COMPACTION EQUIPMENT

LESS WEIGHT, MORE POWER AND GREATER RELIABILITY — RAM ON!

Compaction equipment users don’t ask for much: just machines that operate under insane conditions with a minimum of maintenance, noise and vibration transmitted to the user while pounding ground or asphalt with immense power and productivity. These top manufacturers answer those demands and then some.

MBW INC.

Slinger, Wisconsin-based MBW Inc. began manufacturing low-maintenance vibratory plate compactors in 1967. Those plates dramatically reduced maintenance and applied a novel vibration system that allowed them to travel faster and deliver greater compaction energy than competitive models of the day.

As it grew, MBW expanded into new areas of product development always applying the same principles, which still hold true today. All new MBW products are required to: increase productivity and decrease maintenance relative to existing products; embody design considerations and/or advances in manufacturing methodology directed at reducing the cost of the product; and show potential for securing intellectual protection and fortifying competitive difference.

Today, MBW’s product line encompasses a full line of soil compaction products, equipment for mixing, vibrating, screeding, finishing and slip forming of concrete, as well as a number of specialty products for construction applications. The company’s 1000 Series single-direction vibratory plates, models GP12, GP15 and GP18, exemplify this design philosophy and offer outstanding compaction performance.

“A patented suspension system places shock mounts in a predominantly shear mode at the high-amplitude front end of the plate and a predominantly compressive mode at the low-amplitude trailing end of the plate,” explains MBW president Frank Multerer. “This reduces hand-arm vibration and also better isolates all upper mass components — including the engine — from vibrations produced by the machine’s exciter. With amplitudes up to .057 inches, centrifugal force up to 2,070 foot-pounds and travel speeds to 75 feet per minute, these plates are ideal in confined areas of granular soils including sands, bank run, gravels and capable of achieving lift depths of up to 10 inches (25 cm).”

These lightweight plates, weighing 130 to 161 pounds are MBW’s smallest plate compactors and are easy to lift and maneuver on the job site. With the ability to deliver intense vibration, MBW says the 1000 Series plates are ideally suited as an alternative for small to medium soil compaction applications.

The 1000 Series plates feature Honda GX120 engine, a one-piece exciter with a self-cleaning, open base plate design and a lift cage. Options include transport wheel kits and neoprene paving pad for placing interlocking paving stone, brick and block.

In addition to the GP models for soil and gravel, MBW also offers versions with water tanks for asphalt, models AP12, AP15 and AP18.

WACKER NEUSON

Wacker Neuson’s most recent rammer offering is the model BS70-4As. Powered by a 3.6-hp Honda GX120 four-cycle engine which offers 30 percent more power than other Honda-driven compacters, the BS70-4As is Wacker Neuson’s largest sized rammer.

The multi-position engine is ideal to withstand rugged rammer applications. The BS70-4As weighs 177 pounds and produces a percussion rate of 678 bpm with a stroke height at the ramming shoe of 2.9 inches.

“The new BS70-4As incorporates all of Wacker Neuson’s customer-approved rammer features,” says Vince Hunt, product marketing manager. “The low-oil shut down keeps the engine from starting if a low oil condition is detected, protecting the engine from damage. An LED will flash red if oil is low to warn the operator and a sensor will keep the engine from starting.”

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Wacker Neuson’s exclusive compensation carburetor maintains the optimum air-to-fuel ratio as the filter collects dirt, resulting in a claimed best-in-class filter life. Depending on conditions, Wacker says rammers with the compensated system will run up to three times longer before a filter change is needed.

A purge bulb carburetor that pulls fuel from the tank and into the carburetor enables easy starting. With this system, the engine cannot be flooded by pushing the bulb too many times and greatly reduces the number of pulls required to start the engine.

“Wacker Neuson offers the most complete line of vibratory rammers in the industry,” Hunt states. “Dealers and contractors can conveniently choose the engine type to best fit their business preference. The line-up includes the industry’s most popular rammers, the two-cycle, oil injected models. Also available are premix two-cycle and diesel models as well Honda- and Wacker Neuson-powered four-cycle rammers. All Wacker Neuson rammers are designed for the best compaction performance while exceeding all environmental emissions regulations.”

Atlas Copco’s LF forward plate compactors excel in soil compacting and asphalt patching applications due to productivity-enhancing features. Integrated water distribution systems and vibration-reduction handles help operators achieve maximum efficiency, while the lightweight bodies contribute to high maneuverability.

The three models — LF60, LF75 and LF100 — feature vibration-reduction handles and are lightweight, which optimizes ease of operation on soil and asphalt applications. Their rounded plate designs and tubeless watering systems help prevent asphalt from sticking to the bottom of the plate.

With a full water tank, the models range in weight from 140 pounds on the LF60 to about 260 pounds on the LF100. The relatively light weight allows contractors to lift them easily into a trailer or truck, making the machines valuable tools for almost any road patching project.

“The success of our range of plates is in large part due to how easy they are to maintain and their ease of use,” said Darrell Engle, Atlas Copco product manager. “We equip all forward plate compactors with a patented, low-vibration handle, resulting in reduced hand and arm vibrations. They are easy to operate and they virtually eliminate operator fatigue.”

The plates feature rounded edges, making it easier for the operator to turn while compacting in tight corners or near obstacles without leaving a mark. The water distribution system allows for complete water coverage on the bottom of the plate, which contributes to a virtually flawless mat by preventing asphalt from collecting from the bottom of the plate.

The units also offer relatively high centrifugal forces, making them ideal for compacting soil before paving a driveway or footpath, as well as for compacting patches of asphalt. The LF60 generates as much as 2,338 foot-pounds of force, the LF75 3,372 foot-pounds and the LF100 as much as 3,822.

Wacker Neuson’s largest rammer is the model BS70-4As. Powered by a 3.6-hp four-cycle Honda GXR120 engine, it weighs 177 pounds and produces 678 bpm with a 2.9-inch shoe stroke.