



"Quality is never an accident. It is always the result of intelligent effort."

John Ruskin

Speeding up recovery and reducing strain on staff at the same time – these were the target specifications for the development of a universal hospital bed with lateral tilting that could still be cost-effective. With the latera thema, these requirements are not only met, but also implemented emotionally appealing, which is characteristic of the symbiosis of functionality and aesthetics that wissner-bosserhoff is known for.

Patients benefit from the advantages of lateral tilting in three different ways: Painful friction forces during positioning are reduced, bed ingress and egress is easier, and it has been shown that autonomy and mobilisation are clearly stimulated. All components make an important contribution to a faster recovery process.

The staff, who have more than ever become a crucial strategic factor in successfully running a hospital, also enjoy the benefits of the latera thema. A high level of motivation and a low level of sick leave among medical staff are prerequisites not only for patient satisfaction, but also for the economic success of a hospital. And this is precisely where the latera thema comes to the fore: Physically strenuous activities, such as changing the patient's clothes and dressings, mobilisation or patient transfer are simplified, saving time and energy; this reduces stress in the work routine, resulting in work-related illnesses being effectively counteracted.





Previous page With the latera thema, the lateral tilting successfully deployed in intensive care beds also becomes affordable for universal hospital beds.

**01** The 3 lifting columns of the latera thema enable a lateral tilting of the bed by up to 15 degrees.

Page right The lateral tilting is a helpful support for nursing staff when dealing with the patient. A nurse can change the bed sheets using a minimum amount of energy.

"Nobody knows the grasp of his strengths unless he tried them."

Johann Wolfgang von Goethe

Looking after a patient who is partially or completely immobile is without doubt one of the most strenuous parts of the work of nursing staff. Yet, these activities form a large part of routine nursing practice. In many cases, nursing care also requires the patient to be positioned on his side. Examples of this are changing the bed sheets, mobilisation, skin care and general hygiene. This is the reason why wissner-bosserhoff, with the latera thema, is offering a bed with lateral tilting which enables the patient to be turned over or moved onto his side with the minimum amount of effort. In this way, the latera thema reduces strain on nursing staff. In addition, the lateral tilting also supports medical processes, such as simplifying post-operative drainage or avoiding bedsores. Despite this extensive functionality, there is still a place for aesthetics in the latera thema.



# latera thema



## hospital bed latera thema

Reducing nursing strain. Prevention. Cosiness.

### 02 Control satellite\*

- where it can always be easily reached
- Optimal cable management
- Autocontour setting and height adjustment of the bed
- Initial-fault tolerance thanks to the GO safety button

### 01 Side guard

- Safety standards without gaps, already comply with the expected forthcoming standard IEC 60601-2-52
- Safe use of patient restraint systems in accordance with the BfArM\*\*
- Telescopic panels enable use even in conjunction with the bed extension
- . No panels lying on top of each other,
- so there is no risk of fingers getting trapped
- Optimal drainage diversion possible
- Use of mattresses up to 20 cm in height possible
- Quiet adjustment

### 09 Mobile supervisor

- Can be positioned flexibly for more ergonomic work situations
- Locks individual function keys
- Emergency STOP button to immediately halt all bed adjustments
- Adjustment of lateral tilting
- Pre-programmed cardiac chair and CPR positions
- Fast setting of Trendelenburg and examination positions
- Battery pack status and charge display
- Can be stored in the linen holder to save space when not in use

### 08 Lifting technology

The latera thema stands out due to its proven 3-column lifting construction

- Company's own lifting technology, tried and tested over 200,000 times since 1999
- Height adjustment range approx. 43 to 81 cm
- Safe working load up to 185 kg
- Easy to clean thanks to the smooth surfaces and a completely closed system
- Adjustment force of 2,000 N per lifting column (= approx. 2 x 200 kg)
- Reduced electro-smog pollution through motors positioned beneath bed
- Scratch- and impact-resistant anodised aluminium

07 Movability and braking capacity

Via the central brake, all castors can be braked from both sides of the bed with a pedal:

· Good mobility thanks to 150 mm castors with

- Pedal red down = all castors are braked

- Pedal horizontal = all castors are free

Brake pedal with 3 functions:

directional guidance to move in a straight line

• Trouble-free underbed clearance with patient lifters

- Pedal green down = the directional castor is activated

(exception with optional 5th castor = separate pedal for the direction)

- The control satellite is attached behind the backrest.
- to adjust the backrest and thigh rest

### 03 Patient surface

- 4-part patient surface with ergonomic backrest length in accordance with the recommendations of Prof. Eigler
- Retraction of the backrest by 11 cm, in accordance with the DBfK (German Nurses Association) recommendation
- Patient surface with removable synthetic padding is easy to clean
- Mattress size 200 x 86 cm
- Bed extension by 10 cm
- Lateralisation\*\*\* on both sides by 15°

### 04 Foot controls for lateral tilting\*

The foot controls enable the lateral tilting to be adjusted hygienically and hands-free, avoiding strains on the back. The protection bar and the GO button prevent unintended operation of the function buttons.

### 05 Foot controls for height adjustment\* (not shown)

The foot controls enable the bed height to be adjusted and the pre-programmed examination position to be set hygienically and hands-free, avoiding strain on the back. The protection bar prevents unintended operation of the function buttons.

Simple and back-saving manoeuvring on long corridors and in narrow rooms using the 5th castor.

• The directional castor is operated using a separate pedal on the undercarriage







The quality and safety management works in accordance with the regulations DIN EN ISO 9001:2008 and DIN EN ISO 13485:2007-10, our beds carry the CE mark and are tested according to current hospital

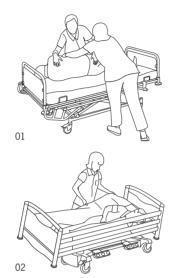
### 06 5th Castor\* (not shown)

## the 10 advantages of lateralisation

## Ease of nursing care

#### Nursing – a strenuous profession

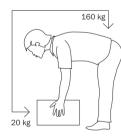
It is no secret that nursing in hospitals and care homes is statistically one of the most high-risk occupations. Apart from infections and stress, nursing staff frequently suffer from back pain, blockades and deformations of the spinal column, often with permanent damage. A questionnaire in internal medicine and long-term care revealed that some 94% of nursing staff suffer from back pain, and 60% of those questioned said that they lifted patients during mobilisation. As a result, physical exertion during mobilisation (95%) is categorised as high (68%) or even very high (27%). One of the main causes of this is frequent repositioning of patients, in particular for heavy or disoriented patients (e.g. after operations), as well as for mentally unstable patients or those connected to instruments. Even the simplest nursing activities, such as applying and changing bandages, can be physically strenuous.



**01** With a conventional bed, often two nurses need to work together. They turn the patient onto one side, one person stabilises him and the other changes the sheets on the other side.

**02** With the latera thema, this can all be done by one nurse on their own (e.g. at night or at weekends, when less staff are present). Lateralisation reduces the physical effortby some 33%.

When lifting heavy objects, the back is subject to extreme



strain. If you lift 20 kg from a bent posture, for example, this corresponds to a strain on the intervertebral disc that is 8 times higher, that is, 160 kg, with a corresponding risk of damage to the back, such as a herniated disc.

#### Nursing - a time-consuming profession

Many routine nursing activities, such as changing the bed sheets and washing patients, as well as their mobilisation, are connected with the need to alternately turn the patient from one side to another. In some cases, these activities require two nurses, where one person holds the patient and stabilises the horizontal-lateral position, and the other performs the actual work, e.g. changing the bed sheets in the unoccupied part of the bed. The problem here is not only the physical load, but also the time taken and the staff required to do this. In practice there are bottlenecks, especially at times when staffing levels are low (e.g. nights, weekends), which result in nursing staff often having to perform physically strenuous tasks on their own.

#### Lateralisation reduces strain and saves time

In the context of a questionnaire for nurses at ten French University hospitals, these statements were confirmed. At the same time, nursing staff were asked what bed function is optimally suited for an easier positioning of patients. The result of the questionnaire: lateralisation is the bed function most suited to reducing strain in nursing, and rates higher than vertical tilting, autocontour, height adjustment and the weighing system.

An empirical comparison between a conventional electric hospital bed and the latera hospital bed with lateralisation shows some remarkable results. For example, two typical and everyday positioning activities are analysed (see sketch) which are necessary for changing the bed linen:

- 1. Turning the patient on his side
- 2. Changing the bed linen on the other side of the bed The amount of time and effort expended by nursing staff was measured the result is quite clear: Lateralisation enables a reduction in the physical effort expended by nursing staff of approx. 30% when changing bed linen. At the same time, there are time savings of between 15 and 20%.

### Prevention and care

#### Prevention and care of immobile patients

The immobility of patients in acute care confined to bed affects all the organ systems of the human body (compare this with the Fig. on the right). Secondary complications mean additional pain and strain for the patient, as well as a longer hospital admission and higher costs to the hospital, because of case-based lump sums. Lateralisation can play a crucial role in the prevention of immobility and in the daily care of immobile patients. This includes the following activities in particular:

- Moving the patient every 2 to 3 hours
- Dressing wounds, general hygiene and skin care
- · Changing dressings, clothing and sanitary pads
- Verticalisation during meals
- Training to achieve autonomy

### Lung drainage and post-operative applications

The possibility of turning patients around their own axis can also be used post-operatively during intensive care, for example for drainage after pulmonary surgery, or to improve breathing after other surgical interventions. In this connection, there is statistically a risk of insufficient air supply for 90% of patients after cardiac surgery, for 74% of patients after an operation on the spinal column and for 20 to 30% of patients after surgery in the upper stomach region.

### **Bedsore prevention and burns**

Positioning of the patient for bedsore prevention is a great strain for nursing staff. In order for this preventive method to be effective, the patient at risk must be repositioned every 2 to 3 hours. There are some special positioning methods, such as verticalisation, lateral positioning (or turning) and the prone position, which is especially complex. Apart from bedsore prevention, these positions are used to prevent pneumonia and other complications suffered by patients confined to bed.

#### Other applications

Apart from the preventive positions used to avoid illnesses or to assist recovery, lateralisation can also be used as an element to provide comfort. Practical application examples of this are looking after babies in the maternity ward or setting a comfortable position for long-term visitors, especially in palliative care.

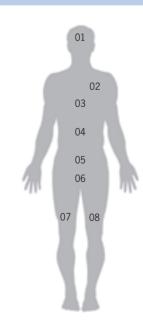
### the 10 advantages of lateralisation

### Ease of nursing care

- 1. Changing sheets / dressings
- 2. Skin care and general hygiene
- 3. Mobilisation (bed ingress and egress)
- 4. Transfer (to a bed, stretcher, transport chair)

### **Prevention and care**

- 5. Dressing wounds
- 6. Bedsore prevention
- 7. Breathing more easily
- 8. Burns
- 9. Baby care
- 10. Receiving visitors



- **01** Psychic disturbances
- **02** Cardiovascular system
- **03** Respiratory tracts
- **04** Nervous system
- **05** Food ingestion, metabolism and excretion system
- **06** Urinary tract and endocrine system
- **07** Musculoskeletal system

**08** Skin

## the 10 Advantages of lateralisation

## Changing sheets / dressings

Changing the bed sheets is a typical example of how lateral tilting can effectively be used in daily routine work. At the same time this procedure can be used for changing dressings or with other nursing activities such as washing or changing the patient's clothes.

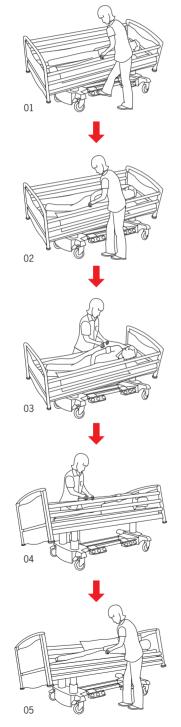
**01** Using the foot controls, a nurse can set the latera to a convenient working height so that he/she can stand upright when performing nursing tasks. On the nursing side, the side guard that is raised is padded with a cushion so that the patient is protected. Now the bed can be tilted sideways using the foot controls.

02 The lateral tilting reduces the physical effort needed to turn a patient onto his side. The nurse needs to provide only minimal support. In this way, even heavy patients can be cared for effortlessly.

**03** The patient now lies in a stable position. The nurse changes sides to lower the side guard there and begin changing the bed sheets or dressings.

**04** With the foot controls, the nurse can bring the bed back to a horizontal position, turn the patient onto his back, pull the side guard back up and pad it with a cushion. Then the bed is tilted in the other direction and the patient is turned back onto his side

**05** Once the patient is lying safely on the other side, the nurse can finish changing the sheet using the lateral tilting.





Through the use of lateralisation when changing bed sheets or dressings, the patient is more accessible to nursing staff. The nurse does not need to bend down as much, back and shoulder strains are reduced. By working with the joints in normal positions, placing too much strain on the upper limbs can be avoided, and nursing duties can be performed more effectively. This kinaesthetic advantage is just as beneficial to the patient, who can be moved with minimal physical effort. This reduces the risk of pains, additional injuries and friction and shearing forces that could damage the skin.

## ease of nursing care

## Bed ingress / egress

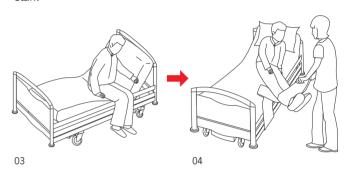
01 Making contact with the patient surface while standing **02** Lateral lowering of patient

03 Achieving a safe sitting position

04 Swinging legs into lying position

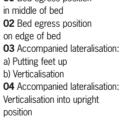


**Bed ingress** The combination of lateral tilting with simultaneous lowering of the patient surface height allows the patient to sit down gently from an upright position, thus assisting a safe bed ingress without much physical effort on the part of the nursing staff.



**01** Bed egress position in middle of bed 02 Bed egress position on edge of bed a) Putting feet up

b) Verticalisation Verticalisation into upright



Bed egress Through the use of lateralisation, the patient can get to his feet from a sitting position without any physical effort in order to subsequently do walking exercises - possibly supported or with crutches.

Advantages for the patient Patients of small stature or with restricted mobility can make contact with the ground with the help of lateral tilting. Friction and shearing forces are reduced when sliding to the edge of the bed. The patient's getting up procedure is assisted by lateralisation. The hips of the patient are positioned higher than his knees, which makes it easier for him to get on his feet. Ideal for maintaining independence: Mobility is made use of instead of it being lost!

**Advantages for nursing staff** No need to pull or lift the patient from the middle to the edge of the bed. The process of standing up needs to be only minimally assisted, resulting in less physical

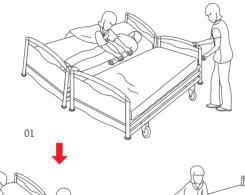




## ease of nursing care

### Transfer to bed

Due to the lateral tilting of the latera thema, it is no longer necessary to turn the patient over with jolting movements. This is especially useful when preparing for surgery in the back area. Furthermore, there is no longer any need to transfer the patient to a transport chair. A sliding mat is also no longer necessary, a simple bed sheet is generally sufficient. Advantages for the patient: Turning the patient is considerably more gentle and free of pain. Advantages for nursing staff: Less energy required and a reduced strain to the shoulders and neck region.



01 Lateralisation and prone position of the patient towards the edge of the bed
 02 Bed transfer on a smooth bed sheet, sliding

**03** Positioning of patient using bed sheet or mat

ca it c

## for prevention and care

## Bedsore prevention

**01** Lying on the left side (135°/30°) **02** Lying on the back **03** Lying on the right side (135°/30°)



With the help of the lateral tilting of the latera thema, not only can the pressure bearing on the patient be regularly altered, it can also be used selectively to bring the patient into a position on his side for bedsore prevention (135 degrees or

30 degrees lying on his side. **Advantages for the patient:** An increase in patient comfort, reduction in risk of bedsores. **Advantages for nursing staff:** Fewer bedsores caused by nursing activities.

## Transfer to the chair

The lateral tilting in combination with a sliding board allows an autonomous transfer to an armchair, transport chair or wheelchair. The bed height is adjusted to the height of the chair. **Advantages for the patient:** The upper body is subjected to less strain. The patient's independence is encouraged.

Advantages for nursing staff: The problem of finding a chair to match the height of the bed is resolved, transfer to the chair saving energy.

**01** Lateralisation and positioning of the sliding board **02 + 03** Autonomous transfer to the chair



## Dressing wounds

First, a sliding mat is pushed under the patient and his pelvis is manipulated manually by 45°. Then, using the lateral tilting, the patient is tilted so far that a nurse can perform complicated nursing activities in the pelvic or back region with their arms resting on the bed and close to the patient.

Advantages for the patient: Less or more gentle manipulation by nursing staff, a reduced risk of pain from turning or from wounds, and of additional injuries. Advantages for nursing staff: Upright and comfortable posture, excellent control, as well as good access to the patient when dressing wounds.



01 Putting sliding mat/sheet under patient
02 Turn patient by 45°
03 Lateralisation for wound treatment in the back/pelvic region

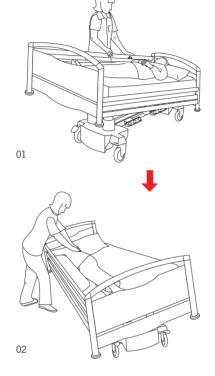
## for prevention and care

## Lung drainage / breathing easier

Lateralisation in combination with the Trendelenburg position of the latera thema makes it easier to perform lung drainages.

### Other preventive and post-operative indications:

- Care and prevention of lung complications and pneumonia through an improvement in lung ventilation
- Support for drainage in cavities that have arisen postoperatively, e.g. thorax and abdominal cavity drainage
- Prevention of vascular diseases (thromboses)
- ARDS (acute respiratory distress syndrome)
- Hypoxemia (lack of oxygen in the blood)
- Percussion of the thorax (tapping the chest to form a diagnosis) is made easier



01 Pull up side rails and add padding, Trendelenburg position02 Lateralisation for drainage or to assist breathing

## Baby care

One application of lateralisation in combination with the cardiac chair position makes it easier for mothers to become familiar with breastfeeding.

Advantages for the patient: Comfort for mother and child.

Advantages for nursing staff: Working ergonomically without having to bend down to the mother.



**01** Comfort sitting position + lateralisation = more comfort for mother and child

### Burns

**01** Lateralisation supports a lying position for patients with skin injuries or burns that reduces strain on skin and tissue

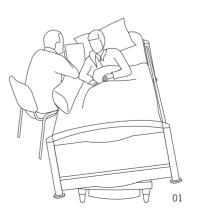


The lateral tilting of the latera thema can be of great benefit if patients with skin lesions or burns need to be moved, since contact between the damaged areas and the patient surface or the nurse can be reduced through lateralisation.

Advantages for the patient: Increases comfort, spares the skin, reduces pain. Advantages for nursing staff: Nursing activities can be performed more efficiently.

## Receiving visitors

**01** Cardiac chair position with subsequent lateralisation to the left/ right.



This position allows the patient to turn comfortably towards his visitors. This makes things more comfortable for long-term visitors, such as those to palliative care wards, so that they give their full attention to the patient. **Advantages for the patient:** More closeness and direct eye contact with family and friends. Increase in the quality of life for the patient. **Advantages for nursing staff:** Fewer bedsores caused by positioning.

## operating and lying comfort

ABS patient surface covers

01 The handset (standard version) is easy to operate. It can be used flexibly on both sides of the bed. Even a patient with physical limitations can place the handset somewhere easily accessible. If the patient is not supposed to make adjustments, the handset can be hidden. With an optional "plug & play" connection, the handset can be removed and exchanged economically between beds.

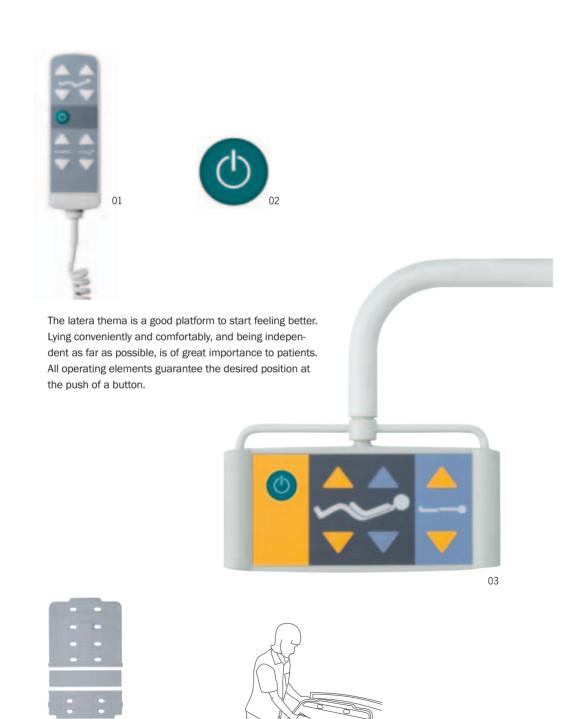
#### 02 The GO safety button

follows the principle of initial fault tolerance. It prevents the uncontrolled triggering of a function (even in battery mode), for example by a button being pressed by accident or by defective electrical functions. Without pressing the GO safety button, the operating elements are not active and the motors of the bed cannot be started. The buttons remain active for 3 minutes after the last movement has been made. For the next positioning, the GO safety button must be pressed again.

03 The flexible control satellite, as an optional control element, stands for optimal cable management. It is attached to the backrest of the bed, so that it is always easily reachable.

### The stable plastic covers

for the patient surface can be removed individually. This allows effortless disinfection and cleaning, as well as easy access to the parts of the bed lying beneath. Worked in openings guarantee good airing of the mattress, allow fluids to flow away and leave no opportunity for water to



The latera thema is a multitalent in daily hospital life. Different positioning options support the work of doctors and nursing staff.

#### 01 The Cardiac chair

position (preset) guarantees reduction in pressure on the heart and provides the optimal lying position for stomach complaints, breathing difficulties, as well as cardiac and pulmonary diseases. In addition it is comfortable when eating. drinking or reading.

02 For the CPR position (preset), the latera thema moves to a low horizontal position to make cardiac massage easier for the doctor. For damage to the spine, for relaxation or sleep, this position is also the right

03 Trendelenburg position

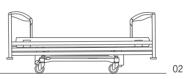
(preset) - The rapid adjustment to the shock position guarantees support of the circulatory system through the legs of the patient being placed up high, for circulatory problems, low blood pressure, shock or heart failure.

04 Anti-Trendelenburg

position This is used for example to position a patient when a narcosis is to be administered, especially when there is a danger of aspiration. With the upper body and head placed high, it is difficult for the contents of the stomach to enter the pharyngeal space. With the low position of the legs, pains in the extremities due to poor circulation can also be eased.

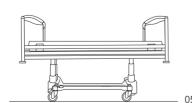
05 The examination position (preset) brings the bed into a high horizontal position. Examinations and treatment of the patient can be carried out without straining the back.













Staff can operate the programmed functions at the press of a button from the **supervisor** installed at the end of the bed. Setting the bed for other emergency and therapy positions can also be done from here quickly and easily. With the supervisor, staff can block settings that the patient is not permitted to select, due to his illness. The STOP button triggers the immediate stopping of all bed positioning options. An LED display shows the battery capacity. If it is stored away, the bed can be set to inactive via a key combination on the supervisor (sleep mode), saving the battery. With its flexible cable, the supervisor is mobile and enables the bed to be adjusted ergonomically from an upright position, reducing back strain.

Foot controls The bed position can be changed quickly and hygienically without using the hands. It is possible to set the bed easily to a height for nursing work, as well as setting the lateral tilting, avoiding strains on the back. The functions of the foot controls can be locked via the supervisor. The safety bar protects from unintended operation.







Lateralisation pedal (optional)

Height adjustment pedal (optional)

## safety and fall prevention

#### 01 0-Position

- Good access to the patient
- No barrier when sitting on the edge of the bed
- No panels lying on top of each other, so there is no risk of fingers getting trapped

## 02 Nursing position (30% protection)

- Combination of safety and good access to the patient for everyday nursing tasks
- Can be lowered at head or foot end
- Can be used as an aid for getting up

### 03 Safety position

- (100% protection)
   Full protection for the benefit of the patient at 42 cm safety height
- Use of Universal and prophylaxis mattresses up to 20 cm in height
- Telescopic panels enable use even in conjunction with the bed extension
- Optimal drainage diversion possible
- Quiet adjustment







The side guard concept of the later thema is just as flexible as is needed in everyday hospital routine. The side guards integrated into the head and foot sections are available the moment they are required. The continuous, telescopic panels guarantee the safety of the patient, even in conjunction with the bed extension.

#### 04 Removable head

section The head section can be pulled out, so that in acute situations, there is free access to the head and upper body area of the patient. For the patient's protection, the side guards can be kept in a raised position.

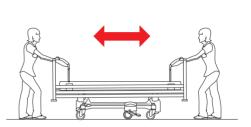


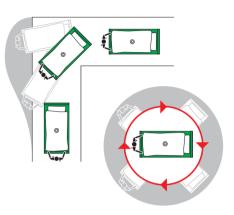
# mobility and stability

### The optional 5th castor

forms the optimal turning point when moving the bed. Saving energy and required space, the latera thema can be moved by just one person either from the head or foot end, and turned on the spot. Shunting arduously to and fro is a thing of the past. The bed negotiates narrow corridors and small hospital rooms elegantly and with a minimal turning circle. For the option with the **5th castor**, the guidance is performed by means of a separate pedal. This successful separation of the 5th castor from the central braking system, known from stretchers, has the advantage that the 5th castor can always remain activated, and only needs to be deactivated briefly to move the bed sideways. This means that the conscious activation of the 5th castor for bed transport is unnecessary, so that energy-conserving and back strain-reducing working methods are already implied in the bed with a 5th castor, even before the staff have become involved.

The brake pedal of the latera thema is located at the foot of the bed. It affects all the castors and has three functions: Activating the directional castor to move in a straight line, releasing all castors or the central braking system. Lifting column With an adjustment force of 2,000N (200 kg), the lifting columns are robust and stable. The interlocking elements guarantee a high lateral stability. A safe working load of 185 kg in the highest position for the latera thema, while using all setting options, is no problem for the lifting columns. If lateralisation is not used, a safe working load of up to 230 kg is possible. The drives, positioned underneath, reduce the electromagnetic pollution for the patient. The surface of anodised aluminium guarantees resistance to damage and provides only a minimal adhesion for contaminating fluids, so that these can be removed without problem.

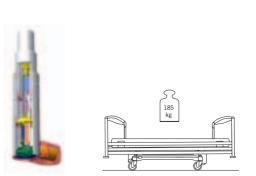






### The integrated extension

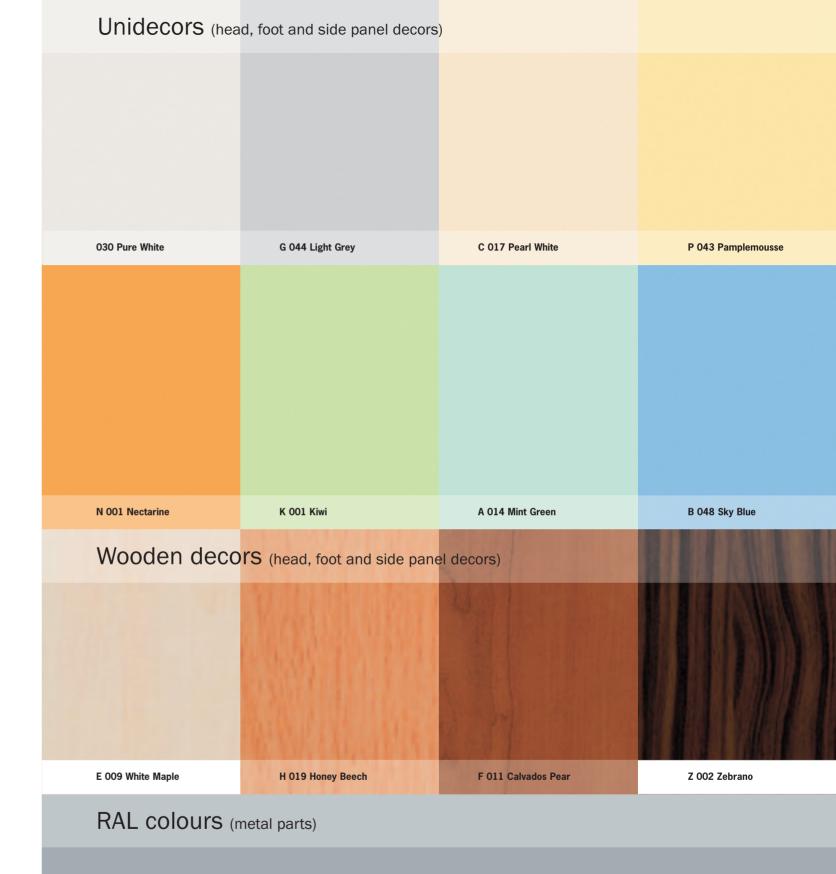
The patient surface for the latera thema can be extended by 10 cm. In this way large patients can also lie comfortably.





# range overview

Dimensions	Castors	Operating elements
L 213 cm	Standard version	Standard version
W 100 cm H 43/81 cm		
latera thema, mattress size 200 x 86 cm	<b>Tente Motion castor</b> diameter 150 mm without plastic cover	Handset
Bedding system	Options	
Standard version		
	<b>Tente Motion castor</b> diameter 150 mm with plastic cover	Supervisor
		Options  Options
ABS patient surface covers	Easy-roll castor Tente Integral diameter 150 mm	Control satellite
Options		
	<b>5th castor</b> diameter 125 mm	Foot controls for height adjustment
Night light		— # B—
Wall stopper castors diameter 60 mm		Foot controls for lateral tilting
22	1	I







Furniture for an ambience worth living in

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