

# innovation



Asphalt  
plant technology  
that saves you money

# Innovations that save time & money



## MAXAMizer® Heat Recovery System

Imagine the possibilities if you didn't have to worry about stack temperatures. No worries about condensation or mudding the baghouse. No worries about overheating and ruining bags. You could flight the drum to create a heavy veil and focus all your fuel on simply hitting target temperature for the type of asphalt you want to produce. You could save 5% to 10% on fuel every day.

The MAXAMizer® Heat Recovery System makes all this a reality. Special high efficiency flighting reduces drum exhaust temperature below 200°. A small modulating heater, dedicated solely to maintaining baghouse temperature, increases the baghouse inlet temperature to the preferred minimum (typically 225°). An automatic PLC controller maintains the requested baghouse temperature +/-5°. Even though there is a second burner, overall fuel consumption is reduced 5-10% because baghouse stack

temperature is maintained far lower – no more heating the sky. Savings are greatest when running high percentage RAP because stack temperature is maintained as much as 150° less than the typical drum plant.

By maintaining stack temperatures below 275°, operators can also save money by using polyester bags instead of more expensive NOMEX® bags. Whether you are running virgin, RAP, hot mix or warm mix, the MAXAMizer® can save you money.

### MAXAMizer® Advantages:

- Save 5% to 10% on fuel
- Reduce bag costs by using polyester
- Control stack temperatures more precisely
- Eliminate mudding and acid rain
- Control asphalt temperature more precisely
- For WMA, HMA, RAP or virgin
- Stop heating the sky

- Rethink your asphalt plant, and you'll be surprised how much money you can save.

Who would think that a two burner system would consume less fuel than a single burner system; yet that is exactly what happens with the MAXAMizer® Heat Recovery System.

- Conventional logic also says you can't expose RAP to the main burner's open flames, but... if you do it right, you can eliminate steam, blue smoke and the need for superheating virgin aggregate. Doing it right means doing it with the patented Raptor® Recycle System.



MAXAMizer® Heat Recovery System Patent Numbers:  
6,672,751; 7,044,630

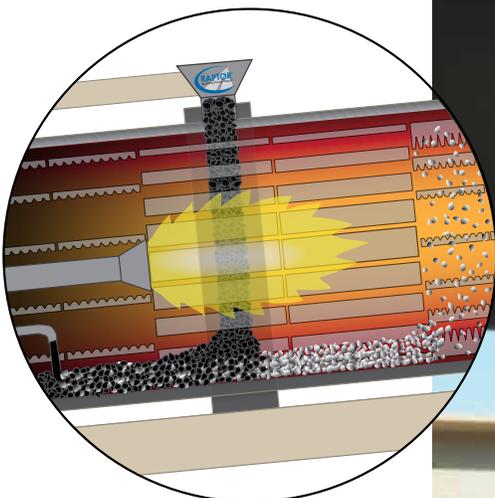
## Raptor® Recycle System

The big problems with running RAP are steam, blue smoke and the higher fuel costs associated with superheating virgin aggregate. The patented Raptor® Recycle System virtually eliminates these problems.

The Raptor® Recycle System introduces RAP directly into the combustion zone of the drum to take advantage of the tremendous radiant heat generated by the burner flame. MAXAM's patented method allows the RAP to absorb enough heat to drive off all the moisture, but not enough to let it burn. The Raptor® does this by limiting the time of the exposure to the radiant heat. By heating the RAP directly, it eliminates the need to superheat the virgin aggregate. The result is significant fuel savings, reduction in harmful emissions, and the ability to run a higher percentage of RAP - up to 50%.

### Raptor® Advantages:

- No blue smoke
- No steam
- No superheating virgin aggregate
- Lower fuel consumption
- Fewer emissions problems
- Higher RAP percentages
- Lower stack temperatures



# Innovations that prove “simple is better”

## AQUABlack® WMA System

AQUABlack® delivers distinct advantages with Microbubble™ foaming technology.

Size matters. Large bubbles that are formed when water is mixed with liquid asphalt quickly dissipate and leave an unmodified binder. Micro bubbles are the key because they stay in the mix until it's compacted. MAXAM's Microbubble™ technology uses 1000 psi to far out-perform all other systems in microbubble formation to produce the highest quality WMA.

The AQUABlack® System retrofits onto any plant including batch plants, and can easily be installed over a weekend.

The unit comes completely assembled, with major components in an enclosure that is heated for cold weather operation. Simply attach your A/C line, hook up water, install the control panel, and you're ready to go.

### AQUABlack® advantages:

- Fast and easy to install
- Simple independent controls
- Stainless steel foaming cartridges do not corrode
- All stainless valves and plumbing
- Comes assembled and tested
- Heated enclosure for cold weather operation
- Automatic air purge clears water out of lines at shut down
- Microbubble™ technology uses up to 1000 psi for super foaming
- Best WMA for lower temperatures
- Retains only ¼ cup of water as steam per ton of mix

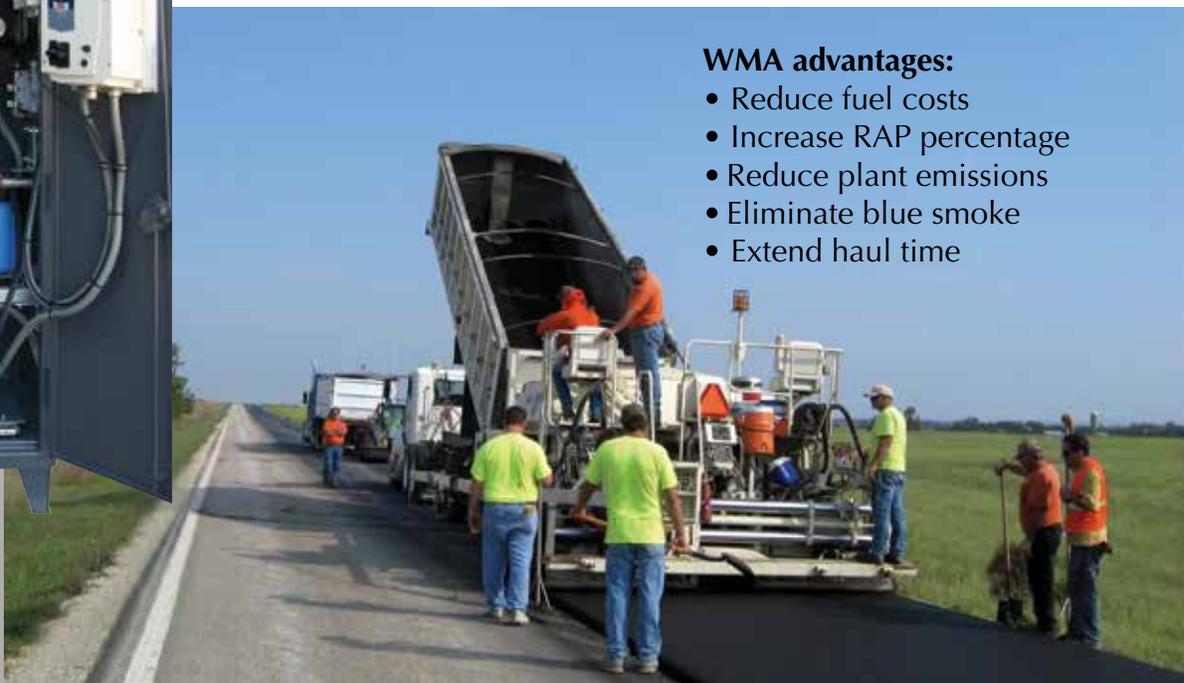


- Everyone is jumping on the WMA bandwagon, but only MAXAM gives you a “plug and play” system with Microbubble™ technology. **AQUABlack®** is fast and easy to install, set up and run; and the main components come preassembled in an enclosed case that is heated for cold weather operation.



### WMA advantages:

- Reduce fuel costs
- Increase RAP percentage
- Reduce plant emissions
- Eliminate blue smoke
- Extend haul time



## TrooTrac™ Self-aligning Trunnions

Traditional trunnions are touchy and take experienced hands to align them. Adjustments are often a time consuming, trial and error process. Compounding the problem is the fact that adjustment is load sensitive - meaning you won't be properly aligned when you change product rate. It's a high stakes game when you consider the cost for replacing a damaged drum tire, trunnions or bearings.

MAXAM's TrooTrac™ Trunnions solve this problem by automatically and continuously aligning to accommodate load changes and/or imperfectly mounted drum tires.

Furthermore, TrooTrac™ Trunnions are never skewed, like all other manufacturers' trunnions, to accommodate the downhill thrust load. Instead, MAXAM uses a separate TrooTrac™ Thrust Load System to handle all the thrust load. Thereby, MAXAM TrooTrac™ Trunnions constantly maintain full contact with the drum tire face. All others are, by design, not full contact because they have to be skewed.

The patented system is exclusive to MAXAM, but it is available to you on MAXAM equipment, or by MAXAM retrofit of your existing equipment.

### TrooTrac™ advantages:

- Extend life of tires
- Reduce maintenance
- Eliminate trial and error alignments
- Eliminate time spent aligning trunnions
- Eliminate risk of damage caused by misaligned trunnions
- Reduce wear on trunnion rollers
- Reduce wear on trunnion bearings
- Reduce pressure on thrust roller bearings



TrooTrac™ Trunnions Patent Number: 7,472,877



# Green innovations that save fuel and the enviro



## Operate with lower stack temperatures

The MAXAMizer® Heat Recovery System automatically controls exhaust stack temperatures very precisely at your preset minimum so you do not waste fuel heating the sky.

## Reduce heat loss

Heavier flighting creates a more dense veil to transfer more of the heat directly to the virgin aggregate. Less heat escapes through the exhaust, resulting in less wasted fuel.

## Reduce filter bag costs

Lower stack temperatures enable you to use polyester bags which cost 50 – 65% less than NOMEX®.

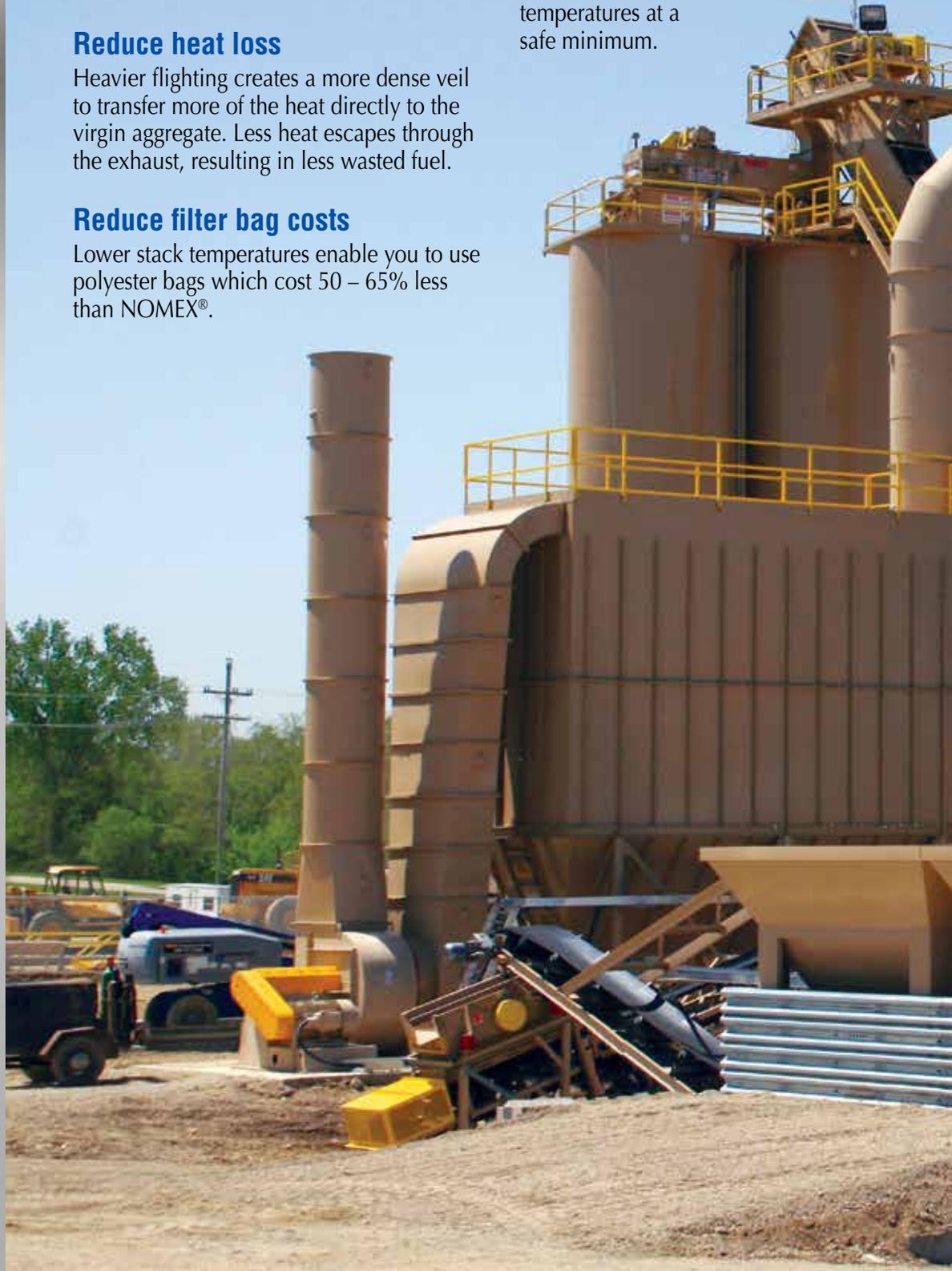
## Control WMA temperature more precisely

Produce WMA at low temperatures without concern for moisture accumulation in the baghouse because the MAXAMizer® Heat Recovery System automatically maintains baghouse temperatures at a safe minimum.

Most asphalt plants eat fuel, belch fire, and blow profits out of the exhaust stack, but it doesn't have to be that way. You do not have to be saddled with 30-year old technology that gobbles up your profits and pollutes the environment. MAXAM provides retrofit and new plant design/build solutions that significantly reduce fuel consumption, enable running a higher percentage of recycle material, and virtually eliminate blue smoke and foul smelling emissions.

The age of innovation is alive and well at MAXAM.

SOLO™ Drum Mixer  
Patent Numbers:  
6,672,751; 7,044,630;  
7,357,562; 7,472,877;  
7,581,871



# ment – Maxam's SOLO™ Drum Mixer

## Reduce emissions

Whenever you reduce fuel consumption, you reduce emissions, but with the Raptor® Recycle system, you also eliminate blue smoke and steam.

## Be more neighborhood friendly

AQUABlack® gives you the ability to produce warm mix asphalt, which virtually eliminates smoke and odors.

## Run more recycle material

The Raptor® Recycle System enables you to run up to 50% RAP without superheating or blue smoke.

## Reduce fuel consumption 5% to 10%

On average, plants save between 5% and 10% on fuel costs by running with a lower stack temperature made possible by a MAXAMizer® Heat Recovery System.

## Reduce air requirements

Automatically controlled temperatures mean lower CFM requirements... 20% less at a 225° stack than with a 350° stack.

## Increase production up to 20%

With higher efficiency and lower air requirements, you can produce more mix... up to 20% more if you previously ran a 350° stack!



# Baghouses & Primary Collectors



Give yourself the advantage of custom designed and manufactured solutions from MAXAM. Not only do we design and build plants from the ground up, using our patented products, but we also repair and retrofit every make and model of asphalt plant equipment.

We use laser fabrication and other state-of-the-art technologies to create high quality, long lasting solutions that reduce maintenance and keep your plant operating at peak performance. Our proprietary baghouse coatings are specially formulated to withstand temperatures up to 600°, and provides longer-lasting protection against corrosion.



## Primary Collectors

### Knock Out Boxes Cyclones

- Get exactly what you need with a custom designed and fabricated collector that integrates into your existing plant with minimal or no modifications.
- Save money with a retrofit solution that utilizes all or part of the existing ducting.
- Lower maintenance costs with longer lasting steel or ceramic liners.
- Prolong the life of baghouse augers and filter bags.



## Baghouses

- Heavy duty exterior “rib” design adds strength, reduces heat loss and lowers interior air flow turbulence which can cause bag abrasion.
- Unique heated valves outperform all others in cold weather operations.
- Industry’s largest, pulse jet valves deliver more than three times the cleaning efficiency of reverse air flow systems.
- High temperature wiring is secured and routed through water-tight conduits.
- Laser cut holes in the 3/16” carbon steel tubesheet provide a superior seal between the bags and tubesheet.

## Parts & Accessories

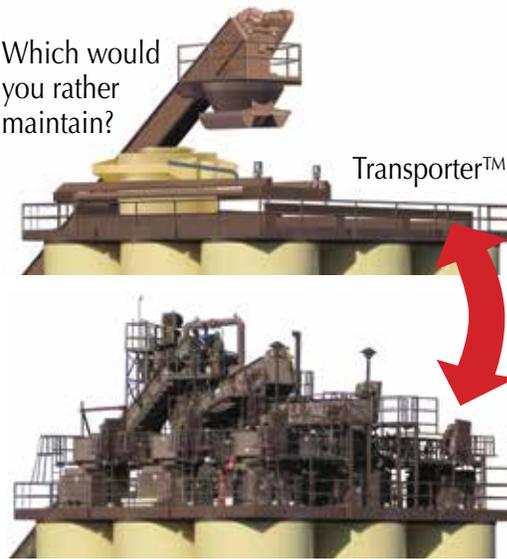
- All makes and models
- In stock for fast delivery
- Bags, cages, door seals, auger parts and much more.
- Custom cages, diaphragm valves/kits, airlocks, NOMEX® bags, exhaust fans and more.

## Transporter™ Bintop Conveying System

The design of the Transporter Bintop Conveying System is not only leading edge in performance, but ingenious in its mechanical simplicity. The system eliminates all bintop conveyors and all but two batchers. By carrying rather than dragging mix to the designated silo, horsepower, wear-and-tear and maintenance are all reduced.

- No conveyors and only two batchers
- Better performance, more reliable
- Huge maintenance savings
- Reduced initial costs
- Reduced operating costs
- Retrofittable on any system

Which would you rather maintain?



Transporter™

Traditional



## Silos

- 100, 200 and 300 ton
- 1 to 6 bin configuration
- Dual clam gates
- Fully insulated
- Electric or oil heat optional
- Optional Seismic Zone IV



## Drag Slat Conveyors

- 200 to 800 tons per hour capacity
- Dual or single chain
- 3,000,000 ton chrome carbide wear plate
- 1,000,000 and 2,000,000 ton chain
- Dual stairways standard
- Electric or oil heat optional

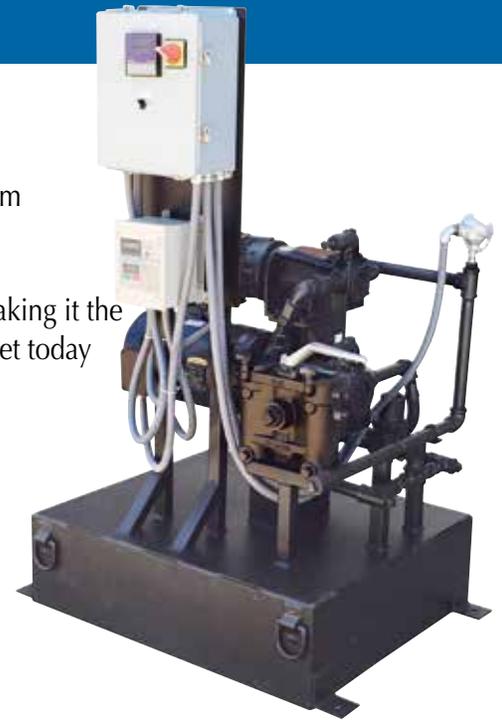


We've repaired and retrofitted every manufacturer's equipment, so we know what works and what doesn't. We poured that knowledge into the equipment we design and manufacture to deliver the most reliable solutions in the industry.

# Plant Upgrade Products

## Econo-Flo Fuel Oil PreHeater

- Proprietary flat plate heat exchanger
- Requires less thermal oil flow than any other system
- Pre-heats in moments to provide faster startups
- Provides 150 degree fuel temperature increase
- Mounted on heavy duty space saving steel skid making it the smallest pre-heater package available on the market today
- Abrasive duty fuel pump included
- Duplex fuel strainer with stainless mesh screens
- Modulating thermal oil delivery
- Controls in NEMA 4 enclosure

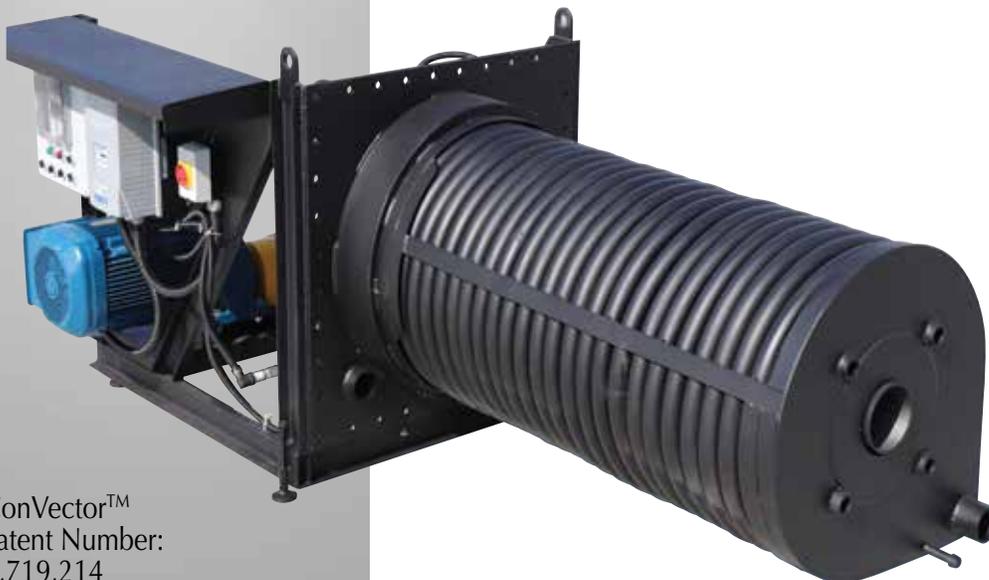


## Accurate-Level Tank Level System

- Accurate tank level system with no moving parts
- Pressure type sensor, more reliable than radar
- Easy installation and set up
- Alarm/Interlock for automatic unload pump shutoff
- Digital display in inches, Feet (or tons on vertical tanks)
- High intensity readout - clearly visible in sunlight
- Weatherproof display mounts at tank or control house



Improve your plant's performance with MAXAM's custom designed upgrade equipment. Each was developed over years of in-field testing and use the highest quality components to deliver energy efficiency, improved productivity and the most reliable performance.



## ConVector™ Liquid Asphalt Heater / Agitator

- Lower initial investment costs
- Lower maintenance costs
- No internal moving parts or submerged bearings
- Patented siphon jet pump design
- 500% more efficient heat transfer
- Continuous blending
- Easy to install and maintain from outside the tank

ConVector™  
Patent Number:  
9,719,214

# Drums, Flights & Conversions



## Dryer Efficiency

Your dryer's efficiency – both in terms of fuel consumption and production capacity – depends on the combination of combustion, air flow and heat transfer. MAXAM addresses all three of these critical areas to enable you to dry more aggregate, more evenly and at a lower cost.



## Counter Flow Conversions

MAXAM can help you convert an existing parallel flow drum to high efficiency counter flow technology so you can reduce fuel use, expand production output, have more flexibility with mix requirements and eliminate blue smoke.

## Flexibility Combined with Productivity

MAXAM's Raptor® Mixing Drum Batch Plant Conversion gives the best of both worlds at a fraction of what a new plant would cost. It gives you the flexibility and control of a batch plant with the higher production capacity of a drum plant.



## Increase Production

State-of-the-art flighting ensures optimum fuel combustion, maximum heat output and thorough heat transfer, which adds up to better mix quality, significant fuel savings and increased production.



The drum is the heart of your asphalt plant and the key to controlling costs and maximizing productivity. Whether you are building new or retrofitting an existing plant, be sure to consider the many benefits MAXAM delivers with its patented solutions.

- Increase productivity
- Improve mix quality
- Reduce waste
- Reduce emissions
- Reduce maintenance
- Run higher RAP percentage

# Parts, Tools & Accessories



Whatever you need, start with a phone call to the asphalt experts. If we don't have it on the shelf, we'll find it for you, or tell you where you can find it locally. Sometimes the solution is just a trip to your local hardware store. Either way, we're glad to help keep you up and running at peak performance.



## Red Alert™ Temperature Gun

Lightweight infrared thermometer with LCD readout lets you instantly check mix temperature in the truck or on the road – or find electrical or duct work hot spots – from up to 20' away.

## Raptor™ Tire Grinder

Resurface drum tires during operation to avoid maintenance downtime or tire replacement.



## Safe-Sampler

A plant safety must-have for taking liquid asphalt samples. Sample valve cannot be opened if the safety door is not closed. Full view high temperature glass allows observation of sampling. Heated valve and spout ensures free flow without plugging.



## Ticket Tube System

Save time – and steps – with this powerful, pneumatic carrier. Covers distances of up to 1000 feet and is virtually maintenance free.



## MaxamAlert™ Auto-Dialer

It's like having a night watchman! This automatic voice dialer calls up to eight phone numbers with prerecorded messages when there's an A/C heater problem or electrical power failure - up to 4 upset conditions. Internet or land line capable.

## Tungsten Carbide Encased Thermocouple

Encased in the most wear-resistant metal available, this tough tool is designed specifically to measure the temperature of abrasive materials like hot-mix asphalt or aggregate.



## Chain Tool

This rugged tool makes installing/removing the most stubborn chain pins in a broad range of chain sizes.



## Conveyor Parts

MAXAM works with all makes and models of conveyors and bucket elevators. We provide components that exceed O.E.M. specifications by as much as 100% and deliver up to 3,000,000-ton wear life.



## LazerTag™ Trunnion Alignment System

Achieve and maintain more accurate trunnion alignment with greater speed and precision.



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To order call toll free:  
**1•800•292•6070**

[www.maxamequipment.com](http://www.maxamequipment.com)