

### **Universal Class**

### **SUPER 1700-3i** TRACKED PAVER



Maximum paving width 19 ft. 6 in. (5.95 m) Maximum laydown rate 770 tons/h (700 tonnes/h) Transport width 8 ft. 6 in. (2.59 m)







## The next generation of versatile asphalt pavers



**The VÖGELE SUPER 1700-3i** is a cutting-edge 8-foot-class paver suitable for a wide variety of applications. Typical jobs are the building of secondary roads and highways. Due to its compact design, the tracked paver is also ideal for commercial and municipal paving jobs.

The SUPER 1700-3i also comes with the latest version of our operating system, the popular ErgoPlus 3, which has been enhanced with a number of new ergonomic and functional features. With its new mounting system, the paver operator's console can be shifted conveniently and easily between the right and left sides of the operator's stand during operation. ErgoPlus 3 also offers unobstructed operator visibility of the material hopper, auger tunnel and screed.

In addition, it now has a large color display that ensures good readability even in poor lighting conditions. The screed consoles have been completely redesigned, making operation of this new "Dash 3" machine even easier for the entire paving crew.

With its new Universal Class paver, VÖGELE also offers the right screed for every application. The SUPER 1700-3i can be combined with the VF 500, a screed with front-mounted extensions.

All of these features make this Universal Class machine a truly SUPER paver!





**8-foot tracked Universal Class** paver with a large range of applications and paving widths up to 19 ft. 6 in. (5.95 m)

**Powerful engine** complying with US EPA standard Tier 4f

The VÖGELE EcoPlus low-emissions package significantly reduces fuel consumption and noise

levels

**Advanced design** provides precise material handling

**Innovative and** reliable drive concept for accurate tracking hopper

**Optimum feeding** with mix thanks to the large material

**ErgoPlus 3** with numerous additional ergonomic and functional advantages.

The right screed for every application. The paver can be combined with the VF 500 Extending Screed.

### Large range of applications

The SUPER 1700-3i is ideal for applications which require a variable paving width, such as car parks with islands and light masts, roads for residents only, urban roads with manhole covers, gas or water connections, junctions on highways or work on country roads, i.e. jobs which involve paving around obstacles.

Stability and variability are not mutually exclusive, as the front-mounted VF 500 Extending Screed from VÖGELE proves. With a basic width from 8 ft. to 15 ft. 6 in. (2.45 m to 4.75 m) and a maximum paving width of 19 ft. 6 in. (5.95 m) with bolt-on extensions it is the ideal tool for multivariable width applications of the SUPER 1700-3i.













**The driving force behind** this Universal Class paver is its powerful, four-cylinder diesel engine rated at 173 hp (129 kW).

**Both low fuel consumption** and low-noise operation are made possible by intelligent engine management with an ECO mode.

**Minimum input - maximum output:** All drive components, including the three-phase generator, are supplied from the central splitter gearbox and operate at maximum efficiency.

**High-traction crawler tracks** efficiently convert drive power into forward motion.

### State of the art drive technology

**Three main components** define the power unit of a SUPER 1700-3i: its modern, liquid-cooled diesel engine, a splitter gearbox flanged directly to the engine and a large cooler assembly.

The driving force in this power pack from VÖGELE is its diesel engine. The four-cylinder engine delivers 173 hp (129 kW) at 2,000 rpm. Yet the fuel-saving ECO mode is sufficient for many applications. And even then, the SUPER 1700-3i still has a full 160 hp (119 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 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.

All hydraulic elements are supplied with hydraulic oil directly from the splitter gearbox, the advantage being that all pumps and valves are combined in one spot that is easily accessible for maintenance work. Even the powerful and completely maintenance-free generator for screed heating is flanged directly onto the splitter gearbox.



The power unit of the SUPER 1700-3i with 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 4 and US EPA standard Tier 4f.



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.

>> Machines with the suffix "i" in their product designation are not only economical, but also extremely clean.

The "i" stands for "intelligent emission control" and is found in the type names of all machines from the WIRTGEN GROUP equipped with the latest engine technology. Thanks to their sophisticated exhaust gas after-treatment, these engines comply with the strict EPA and CARB standards Tier 4f.

**>> Powerful 4-cylinder engine** delivers 173 hp (129 kW) at 2,000 rpm.

- **ECO mode** at 1,700 rpm provides low noise levels and low fuel consumption. ECO mode is sufficient for most paving applications.
- >>> **Self-diagnostics** and sensors for almost all engine vitals simplify daily checks.
- >> The fuel tank holds 58 gallons (220 liters), more than enough for a day's work. The SUPER 1700-3i additionally has a DEF tank with sufficient capacity.
- A powerful, air-cooled generator with direct drive ensures rapid, uniform heating of the screed. The generator is directly driven by the splitter gearbox and therefore maintenance-free.

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### 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 liter of fuel saved reduces carbon dioxide (CO<sub>2</sub>) emissions.



25% FUEL SAVING



25% LESS CO<sub>2</sub> EMITTED



**LOWER NOISE EMISSIONS** 

### The technical innovations



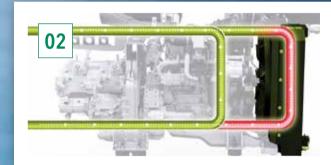
### Splitter gearbox with ability to disengage hydraulic

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.









#### 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.









#### Variable-speed fan

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











### Efficient translation of tractive power

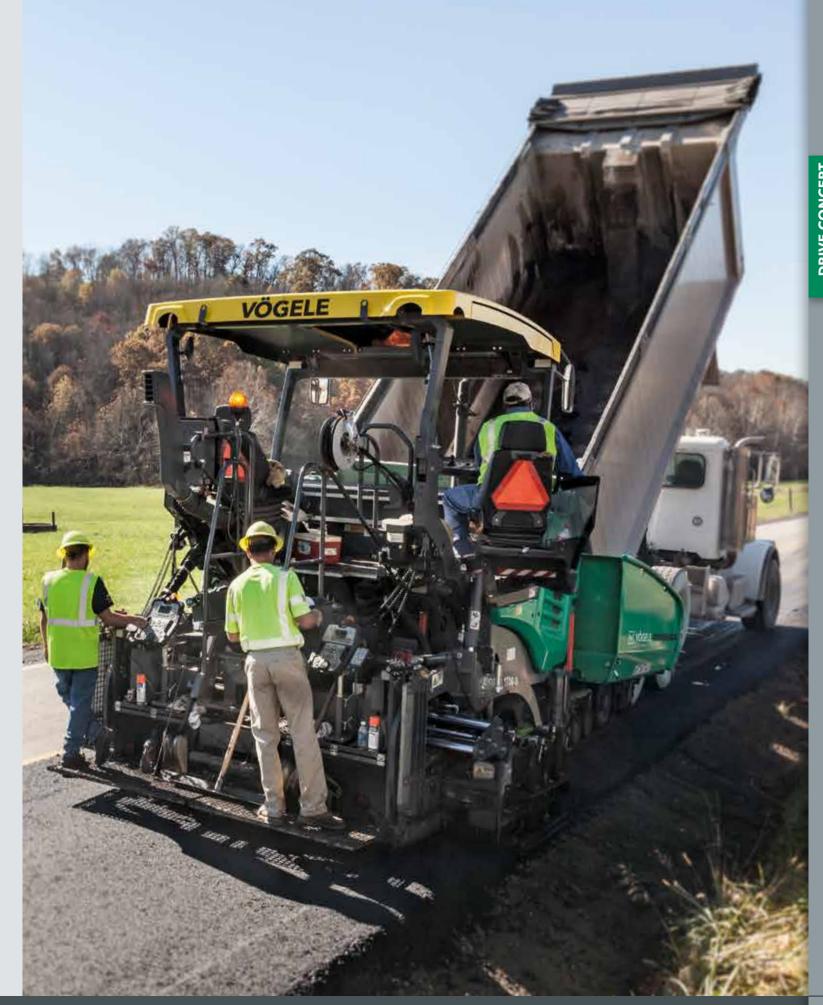
A strong point of the SUPER 1700-3i are the continuous rubber tracks. Due to the large track width of 14 in. (355 mm), paving speeds up to 250 fpm (76 m/min.) are possible. The large footprint also provides excellent flotation and tractive effort.

The powerful, separate drives are integrated directly into the drive wheel of the rubber track, meaning that engine output is transmitted without any loss of power. As a result, the SUPER 1700-3i can push any feed truck with ease.

The SUPER 1700-3i also displays impressive maneuverability and high mobility. It can turn on the spot and easily masters difficult terrain with inclines and slopes.



- >> Continuous rubber tracks, 14 in. (355 mm) wide, with self-aligning front idlers provide for optimal steering under any conditions. Dual track tensioning cylinders provide perfect alignment.
- >>> Powerful track drives and engine output deliver maximum torque with no loss of power.
- >> Large footprint ensures maximum tractive effort and high flotation, allowing the paver to work at a constant speed even when operating on difficult terrain.
- >> The most advanced steering control in the industry provides precise straight-line tracking and smooth, accurate turns.





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.

Thanks to its large material hopper, the SUPER 1700-3i can be supplied with material easily and quickly.

To prevent segregation a number of design and technical features are installed in the paver which help keep the paving material in a highly homogeneous state on its way through the paver from the material hopper to the screed.

### Extra large material hopper and easy material feed





### The hydraulically operated hopper apron

prevents material spills during truck exchanges. It directs the material inside the hopper directly onto the conveyors, so no hand work is required. All of the mix is properly conveyed to the screed.

- >> The large material hopper holds 14.3 tons (13 tonnes) and is dimensioned so that plenty of mix is stored at all times.
- >> Sloped inner design of the hopper for an optimal flow of material to prevent segregation.
- >> Easy feeding with mix thanks to only 24 in. (620 mm) dump height, wide hopper wings and sturdy rubber flashing fitted to the hopper apron.
- >> Independently operated hopper wings.

- >> Large oscillating push-rollers can be set to 2 different positions for convenient and shock-free docking of feed vehicles even in
- **>> A truck hitch** is available as an option.



### **Precision material delivery** prevents segregation



### Thanks to effective spreading of the material, the SUPER 1700-3i always has an optimal head

of mix in front of the screed to meet the demands of every paving situation.

The wide conveyor tunnel and powerful, hydraulic separate drives on the conveyors and augers support high laydown rates of up to 770 tons/h (700 tonnes/h).

> Hydraulically adjustable augers are infinitely variable in height within a range of 6 in. (15 cm). Hydraulic auger height adjustment (including bearing boxes and limiting plates for the auger tunnel) provides optimal spreading of the material even when paving thin layers or on sections where thickness varies.

6 in. (15 cm)

- >>> Proportional control and continuous monitoring of conveyors and augers guarantee a constant head of material in front of the screed.
- >> Inclined conveyors from the front to the rear of the machine provide ideal delivery of the material onto the augers.
- >> Large, 16 in. (40 cm) diameter auger flights with precision pitch ensure excellent spreading of the material when paving in large widths or at lower engine rpm. VÖGELE's unique flight design provides prolonged service life versus standard flight designs.
- >> Narrow conveyor guard in the material hopper guarantees uniform material flow.

The optional Power Tunnel is perfect for changing paving widths. The hydraulically adjusted limiting plates adapt to the screed width automatically, ensuring an optimal head of mix in front of the screed all the way to the end gates, even when the screed extensions are fully moved out.

## **The ErgoPlus 3** operating system

**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. Therefore, the ErgoPlus 3 operating system focuses on the operator. With VÖGELE pavers, the operator consequently retains full control over the machine and construction project.

On the following pages you will find detailed information on the extensive functions of the ErgoPlus 3 operating system. ErgoPlus 3 encompasses the operator's stand, the paver operator's console, the screed console and Niveltronic Plus, the System for Automatic Grade and Slope Control.

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SUPER 1700-3i



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

### No-Load function

The No-Load 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, transferring mix from the rear of the conveyor tunnel back inside, 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 material 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

On the ErgoPlus 3 console, 4 different operating modes for the paver are available to select from. By pressing the arrow buttons, up or down, the operator changes modes in the following order: "Neutral", "Job Site", "Positioning" and "Paving". 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 move of the paver on site, these settings are restored 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 ErgoPlus 3 console has

been designed according to practice-related principles. All controls are clearly arranged. Paver functions are clustered in logical groups so that operators find their controls just where they would expect them 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 adjustment of basic settings

### Display of the paver operator's console

The redesigned color display has a high-contrast user interface ensuring brilliant readability even in poor lighting conditions. Vital information is shown on menu level 1, such as the positions of the screed tow point cylinders or the material level in the conveyor tunnel. Further paver functions such as speeds for tamper and vibration or feed rates for the conveyors 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 with preselected steering angle

The machine is steered by means of an easy-grip rotary controller which enables the paver operator to maneuver 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 stays automatically on the set track until the function is deactivated again, allowing the paver operator to monitor the paving process undisturbed.



### **Choice of engine speed ranges**

For the 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.



#### Screed Assist (option)

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





### The ErgoPlus 3 screed console

### The screed is crucial for pavement quality.

Therefore, easy and positive handling of all screed functions is of 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 enclosed in palpably raised rings, so that they are identifiable blindfolded 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 screed console display allows the screed operator to control and monitor both the left and the right side of the screed. Machine-related parameters such as vibration speed or conveyor speed can be adjusted conveniently via the display panel of the screed console. 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 pressing the "plus" or "minus" keys, the set crown value is shown on a pop-up window. The conveyors and augers are adjusted accordingly.



#### **Ergonomic screed width control in two speeds**

The screed width can be effortlessly adjusted by means of the "SmartWheel". This is done in 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 is more, the downward-angled high-power LED lighting gives the operator a perfect view of all processes associated with the end gate.



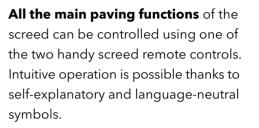


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## The **ErgoPlus 3** remote control

In addition to the screed operating consoles, a compact and very durable remote control is available for each side of the VF 500 screed.

The remote controls can be securely stowed in the holders on the main screed, or on the ends of the screed extensions. The holders are magnetic, meaning that the remote controls are easy to grab at any time, giving the operator a large radius of movement so that he can always find the most effective working position in any paving situation.



1 // Setting: Conveyor,

automatic/manual

2 // Setting: Auger, automatic/manual

3 // Setting: Screed, tow point cylinder

4 // Control: Screed width

5 // Setting: Power tunnel,

automatic/manual

**6 // Setting:** Berm

7 // Setting: Slope

**8** // **Setting:** Screed extension, height

**9 // Lock:** Screed extension





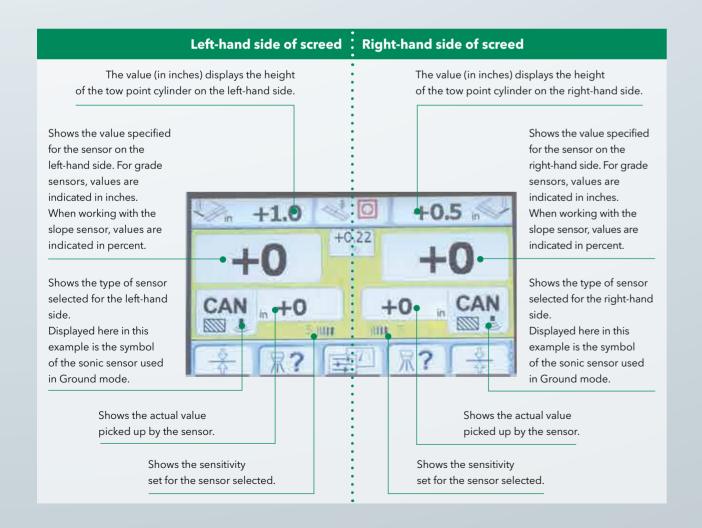
### **VÖGELE Niveltronic Plus**

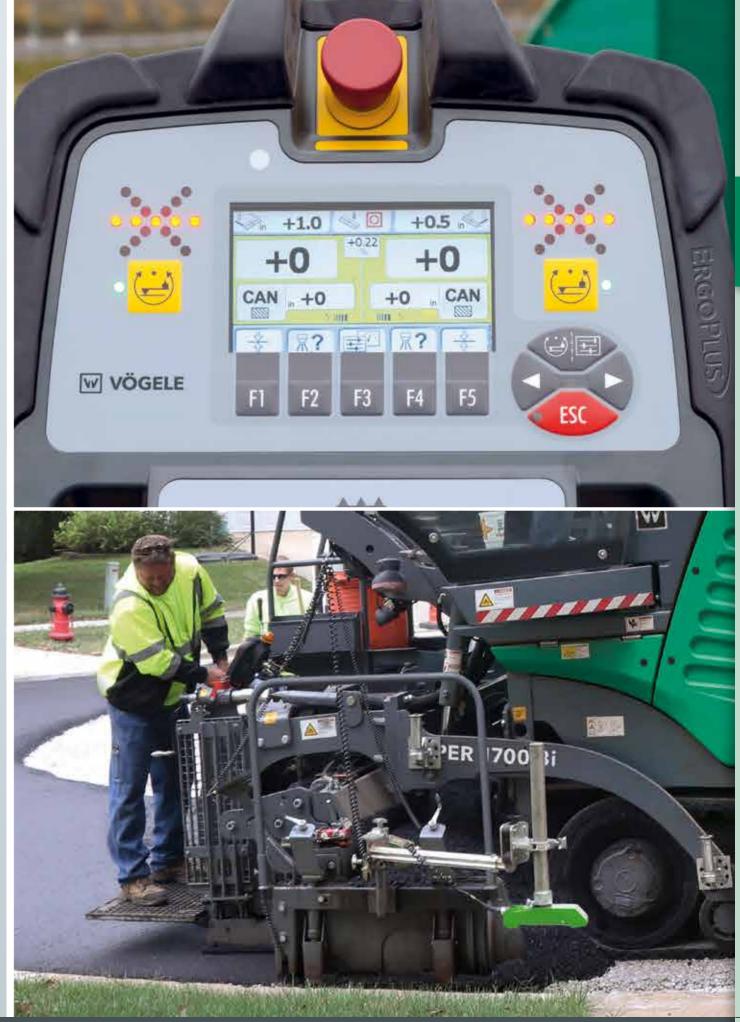
Niveltronic Plus, the System for Automatic Grade and Slope Control, is an in-house development by VÖGELE based on many years of experience in grade and slope control technology. Easy operation, precision and reliability are its hallmarks, ensuring perfect mastery of all grade and slope control jobs.

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

VÖGELE naturally offer a particularly large and practical selection of sensors permitting versatile use of the Niveltronic Plus system. Whether for instance car parks, roundabouts or highways need to be built or rehabilitated, VÖGELE offer the right sensor for every job site situation.

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



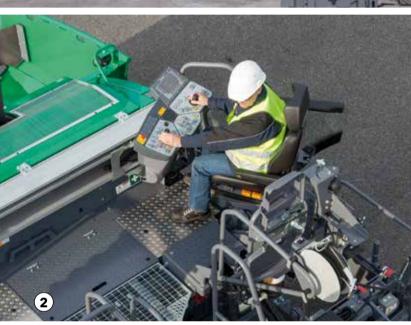


















### The ErgoPlus 3 operator's stand

- 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 paver's feed with mix and the process of paving.
- 2. The seats swing out to the sides and a streamlined operator's stand provides 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

On the "Dash 3" machines, the paver operator's seat and console, as well as the screed consoles can now be adjusted even more easily to personal requirements.

### 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 willful damage.

### 5. Hardtop gives excellent protection

The modern hardtop made of glass fiber reinforced polymer material shelters the operator whether rain or shine.

### **6. Consistent service concept**

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

### 7. Ergonomic screed console

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

#### 8. Easy transport

The machine can be prepared quickly and easily for transport on a low-bed trailer. Even the hardtop can be folded down to transport position using a manual hydraulic pump.



# VF 500 extending screed

Stability and variability are not mutually exclusive, as the front-mounted VF 500 Extending Screed from VÖGELE proves. With a basic width from 8 ft. to 15 ft. 6 in. (2.45 m to 4.75 m) and a maximum paving width of 19 ft. 6 in. (5.95 m) with bolt-on extensions it is the ideal tool for multivariable width applications and mainline paving. The unique VÖGELE telescoping system allows screed width control, accurate to the millimeter. The variability is also evidenced in the range of possible profiles: crowns, transverse slopes and berms are set once and then built perfectly from the start to the end of paving process. The compacting system provides great mat texture and excellent compaction. So for the SUPER 1700-3i, the VF 500 Extending Screed is the perfect match.

### **Electric screed heating**

A consistent surface texture is achieved by uniform heating of the screed plates. With the engine running at minimum rpm, the time required for the screed to reach operating temperature is reduced substantially due to an intelligent generator management system.

### The screed for SUPER 1700-3i

### **VF 500**

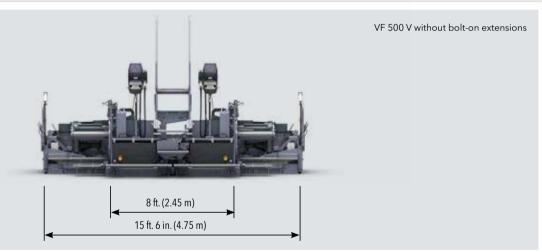
### **Paving widths**

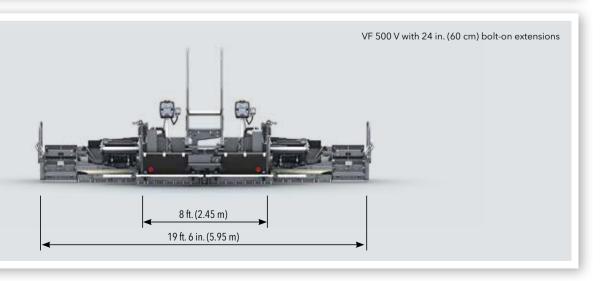
- >> Infinitely variable range from 8 ft. to 15 ft. 6 in. (2.45 m to 4.75 m)
- >> Maximum paving width through bolt-on extensions:
  - > 17 ft. 6 in. (2 x 12 in.) / 5.35 m (2 x 30 cm)
  - > 19 ft. 6 in. (2 x 24 in.) / 5.95 m (2 x 60 cm)

### **Compacting system**

>> VF 500 V with vibration

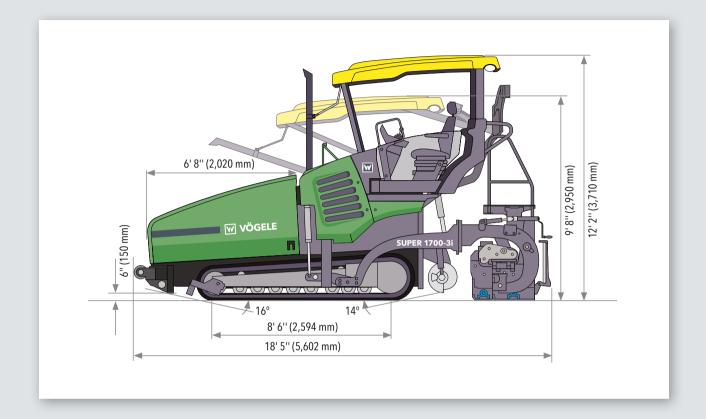








## All the facts at a glance



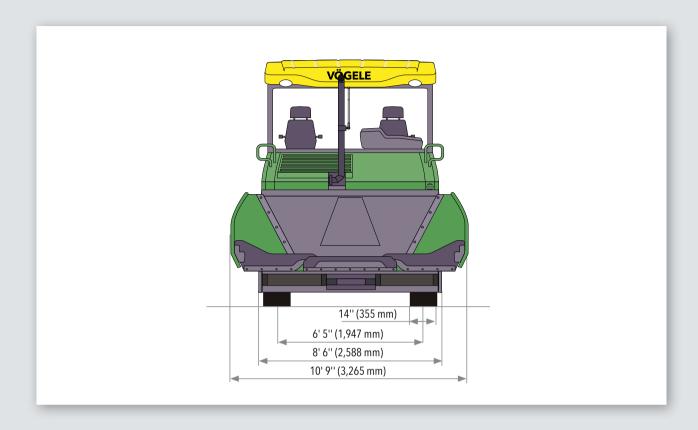
Power unit	
Engine	4-cylinder diesel engine, liquid-cooled
Manufacturer	Cummins
Туре	QSB4.5 - C173
Output	
Nominal	173 hp (129 kW) at 2,000 rpm
	(according to DIN)
ECO mode	160 hp (119 kW) at 1,700 rpm
Exhaust emissions	
standard	EU Stage 4, US EPA Tier 4f
Exhaust after-treatment	DOC, SCR
Fuel tank	58 gallons (US) (220 liters)

Undercarriage	
Crawler tracks	continuous rubber band
Ground contact	8 ft. 6 in. x 1 ft. 2 in. (2,594 mm x 355 mm)
Track rollers	lifetime grease lubricated
Traction drive	separate hydraulic drive and electronic control
	provided for each crawler track
Speeds	
Paving	up to 250 fpm (76 m/min.), infinitely variable
Travel	up to 7.5 mph (12 km/h), infinitely variable

<b>C</b> = Diesel Oxidation Catalyst <b>R</b> = Selective Catalytic Reduction	<b>VF</b> = Screed with Front-Mounted Extension <b>V</b> = with vibration

Material hopper		
Hopper capacity	14.3 tons (13 tonnes), including conveyor tunnel	
Width	10 ft. 9 in. (3,265 mm)	
Feed height	24 in. (615 mm)	
Push-rollers		
Standard	oscillating	
Positions	can be displaced forwards by 3 in. (75 mm)	
	or 6 in. (150 mm)	
Option	truck hitch	

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 130 fpm (40 m/min.), infinitely variable (manual or automatic)



Conveyors and augers	
2, with exchangeable auger blades,	
auger rotation reversible	
16 in. (400 mm)	
separate hydraulic drive provided	
for each auger	
up to 120 rpm, infinitely variable	
(manual or automatic)	
infinitely variable by 6 in. (15 cm), hydraulic	
automatic centralized lubrication system	
with electrically driven grease pump	

Screed		
VF 500	infinitely variable range	8 ft. to 15 ft. 6 in. (2.45 m to 4.75 m)
	maximum width	19 ft. 6 in. (5.95 m)
	compacting system	V
Layer thickness	up to 12 in. (30 cm)	
Screed heating	electrically by heating rods	
Power supply	three-phase A.C. generator	

Dimensions (transport) and weights	
Width	8 ft. 6 in. (2.59 m)
Length	tractor and screed
VF 500 V	18 ft. 5 in. (5.6 m)
Weights	tractor, hardtop and screed
VF 500 V	40,345 lbs. (18,300 kg)

Technical alterations reserved.

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