WIRTGEN GROUP

Wirtgen

Unmatched range of applications in concrete paving

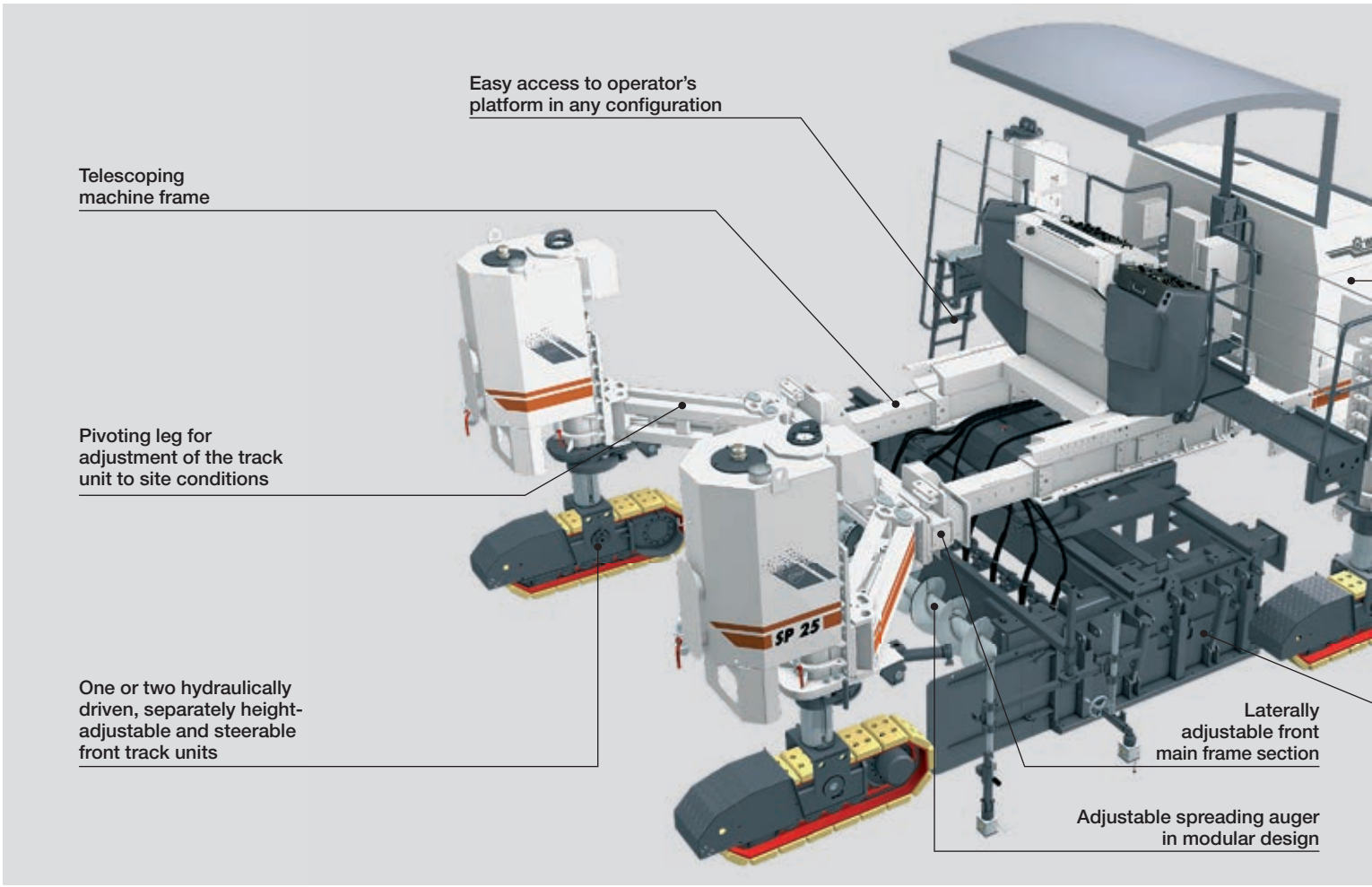
Slipform Paver SP 25 / SP 25i

Flexible slipform paver for inset and offset paving applications

1. WI-PAVE INSET – FULLY MODULAR INSET MOLD SYSTEM
2. WI-PAVE OFFSET – HIGHLY FLEXIBLE OFFSET MOLD SYSTEM
3. WI-CONTROL – SUPERIOR MACHINE CONTROL SYSTEM
4. WI-STEER – STEERING AND DRIVE SYSTEM BUILT TO FIELD REQUIREMENTS
5. ECO MODE – ECONOMICAL DIESEL ENGINE CONTROL
6. AUTOPILOT – LOW-COST 3D MACHINE CONTROL SYSTEM
7. EASY CONNECT – FUTURE-PROOF 3D INTERFACE
8. SMOOTH SLOPE – BETTER CROSS SLOPE CONTROL
9. LIFE-CYCLE DESIGN – LIMITLESS MODULAR ADAPTABILITY
10. EASY OPERATION – EXCELLENT ERGONOMIC DESIGN AND HANDLING
11. FAST & EASY – THE INTELLIGENT TRANSPORT CONCEPT

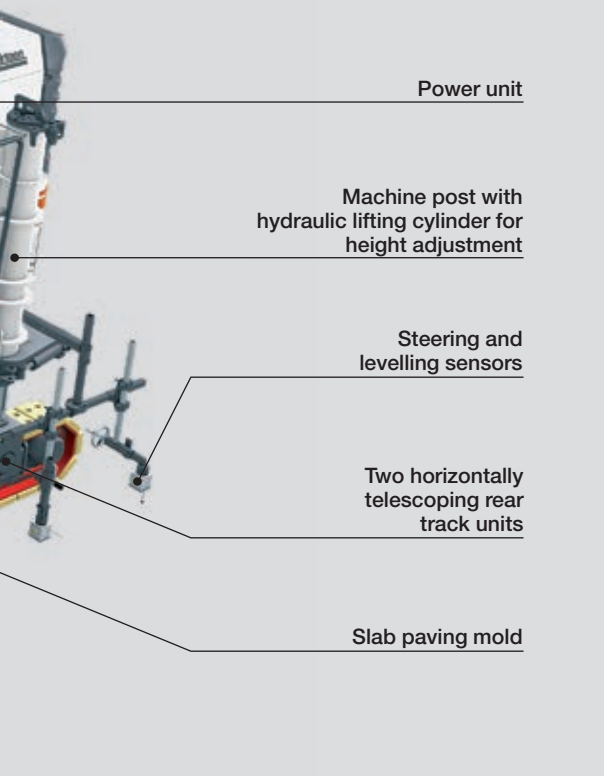
WI-PAVE INSET –
Fully modular inset mold system

Inset concrete paver drives efficiency to the max



Wide range of paving widths for carriageway slabs

The compact SP 25/SP 25i slipform paver is an extremely versatile multipurpose machine for high-quality concrete paving operations. In addition to paving a most diverse range of offset profiles, the SP 25/SP 25i achieves excellence also in paving narrow roads, agricultural and bicycle paths, canals and gutters of different sizes in inset application. The paver's modular design not only enables it to be fully adapted to the specific requirements posed by different types of applications but also allows components to be easily retrofitted even many years later. The SP 25/SP 25i sets new standards in efficiency.



Components of the SP 25/SP 25i for inset paving

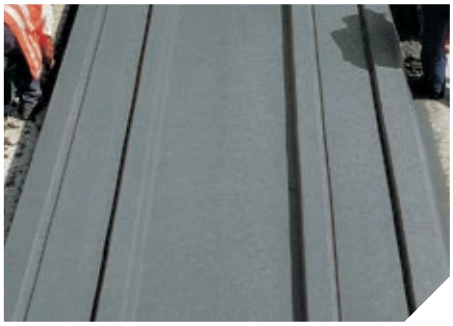
Flexible positioning of the track units allows paving widths of up to 12' (3.5 m)

All-rounder in concrete paving

- The wide range of inset applications offered by the SP 25/SP 25i includes the production of concrete slabs measuring from 3' 3" (1.0 m) to 12' (3.5 m) in width.
- The paver's hallmarks include flexible positioning of the track units, an adjustable spreading auger and the use of up to ten electric or hydraulic vibrators.
- An advanced electronic steering and control system ensures that profiles are poured with the highest precision.
- Easy and convenient handling of the slipform paver guarantees short training periods and high productivity.

WI-PAVE INSET – Fully modular inset mold system

Tremendous range of inset paving applications



▲ Producing a concrete slab track for regional rail transport or high-speed trains

▼ Paving tracks for an agricultural road

▲ Paving a 12’ (3.5 m) wide concrete road

◀ Highly precise paving of a 9’ 10” (3.0 m) wide dam road using the Wirtgen AutoPilot

Feeling at home on job sites around the world

The SP 25/SP 25i paves concrete slabs at widths ranging from 3’ 3” to 12’ (1.0 m to 3.5 m) and layer thicknesses of up to 16” (400 mm) in inset application. The ability to pave slabs of up to 12’ (3.5 m) in width is based on the paver’s flexible track positioning options. Inset molds are available in most diverse profile shapes, whether standardized for metric or imperial measuring systems or built to customer specifications. Its modular design enables easy modification of the SP 25/SP 25i to suit the specified application. The spreading auger can be extended in increments, and up to ten electric or hydraulic vibrators can be integrated in accordance with the paving width.

The SP 25/SP 25i in action

Paving a large water canal

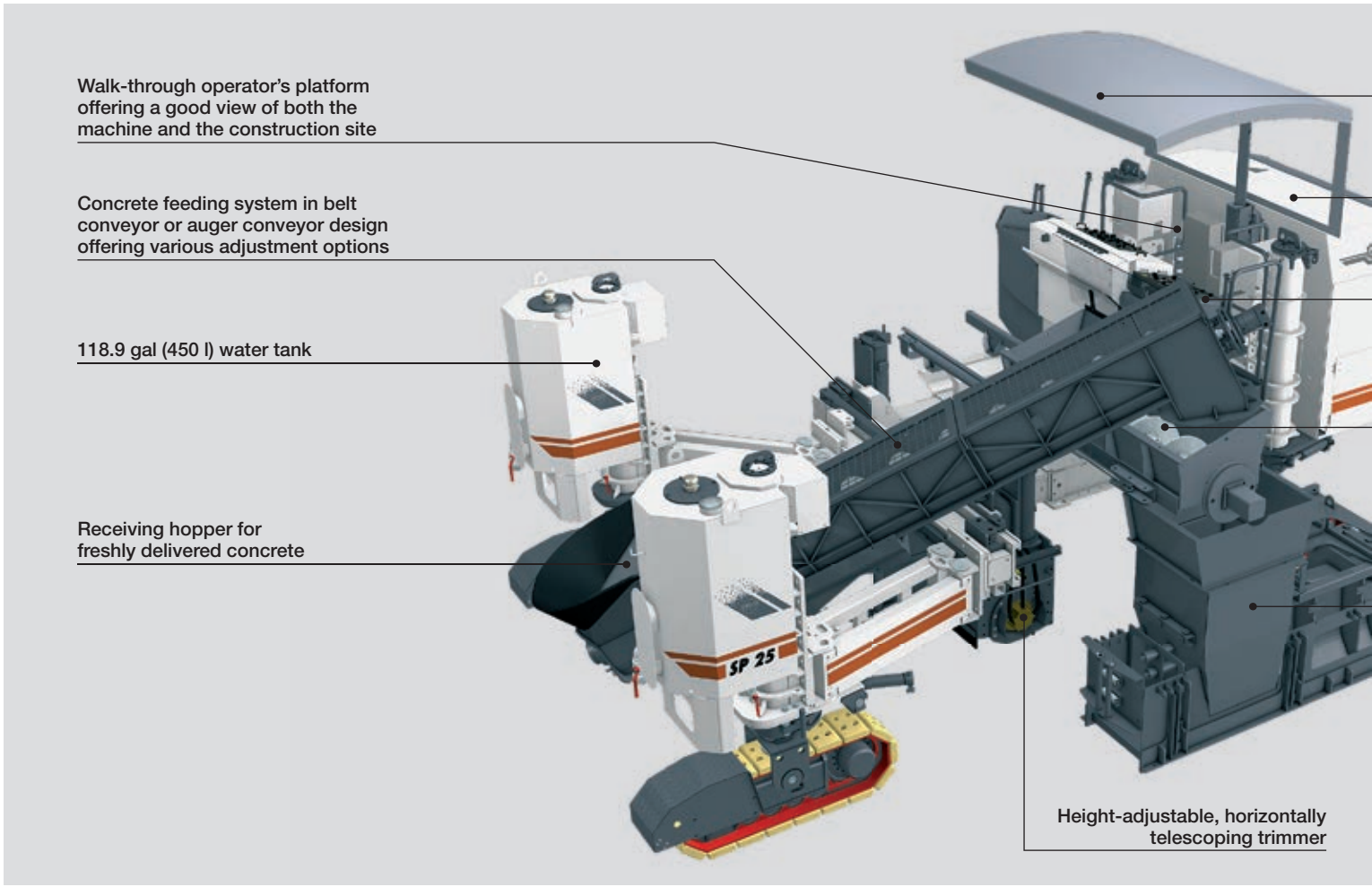
Paving a 8’ 2” (2.5 m) wide main road using 3D control

Precise paving of a 9’ 10” (3.0 m) wide agricultural road using the Wirtgen AutoPilot

- The SP 25/SP 25i is the ideal candidate for mastering special jobs both in the open and in tunnel construction – using either stringline or state-of-the-art 3D control technology.
- Mold changes or modification of the SP 25/SP 25i from inset paving to offset paving can be accomplished quickly and easily right on the job site.
- Standard metric inset slab paving molds of the 900m series including wearing pan are offered for the professional paving of high-stiffness concrete.
- The SP 25/SP 25i also offers imperial inset slab paving molds of the 900i series for the professional paving of low-stiffness concrete.

WI-PAVE OFFSET –
Highly flexible offset mold system

Offset concrete paver shows its true class on difficult jobs



Unrivalled flexibility

The SP 25/SP 25i slipform paver truly excels when it comes to paving small or large concrete profiles in offset application. Especially in those conditions where other slipform pavers can no longer operate, the SP 25/SP 25i is at its best: whether the job requires a profile to be poured across an existing profile or at a large distance or major difference in height between the machine and paving site – these are the challenges that the SP 25/SP 25i overcomes with superior ease. Exceptional flexibility for positioning the mold, track units and concrete feeding system enables it to fully adapt to virtually any paving situation.

Canopy

Servicing panel

Clearly structured control panel, suitable for fitting left or right

Cross-feeding auger

Offset mold can be mounted on the left or right side of the paver and telescoped to both sides

Components of the SP 25/SP 25i for offset profiles

The SP 25/SP 25i is completely in its element when paving concrete safety barriers of up to 6’ 7” (2.0 m) in height

Molds can be mounted on either side

- The SP 25/SP 25i pours large offset concrete profiles at standard heights of up to 6’ 7” (2.0 m) or standard widths of up to 8’ 2” (2.5 m).
- The paver’s repertoire includes concrete safety barriers, curbs, curb and gutter profiles, canals, water gutters, narrow paths and virtually any type of special profile.
- Offset molds can optionally be mounted on the left or on the right side of the slipform paver.
- The trimmer is ideally suited for preparing the base as it minimizes concrete waste while maximizing pouring accuracy.

WI-PAVE OFFSET – Highly flexible offset mold system

Tremendous range of offset paving applications

▲ Paving a 8’ 2” (2.5 m) wide bicycle path

▼ Pouring a large special profile

Paving a rainwater gutter along a steep slope from the right … ▲

◀ … or from the left machine side

Feeling at home on job sites around the world

The SP 25/SP 25i produces poured-in-place concrete profiles at standard heights of up to 6’ 7” (2.0 m) or standard widths of up to 8’ 2” (2.5 m). Even larger profiles can be realized in accordance with customer requirements. The geometrical profile of the offset mold or mold mount poses no problem, for mature manufacturing processes enable us to translate nearly any customer requirement into practical, real-life solutions. Tried-and-tested standard offset molds are ready for shipment immediately. And compared with other manufacturers, the Wirtgen SP 25/ SP 25i offers a unique selling proposition: molds can be mounted on the left or on the right side of the machine.

The SP 25/SP 25i in action

▲ Paving a special profile on a farm

Production of a reinforced median barrier using the Wirtgen AutoPilot ▲

◀ Efficient production of a water gutter

- Flexible positioning of the mold, track units and concrete feeding system tremendously increases the range of applications of the SP 25/SP 25i.
- The paver's flexibility is increased even further thanks to the telescoping mold mount and modular design allowing individual features to be added.
- Wirtgen guarantees the quick availability of a wide variety of tried-and-tested standard profile molds.
- In addition, we manufacture paving molds of most diverse profile shapes in accordance with customer specifications.

WI-PAVE OFFSET – Highly flexible offset mold system

Maximum flexibility in concrete feeding

The auger conveyor remixes the concrete

The feeding system – like the belt conveyor shown here – can be slewed to the left or right hydraulically

The right feeding system for each situation

No two job sites are alike: exceptional circumstances, such as narrow passages, radii, large offsets or high concrete volume requirements, often call for special conveyance solutions. The SP 25/SP 25i offers several options to meet your needs: an auger, belt or folding belt conveyor. The belt conveyor is distinctive for high conveying speeds and ease of cleaning and accessibility.

The auger conveyor can be adjusted to a slope of up to 45° and is capable of holding extra quantities to provide continuous concrete delivery during truck changes. And when equipped with the folding belt conveyor, the SP 25/SP 25i can be transported with ease even on shorter transport vehicles.

High-performance, flexible concrete feeding

The hopper can hold large quantities of concrete

The belt and auger conveyors can be hydraulically adjusted from the operator's platform

The transverse auger moves concrete to the left or right and can be telescoped hydraulically

- The conveying speeds of the different concrete feeding systems are infinitely adjustable.
- All concrete feeding systems are driven hydraulically and can be hydraulically slewed, moved in longitudinal direction or adjusted in slope.
- The charge end of the conveyor is capable of accepting large quantities of freshly delivered concrete.
- The transverse auger is used to increase the flexibility of the concrete feeding system, for example, when an offset mold must be positioned far from the frame of the machine.

WI-PAVE OFFSET – Highly flexible offset mold system

Wide range of options for mounting offset molds

The hydraulically operated quick-change mold-mounting system enables molds to be changed very quickly and with little effort

The offset mold can be mounted on both sides of the machine

Simple operating principle: lower machine, drive forward, secure – and here goes!

Hydraulically telescoping mold

Mounting options on both sides of the paver

A big mark in favor of the SP 25/SP 25i is that it offers the possibility to mount offset molds on the left or right side of the machine. This feature enables both the paver and the concrete truck to always travel with the moving traffic while causing only minimal disruptions for the traffic passing along on adjacent lanes. In addition, the mold mount can be hydraulically telescoped by up to 3' 7" (1,100 mm) to provide for those situations where the SP 25/SP 25i cannot travel right next to the paving profile. The mold mount is also vertically adjustable which means that the machine can stay on the stringline while traversing obstacles like catch basins. Yet another highlight: the quick-change mold-mounting system allows curb and gutter profiles to be exchanged quickly and easily.

Excellent preparation of the base by means of a trimmer

The trimmer ensures excellent preparation of the base …

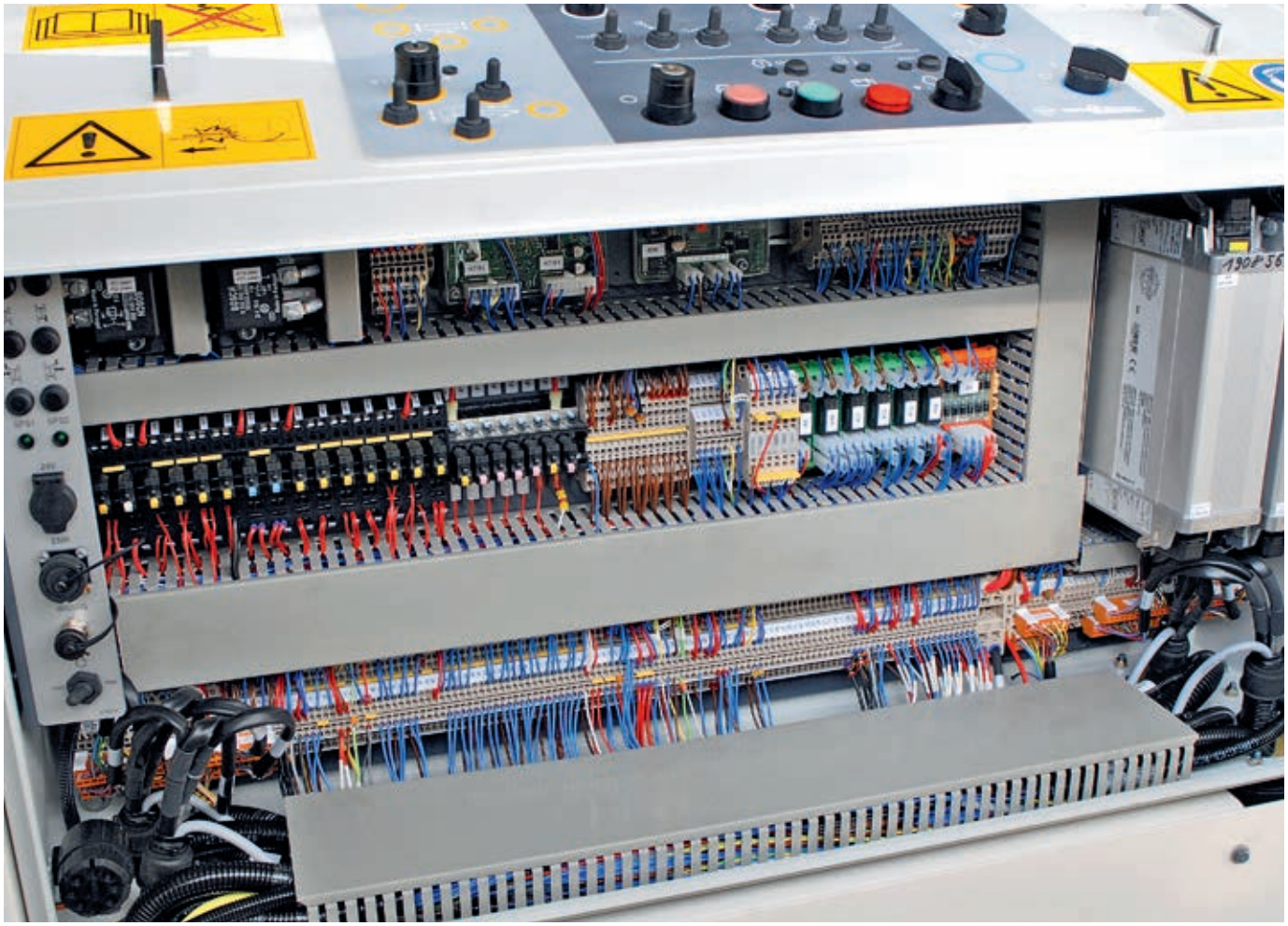
… down to a working depth of up to 6” (150 mm)

Uniform profiles and maximum concrete yield require a consistent base

- The design of the trimmer unit is based on our expertise gained in several decades of experience in milling technology.
- The trimmer is fitted with cutting tools arranged in a helical pattern and is used to prepare the base, thus ensuring uniform concrete paving.
- The trimmer, which is positioned right in front of the mold, can be adjusted in height and slope and can be telescoped in horizontal position by means of hydraulic cylinders.
- The trimmer unit has a basic width of 24” (600 mm) and can be extended in increments to a maximum width of 5’ 3” (1,600 mm).

WI-CONTROL – Superior machine control system

Faultless operation – whatever the job



Software and hardware

The SP 25/SP 25i slipform paver is fitted with an integrated machine management system of the highest quality. The large proportion of software developed in-house plays a decisive role as we have focused on continuously improving the software, which has the added effect of significantly increasing the operational reliability of the machine. Our many years of experience in software and hardware development additionally allow for a higher and more flexible machine functionality in terms of the paver's range of applications and individual customer requirements.

High level of operational reliability

The superior machine control system ensures full straight-ahead stability …

… as well as precise steering in bends

The track units are fitted with separate valves to ensure highly precise steering movements

- The machine control comprises a highly efficient engine management system.
- WIDIAG, the diagnostic system with standardized interface, is used by Wirtgen service technicians for quick, targeted service diagnostics right on site.
- WIFMS, the Wirtgen fleet management system, provides a standardized readout of defined machine parameters for integration in customer-specific systems.

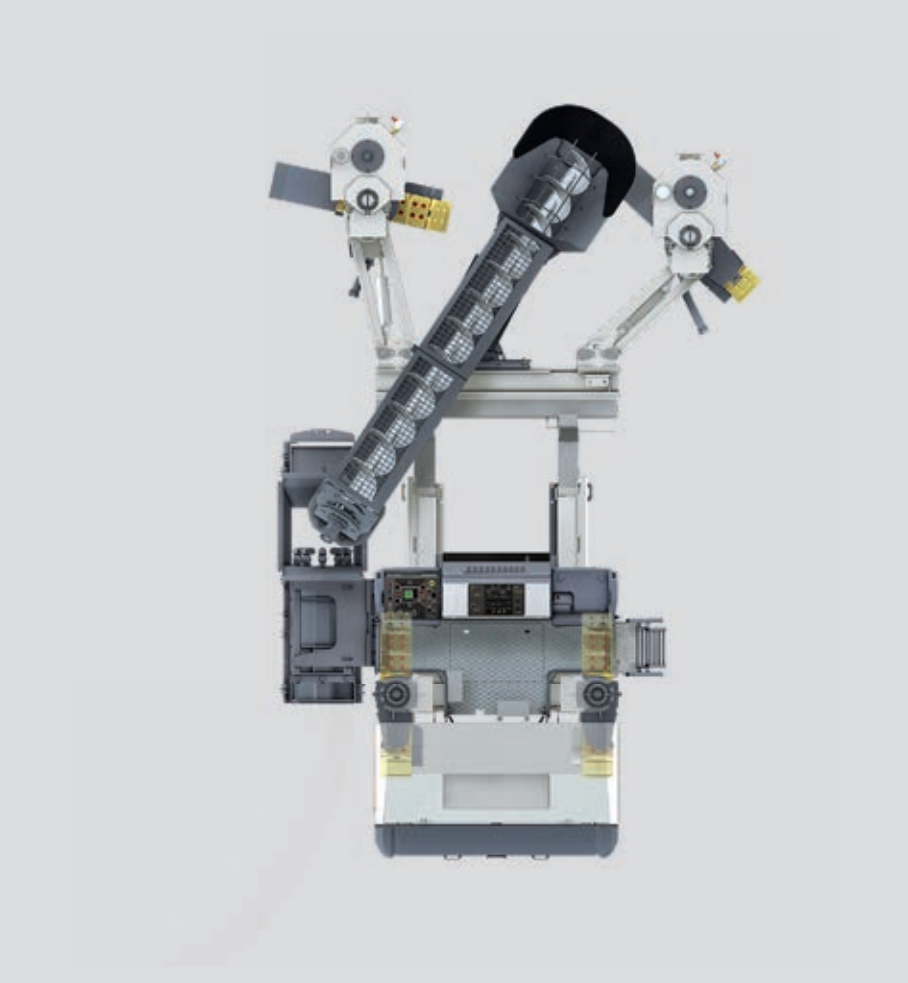
WI-STEER – Steering and drive system built to field requirements

Precise handling – whatever the job

Precision in concrete paving guaranteed

The SP 25/SP 25i features an intelligent electronic steering and control system which offers everything it takes for precise handling and thus high-precision concrete paving. The slipform machine plays its trumps in particular when working in bends where the tried-and-tested Ackermann steering system ensures highly precise driving behavior and highest concrete quality.

The computer-controlled steering system varies the speed of the individual track units when driving in bends, thus enabling the SP 25/SP 25i to follow the previously defined references with pinpoint accuracy. In addition, the steering angle of the tracks is adjusted fully automatically in accordance with the radius to be paved and the paver geometry. Unrivalled!



Extremely small radius of 39” (1.0 m)

Control panel with different steering mode settings for maneuvering

Automatic adjustment of the steering angles and speed of the individual track units to the paver’s geometry

- In bends, the SP 25 / SP 25i enables profiles to be produced with a minimum radius of no more than 39” (1.0 m).
- Highly precise drive motor control prevents jerky driving even when working at minimum speed.
- The control system prevents spinning of the track units when driving in bends, maintaining optimum traction.
- Repositioning and maneuvering of the slipform paver is easy thanks to the additional crab and coordinated steering modes.

ECO MODE – Economical diesel engine control

Optimized engine efficiency

Lowest environmental emission levels

Fuel consumption of the SP 25/SP 25i is reduced to a minimum by the integrated ECO mode diesel engine control. Following activation of the ECO mode, the control system adjusts the engine speed automatically to the paver's performance requirements. The engine speed is low when driving at slow advance speeds, and is increased accordingly if the advance speed is increased.

High or maximum engine speeds are only required at fast advance speeds or when operating vibrators or a trimmer. The ECO mode recognizes each working situation without the need for manual operator intervention and optimizes the engine speed in accordance with the required machine functions.

State-of-the-art engine technology

Manual engagement of the ECO mode

ECO mode engine control guarantees low fuel consumption rates

- Thanks to the ECO mode engine control, the powerful engine installed in the SP 25/SP 25i always works in the optimal performance and torque ranges.
- The paver's demand-based engine management guarantees low fuel consumption, low noise emission levels and low operating costs.
- The engine technology installed in the SP 25 complies with the exhaust emission standards of EC Stage 3a / US Tier 3 or lower.
- The SP 25i features state-of-the-art engine technology for lowest environmental emission levels which complies with the stringent specifications of exhaust emission standards EC Stage 3b / US Tier 4i.

AUTOPILOT –
Low-cost 3D machine control system

Work more efficiently without stringline

Quick, simple, cost-effective

Conventional, expensive 3D control systems for the production of poured-in-place concrete profiles are often unprofitable and too complicated to handle in particular for small contracting companies. Wirtgen provides customers with the AutoPilot, an innovative and competitively priced alternative system developed in-house which ensures automatic, precise concrete paving.

The GPS-based system has been customized for use with the Wirtgen SP 25/SP 25i. It assists with the fully automatic paving of most diverse profile configurations, such as highway safety barriers or curbs for traffic islands. Operation is extremely easy – and programming the system can be done in a matter of minutes.

The Field Rover is used to define measuring points and perform final inspection

The control screen provides a clear overview of current machine and system parameters

The AutoPilot is suitable for both inset and offset paving applications

- The time-consuming surveying, installation and removal of stringlines or the preparation of a geodetic data model is not required.
- The operator is always in full control – he can intervene in the automatic paving process whenever necessary.
- Parameters are entered via the rotary push-button and the function keys at the separate control screen.
- The innovative Field Rover and specially developed software enable calculation of a precise virtual stringline right on site which is then imported into the control system.

EASY CONNECT – Scalable 3D interface

State-of-the-art concrete paving

High safety of use

Tried-and-tested, integrated standard interface for 3D control systems

Acceptance procedures specific to Wirtgen guarantee high safety of use of the different 3D control systems

Simple, efficient, highly precise

Wireless 3D control systems will drive the future of professional concrete paving. In addition to higher paving accuracy, they offer yet another major advantage: establishing the digital terrain model is much more cost-effective than surveying and the installation of stringlines. The SP 25/SP 25i is all set for the job: an integrated standard interface enables it to be fitted with a state-of-the-art 3D control system quite easily. In thorough acceptance procedures, we have tested the compatibility of the SP 25 / SP 25i with the 3D control systems of leading suppliers, thus ensuring safety of use. In addition, our own experts are working on continuously improving and perfecting 3D systems.

SMOOTH SLOPE – Better cross slope control

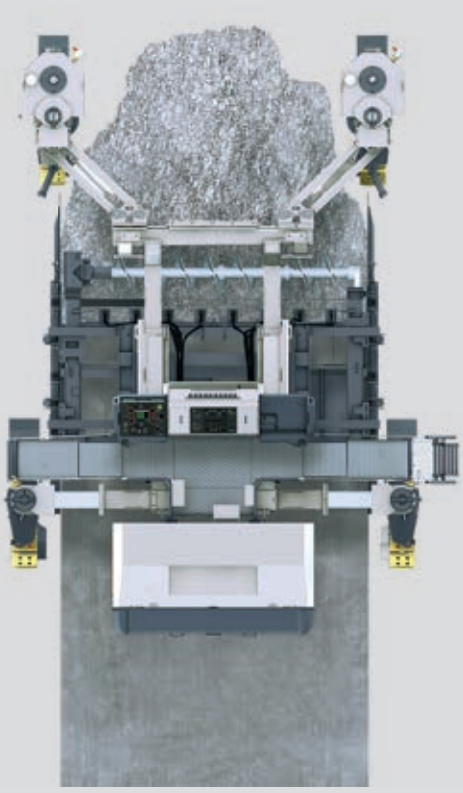
Ensuring excellent paving quality

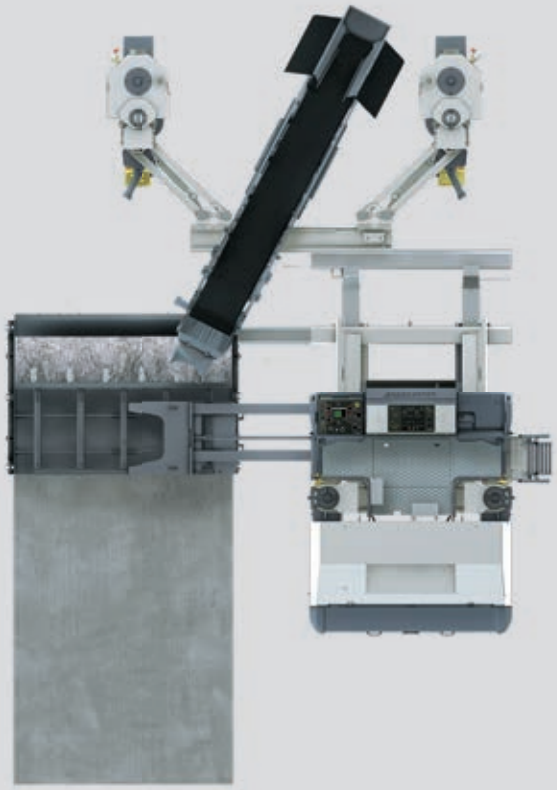
- Excellent paving results are guaranteed thanks to the electronic slope control developed by Wirtgen on the basis of the “Rapid Slope” cross slope sensor.
- Optimized control technology enables the innovative slope control system to achieve as yet unmatched dynamics and precision.
- Significantly shorter machine response times are reflected in the precision and quality of the completed concrete product.
- Vibrations or ground irregularities are balanced out quickly and reliably by the cross slope control system.

LIFE-CYCLE DESIGN – Limitless modular adaptability

Fully modular machine design

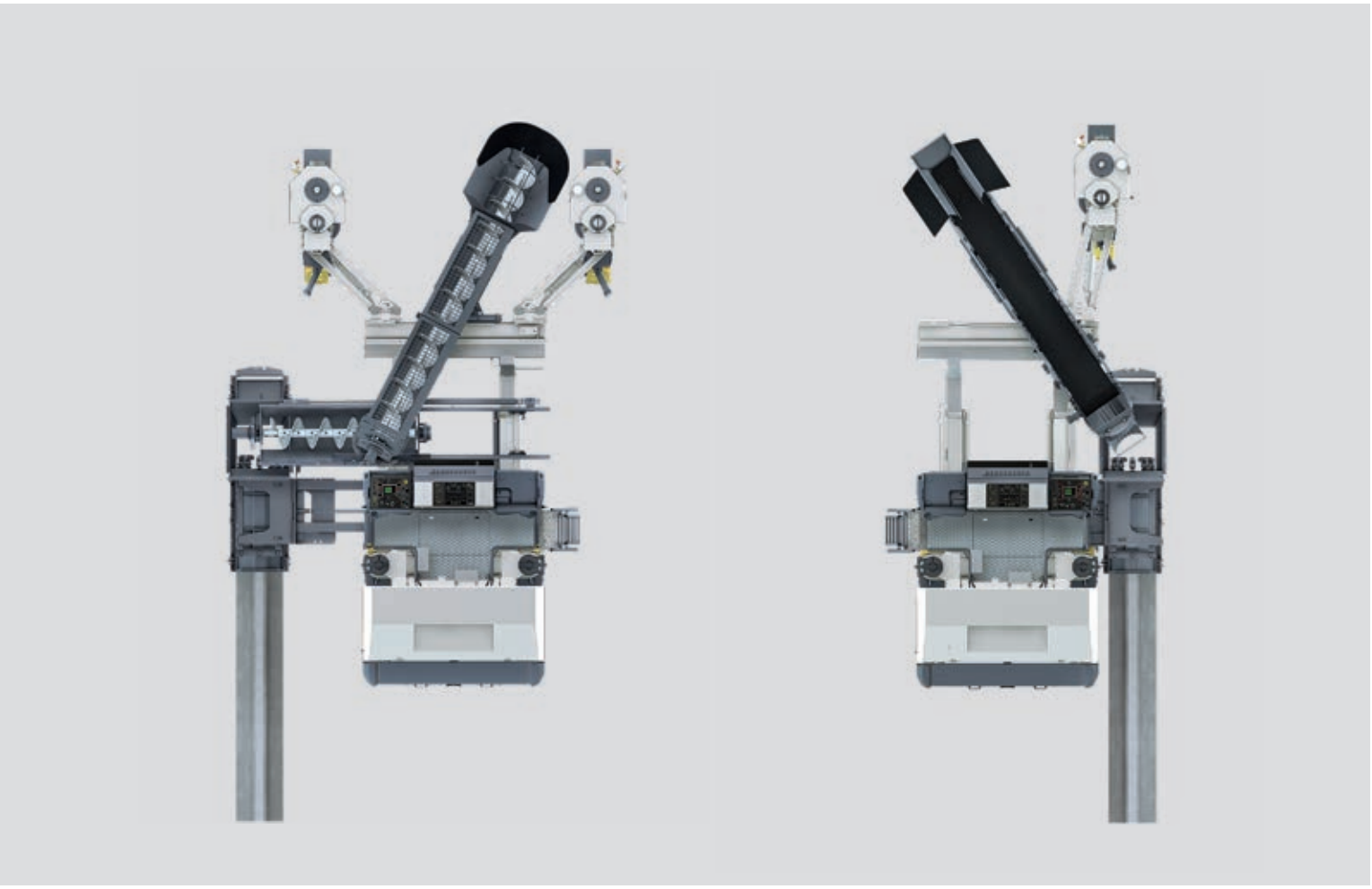
A choice of setup options





Optimum stability regardless of the paving situation

Restricted space, immovable obstacles, stretches of road unsuitable for the machine to drive on, paving profiles far offset from the paver's main frame, or difficulties with supplying fresh material from the concrete truck: the SP 25/SP 25i provides solutions for all inset and offset paving jobs thanks to its fully modular design, easy modification and extension options. The machine frame can be telescoped in longitudinal and transverse direction, and the paver's technical features allow reliable adjustment to most diverse site conditions. The paver can be equipped with additional components to offer solutions for complex, customer-specific paving requirements. In addition to that, even customer options can be retrofitted thanks to standard interfaces.



- One or two front track units with large pivoting angles, as well as laterally telescoping rear track units with extension elements offer maximum flexibility.
- The stability of the SP 25/SP 25i is increased even further thanks to the laterally adjustable front main frame section.
- The offset paving mold can be mounted on the left or right side of the machine, adjusted in height hydraulically and telescoped to either side.
- Flexibility in concrete feeding is ensured by various adjustment options of the feeding systems and an additional cross-feeding auger.

EASY OPERATION – Excellent ergonomic design and handling

Relaxed working and extremely easy handling

Gaining full control quickly

Everything on the operator's platform of the SP 25/ SP 25i is arranged with great clarity and ergonomic principles in mind. The state-of-the-art graphic screen is located in the center of the control panel: the multifunctional display keeps the operator informed of all relevant operating parameters on an event-driven basis. Handling of the paver via the control screen is easy – and is made even easier by clearly identifiable symbols independent of the national language. The control panel can be placed on the left or right side of the paver, thus always offering an excellent view of the entire paving process. A comprehensive lighting package is part of the on-board equipment to allow efficient operation even in darkness. At the end of the day, the paver operator is familiar with the SP 25/ SP 25i in no time at all, which enables him to fully focus on his work and deliver top performance.

Control panel suitable for mounting on the left or right side for excellent visibility

Quick maintenance and readily accessible components

Excellent view of the paving process from the spacious, ergonomically designed operator's platform

The convenient access ladder can be manually adjusted in height and folded in for transport

- The standardized, intuitive operating concept of Wirtgen's small paver range comprising SP 15/SP 15i, SP 25/SP 25i and SP 80/SP 80i offers additional synergistic effects.
- The canopy can be raised and lowered hydraulically even with the diesel engine switched off and allows paving to proceed independent of weather conditions.
- Ample storage space is available for tools, sensors, the hydraulically operated high-pressure cleaner or other items needed on site.
- The effective engine soundproofing and anti-vibration mounted treads reduce strain on both the man and the environment.

FAST & EASY –
The intelligent transport concept

Optimized machine dimensions

Quick loading

The canopy is folded down to transport height hydraulically ▶

▲ In folding design, the belt conveyor can be folded hydraulically for transport

Transport on a flatbed truck – tailored to fit! ▶

Minimum effort required

Outstanding maneuverability and compact dimensions enable quick loading and easy transport of the SP 25/SP 25i slipform paver. Minimum effort is required to prepare the machine for transport. The canopy can be folded down to transport height hydraulically, and the access ladder can be folded in to facilitate transport. And when equipped with the folding belt conveyor, the SP 25/SP 25i can be transported with ease even on small transport vehicles.

Unrivalled expertise in engineering and manufacturing

Quality is our best selling proposition

Engineering and design by experienced engineers and technicians

Made in Germany – precision and attention to detail

High-quality welding of the SP 25/SP 25i machine frame at the main plant in Windhagen, Germany

- Our great expertise and experience, gained in the manufacture of hundreds of slipform pavers over several decades, are utilized to the benefit of the SP 25/SP 25i.
- Highly qualified expert staff, a high degree of vertical integration and mature production processes guarantee first-class workmanship “made in Germany”.
- Not off the shelf: each single SP 25/SP 25i is tailored to the specific application for which it is intended and to the customer’s specification.
- All functions of the slipform paver undergo thorough, in-depth testing once again in the final quality control procedure.

WIRTGEN AMERICA

Wirtgen America Inc.
6030 Dana Way · Antioch, TN 37013, USA
Phone: (615) 501-0600 · Fax: (615) 501-0691
Internet: www.wirtgenamerica.com