Material feeder:
Maximum conveying capacity 1,200t/h
Pivoting conveyor
ErgoPlus operating system
The VÖGELE MT 3000-2i 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 3000-2i 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 3000-2i Offset sets standards for top quality and competitiveness in road construction.
The highlights of the MT 3000-2i 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 160kW at 2,000rpm

Outstanding mobility on any terrain and precision steering thanks to crawler tracks with powerful separate drives
The PowerFeeder MT 3000-2i 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 3000-2i 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 3000-2i Offset a technically and economically outstanding machine.
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 3000-2i 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.
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 3000-2i 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

The infrared image shows how the transverse conical augers homogenize all of 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.

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.

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.

Innovative diesel heating

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. This transverse feed ensures that fresh hot mix is constantly being fed into the outlet, if a thermally homogenized mixture is desired.

The VÖGELE material conveying concept

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 efficiently prevents any material from sticking. The result is the perfect paving of the road surface.

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

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The result

The technical measures ideally complement one another, so that the paving material can be processed in an optimal condition when being laid. VÖGELE technology not only counteracts thermal segregation, but also mechanical segregation.
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 3000-2i 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

Examples of feeder functions

- Repositioning at the press of a button
- Automatic distance control (optional)
- Choice of operating modes

The feeder operator’s console has been designed with user convenience and a clear structure in mind, with all functions arranged in logical groups for easy 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.

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.

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.

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.

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.

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.

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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.
Powerful drive technology

Three main components define the power unit of an MT 3000-2i Offset: its modern, liquid-cooled diesel engine, a splitter gearbox flanged directly to the engine and a large cooler assembly.

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.

The power unit on the MT 3000-2i Offset with a diesel oxidation catalytic converter (DOC), diesel particulate filter (DPF) and selective catalytic reduction (SCR) system for exhaust gas after-treatment, fulfils the strict requirements of European emissions standard Stage 4 and US EPA standard Tier 4f.

Machines with the suffix “i” in their product designation are not only economical, but also extremely clean. The “i” stands for “intelligent emission control” and is found in the type names of all machines from the WIRTGEN GROUP equipped with the latest engine technology. Depending on the exhaust gas after-treatment version concerned, these engines comply with the strict standards of European exhaust emissions level 4 as well as Tier 4f of the US standard EPA.

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 (150kW 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.

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Mobile in every way

The VÖGELE MT 3000-2i 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 3000-2i Offset.

Mounted on crawlers, the MT 3000-2i 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 3000-2i Offset. In terms of traction, too, the VÖGELE drive concept leaves nothing to be desired.
Material conveying systems

<table>
<thead>
<tr>
<th>Transverse augers</th>
<th>Conveyors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>2, installed in the receiving hopper</td>
</tr>
<tr>
<td>Cylindrical augers</td>
<td>cylindrical augers</td>
</tr>
<tr>
<td>Optional</td>
<td>conical augers for homogenization of the material</td>
</tr>
<tr>
<td>Conical augers</td>
<td>separate hydraulic drive</td>
</tr>
<tr>
<td>Diameter 400mm</td>
<td>drive</td>
</tr>
<tr>
<td></td>
<td>Speed 79rpm</td>
</tr>
</tbody>
</table>

Drive separate hydraulic drive

Conveyors

2 continuous rubber conveyor belts

Belt width 1,100mm

Heating infrared heating panels, diesel-powered

Push-roller oscillating

Transfer height (max) 3,500mm (outside edge of feeder to centre of discharge point)

Conveying capacity (max) 1,200 t/h*

*Dependent on type of mix

Holding hopper

Holding capacity 16.4 t

Width 3,680mm (hopper sides extended)

Feed height 600mm (bottom of receiving hopper)

Push-roller oscillating

Extra material hopper

Holding capacity 20.2 t

(to be placed into the material hopper of the paver)

Dimensions (transport) and weight

Length 14,820 mm

Width 3,000 mm

Height 3,100 mm

Weight 23.8 t

Subject to technical modification.

Power unit

Engine

6-cylinder diesel engine, liquid-cooled

Manufacturer Deutz

Type TCD 6.1 L6

Output

Nominal 166 kW at 2,000 rpm (according to DIN)

ECO mode 155 kW at 1,800 rpm

Exhaust emissions

standard RU Stage 4, US EPA Tier 4f

Exhaust gas after treatment DOC, DPF, SCR

Emission data

Sound power level ≤108 dB(A)

Daily noise exposure level >80 dB(A)

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 25 km/h, infinitely variable

Travel up to 4.5 km/h, infinitely variable

Steering by alteration of track running speeds

Brake multiple-disc brake locked on automatically without oil pressure

Receiving hopper

Holding capacity 16.4 t

Width 3,680 mm (hopper sides extended)

Feed height 600 mm (bottom of receiving hopper)

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www.vögele.info
Your VÖGELE QR Code will take you directly to the “MT 3000-2i Offset” on our website.

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