A WIRTGEN GROUP COMPANY

VÖGELE

Highway Class

SUPER 2100-3 L

TRACKED PAVER

PREMIUM LINE

Maximum pave width 13 m
Maximum laydown rate 1,100 tonnes/h
Transport width 3 m

www.wirtgen-group.com/china

Powerful, economical, quiet

The SUPER 2100-3 L unites pioneering design, added comfort and convenience as well as high performance with minimum consumption. Product designers mainly focused on ecological, economic and ergonomic aspects when developing the “Dash 3” generation.

The VÖGELE EcoPlus Package for a low carbon footprint, for instance, significantly reduces fuel consumption and noise levels.

The popular ErgoPlus 3 operating system, too, has been provided with a number of additional ergonomic and functional features. The paver operator‘s console now comes with a large colour display ensuring brilliant readability even in poor lighting conditions.

All of these features make this Highway Class machine a true SUPER paver.

The highlights of the SUPER 2100-3 L

Tracked Highway Class paver with a large range of applications and pave widths up to 13 m

Powerful and economical drive concept, even when operating at full load in any climate zone

"VÖGELE EcoPlus" low-emissions package for a low carbon footprint significantly reduces fuel consumption and noise levels

ErgoPlus 3 operating system with numerous convenient and automatic functions

The powerful, oil-cooled generator is directly driven by the splitter gearbox and therefore maintenance-free

Extra long material hopper and chassis

Efficient high performance with low consumption

The powerful six-cylinder diesel engine rated at 179 kW is the force behind this Highway Class paver.

Intelligent engine management with ECO mode and VÖGELE EcoPlus low-emissions package keep fuel consumption and noise levels low.

Low input – maximum output: all drive components including the three-phase AC generator are powered via the central splitter gearbox and operate with maximum efficiency.

Crawler tracks with high tractive power efficiently translate the engine output into pave speed.

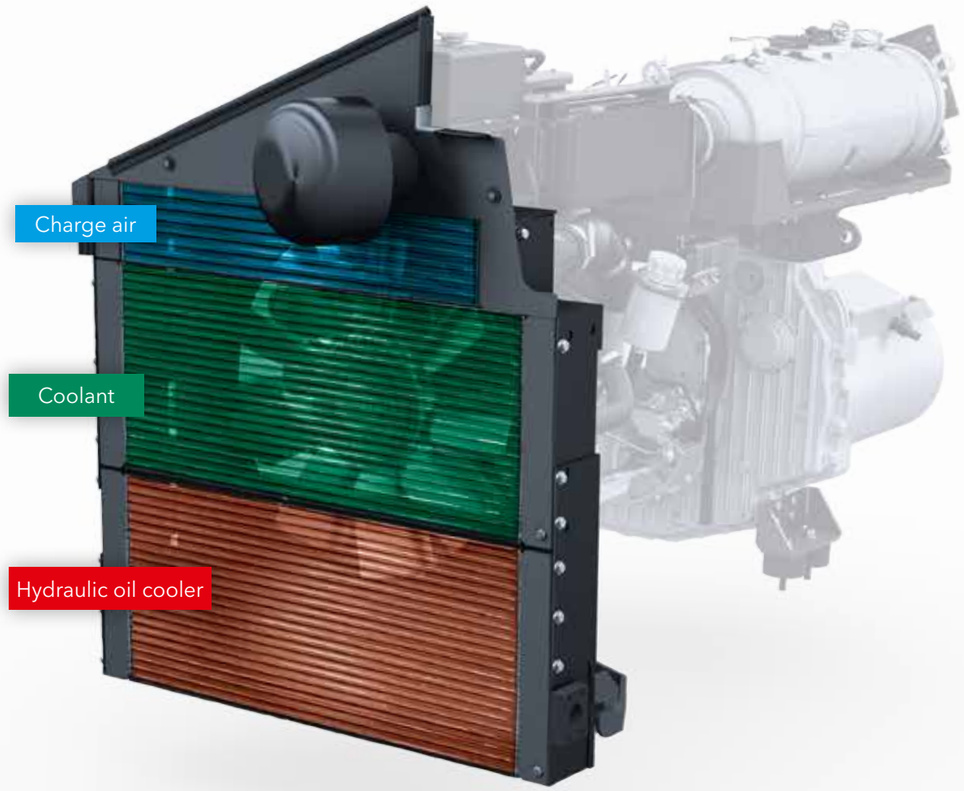
Modern drive technology

Three main components define the power unit of a SUPER 2100-3 L: its modern, liquid-cooled diesel engine, a splitter gearbox flanged directly to the engine and a large cooler assembly.

The driving force in this VÖGELE power pack is its diesel engine. The six-cylinder engine delivers 179 kW at 2,000 rpm, though ECO mode is sufficient for many applications. And even then, the SUPER 2100-3 L still has a full 168 kW at its disposal. Moreover, the machine generates even less noise when running at just 1,700 rpm.

A large cooler assembly ensures that the power unit always delivers its full output. With innovative air routing and a variable-speed fan, temperatures are continuously maintained within the optimum range, significantly extending the service life of both the diesel engine and the hydraulic oil. A further advantage is that the machine can operate without difficulty in all climate regions worldwide.

All hydraulic consumers are directly supplied with hydraulic oil via the splitter gearbox. The advantage is that all hydraulic pumps and valves are centrally located, making them easily accessible for servicing. Even the powerful generator for screed heating is flanged directly onto the splitter gearbox; its integrated oil cooling system makes it completely maintenance-free and very quiet.



The large cooler assembly is made up of three parts. It ensures that engine coolant, charge air and hydraulic oil are maintained at the optimum temperature.

- **Powerful yet economical** 6-cylinder diesel engine with ECO mode.
- **ECO mode for paver operation** at 1,700 rpm is perfectly adequate for numerous applications. It cuts operating costs and allows superquiet operation.
- **A powerful, oil-cooled generator** with direct drive ensures rapid, uniform heating of the screed. In the “Dash 3” generation, the generator is directly driven by the splitter gearbox. The drive system is therefore maintenance-free.

VÖGELE EcoPlus: less is more

It goes without saying that our road pavers conform to the applicable emissions directives, but we like to go much further. That's why the machine concept of the "Dash 3" generation uses environmentally friendly innovations in machine technology, resulting in lower consumption, lower emissions and lower costs.

One of these innovations is the VÖGELE EcoPlus low-emissions package. Fuel savings of up to 25% can be achieved with VÖGELE EcoPlus, depending on the application and capacity utilization of the paver.

That doesn't just result in considerable savings for the contractor – it is good news for the environment, too. That's because every litre of fuel saved reduces carbon dioxide (CO_2) emissions.

25% FUEL SAVING

25% LESS CO_2 EMITTED

LOWER NOISE EMISSIONS

The technical innovations

01

Splitter gearbox with ability to disengage hydraulic pumps

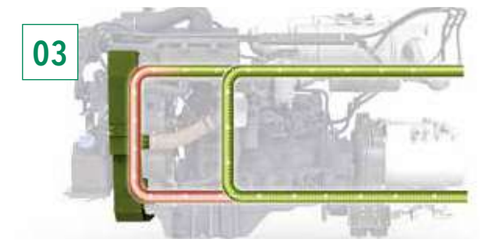
When the paver is stationary, all the hydraulic pumps needed for "traction", "conveyors and augers" and "compaction" are disengaged automatically. The result? Lower fuel consumption.

02

Energy-optimized tamper drive

The tamper is driven by a variable-displacement pump which always delivers exactly the amount of oil needed for the current tamper speed and not a drop more or less.

03



Controlled hydraulic oil temperature circuit

A bypass circuit gets the hydraulic oil to its optimum operating temperature very quickly, enabling rapid, fuel-saving operation of the paver.

04

Variable-speed fan

The variable-speed fan automatically adapts to engine load and ambient temperature. This type of drive saves energy and reduces noise emissions.

Precision on tracks

The optimized crawler unit with additional track carrier rollers maximizes the quiet running of the paver.

The electronically controlled separate drives installed in the sprockets of the crawler tracks permit constant straight movement and precise steering through curves.

» **Thanks to powerful separate drives** fitted into the sprockets for crawler tracks, engine output is translated into pave speed with no loss of power.

» **Long crawler tracks** with large footprints provide for maximum tractive effort, allowing the paver to progress well at a constant speed even when operating on difficult terrain.

» **Positive tracking** when moving straight and accurate cornering due to separate drive and electronic control provided for each crawler track.

Perfect material management for perfect paving quality

A continuous flow of mix is key to ensuring uninterrupted and high-quality paving. That is why we attach such importance to professional material management when designing our pavers.

All our development efforts focus on simple operation and the best possible overview for the paving team.

Large material hopper, easy feed with mix

The material hopper and chassis of the SUPER 2100-3 L have been specially adapted to the feed vehicles which are customary in China. Any mix lorry can dock onto the SUPER 2100-3 L without difficulty, thanks to its great length and low feed height. What's more, the wide, oscillating push-rollers can be moved 150 mm and 75 mm forward for a convenient and jerk-free material supply to the paver from any kind of feed vehicle. The large material hopper holds up to 15 tonnes. This not only permits rapid unloading of the feed lorries, but also ensures that there is an ample buffer of material when changing lorries.

» **The large material hopper** holding 15 t is amply dimensioned so that a sufficient quantity of mix is stored at all times. There is no problem tiding over difficult situations such as paving under bridges, for instance.

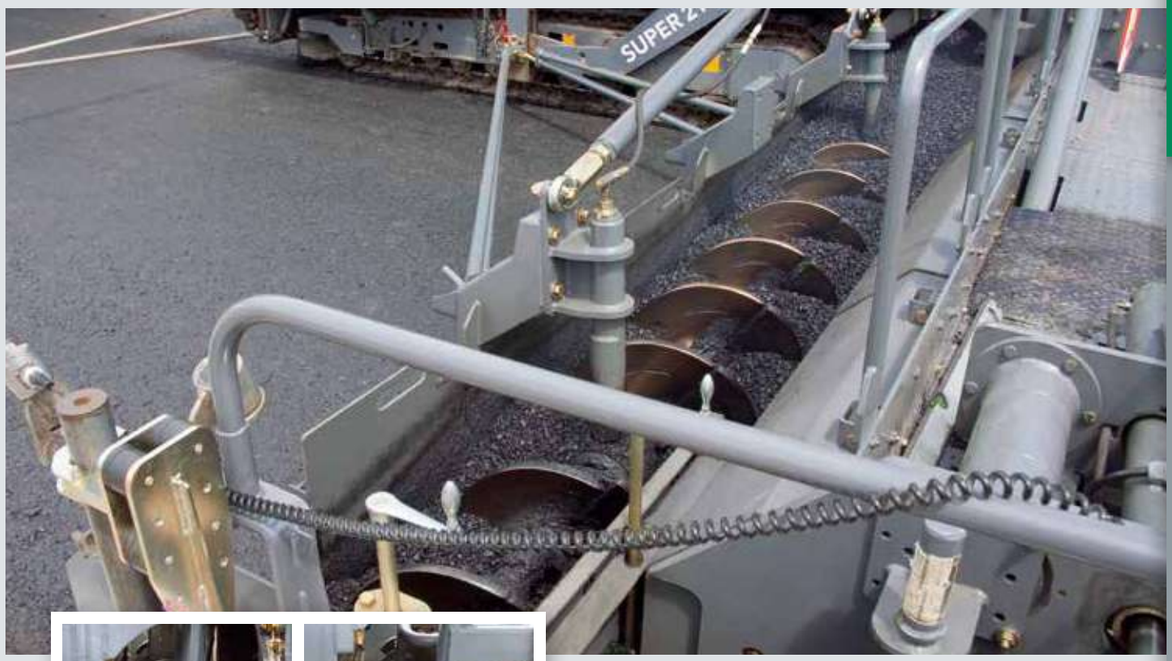
» **Easy feeding with mix** is possible thanks to low material hopper, wide hopper sides and sturdy rubber baffles fitted to the hopper front.

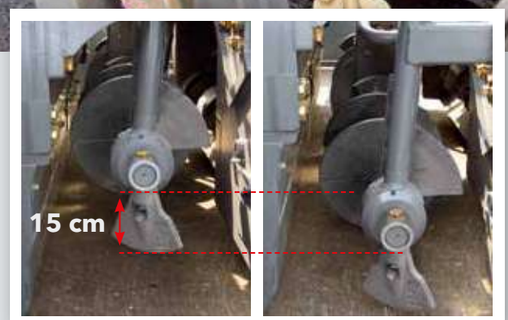
» **Especially wide oscillating push-rollers** permit convenient and shock-free docking of feed vehicles, even on bends.

» **Any customary mix lorry** can dock onto the SUPER 2100-3 L thanks to its length of 2.42 m and low feed height of just 55 cm.

Precise spreading of mix

The augers of the SUPER 2100-3 L are hydraulically infinitely variable in height up to 15 cm, even while paving. This provides for quick and easy adaptation to the desired layer thickness across the full pave width.





The height of the augers complete with bearing boxes and limiting plates for the auger tunnel can be hydraulically adjusted by up to 15 cm across the full pave width. This optimizes the head of mix in front of the screed, even when paving thin layers or when layer thickness varies.

» **Powerful, separate hydraulic drives** installed for conveyors and augers, permit high laydown rates up to 1,100 t per hour.

» **Large auger blades** (diameter 420 mm) provide for an optimal head of mix in front of the screed and prevent segregation, even when paving across large widths.

» **Hydraulic adjustment** of the augers in height, complete with bearing boxes and limiting plates for the auger tunnel, allows the paver to be moved on the job site without a need for conversion, a benefit that saves time and money.

SUPER 2100-3 L

The ErgoPlus 3 operating concept

Even the very best machine with the most advanced technology can only really show its strengths if it can be operated easily and as intuitively as possible. At the same time, it should offer an ergonomic and safe working environment for the operating team. The ErgoPlus 3 operating concept accordingly focuses on the operator. With VÖGELE pavers, the user consequently retains full control over the machine and the construction project.

On the following pages, example illustrations will provide you with more detailed information on the extensive functions of the ErgoPlus 3 operating concept. ErgoPlus 3 encompasses the operator's platform, the paver operator's console and screed consoles and Niveltronic Plus, the System for Automated Grade and Slope Control.

The paver operator's **ErgoPlus 3** console

"Full control for the machine operator!"

The paver operator's ErgoPlus 3 console

The paver operator's console is extremely clear and has been designed according to practical principles. All functions are combined into logical groups, so that the operator finds each function exactly where he would expect it to be.

On the ErgoPlus 3 console, all push-buttons are easily identifiable by touch even when wearing work gloves. Once a button is pressed, off you go, thanks to the "Touch and Work" principle. This means that a function is executed directly – without the need to confirm.

Module 1: Conveyors and augers, traction
Module 2: Screed
Module 3: Material hopper and steering
Module 4: Display for monitoring and adjusting basic settings

Idling function

Idling function is provided for the warm-up or cleaning of conveyors, augers and tamper.

Reversing conveyor movement

In order to avoid mix dropping from the conveyors during a move of the paver on the job site, conveyor movement can be reversed at the push of a button. Reverse movement takes place for a short time only and stops automatically.

Automatic Functions

For conveyors and augers, operators can easily select "Manual Mode" or "Automatic Mode". When selecting "Automatic Mode" for the augers, sensors installed for the mix level in the auger tunnel provide that exactly the desired amount of mix is spread in front of the screed.

Choice of operating modes for the paver

All the main paving and machine functions can be controlled directly by individual push-buttons on the paver operator's ErgoPlus 3 console. By pressing the arrow buttons, up or down, the operator changes modes in the following order: "Neutral", "Job Site", "Positioning" and "Pave". An LED indicates the mode selected.

Safe operation during the night

Glarefree backlighting comes on automatically as darkness sets in so that the paver operator can also work safely on night-time jobs.

Display of the paver operator's console

The high-contrast colour display delivers brilliant readability even in poor lighting conditions. Vital information, such as the positions of the screed tow point rams or the material level in the conveyor tunnel, is shown on menu level 1. Further paver functions such as speeds of tamper and vibrators or feed rate of the augers can easily be set up via the display, too. And the display gives access to machine-related information such as fuel consumption or service hours.

Steering

For turning a large radius, fine steering allows to pre-set a track position which is maintained automatically without a need for manual intervention by the operator.

Choice of engine speed ranges

For the diesel engine, there is a choice of 3 modes to select from: MIN, ECO and MAX. To switch modes for engine rpm, all the operator needs to do is press the arrow buttons, up or down. In ECO mode, the engine delivers sufficient power for a great number of paving applications. Operating in ECO mode reduces noise emission and fuel consumption considerably.

The screed operator's ErgoPlus 3 console

The screed is crucial for pavement quality, so easy, safe handling of all screed functions is of the utmost importance for high-quality road construction.

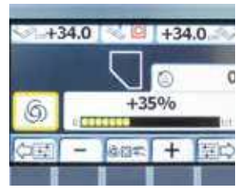
With ErgoPlus 3, the screed operator has the process of paving at his fingertips. All functions are easily comprehensible and all controls are clearly arranged.

The screed console

The screed console is designed in keeping with the conditions prevailing on the job site. Push-buttons are provided for the frequently used functions operated from the screed console. These are watertight and surrounded by raised rings, to make them identifiable "blindfold" simply by touch, even when wearing work gloves. Important paver and screed data can be called up and adjusted from the screed console, too.

The display of the screed console

The display of the screed console allows the screed operator to control and monitor both the left and the right side of the screed. The screed operator can quickly and easily adjust machine-related parameters such as tamper speed or conveyor speed. The clear menu structure, combined with easily understandable, self-explanatory symbols neutral in language, makes operating the display panel both simple and safe.



Niveltronic Plus

Niveltronic Plus, the cutting-edge VÖGELE System for Automated Grade and Slope Control, is very easy to learn and achieves outstanding paving results. All important functions of Niveltronic Plus can be accessed directly on menu level 1. The operator is provided with a variety of information, such as the sensor currently selected or the diviation from specified values for layer thickness.

An electronic system installed in the screed tow point rams picks up the tow points' positions. Display of the current tow point positions and of the transverse slope on the screed console greatly facilitates set-up of the screed. All sensors connected are recognized automatically by Niveltronic Plus and can be monitored and controlled from either screed console. An open interface is provided for connection of a GPS system, thus permitting 3D paving.

Ergonomic screed width control at two speeds

Screed width can be effortlessly adjusted by means of the SmartWheel. This is done at two speeds: slow, for precise control e.g. along an edge, or fast, for rapid extension or retraction of the screed.

Optimum visibility even in darkness

The screed console is specially designed for night-time operation. To prevent operator errors, the buttons are backlit as soon as dusk falls or in darkness. What's more, the downward-angled high-power LED lighting gives the operator a perfect view of all processes associated with the side plate.


1.


3.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7.


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8.

The ErgoPlus 3 operator's stand

1. The comfortable operator's stand gives an unobstructed view of all crucial areas on the paver such as material hopper, steering guide or screed.

2. The seats swinging out to the sides and an operator's stand of streamlined design likewise provide maximum visibility of the auger tunnel, permitting the paver operator to keep an eye on the head of mix in front of the screed at all times.

3. Working comfort
The paver operator's seat and console on the platform, as well as the screed operator's platforms can now be adjusted even more easily to personal needs.

4. A place for everything and everything in its place
The operator's stand, with its streamlined design, is well organized, offering the paver operator a professional workplace. The operator's console can be protected by a shatter-proof cover to prevent wilful damage.

5. Hardtop gives excellent protection
The modern hardtop made of glass fibre-reinforced polymer material shelters the operator come rain or shine.

6. Consistent service concept
All "Dash 3" pavers have a consistent maintenance concept with identical service intervals.

7. Safe and convenient step
The walkway and convenient central step on the screed ensure safe and convenient access to the operator's platform.

8. Ergonomic screed console
The height and position of the console are easily adjusted. The high-contrast colour display can be read clearly from all angles.

Screed options for all paving applications

Given its enormous tractive effort and high laydown rate, the SUPER 2100-3 L is the ideal machine for paving in large widths. In order to achieve an optimal paving result for every kind of application, VÖGELE offer screeds which operate with high precision. A variety of screed options are available for the SUPER 2100-3 L, featuring different equipment with compacting systems. The paver can be combined with the SB 300 Fixed-Width Screed and the AB 600 Extending Screed.

The AB 600 Extending Screed, which stands out through excellent adaptability, is ideal for paving in varying width. Its single-tube telescoping system allows screed width control with the highest precision. Even with the screed set to its maximum width, the telescoping tubes are extended by no more than half, thus providing for superb screed stability and zero flexing.

The VÖGELE AB 600 Extending Screed is available for the SUPER 2100-3 L in the TV version (with tamper and vibrators) for standard compaction, or in the TP1 version (with tamper and 1 pressure bar) for high compaction.

The SB 300 Fixed-Width Screed handles a maximum pave width of 13 m and is ideally suited to use on large job sites. High performance and cost-effective paving are its strengths.
Option: Thanks to 75 cm hydraulic bolt-on extensions, the pave width is infinitely variable within a range of 1.5 m.

The VÖGELE AB 600 Extending Screed and the SB 300 Fixed-Width Screed are available in TP1 version (with tamper and 1 pressure bar) for high compaction.

The Extending Screeds guarantee homogeneous surface texture thanks to uniform heating of screed plates, tamper bars and pressure bars.

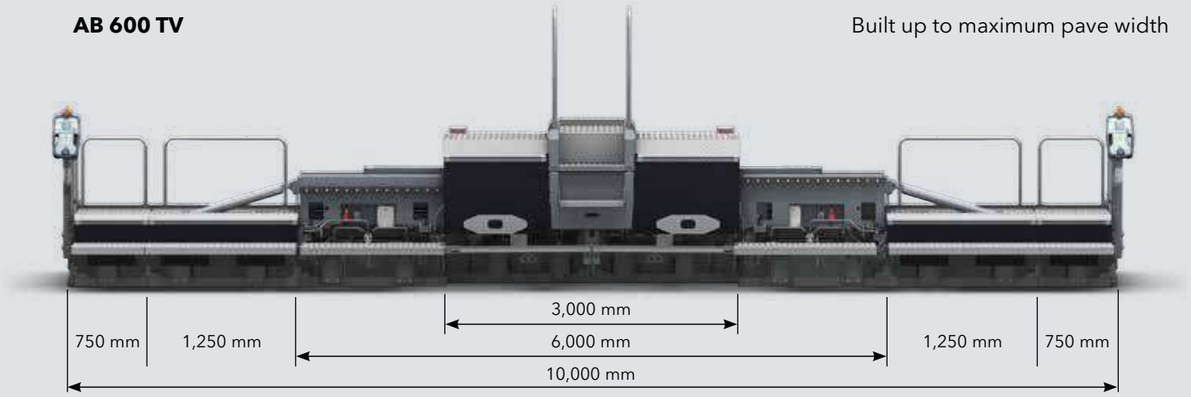
Even with the paver's engine running at minimum rpm, the time required for the screed to reach its operating temperature is reduced substantially thanks to an intelligent generator management.

When the paver functions are set to automatic, the generator management system activates Alternating mode for screed heating (heats the screed alternately on the left and right), a feature which is easy on the engine and reduces fuel consumption considerably.

Screed options for the SUPER 2100-3 L

AB 600 TV

Built up to maximum pave width



Pave widths

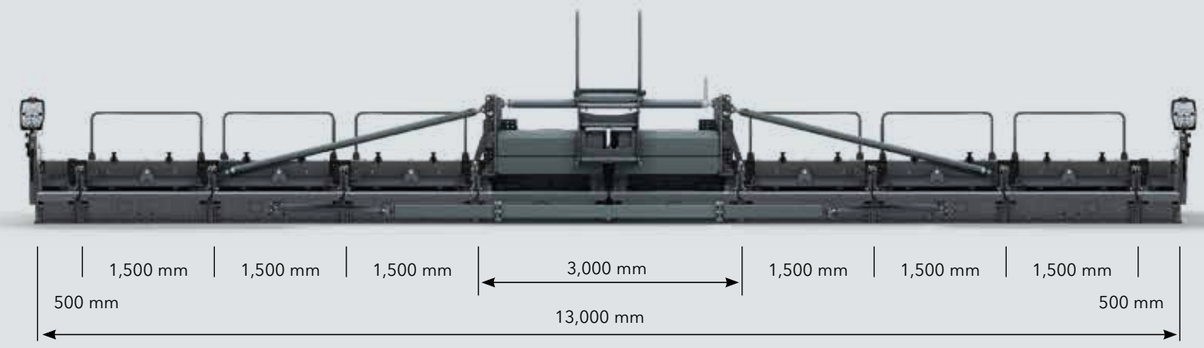
- Infinitely variable range from 3 m to 6 m
- Larger widths if bolt-on extensions up to a maximum of 10 m are added

Compacting systems

- AB 600 TV with tamper and vibrators
- AB 600 TP1 with tamper and 1 pressure bar

SB 300 TV

Built up to maximum pave width



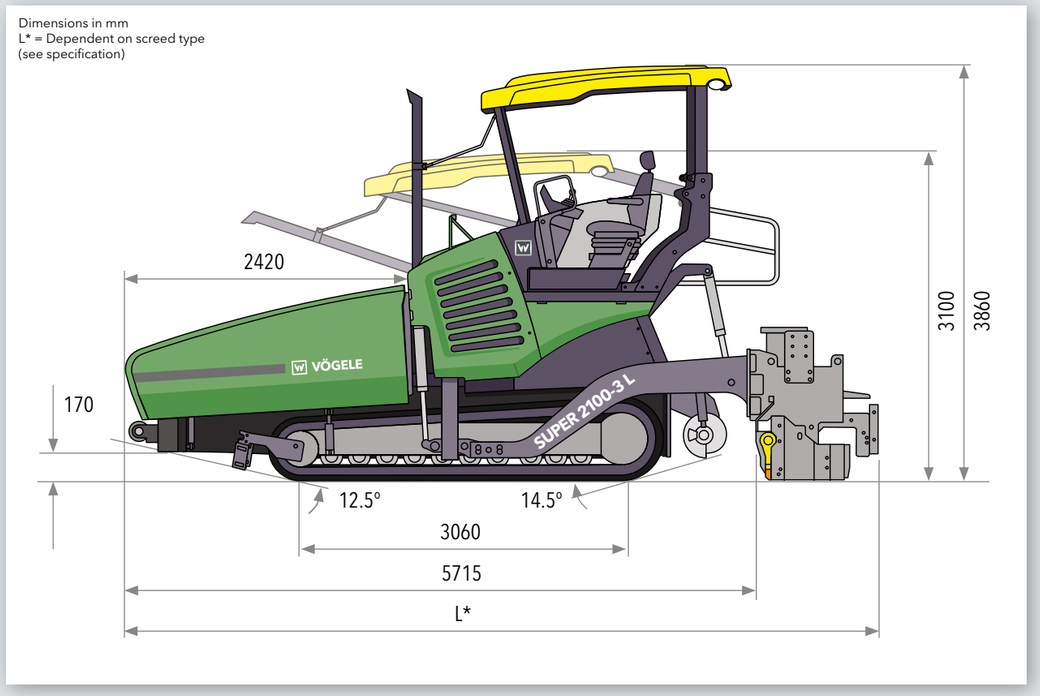
Pave widths

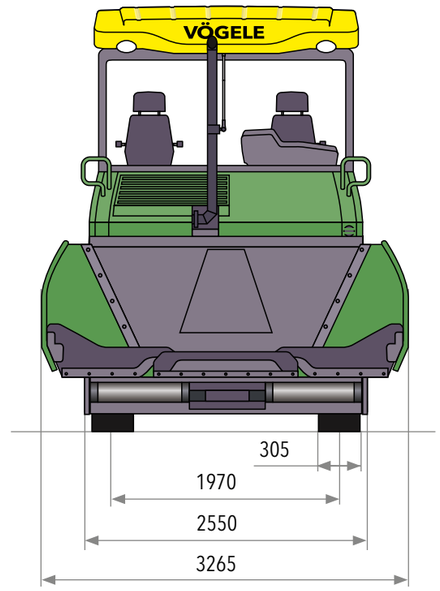
- Basic width 3 m. Larger widths if bolt-on extensions up to a maximum of 13 m are added
- Thanks to 75 cm hydraulic bolt-on extensions, pave width is infinitely variable within a range of 1.5 m

Compacting systems

- SB 300 TV with tamper and vibrators
- SB 300 TP1 with tamper and 1 pressure bar

All the facts at a glance





Power unit	
Engine	6-cylinder diesel engine, liquid-cooled
Manufacturer	Cummins
Type	QSB6.7-C240
Output	
Nominal	179 kW at 2,000 rpm (according to DIN)
ECO mode	168 kW at 1,700 rpm
Exhaust emissions standard	Stage III (MEP), EC Stage IIIA, US Tier 3
Fuel tank	400 litres

Undercarriage	
Crawler tracks	provided with rubber pads
Ground contact	3,060 x 305 mm
Track tension adjuster	spring assembly
Track roller lubrication	lifetime
Traction drive	separate hydraulic drive and electronic control provided for each crawler track
Speeds	
Paving	up to 25 m/min., infinitely variable
Travel	up to 4.5 km/h, infinitely variable

Material hopper	
Hopper capacity	15 t
Width	3,265 mm
Feed height	550 mm (bottom of material hopper)
Push-rollers	
Standard	oscillating, can be displaced forwards by 75 mm or 150 mm

Conveyors and augers	
Conveyors	2, with replaceable feeder bars, conveyor movement reversible for a short time
Drive	separate hydraulic drive provided for each conveyor
Speed	up to 37 m/min., infinitely variable (manual or automatic)

Conveyors and augers	
Augers	2, with exchangeable auger blades, auger rotation reversible
Diameter	420 mm
Drive	separate hydraulic drive provided for each auger
Speed	up to 79 rpm, infinitely variable (manual or automatic)
Height	infinitely variable by 15 cm, hydraulic
Lubrication	centralized lubrication system with electrically driven grease pump

Screed options		
AB 600	basic width	3 m
	infinitely variable range	3 m to 6 m
	maximum width	10 m
	compacting systems	TV, TP1
SB 300	basic width	3 m
	maximum width	13 m
	compacting systems	TV, TP1

Screed options	
Layer thickness	up to 40 cm (SB 300)
Screed heating	electric by heating rods
Power supply	three-phase AC generator

Dimensions (transport) and weights		
Length	tractor unit with screed	
AB 600	TV	6.96 m
	TP1	7.13 m
SB 300	TV/TP1	6.85 m
Weights	tractor unit with screed	
AB 600 TV	pave widths up to 6 m	22,150 kg
	pave widths up to 10 m	25,850 kg

Key: **AB =** extending screed **SB =** fixed-width screed **TV =** with tamper and vibrators **TP1 =** with tamper and 1 pressure bar

Subject to technical modification.

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VÖGELE

Your VÖGELE QR Code will take you straight to the "SUPER 2100-3 L" on our website.

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