

Special Class

MT 3000-2 Standard

POWERFEEDER



Material feeder:

Maximum conveying capacity 1,200t/h

Large receiving hopper with a capacity of 16.4t

ErgoPlus operating system



High-tech for greater quality and cost efficiency



Extremely level and durable pavements are not a matter of chance, but are the result of clearly defined quality factors. Every interruption, e.g. because the supply of material has run out, every jolt due to the lorry docking on to the paver and any segregation of the mix is immediately evident in the quality of the built road.

Using a material feeder prevents all these problems that impair quality. As the link between mix lorry and road paver, it continuously supplies the paver with material – without any physical contact. So it is hardly surprising to find that material feeders are increasingly being stipulated as mandatory equipment in invitations to tender.

The PowerFeeder MT 3000-2 Standard from VÖGELE is a machine that ticks all the boxes in terms of quality and cost-efficiency.

MT 3000-2 Standard

The highlights of the MT 3000-2 Standard



High-performance feeder concept in combination with the large 16.4t receiving hopper allows even large mix lorries to be emptied in just 60 seconds

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

Maximum paving quality thanks to uninterrupted and non-contacting supply of material to pavers

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

Optimum overview and safety thanks to the convenient fit-for-purpose 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 provided by crawler tracks with powerful separate drives

Cost-effective transport on a standard trailer thanks to the low transport height and ideal weight

Classic feeding of large material quantities



The VÖGELE PowerFeeder MT 3000-2 Standard is the machine of choice on large road building projects, such as the construction or rehabilitation of highways and when pavements are required in particularly thick layers or in large jointless widths. Only a material feeder can guarantee an uninterrupted supply of mix and non-stop paving on construction projects like these.

But quality is not the only aspect to benefit. Non-stop paving is also essential for achieving high daily laydown rates of 4,000t and more and for completing large projects quickly and more cost-efficiently.

The use of the PowerFeeder MT 3000-2 Standard is not confined to bituminous mixes alone. The feeder concept has been designed so that other materials can be conveyed in addition to asphalt, such as topsoil, water-bound base course materials or recycled materials.



Maximum conveying capacity for non-stop paving



The powerful conveying concept of the VÖGELE PowerFeeder MT 3000-2 Standard is capable of conveying up to 1,200t of material per hour. In this way, a 25t feed lorry can be emptied completely in just 60 seconds.

This allows the paving team to work continuously at all times, without interruptions and with maximum surface accuracy.

However, because paving results also depend to a large extent on the quality of the mix, VÖGELE's modern material conveying technology also includes many features which ensure that the material is supplied in optimum condition for paving.

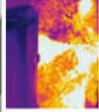
All of these technical measures are designed to work together, their objective being gentle handling of the material.

- » **Large receiving hopper** holding 16.4t.
- » **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.

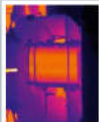
MT 3000-3 Standard

The VÖGELE material conveying concept



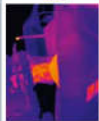
Receiving hopper

This hopper design shows how the intensive radial support from the sides of the material in the feeder's receiving hopper by making the potentially conical material flow from the sides with the warmer material from the middle of the hopper.



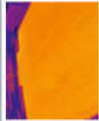
Conveyor belt

The specially shaped material flow on the conveyor belt is supported by the rough-shaped conveyor belt to the extra material hopper in the road paver.



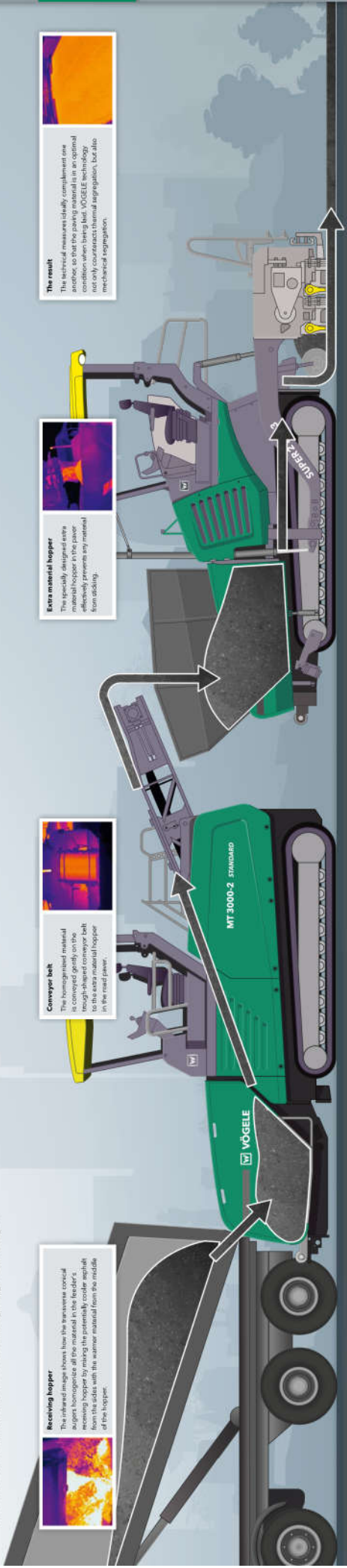
Extra material hopper

The specially shaped extra material hopper effectively prevents any material from sliding.



The result

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



Conical hoppers

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



Rough-shaped conveyor belt

The rough-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 mixing loss.



Innovative diesel heating

In order to ensure optimum material management, a specially developed diesel heating system with non-contacting infrared 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. 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 the transmission of jolts from the feed vehicle to the paver when docking.

A robust mechanical distance control system ensures that the correct space is always maintained between road paver and material feeder. It is based on an inductive angle sensor operating practically wear-free.

A collision protection system in the form of a contact bar on the paver's extra material hopper rounds off the system. If the MT 3000-2 Standard stops for any reason whatsoever, the switch on the contact bar brings the paver to an immediate halt, thus eliminating all risk of a collision.

The operator can concentrate entirely on the transfer of mix.



As soon as pressure is applied to the contact bar, the collision protection system ensures that the paver following the material feeder comes to an immediate halt.

MT 3000-2 Standard

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, the console returns to its default state. This is due to the "Touch and Work" principle.

At darkness fall, the feeder operator's console is backlit 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.




- **Model 1:** Tractor
- **Model 2:** Material conveyance
- **Model 3:** Receiving hopper and weighing
- **Model 4:** Display for monitoring and adjustment of basic settings

Examples of feeder functions

Repeatable at the press of a button

This specific group of buttons is all that is needed for the machine to turn around on the spot, requiring just a minimum of space. Mounted on the side, this is a great advantage in confined spaces in particular, and a reduction of the job risk to zero.



Automatic distance control (option)

Automatic distance control adapts the receiver's speed between the gear and the feeder. It is maintained at all times, so that the receiver can rotate exclusively for the transfer of material.



Choice of operating mode

On the ErgoPlus console, four feeder operating modes can be selected: on by pressing the up or down button, the "Receiving" and "Material Transfer" (LED indicator, the mode selected).




Display panel of the feeder operator's console

The large, adjustable display panel shows real-time information on many levels, such as the current operating speed and the level of the hopper. The display panel is also equipped with a touch screen. The feed rate and the distance from the paper can be easily set on the touch screen. The display panel also shows other related information such as fuel consumption or service hours.



Steering with preselected steering angle

For long courses at a constant speed, the desired track position can be preselected using simple touch controls. The steering angle is then automatically set by the machine's control system.



Choice of engine speed ranges

For the engine, there is a choice of three modes to select from: MIN, ECO, and MAX. The engine speed can be adjusted up or down in ECO mode. Operating in ECO mode reduces exhaust emissions and fuel consumption considerably.



Autonomous weight of fuel

When using the "Material Transfer" function, the quantity of material is automatically adjusted in automatic mode. This speed of the burner is a general function that can be used in all modes. The quantity of material is automatically adjusted in automatic mode.



The ErgoPlus operator's stand



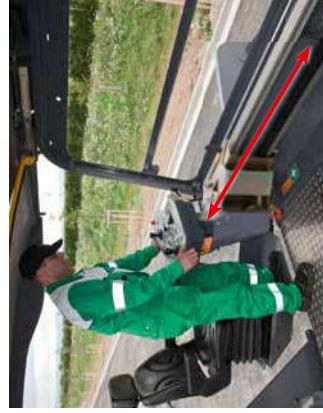
Excellent all-round visibility

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.



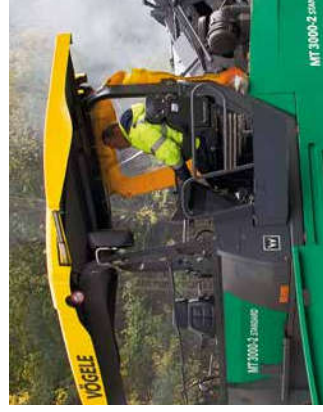
Two operator seats

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.



Weatherproof hardtop

The **modern hardtop** made of glass fibre-reinforced polymer material shelters the operator from 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.



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.



Easy access to all maintenance points

Large panels give convenient access to all maintenance points.

All hydraulic pumps are located on the transfer gearbox and provide maximum service-friendliness thanks to their clear arrangement and easy accessibility.

Service indicators and readily accessible measuring points facilitate diagnosis and service.

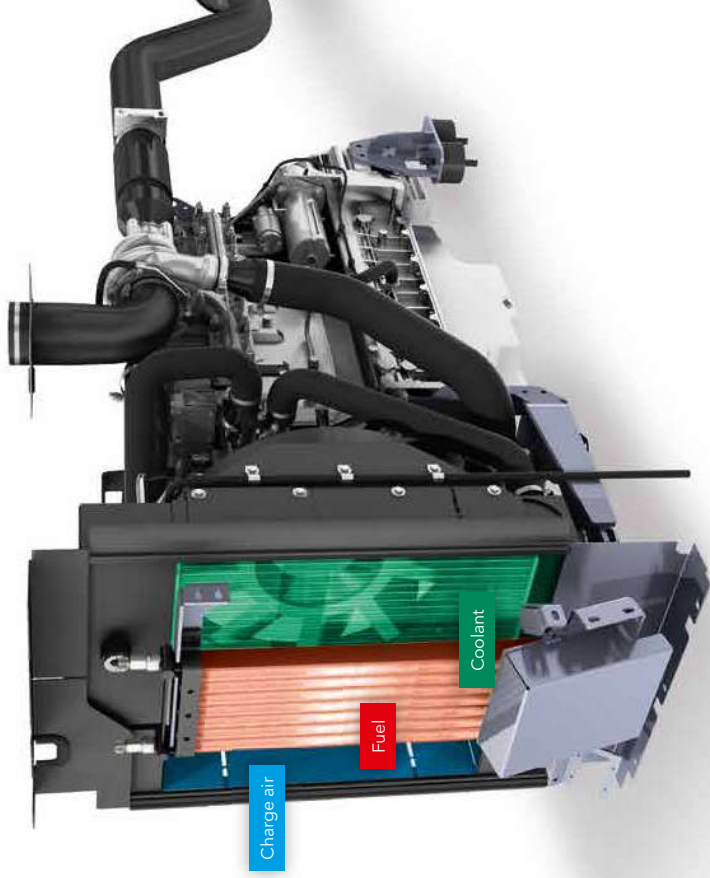
Modern drive technology

Three main components define the power unit of an MT 3000-2 Standard: 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 Standard 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 11 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 bydown rate of 2,400 and may vary according to job site conditions.

Mobile in every way

The **VÖGELE MT 3000-2 Standard** 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 PowerFeeder.

The MT 3000-2 Standard owes its manoeuvrability to the tracked undercarriage, 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.



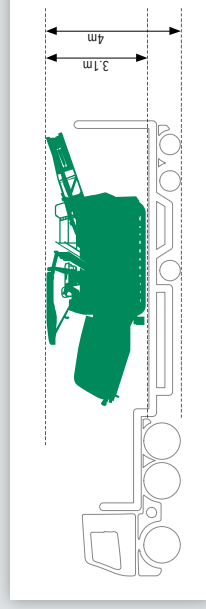
Thanks to the accurate steering of its crawler tracks, even difficult terrain is no problem for the MT 3000-2 Standard. In terms of traction, too, the VÖGELE drive concept leaves nothing to be desired.

Easy transport

Transporting a material feeder is a cost factor that should not be underestimated. The VÖGELE MT 3000-2 Standard was designed for optimum transport right from the outset.

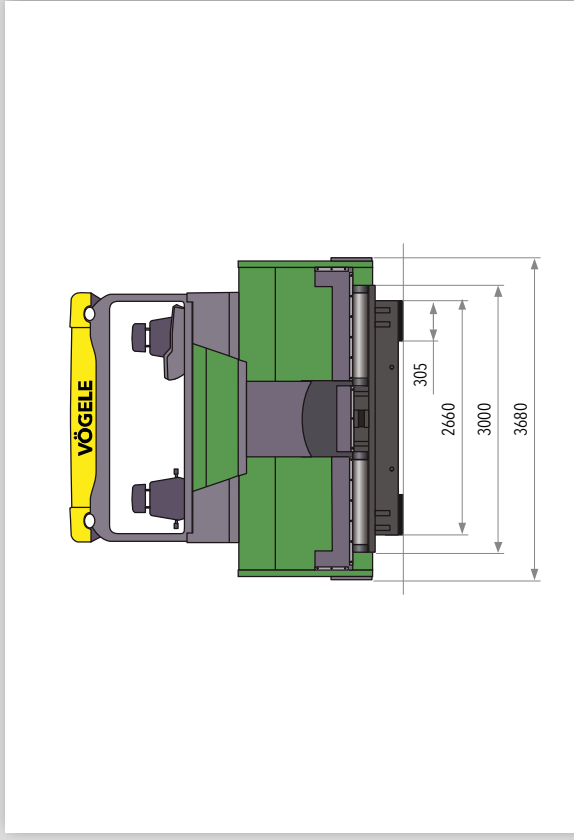
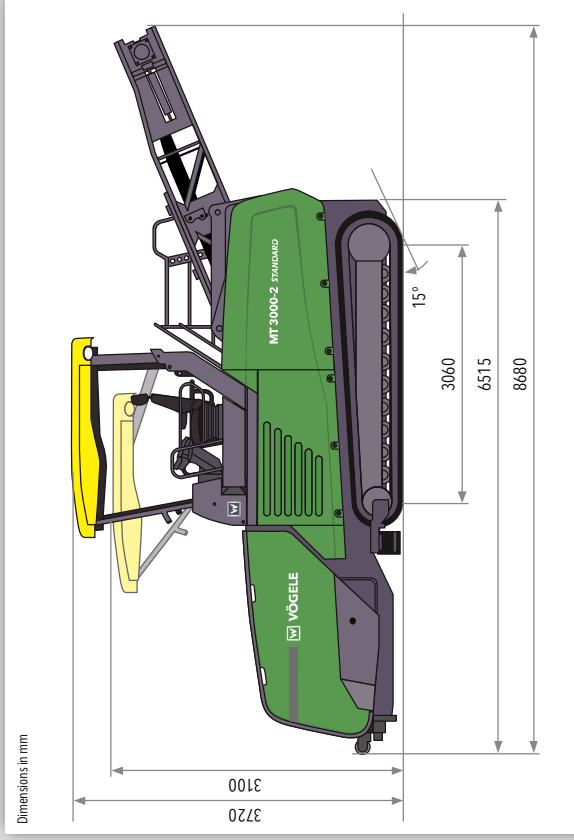
The transport height of 3.1m, transport width of 3m and an outer track width of 2.66m are dimensioned to allow the MT 3000-2 Standard to be transported on a conventional low-bed trailer.

Since the machine weighs less than 20t, lorry and material feeder together also weigh less than 40t. As a result, there is no need for special permits or time-consuming detours when transporting the MT 3000-2 Standard.



Thanks to its low transport height of 3.1m, the VÖGELE PowerFeeder can be transported on a normal low-bed trailer.

All the facts at a glance



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

Undercarriage	
Crawler tracks	provided with rubber pads
Ground contact	3,060 x 305 mm
Traction drive	separate hydraulic drive and electronic control provided for each crawler track
Speeds	Operating up to 2.5 m/min., in finitely variable
Travel	up to 4.5 km/h., infinitely variable
Steering	By alteration of track running speeds
Brake	multiple disk brake locked on automatically without oil pressure

Material conveying systems	
Transverse augers	2, installed in the receiving hopper
Standard	cylindrical augers
Diameter	400 mm
Optional Drive	conical augers for homogenization of the material separate hydraulic drive
Speed	79 rpm
Belt conveyor	1, with hydraulic drive
Belt width	1,100 mm
Conveying capacity (max)	1,200 t/h*
Receiving hopper	
Holding capacity	16.4t
Width	3,680 mm (hopper sides extended)
Feed height	600 mm (bottom of receiving hopper)
Push-rollers	oscillating

Extra material hopper	
Holding capacity	20 – 24t (to be placed into the material hopper of the paver)
Dimensions (transport) and weight	
Length	8,950 mm
Width	3,000 mm
Height	3,100 mm
Weight	19.2t

*dependent on type of mix

Subject to technical modification.



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



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