



The professional machine in the 50 cm class
Cold milling machine
W 50 DC / W 50 DCi



Maximum efficiency on any job site



Fully equipped – for even better performance

/// The innovative, high-end W 50 DC/W 50 DCi machine sets the industry standard for any small and medium-sized milling job. Milling in extremely tight spots, milling of special areas, cutting trenches and removing pavement strips at depths of up to 210 mm and widths of up to 500 mm are just some fields of use in which this

powerful 50 cm cold milling machine achieves record-high outputs. Its high engine performance, automatically operated travel drive, the complete FCS milling drum range and top-performance loading system make this compact all-rounder the perfect choice for demanding jobs of any type.



◀ The compact, powerful W 50 DC/W 50 DCi is an outstanding performer whatever the job

▼ Operator and machine quickly become a strong team

Economical,
powerful, versatile



Greater efficiency

Top-selling cold milling machine in the 500 mm rear-loader class thanks to unrivalled efficiency.

Impressive manoeuvrability

3-wheel or 4-wheel design for tremendous manoeuvrability.

Various discharge conveyors

Short and long discharge conveyors cater to a wide range of loading situations.

State-of-the-art technologies

The efficient WIDRIVE machine control and LEVEL PRO levelling system minimize operating costs.

Direct milling drum drive

The mechanical milling drum drive and electronic output control ensure maximum milling performance.

Top performance in the 50 cm class



Equally well-suited to high area performance

Key features of this machine are its high engine power with ample reserve capacity and great milling depth: the W 50 DC/W 50 DCi is the ultimate choice to ensure top performance in the small milling machine segment with working widths of up to 50 cm. Wirtgen is proud to provide far more than 50 different milling drums

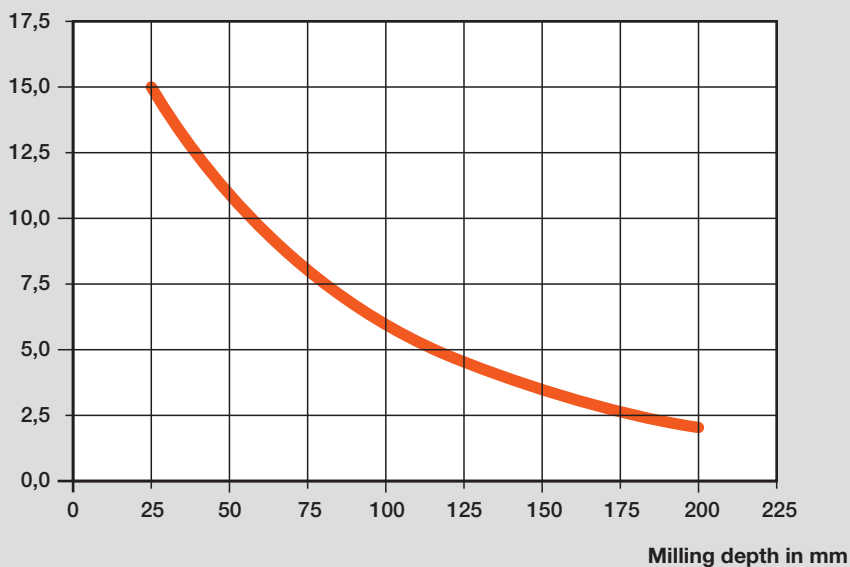
to cater to the widest possible range of applications of this compact, powerful machine. This equipment enables the W 50 DC/W 50 DCi to achieve an incredibly high performance, particularly when milling off road pavements, removing pavement strips and cutting trenches.

Milling off large areas with the rear-loading W 50 DC/W 50 DCi ▶



Strong performance

Advance rate
AR (m/min)



High-performance removal of up to 210 mm deep pavements ▲

◀ Average milling advance rate in metres per minute

- ▶ The modern engine and powerful mechanical milling drum drive guarantee full performance up to a milling depth of 210 mm.
- ▶ The powerful, flexible loading system ensures that there is no drop in performance during the immensely important process of loading the milled material.
- ▶ The intelligent, intuitive machine control system enables the operator to work effectively with the least possible physical stress.
- ▶ The W 50 DC/W 50 DCi has all it takes to achieve an enormously high area performance, particularly when fine-milling road pavements.

Ergonomics and ease of operation ensure stress-free work



A comfortable workplace quickly pays off

// Sitting in a relaxed position with plenty of elbow space, a perfect view and functionally arranged controls – these are the key features of a perfect ergonomic design. And they save a lot of money, for experience has shown that an ergonomic workplace boosts performance. Here too, the W 50 DC/W 50 DCi is a true role model. The comfortable driver's seat is a special highlight: it can

be adjusted in height and position to suit the operator's needs; it can swiftly be displaced beyond the right-hand edge of the machine and ensures a clear overview. As a matter of course, the steering wheel and control panel can also be adjusted together with the seat to ensure maximum comfort.



◀ Important functions are intuitively integrated into the right-hand armrest

For safe and relaxed operation, preventing fatigue



Night design: illuminated control panel for working in darkness ▲

◀ Practical: multi-functional display with only a few switches in the direct field of view

- ▣ The steering wheel can be pivoted; it is thus perfectly suited to working in both upright and seated position.

▣ Lockable, rigid moulded covers protect the controls on the panel and armrest against vandalism.

▣ The spacious operator's platform provides legroom and ample space even for tall operators.

▣ The floor is vibration-damped and thus effectively absorbs vibrations, protecting the operator's health.

Highly precise levelling with LEVEL PRO

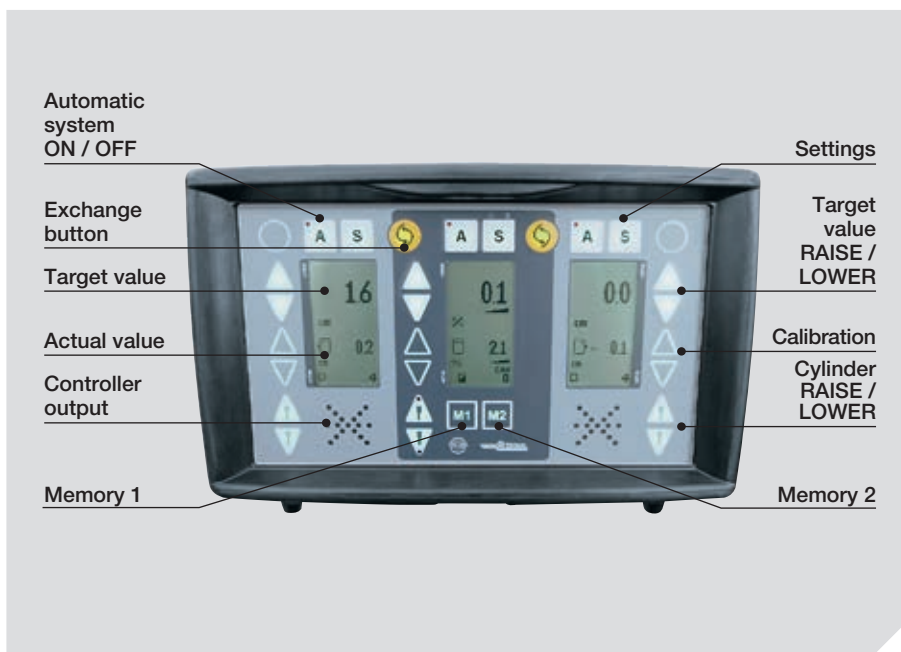


The amazingly simple levelling system

/// The W 50 DC/W 50 DCi can optionally be equipped with the state-of-the-art LEVEL PRO system, a levelling system that will spark your enthusiasm immediately. An innovative and highly practical feature is that it permits up to three sensor signals to be displayed simultaneously.

Another highlight is the panel, which has been arranged within optimum reach of the machine operator and enables effortless operation. Redesigned graphical function symbols and large, clearly arranged switches complement the compelling overall impression.

Maximum operator
convenience



◀ LEVEL PRO: always within view, clearly arranged functions

Wire-rope sensor for precise measurement of the milling depth ▶



- Set values can be pre-programmed individually for both sides of the machine, stored by pressing the memory button and then retrieved as and when required.
- Different sensors, such as the wire-rope sensor or slope sensor, can be selected or de-selected during the milling operation as required.
- The levelling mode with related sensors can be addressed at any time during the milling operation.
- The actual levelling controller is located separately in the electrical cabinet, safely protected against any damage.

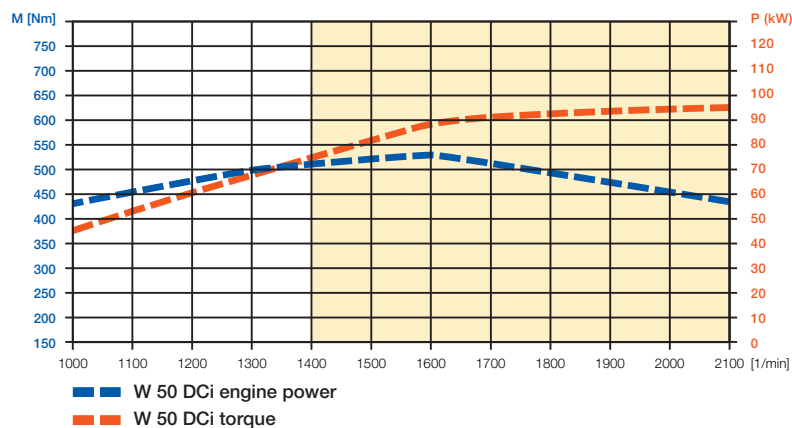
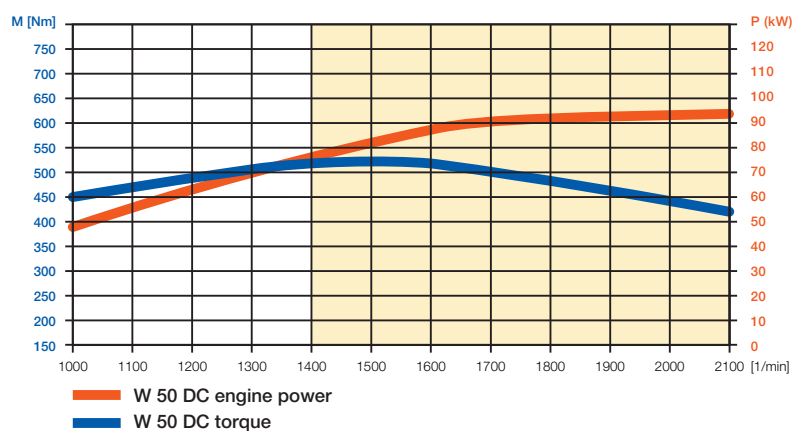
Highest milling output at low diesel consumption rates



A powerful and intelligent engine

Intelligent engine management is an important asset, all the more so as energy resources become scarcer. The modern, powerful diesel engine meets this requirement. Its high torque ramp-up makes the W 50 DC/W 50 DCi the perfect choice for tough day-to-day operation on the job site. The reliable engine control system ensures

that the speed is adjusted accordingly both when driving and when milling. The control system thus minimizes fuel consumption and significantly reduces noise levels. The cold milling machine also features effective sound insulation of the engine compartment and an elastically supported, low-vibration engine station.



Low
emissions



Noise insulation as
a standard feature ▲

◀ Wide engine speed ranges ensure
optimum job performance

For maximum milling output, the 50 DC/W 50 DCi can also be operated at a reduced engine speed.

The engine of the W 50 DC cold milling machine complies with the exhaust emission requirements of EU Stage 3a / US Tier 3.

The W 50 DCi features state-of-the-art engine technology for lowest environmental emission levels that comply with the stringent specifications of the EC Stage 3b / US Tier 4i exhaust emission standards.

The engine of the W 50 DCi is equipped with an oxidizing catalyst and a diesel particulate filter to ensure effective exhaust cleaning.

Always there when the going gets tight



▲ The machine is fitted with
3 or 4 wheels as required

The large steering angle of the
front wheels allows the machine
to turn in extremely small circles ►



Small milling circles are a speciality of the W 50 DC/W 50 DCi

/// A compact, highly manoeuvrable small milling machine is the perfect choice whenever the going gets tight. The W 50 DC/W 50 DCi displays outstanding manoeuvrability even in the smallest working space. Its finger-light, hydraulic steering permits extremely large steering angles for correspondingly small turning circles.

Regardless of whether the machine has three or four wheels: accurate milling in narrow passageways or bends is always a simple exercise for the W 50 DC/W 50 DCi. Its large ground clearance is another useful feature allowing it to pass over obstacles undamaged.

Optimum manoeuvrability in tight spots



◀ The steering angle is clearly indicated by the pointer on the engine cowling (only for the 3-wheeled version)



▲ A hydraulic cylinder lets the rear right support wheel be conveniently ...

... swivelled in and out without leaving the operator's platform ▶



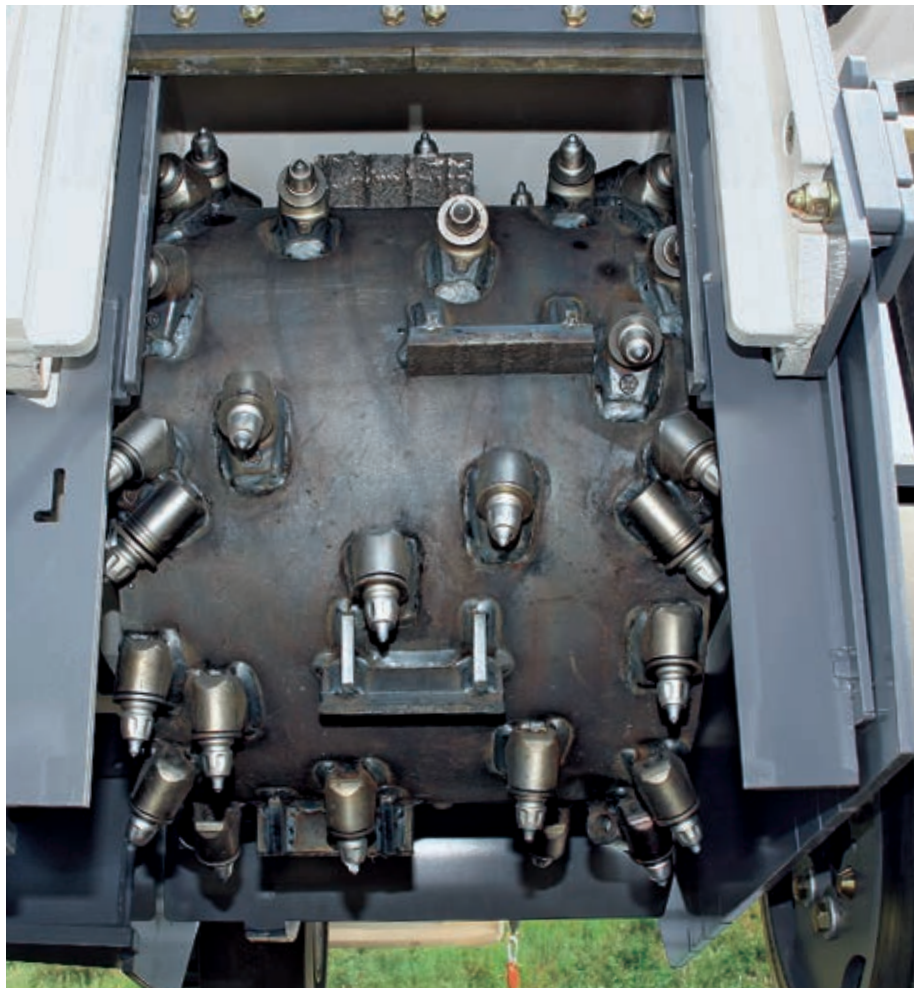
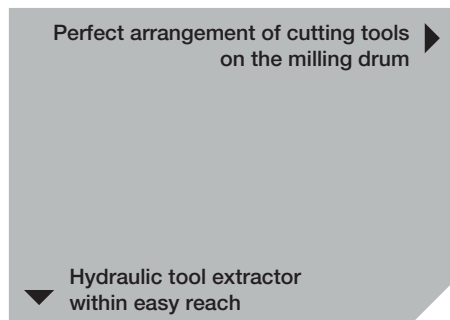
▣ Milling round manhole covers, for example, is a simple matter thanks to the large steering angle.

▣ The rear right wheel can be swivelled inwards to cut along obstacles, such as kerbstones, flush with the edge and with a perfect view.

▣ Four wheels instead of three increase the machine's traction and stability – an important factor when working on difficult ground.

▣ Permanent all-wheel drive with hydraulic traction control allows the machine to travel safely and reliably on virtually any terrain.

Change milling drums in next to no time



Quick, simple, ergonomic

First the W 50 DC/W 50 DCi works as a 50 cm wide fine milling machine to restore the skid resistance of a road pavement, then it needs to cut a 20 cm wide trench. These jobs would normally require two machines. The W 50 DC/W 50 DCi is different, though: all it takes to complete these jobs is to change its milling drum. And

this is something that requires virtually no effort: open the door of the drum compartment, loosen the bolts that secure the fine milling drum and pull the drum off its shaft so that the 20 cm wide milling drum can be fitted. Then adjust the scraper blade to the new working width and the W 50 DC/W 50 DCi can resume its favourite task.

Open the door of the drum compartment and loosen the milling drum ▶

▼ Pull out the drum without undue effort and place it on an assembly trolley



Different milling widths in no time



Then simply fit the required FCS milling drum in the reverse order of steps – finished! ▲

It's so simple to change the milling drum that no special know-how is required.

All the steps involved in changing milling drums can be performed from the easily accessible right-hand side of the machine.

Thanks to its special bearing, the complete milling drum is easily pulled out to the side.

An ordinary assembly trolley or lift truck makes it easier to remove and install the milling drum.

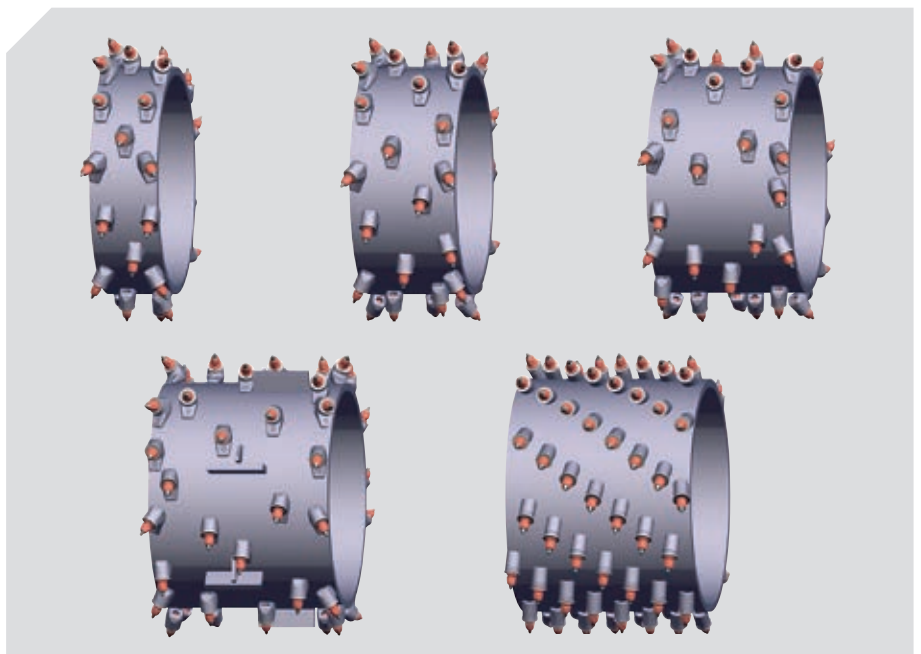
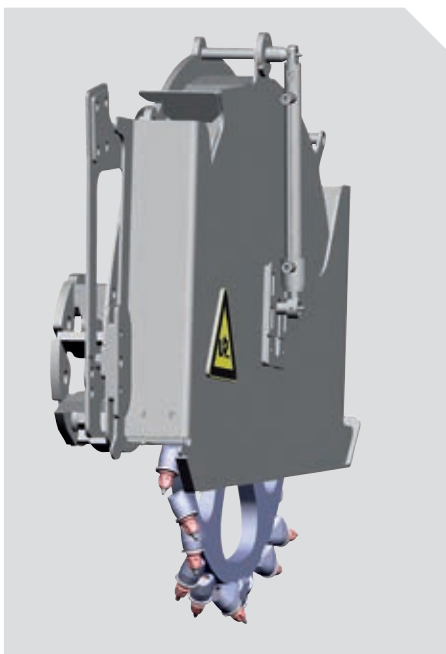
An even wider range of applications with FCS

Simple cutting tool replacement – either conventionally or using the hydraulic tool extractor ▶

▼ The side milling wheel with a milling width of 80 mm can cut to a depth of 300 mm



For the widest possible range of applications – far more than 50 milling drums are available for the W 50 DC/W 50 DCi ▼



FCS: The efficient success formula for utilizing your milling machine's full capacity

/// A lucrative job cannot be taken on because the right machine is not available? Wirtgen's Flexible Cutter System (FCS) offers an ingenious solution to that dilemma. FCS is a ground-breaking interpretation of machine utilization based on the specific job needs. This practical option enables virtually any milling width and tool spacing and a wide range of milling contours to make the

W 50 DC/W 50 DCi exceedingly versatile. Fine milling drums, for example, can be used to eliminate pavement irregularities or to improve the skid resistance of road pavements. Enlarging the range of uses in this way not only increases the small milling machine's utilization but also maximizes the benefits for the customer.

Rumble strip kit for the W 50 DC/W 50 DCi



Specially arranged cutting tools
create an oval milling contour ►



▲ When driven over, the rumble
strips generate vibrations and
tyre noises

The heavy-duty frame has been
designed for tough milling jobs
and extended operation ►



- The rumble strip kit is the perfect choice for milling rumble strips into asphalt or concrete road pavements in a highly efficient process.
- This special equipment enables the milling of long-lasting, extremely wear-resistant strips at high milling speeds.
- The profile wheel enables the milling drum to insert 10 to 20 mm deep cuts into the pavement at specified intervals.
- Low operating costs ensure an economical production process.

Intelligently designed milling drum assembly



◀ The side plate can be lifted over obstacles and pressed down onto the asphalt surface when necessary

The hydraulically adjustable drum plate ensures neat collection of the milled material ▼



◀ In working position, the drum housing is sealed by the hydraulically lifting side plate



Mature technology for optimum results

/// Operators lay great store on “their” W 50 DC / W 50 DCi – and not without reason. This is not least due to the intelligent details of the milling drum assembly. Power belts ensure optimum power transmission; their tension is kept at a constant level by an automatic belt tensioner. The side plate and drum plate tightly close the

milling chamber; the scraper blade always creates clean milled surfaces. An electric water spray system cools the point-attack tools, thus extending their service life. One useful side effect of this system is that it largely reduces the amount of dust produced during the milling operation.



Clean milled surfaces
are crucial

The spray nozzles
can easily be removed
individually for cleaning ▼

▲ The scraper blade is adjusted
to the required working width

The water spray system is
readily accessible above
the milling drum ►



- ▮ The milling drum is located between the rear wheels and rotates against the direction of travel.
- ▮ The vertically adjustable scraper blade determines whether the milled material is loaded completely or partially.

- ▮ Hydraulically raised side plates on both sides prevent the machine from digging into the ground on unpaved shoulders.

A milling machine is only as good as its loading system



Optimum loading ensures swift job completion

/// As a matter of fact, a cold milling machine is only as good as its loading system, for construction projects can only be completed economically if the milled material is removed efficiently and flexibly. The conveyor of the powerful W 50 DC/W 50 DCi has been designed with precisely this requirement in mind. The wide belt ensures

that the milled material is taken up completely and loaded reliably without any backlogs. The loading system can be slewed to either side while a continuously adjustable, hydraulically controlled drive motor ensures that the belt runs at optimum speed.

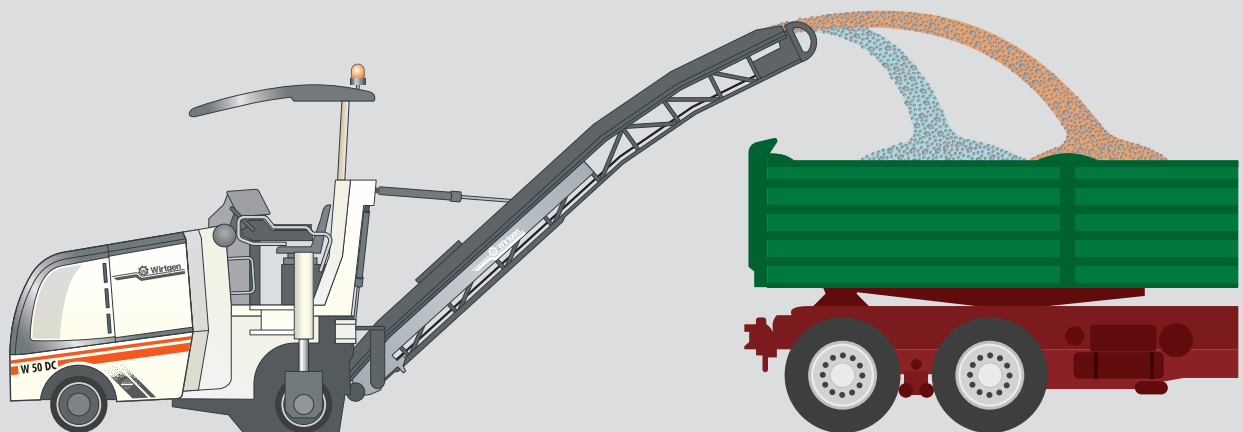


◀ Rugged cleating ensures that the material is transported reliably

▼ Continuously adjustable belt speed and discharge range

Getting rid of milled material quickly

High belt speed
Low belt speed



- ▶ The continuously adjustable belt speed ensures that even long trucks with trailers can be loaded completely.
- ▶ For complete loading, the scraper blade is set to “float” on the milled surface so that it seals the drum compartment.
- ▶ For partial loading, the scraper blade is set to the corresponding height so that part of the milled material remains in the trench as a profiled surface.
- ▶ The wide loading conveyor with rugged cleating ensures that large volumes of material can be removed.

Swift job completion thanks to flexible loading



▲ The folding conveyor design makes it easier to transport the machine

▼ Short conveyor for filling the shovel of a wheel loader or for use in confined areas

▲ Three different conveyor versions are available as part of the standard package

► The long conveyor for optimum loading of large trucks



Three different loading conveyors available

Every contractor knows exactly which requirements their small milling machine must meet in practice. For this reason, Wirtgen also offers practical options for loading the reclaimed milled material. Whether with or without loading conveyor and the opportunity to choose the most suitable conveyor from among three efficient versions – our broad range allows contractors to put together their

own “personal” W 50 DC/W 50 DCi. The system has also proved its practicability on site, for the conveyor can be connected and disconnected without wasting time. As a result, the machine is rapidly available for many different jobs, such as working in narrow passageways where the short loading conveyor is ideal.



◀ The loading conveyor is easily removed to make space for milling in tight spots



Only one person is needed to connect and disconnect the conveyor ▲

◀ The loading conveyor can be adjusted in height as well as to the right or left

➤ An ingenious coupling device allows the loading conveyor to be connected and disconnected quickly and without difficulty by just one person.

➤ All conveyors are covered over their full length to minimize the nuisance due to dust (e.g. in windy conditions).

➤ The large, widely slewing conveyor is particularly useful for filling trucks completely.

➤ The exceedingly wide slewing range of 25° to the left and 20° to the right ensures that trucks can be loaded effectively even when positioned beside the machine.

Sophisticated maintenance is an asset



Daily servicing, daily savings

Even heaviest-duty machines such as the W 50 DC/W 50 DCi need to be serviced at regular intervals. Smart Wirtgen engineers have done their utmost to make servicing as quick and easy as possible for the operator. All service work is undertaken from one side. The small number of service and inspection points can be

reached directly as soon as the service doors have been opened. The tanks are similarly refilled in next to no time via conveniently positioned diesel and water ports. The well-conceived maintenance concept greatly helps to minimize service intervals in favour of longer operating periods.

For a long
service life



▲ Service doors open wide for easy access to filters, hydraulic system and engine

The battery is easily reached under the access ladder ►



Filling ports for the tanks ▲
are easy to reach



▮ Long duty periods without stopping for refilling thanks to large, easily refilled water and diesel tanks.

▮ All filters are within easy reach behind the service doors.

▮ Visual inspections are undertaken without leaving the ground.

▮ Lubricating and service points are combined into blocks to make maintenance even simpler.

Many smart details enhance productivity

The electrohydraulically adjustable canopy protects the operator from both rain and sun exposure ▶

▼ Safe, comfortable access at the rear of the milling machine



◀ Comprehensive tool kit available whenever needed

For even more comfort and safety

/// Our compact powerhouse is equipped with numerous extras to make day-to-day work both more more comfortable but also safer. For example, the W 50 DC/W 50 DCi is prepared to work under any weather conditions. Whether rain or shine, the height-adjustable canopy is a useful feature. At cold temperatures, the hot

air supply is switched on. The lighting fixtures attached all around the machine turn night into day. Bright headlamps ensure safety all round. Spacious steps leading up to the operator's platform at the rear of the machine complement this wide range of comfortable features.



Working safely
day and night



▲ A shining example
of night design

Mirrors make it easier
to manoeuvre the machine ►



Working lamps illuminate
the track and milled edge
when necessary ▲

▮ A readily accessible emergency stop switch ensures that the milling machine can be turned off in critical situations.

▮ A loud reversing horn warns bystanders of the approaching machine.

▮ An intelligent data converter can optionally be installed to read out defined data from the machine control system, encoded according to the WIFMS standard.

Moving swiftly from one job site to the next



The quicker it travels, the greater its utilization

Not uncommonly, several jobs have to be completed on different sites in rapid succession within a single day, which makes quick and easy transport of the machine an important factor. Our cold milling machine W 50 DC/W 50 DCi scores top marks in this regard, too, for its manoeuvrability and compact size allow it to be transported quickly on small, cost-efficient trailers.

Fix the machine to the retaining lugs, retract the protective canopy electrohydraulically – and transport the cold milling machine to its next job. For those who prefer to do without the trailer, the machine can also drive to its next job directly when licensed to travel on public roads.

Several retaining lugs
on the machine allow for
its secure transport



Compact dimensions
for convenient
transport



The canopy is lowered for
transport, saving space

No special permit is needed for
transport on a low-bed trailer

- Quick and easy transport to the next job site ensures that the machine is always fully utilized.
- Equipped with the optional direction indicators and additional lights, the W 50 DC/W 50 DCi is licensed to travel on public roads.

- Retaining lugs ensure that the machine is securely lashed on a trailer or for loading by crane.
- Our large portfolio also includes several trailers perfectly suited to transporting the W 50 DC/W 50 DCi.

Powerful small milling machine for a wide variety of applications



◀ Milling of small areas in tight spots



Accurate milling around a manhole cover, adhering to an exactly defined depth ▲



◀ Final cross-milling at the end of an existing cut

There's more to this small machine than meets the eye

/// In addition to rehabilitating large areas of motorways or airport facilities, cost-efficient maintenance of the traffic infrastructure is becoming increasingly important. The wide range of repairs required in this context are the special domain of our robust all-rounder, the W 50 DC/W 50 DCi. Partial repairs, removal of asphalt

strips, precise milling around obstacles such as kerbstones or manhole covers, cutting grooves and indoor operations are just a few of the W 50 DC/W 50 DCi's specialities: the machine has exactly what it takes and produces top-class results.

The W 50 DC/W 50 DCi is milling rumble strips into the hard shoulder at high speed ▶



An impressive all-rounder



▲ Cutting a trench with the milled material deposited at the side to be backfilled later

With the W 50 DC/W 50 DCi, even large areas can be milled without difficulty ▶



- ▶ State-of-the-art machine control, smart engine management and a second-to-none levelling system ensure maximum milling performance of the W 50 DC/W 50 DCi.
- ▶ Different conveyor and milling drum versions additionally extend the range of applications and capacity utilization of the machine.
- ▶ Cutting-edge technical equipment enables this small milling machine to also tackle jobs that would normally only be possible with larger milling machines.
- ▶ The machine's unrestricted transportability makes it perfectly possible to complete several jobs on different sites within a single day.



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