Vögele │ Intelligently-Designed Paving Solution for Higher Efficiency and Quality

InLine Pave and SprayJet from Vögele

Road construction contractors must meet increasingly stringent environmental and quality standards in asphalt paving, while remaining competitive. With InLine Pave and SprayJet, road paver specialist Vögele offers two methods that enable faster and more efficient realization of paving projects with lower overall costs.

Globally Proven Technologies

Project completion deadlines in road construction are tight, especially when they involve the construction or rehabilitation of busy arterial roads. At the same time, contracting authorities demand the very best in paving quality. Additional pressures arise from stricter environmental requirements and calls for resource-friendly construction methods – while construction contractors struggle with constantly rising material and labor costs. InLine Pave and SprayJet technologies are designed to counter these problems. The two paving methods are suitable for a wide range of applications and have a proven track record earned in years of successful use around the globe.

InLine Pave: Binder Course and Surface Layer in a Single Pass

The InLine Pave concept is particularly suitable for the construction and rehabilitation of freeways and expressways - as well as wherever roads need to be reopened to traffic again as soon as possible. The name says it all: the machines work “in-line”, one behind the other, whereby the mobile feeder is loaded with the binder course or surface layer mix and transfers it to the SUPER 2100-3(i) IP binder course paver. With its AB 600 TP2 Plus high-compaction screed, this machine is the key component of the paving train: During the paving process, the screed compacts the binder course to values of up to 98%, a level that is so high that the surface layer paver can follow on behind it without damaging the freshly-paved binder course. The paver for the binder course also features a special material transfer module that transports the surface layer material directly into the material hopper of the third machine in the train – a SUPER 1800 Dash 3 or Dash 5 generation paver – which then paves the surface layer.

*Sustainable and High-Quality Asphalt Pavement with Lower Emissions*

“Hot on hot” paving offers a number of advantages: Optimal interlocking of the binder course and surface layer increases the quality and service lifetime of the surface layer. It allows a reduction of the proportion of surface layer to binder course material. On one hand, this improves the stability of the pavement thanks to the higher proportion of the stable binder course and prevents deformation. On the other hand, a smaller amount of costly asphalt surface layer material is required. In contrast to conventional paving, there is no need for spraying with bitumen emulsion as a tack coat – this saves material and working time while also reducing CO₂ emissions.

SprayJet Technology for Paving Thin Layers Hot Over a Spray Seal

If the renewal of a surface layer is required, paving thin layers hot over a spray seal is a low-cost, efficient, and resource-friendly technology. With the SUPER 1800-3(i) SprayJet, Vögele offers a special spray paver that has a proven track record on projects around the globe. It sprays bitumen emulsion onto the old pavement and paves the new surface layer over it in a single pass.

The five spray bars with a total of 24 nozzles enable seamless application of the bitumen emulsion over varying paving widths of up to 6 m. As the SprayJet module is a self-contained functional unit, it also allows the use of the SUPER 1800-3(i) SprayJet in the role of a classic road paver. The module is easy to maintain and is logically integrated in the Vögele ErgoPlus 3 operating concept.

*Higher Paving Speed and Quality*

SprayJet technology is particularly efficient and is suitable for all paved surfaces used by traffic. The paving speed is often significantly higher than in conventional paving scenarios and, as the layer thickness is generally 2.0 cm rather than the usual 4 cm, this also means potential savings of up to 50% of the surface layer material otherwise required. The use of the SprayJet method also brings numerous benefits with regard to quality. As spraying the emulsion and paving the surface layer take place in a single pass, the binding agent film cannot be inadvertently driven over and damaged by other construction vehicles. The binding agent film seals the entire lower layer and provides an effective barrier against water. This further increases the service life of the road.

Two Methods for All Paving Requirements

Whether for rehabilitation, construction from new, or inner-city construction projects: With In-Line Pave and SprayJet, Vögele offers two technologies that take both the challenges faced by road construction contractors and their clients’ specific requirements into account: faster, more efficient, and more sustainable road construction or rehabilitation, the use of less material and conservation of resources, and the realization of high-quality asphalt pavement surfaces.

Photos:

  
JV\_InLine\_Pave\_SprayJet\_001\_PR

Paving train: when using the InLine Pave method from Vögele, the paving train consists of three machines following one behind the other – a mobile feeder, the paver for the binder course, and the paver for the surface layer.

  
JV\_InLine\_Pave\_SprayJet\_002\_PR

"hot on hot”: when using the InLine Pave method from Vögele, the binder course and the surface layer are paved in a single pass.

  
JV\_InLine\_Pave\_SprayJet\_003\_PR

Efficient, low-cost rehabilitation of surface layers: The SUPER 1800-3(i) SprayJet from Vögele sprays bitumen emulsion onto the old pavement and paves the new surface layer over it in a single pass.

  
JV\_InLine\_Pave\_SprayJet\_004\_PR

Five spray bars with a total of 24 nozzles enable seamless application of the bitumen emulsion over varying paving widths of up to six meters.

Note: The photographs shown here are only previews. If you wish to publish them in other media, please download the higher resolution (300 dpi) versions from the Wirtgen Group websites.

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