

HYBRIMATT

LINET

The Hybrid Path to Efficiency



Active and passive systems in one

WHY HYBRID MATTRESS?



Hybrid mattress systems are support surfaces that contain elements of both a passive and an active system.

Hybrid mattresses allow caregivers to easily step up or step down as the patients' risk of developing pressure injuries changes throughout their hospital journey. Its versatility ensures that patients can remain on a single mattress.

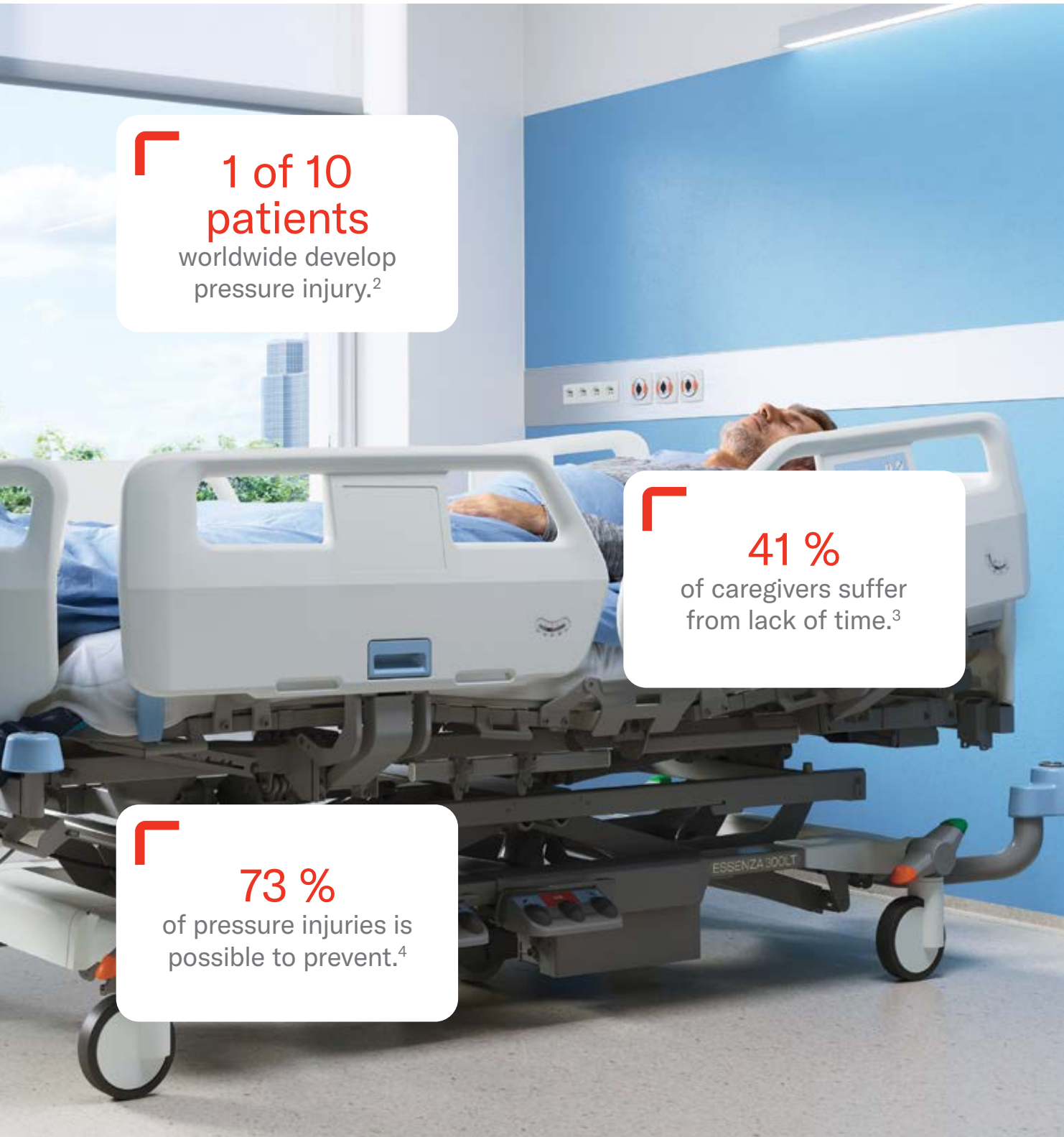
HybriMatt contributes to pressure injury prevention, streamlines hospital operations, and offers a variety of mattress options, making it

**the Hybrid
Path to
Efficiency.**



4 %

of annual healthcare budget spending is related to pressure injuries.¹



1 of 10 patients
worldwide develop pressure injury.²

41 %
of caregivers suffer from lack of time.³

73 %
of pressure injuries is possible to prevent.⁴

HYBRIMATT

THE HYBRID PATH TO EFFICIENCY



HYBRID APPROACH TO PRESSURE INJURY PREVENTION



Active system with 2-cell alternation provides periodic pressure reduction.



Passive system helps to redistribute pressure thanks to a viscoelastic foam layer in the mattress.

ENHANCING EFFICIENCY IN HOSPITAL PROCEDURES



Hybrid mattresses **simplify daily procedures for caregivers** and support flexibility in prevention strategies.



Easy mattress cleaning and inspection thanks to full access to all the components of the mattress.

VERSATILE MATTRESS OPTIONS



Integrated mattress option provides a cohesive solution for the Essenza bed.



Mattress replacement can be placed on any bedframe.

HYBRIMATT 100

This hybrid mattress is available in 2 versions: integrated into the Essenza 300 series bed and as a mattress replacement with external compressor suitable for compatible bedframes.

HYBRIMATT 100 IN



COMING
SOON



Integrated solution

Integrated compressor

HYBRIMATT 100



COMING
SOON



Mattress
replacement

External compressor

HybriMatt 100



HYBRIMATT 200

The advanced model which offers Microclimate Maintenance and a wide range of additional cover options, suitable for compatible bedframes.



External compressor
HybriMatt





SOLUTIONS OVERVIEW

ENHANCED PATIENT OUTCOME



PRESSURE INJURY PREVENTION

The HybriMatt mattress provides both passive and active modes that support effective pressure injury prevention.



SUPPORT PATIENT RECOVERY

HybriMatt offers a wide range of active modes to support patient recovery.



PATIENT COMFORT AND SAFETY

Integrated compressor, cable management and comfort pressure setting help to enhance the comfort and well-being of patients.

IMPROVED CAREGIVER & HOSPITAL WORKFLOW



SIMPLIFY CAREGIVER PROCEDURES

Integrated mattress control panel and fast access to immediate CPR help to reduce the complexity of caregiver procedures.



HOSPITAL OPERATIONS EFFICIENCY

The Hybrid System, X-ray sleeve and evacuation cover options support operational efficiencies.



PREVENTION OF HOSPITAL ACQUIRED INFECTIONS

Efficient infection control is supported by easy mattress cleaning and inspection.



PRESSURE INJURY PREVENTION

CHALLENGE

- The cost of treating pressure injuries varies from **£1,214 to £14,108**.⁵
- Pressure injuries can develop within minutes of immobility.⁶

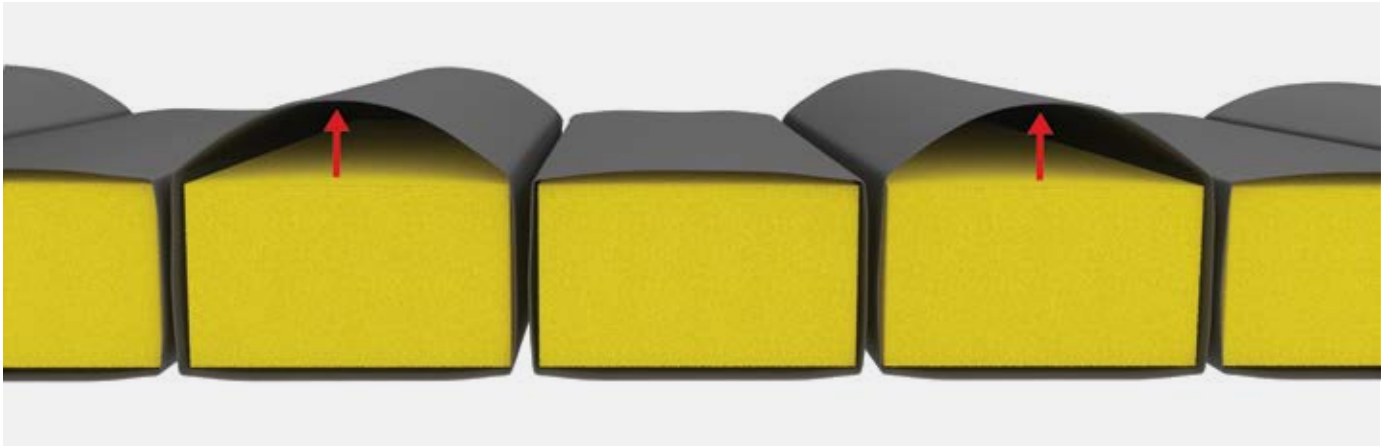
The worldwide prevalence of Hospital Acquired Pressure Injuries ranges from **6–18.5 %** in the acute care segment.⁷



SOLUTION

The HybriMatt mattress **with an active and passive system in one** provides periodic pressure relief and redistribution.

ACTIVE SYSTEM



2-cell alternation

The 2-cell alternating therapy system of HybriMatt provides periodic pressure reduction and has a gentle action due to the viscoelastic foam top layer, optimizing pressure redistribution and supporting pressure injury prevention.

Air cells with foam core

The air cells within the mattress contain a foam core that supports the patient when in passive mode. When the compressor is attached, air circulates around the cells, providing active therapy.



Microclimate Maintenance

Helps maintain the body's natural thermoregulation by air flow and a permeable cover through moisture vapour transfer (MVT), maintaining skin temperature and preventing sweating.

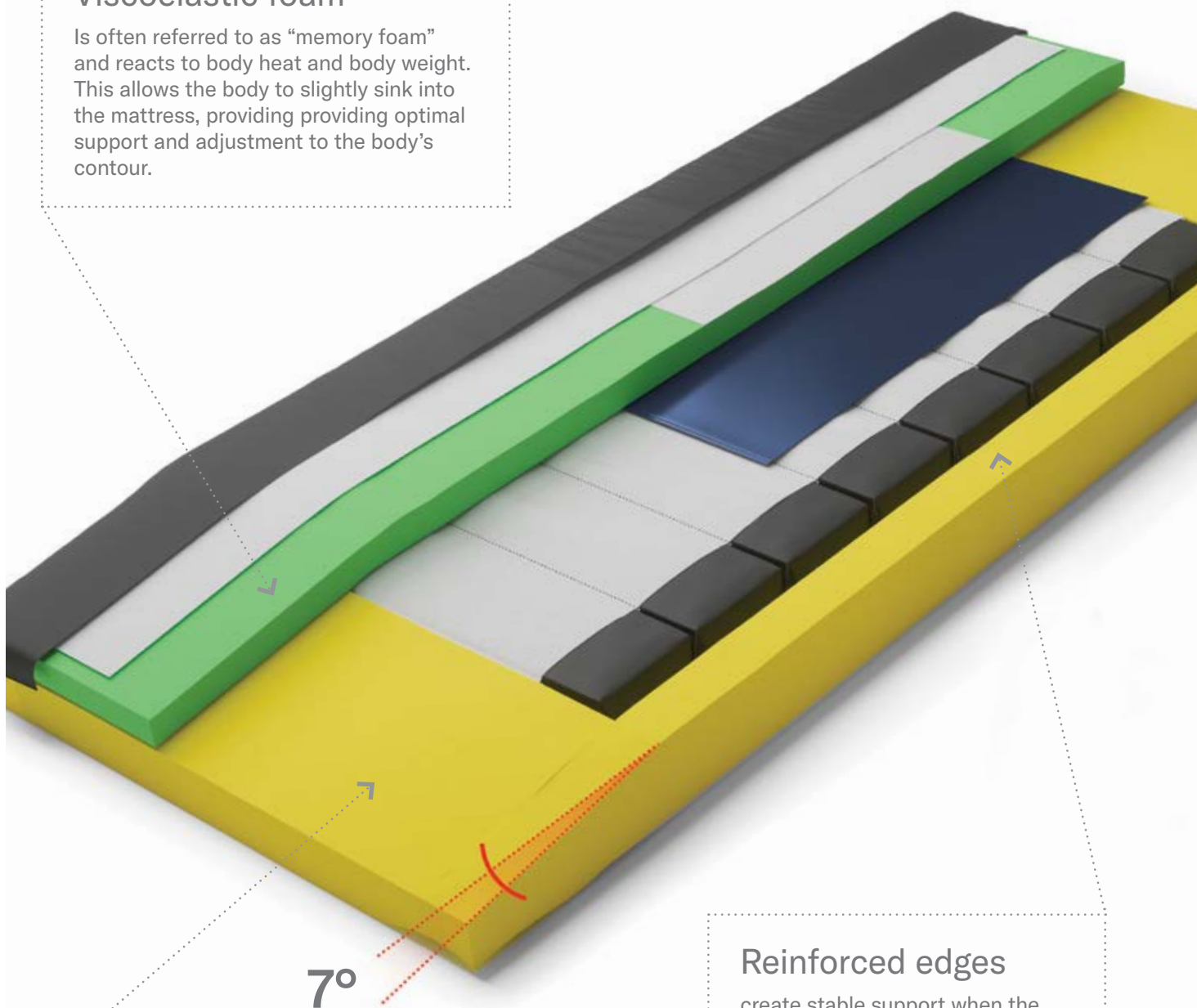
HYBRIMATT 200

PASSIVE SYSTEM

The mattress is layered and contains a polyurethane foam core, a viscoelastic foam top layer for increased pressure redistribution and firmer edges to support the patient's mobility.

Viscoelastic foam

Is often referred to as “memory foam” and reacts to body heat and body weight. This allows the body to slightly sink into the mattress, providing providing optimal support and adjustment to the body's contour.



7°

Heel slope

The heel section has a 7-degree slope that reduces pressure in this high-risk area.

Reinforced edges

create stable support when the patient lies on the bed or leaves it.



SUPPORT PATIENT RECOVERY

CHALLENGE

- Patient with an existing category I of pressure injuries can be in high risk of developing category II and higher.⁸
- Patient with Hospital Acquired Pressure Injuries stays in hospital **9.5 days longer.**⁹
- The higher category of pressure injury, the more time is needed for healing.¹⁰

1 month

to heal pressure injuries
of category I¹⁰

Up to **8 months**

to heal pressure injuries of
category III/IV¹⁰

SOLUTION

HybriMatt with the wide choice of active modes supports patient recovery.



Wide choice of active modes

Alternating pressure therapy (APT), constant low pressure (CLP) and MAX modes are available to support patient recovery.

- **The alternating pressure therapy mode (APT)** is a system where cells inflate and deflate, reducing pressure periodically.
- **The constant low-pressure mode (CLP)** enables equal internal pressure in cells to support patient comfort.
- **The MAX mode** inflates the mattress to make it firmer and more stable to support nursing procedures.



PATIENT COMFORT AND SAFETY

CHALLENGE

- Sleeping of patient is highly connected to surrounding noise.¹¹
- In 2019–2020 there were over 1 million hospital admission with obesity as a factor in United Kingdom.¹²
- **84.8 %** of falls happen unwitnessed.¹³



SOLUTION

An integrated HybriMatt 100 compressor **reduces vibrations by more than 50 %** to support patient comfort.¹⁴



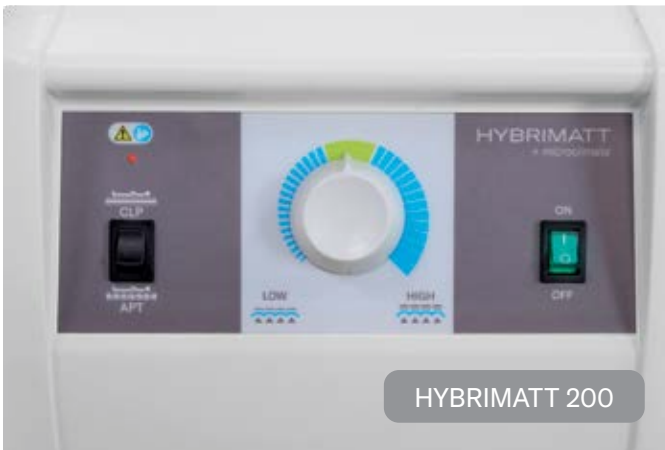
Integrated compressor

HybriMatt 100 IN is compatible with the Essenza 300 series bedframe. The internal compressor reduces noise levels and vibrations to ensure that the patient's quality of sleep is optimised.

HYBRIMATT 100 IN

Comfort pressure settings

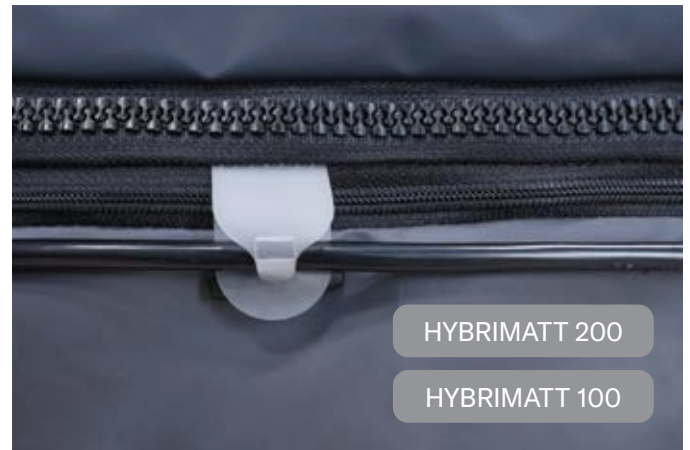
The pressure control dial allows the caregiver to adjust the pressures in the mattress to support the patient's individual comfort needs.



HYBRIMATT 200

Cable management

Is available on the mattress to maximize patient safety.



HYBRIMATT 200

HYBRIMATT 100

Support for heavier patients

The HybriMatt mattress range allows the placement of plus sized patients thanks to the high maximum patient weight of 230 kg.





SIMPLIFY CAREGIVER PROCEDURES

CHALLENGE

- 41% of caregivers suffer from lack of time.³
- 34% of the working time nurses need to multitask.¹⁵
- 15.6% nurses reported burn-out.¹⁶



SOLUTION

Integrated mattress control panel and Fast Access CPR reduce the complexity of daily caregiver procedures.

Integrated mattress control panel



The control panel for the mattress is built into the Essenza 300 bedframe. This reduces the need for separate power supply cords and also reduces the need of the caregiver to transfer the patient onto a mattress replacement system.

HYBRIMATT 100 IN

Fast access to immediate CPR

The HybriMatt mattress range is equipped with easily accessible CPR.



HYBRIMATT 100 IN

There are 2 valves on both sides of the mattress.



HYBRIMATT 200

HYBRIMATT 100

The mattress deflates of the air connector plug from the compressor.



HOSPITAL OPERATION EFFICIENCY

CHALLENGE

- It can take approximately **7 hours** to transfer a patient onto a traditional alternating mattress.¹⁷
- Chest X-ray is one of the most frequently performed portable X-rays in elderly patients.¹⁸
- Because of natural or man-made disasters, it may be necessary to evacuate hospitals or departments in almost **41.8 %** of cases.¹⁹

SOLUTION

Time saving efficiencies when using hybrid mattresses compared to traditional higher specification mattresses.²⁰



X-ray sleeve



The X-ray sleeve, integrated into the cover, has a separate zip. It can be accessed from both sides of the mattress and supports bedside imaging patients.

Evacuation cover



Evacuation cover supports fast and easy evacuation in case of an emergency. It is combined with the highest hygiene standards.

Wide range of covers

Our diverse range of cover options provide versatile solutions to meet the individual needs of patients and caregivers. Made from waterproof materials, these covers safeguard mattresses and their stretch capabilities reduce friction and shear forces, supporting pressure injury prevention.



Comfort cover enhances patient comfort by maintaining a favorable microclimate through its high vapor permeability.

HYBRIMATT 200

HYBRIMATT 100

HYBRIMATT 100 IN



Zoned cover facilitates easier patient repositioning by way of a specially coated low resistance center section and safer early mobilization via a non-slip outer edge design.

HYBRIMATT 200



Endurance cover offers optimally balanced durability that may reduce the costs of replacing damaged covers, and permeability that supports the maintenance of the patient's skin thermoregulation.

HYBRIMATT 200

HYBRIMATT 100 IN



PREVENTION OF HOSPITAL ACQUIRED INFECTIONS

CHALLENGE

- Healthcare-associated Infections are the most deadly and costly adverse event, representing **up to 6%** of public hospital budgets.²¹
- Damaged beds and mattresses are common in hospitals and can potentially place patients at increased risk of infection.²²

**3.1–4.6
million people**

acquire a healthcare-associated infection in acute care hospitals in Europe every year²¹



SOLUTION

The structure of the mattress provides easy mattress cleaning and disinfection.



Mattress cleaning

All the mattresses in the HybriMatt range allow full access to all the components for easy cleaning and disinfection. Supporting robust infection prevention and control procedures.



Mattress inspection

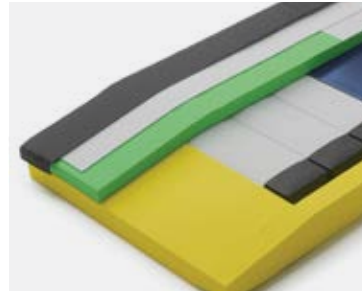
All of the many options of the mattress cover have white interiors to support the caregiver when visually inspecting the mattress for strikethrough and other damage.

KEY FEATURES OVERVIEW

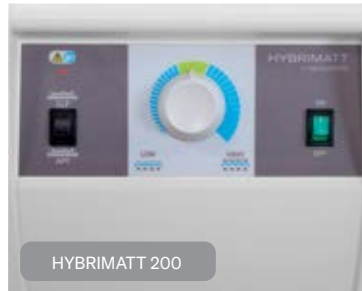
Active system with 2-cell alternation provides intermittent pressure reduction.



Passive system with redistributive viscoelastic foam and reinforced edges supports pressure reduction.



Integrated solution with easy-to-use integrated compressor and mattress control panel available on the bed siderails.



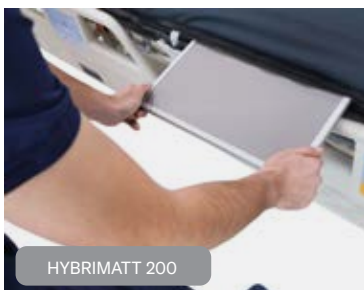
Comfort pressure setting allows caregivers to manually adjust pressure.

Wide options of covers including **Evacuation cover** are available for the HybriMatt range.



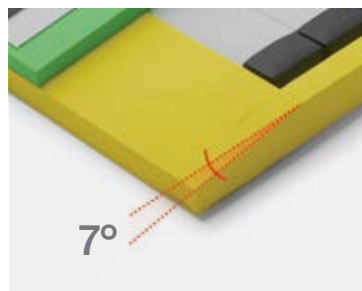
Microclimate Maintenance helps to maintain the body's natural thermoregulation.

X-ray sleeve can be accessed from both sides of the mattress to support bedside imaging of the patient.



CPR solution with fast access.

Easy mattress cleaning and inspection thanks to full access to all the components of the mattress.



Heel slope reduces pressure in high-risk areas.

TECHNICAL SPECIFICATION

MODELS



HYBRIMATT 100



COMING SOON

HYBRIMATT 200



HYBRIMATT 100 IN



COMING SOON



FEATURES

Air Decks	Air+Foam	Air+Foam
Foam Layer	5 cm viscoelastic foam 10 cm polyurethane foam	5 cm viscoelastic foam 10 cm polyurethane foam
Modes	Alternating Pressure Therapy, Max, Constant Low Pressure	Alternating Pressure Therapy, Constant Low Pressure
Cycle time mattress replacement	10, 15, 20, 25 min	12 min
Cycle time integrated mattress	10 min	
Microclimate Maintenance	No	Yes

MATTRESS DIMENSION

Mattress replacement (cm)	200 × 86 × 15; 200 × 90 × 15; 208 × 86 × 15	200 × 86 × 15; 200 × 90 × 15; 208 × 86 × 15
Integrated mattress (cm)	200 × 86 × 15	

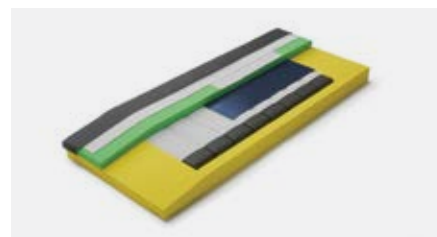
ADDITIONAL PARAMETERS

Maximum patient weight (kg)	230	230
Minimum patient weight (kg) ¹	40	40
Cover	Comfort cover, Endurance cover ²	Comfort cover, Endurance cover, Zoned cover
Zipper	270°, 360° ²	360°
Handles	Yes	Yes
Evacuation cover (option)	–	Yes
X-ray sleeve (option)	–	Yes

¹ Related to mattress replacement only. ² Related to integrated solution only.

HYBRID APPROACH FOR PRESSURE INJURY PREVENTION

Active system and passive system in one provide periodic pressure reduction thanks to 2-cell alternating system, and pressure redistribution thanks to viscoelastic layer.



ENHANCING EFFICIENCY IN HOSPITAL PROCEDURES

Hybrid mattresses **simplify daily procedures for caregivers** and provide easy mattress cleaning and inspection.



VERSATILE MATTRESS OPTIONS

HybriMatt range offers **integrated mattress option and mattress replacement.**



REFERENCES

1. Wounds UK. 2023. Advances in pressure ulcer prevention and treatment Made Easy - Wounds International
2. Li Z, Lin F, Thalib L, et al. 2020. Global prevalence and incidence of pressure injuries in hospitalised adult patients: A systematic review and meta-analysis. *International Journal of Nursing Studies*. 105:103546
3. Musculoskeletal disorders in the healthcare sector. Safety and Health at Work EU-OSHA. <https://osha.europa.eu>
4. Moore Z. 2023. Patient safety & Pressure ulcers: EWMA policy paper. *EWMA journal*.13 (1) <https://ewma.org/>
5. Dealey C, Posnett J, Walker A. 2012. The cost of pressure ulcers in the United Kingdom. *Journal of Wound Care*. 21(6):261–66
6. Gefen A, Brienza DM, Cuddigan J, et al. 2021. Our contemporary understanding of the aetiology of pressure ulcers/pressure injuries. *International Wound Journal*. 19(3):692–704
7. Tervo-Heikkinen T, Heikkilä A, Koivunen M, et al. 2021. Pressure injury prevalence and incidence in acute inpatient care and related risk factors: A cross-sectional national study. *International Wound Journal*. 19(4):919–31
8. EPUAP/NPIAP/PPPIA. 2019. Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline. The International Guideline
9. Wassel CL, Delhougne G, Gayle J, et al. 2020. Risk of readmissions, mortality, and hospital-acquired conditions across hospital-acquired pressure injury (HAPI) stages in a US National Hospital Discharge database. *International Wound Journal*. 17(6):1924–34
10. Guest JF, Fuller GW, Vowden P, et al. 2018. Cohort study evaluating pressure ulcer management in clinical practice in the UK following initial presentation in the community: costs and outcomes. *BMJ Open*. 8(7):e021769
11. Maidl-Putz C, McAndrew NS, Leske JS. 2014. Noise in the ICU. *Nursing2020 Critical Care*. 9(6):29–35
12. Statistics on Obesity, Physical activity and Diet, England 2021 - NHS Digital. [NHS Digital. https://digital.nhs.uk](https://digital.nhs.uk)
13. Staggs VS, Mion LC, Shorr RI. 2014. Assisted and unassisted falls: different events, different outcomes, different implications for quality of hospital care. *The Joint Commission Journal on Quality and Patient Safety*. 40(8):358–64
14. Linet White Paper. 2023: Promoting pressure injury prevention and enhancing comfort for patients with use of integrated mattresses.
15. Kalisch BJ, Aebersold M. 2010. Interruptions and multitasking in nursing care. *The Joint Commission Journal on Quality and Patient Safety*. 36(3):126–32
16. PRC National Nursing Engagement Report. Trends and Implications with Nursing Engagement. 2019.
17. Jones L. 2014. DO YOU REALLY KNOW HOW SOON YOUR PATIENT IS ON AN ALTERNATING MATTRESS IN A HOSPITAL SETTING? A study examining opportunities in Safety, Effectiveness and Improved Patient Experience. The Royal Wolverhampton NHS Trust.
18. Kjelle E, Lysdahl KB, Olerud HM. 2019. Impact of mobile radiography services in nursing homes on the utilisation of diagnostic imaging procedures. *BMC Health Services Research*. 19(1)
19. Klokman VW, Barten DG, Peters N a LR, et al. 2021. A scoping review of internal hospital crises and disasters in the Netherlands, 2000–2020. *PLOS ONE*. 16(4):e0250551
20. Wounds UK. 2023. Advances in pressure ulcer prevention and treatment Made Easy - Wounds International
21. OECD. 2020. Health care-associated infections. Union Health at a Glance: Europe 2020: State of Health in the EU Cycle. OECD Publishing. <https://www.oecd-ilibrary.org>
22. Hooker EA. 2021. Hospital mattress failures—A hidden patient danger. *Infection Control and Hospital Epidemiology*. 44(3):501–3



Members of LINET Group

LINET spol. s r.o. | Želevčice 5, 274 01 Slaný | Czech Republic
tel.: +420 312 576 400 | fax: +420 312 522 668 | e-mail: info@linet.com | www.linet.com

