

### **Compact Class**

### **SUPER 1303-3i** WHEELED PAVER



Maximum pave width 4.5 m Maximum laydown rate 250 tonnes/h Transport width 1.85 m







## Compact size, big performance



**Minor municipal roads,** farm tacks, foot and cycle paths or small to medium-sized areas – if this is the kind of paving jobs you need to get done, then the VÖGELE SUPER 1303-3i joins your game.

This cutting-edge paver features extremely compact design and superb manœuvrability. A basic width of 1.85 m and an overall length of just 4.95 m make the SUPER 1303-3i ideal for jobs in confined spaces.

The VÖGELE ErgoPlus 3 operating system has been supplemented by numerous ergonomic and functional features. The paver operator's console, for example, comes with a large colour display which provides brilliant readability even in poor lighting conditions.

Though a compact-size machine, the SUPER 1303-3i stands out through excellent performance due to its perfected overall concept. Powered by a diesel engine rated at 74.4 kW, the paver achieves laydown rates up to 250 t/h.

Coming with an AB 340 Extending Screed in the TV version for pave widths up to 4.5 m, the SUPER 1303-3i easily handles medium-sized job sites as well.



Wheeled Compact Class paver with a large range of applications and pave widths up to 4.5 m

**Powerful and economical drive concept** with a modern diesel engine

**Significantly smaller turning circle** due to Pivot Steer steering brake

Optimum feeding with mix thanks to the large material hopper and PaveDock Assistant communication system AutoSet Basic function permits a quick and safe relocation of the paver on the job site **ErgoPlus 3 operating system** with numerous convenient and automatic functions

**AB 340 Extending Screed** for perfect paving quality

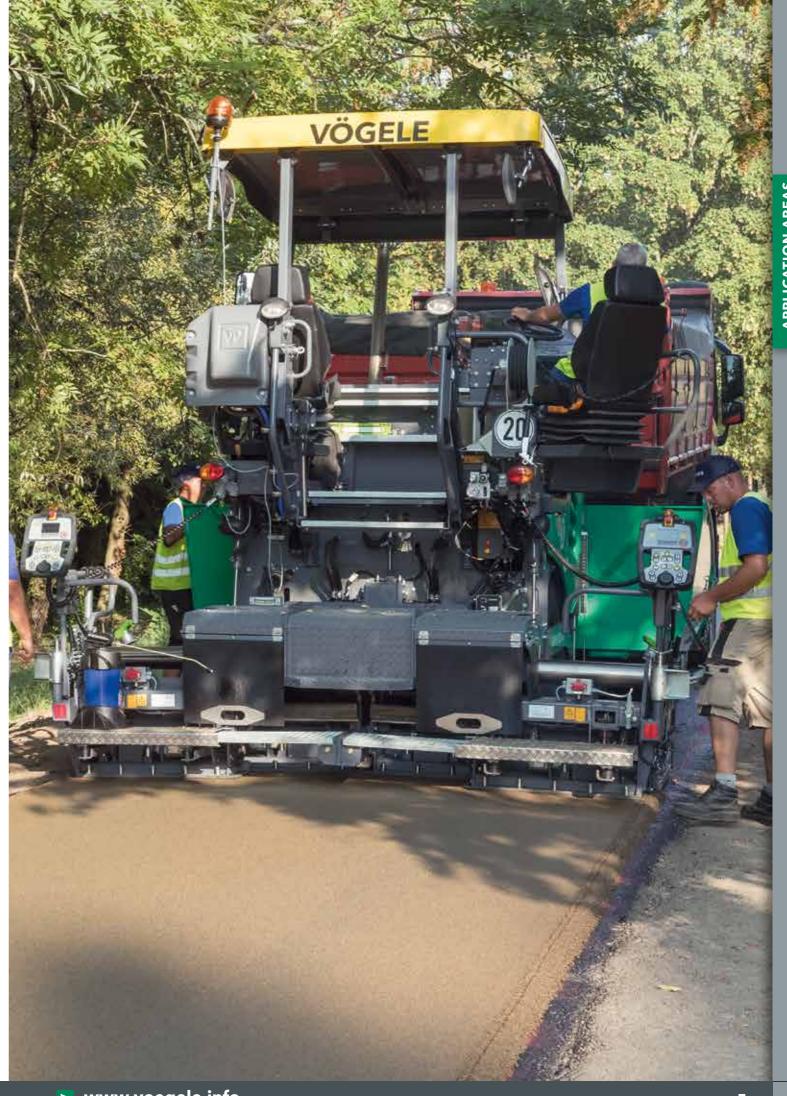
# The right paver for jobs in tight spaces



Compact size, high efficiency: be it extremely cramped job sites out of town or winding city-centre alleyways, the VÖGELE Compact Class pavers feature excellent manœuvrability. They are ideal in all these environments and trump with high performance.

- >> The very small outside turning circle of only 3.8 m makes for an extremely manœuvrable paver and permits easy and fast repositioning even on confined job sites.
- >> The slim paver design without protruding edges and with a compact, overall length of just 4.95 m allow for very easy paving and manœuvring on small job sites.
- >> For passing through narrow spaces, push-rollers fold up together with the hopper sides.
- >> The hardtop of glass fibre-reinforced polymer material, including exhaust pipe, folds down with effortless ease, thus preparing the paver for transport quickly and easily.

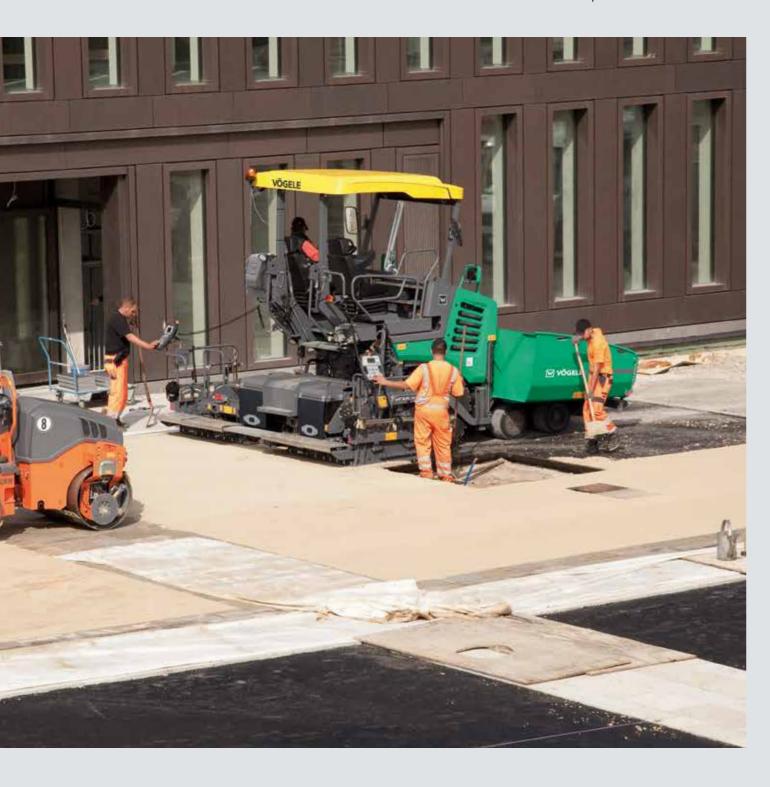




# Range of applications of the VÖGELE Compact Class

**With their combination** of compact dimensions and top performance, road pavers in the VÖGELE Compact Class can handle a wide variety of applications.

Whether it's a combined footpath and cycle path, a farm track or minor roads and squares, the SUPER 1303-3i is more than up to the task, thanks to its wide range of pave widths from 0.75 m to 4.5 m and its excellent performance.





ASPHALT PAVING ON COMBINED FOOT AND CYCLE PATHS



SURFACING PATHS IN PUBLIC PARKS



PAVEMENT REHABILITATION ON ACCESS ROADS



PAVEMENT REHABILITATION ON MUNICIPAL ROADS



ASPHALT PAVING ON COMMERCIAL SITES

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ASPHALT PAVING ON RAILWAY PLATFORMS

The applications illustrated here are typical of the VÖGELE Compact Class.

The illustrations may also show the predecessor model.



**VÖGELE's modern drive concept** guarantees full power whenever it is needed. Superior technology also makes this Compact Class paver exceedingly economical in everyday use thanks

to the intelligent engine management with ECO mode and variable-speed fan. As a result, fuel consumption and the level of noise emitted by the SUPER 1303-3i are significantly reduced.

With its high tractive power, the wheeled SUPER 1303-3i perfectly combines high paving performance with maximum mobility when travelling.

### Full power – intelligent technology

**Three main components** define the power unit of a SUPER 1303-3i: 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 powerpack is its powerful diesel engine. The four-cylinder engine delivers 74.4 kW at 2,000 rpm, though fuel-saving ECO mode is sufficient for many applications. And even then, the SUPER 1303-3i still has a full 68.7 kW at its disposal. Moreover, the machine generates less noise when running at just 1,600 rpm.

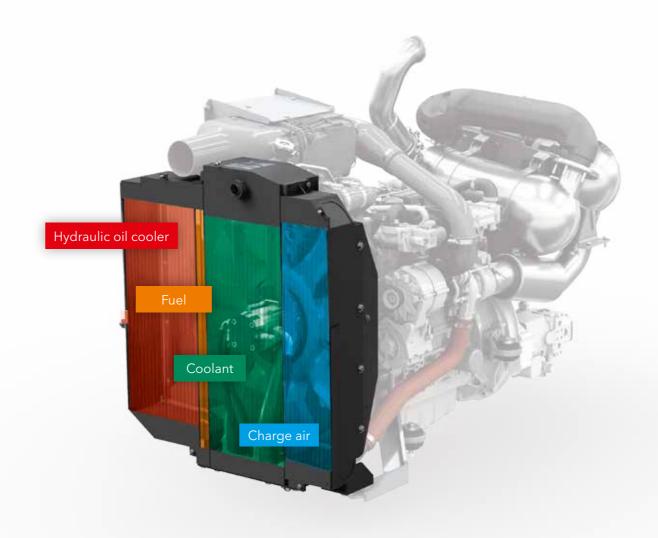
A large cooler assembly ensures that the power unit always delivers its full output. With innovative air routing and a variable-speed fan, temperatures are continuously maintained within the optimum range, significantly extending the service life of both the diesel engine and the hydraulic oil. A further 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.

Hydraulic pumps and valves are centrally located, making them optimally accessible for servicing.



The power unit of the SUPER 1303-3i with its diesel particulate filter (DPF), diesel oxidation catalyst (DOC) and selective catalytic reduction (SCR) for exhaust gas after-treatment complies with the strict requirements of European exhaust emissions standard Stage V and US EPA standard Tier 4f.



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

- >> Powerful diesel engine rated at 74.4 kW.
- **ECO mode** (68.7 kW at 1,600 rpm) is sufficient for many paving applications. The engine's noise emissions, which are already low, are further decreased when working in ECO mode. In addition, ECO mode reduces fuel consumption and wear.
- The sophisticated exhaust gas after-treatment of the engine complies with the strict requirements of European emissions standard Stage V as well as US EPA standard Tier 4f.

» A powerful three-phase AC generator

with generator management controls the output in compliance with the pave width. Heating the compacting systems to operating temperature takes a short time only.

>>> For hydraulic functions, powerful separate drives are installed, which operate in independent closed loops. This solution allows engine output to be transformed highly efficiently into hydraulic paver performance.

### Travels swiftly under its own power

A powerful paver that's a comfortable drive on the road. The precise steering and handling characteristics make for the SUPER 1303-3i's excellent manœuvrability, as demonstrated by its outside turning circle of just 4.9 m

(3.8 m with Pivot Steer). With its powerful traction drive, the machine can pave swiftly and travel on public roads at a maximum speed of 20 km/h. So if its next job site is close at hand, there is no need for a low-bed trailer to transport the paver.



- >> Rapid transport under its own power at up to 20 km/h – a feat the SUPER 1303-3i is optimally equipped for. All paving functions are automatically deactivated when "Road Travel" mode is selected. In addition, the paver comes with the approved lighting for public traffic. As a result, this paver – like all other wheeled pavers from VÖGELE – meets the basic requirement for driving on public roads.
- >> Maximum power transmission thanks to separate, hydraulic drives provided for the rear wheels and one set of front wheels.

- >> Optimum traction is assured, even on difficult terrain, by electronic traction management and an electronic differential lock acting on the drives of the rear wheels.
- >> Continuous ground contact is assured by a front axle which oscillates both lengthwise and crosswise. In other words, the front axle is only firmly connected to the chassis at one point; in combination with the rigidly suspended rear wheels, this creates a static 3-point support.



Pivot Steer: the rear inside wheel is automatically slowed down hydraulically when Pivot Steer is activated. This minimizes the outside turning circle to no more than 3.8 m for positioning manœuvres and paving. The function can be activated in "Pave" and "Positioning" modes, greatly increasing the manœuvrability of the machine on confined job sites.

**Outside turning circle:** 

3.8 m with Pivot Steer



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.

PaveDock Assistant from VÖGELE is an innovative solution to standardize and simplify communication between the paver operator and the driver of the feed vehicle.

### Easy and clean feeding with mix

Despite the paver's slim profile, its material hopper holds 10 t. The hydraulic hopper front supports both feeding of the paver with mix and emptying of the material hopper. The paver comes with oscillating push-rollers to ensure the shock-free docking of feed vehicles.

Hydraulically operated hopper sides, folding separately, guarantee consistent feeding with mix even when paving in asymmetrical widths along boundaries such as walls.





- The large material hopper holding 10 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.
- Thanks to a hydraulically operated hopper front (option), no mix is spilled when feed trucks change. Inside the material hopper the mix is directed right onto the conveyors for complete emptying. No hand work with shovels is required.
- Scillating push-rollers allow for convenient and shock-free docking even of large feed vehicles.

# Proportional control provided for conveyors and augers

**The conveyance and spreading of mix** in front of the screed is optimal thanks to the large conveyor tunnel, proportional control of conveyors and powerful augers. Furthermore, augers adjustable

in height and folding limiting plates for the auger tunnel allow the paver to be moved on the job site without a need for conversion. This saves time and money.



The height of the augers is infinitely variable by 13 cm for uniform spreading of mix across the entire pave width. Hydraulic auger height adjustment is available as an option.

13 cm

- >> The large conveyor tunnel and powerful separate hydraulic drives for conveyors and augers allow extraordinarily high laydown rates up to 250 t/h, an extraordinarily high performance for a paver in its class.
- Separate drive and control is installed for each conveyor and each auger. When operating in Automatic mode, conveyors and augers are subject to continual monitoring. Proportional control provides for a constant head of mix in front of the screed.
- >> Folding limiting plates for the auger tunnel are provided to quickly set up the machine for paving within the range of 2.6 m and 4.5 m. There is no need for conversion.

### **PaveDock Assistant:**

### The communication system

A constant feed of material is a fundamental prerequisite for high-quality paving and perfect evenness. PaveDock Assistant is the communication

system between the paver operator and the driver of the feed vehicle. It allows particularly fast and reliable transfer of mix to the paver.



**The core element** of the PaveDock Assistant are the signal lights on the paver and the associated control elements on the paver operator's ErgoPlus 3 console.

The paver has two sets of signal lights, mounted on the right and left of the hardtop. With these lights, the paver operator can give the driver of the feed vehicle unmistakable signals, indicating what needs to be done (e.g. reverse, stop, dump mix). Having two lights, each in an elevated position, ensures that all signals are clearly visible to the feed vehicle driver from all angles of approach.



## Ventilation system for extracting bitumen vapours

**The ventilation system** re-routes the vapours and aerosols from the hot asphalt, considerably reducing the exposure of paver and screed operators as a result.

The VÖGELE ventilation system is tested in accordance with the guidelines of the

US National Institute for Occupational Safety and Health (NIOSH) in a so-called tracer gas test. According to this laboratory test, the ventilation system extracts at least 80% of the tracer gas.



#### **HOW IT WORKS**

- 1) The ventilation system takes in the vapours via the intake ducts and routes them away from the vicinity of the operating team. The intake is located directly above the augers.
- 2) The suction action is created by a radial fan developed specifically for the system.
- 3) The extracted aerosols and vapours are mixed with fresh air and routed away from here over the roof of the paver via an exhaust air pipe behind the operator's platform.

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### **AutoSet Basic** Repositioning function

**AutoSet Basic** is especially helpful when the machine frequently has to be moved on the job site

Simply pressing the "Execute" button hydraulically raises the augers and the hopper front to the uppermost positions. The screed, too, is brought into its transport position. The conveyors are temporarily reversed, preventing mix from falling to the ground when the paver travels to the next work section on site.

Once the paver has been repositioned, pressing the "Execute" button again returns all systems to the previously stored working positions.

This ensures that no settings are lost when changing from paving to repositioning or transport. It also effectively prevents any damage to the machine.





THE AUTOSET BASIC REPOSITIONING FUNCTION IS ACTIVATED JUST BY PUSHING THE "EXECUTE" BUTTON.



RAISE/LOWER SCREED



RAISE/LOWER AUGER



CONVEYOR MOVEMENT REVERSIBLE FOR A SHORT TIME



RAISE HOPPER FRONT

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## 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

### Lighting for travelling on public roads

As a standard feature, all VÖGELE wheeled pavers are equipped with a lighting system approved throughout Europe for travelling on public roads. The push-buttons for indicating direction, warning lights, dipped lights and full beam are clearly arranged side by side on the paver operator's console.





### Idling function

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





### AutoSet Basic Repositioning function (option)

With the AutoSet Basic Repositioning function, the paver is quickly and safely prepared for a move on the job site at the push of a button. After the move, all paver components are reset to their previous working positions simply by pressing the button again. This ensures that no settings are lost when changing between "Pave" and "Job Site" modes. AutoSet Basic also effectively prevents damage during transport.



#### 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: "Road Travel", "Neutral", "Job Site", "Positioning" and "Pave". An LED indicates the mode selected. When leaving "Pave" mode, a smart memory feature stores the last settings for paver functions so that, when resuming work after a relocation of the paver on the job site, these settings are retrieved automatically



#### 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.



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.



Module 1: Conveyors and augers, traction

• • • Module 2: Screed

• • • • • • • Module 3: Material hopper and steering

•••••• **Module 4:** Display for monitoring and adjusting basic settings

### Display of the paver operator's console

The redesigned colour display has a high-contrast user interface ensuring 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 tamper and vibrator speeds or auger feed rates 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.



#### PaveDock Assistant (option)

With the PaveDock Assistant signal lights, the paver operator can give the driver of the feed vehicle unambiguous signals indicating signals, indicating what needs to be done (e.g. reverse, stop, dump mix). The lights are conveniently activated directly from the paver operator's ErgoPlus 3 console.





### Choice of engine speed ranges

For the diesel engine, there is a choice of three 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 emissions and fuel consumption considerably.



#### Screed Assist (option)

This button switches Screed Assist on (LED lights up) or off. Screed Assist pressure and balance can be set via the display. Screed Assist is active only when the screed is floating.



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### 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.



### Crown adjustment at the press of a button

The crown can be conveniently adjusted at the press of a button on the screed operator's console. When the "plus" or "minus" keys are pressed, the set crown value is shown on the display.



#### **Ergonomic screed width control**

Screed width can be effortlessly adjusted by means of the SmartWheel



#### **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, downward-angled high-power LED lighting gives the operator a perfect view of all processes associated with the side plate.





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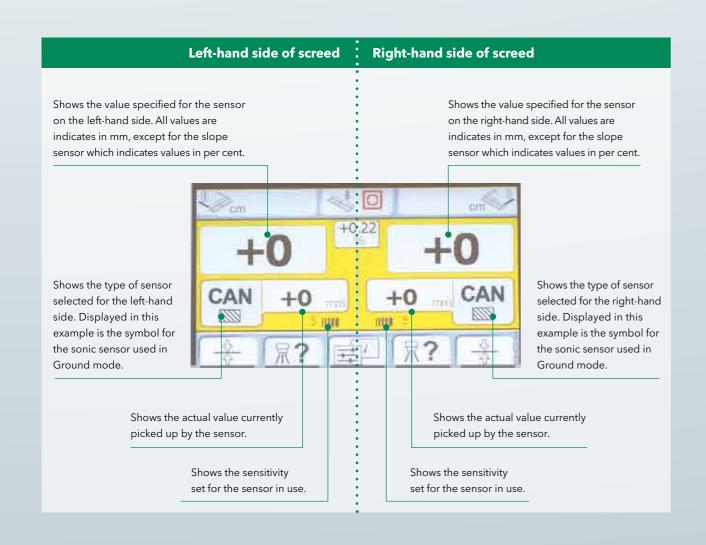
### **VÖGELE Niveltronic Plus**

**Niveltronic Plus, the System for Automated Grade and Slope Control,** is an in-house development by JOSEPH VÖGELE AG based on many years of experience in grade and slope control technology. Easy operation, precision and reliability are its hallmarks, ensuring perfect mastery of all grade and slope control jobs.

This fully integrated system is perfectly adapted to the machine technology of the Premium Line pavers. All wiring and connections, for instance, are integrated in the tractor unit and screed, effectively eliminating all risk of damage to these components.

VÖGELE naturally offers a particularly large and practical selection of sensors, permitting versatile use of the Niveltronic Plus system. Whether car parks, roundabouts or highways need building or rehabilitating, VÖGELE offers the right sensor for every job site situation.

Sensors can be changed quickly and easily, as Niveltronic Plus automatically detects which sensor is connected, thus simplifying the configuration process for the user.





















## 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. It allows the paver operator to closely monitor the feeding of the paver with mix.
- 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.



## **AB 340 Extending Screed**

The AB 340 Extending Screed is the perfect match for the SUPER 1303-3i. The screed has a basic width of 1.8 m and extends hydraulically up to 3.4 m. The version with tamper and vibrators (TV) can be extended to a maximum pave width of 4.5 m with bolt-on extensions.

The unique VÖGELE single-tube telescoping system allows backlash-free screed width control, accurate to the millimetre, up to 3.4 m.

A typical VÖGELE feature also found in the AB 340 Extending Screed is the powerful electric heating. The modern screed heating system provides for quick and uniform heating to operating temperature, an essential for smooth surface texture.

**Excellent insulation** of the screed plates reduces loss of heat to a minimum. Heating the screed takes a short time only, even with the engine running at minimum rpm.

In automatic operation, the screed is heated in Alternating mode, which means that only one half is heated at any one time, thus sparing the engine and saving fuel.

### The screed for the SUPER 1303-3i

#### **AB 340**

#### **Pave widths**

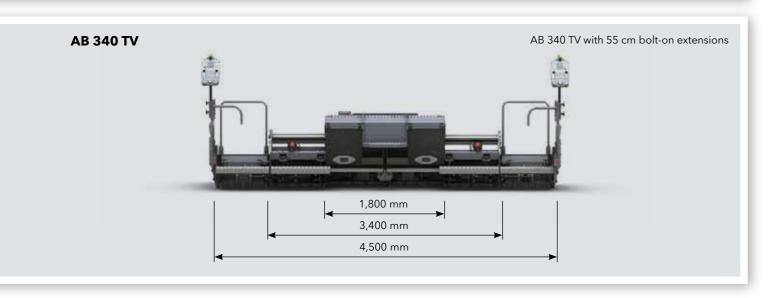
- >> Infinitely variable range from 1.8 m to 3.4 m
- >> Maximum pave width through bolt-on extensions: **>** AB 340 V: 4.2 m
  - **>** AB 340 TV: 4.5 m
- >> Smaller widths by fitting cut-off shoes down to a minimum of 75 cm

### **Compacting systems**

- >> AB 340 V with vibrators
- >> AB 340 TV with tamper and vibrators

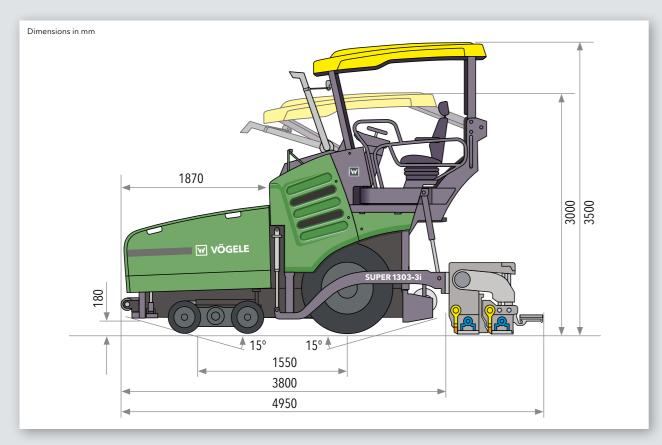








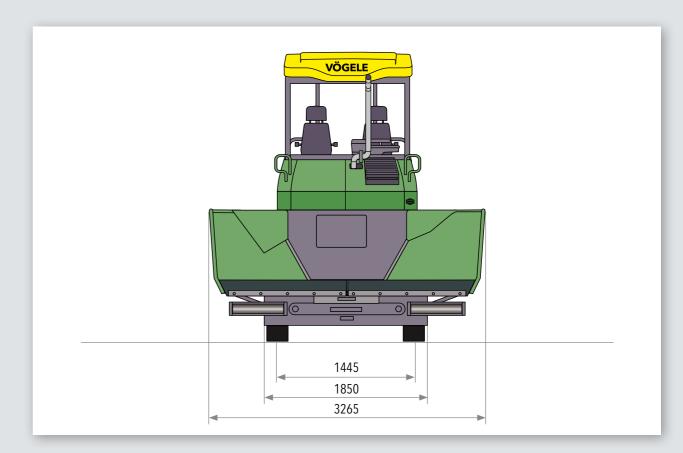
## All the facts at a glance



Power unit	
Engine	4-cylinder diesel engine
Manufacturer	Deutz
Туре	TCD 3.6 L4
Output	
Nominal	74.4 kW at 2,000 rpm (according to DIN)
ECO mode	68.7 kW at 1,600 rpm
Exhaust emissions	
standard	EU Stage V, US EPA Tier 4f
Exhaust gas after-treatment	DOC, DPF, SCR
Emission data	
Sound power level	≤105 dB(A) (2000/14/EC and DIN EN 500-6)
Daily noise exposure level	>80 dB(A) (DIN EN 500-6)
Fuel tank	100 litres

Undercarriage	
Front wheels	4, mounted on bogies
Tyre equipment	elastic solid rubber tyres
Tyre size	460/250 - 310 mm
Rear wheels	2, pneumatic tyres or filled with water
Tyre size	365/80 R 20
Drive	separate hydraulic drive provided for each wheel
Standard	2 rear wheels and 2 front wheels (6x4)
Speeds	
Paving	up to 30 m/min., infinitely variable
Travel	up to 20 km/h, infinitely variable
Outside turning circle	minimum 3.8 m (with Pivot Steer)

Material hopper	
Hopper capacity	10 t
Width	3,265 mm
Feed height	570 mm (bottom of material hopper)
Push-rollers	oscillating
Position	can be displaced forwards by 80 mm



Conveyors and augers	
Conveyors	2, with replaceable feeder bars,
	conveyor movement reversible for a short til
Drive	separate hydraulic drive provided
	for each conveyor
Speed	up to 29.4 m/min., infinitely variable
	(manual or automatic)
Augers	2, with replaceable auger blades,
	auger rotation reversible
Diameter	300 mm
Drive	separate hydraulic drive provided
	for each auger
Speed	up to 85 rpm, infinitely variable
	(manual or automatic)
Auger height	
Standard	infinitely variable by 13 cm, mechanical
Option	infinitely variable by 13 cm, hydraulic

Screed		
AB 340	basic width	1.8 m
	infinitely variable range	1.8 m to 3.4 m
	maximum width	4.5 m
	minimum width	0.75 m
	reduction in width: by cut-off shoes 2 x 52.5 cm	
	compacting systems	V, TV
Layer thickness	up to 25 cm	
Screed heating	electric by heating rods	
Power supply	three-phase AC generator	

Length	tractor unit with screed	
AB 340	4.95 m	
Weights	tractor unit with screed	
AB 340 TV	pave widths up to 3.4 m	10,700 kg
	pave widths up to 4.5 m	11,200 kg

Subject to technical modification.

Key: DOC = diesel oxidation catalyst
DPF = diesel particulate filter
SCR = selective catalytic reduction

AB = extending screed

V = with vib

V = with vibrators

TV = with tamper and vibrator





#### **JOSEPH VÖGELE AG**

Joseph-Vögele-Str. 1 67075 Ludwigshafen · Germany www.voegele.info T: +49 621 / 81 05 0 F: +49 621 / 81 05 461 marketing@voegele.info



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