

# AKTC®

## Since 1989

Elite Series

Savvy Series

Optimal Dual Series

Optimal Pro Series — True Low Air Loss System



The Air Mattress Expert

Made in Taiwan

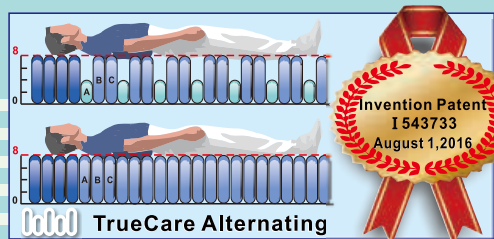
## Elite Series

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.

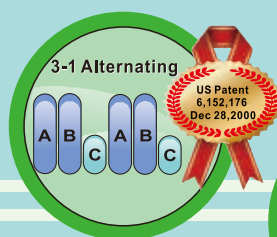


### Elite Series

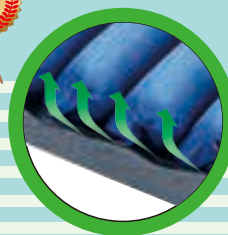
Pump					Mattress		
	Mechanical Series	Semi-Digital Series				4" Overlay	5" Overlay
Model	Elite 160	Elite 120	Elite 140	Elite 200	Dimension (cm)	200x85x10	200x85x12.5 200x107x12.5
Dimension (cm)	31x10x20	31x10x20	33x12x22	33x13x24	Number of Cells	19	16
Supply Voltage	120V/60Hz or 230V/50Hz				Cell Material	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	●	
Control Panel Type	Dial	Dial+Digital Keypad			Cell-on-Cell Design	X	
Mode	Alternate, Static				independent Low Air Loss (iLAL)	●	
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 Cord Type	Non-Detachable			Detachable	● Standard ◎ Optional X Not Available		
Classification	Class II, Type BF				*Stretchable top cover and quilted top cover are also available.		
Electrical Safety Standards	IEC 60601-1 IEC 60601-1-2 IEC 60601-1-11				**The flowrate may be varied due to fluctuation of input voltage.		



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.



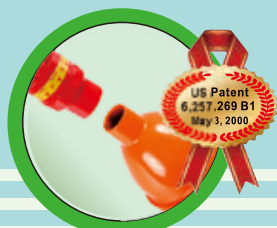
## Savvy Series

Pump								Mattress							
	Mechanical Series	Semi-Digital Series			Digital Series				4" Overlay		5" Overlay		8" Replacement		
Model	<b>Savvy 160</b>	<b>Savvy 120</b>	<b>Savvy 140</b>	<b>Savvy 200</b>	<b>Savvy 130</b>	<b>Savvy 150</b>	<b>Savvy 210</b>	Dimension (cm)	200x85x10		200x85x12.5 200x107x12.5		200x90x20 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	●						
Control Panel Type	Dial	Dial+Digital Keypad			Digital Keypad+Seven-Segments LED display			Cell-on-Cell Design	X		●				
Mode	Alternate, Static					Alternate, Static Constant Low Pressure (CLP)		independent Low Air Loss (iLAL)	●						
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	X		⊙				
Self-Calibration Technology	X				●			SmileTurn	⊙						
Auto-Detection Technology	X				⊙			Recommendation Maximum Weight (kg)	135		180/255				
Power Cord Type	Non-Detachable			Detachable	Non-Detachable		Detachable	● Standard ⊙ Optional X Not Available							
Fowler Function	X					⊙			*Stretchable top cover and quilted top cover are also available.						
Classification	Class II, Type BF							**The flowrate may be varied due to fluctuation of input voltage.							
Electrical Safety Standards	IEC 60601-1 IEC 60601-1-2 IEC 60601-1-11							.							

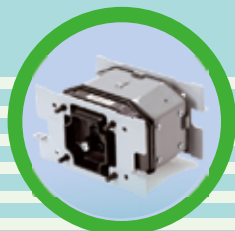
● Standard ⊙ Optional X Not Available

\*Stretchable top cover and quilted top cover are also available.

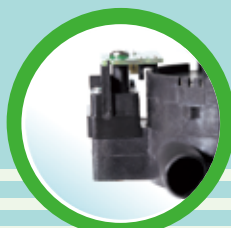
\*\*The flowrate may be varied due to fluctuation of input voltage.



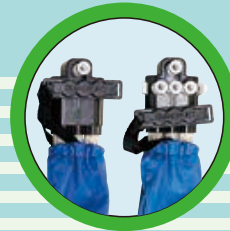
Patented quick inflation CPR for immediate mattress deflation or inflation with our optional handheld inflator for quick setup



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.



Optimal Dual Series

Pump	
	<b>Digital Series</b>
	<b>Optimal Dual</b>
Model	41x13x23
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	X
Turning Angles (Degrees)	X
Full Cycle Time (Minutes)	Selectable 10, 15, 20, 25, 30
Pulsation Cycle Time (Minutes)	Selectable 5-30
Turning Cycle Time (Minutes)	X
Alarms	Audiovisual Alarms (Power Failure, Low Pressure, and Service Alarm with Error Code)
Self-CalibrationTechnology	●
Auto-Detection Technology	◎
Power Cord Type	Detachable
Fowler Function	◎
Classification	Class II, Type BF
Electrical Safety Standards	IEC 60601-1 IEC 60601-1-2 IEC 60601-1-11

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	●		
Cell-on-Cell Design	●		
independent Low Air Loss (iLAL)	●		
CPR Type	AKTC Q-CPR		
Side Bolsters with Bolster Release Valve	◎		
SmileTurn	◎		X
Recommendation Maximum Weight (kg)	255		300/350

Optimal Dual Turn Series

Pump	
	<b>Digital Series</b>
	<b>Optimal Dual Turn</b>
Model	41x13x23
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)	0-30 (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)
Self-CalibrationTechnology	●
Auto-Detection Technology	◎
Power Cord Type	Detachable
Fowler Function	●
Classification	Class II, Type BF
Electrical Safety Standards	IEC 60601-1 IEC 60601-1-2 IEC 60601-1-11

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	●		
Cell-on-Cell Design	●		
independent Low Air Loss (iLAL)	●		
CPR Type	AKTC Q-CPR		
Side Bolsters with Bolster Release Valve	●		
SmileTurn	X		
Recommendation Maximum Weight (kg)	255		300/350

● Standard ◎ Optional X Not Available  
\*Stretchable top cover and quilted top cover are also available.  
\*\*The flowrate may be varied due to fluctuation of input voltage.



Patented all-in-one integrated hose connectors



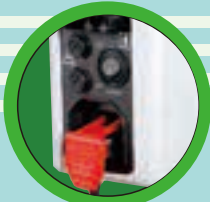
Audiovisual alarms ensure the nursing staff is notified in the event of faults



Auto-Detection technology providing the recommendation pressure setting



Self-Calibration technology 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**.



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

Pump	
	<b>Digital Series</b>
	<b>Optimal Pro</b>
Model	
Dimension (cm)	40x16x27
Supply Voltage	120V/60Hz or 230V/50Hz
Alternating Type	2-1 or 3-1 Alternating
Flowrate (Liter)**	1000.0
Control Panel Type	Digital Keypad+Seven-Segments LED display
Mode	Alternate, Static, Pulsation, Bariatric
Turning Mode	X
Turning Angles (Degrees)	X
Full Cycle Time (Minutes)	Selectable 5, 10, 15, 20, 25, 30
Pulsation Cycle Time (Minutes)	Selectable 1-20
Turning Cycle Time (Minutes)	X
Alarms	Audiovisual Alarms (Power Failure, Low Pressure, and Service Alarm with Error Code)
Self-Calibration Technology	●
Auto-Detection Technology	◎
Power Cord Type	Detachable
Fowler Function	◎
Classification	Class II, Type BF
Electrical Safety Standards	IEC 60601-1 IEC 60601-1-2 IEC 60601-1-11

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	●		
Cell-on-Cell Design	●		
On Cell <b>TrueVent</b> True Low Air Loss(LAL)	●		
CPR Type	AKTC Q-CPR		
Side Bolsters with Bolster Release Valve	◎		
Recommendation Maximum Weight (kg)	Standard 160Kg, Bariatric 450Kg		

● Standard ◎ Optional X Not Available

\*Stretchable top cover and quilted top cover are also available.

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

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

Pump	
	<b>Digital Series</b>
	<b>Optimal Turn</b>
Model	
Dimension (cm)	40x16x27
Supply Voltage	120V/60Hz or 230V/50Hz
Alternating Type	2-1 or 3-1 Alternating
Flowrate (Liter)**	1000.0
Control Panel Type	Digital Keypad+Seven-Segments LED display
Mode	Alternate, Static, Pulsation, Bariatric
Turning Mode	● (Left Turn, Right Turn and Full Turn)
Turning Angles (Degrees)	0-30
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)
Self-Calibration Technology	●
Auto-Detection Technology	◎
Power Cord Type	Detachable
Fowler Function	●
Classification	Class II, Type BF
Electrical Safety Standards	IEC 60601-1 IEC 60601-1-2 IEC 60601-1-11

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	●		
Cell-on-Cell Design	●		
On Cell <b>TrueVent</b> True Low Air Loss(LAL)	●		
CPR Type	AKTC Q-CPR		
Side Bolsters with Bolster Release Valve	●		
Recommendation Maximum Weight (kg)	Standard 160Kg, Bariatric 450Kg		



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 Mode**  
(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 11,439,249 B2	PRESSURE REFERENCE RESETTING STRUCTURE OF INFLATABLE MATTRESS
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 756826	Air mattress adjustable surface structure
TW No. I 649049	Air mattress reference pressure reset structure
TW No. I 625118	Air mattress active CPR
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. M601782	Noise reduction for pump airflow
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



Air Kinetic Technologies Corp.

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

**www.aktc.com.tw**

