

ASPHALT PAVERS & COMPACTORS

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The ABCs of asphalt paving

There is a slight parallelism between the state of our country today and in 1956, when President Dwight D. Eisenhower signed landmark legislation intended to shore up the nation's defense and strengthen business and trade. The Federal-Aid Highway Act of 1956, also referred to as the National Interstate and Defense Highways Act, provided \$25 billion (almost \$200 billion in today's dollars) to construct the Interstate Highway System.

Company's training philosophy remains comprehensive 40 years later

Faced with a looming recession and a 5% unemployment rate, Eisenhower hoped the act would help kick-start the economy. It did, and succeeded in driving forward a key aspect in the nation's construction industry—asphalt.

By the mid-1960s, highway construction and the asphalt industry gained tremendous momentum. Blaw-Knox, a leading road-building equipment manufacturer, saw a need to train contractors and road crews working on road construction projects. Company-sponsored factory training provided not only instruction on the maintenance and operation of Blaw-Knox equipment, but also best practices and knowledge for the betterment of the asphalt industry. In the 1970s, Blaw-Knox established

a formal training center in Mattoon, Ill., where courses in operations and maintenance and mechanical training were available for industry-wide participation. In 1997, the training facility officially became Road Institute. At that time sales training was added to include hands-on operation and application training for the salesmen. This was known as "Boot Camp" training.

"For 40 years, Road Institute has been recognized throughout North America as the premier educator for asphalt industry professionals," said Steve Blackwelder, director of global training for Road Institute, which is now operated by Volvo Construction Equipment.

The training philosophy remains comprehensive: not only to teach participants how to operate the equipment, but also to educate them on best paving practices and to recognize common problems that occur on a paving job and how to correct those problems. Courses at Road Institute are structured to include both classroom instruction and hands-on learning applications for asphalt pavers and compactors. Instructors are asphalt industry veterans bringing nearly 100 years of experience to each class. Classes are held in Chambersburg, Pa., and in Phoenix, Ariz.

"Many of the attendees have been around pavers for a long time," said Peter Fleming, paving instructor at Road Institute. "They learn on the job and sometimes only learn the very basics. It's our job to give them the complete picture."

According to Fleming and compaction instructor Wayne Tomlinson, the majority of attendees at Road Institute are paving crew personnel and supervisors. However, because of the commitment and reputation Road Institute has acquired over the years, it has attracted other professionals, such as state highway administrators and asphalt production professionals. One such attendee, John Morgan, a technical sales representative for MeadWestvaco, enrolled in Road Institute to expand on his current knowledge about asphalt paving.

"Over the years, I have acquired a background in asphalt and road construction through my professional interaction with contractors and state DOT administrators," said Morgan. "But to be honest, there is no substitute for hands-on training."

"At Road Institute, I had the opportunity to crawl around and get inside the equipment. I listened to the instructors talk about the operation of the equipment,

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proper maintenance and what happens when it isn't properly maintained."

Morgan attended a three-day course on asphalt paver and compactor operations and maintenance. The Road Institute team packs information and training into the comprehensive course.

With 16 courses offered over a 10-month period each year, Road Institute sees many repeat attendees. Contractors will send new employees, as well as paving veterans for refresher training.

"In almost every class there will be an 'aha' moment for someone," said Tomlinson.

—contributed by Dawn Buzynski
Two Rivers Marketing

Good vibrations



The Volvo Ultimat 200 screed was recently introduced at World of Asphalt. It joins the Volvo Omni 318 and Volvo Omni 1000 screed models to provide versatility and optimal performance to the Volvo PF6000 series of asphalt pavers.

The Volvo Ultimat 200 (Circle 900) is designed for the PF6000 series of asphalt pavers, the new class of highway asphalt paving equipment from Volvo. The screed allows for multiple configurations on a single paver to accommodate various mix designs and paving requirements.

The Volvo Ultimat 200 is a front-mounted, vibratory screed with a standard paving width of 10 to 20 ft that makes it ideal for a variety of paving jobs.

The machine's key feature is a double extension system that allows the screed to extend a full 20 ft wide for maximum efficiency. A heavier mainframe eliminates uneven wear.

A more streamlined control system provides for single-button operations of the screed extensions, automatic slope and grade and heater elements. Its quick response to operator control allows for considerable maneuverability around obstacles.

Paving the way



The Terex TV1000 and TV1200 (Circle 901) tandem asphalt rollers have two spring-loaded scrapers per drum for excellent cleaning of drums. An electrical diagnostics system gives early warning to the operator if problems occur. The machines have a tow valve that is simple to operate and saves time when towing is needed.

The machines feature a six-in-one joystick for streamlined operation and a dynamic braking system when the joystick is in neutral or the unit is turned off. Full tilting of the hood allows for easy access to servicing the engine compartment.

Plastic fuel, water and hydraulic tanks reduce condensation and are encased in steel for maximum protection.

Rolling with it

Sakai America's new SW880 (Circle 902) high-frequency vibratory asphalt roller increases paving productivity by achieving density faster while leaving smooth finishes on all mixes, even the most challenging Superpave projects.



The SW880 offers a drum width of 79 in. and 4,000 vpm, which allows for 10 to 12 impacts per foot at 4.55 mph. Sakai's counter-rotating weight design helps achieve density at fast speeds. The front-drum eccentric weights rotate clockwise while the rear-drum weights rotate counterclockwise or vice versa depending on amplitude. This design guarantees that the forces generated by

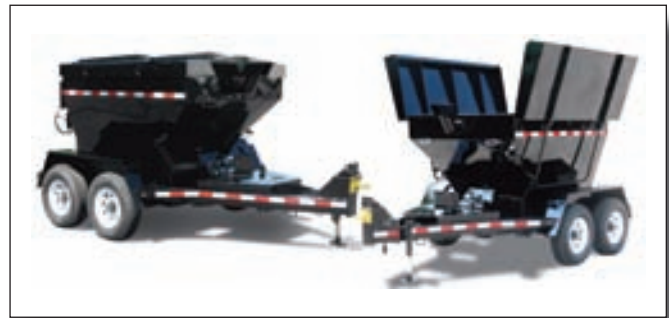
the weights move up and down. By focusing these forces into the material, the SW880 eliminates the possibility of pavement shoving, scuffing and hairline cracks.

The drums of the SW880 are machined smooth and edges are rounded for a smooth mat surface.

The SW880's power, comfort and safety also enhance productivity. The SW880 offers a powerful, yet fuel-efficient Deutz TCD 2012 L04-2V Tier III diesel engine that delivers 131 hp. The operator's station is designed with a rubber-isolated floating deck to minimize vibration to the operator, which minimizes fatigue.

Patching things up

Pothole patching is easy with the heated Asphalt Optimizer (Circle 903) from Cimline Pavement Maintenance Group, available in 4-ton capacity. Hot-mix asphalt can be loaded through easy-opening top doors that provide excellent leverage with long handles that retract for transport. A convenient material door is operated by a large-diameter wheel with locking ratchet. Operators can easily adjust the amount of gravity-fed mix that reaches the unloading tray. Easy shovel access and shovel storage reduce fatigue and improve efficiency.



A diesel-fired, self-priming 105,000-btu burner with electronic ignition heats the hopper chamber without applying direct flame to eliminate hot spots. Heat also is dispersed throughout the load with a central 4-in. tube located near the top of the hopper. A 26-gal fuel tank provides up to 72 hours of heating. Insulation surrounds the hopper and doors to maintain temperature for long-lasting heat retention. A digital controller with temperature readout monitors the temperature in one-degree increments. In the event of a burner malfunction the controller can shut down the heating process and flash an error code to notify operating personnel. A fuel-pressure gauge

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and proof of flame protection are added safety and maintenance features for maximum uptime.

Even it out

The new Rammax Viper trench roller from Multiquip (Circle 904) hosts a unique maintenance-free oscillating/articulating joint that optimizes drum-soil contact while providing reliable stability on uneven surfaces.

Equal amplitude to all four drums is provided by its patented Straight Compaction Technology (SCT), which delivers an even distribution of compaction force by positioning eccentrics above the drum perpendicular to drum rotation. This also provides for easy maintenance access. The Rammax Viper patented Z-frame design eliminates the traditional between-the-drum spacing and uncompacted area. Patented internal drum scrapers prevent dirt buildup between drums for guaranteed maximum power and torque.

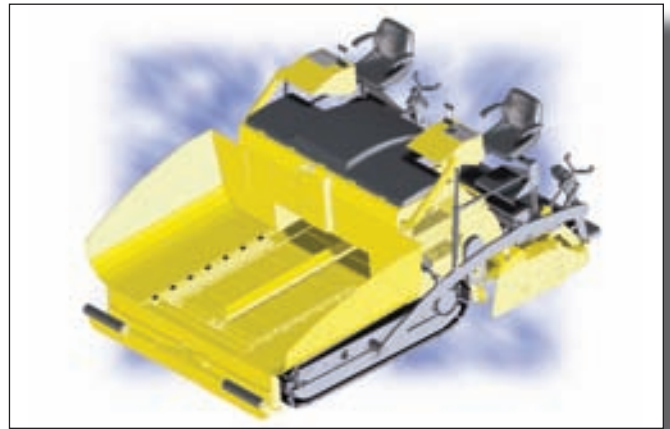


Powered by a Lombardini engine, the Rammax Viper trench roller delivers 2,460 vpm and generates centrifugal forces up to 15,543 lb. Other highlights include automatic engine idle control for significant fuel savings, failure diagnostic system for quick troubleshooting, heavy-duty maintenance-free latches that secure the front and rear cowlings, dual receiving eyes positioned to eliminate all blind spots and ensure uninterrupted signals, charge-free solar-powered remote, standard dual operating control cables and a central lifting eye.

Full capacity

The new BF6615 self-propelled asphalt paver from BOMAG (Circle 905) offers the power and capacity that commercial paving contractors need for larger, high-production paving projects.

Weighing in at 20,500 lb, the BF6615 features a 99-hp Cummins water-cooled diesel engine that is turbocharged for consistent power at all altitudes. The engine's ECO-mode feature saves fuel and reduces noise by automatically lowering rpms during stops and pauses. At the same time, an exclusive load-sensing hydraulic system lowers



fuel costs by delivering power only when needed.

The newly designed Unimat 2 full-width floating screed has a standard 8-ft to 15-ft paving width. The screed is electrically heated, eliminating the need to change propane bottles in the middle of a large project. Dual vibrators provide 2,500 vibrations per minute.

The generous 9-ton hopper capacity on the BF6615 allows high-production paving to continue between trucks. Even with its power-saving system, the new paver can push asphalt feeder trucks while maintaining working speeds up to 180 ft per minute.

Series of innovations

Caterpillar Inc.'s Barber-Greene BG260D (Circle 906) is a high-production, 10-ft wheel-type asphalt paver that features a Cat C7 engine with Acert technology, dual operator stations, three propel modes, a high-capacity cooling package and a material handling system with independent feeder and auger controls. Other features include standard working lights, and an optional deceleration pedal, generator system and auxiliary power panel.



The high-capacity cooling system allows the variable speed fan to run slower, contributing to lower sound levels and reduced power demand. 