Half-Lane Cold Planer

RX-600

ENGINE

RX-600e: Tier 4i; Cummins® QSX-15 620 hp (462 kW) @ 1,850 rpm
Rx-600ex: Tier 3; Cummins® QSX-15 620 hp (462 kW) @ 1,850 rpm*
** ex machines for lesser regulated countries*

OPERATING WEIGHT

Three-Track: 56,890 lbs (25,805 kg)
Four-Track: 59,220 lbs (26,862 kg)

ROADTEC®
an Astec Industries Company

THE ROADTEC DIFFERENCE

Our Customers

"I have to give Roadtec credit, because they're the best people I've seen in terms of supporting their equipment."

"Handling asphalt is tough on machines, but Roadtec equipment holds up. Roadtec designs stuff to do the job."

"We've got some Roadtec pavers with well over 10,000 hours on them."

"They're exceptional about support, whether it's parts or other issues."

Count on Roadtec Equipment & 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.

Longevity

Roadtec supplies equipment globally. Road builders everywhere are encouraged to visit our website at roadtec.com, where they will find the local Roadtec contact for their region. Roadtec equipment is designed with longevity and reliability as the focus because we realize that this is the most important factor for our customers' success.

Partnership

At Roadtec, we understand that our success hinges on the success of the customer. To accomplish this common goal, we focus on building reliable, long lasting machines that consistently perform at the highest level. Roadtec is dedicated to giving the customer every advantage to excel in the field.

Crews Like Roadtec

Our customers experience minimal downtime, and their crews are comfortable with Roadtec equipment. That's reflected in the quality of work they do.

Any customer familiar with us and other brands will prefer Roadtec because equipment operators achieve better ride smoothness, the machines have lower maintenance costs, and the design is user-friendly. That makes operators more comfortable and confident with the equipment.

FEATURES

New Generation of Machines

The new generation of Roadtec machines arrives with a slight change in terminology used to classify each model. The model number of each new machine will include the letters "e" or "ex". The single letter "e" denotes that the machine's engine has a Tier IV emissions rating. The letters "ex" denote that the machine's engine has a Tier III emissions rating. The "ex" models are machines exported to countries that do not require a Tier IV emissions rating. All features listed in this brochure apply to both "e" and "ex" models.

Power, Maneuverability and Weight Balance

To perform all the functions of the milling operation, a cold planer requires a delicate balance of weight and power. The weight of this machine is balanced over the cutter, to ensure excellent traction while maintaining the desired depth of cut. With proper balance, the machine's power remains consistent while following trucks through tight turns or in adjacent lanes.

Choose Either Three or Four Tracks

With the RX-600 you can select either three or four tracks. Cold Planers with three-track suspensions are more maneuverable in the cut, lower in weight, and have slightly less mainentance, while four-tracks machines provide greater tractive effort and flotation.

RX-600 Cold Planers: High Productivity & Low Cost of Ownership

Powerful and well-balanced, the RX-600 offers you solid design features, systems that are simple to troubleshoot, and parts that are non-proprietary and cost less. Plus you get exclusive features like Guardian™ remote telematics system, Edge™ extended equipment warranty, choice of drum tooling, and 24-hour Roadtec customer support.

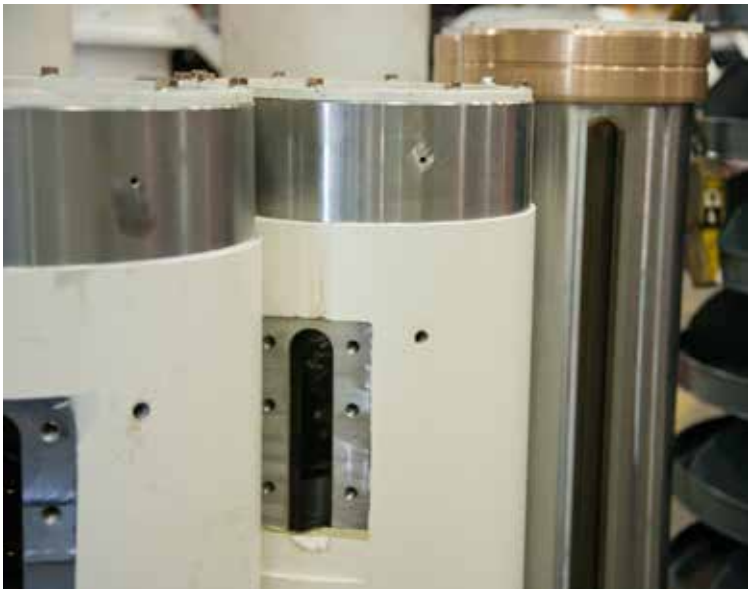
RX-600: More Power, Efficiency, and Maneuverability

It Starts with a Strong Frame

The mainframe is built by Roadtec from extremely strong A656 grade 80 steel. This steel has twice the yield strength as the mild steel used in other machines on the market. Roadtec frames are very strong and rigid without adding unnecessary weight.

Fuel Economy & Engine Performance

Having the proper balance of weight and horsepower combined with the latest in engine technology ensures that every unit of fuel being burned is not wasted. This makes the RX-600 the most fuel efficient machine we have ever built.



Keyway Steering

Steering of this machine is done from the tops of the front legs using steering keys that are easily replaceable. This innovative design requires no linkage under the primary conveyor between the front legs, which adds to the overall accessibility of the machine. Four steering modes enhance the machine's agility, allowing it to produce through tight turns. Steering modes include, crab, coordinated, rear only, and front only.

OPERATOR CONVENIENCE

Controls

Simplified controls allow operators to easily operate the machine from either side of the platform. With multifunction joysticks and easy access to controls, operating the machine is much easier. The controls are designed to be operated with one hand to allow for truck signaling.

Vibration Isolators

Rubber vibration isolators have been used to eliminate destructive vibration throughout the cold planer. Eliminating the vibration also makes the machine quieter while rubber mounts underneath the operator's platform provide more comfort.

Safe & Functional Platform

The operator platform is conveniently accessed from the right or the left side. Two control stations allow machine operation from either side.

Conveyors

The cut material is easily handled by 32" (813 mm) wide conveyor with 1" (25 mm) tall molded cleats, and infinitely variable speed. Each conveyor also features self cleaning pulleys which release wet material from the conveyors to ensure maximum efficiency. Canvas conveyor covers also comes standard providing easier access.

Sound Absorption

The variable speed fans drastically reduce the engine noise. The engine compartment hoods are also lined with a sound absorbing material which keeps the sound of the engine away from the operator.

Conveyor Swing

Mobility is critical. The secondary conveyor on the RX-600 swings 60˚ to the left and right. This feature makes it possible to mill tight turns, and follow trucks in another lane. Conveyors feature infinitely variable speed and self-cleaning head and tail pulleys.

CUTTER HOUSING

Cutter Housing

The cutter housing and drum are completely modular allowing it to be easily interchanged with other width housing and drums. The inside walls of the cutter housing are fully lined with replaceable chromium-clad wear plates to ensure the housing withstands the abuse of the milling operation.

Dual Spray Bars

Two independent stainless steel spray bars positioned at the front and rear of the cutter housing provide increased tool life and dust control. Each spray bar can be controlled independently or both can be adjusted from a master control. Spray system can be easily connected to air system for quick purging and winterizing.

A Closer Look

- **A material brace on the front moldboard applies even pressure to the front edge of the cut for excellent**

  material sizing Bolt-on tungsten carbide scraper blades at the rear moldboard add to the housing's toughness
- **Adjustable endgates with replaceable shoes at the high-wearing front and rear corners**
- **Replaceable, 1/2" (12.7 mm) chromium-clad (600 BHN) wear plates cover all potential wear areas (shown on right & shaded blue)**
- **Cutter housing is made of T-1 steel (350 BHN)**

Adjustable Moldboards

The angled rear moldboard can be set in a fixed position or in float mode. Float allows the moldboard to adjust up and down with the elevation of the cut, and the height of the rear moldboard is fully adjustable. When the moldboard is fully raised the engine is shut down for safety.

Both the rear and front moldboard on the RX-600 are angled in toward the drum. This allows less material to accumulate around the drum, which means increased component life, production rates, and efficiency.

CUTTER DRUMS

Cutter Drums

Specialty cutter drum designs are available from wide spaced excavating patterns to fine spaced micro milling patterns as well as double hit drums to improve production without sacrificing quality of cut. Multiple tooling options are available including Sollami®, Kennametal® and Keystone® Quick Change systems. With our engineering expertise we can design drums best suited for your application that will offer you the lowest operating costs and maximize your profitability. All of the cutter drums are designed and built by us utilizing three-dimensional solid modeling and highly accurate robotic welding.

Engineering Expertise

There is no substitute for outstanding design. Roadtec engineers put an enormous amount of time and effort into designing machines that perform at the highest level in every possible application. Various lacing patterns are available on each cutter drum allowing the machine to obtain the desired surface texture. Innovative options such as the VCS® system are available to allow machines to cut at different widths with minimal effort.

Cutter Drum Gearbox

Heavy-duty, high-torque gearboxes transfer power from the drive belts to the cutter drum. Shear couplings are also used. If the drum strikes a buried obstruction that would damage the engine, the shear coupling will separate the input shaft from the gear box to protect the engine. The coupling is easily and quickly replaceable.

Cutter Access

Changing cutter teeth is much easier with the rear moldboard fully raising to expose cutter teeth. The rear moldboard slides vertically for a much cleaner tooth changing process. A safety disengage will shut off the machine when the moldboard is fully raised. A power pack will raise or lower the moldboard when the machine is off.

Drum Styles

- Standard 5/8" (16 mm) Single Hit Triple Wrap: The most versatile drum available. Good performance at varying depths.
- Double Hit Quad Wrap: Drum designed for typical cut depths for overlays. These drums can improve forward speed of machine without sacrificing surface texture and increase tooth life.
- Single Hit Profiling: For 4" or less of removal at a normal 40 to 50 fpm.
- Single Hit Micromill: Fine milling, for 2" or less of removal at slow speeds (20 to 25 fpm to leave straight lines).
- Double Hit Micromill: Fine milling, for 2" or less of removal at higher speeds (40 to 50 fpm to leave straight lines).

Roadrunner™ Drums

Quad Wrap, double hit drums allow the machine to travel at higher speeds while maintaining a consistently smooth surface pattern and increasing the tooth life. This allows contractors to mazimize production and still leave a good surface for overlays.

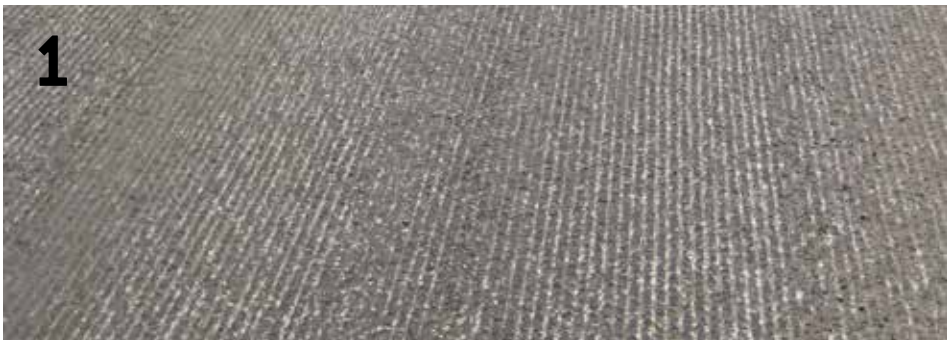
Exclusive VCS® System

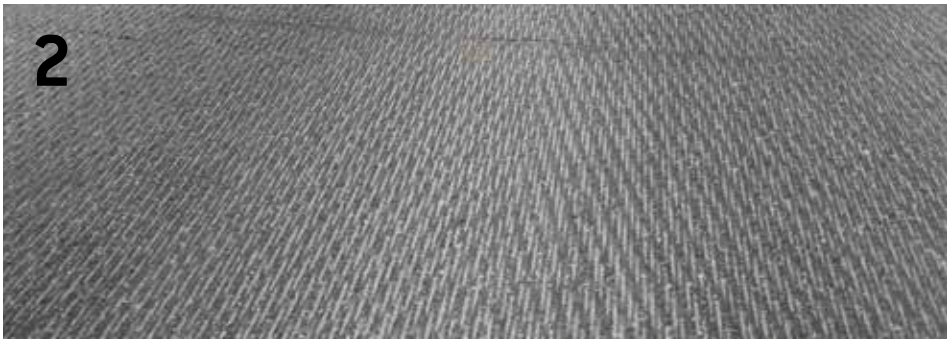
The Variable Cutter System allows the RX-600 to cut at widths of 24" (610 mm), 36"(914 mm), and 48" (1,219 mm) without changing the cutter housing. A hydraulically adjustable segmented rear moldboard included with VCS® allows the machine to easily adapt to the different cutting widths.

Drum Options

Roadtec offers a number of drum options to allow smooth machine operation in different applications. With a variety of widths and tooth patterns available, you can select the drum best suited for your projects. Various tooth patterns will yield their best surface at different speeds.

1. Roadrunner™ Double Hit Quad Wrap - 100 fpm
2. Standard 5/8" (16 mm) Single Hit Triple Wrap - 100 fpm





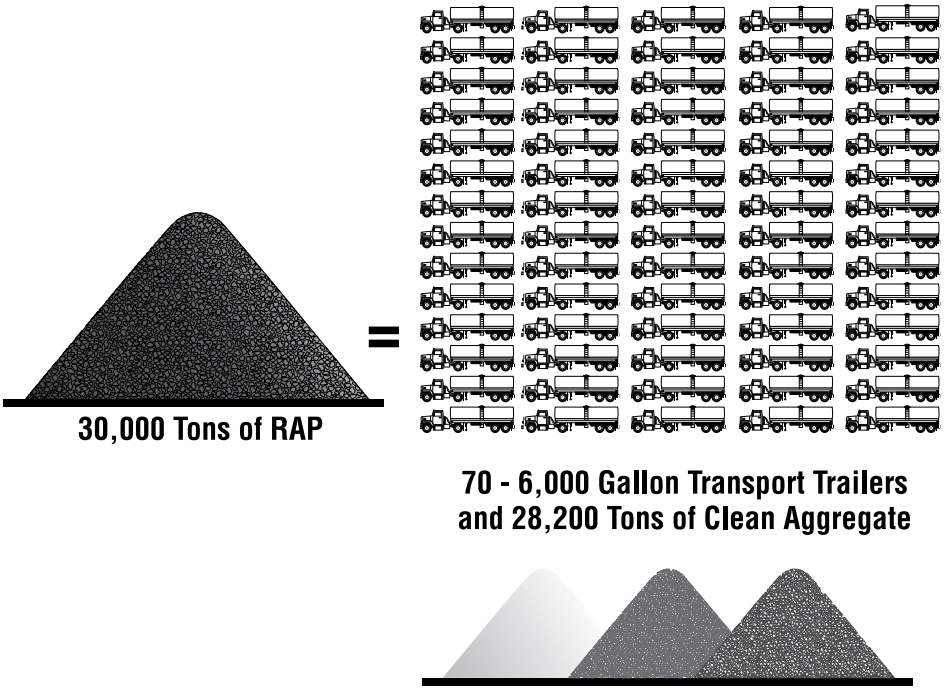
SMOOTHNESS

Milling for Smoothness

When smoothness of the finished pavement is important, it's good to start with a level milled surface. Then the paver has every opportunity to get it right. Today's cold planers with their extremely accurate grade and slope controls can be used to level the road in longitudinal and transverse directions. Using current grade and slope control technology will result in a much smoother surface, and many states now require smoothness measurements on milled surfaces. Roadtec now offers the SmoothMill™ grade and slope control package for easier operation.The sonic sensors scan the surface 40 times per second and produce a signal which automatically adjusts the leg tubes of the cold planer so the resulting milled surface will conform to your specification.

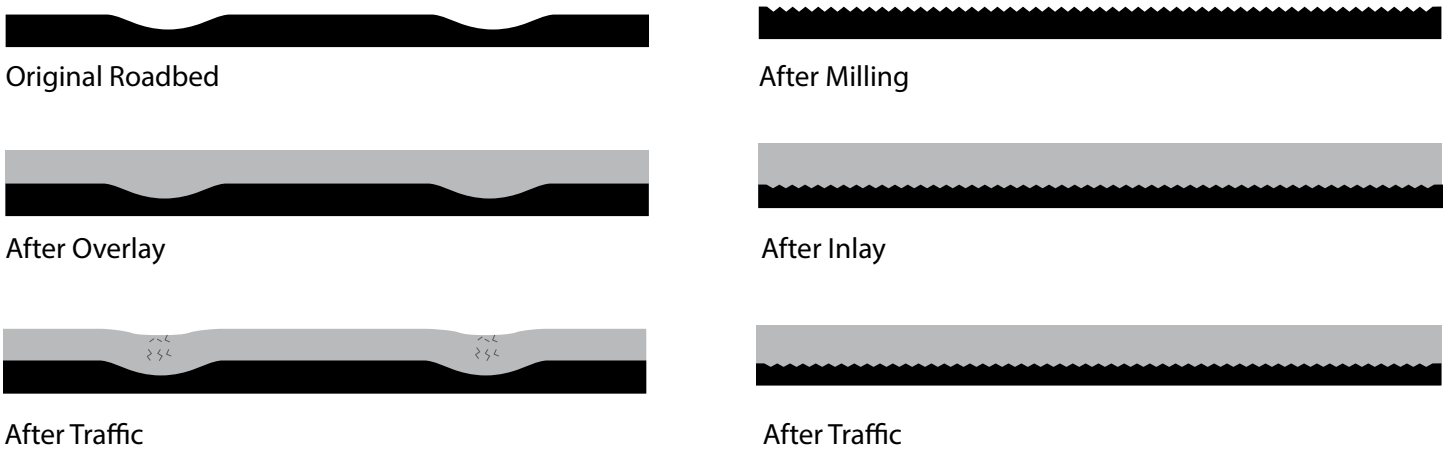
Milling Advantages

Milling an uneven pavement before repaving will make resufacing easier and will assure you the best possible situation for achieving smoothness, especially if your cold planer is equipped with automated grade and slope controls. Plus, you can turn the removed material into money by recycling it in your own asphalt plant or selling it to an asphalt producer.



A 30,000 ton pile of RAP with an average 6% liquid AC content is the equivalent of about 28,200 tons of clean aggregate plus 420,000 gallons of liquid asphalt! This material can replace virgin materials in new mix. The recycled materials are as good as virgin rock or AC.

Overlays can crack and re-rut but milling and then inlaying the pavement prevents re-rutting and also provides better density numbers.



GRADE & SLOPE CONTROL

Roadtec SmoothMill™

This system automates the elevation of the front legs by using grade sensors or slope sensors for the right and left hand side of machine. SmoothMill™ includes two dual control panels that can be connected on the ground at the middle of the machine or in the rear to control both sides of the machine, two single control panels for operators platform, one to control each side of the machine, two wire rope sensors, two single eye sonic sensors, plugs at side of machine for controls and sensors, mounting hardware, cables and junction boxes. SmoothMill™ utilizes MOBA® brand sensors and controllers.

Smoothmill™ Single Averaging Ski

This optional addition to the Smoothmill™ system includes two additional MOBA® five-eye sonic sensors for averaging the grade on one side of the machine. The sonic sensors are averaged together with each other utilizing the rigid milling machine frame as a ski and can be mounted on either side. This allows the milling operation to achieve a greater improvement in smoothness in preparation for the paving process. The option also includes two junction boxes, cables, and mounting hardware.

Smoothmill™ Dual Averaging Ski

Hardware upgrade from single to dual averaging ski provides even greater possibility for ride improvement. This option includes necessary hardware and MOBA® sonic sensors to allow averaging of grade on both sides of the machine.

GUARDIAN™

Monitor, Trouble-shoot, and make adjustments remotely or at the machine

The Roadtec Guardian™ Telematics System consists of software, on-machine viewing screens, and wireless signal boosters to send from and receive data at the machine. The information can be viewed at the machine or on your computer screen from a remote location. Numerous other functions can also be viewed. Guardian™ Telematics System is standard on e/ex-series cold planers. Software is automatically updated when a new version is released.

Monitor & Troubleshoot

- Fuel Consumption
- Engine Codes
- Alarms
- Starting Circuit
- Cutter Circuit
- Water
- Conveyor Speeds
- Propel Functions
- Load Control
- Steering Circuit
- Cutter
- Grade and Slope
- Hydraulics
- Engine

Your machine can be located by GPS using the Guardian system.

Help from Roadtec Service is only a phone call away. They see the same information you see and can guide you through the fix or do it for you.

By Roadtec for Roadtec

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

Use Remotely & at the Machine

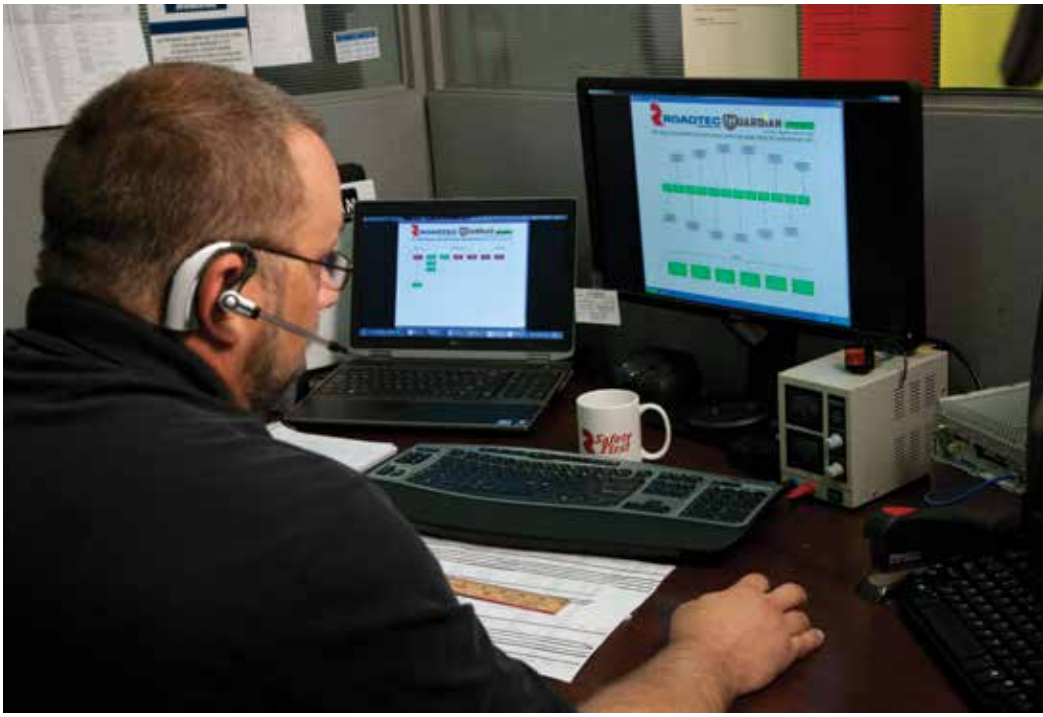
Log into the machine from your computer or you can view the information on the machine's display screens.

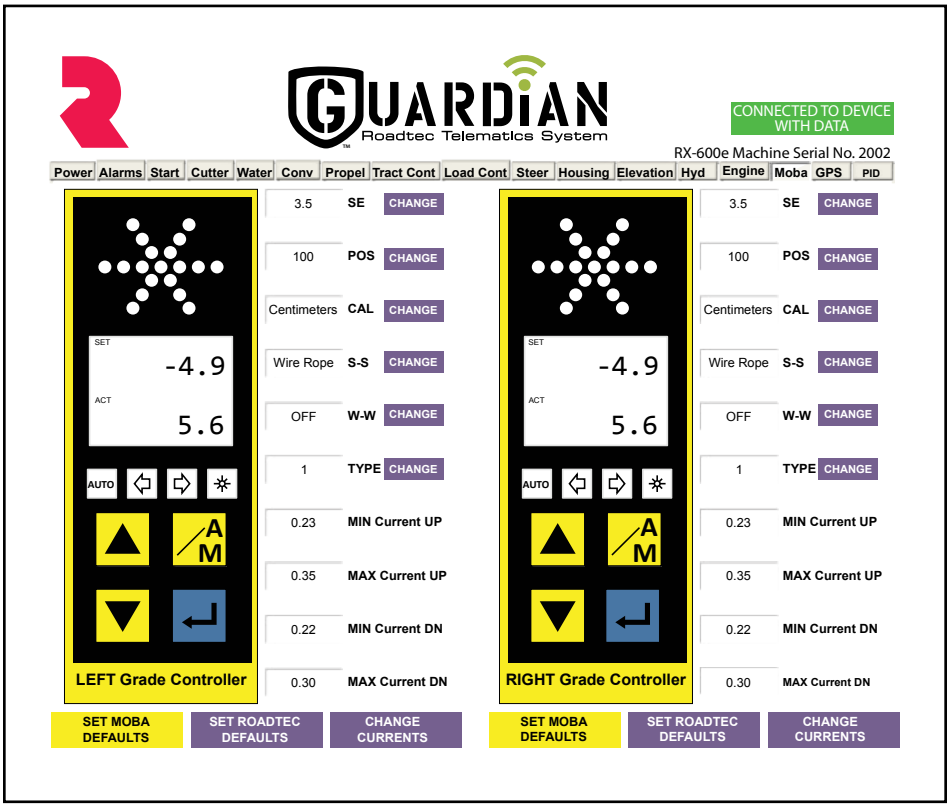
Know What's Happening

Designate someone of your choice to receive automatic e-mails the Guardian™ Telematics System sends about any fault codes that may be generated. Your people can then log on to the machine and address the problem.You can also call Roadtec Service, and one of the Roadtec service techs can dial into the machine to confirm and solve 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.





MAINTENANCE ACCESS

Extra Features to Make the Work Go Smoother

Centralized Lubrication

The grease fittings are arranged in zones that are clearly labeled with recommended amounts to make preventative maintenance as convenient as possible.

Bolt-On Track Pads

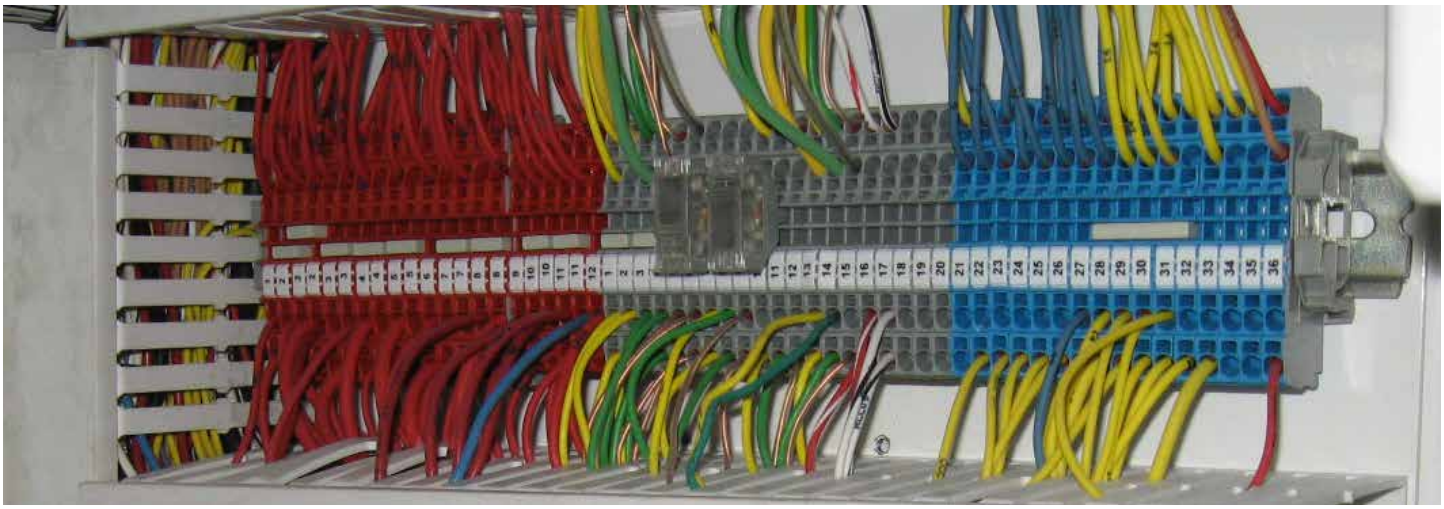
Bolt-on style track pads are available allowing quick and easy replacement of worn pads.

Light Package Is Supplied

All models come with lights to illuminate key areas of the machine and two halogen magnetic work lights. Additional work lights are available.

Easy Engine Access

Roadtec cold planers offer the best engine access in the industry. A large hood opens hydraulically for complete access to the engine. Additional access doors are found at each service point.



Easy Clean-Up

The standard high pressure washdown system helps to keep the machine looking and running like new. The system includes wash down bars at conveyors and plenty of hose to reach all points of the machine.

Air Compressor Included

The RX-600 comes with a standard compressed air system. Two storage tanks and a compressor let you use your air tools for service and maintenance tasks.

Conveyor Access and Belt Tensioning

Each end of the belt on each conveyor can be independently tensioned. Keeping the belt tensioned properly ensures that the belt is tracking correctly, which improves belt life.

Electrical System

Standard 24 volt electrical system with 105 amp alternator. CAN-based electronics with on-board and remote diagnostics to allow simple trouble shooting throughout the machine.

OPTIONS

Miscellaneous

- Hydraulically folding secondary conveyors make the cold planers much easier to transport by greatly decreasing their length.
- Operator Station Canopy
- Automated Lubrication System
- Tow Hitch

Tracks

- Three-track or Four-track

Additional Lighting

- Night Light Package – Four 24v high intensity discharge lights enhance visibility for work performed at night

Auxiliary Power

- 4 kW Continuous Duty Hydraulic Generator
- 15 kW Continuous Duty Hydraulic Generator

Grade and Slope Control

- Roadtec SmoothMill™ Digital Grade and Slope Control System for operator and ground man (featuring MOBA® components).
- Sonic Averaging Ski Package with one or two skis.
- Rear Leg Control System. Sonar Grade Control for rear elevation.

Cutter Systems

- Sollami®, Kennametal®, or Keystone® systems available.
- Profiling or Micro-Milling Drums (multiple widths and spacing available)
- VCS® Variable Cutter System

Cold-in-Place Recycling

- Dual Control Package For Bi-Directional Operation
- Cutter Housing Bi-Directional Package
- Cold-in-place Additive System

EDGE™ Extended Equipment Warranty

The EDGE™ Extended Equipment Warranty is an industry leading warranty that demonstrates our confidence in the quality and reliability of everything we make. This warranty goes above and beyond power train or extended engine warranties currently offered in the industry by covering more components and repairs as well as covering repairs done by the customer for a term of 3 years or 3,000 hours on the machine and 5 years or 6,000 hours on the engine. By covering most components other than wear items at full replacement cost and for a longer time period, the EDGE™ warranty gives owners an edge over their competition by lowering their operating costs.

EDGE™
Extended Equipment Warranty
by ROADTEC

SPECIFICATIONS

ENGINE
- RX-600e: Tier 4i; Cummins® QSX-15 620 hp (462 kW) @ 1,850 rpm
- Rx-600ex: Tier 3; Cummins® QSX-15 620 hp (462 kW) @1,850 rpm

WEIGHTS
- Three-track: 56,890 lbs (25,805 kg)
- Four-track: 59,220 lbs (26,862 kg)

ELECTRICAL SYSTEM
- 24v system with onboard and remote diagnositcs via Roadtec Guardian™ Remote Telematics System
- Two 8D batteries & 105 amp alternator
- Emergency engine shut-down; cutter disengages and engine shuts down when rear cutter door is opened.

PROPEL SYSTEM
- Hydrostatic drive with automatic traction control.
- Hydraulically controlled suspension. Manual and automatic.

SPEEDS FOUR-TRACK
- Travel 0-3.2 mph (0-5 kph)
- High working 0-163 fpm (50 mpm)
- Low working 0-110 fpm (34 mpm)

SPEEDS THREE-TRACK
- Travel: 0-3.2 mph (0-5 kph)
- High working: 0-127 fpm (39 mpm)
- Low working: 0-100 fpm (30 mpm)

TRACKS
- Direct hydraulic, plantary track drives. Bolt-on, replaceable poly track pads 12" (305 mm) wide.

TURNING RADIUS
- Three-track: 5'8" (1,727 mm)
- Four-track: 6'8" (2,032 mm)

OPERATOR STATION
- Left/right side full-function operator stations on shock-absorbing operator platform with joy stick controls

GROUND CONTROLS
- Ground controls for mold boards, emergency stop, horn, load-out conveyor, rear steering, end gages, and elevation.

CONVEYORS
- 32" (813 mm) wide endless, heavy-duty belts with 1" (25 mm) tall molded rubber cleats
- Canvas load-out conveyor covers and self-cleaning pulleys
- 120° load-out conveyor swing capability

STANDARD LIGHT & ELECTRICAL OUTLET
- 24v lights & 24v DC power outlets, 2 magnetic base work lights

SERVICE CAPACITIES
- Fuel tank ..... 250 gal (946 l)
- Hydraulic fluid tank..... 90 gal (341 l)
- Water tank ..... 800 gal (3028 l)

CUTTER SYSTEM FEATURES

MAXIMUM CUT DEPTH
- 13" (330 mm)

STANDARD TOOTH SPACING
- 5/8" (16 mm)

STANDARD TIP DIAMETER
- 44" (1,118 mm)

STANDARD DRUM SYSTEM
- Sollami® triple wrap, single hit drum with cutter bits for traditional milling
- Kennametal® drum optional

CUTTER DRIVE & GEAR BOX
- Bolt-on with mechanical v-belt drive. Automatic drive belt tnsioning.
- W-40 Fairfield® cutter gear box with mechanical fail safe to protect engine from shock loads.

CUTTER SYSTEM OPTIONS

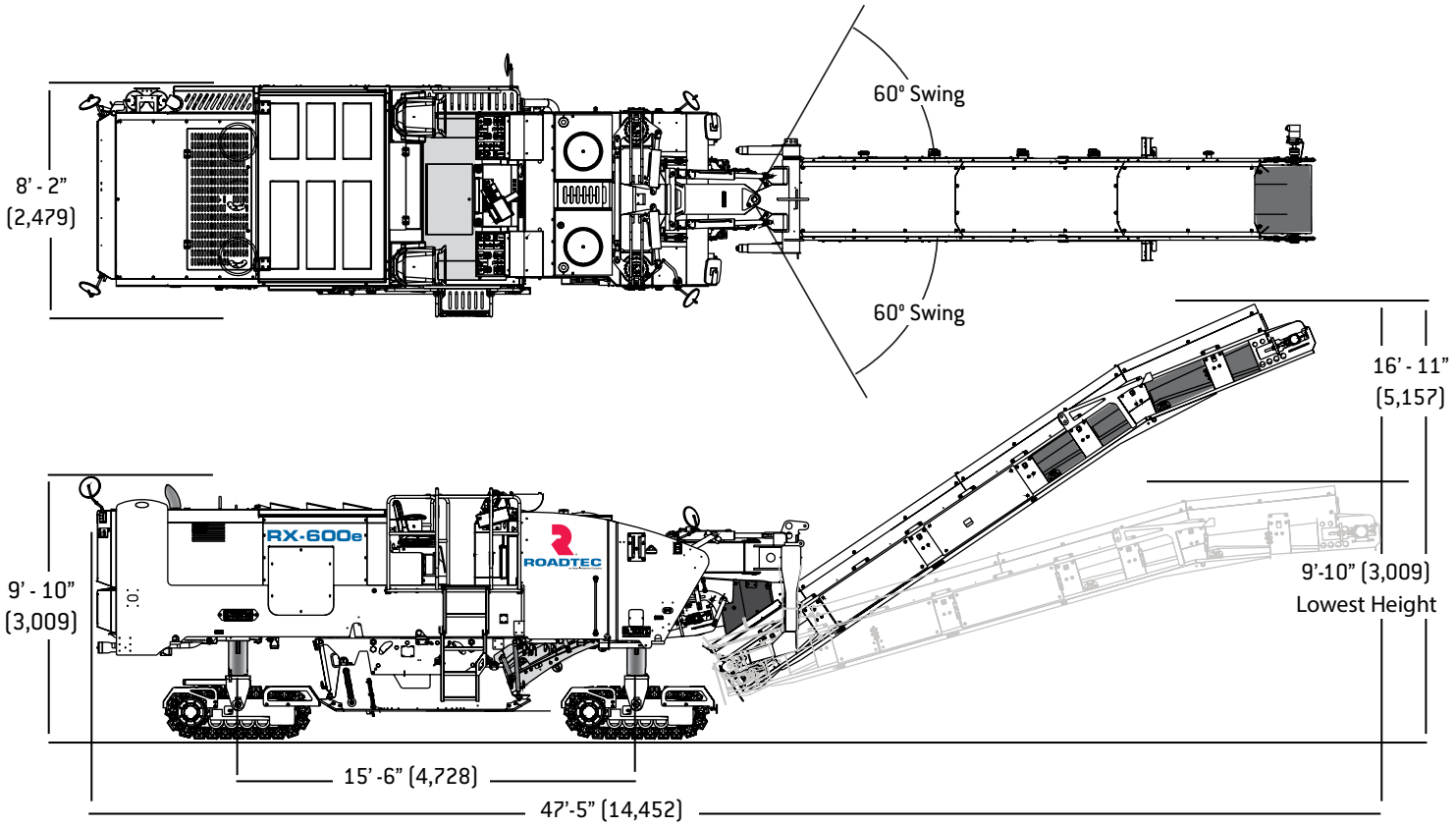
STANDARD CUTTER HOUSINGS & CUT WIDTHS
- 75" housing with 6'3" (1,905 mm) width cutter drum. (Three-track only)
- 79" housing with 6'7" (2,007 mm) width cutter drum.
- 86" housing with 7'2" (2,184 mm) width cutter drum.

OPTIONAL VCS™ VARIABLE CUTTER SYSTEM

- Cutter housing with segmented rear moldboard capable of widths of 24" (610 mm), 36" (915 mm) and 48" (1,220 mm)
- Special VCS® housing allows change of cutting widths by only changing drum
- Maximum Cut Depth: 12" (305 mm)

GRADE & SLOPE AUTOMATION

- Mechanical System
- Digital SmoothMill™ Grade & Slope Automation
- Digital Prewiring for SmoothMill™ Averaging Ski



Dimensions in brackets are mm.

Specifications are subject to change without notice.

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