



Air Immersion Technology Range



New Mattress Technology Based on Years of Experience

Pressure ulcers remain a real challenge to patients and carers, and as our patient population gets more vulnerable so does the need for dynamic mattresses to perform at an even more enhanced level.

Mattress technology has not changed for over 20 years and successive suppliers have failed to innovate. New variants of the same technology have been added, essentially performing in similar ways but with no real difference to patient outcomes or underlying technologies.

As a result, many Trusts and Health Boards now rely on huge numbers of dynamics trying to achieve outcomes in pressure ulcer prevention and treatment, and over the last 10 years that percentage of dynamic usage has increased nationally and is likely to continue on that trajectory.

Medstrom's senior clinical management team has many years of experience in the dynamic mattress market and were instrumental in creating the well-recognised success of **Dolphin Fluid Immersion Therapy** in very complex patients; of which we can evidence significant improvements in patient outcomes.

With the above in mind, Medstrom have now developed and launched real innovation in mattress technology to drive a seamless transition from Dolphin Therapy to a range of unique **air immersion mattresses**.



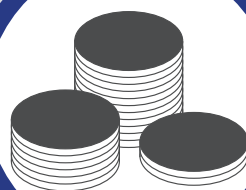
20%
of patients

Up to 20% of patients in acute care affected by pressure ulcers.¹



£3.8
million

The cost to the NHS per day on pressure ulcer treatment.²



Pressure ulcer litigation claims have risen by 600% in the last decade.³



HAPUs increase LOS by an average of 5-8 days per pressure ulcer.⁴



Clinical Focus

Clinically, we strongly believe patients should be on the **right mattress for the right length of time** and stepped down onto a surface that will enhance independence and not limit mobilisation as many mattresses do.

We are therefore proud to present the Aria and Aria PRO, that utilises **new air immersion technology**.

This highly effective choice of therapies offers a seamless transition for patients of all acuities. From the patient at risk but semi-independent, to the extremely complex, vulnerable and challenging patient, Medstrom has developed a protocol that **caters for all**.

Protection at every level

The 'step-up' and 'step-down' ability will ensure patients become independent earlier on the Aria and when needed, can benefit from advanced immersion and heel off-loading on the Aria PRO.

Complex and difficult-to-manage patients are then catered for on Dolphin Therapy, our unique fluid immersion surface.

All of this will help to drive correct selection, step-up and confident step-down, ultimately helping to encourage patient independence, reduce length of stay and reduce cost by controlling usage.

Did you know?

The Medstrom Aria and Aria PRO work in harmony with Medstrom's Solo bed frame by reducing shear, friction and heel travel due to its innovative regressing backrest. The Medstrom Solo is manufactured in the UK and offers a range of benefits for both the patient and caregiver.

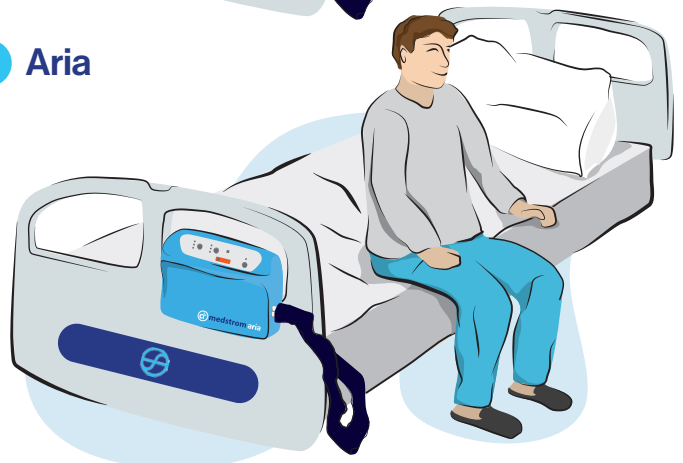
Dolphin Therapy



Aria PRO



Aria



The Medstrom Aria Range

medstrom aria[®] PRO

The Medstrom Aria PRO is advanced immersive technology, with lower pressures than the Aria and advanced features such as the ability to heel off-load and additional bespoke therapy options to adhere to the higher acuity of patient.

medstrom aria[®]

The Medstrom Aria is a logical step down from the Aria PRO, with more stability deliberately built into the immersive cells to encourage and aid patient independence and mobility in and out of bed, whilst still maintaining a level of immersion important to prevent pressure build up over bony prominences.





The air immersion technology in both the Aria and Aria PRO uniquely offers reactive and active features as defined by EPUAP⁵, giving clinicians a choice of therapy mode driven through the immersion logic board.



Constant immersion

Constant immersion is an advanced reactive technology that is activated by the patient's weight and position on the mattress. This allows the immersion logic board to accurately immerse the patient without compromising the stability required to self-mobilise.

Whilst in bed, the immersion will be automatically adjusted each and every time the patient moves, ensuring that they remain optimally supported at all times.



Gradient immersion

Gradient immersion offers a more effective and comfortable active technology using very subtle periodic changes within the mattress cells.

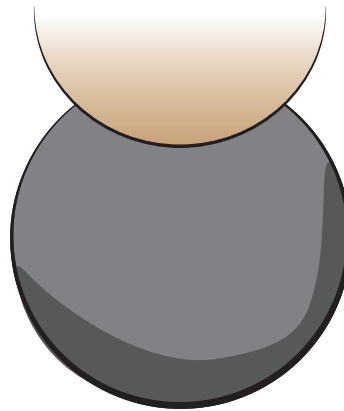
This is also activated by patient weight and position on the mattress and will automatically adjust specific to patient movement and position on the surface.

Advanced Design

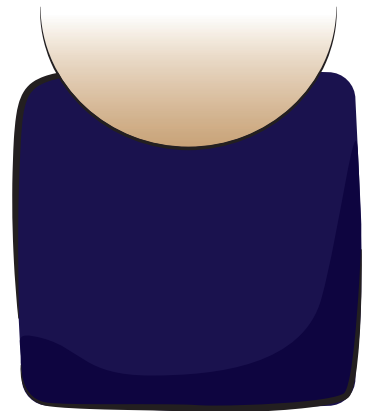
Unique cubed cell design

The cells in the Aria range are cubed and not circular like traditional dynamics. A cubed cell creates wall-to-wall contact to increase surface area and immersion, whilst allowing stability to self-mobilise.

The helix cell design allows two chambers of air to be in contact with the patient. When in therapy, this results in a “cushion” effect underneath the patient and can increase comfort, compliance and overall experience.



Circular



Cubed

Whisper-quiet technology



Thanks to innovative technology, the Aria control units are whisper quiet. The silence of the Aria systems allow patients to rest properly.

Improved manual handling



Both mattresses are incredibly lightweight (from 7kg) and can be handled safely by one person, reducing the risk of injury to caregivers.

Additional benefits

- **Intuitive control units with standardised user interface on both systems, simplifying training**
- **One-button repositioning mode**
- **Easy transport mode equipped with self-sealing technology to keep the mattress inflated for 15 to 24 hours**
- **Rapid and easily identifiable CPR function**
- **Lock-out feature to avoid accidental changes**
- **Comfort control to increase patient compliance**
- **Cable management to reduce the incidence of hospital acquired damage and prevent hazards**

Aria PRO Additional Benefits

Heel off-loader



The Aria PRO comes equipped with bridging cells that allow for very specific off-loading in the vulnerable heel section. With traditional heel zones, if you're a taller or shorter patient, heel therapy may not be achieved. With bridging cells, it can be determined where a patient's heels will sit, and if needed, off-load them.

Immersion scale & pressure monitor



The immersion scale and pressure monitor shows live feedback to the caregiver on pressures inside the mattress. This may change as the patient moves position and can help detect when optimum immersion is achieved.

Additional benefits

Advanced immersion:

Incredibly soft polyurethane cells which delivers higher immersion and is more elastic, meaning it can adapt and immerse a patient quicker and easier.

Cycle times:

To facilitate early recovery and achieve bespoke therapy dependent on patient tolerance, the Aria PRO comes with the option to change the therapy cycle times in gradient immersion from 5, 10 to 15 minutes. By slowing the cycle time, it prepares the patient for a 'step-down' to Aria.



Technical Specification:

	 medstrom aria [®]	 medstrom aria [®] PRO
Mattress dimensions:	85cm x 200cm x 18cm	85cm x 200cm x 20cm
Control unit dimensions:	29.5cm x 22.5cm x 12cm	29.5cm x 22.5cm x 12cm
Maximum therapeutic patient weight:	200kg	250kg
Weight of mattress:	7kg	11.5kg
Weight of control unit:	2.8kg	2.8kg

References:

1. Pressure Ulcer Reporting and investigation: All Wales Guidance, Jan 2018
2. Pressure ulcers: revised definition and measurement, NHS Improvement, 2018
3. NHS Resolution, 2019
4. NICE Costing statement: Pressure ulcers, 2014
5. EPUAP Prevention and Treatment of Pressure Ulcers: Quick Reference Guide (2016)

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