



Tracked Paver **SUPER 1900–3**



SUPER 1900-3

Maximum Pave Width 11m Maximum Laydown Rate 900 t/h Transport Width 2.55m



Powerful, Efficient and Economical



The tracked SUPER 1900-3 is a model of the ultra-modern "dash 3" paver generation from VÖGELE. The machine features a unique design as well as ergonomic operating comfort and high performance with minimum consumption.

When developing this road paver, a special focus was on ergonomic, economic and ecological aspects. The "EcoPlus" package,

for instance, significantly reduces both fuel consumption and noise levels.

The VÖGELE ErgoPlus® operating system has been supplemented by numerous ergonomic and functional features for the "dash 3" pavers. The paver operator's console, for example, comes with a large four-colour display which provides brilliant readability even in poor lighting conditions. In addition, the new convenience functions "AutoSet" and "PaveDock Assistant" make work with the SUPER 1900-3 even easier.

The SUPER 1900-3 is a powerful paver excellently suited for many different applications up to a maximum pave width of 11m.

SUPER 1900-3 At a Glance



Maximum pave width 11m.

- Laydown rate up to 900 tonnes/h.
- Powerful Cummins engine of the very latest generation.
- "EcoPlus" low-emissions package significantly reduces fuel consumption and noise levels.
- The "PaveDock Assistant" enhances process safety during transfer of the mix.
- Sprung push-rollers reliably absorb all jolts from the feed vehicle.
- "AutoSet" functions permit a quick and safe move of the paver on the job site.
- ErgoPlus[®] with a number of additional ergonomic and functional advantages.

Tracked Paver SUPER 1900-3



Future-Proof Drive Technology



In response to emissions control legislation for mobile machines, which differs from country to country, the paver is also available as a SUPER 1900-3i version in addition to the SUPER 1900-3. The suffix "i" stands for "intelligent emission control" and designates all machines from the WIRTGEN GROUP equipped with the latest engine technology. These engines comply with the strict emissions standards governing mobile machines in EU and EFTA countries, the USA and Canada since 2011. For all other countries, the SUPER 1900-3 is available with a modern diesel engine installed which complies with the European exhaust emissions standard COM 3a and the US standard EPA Tier 3.

Both engines feature an ECO mode reducing the nominal speed from 2,000 rpm to 1,700 rpm. This economy mode tangibly cuts operating costs and noise levels while still delivering sufficient engine power for the majority of paving jobs.

A large cooler assembly and excellent air routing ensure perfect cooling of engine coolant, hydraulic oil and charge air in every climate zone the world over. This guarantees full engine performance at all times and also prolongs the engine's service life.

Rapid, uniform screed heating is assured by a low-noise, oil-cooled three-phase A.C. generator. The generator is directly driven by the splitter gearbox and therefore maintenance-free.

The crawler unit has been optimized to ensure that the paver's high tractive power is translated into smooth tracking. The special arrangement of the track rollers and additional track carrier rollers on the upper side guarantee smooth running during both travel and paving.







- Powerful yet economical Cummins 6-cylinder diesel engine with ECO mode allows the paver to be used worldwide.
- The ultra-modern "i" engine delivers a nominal output of 142kW at 2,000 rpm and complies with the European emissions standard 3b and the US standard EPA Tier 4i.
- The engine version for countries with less strict regulations delivers 151kW at 2,000 rpm and complies with the European emissions standard 3a and the US standard EPA Tier 3.
- Both engine versions come with an ECO mode. It cuts operating costs and reduces the paver's noise levels even further.
- A large cooler assembly with innovative air routing is installed for perfect cooling of engine coolant, hydraulic oil and charge air in all climatic zones the world over. This guarantees the full performance of the engine and a long service life.
- A powerful, oil-cooled generator with direct drive ensures rapid, uniform heating of the screed.
- The optimized crawler unit guarantees a maximum of smooth running for the paver. The electronically controlled separate drives installed in the sprockets of the crawler tracks permit constant straight movement and precise steering through curves.

Economical and Eco-Friendly "EcoPlus Package"





The philosophy behind the new drive concept of the "dash 3" generation is: "Lower consumption – lower emissions – lower costs". In this respect, the innovative "EcoPlus" low-emissions package includes a whole series of measures to significantly reduce fuel consumption and noise levels.

- "EcoPlus" significantly reduces fuel consumption and noise levels.
- Hydraulic pumps which are not needed are temporarily disengaged while the paver is stationary.
- Variable-speed fan adapts cooling to the requirements.
- Energy-optimized tamper drive.
- Controlled hydraulic oil temperature circuit ensures that the hydraulic oil quickly reaches its optimal operating temperature.

Saving Fuel with "EcoPlus"



Splitter Gearbox with Ability to Disengage Hydraulic Pumps

When the paver is stationary, e.g. while waiting for some time, all the hydraulic pumps needed for "traction", "conveyors and augers" and "compaction" are automatically disengaged. This new function cuts fuel consumption considerably. Reducing the trailing load also makes it significantly easier to start the paver at low ambient temperatures.



Controlled Hydraulic Oil Temperature Circuit

A bypass circuit allows the hydraulic oil to reach its optimum operating temperature very quickly. This in turn permits rapid, fuel-saving operation of the paver. The hydraulic oil is not led through the cooler assembly before its temperature has exceeded the optimum level of 50 - 70 °C.



Energy-Optimized Tamper Drive

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



Variable-Speed Fan

The variable-speed fan automatically adapts to the engine load and the ambient temperature. The fan is driven via a viscous coupling. This new type of fan drive, in contrast to a hydraulic drive, stands out through considerably greater energy efficiency and much lower noise levels.

Process Safety for Material Transfer with "PaveDock Assistant"



The possibility of storing large amounts of mix and an easy transfer from the feed vehicle are essential for a constant supply of the paver with mix. This is no problem for the SUPER 1900-3 thanks to its large and low material hopper holding 14 tonnes and the hopper sides folding far down.

In order to better integrate the feed vehicle into the process of mix transfer, VÖGELE developed the "PaveDock Assistant". "PaveDock" greatly facilitates the communication between paver operator and driver of the feed vehicle and ensures a highly reliable transfer of the mix.

Key elements are the signal lights mounted on the right and left of the paver's hardtop and the controls on the paver operator's ErgoPlus® console. With these lights, the paver operator can give the driver of the feed lorry unmistakable signals, indicating what needs to be done (e.g. reverse, stop, dump mix).



Sprung push-rollers

Having two lights, each in an elevated position, ensures that all signals are clearly visible to the feed lorry driver from all angles of approach.

Overview of Signals for the Lorry Driver



DOCK: Lorry drives up to the paver and docks.





RAISE DUMP BOX: Lorry raises the dump box.





DRIVE OFF: Lorry drives away



The new sprung push-rollers also contribute to a better and faster feed with mix. The particularly sturdy VÖGELE system efficiently absorbs jolts from the feed vehicle while docking onto the paver so that impacts are not transmitted to the material being placed.

Together with the "PaveDock Assistant", the sprung push-rollers maximize process safety during transfer of the mix. A sensor installed in the push-rollers signals to "PaveDock" whenever a feed vehicle has docked onto the paver. The signal lights automatically indicate the stop signal so that the lorry driver can react immediately. In this way, the interplay of the "PaveDock Assistant" and the new sprung push-rollers results in a safe material transfer free from jolts.











LOWER DUMP BOX: Lorry lowers the dump box.



PAVER IS MOVING:

Symbol can appear together with symbols 1 to 5.



Powerful Conveyors and Augers





Optimally designed mix conveying system with conveyors ascending towards the rear avoids segregation and diminishes wear of conveyors and conveyor bearings. The proportional control provided for conveyors regulates flow rates to precisely match the requirement of mix in front of the screed for excellent paving results.

The augers of the SUPER 1900-3 are hydraulically infinitely variable in height up to 15cm, even while paving. This provides for quick and easy adaptation to the desired layer thickness across the full pave width.

- Powerful, separate hydraulic drives installed for conveyors and augers, thus permitting high laydown rates up to 900 tonnes per hour.
- Hydraulic adjustment of the augers in height across the entire pave width, complete with bearing boxes and limiting plates for the auger tunnel, allows moves of the paver on the job site without a need for conversion – a benefit that saves time and money.
- The possibility of adjusting augers in height also provides for an optimal spreading of mix even when paving thin layers or layers of varying thickness.

Identical Service Concept





The standardized service concept conceived for the VÖGELE pavers means that servicing is quick and uncomplicated. Large hinged panels provide convenient access to all service points on the machine.

Highly service-friendly paver design.

- All hydraulic pumps attached to the splitter gearbox. Their clear arrangement and easy access provides for service-friendliness at the highest level.
- Clear arrangement of power module, valves and flexible piping.
- > All measuring points conveniently accessible.
- Centralized lubrication system installed as standard to automatically supply grease to the highly stressed bearings of conveyors and augers.

VÖGELE **ErgoPlus**[®]

The User-Friendly **Operating System**

ERGOPLUS

Even the best machine with the most advanced technology can only really show its strengths if it can be operated easily and as intuitively as possible, and offers to the operator a maximum of ergonomic comfort and workplace safety. Therefore, the ErgoPlus® operating concept focuses on the operator.

On the following pages you will find detailed information on the extensive functions of the ErgoPlus® operating concept. ErgoPlus® encompasses the operator's stand, the paver operator's and screed consoles and NIVELTRONIC Plus®, the System for Automated Grade and Slope Control.

The operating consoles are designed for optimum clarity, presenting all paver functions in logical groups. There's a place for everything and everything in its place on the operator's stand, and the paver operator has an excellent overview of all the key points of the paver.

All told, the ErgoPlus® operating concept enables the operator to respond to job site working processes and situations more quickly and accurately, giving him total control over the machine and the project.

The Major Advantages of ErgoPlus®

- Operator platform of streamlined design and well organized for a high level of safety at work.
- The paver operator's seats and the operating console adjust conveniently and easily in keeping with his personal needs. This provides a maximum of ergonomic comfort.
- All vital paver functions are clustered in logical groups on the paver operator's console. Their operation is easy to learn.

ErgoPlus® Innovations in the "Dash 3" Pavers

- The paver operator's console comes with a large four-colour display ensuring brilliant readability even in poor lighting conditions.
- Side panelling affords effective protection from the wind and rain.







ErgoPlus® Paver Operator's Console

ErgoPlus® Screed Console

ErgoPlus® Operator Stand

- Easy operation of VÖGELE NIVELTRONIC Plus[®], the System for Automated Grade and Slope Control, to achieve perfect paving results.
- The ErgoPlus® paver operator's console is of modular design. This smart concept is not only ideal in practice, but also saves costs. It offers the great advantage that single modules can easily be replaced if required without having to replace the entire unit.

The paver operator's console can now be adjusted even more easily to his personal needs.

THE ErgoPlus® PAVER OPERATOR'S CONSOLE

Full Control for the Machine Operator

MUM

STREET, STREET

THE ErgoPlus® PAVER OPERATOR'S CONSOLE

Clear and Logical Arrangement of Controls





versing Conveyor Movement

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



ad Functio he No-Load Function is provided for warm up or cleaning f conveyors, augers and tamper.



"AutoSet

With the new "AutoSet" function, the paver is guickly 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 een "Pave" and "Job Site" modes. "AutoSet" also effectively prevents damage during transport.



Choice of Operating Modes for the Paver

On the ErgoPlus® 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 order as follows: "Neutral", "Job Site Mode", "Positioning Mode" and "Pave Mode". A LED indicates he mode selected. When leaving "Pave Mode", a smart Memory feature stores last settings for paver functions so that, when resuming work after a move of the paver on site, these settings are restored automatically.



- Solution States Conveyors and Augers, Traction
- •••••••• Module 2: Screed
- • • • Module 3: Material Hopper and Steering

• • • • • • Module 4:

Display for set-up of vital paver functions on menu level 1. Secondary functions on menu level 2.

Display of the Paver Operator's Console

The redesigned four-colour 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 rams or the material level in the conveyor tunnel. Further paver functions such as speeds for tamper and vibrators or feed rate for the augers can easily be set up via the display, too. And the display gives access to machine-related information such as fuel consumption or service hours.



"PaveDock Assistant" (Option)

With the "PaveDock" signal 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). The lights are conveniently activated directly from the paver operator's ErgoPlus® console.



Choice of Engine Speed Ranges

For the engine, there are 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 emission 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 floats.





THE ErgoPlus® SCREED CONSOLE Easy Operation Guaranteed

Crucial for pavement quality is the screed. Therefore, easy and positive handling of all screed functions is of utmost importance for high-quality road construction.

The Screed Console

The screed console is designed in keeping with the conditions prevailing on the job site. For the frequently used functions operated from the screed console, push-buttons are provided. These are watertight and enclosed in perceptibly raised rings, so that they are 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 his console allows the screed operator to control and monitor both the left and the right side of the screed. Machine-related parameters such as tamper 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.

NIVELTRONIC Plus® (Option)

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

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

Automatic Mode for Augers, Reversing Auger Rotation

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

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



+34.0

+ 3.017

+35%

+34.0



THE ErgoPlus® OPERATOR STAND

Excellent All-Round Visibility

- The comfortable operator 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.
- The seats which swing out to the sides and an operator stand in a streamlined design provide for maximum visibility of the auger tunnel, thus permitting the paver operator to keep an eye on the head of mix in front of the screed at all times.



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 needs. The paver operator's console can be displaced across the full width of the operator's stand, swivelled out to the sides and tilted. Side panelling affords effective protection from the wind and rain.
- When working with the seat swung out, the paver operator's console can be swivelled out together with the operator's seat. In this way, an ergonomically optimized workplace is set up in no time at all. Additional legroom lets the operator work more comfortably on the "dash 3" pavers.



A Place for Everything and Everything in its Place

- The operator's stand with its streamlined design is well organized, so that the paver operator can enjoy a professional workplace.
- The operator's console can be protected by a shatter-proof cover to prevent wilful damage.
- Plenty of stowage space makes it easy to keep the machine tidy. Access to all vital service points on the machine has been designed to be extremely clear and ergonomic.

Hardtop Gives Excellent Protection

- The modern hardtop made of glass fibre reinforced polymer material shelters the operator come rain or shine. The hardtop, including exhaust pipe, lowers quickly and with effortless ease for transport by a manually operated hydraulic pump. Wide sunshades, extending easily, give the operator optimal protection when his seat is moved out.
- Six bright working lights are integrated into the hardtop. Raising the lights in this way floods the job site with light (Xenon lamps available as an option).









"AutoSet" Increases Process Safety on Site



With the new "AutoSet" function, the SUPER 1900-3 is quickly and safely prepared for a move on the job site. Screed, augers, hydraulic hopper front, conveyors and deflectors in front of the crawler tracks are moved to transport positions simply by pressing the "Execute" button. After the move on site, all paver components are reset to their previous working positions by pressing the button again. This ensures that no settings are lost when changing between "Pave" and "Job Site" modes.

"AutoSet" also effectively prevents damage to the augers and deflectors in front of the crawler tracks. Each function can be deactivated separately via the ErgoPlus[®] menu on the paver operator's console.















Screeds to Meet all Needs



The SUPER 1900-3 stands out through superb adaptability, a feature making it perfectly suited to most varied paving tasks. Whether it comes to building large traffic areas, highway or motorway – this paver is ideal for any kind of major scale projects. A number of screed options is available for the

SUPER 1900-3 to combine with.

- VÖGELE AB 500 and AB 600 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.
- Effective sound insulation in the extending screeds reduces noise levels on the job site. In combination with the low-noise tractor unit, these screeds are hence ideally suited for use even in noise sensitive areas.
- VÖGELE Fixed-Width Screeds are ideal primarily for paving in large widths. When combined with a SB 250 Fixed-Width Screed, the SUPER 1900-2 handles pave widths up to 11m.

- VÖGELE Hydraulic Bolt-on Extensions enhance the SB 250's field of applications by offering the advantage of infinitely variable pave width within the range of 1.5m.
- VÖGELE AB 500 and AB 600 Extending Screeds as well as the SB 250 Fixed-Width Screed are available in TP1 and TP2 versions for high compaction. SB 250, furthermore, comes in TVP2 version with tamper, vibrators and 2 pressure bars. For paving binder course and base course achieving highest precompaction, the paver can be combined with the AB 600 Extending Screed in TP2 Plus version.

Transverse Pavement Profiles

Positive and negative crown can be paved with all screed types.
The AB screeds' extending units adjustable in height and spindles provided on either side of each extending unit

allow the Extending Screeds to be set up to a variety of additional special profiles.

Electric Screed Heating

- Homogeneous surface texture thanks to uniform heating of screed plates, tamper bars and pressure bar(s).
- Even with the paver's engine running at minimum rpm, the time required for the screed to reach its operating temperature is reduced substantially thanks to an intelligent generator management.
- With paver functions set to automatic, the generator management activates alternating mode for screed heating (heats the screed alternately to left and right), a feature which is easy on the engine and reduces fuel consumption considerably.

Screed Options for SUPER 1900-3



AB 500

Pave Widths

- Infinitely variable range from 2.55m to 5m. - Larger widths by addition of bolt-on extensions up to a maximum of 8.5m.

Screed Versions

- AB 500 TV with tamper and vibrators
- AB 500 TP1 with tamper and 1 pressure bar
- AB 500 TP2 with tamper and 2 pressure bars





AB 600

Pave Widths

- Infinitely variable range from 3m to 6m.
- Larger widths by addition of bolt-on extensions up to a maximum of 9.5m.

Screed Versions

- AB 600 TV with tamper and vibrators
- AB 600 TP1 with tamper and 1 pressure bar
- AB 600 TP2 with tamper and 2 pressure bars
- AB 600 TP2 Plus with tamper and 2 pressure bars for highest precompaction



SB 250

Pave Widths

- Basic width 2.5m. Larger widths by addition of bolt-on extensions up to a maximum of 11m.

- Thanks to 75cm hydraulic bolt-on extensions, pave width is infinitely variable within a range of 1.5m.

Screed Versions

- SB 250 TV with tamper and vibrators
- SB 250 TP1 with tamper and 1 pressure bar
- SB 250 TP2 with tamper and 2 pressure bars
- SB 250 TVP2 with tamper, vibrators and 2 pressure bars















Dimensions in mm

L* = Dependent on Screed Type (see Specification)

Power Unit		Conveyors and Augers		
SUPER 1900-3i (for Europe / USA / Canada)		Conveyors:	2, with replaceable feeder bars, conveyor movement	
Engine:	6-cylinder Cummins engine, liquid-cooled		reversible for a short time	
Type:	QSB6.7-C190		Drive: hydraulic, separate drive provided for each conveyor	
Standard:	EU Stage 3b, US EPA Tier 4i		Speed: up to 31m/min., infinitely variable	
Output:	Nominal: 142kW at 2,000 rpm (according to DIN)		(manual or automatic)	
	ECO Mode: 135kW at 1,700 rpm	Augers:	2, with replaceable auger blades, auger rotation reversible	
SUPER 1900-3 (for all other countries)			Diameter: 400mm	
Engine:	6-cylinder Cummins engine, liquid-cooled		Drive: hydraulic, separate drive provided for each auger	
Type:	QSB6.7-C203		Speed: up to 79 revs/min., infinitely variable (manual or automatic)	
Standard:	EU Stage 3a, US EPA Tier 3		Auger Height: infinitely variable by 15cm, hydraulic	
Output:	Nominal: 151kW at 2,000 rpm (according to DIN)	Lubrication:	Centralized lubrication system with electrically driven	
	ECO Mode: 153kW at 1,700 rpm		grease pump for conveyor and auger bearings	
Fuel Tank:	430 litres	Screed Options		
Electrical System:	24 V	SB 250:	basic width 2.5m	
Undercarriage			maximum width (TV/TP1) 11m	
Crawler Tracks:	provided with rubber pads	AB 500:	basic width 2.55m, infinitely variable range 2.55m to 5m	
Ground Contact:	3,060mm x 305mm		maximum width (TV/TP1/TP2) 8.5m	
Suspension:	rigid	AB 600:	basic width 3m, infinitely variable range 3m to 6m	
Track Tension Adjuster: spring assembly			maximum width (TV/TP1/TP2) 9.5m, (TP2 Plus) 8.5m	
Track Rollers:	lifetime grease lubricated	Screed Versions:	TV, TP1, TP2, TP2 Plus (AB 600), TVP2 (SB 250)	
Traction Drive:	hydraulic, separate drive and electronic control	Layer Thickness:	up to 40cm (SB 250)	
	provided for each crawler track	Screed Heating:	electric by heating rods	
Speeds:	Paving: up to 25m/min., infinitely variable	Power Supply:	three-phase A.C. generator	
	Travel: up to 4.5km/h, infinitely variable	Dimensions and V	Dimensions and Weights	
Steering:	by alteration of track running speeds	Length:	Tractor Unit and Screed in Transport Position	
Service Brake:	hydraulic		- SB 250 TV/TP1/TP2/TVP2: 6.5m	
Parking Brake:	spring-loaded multiple-disk brake, maintenance-free		- AB 500/AB 600 TV: 6.6m	
Material Hopper			- AB 500 TP1/TP2 / AB 600 TP1/TP2/TP2 Plus: 6.73m	
Hopper Capacity:	14 tonnes	Weights:	Tractor Unit with AB 500 Screed in TV Version	
Width:	3,265mm		- Pave Widths up to 5m: 20.9 tonnes	
Feed Height:	615mm (bottom of material hopper)		- Pave Widths up to 8.5m: 23.5 tonnes	
Push-Rollers:	oscillating, displaceable forwards by 75mm and 150mm			

 $\begin{array}{lll} \mbox{Key:} & \mbox{T} = \mbox{equipped with Tamper} \\ & \mbox{V} = \mbox{equipped with Vibrators} \end{array}$

P1 = equipped with 1 Pressure Bar **P2** = equipped with 2 Pressure Bars **SB** = Fixed-Width Screed **AB** = Extending Screed Technical alterations reserved.

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