

# **Telehandlers for the professional** agriculture industry

Available at your Kramer distributor

With their particularly compact dimensions, Kramer telehandlers open up a wide range of applications in agriculture. Stacking and material work is fast and easy in even the tightest of spaces. These efficient machines impress with their all-wheel drive, high payload, unbeatable manoeuvrability and low weight. Alongside the diesel engines, Kramer also has the KT144e on offer that is 100% electric an emission-free. Depending on the application and requirement, you can individually decide which machine is right for you.



#### On the safe side with Kramer

Rich in tradition, the Kramer brand has been established on the market for many years and in particular stands for one value: Safety. The high quality of the innovative machines is only one aspect of this. Kramer is also a safe choice as a company for customers and dealers because its experience and innovations ensure secure investments and security for the future. In short – you are always on the safe side with Kramer: "Kramer – on the safe side!"

# **→ ON THE SAFE SIDE**

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WHEEL LOADERS AND TELESCOPIC WHEEL LOADERS	KT144	KT144e	KT276
Engine output (optional) [kW]	18.4 (33.3)	23.2** / 25.2***	55.4
Stacking height [mm]	4,190	4,190	5,730
Payload on pallet forks S=1.25 [kg]	1,450	1,450	2,700
Operating weight [kg]*	3,050 - 3,350	3,050 - 3,250	4,400 – 5,200

<sup>\*</sup> Weight in standard components with full tank + standard bucket + 75 kg operator weight (ISO 6016).

# Telehandler with wheel loader properties

#### Ideally equipped for agriculture

From the start, the toughest applications were the measure of all things in the development of Kramer telehandlers. The machines were consistently designed for robustness and reliability based on the know-how from the wheel loader development. This can be seen, for example, in the sturdy vehicle frame, which can safely accommodate the payloads of the machine, thanks to its closed design and large material thicknesses.



# Flexibility in application

#### Raise your standards in all areas

With the Kramer telehandlers, you can handle daily work without any problems. The machines not only support you with their impressive performance, but also with standard driver assistance systems and the comfortable cabin designed for maximum ergonomics.



#### Impressively versatile

The Kramer telehandlers are the perfect helpers, whether stacking, loading material or feeding animals, every job is done quickly with our powerful all-rounders and a large selection of attachments. The telehandlers can also be supplemented with a wide range of additional options. As a result, the machines can be adapted to your requirements and provide maximum versatility.



#### Impressively sturdy

You can rely on the telehandlers in terms of their robustness and durability. The load stabiliser for the telescopic arm provides a decisive contribution here. The lifting, tilting and telescopic cylinders are equipped with end damping to absorb pressure peaks in the hydraulic system and/or a swaying of the machine. In addition, no torsion forces affect the centrally positioned telescopic boom on the frame. Operator and machine are optimally protected from shocks.



#### Remarkably compact

The compact telehandlers are characterised by their unique combination of high payload, great lift height, low application weight and a perfect interplay of powerful engine output. With the all-wheel steering and the ultra-compact dimensions, the efficient machines ensure unbeatable manoeuvrability. Stacking and transport work is quick and easy in even the tightest of spaces. The low overall height makes work, for example in underground car parks, no problem at all.

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# Flexibility in application

# The right type of steering system for any application

The three steering types: all-wheel, front wheel and crab steering are also available for the compact telehandlers, for maximum flexibility in the most diverse applications. No matter whether manoeuvring in the smallest space, driving at speed on the road or guiding special attachments, the appropriate steering type can be selected for each and every application.



#### All-wheel steering

- 2 x 38 degree steering angle on the front and rear axle ensure quick work processes
- Optimised routes
- Tight turning circle



#### Front wheel steering

- Safe and familiar road travel at high speed
- Easy guidance of special attachments
- Familiar steering system
- Ideal for trailer operation



#### Crab steering

- Manoeuvrability in the smallest space
- Precise positioning in the tightest conditions
- Ground protection for sensitive subbase
- Easily move away from walls and trenches



All-wheel steering: particularly manoeuvrable in tight spaces



# Compact dimensions and optimal power to weight ratio

# Power in a perfect proportion

The compact telehandlers by Kramer are versatile and powerful machines for the highest demands and flexible applications in the construction industry. The machines are supremely equipped for demanding and precise work in tight spaces as a result of their design and small dimensions. The compact models are characterised by increased comfort due to their driver assistance system, a wide range of options, as well as a large selection of attachments. The optimal relationship between the application weight and the payload ensures an unaffected viability and efficiency of the Kramer telehandlers.



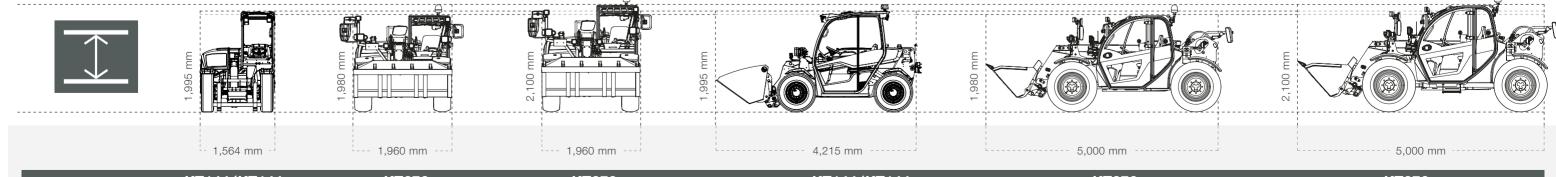
**Compact dimensions:** suitable for tight spaces

Top performance of the dimensions and power to weight ratio:

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



Low overall height of less than 2 m for versatile applications



KT144/KT144e KT276 (low cabin) KT276 (high cabin) KT144/KT144e KT276 (low cabin) KT276 (high cabin) KT276 (high cabin)

# **Driver assistance system - Smart Handling**

#### Everything under control, even in the limit range

Maximum payload, fully extended loader unit system, engine speed at the detent – the Smart Handling overload protection system always has everything under control in any situation. On the one hand, the intelligent driver assistance system prevents loads from reaching the overload area and therefore threatening to overturn the machine in the longitudinal direction. On the other hand, it takes many routine tasks, such as extension and retraction of the telescopic arm, away from the operator so that he can focus on the essential aspects of his work.



#### The three functional modes explained

# Bucket mode

When lowering the loader unit, the telescopic arm is automatically retracted. This keeps the load as close to the vehicle as possible and it does not create critical situations, even with maximum payloads. The bucket mode is ideal for loading bulk materials.

KT144 / KT144e / KT276



When lifting and lowering the loader unit, the attachment is moved up and down in a vertical line, i.e. the telescopic arm automatically moves in and out and the load is moved up or down in a straight line. Thus, the cargo always remains in the safe range and stacking work at high altitudes is simplified.

KT144 / KT144e / KT276

#### Smart Handling - simply select

The mode can be switched via the selector switch. To temporarily bypass the overload system, the left push-button must be pressed continuously.



Bucket mode



Stacking mode



Manual mode





In manual mode, the machine does not perform any automatic movements of the loader unit. The overload protection is of course still active and stops the loader unit as soon as the overload limit is reached. At this point, only retracting and lifting the loader unit are possible.

KT144e / KT276



You have the whole machine under control with the ergonomic joystick. With up to 17 functions, the most important tasks can be done without letting go of the joystick or changing your grip. The joystick is fixed to the console on the right-hand side of the cab.

# **Powerful hydraulics**

# For sensitively controlling the machine

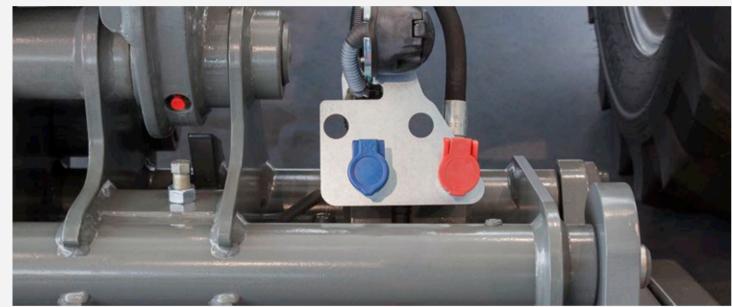
Connect and disconnect different attachments, sensitive control, quick working cycles and all of this with a low noise level in the cab: The technology behind the work hydraulics makes this possible.

The work hydraulics are powered by powerful gear pumps, which ensure quick working cycles of the loader unit and allow for the operation of special attachments via the 3rd control circuit, if necessary with continuous function.

#### Pressure release of 3rd control circuit:

Easily couple and uncouple attachments with hydraulic auxiliary functions





#### **Powerflow**

The optionally available powerflow high-performance hydraulics have been developed especially for demanding applications and special attachments with a constant and high oil requirement, like, for example, snow blowers or mulching devices.



The attachment supply is via a separate pressure line and a depressurised return directly connected to the hydraulic oil tank ensures a high usable power, without unnecessarily warming the oil.

Concept solution for system bearer	KT144	KT144e	KT276
Work hydraulics (optional) [I/min]*	36.4 (42)	42	103
Power flow performance hydraulics [I/min]*	70	-	-

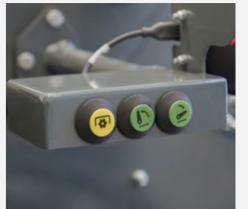
\* Values for the engine's rated rpm - not available

#### Multifunctional rear attachment area

# Maximum versatility for all tasks

The Kramer telehandlers are not only characterised by the various quickhitch systems and numerous hydraulic options in the front. The telehandler's rear attachment area also fulfils all of the important requirements.

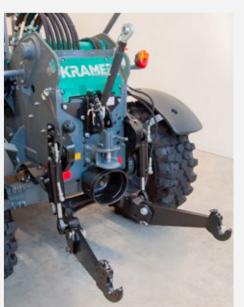
Depending on the model, there are various attachment couplings available for the attachment operation. For the KT276, a hydraulic attachment brake system is also available for large attachment loads. For maximum flexibility, the KT276 can be optionally equipped with a three-point lifting gear and a rear PTO. Hydraulic auxiliary control circuits are available at the rear for all models, for example for the use of a tipper.



**External operating elements (KT276)** for the rear power lift and the PTO shaft.







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#### **Powerful engines**

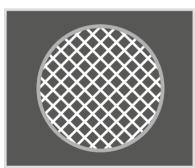
# Efficient fuel consumption

For maximum drive performance with minimum fuel consumption, the right engines are selected for all machines. You are also well-prepared for strict exhaust standards with the engines of the Kramer telehandlers. All engines comply with the current exhaust emission Stage V.

The KT144 is powered by an 18.4 kW Yanmar engine without exhaust emissions after-treatment. For this model, a more powerful engine with 33.3 kW is optionally available. Here, the exhaust emissions are treated with DOC, DPF and SCR. A 55.4 kW Kohler engine is built into the KT276. Here, the exhaust emissions are treated with DOC and DPF.

	KT144	KT144	KT276	
Overview of engines	Standard	Option	Standard	
Engine manufacturer	Yanmar	Yanmar	Kohler	
Output [kWhp]	18.4 / 25	33.3 / 45	55.4 / 75	
Exhaust after-treatment system	-	DOC + DPF	DOC + DPF	
Exhaust emissions stage	Stage V	Stage V	Stage V	
(EU exhaust emissions standard)				

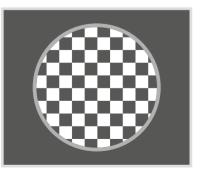
#### Exhaust emission after-treatment systems



#### Diesel oxidation catalytic converter (DOC)

Catalytic converters are used these days to reduce emissions in many cars and lorries.

The diesel oxidation catalytic converter has the same functionality. Without the movement of mechanical parts, it triggers chemical processes that reduce emissions.

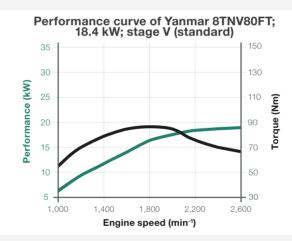


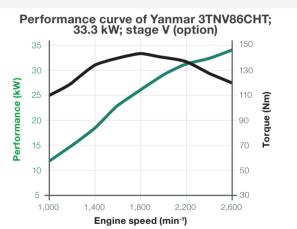
#### Diesel particle filter (DPF)

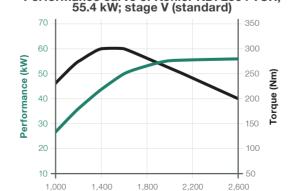
The diesel particulate filter is used in connection with an oxidation catalytic converter to remove most of the nitrogen oxides, soot particles and non-combusted hydrocarbons from the combusted diesel fuel. The diesel particulate filter contains a porous honeycomb structure that catches the soot when it passes through. When the soot has accumulated to a certain extent, the machine's electronic system triggers fuel injections, which brings the non-combusted fuel into the oxidation catalytic converter, which is located before the filter. There it triggers an exothermic reaction that heats the exhaust fumes so much that the soot in the diesel particulate filter is combusted. This process is also known as regeneration.



Customer-friendly maintenance: quick and easy access to all engine components







Engine speed (min-1)

Performance curve of Kohler KDI 2504 TCR;

#### Top performance of the engines:

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



# **Everything under control inside**

#### Everything in view outside

The innovative cabin design ensures even more spaciousness in the cab, which has been designed according to the latest findings in safety technology and ergonomics. From the operator's seat through to the steering wheel, every detail is adjusted to the operator's needs.

The operator's central seat position and the cab's full glazing with deep-drawn panes in combination with narrow cabin pillars, ensure excellent all-round visibility of the entire work area all of the time. All of the operating elements are within reach and the most important machine information is always within the operator's view via the optimally positioned display. A working environment that motivates and fully supports the operator.



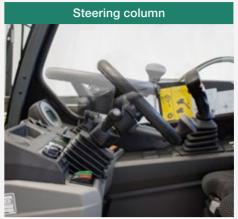
Generous cabin with a wide-opening door for comfortable entry.

#### **Technical highlights**

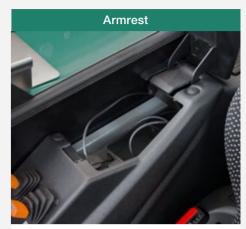
# Simple operation – Innovative cabin design



The respective functional group is very quick and easy to identify due to the colour-coded switches. Red = safety, green = hydraulics, blue = travel and grey = electrical system. This ensures the operator a convenient and safe operation without the risk of being confused. The result is increased working



The steering column and wheel can be adjusted according to the operator's requirements, both in terms of height and incline. The operator therefore also has more spatial freedom when entering and exiting. Furthermore, the steering wheel is made of a high-quality and non-slip material.



The Kramer KT144's armrest is not only for additional comfort: Under the hinged armrest there is a practical storage area with a USB charging socket in which you could, for example, store a smartphone, while simultaneously charging it.



efficiency.

It is possible to switch between the steering types using the instrument panel. Whether all-wheel, front axle or crab steering, there is an appropriate steering type for every application.



A continental radio with USB connection and Bluetooth hands-free system is available as an option. Even when working, you can have a good telephone connection via the Bluetooth hands-free system.



The heating and ventilation system with fans and well-placed air nozzles ensures a comfortable working environment. We recommend using the optional air-conditioning system in particularly warm environments. Furthermore, the vehicle is equipped with an adjustable sun-blind for glare-free working.



# Four driving modes

# Even more flexibility in use

With the electronically controlled drive system and the accompanying four driving modes, machines can be optimally set to the respective working conditions.

Here, the auto mode ensures the usual 100% performance of the machine. In the eco mode, the rpm is reduced to 2,200 rpm for effective fuel-saving and noise reduction after achieving the desired travel speed. Furthermore, the travel speed can be finely tuned in the attachment mode. This guarantees a constant feed for the attachment. With the M-drive mode, the Y-load cycles can be optimally executed by determining the engine speed via the hand throttle and controlling the travel speed with the drive pedal. With this inching is superfluous.





Top performance telescopic wheel loader KT144:

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



#### Electric parking brake

The new electrical hand brake provides a hill-hold function. The brake automatically activates if the machine stands still, the direction of travels is set to neutral or the operator leaves the seat.

The electrical hand brake is automatically released if the machine is put into gear using the accelerator. Naturally, the brake can likewise be manually activated and deactivated by operating a switch. A real comfort and safety plus-point for the operator.



#### Two selectable speed levels

The speed levels can be easily changed while driving. The change is done conveniently via two touch controls on the joystick and is immediately shown on the display with the corresponding symbol (see below). In addition to the two freely selectable driving speeds, different driving modes can optionally be implemented: **Driving in auto mode, driving in eco mode, driving in attachment mode and driving in M-drive mode.** 



Turtle: 0 - 7 km/h

For work in which the speed needs to be finely controlled.



Hare: 0 - 20 (0 - 30)

For long transport drives in which constant, swift speeds are an advantage.





# Machine highlights at a glance

The compact genius among telehandlers





# zero emission

Innovation and sustainability are central values and driving forces 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 also plays an ever more important role in agriculture. One reason for this is because power produced in-house can be used. Not only CO2 emissions are reduced through the use of electric machines, but the noise emissions are also reduced to a minimum. In noise sensitive areas, like horse stables or a holiday park with a lot of visitors, the KT144e is very well suited. Even working in stables, courtyard buildings, warehouses or greenhouses is noticeably more comfortable for both human and animal. The KT144e'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 its benefits

With the fully-electric telehandler KT144e, CO<sub>2</sub> 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 end user, and scores high when it comes to efficiency and economy.



#### Ecological advantages

- lower carbon footprint
- no particulate pollution for the operator and the environment
- preservation of resources



#### No exhaust gas emissions

- working indoors without any problems
- working in stables without exhaust gas pollution for humans and animals
- no impairment of air quality in communal applications because of complete zero emissions



#### Low noise emissions

- ideal for noise-sensitive areas, like stables and holiday parks
- perfectly suited to the inner local winter service



#### Economic advantages

- future-oriented technology
- low maintenance costs
- work up to 4 hours without interim charging\*

<sup>\*</sup> Data is dependent on machine equipment, application and environmental factors, and can deviate.



#### Clear cab design

#### For highest level of work performance

A first glance into the cabin reveals what it's 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 KT144e 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 of the important information for the machine is presented on the display. Furthermore, there is a generous storage compartment available to the operator for tools, drinks bottles and other utensils.



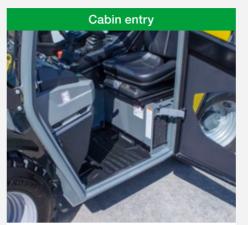
Quick-to-reach emergency button, so that the machine can be immediately put into a safe state in an emergency.



Modern designed cabin with ergonomically shaped dashboard.

#### **Technical highlights**

# Simple operation – Innovative cabin design



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



Narrow cabin struts and panoramic glazing enable an excellent view on all sides. The panoramic front windscreen contributes to a 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.



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



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



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 also be used as standard heating during the charging procedure.



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 installed with a USB connection, Bluetooth playback, DAB+ and speaker.



#### Power for a working day

#### Productive running times supported by recovery

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

Through recuperation – energy recovery – it is possible to extend the running time. As soon as the operator takes their foot off the accelerator pedal, the drive system switches to recuperation. 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, among other things, is 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 on the battery icon and the charge capacity is shown.



# Top performance fully-electric telehandler KT144e:

- 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 charging plug

#### Innovative battery technology

# Modern and flexible charging procedure

A lithium-ion battery with a capacity of 18 kWh is installed in the KT144e. A lithium-ion battery with 28 kWh is optionally available. Both have a guaranteed service life of min. 5 years or 2,000 charging cycles. After this time, it is guaranteed that the battery will have 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 optionally ordered with 6 kW. The on-board battery charger is permanently installed in the machine. The battery can therefore be charged at any standard socket.



#### Charging cable

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

• 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 at the rear of the machine. It is possible to charge the battery up to 80 % in approx. 3 hours, depending on equipment.

# Connect charging cable

Open the charging console and connect the charging cable to the machine.

# Start charging process

Activate key switch\* to start the charging process. The charge status indicator on the rear of the machine begins to flash.

# End charging process

The charge status indicator remains illuminated as soon as the charging process is automatically ended.



Activate key switch\* and remove charger plug. Then close the charging console.

 $<sup>^{\</sup>star}$  Key switch is optionally available. A pressure switch is installed as standard.



# **KT144e Machine highlights**

Future-proofed 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.



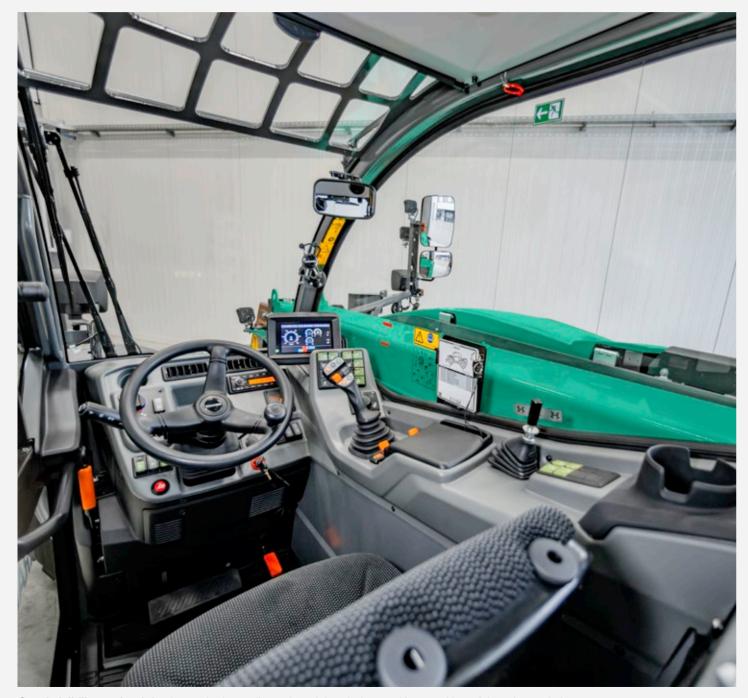


#### Comfortable working area

#### Thought-out down to the last detail

The KT276's cabin design has been tailored to the operator's needs. Functionality, ergonomics and ride comfort were always the focus of the development. The large glass surfaces provide the operator an unobstructed view of the attachment at all times.

From the inside, the cabin impresses with its first-class space provision, outstanding all-round visibility and many other details, such as the deep-drawn and ergonomically shaped instrument panel, tilt-and-height adjustable steering column, storage or the radio with DAB+ and Bluetooth hands-free kit. Additional options, such as the optional air-conditioning system and air-sprung operator's seat, complete the provision.



Good visibility to the right due to the large dimension, right window and low position of the telescopic boom.

# **Technical highlights**

# Simple operation – Innovative cabin design



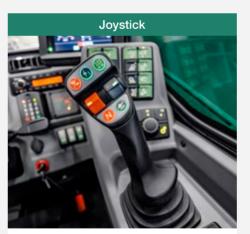
The optional 7-inch display provides the operator with an overview of the current machine data in any situation. In addition to this, it has many additional functions, like the adjustable joystick sensitivity, activation speed of the load stabiliser, adjustable time interval for the reversal fan and the oil volume adjustment for the auxiliary control circuit.



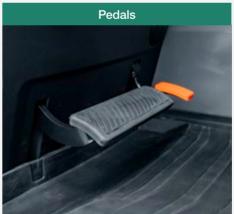
With the pedal/CSD operating mode it is possible to set the ideal rpm for the machine and attachment, as well as the correct working speed. Both values can be subsequently adapted to the work situation using the touch switches or sliders. This enables constant and simultaneously comfortable work applications.



The steering column can be adapted to the operator's requirements in terms of incline and height. The steering wheel can be tilted back and forth by pressing the lever down. Pulling the lever effects the steering wheel adjustment in terms of height. Furthermore, the steering wheel is covered in a high-quality and non-slip material.



The electronically controlled joystick enables extremely sensitive and precise work, as well as the integration of the driver assistance system, like Smart Handling, which supports the operator even more. In the innovative night design, the different touch buttons and wheels light up in colour.



The suspended pedals with the combined brake-inch pedal allow for sensitive manoeuvring, even at a high rpm. Furthermore, the cabin floor can be easily removed and cleaned.



A continental radio with DAB+ and Bluetooth hands-free system is available as an option. Furthermore, the optional air-conditioning system ensures a comfortable climate, even on warmer days. A view camera with a terminal screen supports the all-round visibility and increase the operator's productivity.



#### Stacking at its best

# Maximum flexibility in everyday work

The work hydraulics are supplied by powerful hydraulic pump, which ensures quick working cycles of the loader unit and enables the operation of special attachments via the 3rd control circuit, if necessary with continuous function. So that the machine is in a safe position all the time, the KT276 is equipped with the operator assist system, Smart Handling, as standard.



# Top Performance Telehandler KT276:

- two cabin heights

   (1.98 m / 2.10 m) for
   maximum compactness
   or maximum all-round
   visibility and comfort
- perfect performance values with 55.4 kW
- quickly put the machine into practice with a 40 km/h travel speed
- rpm reduction as standard
- LUDV-work hydraulics for the simultaneous execution of several hydraulic functions
- innovative cabin design for maximum comfort

# Work hydraulics with load-independent flow distribution (LUDV)

ensure equal distribution of the hydraulic oil to the individual control circuits. Several functions can therefore be simultaneously performed independent of the load, e.g. lifting and extending the telescopic boom.



#### Two cabin heights

The compact telehandler KT276 belongs to the  $2\times2$  metre class, which means that the vehicle width and height are within the 2 m limit

It is possible to freely select between two cabin heights. The low cabin with a height of 1.98 m ensures the vehicle's maximum compactness. The high cabin at 2.10 m provides even better all-round visibility and maximum comfort. The low cabin is accessed directly, the higher cab is accessed via a step.

#### **Smart Attach**

The optional, fully-hydraulic quick coupler system "Smart Attach" provides more safety for the operator as there is no need to get out of the vehicle to couple hydraulic attachments. Additionally, money is saved with each coupling procedure because the attachment change can be performed more quickly.

#### Every attachment changeover using Smart Attach saves 2.5 minutes when compared to the Kramer quick-hitch system "Standard".

# 10 coupling procedures / day × 2.5 minutes × 220 working days

**EXAMPLE CALCULATION** 

€ 2,750.00 / year





# A variety of tasks

# Always the right attachments

Regardless of what challenges your application holds for you: With the different attachments, you will always have a handle on the situation. Thanks to the hydraulic quickhitch system, you can adapt your Kramer wheel loader to any situation in no time. Standard attachments can even be changed in less than 10 seconds.







# **Product range of attachments**



Pallet fork

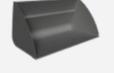
Bale spear



Standard bucket with rip-out teeth



Standard bucket without rip-out teeth Fold-down



Bulk material bucket



Fold-down bale spike





Bale grabber V40



Bale grabber W500



Round bale fork



Multifunctional fork



Silage bucket



Load hook

Exact specifications and availabilities of attachments vary by model and country. Your competent Kramer dealer will be happy to help you.







Hydraulic quick-change system (optional) - The Kramer quickhitch system: Approach the attachment, pick up the attachment hydraulically from the operator's seat and lock it using the touch slide on the joystick. The lock cylinder is positioned outside of the pivot point of the quick change plate and is thus not in the contamination area.

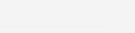
# Tyre product range



RP tread

- self-cleaning
- groundprotecting trave

subbases



- · high level of well-suited in sand and grave
- good resistance

Multi-use tread



AS tread

- good track guiding
  - high level of driving safety good self-
  - cleaning high level of



EM tread

- self-cleaning
- good flank protection
- high running performance



- good mobility on soft around

noise-optimised

for applications

on and off of the

high level of traction

MPT tread



Bibload tread

country. Your competent Kramer dealer will be happy to help you.

- · high lift capacity high level of
- traction and improved
- of running



Duraforce



- high level of traction
  - for applications on and off of the



SureTrax tread





Choosing the right tyres is crucial when it comes to using your wheel loader. Exact tyre specifications and availabilities vary by model and



# **EquipCare – telematics** All the information at a glance

Always a step ahead, because EquipCare provides data, facts and answers to questions: Where is my machine right now, when is maintenance due and when does it make economic sense to replace wear parts? This helps you to avoid downtime and to extend the service life of your machine.

#### How does it work?

Kramer vehicles. It contains a telematics view and assess the data.

for the telematics data of your vehicles and is controlled via the computer. The EquipCare informed about everything immediately, no matter where you are.

#### Your benefits:

EquipCare is installed as standard on all Thanks to EquipCare, we always know where your machine is located currently. If the module, which collects data from the machines machine leaves a previously defined geoand sends it to the manager or app via a zone, you will receive a notification on your cloud. Here, as the Equipcare user, you can smartphone or your computer. All events are shown here in detail, from the error message to the maintenance performed. All The EquipCare Manager is the main portal unnecessary downtime is avoided and the operating duration is precisely recorded.

app is for mobile access and keeps you The machine has recognised a problem? The system automatically notifies your dealer on site about this and they are able to perform a remote diagnosis to prevent any downtime. Thanks to the proactive communication of your machine, you will be promptly informed about everything.

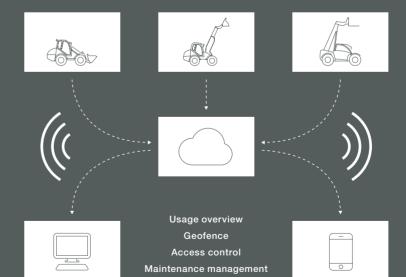


The telematics portals are accessible for you around the clock:



EquipCare Manager: The precise position or the GPS data of your machines can be viewed at any time in your password-protected area.

www.kramer.de/equipcarelogin



Function monitoring

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





**App:** The app provides you with a number of functions to access your machine data and information while on the go.

Simply download and install the app from the Google Play Store or the Apple App Store.

■ Go to the app

# **Top Performance**

# Dimensions and power to weight ratio

# **Engines**

#### Telehandler KT144

# Fully-electric telehandler KT144e

#### Telehandler KT276

- perfect ratio between payload and operating weight
- · unmatched economy and efficienc
- compact dimensions in the 2 x 2 metre class

#### high-torque and economical engine

- the latest exhaust emissions after-treatment with DOC + DE
- newest engine technology for maximum performance
- very small turning radius due to compact design
- electronically controlled drive system with different operator mode
- perfect performance values of 18.5 kW (standard) or 33.3 kW (option)
- increased safety due to hill-hold function
- 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 a diesel machine
- maximum flexibility when charging with different charging plug types
- easy access to charging plug
- two cabin heights (1.98 m / 2.10 m) for maximum compactness or maximum all-round-visibility and comfort
- perfect performance values of 55.4 kW
- fast machine implementation with a travel speed of 40 km/l
- rpm reduction as standard
- · LUDV work hydraulics for simultaneous execution of several hydraulic functions
- innovative cabin design for maximum comfort

# **Technical Data**

Operating and power ratings	Unit	KT144	KT276
Max. payload (LSP 500 mm)	kg	1,450	2,700
Max. stacking height	mm	4,190	5,730
Payload at max. stacking height	kg	1,450	1,800
Payload at max. coverage	kg	725	1,000
Stacking height at max. payload	mm	4,301	4,700
Reach at max. payload	mm	1,100	1,400
Max. reach	mm	2,289	3,156
Turning radius via tyres	mm	2,695	3,670
Operating weight*	kg	3,050 – 3,350	4,400 - 5,200
Engine	Unit		
Make	-	Yanmar	Kohler
Type/Model	-	8TNV80FT (standard) 3TNV86CHT (option)	KDI 2504 TCR
Output	kWhp	18.4/25 (standard) 33.3/45 (option)	55.4/75
Max. torque	Nm	85 (standard) 142 (option)	300
Displacement	cm <sup>3</sup>	1,267 (standard) 1,568 (option)	2,482
Exhaust emission stage	_	Stage V	Stage V
Exhaust emissions after-treatment	-	<ul><li>– (standard)</li><li>DOC + DPF (option)</li></ul>	DOC + DPF
Power transmission	Unit		
Drive	-	Hydrostat	Hydrostat
Max. speed	km/h	20 (standard) 30 (option)	30 (option) 40 (option)
Total oscillating angle on the rear axle	٥	14	20
Differential lock	_	100% (option)	100% in the front axle
Service brake	-	Foot-activated hydraulic disc brake	Foot-activated hydraulic disc brake
Parking brake	-	Electrically operated with hill-hold function	Hand-operated mechanical disc brake
Standard tyres (AS tread)	I/min	10.0/75-15.3	340/80-18
Work hydraulics	Unit		
Work pump	-	Gear pump	Gear pump with LUDV
Max. flow rate (pump)	I/min	36.4 (standard) 42 (option)	103
Max. pressure	bar	220	260

# **Technical Data**

Kinematics	Unit	KT144	KT276
Bucket capacity	m <sup>3</sup>	0.50 – 1.03	0.85 – 1.8
Total swing angle of tool carrier	٥	148	132 (standard) 150 (option)
Lift cylinder raising/lowering	s	7.8/5.3 (standard) 5.7/4.3 (option)	6.6/4.3
Extend/retract push-out cylinder	s	6.6/3.8 (standard) 4.6/2.7 (option)	5.5/3.5
Tilt out/in tipping cylinder	s	3.9/3 (standard) 2.7/2 (option)	2.9/2.8
Capacities	Unit		
Fuel tank	1	33	105
Hydraulic oil tank	1	36	100
Hydraulic system (total)	1	60	130
Noise emissions**	Unit		
Measured value	dB(A)	99.5 (standard) 101.2 (option)	102
Guaranteed value	dB(A)	101 (standard) 102 (option)	104
Noise level at the operator's ear	dB(A)	84 (standard) 85 (option)	77
Vibrations***	Unit		
Vibration total value of the upper body extremity	-	$< 2.5 \text{ m/s}^2 (< 8)$	B.2 feet/s²)
Highest effective value of weighted acceleration for the body	-	< 0.5 m/s² (< 1.64 feet/s²)**** < 1.28 m/s² (< 4.19 feet/s²)****	

 $<sup>^{\</sup>star}$  Weight in standard components with full tank + standard bucket + 75 kg operator weight (ISO 6016). ISO 6016

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

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

<sup>\*\*\*\*</sup> On flat and solid ground with the corresponding driving style

<sup>\*\*\*\*\*</sup> Application in extraction under harsh environmental conditions

# **Technical Data**

Battery (standard)	Unit	KT144e		
Battery technology	-	Lithium ion battery		
Battery voltage class	V	96		
Guaranteed battery life*	Years / cycles	5/2,000		
Battery capacity	kWh	18		
On-board charge capacity**	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		

**Technical Data** 

Operating and power ratings	Unit	KT144e	
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	5,555	
		15 (standard)	
Max. speed	km/h	20 (option)	
		25 (option)	
Total oscillating angle	0	14	
on the rear axle			
Differential lock	-	100% (option)	
Service brake	-	Foot-activated hydraulic disc brake	
Parking brake	-	Electrically operated with hill-hold function	
Standard tyres (AS tread)	I/min	255/75-15.3	
Work hydraulics	Unit		
Work pump	-	Gear pump	
Max. flow rate (pump)	I/min	42	
Max. pressure	bar	220	
Kinematics	Unit		
Bucket capacity	m <sup>3</sup>	0.50 – 1.03	
Total swing angle of tool carrier	0	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	1	36	
Hydraulic system (total)	1	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/s² (< 8.2 feet/s²)	
Highest effective value of weighted acceleration for the body	-	< 0.5 m/s² (< 1.64 feet/s²)**** < 1.28 m/s² (< 4.19 feet/s²)****	

 $<sup>^\</sup>star$  After this time, it is guaranteed that the battery will have a residual capacity of at least 80 %. The battery can still be used afterwards.

<sup>\*\*</sup> Depending on the respective current source (available socket and charging cable).

<sup>\*\*\*</sup> According to EN 60034-1

 $<sup>^{\</sup>star}$  Weight in standard components with full tank + standard bucket + 75 kg operator weight (ISO 6016).

 $<sup>^{\</sup>star\star}$  Information: The measurement occurs as per the requirements of the standard EN 1459 and the directive 2000/14/EC. Measuring station: Paved surface.

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

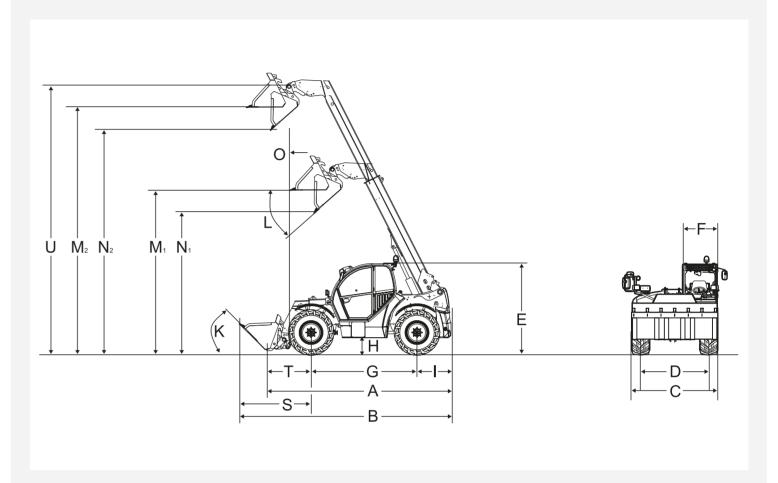
<sup>\*\*\*\*</sup> On flat and solid ground with the corresponding driving style

<sup>\*\*\*\*\*</sup> Application in extraction under harsh environmental conditions

# **Dimensions**

Dir	nensions	Unit	KT144	KT144e	KT276
Α	Total length	mm	2,977	3,092	4,400
В	Total length with bucket 1	mm	3,944	4,215	5,000
С	Total width without bucket <sup>2</sup>	mm	1,564	1,554	1,960
D	Track front/rear	mm	1,245	1,245	1,660
Е	Total height <sup>3</sup>	mm	1,995	1,995	1,980 (standard) 2,100 (option)
F	Cabin width	mm	655	704	825
G	Wheelbase, middle	mm	1,922	1,922	2,650
Н	Ground clearance <sup>3</sup> below axle and transmission, fording depth	mm	294	233	300
1	Distance from centre of rear wheel to the tail	mm	427	498	730
K	Tipping angle <sup>1</sup>	0	44	52	45/45
L	Dumping angle <sup>1</sup>	0	31	36	22/40
М	Load over height <sup>3</sup> M1 retracted M2 extended	mm	2,949 4,163	2,949 4,163	3,730 5,600
N	Dumping height <sup>3</sup> N1 retracted N2 extended	mm	2,352 3,566	2,352 3,566	3,450 5,280
0	Dumping width extended	mm	476	476	680
s	Distance from centre front wheel to blade leading edge	mm	1,595	1,595	1,030
Т	Distance from centre front wheel bearing to the quick coupler system seatings	mm	450	450	1,030
U	Hinge pin height extended <sup>3</sup>	mm	4,537	4,537	6,080
-	Turning circle outer edge tyres	mm	2,695	2,695	3,670
-	Turning radius bucket, outside edge	mm	3,550	3,550	4,500
-	Entry height <sup>3</sup> cabin floor	mm	420	420	360

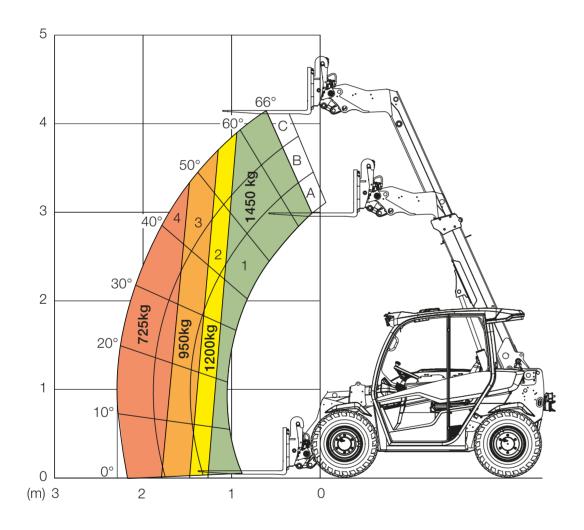
# **Dimensions**



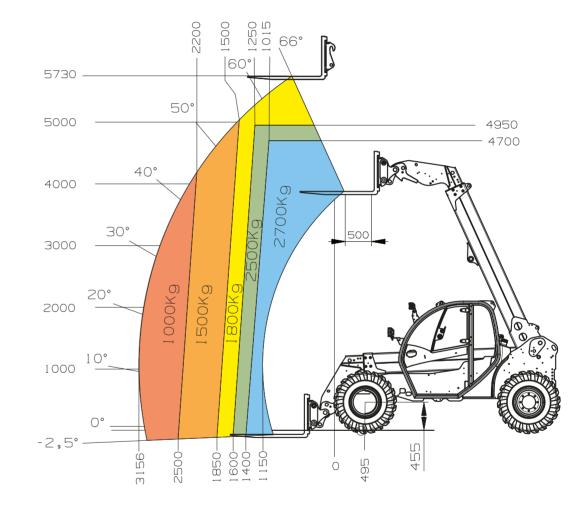
with standard bucket
 dependent on tyres, with mirrors folded in
 machine dimensions may vary depending on tyres

# **Load-bearing capacity diagrams**

KT144 / KT144e Load-bearing capacity diagram (with LSP 500 mm)



KT276 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.



#### www.kramer.de











#### 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



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