



The power package for high daily milling performance
Cold Milling Machine W 2100



Unlimited power makes short work of large milling areas



The economical solution for extensive milling jobs

/// The W 2100 cold milling machine from Wirtgen is a real “workhorse”. This extremely powerful machine is at home on large milling sites where high daily production rates are a must. The large milling machine with a standard milling width of 87” (2.2 m) is used mainly for the removal of complete pavement packages consisting of surface, binder

and base course layers in one single pass. The tremendous power of the W 2100 is based on tried-and-tested technologies, and the use of state-of-the-art machine components results in exceptionally high productivity maximizing the customer's benefit.



◀ The front loader is ideal for the large-scale pavement removal on roads and airports

▼ “Even large milling areas are completed quickly and easily”

Milling in the fast lane with the W 2100



▶ Another typical application of the W 2100 is the large-scale replacement of surface courses in airport or highway rehabilitation.

▶ The components of the W 2100 are designed to be robust and long-lasting, matching the machine's high milling performance.

▶ An intelligent and functional machine control system optimizes the engine's performance, reducing fuel consumption.

▶ High-quality and highly precise milling results are produced with the optional LEVEL PRO automatic leveling system.

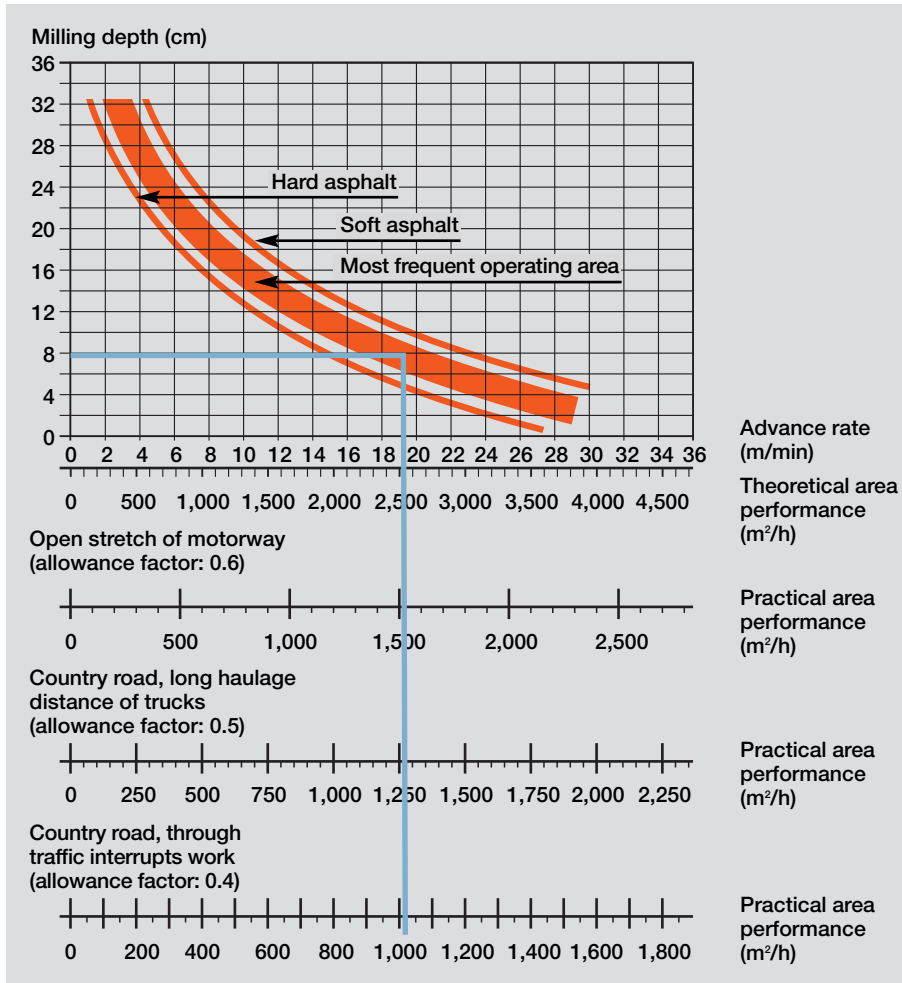
Impressive performance in continuous operation



The W 2100 is an expert in large milling sites

Whether milling off the 1 1/2" (4 cm) surface course over a stretch of motorway several miles long, or removing the entire pavement structure of a motorway at a depth of 1' (30 cm) – with Herculean tasks like these, only one thing is for certain: the powerful W 2100 will get it right. The performance diagram clearly illustrates the tremendous performance the large milling machine is capable of.

The schematic diagram on the opposite page can be used for a rough calculation of the practical milling performance to be expected for different applications. An allowance factor takes into account the influencing factors that may reduce the performance, such as hindrances to the work resulting from traffic, waiting times for trucks, non-contiguous milling areas or road fixtures.



Full power ahead



The W 2100 is capable of removing complete asphalt packages

Calculation of the area performance, taking account of different job site conditions

- ▶ The allowance factor is between 0.6 for open stretches of road and up to 0.4 for country roads.
- ▶ The powerful engine combined with an intelligent engine management system guarantees excellent productivity at milling depths of up to 13" (320 mm).

- ▶ The generously dimensioned, flexible loading system can be depended on to prevent performance losses during loading of the milled material.

High-tech – easy to operate



Clearly structured cockpit plus ease of operation

/// The W 2100 achieves high production rates, but can be controlled with a few simple flips of the wrist. And that's no wonder! All control elements are arranged within the operator's immediate field of vision for easy reach, and are labelled in a language-neutral way. The WIDIS 32 display is located in a central position in the clearly

structured operator's platform. The multi-functional display provides information on all relevant data of the machine, engine and hydraulic system. The large milling machine impresses with its intuitive, easy operation. The W 2100's compact design allows the operator an optimum view of the milling edge and all that's going on around the machine.

Quick, comprehensive control using the Wirtgen WIDIS 32 information and diagnosis system (optional) ▶

▼ The clearly structured workplace ensures ease of operation



Always up-to-date on the work process



▶ The WIDIS 32 system records job data which include, for instance, the weight and volume of the milled material, and the size of the milled area.

▶ The display continually indicates current operating data, or a service check with error messages, if any.

▶ Additional control panels on both sides of the machine enable the ground staff to control essential functions, such as setting the milling depth.

Ergonomics and comfort on the operator's platform



Play it safe with lockable covers for the control elements ▲

▲ The control panels are ergonomically adapted to the body posture, whether sitting or standing

The left and right control panels can be moved beyond the outer edges of the machine ▶



A relaxed operator performs better

/// The W 2100's productivity increases to the same extent that the operator is concentrating on his work. That's why we have made sure that operators feel comfortable in their workplace and can work for hours without tiring. The walk-through operator's platform offers ample leg room in both standing and sitting position. At the same time, the two separate control panels can be individually

adjusted in height and tilted to the operator's personal preferences. Both panels can be moved laterally beyond the edges of the machine, as can the two seats. Ultimately, the ingenious design of the operator's platform makes sure that the operator always has a good, ergonomically convenient view of the milling edge.

A hot-air heating system helps the operator to stay comfortable on cold days ▶

▼ The sliding control panel allows the operator to work in a relaxed body posture



Perfect ergonomics



▲ When folded in, the access ladder allows optimum side clearance

◀ Access to the operator's platform via access ladders on both sides

- ▶ Comfortable, individually adjustable driver's seats ensure an ergonomic sitting position and non-tiring working.
- ▶ An elastically mounted footboard in the operator's platform minimizes the propagation of vibrations to the machine operator.

- ▶ A soundproof, folding canopy (optional) is available to protect against rain and sun.
- ▶ Accessing the workplace via stable ladders from the left or the right side is a useful option on space-restricted job sites.

LEVEL PRO makes precise leveling even easier



◀ The robust control panel is located right in the line of vision of the machine operator

Wire-rope sensors at the side plates precisely measure the right and left milling depths ▼



The automatic leveling system from Wirtgen guarantees perfect results

/// LEVEL PRO, the automatic leveling system from Wirtgen specially developed for milling operations, guarantees precise, automatic control of the milling depth and milling slope – while keeping operation consistently simple. The LEVEL PRO panel is arranged in the operator's immediate line of vision for easy reach, and is operated easi-

ly using just one finger. The clearly structured, intuitive design makes operation of the machine much easier for the machine operator. Highlights of the LEVEL PRO range of functions are sensors that can be selected at any time during the milling operation, practical memory functions, two control loops, as well as up to three working values indicated on the display.

The electronic slope sensor (optional) for milling pre-determined cross slopes ▶

Scanning in front of the milling drum using a wire-rope sensor (optional) ▼



Full control of milling depth and slope



- ▶ The user-friendly control display is fitted with large, self-explanatory function keys.
- ▶ A large variety of different sensors, such as wire-rope, slope or ultrasonic sensor, can be integrated into the milling operation as required.

- ▶ The milling depth can also be controlled by scanning a wire, or irregularities in longitudinal direction can be eliminated using a Multiplex system.
- ▶ The high-quality controller is located inside the machine, where it is safely protected from inclement weather.

Large machine – small track radius



Move into position without losing out on time

High engine power is not the only factor involved in being able to make headway on the job site quickly. Moving the machine around the job site quickly and easily regardless of the ground conditions plays an equally important role. There is no doubt: the W 2100 does an excellent job. The finger-light hydraulic all-track steering system and

large ground clearance make an easy job of maneuvering and turning. The large steering angle of 40° on both sides allows an inner turning radius of just 95" (2.4 m), permitting the machine to conveniently approach the milled track from the side in crab steering mode.

The fixed-height track rod ensures good directional stability ▶

▼ The W 2100 can approach the milled track conveniently in crab steering mode



Full maneuverability even on space-restricted job sites



- ▶ The height-independent, parallel sliding block guide makes child's play of steering the machine to maximum precision.
- ▶ The travel speed can be adjusted continuously from zero to maximum speed in both milling and travel gear.

- ▶ The four crawler tracks are hydraulically height-adjustable individually.
- ▶ The machine's large ground clearance facilitates difficult driving maneuvers, as well as loading of the machine on a low-bed trailer.

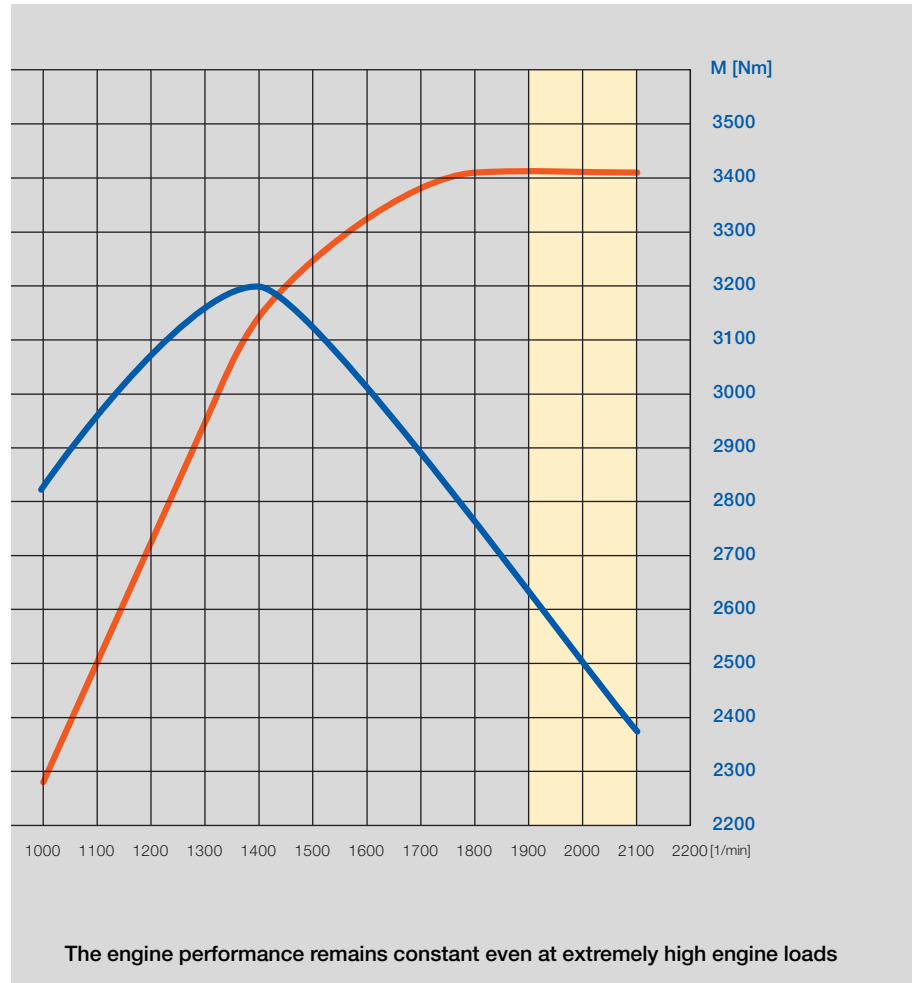
High-powered engine – yet low in fuel consumption

Working at the optimum milling speed – always



▲ Powerful, water-cooled diesel engine for demanding milling jobs

Characteristic curve in the most important working range ▶



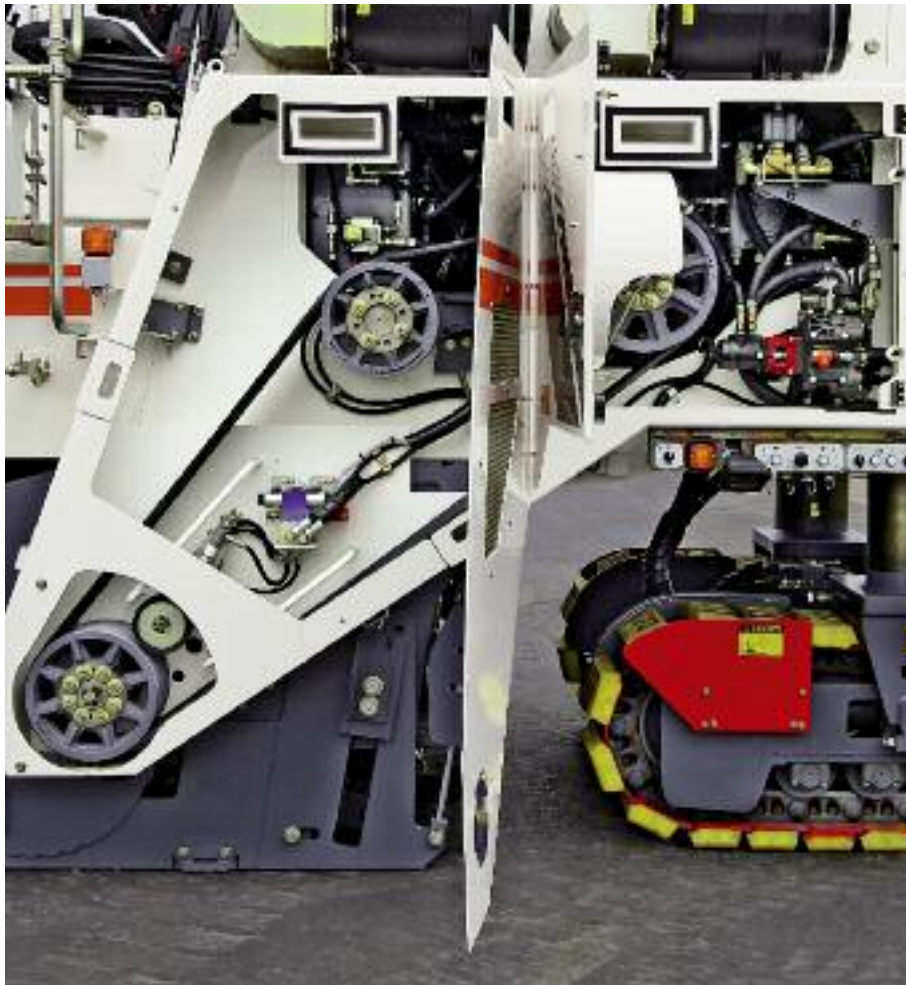
The engine performance remains constant even at extremely high engine loads

Powerful engine for maximum milling performance

/// The W 2100 has lots of power under the hood. When the large-displacement 6-cylinder diesel engine flexes its muscles, large milling areas can be removed entirely at high speeds. What's more, an intelligent engine management system optimizes fuel consumption – an advantage that shouldn't be underestimated, especially in times of

steadily rising fuel prices. State-of-the-art engines do, of course, also have a duty to the environment: they are encapsulated in a soundproof engine compartment and comply with the strict exhaust emission standards as stipulated by the EU (EU-2004/26/EG Stage 3a) and the US Environmental Protection Agency (EPA, Tier 3).

Effective milling drum drive translates power into productivity



Efficient use of engine performance



An automatic tensioner ensures optimum belt tension ▲

◀ The mechanical milling drum drive provides easy access

- ▶ The tried-and-tested concept of a direct mechanical milling drum drive without deflection points and friction losses results in a consistently high degree of efficiency.
- ▶ Three V-belts with a total of 12 ribs ensure optimum transmission of power and a long service life.
- ▶ The power belts absorb peak loads, thus ensuring low susceptibility to damage.
- ▶ Constant tension of the power belts is automatically maintained by a hydraulic cylinder.

Different milling drums for high machine utilization



The W 2100 takes the place of many machines

/// The range of uses for the W 2100 is not limited to just one application. Quite the opposite is true! Enabling milling drums with different tool spacings to be removed or installed quickly and easily, the W 2100 cold milling machine offers a wide range of possible applications. This feature increases the machine's utilization even further and makes its

operation even more economically efficient. The type of job is of little importance, because the clever tool arrangement produces an excellent milling texture – whatever the application. Special edge segments additionally ensure clean milling edges.

Lots of possible applications



ECO Cutter
Milling width: 87" (2,200 mm)
Milling depth: 0 – 13" (0–320 mm)
Tool spacing: 1" (25 mm)



Standard milling drum
Milling width: 87" (2,200 mm)
Milling depth: 0 – 13" (0–320 mm)
Tool spacing: 5/8" (15 mm)



Fine milling drum
Milling width: 87" (2,200 mm)
Milling depth: 0 – 4" (0–100 mm)
Tool spacing: 5/16" (8 mm)



Fine milling drums produce milled surfaces that are excellently suited for applying new pavement layers

Choice of milling drums for the W 2100

- Standard milling drums are ideally suited for the removal of one or more pavement layers, ensuring a good interlock between the milled surface and the new pavement layers.
- ECO cutters (optional) are equipped with a smaller number of point-attack cutting tools and ensure maximum area performance.

- Fine milling drums (optional) produce a finely textured milling surface that is an excellent base for the application of thin pavement layers.

Field-proven HT11 quick-change toolholder system

An option that will pay for itself quickly



▲ The toolholders are arranged on the milling drum in the shape of a helix and can be replaced quite easily

HT11 embodies Wirtgen cutting technology ▶



Tough in use, easy to handle

/// The HT11 patented quick-change toolholder system is highly recommended for use in tough job site conditions. Long-lasting and hard-wearing toolholders are called for where demands on the cutting tools are extremely high, and HT11 is setting the standards in this respect. What's

more, HT11 is designed for quick and easy handling and maintenance. As a result, the Wirtgen HT11 quick-change toolholder system minimizes machine stoppages and increases the lifespan of milling drums.

Automatic drum turning device speeds up tool replacement



Effective devices for tool replacement save time and money

Turn the milling drum into the desired position at the touch of a button ▼

▲ Replacing cutting tools is an easy job with the pneumatic tool extractor (optional)

Drive of the drum turning device ►



- Once the scraper blade has been raised, the milling drum provides good access for the replacement of cutting tools.
- The milling drum is moved into the ideal position for cutting tool replacement using the hydraulically operated drum turning device (optional).
- The remote control unit of the drum turning device has a long coil cord, enabling it to be attached in any given position within the operator's reach.
- The rear crawler tracks can be fitted with optional folding seats for convenient tool replacement.

Useful features of the milling drum housing



... and protects the primary conveyor from premature wear ▲

When in raised position, the side plate enables milling along curbs ▼

▲ The gradation control beam can be adjusted in height hydraulically ...

When in lowered position, the side plate glides on the surface, sealing the drum chamber ▶



Proven technology

/// The W 2100's milling drum assembly offers lots of intelligent solutions. The scraper blade and the two side plates effectively seal off the milling chamber. If part of the milled material is to be left in the milled cut, the milling machine operator can raise the scraper blade hydraulically and lock it at the required height. He can also slew it open

hydraulically by 100° to provide easy access to the milling drum for the replacement of cutting tools. The operator can also conveniently raise the side plates hydraulically at the touch of a button to facilitate milling along obstacles, such as curbs.

Ingenious details – a perfect whole



Scraper blade in “locked” position for partial loading or for leaving the milled material in the milled cut ▼

▲ The wide-opening scraper blade with individually replaceable carbide metal strips

Scraper blade in “floating” position to load all of the milled material ▶



- ▶ The height-adjustable gradation control beam prevents the asphalt from breaking into large slabs.
- ▶ The spray nozzles can easily be removed individually for cleaning.
- ▶ The water spray system at the milling drum effectively prevents the formation of dust and cools the cutting tools during the milling operation, thus extending their lifespan.
- ▶ The water pressure and water quantity of the hydraulically operated water system can be set at ground level.

Load large quantities of milled material in record time



... or unfolded again in next to no time ▲

Effectively sealed transfer from primary conveyor to discharge conveyor ▼

▲ A useful option: the conveyor can be folded ...

The standard W 2100 front loader is equipped with a one-stage conveyor ▶



The conveyor permits high daily production rates

/// The W 2100 is designed for milling large quantities of material – which makes effective loading of the milled material a must. The conveyor system comprises the short primary conveyor and long discharge conveyor. The latter can be slewed to either side, and its discharge height can be optimally adjusted to any given working situation. The wide steep-incline belt can optionally be operated at

infinitely variable belt speeds to enable even large 5-axle semi-trailers to be filled right to the top. In the final analysis, the tremendous loading capacity and variable setting options of the discharge conveyor enable the W 2100 to manage high daily production rates independent of conditions on the job site.



Removing the milled material quickly and in a variety of ways

... and by 45° to the left for loading trucks travelling at the side of the machine ▼

▲ The 39" (1 m) wide belt with sturdy cleats guarantees the smooth flow of tremendous material quantities

Pure flexibility: the conveyor can be slewed by 55° to the right ... ►



- The conveyor of the W 2100 is available in one-stage or folding design.
- The folding discharge conveyor considerably shortens the W 2100's transport length.

- The machine can optionally be equipped with belt scales to continuously measure the weight of the milled material loaded.

Intelligent maintenance concept wins valuable operating time



Consistently simple maintenance

/// Ease of maintenance was an important aspect in the requirement specifications for the W 2100. The large milling machine meets this requirement effortlessly. The engine cowling is opened at the touch of a button and offers optimum access to the engine and to the few points of

inspection and maintenance. Whether it's just a quick check or the replacement of wear parts: all maintenance activities can be carried out quickly and easily. What's more, a comprehensive toolkit is included with the machine.

Additional storage room for tools at the rear of the machine (optional) ▶



Reduced maintenance – increased productivity



▲ A high-pressure cleaner with 33' (10 m) hose is part of the on-board equipment

◀ Maintenance points are within easy reach thanks to the wide-opening service covers

- ▶ The water tank, which has a capacity of 1,190 gal (4,500 l), is filled conveniently via the filling connector at the front of the machine or via an additional port at the rear (optional).
- ▶ The hydraulically operated high-pressure cleaner (optional) allows the machine to be washed down right on the job site.

- ▶ The W 2100 provides sufficient space in lockable storage compartments for the storage of tools and wear parts.
- ▶ The inspection and maintenance points have been grouped together, facilitating maintenance even further.

Excellent visibility – whatever the time of day



Side and rear view mirrors are part of the standard equipment ▲

Freely adjustable spotlights can be set as required ▼

▲ When switched on, the machine's lighting system illuminates the entire working area

The working lights are attached at several points around the machine in no time at all ▶



Safe working is ensured by a generous lighting system

/// The benefits of optimum site illumination are obvious: in addition to increasing the safety for operators and producing better milling results, safe working in darkness permits an increased machine utilization. With the W 2100, halogen spotlights provide an excellent illumination of the

entire machine, the road surface, the milling edge and the point of discharge. Two flashing beacons, numerous mirrors, easily accessible emergency stop switches, as well as a powerful reversing horn provide the best conditions for the machine operator to work safely and effectively.

Smooth machine transport



Arriving on the next job site quickly

The lowest possible transport height is achieved in just a few seconds ▼

▲ Easy loading onto a low-loader

The optional canopy is folded into transport position conveniently at the touch of a button ▶



- ▶ Loading the W 2100 onto a low-loader poses no problem at all – sturdy conveyor support legs are additionally available as an option.
- ▶ The robust canopy (optional) can be folded down hydraulically for transport.

- ▶ Sturdy lashing lugs enable the machine to be securely lashed onto a low-bed trailer or loaded by crane.
- ▶ The machine's transport length is shortened considerably when equipped with the optional folding conveyor.



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