

User Manual

RotoBed®Free



RotoBed®

Rotate Life Better

CE MD

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1 | Introduction and general information

Thank you for choosing RotoBed®Free. RotoBed®Free is a high-quality product which, when used correctly and maintained according to the regulations, will help you for many years to come.

To get the most out of your bed, please read these instructions carefully. The same applies to any other persons, such as relatives, who must operate the bed. It is important that everyone who must operate the bed is aware of the safety section. This is especially true if there are children in the immediate vicinity of the bed.

Please note the warranty section, including what to comply with to maintain the warranty.

This manual may contain inaccuracies or typographical errors. The information contained herein is regularly updated, and changes to product care and others may be enrolled in later editions. Changes and improvements without notice may occur. The latest version of the user manual will always be available for download on our website under the tab "Download". If you have any questions, you are always welcome to contact us.

In addition to the instructions in this manual as well as the applicable accident prevention rules of the country of use, a RotoBed®Free must always be used in accordance with recognized safety rules.

Please contact us if your needs change after the purchase of the bed. We have a wide range of accessories that can help make your RotoBed®Free provide optimal help for you. We hope that your new rotating bed will give you increased comfort, mobility, and quality of life.

Sincerely

RotoBed®
Storegade 44
6640 Lunderskov
Tel.: +45 7550 5025
Mail: info@rotobed.com

1.1 | RotoBed®Free – an innovative rotating bed

People who are struggling to get into or out of the bed themselves can, with a RotoBed®Free, become self-reliant and manage entry and exit without physical effort.

By holding down a single key on the remote control, the bed is raised to chair position and rotated towards the room. This facilitates both exit and potential transition to a wheelchair or stand-up hoist. The movement takes less than a minute. RotoBed®Free helps the user maintain mobility and supports the user's standing function. The bed makes the user more self-reliant and reduces the trouble and pain of getting up and going to bed.

The patient surface is 4-sectioned, and entry and exit are possible on both sides of the bed. In addition to the rotary function, RotoBed®Free features electrical adjustment of height, backrest, and leg parts. It is also possible to individually store backrest inclination and exit angle.

2.1 | Reception

- Damage that has occurred during transport must be reported immediately upon delivery. Check that all ordered parts are free from defects and defects upon receipt.
- Do not acknowledge receipt until the entire delivery has been reviewed. If there is any doubt as to whether there is damage to the delivery, it must be received subject to the receipt.
- Contact the manufacturer or dealer if the item is damaged, if it bears other visible signs of defects / defects, or if the bed does not work.

2.2 | Location

Choose the right location for the bed

- Provide sufficient distance to wall/furniture, considering the movements of the bed.
- Place the bed near a wall outlet to prevent free cables/fall risk.
- If a lifting pole is mounted on the bed, ensure sufficient free ceiling height with the bed in the highest position.

Be aware that the backrest inclination can be stored between 35° and 55°. The chosen inclination will affect the required distance to the wall during rotation. Standard delivery setting is a 45° inclination of the backrest which requires a distance to the wall of at least 11 cm.

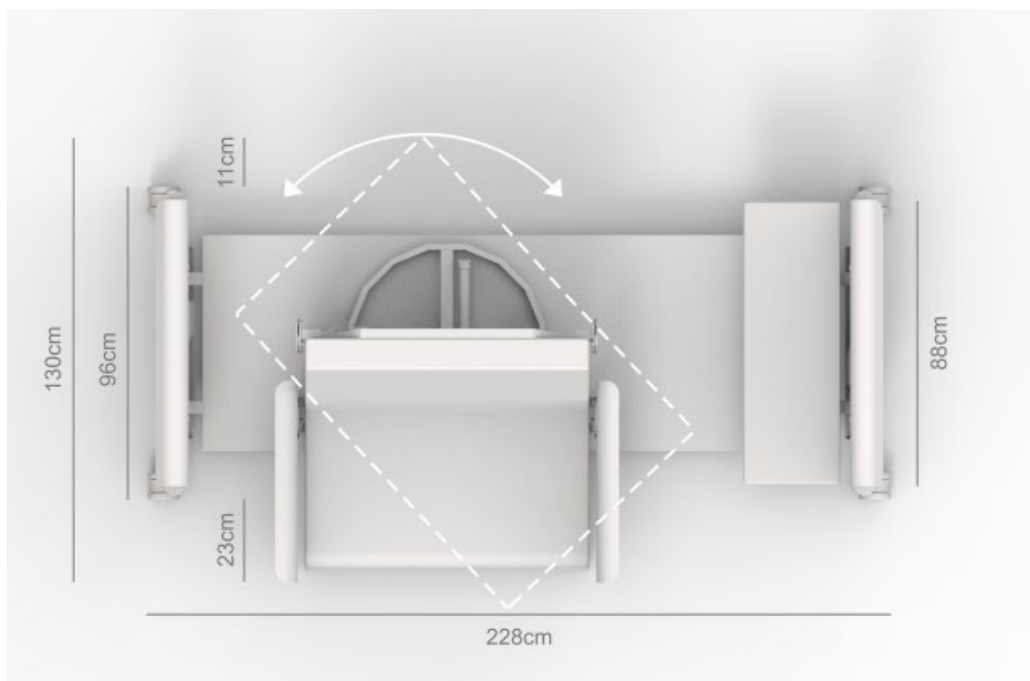


Illustration of the bed's dimensions and space requirements.

3.1 | Mounting of the mattress

The RotoBed®Free includes a principal mattress as well as a foot mattress. The principal mattress is equipped with five mattress attachments on the underside, and correspondingly the foot mattress has two mattress attachments on the underside. These mattress attachments must be mounted on the bed's lying surface to ensure retention during rotation. The mattresses are mounted as follows:

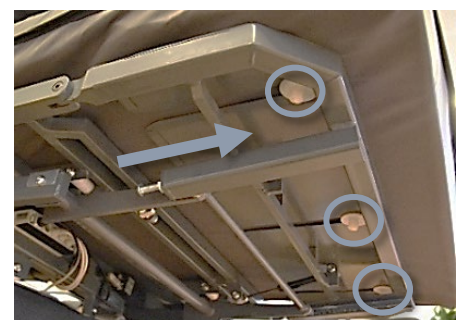
1. Drive the bed to the chair position and then raise the foot end to the highest position using the remote control.
2. Fold the principal mattress at the middle and place it so that the three lower mattress attachments are placed at the opening for the three holes at the leg part. It is important that there is a nylon disc on both the top and bottom of the metal plate.
3. Then pull the principal mattress towards the foot end so that all three mattress attachments slide to the bottom of the holes.
4. Move the lying surface completely horizontally using the remote control.
5. Push the mattress attachment in the middle of the underside of the principal mattress into the hole in the lying surface. You can advantageously turn the hard Velcro strap to the side so that it does not grip the soft Velcro until the mattress attachment is correctly inserted in the hole. It is important that there is a nylon disc on both the top and bottom of the metal plate. This is ensured by pressing on the principal mattress while pulling it to the side.
6. Pull the Velcro strap out towards the edge of the bed so that the upper nylon disc is firmly attached to the lying surface. Now press the two Velcro pieces well together.
7. Repeat procedure for point 5 and 6 on the other side of the bed.
8. The two mattress attachments on the foot mattress are pressed down into the two round holes in the lying surface of the foot part.



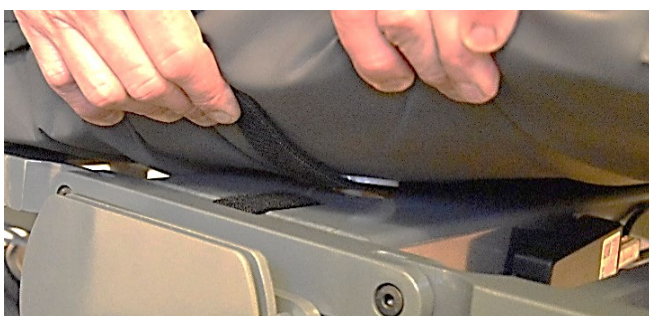
Placement the principal mattress



Placement of mattress attachment



Mattress pulled toward the foot end



Mattress attachment correctly placed in the hole in the middle of the lying surface



Soft and hard Velcro pressed well together

3.2 | Mounting of bedrails

RotoBed®Free can be delivered with bedrails made of metal or oak veneer. Regardless of material, the bedrails are mounted and removed in the same way:



Bracket for bedrail with lock



Bedrail pulled out of bracket



Bedrail remounted in bracket

Press the small fitting underneath while lifting the bedrail. The bedrails can simply be put back into place and will automatically lock.

NBI: The bedrails should only be mounted or not mounted. Do not leave them upright and loose. This may cause squeeze risk and damage to the bed during rotation.

3.3 | Remote control

3.3.1 | Setting up the remote control

The remote control can optionally be connected to the right or left side of the bed under the middle of the seat.

Important: Make sure the cable connection of the remote control is secured with a cable lock. This prevents the cord from being accidentally pulled out of the socket. If the remote control does not work, check if the cable is connected correctly in the socket. If the remote control does not work and is connected properly, resetting the motors will often solve the problem. Detailed instructions for resetting the motors can be found on page 24 of this user manual.

The electrical equipment of the bed must not be changed. Make sure that cable locks are clicked into position.

Removing the cable lock

1. Press the cable lock with the flat-blade screwdriver and tilt out the cable lock.
2. Push the screwdriver in between the cable lock and the plug and pull out the cable lock.

Installation of cable lock

1. Place the cable lock on the cable, the locking pins must face the plug.
2. Slide the cable lock into place until both locking pins are properly seated in the slots.



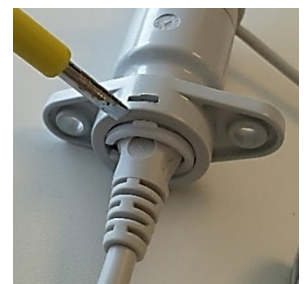
Cable lock mounted



Cable lock removed



Removing the cable lock using a flat-blade screwdriver



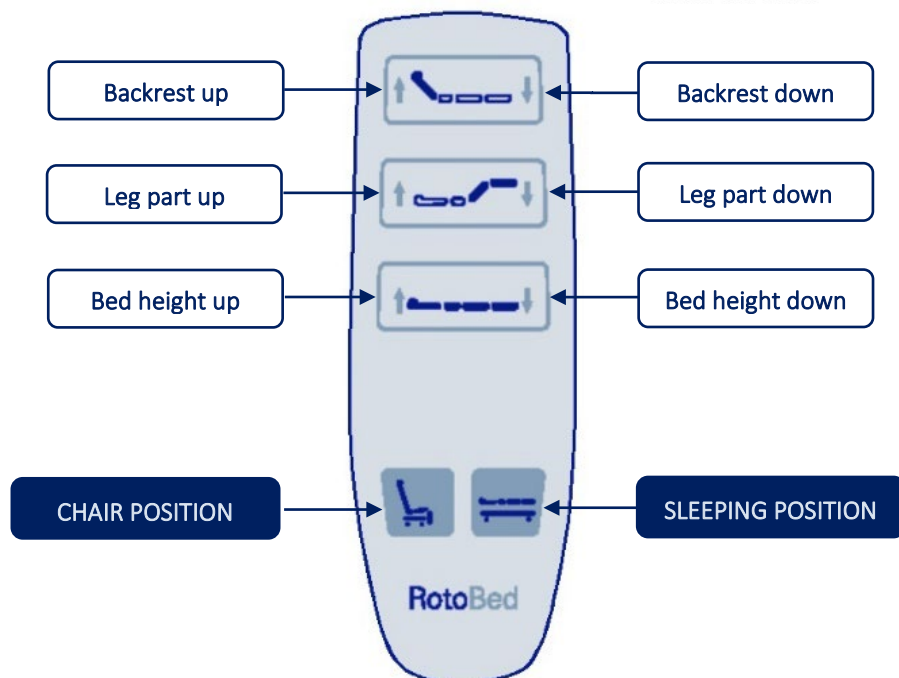
3.3.2 | Operating the remote control

The RotoBed®Free remote control is clear and easy to operate.

Hold down one key to operate the bed. When you release the key, the movement stops.

Only press two keys at a time if you want to reprogram the bed. See instructions below.

When the remote control is not in use, it is hung on the bed rail.



3.3.3 | Store your favorite positions


Bed height



For best comfort push yourself as far back in the seat as possible. The standard seat height without mattress is 32 cm above the floor. The optimal seat height is when the entire foot surface rests on the floor without supporting the weight of your legs. Use the bed height keys to find your favourite height.



Store the bed height by simultaneously pressing down both keys for bed height for 10 seconds until you hear a beep.

The bed will then automatically move to the stored height every time the key **CHAIR POSITION**  is activated.

Back tilt when rotating



It is important that you sit comfortably without pressure on the abdominal region while the bed rotates. Standard inclination of backrest when the bed is delivered is 45°. The inclination can be set to an angle from 35° to 65°. Outside this range, the bed will make an alarm. Move the backrest to your favorite inclination when rotating.




Press down both keys for the backrest simultaneously for 10 seconds until you hear a beep.

Now your favorite backrest inclination is stored, and the bed will always move to this inclination when rotating.

Change exit angle




The exit angle is oblique as standard to facilitate the transition to a wheelchair or walker. Press down the key **CHAIR POSITION**  until the bed stops in the exit position.



For perpendicular exit, press down both **POSITION** keys for 5 seconds until you hear a beep.

3.4 | Operating RotoBed®Free

3.4.1 | At first commissioning

Press down the **CHAIR POSITION**  key until the bed stops in exit position. By default, RotoBed®Free is set to go to an oblique exit angle to facilitate the transition to a wheelchair or walker. To change the angle, see the instructions in section 3.3.3 | Store your favourite positions.




RotoBed®Free in SLEEPING POSITION




RotoBed®Free in CHAIR POSITION

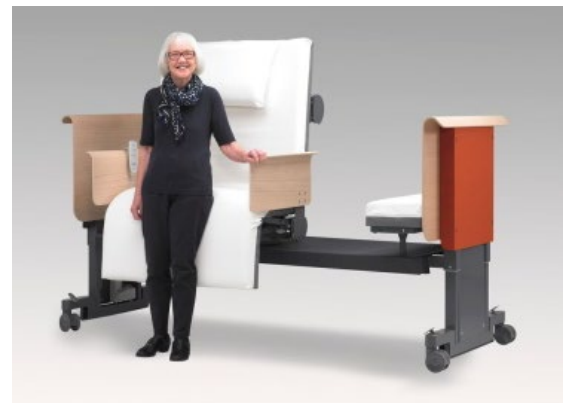
3.4.2 | Getting into bed

Place yourself as far back in the seat as possible. This will provide the best comfort. Press down the key **SLEEPING POSITION**  until the lying surface is fully rotated. Now RotoBed®Free works like a regular adjustable bed.



3.4.3 | Getting out of bed

Press down the key **CHAIR POSITION**  until the bed stops in the exit position. When the movement stops, you can release the key and then press "Backrest up" so that the backrest moves the last piece forward. Then you can use the key "Bed height up" to move the bed up in height. This facilitates the exit.



3.5 | Important documents and video material

The following documents have been prepared for this bed:



User manual

This user manual describes all aspects of the bed. This applies to both safety and cleaning, commissioning, and instructions in relation to the location and use of the bed. General information about assembly, service, warranty, and maintenance can also be found in the user manual.



Quick guide

The quick guide is a brief and focused instruction on how to help the user enter and exit the bed using the remote control. It is recommended that the guide is available at the bed in daily use.



Video material

Video instructions for service and assembly can be found on <https://rotobed.com/en/downloads-en/>

4 | Safety

4.1 | Purposes and standards



Safety Notice to the person using RotoBed®Free or the care-giving staff: If any serious incident occurs in relation to the device, it should be reported to the distributor or manufacturer and Competent Authority.

RotoBed®Free is designed to help users with physical and / or psychological constraints. RotoBed®Free helps the user enter and exit the bed without pain or physical exhaustion and reduces the workload for assistants in connection with care and transfer. RotoBed®Free is used in care centres, home care and private homes.

According to the standard for hospital and care beds (EN-60601-2-52), the intended use environment for a RotoBed®Free is as follows:

Application Environment 3. (201.3.203)

Long-term care in a medical environment, where monitoring and measurement can be performed with other medical devices equipment. This includes care centres, rehabilitation centres and the like.

Application Environment 4. (201.3.204)

Used in homes or home care, where equipment is used to relieve or to compensate for an injury, disability or illness.

Application Environment 5. (201.3.205)

Used for outpatient treatment in hospital or in another medical centre environment where equipment is needed for the treatment, diagnosis or monitoring of persons with injury, disability, or illness.

4.2 | Limitations



- Users with physical or mental constraints must not operate the bed's electrical functions unless the staff allow it and the user has received thorough training.
- Users who are considered suicidal should not use the bed unattended.

4.3 | Maximum load



RotoBed®Free may be used only by persons within these values:



Height: Minimum 146 cm



BMI: Body Mass Index 17 or more



Rated load: 225 kg



User weight: Min. 40 kg / max. 190 kg

4.4 | Security during use



- Always read the instruction manual before use and follow the instructions.
- When adjusting the bed's positions, all objects, and persons, especially children, must be kept clear of the moving parts of the bed.
- The bed should only be raised in height when this has a purpose, such as care. Apart from this, the bed should be set in a comfortable exit height.
- The entire body of the user must be within the patient surface.
- Be aware that the bedding does not get caught in the moving parts of the bed while adjusting the bed's positions.

- The connecting cable must be free of the rotation mechanism and height adjustment and capable of moving while adjusting the bed positions.
- Adjust the bed positions based on the instructions in this manual.
- A RotoBed®Free must not be used lifting / rotating anything other than the user.
- The bed should only be used by a person who has sufficient mobility and cognitive understanding to utilize the bed's functions and avoid accidents.
- Staff should always assess the physical and mental condition of the user and the ability to use the bed safely.
- The rotary function must not be used with more than one person in the bed.

4.5 | General instructions

- Regularly check the power cable for damage. In case of obvious damage, turn off the power supply and seek professional advice.
- The RotoBed® engines meet all relevant standards and norms. Electrically adjustable beds use extremely powerful engines. To prevent overload or damage to the bed, it is important to follow the regulations when operating the engines.
- The remote control must always be available and located correctly. Keep in mind that the remote control does not clamp between the moving parts of the bed, as this may cause the keys to be activated without the intention.
- The castors must be locked unless the bed is to be moved. This is to prevent the bed from moving during exit and entry.
- Avoid free wiring on the floor. You can stumble on these and thus disconnect the power without intention.
- The mattress is best protected by using the semi-impermeable cover in stretchable incontinence foil.

4.6 | Children

RotoBed® wishes to draw users' attention to the potential dangers of children who play in and around the bed. Children are naturally curious. They find beds with moving parts exciting, but due to the powerful engines, the bed is absolutely not suitable as a toy. In case of improper use there is a risk of getting squeezed. The following must therefore be emphasized:

- Do not let children play with the bed and its remote control / functions.
- Inform visitors and persons responsible for children about the potential safety risk.
- Children who stay close to the bed must be guided and not left alone.
- Place the remote control away from curious eyes and hands.
- Disconnect any power supply if deemed appropriate.

4.7 | Use of accessories

RotoBed®Free and accessories are nationally assessed and approved according to EN60601-2-52 standard. The standard contains essential requirements for the combination of bed and accessories such as mattress, bedrails, lifting pole etc. It is the responsibility of the staff to ensure that bed and accessories are assembled and used according to the manufacturer's regulations.

- The staff must always make an overall safety assessment of the bed and the chosen accessory before introducing a user to the bed.
- Always read the operating instructions before using the bed. Incorrect use of the bed and the manufacturer's approved accessories may pose a safety hazard.
- Do not use third party accessories or mattresses without the manufacturer's approval. Violation of this may pose a safety hazard.

4.8 | Squeeze risk

When the bed's functions are operated, the moving parts of the rotary bed constitute a squeezing hazard.

- When adjusting the bed's positions, all objects, and persons, especially children, must be kept clear of the moving parts of the bed.
- Keep an eye on the bed while operating the functions.
- Be aware that no persons or things can be squeezed when the bed is lowered in height.

4.9 | Fall risk

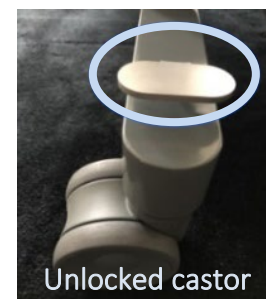
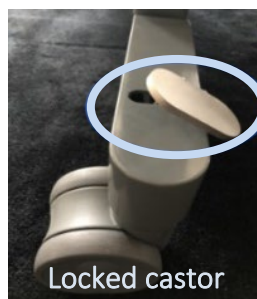
- The bed should only be raised in height when this has a purpose, such as care. In addition, the bed should be set in comfortable exit height. For physically restless users, it is recommended to keep the bed in the lowest position (32 cm).
- Use bedrails when there is a risk that the user falls out of bed.

4.10 | Topple risk

- Always observe the maximum user weight (190 kg) and the maximum load (225 kg).
- Move the bed to the lowest height before transport. This prevents rollover risk.
- Pay particular attention when transporting the bed on an uneven surface. This increases the risk of the bed falling over or that parts of the bed are damaged.

4.11 | Castors and brakes

As standard, the bed comes with integral Tente Linea double castors. The castors are rotatable. The brakes work in pairs and can be operated from both sides of the bed. The castors should only be unlocked for transportation of the bed.



4.12 | Bedrails

The bed is approved and tested with removable, two-piece bedrails, which are placed in the middle and in the bed's head end. The bedrails offer the user safety and prevent falls. They can also be of help during entry and exit, leading to increased mobility for the user. The bedrails can be delivered in two variants: one in wood and the other in metal. Bedrails are recommended for safety reasons.

- Do not use any other bedrails than those constructed for the bed. Mount correctly.
- Be aware that the user does not try to crawl over the bedrails to get out of bed. This will pose a risk of fall injuries.
- If the user is uneasy, physically restless or tends to have involuntary movements, upholstery for the bedrails can be purchased. See RotoBed®Upholstery under Accessories.

4.13 | Lifting pole

RotoBed®Free can be delivered with a lifting pole which can be mounted freely on the right or left side of the bed's head. The grip is provided with a roller belt for height adjustment to the individual user.

- Maximum load of lifting pole: 75 kg.

- Always check the ceiling height before installing the lifting pole. There must be about 220 cm of free ceiling height with the bed in its highest position.
- The lifting pole must be removed during transport of the bed.
- Do not use the lifting pole outside the bed frame as this may constitute a rollover risk.
- Before use and for continuous maintenance, check the lifting pole for damage to the roller belt's stitches and cracks in the grip.

4.14 | Mattresses

RotoBed®Free can be delivered with different types of mattresses with pressure ulcer prevention in stages 3 or 4. The mattress will consist of two parts; a principal mattress and a foot mattress. All mattresses are specially designed to fit your RotoBed®Free.

- No third-party mattresses may be used without the manufacturer's approval as they are not fitted to the bed and may therefore constitute a safety hazard.
- Remember to attach the mattress to the bed as per the regulations (see assembly instructions page 5). Failure to fasten the mattress can cause the mattress to not follow the bed's movements or slide off the bed. This will pose a security risk to the user.

4.15 | Electricity safety

It is important that cable locks are installed at both ends of the bed, where the headboards are mounted with the bed frame (see photos below).



Cable lock mounted



Cable lock disassembled



The electrical parts of the bed must not be changed. Make sure the cable lock is fitted by plug.



Removing the cable lock using a flat-blade screwdriver



- Be sure to place the wireless remote control in the holder located on the bedrail when not in use so that it does not get damaged or falls to the floor.
- Make sure that the wireless remote control does not get caught between the moving parts of the bed during use.
- Avoid free wires on the floor that you may trip over or run over.
- Before commissioning and during service and maintenance, check all electrical wires, power supplies and connections for cracks, fissures, or other visible damage.

4.16 | Transportation of the bed

- Unplug the power cord before moving the bed. If the power plug has a power switch, turn it off first and then unplug it.
- Ensure that no wires or cables, such as the remote control, may clamp or otherwise be damaged during moving.
- Lock the castors when moving the bed.
- Do not move the bed in the raised height as this increases the risk of toppling.
- Be aware of lifting pole, bedside lamp or other accessories mounted on the bed.
- Always remember to reactivate the castors' brakes when the bed is moved.

5 | Cleaning and maintenance

5.1 | Manuel cleaning

Metal parts

All surfaces can be cleaned with a soft, damp cloth soaked in mild detergent. Wipe dry with a cloth wrung out in clean water and dry. Make sure all parts of the bed are dry before putting the mattress back in the bed.

Wooden parts

Use cleaning and care products designed for wood furniture. Make sure all the bed's parts are dry before putting the mattress back into the bed frame.

5.2 | Disinfection

A RotoBed® care bed must be disinfected regularly and ideally for each new user to prevent disease infection. The bed is classified IPX6W and can be cleaned in a washing system or it can be cleaned manually according to the following requirements:

- Always disconnect the power supply before cleaning.
- Use gloves and possibly protective clothing when performing cleaning procedures.
- Do not use hypocarbonate or phenolic based cleaners.
- Do not use abrasives or pastes.
- Do not clean the bed at high pressure, neither manually nor mechanically.
- Be careful not to touch actuators during use and cleaning. After prolonged use the actuators can become very hot.
- In case of visible dirt, clean the bed first, see section on manual cleaning.

For disinfection between two users, clean with sodium hypochlorite or the like (up to 1000 ppm active chlorine). For decontamination (removal of potentially infectious material such as body fluids or infection from a known infected user), the bed should then be cleaned with sodium hypochlorite or the like (up to 10,000 ppm active chlorine).

Medium antimicrobial effect ("intermediate-level")	Alcohol***	70-85% v/v ~ 63-80% w/w	Waste: Surfaces contaminated with vegetative bacteria, mycobacteria, capillary and certain non-capillary viruses as well as most fungi.
Minimal antimicrobial effect ("low-level")	Products with low concentration of chlorine. Various blend products containing, for example, hydrogen peroxide, biguanides and quaternary ammonium compounds	<100 ppm hypochloric acid>	Doubtful indication, as products in this group are estimated to have limited additional efficacy compared to cleaning with common detergents.

5.3 | Cleaning in washing system

When cleaning in washing systems, make sure to take the following precautions:

- Unplug the power plug. Remove all fabrics (including mattress and covers) as well as all parts of wood.
- All plug connections must be sealed with a plug cover.
- All plugs and plug covers must be fitted with locking-ring (see section 5.12) to prevent water from entering the engines.
- Drive all engines fully down/in (so no engine arms protrude) to prevent lime and rust formation
- The electrical parts of the bed and mechanical functions must be tested before using the bed again.

NB: The supplied standard castor for a RotoBed® care bed has not been tested for cleaning in washing systems. Unless the castors are removed before washing, shorter lifespan should be calculated. Alternatively, special wheels can be purchased, which have been tested for a washing system.

RotoBed® points out that washing in machines will cause the bed to age faster over time.

5.4 | Service and maintenance

RotoBed®Free do not require much maintenance, but it will minimize any problems to keep the bed clean and follow the instructions for use and cleaning. RotoBed recommends annual lubrication.

Control of electrical parts

- Check all cables for damage.
- Check the power plug condition.
- Check the remote-control functions.

Control of mechanical parts

- Check all frame components for wear, damage, and corrosion.
- Check that backrest and leg parts are running smoothly and at full power using the remote control.
- Check that the lifting engine is running smoothly and for full power.
- Check that the rotary engine is running smoothly and for full power.
- Check that all joints (nuts, screws, etc.) are fastened, but still movable.
- Check the lifting pole (if mounted).
- Apply Teflon Spray to all moving parts and remove excess grease (See instruction next page).

Control of castors

- Check that all castors have free movement and rotate satisfactorily.
- Check the brake function.

Control of bedrails

- Check the function of the bedrails
- Check the bedrail grips for damage.

5.5 | Guide for lubricating RotoBed®Free

It is recommended to lubricate your RotoBed®Free annually. On our website under Downloads, you can find a video instruction in lubrication of your RotoBed®.

Use the following or similar types for lubrication:

Teflon Spray: Würth HHS 2000 Lubricating Oil 500ml

Description: Universal grease with white solid lubricants and NSF H2 approval - Lubrication of normal-load friction, rolling and pivoting bearings - Lubrication of moving parts at fine-mechanical devices – Waterproof.

Grease: OKS 470 – White Universal High-Performance Grease

Description: High-pressure resistant- Extraordinarily tear-resistant lubricating film with outstanding noise and vibration damping properties - High creep capacity - Excellent lubricating properties with close tolerances - Reliably protects against corrosion - Active adhesive effective. No throwing off of the lubricant with turning and rotating parts - Splash and saltwater-resistant, withstands weak acids and alkaline solutions - Contains no silicone, resin, or acid.

Clean and dry cloth

Use a clean and dry cloth to wipe off in case of excess spray.

5.5.1 | Lubrication of the backrest

Move the backrest to an upright position. **Make sure to fix it** before you start removing bolts, otherwise it will fall down. You can fix the backrest either by getting help from another person holding it or by securing the backrest with a transport strap.



Location of retaining clip and bolt

1. Remove the retaining clip.
2. Remove the bolt.
3. Apply grease.
4. Insert the bolt and clip again.
5. Follow the same procedure with the bolt at the other end of the motor. Do not remove the bolts at both ends at the same time.



Retaining clip in the other end

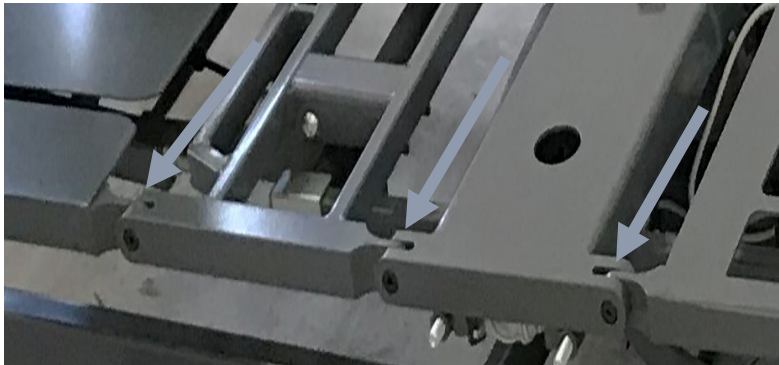


Grease applied

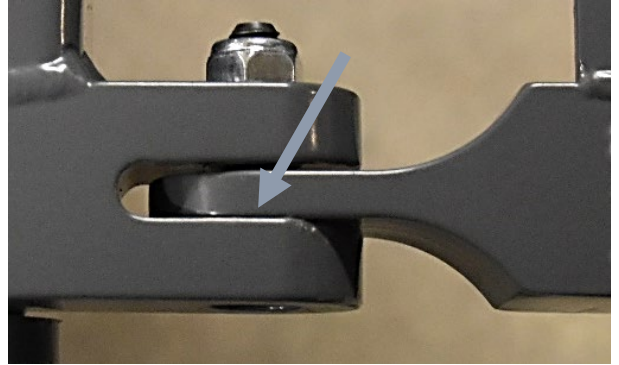
5.5.2 | Lubrication of the frame parts

All the moving parts where the frames are connected to each other must be sprayed with Teflon. Spray in the gap between pieces of metal.

Very important: do not tighten the locking nuts and bolts too much as the frame parts pivot on them. Repeat the procedure on the other side of the bed.



Moving parts where the frame is connected

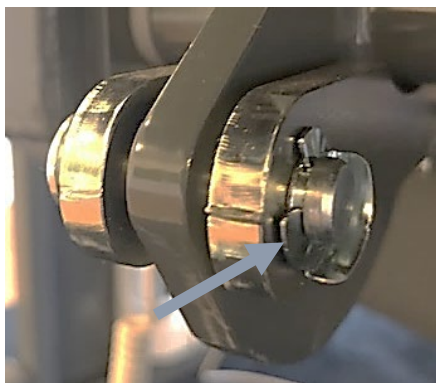


Gap between the metal parts

5.5.3 | Lubrication of leg motor connection points

Raise the leg part to the horizontal position using the remote control and follow the procedure below:

1. Remove the rear bolt retaining clip.
2. Remove the bolt.
3. Apply grease.
4. Reinsert bolt and make sure the clip is secured in place.
5. Follow the above procedure for the bolt at the other end of the motor.



Location of retaining clip



Grease applied



Location of bolt in the other side of the motor

5.5.4 | Lubricating of gas strut, U-profile, and wheel runner

1. Remove the leg part from the wheel runners.
2. Apply spray to the bolts on both ends of the gas strut. Spray in gaps between metal.
3. Follow the same procedure at the gas strut on the other side of the bed.
4. Spray into the U-profile (under the leg-part) on both sides.
5. Spray little on the thin strut on the gas strut on both sides.
6. Wipe off with a clean and dry cloth excessed spray from spraying both the U-Profile and the thin strut.
7. Remove the white wheel runners from axle.
8. Apply a little grease to the shaft.
9. Remount the wheel runners.

Important! do not overtighten the outer locking nuts as struts pivot on the bolts.



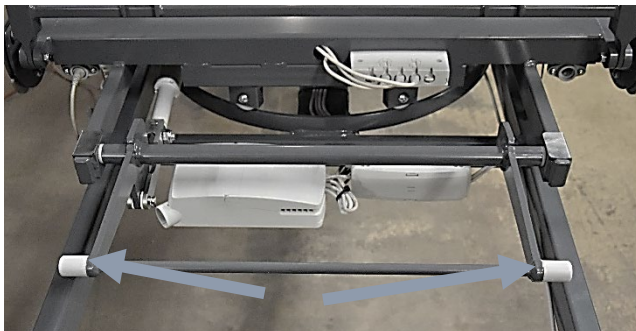
The leg part's wheel runners lifted out of the U-profile



Gas strut



Spray in U-profile and on the thin strut



Location of white wheel runners



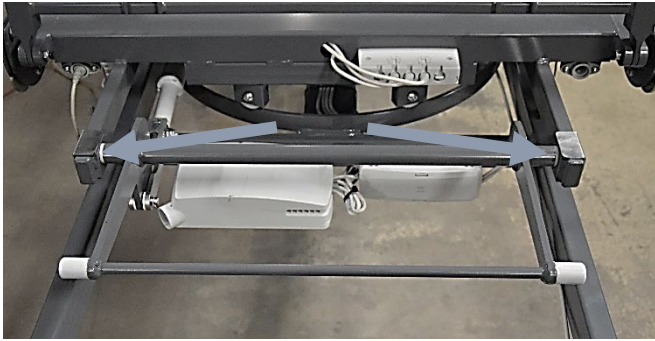
Apply grease on axle



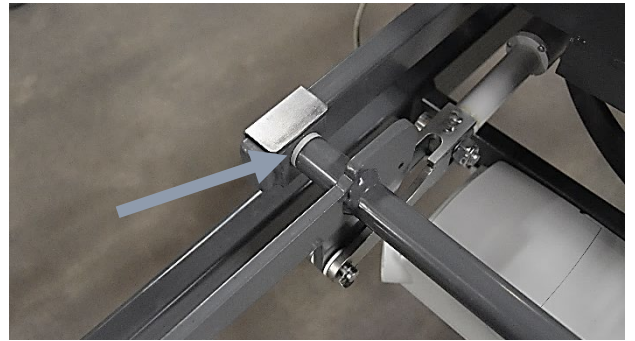
Remount wheel runners on axle

5.5.5 | Lubrication of foot plate axle

1. Spray on the white rollers as shown in both photos
2. Repeat on both sides of the foot plate axle.



Location of white rollers



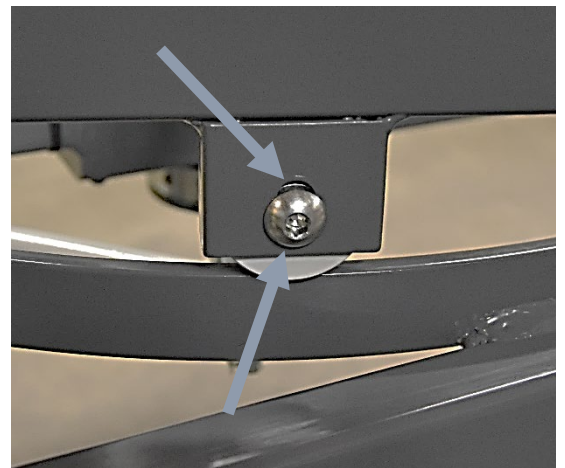
Spray on the white roller

5.5.6 | Lubrication of rotating platform

1. Turn the bed to end position for better access. The five rotation wheels located under seat should be sprayed periodically and minimum once a year.
2. Spray all five wheelhouses located on the rotation platform. Spray in the little opening above or below the bolt head on the wheelhouse as shown on the photos.



Location of wheelhouses. There are in total five wheelhouses



Spray above and under the bolt head

6 | General and technical information

6.1 | Warranty

RotoBed®Free is a high-quality product which is to ensure many years of trouble-free use. RotoBed® offers a three-year warranty provided that the bed is purchased from new and that the instructions in this manual are followed. All electrical components from LINAK such as control box and actuators are covered by a five-year warranty. These warranties cover spare parts and repair of defects in the product during this period, unless otherwise stated in the sales agreement.

The warranty covers problems due to defects in the design or production of the bed - however, only if the bed has been used in accordance with these instructions. Faults and defects that arise during the warranty period must be reported immediately to the dealer or manufacturer, which will determine if the bed is to be repaired, replaced, or discarded. Incorrect use of the bed, abuse and accidental damage is not covered by the warranty, and in that case, there will be a fee for the repair. A minor breach of warranty will not affect the continuation of the warranty. Under certain circumstances, actions that cause fundamental damage to the bed will lead to invalidation of the warranty for the remainder of the warranty period.

Events that are not covered by the warranty include:

- Damage caused by overload or improper use of the bed.
- Damage caused by washing or cleaning where the cleaning instructions have not been followed.
- Damage caused by lack of or incorrect maintenance.
- Accidental damage to the remote control, for example by dropping it in liquid or driving over in a wheelchair.
- Damage to cables caused by, for example, being run over or trapped in the moving parts of the bed.
- Damage to mechanical or electrical parts under the bed due to improper use of lifting or hoisting equipment.
- Damage to mattress and upholstery for any reason.
- Damage to wall or adjacent furniture due to incorrect placement of the bed.
- Damage to the socket for any reason.
- Damage caused by electrical parts being opened or used incorrectly.

In addition to the warranty, RotoBed® guarantees to be able to deliver spare parts for at least 10 years from the date of purchase.

The bed is designed and tested to carry a defined maximum weight. Max user weight and rated load appears in the manual and must not be exceeded.

The above are examples, and the list is thus not to be read as all-inclusive.

Wood is a natural product and undergoes a natural aging process. Over time, environmental influences such as humidity, heat and UV radiation will cause changes in the surface of the wood. Changes caused by natural aging are not covered by the warranty.

6.2 | Life expectancy

RotoBed®Free has an expected lifetime of 10-15 years depending on maintenance / treatment and provided that the annual service inspection is observed. The foam mattresses have an expected lifetime of 4-6 years, again depending on maintenance / treatment.

The use of beds that are not in good quality and safety condition can lead to dangerous situations.

Use, cleaning, maintenance, and service according to the manufacturer's regulations will affect the lifetime of the bed. It will also extend the lifetime when wear parts are replaced as required and according to the manufacturer's instructions.

When using the bed in addition to the manufacturer's expected lifetime, the bed should be continuously quality, and safety assessed. This must be done by staff who are competent and trained in evaluating equipment according to the current version of the standard EN 60601-2-52. Knowing the bed's features and safety rules is a prerequisite.

6.3 | Disposal

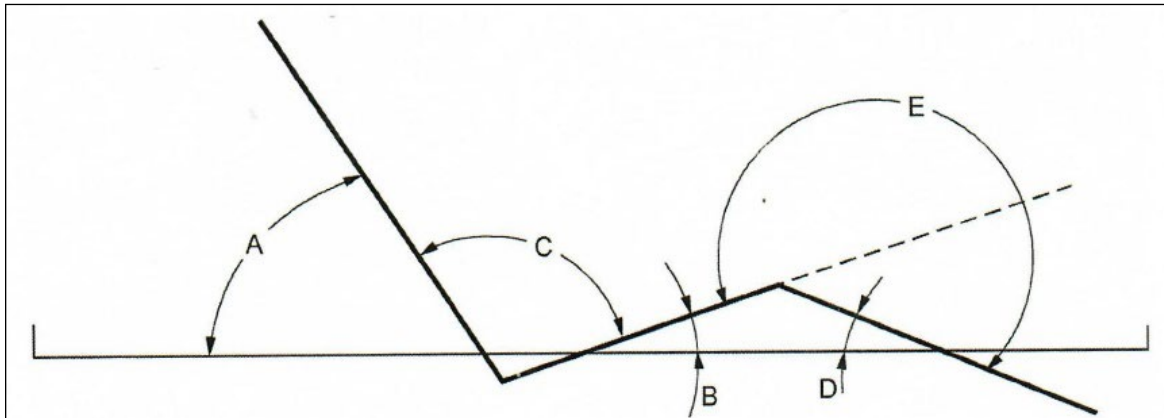
RotoBed® focuses on recycling and environmentally sound production. Disposal of beds or bed parts must take into account the environment and must also comply with national legislation. Local authorities can provide information on how and where used equipment can be delivered.

The bed can be divided into waste fractions metal, plastic, electronics, and cables.

When disposing the bed can be divided into the following material groups:

PRODUCT	MATERIAL	HANDLING
RotoBed®Free	Electronics Wires and cables Metal Laminate Plastic Tree Textiles	Electronics waste Electronics waste Recycling Burnable Burnable Burnable Burnable
Mattress	Plastic Cold foam Textile	Burnable Burnable Burnable
Upholstery for bedrails	Textile	Burnable
Lifting pole	Metal Plastic	Recycling Burnable

6.4 | Technical information



$$A = 0-86^\circ \mid B = 0-20^\circ \mid C = 0-74^\circ \mid D = 0-16,7^\circ \mid E = >180^\circ$$

LOAD		BED (outer measures)	
User weight max	190 kg	Length	228 cm
Rated load	225 kg	Width	96 cm
Accessories max	35 kg	Free space over the floor	15 cm
SURROUNDINGS (indoor use only)		LYING SURFACE (4-sectioned with electric setting)	
Sound level	max 57 dB/A	Length (mattress)	205 / 215 / 225 cm
Humidity	30% – 70%	Width (mattress)	85 / 100 cm
Atmospheric pressure	700 hPa – 1060 hPa	Height (mattress)	13 cm
Ambient temperature	+10°c - +40°c	Height of lying surface without mattress, min/max	32-82 cm
WEIGHT		CORROSION PROTECTION	
Headboard	39 kg	RotoBed® uses materials that protected against corrosion according to the shot peening method.	
Footboard	46 kg	HEIGHT OF BEDRAILS	
Frame	80 kg	From lying surface to the upper edge of the bedrail	35 cm
Total weight	165 kg	From the top edge of the mattress to the bedrail	22 cm
CASTOR SYSTEM		CONTROL BOX	
Breaking system	Works in pair	Protection class:	IPX6W/II
Castor type	4 Tente Linea double castrs	Rated capacity:	350 W
Castor diameter	100 mm	Standby Power:	Approx. 0,5 W
LYING SURFACE ACTUATORS			
	LA 40 (J16080/ 400501450D0M0B2W+11DB132542000) LA 40 (J14428/ 400501200A0M0B2W+11DB129042002)	LA 40 (J16081/ 400902500A0M0B2W+12DB142032000)	
Electrical connection	24V DC, maks 3,7 A		24V DC, maks 2,3 A
Protection class	IPX6W / II		IPX6W / II
Duty cycle	10%, Max. 2 min /18 min. The device is not designed for continuous operation. After 2 minutes of full-load operation, an 18-minute break is recommended.		10%, Max. 2 min /18 min. The device is not designed for continuous operation. After 2 minutes of full-load operation, an 18-minute break is recommended.
Compressive force	4000 N		1500 N
Adjustment speed	7,5-9 mm/s		14,9-16,3 mm/s
HEIGHT ADJUSTMENT ACTUATORS (LA 31 (313293-00 / 31320H+5150032K)			
Electrical connection	24V DC, max 2,9 A		
Protection class	IPX6 / II		
Duty cycle	10%, Max. 2 min /18 min. The device is not designed for continuous operation. After 2 minutes of full-load operation, an 18-minute break is recommended.		
Compressive force	1500 N		
Adjustment speed	13-26,6 mm/s		

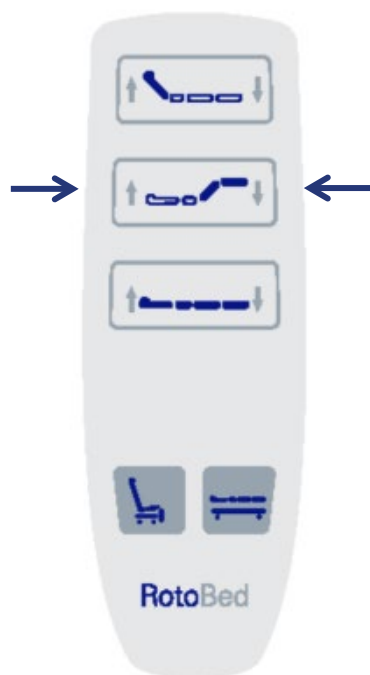
	SYMPTOM	POSSIBLE CAUSE	HANDLING
1	The bed does not respond to the remote control.	The remote control is not connected to the bed.	Plug the remote control into the control box.
2	The remote is connected, but the bed does not respond.	Is defect	Replace remote control and associated cable.
		The engine of the bed is not adjusted and does not work for that reason.	Check that all sockets are properly installed and that the power is connected to the bed. Rest the remote control, see "Reset motors".
		May occur after service or if engine plug has been removed.	Use the remote control reset function, see "Reset motors" page 24 Fejl! Bogmærke er ikke defineret..
3	Only some of the electrical features respond when pressing the remote control.	Cable is plugged into the wrong control box.	Plug cable in the correct control box.
		Motor is damaged.	Change defect part.
		Remote control is defect.	Change defect part.
		Control box is defect.	Change defect part.
4	The bed says a strange sound when set with the remote control.	Motor is damaged.	Change defect part.
		Wires or parts are clamped.	If the cord or bed parts are damaged, replace the part. Send bed for service.
5	The bed cannot be moved up or down.	Motor has lost its "position".	Check that all plugs are properly installed, and that the product is powered. See "Reset of motors" page 24.
6	The lying surface is skewed when set in height.	The bed is or has been overloaded.	Stop using the bed. The bed needs to be serviced.
7	The motors often must be reset.	Possible defect on connected devices.	Check if control box or any of the connected devices such as actuators, remote controls, cables, etc. are defect.
		Control box is defect.	
8	The bed smells warm or runs irregularly.	The bed is overloaded.	The bed needs to be serviced.

6.6 | Reset motors

If the bed is not working as expected, it can be reset via the wireless remote control.

NB: If the bed is equipped with bedrails, these must be removed before the reset process is started.

NB: In the event of disconnection of the motor cable, it may be necessary to reset the system.



Simultaneously press both sides of the leg part key on the remote control (leg part up + leg part down)

Keep pressing the buttons until:

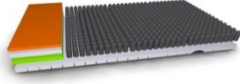

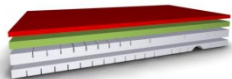
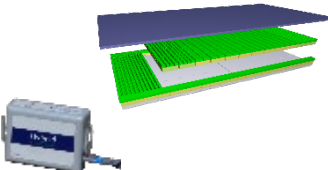
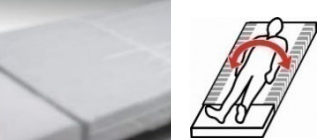
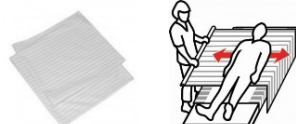



- the bed is inside the frame,
- the backrest is in the lowest possible position,
- the bed height is the lowest possible.



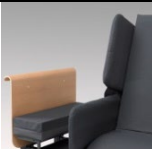
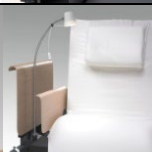




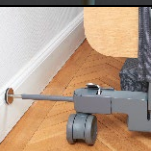


This procedure lasts up to 60 seconds. It is completed when you hear four short beep sounds.

The bed is now reset and ready for use.













NB: If the need for reset is frequent, the bed should be serviced.












RotoBed® offers a vast variety of accessories. A large part of these high-quality accessories is specially designed for RotoBed® to ease the user's everyday life even more.

<p>Roho® Dry Flotation Mattress</p>		<p>2-layer mattress with proven efficacy in the prevention and treatment of pressure ulcers in all four stages. Optimal prevention and healing conditions for users at high risk of pressure ulcers.</p>
<p>RotoBed®SafeSleep Mattress</p>		<p>4-layer quality mattress. Prevention and treatment of pressure ulcers in stages 1-3. Recommended user weight: 40 – 120 kg. 2-layer mattress with proven efficacy in the prevention and treatment of pressure ulcers in all four stages. Optimal prevention and healing conditions for users at high risk of pressure ulcers.</p>
<p>RotoBed®BariaSleep Mattress</p>		<p>4-layer quality mattress with proven efficacy in the prevention and treatment of pressure ulcers in stages 1-3. Recommended user weight: 120 – 190 kg.</p>
<p>RotoBed®AirSleep Mattress</p>		<p>Hybrid mattress with double function: Top quality 4-layer mattress with prevention and treatment of pressure ulcers in stages 1-3. By connecting a pump, the mattress can be made into an alternating pressure mattress with prevention and treatment of pressure ulcers in all stages. User weight without pump: 30 - 150 kg. User weight with pump: 30 – 190 kg.</p>
<p>RotoBed®RotoSlide</p>		<p>A slide sheet designed for people with difficulty turning over in bed. Can be used in combination with RotoBed® RotoSlide 2way in connection with transfers.</p>
<p>RotoBed®RotoSlide 2way</p>		<p>Sliding sheet facilitating sideways transfers in the bed. Slides in two directions. Use in combination with RotoBed®RotoSlide.</p>
<p>RotoBed®RotoTurn</p>		<p>Sliding and turning system with integrated locking function. Specially adapted to RotoBed®.</p>
<p>RotoBed®Protection Cover</p>		<p>Mattress cover made of supple, stretchable foil. Semi-impermeable, washable at 95°C. The upper part can be zipped off for washing.</p>
<p>RotoBed®Pillow</p>		<p>Pillow made of thermos-elastic foam. Width 80 cm, covers the entire width of the bed.</p>


<p>RotoBed®Pillowcase</p>		<p>Pillowcase for RotoBed®Pillow. Attachable at backrest. Made of soft, stretchable cotton, washable at 60°C. Available in beige or black.</p>
<p>RotoBed®Lifting Pole</p>		<p>Including handle with seat belt. To be placed in the bed's built-in holders, in either the right or the left side of the bed.</p>
<p>RotoBed®Upholstery</p>		<p>Upholstery for bedrails, covers both bedrails. Material: Quality fabric from Danish Kvadrat, made of 100 % recycled plastic. Washable at 60°C. NB: RotoBed®Upholstery only fits RotoBed®Bedrails of metal.</p>
<p>RotoBed®LED Lamp</p>		<p>To be placed in the bed's built-in holders, in either the right or the left side.</p>
<p>RotoBed®Battery Backup</p>		<p>LINAK lithium Battery - Covers approx. 10 x cycle without power.</p>
<p>RotoBed®Underbed Light</p>		<p>Two soft spotlights will turn on whenever the RotoBed® is rotated towards exit position. When the bed is rotated back, lights will go out. Underbed Light is mounted on the bed.</p>
<p>RotoBed®Light Package</p>		<p>When RotoBed® rotates, a soft light under the bed will turn on – as well as any lamp you choose in the room. When the bed is rotated back, lights go out. The external lamp is connected to the system by a plug.</p>
<p>RotoBed®Bedside Table Design by Hans Sandgren Jakobsen</p>		<p>Bedside table in oak veneer, ø 30cm. Internal height 5 cm. Swivel and height adjustable. Tabletop in antibacterial nanolaminate with protective coating.</p>
<p>RotoBed®Wall spacer Design by Hans Sandgren Jakobsen</p>		<p>Prevents the bed from colliding with the wall during rotation.</p>
<p>RotoBed®Trolley</p>		<p>Trolley for transport / storage of bed on a vertical edge. Specially designed for RotoBed®. Easy to assemble without the use of tools.</p>
<p>RotoBed® RotoLift®</p>		<p>Elevates RotoBed® to vertical position with no physical exertion. To be used in combination with RotoBed® Trolley. CE-marked, approved by the Danish Technological Institute.</p>

8 | Type plate and symbols

	RotoBed, Storegade 44 DK-6640 Lunderskov Phone +45 7550 5025		2022-08
RotoBed®Free		Art. no.: RBF-001	SN: 202208200-001
	 ≥ 140 cm.	 BMI ≥ 17	 = 190 kg.  = 225 kg.
			  IPX6W Int: <10%, max. 2 min. ON / 18 min. OFF I in max. 2A, 100/240VAC, 50/60 Hz

	CE-approval MDR EU 2017/745		User manual
	Serial number		Be aware. See accompanying documentation
	Type BF-equipment (EN- 60601-1)		Maximum user weight
	Manufacturer		Rated load (user + other)
	Double isolation, no earth wire needed		Manufacturing date
	For indoor use	IPX6W	Water Rating (withstands washing)

UK symbol explanation

This section is only applicable to the United Kingdom (UK) when UK marking is applied to the RotoBed ApS medical device labelling.	
	UK marking indicating conformity with UK Medical Device Regulations 2002 (SI 2002 No 618, as amended). UK Responsible Person: Obelis Ltd. Sandford Gate, East Point Business Park Oxford, OX4 6LB, UK www.obelis.co.uk , Tel : +44 186 59 10 145 , is appointed as the UK responsible person as defined in the UK Medical Device Regulations. For Northern Ireland (NI) CE marking will still apply until further amendment to applicable regulations.
UK importer: Azure House, Connaught Road, Kingswood England, United Kingdom, HU7 3AP, 332 222 8584	

Note: EU Declaration of Conformity on next page. UK Declaration can be obtained at manufacturer.

EU declaration of conformity

in accordance with the EC Medical Device Regulation (EU) 2017/745 (Original updated version)

The manufacturer: RotoBed ApS, Storegade 44, DK-6640 Lunderskov
Tel.: +45 7550 5025 e-mail: info@rotobed.com, www.rotobed.com

hereby legally binding declares that the products:

Products description:

Nursing home bed, Turning bed, Rotational bed, Care bed, Standup- and Mobilization bed	DI- Number
RotoBed®Free, Standard	05745000385003
RotoBed®Free, Long, + 10 cm.	05745000385010
RotoBed®Free, Long, + 20 cm.	05745000385027
RotoBed®Free, Wide	05745000385034
RotoBed®Free, Wide, + 10 cm.	05745000385041
RotoBed®Free, Wide, + 20 cm.	05745000385058

- Correspond to the relevant provisions of the EC Medical Device Regulation (EU) 2017/745 and the Danish implementation of this Directive
- Are classified in Class I for Medical Products
- Are carried out in accordance with the requirements of the quality management standard: DS/EN/ISO 13485:2016.
- Comply with the Risk management standard: DS/EN/ISO EN ISO 14971:2012.

Conforms to the following standards:

IEC 60601-2-52: 2009/AMD1: 2015 – Part 2-52	Medical electrical equipment - Part 2-52: Particular requirements for the basic safety and essential performance of medical beds
EN 60601-1:2006/A1:2013/A12:2014	Medical electrical equipment. General requirements for basic safety and essential performance
EN 60601-1-2:2015, Edition 4:0part 1-2	Medical electrical equipment. General requirements for basic safety and essential performance. Collateral Standard. Electromagnetic disturbances. Requirements and tests
EN 60601-1-6:/2010 AMD1:2013	Medical electrical equipment - Part 1-6: General requirements for basic safety and essential performance - Collateral standard: Usability
EN ISO10993-1:2009 + AC:2010	Biological evaluation of medical – Part 1: Evaluation and testing within a risk management process – Technical Corrigendum 1
2011/65/EU, EN 50581:2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances



Intended use:

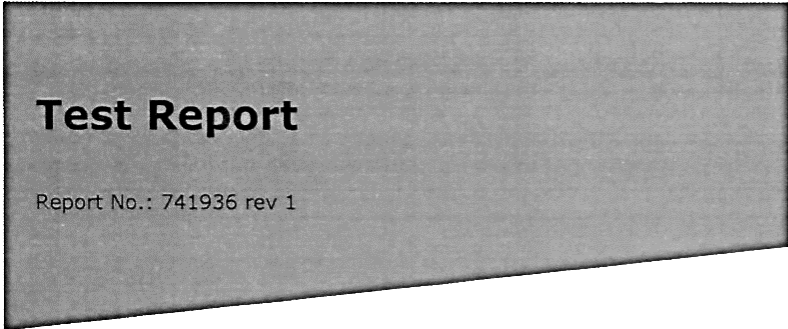
RotoBed®Free is designed to help users with physical constraints.
RotoBed®Free rotates the user in a chair position towards the room. This facilitates entry and exit from the bed, leads to less strain, and thus helps maintaining mobility and muscle power.

If the products are modified without our prior permission, this certificate will no longer be valid

Lunderskov / 12.07.2021
Place / date

Martin Riis Holm

CEO



**DANISH
TECHNOLOGICAL
INSTITUTE**

Gregersensvej
DK-2630 Taastrup
Tel. +45 72 20 20 00
Fax +45 72 20 20 19

info@teknologisk.dk
www.teknologisk.dk

Assignor: RotoBed
Nick
Storegade 44
DK-6640 Lunderskov

Page 1 of 1
Laha/prni/hbs
Order no.: 741936
No. of appendices: 2

Subject: Model: RotoBed Care, RotoBed Free

Adjustable beds - ISO classification 18.12.09	
Type: Adjustable beds	
Type: Adjustable bed	Actuators: Linak Lower/upper leg: Item no. J16080 Back section: Item no. J14428 Turning: Item no. J15595 Hight: Item no. 31320H+5150032K
Materials: Painted steel and plastic	
Date of manufacture: -	
See Appendix 2.	

Sampling: The test material was sampled by the client and received at the Danish Technological Institute 17-05-2017.

Method: IEC 60601-2-52:2009/AMD1:2015 Medical electrical equipment - Part 2-52: Particular requirements for basic safety and essential performance of medical beds

The following properties are not tested for: Electrical safety, EMC, Acoustic noise, Excessive radiation, Temperatures, Corrosion and Biocompatibility.

The testing was carried out under normal indoor conditions.

Period: The testing was carried out from 17-05-2017 to 25-08-2017

Result: The RotoBed meets the requirements in IEC 60601-2-52:2009.

Individual results appear from Appendix 1

Storage: The test material will be destroyed after 1 month, unless otherwise agreed.

Terms: The accredited test was carried out according to DANAK's general conditions see www.danak.dk and according to the General Terms and Conditions regarding Commissioned Work Accepted by the Danish Technological Institute, which apply at the time of signing the agreement. The test is only valid for the tested specimen. The test report may only be extracted, if the laboratory has approved the extract.

Note: Revision due to 201.7.2.2.101 Detachable parts changed to Passed, 201.7.2.2.106 changed to Passed and 201.7.9.2.2 f) changed to Passed.

Date/place: 18-09-2017, Danish Technological Institute, Wood Technology, Taastrup
Replaces report dated 04-09-2017

Signature: Test responsible

Lars Jørgensen

Lars Jørgensen
Ph. direct +45 72 20 23 00
E-mail laha@teknologisk.dk

Co-signatory

