

Tracked Paver

# SUPER 1400i





# PERFECT IN ALL CLASSES

The right paver for every job

VÖGELE's seamless product range is considered unique in the industry. Whether a service road or a motorway, an airfield or a race track, a new construction or a rehabilitation job, thick or thin, hot or cold - customers will find the right machine in our paver range for every paving task.



## VÖGELE PRODUCT RANGE

### MINI CLASS

- > Maximum pave width 3.5 m
- > Maximum laydown rate 300 t/h

### UNIVERSAL CLASS

- > Maximum pave width 10 m
- > Maximum laydown rate 1,000 t/h

### HIGHWAY CLASS

- > Maximum pave width 18 m
- > Maximum laydown rate 1,800 t/h

### SPECIAL CLASS

- > SprayJet
- > InLine Pave

### POWERFEEDER

- > MT 3000-3(i) Standard
- > MT 3000-3(i) Offset



# HIGHLIGHTS

Perfectly equipped

## DRIVE

### 01 Drive concept

- > Powerful, economic and quiet drive concept with a modern John Deere engine.

## MATERIAL MANAGEMENT

### 02 Optimal mix feed

- > Large material hopper with a capacity of 13 tonnes ensures optimum feeding with mix.

## OPERATION

### 03 ErgoBasic operating system

- > Easy operation with the innovative and intuitive ErgoBasic operating system.

## QUALITY

### 04 Niveltronic Basic - the System for Automated Grade and Slope Control

- > User-friendly operation and monitoring of all Niveltronic Basic functions.
- > Wide range of sensors for flexible use in all spheres of application.

## VERSATILITY

### 05 Wide range of applications

- > Tracked Universal Class paver with a wide range of applications and pave widths up to 7.5 m.

### 06 Screed

- > Can be combined AB 480 Extending Screed in the TV version.







## READY FOR TOMORROW'S INFRASTRUCTURE

**The SUPER 1400i points the way toward the future of road construction in India.**

The SUPER 1400i has a modern John Deere engine with innovative exhaust emissions after-treatment. The machine's chassis and material handling systems are unrivalled in terms of robustness. The design of the paver pursues a single target: boosting quality and safety at work in road construction. To this end, the Indian/German development team worked to the same high standards that apply in Europe. In this way, they ensured that customers would have a premium machine with first-class technology at their disposal.

A powerful and efficient 4-cylinder John Deere diesel engine rated at 110 kW is installed in the SUPER 1400i. Supported by a highly effective cooling system, the power unit delivers its full output reliably even in extreme tropical environments.

The ergonomic, practice-oriented ErgoBasic operating system provides for an excellent overview of the machine and ease of operation.

The paver also comes with a high-performance hydraulic system. The hydraulics provide an accurate drive for the material handling systems, thus ensuring an optimal head of mix in front of the screed at all times. Combined with the cutting-edge AB 480 Extending Screed, the SUPER 1400i is capable of building high-quality pavements in varying widths between 2.55 and 4.8 m, and even achieves a maximum pave width of 7.5 m through the addition of bolt-on extensions.





# FULL POWER – INTELLIGENT TECHNOLOGY

Efficiency, performance and low consumption

Three main components define the power unit of a SUPER 1400i: its modern, liquid-cooled diesel engine, a large cooler assembly and a splitter gearbox flanged directly to the engine.

The driving force behind this VÖGELE power pack is a powerful John Deere diesel engine. The liquid-cooled four-cylinder engine is rated 110 kW at 2,000 rpm, whilst electronic engine control makes it especially economical with a low level of noise and emissions. Speed-controlled ECO mode rated 106.5 kW at 1,800 rpm is more than adequate for many applications.

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. This makes a significant contribution to the long service life of both diesel engine and hydraulic oil.

A powerful, air-cooled three-phase AC generator ensures rapid, uniform heating of the screed.

The 220-litre fuel tank is amply dimensioned, so that there is no need to refuel, even when the machine is operated for long periods.

**110 kW**  
John Deere diesel engine

**ECO mode**  
reduces operating costs

**Three-phase AC Generator**  
for rapid heating of the screed



A large cooler assembly with innovative air routing is installed for perfect cooling of the engine coolant, hydraulic oil and charge air in all climatic zones. This guarantees the full performance of the engine and a long service life.

■ = Hydraulic oil  
■ = Coolant  
■ = Charge air

All hydraulic consumers are directly supplied with hydraulic oil via the splitter gearbox. Hydraulic pumps and valves are centrally located, making them perfectly accessible for servicing.

The modern John Deere engine means that you now get full machine service from a single course - the WIRTGEN GROUP.



## VÖGELE > GOOD TO KNOW

### Exhaust emissions after-treatment

The sophisticated exhaust gas after-treatment of the engine complies with the strict requirements of India emissions standard CEV Stage V.

No additional servicing is required for exhaust emissions after-treatment: DOC and SCR are maintenance free.



# EFFICIENT TRANSMISSION OF ENGINE POWER

Even difficult terrain is no problem for the SUPER 1400i thanks to its powerful crawler tracks and accurate steering. In terms of traction, too, the VÖGELE drive concept leaves nothing to be desired.

- > 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 ground contact deliver maximum tractive effort, allowing the paver to advance well at a constant speed even when operating on difficult terrain.
- > Positive tracking when moving straight and accurate turning of radii due to the separate drive and electronic control provided for each crawler track.

**Powerful separate drives**  
fitted into the sprockets

**Positive tracking when moving straight-ahead**  
thanks to electronic control 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.

The SUPER 1400i comes with a high-performance hydraulic system. The hydraulics provide an accurate drive for the material handling systems, thus ensuring an optimal head of mix in front of the screed at all times.

The large and sturdy material hopper holds 13 t. Thanks to the low and wide hopper sides, feeding the paver with mix is a fast and easy process.

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



01 Proportional control and continuous monitoring of augers guarantee a constant head of mix in front of the screed in line with current requirements.



Thanks to the perfect spreading of mix, the SUPER 1400i provides for an optimal head of material in front of the screed in every paving situation. Powerful, separate hydraulic drives for conveyors and augers are installed, achieving high laydown rates up to 600 t/h.

The large diameter of the auger blades (400 mm) ensures an excellent spreading of mix, even when paving in large widths.

## VÖGELE > GOOD TO KNOW

### Adjustable auger height

The height of the auger complete with bearing boxes and limiting plates for the auger tunnel can be 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.



**Large material hopper**  
with a capacity of 13 tonnes

**Deep and wide hopper sides**  
for especially straightforward material feed

**Oscillating push-rollers**  
for convenient and shock-free docking





## ERGOBASIC OPERATING CONCEPT

Ergonomic, simple and intuitive

The ErgoBasic operating concept was developed on the basis of the tried and tested ErgoPlus operating system, but it focuses on the key functions.

The aim was to develop an operating system that is just as quick, precise and intuitive to operate as the ErgoPlus 3 system for the "Dash 3" machines. This makes VÖGELE the only manufacturer to offer a standardised operating concept for all paver classes.





# PAVER OPERATOR'S ERGOBASIC CONSOLE

Full control for the operator

Everything at a glance: The functions are arranged in a clear, logical and practical layout that was heavily inspired by the ErgoPlus operator's console.

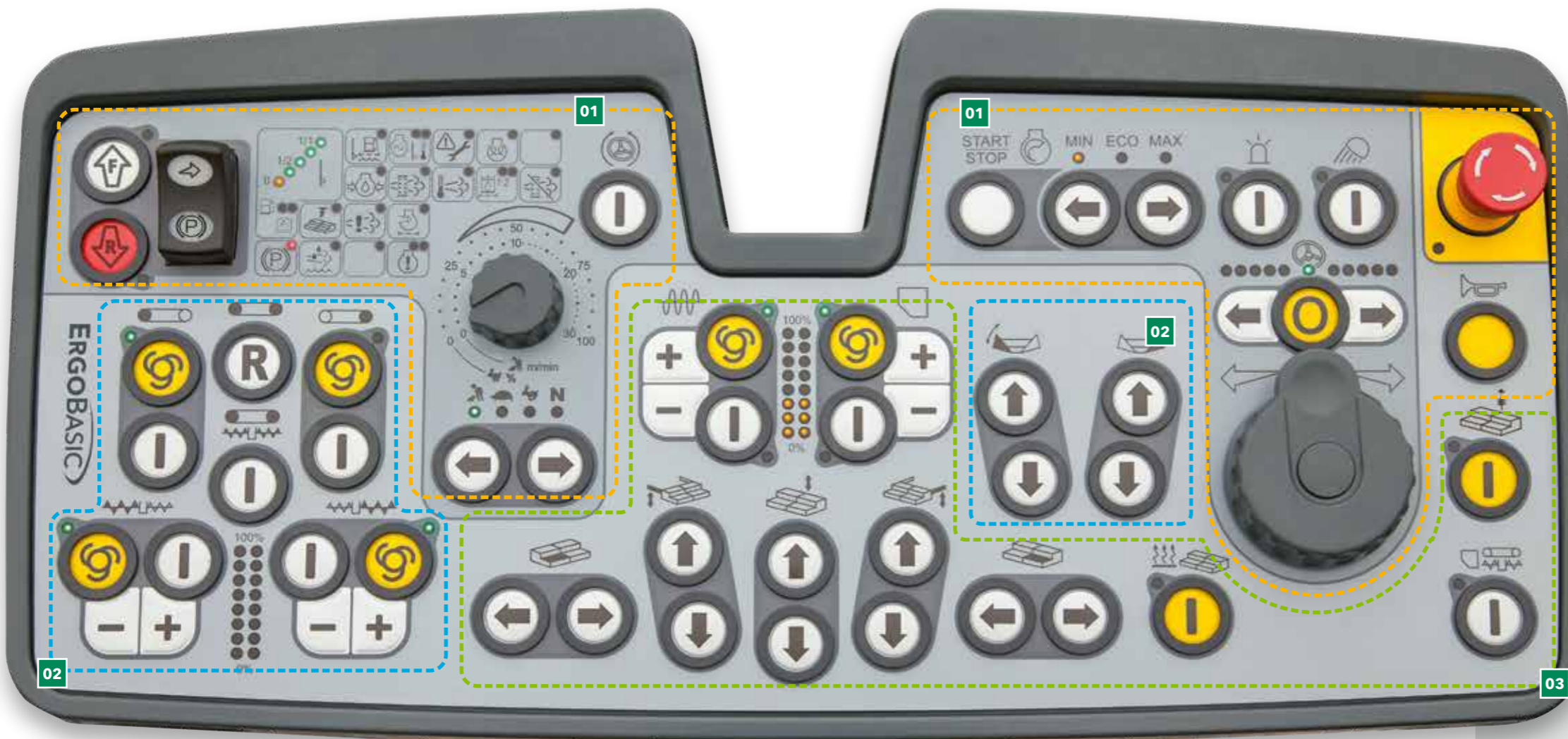
The type of controls and the symbols used are all in line with those of an ErgoPlus console.

Given the limited number of functions, there is no need for a display. The status of all settings is indicated as a percentage on LED strips immediately next to the relevant functions. LEDs also indicate the set speeds for the augers and the compacting systems as well as the fill level of the fuel tank.



## Safe operation at night

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



### 01 Drive and status display function group

All the functions for driving the paver are arranged together here. The status displays also provide an overview of machine status.

### 02 Material handling function group

The material handling function group includes operation of the hopper sides and of the conveyor and auger.

### 03 Screed function group

This function group includes all the screed functions such as settings for the tamper and vibrators and adjustment of screed width and angle.



# DRIVE AND STATUS DISPLAYS

## Module 1

### 01 Function and status indicators

The function and status indicators mean that the operator always has full control over his machine. He can, for instance, read the fill level of the fuel tank directly and identify whether there are any functional faults.

### 02 Choice of operating modes for the paver

At the touch of a button, the paver switches to Pave, Positioning, Job Site and Neutral modes. An LED indicates which mode is selected. On leaving "Pave" mode, the memory function stores all the most recent settings. After moving on the job site, the previously used paving parameters are instantly restored.



01 For long curves with a constant radius, the desired steering angle can be preselected using arrow keys.



### 03 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.

### 04 Steering at a pre-set angle

The machine is steered by means of a rotary controller which enables the paver operator to manoeuvre the machine precisely even in the tightest spots. For long curves with a constant radius, the desired steering angle can be preselected using arrow keys. The paver automatically stays on the set track until the function is deactivated, allowing the paver operator to monitor the paving process undisturbed.



# MATERIAL MANAGEMENT

## Module 2

### 01 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.

### 02 Automatic functions for material handling/distribution

These functions ensure that adequate mix for paving is automatically conveyed and distributed in front of the screed. The level of the head of mix in front of the screed is defined by a material sensor and the automatic system ensures that it remains constant. The function is only active during paving - if the paver stops, so does material handling.



The conveyor can be reversed at the touch of a button. Return transport of the mix is automatically stopped. The conveyor can be switched to the no-load function just as quickly.



### 03 Speed of the augers

When the paver is operating in automatic mode and no sonic sensors are connected, the maximum speed of the augers can be adapted to pave width separately for the left and right using the plus and minus keys. The set value is displayed as a percentage on the LED strip.



# SCREED FUNCTIONS

## Module 3

### 01 Precompaction performance

The speeds of the compacting systems can be set directly on the paver operator's ErgoBasic console. The LED strips from 0 to 100% indicate the set speeds for the tamper and vibrators, allowing them to be adjusted immediately when required.

### 02 Screed settings

All settings can also be made from the paver operator's console, including raising or lowering the screed, extending or retracting either side of the screed, and adjusting the screed pitch to the site conditions. This means the paver operator also has access to the screed at all times.



01 Precompaction performance  
02 Screed Assist (option)



### 03 Screed Assist (option)

This button switches Screed Assist on (LED lights up) or off. Screed Assist is active only when the screed is floating.

### 04 Idling function

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



### Screed heating system

In order to optimise compaction and produce a smooth surface texture, all compacting elements are heated across the full screed width. A simple push of a button is all it takes to switch the screed heating on or off. To ensure the screed heating system is working properly, an automatic function check is carried out when it is switched on.



# ERGOBASIC REMOTE CONTROL UNIT FOR THE SCREED

Safe and easy handling of all screed functions is a key factor in high-quality pavement construction, which is why a remote control unit for the screed was developed specifically for the ErgoBasic operating system of the new SUPER 1400i.

The remote control's keypad is laid out logically according to the functional processes. Designed for robustness, it is well able to withstand tough job-site conditions.

Operation is easy to understand and can be learned intuitively in a very short space of time, not least because the symbols used in the proven ErgoPlus operating system are found here, too.

The ErgoBasic remote control unit for the screed allows all paving-related functions to be set quickly and easily. That includes direct access to the material handling systems and the sonic sensor for the auger.



01

## 01 Screed width control

The screed width on one side can be adjusted at the touch of a button at any time.



01

02

04

03

01 Setting of Augers and Conveyor (automatic/manual)

02 Screed floating on/off

03 Screed width control, one side

04 Adjustment of screed tow point ram

## Speed of the augers

Just like the paver operator, the screed operator, too, can select Manual Mode or Automatic Mode for conveyors and augers. The „Reversing Auger Rotation“ function is very useful and comfortable in practice.

## Screed floating

Mix is normally paved with the screed in Screed Float mode, but the operator can switch off Screed Float if required - to discharge residual mix when paving is complete, for example.

Shown in original size



# NIVELTRONIC BASIC

In line with the ErgoBasic operating concept, VÖGELE has also developed Niveltronic Basic, a System for Automated Grade and Slope Control. It is completely integrated into the machine control system and therefore perfectly adapted to the paver model concerned.

Another outstanding aspect of Niveltronic Basic is its particularly simple and intuitive handling, a feature which makes it easy even for less experienced operators to learn their way around the system.

This creates ideal conditions for the paver to work true to line and level on any base.

Each side of the screed is operated by a separate compact and exceedingly robust Niveltronic Basic remote control unit.



- 01** The LED sighting crosses also fitted to the sensor provide continuous, clearly visible feedback to the screed operator indicating whether the actual values match the settings made.
- 02** A variety of sensor types is available for Niveltronic Basic, in keeping with the machine's large and varied range of uses. These sensors extend from a mechanical to non-contacting sonic sensors.
- 03** The pre-set and actual values for the grade and slope sensor can be read off the display of the Niveltronic Basic's control panel.

- 01** Deviation from specified values
- 02** Setting: Sensor sensitivity
- 03** Selecting: Kind of reference (ground, tensioned wire, transverse slope)
- 04** Quick set-up
- 05** Sensor calibration



## VÖGELE > GOOD TO KNOW

### Available sensors

#### Slope sensor

The slope sensor allows the transverse profile to be determined exactly and then paved accurately. The measuring range is +/- 10 %.

#### Variable mechanical grade sensor

The variable mechanical grade sensor can be equipped with skis for referencing from the ground in 30 cm, 1 m and 2 m lengths.

#### Multi-cell sonic sensor

The multi-cell sonic sensor, with its four sensors, is highly versatile. By calculating an average, it can compensate for short irregularities in a reference.

#### Big MultiPlex Ski

The Big MultiPlex Ski compensates for extended undulations. Its 5 to 13 metre beam can be fitted with three multi-cell sonic sensors.





01



02



03



04



05



06

# PAVER OPERATOR'S ERGOBASIC PLATFORM

Improved efficiency, reliability and convenience

The comfortable paver operator's ErgoBasic platform 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 easily monitor the paver's feed with mix, for instance, from his seat.

## 01 Working comfort

- > The comfortable paver operator's platform gives an unobstructed view of all crucial areas on the paver such as material hopper, steering guide or screed. The paver operator is thus ideally positioned to monitor the material feeding process right from his seat.
- > The operating console can be shifted across the entire working width so that operators can work comfortably and in an ergonomic position on either side of the machine.

## 02 A place for everything and everything in its place

- > The paver operator's platform is streamlined and well organized, offering the paver operator a professional workplace. The paver operator's console can be protected by a shatter-proof cover to prevent wilful damage.

## 03 Hardtop provides excellent protection

- > The modern hardtop, made of a glass fibre-reinforced polymer material, protects the operator. It can easily be collapsed to quickly prepare the paver for transport.

## 04 Cost-efficient and service-friendly design

- > The paver operator has convenient access to all service points on the machine. All hydraulic pumps connected to the transfer gearbox are extremely easy to service thanks to their clear arrangement and easy accessibility. Durable components made of highly wear-resistant materials for a long service life minimize machine downtimes.

## 05 Safe and convenient step

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

## 06 Safe and simple operation of all screed functions

- > All paving-related functions can be set quickly and easily on the ErgoBasic remote control unit for the screed.
- > Each side of the screed is operated by a compact and exceedingly robust remote control unit.



# EXTENDING SCREED AB 480 TV

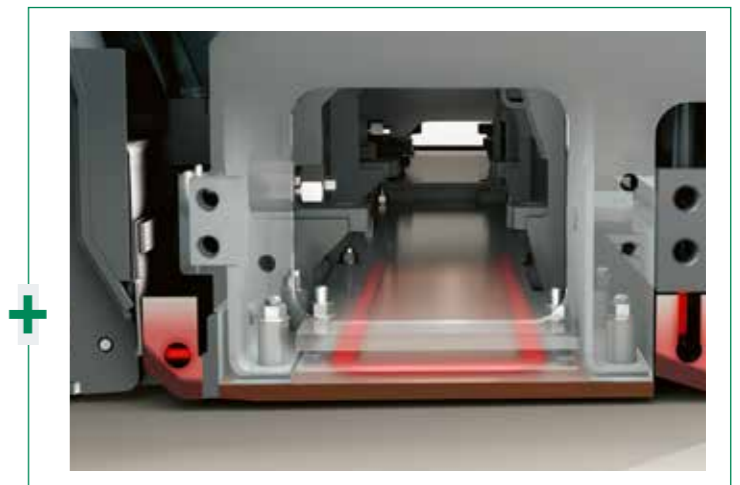
VÖGELE extending screeds are the preferred choice on all those jobs where pave width varies and prime pavement quality counts. Thanks to their sturdy single-tube telescoping system, these screeds can be set quickly and accurately to any pave width desired.

Electric screed heating is provided for all compacting and smoothing screed elements. The electric heating warms the screed up to its operating temperature in next to no time.



## Innovative screed heating

In order to optimise compaction performance and to produce a smooth surface structure, all compacting elements are heated across full screed width. Screed plates are fitted as standard with heating elements which distribute heat throughout the plates. The plates are thoroughly insulated on top so that 100% of the heat is directed to where it is needed: the area of contact with the mix. Sophisticated control technology is installed to allow automated management of screed heating.







### AB 480 TV

#### Pave widths

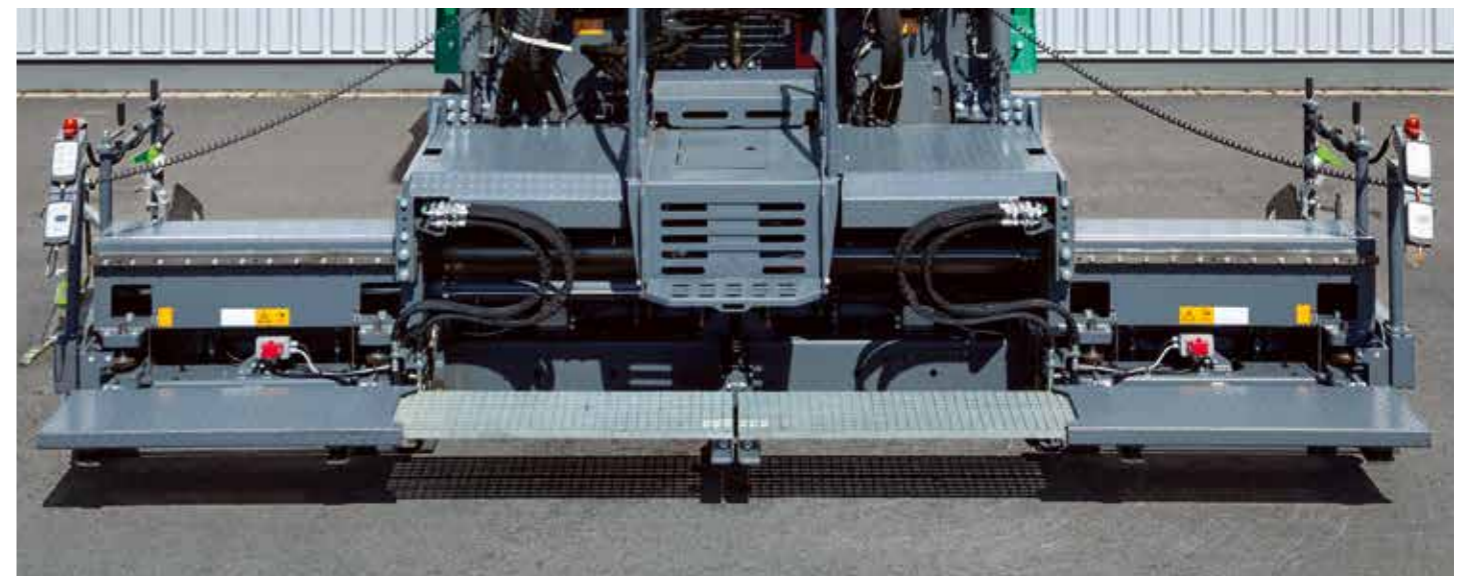
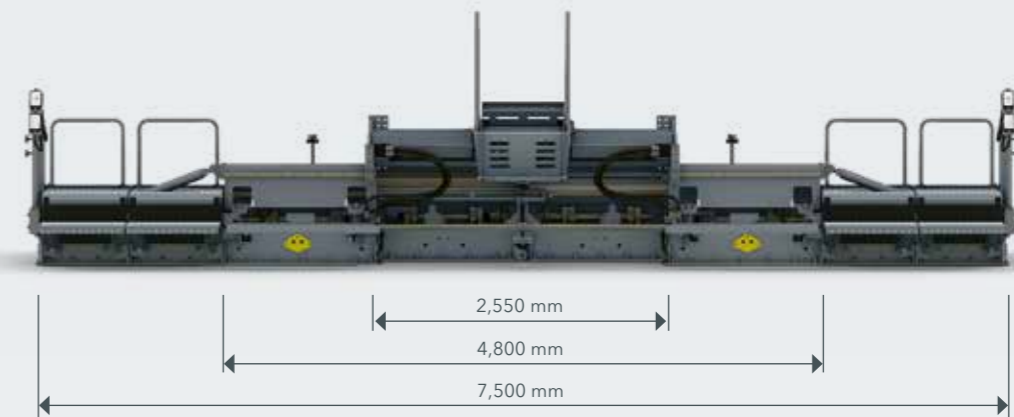
- > Infinitely variable range from 2.55 m to 4.8 m
- > Maximum pave width with bolt-on extensions:
  - > 6 m (2 x 60 cm)
  - > 7.3 m (2 x 125 cm)
  - > 7.5 m (2 x 75 cm + 2 x 60 cm)

#### Compacting systems

- > AB 480 TV with tamper and vibrators



Built up to maximum pave width





# WIRTGEN GROUP CUSTOMER SUPPORT

Service you can rely on.

You can have confidence in reliable, swift support from us during the entire life cycle of your machine. Our wide range of services is ready with the right solution to every challenge you face.



### Service

We keep our service promise with swift, straightforward assistance - on the job site or at our professional workshops. Our service team is trained to a professional standard and dedicated tools ensure that repair, care and maintenance tasks are completed quickly. We can support you with customised service agreements on request.

> [www.wirtgen-group.com/service](http://www.wirtgen-group.com/service)



### Spare Parts

WIRTGEN GROUP original parts and accessories assure the long-term reliability and availability of your machines. Our experts will also be pleased to advise you about optimised wear part solutions to suit your application. Our parts are available all over the world at all times and are easy to order.

> [parts.wirtgen-group.com](http://parts.wirtgen-group.com)



### Training

The WIRTGEN GROUP brands are specialists in their field with decades of experience in applications; our customers benefit from this expertise. In our WIRTGEN GROUP training courses, we are delighted to pass our knowledge on to you, customised to suit both operators and servicing staff.

> [www.wirtgen-group.com/training](http://www.wirtgen-group.com/training)



### Telematics solutions

Construction machines with leading technology and perfected telematics solutions work hand-in-hand in the WIRTGEN GROUP. The Operations Center\* - the digital platform for process, machine and service optimisation - enables you to not only simplify maintenance planning for your machines, but also to increase your productivity and cost-effectiveness.

> [www.wirtgen-group.com/telematics](http://www.wirtgen-group.com/telematics)

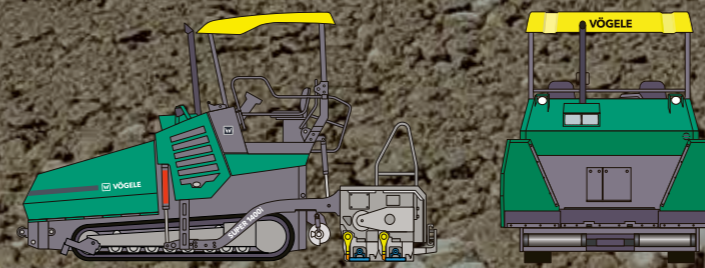
\* The John Deere Operations Center™ (formerly WITOS) is currently not available in all countries. Please consult your responsible subsidiary or dealer if you have any questions.

## ALL THE FACTS AT A GLANCE

SUPER 1400 Tracked Paver



### TECHNICAL DATA



### SUPER 1400i

- > Maximum pave width: 7.5 m
- > Maximum laydown rate: 600 t/h
- > Layer thickness: max. 20 cm
- > Transport width: 2.55 m



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