

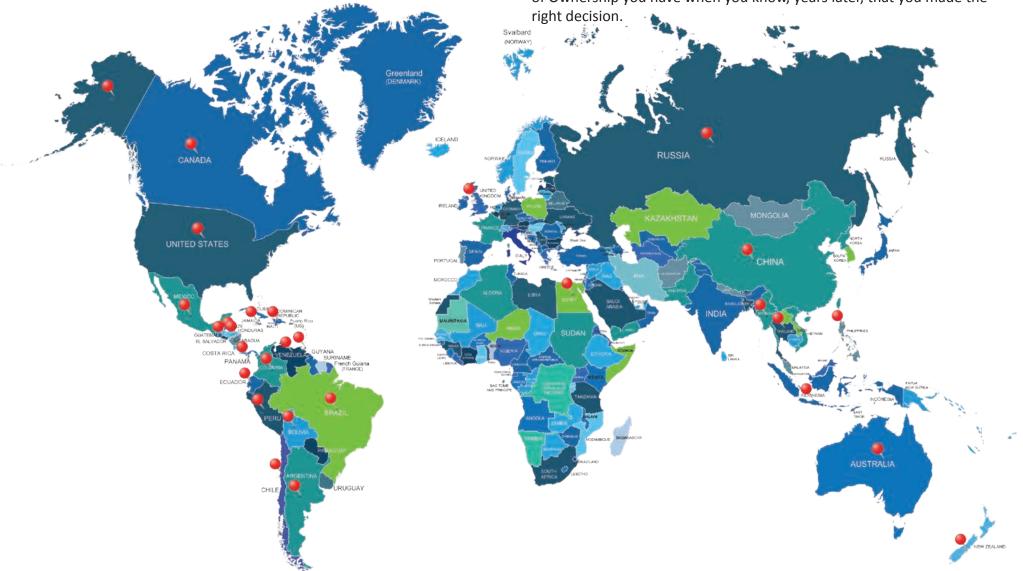
# RoadSaver III-E



AVOID DOWNTIME AND INCREASE PRODUCTIVITY

Choosing the right machine can be a challenge. The ads all say they're the best, the most worthy of your consideration. We encourage you to look beyond the ads, beyond the window sticker, and review that initial purchase price along with the total *Cost of Ownership*.

Truth is, a buying decision should be based on all the factors, not just the initial purchase price but all the ongoing costs as well. The ongoing costs you will pay year in and year out. Costs that are affected by Performance, Reliability, Maintenance, Resale Value, Service and the Pride of Ownership you have when you know, years later, that you made the



Please take a look at the RoadSaver "beneath the skin" and see how the RoadSaver is able to offer world class leading value.

YOU CAN FIND ROADSAVERS IN OVER 26 DIFFERENT COUNTRIES AROUND THE WORLD.



England



Argentina



Russia



Chile



Thailand



EVERY ROADSAVER EVER BUILT IS STILL IN OPERATION TODAY.



Russia



Chile

Panama



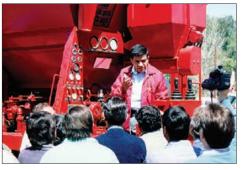
Turks & Caicos



China



Brazil



**Buenos Aires** 



# PURCHASE PRICE

Don't let that initial price fool you.

Some manufactures provide a "teaser" rate which represents a bare-bones machine few buyers, if any, ever select. Many times we have heard the story of buyers having a much higher price once the normal "options" are added.

We prefer to begin with a standard unit which includes many items others may charge extra for or may not even offer at all.





















# **OUR STANDARDS INCLUDE:**

- ASTM572 Steel Construction
- Smart-Ops Monitoring System
- Hydraulically controlled Steel Pugmill Shutoff Gate
- Hydraulically controlled Steel Diverter Assembly
- Traction Master Conveyor
- Twin-drive, twin-shaft performance Master Pugmill
- \* Twin Joystick Controls

ASTM A572 High Tensile Steel Plating, beauty beneath the skin. You can't tell by looking but you'll know after just a few years of hard service. In addition to superior steel, RoadSavers use superior building techniques. Tank seams are overlapped and welded inside and out. Aggregate hopper steel is formed with the steel grain aligned with the flow of the aggregate to prevent premature wear.

#### **SMART-OPS MONITORING SYSTEM**

**The best friend an operator ever had.** Our software package was designed to provide the operator with REAL TIME data from engine performance to mix design compliance. The production information for each component is calculated and presented to the operator in an easy to read format.

When it comes time to calibrate, Smart-Ops will walk you through it with easy input and easy to follow directions.

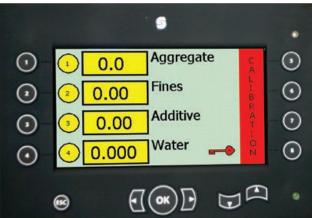
Use Metric? Conversion from US to Metric is a simple push button away.

Smart-Ops comes complete with a self-diagnostic screen in the unlikely event of an electrical component failure. This screen makes it quick and easy to verify operational status.

The computer display has an IP68 rating which means it is dust proof and approved for washing or rinsing with a water hose. The display features both back lighting and reflective lighting. This means the operator will be able to see the screen as easily in bright sunlight as in the dark of night.

Languages included in the basic software package (Besides English) are Spanish, Thai and Russian. The operator can change the language the screen is shown in with a simple key switch. (We have other languages available too!)











# HYDRAULICALLY CONTROLLED STEEL PUGMILL SHUTOFF GATE:

Instantaneous joystick control of the steel shutoff gate allows precise metering of material. Every RoadSaver built is delivered with a steel shutoff gate to provide precision control of material flow. Release the amount of material you want, when you want it. No more having to empty your pugmill when you mix a batch; no more guessing how much mix is enough.

Not all slurry or micro work is on open highway, many projects require short runs and precise control of your materials, the RoadSaver was designed with these time tested features built in. Standard.

Run a RoadSaver for one week and you'll ask yourself why other machines aren't as friendly.







#### **DIVERTER ASSEMBLY**

Instantaneous joystick control places material where you want it, when you want it. **Every RoadSaver built is delivered with a steel diverter** to provide precision control of material flow. To the center of the box, the left, the right, the uphill side, the shoulder side; wherever you need material, whenever you need it.

#### TRACTION MASTER CONVEYOR SYSTEM

A precision engineered, hydraulically driven, multi-roller, aggregate delivery system. We engineered the Traction Master to balance stress loads. We used specially designed rollers and tough high performance materials to guarantee longer lasting conveyor belts and conveyor systems.

The Traction Master is designed with a reverse gradient. Moving the aggregate up-grade means the hopper will empty from the front of the machine to the back, assuring that you have constant full material delivery. Various slope angles within the hopper design conform to the Traction Master reverse gradient. The Traction Master conveyor platform and herringbone pattern pulleys are designed to promote self-centering of the conveyor belt. As a result, RoadSavers have exceeded 10,000 hours on the original conveyor belt.

# TWIN-DRIVE, TWIN-SHAFT PERFORMANCE MASTER PUGMILL

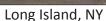
We build the strongest, most powerful pugmill available. We don't use one motor to drive two shafts through a set of gears, we use two powerful drive motors and keep them in time with a set of gears. This balanced load with twice the power and torque allows the RoadSaver pugmill to easily outperform and outlast all others.



















San Francisco



Punta Arenas, Chile





Fairbanks, AK

# TWIN HYDRAULIC JOYSTICKS

# Twin Joysticks control the following functions:

- One button sequenced start/stop control
- **Engine Throttle Control**
- Spreader box lift
- Spreader box side shift
- Spreader Box auger controls
- Pugmill Gate open/close
- Pugmill diverter, left and right
- Aggregate vibrator control



An industry first, the ease and convenience of this advanced innovation makes the RoadSaver the operator's choice in surfacing machines.

# **C.A.N. (CONTROL AREA NETWORK)**

- **Joysticks**
- Switch pads
- Computer components
- Wiring

These all work together to provide easy troubleshooting and if needed fast component replacement.

The on-board Smart OPS monitoring system reads and quickly reports an error if one occurs.

The Joysticks are also Hall Effect and use magnetic fields to determine Joystick position thereby removing the wear and "slop" of the old mechanical type.



HALL EFFECT SENSING TECHNOLOGY JOYSTICKS

#### **ELECTRIC/HYDRAULIC SYSTEM**

Another Industry First - Patterned after the design of aerospace control systems, this advanced feature performs hydraulic functions based on electrical input and system demand.

Complete system redundancy is built in through a fail-safe override systems for all critical systems.

Engineered for continuous duty with worldwide success for over 40 years.

**Energy Smart:** Pressure Compensation and Load Sensing controls combine the electrohydraulic systems with energy smart power usage. Individual post compensated hydraulic circuits keep the horse power demand low while providing the power needed to accomplish the most demanding tasks.

- Low power demands equal reduced fuel consumption
- Less wear on the hydraulic components
- Lower heat generation
- Lower machine noise
- LONGER MACHINE LIFE











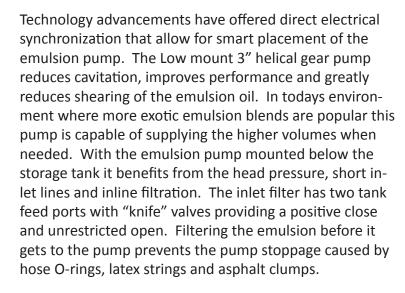
#### **EMULSION DELIVERY SYSTEM**



All RoadSavers have several different Emulsion Delivery systems available and 800 gallon emulsion tanks.

The fender mounted vane pump option provides a highly accurate design that draws emulsion from the storage tank and directs flow through the RoadSaver 3 way valve to either recirculate material or directs flow into the Pugmill.

The fender mounted 2" helical gear, positive displacement pump provides the same operation as the vane pump with lower shear on more sophisticated emulsions.



- Multiple pump sizes and types available.
- Improved pump performance.
- Filtration options

#### **DRY ADDITIVE SYSTEM**

Hydraulically driven, infinitely variable, removable fines feeder with Smart-Ops digital ratio meter allowing precise adjustment from the Operator Control Center.

Precision Feed System: Each RoadSaver Fines Feeder is built with an engineered metering tube which controls the amount of material delivered with precision. You get what you want, when you want it.

**Soft-Trough:** Ever have a problem with moisture in your cement? The Soft-Trough was designed to help clear these annoying problems. And if you ever do experience hardened cement, our Fines Feeder is easily removable for cleaning and service. Don't need any dry additive? Just remove the Fines Feeder and store it.



# ADDITIONAL "BENEATH THE SKIN" FEATURES

Polyurethane Liquid Additive Tank - Off the shelf tanks just wouldn't hold up so we designed our own. Engineered for the stress of road work and highway travel.

#### **Hydraulic System:**

- We use only premium components, piston pumps and load sensing controls.
- We install magnetized suction strainers on all our RoadSavers.
- We install shutoff valves on each suction line.
- ❖ We use "thru hull" or bulkhead fittings where hydraulic lines pass through steel walls.
- All lines are properly routed and mounted professionally.

**No Rear Pugmill Bearings -** Those out-of-sight, hard to reach or grease bearings don't exist on the RoadSaver. We use load bearing drive motors, protected from the working area.

**Water System** - We drive the water pump with a Bent Axis Piston motor, allowing high RPM and a service life that could last as long as the machine. This costs 80% more but allows the RoadSaver to deliver 130 Gallons per Minute at 110 PSI, full water pressure when you want it, where you want it, regardless of other water demands. A diaphragm valve allows precise metering of water to the pugmill. A float system tells you the water level at a glance.









**Safety Catwalk Platform with fall protection** - Allows easy, safe access for tank and hopper inspection or service. D.O.T. rated lids are standard on the storage tanks. A vacuum breaker water loading pipe is provided for hydrant compliance (as well as direct in tank loading) and includes a one-way check valve.









#### **PERFORMANCE**

The engineers at *Etnyre International* work tirelessly with operators to design each RoadSaver to be smooth operating and exceptional in performance. Exceptional because we build performance features into every RoadSaver, below are just a few:

#### **ENGINE:**

- Cummins factory certified engine installation means your engine warranty is approved world-wide; from mounting to fuel delivery, electrical and cooling, everything is tested and certified
- Full system load is 88 Horsepower, we provide 110 Turbocharged Horsepower. Your engine runs at a comfortable power output and you have reserve power if you ever need it, at all altitudes
- Oversized engine cooling and thermal hydraulic cooling means full power all day, every day, even under the worst possible conditions

#### **HYDRAULIC SYSTEM:**

- Premium piston open loop pumps
- Load sensing controls to maximize efficiency and minimize energy consumption
- Bent Axis Piston motor on water pump

#### **OPERATOR CONTROLS:**

- Twin joysticks control all of the major machine production features
- Redundant manual over-ride backup systems
- Diaphragm water valve for precise flow control
- Smart-Ops Monitoring System

#### **MIXING SYSTEM:**

- Two drive motors, double the torque, double the power and a balanced load
- Infinitely variable pugmill RPM, instantly reversible
- Adjustable water and additive spray bars
- Joystick controlled steel shutoff gate.
- Joystick controlled steel diverter.



#### **VIBRATOR SYSTEM:**

- Hydraulically driven vibrator beam, operator variable frequency and amplitude.
- Activated from Operator Control Center or Controlled though Computer Automatic Sequencing. Push button control or automatic, set it and forget it.
- The Vibrator Beam is made of 5/16" ASTM572 steel, engineered for life.

# WHEN YOU'RE OUT ON THE ROAD, EVERY MINUTE COUNTS.

And you can count on your RoadSaver to perform day-in and day-out.

# **RELIABILITY** - Because the highway is no place to compromise.

The actual repair costs of equipment only accounts for a fraction of the costs an owner may suffer if a failure takes place on the road. Downtime costs in lack of production, lost crew time, rescheduling, loss of opportunity and a host of other factors may be much higher. Uptime becomes a valuable consideration when selecting your new machine.

Everybody talks about uptime; we do something about it - things that are more than skin deep. Our choices in every component are made with a single criteria; the best choice for performance and longevity, regardless of price. Things like an oversize radiator built to exceed the OEM standards, the top-of-the-line hydraulic clutch instead one that "will do", the Traction Master Conveyor, remote, ground-level service points, oversize hydraulic fluid capacity and a host of other features. Features you may never see that work hard for you every day:

- Certified component installation\*
- ASTM572 Steel Construction
- An oversized engine radiator, excess cooling capacity
- Oversized hydraulic, thermal cooled fluid reservoir
- Premium hydraulic clutch for the jackshaft
- Magnetized hydraulic fluid suction strainers

- Load Sensing Hydraulic Piston Pumps
- Milliken Oil Valve, designed for the life of the machine
- Steel Emulsion lines
- Steel Diverter
- Steel Material Gate
- Full system backup manual over-rides

\*Certification Testing: We have full certification tests done by Cummins to assure our installations meet or exceed factory guidelines. This assures full warranty coverage anywhere in the world, factory certified.















#### **MAINTENANCE**

RoadSavers are designed and built to withstand the rigors of heavy daily performance. However, we also design the RoadSaver with the knowledge that someday, somewhere, repairs may have to made. So we build each component with consideration for easy service:

- The RoadSaver pugmill is an independent unit that sits on rails for easy slide-in, slide-out accessibility with the removal of six bolts.
- Pugmill paddles are fitted with replaceable carbide tips and wear plates.
- There are NO rear pugmill shaft bearings to grease or worry about, we use load bearing drive motors with protective spacing from the pugmill.
- The Traction-Master Conveyor is mounted on rails for easy slide-in, slide-out access.
- Hard to reach grease fittings won't get greased, so we install remote grease points at walkaround height.
- Should you ever need to work on hydraulics, we have installed shutoff valves on each suction line.
- We help prevent fluid contamination by installing magnetized hydraulic fluid suction strainers.

Whenever possible, we select premium components that offer world-wide support so our customers don't have to call across the country or around the world for a replacement part. We



also keep most components in stock so we can respond immediately should the need arise.

Painting - We don't just weld everything together and then paint the finished product, we paint each assembly before it is installed on the machine. Items found "beneath the skin" like the tops of fender braces will experience water intrusion and will eventually rust, along with the fender. We prime and pro-tect all hidden surfaces before they are assembled.

# **SERVICE**

Our RoadSaver Team is available by phone or email to assist you should you ever need help. We have trained individuals on staff and can reach out after hours if needed. Shipping, if necessary, is often done the same day.

When we build a new RoadSaver, we try it out here first. All systems and functions are given a thorough final check so when you receive your machine, there are no surprises. When we ship a RoadSaver overseas, spare or removable parts are locked in the tanks and a photographic inventory is made. The machine is then treated and shrink wrapped for protection during the ocean voyage.

With hundreds of machines in operation worldwide since 1983, no one has ever worn out an aggregate hopper, rusted out an emulsion or water tank or has experienced any other kind of serious structural failure.

RoadSavers have run over 20,000 hours on their original engines, 20,000 hours with no hydraulic failures, 10,000 hours on conveyor belts and the records keep growing. Meticulous hose and wiring work, careful selection of each component and an "Engineered for Life" build attitude keeps each RoadSaver up and running.

# RESALE VALUE - You're not buying a RoadSaver to sell it but...

While the value of some machines may free-fall as soon as they go into service, RoadSavers have held their value with a Steel grip. Used RoadSavers seldom come on the market but when they do, resale's are usually fast and returns exceptional.

Depreciation of value has a lot to do with how well a machine will hold up over time. Build quality, durability and performance are key reasons why RoadSavers rank #1 in resale value!

Resale Value can actually account for a substantial part of your cost of ownership. Seldom considered, it can be the largest single factor.



# SHOULD YOU BUY A ROADSAVER? YES! THERE IS NO EQUAL!

No other machine offers the build quality the RoadSaver offers! No other machine offers the standard equipment systems the RoadSaver offers! No other machine offers the engineered for life RoadSaver design!

The RoadSaver sets the Performance Standard no one else can match! The RoadSaver sets the Reliability Standard no one else can match! The RoadSaver sets the Value Standard no one else can match!

# **Built by Operators for Operators**

We build equipment that you'll pass on to the next generation.

#### WHEN YOU BUY A ROADSAVER - YOU BUY IT FOR LIFE!

