



**Since 1989**

Elite Series

Savvy Series

Optimal Dual Series

Optimal Pro Series — True Low Air Loss System



The Air Mattress Expert

Made in Taiwan



## Elite Series

The **Elite Series** dynamic mattress overlay system provides effective therapy for pressure ulcer prevention at an affordable cost with high quality **TPU coated nylon air cells**. The 4" or 5" mattress overlay with our mechanical or semi-digital pumps is ideal for patients at **medium to high risk** of pressure ulcer development.

### Elite Series

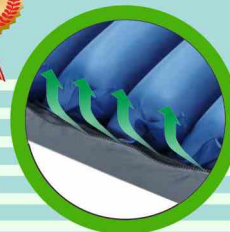
Pump					Mattress		
	Mechanical Series	Semi-Digital Series				4" Overlay	5" Overlay
Model	Elite 160	Elite 120	Elite 140	Elite 200	Dimension (cm)	200x85x10	200x85x12.5 200x107x12.5
Dimension (cm)	31x10x20	31x10x20	33x12x22	33x13x24	Number of Cells	19	16
Supply Voltage	120V/60Hz or 230V/50Hz				Cell Material	Nylon-TPU	
Alternating Type	2-1 or 3-1 Alternating				Top Cover Material*	Nylon-PU (Antibacterial and antifungal)	
Flowrate (Liter)**	7.0		9.0		Pillow Section	Yes	
Control Panel Type	Dial	Dial+Digital Keypad			Cell-on-Cell Design	No	
Mode	Alternate, Static				Independent Low Air Loss (iLAL)	Yes	
Full Cycle Time (Minutes)	12	Selectable 10, 15, 20			CPR Type	Pull-Tab CPR	
Alarms	Low Pressure LED Indicator	Audiovisual Alarms (Power Failure, Low Pressure, and Service Alarm)			Recommendation Maximum Weight (kg)	135	
Power Code Type	Undetachable			Detachable	*Biocompatible two-way stretch top cover and quilted top cover are also available. **The flow rate may be varied due to fluctuation of input voltage. ***Homecare standards does not allow ground connection 3 pin plug.		
Classification	Class II, Type BF						
Electrical Safety Standards	IEC60601-1 IEC60601-1-2 ***IEC60601-1-11 homecare standards available						



The support surface can maintain the same height during each alternating cycle hence enhances the comfort for the patient



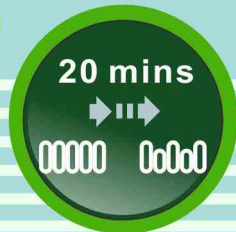
Mattress alternates every other 3 air cell during each alternating cycle to give patient a very genuine comfortable surface



iLAL effectively reduces the moisture and skin heat on the support surface by periodically providing a high volume of low air loss relief



Insert-molded elastic hangers



Static to alternate auto-switch function



## Savvy Series

The **Savvy Series** dynamic mattress overlay or replacement system provides effective therapy with reliable high quality **TPU coated nylon air cells** or high quality, pliable, shear force reduced **TPU-ether air cells** for pressure ulcer prevention. The 4" or 5" mattress overlay or 8" mattress replacement with our mechanical, semi-digital, or digital pumps is ideal for patients at **medium to very high risk** of pressure ulcer development.



## Savvy Series

Pump								Mattress							
	Mechanical Series	Semi-Digital Series				Digital Series				4" Overlay		5" Overlay		8" Replacement	
Model	Savvy 160	Savvy 120	Savvy 140	Savvy 200	Savvy 130	Savvy 150	Savvy 210	Dimension (cm)	200x85x10		200x85x12.5 200x107x12.5		200x107x20 200x122x20		
Dimension (cm)	31x10x20	31x10x20	33x12x22	33x13x24	31x10x20	33x12x22	33x13x24	Number of Cells	20		16		18/20/24		
Supply Voltage	120V/60Hz or 230V/50Hz							Cell Material	Nylon-TPU	TPU Ether	Nylon-TPU	TPU Ether	Nylon-TPU	TPU Ether	
Alternating Type	2-1 or 3-1 Alternating							Top Cover Material*	Nylon-PU (Antibacterial and antifungal)						
Flowrate (Liter)**	7.0		9.0		7.0	9.0		Pillow Section	Yes						
Control Panel Type	Dial	Dial+Digital Keypad			Digital Keypad+Seven-Segments LED display			Cell-on-Cell Design	No			Yes			
Mode	Alternate, Static					Alternate, Static Constant Low Pressure (CLP)	Independent Low Air Loss (iLAL)	Yes							
Full Cycle Time (Minutes)	12	Selectable 10, 15, 20			Selectable 10, 15, 20, 25, 30			CPR Type	AKTC Q-CPR						
Alarms	Low Pressure LED Indicator	Audiovisual Alarms (Power Failure, Low Pressure, and Service Alarm)			Audiovisual Alarms (Power Failure, Low Pressure, and Service Alarm with Error Code)			Side Bolsters with Bolster Release Valve	No			Optional			
Auto Pressure Detection	No				Optional			SmileTurn	Optional						
Power Code Type	Undetachable			Detachable	Undetachable		Detachable	Recommendation Maximum Weight (kg)	135			180			
Fowler Function	No					Optional			*Biocompatible two-way stretch top cover and quilted top cover are also available. **The flow rate may be varied due to fluctuation of input voltage. ***Homecare standards does not allow ground connection 3 pin plug.						
Classification	Class II, Type BF														
Electrical Safety Standards	IEC60601-1 IEC60601-1-2 ***IEC60601-1-11 homecare standards available														



Patented quick inflation CPR for immediate mattress deflation or inflation with our optional handheld inflator for quick setup



High efficiency compressor with PU diaphragms, metal casing & shockproof design



Patented contactless photointerrupter optical switch



Transportation cap can be used in case of patient transportation or power outage



SmileTurn with adjustable turning functions: left turn/ right turn/full turn



# Optimal Dual Series

The **Optimal Dual Series** dynamic mattress replacement system provides effective therapy with reliable high quality **TPU coated nylon air cells** or high quality, pliable, shear force reduced **TPU-ether air cells** for pressure ulcer prevention.

The 8" mattress replacement with our dual compressors digital pump is ideal for patients at **medium to very high risk** of pressure ulcer development.

The Optimal Dual is an advanced multi-functional microcontroller programmed **9.0L+9.0L dual linear compressors digital pump** with a **detachable power cord** dynamic mattress replacement system. The high flowrate fast inflation dual compressors digital pump has a precise **digital pressure transducer** which is able to reduce the power wattage once the pressure is reached therefore it is the most quiet, power efficiency, and extended lifetime pump. The digital pump has 20 minutes **static mode**, **alternate mode with selectable cycle time**, **Constant Low Pressure (CLP) or pulsate mode with selectable cycle time**, **auto-firm mode**, **auto-detection mode**, and an **optional fowler detector**. To insure patient's safety, the pump has **audiovisual** low pressure, power failure, and service alarms **with error code**.



## Optimal Dual Series

Pump	
	Digital Series
	Optimal Dual
Model	
Dimension (cm)	41x13x23
Supply Voltage	120V/60Hz or 230V/50Hz
Alternating Type	2-1 or 3-1 Alternating
Flowrate (Liter)**	9.0+9.0
Control Panel Type	Digital Keypad+Seven-Segments LED display
Mode	Alternate, Static, Constant Low Pressure (CLP) or Pulsation Mode
Turning Mode	No
Turning Angles (Degrees)	N/A
Full Cycle Time (Minutes)	Selectable 10, 15, 20, 25, 30
Pulsation Cycle Time (Minutes)	Selectable 5-30
Turning Cycle Time (Minutes)	N/A
Alarms	Audiovisual Alarms (Power Failure, Low Pressure, and Service Alarm with Error Code)
Power Code Type	Detachable
Fowler Function	Optional
Classification	Class II, Type BF
Electrical Safety Standards	IEC60601-1 IEC60601-1-2 ***IEC60601-1-11 homecare standards available

Mattress			
	8" Replacement		8" Replacement-Bariatric Mattress
Dimension (cm)	200x90x20		200x107x20 200x122x20 200x137x20 200x152x20
Number of Cells	18/20/24		18/20/24 18/20
Cell Material	Nylon-TPU	TPU Ether	Nylon-TPU or TPU Ether
Top Cover Material*	Nylon-PU (Antibacterial and antifungal)		
Pillow Section	Yes		
Cell-on-Cell Design	Yes		
independent Low Air Loss (iLAL)	Yes		
CPR Type	AKTC Q-CPR		
Side Bolsters with Bolster Release Valve	Optional		
SmileTurn	Optional		N/A
Recommendation Maximum Weight (kg)	255		300/350

\*Biocompatible two-way stretch top cover and quilted top cover are also available.

\*\*The flow rate may be varied due to fluctuation of input voltage.

\*\*\*Homecare standards does not allow ground connection 3 pin plug.

## Optimal Dual Turn Series

Pump	
	Digital Series
	Optimal Dual Turn
Model	
Dimension (cm)	41x13x23
Supply Voltage	120V/60Hz or 230V/50Hz
Alternating Type	2-1 or 3-1 Alternating
Flowrate (Liter)**	9.0+9.0
Control Panel Type	Digital Keypad+Seven-Segments LED display
Mode	Alternate, Static, Pulsation, and Turning Mode
Turning Mode	Yes (Left Turn, Right Turn, and Full Turn)
Turning Angles (Degrees)	0-40 (Adjustable)
Full Cycle Time (Minutes)	Selectable 10, 15, 20
Pulsation Cycle Time (Minutes)	Selectable 10, 15, 20
Turning Cycle Time (Minutes)	Selectable 10-95
Alarms	Audiovisual Alarms (Power Failure, Low Pressure, and Service Alarm with Error Code)
Power Code Type	Detachable
Fowler Function	Yes
Classification	Class II, Type BF
Electrical Safety Standards	IEC60601-1 IEC60601-1-2 ***IEC60601-1-11 homecare standards available

Mattress			
	8" Replacement-Turning Mattress		8" Replacement-Bariatric Turning Mattress
Dimension (cm)	200x90x20		200x107x20 200x122x20 200x137x20 200x152x20
Number of Cells	18/20/24		18/20/24 18/20
Cell Material	Nylon-TPU	TPU Ether	Nylon-TPU or TPU Ether
Top Cover Material*	Nylon-PU (Antibacterial and antifungal)		
Pillow Section	Yes		
Cell-on-Cell Design	Yes		
independent Low Air Loss (iLAL)	Yes		
CPR Type	AKTC Q-CPR		
Side Bolsters with Bolster Release Valve	Yes		
SmileTurn	N/A		
Recommendation Maximum Weight (kg)	255		300/350

\*Biocompatible two-way stretch top cover and quilted top cover are also available.

\*\*The flow rate may be varied due to fluctuation of input voltage.

\*\*\*Homecare standards does not allow ground connection 3 pin plug.



Patented all-in-one integrated hose connectors



Audiovisual alarms ensure the nursing staff is notified in the event of faults



Auto pressure detection providing the recommendation pressure setting



Relative pressure calibration ensures precise pressure



Power cord protector prevents loosen cord from accidental impact



## Optimal Pro Series — True Low Air Loss System

The **Optimal Pro Series True Low Air Loss** dynamic mattress replacement system provides effective therapy with reliable high quality **TPU coated nylon air cells** or high quality, pliable, shear force reduced **TPU-ether air cells** for pressure ulcer prevention. The 8" mattress replacement with our high volume liter per minute airmoving-blower digital pump is ideal for patients at **very high risk** of pressure ulcer development.

The 1000.0L high flowrate fast inflation airmoving-blower digital pump has a precise **digital pressure transducer** and is the only pump can provide the **True Low Air Loss ventilation** through our uniquely designed **on-cell TrueVent holes**. The digital pump has **static mode, alternate mode with selectable cycle time, pulsate mode with selectable cycle time, auto-firm mode, bariatric mode, and an optional fowler detector**. To insure patient's safety, the pump has **audiovisual** low pressure, power failure, and service alarms **with error code**.



### Optimal Pro Series — True Low Air Loss System

Pump	
	<b>Digital Series</b>
Model	<b>Optimal Pro</b>
Dimension (cm)	40x16x27
Supply Voltage	120V/60Hz or 230V/50Hz
Alternating Type	2-1 or 3-1 Alternating
Flowrate (Liter)**	1350.0
Control Panel Type	Digital Keypad+Seven-Segments LED display
Mode	Alternate, Static, Pulsation
Turning Mode	No
Turning Angles (Degrees)	N/A
Full Cycle Time (Minutes)	Selectable 5, 10, 15, 20, 25, 30
Pulsation Cycle Time (Minutes)	Selectable 1-20
Turning Cycle Time (Minutes)	N/A
Alarms	Audiovisual Alarms (Power Failure, Low Pressure, and Service Alarm with Error Code)
Fowler Function	Optional
Classification	Class I, Type BF
Electrical Safety Standards	IEC60601-1 IEC60601-1-2

Mattress			
	8" Replacement		8" Replacement-Bariatric Mattress
Dimension (cm)	200x90x20		200x107x20 200x122x20 200x137x20 200x152x20
Number of Cells	18/20/24		18/20/24    18/20
Cell Material	Nylon-TPU	TPU Ether	Nylon-TPU or TPU Ether
Top Cover Material*	Nylon-PU (Antibacterial and antifungal)		
Pillow Section	Yes		
Cell-on-Cell Design	Yes		
Independent Low Air Loss (iLAL)	No		
On Cell TruVent True Low Air Loss(LAL)	Yes		
CPR Type	AKTC Q-CPR		
Side Bolsters with Bolster Release Valve	Optional		
Recommendation Maximum Weight (kg)	300		365/450

\*Biocompatible two-way stretch top cover and quilted top cover are also available.

\*\*The flow rate may be varied due to fluctuation of input voltage.

### Optimal Turn Series — True Low Air Loss System

Pump	
	<b>Digital Series</b>
Model	<b>Optimal Turn</b>
Dimension (cm)	40x16x27
Supply Voltage	120V/60Hz or 230V/50Hz
Alternating Type	2-1 or 3-1 Alternating
Flowrate (Liter)**	1350.0
Control Panel Type	Digital Keypad+Seven-Segments LED display
Mode	Alternate, Static, Pulsation
Turning Mode	Yes, (Left Turn, Right Turn and Full Turn)
Turning Angles (Degrees)	0-40
Full Cycle Time (Minutes)	Selectable 10, 15, 20
Pulsation Cycle Time (Minutes)	Selectable 10, 15, 20 (Double Cycles)
Turning Cycle Time (Minutes)	Selectable 5-95
Alarms	Audiovisual Alarms (Power Failure, Low Pressure, and Service Alarm with Error Code)
Fowler Function	Yes
Classification	Class I, Type BF
Electrical Safety Standards	IEC60601-1 IEC60601-1-2

Mattress			
	8" Replacement-Turning Mattress		8" Replacement-Bariatric Turning Mattress
Dimension (cm)	200x90x20		200x107x20 200x122x20 200x137x20 200x152x20
Number of Cells	18/20/24		18/20/24    18/20
Cell Material	Nylon-TPU	TPU Ether	Nylon-TPU or TPU Ether
Top Cover Material*	Nylon-PU (Antibacterial and antifungal)		
Pillow Section	Yes		
Cell-on-Cell Design	Yes		
Independent Low Air Loss (iLAL)	No		
On Cell TruVent True Low Air Loss(LAL)	Yes		
CPR Type	AKTC Q-CPR		
Side Bolsters with Bolster Release Valve	Yes		
Recommendation Maximum Weight (kg)	300		365/450

\*Biocompatible two-way stretch top cover and quilted top cover are also available.

\*\*The flow rate may be varied due to fluctuation of input voltage.



Tube-through-cell design ensures the connector is fitted firmly.



Patent pending convenient quick couplings(CQC)



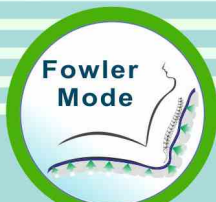
Welded manifolds prevent kink during transportation



TrueVent True Low Air Loss



Three turning modes available: left turn, full turn, right turn



Fowler function (optional)



## WHO WE ARE

- Founded in Taiwan in 1989, **AKTC** is a professional air mattress system developer and manufacturer. Since our inception in 1989, we have sold millions of air pumps for air mattress and Deep Vein Thrombosis (DVT) applications.
- In 2010 **AKTC** acquired and built a brand new factory with more than triple of capacity for air mattress system manufacture to fulfill our abundant innovation patents and the sense of providing the best medical equipment for pressure ulcer prevention.
- Loyalty, integrity, and to never compete with our customers are the core business values that we truly believe in and these values are strictly followed.

## VISION

- As the population aging and patients with chronic diseases increasing, the number of patient with pressure ulcers is growing steadily. The result is 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 DVT have therefore increased significantly due to the importance of the role and the value on preventive medicine.
- **AKTC** continuously engages in pressure ulcer prevention and DVT related equipment manufacture because we truly believe its importance for the human society and we devote to provide the highest quality products.

## INNOVATION RECORD

Patent No.	Patent Description
US 8,651,131 B2	CONTROL VALVE FOR AIR CUSHION BED
US 6,832,630 B2	ADJUSTABLE AIR SUPPLY VALVE OF AIR CUSHION BED
US 6,832,629 B2	RAPID INFLATION AND VENTING AIR VALVE OF AIRBED
US 6,571,412 B1	MULTIPLE TUBES COMBINATION STRUCTURE
US 6,457,197 B1	SWIFT CONNECTION JOINT BETWEEN AIRBAGS
US 6,266,833 B1	AIR BED STRUCTURE CAPABLE OF ALTERNATE AERATING AND LYING THEREON ON ONE'S SIDE
US 6,257,269 B1	MULTIPLE-PURPOSED AIR VALVE COMPONENT FOR AIR MATTRESS
US 6,253,402 B1	AIR BED STRUCTURE CAPABLE OF ALTERNATE LYING THEREON ON EITHER OF ONE'S SIDES
US 6,152,176 B1	AIR VALVE STRUCTURE FOR ALTERNATELY AERATED THREE-PIPE STYLE AIR BED
TW No. I 580877	Quad-output valve structure
TW No. I 575176	Air valve adjusting structure of air bed
TW No. I 574651	In-cell gas delivery structure of air bed with a plurality of layers
TW No. I 543733	Method for keeping height of air bed constant when exchanging air and air valve structure thereof
TW No. I 427232	Quick connection structure for back-flow and loose prevention
TW No. I 417456	Single-unit air pump structure
TW No. I 405906	Improvement of pump back-flow prevention film structure
TW No. I 400403	Structure of control valve for the air mattress
TW No. I 385687	Micro switches for minor adjustment settings
TW No. M426698	All-in-one quick connector
TW No. 217705	Quick inflation and deflation air valve structure for the air mattress
TW No. 211316	Multi-connections pipe structure
TW No. 202528	Pipe-less air valve structure for the air mattress
TW No. 183892	Adjustable air valve for the air mattress
TW No. 180442	Alternating and lateral rotation functions for the air mattress structure
TW No. 180422	Structure of quick connector for air cells
TW No. 180413	Two-stage alternative lateral rotations function for the air mattress structure
TW No. 170630	Multifunctional air valve structure for the air mattress
TW No. 153420	Air valve structure for three-pipe alternative air mattress
TW No. 131764	Improvement of pump intake and exhaust silencer structure
TW No. 95260	Pump structure improvement for the pressure ulcer prevention air mattress

No.3, Gongye 5th Rd., Pingzhen Dist,  
Taoyuan City 324, Taiwan  
TEL: +886-3-419-4567  
FAX: +886-3-469-3789  
E-MAIL: [service@aktc.com.tw](mailto:service@aktc.com.tw)  
WEBSITE: [www.aktc.com.tw](http://www.aktc.com.tw)

