THE UNIDRUM™
Counterflow Dryer/Drum Asphalt Mixer
The Dillman UniDrum mixer offers asphalt pavement producers a heavy-duty drum that generates high quality mix.

Dillman has years of experience building heavy-duty equipment for the asphalt pavement industry. The Dillman unified drum is a high quality counterflow design that is offered in both portable and stationary arrangements. The UniDrum mixer is offered as part of complete new plants and also for retrofit applications, with a range of production capacities from 200 to 600 tons per hour (182 to 544 tonnes per hour) with 5% moisture.
The Dillman UniDrum is unique among competitive products with the ability to produce a high quality mix while requiring minimal maintenance.

STATIONARY AND PORTABLE CONFIGURATIONS
Need the quick setup and mobility of a portable plant, or the flexibility and operating capacity of a stationary? The UniDrum mixer can be configured for either portable or stationary plants.

EXTRA LONG DRUM
With an extra long drum, the Dillman UniDrum mixer is uniquely capable of producing quality hot mix at a high production rate with a high percentage of recycle. The extra long drum length maximizes mixing and drying times to reduce fuel consumption and provide superior mixing.

SINGLE POINT TRUNNION ADJUSTMENT
This system eliminates the time-consuming procedure of trunnion alignment and ensures proper equipment operation. Centered around a massive 20" (50.8 cm) trunnion, fitted with adjustable double-row Timken™ bearings and ring fitters, this system is an industry exclusive. The key is our unique pivot pin system, which allows the asphalt contractor to easily dial in the dryer in a matter of minutes without the need of any specialized equipment. The end result … a properly rotating dryer without excess wear to the tires, trunnions and thrust roller assemblies. With the single point trunnion adjustment you can significantly reduce excess trunnion wear, premature deterioration of hardened tire surfaces, broken trunnion shafts, bearing failures and thrust roller assembly damage.
The Dillman UniDrum features a quality design and heavy duty construction which delivers an excellent mix.

**PATENTED FLIGHTING DESIGN**
Dillman flights are adjustable to better control the baghouse temperature and moisture removal from the aggregate.

**HEAVY DUTY SUPPORT STRUCTURE**
The supports are produced by certified welders using heavy, structural I-beams. The heavy I-beams achieve a high safety value. The supports also provide rigidity and stability to the entire drum unit, which minimizes maintenance.

**UNIQUE RECYCLE ENTRY**
The inlet into the drum allows immediate mixing of recycle with the hot aggregate, bringing the recycle up to temperature and removing any residual moisture. Clean-outs in the collar around the drum allow for easy maintenance.

**OPTIONAL WARM MIX SYSTEM**
An optional warm mix system saves energy and eliminates smoke and emissions without compromising mix quality. The system uses water to produce a foamed asphalt that is odorless, smokeless and longer lasting. The injection of water with the liquid asphalt cement causes the liquid asphalt to foam and expand in volume without the addition of costly additives. The foaming action helps the liquid asphalt coat the aggregate at a lower temperature.

**OPTIONAL LINER PACKAGE**
1/2” Hardox® liners reduce wear and help extend the life of the drum and flights.

RAP is quickly brought up to temperature when it instantly mixes with the hot aggregate.

Dillman adjustable flights allow you to better control moisture removal from aggregate.

An optional warm mix system saves energy without losing mix quality.

The UniDrum is outfitted with Astec’s Whisper Jet® or Phoenix® Talon burners.
As the aggregate moves closer to the flame, flights with heat shields continue to veil the aggregate while protecting the drum shell from heat degradation.

Virgin material enters the drum and flows through the drum counter, or opposite to, the hot gas stream produced by the burner and the exhaust fan.

Flights with doors.

Flights with heat shields.

Sawtooth flights.

Recycle inlet.

Mixing flights.

Combustion flights.

An Astec long nosed burner plays an integral role in the mix production process.

Unidrum® Dryer/Drum Mixer

Inside Drum

Aggregate flow through drum

Sawtooth flights

Adjustable doors help control the baghouse temperature. Close the doors for less veil and a higher temperature, or open the doors to open the veil and lower the baghouse temperature.

Flights with doors

Flights with heat shields

As the aggregate moves closer to the flame, flights with heat shields continue to veil the aggregate while protecting the drum shell from heat degradation.

Sawtooth flights begin the aggregate veiling process, bringing the aggregate up to temperature and taking the moisture out of it. The sawtooth flights help create a curtain of aggregate through the heat which helps eliminate hot zones through the length of the dryer.

Mixing flights.

Flights with doors.
Heavy duty support structure.

Extra long drum length maximizes drying time to reduce fuel consumption and provide superior mixing.

Thick insulation under the stainless steel shell helps prevent heat loss.

Single point trunnion adjustment.

Liquid asphalt cement entry.

Recycle entry.

Combustion flights prevent aggregate from impinging on the flame while spreading the material for maximum radiant heat transfer.

Recycle material enters the drum and immediately mixes with the hot aggregate.

After the virgin and recycled materials are combined and at the proper temperature, liquid asphalt is injected. Mixing flights provide increased agitation for improved mix quality.

Final mix exits via a discharge chute to the silo drag conveyor.
The Dillman Parts Department provides contractors with excellent customer service for their Dillman equipment. Supported with an extensive inventory of high quality parts and components, Dillman Parts will assist you in all aspects of plant maintenance, repair, or any type of emergency breakdown situation. Our aim is to minimize downtime and have you up and running with little or no impact to your operations.

At Dillman Equipment, our Parts Division is committed to providing our customers with better pricing, quality products, and outstanding service.
Dillman recognizes that there must be a continuing commitment to focus on excellent service. As a division of Astec, Inc., the Dillman service department stands behind all Dillman equipment with service after the sale. Our service teams are exceptionally proficient in plant and equipment setups. The knowledge and experience of team members will greatly reduce new site or retrofit installation costs.

Dillman understands that contractors are in the business of making asphalt. For those times when more expertise than is available within your company is needed, Dillman can fill that void. The ability to assess situations and quickly, efficiently present solutions and perform tasks necessary to get you back on line rapidly is the measure of Dillman’s service department.