



Front loaders boasting top performance

Cold Milling Machines

W 100 F - W 120 F - W 130 F

W 100 Fi - W 120 Fi - W 130 Fi



Multifunctional cold milling machines for tremendous milling performance



Faster, more convenient and more economical all round

Presenting the W 100 F, W 120 F, W 130 F / W 100 Fi, W 120 Fi, W 130 Fi, Wirtgen has launched a model series of top-class cold milling machines. For our compact front loaders are at their best when used for versatile applications ranging from partial repairs all the way to the removal of complete asphalt layers. The synergistic

effects of high performance and ease of operation offer lots of potential for economic efficiency. They are based on high engine power, intelligent automated functions, a high-precision levelling system, excellent manoeuvrability, powerful material loading and outstanding ease of operation and maintenance.



◀ Powerful loading even of large trucks is guaranteed

▼ The machines in this model range are ideal candidates in particular for milling operations in urban environments

High productivity through intelligent technology



▣ The engine of the W 100 F, W 120 F, W 130 F complies with the specifications stipulated by exhaust emission standards EC Stage 3a / US Tier 3; the engine of the W 100 Fi, W 120 Fi, W 130 Fi with those stipulated by EC Stage 3b / US Tier 4i.

▣ The machines' engine power is unique in this class and offers increased productivity – in particular on complex milling jobs.

▣ Engine speed in milling and transport mode, water management and engagement of the milling drum are governed fully automatically.

▣ Innovative options, such as the WIDRIVE machine control system or LEVEL PRO automatic levelling system, optimize the machines' operation and functionality.

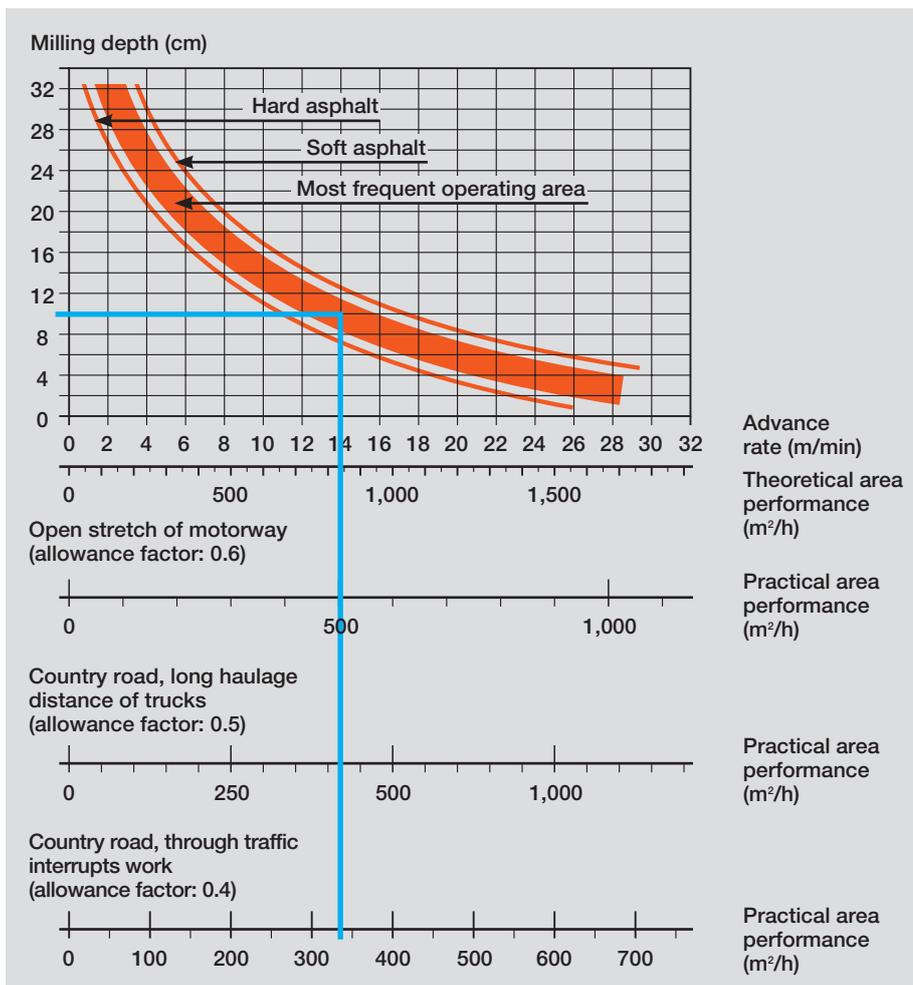
Most powerful cold milling machines in the 1-m class



High engine power and milling depth

Whether their job involves milling off a surface course at a depth of 4 cm or removing the surface and binder courses of an urban traffic intersection at a depth of 20 cm – their compact design, high engine power and milling depth enable the machines of this model series to complete such challenging jobs quickly and effortlessly. And the performance diagram shown on the next page

demonstrates that high daily production rates are achieved even under adverse conditions: the approximate actual milling performance to be expected is extremely high – despite parameters or circumstances that may have an adverse effect on performance, such as hindrances to the operation resulting from traffic, waiting times for trucks, road fixtures or discontinuous milling areas.



Great area performance



Smooth removal of complete pavement packages ▲

◀ Calculation of area performance, taking account of varying site conditions (example: W 100 F / W 100 Fi)

- ▮ The machines are ideally suited both to the milling of large areas and to the removal of asphalt layers at full depth.
- ▮ The state-of-the-art diesel engine and sophisticated engine management system ensure highest productivity up to a milling depth of 32 cm.
- ▮ The generously dimensioned front-loading conveyor ensures swift and smooth loading even of large amounts of milled material.
- ▮ The high-performance front loaders make Wirtgen the market leader in the 1.0 m to 1.3 m machine class.

Comfortable seating position and full visibility boost performance on the job

A workplace with every comfort



▲ All major controls are integrated into the right-hand armrest and allow convenient, one-hand operation

The spacious operator's platform with comfortable driver's seat and clearly structured main control panel ▶



Both ergonomical and functional

/// A milling machine operator feeling at ease during work delivers better work results – for many hours! The operator's platform of our smallest front loader models has been designed with this simple principle in mind, and sets new standards in both ergonomical quality and functionality. It is designed for one-man operation in seated or upright position, and can be accessed via a wide access

ladder. The clearly labelled controls are located within easy reach and within the operator's immediate field of vision. In addition, the compact design offers a good overall view of both the machine and the job site. Yet another highlight: the ergonomical driver's seat can be moved out over the right side of the machine, offering a full view of the milling edge.



▲ Full control from the driver's seat, which can be moved out over the side of the machine

Graphic display for the fast retrieval of a variety of information ▶



◀ The two camera settings can be displayed on the screen located within the operator's immediate field of view



- ▶ The position and cushioning of the seat, as well as the angle of the steering wheel can be adjusted individually to ensure an ergonomically correct seating position.
- ▶ The optional camera system, which comprises a high-resolution screen and two colour cameras mounted at the conveyor and left side plate, optimizes overview of the machine.
- ▶ Optional installation of an intelligent data converter enables defined machine parameters, coded as per the standardized WIFMS norm, to be read out from the machine's control system.

WIDRIVE – technology designed with people in mind



Cutting down on costs with automated machine functions

/// A world first – the intelligent WIDRIVE machine control system guarantees maximum power and area performance: it manages numerous commands and functions, thus dispensing with up to 50% of the manual inventions normally required to ensure co-ordinated control of the milling machine. WIDRIVE links the major machine functions, controlling the engine speed automatically, turning

the water spray system on or off, controlling the conveyor belt speed, or assisting the machine driver in operating the levelling system. WIDRIVE also controls the engagement process of the milling drum. The intelligent linking of the machine functions is an asset for customers because it ensures low diesel consumption, reduced water demand, low engine noise and increased daily production rates.

LEVEL PRO sets new standards in levelling technology

Electronic slope sensor for the precise milling of predefined cross slopes



Precision has never been so simple



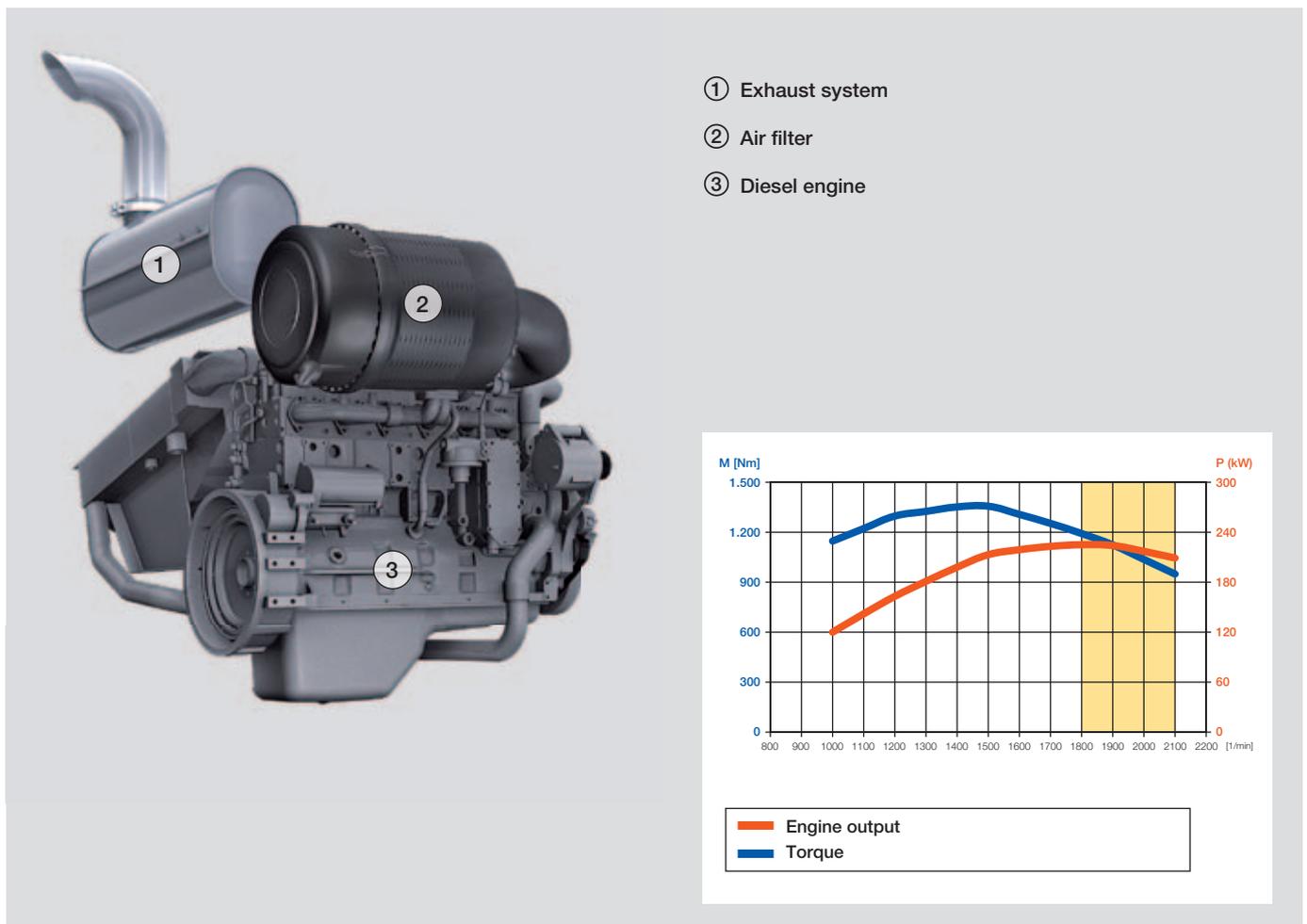
Wire-rope sensor for highly precise milling depth control

The clearly structured screen, which displays all major parameters, allows convenient one-finger operation



- The high-precision LEVEL PRO levelling system specifically designed for milling machines comprises the LEVEL PRO screen, controller and several sensors.
- Set and actual values of the left and right milling depths as well as slope parameters are continuously displayed on the graphics-enabled screen.
- Changing the levelling mode with the related sensors, such as the wire-rope sensor or slope sensor, is possible at any time during the milling operation.
- Set values can be pre-programmed individually for both sides of the machine, stored and then retrieved as required.

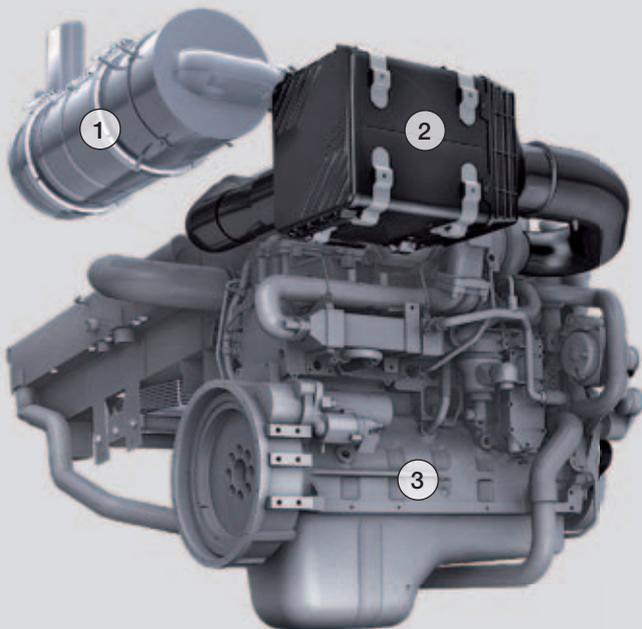
W 100 F, W 120 F, W 130 F – highest engine performance in its class



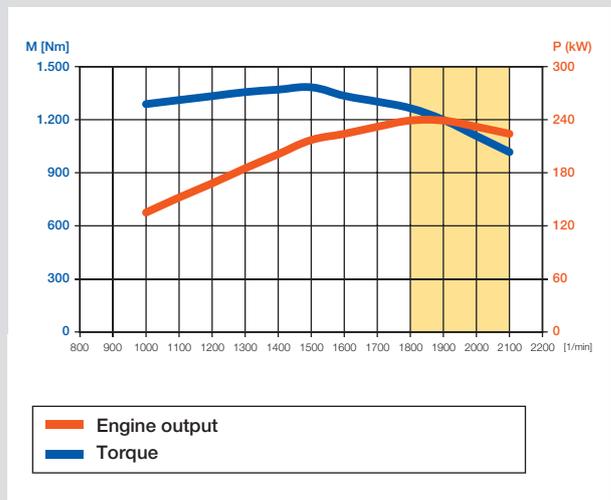
Powerful, yet economical at the same time

- ▶ The engine technology used in the W 100 F, W 120 F, W 130 F cold milling machine complies with the emission standards up to EC Stage 3a / US Tier 3.
- ▶ The engine power, which is unique in this machine class, offers optimized productivity and high daily output rates.
- ▶ The 6-cylinder diesel engine impresses with high performance yet exceptionally low fuel consumption rates.
- ▶ Effective soundproofing of the engine compartment as well as an anti-vibration mounted engine station are hallmarks of this cold milling machine model range.

W 100 Fi, W 120 Fi, W 130 Fi – optimizing environmental protection



- ① Exhaust gas treatment by means of two-way catalytic converter and diesel particulate filter
- ② Special air filter
- ③ Diesel engine with cooled exhaust gas recirculation



▶ The W 100 Fi, W 120 Fi, W 130 Fi features state-of-the-art engine technology for lowest environmental emission levels, complying with the stringent specifications of exhaust emission standards EC Stage 3b / US Tier 4i.

▶ To ensure effective exhaust gas after-treatment, the engine of the W 100 Fi, W 120 Fi, W 130 Fi is equipped with a two-way catalytic converter and diesel particulate filter.

▶ The WIDRIVE machine control system always keeps the engine speed within the optimal range during the milling process.

▶ The engine of the W 100 Fi, W 120 Fi, W 130 Fi impresses with low noise emission and vibration levels as well as low diesel consumption rates.

Perfect design for narrow bends and flush-to-kerb milling



The ultimate in manoeuvrability

/// Manoeuvrability is a vital advantage in particular when working on urban construction sites or in narrow sections. For precisely that reason, the front travel drive units of the highly manoeuvrable construction machines feature a large steering lock and can additionally

be raised and lowered hydraulically. The rear right crawler track is hydraulically swivelled in front of the milling drum quickly from the operator's platform to enable perfect milling also in bends or along obstacles.

Right on track



◀ ... in order to precisely maintain the milling direction

▲ The rear track unit can be steered even when swivelled in front of the drum (optional) ...

Maintaining a comfortable body posture while swivelling the rear crawler track in and out ▶



- ▶ The machines can optionally be supplied as wheel-mounted or track-mounted models.
- ▶ The hydraulic flow divider acts as differential lock, guaranteeing permanent and uniform traction all the time regardless of ground conditions.

- ▶ The machines offer two speed options for setting the milling depth by hydraulically height-adjusting the rear travel drive units.
- ▶ The advance speed can be infinitely varied from zero to maximum speed in the milling gears and in travel gear.

Increasing economic efficiency with the HT11 quick-change toolholder system



HT11 minimizes disruptions in operation

/// Our cold milling machines are fully geared to maximum productivity. Intelligently arranged toolholders ensure high milling power, clean edges and quiet machine operation. Wirtgen offers yet another profitable option, however, with the patented HT11 quick-change toolholder

system, which enables toolholders to be replaced quickly and with only little effort. The low-wear system is designed for heavy-duty operation on the construction site. All benefits considered, users can work much more effectively and efficiently with the HT11 system.

Replace cutting tools quickly and easily



Readily accessible milling drum to allow tool replacement in no time at all

The HT11 quick-change toolholder system offers a series of application benefits



➤ Marks in favour of HT11 are the use of highly wear-resistant materials, ideal tool rotation and easy toolholder replacement.

➤ The hydraulically lifting scraper blade and lockable side plates permit cutting tools to be replaced quickly and safely.

➤ Manual tools or a pneumatic or hydraulic tool extractor are available for the replacement of cutting tools.

➤ Various storage compartments offer space for a tool kit and many cutting tool containers.

W 100 F / W 100 Fi with 1.0 m working width – and optional FCS

Dimensions in mm:

W 100 F / W 100 Fi with 1.0-m drum assembly

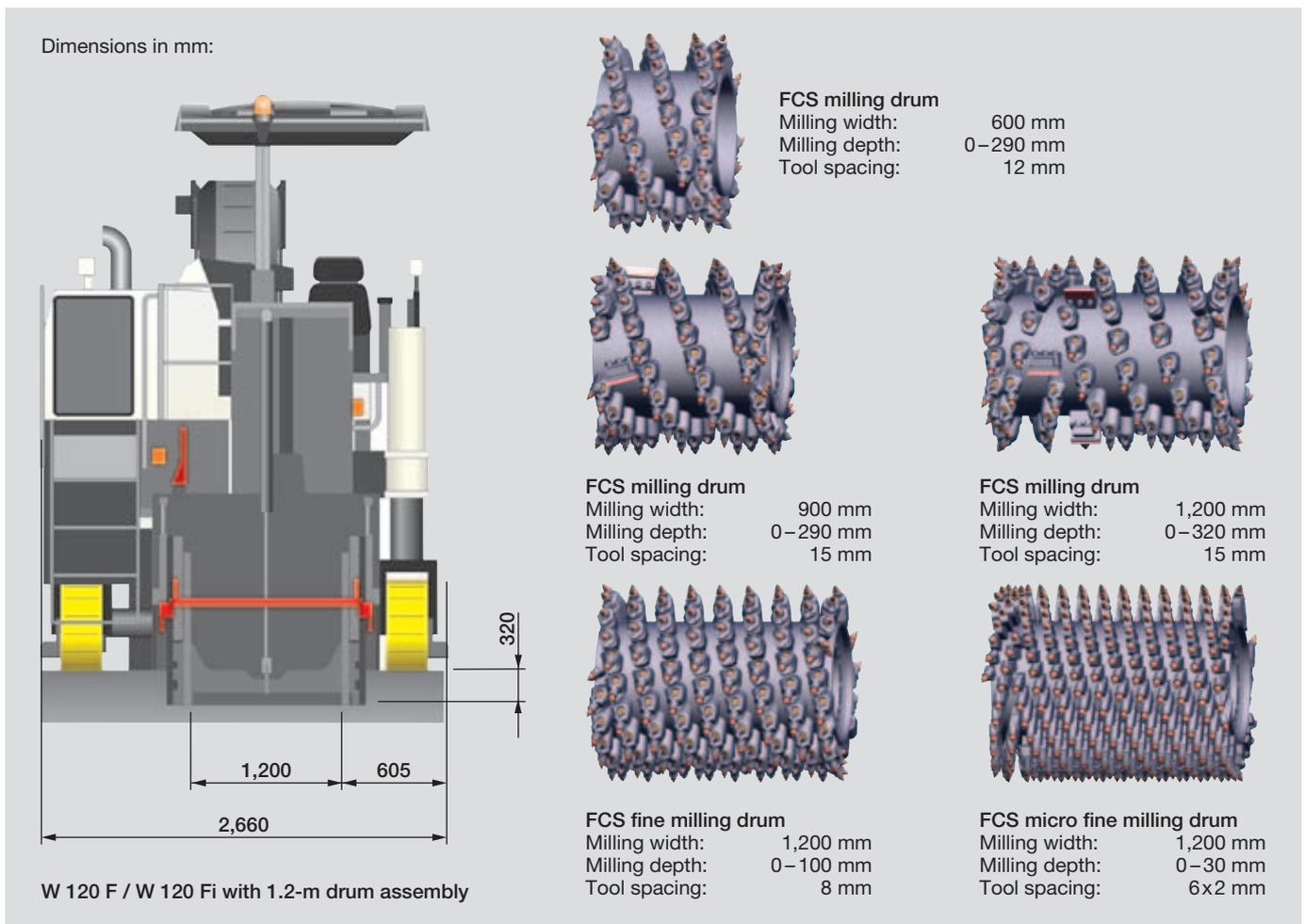
Drum Type	Milling width	Milling depth	Tool spacing
FCS milling drum	500 mm	0–290 mm	15 mm
FCS milling drum	600 mm	0–290 mm	12 mm
FCS milling drum	1,000 mm	0–320 mm	15 mm
FCS fine milling drum	1,000 mm	0–100 mm	8 mm
FCS micro fine milling drum	1,000 mm	0–30 mm	6x2 mm

FCS – one machine, various milling widths

/// The development of the innovative W 100 F, W 120 F, W 130 F / W 100 Fi, W 120 Fi, W 130 Fi series of cold milling machines sets new standards in milling technology for the standard working width range of 1.0 m to 1.3 m. A particular highlight of these machines is the optional FCS: our patented quick-change system for milling drums

turns cold milling machines into all-rounders offering variable working widths and a broad range of applications – and the drums are changed in just a few simple steps. There's no doubt at all: the FCS quick-change system gives milling contractors and construction companies maximum flexibility for their machine fleet.

W 120 F / W 120 Fi with 1.2 m working width – and optional FCS



- ▶ The optional FCS permits milling drums of variable working widths and tool spacings to be changed quickly and with only little effort.
- ▶ FCS milling drums can be exchanged for a different milling drum in no more than 1 to 2 hours.
- ▶ A mounting carriage is available as an equipment option to facilitate the milling drum change.
- ▶ A matching lower scraper section is mounted for each standard and special drum width, which then runs in the milled track at the reduced working width.

W 130 F / W 130 Fi with 1.3 m working width – and optional FCS

Dimensions in mm:

W 130 F / W 130 Fi with 1.3-m drum assembly

FCS milling drum	Milling width:	Milling depth:	Tool spacing:
	600 mm	0–290 mm	12 mm
	900 mm	0–290 mm	15 mm
	1,300 mm	0–320 mm	15 mm
	1,300 mm	0–100 mm	8 mm
	1,300 mm	0–30 mm	6x2 mm

FCS – professional flexibility on site

Whether W 100 F, W 120 F or W 130 F / W 100 Fi, W 120 Fi or W 130 Fi – when optimized with FCS, the cold milling machines turn into truly multi-purpose construction machines for most diverse applications. Variable milling widths and tool spacings enable operations like the large-scale milling of surface courses, removal of asphalt

layers at full depth, or levelling of pavement irregularities to be carried out with maximum economic efficiency. A pleasant side effect of the versatile range of applications offered by our cold milling machines is the resulting high degree of utilization: investing in FCS is bound to pay dividends all round.

Professional milling drum assembly

For clean material loading



▲ Hydraulically adjustable side plates close the milling chamber on the right ...

... and on the left side to ensure clean loading of the milled material ▶



Hydraulically height-adjustable scraper blade ▲

- ▶ The integrated water spray system cools the cutting tools, thus extending their service life; the spray nozzles are easily removed for cleaning.
- ▶ The side plates can be raised or pressed down on the surface hydraulically.

- ▶ The scraper blade is raised high to ensure the simple and swift replacement of cutting tools.
- ▶ The wear-resistant carbide metal plates on the scraper blade are designed for easy replacement.

High daily production is part and parcel of the conveyor system

Perfect removal of the milled material



▲ The gradation control beam is pressed down hydraulically to produce small-sized material and prevent the pavement from breaking into slabs

The hydraulically folding discharge conveyor simplifies transport ▶



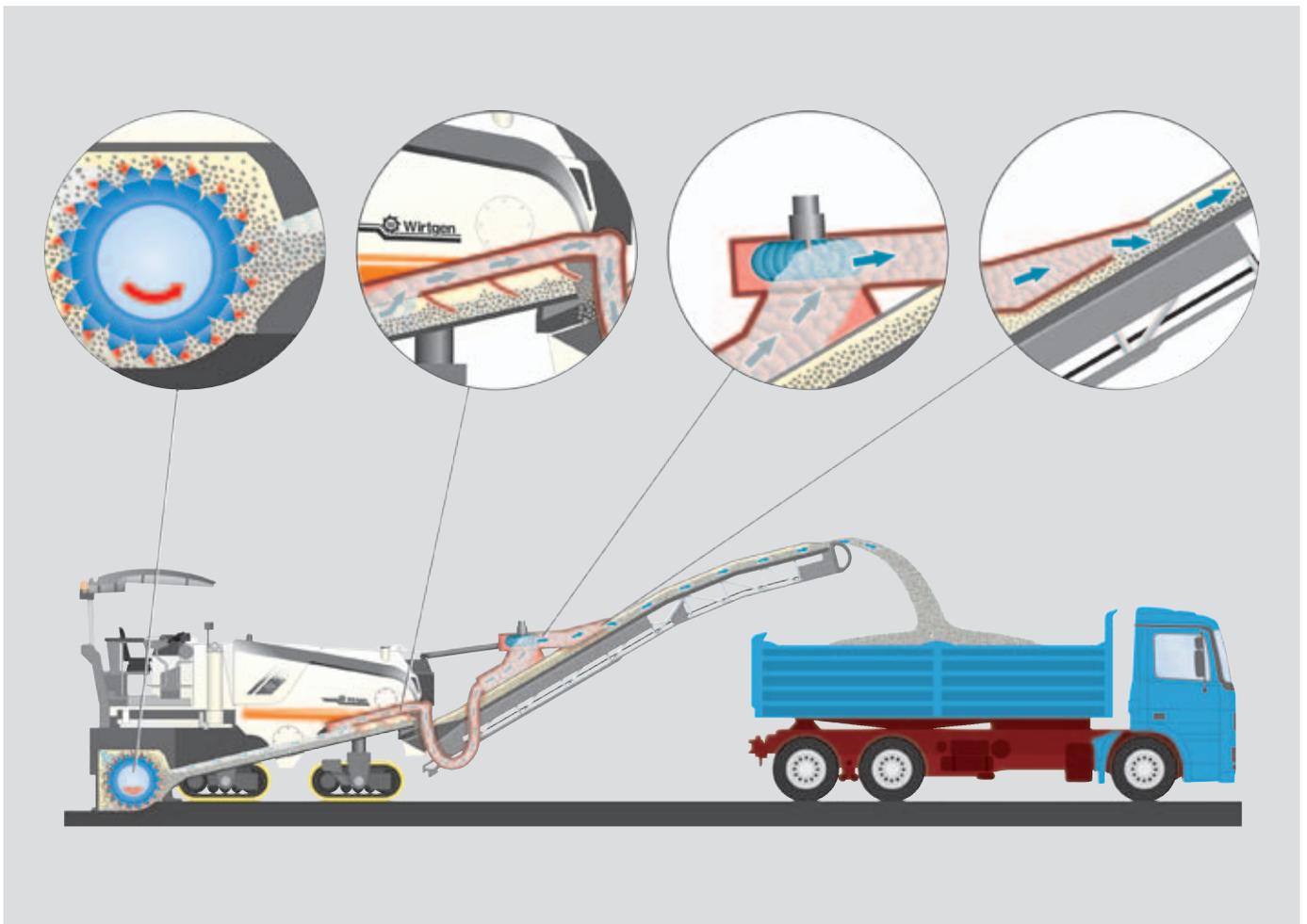
Large amounts of milled material are loaded without difficulty ▲

Smooth material transport even under full load

High performance is the chief goal of the machines in this model series. To permit the milled material to be removed as quickly as possible, the loading conveyor features state-of-the-art technology: from the hydraulically adjustable gradation control beam and large material discharge, wide discharge conveyor with wide slewing angles and extra-wide ribs, all the way to automatic belt speed

control. The latter is infinitely variable, guaranteeing steady loading performance even at extremely high engine loads. There is a choice of three discharge conveyor options: in addition to the long standard conveyor model, a folding discharge conveyor can be supplied in long or short design.

Vacuum Cutting System VCS



- ▶ The innovative vacuum cutting system ensures a free view of the milling edge and much better visibility when working in darkness.
- ▶ The pleasant working conditions improve the performance of the machine operator.

- ▶ The contamination levels of the engine and engine filter are reduced significantly.
- ▶ Yet another positive effect is that less effort needs to be put into cleaning the machine.

Low maintenance requirements – always in top shape



For peace of mind in operation

/// The productivity of a construction machine can be improved significantly by an intelligent maintenance concept. Our front loaders make maintenance an easy job, thus reducing downtimes to a minimum. Wide opening service panels permit convenient access to the diesel en-

gine, hydraulic pumps and points of maintenance. Whether it is merely a scrutinizing look or the replacement of wearing parts: all maintenance procedures are completed swiftly and easily. Last but not least, a comprehensive tool kit is included in the standard scope of delivery.



◀ Wide opening service panels – needless to say, with soundproofing

▼ Servicing is easy and straightforward

Ease of maintenance saves time and money



- ▶ The water tank and diesel tank have large filling capacities to ensure extended milling intervals and increased productivity.
- ▶ Lubrication and service points have been grouped together in order to simplify maintenance.
- ▶ All filters are located right behind the service panels, providing direct access.
- ▶ A hydraulically operated high-pressure water cleaner permits the machine to be cleaned right on the job site.

At work regardless of the time of day or night

For extended productive periods



▲ The adjustable spotlights are attached in no time at all

Spotlights at the discharge conveyor for night work ▶



▲ Excellent visibility is ensured by a comprehensive lighting system

Improved visibility on the construction site

/// If demanded by the project schedule, milling operations sometimes need to continue even at night. No problem at all for our cold milling machines: a comprehensive lighting package turns night into day in the machines' working environment, ensuring controlled and precise milling. The bright spotlights can be adjusted so as to fully

illuminate, together with the permanently installed front lights, all critical points of the machine and the construction site. In addition, the illuminated control panel ensures easy operation even in darkness. In the final analysis, the capacity of the cold milling machines can thus be fully utilized at all times.

Saving time in transport



- ▶ The machines' compact dimensions and low weights facilitate transport.
- ▶ The heavy-duty canopy can be lowered hydraulically for transport purposes.
- ▶ Strong loading and lashing lugs enable the machine to be safely lashed down on a low-loader or loaded by crane.
- ▶ Overall transport length is reduced considerably when the machines are equipped with the optional folding conveyor.

The front loaders in versatile operation



All projects completed to perfection

/// The machines of this model series are the right choice wherever asphalt pavements need to be milled at maximum performance, flexibility and economic efficiency. Their high engine output and milling depth enable the powerful machines to handle important jobs in road construction with superior ease, which include the removal of complete pavement layers, fine milling, sur-

face course replacement, trench cutting, milling tie-ins or the repair of partial pavement damages. The machines' compact design makes them ideally suited also to work in space-restricted areas, for example, on urban construction sites. In other words: with the W 100 F, W 120 F, W 130 F / W 100 Fi, W 120 Fi, W 130 Fi, all's right with the construction world.

Our construction machines in action



Using FCS to cut narrow trenches and channels ▼

▲ Removing asphalt layers at full depth

Efficient, full-scale removal of a surface course ►



- ▶ The cold milling machines are suitable for FCS and can therefore be equipped with milling drums of different working widths and tool spacings, increasing their range of applications.
- ▶ Ease of transport allows the machines to complete several jobs in different locations in the course of one working day.
- ▶ Extra large filling capacities for water and fuel reduce organizational requirements on the job site.
- ▶ The machines' economical technology, heavy-duty design and long service life are proving their worth every day on construction sites around the world.



Wirtgen GmbH
Reinhard-Wirtgen-Strasse 2 · 53578 Windhagen · Germany
Phone: +49 (0) 26 45 / 131-0 · Fax: +49 (0) 26 45 / 131-242
Internet: www.wirtgen.com · E-Mail: info@wirtgen.com