

FLOW

AIR

A *TRUE* ALL-ROUNDER



Flow Air is an active air mattress pressure redistribution system capable of meeting any needs in terms of prevention and treatment of pressure sores and skin maceration. Thanks to its high technological and innovative content, it represents a unique element of discontinuity in the anti- decubitus landscape.



Key features:

- Inflation unit with **Dual-Drive™** technology to offer virtually infinite treatment possibilities while minimizing noise and maximizing power efficiency.
- Four treatment modes: wave, immersion, static, and alternating.
- Comfort adjustment: soft, normal, firm.
- **Cloud-Enabled** for remote monitoring of treatment data, events, and alarms.
- Cover with hydrophilic surface treatment **Quick-Dry-Frame (QDF)** and 20 um microporous membrane to maximize breathability and vapor permeability.
- Air surface with **Silent-Flow** lateral air loss system.
- Polyurethane air cells each equipped with **Quick-Disconnect** check-in valve
- **Full-Immersion** heel zone.
- **Antimicrobial** treatment and graphical interface with 3.5" display with *autolock* and automatic *night mode*.



1.1 Air Mattress

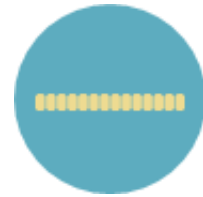
The air mattress features:



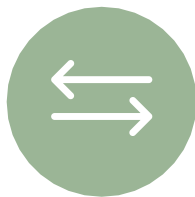
20 cm cells



20 Quick-Disconnect cells with three differentiated zones: heels, trunk, and head



Head zone: excludable with a single maneuver.



Lateral containment support with air.



CPR valve with emergency deflation time < 10 seconds.



Polyurethane cells to ensure maximum comfort and patient immersion



Silent-Flow™ System: silent lateral air flow through perforated nylon bands. The lateral flow guarantees continuous and constant air loss, as the holes cannot be occluded regardless of the patient's position. The air release holes are positioned on both sides corresponding to each cell, except for the head cells, for a total of 16 cells.

1.1.1 Mattress Structure

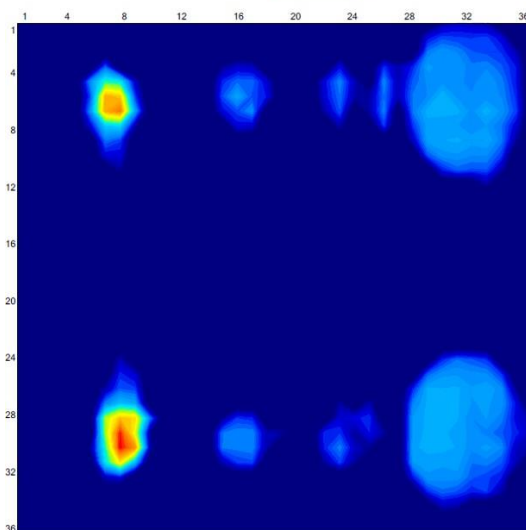
The anti-decubitus surface is composed of 20 air cells, divided into 3 differentiated and independent zones to effectively relieve contact pressure and avoid pressure interference between the different zones. Each cell is detachable and replaceable individually through specific **Quick-Disconnect** connectors located on the side of the surface. The head zone can be entirely excluded with a single operation to allow for endotracheal intubation operations.

Head Zone: composed of 3 static cells to avoid annoying head movements.

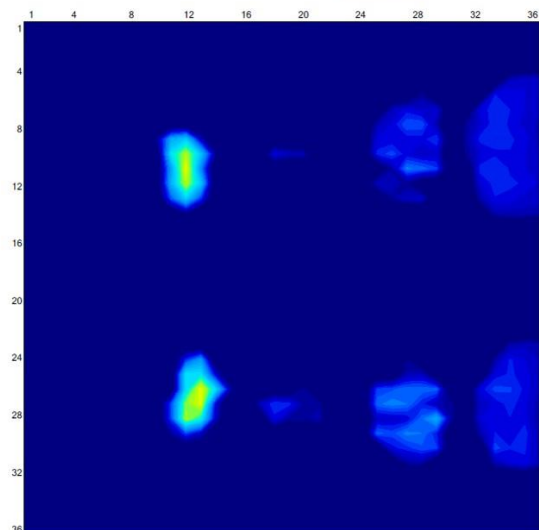
Trunk/Leg Zone: composed of 12 "8"-shaped cells, engineered to support all patients in any position, always ensuring the therapeutic action of the system and preventing the risk of sagging.

Heel Zone: consists of 5 cells with a specific **Full Immersion** morphology, capable of ensuring greater compliance of the elements, maximizing the immersion effect even with minimal weight, thus efficiently distributing contact pressures in any condition.

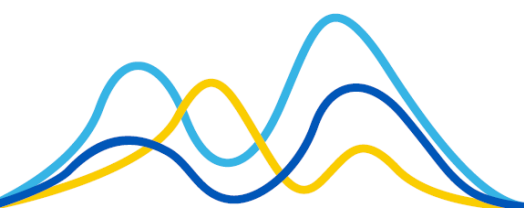
Standard Heels Zone



FULL IMMERSION Heels Zone



Lateral Containment Support: an independent section composed of 2 lateral bands to provide additional support to both the patient and the operator during bed entry and exit operations. This feature also prevents the risk of lateral compression of the air cells, which can lead to patient falls or slips.



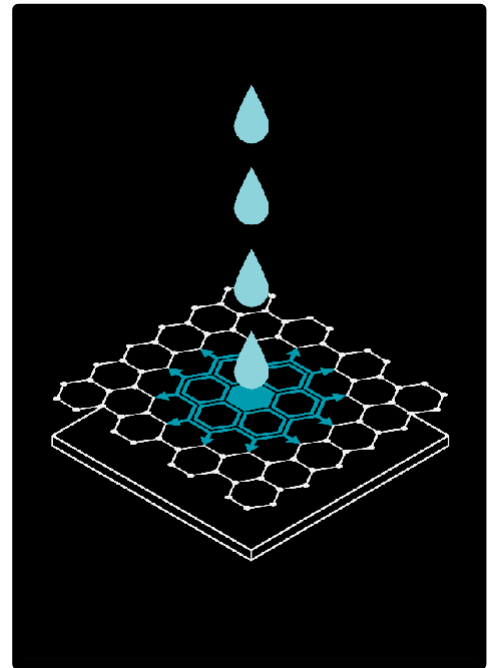
1.2 Cover

The cover, with a microporous membrane of only 20 microns, minimizes the risk of skin maceration by ensuring maximum breathability and, consequently, natural thermal regulation of the contact areas, keeping the patient's skin dry and maintaining an ideal microclimate.

The innovative Quick-Dry-Frame (QDF) surface treatment creates a precise honeycomb functional network that controls and channels excess moisture through a hydrophilic circuit, preventing accumulations and significantly increasing the useful breathable surface area.

The elasticity of the materials used allows it to adapt to body morphology, reducing shear and friction forces, while ensuring antistatic properties, biocompatibility, and liquid impermeability.

The cover is attached to the surface base through appropriate anchoring distributed around the entire perimeter of the cover and is protected by a flap that shields it from accidental maneuvers.



1.3 Inflation Unit

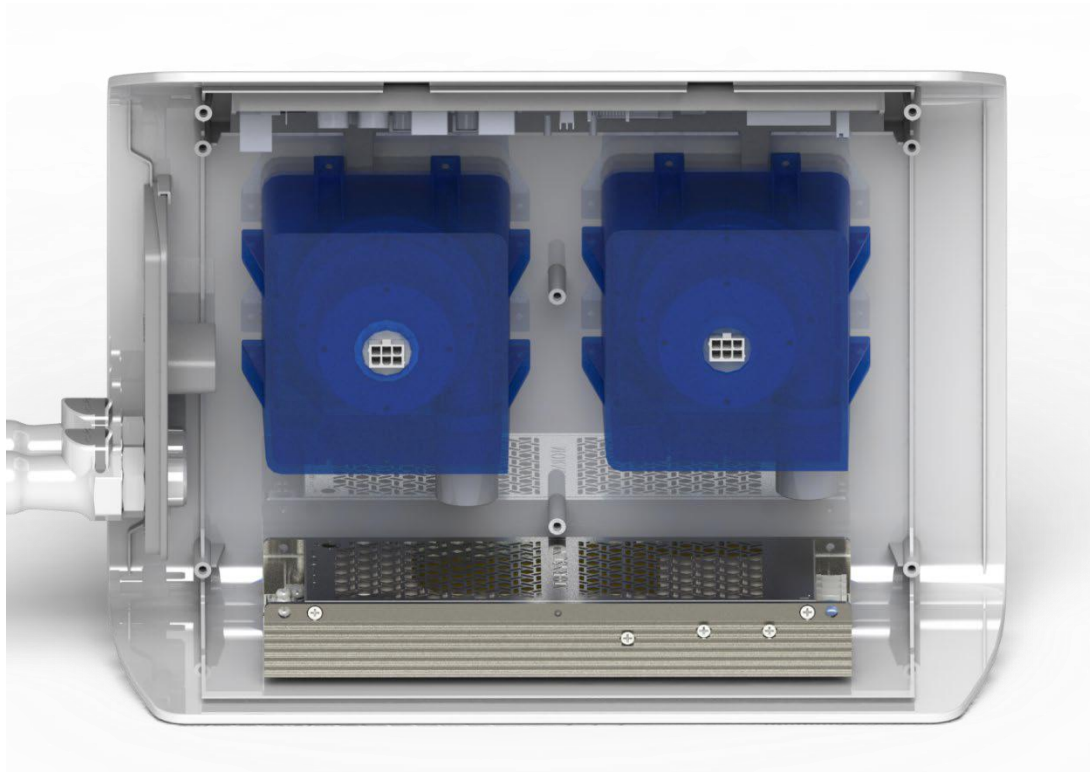
The inflation unit of the Flow Air system, with its automatic and feedback-controlled system, continuously monitors the pressure levels multiple times per second to maintain stable treatment even with patient movements and/or position changes.



The Flow Air system incorporates **Dual-Drive™** technology, which manages the two inflation lines of the surface separately using high-efficiency miniaturized blowers.

These blowers can quickly respond to surface load disturbances and maintain constant pressures throughout the treatment duration. The very short response times combined with the separate control of the two lines allow for unique and highly precise treatment profiles. All this is ensured with extremely low sound pressure levels, among the lowest in the category, thanks to the integration of advanced noise and vibration reduction systems.





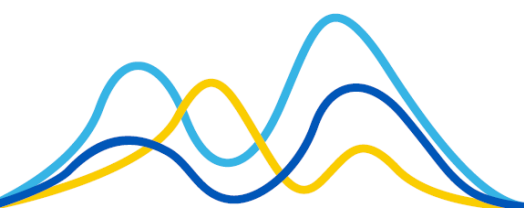
The entire inflation unit and its user interface are made of antimicrobial and antibacterial material to provide protection against numerous bacteria, such as MRSA, Escherichia coli, and Salmonella, during use in high-risk infection areas like hospitals and medical offices. The antibacterial function has been tested according to ISO 22196 and is guaranteed by Microban® and MacDermid® (Autotex AM) for the entire product lifespan.



The user interface consists of a large 3.5" color display and a membrane keyboard with simple and intuitive controls, thanks to the on-screen indications. Positioning on the footboard of the bed frame is facilitated by two large and sturdy anchoring brackets on the back of the inflation unit, ensuring maximum stability and compatibility.

1.4 Cloud Telemetry Functionality

The Flow Air system is equipped with an internal telemetry **Cloud-Enabled** module with 2G/4G technology and an integrated SIM card. This enables the periodic transmission of **alarms, operating pressures, events, and diagnostic data**. This functionality allows the service center to remotely and continuously monitor the proper functioning of the systems and intervene preventively, minimizing potential disruptions for the patient.



1.5 Treatment Modes

Selectable modes include:

STATIC: Continuous low-pressure mode. The set pressure is maintained constant by inflating or deflating the cells based on the patient's position to ensure an adequate degree of immersion and improve the distribution of the patient's weight. This reduces the average contact pressure below the POC (32mmHg), creating a body flotation effect and ensuring excellent patient comfort.

IMMERSION: Continuous low-pressure mode with high immersion. It provides all the benefits described for the static mode while further increasing the contact surface, thereby lowering the average contact pressures.

ALTERNATING: Dynamic 1-to-1 alternating pressure mode. This mode is designed to mimic the effects of the patient's spontaneous movements, ensuring maximum tissue perfusion. The elements of the surface inflate and deflate alternately according to a defined time cycle, ensuring an average contact pressure below the POC (32 mmHg) for 100% of the time.

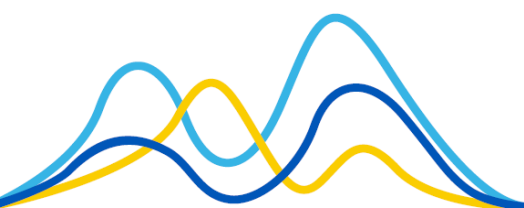
WAVE: High-frequency dynamic 1-to-1 alternating pressure mode. It provides all the benefits described for the alternating mode, further facilitating tissue perfusion, almost simulating a continuous and gentle massage that benefits the lymphatic system and local microcirculation.

2.1 Technical Characteristics of the System

Model	Flow AIR
Code	<ul style="list-style-type: none">SFAIR SD M/L – Anti-decubitus systemSFAIR CL M/L – Anti-decubitus system with Cloud functionalityPFAIR SD – Inflation unitPFAIR CL – Inflation unit with Cloud functionalityMFAIR SD M/L – Mattress replacement surface (Size M/L)
Production Start	2024

2.2 Mattress Technical Characteristics

Patient Weight:	300 kg (MAX)
Cells:	20
Air Release:	Bilateral holes corresponding to each cell except the head zone (total 16 cells)
Cell Height:	20.3 cm (8")
Dedicated Zones:	3 + Lateral containment support
Support Base:	Sealed polyurethane foam, height 1 cm



CPR:	< 10 s via rotary valve
Bed Attachment:	Straps at the mattress ends
Power Management:	Cord External side attachment to the mattress structure
Radiolucent:	Yes
Latex Free:	Yes
Network Absence Support:	Automatic up to 24h

Note: The inflatable mattress is a type BF applied part.

2.3 Cover Technical Characteristics:

Liquid Proof, Vapor Permeable

Sanitizable: With sodium hypochlorite or hydrogen peroxide-based solutions, autoclavable at 85°C for 60 minutes or 105°C for 30 minutes.

2.4 Compressor Technical Characteristics:

Specification	Unit of Measure	Value
Operating Temperature	°C	+10/+45
Storage Temperature	°C	-20/+65
Operating Humidity	RH%	30% / 85%
Transport/Storage Humidity	RH%	30% / 85%
Power Supply Voltage	VCA	220-240 VCA
Power Supply Frequency	Hz	50
Max Power Consumption	A	1.6
Max Power	W	275
Fuse		1x 250 V - 2A (inlet), 2x 24V - 10A (blowers)
Fuse Type		Delayed (slow)
Max Dual-Drive Flow	LPM	1750
IP Rating		21
Dimensions	mm	355x270x125 (LxHxD)
Weight	Kg	3
Noise (1 meter)	dB(A)	< 35

