

REFINED, RIGHT DOWN TO THE LAST NUT AND BOLT

The compact telehandlers
1445/1445e/2205/2706



KRAMER
on the safe side



zero emission

Innovation and sustainability are core values and driving factors in the development of new machines at Kramer. In this context, the search for alternative energies and drive technologies has been ongoing to develop sustainable, environmentally-friendly, yet simultaneously powerful machines.

Electric mobility plays an ever more important role in the construction sector. The 1445e is best suited to low-noise working, like in sensitive environments such as residential areas, inner cities, parks, zoos and cemeteries, as well as in regions with a proportionately high level of tourism. The machine works very quietly and is completely free from CO₂ emissions. It is therefore even possible to perform work in underground car parks, interior spaces or greenhouses without any restrictions. The 1445e's output complies with that of the diesel telehandler of the same size class and therefore is not inferior in anything.



Into the future with electric drive

An overview of their benefits

With the fully electric 1445e telehandler CO₂ restrictions, soot-limits and noise emission values no longer play a role in daily work. The fully electric telehandler works completely free of emissions, protects the environment and the operator, and scores high when it comes to efficiency and economy.



Ecological advantages

- Low carbon footprint
- No particulate pollution for the operator and the environment
- Preservation of resources



No exhaust gas emissions

- Work in interior spaces free of problems
- Work in tunnels without expensive exhaust systems
- No impairment of air quality in urban applications because of complete zero emissions
- No emission burden on zoos or parks



Low noise emissions

- Ideal for noise-sensitive areas such as city centres, cemeteries, hotel facilities, parks and recreation areas
- Perfect for winter service (e.g. hotel and municipal application)
- Less noise for (new) residential areas



Economic advantages

- Future-oriented technology
- Low maintenance costs
- Operation up to 4 hours without interim charging*

* Data is dependent on machine equipment, application and environmental factors, and can deviate.

Clear cabin design

For highest level of work performance

The first glance into the cabin reveals what it is about: the operator and their task. The spacious cab provides a comfortable workspace with little noise, which offers head and legroom contributing to fatigue-free working.

Operators' requirements are personal, therefore the 1445e provides a selection of different seat variations. The most frequently used operating elements are arranged in the foreground of the cabin on the right side console and are easy to reach. The switches are labelled by colour according to functional groups therefore ensuring a high degree of clarity and user-friendliness. All the important information for the machine is presented on the display. Furthermore, there is a generous storage compartment available to the operator for tools, drink bottles and other utensils.



Quick to reach emergency switch so that the machine can be immediately moved into a safe state in an emergency.



Modern designed cabin with an ergonomically shaped dashboard.

Technical highlights

Simple operation – Innovative cabin design

Cabin entry



Despite its compact vehicle dimensions, the cabin is spacious and concise, and can be reached comfortably without any additional steps. The ergonomically attached handles, combined with the large door, ensure the safe entry and exit. The generous cabin guarantees an excellent sense of space.

All-round visibility



Narrow cabin struts and panoramic glazing enable an excellent view on all sides. The panoramic front windscreen contributes to the good overview and improves the operator comfort. The flat battery cover ensures an optimal view to the right side, on the right rear wheel and the wing.

Operator mode



There are two operator modes available: Eco and Auto (PWR). The full engine output and travel speed are available without restrictions. In Eco mode the engine output and travel speed are restricted. This way, you can save energy and gain running time.

Joystick



The operator has everything under control with the multifunctional joystick. Alongside the main functions of lifting and lowering, as well as feeding and tipping, all the important functions are included on the joystick, i.e. selection of travel direction. Additionally, the operating elements on the joystick are backlit at night, which guarantees the safe operation of the machine, even in the dark.

Heating



The machine is equipped as standard with a cabin windscreen heating. So that the highest possible level of energy efficiency is achieved for the overall heating system, the cabin can be equipped with auxiliary panel heating for normal air heating. This is in the cabin roof and provides targeted heat. The normal air heating can be used as standard heating.

Other cabin features



The FOPS screen (Falling Object Protective Structure) is affixed inside to keep the vehicle's height as low as possible. With the FOPS screen design, optimal visibility is provided of the lifted loading system. Furthermore, a radio can be optionally installed with a USB connection, Bluetooth playback, DAB+ and hands-free system.

Power for a working day

Productive running times supported through recovery

The electric running time varies depending on many factors, like the driving behaviour, application type, machine equipment and the environmental conditions. It is possible to work up to 4 hours without interim charging.

Through the recuperation – energy recovery – it is possible to extend the running time. As soon as the operator puts their foot on the drive pedal, the drive system switches to recovery. This means that the motion energy of the telehandler is converted into electric energy and thereby recovered.



Everything at a glance

All the important information is presented on the display. Included herein are, among other things, the machine's remaining running time, recovery, travel speed and even the charge status of the battery. These are displayed as percentages. If the battery is being charged, a thunderbolt is displayed in the battery symbol and the charge performance is also displayed.



Top performance fully electric telehandler 1445e:

- no exhaust emissions and clearly reduced level of noise
- powerful and high-quality lithium-ion battery with 18 kWh or 28 kWh
- low maintenance costs when compared with diesel machine
- maximum flexibility when charging with different charging plug types
- easy access to the charging plug

Innovative battery technology

Modern and flexible charging procedure

As standard for the 1445e a lithium-ion battery is installed with a capacity of 18 kWh. Optionally available is a lithium-ion battery with 28 kWh. Both have a guaranteed battery life of min. 5 years or 2,000 charging cycles. After this time, it is guaranteed that the battery exhibits a residual capacity of min. 80%.

The lithium-ion battery is monitored by a so-called Battery Management System (BMS). A battery heater is also integrated into the battery to ensure an optimal operating temperature. Furthermore, the machine has a 3 kW AC on-board battery charger, which can also be ordered optionally with 6 kW. The on-board battery charger is permanently installed in the machine. As a result, the battery can be charged at any customary socket. It is likewise possible to charge at a wallbox or a public charging point.



Charge cable

There are four different charging plug options available to charge the machine. The charging performance is restricted by the type of charging plug and the charge performance of the on-board charger. In the case of the 6 kW on-board charger, full charge can only be achieved with the type 2 and CEE 5-pole plug.

- Schuko mains plug 230V/16A
- CEE, 3-pole 230V/16A (blue)
- CEE, 5-pole 400V/16A (red)
- Type 2 (IEC 62196)

Easy charging

The charging console is in the tail of the machine. It is possible to charge the battery up to 80%, depending on equipment, in approx. 3 hours.

Connecting the charger cable	Start charging process	End charging process	Pull out charging cable
Open the charging console and connect the charger cable to the machine.	Activate key switch* to start the charging process. The charge status display to the rear of the machine starts to flash.	The charge status display will light up as soon as the charging process has been automatically ended.	Activate key switch* and pull out charging plug. Then lock charging console.

* Key switch available as an option. A pressure switch is installed as standard.

1445e Machine highlights

Future-proof and well thought-out to the last detail



Compact dimensions
thanks to a vehicle width of under 1.60 m
and a vehicle height of less than 2 m.

Perfect all-round visibility
thanks to the deep-drawn windows.
The very gently sloping bonnet ensure optimal
visibility to the right and of the right, rear wheel.

Innovative battery technology
with a 96 V lithium-ion battery and a capacity of
18 kWh or 28 kWh.

Easy charging procedure
without opening the bonnet. The
socket and the battery charge
indicator are easily accessible at
the rear.

Digital colour display
to monitor and set all of the
machine's important functions.

Driver assistance system – Smart Handling
supports work through a partially automated telescoping
movement during demanding applications.

Electric parking brake
with hill-hold function for
more comfort and safety.

Fast charge
as a result of an integrated on-board
charger with up to 3 kW or with up to
6 kW charging capacity. Different charger
cables and adapters are available.

BMS – Battery Management System
monitors, for example, the battery's temperature.
Efficiency and safety of the battery are increased
and deep discharges are excluded.

Electric drive system
as standard with 15 km/h,
optionally available with max. end
travel speed of 20 km/h or 25 km/h.

Low operating costs
and low maintenance
works when compared with
a conventional diesel drive.

Top Performance

Dimensions and power to weight ratio

- perfect ratio between payload and operating weight
- unmatched economy and efficiency
- compact dimensions in the 2x2 metre class

Engines

- high-torque and economical engines
- the latest exhaust emissions after-treatment with DOC + DPF
- newest engine technology for maximum performance

Telehandler 1445

- very small turning radius due to compact design
- electronically controlled drive system with different operator modes
- perfect performance values of 18.5 kW (standard) or 33.3 kW (option)
- increased safety due to hill-hold function

Fully electric telehandler 1445e

- no exhaust emissions and clearly reduced noise level
- powerful and high-quality lithium-ion battery with 18 kWh or 28 kWh
- low maintenance costs when compared with diesel machine
- different types charging plugs available for maximum flexibility when charging
- easy access to charging plug

Telehandler 2205

- compact dimensions with a height of under 2 m and a width of approx. 1.80 m
- spacious cabin with very good all-round visibility and a variety of options
- load stabiliser for improved driving comfort and driving safety
- high pushing power due to planetary axles and 100% connectible differential lock

Telehandler 2706

- improved all-round visibility due to two different cabin heights
 - perfect performance values of 55,4 kW
 - rpm reduction as standard
 - LUDV work hydraulics for simultaneous execution of several hydraulic functions
 - innovative cabin design for maximum comfort
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Technical Data

Battery (standard)		Unit	1445e
Battery technology	-		Lithium-ion battery
Battery voltage class	V		96
Guaranteed battery life*	Years / cycles		5 / 2,000
Battery capacity	kWh		18
On-board charging performance**	kW		3 (standard) 6 (option)
Charging time 230 V / 16 A Schuko 0 - 100%	h		8
Charging time 230 V / 16 A CEE (blue, 3-pole) 0- 100%	h		7.5 (standard) 5 (option)
Charging time 400 V / 16 A CEE (red, three-phase current, 5-pole) 0 - 100%	h		7.5 (standard) 3.75 (option)
Charging time 400 V / 16 A (Type 2 plug wallbox, IEC 62196) 0 - 100%	h		7.5 (standard) 3.75 (option)
Running time up to	h		2.5 hours without interim charging
Battery (option)		Unit	
Battery technology	-		Lithium-ion battery
Battery voltage class	V		96
Guaranteed battery life*	Years / cycles		5 / 2,000
Battery capacity	kWh		28
On-board charging performance**	kW		3 (standard) 6 (option)
Charging time 230 V / 16 A Schuko 0 - 100%	h		12
Charging time 230 V / 16 A CEE (blue, 3-pole) 0- 100%	h		11.5 (standard) 8 (option)
Charging time 400 V / 16 A CEE (red, three-phase current, 5-pole) 0 - 100%	h		11.5 (standard) 5.75 (option)
Charging time 400 V / 16 A (Type 2 plug wallbox, IEC 62196) 0 - 100%	h		11.5 (standard) 5.75 (option)
Running time up to	h		4 hours without interim charging
Electric motor		Unit	
Drive performance S2 60 min***	kW		23.2
Work hydraulics performance S3 15%***	kW		25.2

* After this time it is guaranteed that the battery exhibits a residual capacity of at least 80%. The battery can still be used afterwards.

*** according to EN 60034-1

** Depending on the respective current source (available socket and charging cable).

Technical Data

Operating and power ratings		Unit	1445e
Max. payload (LSP 500 mm)	kg		1,450
Max. stacking height	mm		4,190
Payload at max. stacking height	kg		1,450
Payload at max. coverage	kg		725
Stacking height at max. payload	mm		4,301
Reach at max. payload	mm		1,100
Max. reach	mm		2,333
Turning radius via tyres	mm		2,695
Operating weight*	kg		3,050 - 3,250
Power transmission		Unit	
Max. speed	km/h		15 (standard) 20 (option) 25 (option)
Total oscillating angle on the rear axle	°		14
Differential lock	-		100% (option)
Service brake	-		Foot-activated hydraulic disc brake
Parking brake	-		Electrically operated with hill-hold function
Standard tyres (AS tread)	l/min		255/75-15.3
Work hydraulics		Unit	
Work pump	-		Gear pump
Max. flow rate (pump)	l/min		42
Max. pressure	bar		220
Kinematics		Unit	
Bucket capacity	m ³		0.50 - 1.03
Total swing angle of tool carrier	°		148
Lift cylinder raising/lowering	s		6.4 / 6.5
Extend/retract push-out cylinder	s		5 / 5.5
Tilt out/in tipping cylinder	s		3.8 / 4.1
Capacities		Unit	
Hydraulic oil tank	l		36
Hydraulic system (total)	l		50
Noise emissions**		Unit	
Measured value	dB(A)		85.7
Guaranteed value	dB(A)		87
Noise level at the operator's ear	dB(A)		73
Vibrations***		Unit	
Vibration total value of the upper body extremity	-		< 2.5 m/s ² (< 8.2 feet/s ²)
Highest effective value of weighted acceleration for the body	-		< 0.5 m/s ² (< 1.64 feet/s ²)**** < 1.28 m/s ² (< 4.19 feet/s ²)*****

* Weight in standard components with full tank + standard bucket + 75 kg operator weight (ISO 6016).

** Information: The measurement occurs as per the requirements of the standard EN 1459 and the directive 2000/14/EC. Measuring station: Paved surface.

*** Uncertainties of measurement as specified in ISO/TR 25398:2006. Please instruct or inform the operator of possible dangers caused by vibrations.

**** On flat and solid ground with the corresponding driving style

***** Application in extraction under harsh environmental conditions

Dimensions

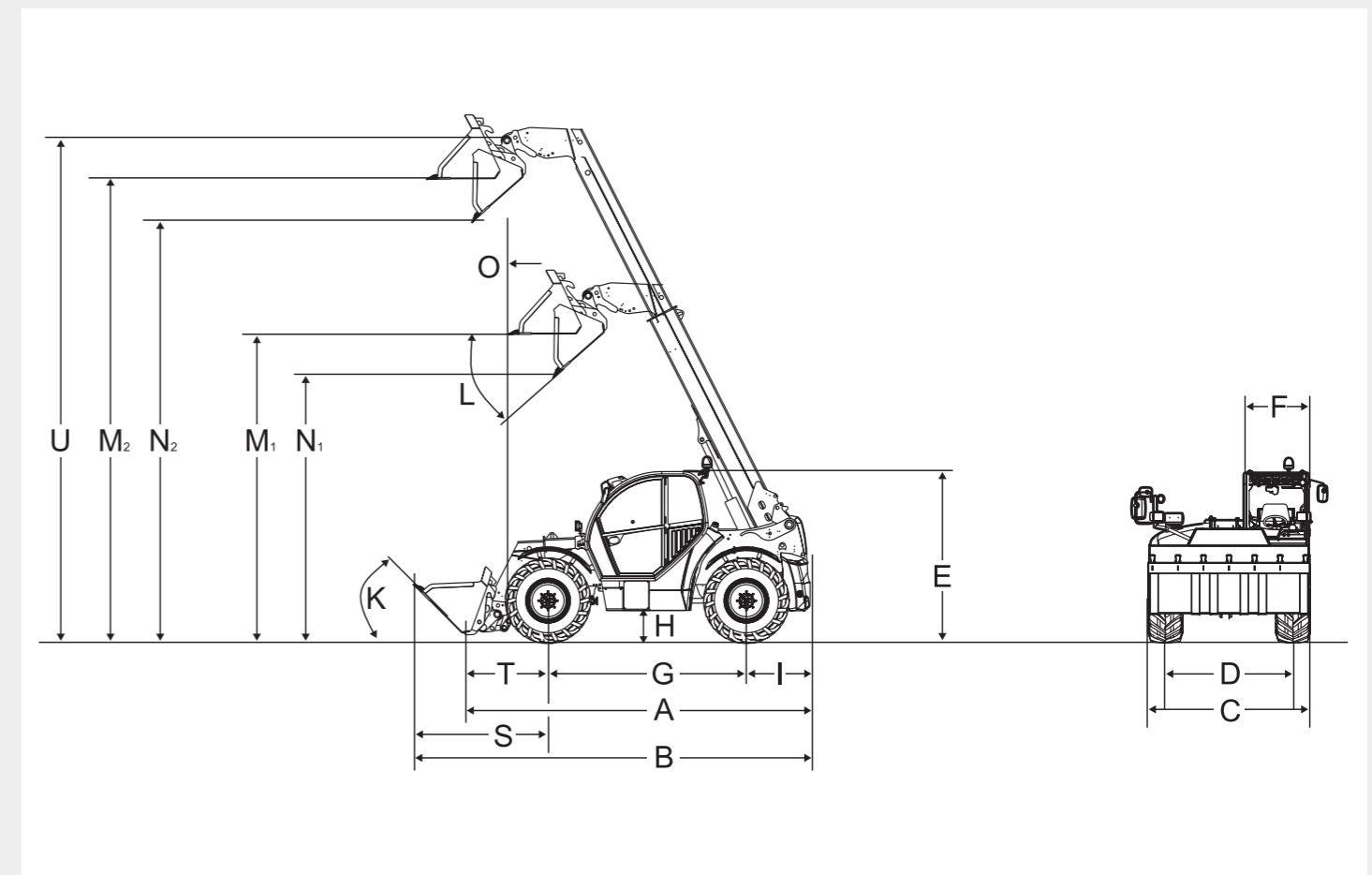
Dimensions	Unit	1445	1445e	2205	2706
A Total length	mm	3,092	3,092	3,747	4,400
B Total length with bucket ¹	mm	4,215	4,215	4,576	5,000
C Total width without bucket ²	mm	1,564	1,554	1,808	1,960
D Track front/rear	mm	1,245	1,245	1,530	1,660
E Total height ³	mm	1,995	1,995	1,950 (standard) 2,150 (option)	1,980 (standard) 2,100 (option)
F Cabin width	mm	702	704	755	825
G Wheelbase, middle	mm	1,922	1,922	2,449	2,650
H Ground clearance ³ below axle and transmission, fording depth	mm	294	233	256	300
I Distance from centre of rear wheel to the tail	mm	427	498	472	730
K Tipping angle ¹	°	44	52	41	45 / 45
L Dumping angle ¹	°	36	36	34	22 / 40
M Load-over height ³ M1 retracted M2 extended	mm	2,949 4,163	2,949 4,163	3,638 5,056	3,730 5,600
N Dumping height ³ N1 retracted N2 extended	mm	2,352 3,566	2,352 3,566	3,103 4,520	3,450 5,280
O Dumping width extended	mm	476	476	293	680
S Distance from centre front wheel to blade leading edge	mm	1,595	1,595	1,655	1,030
T Distance from centre front wheel bearing to the quickhitch frame	mm	450	450	581	1,030
U Bucket pivot point extended ³	mm	4,537	4,537	5,471	6,080
- Turning circle outer edge tyres	mm	2,695	2,695	3,281	3,670
- Turning radius bucket, outside edge	mm	3,550	3,550	4,153	4,500
- Entry height ³ cabin floor	mm	420	420	450	360

¹ with standard bucket

² dependent on tyres, with mirrors folded in

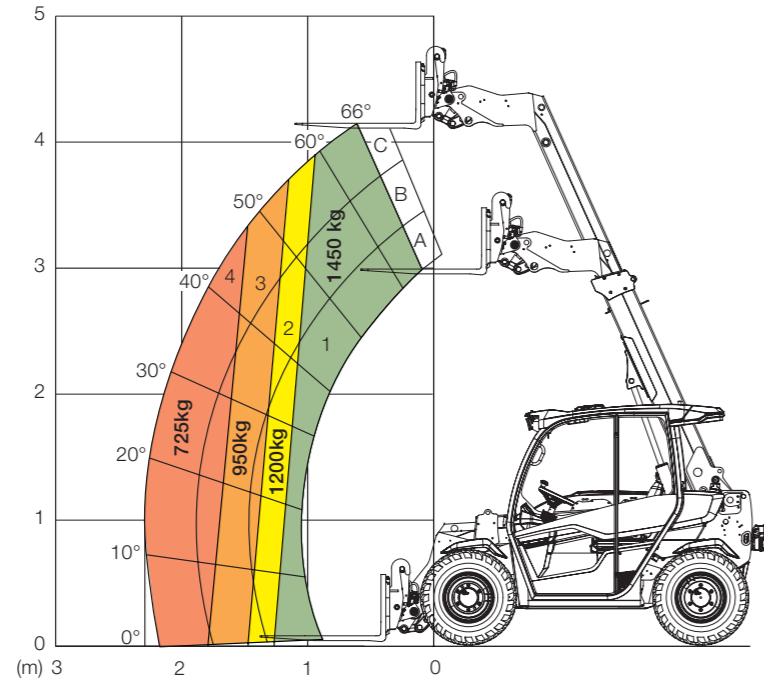
³ machine dimensions may vary depending on tyres

Dimensions

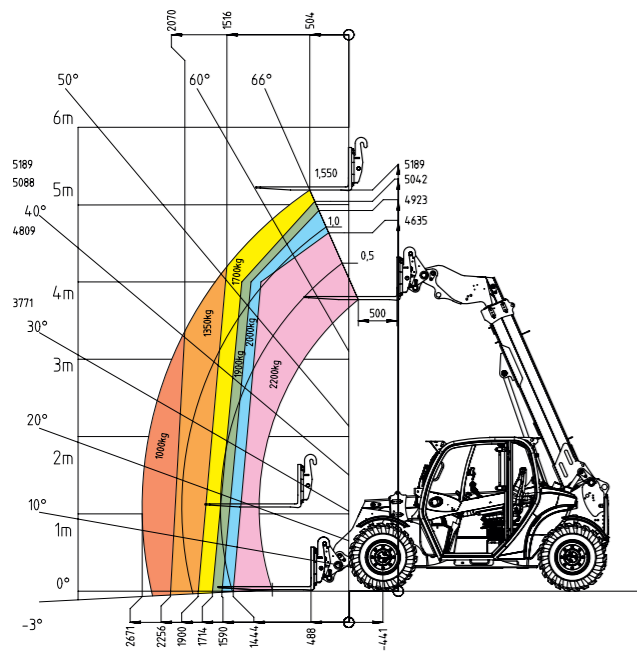


Load-bearing capacity diagrams

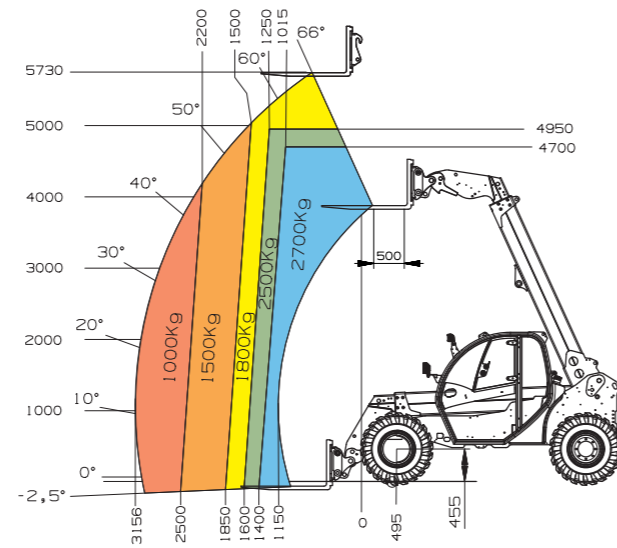
1445 / 1445e Load-bearing capacity diagram (with LSP 500 mm)



2205 Load-bearing capacity diagram (with LSP 500 mm)



2706 Load-bearing capacity diagram (with LSP 500 mm)



Service and spare parts

Are you looking for appropriate spare parts or operating instructions for your Kramer machine? With Kramer maintenance and repair packages, there is a tailor-made spare part ready at hand for each machine. You will receive all of the required spare parts or operating instruction from our Kramer dealers. With our Kramer Dealer Locator, you can find your local dealer. Simply enter the sector, post code or residence.

You can find more information at:
www.kramer.de/service

Maintenance, diagnosis and repair

The certified technician at your distributor will ensure that your machine is in use again as quickly as possible. You can find more information about the repair and servicing of Kramer machines on our website.



Original Spare Parts

All spare parts that you can source from your Kramer dealer meet the strict requirements of our component manufacturers. Dimensional accuracy, performance, fit and availability can largely only be provided by the original part.



Warranty and safety

Security 24/Security 36/Security 48/Security 60: With the warranty extendible to 24, 36, 48 or even 60 months, our customers can increase their carefree period. They are protected against all eventualities by tailor-made insurance coverage. Get advice from your dealer.



Training sessions

The Kramer Academy is the modern training centre for the service technicians of the Kramer distributors. Here the mechanics learn everything they need to know to maintain Kramer machines and learn about the constantly about the operating principles of new technical systems.





Wheel loader
Bucket capacity: 0.35–1.80 m³



Telescopic wheel loaders
Bucket capacity: 0.65–1.45 m³



Telehandler
Payload: 1,450–5,500 kg

Service that can be seen

Focus on your daily activities – with our comprehensive services, we take care of the rest.
We are there when you need us: capable, fast, and directly on site if necessary.



Repair & maintenance



Academy



Telematics



Insurance



Spare parts



Financial Solutions

Go to Kramer
dealer search:
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