8 ft. CLASS
WHEELED PAVER

WIRTGEN GROUP

VÖGELE

Wheeled Paver

VISION 5103-2

VISION 5103-2

Maximum Paving Width 19 ft.
Maximum Laydown Rate 770 tons/h
Transport Width 8 ft. 3 in.

www.voegele.info

The Most Innovative Paver Technology

The wheeled VÖGELE VISION 5103-2 is a cutting-edge 8-foot class paver suitable for a wide variety of applications. Typical jobs are secondary roads and highways. Due to its compact design, the wheeled paver is also ideal for commercial and municipal applications. With drive options (6x2 and 6x4), the VISION 5103-2 is a versatile machine. The wheeled paver features plenty of power and high mobility to handle the most varied paving jobs, even in confined spaces. The super quiet VISION 5103-2 comes with ErgoPlus®, the revolutionary concept for easy paver operation.

ErgoPlus® simplifies the operators' work and provides comfort. ErgoPlus® offers unobstructed operator visibility of material hopper, auger tunnel and screed.
The VISION Series pavers are extremely cool and quiet during operation. Just look at it!

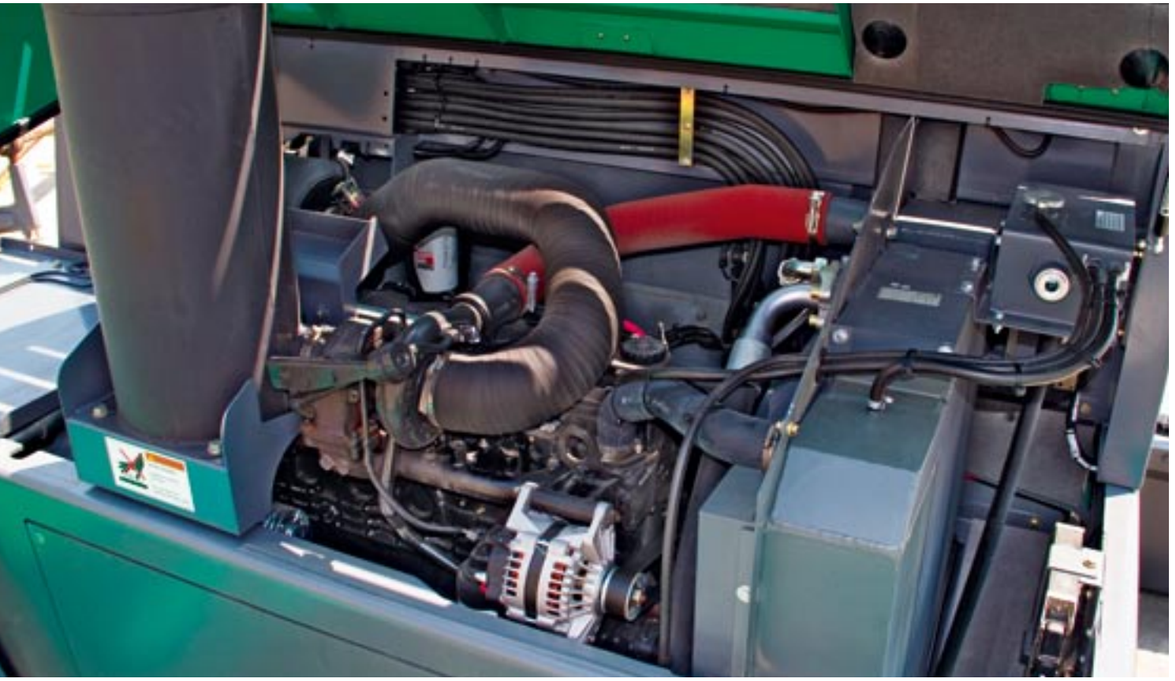
VISION 5103-2
At a Glance

- Superior technology with very low noise emission.
- Powerful Tier 3 CUMMINS engine provides 170 h.p.
- Highly efficient cooling for longevity of all paver components.
- Two powered front wheels available as an option.
- Large fuel tank holding 66 gallons for more than a day's work.
- Advanced design provides precise material handling.
- Compact machine design is ideal for precise maneuverability.
- Equipped with central lubrication. Auto-lubrication is available as an option .
- ErgoPlus® for easy paver operation, unobstructed visibility and comfort.

Wheeled Paver VISION 5103-2

- Perfect pavement, precise material handling.
- Superior, powerful drive concept.
- Easy, environmentally-friendly paver operation.
- Excellent, efficient material management.

Powerful and Efficient Drivetrain



The overall design of the VISION 5103-2 is tailored to ensure a high performance for its class.

The engine delivers 170 h.p. at 2,000 rpm. What's more, the modern CUMMINS engine complies with the current Tier 3 exhaust standards and features an ECO mode. Needless to say, the high performance values are only possible due to efficient cooling of the overall system. The VÖGELE cooling system is based on innovative air routing which not only permits operation in all climatic zones the world over, but also helps enhance the durability of all components. Operating particularly quietly, it maintains the already low noise level of the paver, too.

Three engine speed ranges are available which are selected conveniently at the push of a button (MIN, ECO, MAX).

- Powerful 6-cylinder CUMMINS engine delivers 170 h.p. at 2,000 rpm. Ideal weight-to-horsepower ratio.
- A "smart" memory feature stores the most recent settings for paver functions. When resuming work after moving the paver, these settings are automatically retrieved at the push of a button for a consistent pavement quality.
- ECO mode at 1,800 rpm provides low noise levels and low fuel consumption. ECO mode is sufficient for most paving applications.
- Unique engine exhaust system includes fumes evacuation.
- Powerful three-phase A.C. generator. Low-maintenance generator directly driven by the pump drive gearbox.
- Large cooler assembly with innovative air flow for perfect temperature control of engine coolant and hydraulic oil as well as a low emission level.
- A high cooling capacity maintains an ideal temperature inside the hydraulic system and top performance of all drive units even when working under full load and at high ambient temperatures (WAT World Ambient Temperature design).
- Fuel tank holding 66 gallons provides more than enough capacity for a day's work.

Traction and Precision Drive on Wheels

A powerful paver that's a comfortable drive on the road. The precise steering and handling characteristics make for the VISION 5103's excellent maneuverability. The front wheels with pivoting bogies provide for permanent ground contact.

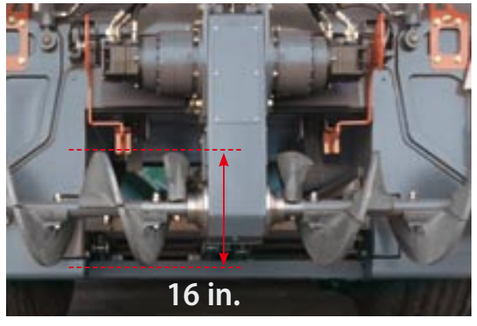
- Maximum power and torque from hydrostatic drives. Separate hydraulic drives are provided for each of the rear wheels (closed-loop system). Two powered front wheels are available as an option.
- Electronic traction management ensures optimum tractive effort and protects the engine against overload.
- Permanent ground contact of front wheels with pivoting bogies.
- Travel speed of 12 mph allows the paver to maneuver quickly on the job site.

Extra Large Material Hopper and Easy Material Feed

Special design of the material hopper prevents mix from sticking and creates optimal conditions for a consistent material flow. Thus, segregation is avoided.

- Large material hopper holds 190 cubic feet (24,480 lbs.).
- Sloped inner design of the hopper for an optimal flow of material to avoid segregation.
- Hassle-free truck exchange due to 24 in. dump height, wide hopper wings and sturdy rubber flashing.
- Large push-rollers can be set to 2 different positions.
- Independently operated hopper wings.
- Hydraulically operated hopper apron prevents material spills during truck exchanges, so no hand work is required.

Perfect Material Delivery Avoids Segregation



With automatic mode selected for conveyors and augers, the paver operators can focus their attention on other areas of the job. In this mode, conveyance and spreading of the material are fully automatic.

- Powerful, individual hydraulic drives for conveyors and augers are installed for high laydown rates and optimal material handling.
- Proportional control and continuous monitoring of conveyors and augers guarantee a constant head of material.
- Inclined conveyors provide ideal delivery of the material onto the augers.
- Hydraulically adjustable augers are infinitely variable in height within a range of 6 inches.
- Large 16 in. diameter auger flights with precision pitch ensure excellent spreading of the material.
- VÖGELE's unique long-life flight design and high-alloy nickel steel provides low operating cost.
- Narrow conveyor chain guards guarantee a uniform flow of material.

Easy Servicing

The well-thought-out maintenance and service concept is perfectly geared to the requirements of the workshop and service staff.

- Automatic lubrication system (optional) is designed to supply the required amounts of grease to the conveyor and auger bearings for optimal performance.
- Full-length side doors, a raised engine cowling and two maintenance openings on the operator platform give easy access to all paver components.
- Hydraulic pumps are neatly arranged with sufficient clearance for easy service access.
- The hydraulic system is equipped with all necessary test ports for service and troubleshooting.
- High level of commonality among all VÖGELE pavers simplifies maintenance and reduces training costs.

VÖGELE ErgoPlus®

The User-Friendly Operating System

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.

The example diagrams on the following pages will provide you with additional 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 Automatic 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 Strong Points 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 arranged in logical groups on the paver operator's console for intuitive operation that is easy to learn.
- Easy operation of VÖGELE NIVELTRONIC Plus®, the System for Automatic 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. In case of need, it offers the great advantage of easy replacement of single modules without having to replace the entire unit.

ErgoPlus® Paver Operator's Console

ErgoPlus® Screed Console

ErgoPlus® Operator Stand

THE ErgoPlus® PAVER OPERATOR'S CONSOLE

Full Control for the Machine Operator

THE ErgoPlus® PAVER OPERATOR'S CONSOLE

Clear and Logical Arrangement of Controls

The ErgoPlus® paver operator's console has been designed according to practice-related principles. All controls are clearly arranged. Paver functions are clustered in logical goups so that operators find their controls where they suppose these should be.

On the ErgoPlus® console, all push-buttons are easily identifiable by touch even when wearing work gloves. Once a button is pressed, off you go. This is due to the "Touch and Work" principle. This means that a function is executed directly – without a need to confirm.

As darkness falls, the paver operator's console is back-lit automatically, as you have it in your car. This makes night-time work easy and relaxed.

- **Module 1:** 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.

Examples of Paver Functions


Reversing Conveyor Movement
In order to avoid material 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 material from the rear of the conveyor tunnel back inside, takes place for a short time only and stops automatically.


No-Load Function
The No-Load function is provided for warm up or cleaning of conveyors and augers.

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® 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 the 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.

Display of the Paver Operator's Console
The large, easy-to-read display shows vital information on menu level 1 – such as the positions of the screed tow point cylinders or the paving speed. Set-up of further paver functions such as speed for vibration or feed rate for the conveyors can easily be made via the display, too. And the display gives access to machine-related information such as fuel consumption or service hours.

Hopper Wings and Hydraulic Hopper Apron (Optional)
The hydraulically operated hopper apron prevents spills of material when feed trucks change.
The two hopper wings can be folded separately or both together at the push of a button.


Choice of Engine Speed Ranges
For the engine, 3 modes exist to select from: MIN, ECO and MAX. To swap 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 (Optional)
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.

With ErgoPlus®, the screed operator has the process of paving at his fingertips. All functions are intuitively and logically arranged.

The Screed Console
The screed console is designed in keeping with the conditions prevailing on the job site. For the functions operated from the screed console, push-buttons are provided. These are watertight and enclosed in a perceptibly raised ring, 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.

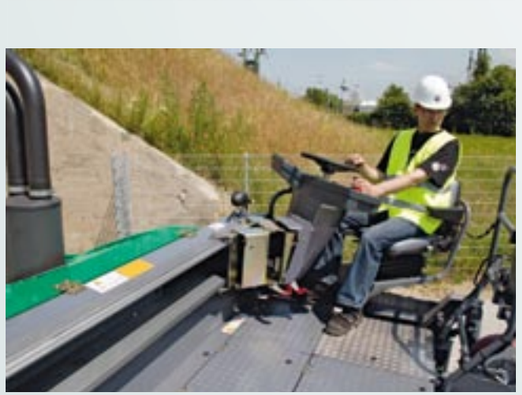
The Display of the Screed Console
The display of his console allows the screed operator to control and monitor both the left and the right side of the screed. Machine-related parameters such as vibration speed or conveyor speed can be adjusted conveniently via the display panel of the screed console. The clear menu structure, combined with easily understandable, universal symbols neutral in language, makes operating the display panel both simple and safe.

NIVELTRONIC Plus® (Optional)
NIVELTRONIC Plus®, the cutting-edge VÖGELE System for Automatic 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 cylinders 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".

THE ErgoPlus® OPERATOR STAND

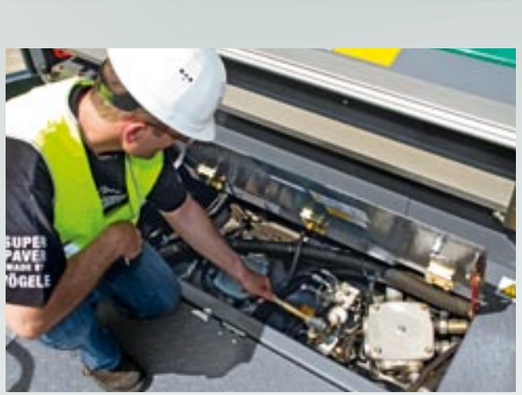


Excellent All-Round Visibility

- The comfortable, raised operator platform (66 in. off ground level) gives an unobstructed view of all important areas of the paver such as hopper, steering guide, augers and screed. It allows the operator to easily monitor the paver's material feed. A low, sloped engine cowling guarantees an unobstructed view into the material hopper.
- Large deluxe operator seats swinging out to the sides and an optimally designed operator platform provide maximum visibility of the auger tunnel, permitting the paver operator to see the head of material in front of the screed at all times.

Working Comfort

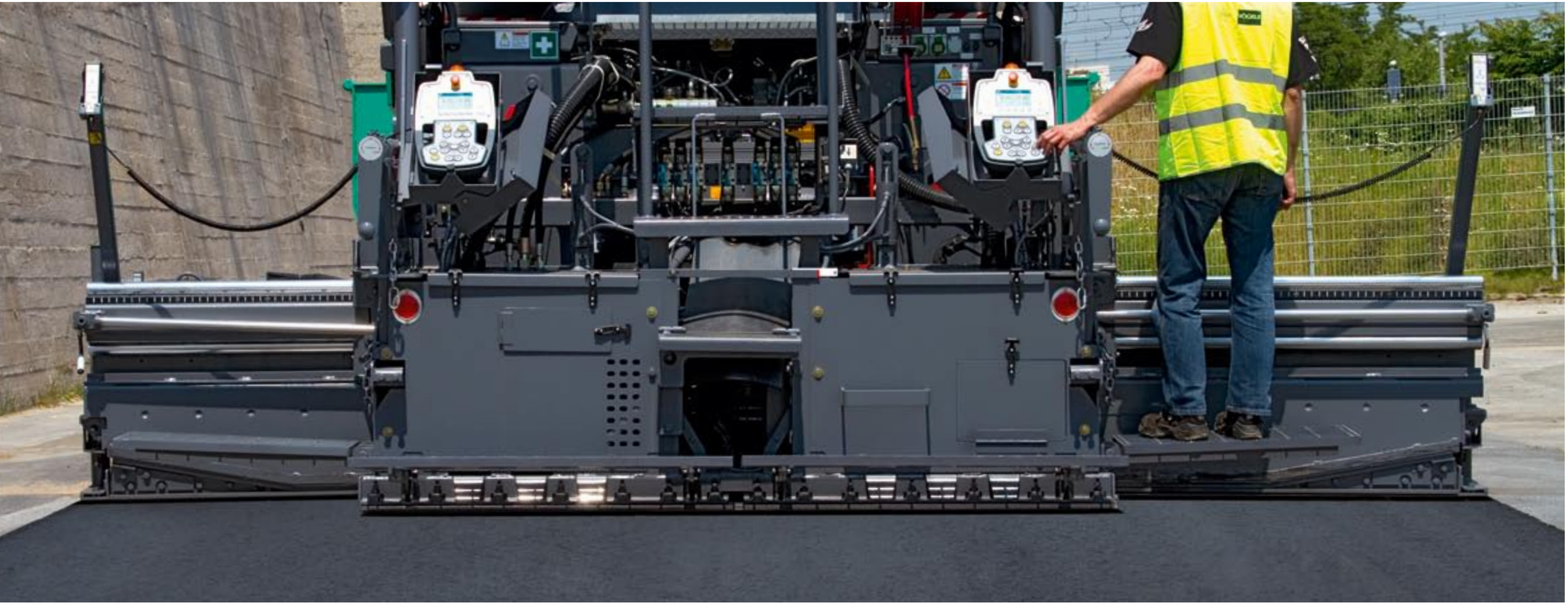
- The ergonomically designed operator environment allows for convenient and comfortable working conditions.
- Unique engine exhaust and fumes extraction provide low noise and no heat at the operator station.
  Friendly working conditions avoid operator errors and maintain maximum operator efficiency.



A Place for Everything and Everything in its Place

- The operator station includes a comfortable, streamlined design. It offers plenty of storage room so that the machine can be kept organized. (Onboard storage areas for water cooler, lunch boxes, tools, shovels, lutes and brooms).
- The operator console is protected by a cover to prevent unauthorized access and vandalism.
- The operator station also offers convenient and ergonomic access to vital areas for servicing.

Screed Options

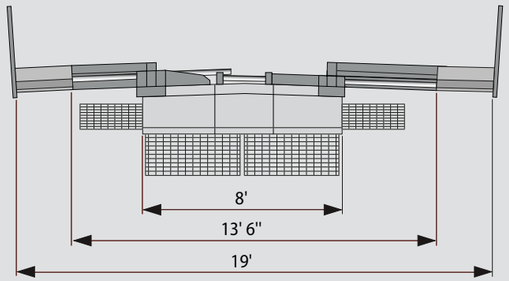


A powerful tractor calls for a screed to match. Each application has its particular requirements. It's the users' everyday applications that decide which screed is the right choice. These screeds are available for combination with VISION 5103-2:

- Carlson EZ III-08 Screed, no strike off, with front-mounted extensions for multivariable applications. Maximum paving width of 19 ft.
- Carlson EZ IV-815 Screed, no strike off, with front-mounted extensions for multivariable applications. Maximum paving width of 19 ft.
- **Electric Screed Heating**
  - A consistent surface texture is provided by uniform heating of the screed plates.
  - With the engine running at minimum rpm, the time required for the screed to reach the operating temperature is reduced substantially due to an intelligent generator management system. Typical heat-up time is 20 minutes.
  - With paver functions set to automatic, the generator management system activates alternating mode for screed heating (heats the screed alternately on the left and right), a feature which reduces engine wear and fuel consumption.

Screed Options

Example: Carlson EZ III-08 built up to maximum paving width



CARLSON EZ III-08

Screed with front-mounted extensions and no pre-strike off

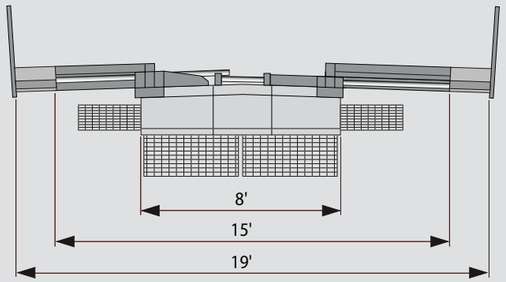
Paving Widths

- Basic paving range from 8 ft. to 13 ft. 6 in.
- Maximum paving width with bolt-on extensions 19 ft.

Weight

- 5,200 lbs.

Example: Carlson EZ IV-815 built up to maximum paving width



CARLSON EZ IV-815

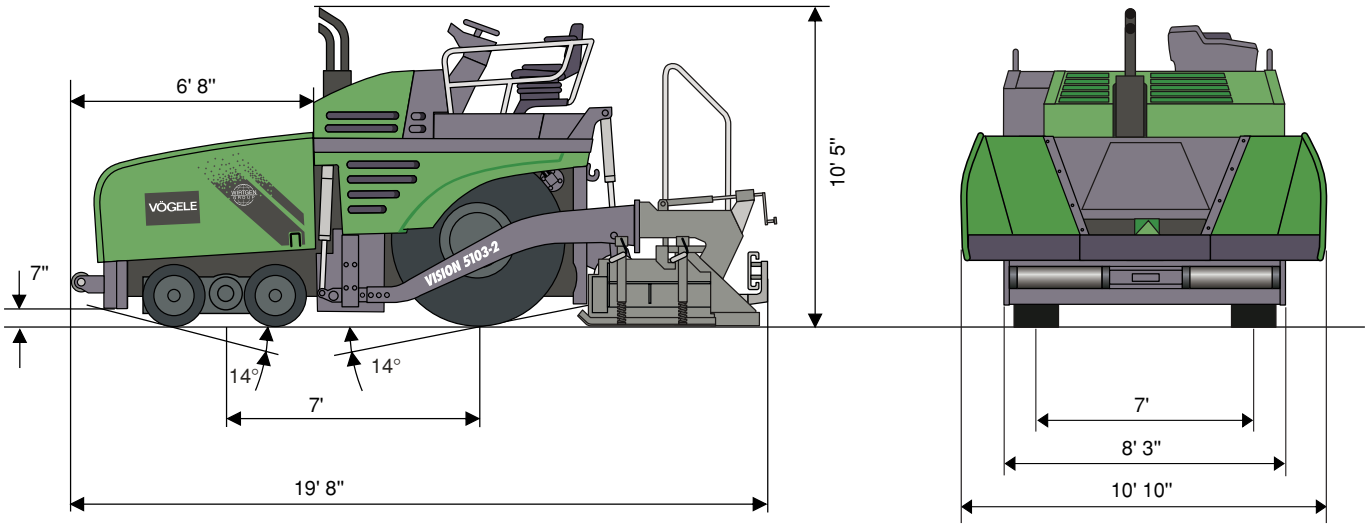
Screed with front-mounted extensions and no pre-strike off

Paving Widths

- Basic paving range from 8 ft. to 15 ft.
- Maximum paving width with bolt-on extensions 19 ft.

Weight

- 6,250 lbs.



Power Unit	
Engine:	6-cylinder CUMMINS diesel engine, liquid-cooled
Type:	QSB 6.7 C-170
Output:	Nominal: 170 h.p. at 2,000 rpm
	ECO Mode: 160 h.p. at 1,800 rpm
Fuel Tank:	66 gal. (US)
Electrical System:	24 V
Undercarriage	
Front Wheels:	4, mounted on pivoting bogies
Tire Equipment:	solid tires
Tire Size:	21.25 in. x 15.35 in.
Rear Wheels:	2, with high-floatation tires
Tire Size:	16.00 in. x 24 in.
Drive:	separate hydraulic drive and electronic control provided
	for each powered wheel
	Standard: 2 powered rear wheels
	Option: 2 powered rear wheels and 2 powered front wheels
Speeds:	Paving: up to 250 fpm, infinitely variable
	Travel: up to 12 mph, infinitely variable
Power Steering:	hydraulic
Service Brake:	amply-dimensioned multiple-disk brake operated by foot pedal
Auxiliary Brake:	hydrostatic
Parking Brake:	spring-loaded multiple-disk brake, maintenance-free
Material Hopper	
Hopper Capacity:	190 cu. ft. (24,480 lbs.) including conveyor tunnel
Width:	10 ft. 10 in.
Dump Height:	24 in. (bottom of material hopper)
Push-Rollers:	oscillating, displaceable forwards by 2 in. and 4 in.

Conveyors and Augers	
Conveyors:	2, with replaceable feeder bars, conveyor movement reversible
	Drive: separate hydraulic drive provided for each conveyor
	Speed: up to 102 fpm, infinitely variable
	(manual or automatic)
Augers:	2, with exchangeable auger flights, auger rotation reversible
	Diameter: 16 in.
	Drive: separate hydraulic drive provided for each auger
	Speed: up to 110 rpm, infinitely variable (manual or automatic)
	Auger Height: infinitely variable by 6 in., hydraulic
Lubrication:	with central lubrication, auto-lubrication available as an option
Screed Options	
Carlson EZ III-08:	basic width 8 ft., infinitely variable range 8 ft. to 13 ft. 6 in.
	maximum width 19 ft.
Carlson EZ IV-815:	basic width 8 ft., infinitely variable range 8 ft. to 15 ft.
	maximum width 19 ft.
Screed Version:	V
Layer Thickness:	up to 12 in.
Screed Heating:	electric by heating elements
Power Supply:	three-phase A.C. generator
Dimensions and Weights	
Length:	Tractor and Screed in Transport Position
	- Carlson EZ III-08 / EZ IV-815: 19 ft. 8 in.
Weights:	Tractor: 26,550 lbs.
	- Carlson EZ III-08: 5,200 lbs.
	- Carlson EZ IV-815: 6,250 lbs.
Optional Equipment	
	NIVELTRONIC Plus® for Automatic Grade and Slope Control (various grade sensors available). Separate washdown tank. Xenon lamps for working lights. Automatic lubrication system. For additional optional equipment, contact your VÖGELE representative.

Key: **V** = equipped with Vibration

Specifications subject to change without notice.

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