

BY ELIMINATING TRUCK DELAYS AND KEEPING
YOUR PAVER MOVING WITH ON-SITE MIX STORAGE



Your Goal is Continuous Paving

Keeping your paver moving increases efficiency and the quality of the mat. Whenever the paver stops, the screed has a chance to settle. The head of mix cools, creating a bump in the mat when you start moving again. And whenever a truck backs up to unload into an idle paver, there can be another bump. All of these issues affect smoothness readings.

Cut Costs with a Roadtec MTV

With a Shuttle Buggy® MTV you can drive profits on every job because you'll need fewer trucks. The Shuttle Buggy® MTV provides on-site mix storage and can eliminate the delays that happen at the paver when trucks are unloading.

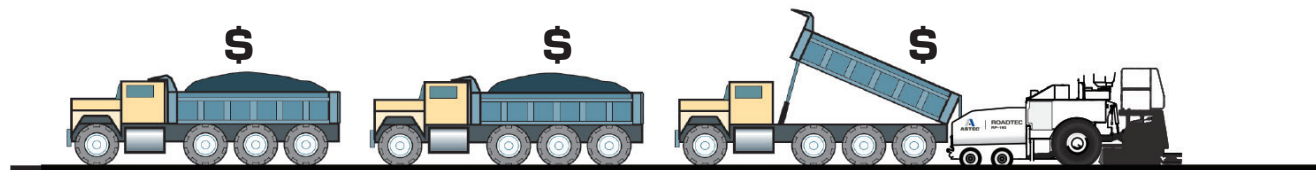
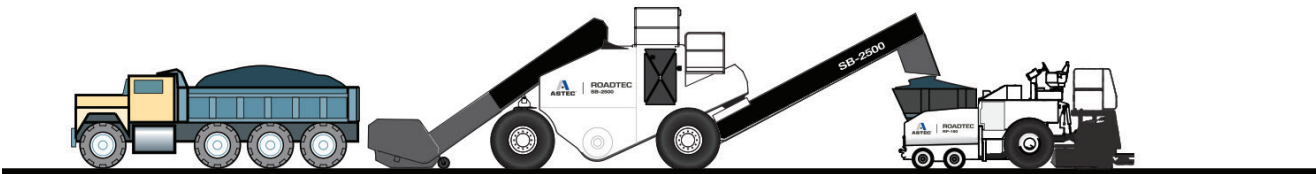
Keep Trucks and Paver Moving

To have three or four trucks waiting to unload at a job site with no Shuttle Buggy® MTV is fairly common, but it's unnecessary and expensive.

A wait time of more than 15 minutes per truck at the job site is common for most jobs where no Shuttle Buggy® MTV is used. Even if you calculate a very conservative cost of one dollar per minute of truck time, that's \$15 extra you pay for each truck every time it's delayed for 15 minutes at the job site.

With a Shuttle Buggy® MTV, trucks can be unloaded much quicker, typically in a fourth the time. This can result either in the need for fewer trucks or increased production.

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.



How to Maximize Storage Capacity

The Roadtec SB-2500 Shuttle Buggy® MTV has a 25-ton (22.7 metric tons) storage bin. Add an insert to the paver and you get another 10-15 tons (9-14 metric tons) of capacity, sufficient for continuous paving. Trucks can be stopped 100 or 200 feet (30 or 60 meters) away from the paver and dump safely into the SB-2500 Shuttle Buggy® MTV without moving. Being able to unload without moving also makes it possible to use bigger trailers, thus even further reducing the number of trucks needed. However, even with regular dump trucks you can cut your trucking cost when you use a Shuttle Buggy® MTV.

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

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 astecindustries.com/service/training

HEAVY-DUTY DESIGN

YOU CAN RELY ON, COUPLED WITH THE FUNCTIONALITY YOU NEED FOR MAXIMUM PERFORMANCE

Dump Hopper Performance Features

Sized for mass discharge from standard haul trucks, the front hopper allows trucks to unload fast. A steep slope and vibrating bottom plate in the hopper prevents material build-up. Heavy-duty, swiveling support casters under the hopper assure smooth movement. Ground operators can adjust the hopper position from either of two separate control boxes. They can also adjust the position of the push roller for different truck designs.

Moving Parts Made for Durability

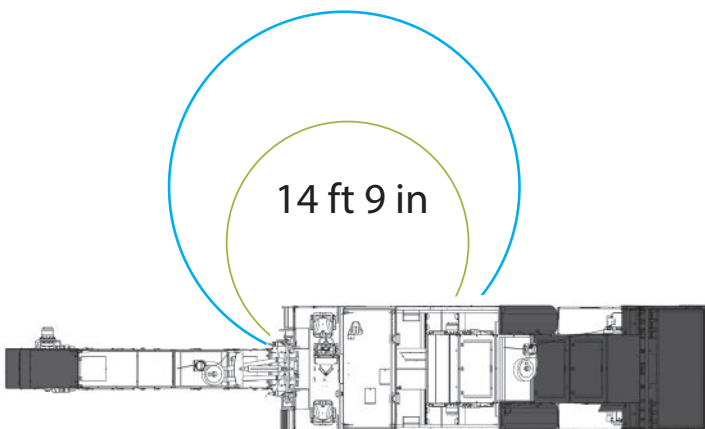
All conveyors are outfitted with durable roller bushing chain. Flights are made of abrasion-resistant steel, and we install thick wear plate linings on the conveyor floors. The floor of the paver-loading conveyor is insulated against heat loss. Rails installed at the bottom of this conveyor help protect it from any damage that could be caused by impact with the paver.

Engine Meets Latest Emission Specs

A 300 hp Tier 4F diesel engine powers the Shuttle Buggy® MTV. The engine delivers plenty of power and maximum performance.

Drive Features

The SB-2500 Shuttle Buggy® MTV rides on four 21" wide x 35" high, low profile, high flotation tires for improved ride, stability, and float. The steering wheel controls the front wheels of the all-wheel drive machines. The hydrostatic drive mechanism offers two speed ranges (working and travel) with continuously variable speed.



Steering

Four steering modes allow the SB-2500 to maneuver through tight turns. Steering modes include crab, coordinated, rear only, and front only. When in front steering mode, the SB-2500 can turn on an inside radius of 25 ft 10 in.

When in coordinated mode, the turning radius is just 14 ft 9 in.

DURABLE WEAR COMPONENTS

Improved Wear Components

Road construction is not a delicate business. All machines involved have to perform daily in difficult environments. Roadtec has made an effort to reduce operating costs by incorporating stronger, wear resistant components.



Floor Liners

Bolt-on chromium carbide floor plates are used on all three conveyors. The abrasion resistance of chromium carbide drastically increases the wear life of the floor plates and eliminates the need for wear liners.

Augers

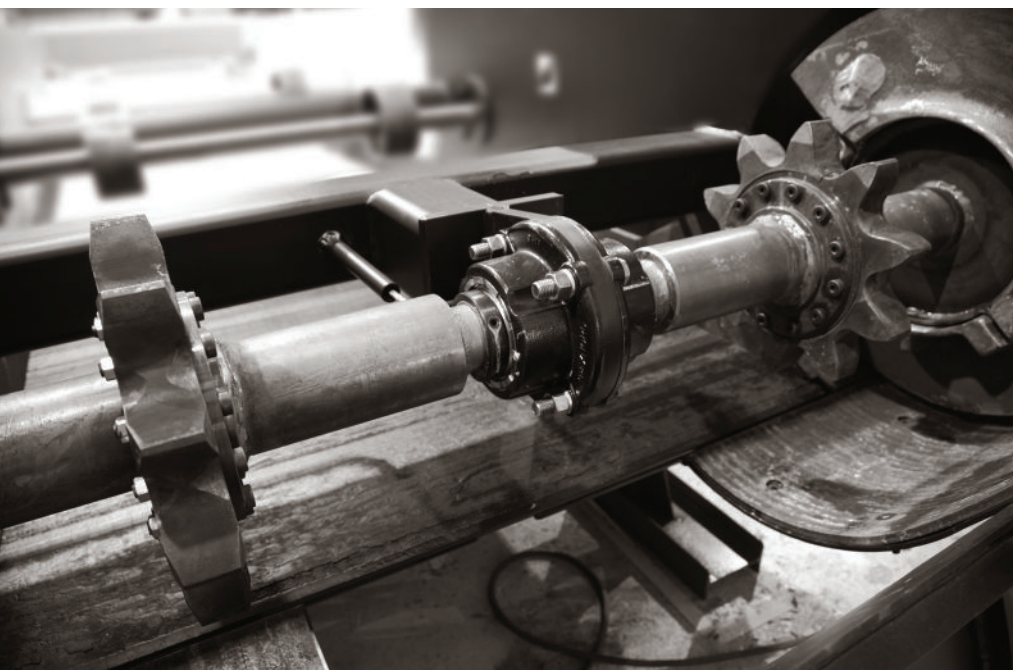
The SB-2500 is equipped with 29" diameter cast augers. The larger triple flight augers offer 38% more wear surface without compromising the machine's remixing ability.

Chains

Complete offset chains are used throughout the machine providing a substantial increase in tensile strength compared to straight linked chains or partially offset chains used in other models. The upgraded chains also have larger flights to transfer more material and keep the chain out of the mix.

Sprockets

Larger and thicker sprockets that provide 38% more surface area are used in the SB-2500 to match the wear life upgrades of the other conveyor components.



SIMPLIFY DIFFICULT PAVING JOBS

AND INCREASE PRODUCTIVITY

Intersection Pay-off

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.

Pivoting Discharge Conveyors as Standard

The SB-2500 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. 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.

Make Tricky Paving Projects Easy

Parking areas that have a lot of islands or peninsulas are difficult to pave. 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.

Speed Up Handwork

At times, there are spots that a paver can't reach, no matter what, and handwork is required. The SB-2500 Shuttle Buggy MTV's is able to carefully dispense material to the workers exactly where they need it because the discharge conveyor can be lowered and pivoted from side to side.



INNOVATIVE MAINTENANCE

AND DESIGN FEATURES MAKE TASKS EASIER FOR YOUR CREW



Operator Station

Dual operator stations allow the operator to occupy the left or right side. The operator platform slides 16" to the left and right of center for excellent visibility down the sides of the machine. The FXS® fume extraction system comes standard to increase operator comfort.

Better Maintenance Access

Maintenance access is a major goal in all our designs. Engine access is gained by hydraulically lifting the one-piece hood. There are hinged access doors that make the oil cooler, radiator and pumps easy to reach. Hydraulically operated clean-out doors are found at each conveyor. Your mechanic will really appreciate the remote lube points for all the conveyors.

Safety & Convenience

The SB-2500 Shuttle Buggy® is equipped with a telescopic flashing amber beacon and a mirror package. The beacon calls attention to the machine from a long way off, and the operator uses mirrors to see both sides of the machine. Guard rails at the front of the machine keep personnel from entering the area between the tires and the dump hopper. Guard rails at the operator station prevent falls. Emergency shut-off switches are found at ground level and at the main operator stations.

The sunshade umbrella supplied increases operator comfort. A wash-down system is provided and includes a retractable hose. Longer hoses can be supplied.

Operator Control Panels

The SB-2500e features straightforward, ergonomic control panels that increase operator safety and comfort. The controls are laid out to be user friendly, and all panels are fully backlit for safe control at night.

Operator and ground level control boxes feature improved layout and are backlit as well.



Full width cleanout doors

Clean out and maintenance accessibility is made quick and convenient with a full-width hydraulic door on the C1 conveyor. Full-width bomb bay style cleanout doors are also located on the storage hopper. These cleanout doors provide incredible access to the remixing augers and C2 conveyor and drastically improve end of the day cleanup time. Another hydraulic access door is located on the C3 conveyor just below the C2 conveyor.



Easy access to the C1 & C2 improves cleanup time at the end of the day.

OPTIONS

Auxiliary Power

4 kW 60 Hz Continuous Duty Hydraulic Generator

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 – Lights located on both sides of hopper opening for trucks to use as a guide

Four Wheel Steer

Steer all wheels on the machine for improved maneuverability. Includes four steering modes: front only, coordinated, crab, and rear only.

C1 Quick Change Windrow Head System

Quickly and easily change between windrow head and dump hopper. Windrow head available as "In Addition To" or "In Lieu Of" option packages.

Mass Flow Hopper Inserts

Low Profile Hopper Insert for Roadtec Pavers

Low Profile Universal Hopper Insert

Mass Flow Hopper Side Wall Extensions

Miscellaneous

Automated Lubrication System

Truck Hitch Instead of Push Rollers

C2 Main hopper level indicator

Tire Spray System

Automated Release Agent Spray-Down System

Automated system to spray release agent on key wear parts. Includes 55 Gallon Tank, Pump, Retractable Hose Reel with 50' Hose Length (Replaces Standard Wash-Down)

Buggy-Paver Autotracking

Wireless sensors allow the buggy and paver to move simultaneously. This helps ensure the paving train stays together and helps the operator focus on material flow, production, and safety.

Camera System

(2) color, night-vision-capable cameras, one on the front and one on the back of the machine. Includes color monitor in waterproof case.

SB-2500 SPECIFICATIONS

ENGINE

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

WEIGHT

77,240 lbs (35,035 kg)

CONSTRUCTION

Heavy-duty conveyor flights and chain.

Replaceable wear plate in all high wear areas.

Stability without unnecessary weight.

COOLING SYSTEM

Quiet operation, dual, variable speed hydraulically driven fans

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

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 35" (889 mm) interior diameter low-profile 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 area.

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 mtp) 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 pitch augers

Drag conveyor with 600 tph (544 mtp) 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 mtp) 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)



ASTECTM

www.astecindustries.com