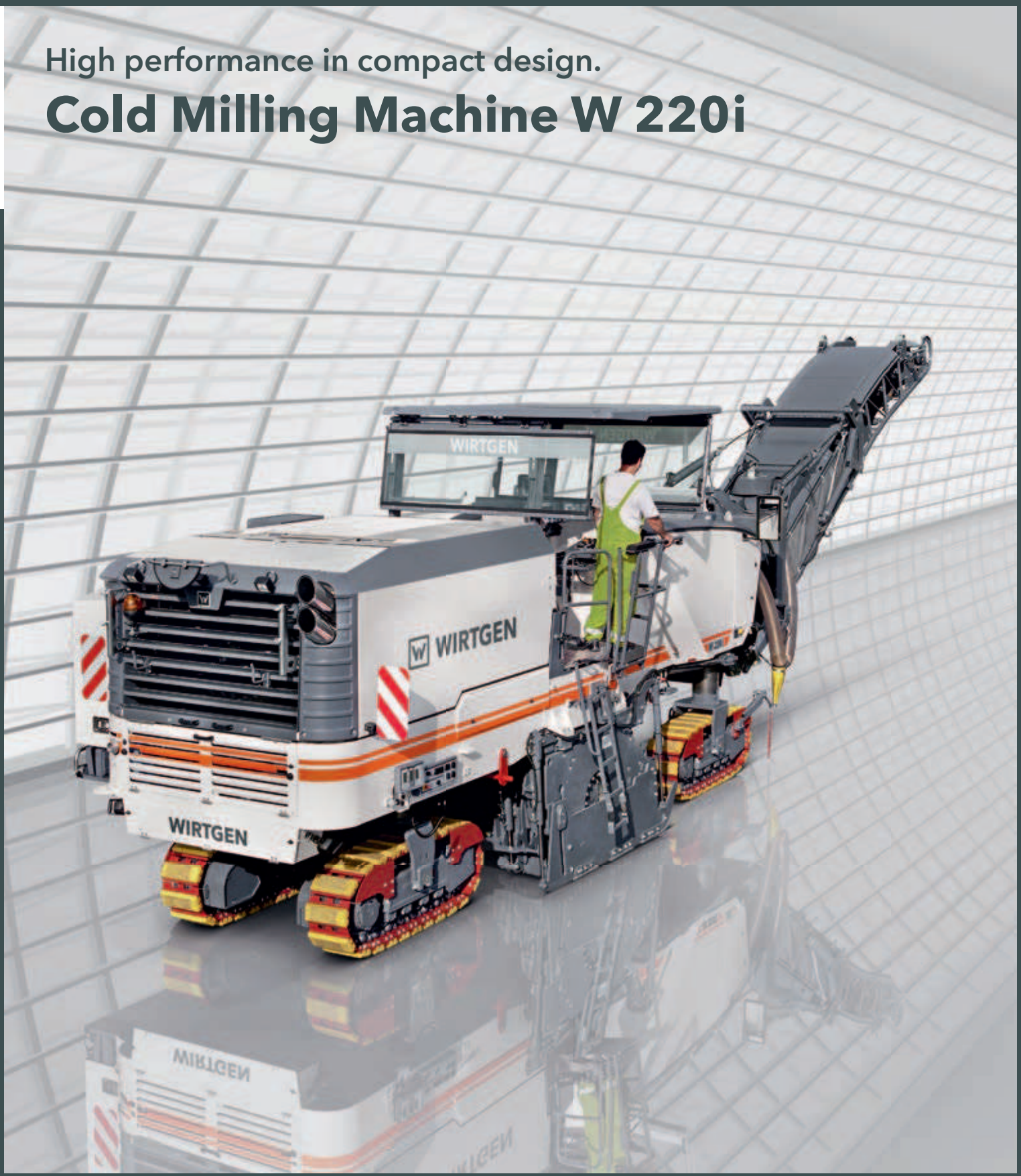
A WIRTGEN GROUP COMPANY

WIRTGEN

High performance in compact design.

Cold Milling Machine W 220i



Courtesy of Machine.Market

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Efficiency paired with high performance.

- ONE OF THE HALLMARKS OF THE LARGE MILLING MACHINE IS ITS POWER-TO-WEIGHT RATIO WHICH HAS BEEN OPTIMIZED FOR TRANSPORT.
- UNCOMPROMISING PERFORMANCE ENSURES TREMENDOUS PRODUCTION RATES.
- THE W 220i IS EMINENTLY SUITABLE FOR REMOVING PAVEMENTS ON A LARGE SCALE AT EXTREMELY LOW OPERATING COSTS.
- FCS LIGHT FOR WORKING WIDTHS OF 7 FT 3 IN (2.2 M) OR 8 FT 2 IN (2.5 M) OFFERS A FLEXIBLE RANGE OF APPLICATIONS.
- ERGONOMIC DESIGN, OPERATOR COMFORT AND INTUITIVE OPERATION ARE ADDITIONAL FEATURES OPTIMIZING MILLING EFFICIENCY.

Courtesy of Machine.Market

Outstanding features of the W 220i cold milling machine

3 | ENGINE STATION

> **Three different milling drum speed options**
Three selectable cutting speeds for optimum milling performance in a broad range of applications.

> **Load-controlled fan speed**
Fan speed governed by engine temperature for low energy consumption and low noise emission levels.

4 | MACHINE FRAME

> **Perfect visibility**
Slender machine frame design at the front including dual wasp waist for a perfect view of the milling edge.

> **Ease of transport**
Ease of transport due to low machine weight and variable supplementary weights of up to 3,307 lbs (1,500 kg).

2 | ELECTRICAL SYSTEM

> **Emergency operation**
Electrohydraulic power pack to raise machine in emergency mode.

> **Camera system**
Robust camera system including up to six cameras and up to two screens.

> **Job data**
Precise recording of job data including "truck full" message.

1 | LEVELLING

> **Large choice of sensors**
LEVEL PRO automatic levelling system as standard equipment, offering a large choice of sensors and highly precise control of the milling depth.

> **Milling depth indicator**
Milling depth indicator on the LEVEL PRO screen (showing difference between scraper blade and side plate positions).

> **Scanning in front of the milling drum**
Scanning in front of the milling drum via hydraulic cylinders with integrated measuring system - suitable for use also with the Multiplex system.

> **Automatic system to initiate the milling process**
Automatic system to initiate the milling process with load-controlled lowering speed.

Courtesy of Machine.Market

5 | OPERATOR'S PLATFORM

> **Multifunctional joystick**
Multifunctional joystick with driving, steering, selecting operating mode, raising machine and switching off conveyor functions.

> **Ergonomics**
Ergonomically designed, backlit controls for non-tiring, productive working.

> **Hydraulically moving and swivelling operator's cabin**
Optionally available Operator Comfort System (OCS) for an ideal working environment.

> **Protective canopy**
Protective canopy with telescoping side panels for maximum protection from inclement weather.

> **Parallel alignment of machine**
Automatic parallel alignment of the machine both during the milling operation and in transport mode.

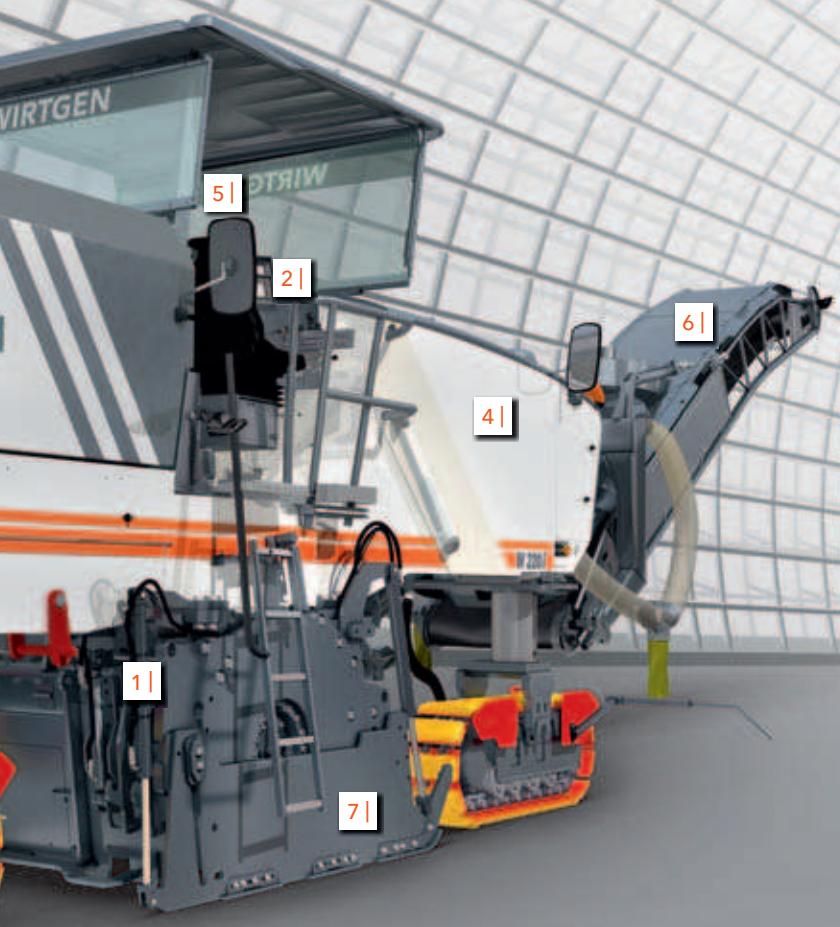
6 | CONVEYOR SYSTEM

> **Large slewing angles**
Conveyor slewing angles of 60° to both sides to optimize the loading process.

> **Tremendous conveying capacity**
High conveyor loading capacity and drive power for highly efficient material loading.

> **Vacuum Cutting System**
Vacuum Cutting System for improved visibility.

> **Folding conveyor with locking mechanism**
Folding conveyor with intelligent mechanical locking mechanism for easy transport.



7 | MILLING DRUM UNIT

> **LOCKING OF SCRAPER BLADE**
Automatic mechanical locking of scraper blade to ensure ease of operation.

> **FCS LIGHT**
FCS Light for the quick replacement of milling drums in FB2200 milling drum unit.

> **HT22 quick-change toolholder system**
Extra efficient, tried-and-tested HT22 quick-change toolholder system as standard equipment.

> **Right-hand side plate lift of 18 in (450 mm)**
Right-hand side plate can be raised by up to 18 in (450 mm) to allow flush-to-kerb milling at the full milling depth.

> **Load-controlled water spray system**
Water spray system with automatic adjustment to the milling performance for optimum tool cooling.

> **Milling drum turning device**
Drum turning device to enable cutting tool replacement with the diesel engine switched off.

8 | TRACTION DRIVE

> **Hydraulic pre-tensioning of track chains**
Hydraulically pre-tensioned track chains for optimized operation.

> **Traction control**
Intelligent electronic traction control system for the track units.

> **Track speed adjustment**
Electronic adjustment of the track speed during cornering to ensure maximum traction and low wear and tear.

> **Four-fold full-floating axle**
Four-fold full-floating axle for optimum machine stability.

The W 220i: completing large jobs quickly and effortlessly.

Unrivalled milling technology

TECHNOLOGY DESIGNED FOR THE LARGE JOBS

The WIRTGEN W 220i large milling machine combines high milling performance and acceptable machine weight into a perfect whole. Our compact top performer not only complies with legal provisions in terms of the maximum total weight of oversize transports but also meets the ambitious performance requirements of milling contractors by producing up to 900 tonnes of milled material per hour.

In addition to simple, tried-and-tested engine technology, the W 220i draws on innovative technologies to secure a competitive edge also on the really big milling jobs: the WIDRIVE machine management system, which relieves the operator of a significant part of his workload, electronic ISC traction drive control, automatic PTS „Parallel to Surface“ system and choice of three different milling drum speeds make this task an easy venture. In addition, milling drums with a working width of 7 ft 3 in (2.20 m) are exchanged quickly thanks to FCS Light.

Courtesy of Machine.Market

1 | *The W 220i clears construction sites easily thanks to its powerful conveyor system.*

2 | *The W 220i large milling machine offers great ease of operation.*

Courtesy of Machine.Market

Unrivalled milling performance

**FEELING AT HOME
ON THE REALLY BIG JOB SITES**

Reliable performance is a major strength of the W 220i cold milling machine. Whether the job specifies milling off 1.5 in (4 cm) thick asphalt surface courses on large-scale motorway projects or the removal of 12 in (30 cm) thick concrete pavements at full depth – one thing is certain: the W 220i puts up a compelling performance thanks to its strong diesel engine, optimum traction and high-performance loading concept.

Its tremendous engine power makes the W 220i the ideal candidate for milling off asphalt pavements at depths of up to 14 in (350 mm) or concrete pavements at high advance rates. In addition to the highly economical milling of individual layers, complete road pavements can also be removed in a single machine pass. Perfect truck logistics enable the W 220i to remove up to 992 US t (900 tonnes) per hour of asphalt. The high-performance W 220i is the ideal choice also for large-scale projects that need to be completed on schedule under tremendous deadline pressure.

Courtesy of Machine.Market

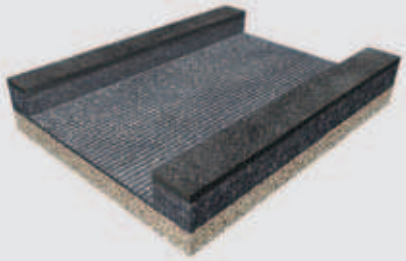
Cut costs – boost revenue

THREE DIFFERENT MILLING DRUM SPEED OPTIONS

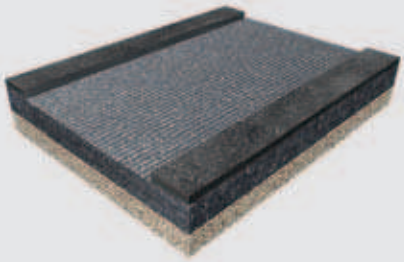
To cut operating costs even further, the W 220i comes with an innovative highlight as part of its standard range of features: adjustment of the milling drum speed from the operator's platform. This guarantees optimum milling performance levels regardless of requirements and across a wide range of applications.

When carrying out standard milling jobs, such as milling off a surface course, the W 220i usually operates at the medium milling drum speed. The high speed is selected for the large-scale milling of thin pavement layers at high machine advance rates. Low speed is the right choice if maximum milling performance levels are to be achieved at the lowest possible cost: it guarantees reduced fuel consumption rates and low cutting tool wear.

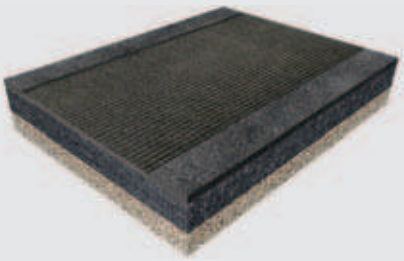
DIFFERENT MILLING DRUM SPEEDS FOR SPECIFIC MILLING JOBS



Low speed: complete removal at full depth



Medium speed: milling of surface courses, thin road pavements etc.



High speed: fine milling

Courtesy of Machine.Market

Courtesy of Machine.Market

High performance – full control.

FAMILIAR WITH THE W 220i LARGE MILLING MACHINE QUICKLY THANKS TO CLARITY IN DESIGN. INNOVATIVE AUTOMATIC FEATURES ARE THERE TO ASSIST YOU. RELIEVING THE OPERATOR OF A SIGNIFICANT PART OF HIS WORKLOAD. ECONOMICAL. PLUS ERGONOMICS, VISIBILITY AND COMFORT ON THE OPERATOR'S PLATFORM. DESIGNED WITH PERFECTION IN MIND. GIVING YOU FULL CONTROL. RELAXED WORKING, TREMENDOUS OUTPUT.

Courtesy of Machi... Market

The workplace has been equipped with two functionally identical control panels left and right.

Ease of operation

SMALL NUMBER OF CONTROLS FOR EASY HANDLING

The W 220i is a hard worker, yet intuitively controlled with a few simple flicks of the wrist. The two identical, clearly structured main control panels allow operation of the machine from the left or right side. Language-neutral symbols and ergonomically designed controls arranged within easy reach promote productive working. The number of controls has been minimized as the intelligent WIDRIVE machine management system takes care of many jobs previously performed by the operator. The multifunctional control screen clearly displays operation parameters and maintenance details. At the customer's request, the W 220i can be equipped with the Operator Comfort System (OCS) in lieu of the standard operator's platform. The hydraulically moving and swivelling cabin can be adjusted to the optimum position for the operator to have full visibility at all times. Camera transmission, precise joystick control and a powerful automatic climate control system provide a perfect working environment regardless of weather conditions.

Courtesy of Machine.Market

1 | *Full visibility and ample space on the operator's platform.*

2 | *Optional OCS: the sound-insulated cabin offers good all-round visibility as well as weather protection and air-conditioned interior temperatures.*

Courtesy of Machine.Market

Giving operators the full picture – at all times

JOB PARAMETERS AND CAMERA IMAGES AT A GLANCE

The multifunctional control screen provides clear information on operational parameters and maintenance details. User-friendly diagnostic tools with clear illustrations ensure the transparency of diagnostic procedures. Continuous logging of events during the milling process is yet another useful feature. In addition, the control system displays information such as the weight and volume of the material milled, size of the milled area or number of trucks loaded automatically after manual entry of the material density and milling width. These job data enable easy logging of daily production rates.

The control screen can be switched to camera mode to monitor important work processes. Two or six cameras with high-resolution colour screens can be installed in accordance with customer specifications. When using six cameras, an additional camera screen is installed to allow two camera views to be displayed simultaneously.

The WIRTGEN WITOS FleetView telematics system supports fleet management, machine position and status monitoring, as well as maintenance and diagnostic procedures. In short: it is yet another key driver for improved efficiency in day-to-day operation.

OVERVIEW OF CAMERAS:

1 | Camera at the rear

2 | Camera at end of conveyor

3 | Camera at scraper

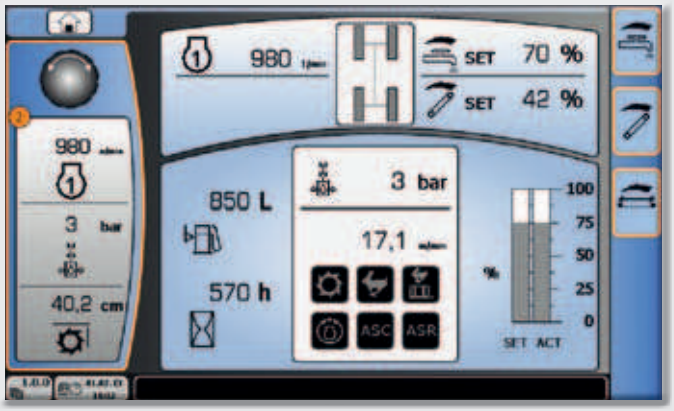
4 | Camera front, centre

5 | Camera front, right

6 | Camera front, left

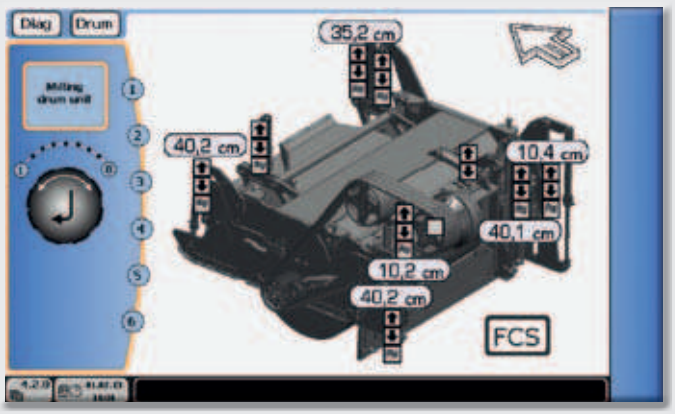
Courtesy of Machine.Market

Operating parameters:

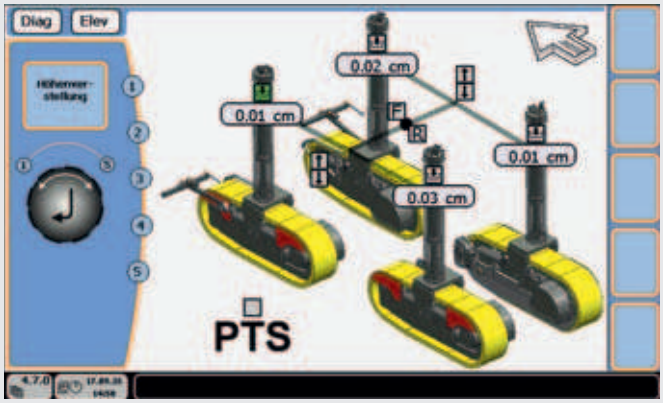


Job data:

Diagnostics of milling drum unit:



Diagnostics of height adjustment:



Courtesy of Machine.Market

Perfect visibility and unmatched operator comfort

Ergonomic working in upright or seated position, on the left or right side. Comfort seats, fully vibration-isolated operator's platform and hot-air blower provide for a comfortable working environment.

**RELAXED OPERATOR –
HIGH PERFORMANCE GUARANTEED**

The productivity of the W 220i increases in proportion to the operator being able to focus on his job. This is why we have made every effort to create a workplace in which the operator feels comfortable and can work in an ergonomic body posture for many hours. A major aspect in this regard is the slender "wasp waist" design which enables an unobstructed view, on both sides, of the milling edge, respective front track unit and side plate.

The operator enjoys ample legroom on the walk-through platform in both standing and seated position. In both working positions, he has an excellent view of the controls and everything that is happening on the construction site. Last but not least, the two main control panels and both driver's seats can be adjusted to fully meet the machine operator's personal requirements.

Depending on weather and site conditions, the canopy can be extended independently on the left and right.

Perfect view of the milling edge thanks to the slender "wasp waist" design.

Courtesy of Machine.Market

LEVEL PRO – high-precision levelling the easy way

PERFECT MILLING RESULTS

WIRTGEN has developed an ultra-precise proprietary levelling system that includes a software programmed specifically for cold milling machines – LEVEL PRO. The overall system comprises the clearly structured LEVEL PRO panel, a controller and multiple sensors. A wide variety of different sensors, such as milling depth, cross slope or ultrasonic sensors, can be integrated into the automatic levelling system. The graphics-enabled LEVEL PRO panel provides a clear readout of key parameters. For example, the set and actual values of two active sensor signals and one passive sensor are continuously displayed on the screens as work progresses. An additional milling depth indicator on the screen – showing the difference between scraper blade and side plate positions – enables convenient monitoring of the actual milling depth. In addition, the memory feature is extremely useful to pre-programme, store and retrieve set values.

LEVEL PRO SCREEN

Courtesy of Machine.Market

Courtesy of Machine.Market

High performance

you can rely on.

THE W 220i – MASTER OF THE ROAD: UNSTOPPABLE DRIVE POWER. TRANSLATED STRAIGHT INTO MILLING PERFORMANCE. HIGH-POWERED REMOVAL OF ASPHALT SURFACES. THANKS TO AN ENGINE FEATURING INNOVATIVE TECHNOLOGIES. UNCOMPROMISING POWER AND OPTIMUM TORQUE. LOW FUEL CONSUMPTION RATES. THIS IS THE OPERATING PRINCIPLE OF AN ECONOMICAL, HIGH-PRODUCTION COLD MILLING MACHINE.

Courtesy of Machine.Market

Ultra-strong engine

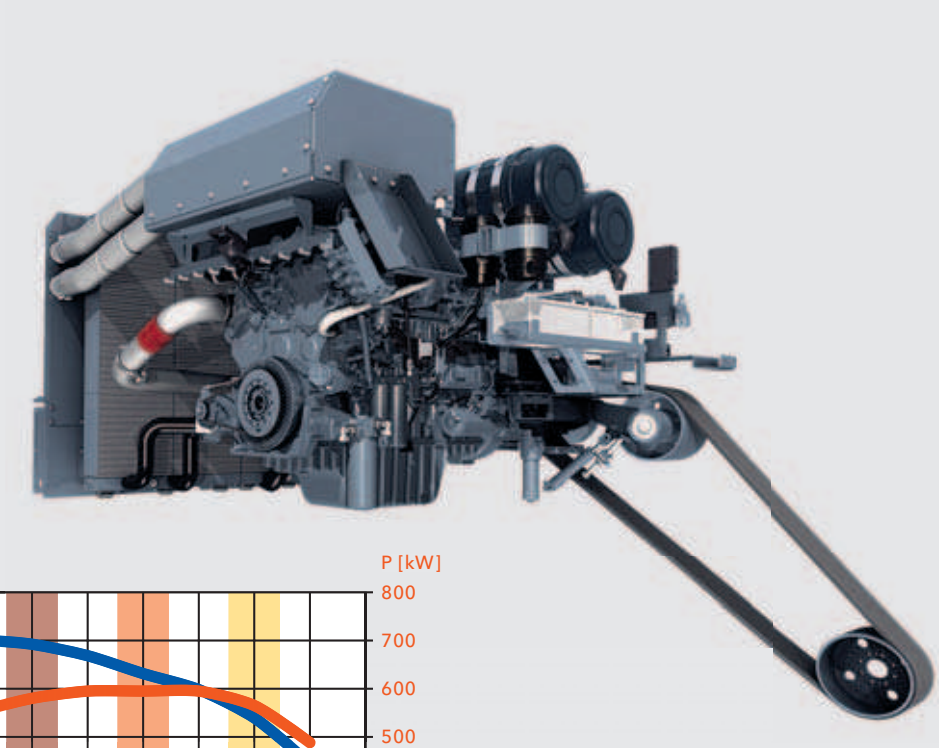
LOW IN FUEL CONSUMPTION

The W 220i offers impressive engine power and performance. When the large-displacement, 6-cylinder diesel engine flexes its muscles, extensive areas can be milled off at full depth and high machine advance rates.

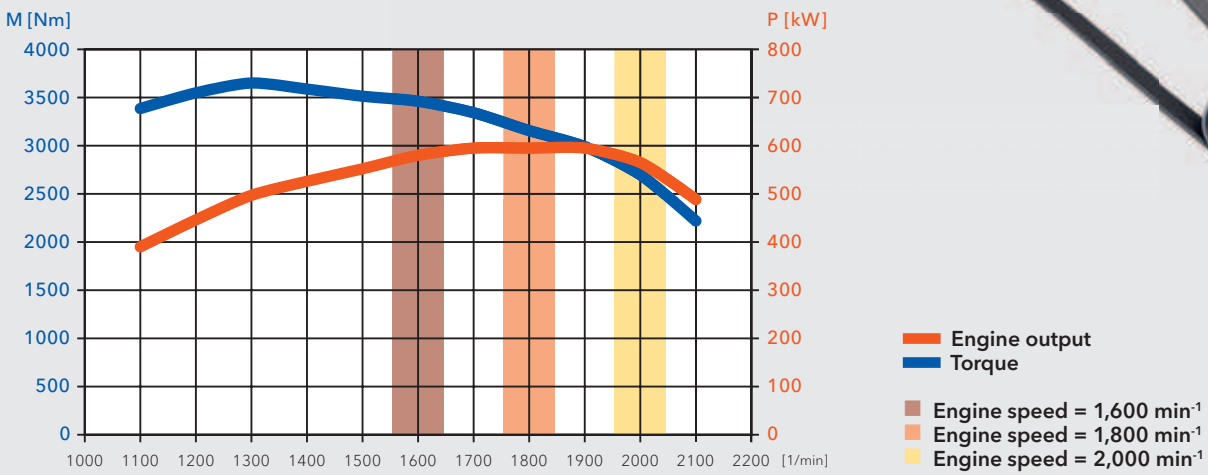
In addition, the fully electronic WIDRIVE machine management system optimizes fuel consumption as the economically efficient engine always works in the optimum performance and torque ranges and at low operating costs. WIDRIVE guarantees consistently high performance levels even under full load.

It goes without saying that the diesel engine fully complies with environmental protection standards. In combination with an effectively sound-insulated engine compartment, the quiet ECO engine guarantees low noise emission levels. The machine operator is protected from vibration as the engine station is held in place and isolated from vibration by silent blocks.

Courtesy of Machine.Market



W 220i ENGINE CHARACTERISTICS:



Maximum efficiency

HIGHLY EFFICIENT MECHANICAL MILLING DRUM DRIVE

The power of the W 220i large milling machine is provided by a mechanical milling drum drive offering an exceptionally high degree of efficiency. An automatic belt tensioner ensures uniform power transmission, while the power belts absorb peak loads and reduce the load exerted on the various components of the drive system.

Additional marks in favour of the tried-and-tested drive design are reduced fuel consumption rates, high wear resistance and ease of maintenance.

Courtesy of Machine.Market

Courtesy of Machine.Market

Impressive manoeuvrability.

RESTRICTED SPACE CONDITIONS AND PERMANENT ROAD FIXTURES. HIGH MILLING EDGES AND DIFFICULT GROUND CONDITIONS. MASTERED QUICKLY AND WITH SUPERIOR EASE BY THE MANOEUVRABLE W 220i. EQUIPPED WITH TRIED-AND-TESTED TECHNOLOGIES. SUCH AS PTS, WHICH ALIGNS THE MACHINE PARALLEL TO THE SURFACE AUTOMATICALLY, OR ISC, THE ELECTRONIC TRACK STEERING SYSTEM. IN SHORT: CHALLENGES BECOME A MATTER OF ROUTINE.

Courtesy of Machine.Market

Large steering angles of the four track units enable amazingly small turning circles.

ISC – the intelligent traction drive system

TRACTION CONTROL, POWER CONTROL, PRECISE MANOEUVRING IN BENDS

Crab steering enables the W 220i to easily approach existing milled cuts.

High engine power is not the only factor enabling the machine to make swift headway on the construction site. Maximum traction and excellent manoeuvrability are just as important. The intelligent ISC advance speed control system enables the W 220i to put up an outstanding performance in this regard. Electronic traction control, which is a part of ISC (Intelligent Speed Control), prevents the slip of individual track units in case of insufficient grip while ensuring maximum traction of all four tracks at the same time. In addition, ISC automatically adjusts the machine's advance speed to the engine load in order to always achieve maximum milling performance. ISC also governs the cornering speed of the outer track units electronically to maintain maximum traction and minimize track pad wear.

Courtesy of Machine.Market

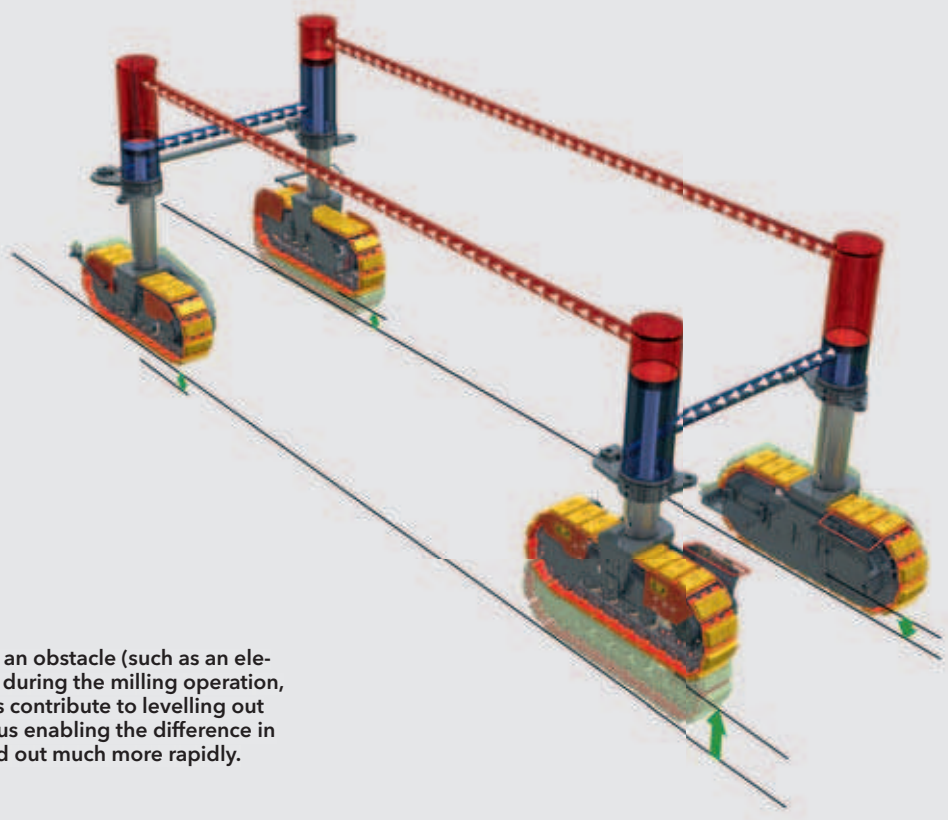
PTS – always parallel to the road surface

HIGH MACHINE STABILITY FOR INCREASED MILLING EFFICIENCY

The innovative PTS system – PTS being short for „Parallel to Surface" – aligns the W 220i parallel to the pavement surface automatically to ensure perfect milling results. The W 220i needs to overcome significant differences in height quite frequently when moving into or out of the milled cut or when one of the track units on the left or right is travelling on uneven ground. The integrated fourfold full-floating axle levels out all four track units quickly and reliably without the need for manual corrections, in this way reducing the machine's longitudinal and transverse inclination to a minimum.

This lends a high degree of stability to the large milling machine while ensuring perfect levelling quality and giving the operator a pleasant driving experience at the same time.

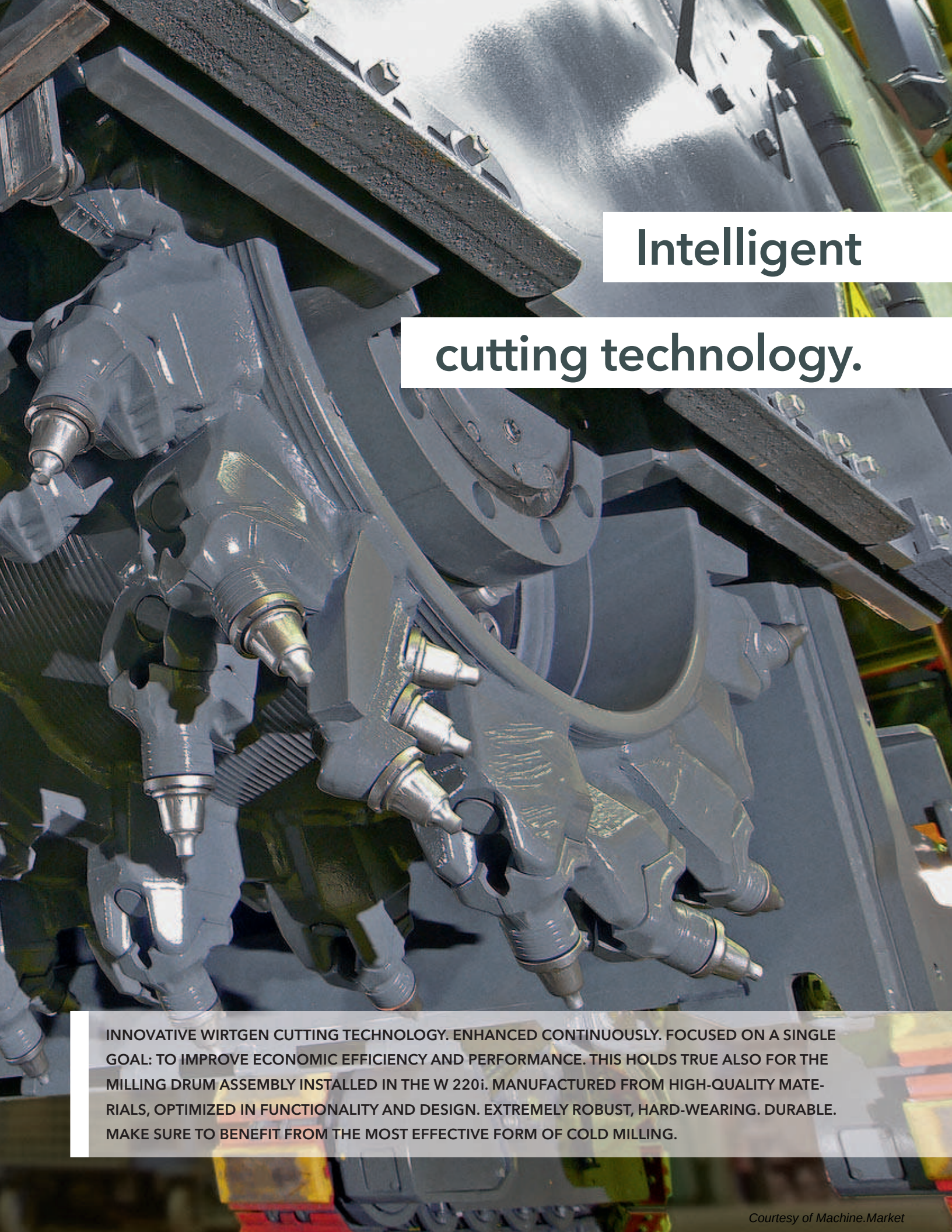
The cold milling machine aligns parallel to the pavement surface automatically.



If one track unit hits an obstacle (such as an elevated milling edge) during the milling operation, the other three units contribute to levelling out the height offset, thus enabling the difference in height to be levelled out much more rapidly.

Courtesy of Machine.Market

Courtesy of Machine.Market



Intelligent cutting technology.

INNOVATIVE WIRTGEN CUTTING TECHNOLOGY. ENHANCED CONTINUOUSLY. FOCUSED ON A SINGLE GOAL: TO IMPROVE ECONOMIC EFFICIENCY AND PERFORMANCE. THIS HOLDS TRUE ALSO FOR THE MILLING DRUM ASSEMBLY INSTALLED IN THE W 220i. MANUFACTURED FROM HIGH-QUALITY MATERIALS, OPTIMIZED IN FUNCTIONALITY AND DESIGN. EXTREMELY ROBUST, HARD-WEARING. DURABLE. MAKE SURE TO BENEFIT FROM THE MOST EFFECTIVE FORM OF COLD MILLING.

Courtesy of Machine.Market

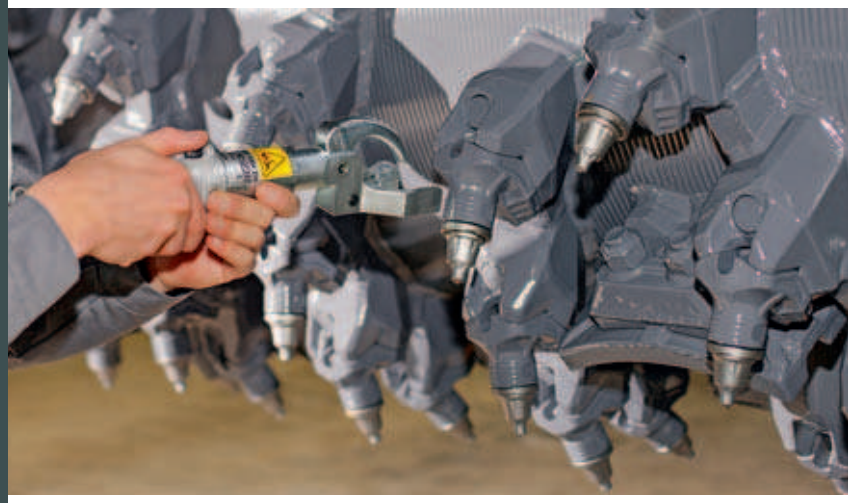
HT22 for increased profitability on the job site

LONG SERVICE LIFE IN EVEN THE TOUGHEST JOBS

The heavy-duty HT22 quick-change toolholder system minimizes breaks in operation as it has been designed for tough operating conditions.

This is ensured by the use of exceptionally wear-resistant materials, perfect tool rotation and easy tool replacement – to name just a few of its many advantages. Cutting tool replacement can be facilitated further by means of a hydraulic drum turning device and an additional seat mounted between the rear track units.

The cutting tools are replaced using either standard manual or pneumatic extractors or – to optimize the process – an electrohydraulic tool extractor which extracts the tools effortlessly with the engine switched off.



The electrohydraulically operated tool extractor improves the machine's overall productivity.

HT22 QUICK-CHANGE TOOLHOLDER SYSTEM IN DETAIL

1 | Extremely large maximum wear distance

2 | Wear markers at $^{3}/_{16}$ in (5 mm) intervals

3 | High wear volume

4 | Optimized shank angle geometry for high component strength

5 | Large shank cross-section for significantly higher fracture strength

6 | Protective plug prevents soiling of bolt head

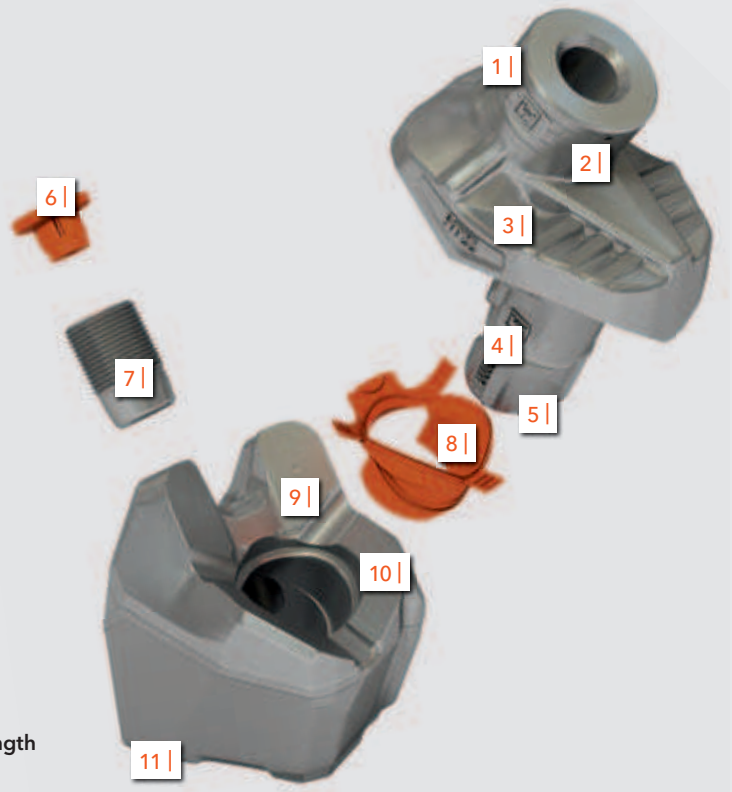
7 | Heavy-duty retaining bolt

8 | Seal between upper part and bottom part to allow simple insertion / removal of upper part

9 | Upper part covers bottom part completely for full protection of bottom part

10 | Extra large contact surface between upper part and bottom part for extended bottom part life

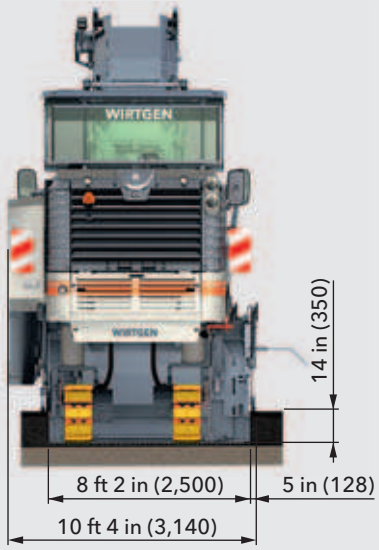
11 | Optimized welded connection offering increased strength and simultaneous flexibility for optimum tool rotation



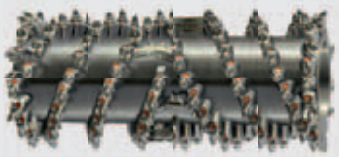
Courtesy of Machine.Market

Dimensions in American standard and mm:

W 220i with 7 ft 3 in (2.2-m) drum assembly



W 220i with 8 ft 2 in (2.5-m) drum assembly



Standard milling drum
Milling width: 7 ft 3 in (2,200 mm)
Milling depth: 0–14 in (0–350 mm)
Tool spacing: $^{5}/_{8}$ in (15 mm)

Standard milling drum
Milling width: 8 ft 2 in (2,500 mm)
Milling depth: 0–14 in (0–350 mm)
Tool spacing: $^{5}/_{8}$ in (15 mm)

Milling drum assemblies – 7 ft 3 in (2.2 m) and 8 ft 2 in (2.5 m) wide

DIFFERENT WORKING WIDTHS

The W 220i large milling machine comes with a 7 ft 3 in (2.2-m) milling drum assembly in the standard package, a 8 ft 2 in (2.5-m) wide assembly being available as an equipment option.

The 7 ft 3 in (2.2-m) wide milling drum assembly is suitable for FCS Light, which enables milling drums of equal width but with different tool spacings to be changed with only little effort.

Courtesy of Machine.Market

FCS Light increases flexibility and machine utilization

FCS LIGHT FOR MILLING DRUMS WITH A WORKING WIDTH OF 7 FT 3 IN (2.2 M)

High levels of utilization are a key factor in the profitable operation of large cold milling machines. The W 220i fully meets this requirement when equipped with the FCS Light Flexible Cutter System: milling drums of equal working widths – but with different tool spacings – can be exchanged with only little effort. The system's real-life design and supporting tools, such as a special mounting carriage, allow the drums to be exchanged in an extremely short period of time.

As a result, a single cold milling machine can remove wheel ruts on a country road, prepare a surface for the application of a thin pavement layer by means of fine milling, or remove the coating from an asphalt or concrete pavement when equipped with a micro-fine milling drum. FCS Light is available for milling drums with a working width of 7 ft 3 in (2.2 m).

DIFFERENT TYPES OF MILLING DRUMS

ECO cutters fitted with a reduced number of point-attack cutting tools ensure maximum area performance.

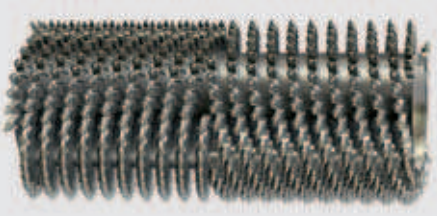
Standard milling drums are ideally suited to the removal of one or more pavement layers, ensuring a good interlock between the milled surface and the new pavement.

Fine milling drums create finely textured surfaces ideally suited as a base for the application of thin pavement layers. Micro-fine milling drums can be used to roughen road pavements and to improve their evenness and skid resistance.

ECO cutter
Milling width: 7 ft 3 in (2,200 mm)
Milling depth: 0 – 14 in (0 – 350 mm)
Tool spacing: 1 in (25 mm)

Standard milling drum
Milling width: 7 ft 3 in (2,200 mm)
Milling depth: 0 – 14 in (0 – 350 mm)
Tool spacing: $^{9}/_{16}$ in (15 mm)

Fine milling drum
Milling width: 7 ft 3 in (2,200 mm)
Milling depth: 0 – 4 in (0 – 100 mm)
Tool spacing: $^{5}/_{16}$ in (8 mm)



Micro-fine milling drum
Milling width: 7 ft 3 in (2,200 mm)
Milling depth: 0 – $1\,^{3}/_{16}$ in (0 – 30 mm)
Tool spacing: $^{1}/_{4}$ x 2 in (6 x 2 mm)

Courtesy of Machine.Market

The left side plate can be raised by 14 in (350 mm), the right one by as much as 18 in (450 mm).

Intelligent features of the milling drum housing

FULLY ENGINEERED TECHNOLOGY

The milling drum assembly of the W 220i offers a wealth of useful solutions. To prevent any collisions occurring during manoeuvring, the gradation control beam, scraper blade and side plates are moved into a protective position automatically together with the lifting columns. If part of the milled material is to remain in the milled cut, the machine operator can raise the scraper blade hydraulically and lock it at the required height. In addition, the scraper blade can be swung wide open hydraulically to provide access to the milling drum for the replacement of cutting tools. The scraper blade and the two protective side plates provide effective closure of the milling chamber.

Practical detail: the side plate on the right can be raised by as much as 18 in (450 mm). Accurate milling flush to kerb is thus also ensured at large working depths, enabling the side plate to move over the kerb for the purpose of level detection.

Courtesy of Machine.Market

1 |

2 |

3 | **Dimensions in American standard and mm:**

1 | The gradation control beam is hydraulically height-adjustable and protects the primary conveyor from premature wear.

2 | The scraper blade is locked at the required height to allow partial loading.

3 | Accurate milling along kerbs is possible on the right side even at maximum milling depth.

Courtesy of Machine.Market

High-performance, reliable material loading.

NEEDLESS TO SAY THAT COLD MILLING MACHINES MUST ALSO BE CAPABLE OF LOADING THE AMOUNTS OF MATERIAL THEY HAVE MILLED. THE HIGH-POWERED W 220i LARGE MILLING MACHINE IS THEREFORE EQUIPPED WITH A HIGH-CAPACITY, FLEXIBLE CONVEYOR SYSTEM. REMOVE HUGE AMOUNTS OF MILLED MATERIAL QUICKLY AND STEADILY. LET PERFORMANCE SPEAK FOR ITSELF.

High conveying capacity for huge amounts of milled material

1 | *Wide conveyor slewing angles of 60° to either side master any difficult loading situation.*

2 | *Especially suitable for night work: the stoplight system gives silent "Stop" and "Go" instructions to the truck driver.*

PERFECT SOLUTION FOR MATERIAL TRANSPORT

As the W 220i has been designed for the removal of large amounts of material, an effective material loading system is a must: the discharge conveyor can be slewed to either side, thus enabling high-performance loading also when the machine is working in bends or crossroad areas, or to ensure that trucks can change "on the fly".

In addition, the loading height can be adjusted to the specific working situation. Continuously adjustable speed of the wide, steep-incline conveyor belt enables even large five-axle semi-trailers to be loaded quickly and to full capacity. At the end of the day, the tremendous conveying capacity and variable adjustment options of the discharge conveyor guarantee high daily production rates irrespective of site conditions.

Continuously adjustable belt speed and discharge range.

Courtesy of Machine.Market

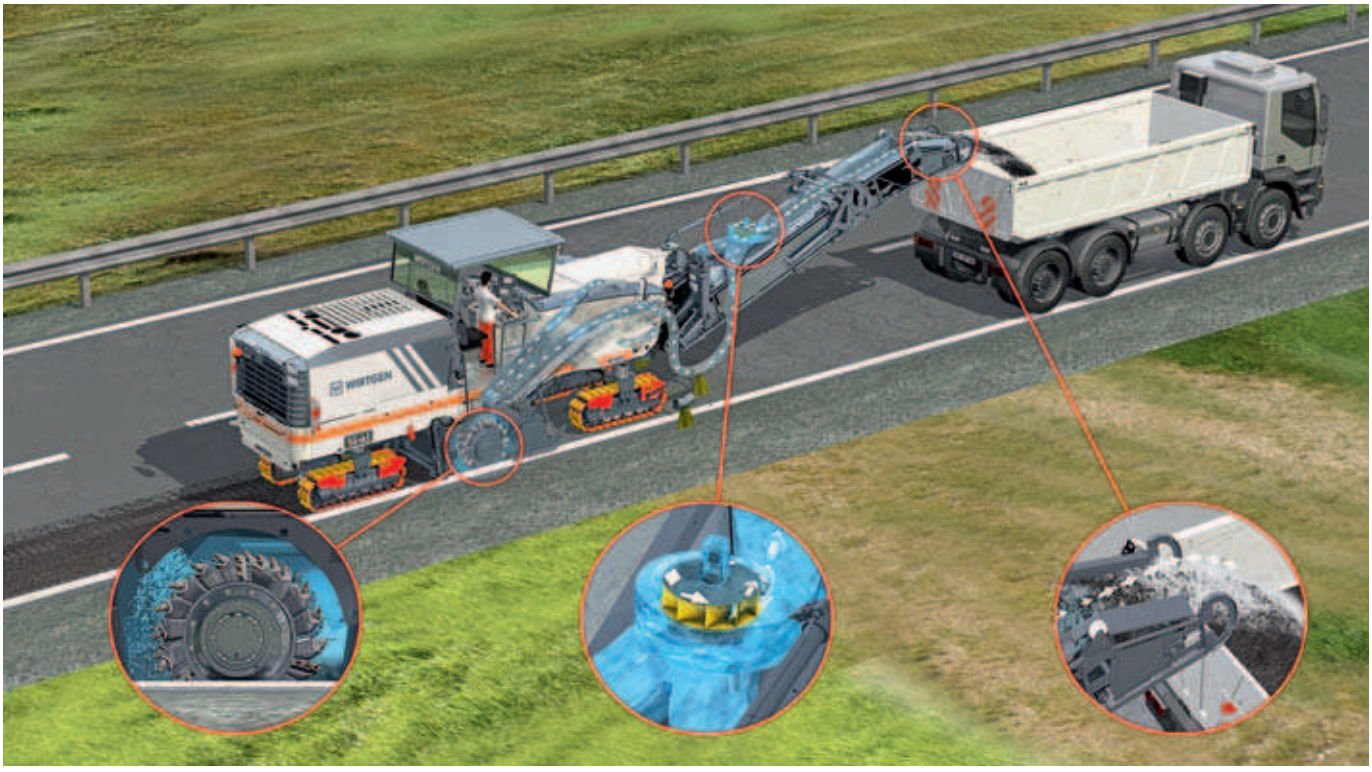
VCS – Vacuum Cutting System offers a perfect working environment

INNOVATIVE EXTRACTION TECHNOLOGY FOR A FREE VIEW OF THE MILLING EDGE

The health and well-being of the operating crew deserve particular attention. The W 220i can therefore be equipped with the Vacuum Cutting System to extract fine material particles: by creating a negative pressure in the drum housing, the mix of air and water vapour is evacuated from the housing and then fed back into the stream of the milled material on the discharge conveyor via a hose system.

Better air quality and visibility in the working environment of the machine operator and ground crew significantly improve operator comfort and boost staff performance. In addition, reduced soiling of components such as the engine or air filter results in savings in the replacement of spare parts or cleaning of the machine.

The centrifugal fan can be adjusted in speed.



Courtesy of Machine.Market

Courtesy of Machine.Market

Ready for operation –

always.

NOTHING IS MORE IMPORTANT TO US THAN ENSURING THE OPERATIONAL AVAILABILITY OF YOUR W 220i. GUARANTEED BY: MACHINE COMPONENTS OF HEAVY-DUTY DESIGN. EASE OF MAINTENANCE AND EXTENDED MAINTENANCE INTERVALS. AN EFFECTIVE LIGHTING SYSTEM. FAST MACHINE TRANSPORT FROM ONE JOB LOCATION TO THE NEXT. THE WIRTGEN GROUP PRESENT ON A GLOBAL SCALE OFFERING DEPENDABLE SERVICE SUPPORT.

Courtesy of Machine.Market

Intelligent maintenance concept is a valuable time saver

Powerful lighting enables night operations to be completed quickly and efficiently.

KEEPING MAINTENANCE CONSISTENTLY SIMPLE

The small number of intelligently arranged points of maintenance are readily accessible by simply opening the engine cowling or service panels on the side of the machine. The water wash down and hydraulic high-pressure cleaner enable thorough cleaning of the W 220i regardless of the machine's location. The machine's comprehensive automatic diagnostic system autonomously monitors valves, sensors and control components.

PERFECT VISIBILITY REGARDLESS OF THE TIME OF DAY OR NIGHT

Numerous working lights with flexible adjustment options arranged at various points of the W 220i and up to two lighting balloons perfectly illuminate the entire machine as well as the roadway, milling edge and material discharge area. In addition, backlit control panels create an undisturbed working environment for both the machine operator and ground crew.

Courtesy of Machine.Market

Ease of transport guaranteed

LOADED QUICKLY

The folding conveyor design reduces the overall length of the W 220i, thus permitting the use of smaller transport vehicles. The fold-down protective canopy minimizes the transport height of the machine and flatbed truck.

Flexible supplementary weights enable transport of the W 220i on vehicles with a low maximum permissible payload.

Our range of equipment options includes conveyor support legs for machine transport on a flatbed truck.

The hydraulically folding discharge conveyor reduces the transport length of the W 220i.

Easy transport on a flatbed truck.

Courtesy of Machine.Market

PROTECTING THE ENVIRONMENT AND ACHIEVING HIGH MILLING PERFORMANCE RATES ARE NOT MUTUALLY EXCLUSIVE GOALS. THIS IS OUR MAXIM, AND IT IS CONFIRMED BY THE W 220i FEATURING ENVIRONMENTALLY FRIENDLY MACHINE TECHNOLOGY. SUCH AS WIDRIVE – THE INTELLIGENT MACHINE MANAGEMENT SYSTEM. SUCH AS VCS – THE INNOVATIVE DUST EXTRACTION SYSTEM. REDUCED EXHAUST, NOISE AND DUST EMISSIONS ARE IMPORTANT ITEMS IN THE BALANCE SHEET.

Courtesy of Machine Market

Complying with strict environmental standards.

Courtesy of Machine.Market

Technical specification

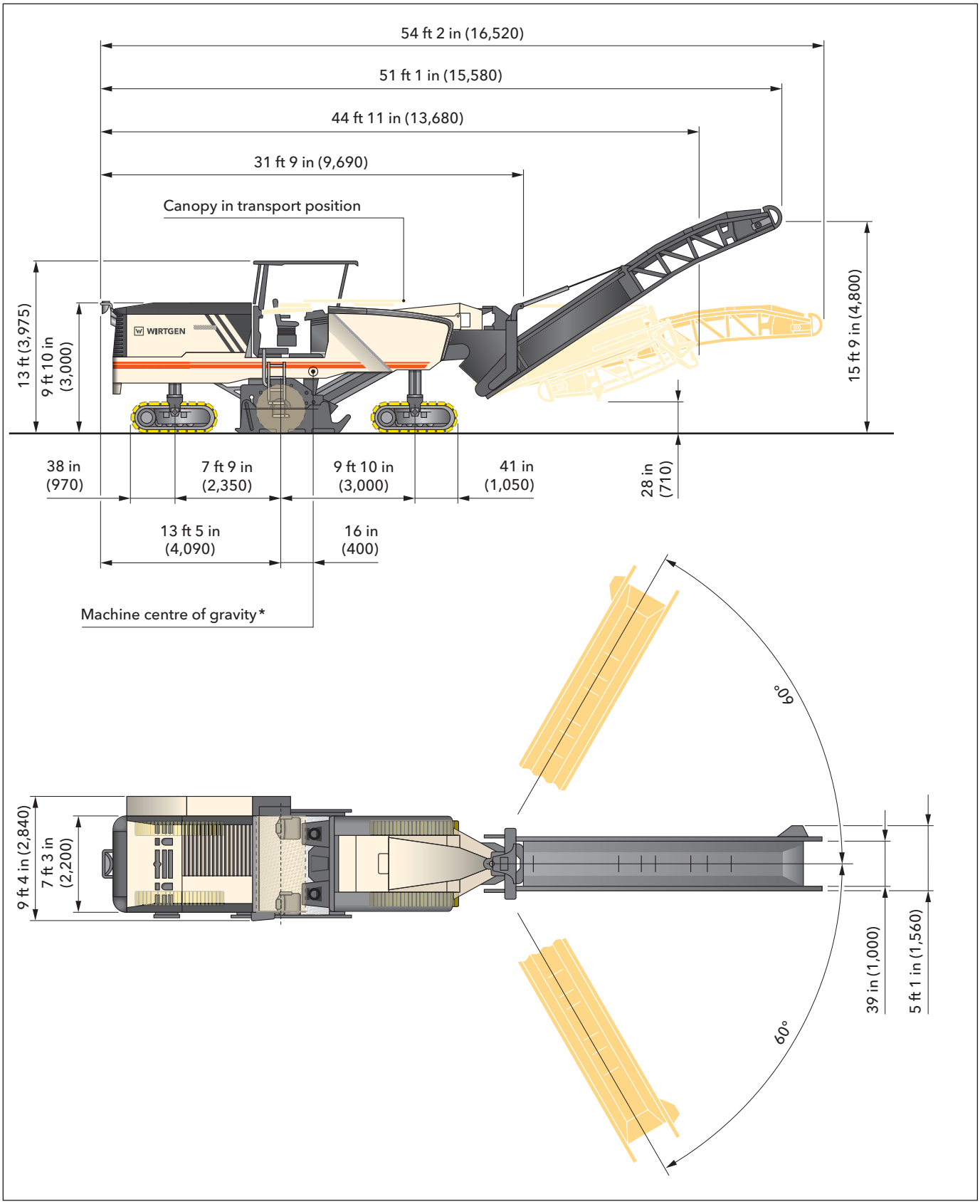
Milling drum	
Milling width standard	7 ft 3 in (2,200 mm)
Milling width optional	8 ft 2 in (2,500 mm)
Milling depth *[1]	0 – 14 in (0 - 350 mm)
Drum diameter with tools	45 in (1,140 mm)
Eng ine	
Manufacturer	Caterpillar
Type	C18 ATAAC
Cool ing	water
Number of cyl inders	6
Rated power at 1,950 m in^{-1}	597 kW / 801 HP / 812 PS
Maximum power at 1,700 m in^{-1}	597 kW / 801 HP / 812 PS
Displacement	4.8 gal (18.1 l)
Fuel consumption at rated power	39.6 gal / h (150 l / h)
Fuel consumption in field mix	15.9 gal / h (60 l / h)
Emission standards	US Tier 4f
Electrical system	
Electrical power supply	24 V
Tank capacities	
Fuel tank	385.7 gal (1,460 l)
Hydraulic oil tank	79.3 gal (300 l)
Water tank	1,189 gal (4,500 l)
Driv ing properties	
Max. travel and milling speed	0 – 288 ft / min (3.29 mph) (0 - 88 m / min (5.3 km / h))
Track units	
Track units, front and rear (L x W x H)	6 ft 7 in x 15 in x 30 in (2,000 x 370 x 750 mm)
Load ing of the milled material	
Belt width of primary conveyor	43 in (1,100 mm)
Belt width of discharge conveyor	39 in (1,000 mm)
Theoretical capacity of discharge conveyor	722 yd^3 / h (552 m^3 / h)

*[1] = The maximum milling depth may deviate from the value indicated due to tolerances and wear.

Weight of base machine	
Empty weight of machine excluding tank contents	75,839 lbs (34,400 kg)
Operating weight, CE *[2]	82,453 lbs (37,400 kg)
Maximum operating weight (full tanks, full range of equipment) in FB2200	98,348 lbs (44,610 kg)
Weights of tank contents	
Water tank filling	9,921 lbs (4,500 kg)
Diesel tank filling (6.93 lbs / gal (0.83 kg / l))	2,668 lbs (1,210 kg)
Additional add-on weights	
Driver and tools	
Driver	165 lbs (75 kg)
5 cutting tool containers	276 lbs (125 kg)
On-board tools	66 lbs (30 kg)
Optional milling drum assemblies in lieu of standard	
Milling drum housing FB2200 (7 ft 3 in)	1,168 lbs (530 kg)
Milling drum housing FB2500 (8 ft 2 in)	2,293 lbs (1,040 kg)
Milling drum housing FB2200 (7 ft 3 in) FCS-L	2,910 lbs (1,320 kg)
Milling drum housing FB2500 (8 ft 2 in) FCS-L	4,189 lbs (1,900 kg)
Optional FCS milling drums in lieu of standard	
FCS milling drum, FB2200 (7 ft 3 in) HT22 LA15, multiple parts, with 188 picks	926 lbs (420 kg)
FCS milling drum, FB2500 (8 ft 2 in) HT22 LA15, multiple parts, with 211 picks	1,896 lbs (860 kg)
FCS milling drum FB2200 (7 ft 3 in) HT22 LA15 with 188 picks	-265 lbs (- 120 kg)
FCS milling drum FB2200 (7 ft 3 in) HT22 LA18 with 164 picks	728 lbs (- 330 kg)
FCS milling drum FB2500 (8 ft 2 in) HT22 LA15 with 208 picks	198 lbs (160 kg)
FCS milling drum FB2500 (8 ft 2 in) HT22 LA18 with 180 picks	-198 lbs (- 90 kg)
FCS milling drum FB2200 (7 ft 3 in) HT22 LA8 with 298 picks	992 lbs (450 kg)
FCS milling drum FB2200 (7 ft 3 in) HT22 LA25 with 134 picks	-1,455 lbs (- 660 kg)
FCS milling drum FB2200 (7 ft 3 in) HT5 LA6X2 with 740 picks	992 lbs (450 kg)
FCS milling drum FB2500 (8 ft 2 in) HT22 LA25 with 146 picks	-882 lbs (- 400 kg)
FCS milling drum FB2500 (8 ft 2 in) HT22 LA8 with 335 picks	1,940 lbs (880 kg)
FCS milling drum FB2500 (8 ft 2 in) HT5 LA6X2 with 840 picks	1,962 lbs (890 kg)
Optional additional equipment	
Operator's platform including comfortable seats in lieu of standard	551 lbs (250 kg)
Canopy in lieu of standard	595 lbs (270 kg)
Cabin in lieu of standard	1,323 lbs (600 kg)
VCS – Vacuum Cutting System	331 lbs (150 kg)
Supplementary weight for flexible use	3,307 lbs (1,500 kg)

*[2] = Weight of machine, half-full water tank, half-full fuel tank, driver (165 lbs (75 kg)), on-board tools, excluding optional equipment features.

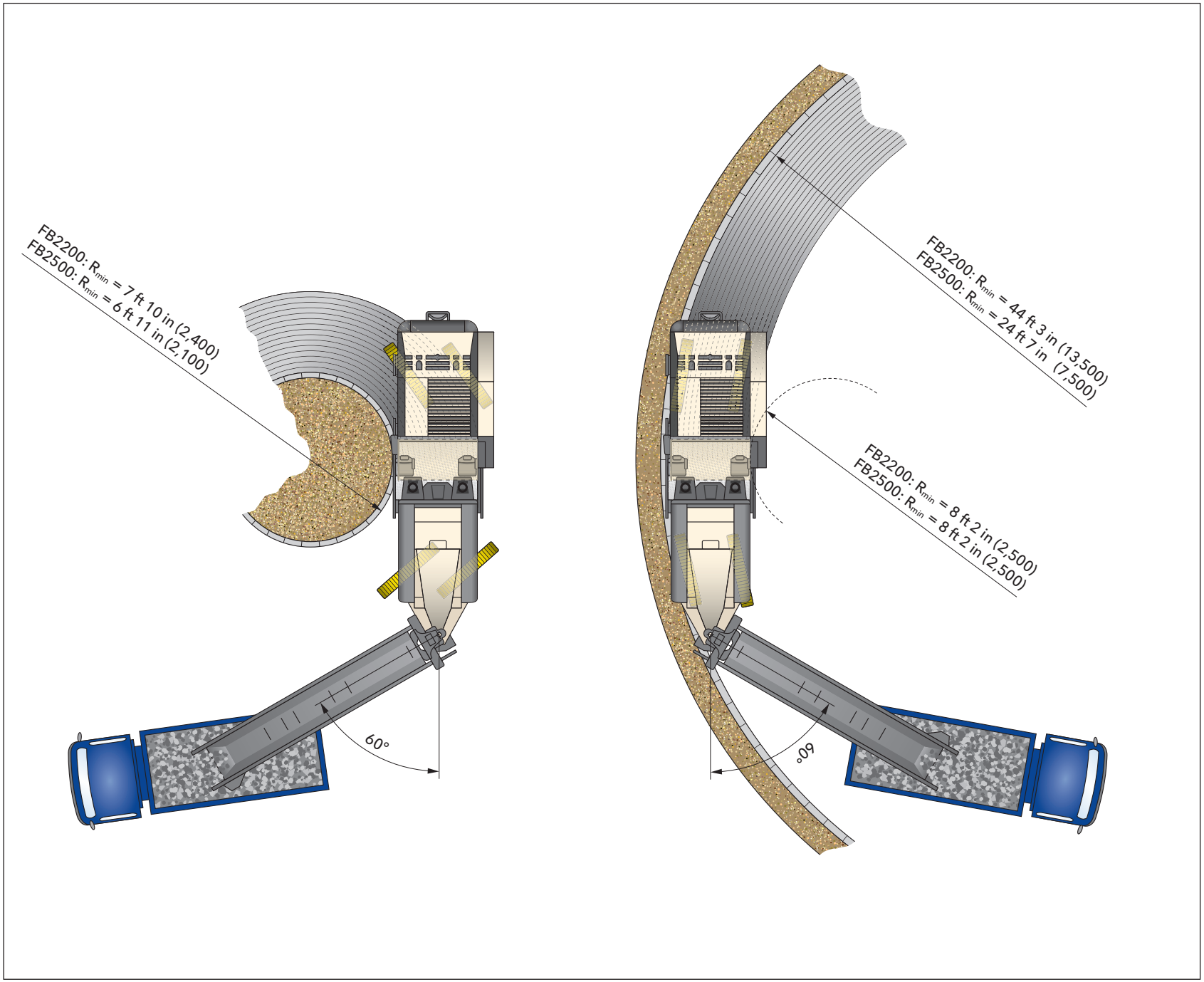
Dimensions



Dimensions in American standard and mm

*Based on operating weight, CE with conveyor folded out

Milling radius, milling depth 6 in (150 mm), dimensions in American standard and mm



Standard equipment

Base machine	
Basic machine with engine	■
Machine chassis with double-sided wasp waist	■
Hydraulically opening engine cover with noise insulation	■
Air compressor system	■
Battery operated hydraulic unit for auxiliary drive	■
Cooling system with temperature-controlled fan speed	■
Milling drum unit	
Three milling drum rotation speeds with electric on / off function 105 r.p.m. - 94 r.p.m. - 84 r.p.m.	■
Hydraulic material depressor with conveyor lifting function	■
Hydraulically movable and positionable scraper plate with automatic locking	■
Hydraulically lifting side plate, right clearance 1 ft 6 in / 450 mm and left clearance 1 ft 2 in / 350 mm	■
Two water sprinkling strips in the milling drum unit with separate on / off function	■
Milling drum housing FB2200 with reduced weight	□
Milling drums	
Milling drum FB2200 (7 ft 3 in) HT22 LA15 with 188 picks	□
Milled-out material loading	
Conveyor belt system with manually or automatically controllable transport speed	■
Water sprinkling system in the primary conveyor	■
Slewing angle discharge conveyor ± 60°	■
Discharge conveyor, 26 ft 9 in / 8,150 mm long, 3 ft 3 in / 1,000 mm wide, with hydraulic folding device	■
Machine control and levelling system	
Multi-function control display showing important machine operating conditions	■
Extensive machine diagnosis in the control display	■
Milling power control with automatic on / off function	■
Two exterior panels for operating functions by ground personnel	■
Milling depth regulation with LEVEL PRO leveling system, with one operating display as well as one electrical height sensor in the hydraulic cylinder right and left on side plate	■
Lateral tilt sensor for LEVEL PRO leveling system	■

■ = Standard equipment
□ = Standard equipment, replaceable with optional equipment
□ = Optional equipment

Operator´s stand	
Operator's stand with complete flexible mounting	■
Convenient, individually adjustable operating panel	■
Convenient footstep to the operator's stand, right and left	■
Covers for operating panels with lock	■
Two mirrors front, one mirror middle and one mirror in rear area of the machine	■
Operator's stand with single standing seats	□
Exterior mirror standard	□
Under-carriage and height adjustment	
PTS - machine automatically guided parallel with the road surface	■
ISC - intelligent track speed control with hydraulic four chain drive	■
High machine stability due to quadruple pendulum axle	■
Freely selectable steering functions for the four-track steering	■
Extremely wear-resistant, two-piece EPS polyurethane track pads	■
Others	
Large storage compartments for pick buckets	■
Lighting package with 3 halogen floodlights and 4 LED lights in the area of the milling unit	■
"Welcome" and "Go home" lights feature including LED lighting in the area of the operator's access and platform	■
Large tool package in lockable tool box	■
Total of 6 EMERGENCY STOP switches at sensible positions on the machine	■
Water high-pressure system with automatic on / off function	■
European type test certificate, Euro Test-mark and CE conformity	■
Water tank filling from rear of machine	□
Paint standard cream white RAL 9001	□
Halogen lighting package 24 V with rotary beacons	□

■ = Standard equipment
□ = Standard equipment, replaceable with optional equipment
□ = Optional equipment

Optional equipment

Milling drum unit	
Milling drum housing FB2200 (7 ft 3 in)	☐
Milling drum housing FB2500 (8 ft 2 in)	☐
Milling drum housing FB2200 (7 ft 3 in) FCS-L	☐
Milling drum housing FB2500 (8 ft 2 in) FCS-L	☐
Transport carriage for FCS milling drums from FB2000 (6 ft 7 in) to FB2200 (7 ft 3 in)	☐
Milling drums	
FCS milling drum, FB2200 (7 ft 3 in) HT22 LA15, multiple parts, with 188 picks	☐
FCS milling drum, FB2500 (8 ft 2 in) HT22 LA15, multiple parts, with 211 picks	☐
FCS milling drum FB2200 (7 ft 3 in) HT22 LA15 with 188 picks	☐
FCS milling drum FB2200 (7 ft 3 in) HT22 LA18 with 164 picks	☐
FCS milling drum FB2500 (8 ft 2 in) HT22 LA15 with 208 picks	☐
FCS milling drum FB2500 (8 ft 2 in) HT22 LA18 with 180 picks	☐
FCS milling drum FB2200 (7 ft 3 in) HT22 LA8 with 298 picks	☐
FCS milling drum FB2200 (7 ft 3 in) HT22 LA25 with 134 picks	☐
FCS milling drum FB2200 (7 ft 3 in) HT5 LA6X2 with 740 picks	☐
FCS milling drum FB2500 (8 ft 2 in) HT22 LA25 with 146 picks	☐
FCS milling drum FB2500 (8 ft 2 in) HT22 LA8 with 335 picks	☐
FCS milling drum FB2500 (8 ft 2 in) HT5 LA6X2 with 840 picks	☐
Milled-out material loading	
VCS extraction system	☐
Supporting device discharge conveyor	☐
Machine control and levelling system	
Sonic Ski sensor with connection cable	☐
Leveling boom for scanning up to 13 ft 1 in/4 m to the side of the machine	☐
Hydraulic sensor for scanning ahead of the milling drum right	☐
Hydraulic sensor for scanning ahead of the milling drum right + left	☐
Operating display LEVEL PRO	☐
Multiplex preliminary equipment comprising 4 sensor sockets	☐
Multiplex 3-way right with 2 ultrasonic sensors, including Multiplex preliminary equipment	☐
Multiplex 3-way right + left with 4 ultrasonic sensors, including Multiplex preliminary equipment	☐

■ = Standard equipment
▣ = Standard equipment, replaceable with optional equipment
☐ = Optional equipment

Machine control and levelling system	
Basic equipment laser leveling without laser transmitter	☐
Level control 3D leveling pre-equipment	☐
Milling depth measurement and display in the LEVEL PRO display	☐
Operator´s stand	
Operator's stand with large storage compartment and single standing seats	☐
Operator's stand with comfort seat package	☐
Operator's stand with cabin "Operator Comfort System"	☐
Exterior mirror folding with signal lights	☐
Weather canopy folds in electrohydraulically	☐
Hot air heating footwell of the operator's stand	☐
Monitor system with 2 cameras	☐
Monitor system with 6 cameras and additional monitor	☐
Others	
Water tank filling with hydraulic filling pump	☐
Paint in one special colour (RAL)	☐
Paint in 2 special colors (RAL)	☐
Paint in maximum two special colours with substructure in special colour (RAL)	☐
Powerful LED lighting package 24 V with rotary beacons	☐
Additional weight 3,307 lbs / 1,500 kg	☐
Large storage compartment on rear of machine	☐
Electrical power set 220 V 4 kW / 5 HP	☐
Electrical power set 110 V 4 kW / 5 HP	☐
High pressure cleaner 4 gal / min / 15 l / min 2,176 psi / 150 bar	☐
Milling drum rotation device	☐
Hydraulic pick ejector drift	☐
Pneumatic hammer with pick ejector / inserter	☐
Additional seats for pick change with storage compartment	☐
Diesel tank filling pump with 16 ft 5 in (5.00 m) suction hose	☐
Illumination balloon 220 volt	☐
Illumination balloon 110 volt	☐

■ = Standard equipment
▩ = Standard equipment, replaceable with optional equipment
☐ = Optional equipment

WIRTGEN

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