



**Hillrom**™

## Therapeutic Surfaces

Care options for patients  
and residents at risk of, or  
experiencing pressure ulcers

# TRANSFORM OUTCOMES THROUGH THE PREVENTION AND TREATMENT OF PRESSURE ULCERS

Hillrom offers solutions for the prevention of pressure ulcers and the promotion of wound healing. Leveraging industry-leading support surfaces, bed systems, and clinical programs, we partner with healthcare institutions to provide tailored solutions that focus on improving and sustaining results in the prevention and treatment of pressure ulcers.

Therapeutic surfaces incorporate a variety of technical features and functions, including Immersion™ therapy and advanced Microclimate Management™.

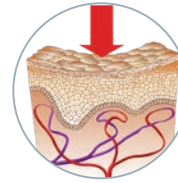


# Prevent costly and painful skin breakdown

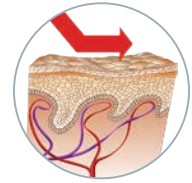
Skin breakdown is an ongoing issue in healthcare. Whilst pressure and shear are the causes of pressure ulcers, skin is also at risk from heat and moisture<sup>1</sup>.

These factors must be constantly considered in the healthcare environment. Our experienced sales and clinical professionals are committed to assisting in the reduction and prevalence of pressure ulcers. We combine innovative beds and surfaces with education and process improvement to help caregivers in achieving improved pressure ulcer outcomes.

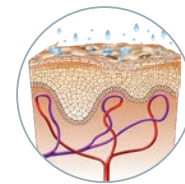
## THE MAJOR CAUSES OF SKIN BREAKDOWN



Pressure



Shear



Heat & Moisture

## PRESSURE ULCERS ARE A MAJOR ISSUE:

- On average 1 in 10 patients in acute care have a pressure ulcer<sup>2</sup>
- Pressure ulcer prevalence in healthcare settings can be as high as 72.5%<sup>3</sup>

## NEGATIVELY IMPACT PATIENT OUTCOMES:






- Fewer than 10% of patients receive adequate preventative care<sup>4</sup>
- The development of a single pressure ulcer can increase a patient's length of stay five-fold<sup>5</sup>

## ARE A HIGH COST TO HOSPITALS AROUND THE GLOBE:

- In the UK, pressure ulcers consume up to 4% of the annual healthcare budget with costs estimated at £30,000 per case<sup>6</sup>
- In the Netherlands pressure ulcers consume up to \$2.8 billion of healthcare expenditure annually<sup>7</sup>
- The average cost of treating a pressure ulcer in the US is estimated at \$129,248<sup>8</sup>

# THERAPEUTIC SURFACES COLLECTION

	FOAM			HYBRID
				
	NP50 Monodensity	NP100 Bidensity	NP150 Viscoelastic	Talley Fusion™ Hybrid
Recommendations	<b>Comfort</b> Recommended for patient/resident support and comfort or for patients/residents at low risk.	<b>Prevention</b> Recommended for patients/residents up to moderate risk and/or having Stage I pressure ulcers.	<b>Prevention</b> Recommended for patients/residents up to moderate risk and/or having Stage I pressure ulcers requiring the highest level of pressure redistribution from a foam.	<b>Prevention &amp; Treatment</b> Combines the comfort and pressure reducing properties of high performance foam with the clinically proven pressure relieving benefits of a 1-in-2 active alternating air pressure cycle.
Risk Level	Low	Low to Moderate	Low to Moderate	Low to Moderate
Safe Working Load	250 kg	250 kg	250 kg	250 kg
Self-Adjusting	-	-	-	Yes
Immersion Therapy**	-	-	-	-
Alternating Low Pressure	-	-	-	Yes
Continuous Low Pressure	-	-	-	Yes

NON-POWERED	POWERED			
				
AccuMax Quantum™ VPC	P290	Primo™	Duo™ 2	Accella Therapy
<b>Prevention &amp; Treatment</b> Recommended for patients/residents having up to Stage II pressure ulcers.	<b>Prevention &amp; Treatment</b> Recommended for patients/residents up to high risk and/or having up to Stage III pressure ulcers.	<b>Prevention &amp; Treatment</b> Recommended for patients/ residents up to high risk and/or having up to Stage III pressure ulcers.	<b>Prevention &amp; Treatment</b> Recommended for patients/residents up to very high risk and/or having up to Stage IV pressure ulcers.	<b>Prevention &amp; Treatment</b> Recommended for patients up to very high risk and/or having up to Stage IV pressure ulcers.
Moderate	High	High	Very High	Very High
250 kg	250 kg	250 kg	250 kg	250 kg
Yes	No	Yes	Yes	Yes
-	-	Yes	Yes	Yes
-	Yes	No	Yes	Yes
-	Yes	Yes	Yes	Yes

## FOAM SURFACE

All Hillrom NP foam surfaces have a polyurethane coating on polyester material cover that is waterproof, yet moisture and vapour permeable, bacteriostatic and fungostatic. It is easy to clean and disinfect, enhancing hygiene for patients/residents and caregivers. The collection conforms to all bed positions and is latex-free.



## NP50 Monodensity

- Durable and cost-effective patient/resident support
- Turnable mattress
- Highly resilient, monodensity foam



## NP100 Bidensity

- Cube-cut design conforms independently to the body shape and reduces interface pressure and friction
- The independent cubes promote airflow to reduce moisture build-up which in turn reduces maceration and shear
- Low-density heel zone offers gentle support for heels and ankles



## NP150 Viscoelastic

- Conforms to body shape and reduces interface pressure providing the highest level of pressure redistribution in our foam portfolio
- High density side sections designed for patient/resident safety and improved egress
- Optional\* integrated x-ray cassette sleeve assists in reducing patient/resident discomfort during portable x-ray procedures

\* Models ASS095 and ASS099 only



### HYBRID SURFACE

## Talley Fusion™ Hybrid

The Talley Fusion surface is a non-powered, foam and air hybrid mattress that automatically responds to the patient to provide a reactive, constant low pressure support surface for basic pressure area care needs.

- Reactive or active therapy – every air cell contains specialized pressure redistribution foam.
- Zoned mattress – designed to provide specific support to different parts of the body with specific head, torso, and heel zones.



### NON-POWERED SURFACE

## AccuMax Quantum™ VPC

The AccuMax Quantum VPC is a clinically proven, non-powered therapeutic support surface designed for the prevention and management of Stage I and II pressure ulcers. It is proven to reduce the prevalence and associated costs of pressure ulcers when combined with an individualised programme of care.<sup>9-12</sup>

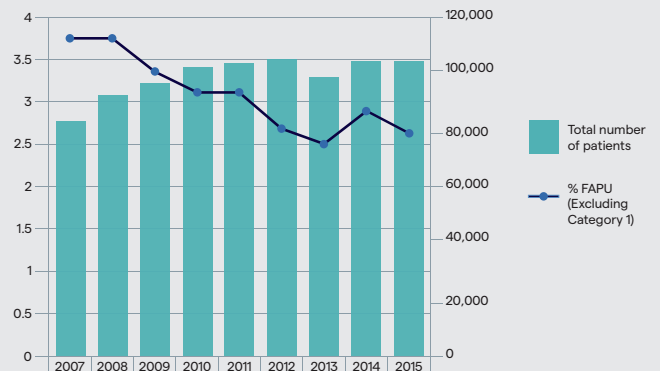
- Firm sides for patient/resident support during transfer promote safe mobilisation and reduce the risk of injury to caregivers
- Eight horizontal, interconnected; pressure-redistribution air cells adjust rapidly to body movements providing a customised pressure redistributing profile for those at risk of pressure damage
- Controlled Release™ technology regulates internal air pressures. The open system allows for rapid exchange of air in response to patient/resident movements. This reduces the need for maintenance as air is not stored in the system

## IPUP™ - International Pressure Ulcer/Injury Prevalence Survey

Hillrom is the industry leader in prevalence data tracking and has been helping facilities conduct pressure ulcer prevalence surveys since 1989.

Our IPUP survey tool and extensive database can help you track compliance with care protocols. You can compare your facility in detail with national and/or care sector trends.

- IPUP has been collecting data for nearly 2 decades
- A database of more than 1.3 million patients
- Over 1000 facilities surveyed every year



## POWERED SURFACE

The philosophy of Hillrom has always been to deliver the lowest required pressure to prevent compression of vulnerable tissues and maintain blood flow. This is achieved through advanced technologies and with materials that deliver patient/resident comfort and safety, as well as reduced workload for caregivers.

# P290 Surface

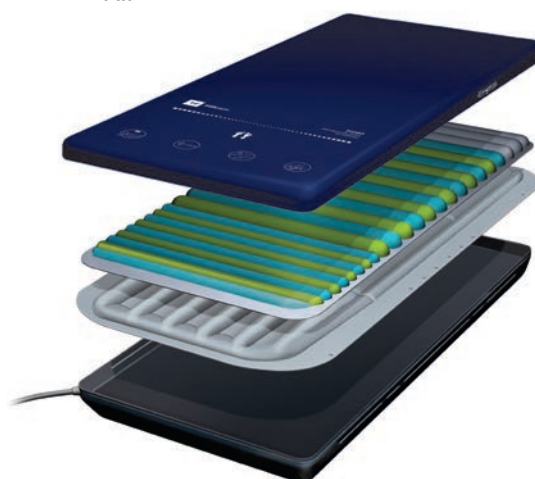
The P290 surface overlay or replacement system helps in the prevention and treatment of pressure ulcers in patients/residents at high risk of skin damage by providing an adjustable level of immersion and envelopment in both alternating and continuous low pressure therapy modes.

- Adjustable cycle times and firmness setting for greater control over patient/resident therapy and comfort
- Patient/resident and caregiver safety features including automatic control panel lock-out, fault indicators and transport mode
- Three pressure-redistributing zones provide additional protection for vulnerable body areas, including 5° sloped alternating heel zone
- Three options available
  1. Overlay for caregivers who want to use on top of their existing foam mattress
  2. Replacement with foam underlay
  3. Replacement with air underlay: light and easy to transport

Foam



Air







## Primo™ Surface

The Primo surface helps to prevent and treat pressure ulcers in high risk patients/residents by providing continuous low pressure redistribution.

- Hillrom I-mmersion Therapy automatically redistributes pressure to a larger surface area, significantly reducing compression in vulnerable tissues
- Internal I-mmersion sensor automatically adjusts cell pressures to ensure the lowest possible interface pressures are achieved at all times
- Compact and lightweight air supply unit is extremely quiet, vibration free and user friendly



## Duo™ 2 Surface

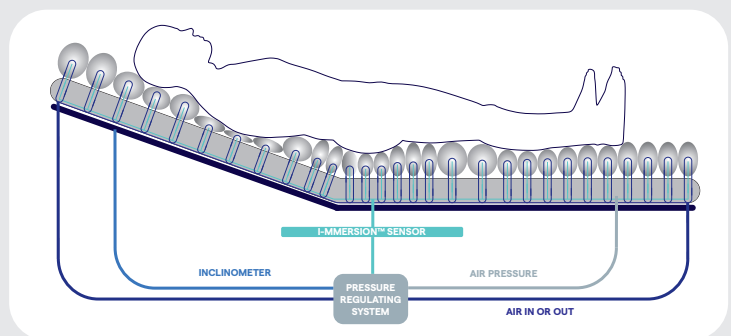
The Duo 2 surface helps to prevent and treat pressure ulcers up to Stage IV and/or in very high risk patients/residents.

- Three individual low-pressure zones, including a dedicated heel zone
- Internal I-mmersion sensor automatically adjusts cell pressures to ensure the lowest possible interface pressures are achieved at all times
- Real-Heel™ zone with ultra-low pressure for optimal protection of the vulnerable heel area, as well as enhanced lower-leg support
- Rapid inflation – ready for patient/resident use in 2 minutes

## I-mmersion™ Therapy

The I-mmersion sensor automatically compensates for patient/bed position changes and maintains the patient at optimum interface pressures. The morphology and immersion of the patient's sacral area is measured by the I-mmersion sensor. An electrical signal is then sent to the pressure regulating system to either release air from the mattress or to turn on the compressor to inflate the mattress until the pressure is balanced. This all happens in “real-time”. Three levels of I-mmersion Therapy technology are used with the Hillrom self-adjusting surfaces, providing a range of sensitivity and pressure adjustment capabilities, including:

- Resistive sensor for Primo
- Deteq™ sensor for Duo 2



# Accella™ Therapy Surface

The Hill-Rom Accella Therapy surface helps to prevent and treat pressure ulcers in low to very high risk adult patients by addressing the external non-patient related risk factors for skin breakdown. The Hill-Rom Accella Therapy, offering Continuous Low Pressure (CLP) or Alternating Low Pressure (ALP) modes, provides real I-mmersion therapy to achieve and maintain the lowest possible interface pressures.

The patented MCM system also helps to manage the patient microclimate and reduces the risk of tissue breakdown as a result of excessive heat and/or moisture. Twenty-four-hour pressure ulcer management can be achieved with the addition of the Reflex seat cushion which connects to the same air supply unit, yet can be sealed for greater patient independence while out of bed.

- Accella Therapy surface, controlled through the Graphical Caregiver Interface (GCI) in the integrated siderail controls, includes single step CPR, Boost and provides therapies to help prevent and treat pressure ulcers
- One-touch deflate allows for rapid deflation to aid patient mobilisation
- P-MAX feature provides fast inflation for easier patient repositioning and transfer
- Integrated x-ray cassette sleeve assists in reducing patient repositioning and discomfort during portable x-ray procedures
- Continuous or alternating low-pressure therapy modes provide flexibility with patient therapy Real-time pressure adjustment, controlled by the internal I-mmersion sensor, adjusts cushion pressures according to patient size, shape, weight or position in the bed without caregiver intervention
- Microclimate Management limits the effects of temperature and moisture build-up
- Five individual low-pressure zones provides optimal pressure redistribution
- Dedicated heel zone with ultra-low pressure and enhanced lower-leg support delivers optimal protection of the vulnerable heel area



## Extra features with an Accella Smart Bed



Surface controlled through the Graphical Caregiver Interface on the Accella Smart Bed



Single connection to Accella Smart Bed

# SERVICE

## **Hillrom Service - one supplier to meet all your needs**

To optimise lifelong performance, we build serviceability into our equipment beginning at the R&D stage. As your dedicated service provider we help you improve productivity and efficiency by optimising the maintenance of your equipment, minimising downtime and repair costs and facilitating compliance with local laws and Quality and Regulatory requirements.

Hillrom offers a variety of professional services, performed by certified service technicians, to meet all your maintenance requirements.





## ABOUT HILLROM

Hillrom is a global medical technology leader whose 10,000 employees have a single purpose: enhancing outcomes for patients and their caregivers by advancing connected care. Around the world, our innovations touch over 7 million patients each day. They help enable earlier diagnosis and treatment, optimize surgical efficiency and accelerate patient recovery while simplifying clinical communication and shifting care closer to home. We make these outcomes possible through connected smart beds, patient lifts, patient assessment and monitoring technologies, caregiver collaboration tools, respiratory care devices, advanced operating room equipment and more, delivering actionable, real-time insights at the point of care. Learn more at [hillrom.com](http://hillrom.com).

**For further information about our products and services, please contact your local Hillrom representative or visit our website.**

## hillrom.com

- <sup>1</sup> National Pressure Ulcer Advisory Panel (NPUAP), European Pressure Ulcer Advisory Panel (EPUAP) and Pan Pacific Pressure Injury Alliance. Prevention & Treatment of Pressure Ulcers, Clinical Practice Guideline. Emily Haesler (Ed.) Cambridge Media: Osborne Park, Western Australia; 2014.
- <sup>2</sup> Tippett A. Wounds at the end of life. Wounds: A Compendium of Clinical Research and Practice. 2005;17(4):91-98.
- <sup>3</sup> Samaniego IA. A sore spot in pediatrics: risk factors for pressure ulcers. Pediatric Nurs. 2003 Jul-Aug;29(4):278-82.
- <sup>4</sup> Vanderwee K, Clark M, Dealey C, Gunningberg L, Defloor T. Pressure ulcer prevalence in Europe: a pilot study Journal of Evaluation in Clinical Practice. 2007, 13(2): 227-235.
- <sup>5</sup> Allman R, Goode PS, Burst N, Bartolucci A, Thomas DR. Pressure Ulcers, hospital complications, and disease severity: implications on hospital costs and length of stay. Advances in Woundcare 1999;12(1):22-30.
- <sup>6</sup> Banks M, Graves N, Bauer J, Ash S. The costs arising from pressure ulcers attributable to malnutrition. Clinical Nutrition. 2010;29:180-6.
- <sup>7</sup> Schuurman JP, Schoonhoven L, Defloor T, van Engelshoven I, van Ramshorst B, Buskens E. Economic evaluation of pressure ulcer care: A cost minimization analysis of preventative strategies. Nursing Economics. 2009;27(6):390-415.
- <sup>8</sup> Brem H, Maggi J, Nierman D et al (2010) The High Cost of Stage IV Pressure Ulcers. American Journal of Surgery 200:473-477.
- <sup>9</sup> Strilko B et al. Effects of a Non-Powered Dynamic Surface on Reducing Facility-Acquired Pressure Ulcers. Poster presentation, WOCN2005.
- <sup>10</sup> Bandelier A. Clinical Evaluation of Bedridden Patients in an Extended care Facility on a non-powered Pressure Redistribution Surface. Poster presentation, SAWC 2008.
- <sup>11</sup> Walden K.E. Implementation of A Pressure Redistribution Mattress WOCN Society 40th Annual Conference, 2008.
- <sup>12</sup> Philbin S, Lake L. Bringing Down The House: The Inside Story. Poster Presentation, WOCN 41st Annual Conference, 2009.

### Hill-Rom NP 50 / NP100 / NP150

These products are intended to help to prevent pressure ulcers in patients with no risk or at low risk (NP 50) and patients up to moderate risk (NP 100/NP 150), weighing between 30 kg and 150 kg with a minimum height of 1.46 m, in a range of healthcare environments. Class I. Manufacturer: Hill-Rom S.A.S. – BP 14 ZI du Talhouët 56330 Pluvigner France

### Talley Fusion™ Hybrid

This device is intended to provide patient comfort and prevention of pressure injury for low risk patients (without power). With power, the mattress system provides prevention of pressure injury for moderate risk patients and treatment of stage I pressure injury. Class IIa. Notified Body: SGS CE1639. Manufacturer: Talley Group Limited - Premier Way, Abbey Park Industrial Estate, Romsey, Hampshire, SO51 9DQ England. Fusion Hybrid is trademark of Talley Group Limited.

### AccuMax Quantum™ VPC

The AccuMax Quantum VPC surface is a therapeutic pressure redistribution system that aids in the prevention/treatment pressure injuries in patients and residents with up to moderate risk and/or Stage I and II pressure injuries when combined with recommended turning protocols. The AccuMax Quantum VPC surface can support a patient weight up to 500 lb (227 kg). Class I. Manufacturer: Hill-Rom Inc, 1069 State Route 49E, Batesville, Indiana, 47006 – 9167 USA. European Representative: Hill-Rom S.A.S. – BP 14 ZI du Talhouët 56330 Pluvigner France

### P290 / Primo

These devices are intended to help prevent and treat pressure ulcers in low to high risk patients, with a minimum weight of 30 kg and a maximum weight of 140 kg for P290 and 150 kg for Primo in order to achieve validated clinical performance in all the typical head of bed positions in a range of healthcare facilities. Class IIa. Notified Body: GMED CE0459 Manufacturer: Hill-Rom S.A.S. – BP 14 ZI du Talhouët 56330 Pluvigner France

### Duo™ 2

These devices are intended to help prevent and treat pressure ulcers up to Stage IV in low to very high risk patients, with a minimum weight of 30 kg and a maximum patient weight of 150 kg in order to achieve validated clinical performance in all the typical head of bed positions, in a range of healthcare facilities. Class IIa. Notified Body: GMED CE0459. Manufacturer: Hill-Rom S.A.S. – BP 14 ZI du Talhouët 56330 Pluvigner France.

### Accella™ Therapy

This device benefits are phase I to phase IV pressure ulcers prevention and treatment help. It is suitable for low to very high-risk patients, within the recommended patient weight limits of 30 to 160 kg on the standalone mattress and between 40 and 160 kg on the version combined with the Accella™ bed or Progressa™ bed, in order to achieve validated clinical performance in all the usual positions of the adjustable head section. Notified Body: GMED CE0459. Manufacturer: Hill-Rom S.A.S. – BP 14 ZI du Talhouët 56330 Pluvigner France

These medical devices are regulated health products which, pursuant to such regulation bears a CE mark. Hill-Rom recommends that you carefully read the detailed instructions for safe and proper use included in the documents accompanying the medical devices. The personnel of healthcare establishments are responsible for the proper use and maintenance of these medical devices.

Hill-Rom reserves the right to make changes without notice in design, specifications and models. The only warranty Hill-Rom makes is the express written warranty extended on the sale or rental of its products.