



Technical specification

# Cold milling machine W 100



# Technical specification

<b>Cold milling machine W 100</b>		
<b>Milling width max.</b>		1,000 mm
<b>Milling depth*<sup>1</sup></b>		0–300 mm
<b>Milling drum</b>		
Tool spacing		15 mm
Number of tools		100
Drum diameter with tools		930 mm
<b>Engine</b>		
Manufacturer		Deutz
Type		TCD 2012 L06 2V
Cooling		Water
Number of cylinders		6
Output		155 kW/208 HP/211 PS
Engine speed		2,300 min <sup>-1</sup>
Displacement		6,057 cm <sup>3</sup>
Fuel consumption, full load		42 l/h
Fuel consumption, <sup>2</sup> / <sub>3</sub> load		28 l/h
<b>Speeds/Gradeability</b>		
1 <sup>st</sup> milling gear		0–10 m/min
2 <sup>nd</sup> milling gear		0–20 m/min
3 <sup>rd</sup> milling gear		0–30 m/min
Travel gear		0–6 km/h
Theoretical gradeability, milling gear/travel gear		75% / 10%
Transversal inclination, max		10°
Ground clearance		325 mm
<b>Weights*<sup>2</sup></b>		
Front axle load, full tanks		6,000 daN (kg)
Rear axle load, full tanks		9,000 daN (kg)
Own weight		13,500 daN (kg)
Operating weight, CE* <sup>3</sup>		14,250 daN (kg)
Operating weight, full tanks		15,000 daN (kg)
<b>Tyres</b>		
Type of tyres		Solid rubber
Tyre size, front (diameter x width)		620 x 230 mm
Tyre size, rear (diameter x width)		620 x 255 mm
<b>Tank capacities</b>		
Fuel tank		450 l
Hydraulic fluid tank		80 l
Water tank		900 l
<b>Electrical system</b>		
		24 V
<b>Conveyor system</b>		
Belt width		500 mm
Theoretical conveyor capacity		115 m <sup>3</sup> /h
<b>Shipping dimensions</b>		
Dimensions of machine (L x W x H)		4,665 x 2,260 x 2,550 mm
Dimensions of machine (support wheel folded in) (L x W x H)		4,665 x 1,900 x 2,550 mm
Dimensions of conveyor (L x W x H)		8,050 x 1,000 x 1,000 mm

\*<sup>1</sup> = The maximum milling depth may deviate from the value indicated, due to tolerances and wear.

\*<sup>2</sup> = All weights refer to basic machine without any additional equipment.

\*<sup>3</sup> = Weight of machine with half-full water tank, half-full fuel tank, driver (75 kg) and tools.



## Basic design

The W 100 is a road milling machine with mechanically driven milling drum and conveyor system.

The machine is equipped with permanent all-wheel drive as a standard feature.

## Chassis

Robust welded construction with mounts for the individual function modules. The tank for diesel fuel is integrated into the chassis. The individual components are optimally arranged to ensure easy access for maintenance and service purposes.

## Operator's platform

The operator's platform is located at the rear of the machine.

The comfortable sitting position combined with ergonomically arranged operating elements allows the driver to operate the machine without fatiguing and ensures a clear overview of the machine. The seat can be adjusted in the direction of travel. The driver's seat can be moved backwards and forwards, and also sideways beyond the right-hand edge of the machine.

The most important controls are located in the right armrest.

Locking covers on the operating elements protect the machine against vandalism.

## Power unit

The cold milling machine is driven by a modern 6-cylinder turbo diesel engine with electronic controller. The diesel engine is elastically mounted to reduce noise levels and vibrations. All maintenance work can be carried out from one machine side. The engine complies with the stringent requirements of the exhaust emission standards stipulated by the US Environmental Protection Agency (EPA, Tier III) and the EU (Stage III).

## Soundproofing

Noise levels are reduced by the standard soundproofing which also protects both the operating personnel and the environment against any nuisance due to noise.

## Milling drum drive

The milling drum is driven mechanically by the diesel engine via a mechanical clutch, angular transmission and power

belts acting on the drum gearbox. The power belts ensure optimum transmission of the power, damp any impacts and protect the other units against overloading.

Constant tension of the power belts is automatically maintained by a hydraulic cylinder.

## Milling drum

The milling drum is located between the rear wheels and operates in up-milling direction. Toolholders accommodating the point-attack cutting tools are welded onto the drum body. An optimum arrangement of the cutting tools ensures the smooth operation of the machine.

As an option, the milling drum can be equipped with the patented and established quick-change toolholder system HT11. With this system, the bottom parts of the toolholders are welded onto the drum body and the upper parts secured to the bottom parts by retaining bolts to allow quick replacement, thus minimizing any downtimes.

As an option, the W 100 can also be equipped for use with the FCS Light (Flexible Cutter System).

This system permits the rapid exchange of milling drums (e.g. fine milling drums) up to a milling width of 1.00 m.

## Cutting tool replacement

The scraper blade opens hydraulically and the side plates can be locked in the upper position to permit easy access to the milling drum for the replacement of cutting tools.

The power belts are slackened automatically to facilitate the replacement of cutting tools, as the drum can then be turned easily.

Storage compartments near the ladder provide sufficient space for cutting tool containers.

## Running gear

The machine is steered via the full floating front axle.

The rear wheels are suspended individually and designed as supporting wheels.

The rear right wheel can be manually (or hydraulically: optional) swivelled in front of the milling drum to improve the side clearance, for instance when working along kerbstones.

## Travel drive

The cold milling machine W 100 has four separately

driven wheels. The travel drive motors are fed by a common hydraulic variable displacement pump.

The travel speed can be infinitely varied from zero to maximum speed in all three milling gears and in travel gear. A hydraulic flow divider acts as differential lock ensuring uniform traction.

### **Steering**

The machine has a finger-light hydraulic steering system. Extremely tight locking angles allow exceedingly small turning clearance circles.

### **Brake system**

Braking is achieved by drag from the hydrostatic travel drive. The road milling machine is additionally equipped with an automatic spring-loaded braking system in the travel drive gearboxes of both rear wheels.

### **Loading the milled material**

Clean loading of the milled material is ensured by means of a scraper blade. Carbide segments on the edges of the scraper blade ensure a long service life.

The scraper blade can be locked at the required height if material is to be milled right down to the gravel course.

In addition, it can also be adjusted so that the milled trench can be refilled or so that part of the reclaimed material can be loaded on trucks.

The loading conveyor receives the milled material from the milling drum and delivers it to the waiting truck via a wide conveyor system.

By means of a special coupling device, the conveyor can be mounted and dismounted quickly.

The loading conveyor can be adjusted in height and slewed to both sides. The material is transported reliably and safely by the V-ribbed belt.

The conveyor belt is covered to prevent the formation of dust clouds. The belt speed can be infinitely adjusted.

### **Milling depth adjustment and automatic levelling system**

The milling depth is set via the hydraulic height adjustment of the rear drive units.

The drive units can be conveniently adjusted independently of one another from the driver's seat, where the set values can be monitored on separate height indicators.

This feature permits the simple and accurate production of wedged cuts.

As an option, the machine can be equipped with the integrated Wirtgen automatic levelling system LEVEL PRO which uses sensors to scan a reference plane. The height adjustment is then effected automatically.

### **Hydraulic system**

The hydraulic systems for travel drive, loading conveyor and setting functions are mutually independent.

The hydraulic pumps are driven by the diesel engine via a power take-off, thus permitting a highly compact design. All the oil in the system is cleaned by a suction-type return filter. The system is cooled by an integrated hydraulic oil cooler.

### **Electrical system**

24 V electrical system with starter, 3-phase alternator and two 12 V batteries.

### **Water spray system**

The formation of dust clouds during the milling operation is largely prevented by an electrically operated water spray system which also cools the cutting tools, thus considerably extending their service life.

The spray nozzles are easily removed for cleaning.

### **Filling**

Water is filled via a C-pipe connection or a large filling port. Diesel fuel is filled via a large filling port.

### **Safety features**

The cold milling machine can be securely lashed onto a low-bed trailer or loaded by crane (cross-beam) with the aid of the lashing lugs permanently attached to the machine.

The machine features the GS mark (Geprüfte Sicherheit = Tested Safety) of the Employers' Liability Insurance Association and the CE mark.

Equipment	Cold milling machine W 100
<b>Transport</b>	
Loading and lashing lugs	○
Towing device	○
Road traffic licence	●
1 exterior rear view mirror, right, 2 exterior rear view mirrors, left	○
<b>Machine control and levelling system</b>	
Automatic levelling system LEVEL PRO left and right	●
Automatic levelling system LEVEL PRO with slope control sensor	●
<b>Drive units/Wheels</b>	
All-wheel drive and switchable differential lock	○
4-wheel design with front axle	○
Hydraulically swivelling support wheel	●
<b>Frame/Operator's platform</b>	
Canopy, raised/lowered hydraulically	●
Special painting	●
<b>Milling drum assembly</b>	
FCS Light (Flexible Cutter System)	●
Fine milling drums (tool spacing 8 mm / tool spacing 6x2 for FCS Light)	●
Hydraulically lifting drum plate, front	●
Additional lock-valve for scraper blade	○
Hydraulically lifting side plates	●
Quick-change toolholder system HT11	●
Drum carriage for exchange of milling drums	●
<b>Loading the milled material</b>	
Loading conveyor with quick-release coupling	○
Adjustable conveyor belt speed	○
Folding conveyor	●
<b>Miscellaneous</b>	
Illumination of the control panel	●
Comprehensive tool kit	○
Working lights	○
Warning beacon	○
Safety certificate by the Employer's Liability Insurance Association	○
Comprehensive safety package with emergency stop button	○
Reversing horn	○
Soundproofing	○
Operation of the cold milling machine with organic hydraulic fluid	●

○ Standard ● Option





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