

Tracked Paver

# SUPER 1680 Li





# 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

### COMPACT CLASS

- > Maximum pave width 5 m
- > Maximum laydown rate 350 t/h

### UNIVERSAL CLASS

- > Maximum pave width 10 m
- > Maximum laydown rate 1000 t/h

### HIGHWAY CLASS

- > Maximum pave width 18 m
- > Maximum laydown rate 1800 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 and economical drive concept with a state-of-the-art diesel engine.

### 02 Efficient transmission of tractive power

> Even difficult terrain is no problem for the SUPER 1680 Li thanks to its powerful crawler tracks and accurate steering.

## MATERIAL MANAGEMENT

### 03 Optimal mix feed

> Easy to feed thanks to extra large material hopper and long chassis.  
> Perfect paving quality thanks to perfect material management.

### 04 Large push-rollers

> Very large oscillating push-rollers ensure convenient and shock-free docking of feed vehicles even on bends.

## VERSATILITY

### 05 Wide range of applications

> Tracked Universal Class paver with a wide range of applications and pave widths up to 7.8 m.  
> Combines with the AB 480 Extending Screed in the TV version.

## OPERATION

### 06 ErgoBasic operating system

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

### 07 Niveltronic Basic System

> New and easy-to-use Niveltronic Basic System for Automated Grade and Slope Control.







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**01** Large material hopper specially adapted to the feed vehicles used as standard in China.  
**02** Powerful separate drives fitted into the sprockets.  
**03** Easy operation with the innovative ErgoBasic operating system.

**04** All the main paving functions can be controlled via the two handy screed remote control units.  
**05** Niveltronic Basic System for Automated Grade and Slope Control.  
**06** Combines with the AB 480 Extending Screed in the TV version.

# SUPER 1680 Li

Robust, powerful and easy to operate

**The VÖGELE SUPER 1680 Li focuses on the key functions, so offering outstanding value for money. This machine is ideal for classic paving tasks that need to be delivered in top quality using tried and tested technology.**

The SUPER 1680 Li comes with a very solid range of basic equipment. The most striking feature of this machine is its ErgoBasic operating concept.

This system was developed on the basis of the tried and tested ErgoPlus 3 operating system. As with ErgoPlus 3, the design of the ErgoBasic paver operator's console is so clear that all functions can be grasped quickly and operated securely. That is also true of Niveltronic Basic, the System for Automated Grade and Slope Control linked to ErgoBasic. It aids easy and safe operation, contributing to excellent paving results.

All other components of this tracked paver, such as the drive, undercarriage, conveyors and augers, are of the customary high VÖGELE standard.

The SUPER 1680 Li is also driven by a powerful diesel engine, and can reliably tackle all medium to larger paving jobs, delivering top VÖGELE quality across the board.

The AB 480 Extending Screed with tamper bar and vibrators delivers a high degree of precompaction. With its robust telescoping system, it can be quickly and easily extended hydraulically from 2.55 to 4.8 m. With fixed bolt-on extensions, the screed used with the SUPER 1680 Li can be extended to a maximum pave width of 7.8 m.





# STATE-OF-THE-ART DRIVE TECHNOLOGY

High output with low consumption

Three main components define the power unit of a SUPER 1680 Li: its state-of-the-art, liquid-cooled diesel engine, a splitter gearbox flanged directly onto the engine, and a large cooler assembly.

The driving force in this power pack from VÖGELE is its diesel engine. The four-cylinder engine delivers 123 kW at 2,000 rpm. The fuel-saving ECO mode is sufficient for many applications though. And even then, the SUPER 1680 Li still has a full 119 kW at its disposal. Moreover, the machine generates even less noise when running at just 1,700 rpm.

Perfect cooling

A large cooler assembly ensures that the power unit always delivers its full output. With innovative air routing, temperatures are continually 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.

Large cooler assembly

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 powerful generator for screed heating is likewise flanged directly onto the splitter gearbox, making it completely maintenance-free.

**Powerful engine**  
developing 123 kW / 119 kW

**ECO mode at 1,700 rpm**  
cuts operating costs

**Large cooler assembly**  
for perfect cooling at low noise levels



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

A constantly high cooling capacity provides for ideal temperatures inside the hydraulic system and top performance of all drive units, even when working under full load, in all climate zones the world over.

VÖGELE > GOOD TO KNOW

Exhaust emissions after-treatment

Exhaust emissions after-treatment is provided by the diesel oxidation catalyst (DOC), a diesel particulate filter (DPF) and a selective catalytic reduction (SCR) catalytic converter.

The SUPER 1680 Li complies with the "National Environment Protection Standards of the People's Republic of China HJ 1014-2020".



# PRECISION ON TRACKS

High-quality separate hydraulic drives are essential components of the VÖGELE drive concept. They allow our pavers to operate outstandingly and therefore extremely cost-efficiently.

Since the traction drive units are directly integrated into the sprockets of the crawler tracks, engine output is translated into pave speed without any loss of power.

The hydraulic systems for the traction drive, conveyors and augers operate in separate closed circuits for maximum efficiency.

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.

## Powerful separate drives

fitted into the sprockets

## Positive tracking when moving straight-ahead

thanks to electronic control for each crawler track





# PERFECT PAVING QUALITY THANKS TO PERFECT MATERIAL MANAGEMENT

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 material hopper and chassis of the SUPER 1680 Li are specially designed to match the feed vehicles used as standard in China. Any mix truck can dock onto the SUPER 1680 Li without difficulty, thanks to its length and low feed height. What is more, the wide, oscillating push-rollers can be moved 150 mm and 75 mm forward to ensure smooth and easy 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 trucks, but also ensures that there is an ample buffer of material when changing trucks.

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

The large and sturdy material hopper holds 15 tonnes. Thanks to the low and wide hopper sides, feeding the paver with mix is a fast and easy process.

**Large material hopper holding 15 tonnes**  
specially adapted to the feed vehicles used as standard in China

**Oscillating push-rollers**  
can be moved 150 mm and 75mm forward



- 01** Proportional control and continuous monitoring of conveyors and augers guarantees a constant head of mix in front of the screed in line with requirements.
- 02** Large diameter of auger blades (400 mm) for excellent mix spreading when paving in large widths.
- 03** Very wide oscillating push-rollers ensure convenient and shock-free docking of feed vehicles, even on bends.



Thanks to its perfect mix spreading, the SUPER 1680 Li provides for an optimal head of material in front of the screed in every paving situation.

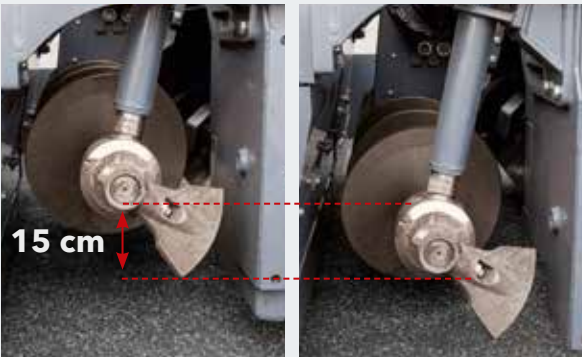
Powerful, separate hydraulic drives for conveyors and augers are installed, achieving high laydown rates up to 800 t/h\*.

\* Calculation based on the maximum conveying capacity.

## VÖGELE > GOOD TO KNOW

### Adjustable auger height

The augers of the SUPER 1680 Li are hydraulically infinitely height-adjustable by up to 15 cm. This enables them to be adapted to the desired layer thickness across the full pave width.





# 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, so offering outstanding value for money.

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.





# ERGOBASIC PAVER OPERATOR'S CONSOLE

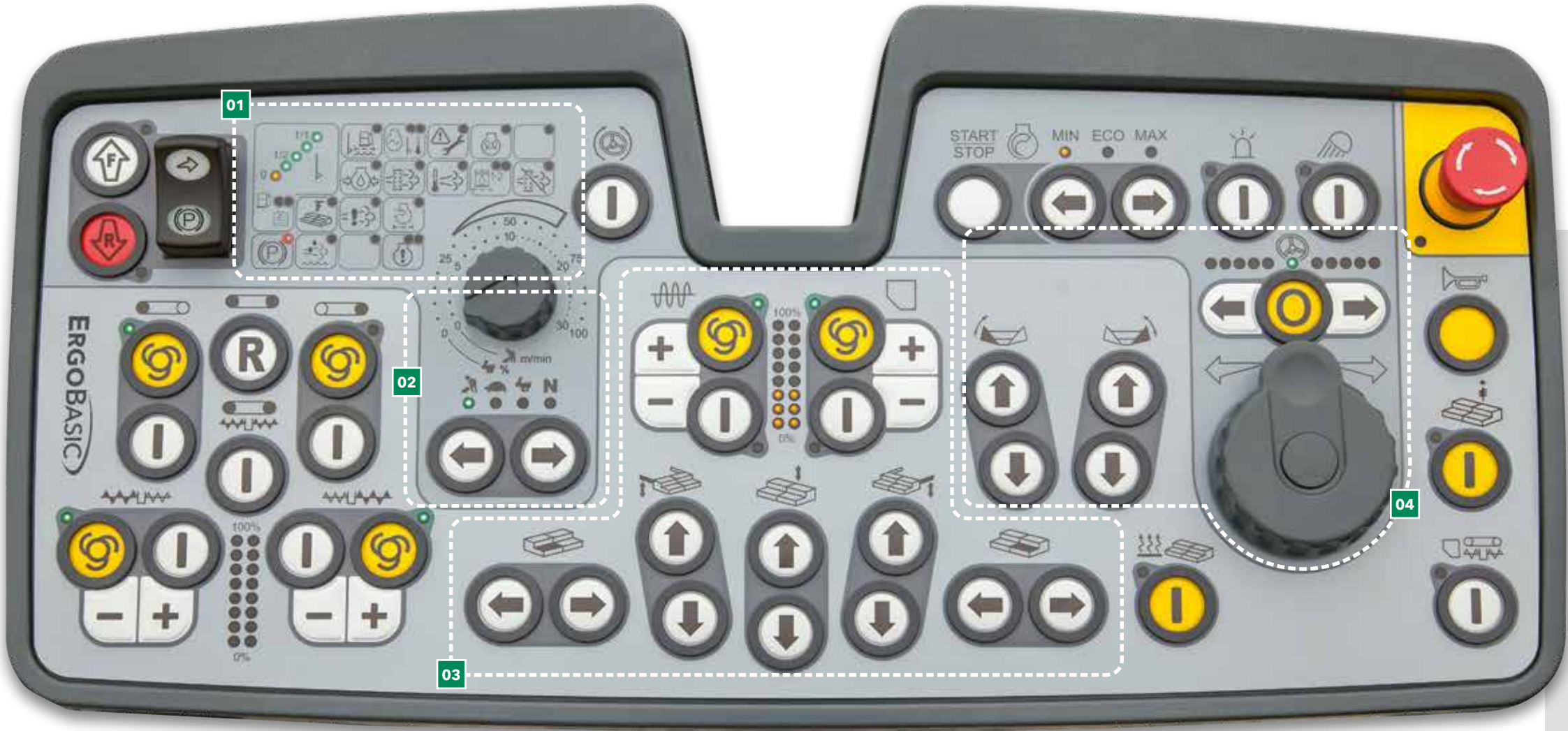
Full control for the operator

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 Function and status indicators**  
Machine operating mode indicator and fuel gauge.
- 02 Choice of operating modes**  
The paver changes between operating modes at the push of a button in the following order: "Pave", "Positioning", "Job Site" and "Neutral".
- 03 Screed functions**  
All controls for the screed are grouped at the centre of the paver operator's console.
- 04 Material hopper and steering**  
This function group includes the controls for the material hopper and the steering.



# SCREED FUNCTIONS

### 01 Precompaction performance

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

### 02 Screed settings

All important screed 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.

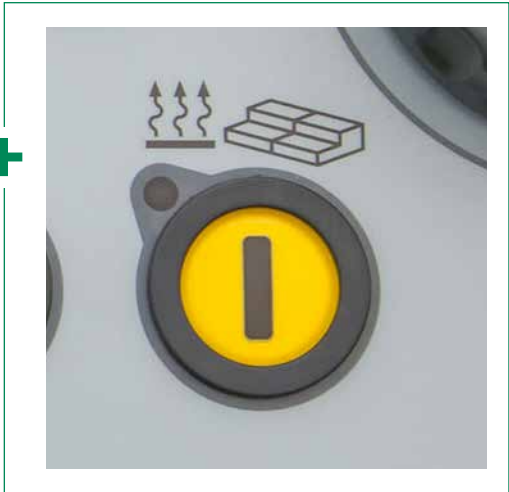


01 Precompaction performance  
02 Screed settings



### 03 Idling function

The idling function is provided for warming-up or cleaning of the conveyors, augers and tamper bar.



### 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.



# STEERING AND MATERIAL HOPPER

### 01 Steering at a pre-selected steering angle

The paver is steered by means of a rotary controller which enables the operator to manoeuvre the machine precisely even in the tightest spaces. For long curves with a constant radius, the desired steering angle can be pre-selected 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 continuously.

### 02 Material hopper

The large material hopper with separately folding sides is designed so that the machine can always be supplied with paving material in the best, most cost-effective way. The two hopper sides can be folded separately.



- 01 The paver is steered by means of a rotary controller which enables the operator to manoeuvre the machine precisely even in the tightest spaces.
- 02 The two hopper sides can be folded separately.





# ERGOBASIC REMOTE CONTROL UNIT FOR THE SCREED

Safe and easy handling of all screed functions is key to high-quality paving. That is why a remote control unit for the screed was developed specifically for the ErgoBasic operating system of the new SUPER 1680 Li.

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 intuitive, and can be learned very quickly, not least because the symbols used in the tried and tested 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 Speed of the augers**

Just like the paver operator, the screed operator can also select Manual or Automatic mode for the conveyors and augers. The “Reversing Auger Rotation” function is very practical and user-friendly.



**02 Screed floating**

When the screed is in the floating position, the Screed Assist feature can also be activated.



**03 Ergonomic screed width control**

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



Shown in original size

- 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



# NIVELTRONIC BASIC

**VÖGELE has also developed a System for Automated Grade and Slope Control to match the ErgoBasic operating system: Niveltronic Basic. It is fully integrated into the machine control system, so perfectly adapted to the specific paver model.**

Another outstanding aspect of Niveltronic Basic is its very 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 small paver to work true to line and level on any base.

Each side of the screed is operated by a separate compact and highly robust Niveltronic Basic remote control unit. These units are easily removed from their magnetic brackets, giving operators far-reaching scope so they can always take up the optimum position for every paving job.



- 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 are available for Niveltronic Basic, in keeping with the machine's extensive and varied range of applications. The sensors extend from a mechanical sensor to non-contacting sonic sensors.
- 03** The pre-set and actual values for the grade and slope sensor can be read from the display of the Niveltronic Basic's control panel.



- 01** Deviation from specified values
- 02** Setting: Sensor sensitivity
- 03** Selecting: Referencing mode (Ground, Stringline, 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 as standard – or with up to five if required.





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# ERGOBASIC PAVER OPERATOR'S PLATFORM

Improved efficiency, reliability and convenience

The user-friendly ErgoBasic paver operator's platform provides an unobstructed view of all key areas on the paver, such as the material hopper, steering guide or screed. It allows paver operators to easily monitor the mix feed to the paver from their seat for example.

## 01 Working comfort

- > Easy relocation of the paver operator's console across the full width of the platform for convenient working 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, with its streamlined design, is well organized, offering the paver operator a professional workplace.
- > The paver operator's console can be protected by a shatter-proof cover.

## 03 Hardtop gives excellent protection

- > The state-of-the-art hardtop made of glass fibre reinforced polymer material shelters the operator. The hardtop folds down with effortless ease, meaning the paver can be quickly readied for transport.

## 04 Safe and convenient access

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

## 05 Economical and service-friendly design

- > Paver operators have convenient access to all service points on the machine. The clear layout and easy access of all hydraulic pumps attached to the splitter gearbox provide the highest levels of service-friendliness. Sturdy components made of highly wear-resistant materials for long service lives minimise downtimes.

## 06 Safe and easy handling of all screed functions

- > The ErgoBasic remote control unit for the screed allows all paving-related functions to be set quickly and easily.
- > Each side of the screed is operated by a compact and highly robust remote control unit.



# EXTENDING SCREED AB 480

**Uniform screed heating**  
of screed plates and tamper bar for  
uniform surface courses

**Much shorter preheating time**  
thanks to intelligent generator management of the  
electric heating system even when the engine is idling

**Alternating mode for screed heating**  
alternately powering one half of the screed heating  
system

The SUPER 1680 Li can be combined with the VÖGELE AB 480 Extending Screed. The screed has a basic width of 2.55 m. Through the addition of bolt-on extensions, the AB 480 screed builds up to a maximum width of 7.8 m. Quick-fitting aids allow easy and fast mounting of bolt-on extensions.

The VÖGELE AB 480 Extending Screed is the preferred choice on all jobs where pave width varies and prime pavement quality counts. The pave width can be quickly and easily hydraulically adjusted between 2.55 m and 4.8 m using the highly stable single-tube telescoping system.

The screed used with the SUPER 1680 Li can be extended to a maximum pave width of 7.8 m by means of fixed bolt-on extensions. 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.



## AB 480

### Pave widths

- > Infinitely variable range from 2.55 m to 4.8 m
- > Maximum pave width using bolt-on extensions:
  - > 6.3 m (2 x 75 cm)
  - > 7.3 m (2 x 125 cm)
  - > 7.8 m (4 x 75 cm)

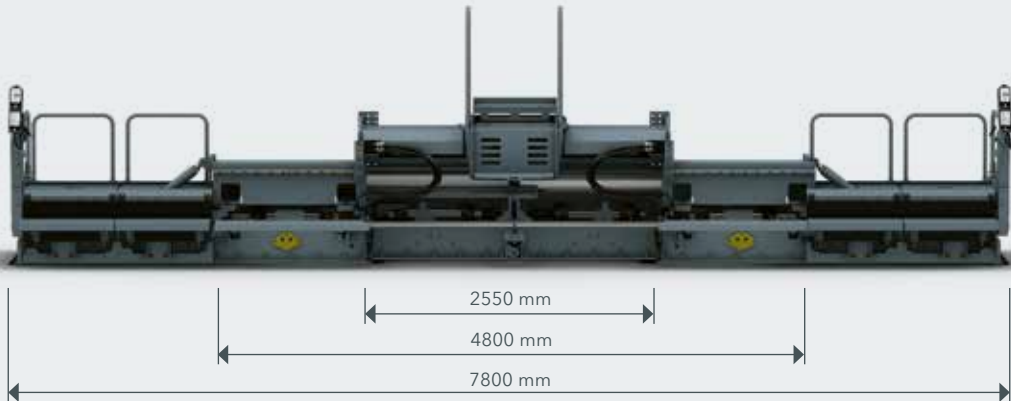
### Compacting systems

- > AB 480 TV with tamper bar and vibrators



## AB 480 TV

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

At the WIRTGEN GROUP, construction machinery involving leading-edge technology goes hand in hand with sophisticated telematics solutions. Intelligent monitoring systems such as WITOS or JD Link\* not only make it easier for you to plan the maintenance of your machines, they also increase productivity and efficiency.

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

\* Neither WITOS nor JD Link are currently available in all countries.  
Please contact the subsidiary or dealer responsible for you for more information about this.

# ALL THE FACTS AT A GLANCE

SUPER 1680 Li Tracked Paver



## TECHNICAL DATA

## SUPER 1680 Li

- > Maximum pave width: 7.8 m
- > Maximum laydown rate: 800 t/h\*
- > Layer thickness: max. 30 cm
- > Transport width: 2.55 m

\* Calculation based on the maximum conveying capacity.





## JOSEPH VÖGELE AG

Joseph-Vögele-Str. 1  
67075 Ludwigshafen  
Germany

T: +49 621 8105-0

F: +49 621 8105-461

M: [marketing@voegele.info](mailto:marketing@voegele.info)

 [www.voegele.info](http://www.voegele.info)



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