ALUEXBEAMS

alueX30

Operating instructions (original version)

These operating instructions must be read and understood completely before starting work. It must be always available at the place of use.

Content

1. Description of the product

The Aluexbeams spreader type Aluex30 is used as a load suspension device for attaching loads by means of 2- or 4-strand hangers where the attachment points must be distributed over a certain width. The spreader is adjustable in length and foldable. Different configurations are possible.

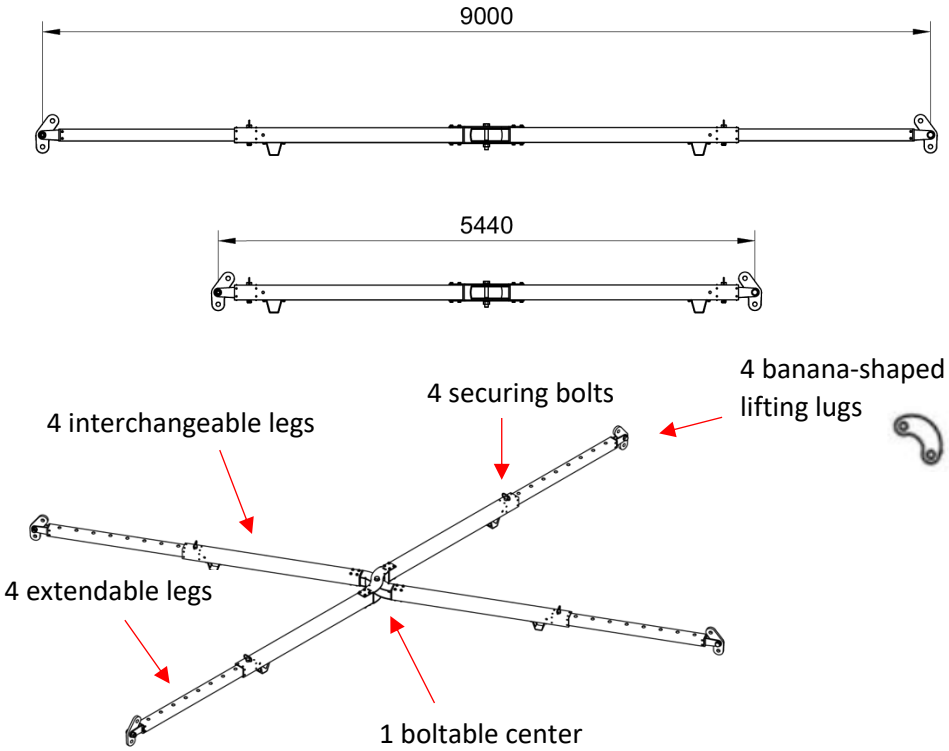
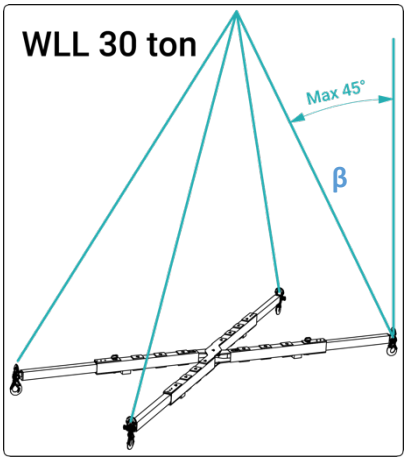


Figure 1: Top: spreader folded and extended; Middle: retracted; Bottom: unfolded and extended

Type/Article number	Length adjustable	Dead weight
Aluex 30T	5.440 – 9.000 mm	565 kg

Table 1: Specifications



- **Up to β = 45°: WLL = 30 t**
- Up to β = 60°: WLL = 17.3 t max

Figure 2: 30 t load capacity (WLL) up to a lifting angle of β ≤ 45°, lower load capacity for bigger lifting angle β, max β = 60°

The spreader complies with the requirements of Directive 2006/42/EC (Machinery Directive) and EN 13155 and therefore bears the CE mark. The corresponding EC declaration of conformity (CE declaration) is available.

2. Possible configurations

The maximum opening angle is 90°. Depending on the set leg length, various projected footprints result.

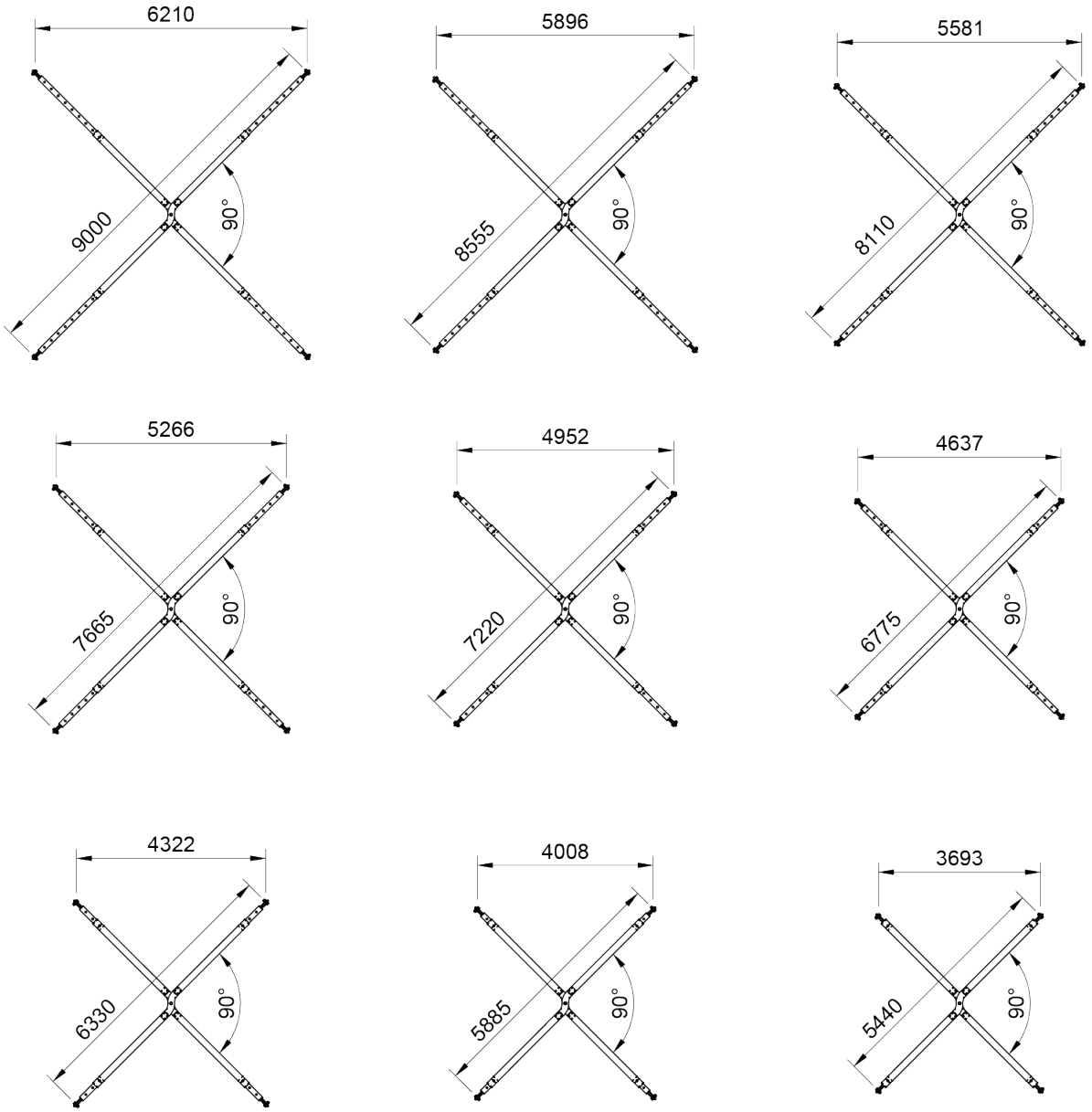


Figure 3: Projected footprint at maximum opening angle of 90 and different leg length

With smaller opening angles, other projected base areas result. The following is an example of an opening angle of 60° and maximum leg length:

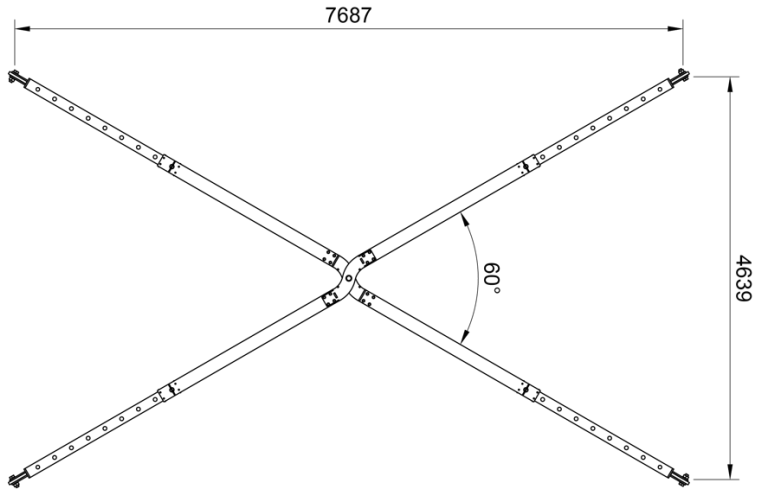


Figure 4: Projected footprint at 60° aperture angle and maximum leg length

Other configurations are possible. The spreader can also be used folded with a 2-leg rig. For this purpose, the spreader must be secured against unfolding by suitable means (for example by using the Aluex Link, a product designed by the manufacturer to secure the legs to each other, or by means of lashing straps).

3. Area of application / intended use

The spreader is designed for horizontal use and may have a maximum angle of 6° to the horizontal after lifting the load. If the angle is greater after lifting the load, the configuration must be changed. Outdoor use is permitted.

Do not use the spreader for tilting, turning, or rotating loads or for other applications not intended.

There must be no persons in the danger zone of the suspended load!

The spreader is designed for 16.000 load cycles.

The spreader may be used in the temperature range from -35°C to 50°C.

4. Properties of the load

Check the load to be lifted for cracks and damage. A cracked or damaged load must not be lifted and transported. There is a danger of falling!

5. Handling

Never put limbs under or between the load and the lifting and slinging equipment! There is a risk of crushing!

Do not let the spreader hang unnecessarily in the air!

Lifting and transporting persons or loose individual parts is prohibited!

Only place the load and load-carrying equipment on stable and level ground, otherwise there is a risk of falling, tipping or slipping! Store spreader cleaned, dry and in folded position!

Do not use in aggressive environments (acidic or similar)!

6. Mode of operation

Adjust the spreader to the desired length. Always use the bolts supplied for this purpose. The four extendable legs must always be set to the same length. An asymmetrical arrangement is not permitted. Check that the bolts are secured.

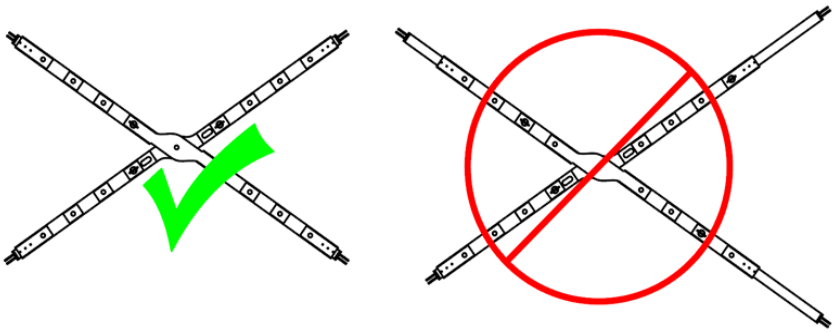


Figure 5: Legs must always be the same length, asymmetrical arrangement not permitted!

The legs of the spreader must be able to move freely. The legs align themselves automatically under load. The maximum opening angle is 90°.

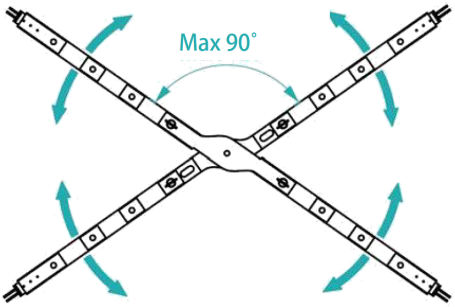


Figure 6: Maximum opening angle 90°

Adjust the spreader to the dimensions of the load to be lifted. The spreader must not be longer than the distance between the attachment points. The maximum inclination of the chains may be 6°.

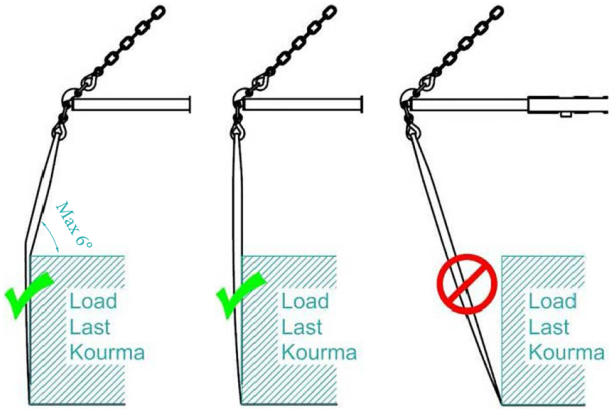


Figure 7: Length of spreader not longer than distance of attachment points, maximum permissible inclination of chains 6°

Attach the 4-strand hanger to the upper suspension points of the banana-shaped lifting eyes at the end of each leg. Without the use of the banana-shaped lifting eye, impermissible leverage effects occur which can lead to the spreader breaking and the load falling! Only attach the slings to the points provided for this purpose!

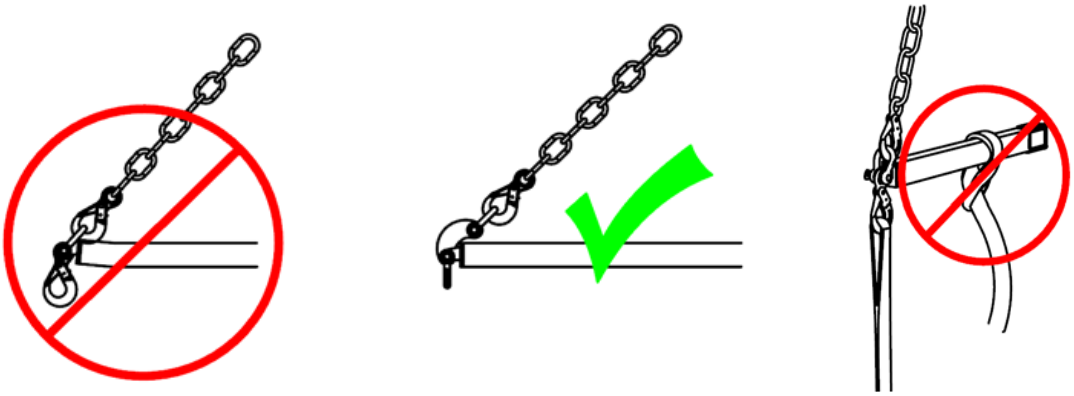


Figure 8: Only permissible when using the banana-shaped lifting and slinging eyelet

The maximum permissible lifting angle β is 45° with a maximum total load of 30 t. (Figure 2). Pay attention to the maximum permissible angle of inclination β and choose riggings with sufficient length. The length of the chains must be the same.

The spreader is only designed for centric compressive forces. Vertical forces, torsion or tensile forces are not permitted:

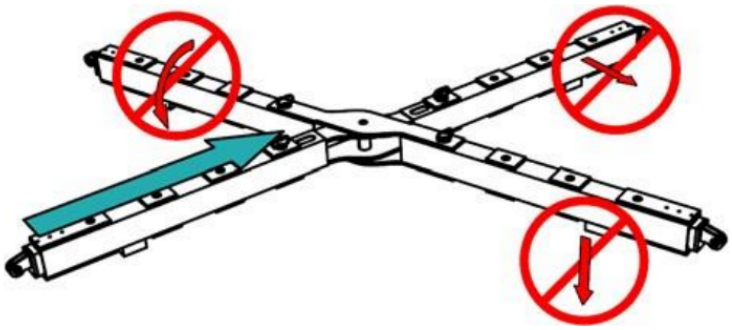


Figure 9: Only centric compressive forces allowed

Check that all moving parts are firmly attached, secured and free to move. Position the centre of the spreader above the centre of gravity of the load, otherwise there is a risk of tilting! The load can now be lifted.

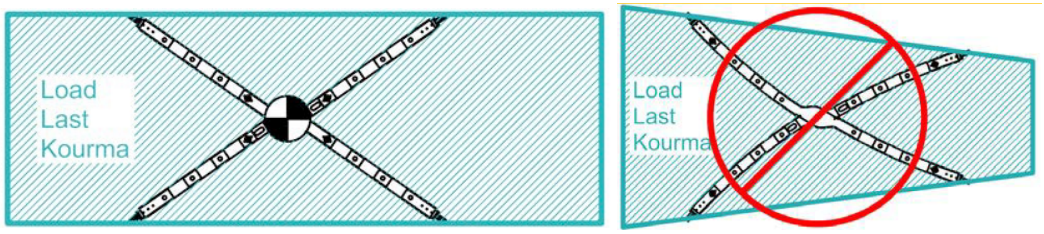


Figure 10: The centre of the spreader must be above the centre of gravity of the load, projected base must form a rectangle

After lifting the load, the spreader must hang horizontally. If the inclination of the spreader exceeds an angle of 6° to the horizontal, immediately lower the load again and reposition the attachment points or check the lengths of the extendable legs. With the spreader in a horizontal position after lifting the load, it can now be lifted safely to its destination. Lower the load to its destination and release the slings.

Lift the spreader together with the sling sufficiently high to avoid injury to persons and damage to objects. Lift at a low lifting speed, without backward shaking or jerking movements. Oscillating movements can lead to loss of control and must be avoided!

The spreader should not be used in dangerous conditions, such as high winds or the like.

7. Obligations of the operator

For the obligations of the operator when operating load handling attachments in hoisting operations, which also includes the spreader described here, reference is made to national guidelines (e.g. for Germany the DGUV guideline 100-500, chapter 2.8). The following is an excerpt of some of the obligations:

7.1 Inspection before commissioning

Before using the load handling attachment for the first time, check that it meets the order requirements and that the EC declaration of conformity is available and that all markings are present and undamaged. Also check the functionality.

The spreader consists of the following components:

① 1 x base frame

② 4 x securing bolt

③ 4 x extendable legs

④ 4 x banana-shaped lifting lugs

⑤ 4 x lifting/hoisting point

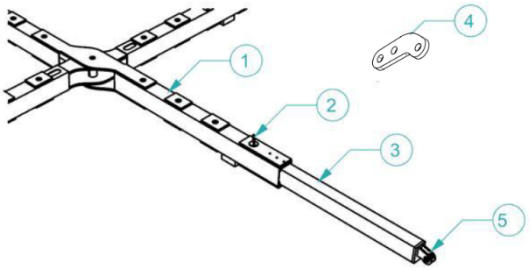


Figure 11: Components of the spreader

The figure below shows the spreader in the assembled state with the legs pulled out:

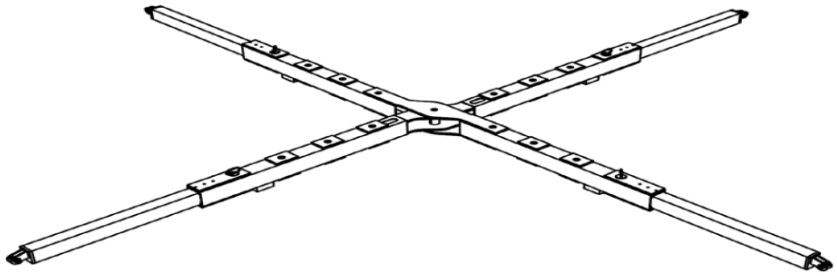


Figure 12: Spreader assembled, legs pulled out

Before each use, check the spreader in particular for the following discard criteria:

Aluex 30	**OK**	**Not OK**
Main and secondary beams are parallel, no deformations and cracks visible		
Lifting lugs show no wear, are not deformed and are crack-free		
Securing bolts are not deformed and crack-free		
Rigging shows no wear, are not deformed and are crack-free		
Screws and nuts are lubricated, cotter pins are present		
Markings according to chapter 8 are present and undamaged		
No changes to the product (e.g., foreign welds) present		
Maximum lateral clearance on the extensions less than 65 mm (see figure 12)		

Table 2: Check criteria

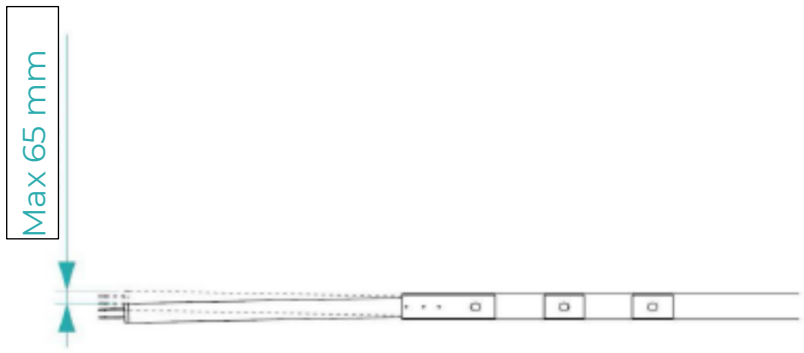


Figure 13: Maximum lateral clearance

If one of the above criteria is answered with "Not OK", the use of the spreader is no longer permitted! Please get in touch with us. We will assist you with a professional repair. Spare parts must be always original ones.

7.2 Regular inspections

Load handling devices such as spreaders must be inspected at regular intervals by a competent person. Depending on the conditions of use, inspections may be required at shorter intervals. We provide an inspection sheet. The regular inspection must be noted in the inspection log.

7.3 Extraordinary Inspection

After cases of damage or special incidents that may affect the load-bearing capacity, the spreader must be subjected to an extraordinary inspection by a competent person.

8. Markings

The following markings are attached to the spreader and must be permanently visible. If markings are removed or damaged, please contact us.

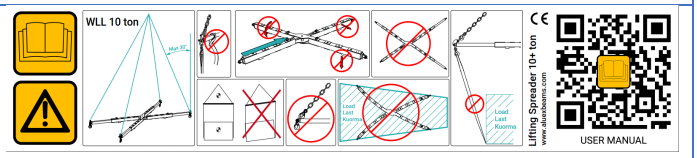
Quantity	Type	Content	Illustration
1	Sticker	Pictograms with instructions for correct use and read operating instructions	
2	Sticker	Working load limit (WLL)	**WLL 30 t**
1	Punched in spreader	Serial number	
1	Sticker sign manufacturer	Type, serial number, address, CE-Mark	

Table 3: Markings of the spreader

9. Address of the manufacturer and the supplier

Manufacturer	**Supplier**
Aluexbeams	
Ampumaradantie 1	
68600 Pietarsaari	
Finland	

Table 4: Addresses