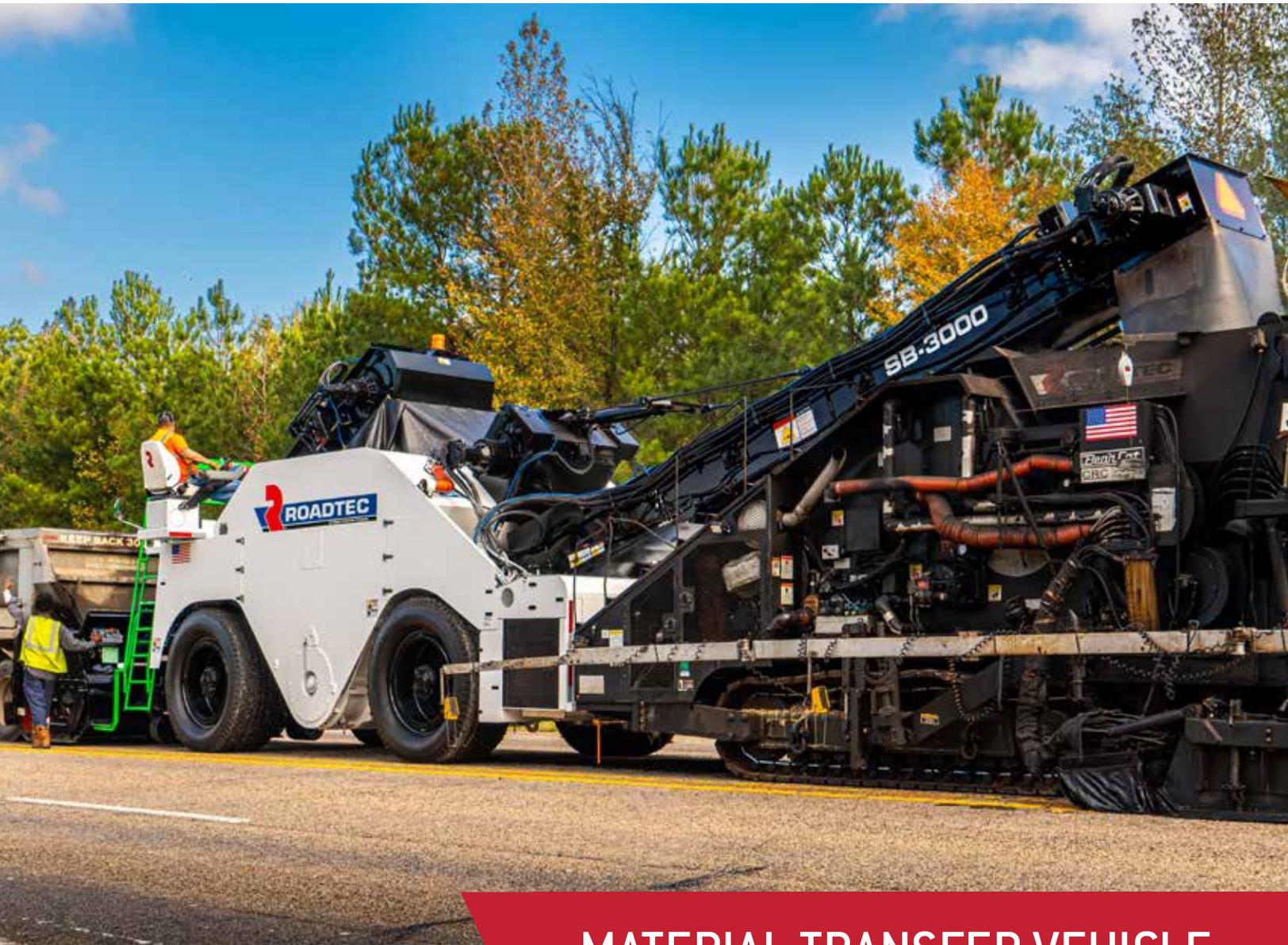


# SB-3000

## MATERIAL TRANSFER VEHICLE



## MATERIAL TRANSFER VEHICLE

Dedicated to Your Success.<sup>SM</sup>

### Engine

Cummins® B6.7

Stage V; 310 hp @ 2,000 rpm

### Weight

74,000 lbs

### Material Handling

- 30 tons storage capacity, including storage bin and conveyors
- 26" triple pitch augers
- Drag conveyors with 600 tph capacity



### **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: DELIVERING QUALITY AND INNOVATION WITH SUPERIOR CUSTOMER SERVICE

### **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**

As the original innovator of the Shuttle Buggy® material transfer vehicle, Roadtec provides the industry's most refined pavement placement solutions. Our patented technologies enable nonstop paving and eliminate segregation, while providing the optimum balance of horsepower and maneuverability.

### **Customer Focus**

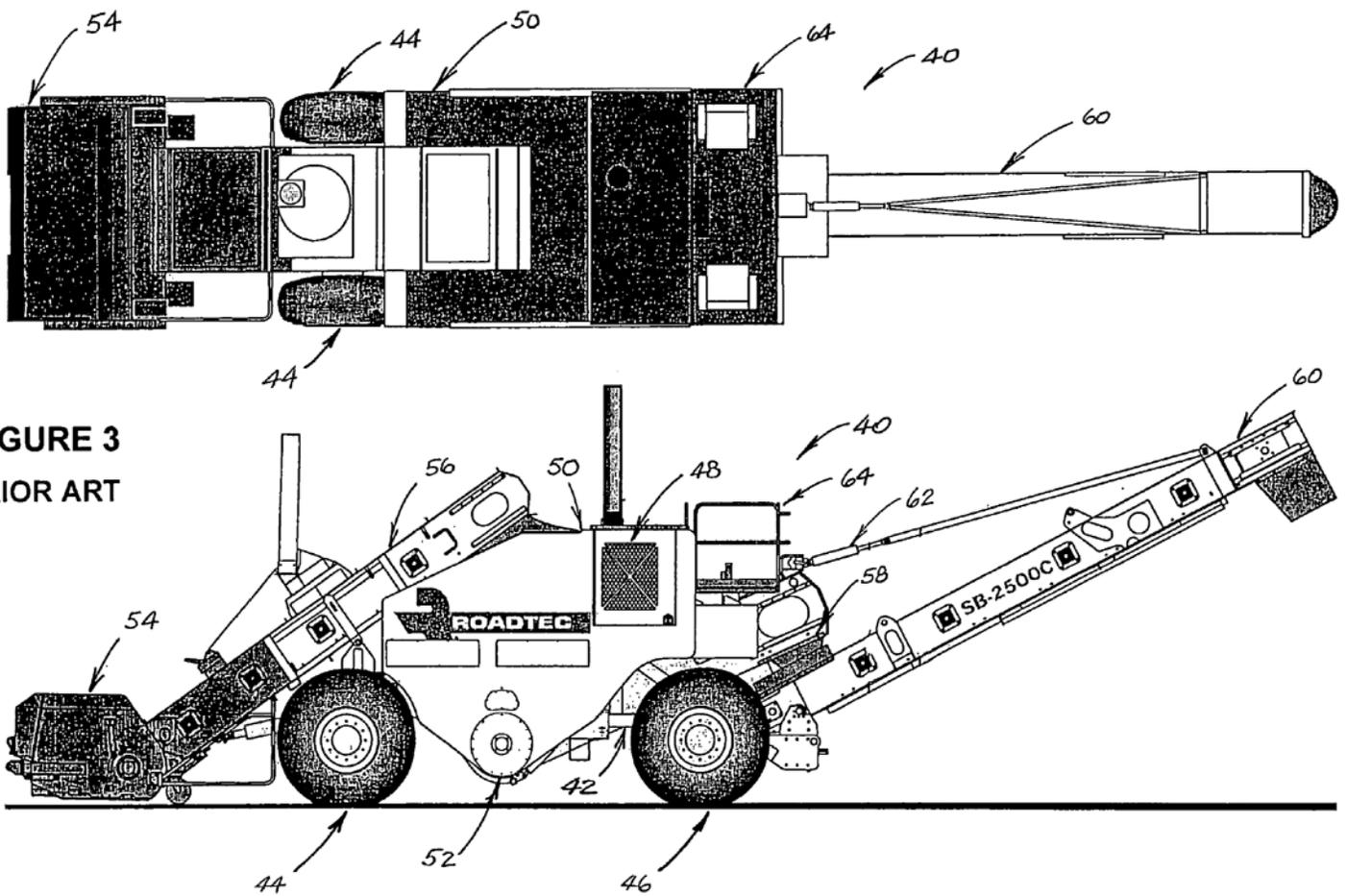
As we grow and develop new products, our personal connection to our customers remains steadfast. Our field service technicians live in the regions where they work. Our engineering, manufacturing and service departments are in the same building, enabling all teams to work together and provide quick and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

# THE BEST IN MTV TECHNOLOGY

Roadtec is the innovator of the Material Transfer Vehicle. We revolutionized the industry when we invented the original Shuttle Buggy® Material Transfer Vehicle in 1989. The Shuttle Buggy quickly became the benchmark by which all other asphalt paving equipment is measured.

For more than 30 years, we have set the standard in material transfer technology, continually improving and modernizing our technologies and designs. The SB-3000 is the newest innovation in material transfer technology, offering more power, better material handling, increased operator comfort, and more accessible maintenance.

The SB-3000 Material Transfer Vehicle is the new industry standard in MTV technology. The SB-3000's design and engineering make it the most efficient and productive material transfer vehicle. The powerful yet maneuverable SB-3000 prevents segregation without sacrificing comfort, safety, or efficiency. This machine provides comfortable operation, easy maintenance access, a tight turning radius, bright lighting, nimble steering, high visibility cameras, and more. The SB-3000 is essential for today's road builders.



**FIGURE 3**  
**PRIOR ART**

**Roadtec Shuttle Buggy - U.S. Patent Art:** Patent art for the Shuttle Buggy in 2006.

# CONTACTLESS PAVING

A key to a quality mat is contactless paving. Contactless paving results in a consistent quality mat through a more efficient process, resulting in increased profits.

## Consistent Quality Mat

Crews paving without the SB-3000 typically stop the paver each time they need to add more mix from a new dump truck. The screed settles, the mix cools, and the result is a bump in the mat when the paver restarts. Additionally, when the truck backs up to dump into the idle paver, there is another bump. This happens each time the paver stops and restarts. The result is an inconsistent mat and poor quality. The SB-3000 helps your crew eliminate these issues.

- The SB-3000 feeds the paver at rates of up to 600 tons per hour, maintaining contactless paving.
- Contactless paving eliminates issues with temperature changes, truck handling, and segregation, all factors that contribute to poor pavement quality.

## More Efficient Process

Having the SB-3000 as an onsite silo and mixing storage vehicle saves the time and money wasted waiting for trucks. The SB-3000 holds 30 tons of mix. By using a paver with a hopper insert you can increase the capacity by 15 tons. This enables nonstop paving while remixing hot mix asphalt for the best possible mat.

You don't need a line of trucks waiting to dump mix into a paver. Each truck costs money and every minute it waits costs more money. When using the Shuttle Buggy, you can decrease the time needed to unload dump trucks by up to 25%.

Decrease your time spent unloading dump trucks by 25% or more.



The Shuttle Buggy saves 18 minutes per truck cycle.



The cost per truck cycle is decreased from \$66 to \$48 when using a Shuttle Buggy.

# BETTER MATERIAL HANDLING

The SB-3000's remixing technology creates a consistent mix by continuously blending the hot mix. This action results in uniform HMA in terms of material sizing and temperature, eliminating the common issues of thermal and material segregation that compromise the resulting asphalt mat.

## **Augers**

The augers in the SB-3000 are a 26" diameter. This diameter was optimized after years of testing for the best material handling. The augers are the ideal size for remixing the material while keeping the conveyor chain out of the mix.

The augers are also triple pitch, which means the mixing action gathers material from across the width of the entire hopper. Moving the same amount of material with smaller augers results in less wear. The machine requires less torque, resulting in a lower cost of ownership.





# REMIXING TECHNOLOGY ACHIEVES UNIFORMITY

## Roadtec is the Solution

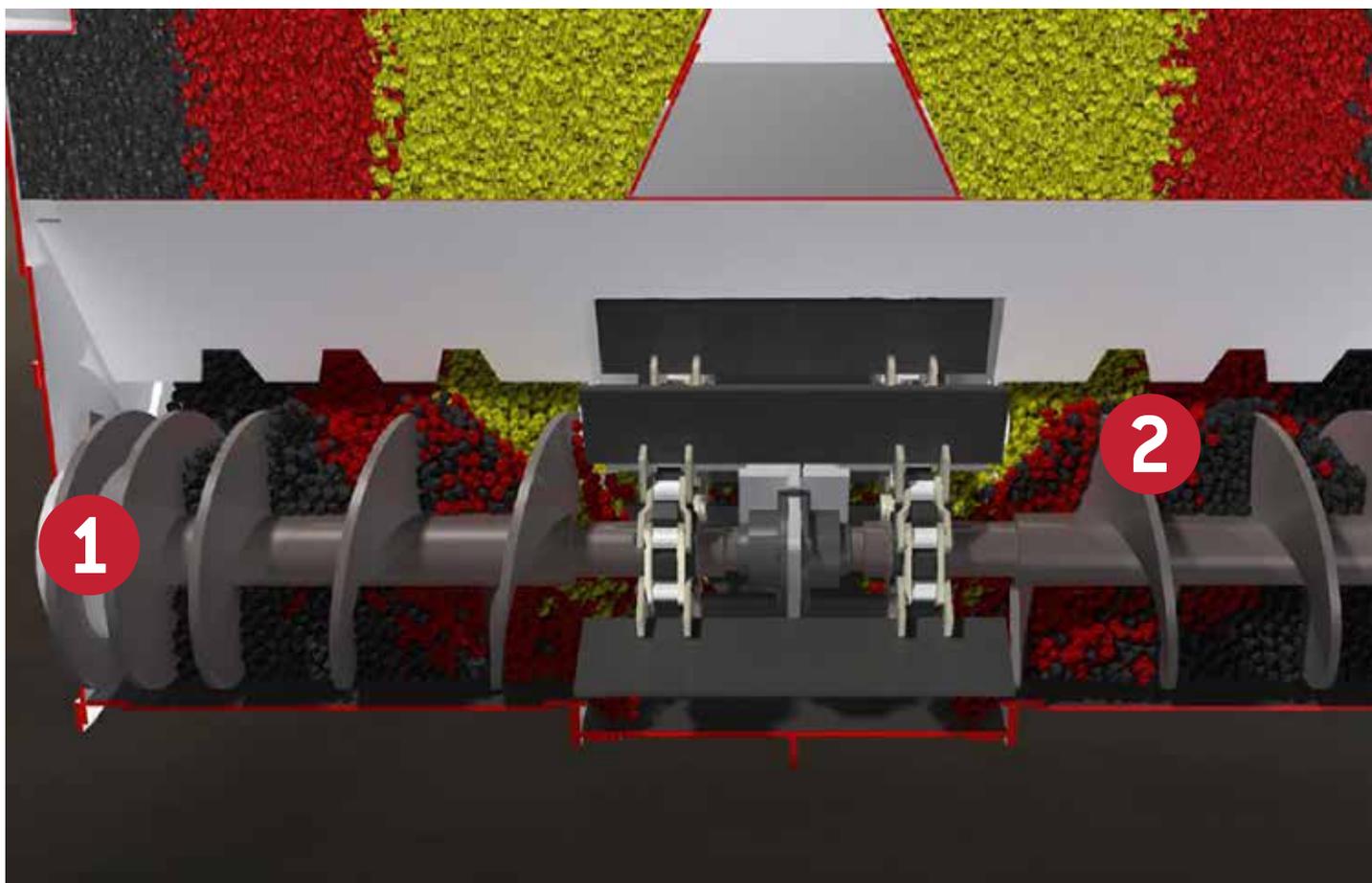
Thermal and material segregation compromise the surface and structure of the asphalt mat. This can result in pavement failure which creates cracking, raveling, stripping and rutting. Segregation can be corrected before the surface is paved. With Roadtec's material transfer technology you can depend on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

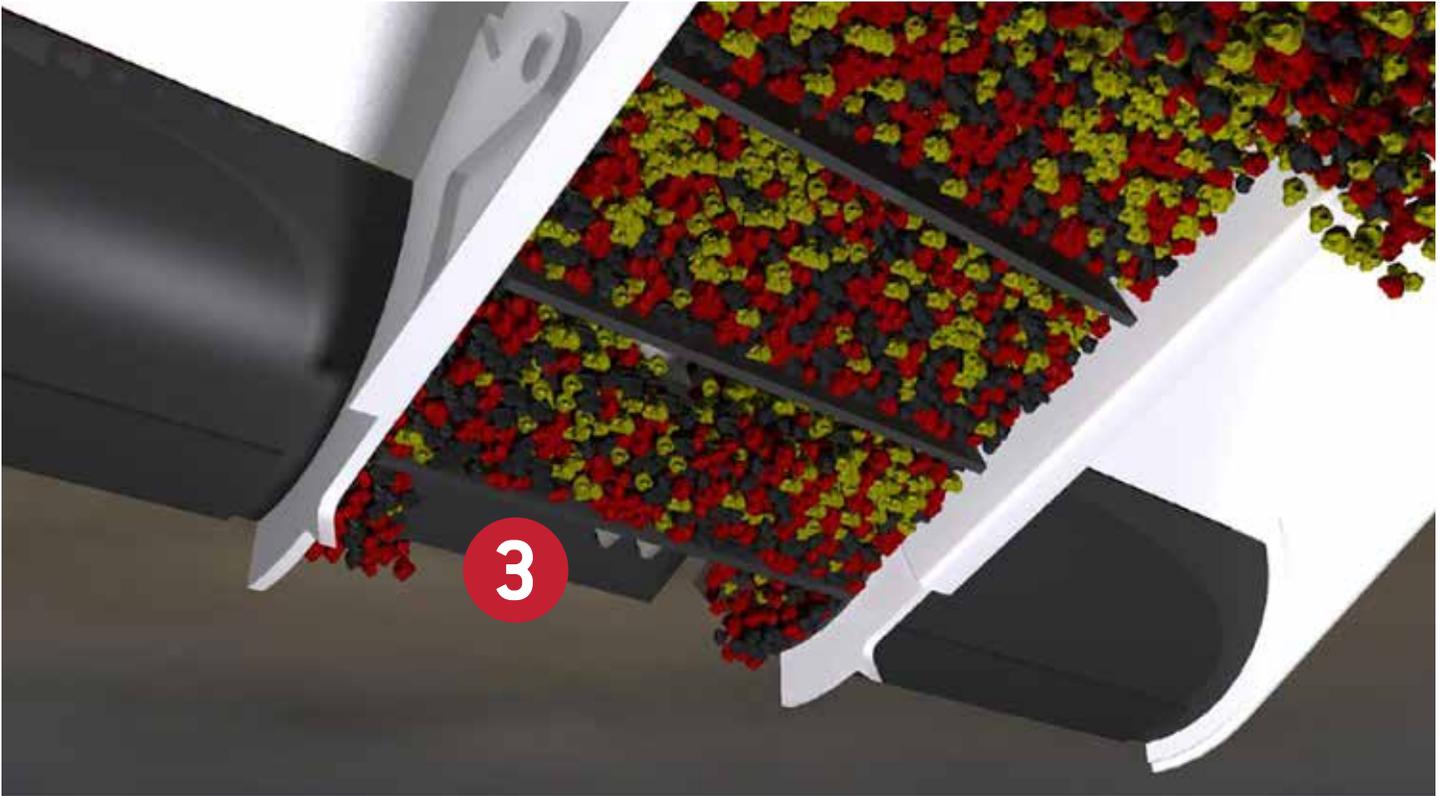
## Issues Caused by Single Pitch Augers

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.

# OPERATOR COMFORT & SAFETY

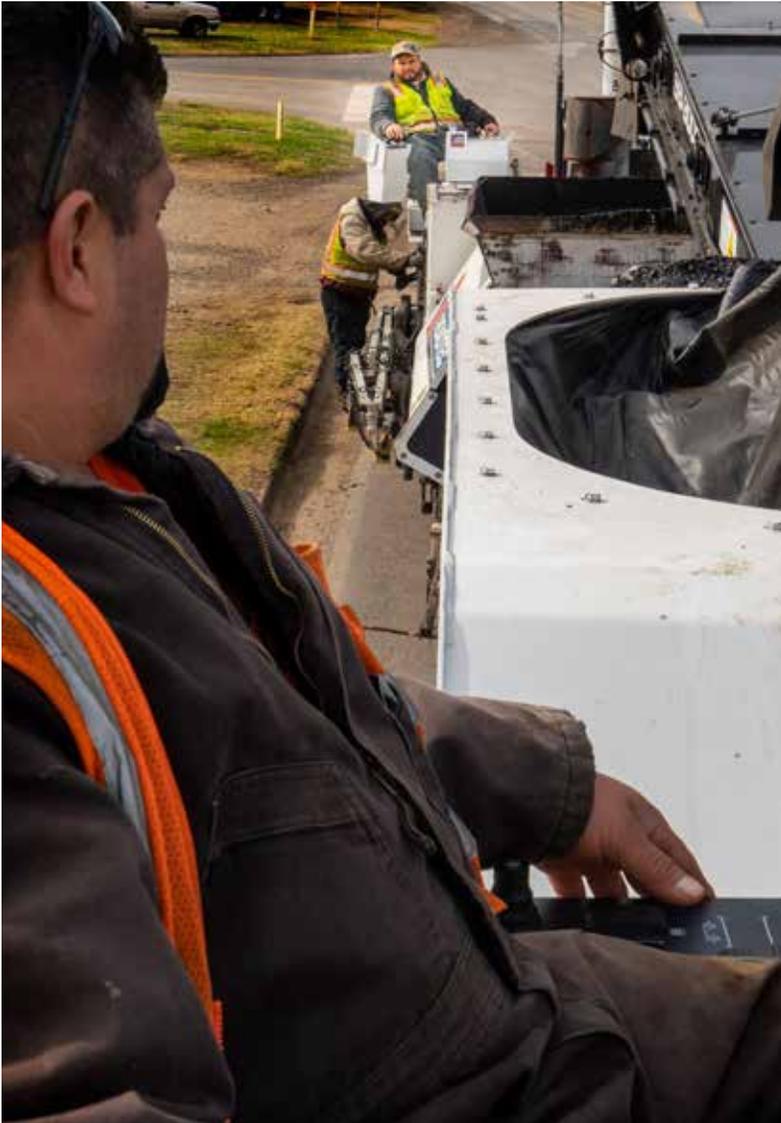
The SB-3000's all new control stations include dual seats that hydraulically swing out 90 degrees. The platform pivots out 19" from the side of the machine allowing the operator to sit perpendicular to travel. Seats can be easily pulled in at the touch of a button.

## Simple Operation

The SB-3000 is outfitted with clear and intuitive controls. These common control "pods" help operators understand the controls so they are able to quickly and easily operate the machine with literally the push of a button. Icons on the operator panel are clear and easily understood. They are also backlit for night work.

## Ideal Visibility

The swing out seats provide excellent sight lines. From the safety of the operator seat, the operator can see clearly back to the paver as well as to the front of the machine. The operator also has clear sight lines to the C2, rear tire, dump hopper, and paver. While seated, the operator has an unobstructed view of the ground person, making for a safer and more efficient work site.



## Upgraded Safety Technology

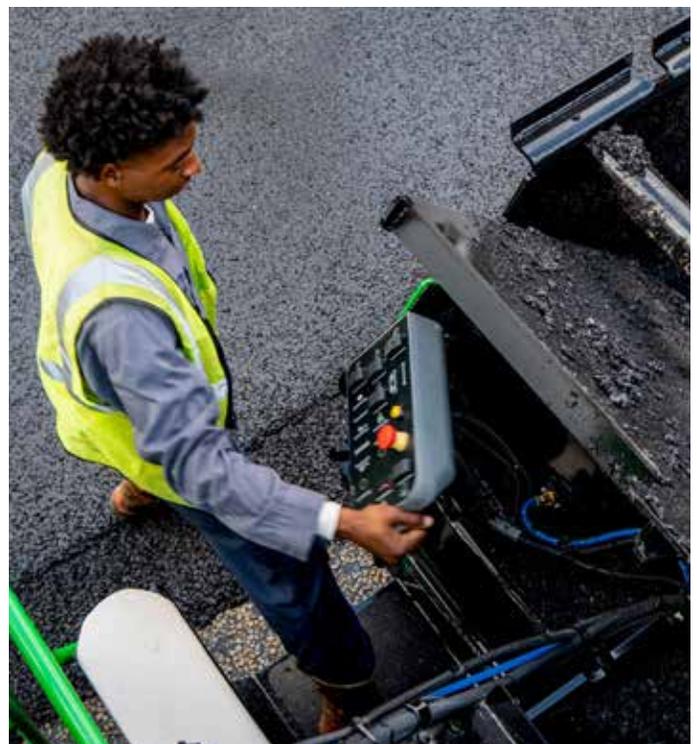
The SB-3000 is outfitted with a number of features to maximize the safety and efficiency of the operators. These features include lights, cameras, display screens, and more.

### Backup Camera

The SB-3000's standard backup camera allows the operator to see behind the machine. It automatically turns on when in reverse or it can be accessed any time through the touch screen. The images are clearly displayed on multiple screens mounted to the machine.

### Ground Crew Control Panel

The SB-3000 is designed to maximize the efficiency and safety of the ground person. The ground person has a control panel that swings out for use when they are standing, and swings in when they are sitting within the safety envelope of the machine. This patent-pending seat design puts the safety of the ground operator first, while maintaining a focus on comfort and productivity. Whether seated or standing, the ground person is in control via the easy to use panel.



Perhaps no more than on a job site, time is money. It's the little things that can take a lot of time, such as finding tools, stowing tools, etc. The SB-3000 has convenient storage for hanging shovels, pry bars, and a ticket holder is within arm's reach.

# IMPROVED LIGHTING AND MACHINE ACCESS

## Brighter Lighting

The lighting package on the SB-3000 includes bigger, brighter LEDs and is designed to provide lighting for night work, as well as safe transport and maneuvering.

The main light bar on the front of the machine brightly illuminates a large area. The lights are tiltable so you can project lighting where it is needed. Another optional set of LEDs is mounted on the underside of machine to focus the light directly on the wheels.

Yet more LEDs are mounted to light the ladder for safe egress. These egress lights remain powered on for one minute after the e-stop is pushed or the machine is shut down. This patent pending design allows for ample time to exit the machine and have the path of egress well lit for safety.

## Dual Function Ladder

The ladder on the SB-3000 provides access to the operator station and also acts as a bridge across the machine. Since the ladder spans the entire width of the machine, the operator station can be accessed from either side. The ladder is manufactured to ISO standards, inclined to 80 degrees, making it easier to mount and dismount the SB-3000. This bridge allows the crew to travel to either side of the roadway without having to cross between machines, improving safety and keeping the mat clear.



## Truck Signal Lights

The SB-3000 is optionally outfitted with indicators that clearly communicate with dump trucks. These lights help dump truck operators know exactly what to do to keep the job moving and the crew safe.

The lighting system includes an optional projector that displays blue lines on the ground. These dump hopper landing lights serve as guides for trucks to follow toward the dump hopper easily and safely during night work.



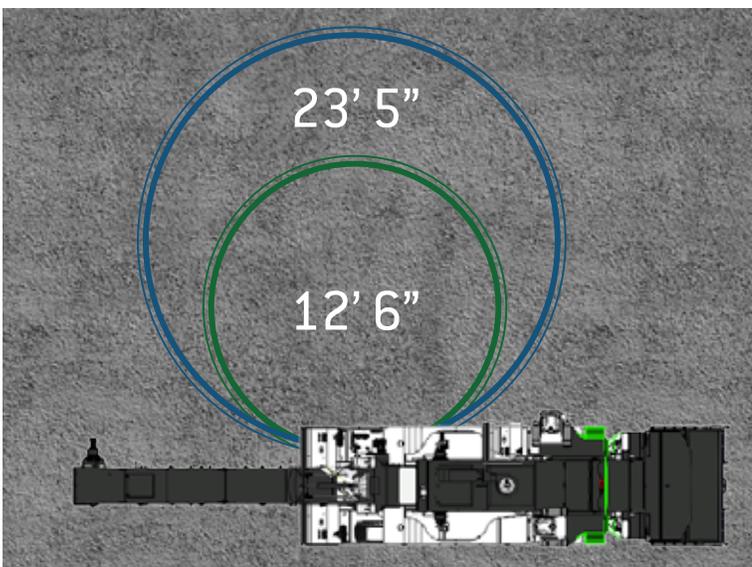
# SIMPLIFY OBSTRUCTIONS AND BARRIERS

The SB-3000 helps navigate some of the inevitable barriers in paving. Obstructions and difficult areas, such as parking lots, islands, intersections, overhead power lines, and tunnels can be handled easily. Sometimes there are spots even the smallest paver can't reach. In those cases, handwork is required. With the SB-3000 handwork is easier as the SB-3000 can carefully dispense material precisely where it's needed.

The SB-3000 is also an ideal solution for specialty projects such as airports and racetracks. The discharge conveyor swings 14' 9" left or right, and it can be raised over barriers, increasing efficiency.



*In the photo above, an intersection is being paved, however, the dump truck is not able to maneuver into the intersection. Therefore, the mix is deposited from the dump truck into the hopper of the SB-3000 and shuttled to the intersection where the mix is deposited into the waiting paver.*



## STEERING

Four steering modes enhance the SB-3000's agility, allowing it to maneuver through tight turns. Steering modes include crab, coordinated, rear only, and front only. When in front steering mode, the SB-300 can turn on an inside radius of 23' 5". When in coordinated mode, the turning radius is just 12' 6".

## STABLE RIDING WHEELS

The large wheels and shorter sidewall offer an improved ride and better float. These low profile tires provide stability, protecting your crew when paving and when transporting the machine off the road at the end of the shift.

## SMOOTH LOAD AND UNLOAD

A number of features on the SB-3000 make it easier and safer to transport. First, the SB-3000 has optional 4-wheel steer: front only, crab, coordinate, and rear-only. Four-wheel steer provides best in class maneuverability when on the job. It also makes it easier to load the machine on and off the trailer.

Second, the machine's shipping height of 11' 3" allows it to be moved easily from site to site and allows flexibility when selecting a trailer for transport. Machine transport is faster, easier, and less expensive.

Finally, there is no need to manually raise or lower the Fume Extraction System FXS<sup>®</sup> exhaust at any time, including during transport. The operator simply lifts the C1, drives the machine onto the trailer, and swings in the seats to ready the machine for transport.

### FXS BENEFITS

- Fixed in place
- Well above operator head height
- No need to manually raise and lower



# SIMPLE CLEAN UP

## Clean Out Doors

A full width, three-part clean out door with access to the C1 conveyor provides convenient cleanout from the ground level. Ground level access to augers and hoppers makes daily clean up fast and barrier free. Bomb bay style doors are bigger and easier to access, making clean out of C2 easier and faster. A hydraulically operated clean out door on C3 allows for efficient daily maintenance and clean up.

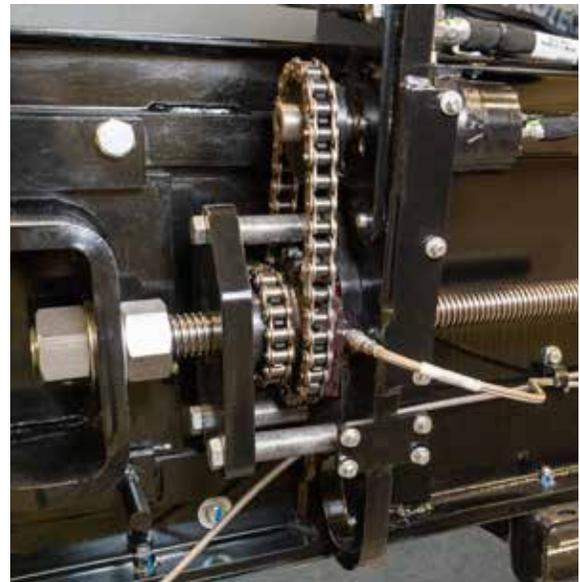
## Wash Down System

The SB-3000's wash down system includes coil hoses that are ample length to reach around the machine. Two hoses are located on the front of the SB-3000, and a third coil hose is on the back. All hoses are easily accessed at ground level, within arm's reach, and extend to easily reach every place it may be needed. Diesel wash down comes standard on the SB-3000 with environmental wash down as an optional upgrade. Auto chain spray is another available upgrade. The system sprays directly over all sprockets to cover chains and prevent build up.



## POWER CHAIN TENSIONING

Hydraulically powered chain tensioning enables users to easily monitor and adjust the tension of all three conveyors without leaving the ground, increasing safety, speed, and efficiency.



# UNPARALLELED MAINTENANCE ACCESS

Since the engine of the SB-3000 is located at ground level, maintenance and service areas are easy to reach. Pre-operation checks, daily inspections, and maintenance can be performed safer and easier. Fluid checks and daily service points are at ground level eliminating the need to climb on the machine before the start of a shift.

## Large Inspection Doors and Panels

Large barn doors at the rear of the machine provide access to the engine on one side, and the hydraulic pumps on the other. All these areas are easily accessible without needing to climb onto the machine. Large panels on either side of the SB-3000 provide simple access to Guardian®, convenient storage areas, and hydraulics. The fuel and DEF are both easily accessed and refilled at ground level. This saves time and improves safety for all.

## Quick Change Conveyor

The Quick Change System is standard on the C1. The Quick Change System is ideal for those who need to switch back and forth from dump hopper to windrow hopper. Even those who don't windrow will benefit from the easier access for maintenance, changing chains, and maintaining augers. With the Quick Change windrow head, you can easily change between windrow and dump hopper in hours, rather than days. The system also allows users to easily keep spare head together – no lost parts!



## AUTO FEATURES

- Auto wash down
- Auto lube
- Adaptive cruise control
- Material flow control



# 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

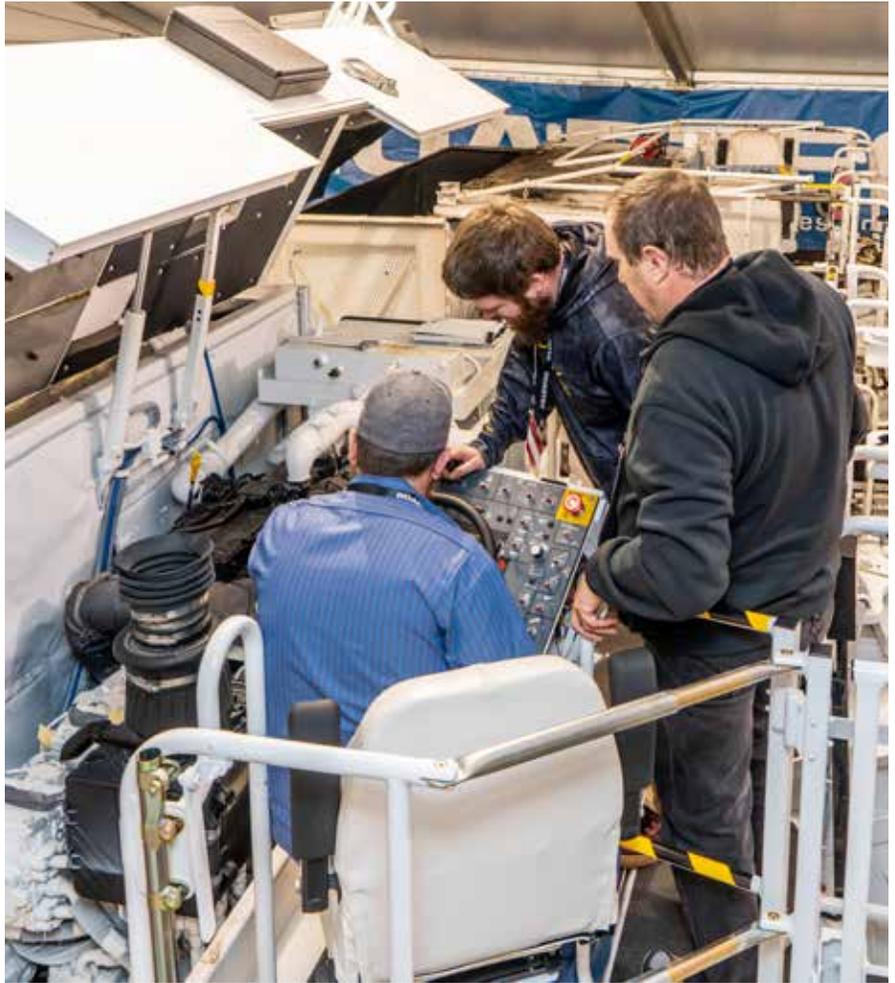
Roadtec's Technical Service Schools are the asphalt industry's most comprehensive technical training programs. At Service Schools, you will gain experience in the operation and maintenance of Roadtec equipment.

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.

# GUARDIAN® TELEMATICS SYSTEM

Protect your investment and keep operating costs low by monitoring your machines in real time through a wireless signal with the Guardian® Telematics System. Guardian is the only system that enables live two-way wireless communication between the machine and a remote location.



## FEATURES

- Real-time monitoring
- Live 2-way communication
- Real time reporting via a cellular signal
- Electronic troubleshooting and diagnosis

## BENEFITS

- Avoid downtime
- Save money on repairs
- Decrease cost of ownership
- Schedule service and use time effectively
- Maximize job efficiency

## REMOTELY ACCESS MACHINE DATA SUCH AS:

- Conveyor speeds
- Engine performance
- Electrical systems
- Fuel consumption
- Fault codes
- GPS location
- Grade and slope settings
- Hydraulic systems
- Machine speed
- Time to service intervals

## 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.

# INCREASE COMFORT & PRODUCTION WITH VALUABLE OPTIONS

## Additional Lighting

- Night Work Premium Lighting Package – Lights on ground operator station, wheels, and ladders for extra visibility close to the machine. System remains lit one minute after machine is turned off to assist egress.
- Truck Signal Light – Light system to communicate with trucks, built into the base of the seat
- Dump Hopper Landing Lights – Projectors mounted on the edges of the dump hopper project lines on the road to guide trucks back to the machine

## Operator Packages

- Adaptive Cruise Control – Set a distance between Shuttle Buggy and paver to be automatically maintained. Adapts to changes in paver speed.
- C2 Level Indicator – Sonic sensors to monitor material level in main hopper. Lights on operators stations (main and ground) indicate hopper level.
- Material Flow Control (C2/C3) – Machine's C2 and C3 speeds are controlled to maintain the optimal pile height in the paver hopper insert at all times
- Four Wheel Steer – Steer all wheels of the machine for improved maneuverability. Includes capability of front only, coordinated, crab, and rear only.
- Automatic Lubrication – Connected to Guardian for remote access to run history and empty tub warning

## Wash Down

- Environmental Washdown – Includes 110 gal water tank and hardware.
- Auto Chain Spray (Diesel or Environmental) – Spray release agent directly on all conveyor chains and sprockets to significantly improve longevity of wear parts.
- Tire Spray – Sprays water on each tire as machine moves forward to help prevent buildup of tack or HMA.

## Conveyor Packages

- Powered Chain Tension C1, C2/C3
- Quick Change Windrow Pick-up Head in Addition to or In Lieu of Dump Hopper – Adds the windrow head as built with the Quick Change system.
- Quick Change Dump Hopper as a Spare
- Pintle Hook Relief on C1 Dump Hopper
- Extended Push Rollers
- High Wear Package Option – Optional chromium carbide wear plates on all three conveyors if desired.
- Truck Hitch In Lieu of Push Rollers
- Expanding Dump Hopper – Hydraulically sliding sidewall extensions to widen C1 dump hopper opening

## Mass Flow Hopper Inserts

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

# SPECIFICATIONS

## ENGINE

- SB-3000: Stage 5, Cummins® B6.7 310 hp @ 2,000 rpm

## COOLING SYSTEM

- Quiet operation, dual, variable speed hydraulically driven fans

## WEIGHT

- 74,000 lbs

## CONSTRUCTION

- Stability without unnecessary weight
- Replaceable wear plate in all high wear areas

## ELECTRICAL SYSTEM

- Two 4D batteries
- 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 to all wheels
- Optional rear steer

## SPEED

- Working: 0-3.0 mph
- Travel: 0-10 mph

## BRAKE SYSTEM

- Hydrodynamic multi-disc brake pack

## TIRES

- 21" wide x 35" interior diameter high-flotation tires

## OPERATOR STATIONS

- Two operator stations (left & right side) with deluxe adjustable seats
- Operator stations can rotate 90° out past edge of machine for visibility
- Bridge platform allows safe crossing of paving line

## GROUND CONTROLS

- Tool holders
- (2) front dump hopper control boxes
- Patent pending ground operator stations with seats

## FUME EXTRACTION SYSTEM

- Clearview FXS® system to draw fumes away from operator
- Fixed stack needs no intervention for shipping

## TRUCK DUMP HOPPER

- Front hopper has swivel support casters. Vibrating floor plate. 9' wide truck opening
- Adjustable width option available
- Hydraulic adjustable oscillating push rollers
- Hydraulic front hopper baffle adjustable for optimal material flow
- 26" 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 AR 500 wear plates
- High wear chrome carbide wear plate upgrade

## SURGE BIN & REMIXING AUGER

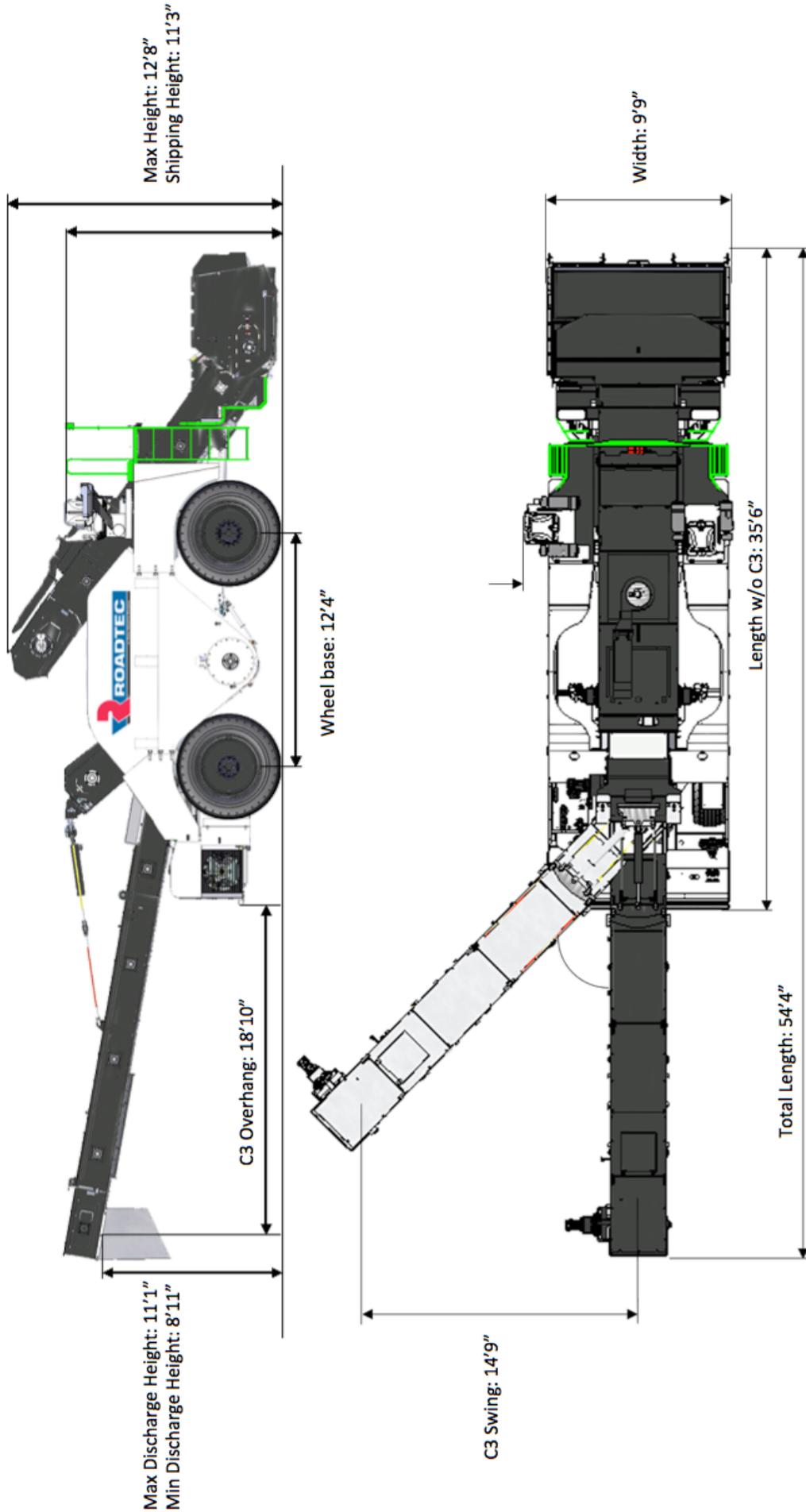
- 25 tons (22.7 mat) storage capacity
- 26" o.d. cast, ni-hard, variable triple pitch augers
- Drag conveyor with 600 tph (544 mtph) capacity
- Dual roller bushing offset link chain
- Conveyor floors lined with replaceable AR 500 wear plates
- High wear chrome carbide wear plate upgrade

## PAVER LOADING CONVEYOR (C3)

- Drag conveyor with 600 tph (544 mtph) capacity
- Dual roller bushing offset link chain
- Conveyor floors made of AR 500
- High wear chrome carbide floor upgrade
- Insulated conveyor floor
- Controls interlock with surge bin unloading conveyor
- Conveyor can be positioned up to 14' 3" to either side of center
- Conveyor guard rails

## SERVICE CAPACITIES

- Fuel Tank ..... 140 gal
- Hydraulic Fluid Tank..... 92 gal
- DEF ..... 15 gal



Specifications are subject to change without notice.

# ROADTEC.COM

Dedicated to Your Success.<sup>SM</sup>

Roadtec is dedicated to helping you, our industry, and our country succeed.  
Your success builds your business, supports our industry, and strengthens our country.

**ROADTEC** an Astec Industries Company

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