

Heating asphalt pavements efficiently.

Panel heating machine HM 4500



Outstanding features of the HM 4500 panel heating machine

02
03

GAS TANK

Liquid-gas tank system with filling level indicator to supply energy to the infrared radiators.

WINCHES

Two hydraulically driven winches to lower the front and rear heating panels from transport into working position.



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HEATING SYSTEM

Infrared radiator elements adjustable to the specified working width for effective heating of the surface course and underlying base.

POWER UNIT

Fuel-efficient, powerful diesel engine for high drive power.

OPERATOR'S PLATFORM

Walk-through operator's platform with controls arranged within easy reach for easy operation.



5 | GAS PRESSURE REGULATOR

Centrally arranged gas pressure regulator for effective control of the heating performance in the various heating zones.

6 | ALL-WHEEL STEERING

All-wheel steering system for excellent manoeuvrability.





Replasticizing asphalt the efficient way.

THE WIRTGEN HM 4500 PANEL HEATING MACHINE. A PERFECTLY ENGINEERED SPECIALIST MACHINE FOR THE HOT RECYCLING PROCESS. HEATING THE SURFACE COURSES OF ASPHALT ROADS GENTLY FOR SUBSEQUENT HOT RECYCLING. FROM URBAN ROAD TO MOTORWAY. FAST, ECONOMICAL, ENVIRONMENTALLY BALANCED. AND MEETING EXACTING REQUIREMENTS. THE HM 4500 PANEL HEATING MACHINE SETS THE STANDARD IN THIS TECHNOLOGY. IN OPERATION WORLDWIDE - RECOGNIZED WORLDWIDE. QUALITY AND PERFORMANCE. COUNT ON IT.



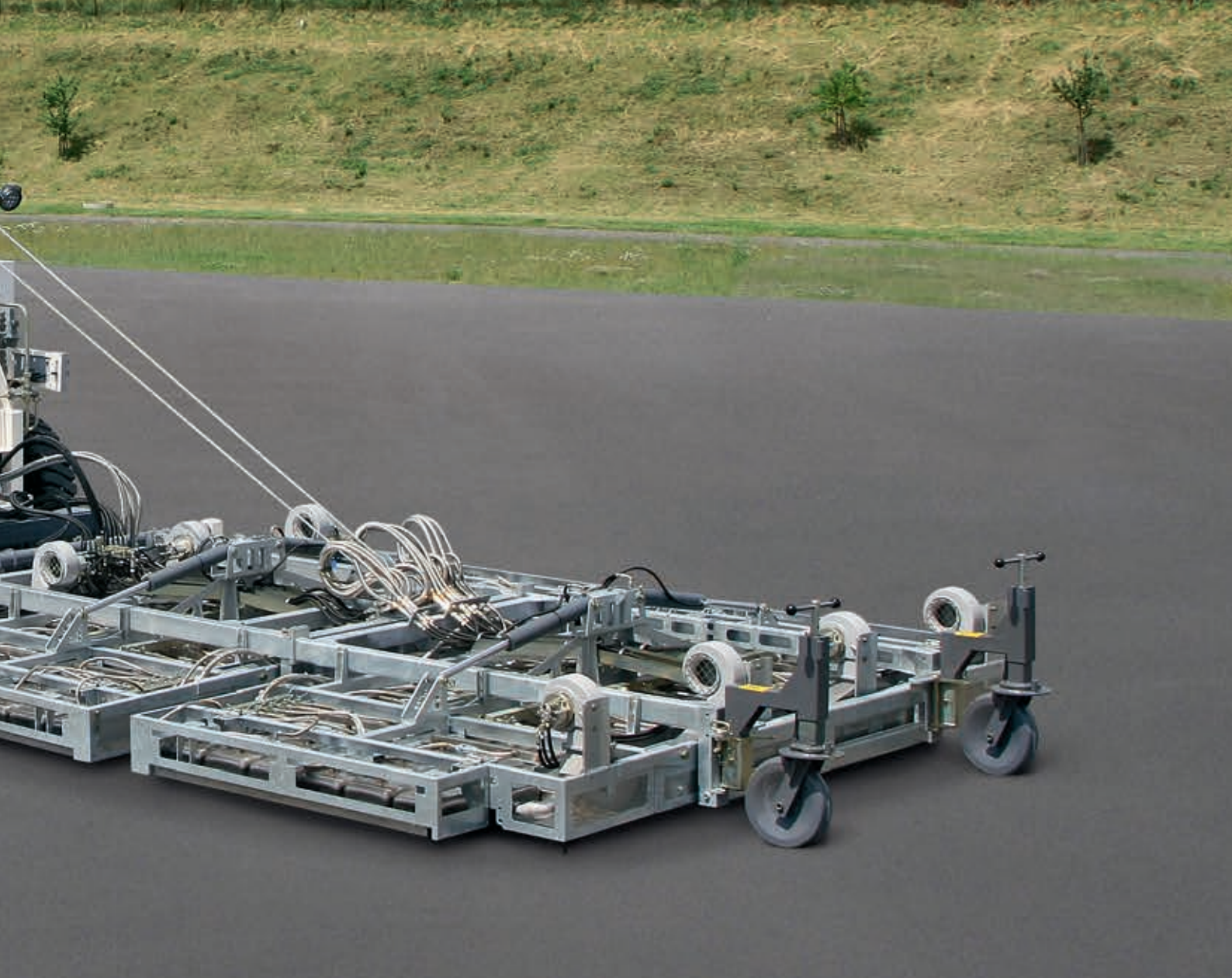
Using adjustable, high-performance infrared heaters, the HM 4500 heats up damaged road pavements.

Making asphalt malleable with the HM 4500

PERFECT TEAMWORK WITH THE REMIXER 4500

The resource-efficient hot recycling process is a very fast and economical method for the rehabilitation of extensively damaged asphalt surfaces. The self-propelled HM 4500 panel heating machine plays a key role in this operation. The machine travels immediately ahead of the Remixer 4500 hot recycler and effectively heats bituminous road surfaces in the first step of this innovative treatment process. And with resounding success: applying the adjustable heating power, the damaged asphalt surface is softened by gently heating

it to the specified temperature. Full control of the propane combustion process ensures high heating output while keeping gas consumption low. The large, easy-to-refuel gas tank stores the equivalent of the heating energy required for a long workday, plus appropriate reserves. The use of two or more panel heating machines increases productivity at low ambient temperatures or in the presence of moist surfaces.



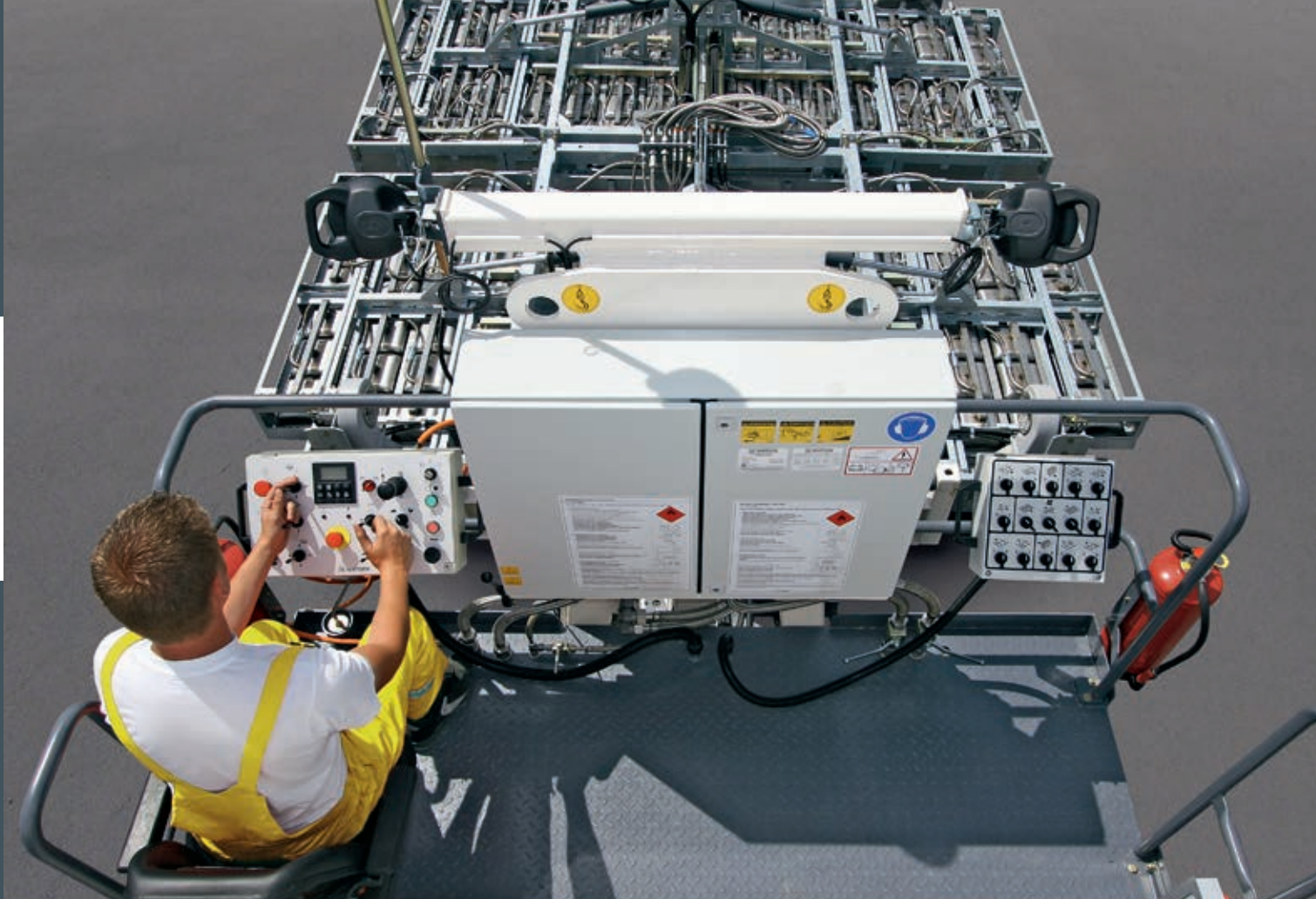
*Compact design:
the operator simply
folds up the heating
units for transport.*





High performance – full control.

ALL IS SET TO GO, WAITING FOR YOUR COMMAND. VARIOUS AUTOMATED FUNCTIONS ARE CONTROLLED VIA SEPARATE CONTROL PANELS. CLARITY AND SIMPLICITY COME AS STANDARD FEATURES. ALLOWING YOU TO FOCUS ON WHAT'S REALLY IMPORTANT: TOP QUALITY WORK RESULTS. PLUS ERGONOMICS, VISIBILITY AND LOTS OF SPACE ON THE OPERATOR'S PLATFORM. DESIGNED WITH PERFECTION IN MIND. GIVING YOU FULL CONTROL. RELAXED WORKING, TREMENDOUS OUTPUT.



The walk-through platform provides ample space and all-round visibility.

Full control on the fully equipped operator's platform

RELAXED WORKING BOOSTS PERFORMANCE

To be able to work at ease and deliver top performance nonetheless, machine operators need ergonomically arranged controls and ample room to move. The HM 4500 panel

Convenient access from both sides.

heating machine fully meets these requirements. Depending on the job at hand, the control panel can be positioned either on the left or on the right side. The controls are arranged clearly, within easy reach and in the operator's field of view. Language-neutral labelling comes as a standard feature.



In addition, the operator's platform provides ample space and legroom to allow working in upright or seated position. The platform can be accessed conveniently via ladders on both sides of the machine, offering perfect all-round visibility of the machine and job site.

Outstanding manoeuvrability

MOVING INTO POSITION QUICKLY AND ACCURATELY

The panel heating machine is manoeuvred quickly and easily via the control panel. A smooth hydraulic all-wheel steering system comes as part of the machine's standard equipment package. The tried-and-tested system ensures excellent manoeuvrability. Both axles of the HM 4500 can be steered independently, allowing the machine to be operated in crab-steering mode.

The machine's advance speed can be continuously adjusted from zero to maximum speed in both operating and travel gear.

1 | *Twists and turns do not pose any problem due to best-in-class manoeuvrability.*

2 | *Heating panels in slewing design to achieve perfect results in narrow bends.*







Effective heating of asphalt surfaces.

WIRTGEN HAS BEEN ENHANCING THE REHABILITATION METHOD FOR BITUMINOUS SURFACE COURSES CONTINUOUSLY FOR OVER 35 YEARS. THE HM 4500 PANEL HEATING MACHINE THEREFORE COMBINES LONG-STANDING EXPERTISE AND STATE-OF-THE-ART TECHNOLOGIES GEARED TO FIELD REQUIREMENTS. WE HAVE PERFECTED THE EFFECTIVE THERMAL TREATMENT OF ASPHALT SURFACES USING INFRARED HEATERS. CUSTOMERS APPRECIATE THE HIGH-QUALITY WORK RESULTS AND LOW COST AND MATERIAL REQUIREMENTS.

Precisely directed heat transfer

1 | Safe, continuous gas feed to the heating units via gas-operated vaporizers.

2 | Gas pressure in the four heating zones can be adjusted by means of pressure control valves.

RELIABLE, POWERFUL HEATING

To save precious energy resources, highly efficient infrared heaters fed with propane gas heat up the damaged asphalt surface. Hydraulically driven high-performance blowers on the heating panels supply additional oxy-

gen which results in an even higher heating output. The gentle heating process prevents further hardening of the binders. The operator hardly needs to intervene in this tried-and-tested process: individual heaters or heating circuits can be switched on or off as required, and the heating output can be varied independently in the different heating zones. This enables the heat energy applied to be specifically and efficiently adjusted to prevailing ambient conditions such as crosswinds.

The liquid-gas tank system is of user-friendly design, including filling level indicator, pressure gauge and temperature indicator.



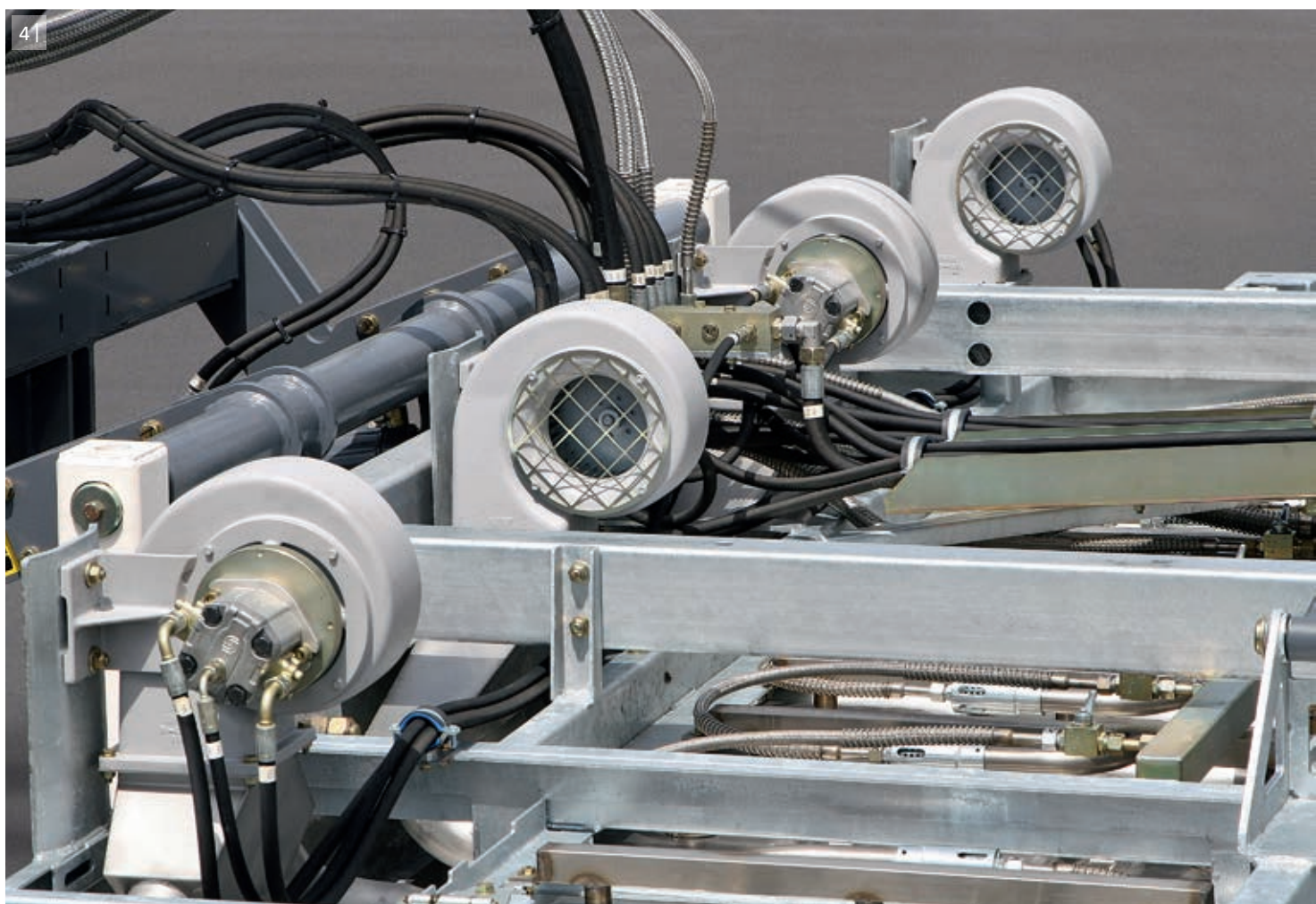
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3 | A perfectly balanced mixture of heat and infrared radiation ensures high performance and uniform heating of the asphalt surface.

4 | Performance-enhancing blowers supply additional air to the infrared heaters.



4 |





The heating panels move apart at the mere flick of a switch.

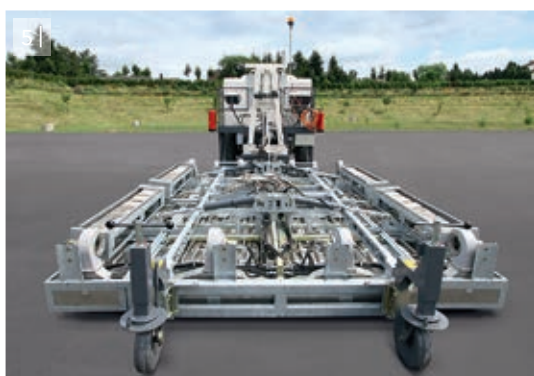
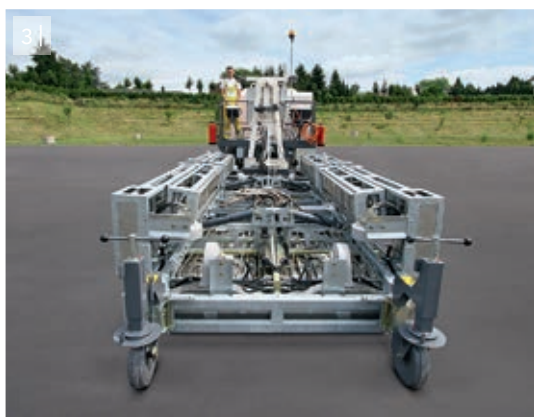
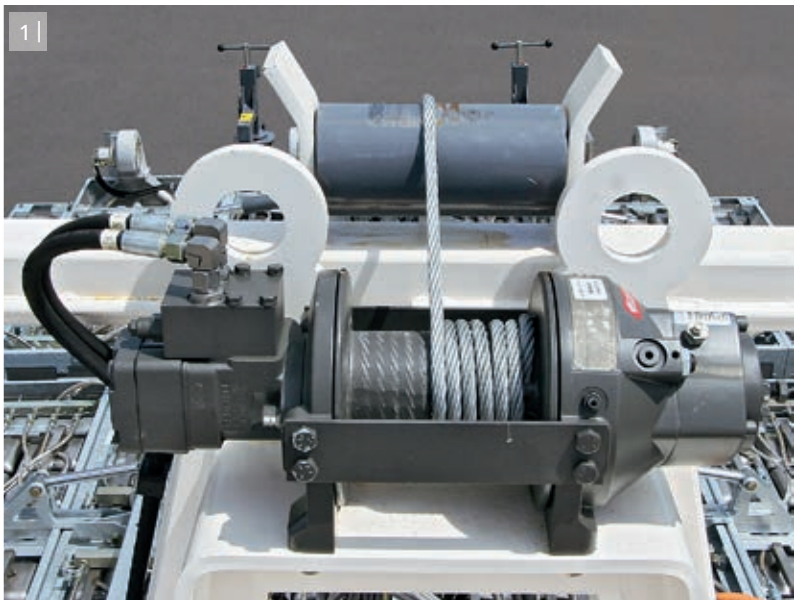
Large heating surfaces – packed up for transport

VARIOUS HEATING WIDTHS POSSIBLE

The high-powered HM 4500 panel heating machine can be relied on to heat large asphalt surfaces. Nonetheless, it shrinks to compact transport dimensions in no time due to the intelligent folding mechanisms employed. For this purpose, the heating panels are raised or lowered by hydraulically driven rope winches. In working position, the heating units move over the surface to be heated without making contact – held in place by steel ropes and support wheels. Flexibility is yet another asset of the HM 4500: working width, height and slewing angle of the heating panels can

be easily adjusted to the job at hand. The intelligent folding system enables the heating of narrow carriageways or pavement strips. The maximum working width of 4.5 m equals that of the Remixer 4500.

The overlapping heating pattern ensures a seamless bond between adjacent carriageway surfaces.



1 | The heating panels are raised and lowered by hydraulically driven winches.

2 | When in working position, the heating panels are located just above the surface to be heated.

3-6 | Flexible adjustment of the working width by folding out individual segments of the infrared heating panels.



A man in an orange high-visibility jacket with reflective green and white stripes is shaking hands with another person whose arm in a yellow jacket is visible on the left. They are standing on a road or construction site. In the background, there is a large white Wirtgen machine, possibly a road sweeper or paver, and a white van. The background is a hilly, wooded area under a clear sky.

Maximum availability –
day after day.

HEAVY-DUTY MACHINE COMPONENTS DESIGNED FOR TOUGH OPERATING CONDITIONS. EASE OF TRANSPORT GUARANTEED. LARGE GAS TANK FOR EXTENDED UPTIMES. THE WIRTGEN GROUP IS AT YOUR DOORSTEP WORLDWIDE OFFERING EFFECTIVE MAINTENANCE AND RELIABLE SERVICE SUPPORT. WE HAVE MADE IT OUR TOP PRIORITY TO ENSURE THE OPERATIONAL AVAILABILITY OF YOUR MACHINE ON A DAILY BASIS. SO THAT TOMORROW WILL BE YET ANOTHER SUCCESSFUL WORKING DAY WITH YOUR HM 4500.



Reducing costs due to easy maintenance



MAXIMUM MACHINE AVAILABILITY

The HM 4500 panel heating machine has been designed with quick and easy maintenance in mind. As a result, wide-opening service panels provide easy access to the few points of service and maintenance. Components to be serviced, such as the low-emission engine, valve block or oil and air filters are positioned within easy reach from the ground or from the operator's platform. The 6,000-litre gas tank can be easily refuelled from a tanker truck.

Like all WIRTGEN machines, the HM 4500 has a comprehensive tool kit on board as part of the standard equipment package.



1 | The HM 4500 is heating the worn asphalt surface of a country road to approx. 120 - 150 °C.

2 | Preheating an asphalt surface course on a motorway in need of rehabilitation.

Making every job a success

TRIED-AND-TESTED AROUND THE GLOBE

The sturdy HM 4500 panel heating machine has demonstrated its high performance and reliability in numerous jobs around the world. Its mode of operation is perfectly adjusted to working in tandem with the WIRTGEN Remixer 4500.

Countless types of damage caused to asphalt surface courses and extending to a depth of up to 5 cm on main traffic arteries, minor roads, motorways or airports – such as rutting,

cracking, lack of skid resistance, pavement irregularities, incorrect aggregate composition or excessive bitumen content – can be repaired on a large scale and in an extremely short period of time. To enable a wide range of applications, the overall working width of the heating panels can be adjusted in increments to a maximum width of 4.5 m.

In addition, our global service network ensures the availability of your HM 4500 on a daily basis.

3 | General overhaul of a main traffic artery.



Technical specification

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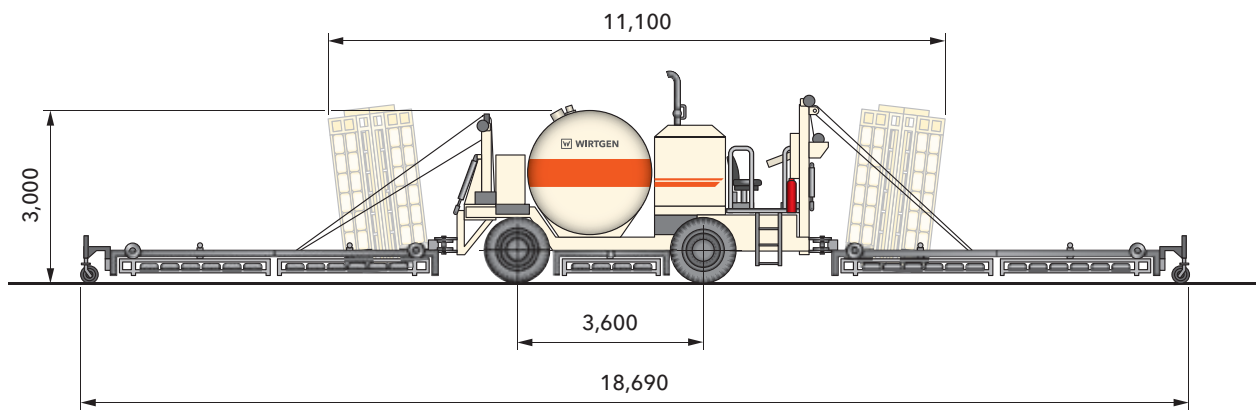
Heating system	
Max. heating width	4,500 mm
Max. heating performance	2,650 kW
Heating elements	Infrared radiators
Front panel length	4,960 mm
Rear panel length	4,960 mm
Engine	
Manufacturer	Deutz
Type	TCD 2012 L04
Cooling	water
Number of cylinders	4
Engine output	75 kW / 100 HP / 102 PS
Engine speed	2,300 min ⁻¹
Displacement	4,040 cm ³
Fuel consumption, full load	20.9 l/h
Fuel consumption, ² / ₃ load	13.9 l/h
Emission standards	EC Stage 3a / US EPA Tier 3
Electrical system	
Electrical power supply	24 V
Tank capacities	
Fuel tank	280 l
Hydraulic oil tank	300 l
Gas tank	6,000 l

Driving properties	
Operating gear	0–23 m/min
Travel gear	0–6 km/h
Theoretical gradeability in operating gear	68%
Theoretical gradeability in travel gear	12%
Tyres	
Type of tyres	Solid rubber
Tyre size, front	Ø 1,200 mm
Tyre size, rear	Ø 1,200 mm
Shipping dimensions	
Dimensions of machine (L x W x H)	11,100 x 2,500 x 3,000 mm

Weight of base machine	
Front axle load, full tanks	6,900 kg
Rear axle load, full tanks	9,800 kg
Empty weight of machine excluding tank contents	16,700 kg
Operating weight, CE*	19,700 kg
Operating weight, max. (full tanks, max. weight of additional equipment features)	22,600 kg

* = Weight of machine with half-full water tank, half-full fuel tank, driver (75 kg) and on-board tools, excluding optional equipment

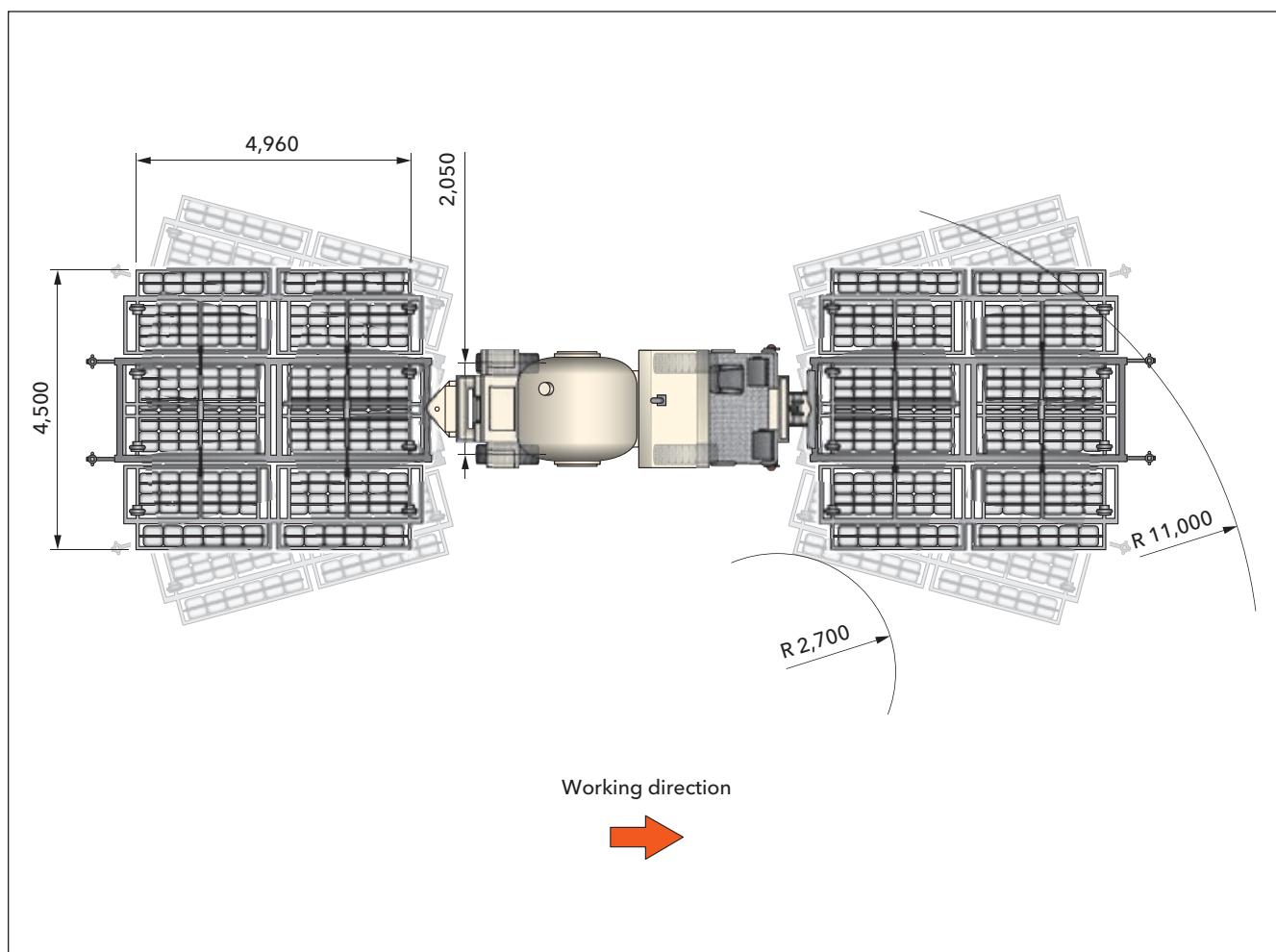
Dimensions



Working direction



Dimensions in mm



Dimensions in mm

Standard equipment

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Base machine	
Basic machine with engine	■
Lockable, hydraulically opening engine cover with integrated sound-attenuation	■
Filling of the machine hydraulics with mineral hydraulic oil VG46	■
Paint standard cream white RAL 9001	□
Operator's stand	
Continuous operators stand with control panel, double-sided approach	■
Chassis and height adjustment	
Infinitely variable, hydraulic rear-wheel drive with two speed ranges; pneumatic tyres	■
All-wheel steering with "crab"	■
Others	
Gas tank with a capacity of approx. 6,000 l	■
With safety quick shut-off valves for removing liquid gas and the gas phase	■
Two gas-fuelled vaporizers with thermostat control	■
Two heating panels, front and rear on machine, consisting of infrared heaters	■
The heating panels are hydraulically slewing and height-adjustable and are equipped with an additional ventilation system, consisting of 16 hydraulically driven fans	■
The outer infrared heaters can be folded out and in for adapting to different working widths	■
The infrared heaters can be switched on and off individually	■
Gas control station for controlling the power of the individual heating panels via pressure regulator valves	■
Total heating capacity approx. 1,950,000 kcal/h	■
The gas unit of any machine is inspected and accepted by the German Technischer Überwachungsverein (TÜV)	■
Complete lighting system for nighttime working	■
Extensive safety package with emergency stop switches for diesel engine and gas unit	■
Lockable tool box with set of tools for maintenance and servicing	■
CE conformity	■

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

Optional equipment

Base machine	
Paint in one special colour (RAL)	☐
Paint in two special colours (RAL)	☐
Paint in maximum two special colours with substructure in special colour (RAL)	☐
Others	
Additional, middle heating	☐

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



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