

## Product Description

Lifting very heavy people requires special techniques and specially designed lift equipment. Liko's lift system for lifting over 300 kg / 661 lbs. is called UltraTwin. The UltraTwin principle is based on the use of two LikoRall lift units working in tandem to lift and position the patient. For lifting, both units are used, while for positioning in an upright, semi-seated or prone position, only one lift unit is used.

FreeSpan UltraTwin is height-adjustable to four positions, and 8 different rail lengths are available, allowing a total width of 2 to 5.5 metres.

To facilitate installation of lift units and/or move the FreeSpan UltraTwin to another location, the lift system can be lowered to the transport position (1700 mm / 67 inch.).

FreeSpan UltraTwin has lockable twin castor wheels, is made of aluminium and is despite its low weight a very stable lift system.

FreeSpan UltraTwin complies with EN ISO 10535 according to the Medical Device Directive MDD 93/42/EEC.

*In this document, the person being transferred is referred to as the patient and the person helping them is referred to as the caregiver.*

**△ Caution triangles are used to warn of situations that demand extra care and attention.**

### **IMPORTANT!**

Read the instructions for both the patient lift and the lifting accessories before use. Lifting and transferring a patient always involves a degree of risk. A complete understanding of the contents of instructions is essential, and only trained personnel should use the equipment. When in doubt, contact Liko.

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## △ NOTE!

This instruction guide contains important information about the use of the product.

All personnel who use this product must be thoroughly familiar with the contents of this instruction guide.

Remember to keep the instructions where they are easily accessible for users of the product.

## Safety Instructions

### △ Before using the product, make certain that:

- The lift unit and lift system are assembled according to the instructions.
- The lift system is assembled at working height (2270-2570 mm / 89.4-101.2 Inch.).
- Lifting equipment is properly connected to the lift units.
- You have read and understood the instruction guides for FreeSpan UltraTwin, the lift units and lifting accessories.
- Personnel using the lift system, lift units and lifting accessories have received appropriate instructions and training.
- You have checked to ensure that lifting accessories are not damaged.
- The correct lifting accessory has been chosen, with respect to type, size, material and version in relation to the needs of the patient.
- The lifting accessory is correctly and securely applied to the patient, so that there is no risk of personal injury.

### △ Never leave a patient unattended during a lifting situation!

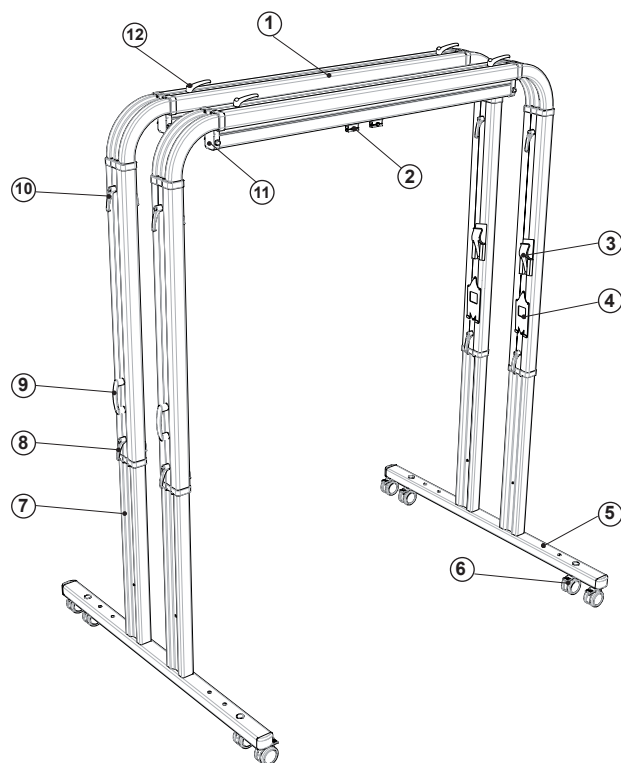


FreeSpan UltraTwin has been tested by an accredited testing institute and complies with the requirements for MDD Class 1 products (MDD 93/42/EEC). FreeSpan UltraTwin complies with EN ISO 10535.

**Max. load: 400 kg (882 lbs.), 460 kg (1014 lbs.) or 500 kg (1102 lbs.), depending on rail length and the model of lift unit to be used (see page 4).**

FreeSpan UltraTwin is a composite product system consisting of a lift system, lift units and lifting accessories. For current product information, please refer to our website, [www.liko.com](http://www.liko.com). Instruction guides are also available for downloading, free of charge, on our website. When in doubt, contact Liko.

## Definitions



1. Rail with corners
2. Carriage (two-piece)
3. Parking position
4. Charger mount
5. Holes for alternative placement of uprights
6. Twin castor wheels with brakes
7. Uprights, telescopic
8. Lower locking handle
9. Handle
10. Upper locking handle
11. End stop
12. Locking handle for adjustment of corner

**△ NOTE! Locking handles for adjustment of corners must never be removed!**

## Product Specification

For a complete FreeSpan UltraTwin the following is required:

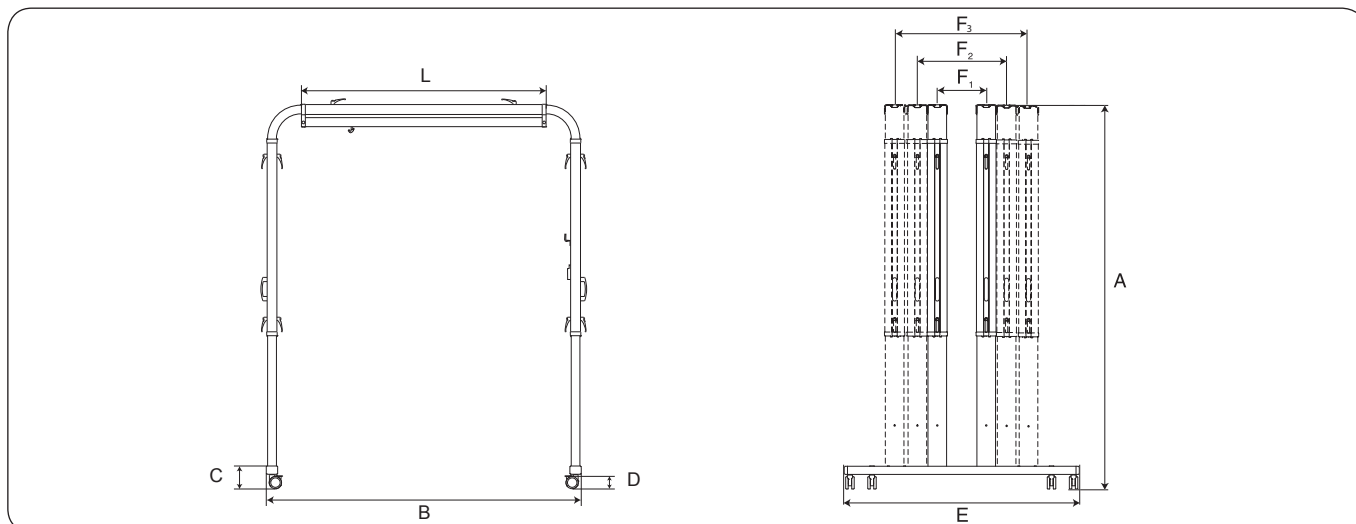
- FreeSpan Rail x 2 (Prod. No. 3103115-3103150)
- UltraTwin upright (Prod. No. 3103520-3103521)
- Lift unit Likorall x 2
- Handcontrol x 2, alternatively Ultra Control Unit (Prod. No. 3126040) or UltraTwist (Prod. No. 3126045 / 3126047)
- Slingbar x 2, alternatively Ultra Slingbar (Prod. No. 3103603) or UltraStretch (Prod. No. 3156058)
- Charger x 2 (only 1 when using Ultra Control Unit, Prod. No. 3126040 or UltraTwist, Prod. No. 3126045 / 3126047)
- Sling, lifting sheet or lift straps

## Lift Unit

Recommended lift units for use on the FreeSpan UltraTwin systems are Likorall 242 S R2R, Likorall 242 ES R2R, Likorall 243 ES or Likorall 250 ES. When Likorall 243 ES or Likorall 250 ES are used the lift straps must be equipped with Q-link to enable use of the Quick-release Hook system on the intended lifting accessories.

Mounting of Likorall lift units on FreeSpan UltraTwin is described on page 5 of this instruction guide.

## Technical Data/Measurements



Max. load and weight in **kg**. Dimensions in **mm**.

Rail length (L)	Max. load <sup>1</sup>	A*	A <sub>min</sub> **	B	C	D	E	F <sub>1</sub> ***	F <sub>2</sub> ***	F <sub>3</sub> ***	Weight total	Weight part****
1500	500	2270-2570	1700	1990	135	75	1440	300	500	800	78.4	23.5 (upright)
2000	500	2270-2570	1700	2490	135	75	1440	300	500	800	84.0	23.5 (upright)
2500	500	2270-2570	1700	2990	135	75	1440	300	500	800	89.6	23.5 (upright)
3000	500	2270-2570	1700	3490	135	75	1440	300	500	800	95.4	24.2 (rail)
3500	500	2270-2570	1700	3990	135	75	1440	300	500	800	101.0	27.0 (rail)
4000	460	2270-2570	1700	4490	135	75	1440	300	500	800	106.6	29.8 (rail)
4500	400	2270-2570	1700	4990	135	75	1440	300	500	800	112.2	32.6 (rail)
5000	400	2270-2570	1700	5490	135	75	1440	300	500	800	118.0	35.5 (rail)

Max. load and weight in **lbs**. Dimensions in **inch**.

Rail length (L)	Max. load <sup>1</sup>	A*	A <sub>min</sub> **	B	C	D	E	F <sub>1</sub> ***	F <sub>2</sub> ***	F <sub>3</sub> ***	Weight total	Weight part****
59.1	1102	89.4-101.2	66.9	78.3	5.3	3	56.7	11.8	19.7	31.5	173	52 (upright)
78.7	1102	89.4-101.2	66.9	98	5.3	3	56.7	11.8	19.7	31.5	185	52 (upright)
98.4	1102	89.4-101.2	66.9	117.7	5.3	3	56.7	11.8	19.7	31.5	198	52 (upright)
118.1	1102	89.4-101.2	66.9	137.4	5.3	3	56.7	11.8	19.7	31.5	210	53 (rail)
137.8	1102	89.4-101.2	66.9	157.1	5.3	3	56.7	11.8	19.7	31.5	223	60 (rail)
157.5	1014	89.4-101.2	66.9	176.8	5.3	3	56.7	11.8	19.7	31.5	235	66 (rail)
177.2	882	89.4-101.2	66.9	196.5	5.3	3	56.7	11.8	19.7	31.5	247	72 (rail)
196.9	882	89.4-101.2	66.9	216.1	5.3	3	56.7	11.8	19.7	31.5	260	78 (rail)

<sup>1</sup> Note that the length of the rail determines the max. load for the FreeSpan UltraTwin system!

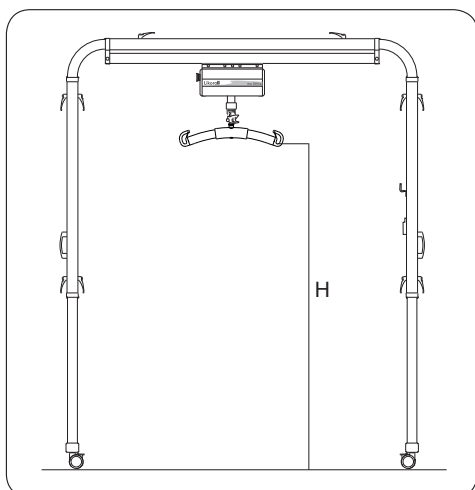
\* The height of the FreeSpan UltraTwin system can be adjusted at intervals of 100 mm (3,9 inch.).

\*\* Note that the lowest working height of FreeSpan UltraTwin is 2270 mm (89,4 inch.). The 1700 mm (67 inch.) height position is only intended for transport.

\*\*\* There are three different alternatives for the uprights: 300 cc, 500 cc or 800 cc, see page 7.

\*\*\*\* Weight of the single heaviest component on the FreeSpan UltraTwin system when disassembled.

## Lifting Height with Lift Units



The highest lifting height (H) varies depending on the choice of lift unit model and on the working height at which the system is assembled.

### Example:

Likorall 242 S/ES R2R with the system assembled at the lowest working height (2270 mm / 89.4 inch.): H = 1753 mm / 69 inch.

Likorall 242 S/ES R2R with the system assembled at the highest working height (2570 mm / 101.2 inch.): H = 2053 mm / 80.8 inch.

All lift units with Universal Slingbar 450.

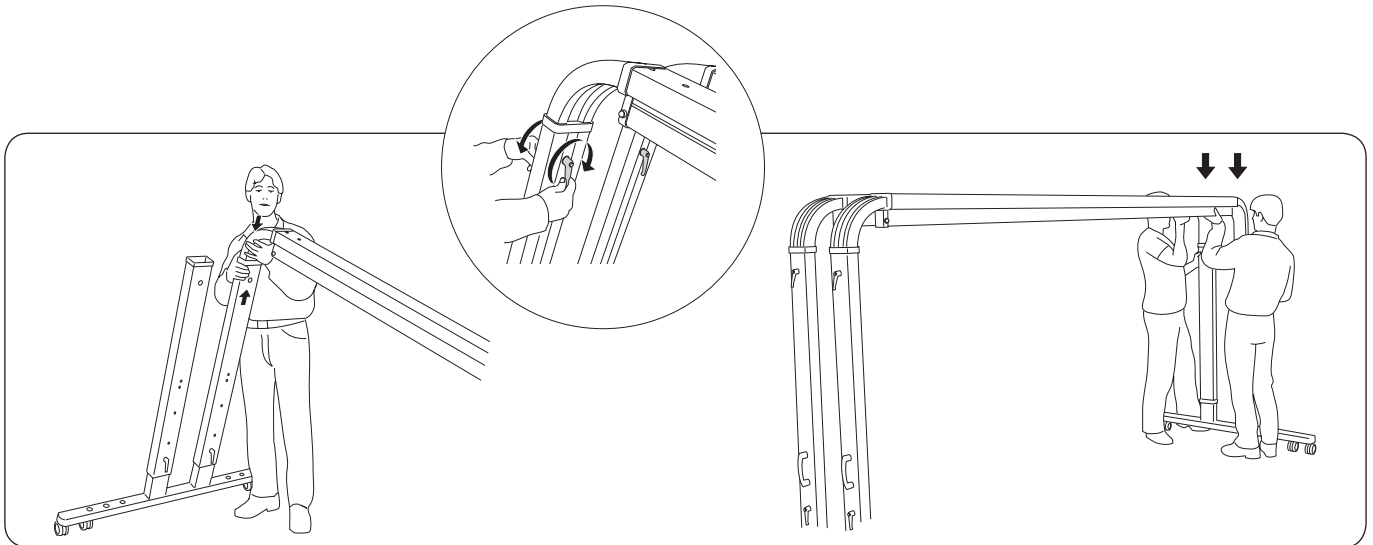
Contact Liko for more information.

# Assembly

**Before assembly, make sure you have the following components:**

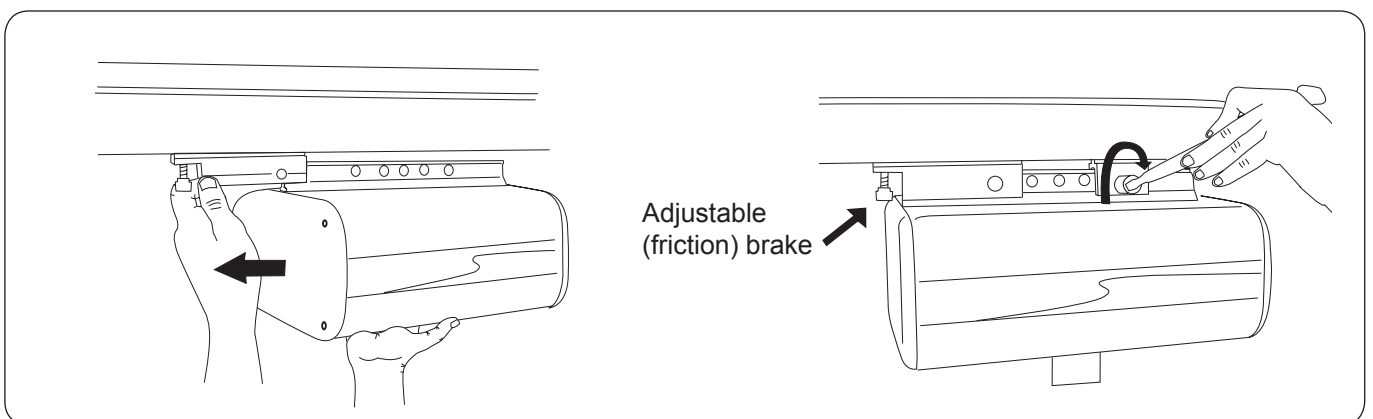
- Uprights (2 pcs.) with castor wheels, handles, locking handles, parking position and charger mounts
- 4 screws (K6S M4x10)
- Rails with corners (2 pcs.), end stops, carriages and locking handles.

Before assembly, ensure that the uprights are locked in the lowest position (1700 mm / 67 inch.) and that the upper locking handles have been removed from each upright. Lock the castor wheels on the uprights.



1. Place both rails in one pair of uprights. Secure the rails in place in the uprights with the locking handles. Ensure that the handles are pointing downward, parallel to the upright.
2. Repeat the procedure on the other side. Both rails must be lifted into place simultaneously.
3. Install the desired lift units on the rail system, see below. When purchasing rails, select the rail with carriage that is intended for use with Likorall lift units.

**△ Before use, study the instruction guide for the respective lift unit!**

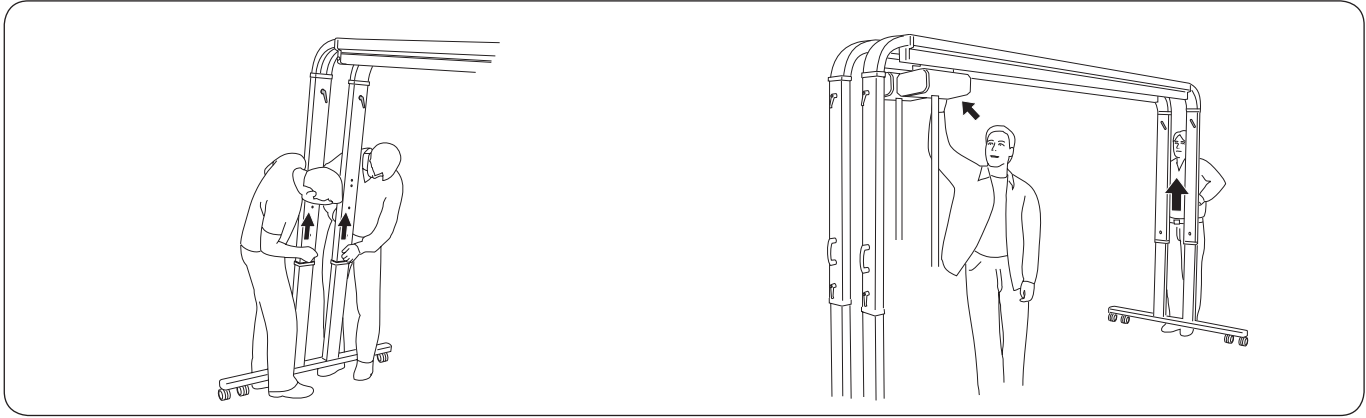


Loosen and remove the nuts and bolts from the carriages. Insert the lift unit into the longer carriage, with the end plate with the Emergency Stop button facing away from the carriage.

Use the nut and bolt provided to secure the carriage to the lift unit via the outermost hole in the mounting rail on the top of the lift unit.

Guide the shorter carriage onto the lift unit's mounting rail from the other direction. Use the nut and bolt provided to secure the carriage to the lift unit via the outermost hole in the mounting rail on the top of the lift unit.

Repeat the procedure with the other lift unit.



4. Now the FreeSpan UltraTwin can be raised to the correct height. There are four alternative positions.

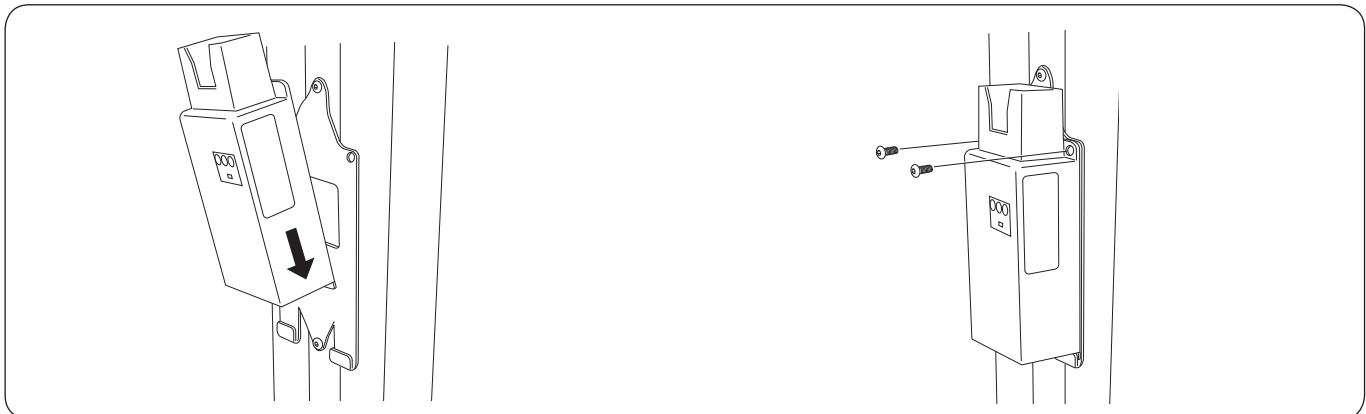
**△ Check to ensure that the lift units roll freely on the rails; thereafter, guide the lift units towards the side that is not to be raised.**

Hold the handles and remove the lower locking handles. Lift the handles; both rails must be lifted into place simultaneously. Mount the locking handles in the desired position; max. total height is 2570 mm / 101.2. inch. Tighten the locking handles.

Repeat the procedure on the other side.

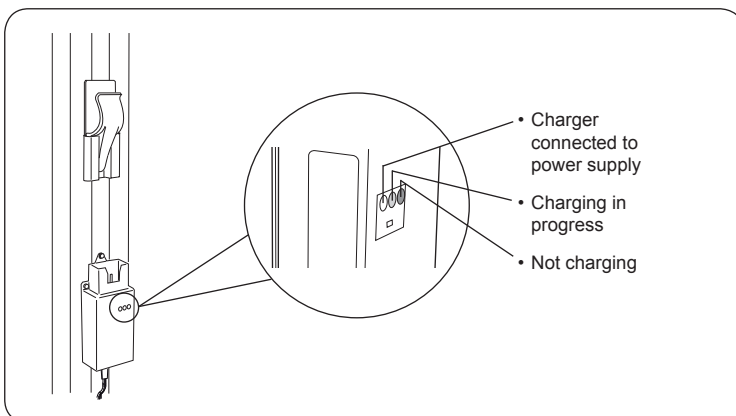
### Mounting the charger

The battery charger for Likorall can be installed on the charger mount on the upright.



Hook the charger's lower edge to the pre-installed charger mount as illustrated.

Affix the charger to the charger mount with the two accompanying screws (K6S M4x10).



Connect the charger cable to the power source (100-240 VAC~).  
Now the charger is ready for use.

Repeat the procedure with the other charger.

Note that when using the Ultra Control Unit or UltraTwist, only one charger is required.

# Operation

## Choosing Width

To adapt the lift system according to lifting needs, the uprights can be assembled in different widths. There are three different assembly alternatives, where each width has unique features. For recommended lifting accessories for the various width adjustments, see page 9.

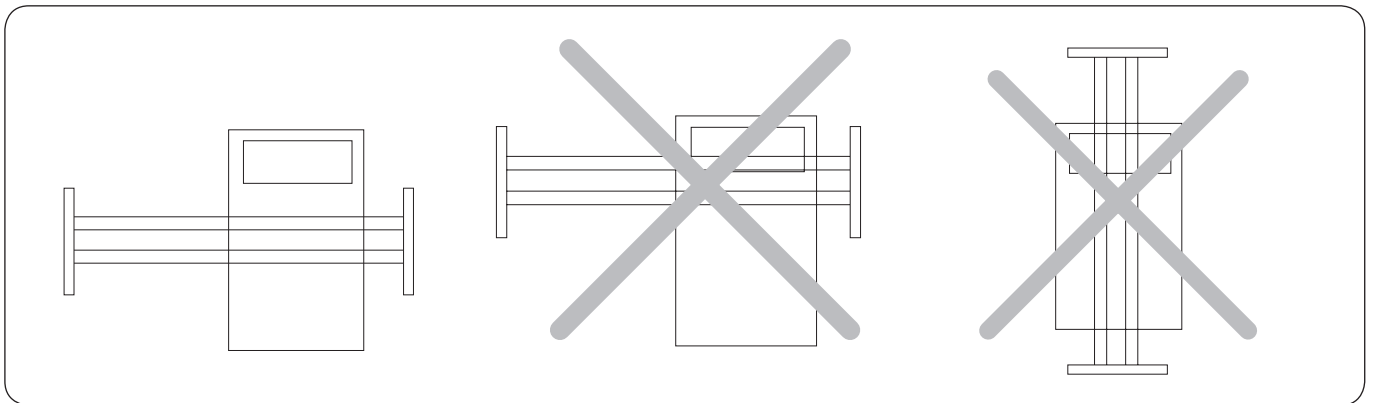
**300 cc** - is a standard measurement that is suitable for lifting the patient in the seated position.

**500 cc** - is a special measurement for the uprights and mounting is done according to separate installation instructions. This width setting is essential for use of UltraTwist on the system. UltraTwist allows full rotation of the lift units; the patient can be rotated during lifting, and lifting in both the seated and horizontal positions is possible. For lifting patients from a horizontal position in a stretcher, UltraTwist Wide is required. For more information, contact Liko.

**800 cc** - is a standard measurement that is suitable, above all, for lifting with a stretcher but it can also be used for lifting patients in a seated position.

## Placement of FreeSpan UltraTwin

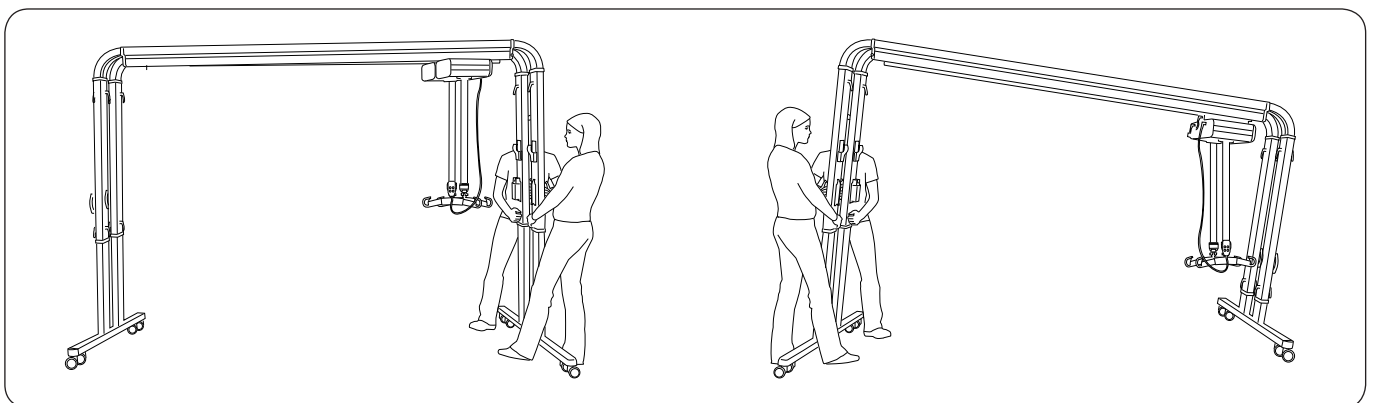
During use, FreeSpan UltraTwin should be positioned so that the rails are always centred as directly as possible above the patient's centre of gravity. Lifting in a skewed direction has a negative effect on stability. When lifting from bed, this means that the rails should be centred directly over the bed, about 1 m from the head board end. This applies both when lifting from the bed to the bedside or to another location e.g., a wheelchair.



## Moving FreeSpan UltraTwin

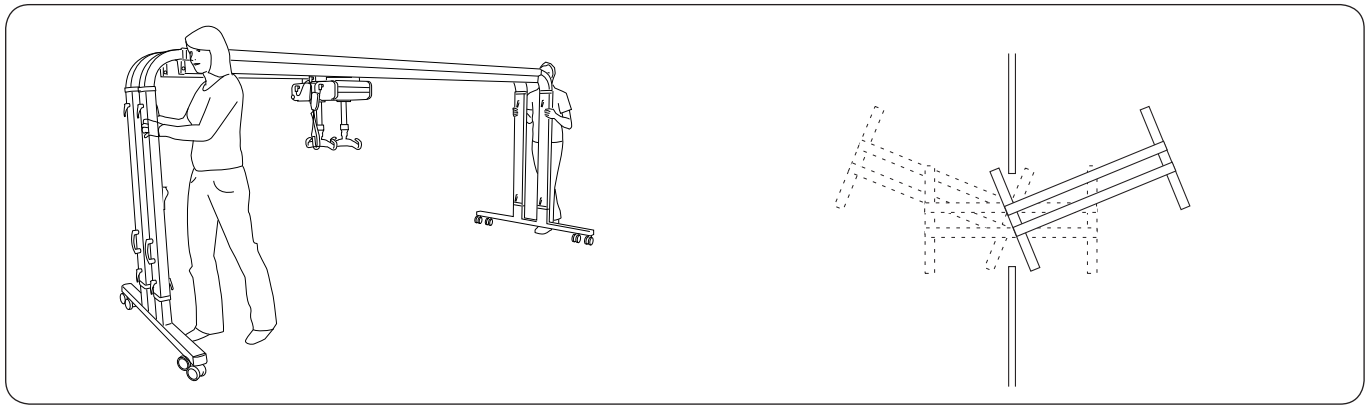
**⚠ FreeSpan UltraTwin is not intended to be moved during a lifting situation.**

FreeSpan UltraTwin can be moved when fully assembled. When moving FreeSpan UltraTwin out of a room with a low doorway, FreeSpan UltraTwin must be lowered to the transport position (1700 mm / 67 inch.). We recommend that two people assist when moving the lift system.



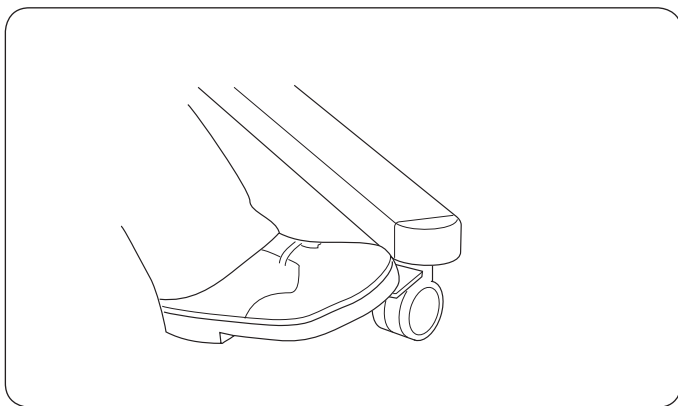
When lowering the uprights, move the lift units towards the side that is to be lowered. Grasp the handles firmly. Remove the lower locking handles and lower the uprights.

Then lower the uprights on the opposite side. Grasp the handles firmly. Remove the lower locking handles and lower the uprights.



FreeSpan UltraTwin is now lowered to the transport position and can be moved.

**Helpful hint:** When moving the lift system between two rooms where the doorway is narrower than 1440 mm / 56.7 inch., FreeSpan can be moved zigzag, as in the illustration.



### Locking the castor wheels

To lock, press down on the wheel's front lever. To release, lift the lever.

## Maximum Load

The length of the rail determines the max. load for the FreeSpan UltraTwin system. To maintain the max. load rating indicated on the rail, the lift units and accessories used must be approved for the same max. load or greater. The lift units' max. load ratings vary according to model. See the instruction guides for the respective models. If a lifting accessory or lift unit with a max. load rating lower than that indicated on the rail is used, the max. load rating of the entire lift system is reduced to that of the accessory or lift unit. Read the label on the lift unit and lifting accessory, or contact a Liko representative.



# Recommended Lifting Accessories

Below, we present recommended slingbars and accessories for use with UltraTwin systems.  
For choice of appropriate slings and other accessories, consult our brochure *"Lifting Accessories"*.  
Carefully study the instruction guides for the accessories used.  
Contact your Liko representative or visit [www.liko.com](http://www.liko.com) for advice and information on new products in Liko's range.

## Accessories 300 cc

**Universal Slingbar 450 with Quick-release Hook**  
Max. 300 kg

Prod. No. 3156085



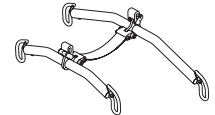
**Universal Slingbar 600 with Quick-release Hook**  
Max. 300 kg

Prod. No. 3156086



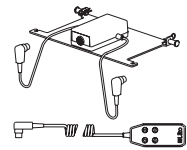
**Ultra Slingbar**  
Max. 460 kg

Prod. No. 3103603



**Ultra control unit**  
Incl. handcontrol  
Used for simplified manoeuvring with one handcontrol.

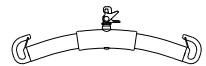
Prod. No. 3126040



## Accessories 500 cc

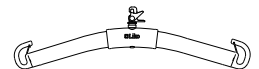
**Universal Slingbar 450 with Quick-release Hook**  
Max. 300 kg

Prod. No. 3156085



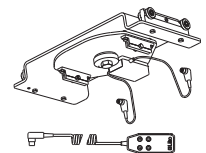
**Universal Slingbar 600 with Quick-release Hook**  
Max. 300 kg

Prod. No. 3156086



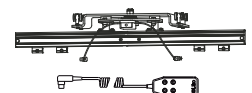
**UltraTwist Slim**  
Incl. handcontrol  
Max. 500 kg

Prod. No. 3126045



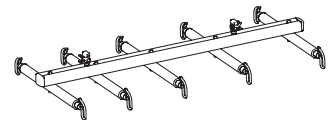
**UltraTwist Wide**  
Incl. handcontrol  
Max. 500 kg

Prod. No. 3126047



**UltraStretch**  
Max. 400 kg

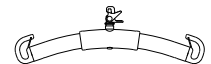
Prod. No. 3156058



## Accessories 800 cc

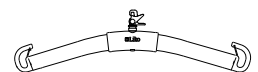
**Universal Slingbar 450 with Quick-release Hook**  
Max. 300 kg

Prod. No. 3156085



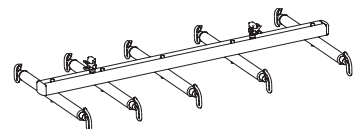
**Universal Slingbar 600 with Quick-release Hook**  
Max. 300 kg

Prod. No. 3156086



**UltraStretch**  
Max. 400 kg

Prod. No. 3156058



# Inspection and Maintenance

To ensure trouble-free operation, certain details should be inspected each day the lift system is used.

- Check the lift system for any signs of external damage.
- Check carriage function.
- Ensure that all locking handles are properly tightened.

When necessary, clean the lift system using a damp cloth and ensure that the wheels are clean and free of dirt and hair. **NOTE! Do not use cleaning agents that contain phenol or chlorine, since these can damage aluminium and polyamide material.**

## Inspection

FreeSpan UltraTwin should be thoroughly inspected for wear at least once per year. Inspection must be performed according to the Liko service manual and by authorized personnel.

## △IMPORTANT!

Repairs and maintenance may only be carried out by authorized Liko service personnel using original Liko spare parts.

## Storage

The lift system must be stored at a temperature above the freezing point and at normal relative humidity (not exceeding 60 %).

## Service agreements

Liko invites you to sign a service agreement for regular maintenance and testing of your lift system. Liko's products undergo continuous development, which is why we reserve the right to make product changes without prior notice. Contact your Liko representative for advice and information about product upgrades.

## Recycling

For instructions on how the lift system should be recycled, please visit our website: [www.liko.com](http://www.liko.com).

## Made in Sweden

*Liko is quality certified according to ISO 9001 and its equivalence for the medical device industry, ISO 13485. Liko is also certified according to environmental standard ISO 14001.*



A **HillRom** Company

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