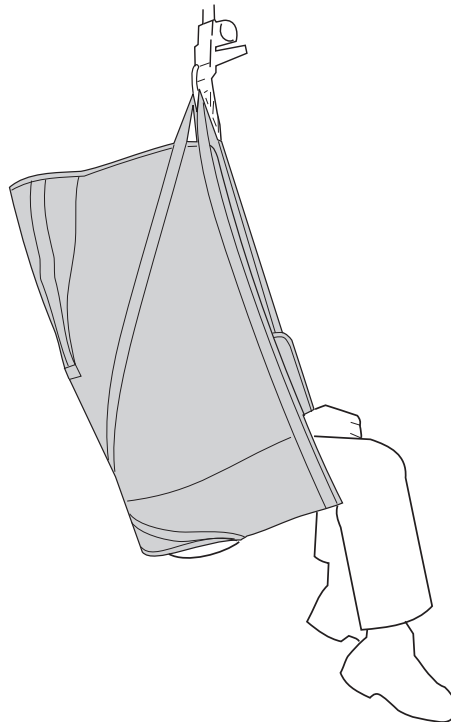


# Solo HighBack Sling Mod. 25



## Instructions for Use



### Product Description

#### Intended Use

Solo HighBack Slings are intended for most common transfers, for instance, transfers between bed and wheel chair, to and from toilet and bath-tub, or for lifting from and to the floor.

The Solo HighBack Sling is intended for use in following environments: Health care, Intensive care, Emergency ward, Rehabilitation, Habilitation and Home healthcare environment.

Solo HighBack Sling holds the patient comfortably and securely. With its innovative "wrap-around" design, Solo HighBack Sling is very easy to put on and remove. Solo HighBack Sling is designed for adaptation to patients without the need for individual adjustments. A properly fitted and carefully applied Solo HighBack Sling ensures a high degree of comfort and a good feeling of security for the patient.

#### Sizes

Solo HighBack Sling provides support for the entire body, and gives a slightly reclined sitting posture, which is appropriate for patients with poor torso stability. For larger sizes of the sling, a combination with a twin bar 670 can be the perfect choice.

Solo HighBack Sling is recommended for lifting to and from the bed, wheelchair or toilet.

It is important to choose the right size to ensure optimal comfort and safety. A patient may be at risk of sliding out of a sling which is too large, while a sling that is too small may be tight in the crotch and cause discomfort.

#### Suitable lifts

The Solo HighBack Sling can be used with all **Liko** overhead and mobile lifts. You can choose between **LikoGuard** overhead lift, **Likorall** overhead lift, and **Multirall** overhead lift or **Golvo** mobile lift, **Viking** mobile lift, **Uno** mobile lift, and **Liko M220/ M230** mobile lift.

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

#### IMPORTANT!

Lifting and transferring a patient always involves a certain level of risk. Read the instructions for use for both the patient lift and lifting accessories before use. It is important to completely understand the contents of the instructions for use. The equipment should only be used by a trained caregiver. To be trained, a caregiver needs to read and understand the Instructions of Use. Ensure that the lifting accessories are suitable for the lift used. Exercise care and caution during use. As a caregiver, you are always responsible for the patient's safety. You must be aware of the patient's ability to make it through the lifting situation. If something is unclear, contact the manufacturer or supplier.

# Safety Information

## **⚠ Before lifting, keep the following points in mind:**

- A responsible person within your organization should decide on a case-by-case basis whether one or more caregivers are needed.
- Ensure that the sling selected meets the patient's needs with reference to model, size, fabric and design.
- The total maximum load for a lift system is always determined by the product in the system with the lowest specified maximum load.
- To protect patient safety and hygiene, do not use the sling for multiple patients.
- Plan the lifting operation so that it can be done as safely and smoothly as possible.
- Check that the lifting accessory hangs vertically and can move freely.
- Although the Liko sling bars are equipped with latches, special caution must be exercised. Before the patient is lifted from the underlying surface, but when the straps are fully extended, make sure the straps are correctly connected to the sling bar hooks.
- Make sure the patient is sitting securely in the sling before transferring to another location.
- Never lift a patient higher off the underlying surface than is needed to complete the lifting and transfer procedure.
- Make sure that the wheels on the wheelchair, bed, gurney, etc., are locked during the lifting/transfer operation.
- Ensure that no pointed or sharp objects come in contact with the product.
- Avoid pulling or tugging the sling when positioning the patient in a wheelchair or bed.
- Always work ergonomically. Use the patient's ability to actively participate in the operations.
- It is recommended to remove the sling after the transfer.

## **⚠ Never leave a patient unattended during a lifting situation!**

## **⚠ Never leave children unattended in the vicinity of the sling!**

## **⚠ Do not store the sling where it will be exposed to direct sunlight, or to heat sources, such as a radiator, fireplace, or stove/oven!**

## **⚠ Do not operate, store, or transport sling in the vicinity of pets, pests, or unattended children!**

## **⚠ Incorrect attachment of sling to slingbar may cause severe injury to the patient.**

## **⚠ Manually turning the patient in bed may cause injuries to the caregiver.**

## **⚠ Make sure that the patient and caregiver stay clear of pinch points and moving parts during a lifting event. Injury could occur.**

## **⚠ Evaluate patients for entrapment risk and monitor patients appropriately. Make sure that the patient's head and limbs are not in or between sling loops during lifting event. Failure to do either of these could cause serious injury or death.**

## **⚠ Pinching or minor injuries can be caused by usage of a worn sling, if a sling is placed uneven on the patient or if the sling is not removed carefully.**

 Medical Device Class I Product

**PATENT [www.hillrom.com/patents](http://www.hillrom.com/patents)**

**May be covered by one or more patents. See above Internet address.**

The Hillrom companies are the proprietors of European, US, and other patents and pending patent applications.

### **Product changes**

Liko products undergo continuous development, which is why we reserve the right to make product changes without prior notice. Contact your Hillrom representative for advice and information about product upgrades.

### **Design and Quality by Liko 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.

### **Notice to Users and/or Patients in EU**

Any serious incident that has occurred in relation to the device, should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

## Symbol Description

These symbols may be found in this document and/or on the product.

Symbol	Description	Symbol	Description
	Warning; this situation requires extra care and attention. This symbol is a yellow triangle with a black border, and a black exclamation mark at the center.		
	Recyclable		
	Read instructions for use before use. This symbol is a blue circle with a white image of a person reading a book.		
	Read instructions for use before use		<b>Caution!</b> consult instructions for use.
	CE-mark. European Union medical device conformity mark, Class I Medical Device.		
	Swiss authorized representative		
	Legal manufacturer		Date of manufacture
	Product Identifier		Medical device
	Serial Number		Unique device identification
	Do not dry clean		Line drying in shade
	Do not iron		Do not bleach
	Tumble drying		Do not wash
	Do not tumble dry		
	Washing Symbol is always in combination with recommended temperature in °C and °F.		
	Latex Free		
	Periodic inspection		
	Do not use product. (Only on Solo products, and only visible after wash when use is prohibited)		Patient name
	Single patient use (only on Solo products)		
	Direction upwards and symbol on outside of equipment.		Symbol on outside of equipment.
	GS1 Data Matrix Barcode that may contain following information. (01) Global Trade Item Number (11) Production Date (21) Serial Number		

## Care and Inspection

Check the sling before each use. Check the following points with regard to wear and damage:

- Fabric
- Straps
- Seams
- Suspension loops

**⚠ Do not use damaged lifting accessories.**

If anything is unclear, please contact the manufacturer or supplier.



DO NOT WASH. The caution label on the back of the sling displays the DO NOT WASH –symbol.



DO NOT TUMBLE DRY. The product label on the back of the sling displays the DO NOT TUMBLE DRY –symbol.



If the sling is washed the caution label disintegrates to display the DO NOT USE –symbol. The sling must then be disposed of.

### Material:

Size MS, M and L are made of 48% Polypropylene, 48% Polyester, 4% Polythene.

Size XL is made of 98% Polyester, 2% Polythene.

### Expected Life Time

**⚠ Solo HighBack Sling is a disposable item intended for individual use only. When the correct size has been determined for a particular patient write the patient's name on the product label on the back section of the sling.**

The Solo HighBack Sling should no longer be used:

- if it is soiled or if it is suspected of being contaminated
- if it is damaged
- when the patient no longer requires it.

Dispose of the sling in accordance with hospital or care facility legislation.

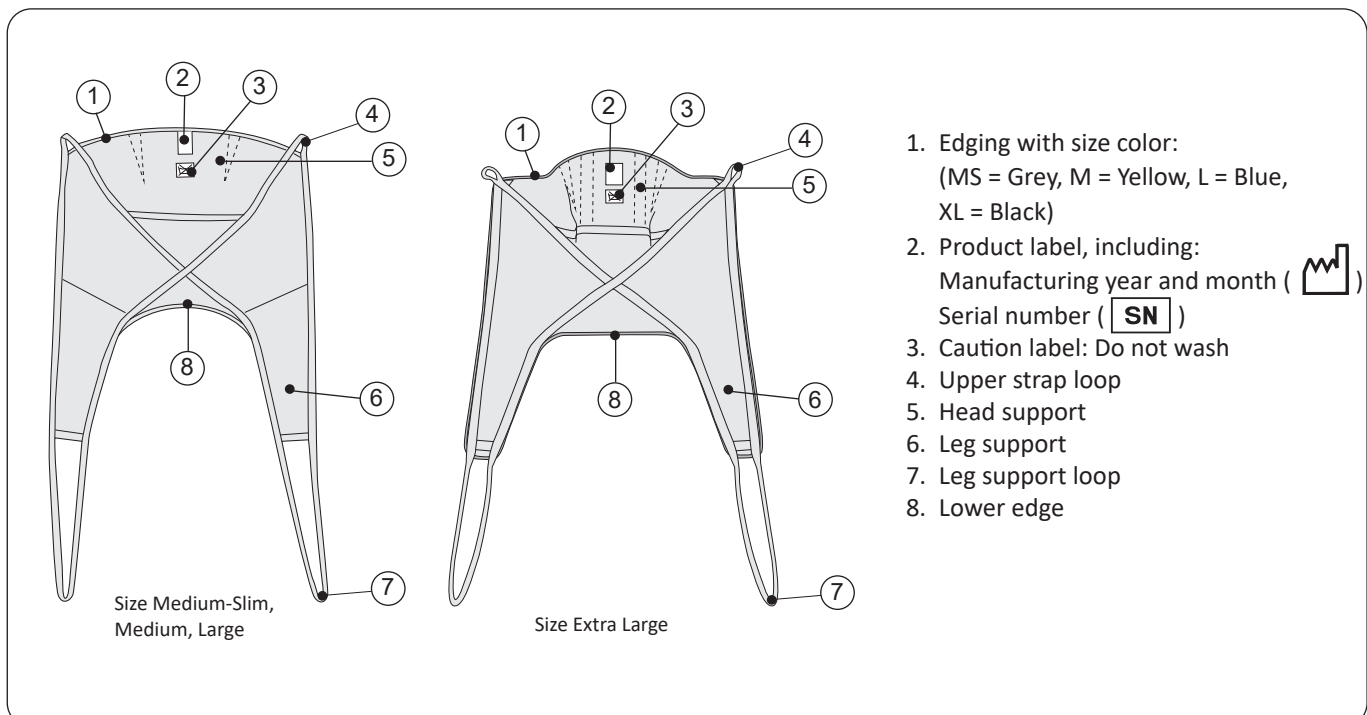
### Recycling Instructions

The entire product, including laths, padding material, etc. should be sorted as Combustible waste

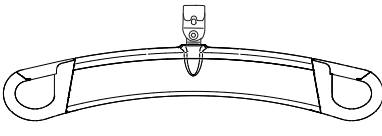
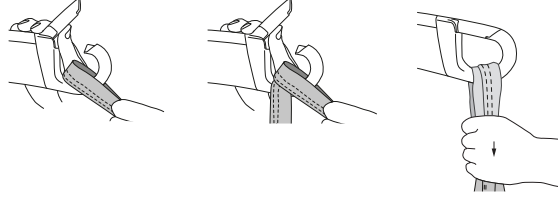
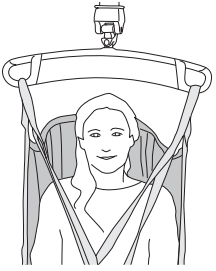
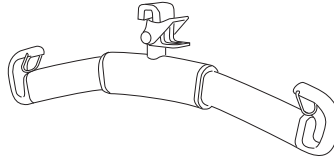
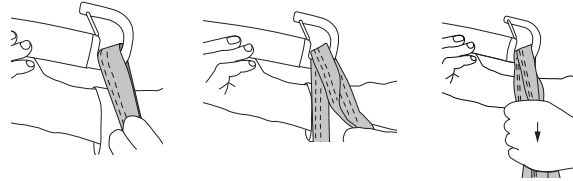
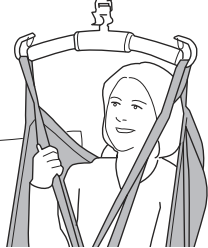
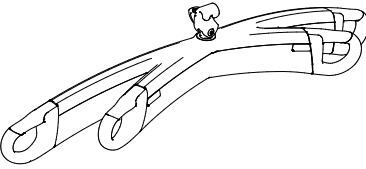
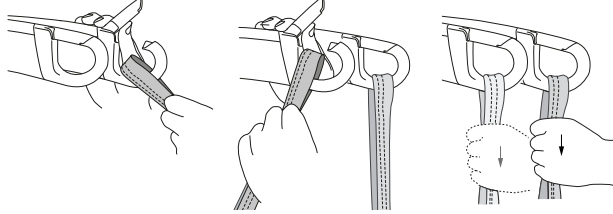
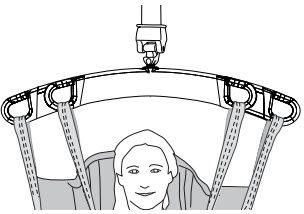
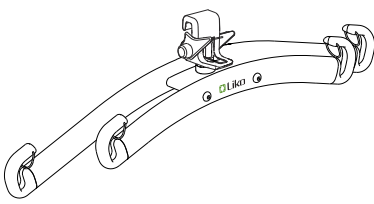
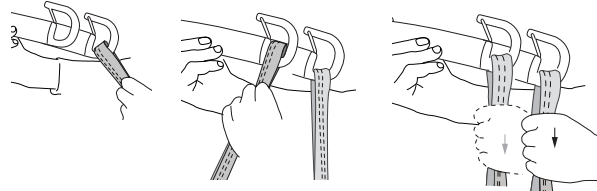
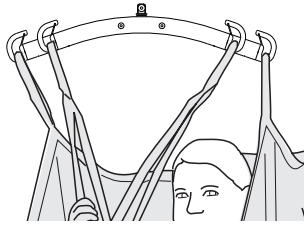
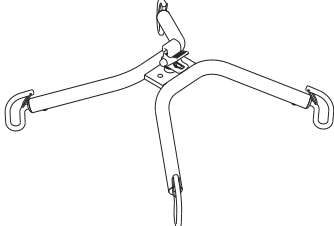
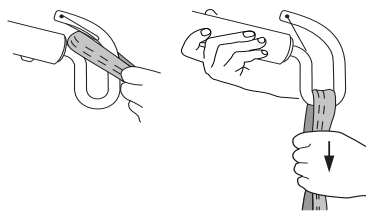
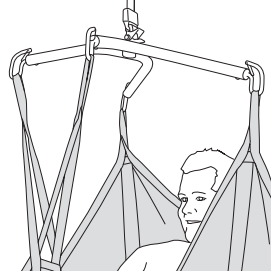
Hillrom evaluates and provides guidance to its users on the safe handling and disposal of its devices to aid in the prevention of injury, including, but not limited to: cuts, punctures of the skin, abrasions, and any required cleaning and disinfection of the medical device after use and prior to its disposal. Customers should adhere to all federal, state, regional, and/or local laws and regulations as it pertains to the safe disposal of medical devices and accessories.

If in doubt, the user of the device shall first contact Hillrom Technical Support for guidance on safe disposal protocols.

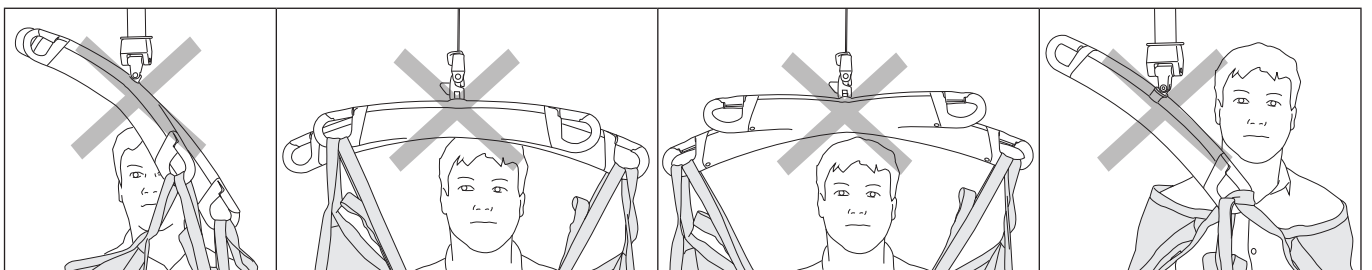
## Definitions



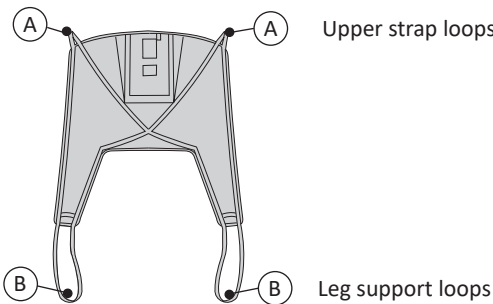
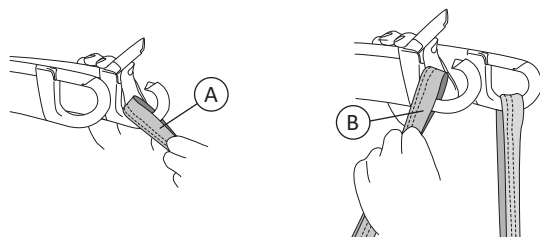
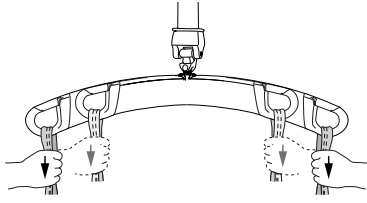
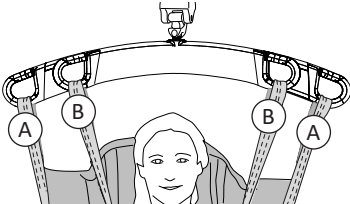
# How to Attach a Sling to Different Sling Bars

Sling bar	Sling loops to sling bar hooks	Correct
 <p data-bbox="279 492 422 526">SlingGuard</p>		
 <p data-bbox="287 784 414 817">Universal</p>		
 <p data-bbox="247 1064 454 1097">SlingGuard Twin</p>		
 <p data-bbox="255 1366 438 1400">Universal Twin</p>		
 <p data-bbox="287 1668 406 1702">Cross-bar</p>		

## Wrong!



# How to Attach a Solo HighBack Sling to a Sling Bar with 4 Hooks (Twin Bars and Cross Bars)

 <p>Upper strap loops (A)</p> <p>Leg support loops (B)</p>	<p>1.</p> 
<p>2.</p> 	<p>3.</p>  <p>The illustrations 1, 2, and 3 shows a twin bar but this also applies to a Cross-bar and slingbars with sidebars.</p>

## How to Select Sling Size

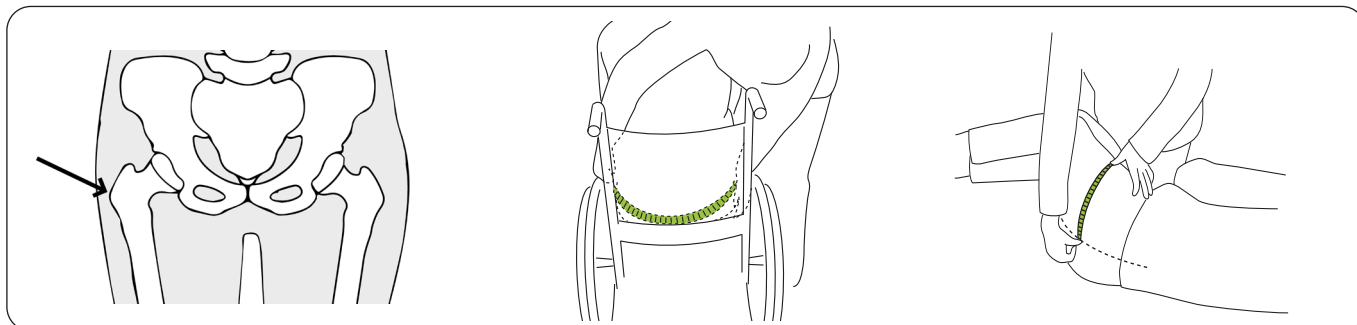
**⚠️ Only use a sling that is the correct size for the patient. Correct size must be assessed by a trained caregiver. Patient entrapment or asphyxiation could occur.**

The hip width measurement on the patient and on the sling gives guidance when choosing the size of the sling. Compare the measurement of the patient (see instruction for measuring) and the measurement of the sling (see table or instruction for measuring).

### Choosing the correct size:

Choose a sling with a hip width measurement that is within +/- 8 cm (3 in.) of the patient's hip width measurement.

### Measure the hip width of the patient as follows:

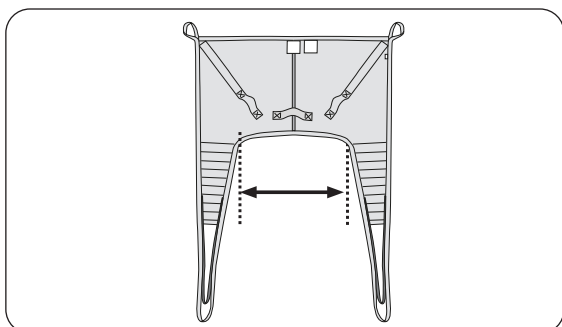


**Trochanter:** The trochanter is the part of the femur that can be felt at the patient's hip. Apply gentle pressure to find the trochanter for measurement.

**Alternative A.** With the patient leaned forward, measure the hip width at the widest place i.e. from one trochanter to the other trochanter.

**Alternative B.** With the patient on their side, measure from the trochanter to the midline/backbone and multiply by 2.

Refer to "Dimensions" on page 8 for the hip width of the sling as follows:

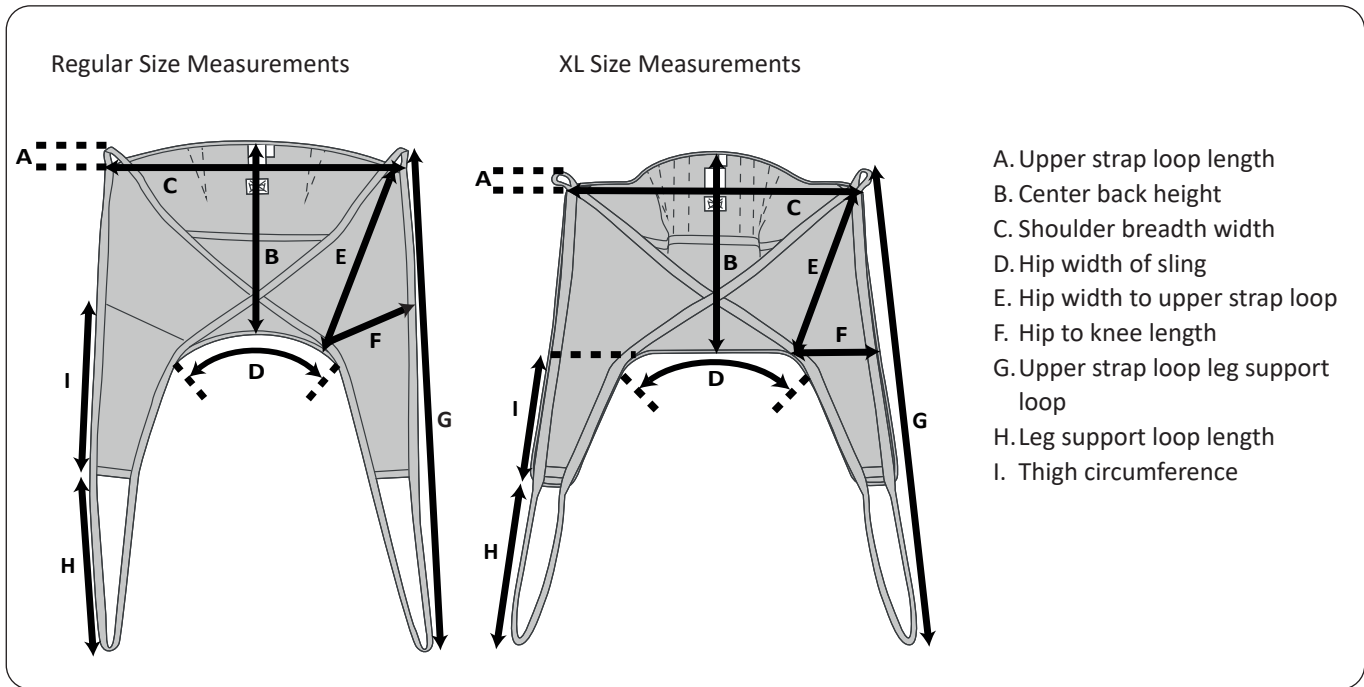


### Hip width measurement

Sling Size	Hip Width
M-Slim	38 (15)
M	50 (20)
L	60 (24)
XL	67 (27)

All measurements are in cm (in.).

# Dimensions



## Size Measurements in Centimeters

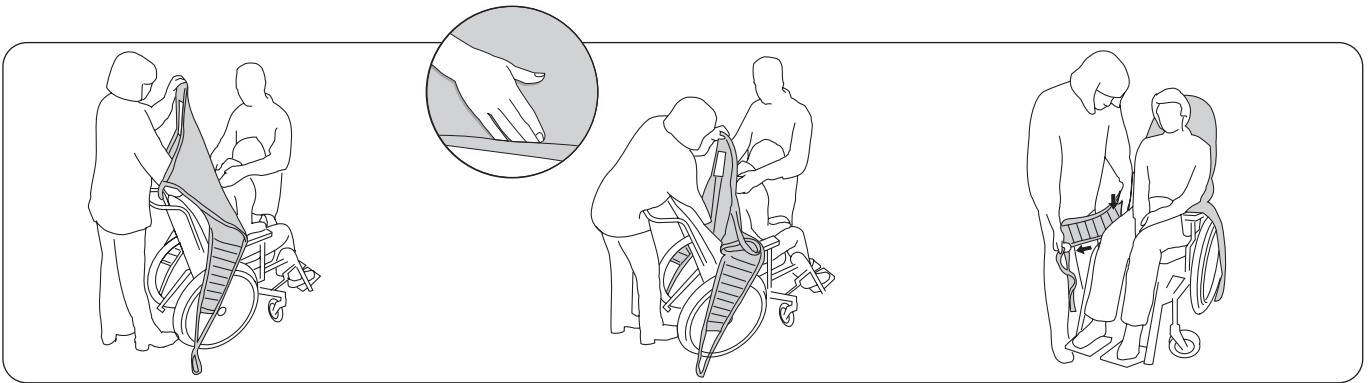
SIZE	A	B	C	D	E	F	G	H	I	Maximum load (kg)	Prod. No.
M-Slim	10	88	91	38	78	33	179	55	58	200	3525911
M	10	91	101	50	83	36	188	55	64	200	3525915
L	10	96	117	60	88	40	197	55	69	200	3525916
XL	10	102	117	67	85	29	198	55	51	500	3525917

## Size Measurements in Inches

SIZE	A	B	C	D	E	F	G	H	I	Maximum load (lbs)	Prod. No.
M-Slim	4	35	36	15	31	13	70	22	23	440	3525911
M	4	36	40	20	33	14	74	22	25	440	3525915
L	4	38	46	24	35	16	78	22	27	440	3525916
XL	4	40	46	27	33	11	78	22	20	1100	3525917

## Lifting from a Seated Position

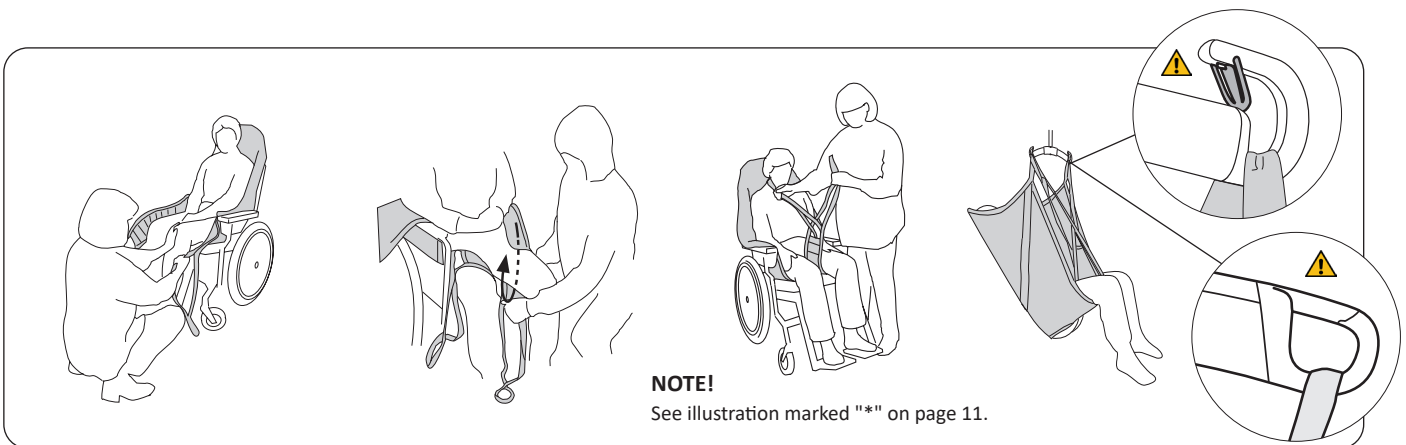
Two caregivers should be used to place the sling in accordance with ergonomic principles. Normally, the patient should be leaned forward somewhat during application, and one caregiver must stand in front of the patient to prevent the patient from falling forward.



Place the sling behind the patient's back with the product label facing out. Fold the lower edge over your fingertips to make it easier to guide the sling into position.

With the palm of your hand, press the lower edge of the sling down to the patient's coccyx, **this is very important**. Correct positioning is facilitated if the patient is leaned forward slightly.

Pull the leg supports out alongside the outside of the patient's thighs. **Helpful hint:** By placing your palm between the body and the leg support, you can guide the leg support's lower edge strap down to the seat. At the same time, pull the leg support forward with your other hand to extend it.



**NOTE!**

See illustration marked "\*" on page 11.

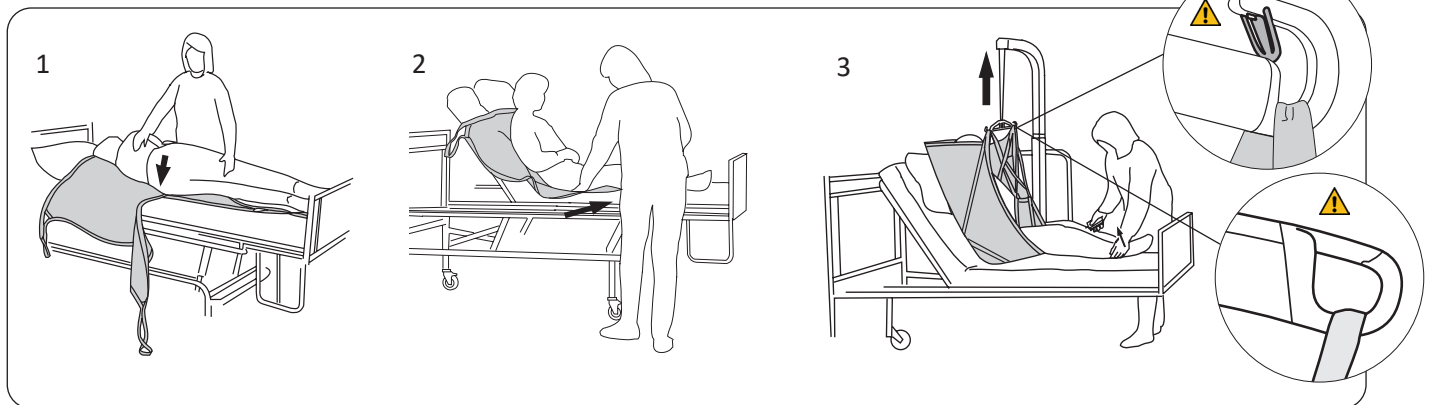
**Helpful hint:** Gentle pressure on the patient's lower leg makes it easier to pull the leg supports taut against the buttocks and smooth out any creases near the back. Make sure both leg supports reach equally far forward.

Guide the sling's leg supports under each thigh. Make sure the fabric is smoothed out under the thighs and that it reaches properly around the legs.

Normally, one leg support is passed through the other to cross before they are hooked to the slingbar. Hang the upper strap loops on the slingbar, then the leg support loops. See page 5 and page 6 for instructions on how to attach the sling loops to different sling bars. Lift the patient.

## Lifting from a Horizontal Position

Consider your own working posture and the patient's comfort. Use the bed's raising and lowering functions when available.



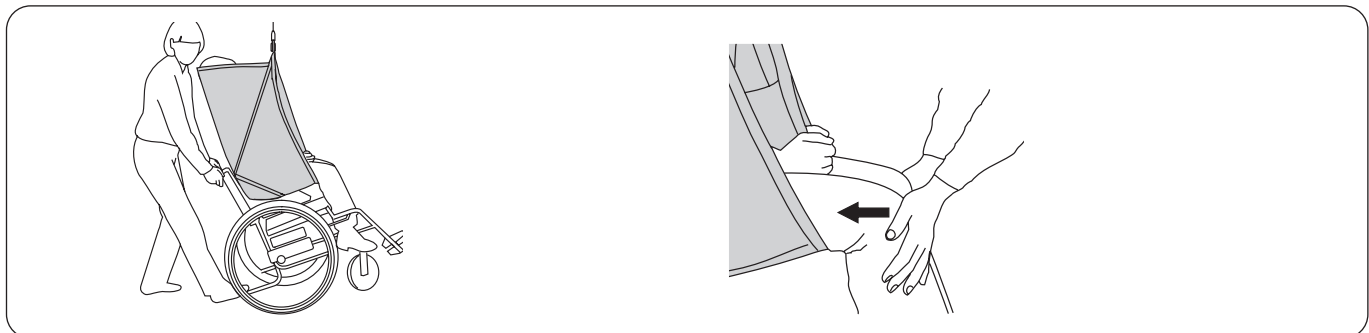
1. Turn the patient towards you to prevent the risk of falling out of the bed. Place the lower edge of the sling as far down under the patient as possible, so that it is **level with the patient's coccyx**. Bunch the sling together in a couple of folds and lay it so that its "center of the back" corresponds to the position of the patient's spine when he/she is gently turned back. Carefully work the sling out from the opposite side. Raise the backrest of the bed if available.

2. Slide the leg supports in place under the thighs. This is easiest if the knees are bent. Make sure the fabric is smoothed out under the thighs and that it reaches properly around the legs. The leg supports can then be hooked to the slingbar in different ways.

3. If necessary, place a small pillow under the patient's head. Hang the upper strap loops to the slingbar first, then the leg support loops. See page 5 and page 6 for instructions on how to attach the sling loops to different sling bars. Lift the patient.

## Lifting to a Sitting Position

When placing a patient in a wheelchair or chair, or on a toilet, it is important that the patient gets far enough back to sit well. This can be accomplished in several ways.



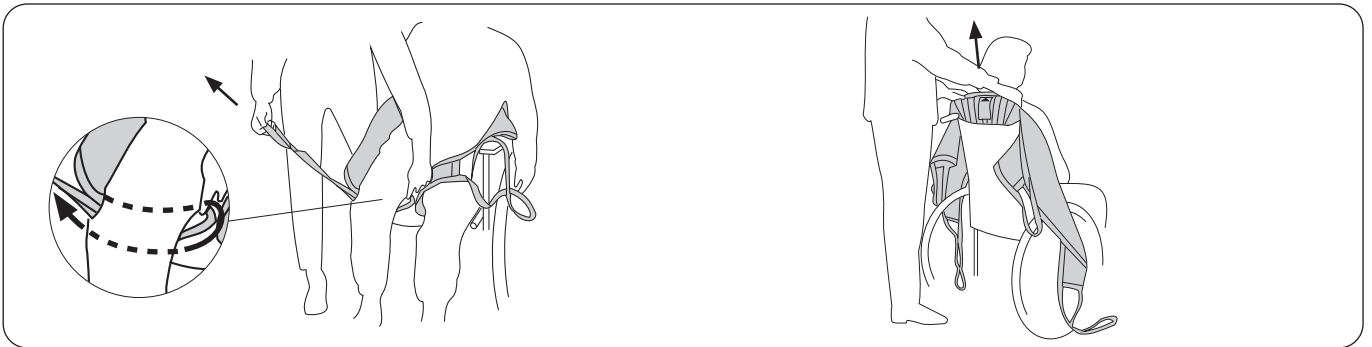
*When placing a patient in a wheelchair:* Lean the chair backwards during the lowering of the patient. Let the buttocks slide down the backrest during the last part. Control the angle of the wheelchair with your foot on the tipping support.

*When placing a patient in a chair or on a toilet (Alternative method for wheelchair):* Apply gentle pressure under the patient's knees during the lowering sequence, so that the buttocks are guided towards the backrest of the chair or the correct position on the toilet.



## Removing the Sling in a Chair/Wheelchair/Toilet

It is recommended to remove the sling after the transfer. If it is preferable to leave the sling in the chair after transfer, it is recommended to use the Original HighBack Sling Mod. 200/210 made of net polyester. Do not leave the sling on when you transfer a patient to a toilet.

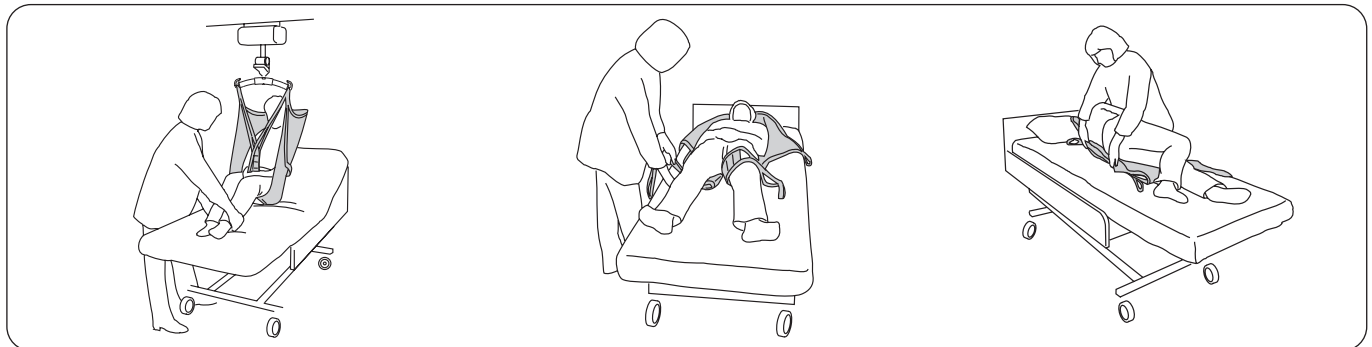


Carefully remove the leg support. The most gentle way of doing this is by pulling out the leg support loops under the fabric part of the leg support

Remove the sling by carefully pulling it up.

## Lifting to a Horizontal Position

Consider your own working posture and the patient's comfort. Use the bed's raising and lowering functions when available.

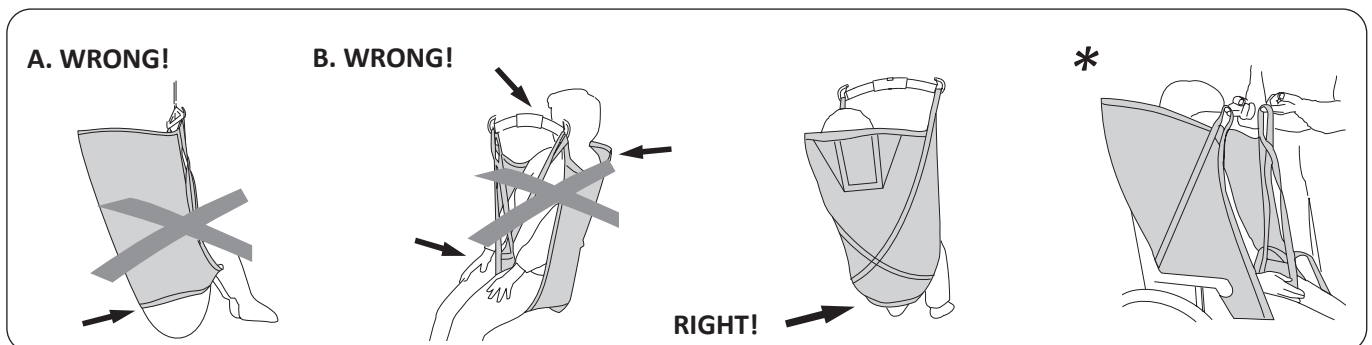


Guide the patient over the bed and raise the back support of the bed for best possible comfort. Lower the patient to the bed. Lower the back support of the bed so that the patient can lay flat.

Remove the leg supports by pulling the strap loops out under the fabric.

Turn the patient carefully on one side and roll the sling in under them. Turn the patient gently on their back and carefully remove the sling.

## The Patient does not Sit Well in the Sling – Why is this?



A. The buttocks hang down. **Risk of slipping out of the sling.** The sling may be too large. Another reason may be that the sling has not been pulled far enough down the back during application. Before lifting, make sure that the sling has been tightened about the buttocks (by pulling on the leg supports).

B. A sling that is too small may result in the slingbar coming too close to the face, being tight in the crotch and causing discomfort, and/or not providing enough support for the back/head.

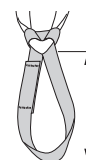
The sling's lower edge is in level with the coccyx. Leg supports are correctly positioned under the legs.

**Helpful hint:** Make sure all strap loops are of equal length, i.e., reach the same height when they are extended before lifting. If not, adjust the position of the sling.

## Accessories

Extension Loop, green, 12 cm (5 in)  
 Extension Loop, green, 22 cm (9 in)  
 Extension Loop, grey, 12 cm (5 in)  
 Extension Loop, grey, 22 cm (9 in)

Prod. No. 3691102  
 Prod. No. 3691103  
 Prod. No. 3691302  
 Prod. No. 3691303



- 2 = 12 cm (5 in)  
 - 3 = 22 cm (9 in)

Lath for Solo HighBack Sling size XL

Prod. No. 31590006



## Overview Solo HighBack Sling, Mod. 25

Product	Prod. No.	Size	Patient weight <sup>1</sup>	Maximum load <sup>2</sup>
Solo HighBack Sling	3525911	Medium Slim	30-50 kg (66-110 lbs)	200 kg (440 lbs)
Solo HighBack Sling	3525915	Medium	40-80 kg (88-176 lbs)	200 kg (440 lbs)
Solo HighBack Sling	3525916	Large	70-120 kg (154-265 lbs)	200 kg (440 lbs)
Solo HighBack Sling	3525917	Extra Large	110-250 kg (243-551 lbs)	500 kg (1100 lbs)

<sup>1</sup> The indicated patient weight is a guideline only – there may be deviations.

<sup>2</sup> To maintain maximum load, lift/accessories intended for the same load or more are required.

**If the sling is too large, the patient may risk slipping out of it.  
 A sling that is too small can be tight in the crotch and cause discomfort.**

## Recommended Combinations

Recommended combinations of Solo HighBack Sling and Liko slingbars:	Mini SlingBar 220	Universal SlingBar 350	Standard SlingBar 450	SlingGuard 450	Universal SlingBar 450	Universal SlingBar 600 <sup>1</sup>	Universal TwinBar 670	SlingGuard 670 Twin	Sling Cross-Bar 450	Sling Cross-Bar 670	Univ. SideBars + Universal 350	Univ. SideBars + Universal 450
Solo HighBack Sling, M-Slim	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Solo HighBack Sling, M	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Solo HighBack Sling, L	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Solo HighBack Sling, XL*		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

<sup>1</sup> Applicable only if the leg supports overlap under both legs.

\*XL size to be used in combination with the Ultra Lift System, refer to Instructions for use.

**Explanation:** ✓ = Recommended

While this chart serves as guidance, it is important to acknowledge that various circumstances may render sling- sling bar combinations inappropriate. Approved combinations in the matrix must still be assessed and validated by a trained health care professional.

### Other Combinations

**⚠** Combinations of accessories/products other than those recommended by Liko can result in risks for the safety of the patient. Injury could occur.

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