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Air Kinetic Technologies Corp.  
**AKTC**<sup>®</sup>  
Since 1989

ELITE SERIES • SAVVY SERIES • OPTIMAL SERIES • OPTIMAL DUAL SERIES

**THE AIR MATTRESS EXPERT**  
Made in Taiwan



## WHO WE ARE

- Founded in 1989, AKTC has sold millions of air pumps for air mattresses and DVT applications in the last 25 years.
- With abundant innovation patents on the air mattress design and manufacture, plus the sense of urgency to provide a better patient environment for pressure ulcer prevention, we built a new factory and acquired new facilities with more than triple capacity air mattress manufacture in the year of 2010.
- Loyalty, integrity and never competing with the customers are the core business value that we truly believe and strictly follow.

## VISION

- As the population aging and patients with chronic diseases increasing, the number of patient with pressure ulcers is growing steadily. It results in a huge financial burden to not only the patient's family and care givers, but also the medical system of the country. The prevention and treatment for pressure ulcers and Deep Vein Thrombosis (DTV) has therefore increased significantly the importance to the role and the value on preventive medicine.
- AKTC continuously engages in pressure ulcer prevention and DTV related equipment manufacture. We truly believe its importance for human society and devote to provide the highest quality products for creating a healthier life care environment.

## INNOVATION RECORD

Patent No.	Patent Description
US 6,152,176 B1	Air valve structure for alternately aerated three-pipe style air bed
US 6,253,402 B1	Air bed structure capable of alternate lying thereon on either of one's sides
US 6,257,269 B1	Multiple-purposed air valve component for air mattress
US 6,266,833 B1	Air bed structure capable of alternate aerating and lying thereon on one's side
US 6,457,197 B1	Swift connection joint between AIRBAGS
US 6,571,412 B1	Multiple tubes combination structure
US 6,832,629 B2	Rapid inflation and venting air valve of airbed
US 6,832,630 B2	Adjustable air supply valve of air cushion bed
TW No. 131764	Improvement of pump intake and exhaust silencer structure
TW No. 153420	Air valve structure for three-pipe alternative air mattress
TW No. 170630	Multifunctional air valve structure for the air mattress
TW No. 180413	Two-stage alternative lateral rotations function for the air mattress structure
TW No. 180422	Structure of quick connector for air cells
TW No. 180442	Alternating and lateral rotation functions for the air mattress structure
TW No. 183892	Adjustable air valve for the air mattress
TW No. 202528	Pipe-less air valve structure for the air mattress
TW No. 211316	Multi-connections pipe structure
TW No. 217705	Quick inflation and deflation air valve structure for the air mattress
TW No. 95260	Pump structure improvement for the pressure ulcer prevention air mattress
TW No. M426698	All-in-one quick connector
TW No. 1385687	Micro switches for minor adjustment settings
TW No. 1400403	Structure of control valve for the air mattress
TW No. 1405906	Improvement of pump back-flow prevention film structure
TW No. 1417465	Single-unit air pump structure
TW No. 1427232	Quick connection structure for back-flow and loose prevention



## ELITE SERIES

- Selectable alternating and static therapy depends on patients' needs.
- Pliable, high quality PVC coated nylon air cells reduce shear and enhance reliability.
- Vapor permeable, spill resistance cover keeps the moisture away from the skin.
- Interchangeable air cell connectors for hassle free air cell replacement.
- Innovative **iLAL** (Independent Low Air Loss) feature utilizes the recycled air from alternating air cells reducing the moisture and heat from patients.
- Optional static head pillow feature for head support.
- Water and dust proof-IEC60601-1-11 home healthcare environment compliant.

## SAVVY SERIES

- Selectable alternating and static therapy depends on patients' needs.
- Pliable, high quality PU coated nylon or ether type of TPU air cells reduce shear and enhance reliability.
- One-way or two-way stretchable, vapor permeable, and spill resistance cover keeps the moisture away from the skin.
- Unique modularized design facilitates interchangeability and maintenance.
- Innovative **iLAL** (Independent Low Air Loss) feature utilizes the recycled air from alternating air cells reducing the moisture and heat from patients.
- Static head pillow for head support.
- Heel zone (8" air mattress only)- 4 slim cells for comfortable heel support.
- Water and dust proof-IEC60601-1-11 home healthcare environment compliant.

## OPTIMAL SERIES

- True low air loss therapy maintains low pressures while keeping the moisture away from the skin.
- One-way or two-way stretchable, vapor permeable, and spill resistance cover keeps the moisture away from the skin.
- High air flow (more than 1000 LPM).
- Three operation modes available: Alternate, Static, Pulsate.
- Optional fowler function increases the air flow output at backrest mode for bottom-out prevention.
- Lateral rotation mattress (Optimal Turn) provides three turning options-Left Turn, Full Turn, Right Turn, with adjustable turning angles.
- Optional bariatric mattresses (42", 48", 54" wide) for heavier patients support.

## OPTIMAL DUAL SERIES

- Two compressors control unit provides better performance - quiet and efficient.
- One-way or two-way stretchable, vapor permeable, and spill resistance cover keeps the moisture away from the skin.
- Innovative **iLAL** (Independent Low Air Loss) feature utilizes the recycled air from alternating air cells reducing the moisture and heat from patients.
- Three operation modes available: Alternate, Static, Pulsate.
- Optional fowler function increases the pressure output at backrest mode for bottom-out prevention.
- Lateral rotation mattress (Optimal Dual Turn) provides three turning options-Left Turn, Full Turn, Right Turn, with adjustable angles.
- Optional bariatric mattresses (42", 48", 54" wide) for heavier patients support.
- Water and dust proof-IEC60601-1-11 home healthcare environment compliant.

## TECHNICAL SPECIFICATION

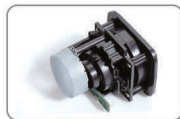
### ELITE SERIES



Control Unit	Model	CH210 (Interchangeable with other pump models)		
	Dimension (WxDxH)(cm)	14.5x13x28		
	Weight (kg)	2.5		
	Cycle Time (minute)	15		
	Power Supply	AC120V 60Hz/AC230V 50Hz		
Air Mattress	Dimension (LxWxH)(cm)	200x85x10	200x85x13	200x89x21
	Weight (kg)	7.5	8	11
	Number of Cell	18	16	19
	Air Cell Material	Nylon PVC		
	Cover Material	Nylon PU or stretchable polyester with PU coated		
	Base Material	Polyester w/PU coated		
	Maximum User Weight (kg)	120	135	180



High Efficiency Compressor Set with PU Diaphragms, Metal Casing & Shockproof Design



Patent Pending Modulized Tube Free Air Valve Set



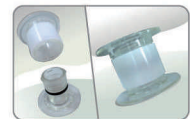
Patented All-in-One Hose Connectors



Patented Highly Integrated Pressure Control



CPR Pulling Tag



Patent Pending Quick Couplings



Insert-Molded Elastic Hooks



Visual and Audible Alarms



Static to Alternate Auto-Switch Function



Patent Pending Independent Low Air Loss (iLAL)

### OPTIMAL SERIES



Control Unit	Model	Optimal Pro	Optimal Turn
		SD221 (Blower)	SD440 (Blower)
		40x15.7x27	
		6	
		10~30	10~20
Air Mattress	Power Supply	AC120V 60Hz/AC230V 50Hz	
		Dimension (LxWxH)(cm)	200x89x21
		Weight (kg)	11.5
		Number of Cell	19
		Air Cell Material	TPU Ether
		Cover Material	1or 2-way stretchable polyester with PU coated (Optional w/quilted cover)
		Base Material	Polyester w/PU coated
		Maximum User Weight (kg)	300



Patented All-in-One Hose Connectors



Patented Quick Inflation CPR



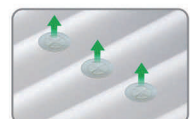
Patented Convenient Quick Couplings (CQC)



Patent Pending Contactless Position Detector



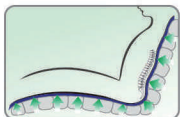
Insert-Molded Elastic Hooks



True Low Air Loss



3 Turning Options Available: Left Turn, Full Turn, Right Turn



Fowler Function



Visual and Audible Alarms

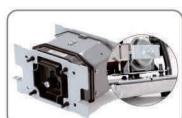


# TECHNICAL SPECIFICATION

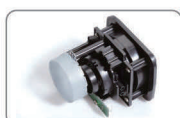
## SAVVY SERIES



Control Unit	Model	GD211 (Interchangeable with other pump models)	
	Dimension (WxDxH)(cm)	33x12x22	
	Weight (kg)	3.5	
	Cycle Time (minute)	10~30	
	Power Supply	AC120V 60Hz/AC230V 50Hz	
Air Mattress	Dimension (LxWxH)(cm)	200x85x13	200x89x21
	Weight (kg)	5.5(Nylon PU)/ 7(TPU Ether)	10(Nylon PU)/ 11.5(TPU Ether)
	Number of Cell	16	19
	Air Cell Material	Nylon PU or TPU Ether	
	Cover Material	1or 2-way stretchable polyester with PU coated	
	Base Material	Polyester w/PU coated	
	Maximum User Weight (kg)	135	180



High Efficiency Compressor Set with PU Diaphragms, Metal Casing & Shockproof Design



Patent Pending Modulized Tube Free Air Valve Set



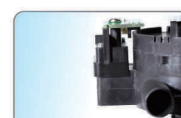
Patented All-in-One Hose Connectors



Patented Quick Inflation CPR



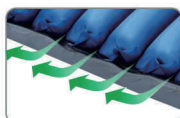
Patent Pending Quick Couplings



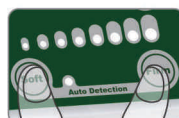
Patent Pending Contactless Position Detector



Insert-Molded Elastic Hooks



Patent Pending Independent Low Air Loss (iLAL)



Auto-Pressure Detection



Visual and Audible Alarms

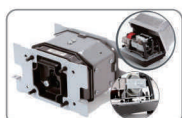


Static to Alternate Auto-Switch Function

## OPTIMAL DUAL SERIES



Optimal Dual				Optimal Dual Turn	
Control Unit	Model	RD211		RD433	
	Dimension (WxDxH)(cm)	41x13x23			
	Weight (kg)	4.6			
	Cycle Time (minute)	10~30		10~20	
	Power Supply	AC120V 60Hz/AC230V 50Hz			
Air Mattress	Dimension (LxWxH)(cm)	200x89x21		200x89x30 (with Side Bolster)	
	Weight (kg)	10(Nylon PU)/ 11.5(TPU Ether)		12.5(Nylon PU)/ 14(TPU Ether)	
	Number of Cell	19			
	Air Cell Material	Nylon PU or TPU Ether			
	Cover Material	1or 2-way stretchable polyester with PU coated			
	Base Material	Polyester w/PU coated			
	Maximum User Weight (kg)	255			



High Efficiency Compressor Set with PU Diaphragms, Metal Casing & Shockproof Design



Patented All-in-One Hose Connectors



Patented Quick Inflation CPR



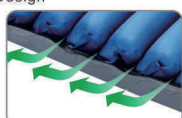
Patented Convenient Quick Couplings (CQC)



Patent Pending Contactless Position Detector



Insert-Molded Elastic Hooks



Patent Pending Independent Low Air Loss (iLAL)



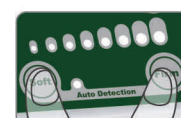
Static to alternate Auto-Switch Function



3 Turning Options Available: Left Turn, Full Turn, Right Turn



Fowler Function



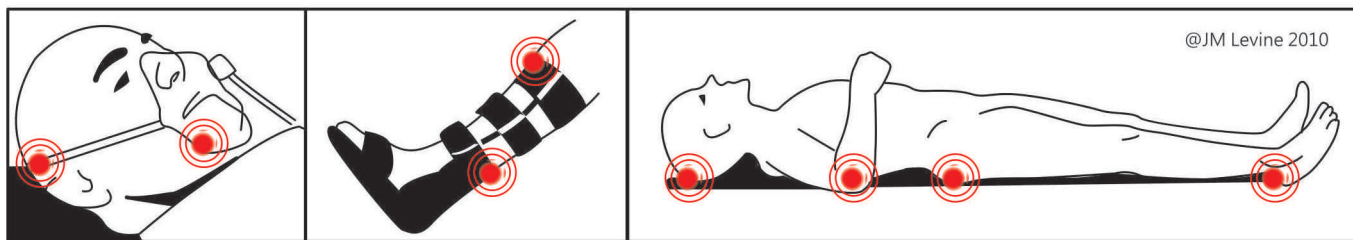
Auto-Pressure Detection



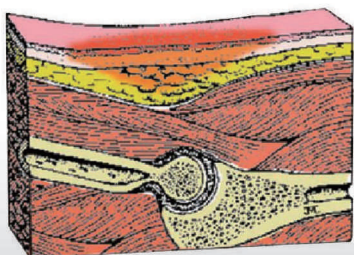
Visual and Audible Alarms

# PRESSURE ULCER STAGES AND PRODUCTS SUGGESTION

## ● Areas at High Risk of Developing Pressure Ulcers

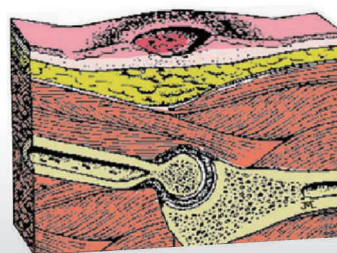


**Stage I** Intact skin with non-blanchable redness of a localized area usually over a bony prominence.



Air Mattress	Bubble Pad	4"	5"	8"
Stage I	●	●	●	●

**Stage II** Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough.



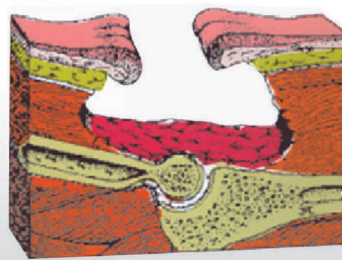
Air Mattress	Bubble Pad	4"	5"	8"
Stage II		●	●	●

**Stage III** Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle are not exposed.



Air Mattress	Bubble Pad	4"	5"	8"
Stage III			●	●

**Stage IV** Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present.



Air Mattress	Bubble Pad	4"	5"	8"
Stage IV				●

Images and content are cited from: <http://www.nopressureulcers.com>  
<http://www.npuap.org/resources/educationl-and-clinical-resources/npuap-pressure-ulcer-stagescategories/>

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