

EN 0 🏶 🌒

R

- Adaptive Airflow Technology[™] - Self Regulating
- Self Adjusting
- Self Profiling
- Self Sealing



THE AIRPOD ADVANTAGE



TECHNOLOGY







For detailed information please visit our website: www.rexyn.co

BENCHMARKING



UNIQUE FEATURES - 1

HF (High Frequency) Welded

The Airpod is – currently - the only Durable (reusable) 100% HF Welded Air Mattress in the World.

The whole mattress is self-sealing so that there is no ingress of fluid and/contaminants.

HF (High Frequency) WELDING is the construction method of choice because the product is HERMATICALLY SEALED - the construction is so tightly or perfectly fitting so as to exclude the passage of air.

Sometimes HF Welding is confused with Heat Sealing. They are not the same.

HF Welding is the process by which Electromagnetic Energy (EE) is used to permanently bond thermoplastic materials together. This is different from Heat Seal as the desired result is a hermetic cohesive bond between the polymers.

This is very different from the type of bond and seal created by an External Electric or Radiation Heat Source known as **Heat Seal.**

External heating (Heat Seal) requires penetration of the outer fabric/material layer in order to heat the inner layer - the core - of the fabric/material.

This is the major disadvantage with Heat Seal because the resultant bond is non linear and patchy and therefore much weaker than the bond created by HF Welding.



Strong Durable Reliable

Strong Durable Reliable



4

UNIQUE FEATURES - 2

Adaptive Airflow Technology

Adaptive Airflow Technology is a collective term for various features that we have used to describe how the Airpod Air Mattress adapts to different types of Patients. Not all patients are of the same size (height, width) or of the same weight or indeed of the same weight distribution. The Airpod adapts the Air Flow so that the Air flows to the parts of the Mattress where it is needed the most - for example where the patient is the heaviest.

Self Regulating Airflow Technology

Self Regularing Airflow is the Term that we have used to describe how the Airpod regulates the Air Flow within the Air Mattress. Unlike other Air Mattresses, the Airpod stores the Air in the Pods until it is required and then expels it where it is required the most.

Built-in Internal & External Patient Profiling

The Combination of the Adaptive and Self Regulating Airflow Technologies provides for automatic patient profiling. The form of Profiling is known as **DYNAMIC PROFILING** – this is a state when the profiling features are continuously adapting to circumstances being presented.

Essentially profiling is a form of risk assessment and most Carers risk assess a patient in their care almost intuitively. The Carer will assess the patient's weight, height, distribution and then work out the best way to conduct a manual handling task and/or manoeuvre. However, in some instances, the Carer may not be able to do so (either effectively and/or quickly), and in such situations, an aid that helps quickly and effectively, is a very substantial advantage.



The Airpods are each, individually working to a point of equilibrium whereby the Patient's weight is supported equally and evenly across the whole surface of the Airpod Air Mattress.



In the Airpod Air Mattress, the Air travels into the Airpod (Collection) and it stays there (storage) until it is required (expulsion). It is the expulsion of the Air through the perforations that provides for the Friction Reducing Properties.

The weight distribution for each patient will be different. The greatest amount of air will be required where the patient is the heaviest. Once the Airpods have been activated (filled with Air at full power from the Air Blower), the amount of air being blown into the Airpod can be reduced.

Automatic Size Selection

The Self-Profiling Mechanism profiles the shape and weight distribution of the Patient. This is an automatic system that works out the best way to distribute the Patient's weight across the whole surface of the Airpod.

Self Sealing Airpods

The Airpods are self sealing. They close on on deflation. This is because of the pressure gradients created within the Main Chamber of the Air Mattress.

The Individual Airpods create their own Micro-Environment and each exerts and influences the pressure within the main chamber.

The result is, when the Air Blower Power is turned off, the Airpods will deflate and in the process create various internal pressure gradients that force the air out from the Airpods. This unique feature is easily identifiable when the Airpod is inflated and deflated. The "popping" noise are the Airpods closing and opening.

When deflated, the Airpods work as "plugs or stoppers" and prevent any ingress of fluid - a very important feature for infection control.

PATIENT AND CARE STAFF SAFETY

Advanced Safety and Security Features

We take Patient and Care Staff Safety and Security very seriously. The Airpod Air Mattress offers substantially superior Patient and Care Staff Safety and Security Features that no other competitive product can offer or provide. The main safety and security features are:

- 1. Diagonal and controlled transfers.
- 2. Non Slip Plugs for Patient Positioning
- 3. Safetv valve
- 4. Self and Dynamic Profiling

Diagonal and Controlled Transfers

Linear Transfers, similar to the way transfers are conducted with Competitors products, are easy and effortless with the Airpod.

However the Airpod offers a more advanced option - Diagonal Transfers. With Linear Transfers, the Patient's Lateral Transfer Weight (LTW) is about 10% of the Patient's Total Actual Weight, With Diagonal Transfers, the LTW would be about 5% of the Patient's Total Actual Weight - that is a 50% reduction.

Advantages of Diagonal Transfers:

- It is easier to control the transfer with less effort because the distance travelled for each "Pull" on the Diagonal is shorter
- It is safer because at any one time, at least 50% of the Air Mattress will be either on the Giving or Receiving Surface.
- The Net Result and Overall benefit of 1 and 2 above, will be the increased density of Airpods on either Surface (Giving and Receiving) and this equates to less friction and therefore easier transfers



When deflated, the Airpods act as Plugs and will prevent the Airpod Air Mattress from Slipping and



Standard Size Airpod for All Patients that can fit comfortably within the confines of a Standard Size Hospital

The Bariatric Size Airpod Air Mattress is suitable for Patients that are Wider than 87 cm or 34 Inches BUT Less than 119 cm or 47.6

Non Slip Plugs (Stoppers)

The Airpods in the Base of the Mattress act and function as Non Slip Plugs (Stoppers) that prevents the Airpod Air Mattress and the Patient lying on Top, from slipping and sliding. This is particularly useful during Surgical Procedures where stability and immobility are of paramount importance. No other Air Mattress is capable of providing this level of Security, Stability and Immobility.

Safety and Security Valve and Automatic Size Selection

Choosing and using the correct size of any Aid is very important. The Airpod automatically makes sure that the correct size is utilised

The Standard Size Airpod has been designed to be used for any patient that can be housed comfortably within the confines of a Standard Size Hospital Bed. If the Patient is wider than a Standard Size Hospital or the patient's girth is tight within the confines of the Standard Size Hospital Bed, the Airpod will not inflate and allow the transfer. The size selection process with the ATM-Airpod is therefore simplified and very easy.

Self and Dynamic Profiling

Essentially profiling is a form of risk assessment and most Carers risk assess a patient in their care almost intuitively. However, in some instances, the Carer may not be able to do so (either effectively and/or quickly), and in such situations, an aid that helps quickly and effectively, is a very substantial advantage.

No other Air Mattress is capable of providing this Feature.

SURFACE NEUTRALITY

Tissue Viability - Pressure Injury Prevention

The Airpod is classified as Surface Neutral.

The term **"Surface Neutral**" refers to the degree of hindrance and/or interference to the therapeutic benefits of the pressure-relieving devices. Neutral in this instance suggests that there is very little hindrance and/or interference.

However please note: any item or article that is placed under the patient will hinder/interfere - to various degrees and level with the therapeutic benefit of the devices and the Airpod Air Mattress is no different.

It is up to the Care Providers (and in line with Institutional Guidelines) to ascertain and determine (for example by conducting a thorough risk assessment) whether the degree of hindrance/interference is acceptable against the benefits of leaving the Airpod behind and under the patient.

* The images and data (Pressure Mapping Test Data) of a Mannequin weighing 180 Kg or 396 Lbs, lying on a neutral, hard surface compares the degree of pressure exerted with and without the Airpod.

Pressure and Shear

Pressure

Pressure is the force (per unit area) exerted perpendicular to the skin surface. Pressure damages the skin and underlying tissues by (1) directly deforming and damaging tissue; (2) compressing small blood vessels hindering blood flow and nutrient supply and (3) through ischemia-reperfusion injury. When pressure is redistributed over a greater surface area, the pressure is less intense in any one area.

Shear

Shear stress is the force (per unit area) exerted parallel to the tissue. Shear strain is the actual distortion or deformation of tissue as a result of shear stress. Some shear strain occurs at rest. Shear strain is intensified in certain clinical situations (e.g., raising the head of the bed > 30 degrees; dragging rather than lifting while repositioning). One layer of tissue slides over another deforming adipose and muscle tissue and disrupting blood flow.

(National Pressure Ulcer Advisory Panel (NPUAP)

* Tissue Interface Pressure (TIP) Report (Pressure Mapping)



Pressure 19.60 mm Hg

Sensing Area 5874.61 Cm Sq

Mannequin on a Neutral, Hard Surface - (Baseline - Control)



Pressure 22.78 mm Hg

Sensing Area 5752.56 Cm Sq

Mannequin on a Neutral, Hard Surface Lying on top of a deflated ATM-Airpod



Pressure 10.56 mm Hg

Sensing Area 9096.69 Cm Sq

Mannequin on a Neutral, Hard Surface Lying on top of a inflated Airpod Air Mattress Air Blower Power = 50%

Pressure Injury

A pressure injury is localised damage to the skin and/or underlying soft tissue usually over a bony prominence or related to a medical or other device. The injury can present as intact skin or an open ulcer and may be painful. The injury occurs as a result of intense and/or prolonged pressure or pressure in combination with shear.

(NPUAP, EPUAP - The European and US National Pressure Ulcer Advisory panels - revised 2016)

Superior Infection Control

The Airpod Air Mattress offers substantially superior Infection Control and a quick product turnaround for use again.

- · The Airpod Air Mattress is 100% HF Welded.
- The handles and Straps are also HF Welded and the Strap Ends are Sealed. And unlike Sewing Constructed Handles and Straps on our Competitors Products, any risk associated with cross infection and contamination is eliminated provided of course good cleaning and disinfection procedures are followed.
- The Pods are self-sealing so unlike our Competitors Products where the perforations are located directly into the Main Air Chamber, there is no ingress of contaminants and/or fluid into the Main Chamber of the Airpod Air Mattress.
- The Cleaning, Decontamination and Disinfection Process is substantially faster and quicker than the time taken on our Competitors Products*

* On our Competitors products, construction reinforcement joints, handles and straps, handle and strap construction attachments, are all sewing based construction. Each would require substantial time and effort to clean, decontaminate and disinfect. And even then, there is no guarantee that they are thoroughly clean and disinfected – needle holes created by the sewing construction processes are notorious for harbouring contaminants and pathogens. There is no such risk associated with the Airpod Air Mattress.



Airpod Reprocessing Options

Commercial and In-house Institutional Laundries Washing: $74 \pm 3 \ ^{\circ}C$ or $165 \pm 5 \ ^{\circ}F$ Drying cycle: Tumble dry - low heat $50 \ ^{\circ}C$ or $122 \ ^{\circ}F$

NB: Excessive Commercial Washing and Drying will substantially decrease the longevity of the Airpod Air Mattress. To increase and maintain the longevity of the Product, it is recommended that the product is Air or Drip Dried.

Disinfecting Wipes

The materials and fabrics used in the manufacture of the Airpod Air Mattress have been tested and designed so that they can be used safely with most commonly used Hospital Disinfecting Wipes.

Using Household Bleach as a Disinfectant

In the USA, the CDC - Centers for Disease Control and Prevention - one of the recommended disinfectants to kill many of the pathogens of most concern to healthcare facilities, is common Household Bleach - usually 5.25% or 6.00% sodium hypochlorite diluted in water at 1:10 or 1:100.



8

Commercial and Institutional Laundries

AFTER SALES SERVICE AND CARE PROGRAMME

We Care

We want to make your experience with the use of our Products easy and trouble free.

We offer a whole range of support services that our competitors may charge extra for.

We offer one of the best and comprehensive **After Sales Service and Care Programme.** And it's free.

The Programme is all inclusive and is included in the price of our products.

The Programme:

- Free Loan Product as and when you need it
- Free Inspection for the Life of the Product
- Free Training for the Life of the Product
- The Training can be provided as and when required and as frequently as required.
- Comprehensive Training Material - Manuals, Videos and Products

For details of our Programme, visit our website or alternatively contact us directly.

YOU CARE



Training - The way you want it - when you want it

We understand and appreciate your concerns regarding the Training.

We follow a detailed training programme. This is outlined in our Training Manuals. Hard copies can be ordered or alternatively you can download them from our website.

We understand and appreciate that not every department or area will require the same, very high level of training - for example, Operating Room Operatives will require a different form of training to say Operatives in Imaging, ICU, ER, General Ward or Mortuary.

A personalised programme, using our comprehensive standard programme as the template, will be designed with your various heads of departments and optimised for various care providers and operators in different departments. This programme can be accessed, called upon and serviced by our Company/Dealer Representative as and when required.



Training Programme - The way you want it and when you want it

There are some general recommendations we make for the optimised programme:

- Ideally a Main Trainer should be appointed for each department. This person will be responsible for the overall training and use of our products within the department. This person will be trained in depth by us and should participate in our regular Annual Refresher Training Programme that is included in the purchase price of the product and is available for the life of the product.
- 2. Essentially this nominated Trainer will be able to cascade the training and provide on-site support for their colleagues within the department. The Trainer will be able to call upon us to provide additional support as and when required.
- The nominated Trainer will work closely with us and together we will ensure that our products are used safely and correctly without incidence. This process will ensure safe, easy and effortless patient handling and transfer for both the Patients and the Care Staff.

OUR LATERAL TRANSFER AIR MATTRESSES AND ACCESSORIES



Airpod Air Blower 100% Variable Power



Airpod Air Mattress Durable and Reusable



Easy Applicator Single Patient Use (SPU)

Compatibility with Competitors Products

We know and appreciate that budgets are tight so you may not be able to upgrade to all our products at the same time. So we have made it simple and easy - we have designed **our Products to be compatible with your existing Air Assisted Products**. So when your budgets allow, you can up-grade to our one of our products.

Our Air Mattresses will be compatible for use with your existing Air Blower (depending on age and condition) and the same is true for our Air Blower. Our Air Blowers are designed for use with any Competitive Patient Lateral Transfer Air Mattress. Please feel free to contact us with any concerns and/or questions you may have about Compatibility Issues.

MultiBoard

Bridge Boards designed specifically for use with Air Assisted Air Mattresses



Airpod Protective Mattress Covers Designed specifically for use with Airpod Air Mattresses





Lateral Transfer & Repositioning Air Mattress



