

BEFARD'S PRODUCTS FOR WINDOW INDUSTRY

The **BEFARD's products for window industry** are designed mainly for producers, fitters and installers of windows, glazing and flat surfaces.

BEFARD is a Polish brand with equipment which is designed and manufactured entirely in Poland, specializing in delivery of solutions for reloading and loading of goods. The main range of BEFARD's products includes **reloading cranes, a broad range of hydraulic attachments and vacuum grippers.**

Bearing in mind the growing demand and the fact that large windows are becoming more and more popular both among architects and investors, we are meeting the needs of our clients by continuously extending and upgrading our products designed for the window industry.

Our portfolio includes also various types of **vacuum attachments** used by companies dealing with installation of window frames, as well as **reloading cranes** configured on various types of chassis to allow fitting of heavy windows at considerable heights.

All of the BEFARD equipment is covered by 12-month warranty with the option of extending it up to 36 months.

BEFARD

BEFARD XP

Vacuum gripper series

Str. 3-12

BEFARD XC

Assembly robots

Str. 13-26

BEFARD XGR

Assembly robots

Str. 27-30

BEFARD SPIDER

Mains powered mini-crane

Str. 31-38

BEFARD TB

Mini-crane on caterpillar chassis

Str. 39-44

BEFARD XF

Crane with active arm

Str. 45-52

BEFARD XJ

Crane on trailer

Str. 53-55



BEFARD XP
VACUUM GRIPPER SERIES

BEFARD XP

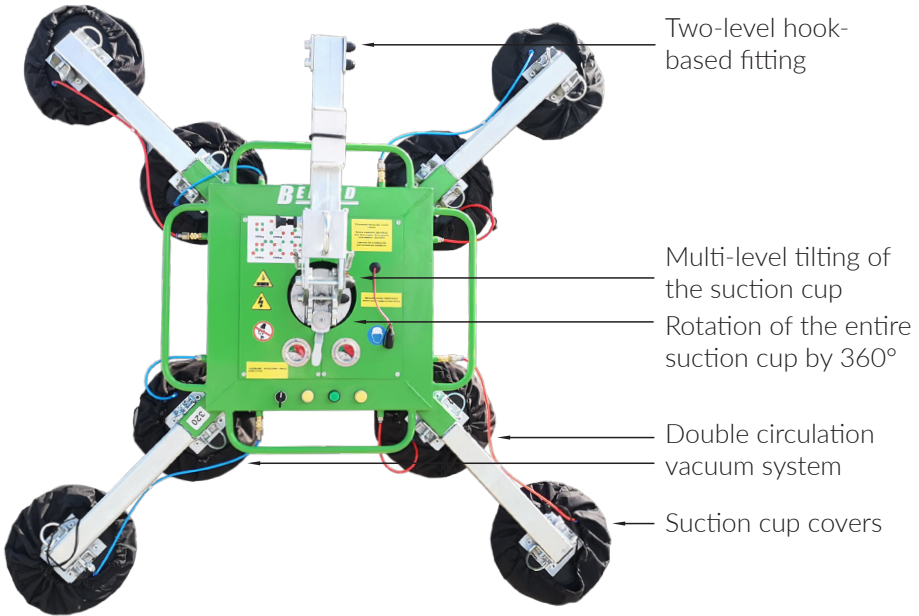
BEFARD suction cups are available in various variants differing by lifting capacity and number of suction cups. The individual variants of BEFARD suction cups are units suitable for various needs of the users.

FEATURES OF BEFARD VACUUM GRIPPER

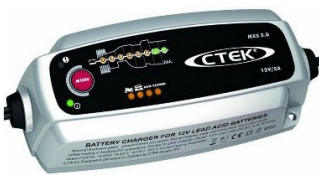
- manual rotation by 360°, interlock for rotation by 45° or 90° and additional interlocks,
- two independent vacuum circuits, each secured,
- integrated vacuum measurement and monitoring device,
- manual stepless tilting,
- easy individual configuration of suction cups, without using any specialized tools,
- the set includes a **remote control** for vacuum and charger with the battery charging indicator

TECHNICAL PARAMETERS

Vacuum system:	Double-circuit
Number of suction cups:	4, 6, 8, 10, 12 or 14
Suction cups:	Ø 310 mm
Min/max vacuum:	-0,6/-0,8 bars
Power supply:	12 V battery
Lifting capacity:	4 suction cups: 300 kg 6 suction cups: 450 kg 8 suction cups: 600 kg 10 suction cups: 800 kg 12 suction cups: 900 kg 14 suction cups: 1000 kg



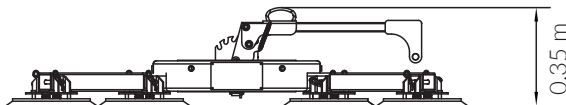
Charger:



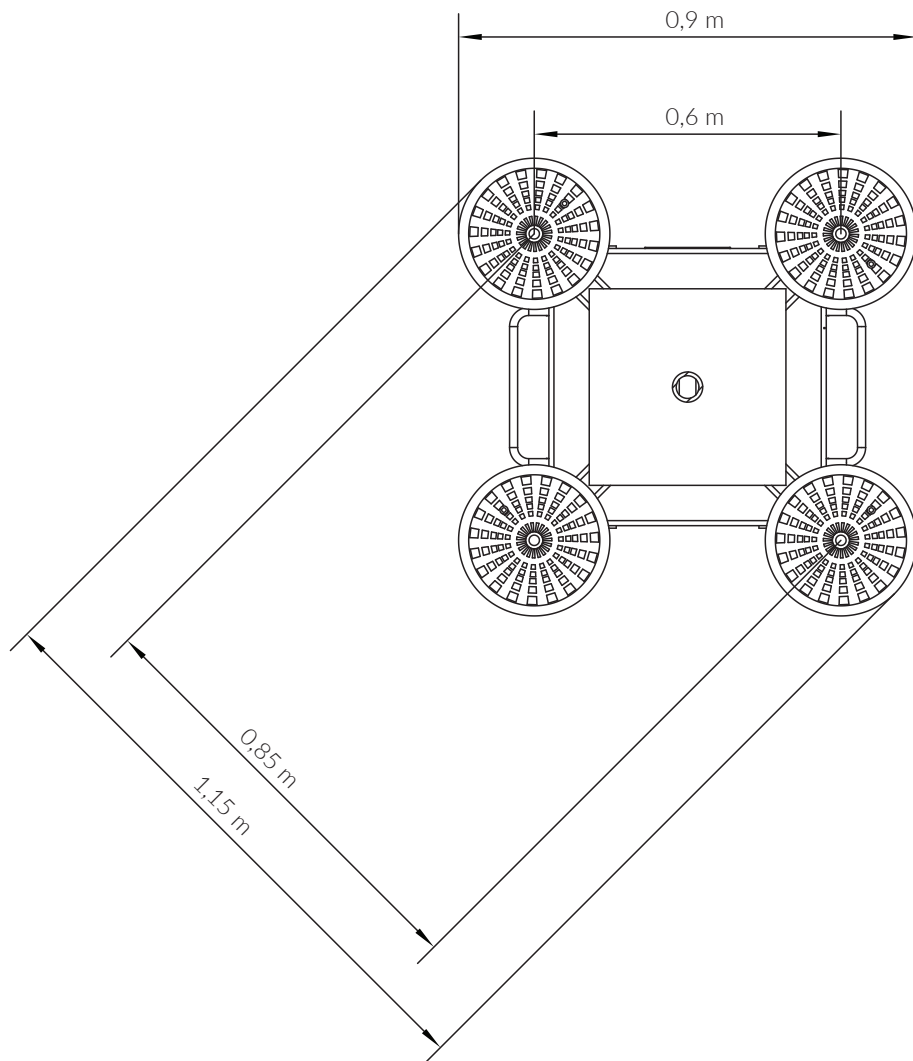
Wireless remote control:



Gripper height:



BEFARD XP 300



Lifting capacity:
300 kg

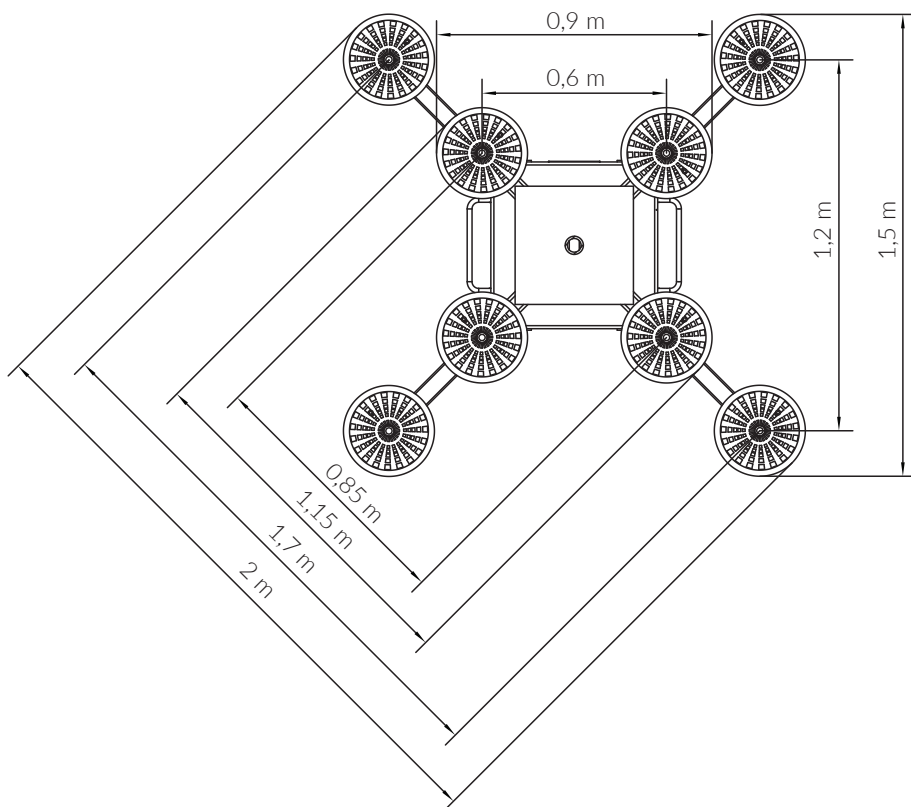


Number of
suction cups: 4



Designed
and manufactured
entirely in Poland

BEFARD XP 600



Lifting capacity:
600 kg

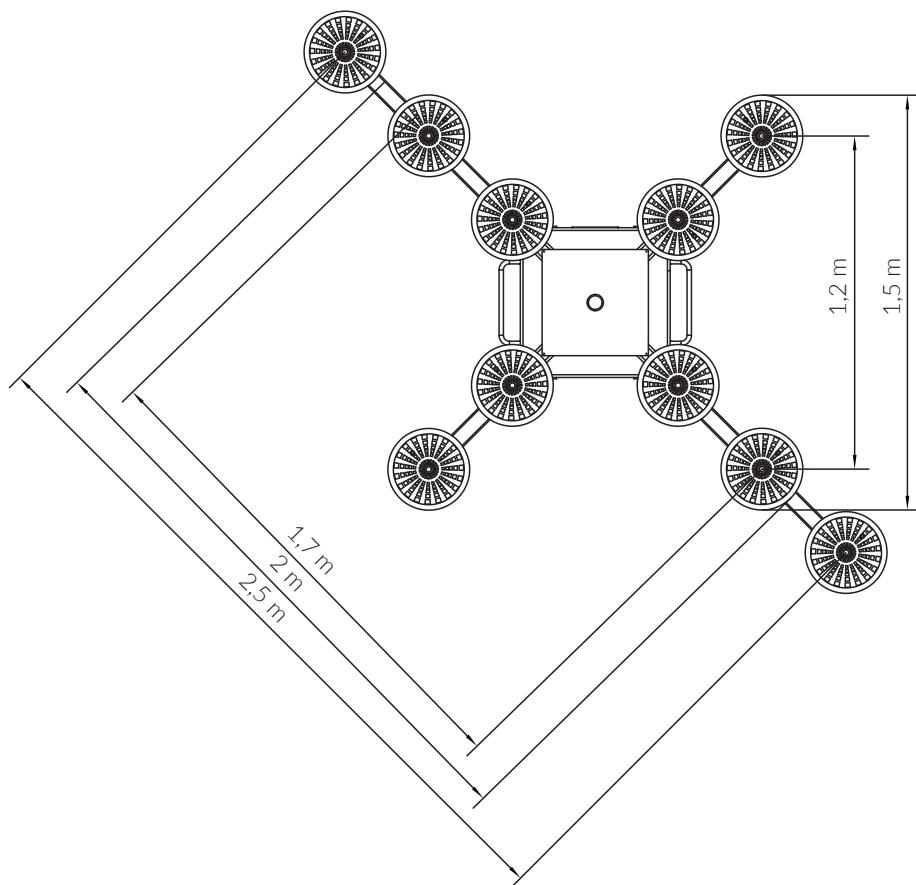


Number of
suction cups: 8



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BEFARD XP 800



Lifting capacity:
800 kg

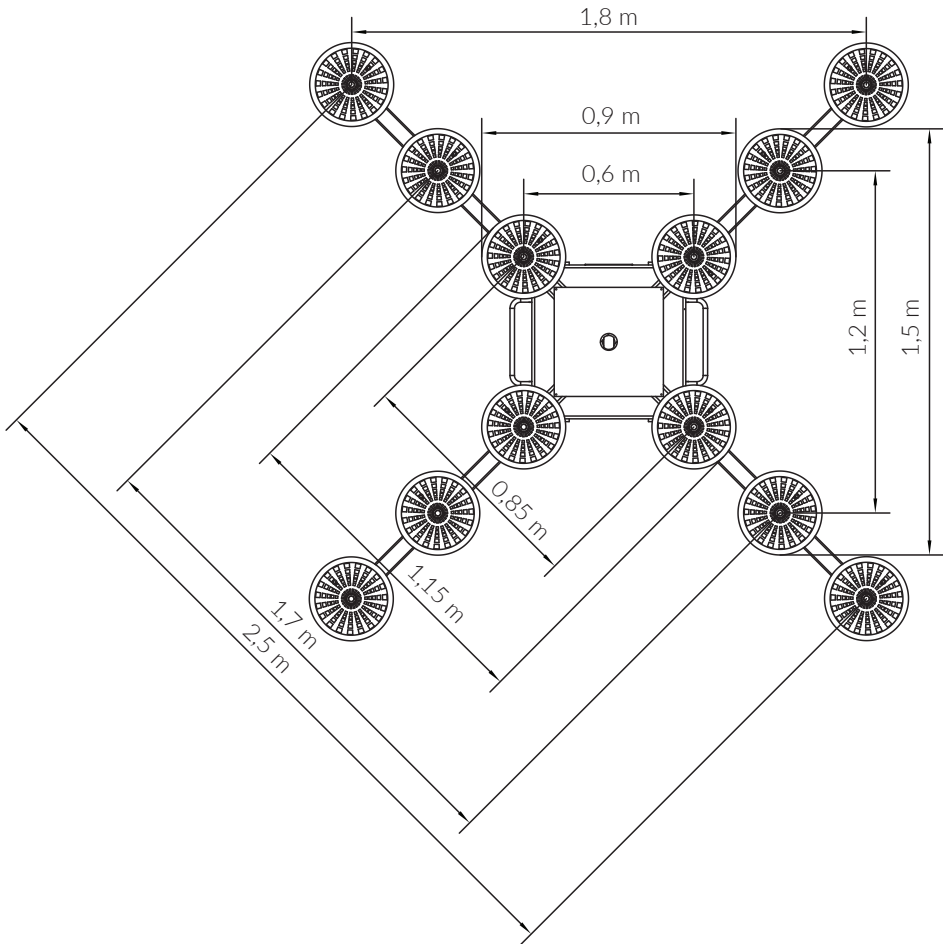


Number of
suction cups: 10



Designed
and manufactured
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BEFARD XP 900



Lifting capacity:
900 kg

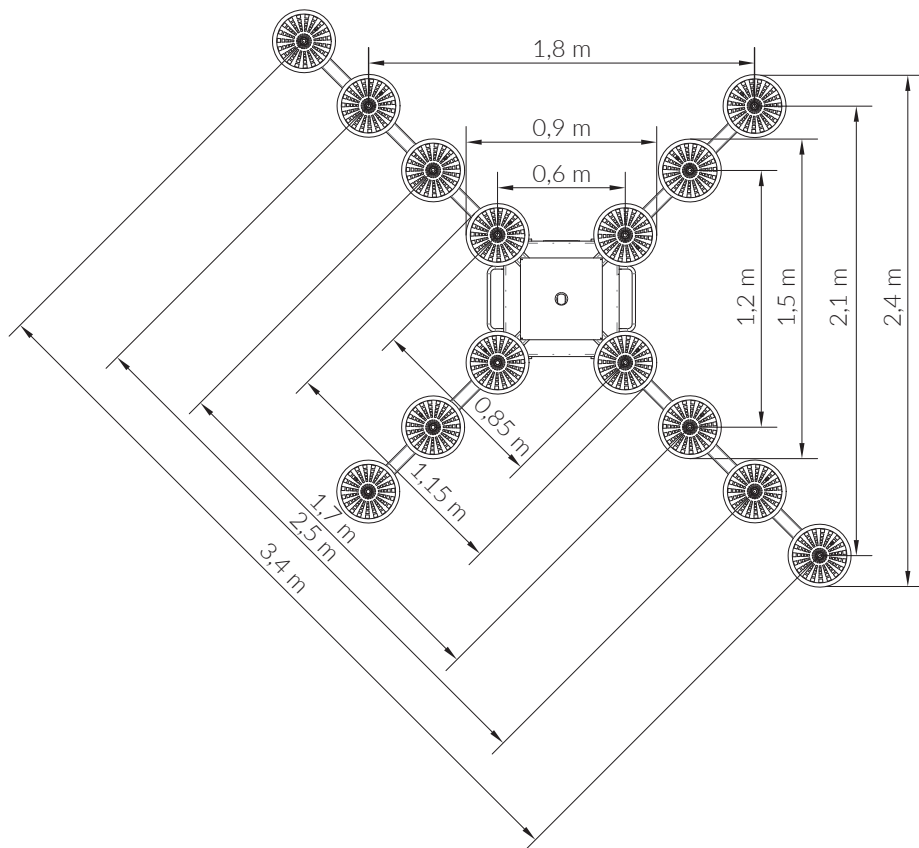


Number of
suction cups: 12



Designed
and manufactured
entirely in Poland

BEFARD XP 1000



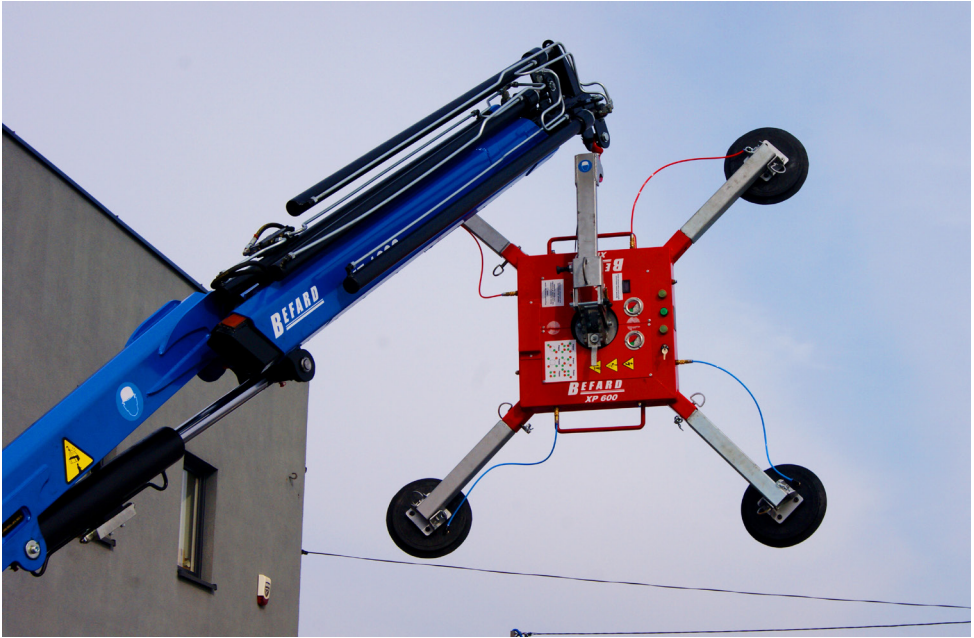
Lifting capacity:
1000 kg

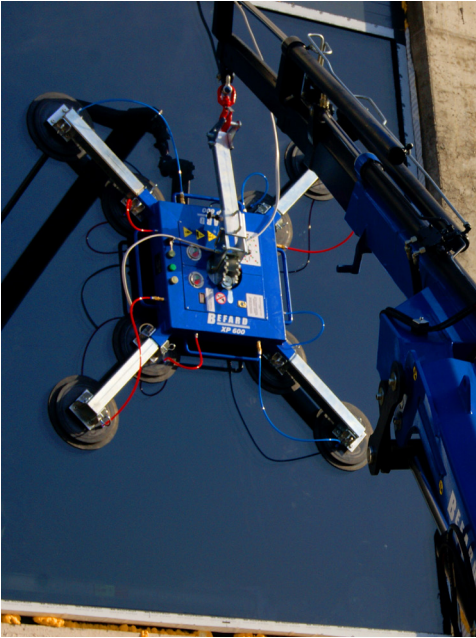


Number of
suction cups: 14



Designed
and manufactured
entirely in Poland







BEFARD XC
ASSEMBLY ROBOTS

XC ASSEMBLY ROBOTS

BEFARD XC series assembly robots are irreplaceable units during installation and transportation of windows, panes and other flat surfaces. Depending on configuration, they may have the range above 5 meters and lifting capacity up to **800 kg**. Battery-powered, electric & hydraulic BEFARD robots work excellently both outdoors, e.g. **on yards in front of the buildings, and inside the buildings**.

BEFARD XC robots, regardless of the variant, ensure the possibility of lateral sliding of the frame with suction cups by 100 mm, such solution allows operation of the lateral slide hydraulic actuator thanks to which the window can be placed precisely in the window opening. It is also possible to increase the spacing between suction cups, thus achieving bigger or smaller surface area depending on the needs and size of the pane being transported.

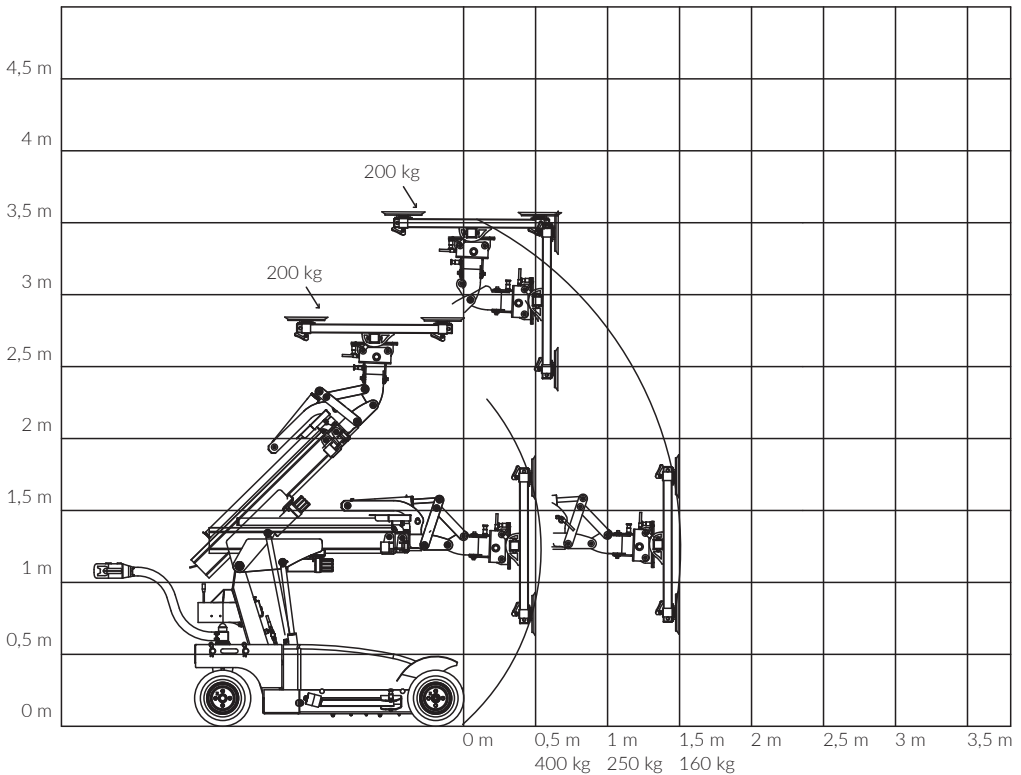
ADDITIONAL OPTIONAL FUNCTIONS:

- suction cups with adjustable distance from the frame,
- double wheels in the front (twin),
- additional hydraulic extension arm,
- hydraulic rotation – manual rotation in the standard variant,
- hydraulic lateral tilting – manual tilting in the standard variant,
- radio control – control from the switching panel on the unit in the standard variant,
- covers for suction cups.

BEFARD XC 400

One hydraulic extension arm

Adding two hydraulic functions increases the unit's range by 15 cm, thus giving the **total range of 3.7 m**. The diagram presents lifting capacity for the basic variant of the unit excluding any additional hydraulic functions (rotation and tilting).



Lifting capacity:
400 kg



Number of
suction cups: 4

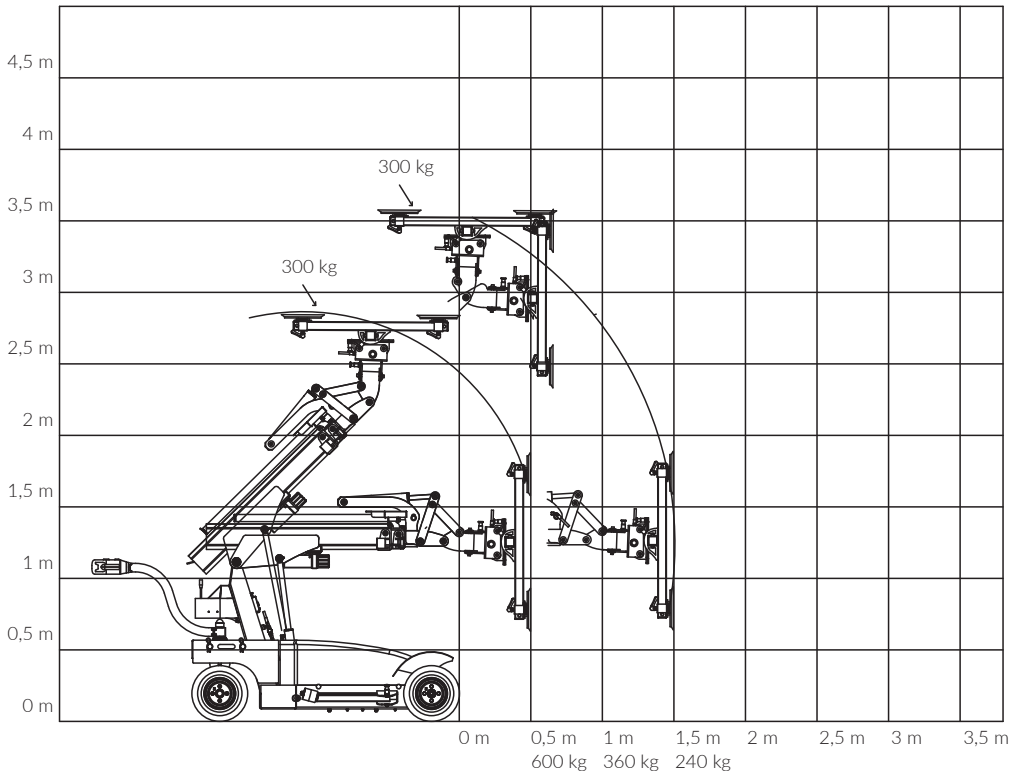


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BEFARD XC 600

One hydraulic extension arm

Adding two hydraulic functions increases the unit's range by 15 cm, thus giving the **total range of 3.7 m**. The diagram presents lifting capacity for the basic variant of the unit excluding any additional hydraulic functions (rotation and tilting).



Lifting capacity:
600 kg



Number of
suction cups: 6

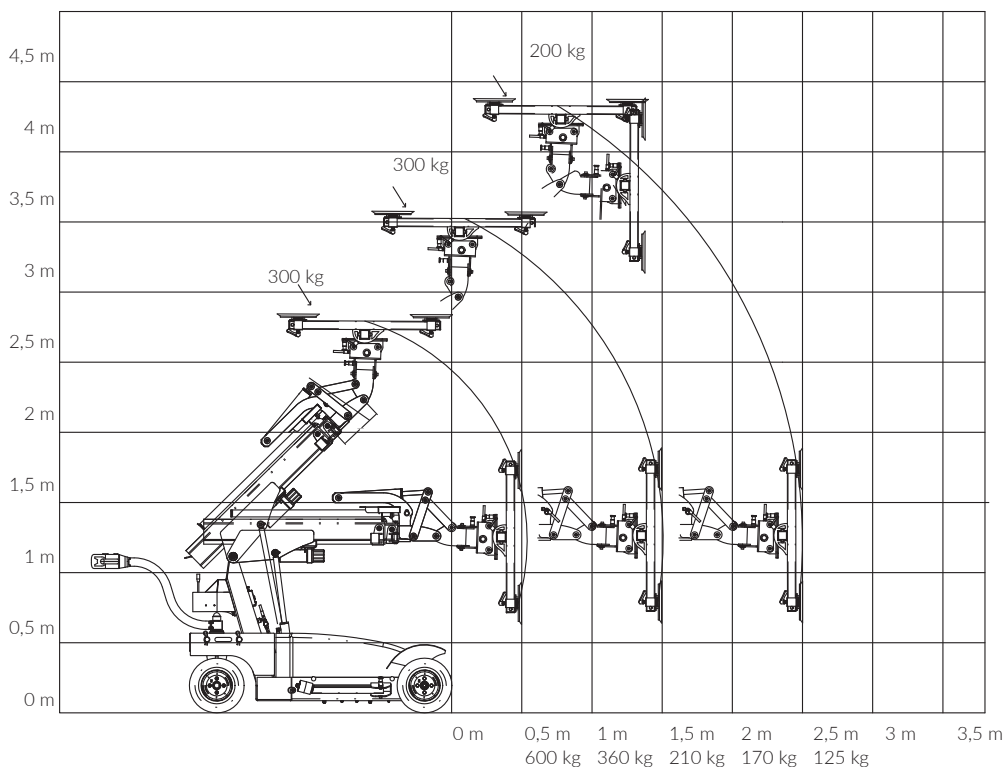


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BEFARD XC 600

One hydraulic extension arm

Adding one or two hydraulic functions increases the unit's range by 15 cm, thus giving the **total range of 4.4 m**, and changes its lifting capacity. The diagram presents lifting capacity for the basic variant of the unit excluding any additional hydraulic functions (rotation and tilting).



Lifting capacity:
600 kg



Number of
suction cups: 6

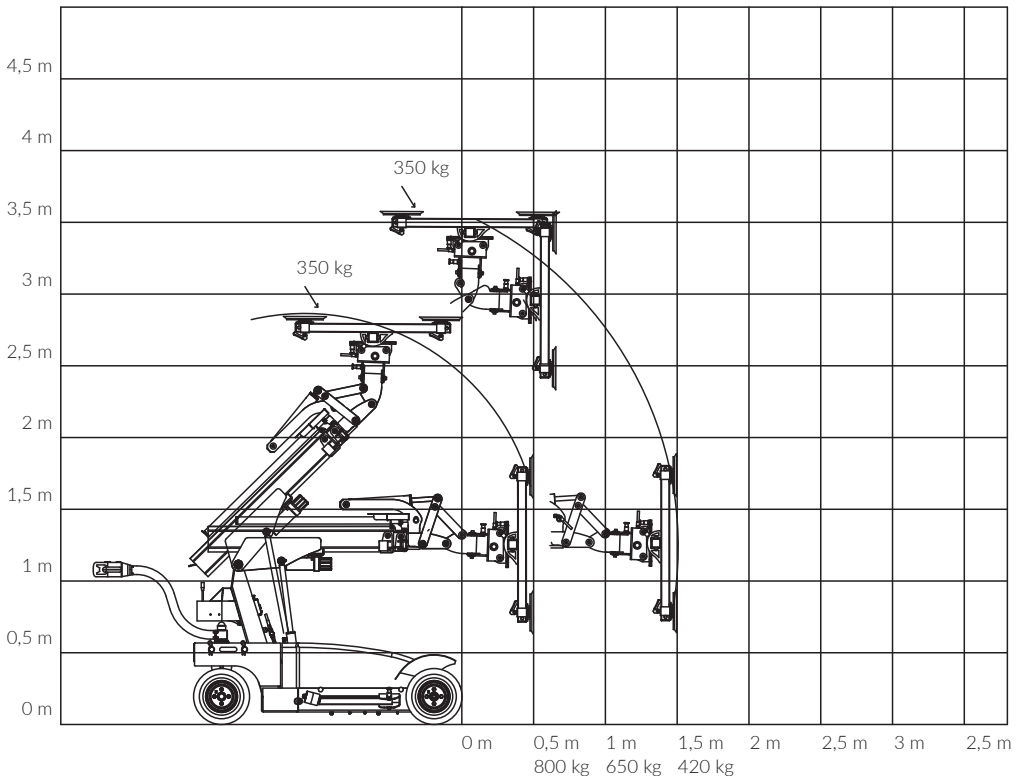


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BEFARD XC 800

One hydraulic extension arm

Adding one or two hydraulic functions increases the unit's range by 15 cm, thus giving the **total range of 3.7 m**, and changes its lifting capacity. The diagram presents lifting capacity for the basic variant of the unit excluding any additional hydraulic functions (rotation and tilting).



Lifting capacity:
800 kg



Number of
suction cups: 8

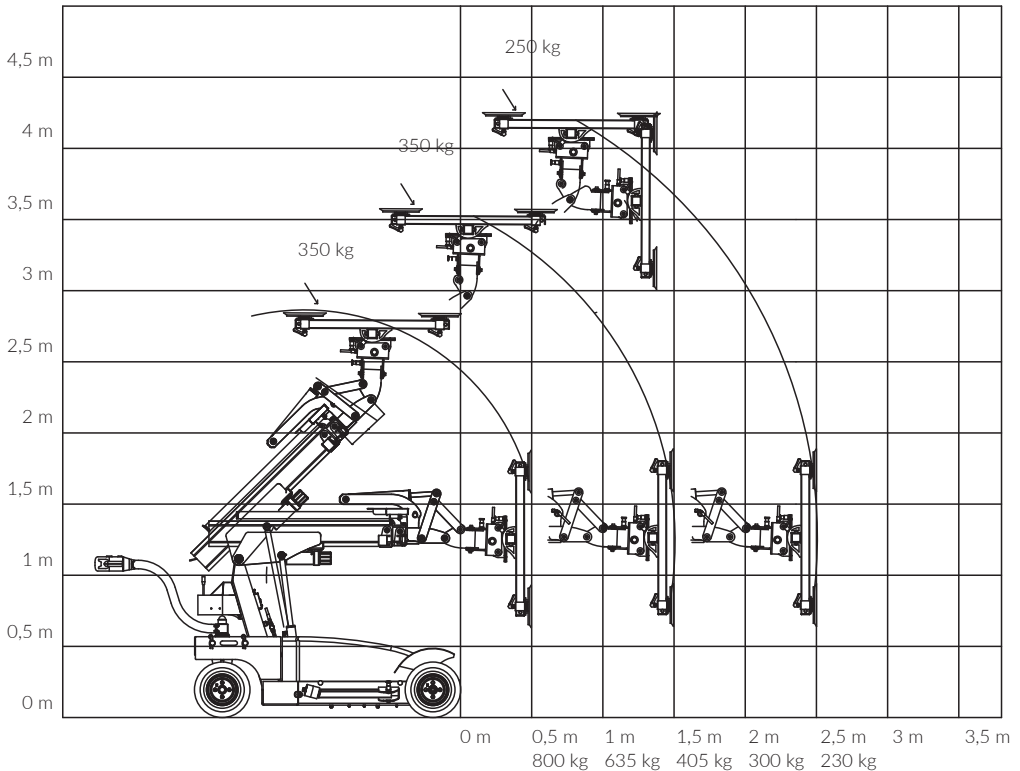


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BEFARD XC 800

Two hydraulic extension arms

Adding one or two hydraulic functions increases the unit's range by 15 cm, thus giving the **total range of 4.4 m**, and changes its lifting capacity. The diagram presents lifting capacity for the basic variant of the unit excluding any additional hydraulic functions (rotation and tilting).



Lifting capacity:
800 kg



Number of
suction cups: 8

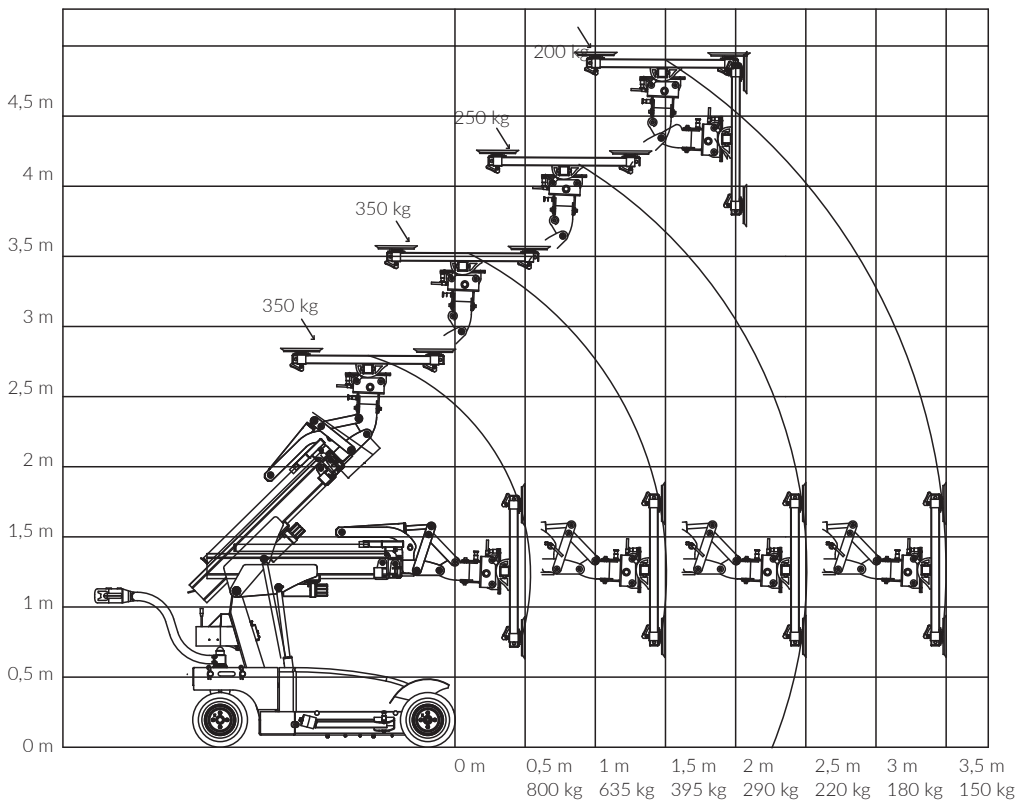


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BEFARD XC 800

Three hydraulic extension arms

Adding one or two hydraulic functions increases the unit's range by 15 cm, thus giving the **total range of 5.1 m**, and changes its lifting capacity. The diagram presents lifting capacity for the basic variant of the unit excluding any additional hydraulic functions (rotation and tilting)



Lifting capacity:
800 kg

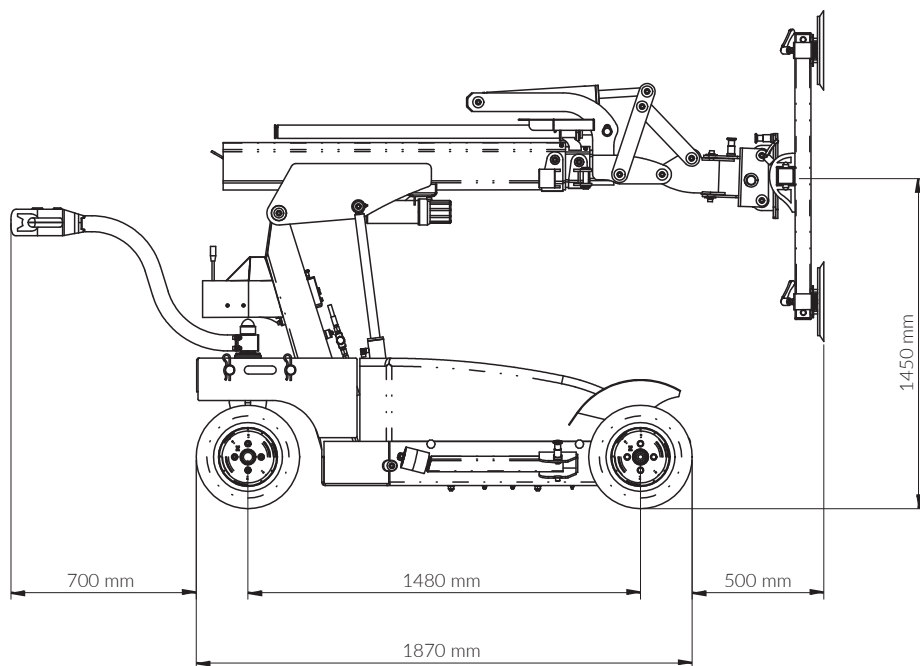


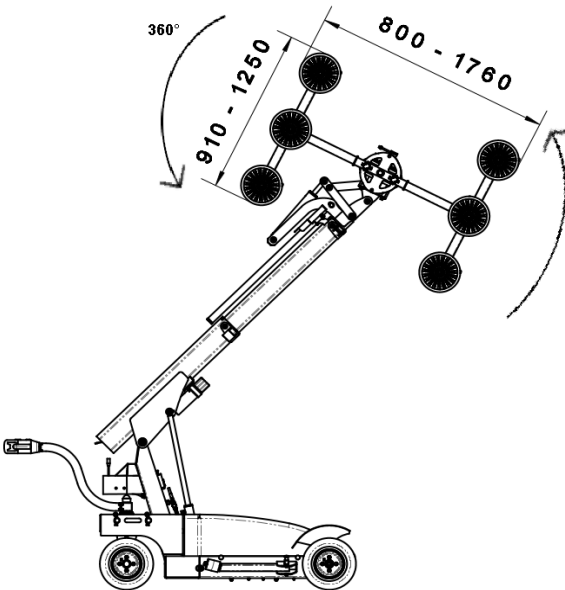
Number of
suction cups: 8



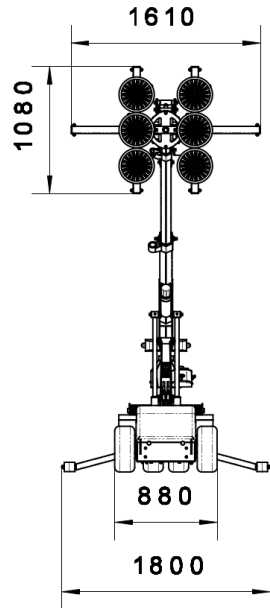
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DIMENSIONS OF BEFARD XC400 / XC600 / XC800 ROBOTS

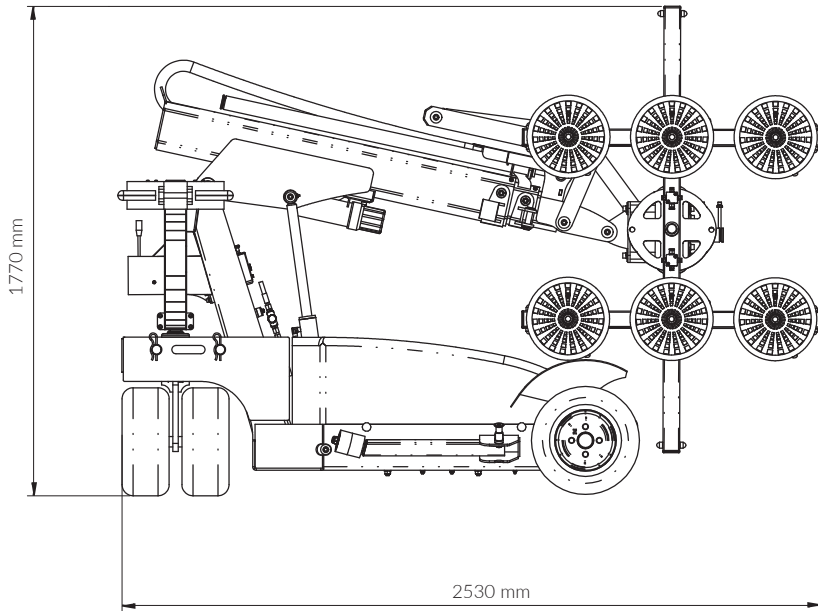




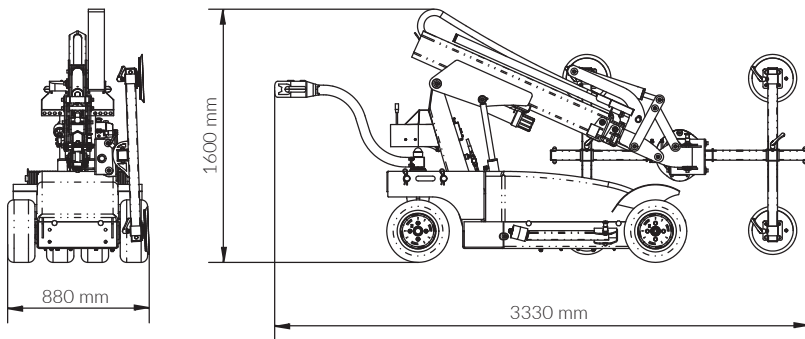
Maximum spacing of suction cups



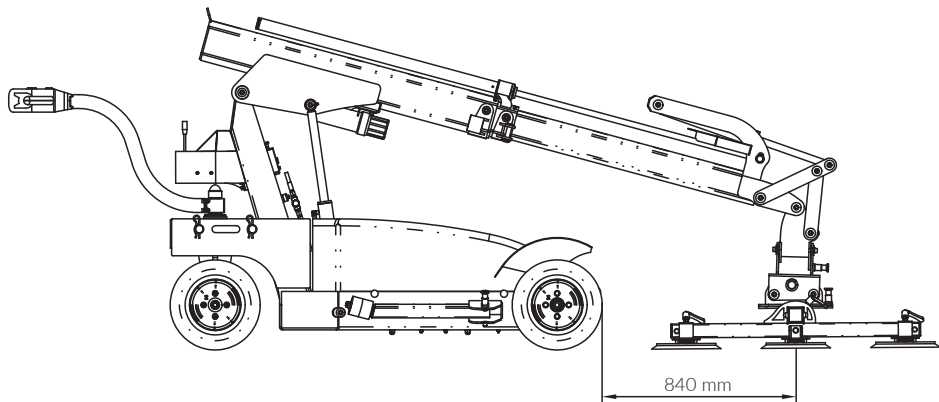
Frame spacing

TRANSPORTATION DIMENSIONS

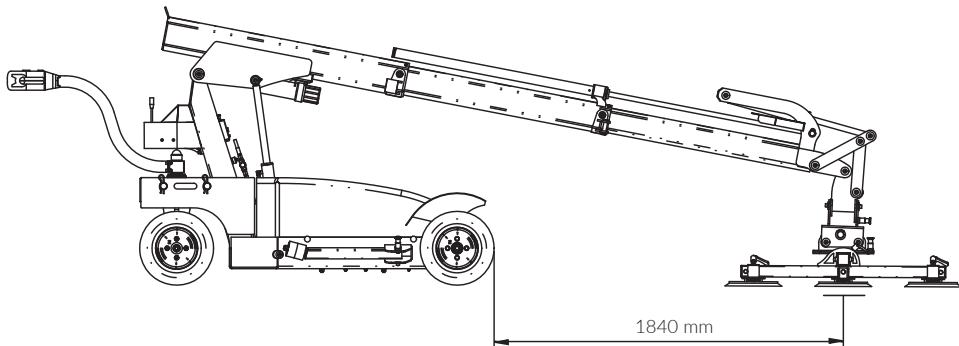
Variant I
(suction cup frame – vertical; steering wheel – folded to the side)



Variant II
(suction cup frame – horizontal; steering wheel – straight)

START-UP RANGE FOR LIFTING FROM THE GROUND

Variant I
(1 hydraulic extension arm)



Variant II
(2 hydraulic extension arms)







BEFARD XGR
ASSEMBLY ROBOTS

BEFARD XGR ASSEMBLY ROBOT

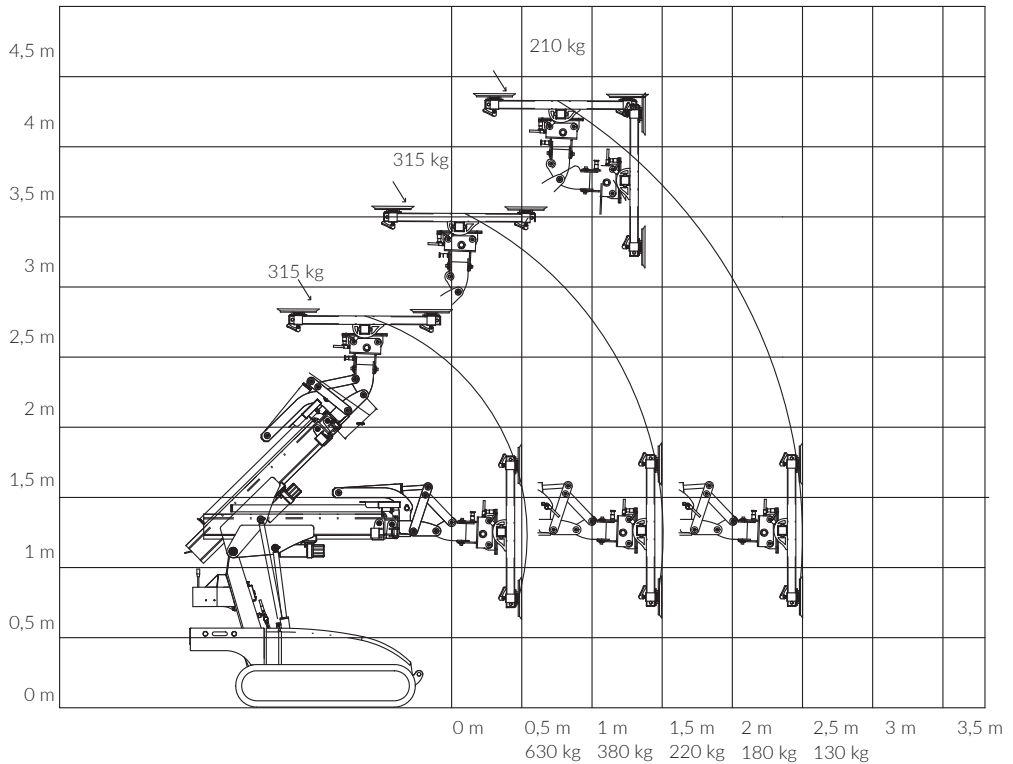
BEFARD XGR assembly robot is a unit designed in response to growing needs of the window industry. Application of the caterpillar chassis allows operation in difficult construction conditions – driving through rough surfaces, mud, snow and sand is not a problem for it.

BEFARD XGR allows transportation of loads in the construction area in a safe way at the same time maintaining stability and the use of the hydraulic turning device improves precision during installation of panes.

PARAMETERS OF XGR ROBOTS:

- two hydraulic extension arms with the total range of 4.25 m,
- radio control using HETRONIC device,
- double-circulation vacuum system,
- power supply from the combustion engine,
- maximum lifting capacity 630 kg,
- 6 vacuum suction cups,
- selection of colour included in the price,
- rotary frame with suction cups – **hydraulically**,
- lateral sliding of the frame with suction cups (right, left 10 cm – **hydraulically**),
- frame with suction cups tiltable to the sides (relatively to the unit – **manually**),
- tiltable frame with suction cups (the possibility of lifting the element from the horizontal plane and positioning it vertically – **hydraulically**).

ASSEMBLY ROBOT XGR



Lifting capacity:
630 kg



Number of suction
cups: 6



Designed and manufactured entirely in Poland





BEFARD SPIDER



BEFARD SPIDER

Maximum range: 8 – 12 m

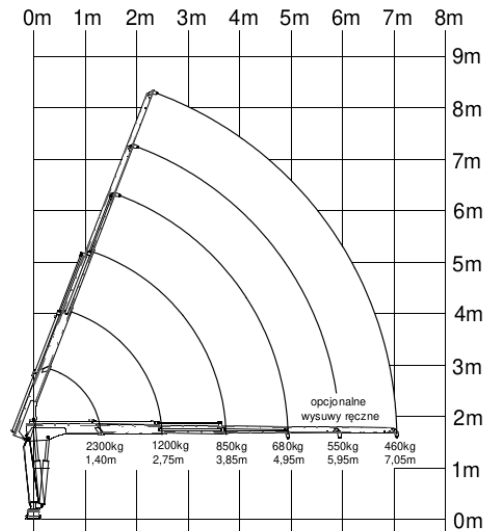
BEFARD SPIDER mini-cranes were developed in response to the needs of our clients. They provide an excellent alternative to cranes on caterpillar chassis. They are distinguished by compact design and small weight, and thanks to their stable body they can lift even very heavy loads. The advantage of BEFARD SPIDER mini-cranes is their attractive price.

BEFARD SPIDER mini-cranes have the range from **8 m to 12 m vertically** depending on the model.

BEFARD SPIDER 3402B

FEATURES OF BEFARD SPIDER MINI CRANE 3402B

- Maximum lifting capacity 2300 kg
- Maximum range horizontally 7.05 m
- Three hydraulic extension arms + 2 manual arms
- Maximum range vertically above 8 m
- 4 supports raised hydraulically after initial manual unfolding
- Frame suitable for transportation using fork lift truck
- Mains power supply 230V
- Control from the switching panel
- Height approx. 195 cm
- Width approx. 88 cm
- Weight approx. 1600kg



Lifting capacity:
2300 kg



Power supply:
230 V



Range vertically:
above 8 m

ADDITIONAL OPTIONS:

- Radio control
- Petrol engine
- Double power supply
- Hydraulic hoist



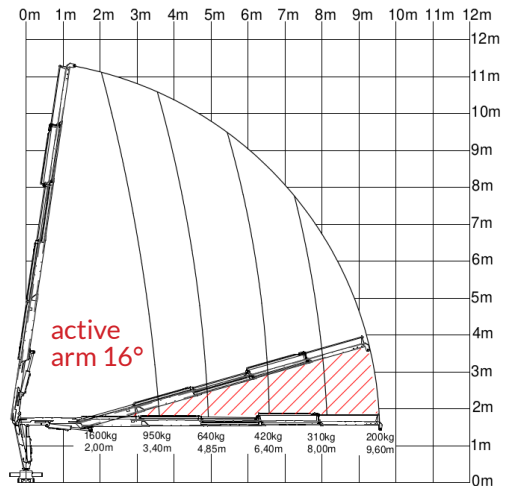
Designed and manufactured entirely in Poland



BEFARD SPIDER 3602C

FEATURES OF BEFARD SPIDER MINI CRANE 3602C

- Maximum lifting capacity 1600kg
- Maximum range horizontally 9.6 m
- Four hydraulic extension arms
- Maximum range vertically above 11m
- 4 supports raised hydraulically after initial manual unfolding
- Frame suitable for transportation using fork lift truck
- Mains power supply 400V
- Control from the switching panel
- Height approx. 195 cm
- Width approx. 88 cm
- Weight approx. 1800kg



Lifting capacity:
1600 kg



Power supply:
400 V



Range vertically:
above 11 m

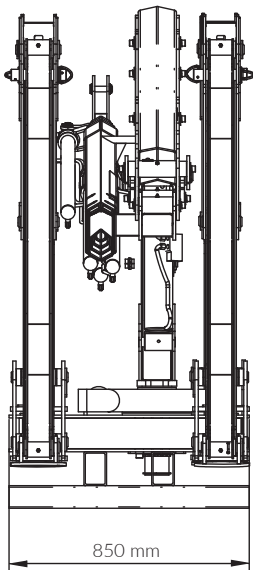
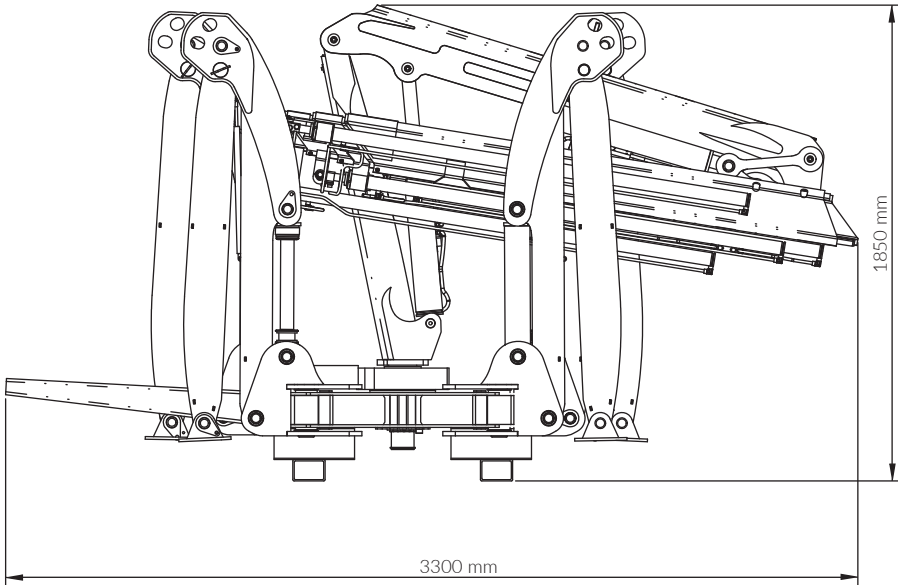
ADDITIONAL OPTIONS:

- Radio control
- Petrol engine
- Double power supply
- Hydraulic hoist



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OPTIONAL ACCESSORIES:

- any suction cup from XP series,
- double power supply, radio control of crane functions.





BEFARD TB
MINI-CRANE ON CATERPILLAR CHASSIS



BEFARD TB MINI-CRANE

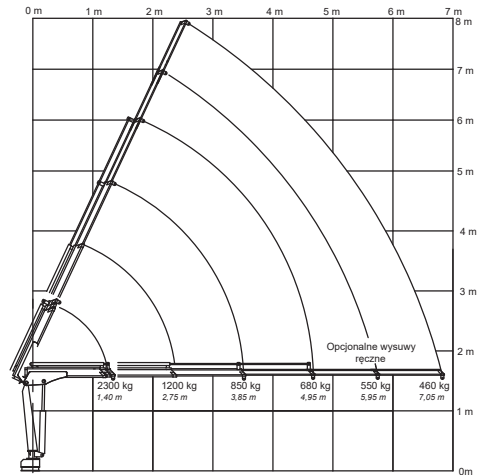
Mini-crane on caterpillar chassis
Designed for interior and outdoor work

BEFARD TB mini-cranes on caterpillar chassis are distinguished by their manoeuvrability and mobility. They are very effective and at the same time robust and reliable. In spite of their compact design and small weight, they ensure high stability and they can lift even very heavy loads.

The possibility of supplementing the unit with any suction cup from XP series and hydraulic hoist.

BEFARD TB 3500

Remote control:

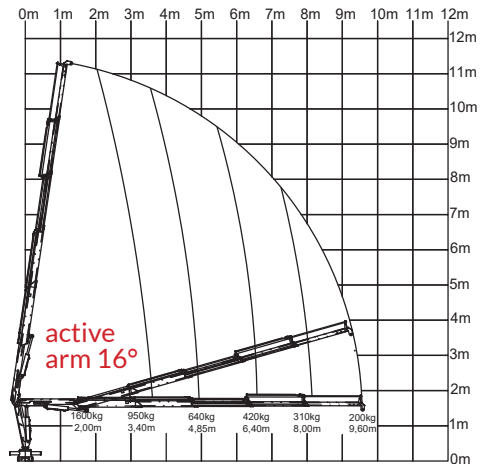


- **radio control of the unit**
- double power supply of the crane – combustion and electric 230V
- maximum lifting capacity: 2300 kg (as in the chart)
- overload protection system in the standard variant
- maximum range horizontally above 7 m
- three hydraulic extension arms + two manual extension arms
- maximum range vertically above 8 m
- 4 hydraulically lowered supports
- weight approx. 1700kg
- height approx. 195cm
- width approx. 88cm


 Designed and manufactured entirely in Poland

BEFARD TB 4000

Remote control:

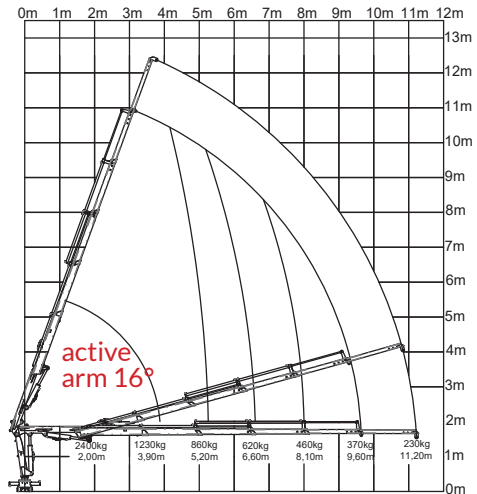


- **radio control of the unit** (both driving of the unit, as well as operation and unfolding of the feet)
- double power supply of the crane – combustion and electric 230V
- maximum lifting capacity of the crane: 1600 kg (as in the chart)
- overload protection system in the standard variant
- maximum range horizontally above 9 m
- four hydraulic extension arms
- maximum range vertically above 11 m
- active arm 16°
- 4 supports lowered hydraulically after initial manual unfolding
- width approx. 88cm
- height approx. 195cm
- weight approx. 2000 kg

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BEFARD TB 5000

Remote control:

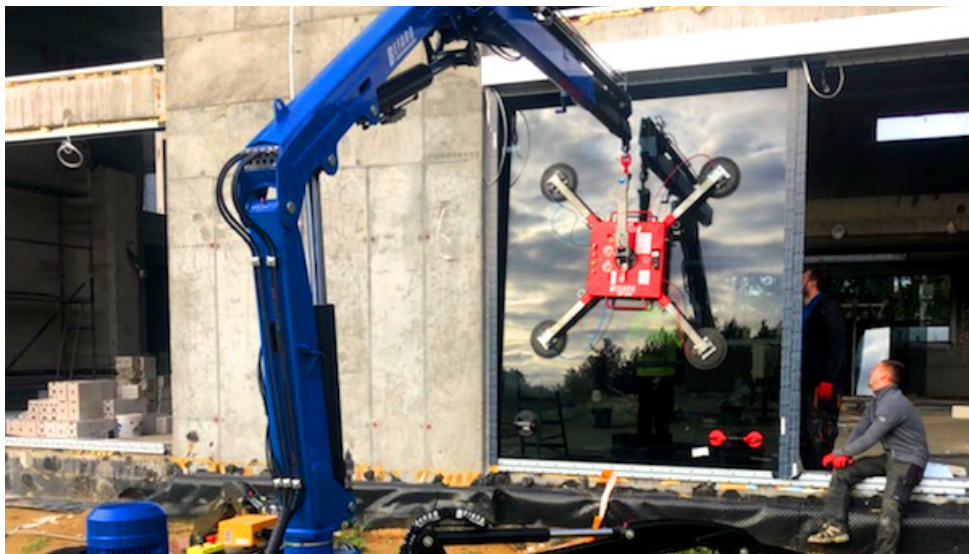


- **radio control of the unit** (both driving of the unit, as well as operation and unfolding of the feet)
- double power supply of the crane – combustion and electric 230V
- maximum lifting capacity: 2400 kg
- maximum range horizontally above 11 m
- four hydraulic extension arms + one manual arm
- maximum range vertically above 12 m
- active arm 16°
- overload protection system in the standard variant
- 4 hydraulically lowered supports
- weight approx. 2200kg
- height approx. 195cm
- width approx. 88cm



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TB SERIES





BEFARD XF SERIES

CRANES WITH ACTIVE ARM

HDS – BEFARD XF DOUBLE-ARM CRANES

Cranes designed for window industry, range above 12 m vertically.
Ideal in the configuration with XP600 suction cup

BEFARD XF is a series of double-arm reloading cranes designed for installation on delivery vehicles and smaller trucks. Depending on specific configuration, **BEFARD XF** cranes can be equipped with one, two, three or even four hydraulic extension arms. The increased number of arms allows operation of the machine on longer distances which is very important for installation of windows.

FEATURES OF XF CRANES:

- turning device equipped with bronze bearing,
- extension arms equipped with textolite slides,
- crane made of Swedish steel WELDOX 700,
- 12 month warranty with the option of extending up to 36 months,
- **Polish producer,**
- spare parts available for immediate delivery,
- possibility of configuring the unit appropriately for individual needs of the buyer,
- low maintenance and operating costs,
- short delivery periods,
- extremely robust design of the frame,
- steel elements of the hydraulic system,
- high quality hydraulic system,
- special protective covers for hydraulic pipes,
- hydraulic overload protection system,
- no easily failing electronics,
- colour to be selected from RAL Pallet.



CRANE FITTED ON:

- delivery vehicles up to 3.5 t,
- trucks.



Lifting capacity
up to 2400 kg



Active arm:
16°



Range:
above 12 m



Designed and manufactured entirely in Poland

BEFARD XF 3602C



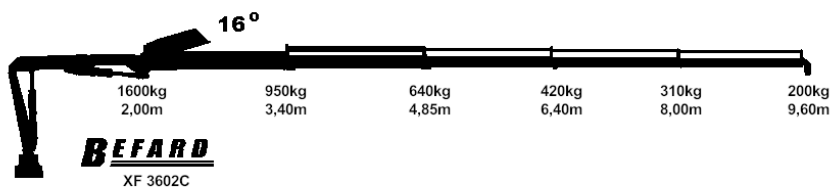
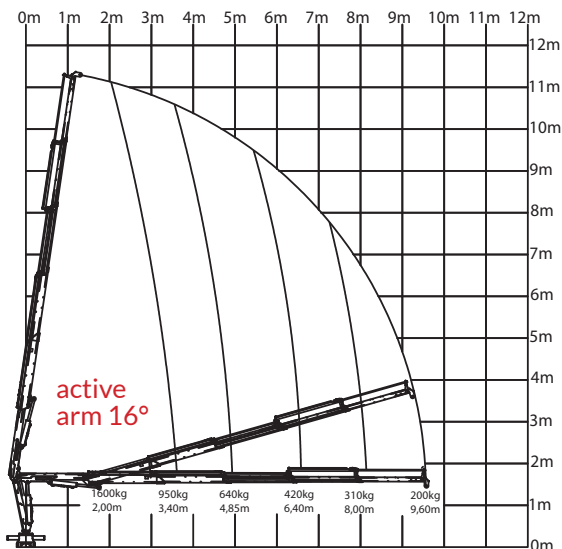
Maximum lifting capacity:
1600 kg



Active arm:
16°



Range:
above 11 m



- Hydraulic extension arms: 4



Designed and manufactured entirely in Poland

TECHNICAL DATA**XF 3602C**

Lifting moment	32 kNm	
Maximum lifting capacity	1600 kg	
Hydraulic extension arms	9600 mm	
Crane height	1700 mm	
Transportation width	2050 mm	
Support spacing	4100 mm	
Rotation angle	180- 360°	
Torque (18 MPa)	5,4 kNm	
Dwell angle of the extension arm	82°	
Inclination angle downward	45°	
Raising angle of the second arm relatively to the first arm	16°	
Operating pressure	270 bar	
Recommended pump	Operating pressure	280 bar
	Flow	16 l/min
Weight (excluding supporting feet)	610 kg	



HDS – BEFARD XF DOUBLE-ARM CRANES BEFARD XF 5502C.11



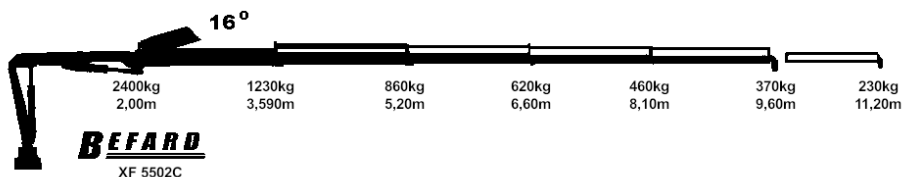
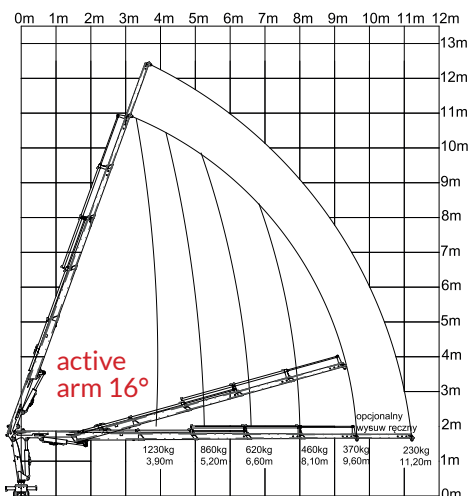
Maximum lifting capacity: 2400 kg



Active arm: 16°



Maximum range: above 12 m



- Hydraulic extension arms: 4
- Manual extension arms (optional): 1



Designed and manufactured entirely in Poland

TECHNICAL DATA**XF 5502C.11**

Lifting moment	48 kNm	
Maximum lifting capacity	2400 kg	
Hydraulic extension arms	9600 mm	
Optional manual extension arms	11200 mm	
Crane height	1800 mm	
Transportation width	2300 mm	
Support spacing	5020 mm	
Rotation angle	210- 360°	
Torque (18 MPa)	7 kNm	
Dwell angle of the extension arm	70°	
Inclination angle downward	45°	
Raising angle of the second arm relatively to the first arm	16°	
Operating pressure	270 bar	
Recommended pump	Operating pressure	280 bar
	Flow	16 l/min
Weight (excluding supporting feet)	790 kg	



XF 5502C.11





BEFARD XJ TRAILER CRANE

TRAILER CRANE

BEFARD XJ TRAILER CRANE

BEFARD XJ TRAILER CRANE is a modern solution ideal for the window industry. In complete set with the XP series suction cup, it will allow installation of heavy glazing elements.

PARAMETERS OF XJ CRANES:

- registered for the total lifting capacity
- maximum lifting capacity 1600 kg
- four hydraulic extension arms with the total range of 9.6 m
- rotation of the column on the rotation flange
- extension arm equipped with textolite slides
- crane made of Swedish steel WELDOX 700
- combustion power supply – petrol engine VANGUARD (electric ignition)
- control from the switching panel

PARAMETERS OF THE TRAILER:

- Vehicle category O2
- Number of axles and wheels 2/4
- Length 4400 mm
- Width 2020 mm

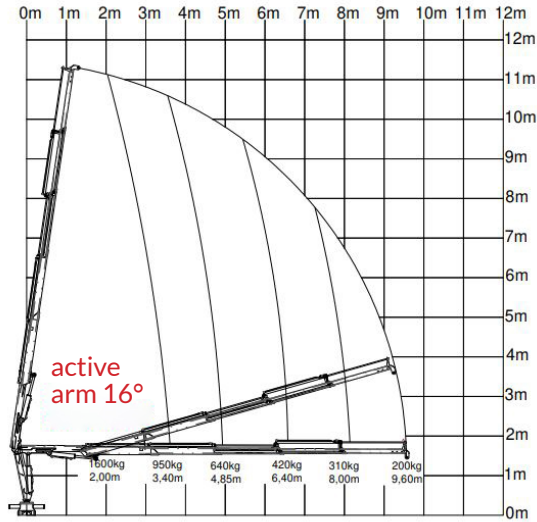
Weight of the entire set: approx. 2200kg

Four supporting feet, expanded manually, lowered hydraulically.

The unit is completely self-reliant and independent. It has its own power supply from a combustion engine. Depending on a specific configuration, the trailer cranes may have various ranges from 8 even up to 12 meters. They can be equipped with 4 hydraulic extension arms which ensures bigger operating capabilities.



Designed and manufactured entirely in Poland



Maximum lifting capacity: 1600 kg



Active arm: 16°



Maximum range: 9.6 m



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