

Going Deep: Wirtgen Offers Sustainable Solutions to Soil Stabilization

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Roads need a reliable base. That's why the load-bearing capacity of the soil must be assured before every road construction project. Soil stabilizers transform soils with insufficient load-bearing capacity into ground with ideal properties for paving and compacting. Wirtgen has the right environmentally sustainable solution for every soil stabilization task. At Conexpo-Con/Agg 2017, Wirtgen is presenting the powerhouse WR 250, one of three models of the WR series.

Wheeled soil stabilizers

The WR 200i, WR 200 XLi, WR 240i and WR 250 models are ideally suited for efficiently stabilizing soils with insufficient load-bearing capacity over a large area. Cement, lime, water or asphalt emulsion may be used as additives and binding agents.

With their powerful milling and mixing rotors, Wirtgen soil stabilizers mix pre-spread binding agents into the existing soil at working depths of up to 22 in. (560 mm), transforming it into a high-quality construction material in an in-situ process. The soil is improved by the addition of lime and stabilized with cement. The homogeneous soil-binding agent mixture that is produced offers high tensile, compressive and shear strengths, long-term resistance to water and frost, and volume stability. Typical applications include the construction of paths, roads, motorways, foundations, parking lots, sports grounds, industrial parks or facilities, airports, embankments, backfills or landfills.

As the process makes use of existing soil material and only requires the mixing in of additives, 100 percent of the reclaimed, bound and unbound material is reused. Eliminating the parade of haul trucks and their fuel consumption, exhaust and traffic congestion, soil stabilization method with Wirtgen equipment has a much smaller carbon footprint than a complete soil exchange. What's more, the rapid, space-saving process minimizes construction times and disruption to work zone traffic. Wirtgen offers the right machine for each construction project.

WR 240i: The Allrounder

Regarded as the allrounder of the product line, the WR 240i is ideal for stabilization of large areas of insufficiently cohesive soil, and in the resource-saving processing of damaged asphalt pavements using the cold recycling process.

A multitude of new features give it the edge in terms of performance and economy.

It's demonstrated its performance on both counts, as the overwhelmingly positive feedback from customers confirms. Despite higher productivity, the WR 240i consumes significantly less fuel thanks to advanced engine management, delivering a tangible reduction in operating costs. The machine operators praise the large, modern cabin and the resultant all-around visibility, the improved maneuverability of the machine, and its optimized ergonomics and intuitive operation.

WR 200i and WR 200 XLi: Smaller and more compact

The WR 200i is the smallest member of the WR series. The compact machine excels in both cold recycling and soil stabilization, truly coming into its own on small and confined sites thanks to its great maneuverability. It's also easy to transport, making it ideal for one-day jobs.

WR 250: The powerhouse

The most powerful machine of the WR generation is the WR 250. The powerhouse is designed for stabilizing heavy and swampy soils and shows its strengths to best advantage on recycling and pulverization jobs, where it turns roadways up to 10 in. (25 cm) thick into homogenous granulate.

A new feature is the option of additionally operating the milling drum gearbox from the cabin, making it possible to flexibly activate a number of milling drum speeds. Tailored to the high output of the WR 250, the milling drum design helps to achieve an outstanding mix quality at a high feed rate.

Tractor-towed stabilizers of the WS series

For soil stabilization, Wirtgen also offers the WS 220 and WS 250 tractor-towed stabilizers with working widths of 7 ft., 1 in. as well as 8 ft., 2 in. (2.150 mm bzw. 2.500 mm), and a working depth of up to 20 in. (0 - 500 mm). A practical attachment system for the milling drum unit allows tractors to be transformed into soil stabilizers in a matter of moments.

The range of applications of Wirtgen's tractor-towed stabilizers is wide and varied. For instance, the machines lend themselves ideally to homogenizing masses that are hard to compact, such as non-uniform soil

mixtures. The tractor-towed stabilizers are able to reliably transform even, heavy, sandy or coarse subgrade material into compactable soil with good paving properties.

Source: Wirtgen GmbH