

High-Performance Professional Machine for Precision Grinding of Road Surfaces

**W 210 XF**

**WIRTGEN PRECISION GRINDING**



US RELEASE

# OVERVIEW OF HIGHLIGHTS



The powerful professional machine with compact dimensions offers a wide range of applications and grinding profiles.

A powerful extraction system draws off all the grinding slurry and pumps it into the collection buckets provided.

The **LEVEL PRO ACTIVE** leveling system enables precision grinding of pavement surfaces and enormous improvements in terms of evenness, cross slope, and roughness.

A wide range of profiles can be created using the extensive selection of grinding discs available.

### 01 Powerful Grinding Unit

- > Broad spectrum of grinding shaft speeds for a wide range of applications
- > Smart spraying and slurry control for reduced grinding disc wear
- > Ruggedly-constructed belt drive system for stable grinding shaft drive

### 02 Wide Range of Grinding Profiles

- > Combination of grinding profiles according to needs
- > Extremely wear-resistant grinding discs for a wide range of applications
- > Quick-change grinding shafts with ideal auxiliary tools

### 03 Reliable Slurry Extraction System

- > Two high-performance radial ventilators for the extraction of the air/slurry mix from the grinding housing
- > Additional sound damping for a significant reduction of the noise level in the pneumatic extraction process
- > Two powerful cyclone separators for the separation of air and slurry in the filtering process
- > Two pumps for transporting the separated slurry into external containers

### 04 High-Precision LEVEL PRO ACTIVE Leveling System

- > High-precision machine-height leveling with Multiplex system for maximum evenness
- > Additional sensors for cross slope and height scanning in all situations on construction sites
- > Reliable machine operation with digital depth limitation

### 05 Effective Water Spray

- > Semi-automated control of variable water quantity added with water spray as required
- > Optimized water injection into the grinding process for low grinding disc wear
- > Sensor-monitored slurry temperature measurement for early detection of insufficient cooling of grinding discs



A large number of innovative features reduce fuel consumption and wear of the grinding discs per unit area, thus effectively contributing to increased sustainability and the minimization of CO<sub>2</sub> emissions.

# BROAD SPECTRUM OF APPLICATIONS FOR PRECISION GRINDING

## Application 1: Grinding Concrete / Asphalt

Precision Grinding on concrete or asphalt pavements for the improvement of grip characteristics and compensation of surface irregularities.



## Application 2: Grinding Cobblestone Pavements

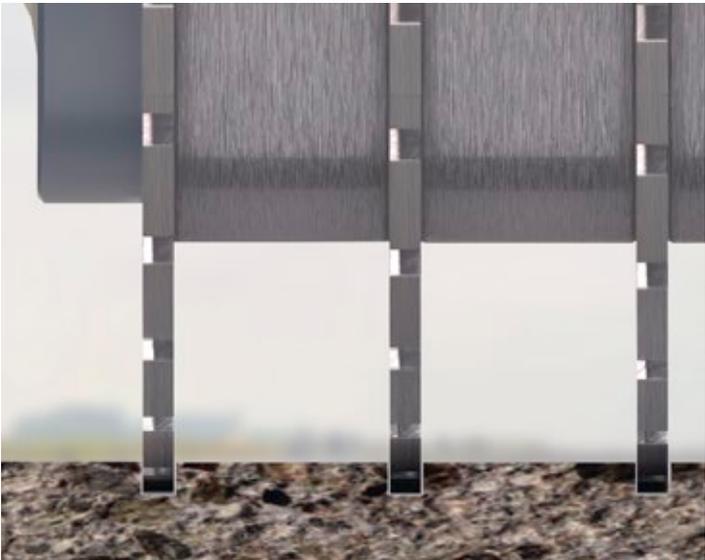
Precision Grinding on cobblestone pavements for the improvement of grip characteristics and compensation of surface irregularities.



**Application 3: Grooving**

Precision Grinding at fixed intervals (grooving) for targeted drainage of the pavement surface, for enlargement of the

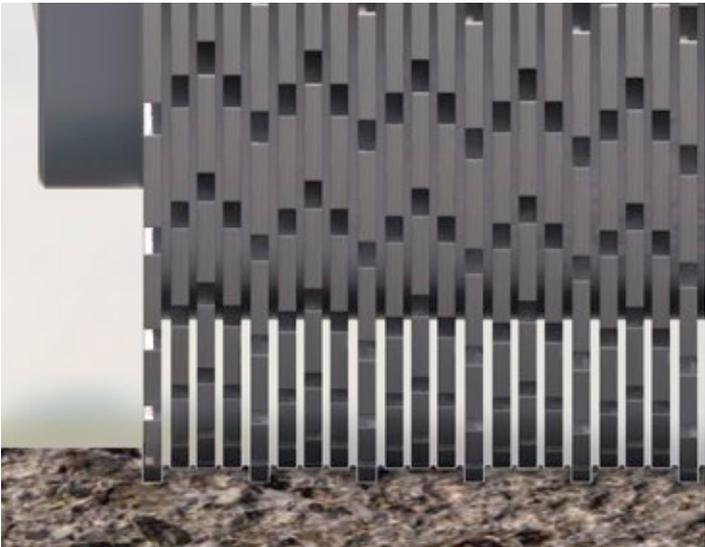
pavement surface profile, and for the prevention of aquaplaning.



**Application 4: NGCS - Next Generation Concrete Surface**

The realization of a structured surface by combining the grinding and grooving methods serves the reduction of tire noise

and the improvement of water run-off from asphalt and concrete surfaces.



# MACHINE COMPONENTS IN DETAIL

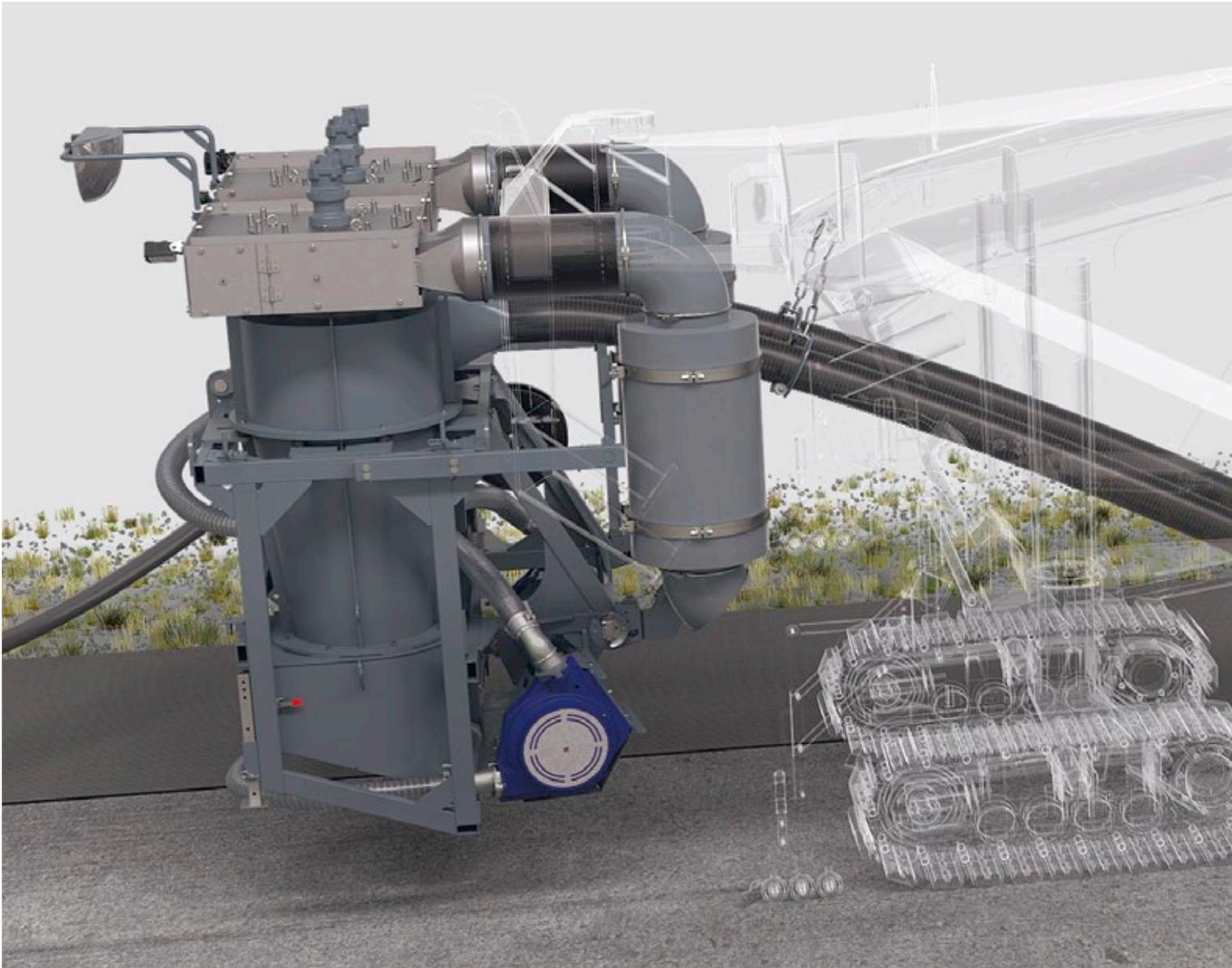
## Grinding Unit with Slurry Extraction System

The durable, 6-ft 2-in-wide (1,875-mm-wide), grinding unit is equipped with a specially-designed high-performance gearbox. This enables a broad spectrum of grinding shaft speeds for a wide range of effective applications. In addition, the heavy-duty belt drive ensures the reliability of the grinding shaft in operation, even at high rotational speeds.

Smart spraying and slurry control effectively reduce wear on the grinding discs. In addition, there is an intelligently

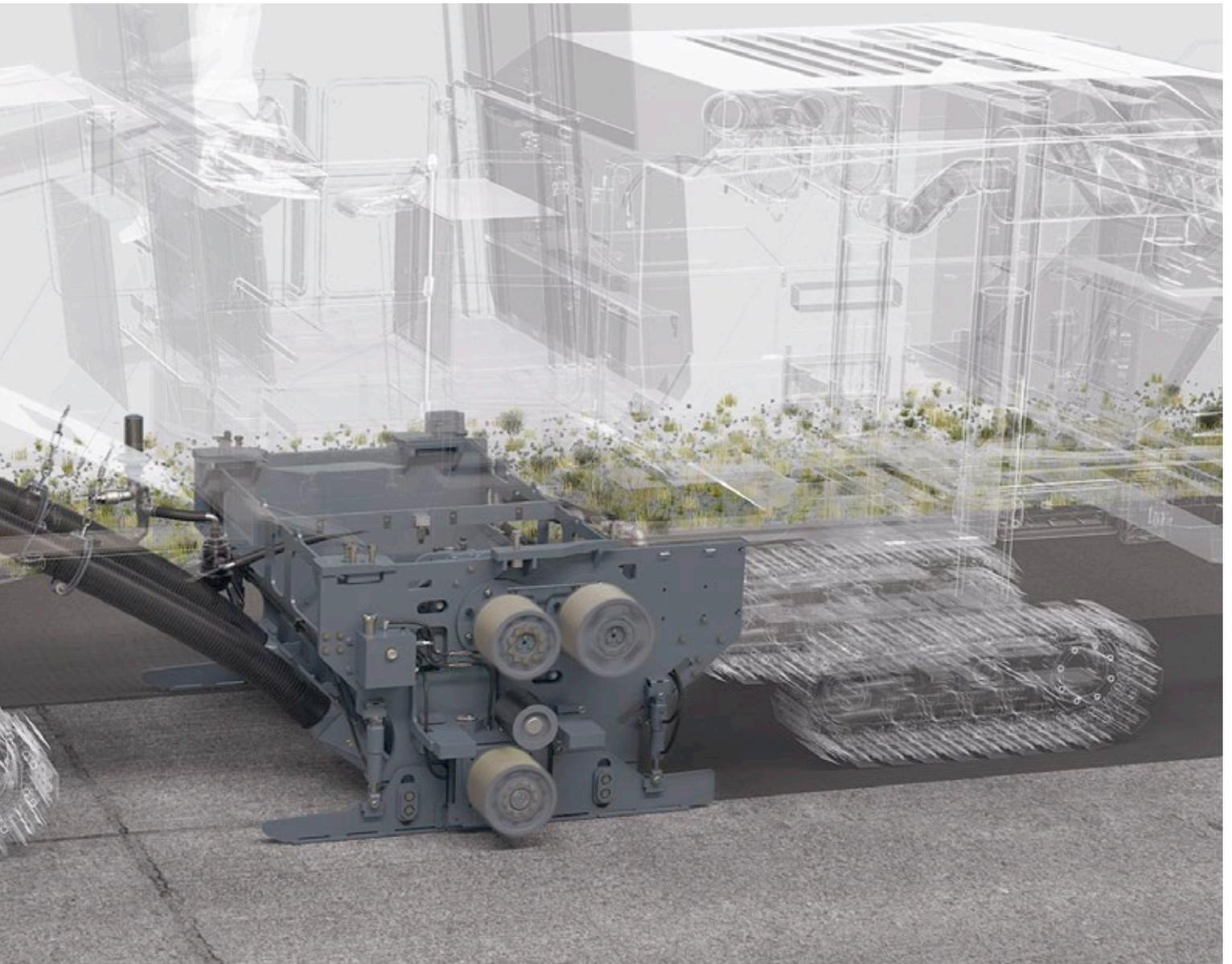
designed water injection system that ensures reliable cooling of the grinding discs by spraying.

The enormous volume of up to 37 gal (140 liters) of water can be sprayed per minute. On top of this, the machine's generously-dimensioned, 872-gal (3,300-liter) water tank acts as a buffer storage tank - ensuring a water supply for up to 60 minutes of spraying.



Two high-performance radial ventilators generate a suction force that extracts the air/slurry mix from the grinding unit. Suction extraction ducts transport the slurry to the slurry extraction system via a special grinding unit seal. The efficient slurry extraction system completely removes the grinding slurry, thus ensuring a clean working environment and minimal environmental impact.

In the filtering process, powerful cyclone separators separate the air and slurry. The grinding slurries are then pumped directly into a slurry tanker driving ahead of the machine. In addition, separate sound damping significantly reduces the noise level in the pneumatic extraction process.



# MACHINE COMPONENTS IN DETAIL

## Grinding Shaft

The 6-ft 2-in-wide (1,875-mm-wide) grinding shaft, equipped with diamond discs and spacer discs, is suitable for concrete or asphalt grinding work, depending on which are fitted. The

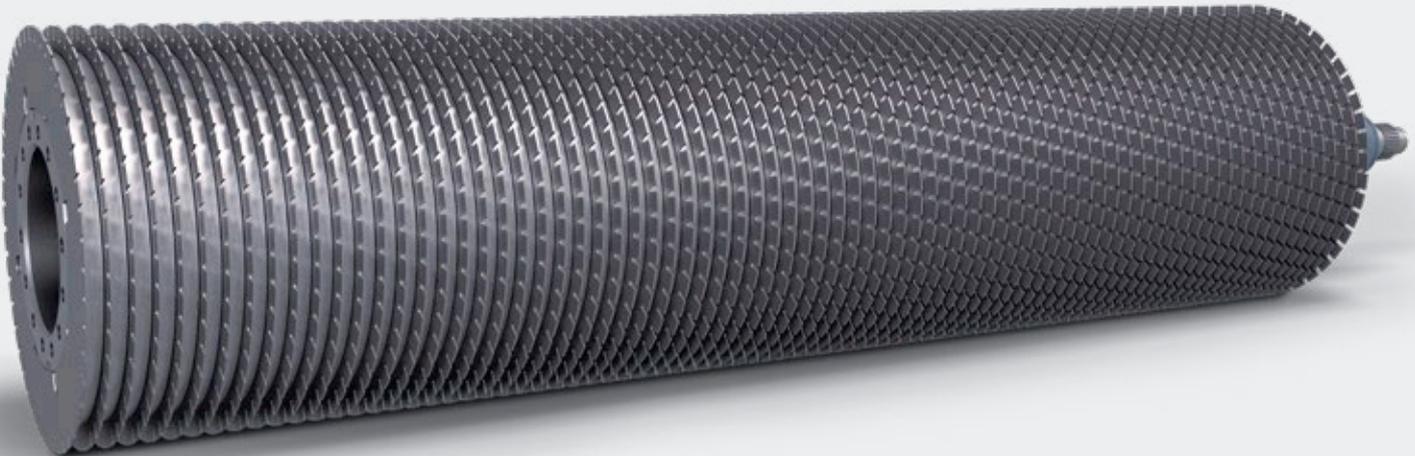
applications enable a predefined profile to be ground into the pavement surface.

Grinding shafts can be exchanged within a maximum of two hours with the aid of ideally designed auxiliary tools.

Grinding Shaft - Grinding



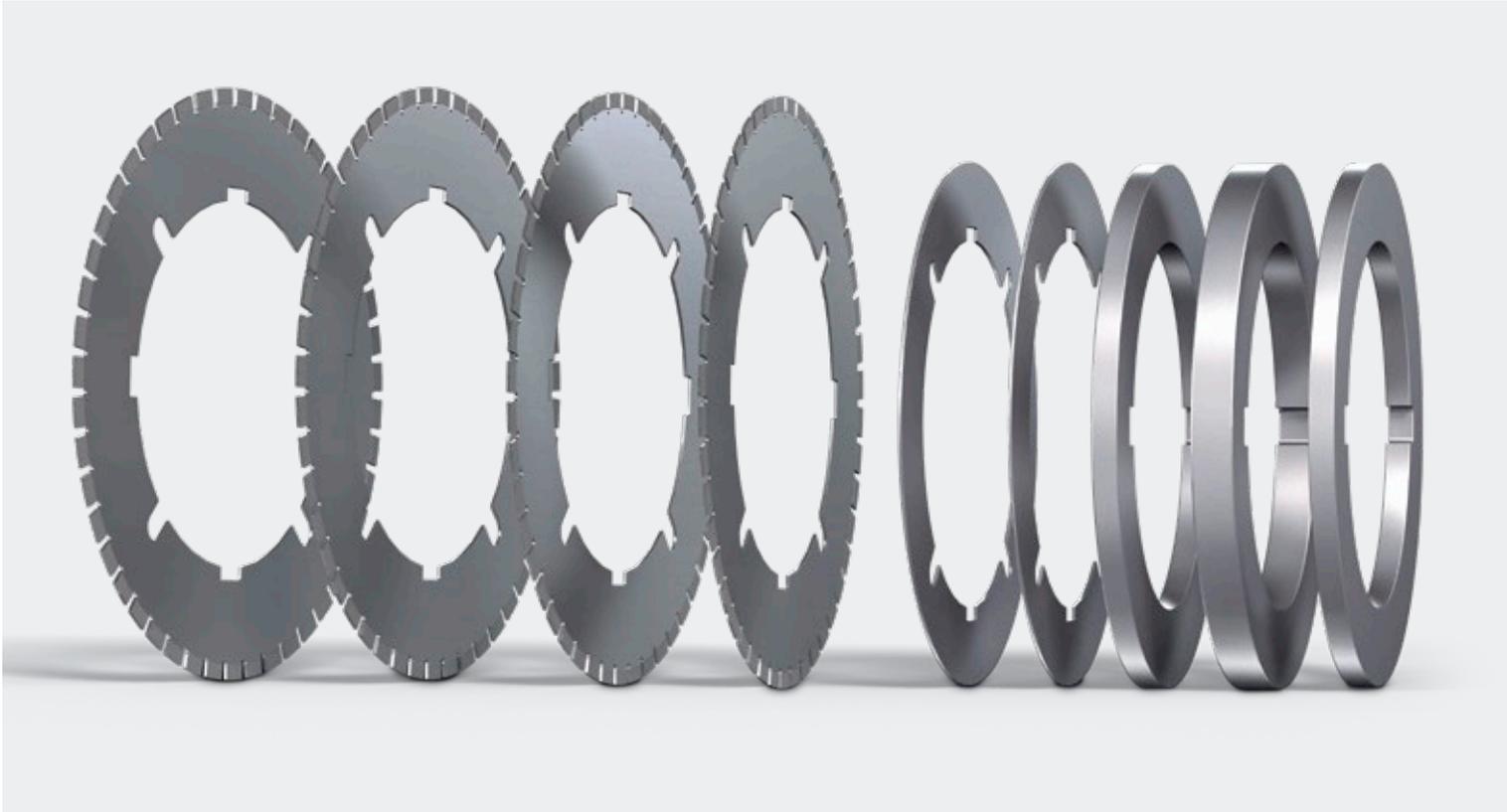
Grinding Shaft - Grooving



**Overview of Grinding Discs and Spacer Discs**

A wide range of different profiles can be created using the extensive selection of grinding discs available. The newly developed grinding discs enable highest productivity with different

materials, surface conditions, and profile classes. In addition, the grinding discs not only improve the grinding process, but also contribute to the overall effectiveness and long service life of the machine.



USAGE CASES: GRINDING DISCS FOR WIRTGEN PRECISION GRINDING				PART NUMBERS FOR GRINDING DISCS THICKNESS 1/8 INCH	
				Ø 19 inch	Ø 19 1/5 inch
Concrete	Hard materials ↑	W30C	Soft binder course	W30C 32-480 WX3375990	-
		W50C		W50C 32-480 WX3341814	W50C 32-488 WX3375991
Freshly-paved concrete & asphalt	↓ Softer materials	W70AC	Hard binder course	W70AC 32-480 WX3357102	-
		W90A		W90A 32-480 WX3363910	-

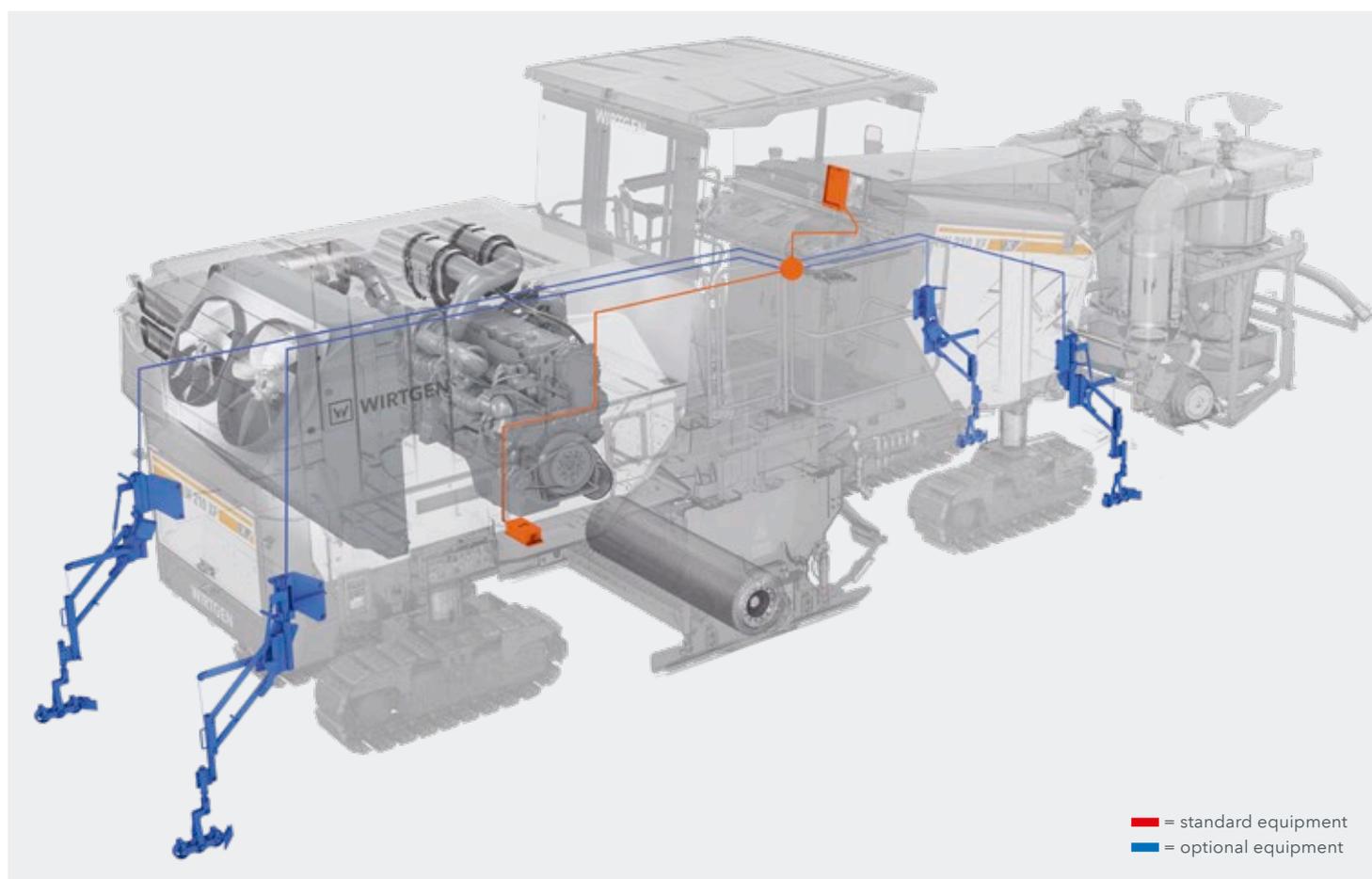
PART NUMBERS - SPACER DISCS		
Spacer disc 11.6 x 16.5 x 0.06 in (295 x 420 x 1.5 mm) WX3375992	Spacer disc 11.6 x 16.5 x 0.1 in (295 x 420 x 2.6 mm) WX3282116	Spacer disc 11.6 x 16.5 x 0.12 in (295 x 420 x 3.0 mm) WX3341816

# MACHINE COMPONENTS IN DETAIL

## Leveling via Multiplex Cable Sensor (optional)

The innovative Multiplex leveling system with four Multiplex scanning sensors guarantees unrivaled and absolutely precise machine height leveling. This enables precise grinding of surfaces and an enormous improvement of evenness,

cross slope, and roughness. This enables exact and reliable machine operation via digital depth limitation. The scanned values are displayed in digital form on the leveling display.



# W 210 XF

## WIRTGEN PRECISION GRINDING

### TECHNICAL DATA WIRTGEN PRECISION GRINDING

Engine	6-cylinder diesel engine John Deere 6180HD-NC-Pinb-N
Rated power at 1,700 rpm	580 kW / 778 HP / 789 PS
Exhaust emission standard	EU Stage 5 / US EPA Tier 4f
Grinding width (standard)	6 ft 2 in (1,875 mm)
Theoretical max. grinding depth	2 in (50 mm)
Operating weight, CE <sup>1)</sup>	65,367 lbs (29,650 kg)

<sup>1)</sup> Machine weight, half weight of all operating agents, tools, machine operator, no additional options

### EQUIPMENT

#### Mandatory option - complete grinding unit with extraction system, without grinding disc set

WX3350533 > Grinding unit GB1875 comprising water pump, side plate, drive belt cover, drive, and extraction system

WX3365549 > Installation of the appropriate interfaces for retrofitting a W 210 Fi or W 210 XF with WIRTGEN PRECISION GRINDING

#### Selection of the grinding shaft for initial installation

WX3350537 > Grinding shaft GB1875 WPG with 350 grinding discs W50C, 0.13 in (3.2 mm) D480 and 0.09 in (2.2 mm) strut width with 0.12 in (3.0 mm) spacer discs for concrete grinding work

WX3350540 > Grinding shaft GB1875 WPG with 350 grinding discs W70AC, 0.13 in (3.2 mm) D480 and 0.09 in (2.2 mm) strut width with 0.12 in (3.0 mm) spacer discs for concrete grinding work

#### Selectable option - Enhanced leveling quality - Multi Plex

WX3350546 > Enhancement of the **LEVEL PRO ACTIVE** leveling system with two hydraulic cylinder sensors for scanning a reference surface to the left and the right in front of the grinding shaft

WX3350547 > Multiplex Scanning sensor kit WPG via roller guide; the altogether 4 sensors are mounted with the brackets on the right and left sides in front of and behind the machine

#### Selectable option - Auxiliary tools for changing grinding shafts and grinding discs

WX3350542 > Transport trolley for grinding shaft - the transport trolley greatly simplifies the disassembly and assembly of the grinding shaft in the machine

WX3350545 > Assembly station for grinding disc assembly with tools for pre-sorting the grinding and spacer discs and a stand for mounting the grinding shaft in a vertical position

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