

Universal Cold Milling Machine for a Wide Variety of Applications

W 35 Ri COLD MILLING MACHINE



UNIVERSAL COLD MILLING MACHINE FOR A WIDE VARIETY OF APPLICATIONS



The highly maneuverable cold milling machine is perfect for milling jobs in confined spaces.

The machine's range of applications can be extended through the use of a variety of different milling drums with milling drum housing widths of 0.35 m or 0.5 m.

The machine is also suitable for renovation work in industrial warehouses or parking garages.

The W 35 Ri stands out for its low machine weight with additional weights that can be used as required for optimum ballasting and traction to meet varying requirements.

The **LEVEL PRO PLUS** leveling system fully integrated into the machine control system guarantees high-precision milling results.

WIRTGEN COLD MILLING MACHINES



SMALL MILLING MACHINES

- > Milling width up to 1,300 mm
- > Milling depth up to 300 mm



COMPACT MILLING MACHINES

- > Milling width up to 1,900 mm
- > Milling depth up to 330 mm



LARGE MILLING MACHINES

- > Milling width up to 4,400 mm
- > Milling depth up to 350 mm

OVERVIEW OF HIGHLIGHTS

Perfectly Equipped

01 High-Precision, Intuitive Leveling with LEVEL PRO PLUS

- > High-precision **LEVEL PRO PLUS** leveling system
- > Fast, electronic cross-slope sensor
- > Laser leveling

02 Simple, Ergonomic Operation

- > Variable operator's platform for operation from above or at the rear of the machine
- > Ergonomically designed multifunctional armrest
- > Simple, intuitive operating concept
- > Unobstructed view of the right side plate and important working areas
- > Display for machine parameters

03 Particularly Maneuverable and Compact Machine

- > Excellent maneuverability and minimal milling radii
- > Particularly compact machine dimensions
- > Hydraulic steering system for precise steering

04 Precise Steering with High Traction

- > Hydraulic all-wheel drive for excellent traction
- > Precise height adjustment
- > Memory function for height adjustment
- > Electronically controlled travel drive for high-precision milling



05 Flexibility for Different Milling Jobs

- > Wear-resistant HT08 toolholder system
- > Manually raisable side plate on right side
- > High-performance, load-dependent milling drum water sprinkling
- > Milling drum housing for working widths up to 350 mm or 500 mm
- > Rapid milling drum changes
- > Three different milling drum speeds
- > Milling power control for maximum advance speed

06 Efficient Loading of Milled Material

- > Height-adjustable discharge conveyor that can swing in both directions
- > Hydraulically raisable conveyor mounting
- > Discharge conveyor can be quickly mounted and demounted by only one person

07 High Productivity with Low Environmental Emissions

- > High-performance engine that meets EU Stage 5 exhaust emission standard
- > Built-in diesel particulate filter
- > Variable additional weights up to 1,400 kg
- > State-of-the-art WITOS FleetView telematics system for efficient operations
- > Optimally arranged LED work lights



HIGH-PRECISION, INTUITIVE LEVEL PRO *PLUS* LEVELING SYSTEM

When milling it's important to remove the layers of asphalt at the specified depth. WIRTGEN's intuitive **LEVEL PRO *PLUS*** leveling technology can be relied on to precisely maintain the specified milling depth.

High-Precision Leveling System

The **LEVEL PRO *PLUS*** leveling system programmed especially for cold milling machines offers easy and intuitive one-hand operation using the rotary knob, and the menu can be configured as desired. **LEVEL PRO *PLUS*** stands out due to its extremely precise milling results. The leveling system is fully integrated into the machine control system, enabling a high degree of automation.

Fast Cross-Slope Sensor

The fast, electronic RAPID SLOPE cross-slope sensor ensures that the cross-slope profile is extremely precise. The cross-slope sensor makes it possible to work significantly faster while maintaining the same leveling quality.

Laser Leveling

Laser sensors on the machine work in conjunction with a stationary rotating laser that creates a virtual reference surface. The extremely accurate height measurement via laser sensors is suitable, for example, for indoor milling work. Rotating lasers are not included in our delivery range.

Always Makes the Grade
LEVEL PRO *PLUS*

Precise Cross-Slope Profiling
RAPID SLOPE

01

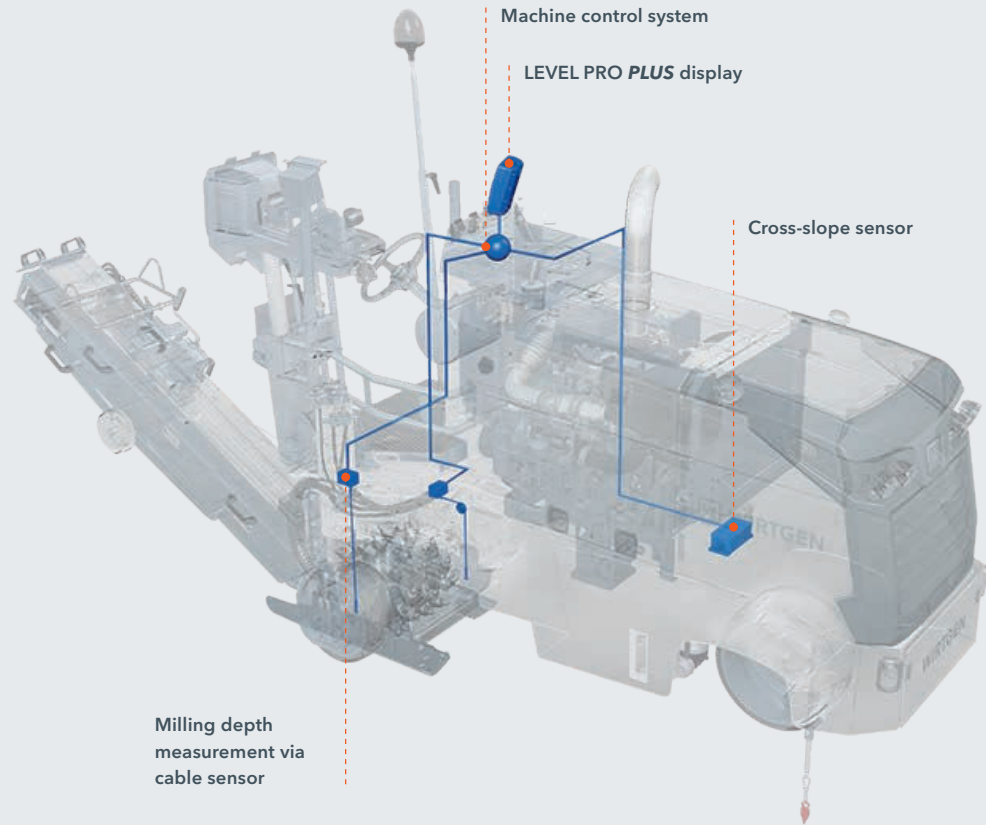


01 LEVEL PRO PLUS
is synonymous with
perfect leveling
quality at high
operating speeds.

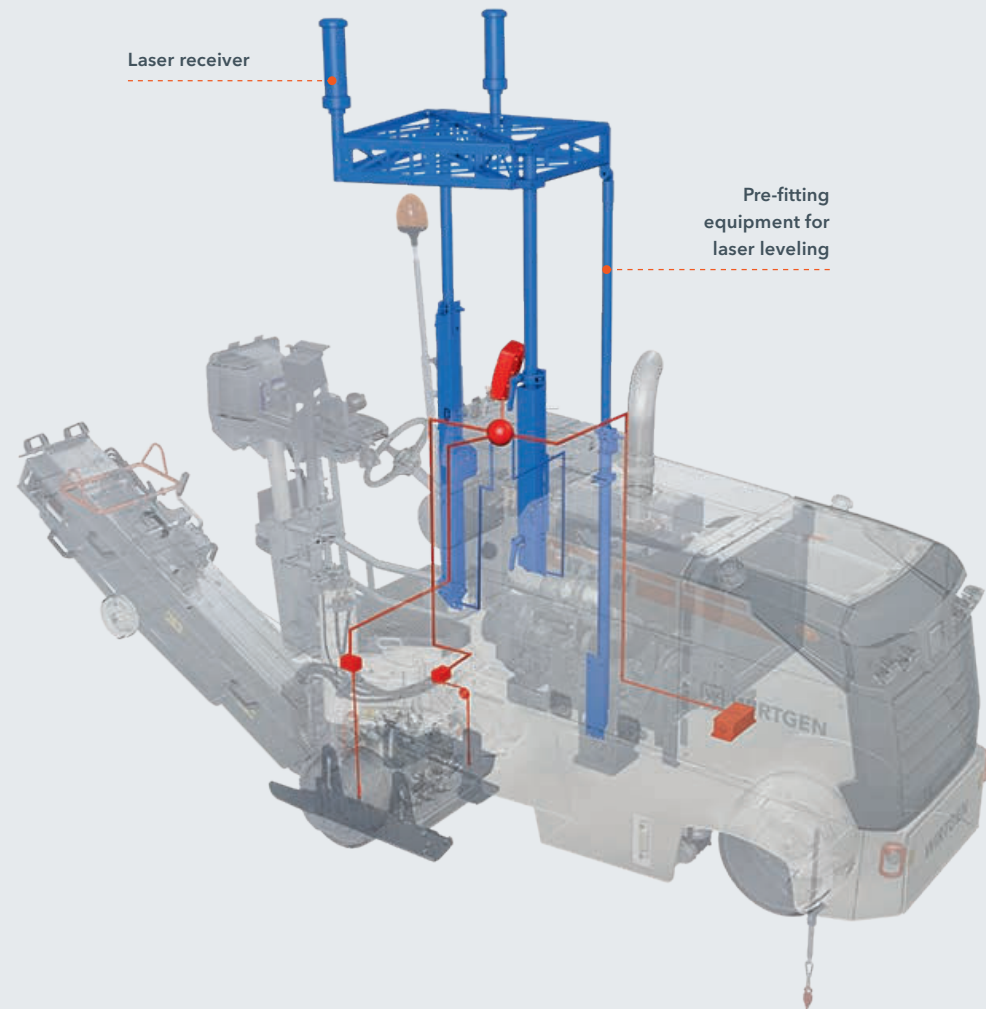
02 The
LEVEL PRO PLUS
leveling system
uses a variety of
different sensors.

03 The pre-fitting
equipment for
laser leveling
makes it possible
to use laser receiv-
ers in combination
with an external
rotating laser.
Laser leveling
requires
LEVEL PRO PLUS to
be installed on the
machine.

02



03



SIMPLE, ERGONOMIC OPERATION

The effortless operation of the W 35 Ri is also perfectly integrated into the standardized operating concept of WIRTGEN's entire range of small milling machines, guaranteeing productive operation right from the start.

Variable Operator's Platform

For universal, ergonomic operation, the operator can choose to operate the small milling machine from above or from the rear of the machine. The operator can quickly and easily switch to the respective position on the job site

Ergonomic Multifunctional Armrest

The individually adjustable armrest with multifunctional joystick guarantees fast, ergonomic operation.

Adaptable for all Operational Requirements

Variable operator's cabin

Everything under Control

Ergonomic multifunctional armrest



- 01** The ergonomically designed operator's platform with multi-functional armrest significantly increases the machine's productivity.
- 02** The operator has everything under control with just one hand.
- 03** The variable operator's platform that allows the position of the workstation to be changed increases the machine's range of applications.



Intuitive Operating Concept

The simple operating concept increases the operator's performance and thus the productivity of the small milling machine.

Unobstructed View

An unobstructed view forward to the milled edge, of the right-hand side plate, and to the rear ensures that the machine can be used effectively on the job site in accordance with the on-site requirements.

Display

The display located in the operator's field of vision clearly shows important machine parameters.

A HIGHLY MANEUVERABLE AND COMPACT MACHINE



Tight Milling Radius
Large Steering Angles

Milling in Extremely Tight Spaces
Designed to be compact



01



02

01 The machine's impressive steering angles make operations on narrow job sites easier.

02 The small milling machine is ideally suited for fast maneuvering in narrow areas – also thanks to the ability to simply swing in the right rear wheel.

The outstanding maneuverability of the extremely compact W 35 Ri small milling machine means that it can be used to complete a variety of jobs in the narrow sections of a milling site much more quickly and easily.

Excellent Maneuverability

The large steering angles ensure that the machine can quickly maneuver and turn on the job site. It also features the smallest inside milling radius in its class.

Compact Machine Dimensions

Thanks to its extremely compact design, the small milling machine can mill in confined spaces, fit through narrow factory doors, and is easy to transport.

Precise Steering

The hydraulic steering system features fast yet precise steering. When operated from the operator's platform at the rear of the machine, the machine can be steered electronically via the steering system built into the multifunctional joystick.

PRECISE STEERING WITH HIGH TRACTION

The W 35 Ri is equipped with a sensitive steering system that enables it to mill with maximum precision whenever required – such as around hydrants or drains, for example. In addition, optimal traction ensures that milling operations can be carried out without interruption.

Hydraulic All-Wheel Drive

The machine's hydraulic all-wheel drive offers excellent traction in difficult job site situations and during loading.

Precise Height Adjustment

The electrohydraulic, two-stage height adjustment system allows the operator to set the milling depth precisely.

Memory Function for Height Adjustment

For fast, convenient height adjustment, it's possible to save up to three different height positions per machine side to memory buttons on the multifunctional armrest.

Electronically Controlled Travel Drive

The electronically controlled travel drive with one transport speed and two milling speeds makes fine maneuvering possible when extremely precise milling is required.

Outstanding in All Situations

Hydraulic all-wheel drive

Always the Right Milling Depth

Three Savable Height Settings



01



02

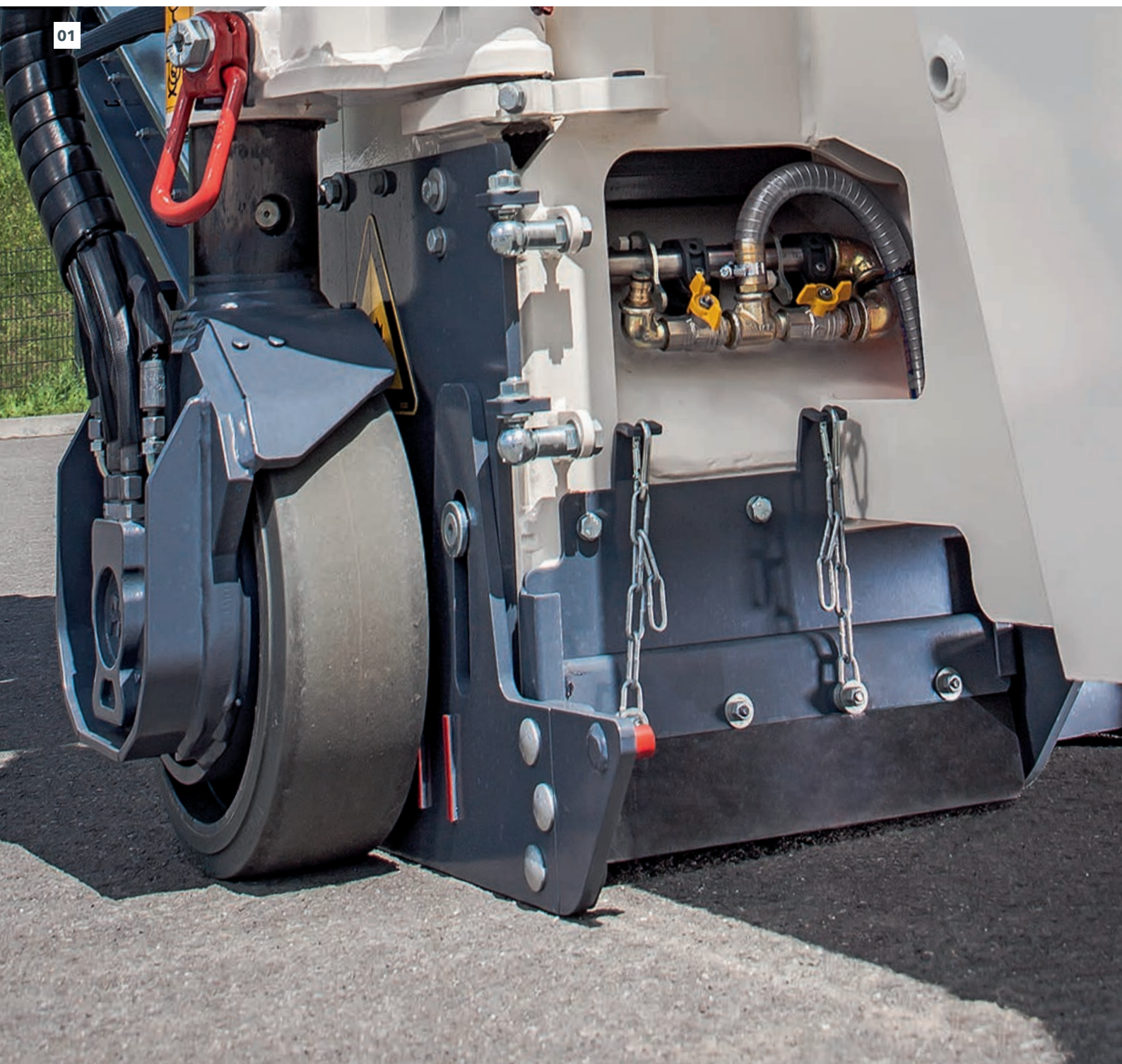
01 - 02 The electronically controlled travel drive makes high-precision milling possible - such as around road installations, for example.



FLEXIBILITY FOR DIFFERENT MILLING JOBS

Maximum Utilization Rates
HT08

Productivity Meets Efficiency
Demand-Oriented Water Sprinkling



- 01** The right side plate can be raised via a foot pedal.
- 02** The sprinkler unit is easily accessible and the individual spray nozzles can be easily removed for cleaning.
- 03** All of the picks can be easily and conveniently replaced after opening the MCS side panel.



Intelligent milling drum, side plate, and scraper solutions make milling faster, easier, and increase overall quality.

Wear-Resistant HT08 Toolholder System

The HT08 toolholder system stands out thanks to its outstanding wear resistance and long tool life.

Raisable Side Plate on Right Side

Side plates on both sides reliably seal the drum housing and enable the milled material to be loaded cleanly. The side

plate on the right side can be conveniently raised via a foot pedal in order to drive over obstacles (such as a curb).

High-Performance, Load-Dependent Water Sprinkling

Together with the water spray bar, the high-performance, load-dependent water pump reliably cools the picks, binds dust, and ensures that the machine remains productive for extended periods of time. It also maintains constant high water pressure for easy machine cleaning on the job site.



FLEXIBILITY FOR DIFFERENT MILLING JOBS

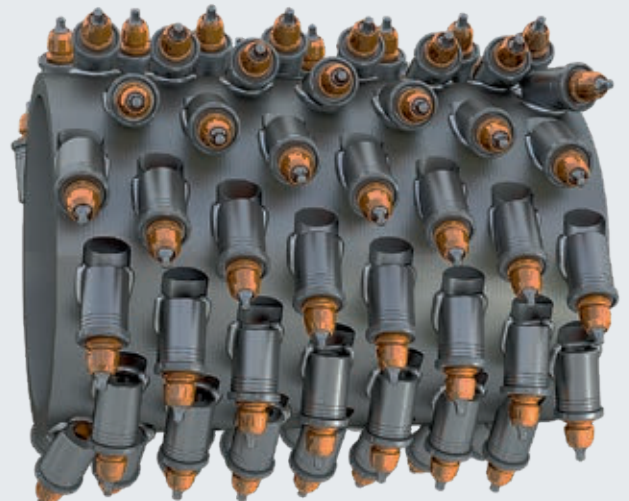
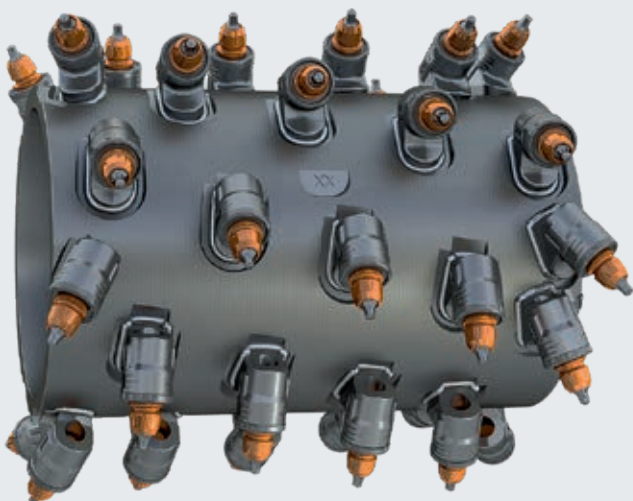
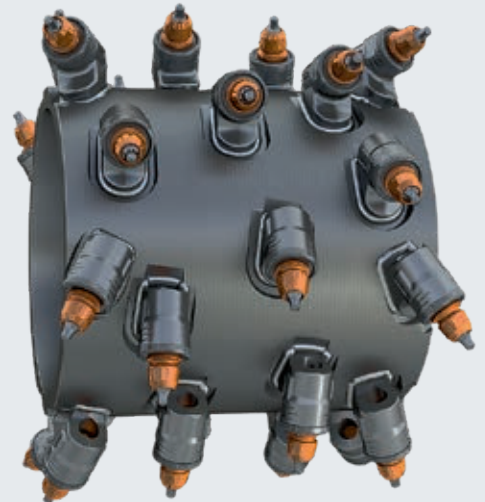
A Wide Range of Applications

A Whole Range of Milling Drums

Full Speed Ahead

Electronic Milling Performance Control

Numerous different milling drums make a wide range of applications possible.



Milling Drum Housings for Working Widths up to 350 mm and 500 mm

The standard milling drum housing can be fitted with milling drums with a working width of up to 350 mm, and with milling drums with a working width of up to 500 mm at the customer's request. A large number of different original WIRTGEN milling drums and special milling drums are available.

Rapid Milling Drum Changes

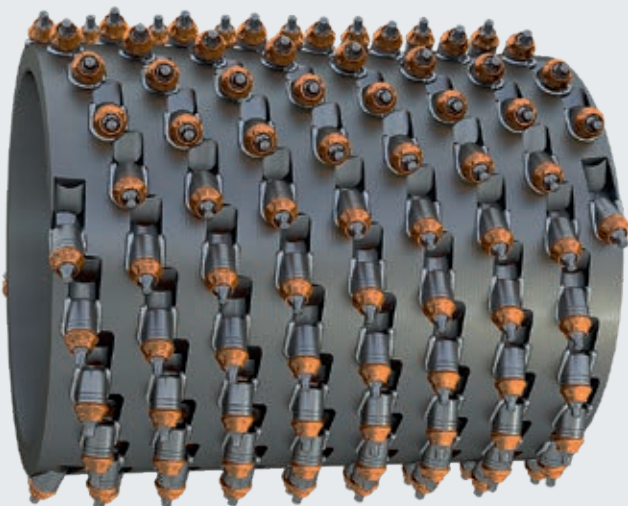
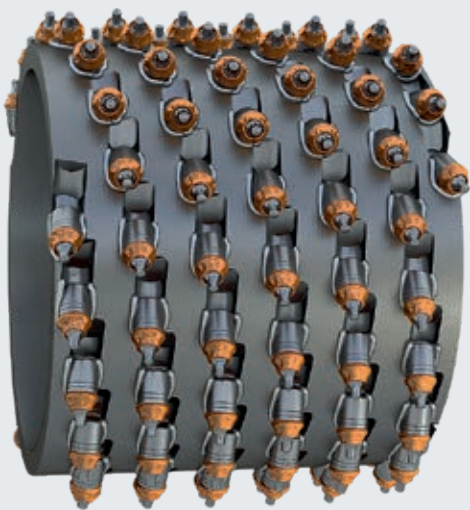
The hinged MCS side panel on the right and intelligent installation tools allow milling drums to be changed in a short period of time.

Three Different Milling Drum Speeds

Three different milling drum speeds make it possible to achieve unparalleled milling performance in a wide range of applications.

Milling Power Control for Maximum Advanced Speed

The electronic load limitation regulator that can be activated as required adjusts the advance rate as a function of the engine load so that the small milling machine always operates at the ideal milling speed.



EFFICIENT LOADING OF MILLED MATERIAL

Anyone who has the arduous task of manually removing milled material from the milled surface will immediately appreciate the W 35 Ri rear loader's height-adjustable discharge conveyor that can swing in both directions. It transports the milled material effectively and safely into a wheel loader bucket, for instance.

Height-Adjustable Discharge Conveyor that Can Swing in Both Directions

The height-adjustable discharge conveyor that can swing in both directions ensures that the milled material can be easily loaded, even in difficult job site conditions. In this process, the angle can be conveniently adjusted using a cable winch.

Hydraulically Raisable Conveyor Mounting

The hydraulically raisable conveyor mounting, combined with the hydraulic scraper, not only ensures that the milled material is loaded cleanly, but also makes it possible to load only part of the milled material, if required.

Rapid Mounting and Dismounting of the Discharge Conveyor

The intelligent design ensures that the discharge conveyor can be mounted / dismounted quickly by just one person. Thanks to the roller unit, the dismounted discharge conveyor can be moved effortlessly around the job site.



01 The variably adjustable discharge conveyor makes it possible to reliably load a wheel loader bucket or mini-dumper.



Less Manual Labor
Variable discharge conveyor

Converted in no time at all
Fast discharge conveyor mounting

HIGH PRODUCTIVITY WITH LOW ENVIRONMENTAL EMISSIONS

The W 35 Ri equips contractors with sophisticated technology – a key factor in ensuring consistently high operational safety and daily output rates. The machine is even perfect for job sites that only allow minimal exhaust emissions.

High-Performance Diesel Engine that Meets EU Stage 5 Emission Standard

The powerful diesel engine with temperature-dependent fan speed guarantees quiet, economical operation and high power reserves for fast milling at any milling depth. The engine also meets the stringent requirements of the EU Stage 5, currently the highest emission standard.

Built-In Diesel Particulate Filter

The built-in diesel particulate filter that comes standard meets even more stringent emission requirements, e.g. for indoor milling operations.

Variable Additional Weights

The wide ballasting range consists of individually removable weight plates up to a total of 1,400 kg, increasing the machine's range of applications.

Broad Spectrum of Applications

Individually Removable Additional Weights

Outstandingly Illuminated Machine Surroundings

High-power floodlights

01

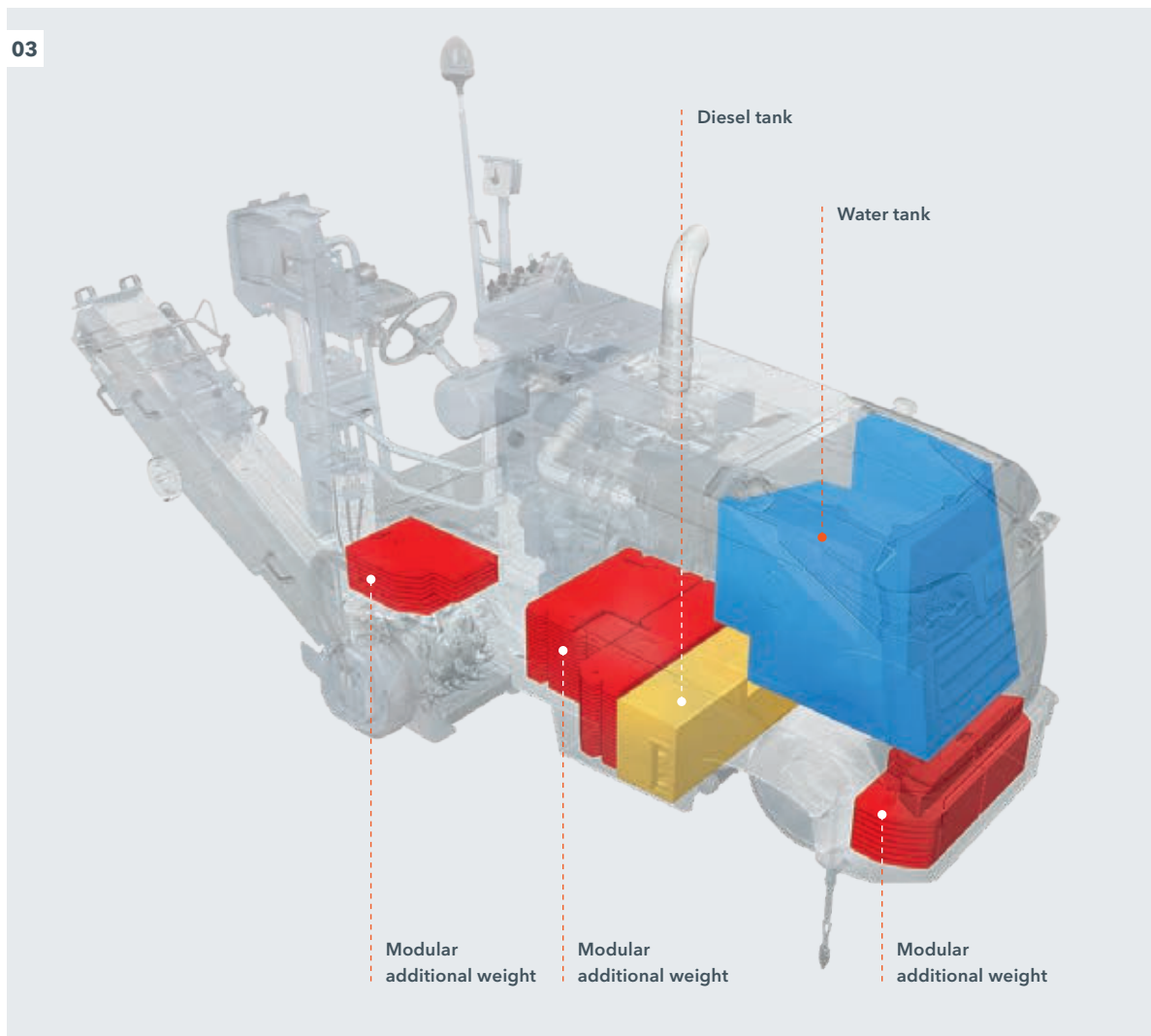


WITOS Fleetview Telematics System

WIRTGEN's efficient WITOS FleetView telematics system supports fleet management, position and status monitoring, as well as maintenance and diagnostic processes.

LED Work Lights

The ideal arrangement of the LED work lights ensures that the entire machine environment is brightly illuminated.



- 01** Excellent access to components makes servicing the machine easy.
- 02** LED headlights offer excellent visibility and safety in the dark.
- 03** Additional weights ensure that the machine has excellent traction in any application and without the additional weights, the machine can also be used for milling in buildings with limited load capacity, for example.





The highly maneuverable cold milling machine is perfect for milling jobs in confined spaces. The machine's range of applications can be extended through the use of a variety of different milling drums with milling drum housing widths of 0.35 m or 0.5 m. The machine is also suitable for renovation work in industrial warehouses or parking garages.

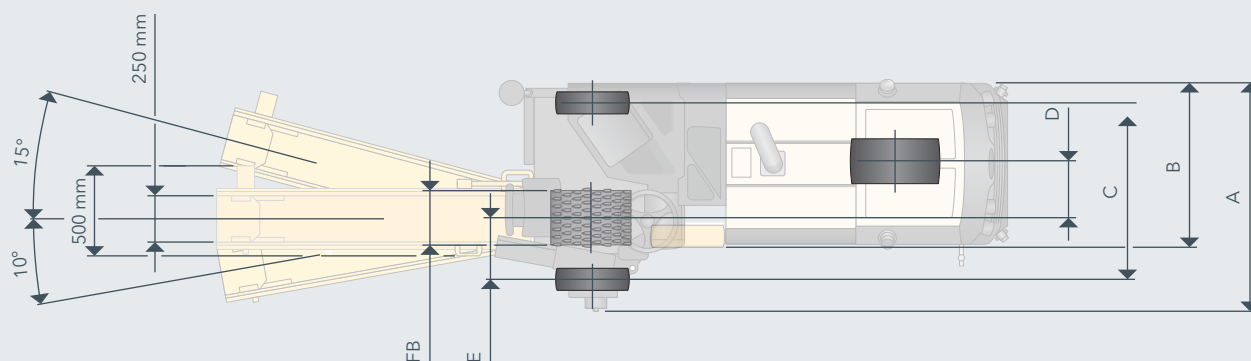


TECHNICAL SPECIFICATIONS W 35 Ri	STANDARD FB350	OPTIONAL FB500
Milling Drum		
Milling width	350 mm	500 mm
Milling depth ¹⁾	0 – 110 mm	
Cutting diameter	460 mm	
Engine		
Manufacturer	Deutz AG	
Type	TCD 2.9 L4	
Cooling	Wasser	
Number of cylinders	4	
Rated power at 2,300 rpm	45 kW / 60 HP / 61 PS	
Maximum power at 2,300 rpm	45 kW / 60 HP / 61 PS	
Displacement	2,925 cm³	
Fuel consumption at rated power during a mixture of job site operations	13.2 l/h 8.8 l/h	
Sound power level in accordance with DIN EN 500-2 engine operator's platform	≤ 100 dB(A) ≥ 80 dB(A)	
Emissions standard	EU Stage 5	
Electrical System		
Power supply	24 V	
Tank Capacities		
Fuel	70 l	
Hydraulic oil	32 l	
Water	275 l	
Driving Performance		
Max. milling speed	0 – 25 m/min (0 – 1.5 km/h)	
Max. travel speed	0 – 100 m/min (0 – 6 km/h)	
Tires		
Tire size, front (D x W)	500 x 250 mm	
Tire size, rear (D x W)	405 x 130 mm	
Loading of Milled Material		
Belt width of primary conveyor	250 mm	
Theoretical capacity of discharge conveyor	33 m³/h	

TECHNICAL SPECIFICATIONS W 35 Ri		STANDARD FB350	OPTIONAL FB500
Basic Machine Weight			
Net weight of machine without uids		2,970 kg	
Operating weight, CE ²⁾ , including additional weights		4,650 kg	
Maximum operating weight (full tanks, full range of equipment)		5,200 kg	
Weight of Tank Contents			
Water		275 kg	
Fuel (0.83 kg/l)		58 kg	
Additional Weight			
Operator and Tools			
> Machine operator		75 kg	
> 2 pick containers		50 kg	
> Vehicle tool kit		30 kg	
Optional Milling Drum Units Instead of Standard	Absolute Weight	Additional / Reduced Weight	
> Attachments for milling drum housing FB350 - for operation with discharge conveyor	51 kg	29 kg	
> Attachments for milling drum housing FB500 - for operation without discharge conveyor	100 kg	78 kg	
> Attachments for milling drum housing FB500 - for operation with discharge conveyor	161 kg	139 kg	
Optional Milling Drums Instead of Standard			
> Milling drum FB350 HT5 LA6 with 57 picks	108 kg	18 kg	
> Milling drum FB350 HT4 LA3 with 117 picks	103 kg	13 kg	
> Milling drum FB500 HT08 LA15 with 39 picks	123 kg	33 kg	
> Milling drum FB500 HT5 LA6 with 82 picks	160 kg	70 kg	
> Micro ne milling drum with gut ter prole, FB150+2x25 (lateral discharge) HT4 LA3 with 67 picks	97 kg	7 kg	
> Milling drum FB200+2x25 HT4 LA3 with 83 picks	98 kg	8 kg	
> Milling drum FB250+2x25 HT4 LA3 with 99 picks	100 kg	10 kg	
> Milling drum FB300+2x25 HT4 LA3 with 117 picks	100 kg	10 kg	
> Milling drum FB450+2X25 HT4 LA3 with 166 picks	143 kg	53 kg	
> Saw blade FB14 for rail milling	10 kg	- 80 kg	
> Saw blade FB19 for rail milling	13 kg	- 77 kg	
> Rail milling attachments Ri59N	57 kg	57 kg	
> Milling drum FB25 with 6 picks for rail milling	17 kg	- 73 kg	
> Milling drum FB45 with 24 picks for rail milling	28 kg	- 62 kg	
> Milling drum FB80 HT02 FT110 with 12 picks	26 kg	- 64 kg	
Optional Additional Weights			
> Modular additional weight	1,400 kg	1,400 kg	
Optional Additional Equipment			
> Discharge conveyor, 1,870 mm long, conveyor belt width 250 mm	125 kg	125 kg	
> Additional scraper ap FB350 as prerequisite for footboard unit	18 kg	0 kg	
> Additional scraper ap FB500 as prerequisite for footboard unit	22 kg	0 kg	
> Lowered operator’s platform behind the machine	51 kg	51 kg	
> Mounting for side milling wheel FB80, FT180, complete	196 kg	84 kg	
> Hydraulic jack hammer with 10 m connection hose	37 kg	37 kg	

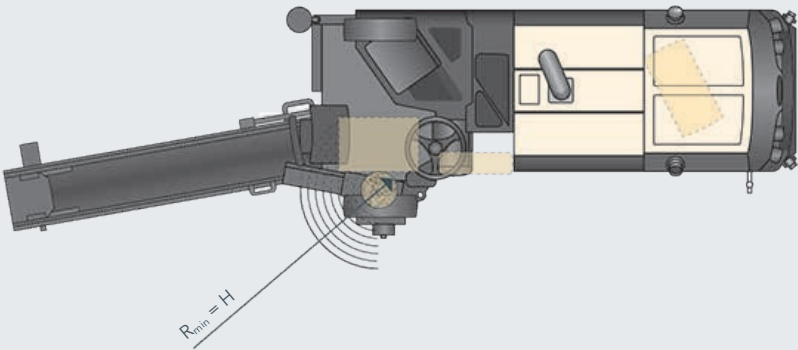
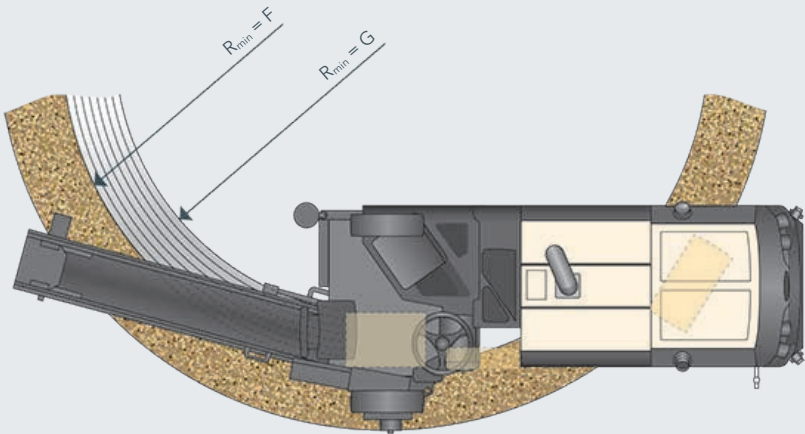
¹⁾ The maximum milling depth may deviate from the value indicated due to tolerances and wear.

²⁾ Machine weight, half-full tanks, vehicle tool kits, machine operator, excluding optional equipment



¹⁾ Maximum machine height with exhaust pipe removed

MILLING RADIUS W 35 Ri AT MILLING DEPTH OF 50 MM



	F	G	H
Standard FB350	2,990 mm	2,640 mm	80 mm
Optional FB500	3,140 mm	2,640 mm	0 mm

STANDARD EQUIPMENT W 35 Ri**Basic Machine**

- > Base machine with engine including exhaust gas aftertreatment according to EU Stage 5 consisting out of a diesel oxidation catalyst (DOC) and a diesel particulate filter (DPF) ■
- > Robust machine chassis ■
- > Wide opening engine cowlings, with gas spring support and highly effective noise insulation ■
- > Radiator with temperature-dependent fan speed ■
- > Integrated 275 liter water tank ■
- > Integrated 70 liter diesel tank ■
- > Loading and tie-down points integrated in the chassis ■

Milling Drum Unit

- > Water sprayingstrip with on/off function for pick cooling with water pump with load-dependent control ■
- > Wide opening milling drum door with automatic electrical safety shut-down ■
- > Right side plate in hinged configuration in conjunction with centering pin system on the milling drum holder for quick and easy change of milling drums ■
- > The right-hand side plate can be easily lifted using the foot pedal on the operator's stand ■
- > Ancillary parts for milling drum housing FB350 - for operation without discharge conveyor □

Milling Drums

- > Milling drum FB350 HT08 LA15 with 31 picks □

Machine Control and Leveling System

- > WIDRIVE machine controller to reduce operator workload and increase performance ■
- > Mechanical milling depth display right and left □

Operator's Platform

- > Flexibly mounted operator's platform on the top of the machine ■
- > Multifunctional armrest on right with up/down and front/back adjustment with joystick and various controls ergonomically arranged ■
- > Display for important machine parameters on the left control panel ■
- > Convenient operating console with practical switches ■
- > Convenient footstep to the operator's platform ■
- > Operator's platform with vibration damping ■
- > Steering console with adjustable inclination ■
- > Lockable control panel covers ■

STANDARD EQUIPMENT W 35 R i

Track Unit and Height Adjustment

> Hydraulic 3-wheel all-wheel drive with hydraulic flow distributor	■
> Two manually engageable milling speeds as well as one travelling gear	■
> Hydraulic, easy front wheel steering	■
> Hydraulic spring-loaded multi-disc brake	■
> Hydraulic height adjustment with two speeds at the rear track units	■
> Manually folding-in rear right wheel	■

Miscellaneous

> Lockable toolbox with toolkit for maintenance and servicing	■
> Additional mount for a pick container	■
> Device for towing away for releasing the spring-loaded multi-disc brake	■
> Reversing horn	■
> Extensive safety package with EMERGENCY STOP switch	■
> Pre-fitting for installing the WITOS FleetView control unit	■
> European type certification, EuroTest mark and CE conformity	■
> Standard film coating in RAL 9001 (cream)	□
> WITOS - professional telematics solution for machine operation and service optimisation	□
> Halogen lighting system including rotating beacon	□

- = Standard equipment
 □ = Standard equipment, can be replaced with optional equipment if desired
 □ = Optional equipment

OPTIONAL EQUIPMENT W 35 Ri

Milling Drum Unit

> Ancillary parts for milling drum housing FB350 - for operation with discharge conveyor	☐
> Ancillary parts for milling drum housing FB500 - for operation without discharge conveyor	☐
> Ancillary parts for milling drum housing FB500 - for operation with discharge conveyor	☐

Milling Drums

> Milling drum FB500 HT08 LA15 with 39 picks	☐
> Side milling ring FB80, milling depth 180 mm complete	☐
> Ancillary parts rail milling Ri59N	☐
> Milling drum FB25 with 6 picks rail milling	☐
> Milling drum FB45 with 24 picks rail milling	☐
> Saw blade FB14 rail milling	☐
> Saw blade FB19 rail milling	☐
> Adapter with saw blade FB14, MD100	☐
> Adapter with saw blade FB19, MD100	☐
> Fine milling drum FB350 HT5 LA6 with 57 picks	☐
> Microfine milling drum FB350 HT4 LA3 with 117 picks	☐
> Microfine milling drum gutter profile, FB150+2x25 (lateral taper) HT4 LA3 with 67 picks	☐
> Milling drum FB200+2x25 HT4 LA3 with 83 picks	☐
> Milling drum FB250+2x25 HT4 LA3 with 99 picks	☐
> Milling drum FB300+2x25 HT4 LA3 with 117 picks	☐
> Milling drum FB80 HT02 MD110 with 12 picks	☐
> Fine milling drum FB500 HT05 LA6 with 82 picks	☐
> Milling drum FB450+2X25 HT4 LA3 with 166 picks	☐

Loading of the Milled Material

> Discharge conveyor, 1,870 mm long, conveyor belt width 250 mm, includes rope winch height adjustment	☐
> Connection pipe Ø 120 mm for dust extraction	☐

OPTIONAL EQUIPMENT W 35 R i

Machine Control and Leveling System

> LEVEL PRO PLUS leveling system right and left	☐
> Pre-fitting for laser leveling with two laser receiver – without laser transmitter	☐
> RAPID SLOPE cross-slope sensor for LEVEL PRO PLUS leveling system	☐
> Pre-programmable height positions with automatic positioning	☐

Operator's Platform

> Equipment of the operator's platform with a stand-up seat	☐
> Additional scraper plate FB350 required for footboard unit (For machine with discharge conveyor)	☐
> Additional scraper plate FB500 required for footboard unit (For machine with discharge conveyor)	☐
> Operator's platform in lowered position behind the machine	☐

Miscellaneous

> Hydraulic drive for discharge conveyor or hydraulic jack hammer	☐
> Film coating according to the customer's wishes	☐
> Model without WITOS	☐
> High-power lighting system LED including rotating beacon	☐
> Modular additional weight 1,400 kg	☐
> Hydraulic hammer including 10-m connecting hose	☐
> License plate holder with LED lighting	☐

- ☒ = Standard equipment
☐ = Standard equipment, can be replaced with optional equipment if desired
☐ = Optional equipment

**WIRTGEN GmbH**

Reinhard-Wirtgen-Str. 2
53578 Windhagen
Germany

T: +49 2645 131-0
F: +49 2645 131-392
M: info@wirtgen.com

 www.wirtgen.de



For further information, please scan the code.