A WIRTGEN GROUP COMPANY



Powerful, compact cold milling machine in the half-metre class. **Cold Milling Machine** w 50 H/W 55 H



# At a glance: the highlights of the new W 50 H and W 55 H

#### Highlights in operation (pages 4/5)

#### 1 HIGH PRECISION LEVELLING WITH LEVEL PRO

- > Intuitive levelling
- > Electronic slope sensor
- > Milling depth control by means of tried-and-tested wire-rope sensors

#### OUTSTANDING VISIBILITY CONCEPT

- > Perfect view of the milling edge and important work areas
- Full illumination of the operator's platform and controls
- > Perfectly arranged working lights

#### 3 SIMPLE AND COMFORTABLE TO OPERATE

- > Simple operating concept; tried-and tested
- > High-quality display screen
- > Protective canopy
- Hydraulic machine height adjustment with two speed settings

### Highlights in driving and steering (pages 6/7)

#### 4 HIGHEST MANOEUVRABILITY

- > Extremely small milling radii
- > Short wheelbase ensures best manoeuvrability
- > Travel speed up to 8 km/h
- > Pivotable rear right support wheel for flush-to-kerb milling

#### 5 PERFECT TRACTION AND TERRAIN MOBILITY

- > Standard four-wheel design for high machine stability
- > Large ground clearance
- > Powerfull All-wheel drive for maximum traction

#### Highlights in milling and loading (pages 8/9)

#### NEW MILLING DRUM ASSEMBLY ENSURES MAXIMUM PERFORMANCE

- > New milling drum design with highly wear-resistant HT08 toolholder system
- > Different milling drums for wide range of applications available
- > Extremely robust milling drum gearbox
- > Powerful water spray system at the milling drum
- > Dual hydraulically lifting side plate
- > Supplementary weights for flexible weight adjustment

#### 7 MATERIAL LOADING WITH DISCHARGE CONVEYOR

- > Fast and easy to assemble and disassemble
- > Flexible loading regardless of the job situation

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> High capacity conveyor

#### Highlights in performance and productivity (pages 10/11)

#### 8 ALL-TIME HIGH MILLING PERFORMANCE

- > Powerful diesel engine for maximum milling performance
- > Extremely low centre of gravity and optimum weight distribution
- > Centrally arranged water tank for neutral milling behaviour

#### 9 EASY TO TRANSPORT AND SERVICE

- > Extremely compact machine design
- > Sturdy loading and lashing lugs for simple loading by crane
- > All service points easily accessible

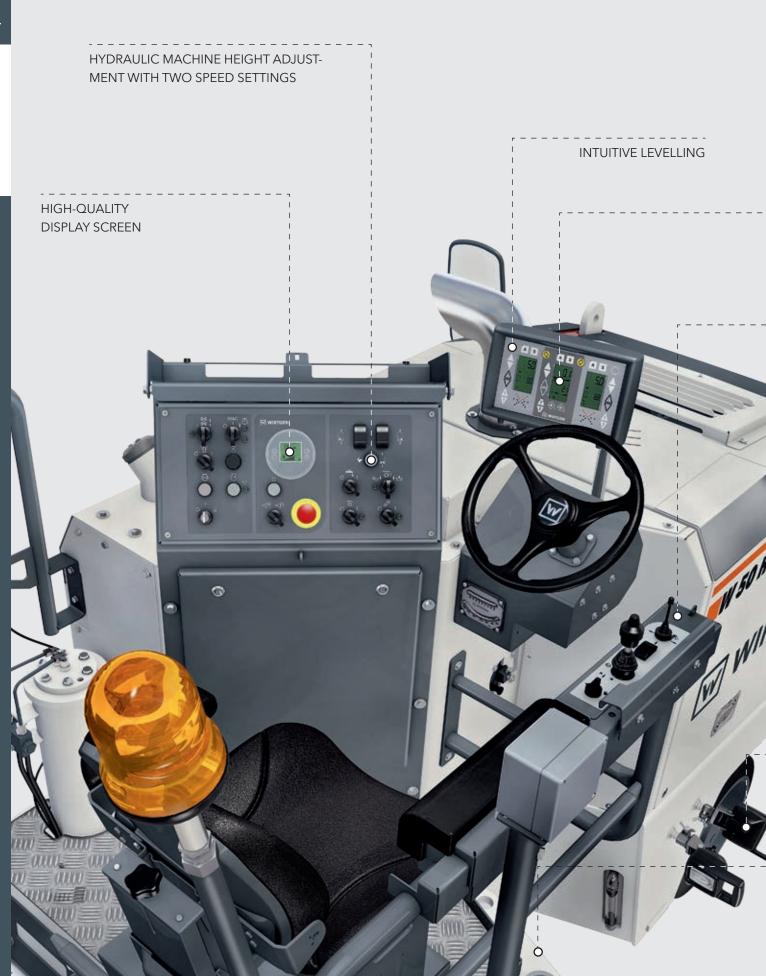
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- > HIGH-POWERED, HIGHLY MANOEUVRABLE HALF-METRE SMALL MILLING MACHINE FOR ECONOMICAL MILLING OPERATIONS
- > LARGE CHOICE OF MILLING DRUMS FOR A TREMENDOUS RANGE OF APPLICATIONS
- > LOW DIESEL AND TOOL CONSUMPTION FOR INCREASED COST EFFICIENCY
- > STATE-OF-THE-ART MACHINE CONTROL ALSO WITH INTEGRATED LEVEL PRO LEVELLING SYSTEM
- > COMPACT MACHINE ALSO AVAILABLE IN REAR-LOADING DESIGN

# **Highlights in operation**



ELECTRONIC SLOPE SENSOR

#### SIMPLE OPERATING CONCEPT; TRIED-AND TESTED



PERFECT VIEW OF THE MILLING EDGE AND IMPORTANT WORK AREAS

#### HIGH-QUALITY DISPLAY SCREEN

Important machine parameters are shown clearly and in large letters on the screen mounted in the operator's immediate field of view.

#### FULL ILLUMINATION OF THE OPERATOR'S PLATFORM AND CONTROLS

The fully illuminated operator's platform and separately illuminated switches and buttons offer perfect working conditions also during operations in darkness.

### HYDRAULIC MACHINE HEIGHT ADJUSTMENT WITH TWO SPEED SETTINGS

The new feature on the left-hand control console enables quick adjustment of the machine height to the current working situation.

#### INTUITIVE LEVELLING

The LEVEL PRO levelling system is easy and intuitive to use, and thus guarantees exceedingly accurate milling results.

#### ELECTRONIC SLOPE SENSOR

The electronic slope sensor enables the production of pavement surfaces with a predefined cross slope.

### MILLING DEPTH CONTROL BY MEANS OF TRIED-AND-TESTED WIRE-ROPE SENSORS

Wire-rope sensors installed at the side plates precisely measure the milling depth which is then displayed on the LEVEL PRO control screen.

#### SIMPLE OPERATING CONCEPT; TRIED-AND TESTED

The simple operating concept has been tried-and-tested for many years, increasing not only operator performance but also the productivity of the small milling machine.

#### **PROTECTIVE CANOPY**

The height-adjustable canopy protects the machine operator from inclement weather, thus providing increased comfort during work.

#### PERFECTLY ARRANGED WORKING LIGHTS

Perfectly arranged working lights make sure that the entire surroundings of the machine are fully lit.

#### PERFECT VIEW OF THE MILLING EDGE AND IMPORTANT WORK AREAS

A free view towards the front and the milling edge, to the right-hand side plate and towards the rear enables safe operation in line with application requirements.



Free view of the milling edge.



Tried-and-tested wire-rope sensors.

# Highlights in driving and steering



SHORT WHEELBASE ENSURES BEST MANOEUVRABILITY

#### TRAVEL SPEED OF UP TO 8 KM/H

High travel speeds of up to 8 km/h permit fast transport between two job locations.

#### EXTREMELY SMALL MILLING RADII

Large steering angles to the left and right guarantee extremely small milling radii and turning circles.

#### LARGE GROUND CLEARANCE

Ample ground clearance not only prevents the machine from being damaged by obstacles but also enables difficult manoeuvres, such as reversing in the milled cut or loading the machine on a flatbed truck.

#### STANDARD FOUR-WHEEL DESIGN FOR HIGH MACHINE STABILITY

Four wheels offer highest machine stability, traction and manoeuvrability irrespective of the working situation.

#### SHORT WHEELBASE ENSURES BEST MANOEUVRABILITY

The short wheelbase ensures maximum manoeuvrability of the small milling machine.

#### POWERFULL ALL-WHEEL DRIVE FOR MAXIMUM TRACTION

The all-wheel drive system guarantees maximum traction in challenging site conditions and during loading.

#### PIVOTABLE REAR RIGHT SUPPORT WHEEL FOR FLUSH-TO-KERB MILLING

The rear right support wheel can be pivoted in front of the milling drum mechanically to allow flush-to-kerb milling.



Swift pivoting of the right rear wheel





The front axle enables large steering angles.



STANDARD FOUR-WHEEL DESIGN FOR HIGH MACHINE STABILITY

# **Highlights in milling and loading**

HIGH CAPACITY CONVEYOR

FAST AND EASY TO ASSEMBLE AND DISASSEMBLE

W 55 H

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EXTREMELY ROBUST MILLING DRUM GEARBOX

POWERFUL WATER SPRAY SYSTEM AT THE MILLING DRUM

DUAL HYDRAULICALLY LIFTING SIDE PLATES

> TREMENDOUS MAXIMUM MILLING DEPTH OF UP TO 180 MM

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#### DIFFERENT MILLING DRUMS FOR WIDE RANGE OF APPLICATIONS AVAILABLE

A vast array of original WIRTGEN milling drums and special milling drums is available to cater to a wide range of uses.







SUPPLEMENTARY WEIGHTS FOR FLEXIBLE WEIGHT ADJUSTMENT

#### DUAL HYDRAULICALLY LIFTING SIDE PLATES

Hydraulically lifting side plates provide effective closure of the milling chamber on both sides of the machine.

#### POWERFUL WATER SPRAY SYSTEM AT THE MILLING DRUM

Paired with a highly effective water spray bar, the powerful water pump ensures reliable tool cooling and prevents the development of dust.

#### EXTREMELY ROBUST MILLING DRUM GEARBOX

The milling drum gearbox of extremely robust design ensures reliable, efficient operation in tough job site conditions.

#### FAST AND EASY TO ASSEMBLE AND DISASSEMBLE

A special coupling device enables the loading conveyor to be attached or removed in a few swift steps by one person only.

#### FLEXIBLE LOADING REGARDLESS OF THE JOB SITUATION

The loading conveyor is adjustable both laterally and in height, thus allowing the material to be loaded even in difficult job situations.

#### HIGH CAPACITY CONVEYOR

The 400 mm wide loading conveyor is provided with a rugged cleat profile to ensure effective material transport.

#### SUPPLEMENTARY WEIGHTS FOR FLEXIBLE WEIGHT ADJUSTMENT

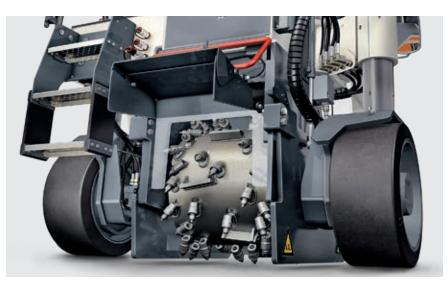
Supplementary weights amounting to a total weight of 450 kg can be supplied depending on the machine's configuration.

#### TREMENDOUS MAXIMUM MILLING DEPTH OF UP TO 180 MM

In combination with a powerful engine, the high milling depth guarantees a wide range of milling applications.

### NEW MILLING DRUM DESIGN WITH HIGHLY WEAR-RESISTANT HT 08 TOOLHOLDER SYSTEM

Toolholders with an increased wear path enable an extremely long lifespan while additional tools in the peripheral area of the milling drum produce clean milling edges.



Intelligent milling drum design.

# Highlights in performance and productivity

MAXIMUM EASE **OF SERVICING** WIRTCEN 0 POWERFUL DIESEL ENGINE FOR MAXIMUM MILLING Q PERFORMANCE Q EXTREMELY LOW CENTRE

OF GRAVITY AND OPTIMUM WEIGHT DISTRIBUTION

#### POWERFUL DIESEL ENGINE FOR MAXIMUM MILLING PERFORMANCE

The machine's high engine output at optimum torque guarantees rapid and powerful operation regardless of the milling depth.

#### MAXIMUM EASE OF SERVICING

Excellent accessibility to all check points and points of maintenance minimizes maintenance requirements.

#### EXTREMELY COMPACT MACHINE DESIGN

The machine's compact design not only enables quick turning and manoeuvring on site but also facilitates machine transport.

### CENTRALLY ARRANGED WATER TANK FOR NEUTRAL MILLING BEHAVIOUR

The water tank has been arranged in the machine's centre of gravity for neutral distribution of the axle load and to ensure optimum traction regardless of the tank's filling level.

### EXTREMELY LOW CENTRE OF GRAVITY AND OPTIMUM WEIGHT DISTRIBUTION

An extremely low centre of gravity and ideal weight distribution ensure high traction as well as high machine stability.

### STURDY LOADING AND LASHING LUGS FOR SIMPLE LOADING BY CRANE

Sturdy loading and lashing lugs ensure quick and easy loading of the machine by crane.

CENTRALLY ARRANGED WATER TANK FOR NEUTRAL MILLING BEHAVIOUR



Sturdy loading and lashing lugs for easy loading.

EXTREMELY COMPACT MACHINE DESIGN

EXTREMELY COMPACT

# **Technical specification**

|  | W 50 H                           | W 55 H             |  |
|--|----------------------------------|--------------------|--|
| Milling drum                               |                                  |                    |  |
| Milling width                              | 500 mm                           |                    |  |
| Milling depth *'                           | 0 to 180 mm                      |                    |  |
| Drum diameter with tools                   | 670 mm                           |                    |  |
| Engine                                     |                                  |                    |  |
| Engine manufacturer                        | Dongfeng Cummins                 |                    |  |
| Туре                                       | QSB4.5                           | -C110-III          |  |
| Cooling                                    | water                            |                    |  |
| Number of cylinders                        | 4                                |                    |  |
| Rated power at 2,200 min <sup>-1</sup>     | 82 kW/110 HP/111 PS              |                    |  |
| Displacement                               | 4.5                              |                    |  |
| Fuel consumption at rated power            | 22.9 l/h                         |                    |  |
| Fuel consumption in field mix              | 9.2 l/h                          |                    |  |
| Emission standards                         | EU Stage 3a/US                   | Tier 3, CN Stage 3 |  |
| Electrical system                          |                                  |                    |  |
| Electrical power supply                    | 24 V                             |                    |  |
| Tank capacities                            |                                  |                    |  |
| Fuel tank                                  | 160                              |                    |  |
| Hydraulic oil tank                         | 80 I                             |                    |  |
| Water tank                                 | 320                              |                    |  |
| Driving properties                         |                                  |                    |  |
| Milling speed                              | 0 to 30.5 m/min (0 to 1.83 km/h) |                    |  |
| Travel speed                               | 0 to 133 m/min (0 to 8 km/h)     |                    |  |
| Tyres                                      |                                  |                    |  |
| Tyre size, front (Ø x W)                   | 559 x 178 mm                     |                    |  |
| Tyre size, rear ( $\emptyset \times W$ )   | 559 x 254 mm                     |                    |  |
| Loading of the milled material             |                                  |                    |  |
| Belt width of discharge conveyor           | -                                | 400 mm             |  |
| Theoretical capacity of discharge conveyor | -                                | 84 m³/h            |  |

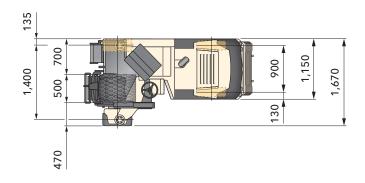
 $\star^1$  = The maximum cutting depth may deviate from the value indicated due to tolerances and wearv

|  | W 50 H   | W 55 H   |
|--|----------|----------|
| Weight of base machine   |          |          |
| Empty weight of machine excluding conveyor, tank contents and additional weight at front | 5,475 kg | 6,035 kg |
| Operating weight, CE* <sup>2</sup> excluding conveyor                                    | 5,805 kg | 6,360 kg |
| Maximum operating weight (full tanks, full range of equipment)                           | 6,075 kg | 7,920 kg |
| Weights of operating agents  |          |          |
| Water tank filling in kg   | 320 kg   |          |
| Diesel tank filling in kg (0.83 kg/l)  | 135 kg   |          |
| Additional add-on weights  |          |          |
| Driver and tools   |          |          |
| Driver   | 75 kg    |          |
| 2 cutting tool containers  | 50 kg    |          |
| On-board tools   | 30 kg    |          |
| Optional additional equipment  |          |          |
| Additional weight at front   | -        | 540 kg   |
|  |          | 165 kg   |
| Additional wheel-weight  | -        | 100 Kg   |
| Additional wheel-weight<br>Weather canopy fibreglass manually lowering                   | -        | 100 kg   |

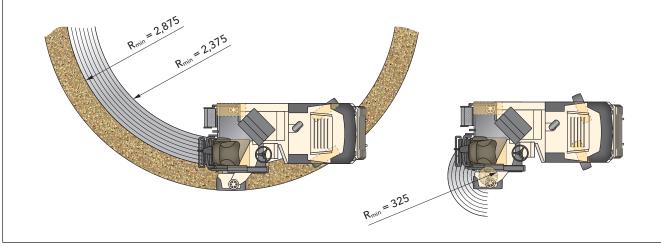
## Dimensions

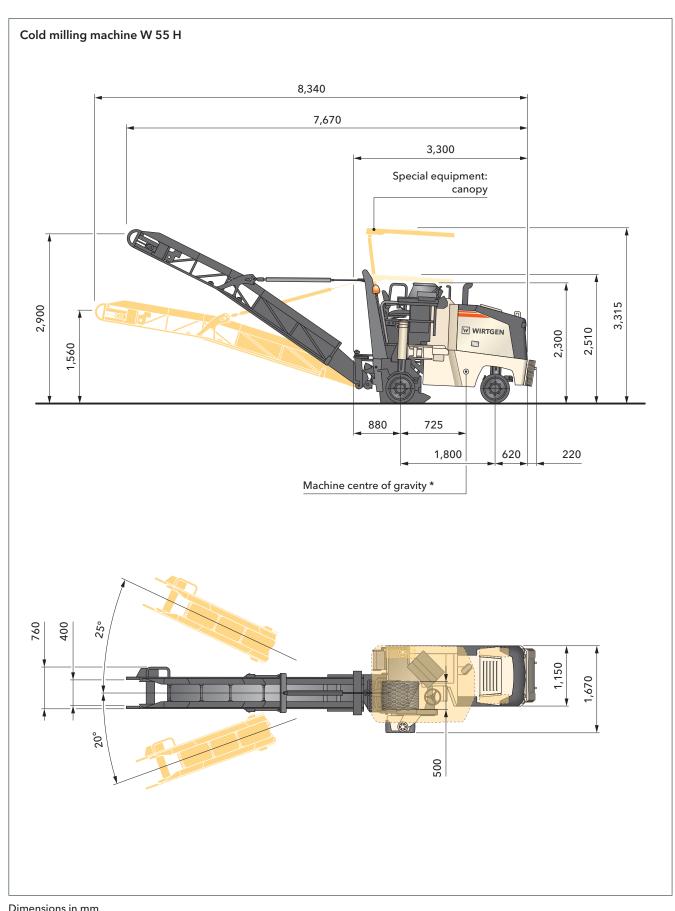
#### Cold milling machine W 50 H





Milling radius cold milling machine W 50 H and W 55 H, 150 mm milling depth





# **Standard equipment**

|  | W 50 H | W 55 H |
|--|--------|--------|
| Base machine   |        |        |
| Basic machine with water-cooled engine   | •      |        |
| Elastically mounted engine station with low vibration and low noise                                      |        |        |
| Engine cover with noise insulation   | •      |        |
| Mirror at front left   | •      |        |
| Milling drum unit  |        |        |
| Wide opening scraper plate with automatic electric safety drum shutdown                                  | •      | -      |
| Hydrostatic milling drum drive   |        |        |
| Milling drum housing FB500 FT180 for use without discharge conveyor, including drum housing seal at rear | •      | -      |
| Milling drum housing FB500 FT180 for use with discharge conveyor, including scraper                      | -      |        |
| Milling drums  |        |        |
| Milling drum FB500 HT08 LA15 with 54 picks   |        |        |
| Operator's stand   |        |        |
| Low-vibration operator's stand with steering on right-hand side  |        |        |
| User-friendly control panel with tried-and-tested switches   |        |        |
| Machine display for showing all important machine parameters   | -      |        |
| Right armrest with the most important operating functions  |        |        |
| Illuminated operating panel/nighttime design   |        |        |
| Robust anti-vandalism protection for the controls  |        |        |
| Conveniently accessible ladder/footstep to the operator's stand from the rear                            |        |        |
| Operator's stand with adjustable seat  |        |        |

|   | W 50 H | W 55 H |
|---|--------|--------|
| Under-carriage and height adjustment  |        |        |
| Infinitely variable, hydraulic all-wheel drive with 3 speed ranges  |        |        |
| Solid tyres   |        |        |
| Hydraulic, easy front wheel steering  |        |        |
| For milling along kerb edges, the rear right support wheel can be swivelled mechanically in front of the milling drum |        | •      |
| Hydraulically assisted spring-loaded brake  |        |        |
| Mechanical milling depth display via gauge right and left   |        |        |
| Others  |        |        |
| Lighting package with 4 LED headlights and a rotating beacon  |        | -      |
| Water sprinkler unit with tank (320 I capacity)   |        | •      |
| Set of tools for maintenance and servicing  | •      | •      |
| Storage compartment for tools   |        | •      |
| Safety package with EMERGENCY STOP switch   |        | -      |
| Device for towing away  |        |        |
| Reversing horn  |        |        |
| Paint standard cream white RAL 9001   |        |        |

# **Optional equipment**

|   | W 50 H | W 55 H |
|---|--------|--------|
| Milling drum unit   |        |        |
| Side plate with hydraulic lifting function right and left |        |        |
| Milled-out material loading                               |        |        |
| Discharge conveyor, 4,900 mm long, 400 mm wide            | -      |        |
| Machine control and levelling system                      |        |        |
| Transverse tilt sensor for LEVEL PRO levelling system     |        |        |
| Operator's stand  |        |        |
| Weather canopy fibreglass manually lowering               | -      |        |
| Under-carriage and height adjustment                      |        |        |
| LEVEL PRO levelling system wire-rope right + left         |        |        |
| Others  |        |        |
| Paint in one special colour (RAL)                         |        |        |
| Additional weight at front, 540 kg                        | -      |        |
| Additional wheel-weight, 165 kg                           | -      |        |
| Mirror front right and rear left                          |        |        |
| Lighting package with 3 halogen spotlights, 24 V          |        |        |
| Additional large tool package                             |        |        |



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