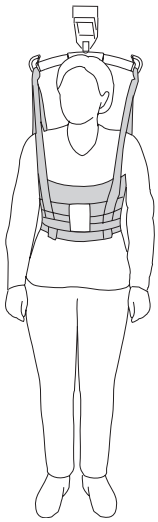
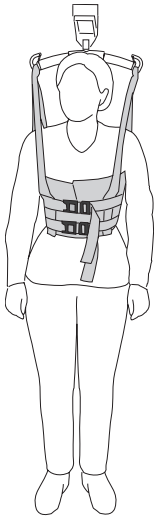
Liko MasterVest Mod. 60, 64

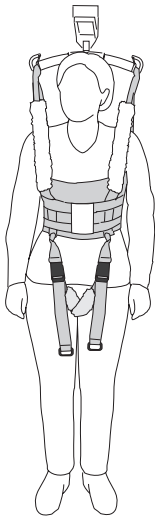
Instructions for Use



Mod. 60



Mod. 64



Mod. 60
with leg harness
and padded cases

Product Description

Intended Use

Intended for use in following environments: Health care, Intensive care, Emergency ward, Rehabilitation, Habilitation environment and home healthcare environement.

Liko MasterVest is a versatile sling with a wide range of uses, for example, help with standing and walking or visiting the toilet.

MasterVest supports the patient around the upper body as well as under the arms. MasterVest requires patients to be able to partially bear weight on their legs.

Liko MasterVest enables you to reach certain difficult-to-achieve goals, for example:

- patients receive appropriate help to exercise and bear weight on their legs, and
- caregivers avoid risks associated with heavy lifting.

Lifting and transferring patients to and from the toilet can lead to severe injuries for the caregiver. MasterVest facilitates smooth and simple transfers to and from the toilet.

Since MasterVest covers only the upper body, the lower body is easily accessible for dressing and undressing.

Front closure MasterVest, Mod. 64

The front closure model of **Liko** MasterVest Mod. 64 can be used for patients who are able to put on and take off the vest by themselves.

The front closure MasterVest is equipped with two adjustable safety clasps across the chest. These are also recommended in cases where it is necessary to adjust the tension and regulate pressure on the chest.

MasterVest with Leg Harness

The leg harness holds MasterVest in place and is commonly used in walking training.

Suitable lifts

The MasterVest can be used along 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.

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Enhancing outcomes for patients and their caregivers.
Hill-Rom

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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.
- Test the emergency lowering device on the lift you are using to make certain that it functions properly.
- Adjust the maximum height so that it will be impossible to raise a patient too high.
- To protect patient safety and hygiene, launder the sling between patients.
- Before lifting, plan the lifting operation so that it can be done as safely and smoothly as possible.
- Before lifting, 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.
- 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.
- Always work ergonomically. Use the patient's ability to actively participate in the operations.

⚠ **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.**

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

⚠ **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, or fireplace, stove/oven!**

⚠ **The sling has not been tested for use in the Magnetic Resonance Imaging (MRI) setting. Transfer the patient to a compatible surface to do an MRI, and remove the product from the MRI room.**

CE Medical Device Class I Product

PATENT 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 equivalent 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		**Caution!** consult instructions for use.
	CE-mark. European Union medical device conformity mark, Class I Medical Device.		
CH REP	Swiss authorized representative		
	Legal manufacturer		Date of manufacturing
REF	Product Identifier	MD	Medical device
SN	Serial Number	UDI	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.	Facing Out	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
- Loops
- Buckles

⚠ **Do not use damaged lifting accessories.**
If anything is unclear, please contact the manufacturer or supplier.

If the sling is used for bath or shower: After use in bath and shower situations, the sling should be placed so that it dries as soon as possible.

Washing and Disinfection Instructions: Please see the sling's product label and the attached appendix "Care and Maintenance of Liko Slings". The safety buckles on Mod. 64 shall be closed during washing.

Material: MasterVest is made of Polyester.

Periodic Inspection
The product must be inspected at least once every 6 months. More frequent inspections might be required if the products are used or washed more often than normal. For protocols please contact your Hillrom representative.

Expected Lifetime
Mod. 60: The product has an expected life time of 5 years during normal use.
Mod. 64: The product has an expected life time of 4 years during normal use

Lifetime varies depending on the fabric, use frequency, washing procedure, and weight carried. Hillrom recommends the product be used only during its expected lifetime.

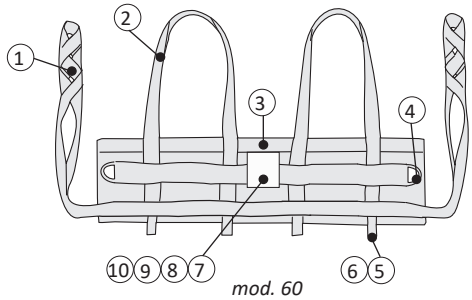
Recycling Instructions

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

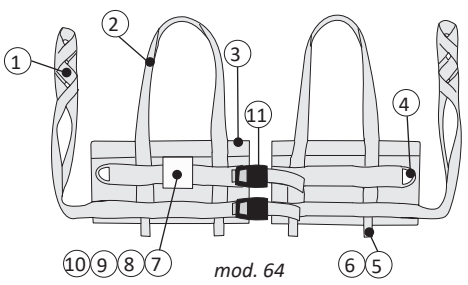
Hillrom evaluates and provides guidance to its users on the safe handling and disposal of its devices to aid in the prevention of injury, including, but not limited to: cuts, punctures of the skin, abrasions, and any required cleaning and disinfection of the medical device after use and prior to its 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



mod. 60



mod. 64

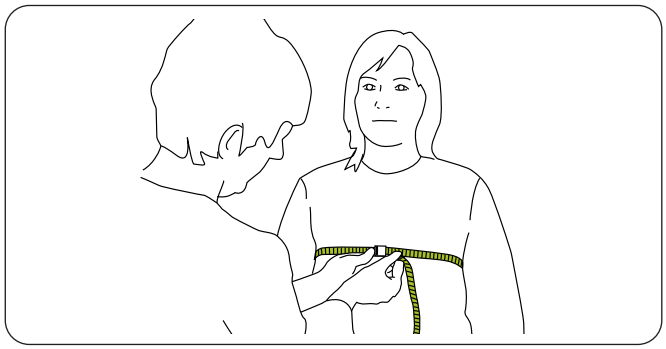
1. Loop straps
2. Shoulder straps
3. Upper edge
4. D-rings
5. Leg harness loops
6. Size marking
7. Product label
8. Serial number
9. Label: Periodic inspection
10. Label: Individual marking (Belongs to)
11. Safety buckles

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.**

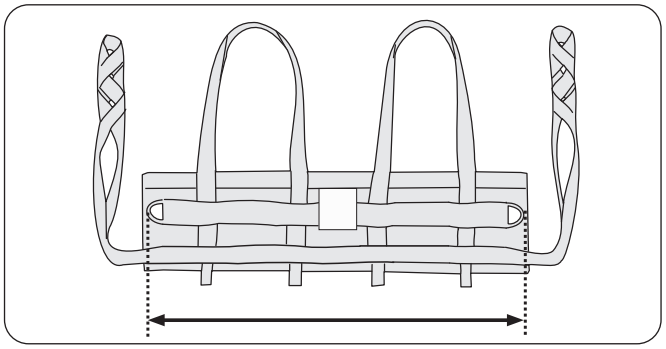
The circumference of the patient and the vest width measurement of the sling gives guidance when choosing the size of the sling. Compare the measurement of the patient (see instruction for measuring) and the measurement of the sling (see table or instruction for measuring).

Measure the chest circumference of the patient as follows:



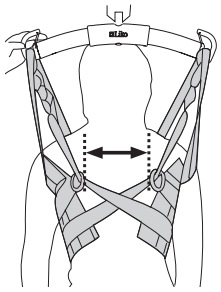
Measure the circumference around the patient's chest (under the bust on women).

Measure the vest width of the sling as follows:

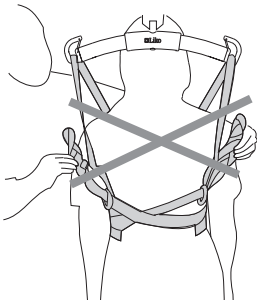


Measure the outer distance between the metal loops. Measurement can also be found in "Dimensions", see page 7.

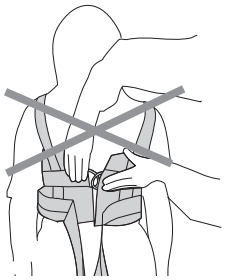
Choose the right size:



5-30 cm (2-12 in.)



more than 30 cm (12 in.)

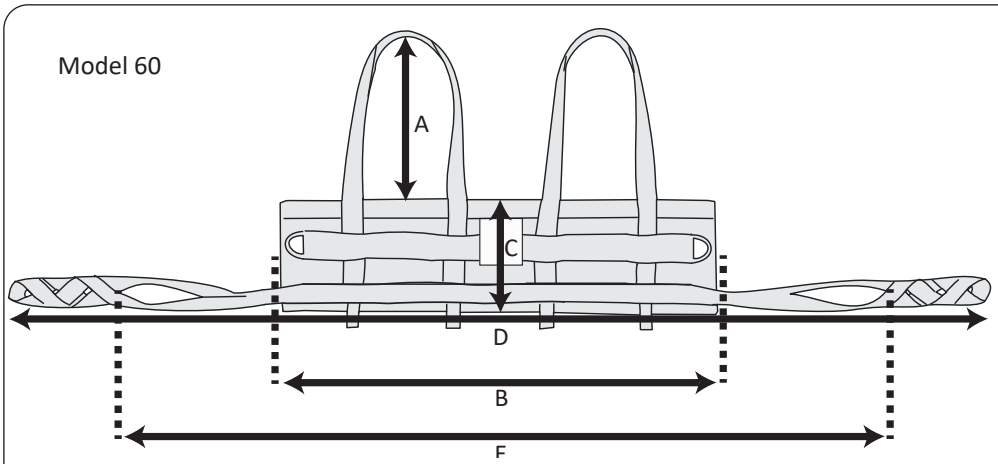


less than 5 cm (2 in.)

Choose a sling with a vest width measurement that is 5-30 cm (2-12 in.) less than the patient's chest circumference measurement. The gap between the metal loops should be 5-30 cm (2-12 in.) when the vest is on the patient and the shoulder straps are fully extended. The gap between the metal loops can be greater with larger size slings. Make sure that you choose the right size sling and carefully adjust the loop straps.

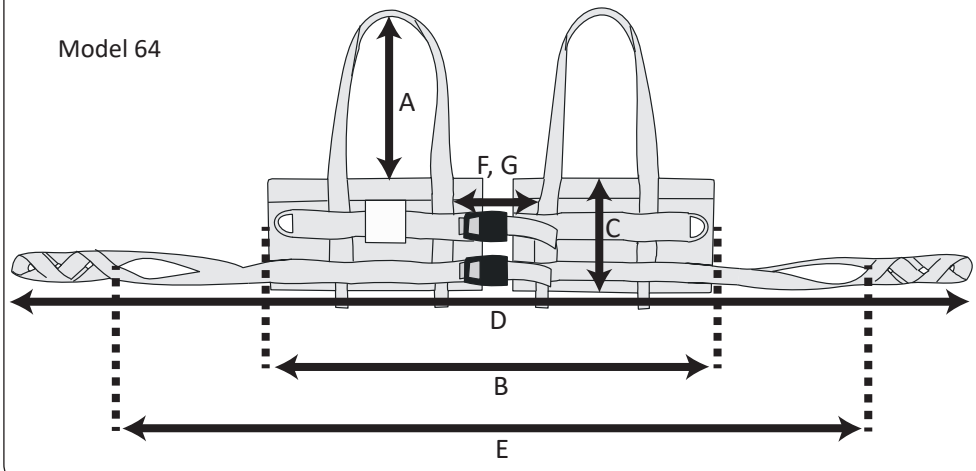
Dimensions

Model 60



A: Shoulder strap length
B: Vest width (between metal loops)
C: Vest height
D: Loop strap max length laid flat
E: Loop strap min length laid flat

Model 64



A: Shoulder strap length
B: Vest width (between metal loops)
C: Vest height
D: Loop strap max length laid flat (with buckle in its min position)
E: Loop strap min length (with buckle in its min position)
F: Buckle strap min length
G: Buckle strap max length

Size Measurements in Centimeters Model 60

SIZE	A	B	C	D	E	Maximum Load (kg)	Prod. No.
XS	43	60	18	204	170	200	3560113
S	48	70	23	190	156	200	3560114
M	38	80	23	197	164	200	3560115
L	39	90	22	207	174	200	3560116
XL	39	100	22	233	198	300	3560117
XXL	38	110	23	250	218	300	3560118

Size Measurements in Inches Model 60

SIZE	A	B	C	D	E	Maximum Load (lbs)	Prod. No.
XS	17	24	7	80	67	440	3560113
S	19	28	9	75	61	440	3560114
M	15	32	9	78	65	440	3560115
L	15	35	9	92	78	440	3560116
XL	15	39	9	92	78	660	3560117
XXL	15	43	9	98	86	660	3560118

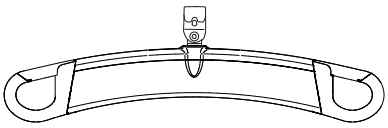
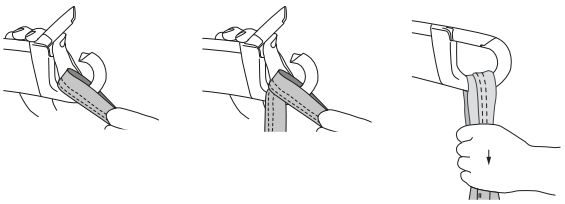
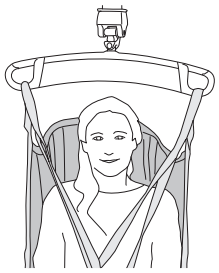
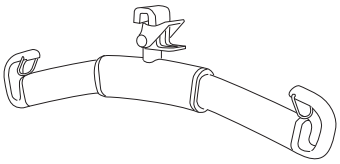
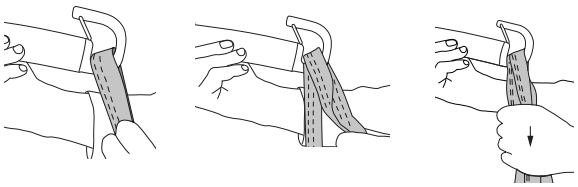
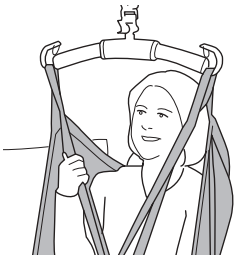
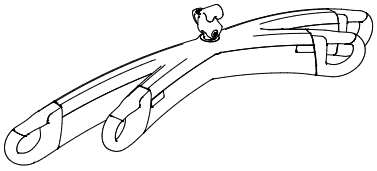
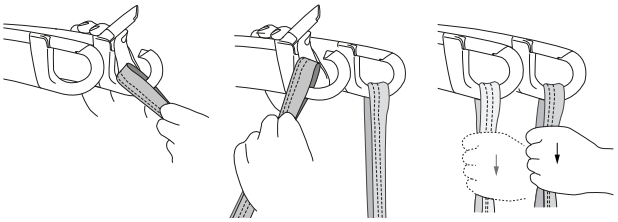
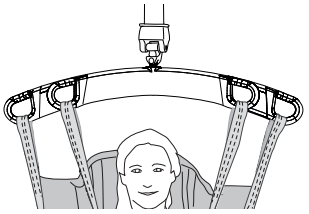
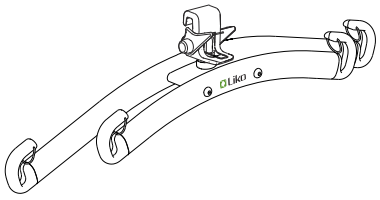
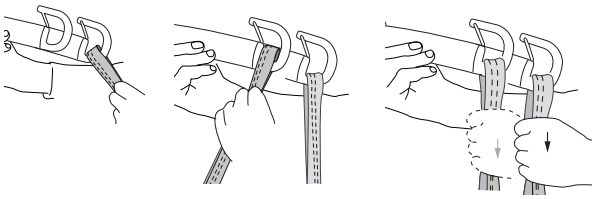
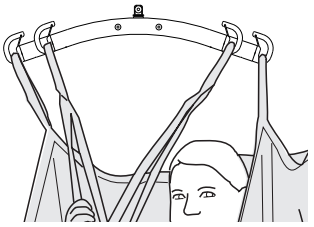
Size Measurements in Centimeters Model 64

SIZE	A	B	C	D	E	F	G	Maximum Load (kg)	Prod. No.
S	39	70	22	182	149	10	35	200	3564114
M	38	80	22	190	157	11	36	200	3564115
L	38	90	22	201	167	12	39	200	3564116
XL	38	100	23	215	182	17	46	200	3564117
XXL	39	110	22	239	205	16	43	200	3564118

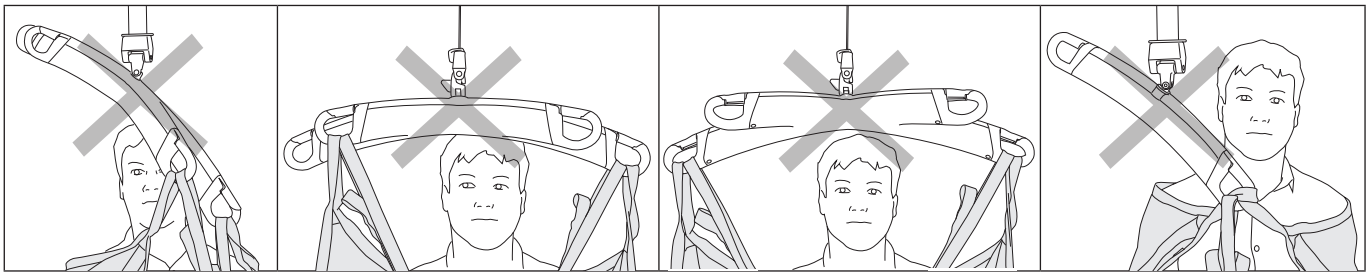
Size Measurements in Inches Model 64

SIZE	A	B	C	D	E	F	G	Maximum Load (lbs)	Prod. No.
S	15	28	9	72	59	4	14	440	3564114
M	15	32	9	75	62	4	14	440	3564115
L	15	35	9	79	66	5	15	440	3564116
XL	15	39	9	85	72	7	18	440	3564117
XXL	15	43	9	94	81	6	17	440	3564118

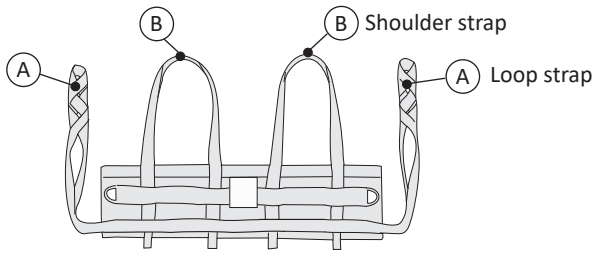
How to Attach a MasterVest to Different Sling Bars

Sling bar	Sling loops to sling bar hooks	Correct
 SlingGuard		
 Universal		
 SlingGuard Twin		
 Universal Twin		

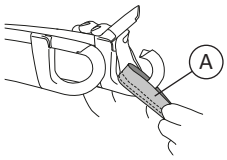
Wrong!

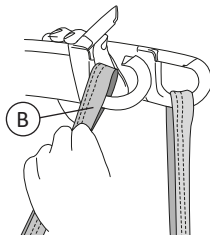


How to Attach a MasterVest to a Twin Bar



1.





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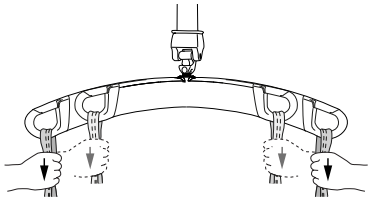

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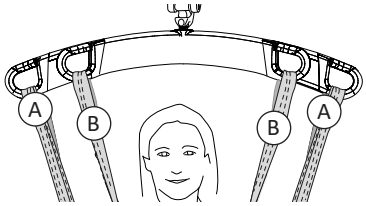
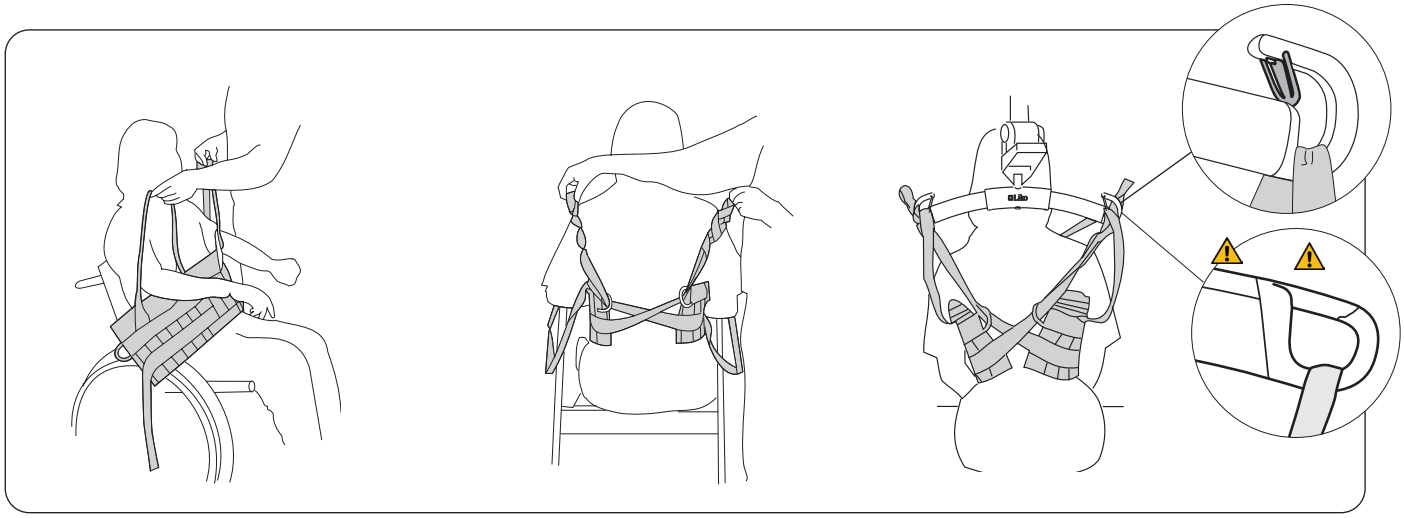


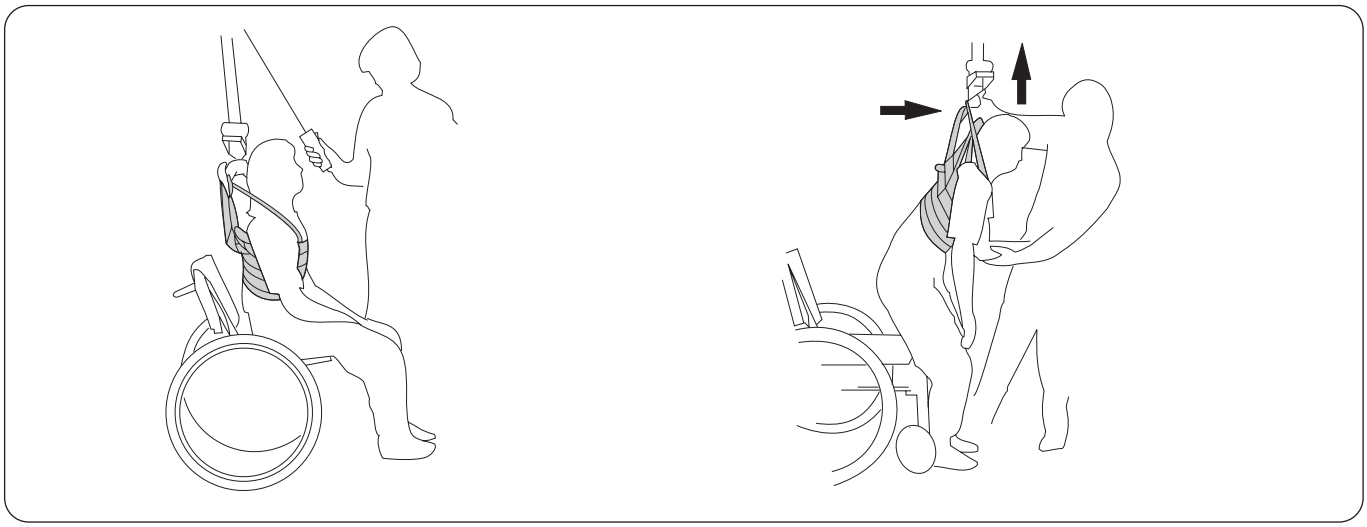
Lifting from a Seated Position



Put on MasterVest from the front. The patient's arms are placed through the shoulder straps.

Behind the back: Draw each loop strap across the back and pull it through the metal D-ring on the opposite side, as shown in the illustration.

With the sling bar behind the patient's back, attach the loop straps, using a suitable loop, see "Adjusting the Loop Straps" on page 11-12. Attach the shoulder straps to the sling bar. See page 8-9 for instructions on how to attach the sling loops to different sling bars.



Before lifting: Check that the patient's feet are solidly on the floor so that they can bear weight as the sling bar is raised. Raise the sling bar slightly to tighten the straps (without lifting the patient off the seat), and check that the pressure distribution around the patient's upper body feels correct.

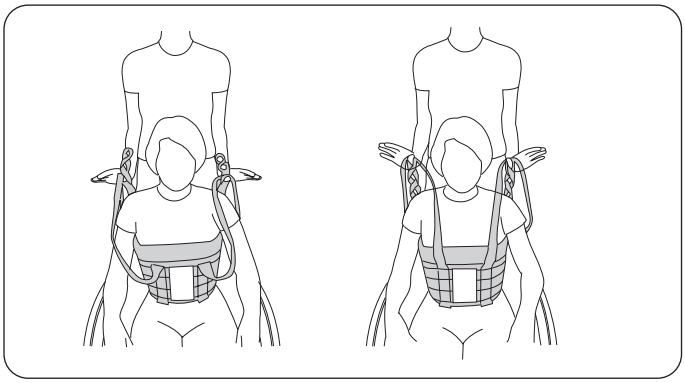
During the lift: Pull the sling bar forward so the patient's weight is transferred smoothly until they stand upright and in balance. Lower the sling bar slightly to relieve pressure around the chest. Now the patient has an opportunity to put weight on the legs and work on balance training.

Testing the LIKO MasterVest

Adjusting the Loop Straps

The loop which you hook onto the sling bar determines how much the vest tightens around the chest.
If the vest slides upward - try an inner loop or a smaller size of the vest.
If the vest fits too tightly around the chest - try an outer loop or a larger vest size.
If two different people try the same size, the slimmer person would need an inner loop while a bigger person would need an outer loop. The MasterVest is correctly adjusted when the shoulder straps and loop straps are equally taut when lifting the patient.

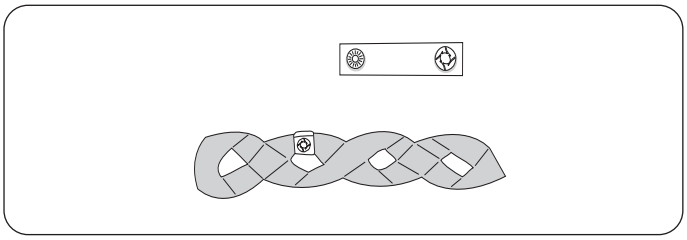
Testing the Loop Straps



To find which loops give the best fitting, test the loop straps by drawing on different loops along with the shoulder straps.

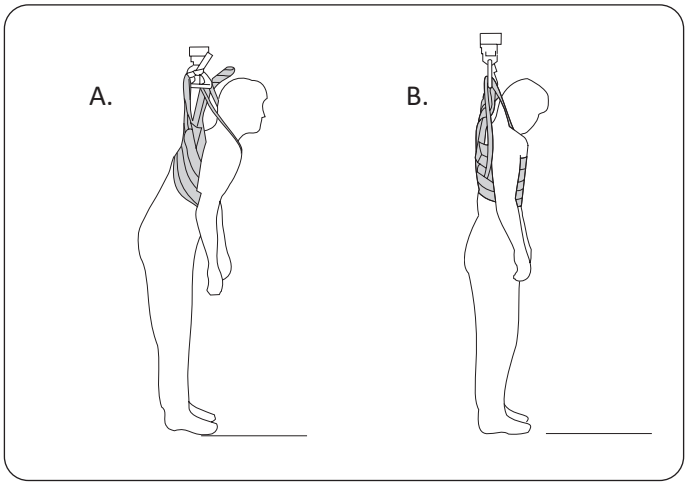
To test for the correct fitting of the loop straps, stand behind the patient and suspend the shoulder straps and loop straps from your thumbs and lift upward until the straps are taut. The MasterVest fits correctly when the loop straps and shoulder straps are equally taut when lifted.

Loop Clips



This practical accessory is used to mark the loops that have been tried out for a certain person. It makes it easier for the caregivers to choose the right loop to attach to the sling bar.

Body Posture

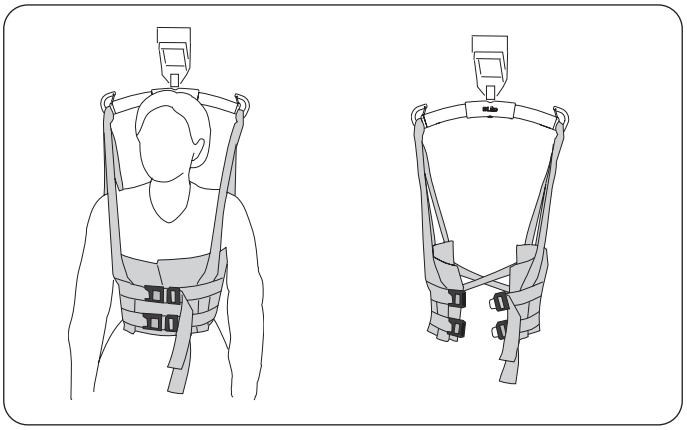


An individual may often fit into two different sizes of the MasterVest, but the loop straps must be correctly adjusted to each size. The results differ regarding body posture and pressure distribution around the chest.

A. A larger MasterVest size requires you to use one of the inner loops on the loop strap. This fitting allows the patient to bend forward, and places more pressure on the lower front part of the chest.

B. A smaller MasterVest size requires you to attach one of the outer loops of the loop strap to the sling bar to obtain equal tension on all four straps. In this case, body posture is more upright, and pressure is more evenly distributed around the chest.

Front closure MasterVest, Mod. 64



The MasterVest is also available in a front closure model.

The front closure MasterVest is equipped with two adjustable safety buckles in front. Test for the correct vest size and position of the loop straps even when patients themselves put on the MasterVest. After the MasterVest has been correctly adjusted, it can hang from the sling bar while the patient puts it on.

⚠ Ensure that the patient can open the buckles themselves or has support from a caregiver to remove the vest to avoid discomfort if the vest is not removed when the activity is completed.

⚠ If the leg harness is not closed, or too much tension is put on the buckles causing them to open, the vest can slide up causing discomfort.

Problem during Testing?

Problem: The vest slides up under the patient's arms.

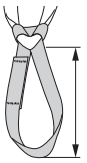
Adjust the MasterVest using one or more of the following suggestions:

- Adjust the loop strap by using an inner loop.
- Choose a smaller size.
- Try using the leg harness.
- Hold the vest in place behind the back while raising the patient by pressing your thumb downward on the crossed loop straps.
- Have the patient keep their arms down while lifting.

Recommended Lifting Accessories

Extension Loop

Extension Loop, green, 12 cm (5 in)	Prod. No. 3691102
Extension Loop, green, 22 cm (9 in)	Prod. No. 3691103
Extension Loop, grey, 12 cm (5 in)	Prod. No. 3691302
Extension Loop, grey, 22 cm (9 in)	Prod. No. 3691303



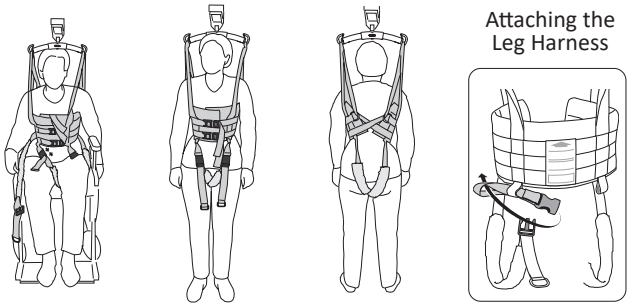
- 2 = 12 cm (5 in)
- 3 = 22 cm (9 in)

Optional Components

Leg Harness Prod. No. 3666004-06

A special leg harness can be used with the **Liko** MasterVest to help keep the vest from sliding up on the body. The harness can be put on while the patient is sitting, and after lifting the patient you can adjust the position and tension of the harness. The harness straps may be crossed or parallel through the crotch.

NOTE! The leg harness fits vests from serial number 736166. Contact your Hillrom representative for more information on earlier models.

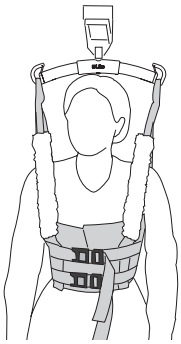


Attaching the Leg Harness

Padded Case for Shoulder Strap Prod. No. 3666021

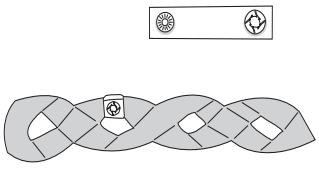
Padded cases are available as an accessory to help relieve pressure on the front shoulder straps.

Padded cases are equipped with hook-and-loop fastener along one side for easy application.



Loop Clips

Loop Clips, red, 4 pcs	Prod. No. 3666033
Loop Clips, orange, 4 pcs	Prod. No. 3666034
Loop Clips, yellow, 4 pcs	Prod. No. 3666035
Loop Clips, blue, 4 pcs	Prod. No. 3666036
Loop Clips, black, 4 pcs	Prod. No. 3666037



Overview LIKO MasterVest Mod. 60, 64

Product	Prod. No.	Size	Body Weight[1]	Maximum load[2]
MasterVest Mod. 60	3560113	XS	20-40 kg (44-88 lbs)	200 kg (440 lbs)
MasterVest Mod. 60	3560114	S	40-60 kg (88-132 lbs)	200 kg (440 lbs)
MasterVest Mod. 60	3560115	M	60-80 kg (132-176 lbs)	200 kg (440 lbs)
MasterVest Mod. 60	3560116	L	80-100 kg (176-220 lbs)	200 kg (440 lbs)
MasterVest Mod. 60	3560117	XL	100-130 kg (220-286 lbs)	300 kg (660 lbs)
MasterVest Mod. 60	3560118	XXL	120-300 kg (264-660 lbs)	300 kg (660 lbs)
MasterVest Mod. 64	3564114	S	40-60 kg (88-132 lbs)	200 kg (440 lbs)
MasterVest Mod. 64	3564115	M	60-80 kg (132-176 lbs)	200 kg (440 lbs)
MasterVest Mod. 64	3564116	L	80-100 kg (176-220 lbs)	200 kg (440 lbs)
MasterVest Mod. 64	3564117	XL	100-130 kg (220-286 lbs)	200 kg (440 lbs)
MasterVest Mod. 64	3564118	XXL	120-200 kg (264-440 lbs)	200 kg (440 lbs)

[1] The indicated patient weight is a guideline only – there may be deviations.
[2] To maintain maximum load, lift/accessories intended for the same load or more are required.

Recommended Combinations

Recommended combinations using Liko MasterVest with Liko sling bars:	Mini 220	Universal SlingBar 350	Standard 450	Universal SlingBar 450	SlingGuard 450	Universal SlingBar 600	Universal Twinbar 670	SlingGuard 670
MasterVest, XS	✓	✓	✓	✓	✓	✓		
MasterVest, S	✓	✓	✓	✓	✓	✓		
MasterVest, M	✓	✓	✓	✓	✓	✓		
MasterVest, L	✓	✓	✓	✓	✓	✓	✓	✓
MasterVest, XL	✓	✓	✓	✓	✓	✓	✓	✓
MasterVest, XXL	✓	✓	✓	✓	✓	✓	✓	✓

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.

Different sling bar widths create different levels of pressure on the chest. Try various alternatives until you find the one best suited to the individual patient.

Other Combinations

Combinations with **Liko** MasterVest and Cross-bar, Cross-bar 450/670 or Side bars is not appropriate.

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

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