

Special Class

# MT 3000-2 Offset POWERFEEDER



Material feeder:  
Maximum conveying capacity 1,200t/h  
Pivoting conveyor  
ErgoPlus operating system



## High-tech for greater quality and cost efficiency



The **VÖGELE MT 3000-2 Offset** is a powerful, ultramodern material feeder whose outstanding feature is an uninterrupted, non-contacting material transfer, guaranteeing the maximum paving quality along with the greatest possible cost efficiency.

This is due, in part, to the innovative material conveying concept. With a large receiving hopper, a huge total storage capacity (material feeder and paver) and a peak conveying performance of 1,200t/h, this VÖGELE PowerFeeder can empty a full lorryload in just 60 seconds.

The conveyor of the MT 3000-2 Offset can be pivoted to the left and right, opening up a wide range of possible applications.

The ErgoPlus operating concept guarantees simple, reliable handling. Automatic distance control combined with anti-collision protection ensures that the material transfer runs smoothly.

That's why the MT 3000-2 Offset sets standards for top quality and competitiveness in road construction.

# The highlights of the MT 3000-2 Offset



**Wide range of applications** thanks to the pivoting and inclining conveyor

**Uninterrupted paving** thanks to a total storage capacity (material feeder and paver) of 45t with a conveying capacity of 1,200t/h

**Homogenized material** in the receiving hopper of the material feeder due to conical augers

**Maximum paving quality** thanks to non-contacting material transfer

**Reliable material transfer** based on automatic distance control and anti-collision protection

**Optimum overview and safety** thanks to the convenient and practical ErgoPlus operating system

**Enormous power** alongside low consumption from the powerful Deutz diesel engine delivering 142kW at 2,000rpm

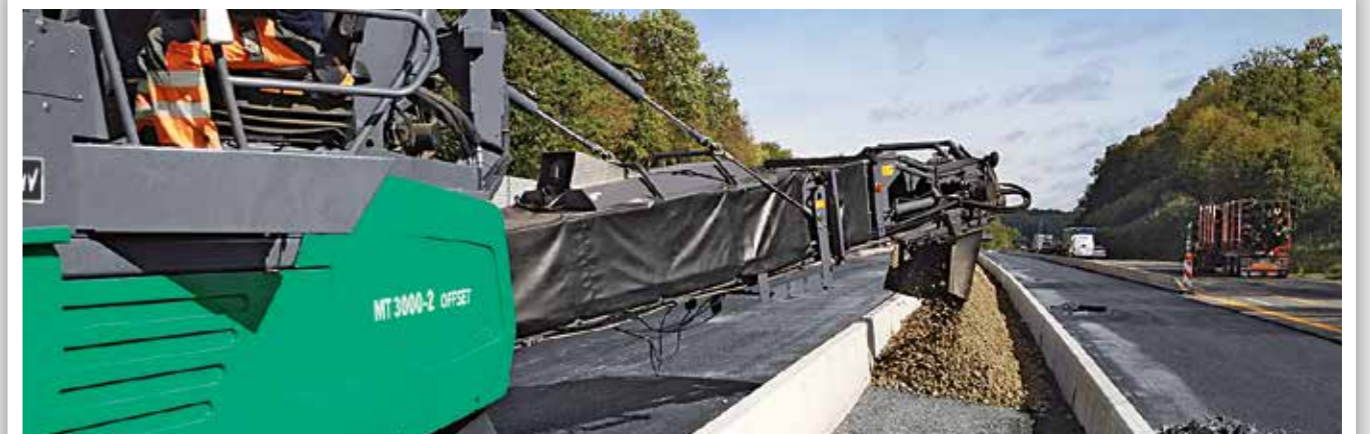
**Outstanding mobility on any terrain** and precision steering thanks to crawler tracks with powerful separate drives

# Powerful and versatile

The PowerFeeder MT 3000-2 Offset comes with a host of innovations. In particular, the pivoting conveyor is a major advantage. It allows the machine to be used in a wide range of applications, enabling high utilization: pavers can be fed with material from the side, e.g. when paving "hot to hot". Backfilling trenches or filling cavities between safety barriers in motorway construction are quick and easy tasks and paving work on hard shoulders is also supported without any problem.

What's more, the PowerFeeder MT 3000-2 Offset can handle more than just bituminous mixes. The conveying concept has been designed so that other materials such as topsoil, water-bound base course material or recycled material can be conveyed in addition to asphalt.

All these possible utilizations make the PowerFeeder MT 3000-2 Offset a technically and economically outstanding machine.



FILLING CAVITIES BETWEEN SAFETY BARRIERS



CONVENTIONAL FEEDING



FEEDING PAVERS WHEN WORKING "HOT TO HOT"



FEEDING FROM THE SIDE

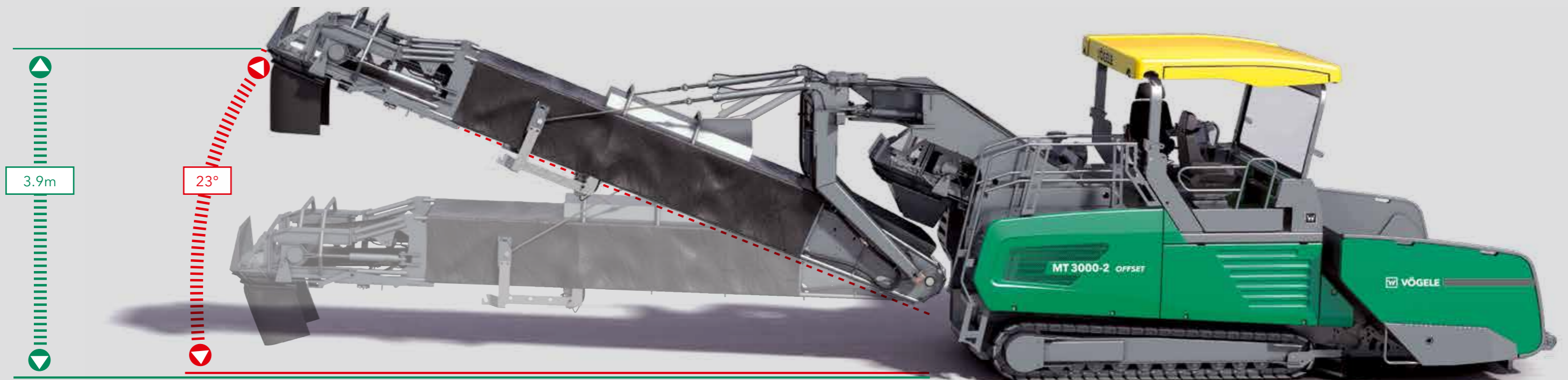
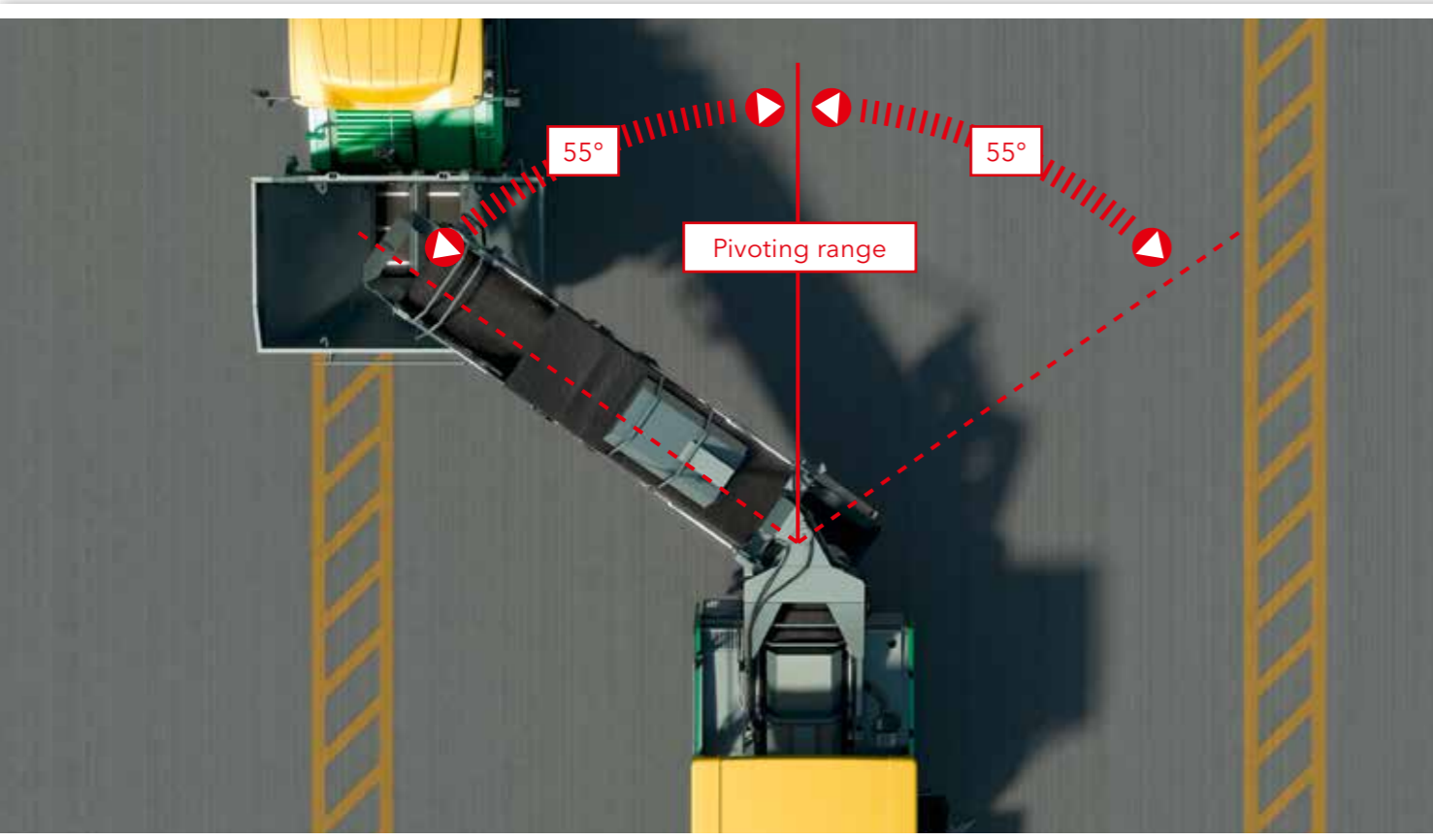


FEEDING PAVERS IN AN INLINE PAVE TRAIN

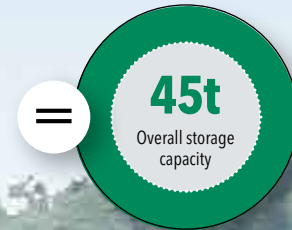
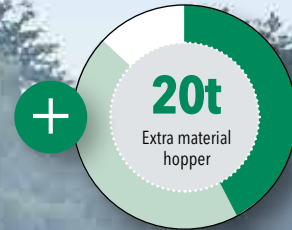
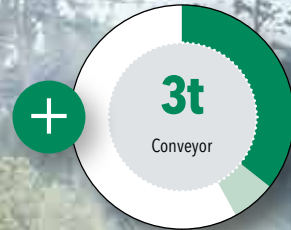
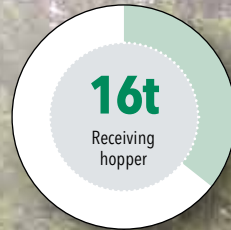
# Pivoting and inclining conveyor for high versatility

**Pivoting 55° to the left or right**, the conveyor is a key factor behind the versatility of the MT 3000-2 Offset. The maximum distance from the outside edge of the material feeder to the centre of the discharge point is 3.5m.

The conveyor can also be raised by up to 23° from the horizontal to a discharge height of 3.9m.



# Maximum conveying capacity for non-stop paving



If the paver stands idle because of a shortage of material, the paving quality suffers. Consequently, a continuous supply of mix is one of the most decisive quality factors.

The powerful conveying concept of the VÖGELE PowerFeeder MT 3000-2 Offset transfers up to 1,200t of material per hour. That means a 25t feed lorry can be emptied in just 60 seconds. The team of two, comprising material feeder and paver, feature a material storage capacity of 45t,

equivalent to almost two complete lorryloads. That allows the team to work continuously and ensure maximum pavement evenness at all times, without interruption.

But it is not just the quality that improves. Non-stop paving is also a key requirement if high daily laydown rates of 4,000t and more are to be achieved and major road construction projects are to be completed more quickly and economically.

» **Large receiving hopper** holding more than 16t.

» **Powerful augers with large auger blades** (400mm) in the feeder's receiving hopper ensure conveyance of the mix without residues.

» **As an alternative** to the standard augers, conical augers are available for the receiving hopper of the material feeder to ensure effective thermal homogenization of the paving material.

» **The trough-shaped conveyor belt** centres the material during transfer and provides for a clean flow of mix without spills.

» **1.1m-wide conveyor** capable of transferring up to 1,200t of mix per hour.

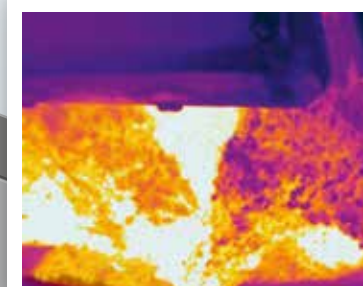
» **Tensioning rams guiding the rubber belt** ensure centre alignment of the belt. A smart automatic system accurately adjusts the belt tension as required.

» **Innovative diesel heating** keeps the conveyor at a good temperature to prevent the material from sticking.

## Material management – A success factor



# The VÖGELE material conveying concept

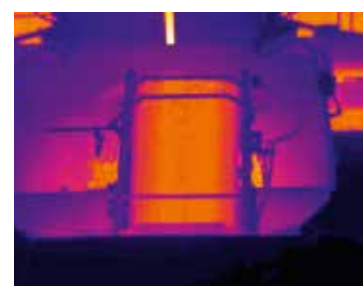


### Receiving hopper

The infrared image shows how the transverse conical augers homogenize all the material in the feeder's receiving hopper by mixing the potentially cooler asphalt from the sides with the warmer material from the middle of the hopper.

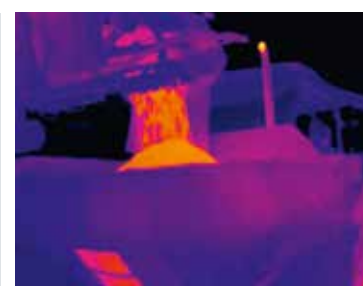
### Conveyor belt

The homogenized material is conveyed gently on the trough-shaped conveyor belt to the extra material hopper in the road paver.



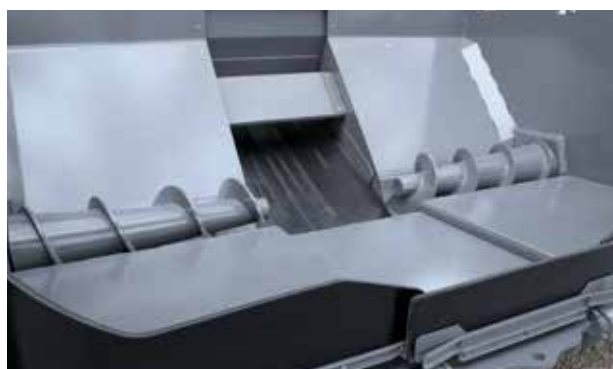
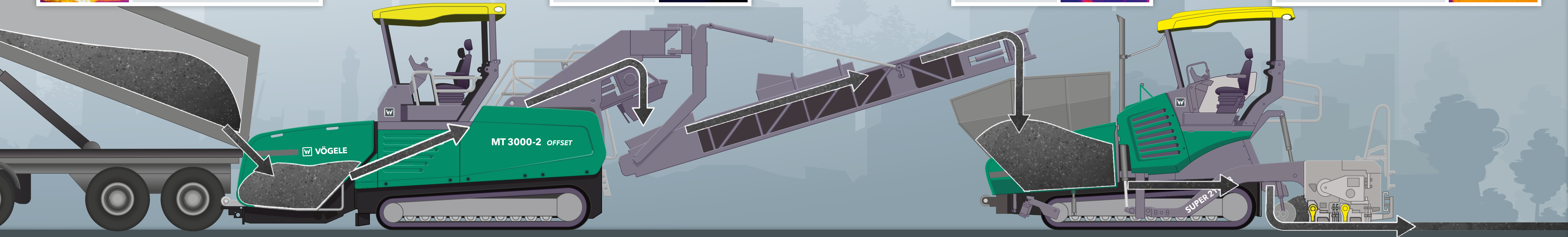
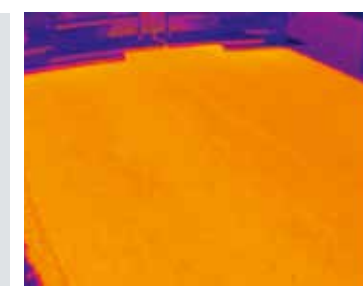
### Extra material hopper

The specially designed extra material hopper in the paver effectively prevents any material from sticking.



### The result

The technical measures ideally complement one another, so that the paving material is in an optimal condition when being laid. VÖGELE technology not only counteracts thermal segregation, but also mechanical segregation.



### Conical augers

The conical shape prevents the formation of "tunnels" in the material and ensures that it is withdrawn evenly from all areas of the receiving hopper. And because fresh hot mix is constantly being fed in from the outside, it is thermally homogenized.



### Trough-shaped conveyor belt

The trough-shaped conveyor belt provides for stable material transfer and thus counteracts mechanical segregation. This in turn ensures that the mix quality is maintained in every phase of conveying, up to the point of paving – without mix being lost.



### Innovative diesel heating

In order to ensure optimum material management, a specially developed diesel heating system with non-contacting infra-red panels maintains the correct temperature of the conveyor belt. The path of the material is pre-heated before the transfer of material begins.



### Extra material hopper in the paver

In order to optimize the flow of material, the extra hopper for the paver was also designed without superfluous corners and edges. Smooth transitions and steep walls prevent the material from accumulating and blocking the flow of mix. The entire quantity of mix is thus continuously fed into the paving process with no possibility of any cooling.



# Non-contacting material feed process

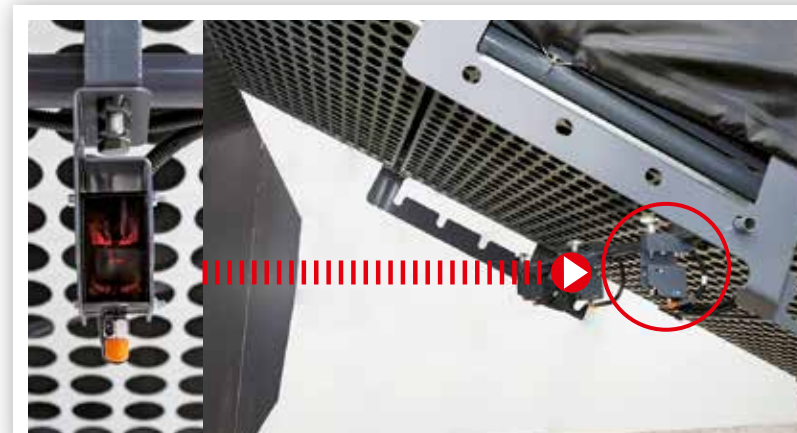


**The non-contacting transfer of material** is one of the key criteria for high paving quality. Decoupling the feeding from the paving process prevents any jolts from the feed lorry from being transmitted to the paver.

A non-contacting distance control system ensures the correct space between paver and material feeder. Three laser sensors permanently measure

the space between the two machines so that the control system can automatically adjust the speed of the material feeder to that of the paver.

The system also automatically prevents the paver from colliding with the feeder. If the material feeder has to stop unexpectedly, the paver is also stopped automatically as soon as the distance between the two machines falls below the set minimum.



The distance control system of the MT 3000-2 Offset is a redundant system comprising three single laser sensors. That means that the space between paver and material feeder remains constant even if one or more sensors is obscured, e.g. by workers moving past.

## The ErgoPlus operating concept



The **ErgoPlus operating system** comprises a well organized operator platform, the feeder operator's console with its modular design and ergonomic driver seats. This design puts the machine operator at the heart of things, guaranteeing comfort, safety and a good overview of the job site at all times.

The centrepiece is the feeder operator's console. All the controls required for main and frequent functions are arranged in logical groups. Operation is intuitive and hence easy to learn. In fact, for the majority of applications only one person is needed to operate the material feeder.



## The operator's ErgoPlus console



***“Full control for the machine operator”***

# The operator's ErgoPlus console

Clear and logical arrangement of controls

The feeder operator's console has been designed with user convenience and a clear overview in mind, with all functions arranged in logical groups for rapid access. Once a button is pressed, a function starts directly. This is due to the "Touch and Work" principle.

As darkness falls, the feeder operator's console is back-lit automatically, which makes night-time work easy and relaxed. On the ErgoPlus console, all push-buttons are clearly identifiable by touch even when wearing work gloves.

## Examples of feeder functions

### Repositioning at the press of a button

The simple press of a button is all that's needed for the machine to turn almost on the spot, requiring just a minimum of space. Mounted on tracks, the VÖGELE PowerFeeders boast an extremely small turning circle. This is a great advantage in confined spaces in particular, and allows quick and safe repositioning of the machine from one work section of the job site to another.



### Automatic distance control (option)

Automatic distance control adapts the material feeder's speed automatically to the paver's speed. As a result, a constant distance between the paver and the feeder is maintained at all times. The feeder operator can concentrate exclusively on the transfer of material. The laser-based distance control system allows two different distances to be stored.



### Choice of operating modes

On the ErgoPlus console, four different feeder operating modes can be selected from. By pressing the arrow buttons, up or down, the operator changes modes in the following order: "Neutral", "Job Site", "Positioning" and "Material Transfer". A LED indicates the mode selected.



- ..... **Module 1:** Traction
- ..... **Module 2:** Material conveyance
- ..... **Module 3:** Receiving hopper and steering
- ..... **Module 4:** Display for monitoring and adjustment of basic settings

### Display panel of the feeder operator's console

The large, easy-to-read display panel shows vital information on menu level 1 such as the current operating speed and the level of mix in the paver's material hopper. Further parameters such as the feed rate and the distance from the paver can be easily set on the display panel. And the display gives access to machine-related information such as fuel consumption or service hours.



### Steering with preselected steering angle

For long curves with a constant radius, the desired track position can be preselected using arrow keys. As long as the function is not deactivated, the material feeder automatically follows the curve with no need for operator intervention.



### Choice of engine speed ranges

For the engine, there is a choice of three modes to select from: MIN, ECO and MAX. To switch modes for engine rpm, all the operator needs to do is press the arrow buttons, up or down. In ECO mode, the engine delivers sufficient power for a great number of applications. Operating in ECO mode reduces noise emission and fuel consumption considerably.



### Automatic conveyance of mix

When pushing the "Material Transfer" button, all conveying systems are activated in Automatic mode. The speeds of the transverse augers and the conveyor belts are optimally matched to one another. A sonic sensor monitors the quantity of material conveyed and automatically adapts the feed rate as required.



# The ErgoPlus operator's stand



**Excellent all-round visibility**

The comfortable operator's stand gives an unobstructed view of all crucial areas on the feeder such as receiving hopper, steering guide or discharge point from the conveyor. This way, the material feeder can easily be operated by one person.



**Two operator seats**

For complex feeding tasks, operation of the pivoting conveyor can be taken over by a second operator. The arrangement of the pivot-mounted seats provides for maximum all-round visibility. It allows the operators to conveniently monitor the mix supply from the feed lorries on the one hand and the discharge point from the conveyor on the other.



**Working comfort**

A few adjustments are all it takes for the feeder operator to position his console exactly to meet his personal needs. It can be displaced across the full width of the operator's stand, swivelled out to the sides and tilted. This allows an ergonomically optimized workplace to be set up in no time at all.



**Precision control**

The pivoting conveyor is controlled via a joystick in the armrest of the operator's seat. The joystick is used for top-precision control when pivoting the conveyor to the left or right, when raising or lowering it as well as when selecting the conveying capacity.

To raise or lower the conveyor, the operator moves the joystick towards or away from himself; to pivot the conveyor, the joystick is tilted to the left or right.

The Emergency Off button stops the material transfer process immediately should a problem occur.



**Clear structure**

The operator's stand, with its streamlined design, is well organized, offering the feeder operator 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.



**Weatherproof hardtop**

The modern hardtop made of glass fibre-reinforced polymer material shelters the operator come rain or shine. It can be lowered effortlessly to the transport position by means of a manually operated hydraulic pump. Wide, easily extendable sunshades give the operator optimal protection even when his seat is moved out.

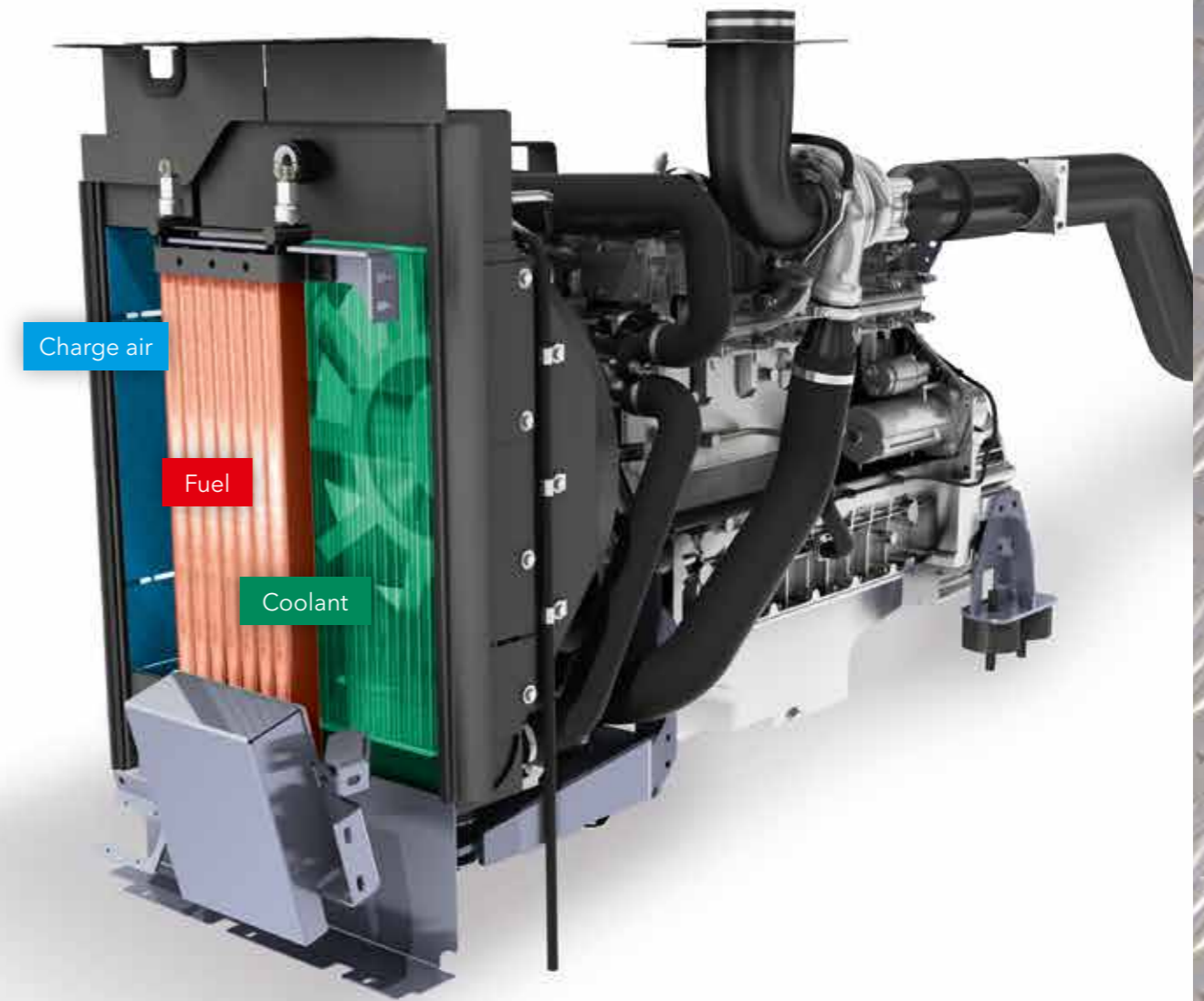
# Modern drive technology

**Three main components** define the power unit of an MT 3000-2 Offset: 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 Deutz diesel engine of type TCD 2012 L06 2V. This six-cylinder engine delivers 142kW at 2,000rpm. Yet the fuel-saving ECO mode is sufficient for many applications. And even then, the MT 3000-2 Offset still has a full 139kW at its disposal. Moreover, the machine generates even less noise when running at just 1,800rpm.

A large cooler assembly ensures that the power unit always delivers its full output. The temperatures of the diesel engine, charge air, fuel and hydraulic oil are constantly maintained within the optimum range, a factor which contributes significantly to the durability of the diesel engine and the hydraulic oil. A further advantage is that the machine can operate without difficulty in all climate regions worldwide.

The machine can be equipped with an electrical package for the supply of power. This contains a 230V socket, heating rods for the conveyor scraper and two connections for light balloons. A powerful three-phase A.C. generator supplies the electrical energy required.



*An optimally designed cooling system comprising a large cooler assembly and a separately mounted hydraulic oil cooler provides excellent cooling, even during full-load operation.*

» **Powerful Deutz diesel engine** with an output of 142kW at 2,000rpm.

» **The large fuel tank** holds 450 litres for more than a day's work without a need for refuelling.

» **Low average fuel consumption** of 12 litres/h\*.

» **An ECO mode** (139kW at 1,800rpm) cuts operating costs and allows particularly quiet operation.

\* The indicated consumption is based on an average daily laydown rate of 2,400t and may vary according to job site conditions.

# Mobile in every way



The **VÖGELE MT 3000-2 Offset** features high mobility and superb manoeuvrability on the job site.

Its long crawler tracks deliver maximum traction thanks to their large footprint. The powerful, electronically controlled separate drives integrated right into the sprockets of the crawler tracks translate engine output into tractive effort with no loss of power.

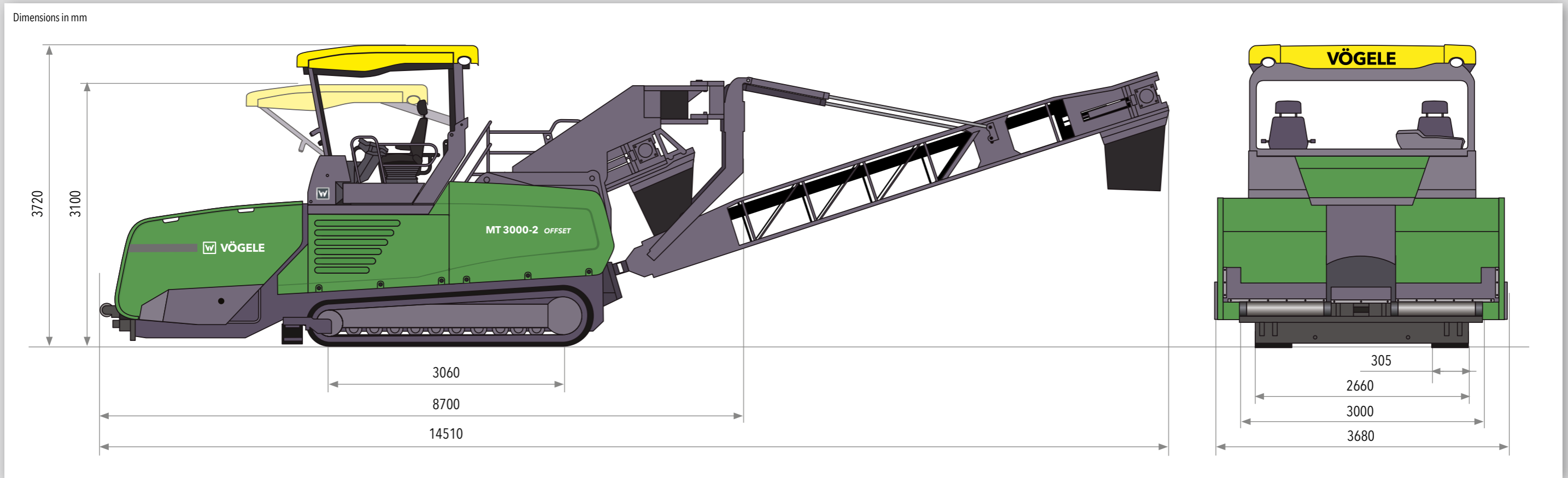
The material feeder pushes large feed lorries with ease even on difficult terrain. Precise steering, stable tracking when moving straight and exact cornering are not a problem for the MT 3000-2 Offset.

Mounted on crawlers, the MT 3000-2 Offset features high mobility, a great advantage on every job site. The machine is capable of turning on the spot and gets on well even on terrain with slopes and inclines. This is particularly helpful on sites where structures such as bridges etc. need to be by-passed.



**Thanks to the accurate steering** of its crawler tracks, even difficult terrain is no problem for the MT 3000-2 Offset. In terms of traction, too, the VÖGELE drive concept leaves nothing to be desired.

# All the facts at a glance



Power unit	
<b>Engine</b>	6-cylinder diesel engine, liquid-cooled
Manufacturer	Deutz
Type	TCD 2012 L06 2V
<b>Output</b>	
Nominal	142kW at 2,000rpm (according to DIN)
ECO mode	139kW at 1,800rpm
<b>Exhaust emissions standard</b>	EU Stage 3a, US EPA Tier 3
<b>Fuel tank</b>	450 litres

Undercarriage	
<b>Crawler tracks</b>	provided with rubber pads
Ground contact	3,060 x 305mm
<b>Traction drive</b>	separate hydraulic drive and electronic control provided for each crawler track
<b>Speeds</b>	
Operating	up to 25m/min., infinitely variable
Travel	up to 4.5km/h, infinitely variable
<b>Steering</b>	by alteration of track running speeds
<b>Brake</b>	multiple-disk brake locked on automatically without oil pressure

Material conveying systems	
<b>Transverse augers</b>	2, installed in the receiving hopper
Standard	cylindrical augers
Diameter	400mm
Optional	conical augers for homogenization of the material
Drive	separate hydraulic drive
Speed	79rpm
<b>Conveyors</b>	2 continuous rubber conveyor belts
Drive	separate hydraulic drive
Belt width	1,100mm
Heating	infrared heating panels, diesel-powered
Pivoting conveyor	hydraulically pivoting
Pivoting angle	55° to the left or right
Reach	3,500mm (outside edge of feeder to centre of discharge point)
Transfer height (max)	3,900mm
<b>Conveying capacity (max)</b>	1,200t/h*

Receiving hopper	
<b>Holding capacity</b>	16.4t
<b>Width</b>	3,680mm (hopper sides extended)
<b>Feed height</b>	600mm (bottom of receiving hopper)
<b>Push-rollers</b>	oscillating
Extra material hopper	
<b>Holding capacity</b>	20 – 24t (to be placed into the material hopper of the paver)
Dimensions (transport) and weight	
<b>Length</b>	14,820mm
<b>Width</b>	3,000mm
<b>Height</b>	3,100mm
<b>Weight</b>	23.8t

\*dependent on type of mix

Subject to technical modification.





Your VÖGELE QR Code will take you directly to the "MT 3000-2 Offset" on our website.



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