

ROADTEC SB-3000 SHUTTLE BUGGY® MATERIAL TRANSFER VEHICLE



BEST IN MTV TECHNOLOGY

The SB-3000 is a powerful and maneuverable material transfer vehicle that combines superior mixing technology with ultimate operator comfort and unparalleled safety.

Consistent Mat Quality through Contactless Paving

A key to creating a quality mat is contactless paving. This efficient process results in increased profits, higher productivity, and superior outcome. With the SB-3000, your paver never needs to stop or contact dump trucks.

Without the SB-3000, crews stop the paver, trucks back up to dump into the idle paver, the machines make contact and there is a bump. When the paver restarts, the screed has settled and the mix has cooled, resulting in another bump.

Fortunately, the SB-3000 feeds the paver at rates of up to 600 tons per hour, maintaining contactless paving and preventing these problems.



Benefits of Paving with the SB-3000

- Eliminate issues with temperature changes, truck handling, and segregation, all factors that contribute to poor pavement quality.
- A fully laden SB-3000 holds 30 tons of mix. By using a hopper insert in the paver, you can increase that by 15 tons when combining the capacities of the SB-3000 and the paver. This enables nonstop paving while remixing, resulting in the best possible mat.
- Each truck costs money, and every minute it waits costs money. With the SB-3000 you can decrease the time needed to unload dump trucks by 25%.

20

**minutes saved
per truck cycle**

25%

**less time unloading
dump trucks**

\$18

**saved per
truck cycle**



KEY FEATURES



1 Ground Crew Control Panel

Panel swings out for use when standing, and swings in when sitting within the safety envelope of the machine, maximizing the safety of the ground operator.

2 Dual Function Ladder

Ladder spans the entire width of the machine, serving as a bridge so the crew can travel to either side of the roadway without having to cross between machines, improving safety and keeping the mat clear.

3 Bright Lighting

Bright LED lighting provides illumination for night work, as well as safe transport and maneuvering.

4 Lighted Egress

Lights are mounted to the ladder for safe egress. Lights remain powered on for one minute after the machine stops, allowing ample time to exit safely.

5 Intuitive Control Pods

Icons on the operator panel are clear and easily understood, and backlit for night work.

6 Comfort Drive™ Dual Operator Stations

Operator seats hydraulically swing out past the side of the machine for a 360 degree view around the machine and increased visibility down the side.



7 Power Chain Tensioning

Easily monitor and adjust the tension of all three conveyors from the ground.

8 Triple Pitch Auger

Triple pitch auger remixes across the entire width of the hopper, continuously blending and yielding a consistent mix. Augers are 26-inch diameter, the ideal size for remixing the material while keeping the conveyor chain out of the mix, resulting in less wear.

9 Low Shipping Height

Shipping height is 11 ft 3 in, allowing for easy transport.

10 Ground Level Engine Access

Daily inspections and maintenance can be performed safer and easier with ground level barn doors and access panels.

11 Backup Camera

Camera automatically turns on when in reverse or it can be accessed any time through the touch screen. Images are clearly displayed in real-time on multiple screens.

12 Adaptive Cruise Control

Set a distance between the SB-3000 and the paver to be automatically maintained.

REMIXING TECHNOLOGY

Superior Remixing Technology

The SB-3000's remixing technology creates a consistent mix by continuously blending the Hot Mix Asphalt (HMA). This action results in uniform HMA with a consistent material size and constant temperature.

Triple Pitch Augers for Consistent Blending

The SB-3000 uses a triple pitch auger design to eliminate segregation issues caused by single pitch augers. A single pitch auger pulls material from the sides of the bin, which causes the spaces between flights to remain full of material. This material is unable to be properly remixed, which leads to uneven temperatures and inadequate integration of small and large particles. By contrast, a triple pitch auger remixes across the entire width of the storage hopper as the material moves through, continuously blending and yielding a consistent mix. This technology eliminates the common issues of thermal and material segregation that compromise the resulting asphalt mat.

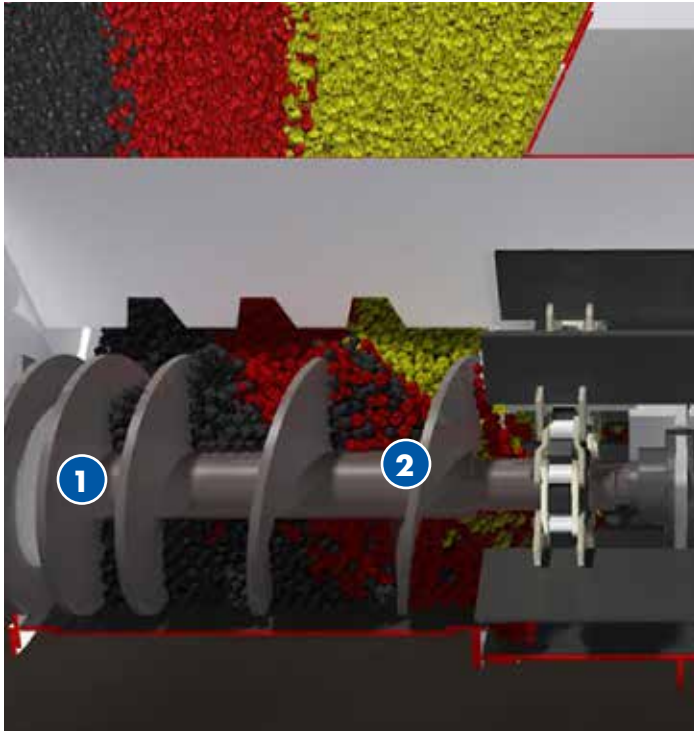
With the SB-3000 you can depend on thoroughly remixed material that is evenly distributed as it is paved.



Ideally Sized Augers Reduce Wear and Maintenance

The SB-3000 augers are 26" diameter. This smaller diameter is the ideal size for remixing the material while keeping the conveyor chain out of the mix.

Moving the same amount of material with smaller augers also results in less wear. The machine requires less torque, resulting in a lower total cost of ownership.

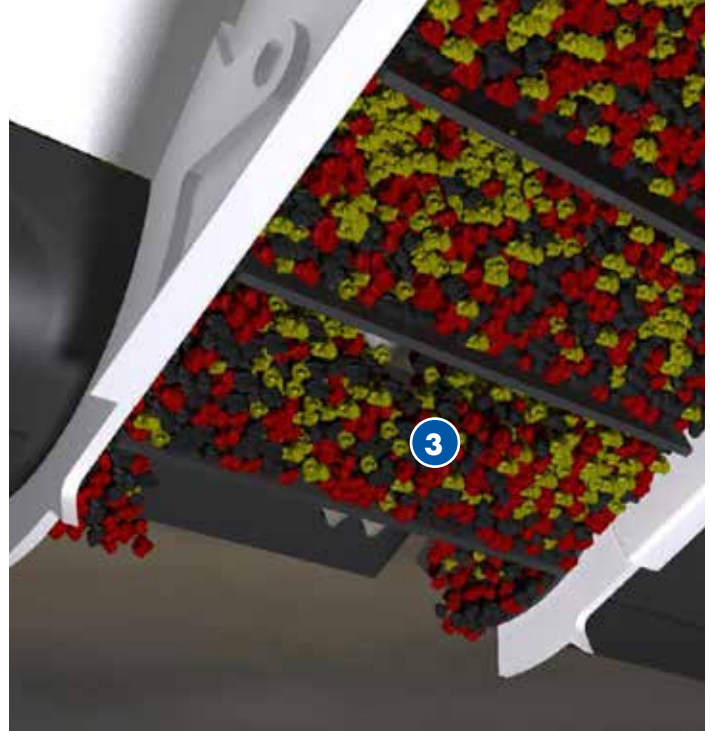


1 Triple Pitch Augers

The triple pitch auger is located in the bottom of the main hopper. The auger remixes the contents of the storage hopper using variable pitches.

2 Constant Material Flow

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 Uniform Mixing

Finally at the center of the hopper, the hottest material is mixed in as material gets to the shallowest pitch of the 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

The SB-3000's new control stations include dual seats that hydraulically swing out 90 degrees. The platform pivots out 19 inches 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.



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 groundperson, making for a safer and more efficient work site.



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.

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

A standard backup camera allows the operator to see behind the machine. It automatically turns on when in reverse or it can be accessed anytime 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 groundperson. The groundperson 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 groundperson is in control via the easy to use panel.



LIGHTING AND ACCESS

Bright 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.

More lights are mounted to 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 feature allows for ample time to exit the machine safely.



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 and is angled to 80 degrees, making it easier to mount and dismount. 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 light system includes a 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

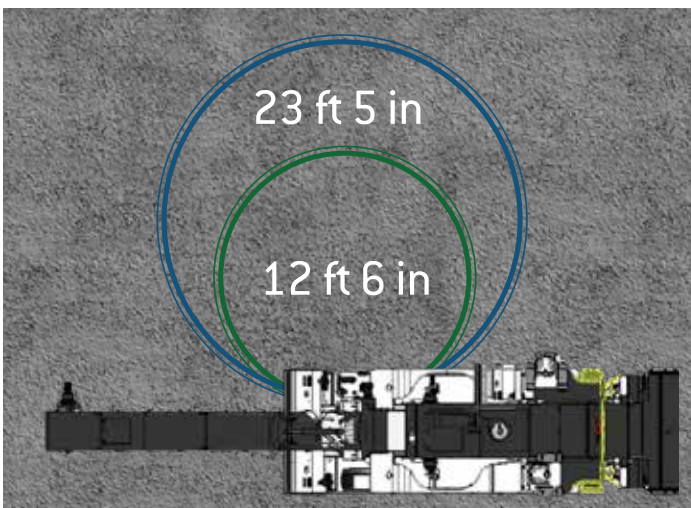
The SB-3000 helps navigate the inevitable barriers in paving, such as islands and medians. Challenging areas, such as parking lots, intersections, underpasses, and tunnels can be managed easily because the dump truck can unload at a convenient spot and the SB-3000 can shuttle the mix to the paver.

Sometimes there are areas even the smallest paver can't reach. In those cases, handwork is required. The SB-3000 makes handwork more efficient 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 ft 9 in left or right, and it can be raised over barriers, making the most efficient use of time, money, and resources.



The dump truck is not able to maneuver into the intersection of this jobsite. The SB-3000 solves this problem. The mix is dumped from the dump truck into the SB-3000's hopper and shuttled to the intersection where it is placed into the waiting paver.



Steering

Four steering modes allow the SB-3000 to maneuver through tight turns. Steering modes include crab, coordinated, rear only, and front only. When in front steering mode, the SB-3000 can turn on an inside radius of 23 ft 5 in.

When in coordinated mode, the turning radius is just 12 ft 6 in.



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 Loading and Unloading

A number of features on the SB-3000 make it easier and safer to transport.

- 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 is also easier to load the machine on and off the trailer.
- Since the shipping height is 11' 3", the SB-3000 can be transported faster, easier, and with less cost. It can be moved easily among sites, allowing flexibility when selecting a trailer for transport.
- There is never a need to manually raise or lower the Fume Extraction System® (FXS) exhaust, including during transport. Simply lift the C1, drive the machine onto the trailer, and swing in the seats and the SB-3000 is ready for transport.



FXS Benefits

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

CLEAN UP AND MAINTENANCE

The SB-3000's engine is at ground level so daily inspections and maintenance can be performed safer and easier.

Easy to Reach 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. Easy to reach panels on either side of the SB-3000 provide simple access to convenient storage areas and hydraulics. The fuel and DEF tanks are both easily accessed and refilled at ground level. This saves time and improves safety for all.

Wash Down System

Preventative maintenance, which includes regular cleaning, is vital to prolonging the life of all asphalt paving equipment.

A comprehensive wash down system is included with the SB-3000. The system includes coil hoses at ground level 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. With the wash down system you can quickly and easily perform recommended daily and weekly cleanout procedures, minimizing downtime and increasing productivity.





1 Clean Out Door

A full width, three-part clean out door with access to the C1 conveyor provides convenient clean out 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 the C2 easier and faster. A hydraulically operated clean out door on C3 allows for efficient daily maintenance and clean up.



2 Quick-Change System

The quick-change system is ideal for those who need to switch back and forth from dump hopper to windrow hopper. With the quick-change windrow head, you can easily make this change in hours, rather than days. The system also makes it easy to keep spare head pieces together – no lost parts!

Even those who don't windrow will benefit from the easier access for maintenance, changing chains, and maintaining augers.



3 Auto Features

Auto features save time and increase productivity. Auto Lube is connected to Guardian® for remote access to run history and empty tub warning. Adaptive Cruise Control lets the operator set a distance between the SB-3000 and the paver to be automatically maintained. Material Flow Control enables control of C2 and C3 speeds to maintain the optimal pile height in the paver hopper insert at all times. The Auto Chain Spray System (Diesel or Environmental) sprays directly over sprockets to cover chains and prevent buildup.



4 Power Chain Tensioning

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

OPTIONS

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 industry's only live 2-way telematics system. Guardian includes software, on-machine viewing screens, and wireless signal boosters to send and receive data in real time from anywhere at anytime.

Guardian provides the data you need to make changes in real time to mitigate risks and increase profits. Guardian's intuitive Live Schematics™ lets owners and technicians view electrical circuits in a simple, efficient layout with real time status of switches, valves, and settings.



Additional Lighting

Dump Hopper Landing Lights, Night Work Premium Lighting and Truck Signal Lights.



Powered Chain Tension C1, C2/C3

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



Mass Flow Hopper Inserts

Low Profile Hopper Insert for Astec Pavers, Low Profile Universal Hopper Insert, Mass Flow Hopper Side Wall Extensions.



SB-3000

Detail	Spec
Engine	Cummins® B6.7 310 hp @ 2,000 rpm
Weight	77,190 lbs
Storage	25 tons
Conveyors	600 tph capacity

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.
Wash Down
Environmental washdown – includes 110 gal water tank and hardware.
Auto chain spray (diesel or environmental) – sprays 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.

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 monitor material level in main hopper. Lights on operator 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.
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



ROADTEC
RP-190

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NOTES





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