



K-BP-4

SAFE | INNOVATIVE | ECONOMICAL

SALES, RENTAL, SERVICE & TRAINING WORLDWIDE

www.oniongroup.eu



Onion Group

K-BP-4

- ✓ Käufer is a privately owned leading company in the business of blade access systems world-wide.
- ✓ More than 30 years of experience in access systems
- ✓ Made in Germany with in-house engineering and manufacturing
- ✓ Custom-engineered platform and cutting edge technology with certified products
- ✓ More than 300 rotor blade platforms installed world-wide
- ✓ Service partners in all seven continents
- ✓ Experienced with all types of wind turbines, for example Vestas, GE, Noderx, Siemens, Enercon and more

Strong winch with all time access

The K-BP-4 is equipped with 2 x 1150 kg and 1 x 800 kg winches and fall arrest devices. These give the platform an extra capacity reserve. All these winches are in direct reach to the technicians all the time, which is one of the platform's key features.

Mid air openable gangways

The K-BP-4 is one of its kind in the market. It is a 360° access platform that can part itself at any time during operation. This feature makes it safer and provides a time-saving solution. Now you can drive directly to damaged spots of the blade without the need to catch the blade's tip.

Stable 3rd winch & pivoting platform rails

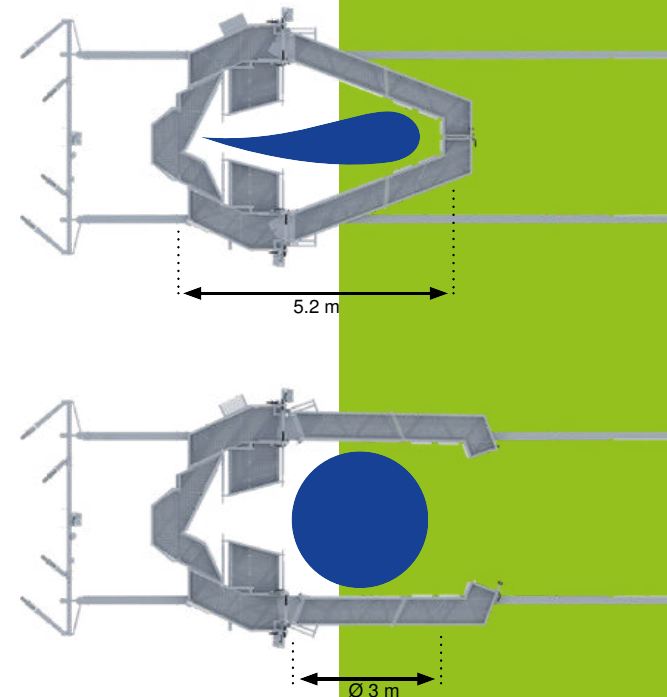
The K-BP-4 is most stable in operation because of its powerful third winch (800 kg). This third winch makes the platform extra stable in bad weather and open conditions. In addition to that, the pivoting mechanism of our pressure frame helps you access the tip of the pre-bent blade effortlessly.

360° access with 20 m TTC

The K-BP-4 provides 360° movement around the rotor blade. It is also equipped with two sliding platforms, which help technicians move closer to work comfortably. The platform bridges up to 20 m tip-tower distance, which is very important for modern pre-bent blades and large wind turbines.

The gangways are electrically operated parts that close and open at the push of a button. These positions allow technicians to work and move 360° to the blade. A chord length of max 5.2 m can be repaired.

The platform can be driven in open position up to the needed damage level of the blade. After reaching the vertical level, using swinging gangways and pivoting rails, the platform adapts to the blade shape and encloses the blade in its working area. A root diameter of maximum 3 m can be repaired.



PIVOTING PLATFORM RAILS AND TOWER WHEEL

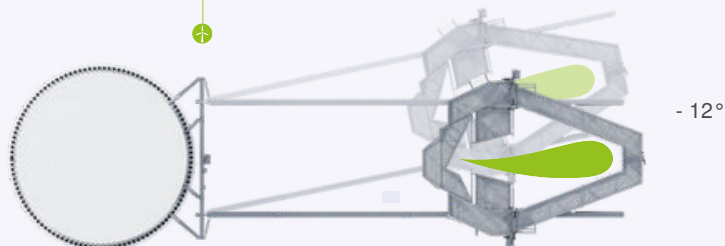
Modern Wind turbines are getting bigger every day, and pre-bent blades are a critical efficiency method used by almost all the WT manufacturers. To keep this in mind, the K-BP-4 is designed with pivoting platform rails which help you to work at such difficult positions.

Our 2x entirely rubber tower wheels and 2x fully rubber support wheels help the platform ride on the tower smoothly and stabilize pivoting. Support wheels also protect you from tilting in terrible weather conditions and make working at WT more secure and comfortable.



Working at Pre-bent blade tip

K-BP-4 can be pivoted securely up to $12^\circ/3,5\text{ m}$ at the distance of 20 m TTC using its strong rail motor and automated hydraulic braking system.

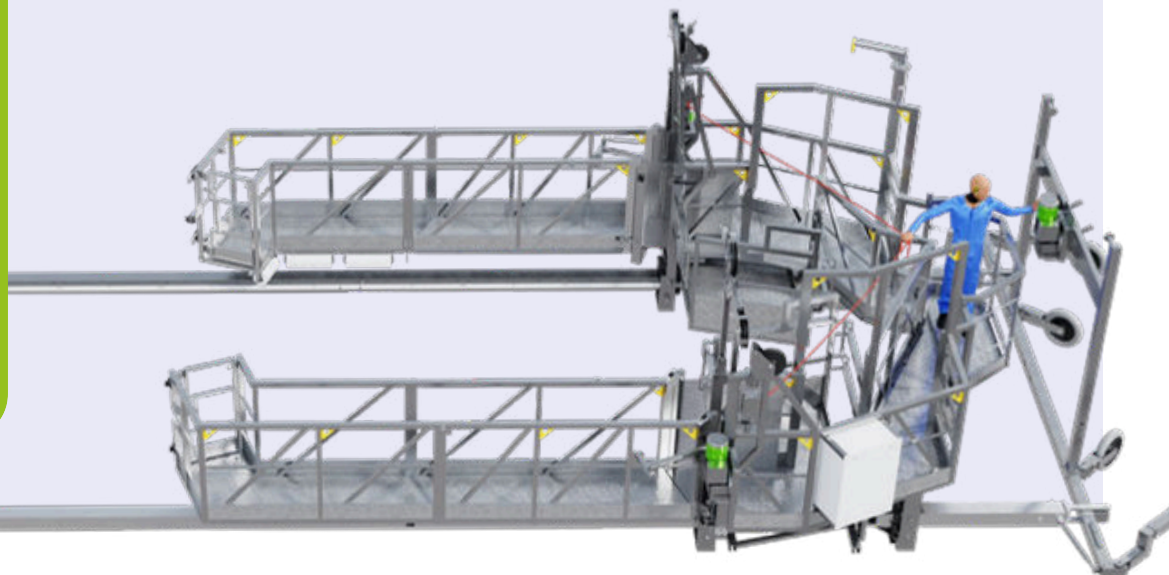


THREE WINCHES AND FALL ARREST DEVICES SYSTEM

Working on wind turbines is a lot tougher than enjoying the view of rotating wind turbines on the roadside. It is not that simple when you have to work at 100m height, 20 m away from the tower in wind speed 8 m/s and above.

The K-BP-4 is mounted with three strong winches and fall arrest devices to make this as secure and comfortable as possible. It includes two 1150 kg winches at the back, an 800 kg front winch, and fall arrest devices. Winches and fall arrest devices are a critical running part of the platform. It is necessary that it is always under your reach, especially when you need to operate them manually due to problems regarding electricity or ropes.

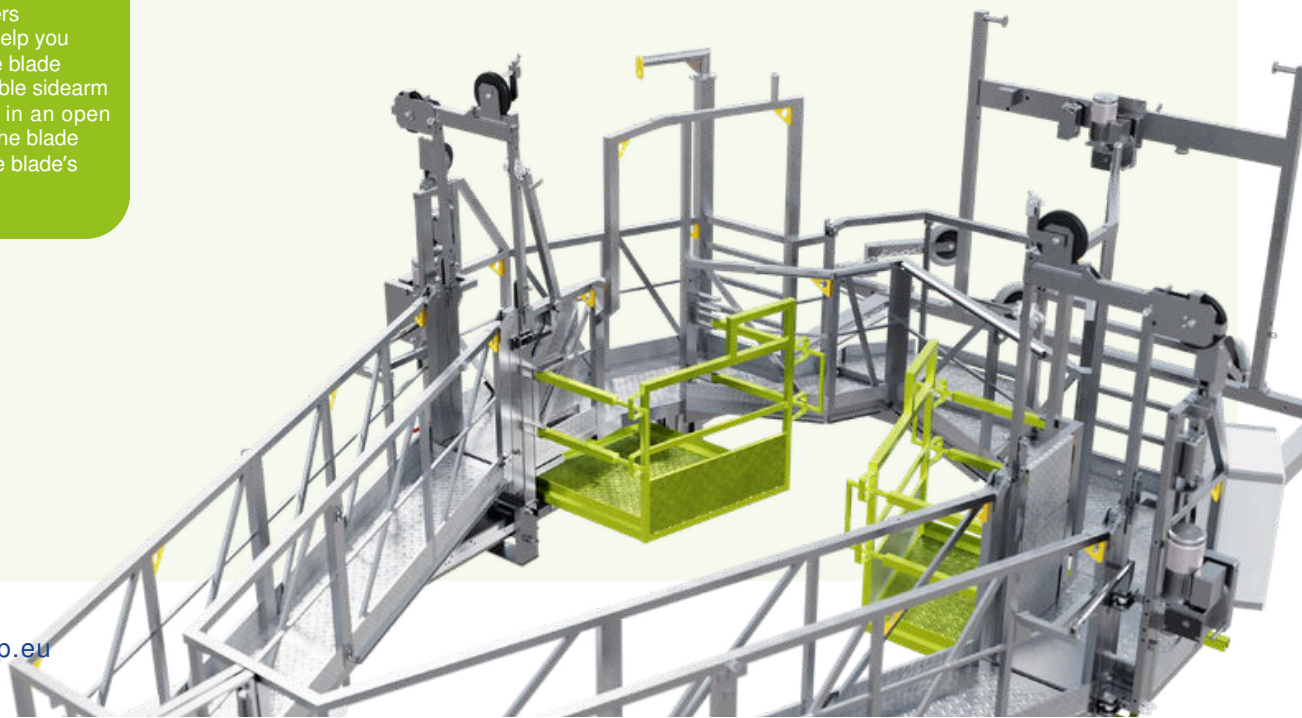
Our third winch and midair openable feature eliminates the need for a crane or airlift in case of an emergency rescue. A single person can do this emergency descending.



ACCESS TO BLADE SURFACE

Wind turbines are getting bigger every day, and Tip-Tower distance is an important parameter to consider while searching for the best solution for your wind farm. The K-BP-4's rails make it possible to bridge the distance of 20 m from the tower to the blade tip.

With all-around 360° access, K-BP-4 also offers platforms, which help you move closer to the blade surface. Its openable sidearm can also be used in an open position to reach the blade surface and on the blade's root.



GET COMFORTABLE WITH OUR ATTACHMENTS

For our innovative K-BP-4,

Käufer

also offers additional accessories to make your working time more favorable. Our 2 m „flex protect“ is easy to mount, dismount and carry. It is an excellent option to cover your repair and technicians in case of strong sunlight or light rain. In addition to that, we provide three-stage IR heaters and

extra lightning so your work can be completed even if it is a dark, cold evening.

The setup time is less than 20 minutes, requires a single person, and it is a toolless assembly. Käufer is also soon bringing a completely closed „flex shelter“ option for our customers.





EASY ASSEMBLING

The platform is designed so that the mobilizing can be done in a short time on the TP. This reduce downtime and rise working hours for the operation.



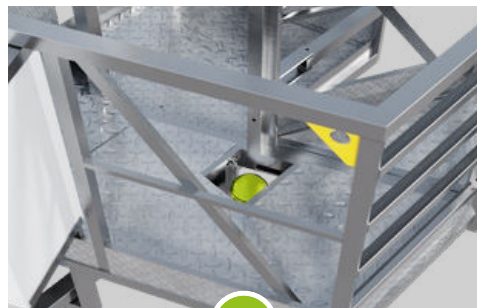
DOUBLE GEAR POWER ASSEMBLY

To bridge the distance of 20 m and to catch the prebent blades, the platform is now developed with double motors and more oversized cross-section rails.



TOOLLESS FAST ASSEMBLIES

The new K-BP-4 is designed after considering all feedback from our partners and customers. We modified the assembly procedure, and now there is no need for lifting and no tools required. The safety remains the same.



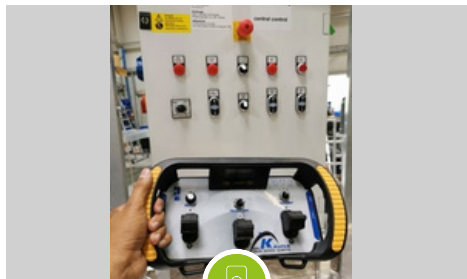
EMERGENCY ACCESS

We modified our design so the technician can reach the rails motor from inside the platform in case of an emergency maneuvering.



PERMANENT PROTECTION ROLLER

In addition to 4 mobile rollers with K-BP-4, we also provide eight permanently mounted rollers on the front side of the platform. It protects and guides, leading the edge of the blade smoothly.



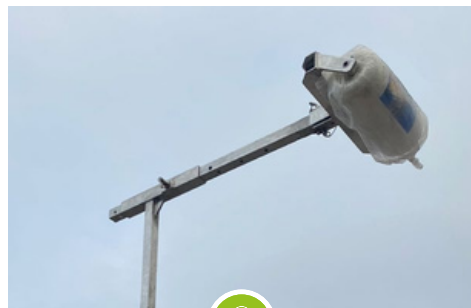
REMOTE CONTROL

The K-BP-4 can be operated using a remote control. We also provide a control panel on the control box in case of remote control loss or damage.



LIFTING DEVICE

Every K-BP-4 is equipped with a rotating arm, which can lift material up to 150 kg.



BLADE TIP HOLDER

Working at the tip is the most vibrating experience in the total operation. To minimize this vibration and provide stable support, we offer blade tip holders.



SIMPLE IS BETTER

The platforms is a complex structure, and they need to operate in remote areas. With this in mind, we have kept our electrical control box as simple as possible and provided important spare parts directly in the box.



ROPE CAROUSEL

We provide this carousel where 2 x 11,5 mm ropes are wound to make rope installation easier and faster. It is also helpful when ropes get mingled.





EFFICIENT LOGISTIC ON 3.5 T TRAILER

Any service van can transport the K-BP-4 with a pulling capacity of 3,5 t. The Platform is dismantled on a standard 3,5 t trailer with a brake light connection. The transport on a trailer fulfills all requirements of European transport regulations and doesn't require any special permit or changes. We also ship K-BP-4 on Mafi trailer to other continents after order.

Dead weight Working load Drive unit /	1700 kg
Winches Fall arrest devices Suspension	400 kg (max 3 persons and material)
& safety ropes Lifting speed	2 - 1150 Kg (X1140) & 1 - 800 (X820) Kg Tractel winch
Tip-tower clearance	2- BSO 1040 & 1- BSO 1020
Operating temperature and wind speed	4 x 11.5 mm & 2 x 9 mm
Maximum Hub Height Power	8 m/min.
Input power requirement	min. 0.5 m to max. 20 m
Power cable	-10 °C to +50 °C and Wind max. 14 m/s
Control system	200 m
Assembly Time	400 V/50-60 Hz/32A
Material platform and Suspension frame	Min 13 kVA
	5 x 4 mm² IP 44
	Remote control & panel on control box
	30 min. + Rope installation
	Aluminium structure and galvanised steel suspension frame
	IP55
Protection class	DIN EN 1808:2015 Certified by
Certification	TÜV Rheinland
	Hükeswagen, Germany
Manufacturing & Delivery Place	6120 x 2480 x 2914 m
Dimension Transport mode	3800 mm
Height on trailer	3500 kg
Weight on trailer	

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