AIRCAST®

VENAFLOW® *Elite*

Making DVT Prevention a Priority.

VENAFLOW® *Elite*

DJO® continues the global healthcare commitment to help prevent deep vein thrombosis by introducing the VenaFlow® Elite System. VenaFlow Elite leverages the clinically proven VenaFlow platform technology while featuring a new, low profile and light-weight appearance.

FEATURES

- Low profile, light-weight design
- Compliance counter
- Telescoping bed hanger
- Battery option
- Automatic Cuff Detection
- Preset pressures & alarms
- One pump for calf, thigh & foot cuffs
- Soft and breathable cuffs

BENEFITS

- Easily stored, easily transported
- Available with compliance counter to help monitor and track compliance
- Extends to accommodate up to 3.5 inches
- Battery-installed units available upon request
- System automatically identifies attached cuff configuration and adjusts pressure accordingly
- No adjustments necessary
- Provides for ease of use and minimizes inventory
- Assists in increasing patient comfort and compliance

THE VENAFLOW® ELITE'S STATE-OF-THE-ART DESIGN ELEGANTLY DISPLAYS ITS UNIQUE, USER FRIENDLY FEATURES.

VENAFLOW® TECHNOLOGY

RAPID INFLATION

The VenaFlow Elite System rapidly inflates in less than a ½ second, thus providing the shear stress needed to advance fibrinolysis and help prevent clots from forming behind the valve cusps. Kang Liu et al research reveals that "intermittent pneumatic compression with a faster inflation rate dramatically increases blood flow, generates greater shear stress on the vascular wall, stimulates greater nitric oxide release, and consequently results in stronger responses of vasodilation when compared with intermittent pneumatic compression with a slower inflation rate."[1]

GRADUATED, SEQUENTIAL COMPRESSION

VenaFlow Elite delivers graduated, sequential compression via the new Integrated Graduated Sequential Flow (IGSF) system to help increase venous velocity. **The Integrated Graduated Sequential FLOW SYSTEM (IGSF)** is comprised of a single tube, duplex aircell design that functions to help deliver the same performance as the available VenaFlow dual tube design. This duplex design is composed of two, overlapping & seamless aircells. The distal aircell inflates first within a ½ second, then during distal pressure inflation, the air will flow into the proximal aircell. 6 seconds later, the cuff deflates. Labropoulos et al data shows that the distal aircell accounts for most of the velocity of venous return, and the proximal aircell "supplements and extends the action of" the distal aircell.[2] See Figure A for specific pressures.

ASYMMETRIC COMPRESSION

The VenaFlow Elite's duplex aircells apply focused compression to the anterior and posterior portion of the calf to effectively help empty the veins and augment peak venous velocity.[2]

VENAFLOW ELITE CALF CUFF PRESSURE CURVE

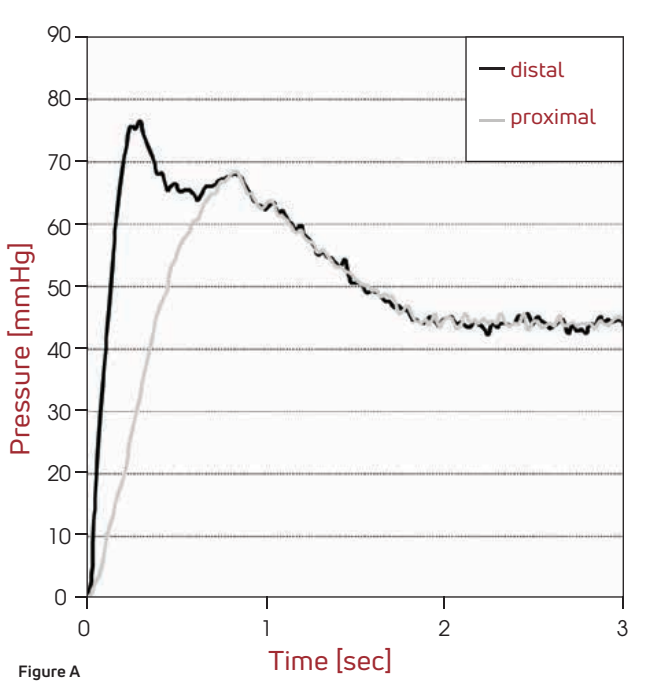


Figure A

CLINICAL DATA

EISELE

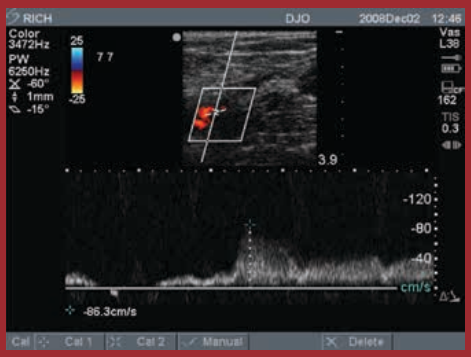
Venous thrombosis prophylaxis with low-molecular-weight-heparin, augmented with a rapid-inflation intermittent pneumatic compression of the calves (.4% dvt rate) was found to be significantly more effective for preventing deep vein thrombosis when compared with a treatment of LMWH alone (1.7% dvt rate). [4]

WESTRICH MULTIMODAL

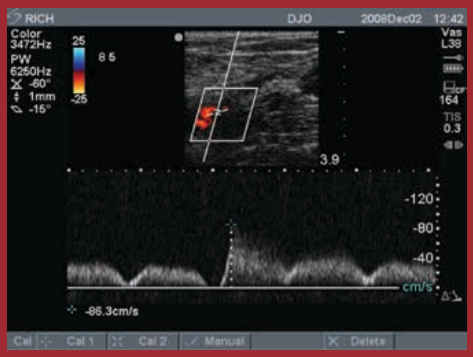
Mechanical compression with VenaFlow calf compression in conjunction with chemoprophylaxis is an effective means of reducing thromboembolic disease in a high-risk population.... By using this protocol we were able to attain one of the lowest rates of thromboembolic disease (3.5% overall) following hip fracture in the existing literature. [5]

THE VENAFLOW® PLATFORM TECHNOLOGY EXHIBITED IN THE STANDARD AND ELITE MODELS HELPS PROVIDE EXCELLENT PERFORMANCE, SIMULATING PEAK VENOUS VELOCITIES PRODUCED THROUGH AMBULATION.[3]

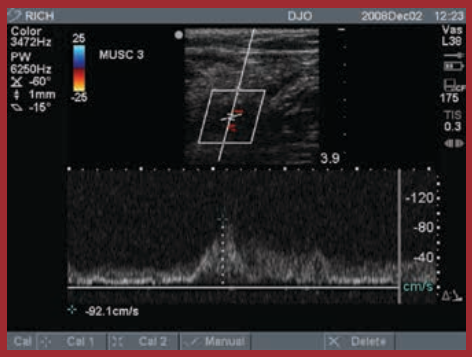
*Dopplers measured at Femoral vein



STANDARD VENAFLOW SYSTEM
110% increase in venous velocity over baseline

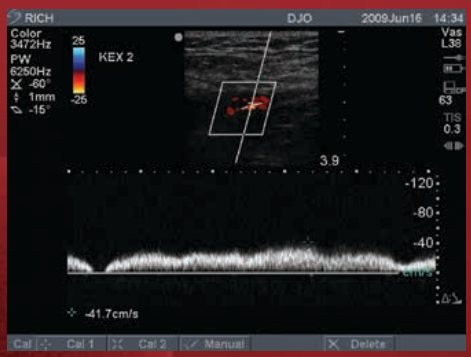


VENAFLOW ELITE SYSTEM
112% increase in venous velocity over baseline

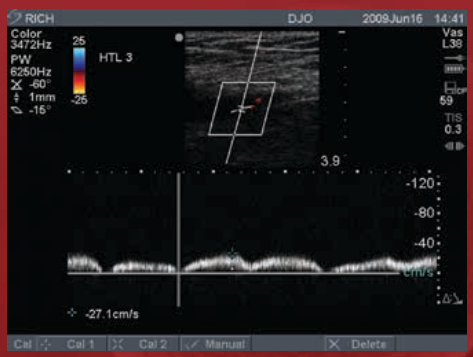


PLANTAR/DORSIFLEXION
111% increase in venous velocity over baseline

COMPETITIVE COMPARISON



SLOW INFLATION, SCD DEVICE
50% increase in venous velocity over baseline



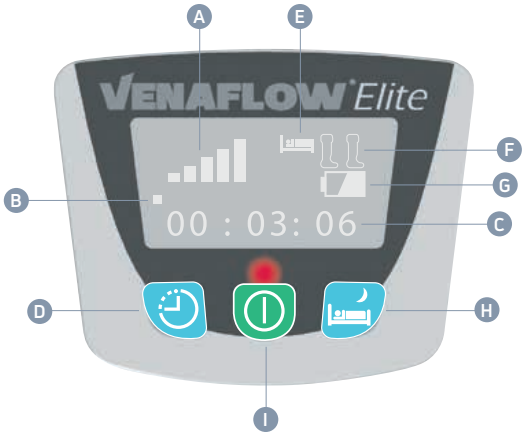
SLOW INFLATION, UNIFORM COMPRESSION DEVICE
33% increase in venous velocity over baseline

LABROPOULOS

The use of elliptical, sequential and rapid-filling compression of the leg with overlapping aircells produces significant hemodynamic changes in the common femoral vein, which are superior to other sequential slow or rapid-filling IPC devices. [2]

VENAFLOW® ELITE INTERFACE SYMBOLS AND LEGEND

- Power on/off button and alarm reset
- S Mode Operation
- Compliance monitor reset
- Tube alarm
- Call for service
- Inflation cycle indication (Bars indicate cuffs are inflating)
- See VenaFlow Elite System operator's manual
- Battery
- Lock mode
- Dual calf/thigh
- Single calf/thigh
- Dual foot
- Single foot
- C — Visual only compliance alarm enabled
- C — Visual and audio compliance alarm enabled



A: Inflation Cycle indicator

B: First 3 minutes (ramp up) indicator

C: Patient Compliance counter

D: Patient Compliance counter reset push button

E: S Mode Operation indicator

F: Single/Dual Leg operation indicator

G: Battery Indicator
**Note: Not all VenaFlow Elite Systems contain a battery*

H: S Mode Operation button

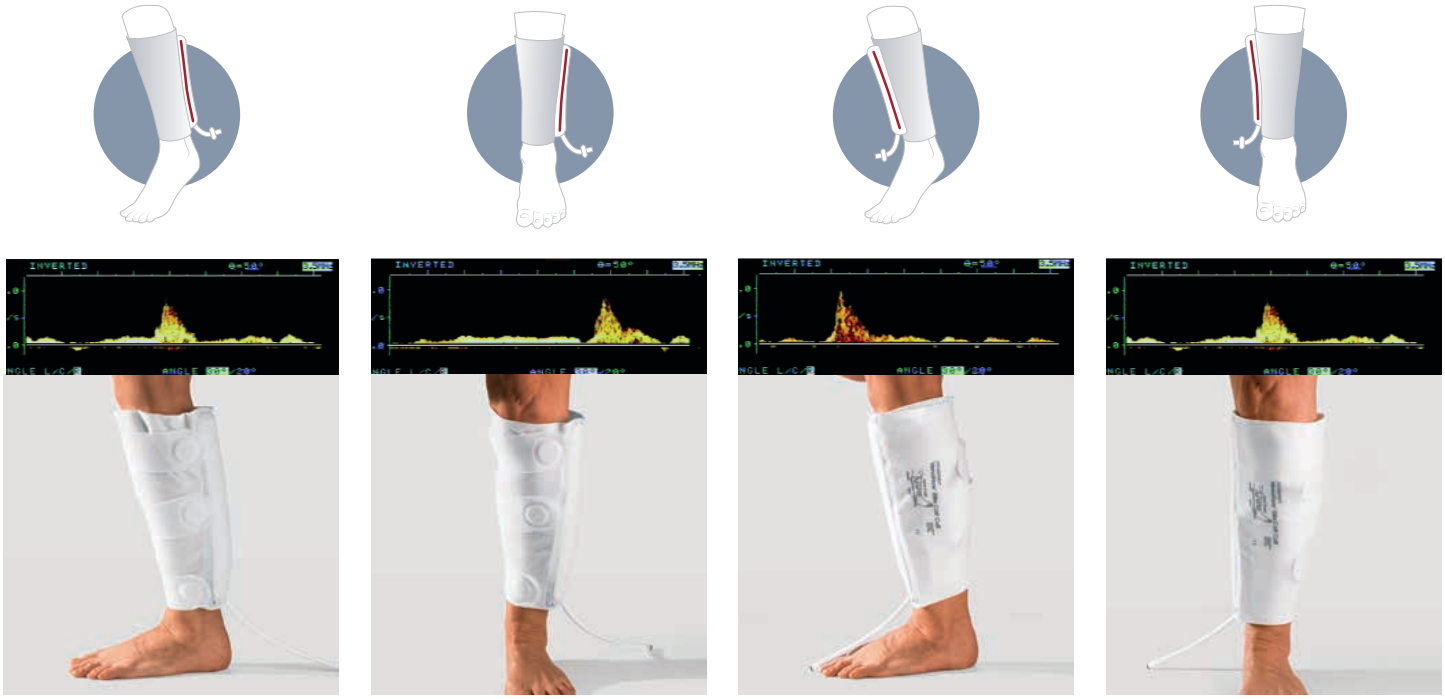
I: ON/OFF/RESET push button

POSITIONING THE VENAFLOW CUFF

VENAFLOW ELITE HELPS PROVIDES ASYMMETRIC COMPRESSION

The VenaFlow Elite aircell can be located on any part of the leg as shown while maintaining superior blood flow, demonstrated by the Doppler images.

POSTERIOR | **LATERAL** | **ANTERIOR** | **MEDIAL**



AIRCELL

* Doppler probe positioned just proximal to saphenofemoral junction. Internal data on file

VENAFLOW® ELITE OPERATING INSTRUCTIONS

1 SET UP PUMP

A: Press bed hanger release on the back of the pump and gently pull out bed hanger hook to the desired width.

B: Connect tubing to the pump. Plug pump into electrical outlet.

2 APPLY CUFF

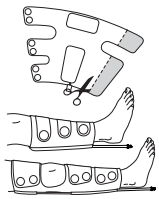
The VenaFlow Elite system will automatically detect the type of cuff and the number of cuffs attached and apply appropriate pressures. Cuffs must be attached prior to powering on the service.

Be sure to secure cuff straps snug but not tight. When using the calf cuff and thigh cuff, rotation of the aircell on the leg does not affect performance of the system.

CALF OR THIGH CUFF

For varied patient sizes, trim for proper, snug fit.

Apply cuff snugly with the tube pointed toward the foot. Aircell can be orientated to patient and nursing preference (posterior, lateral, anterior, or medial).

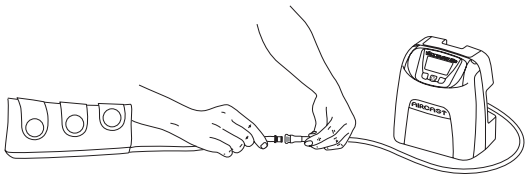


FOOT CUFF

Apply foot cuff snugly with the aircell centered on bottom of foot and with the tube pointed to the left. Foot cuffs are only for use in standard rapid mode.

3 CONNECT SYSTEM

Connect cuffs to the tubing that is attached to the pump.



4 STANDARD RAPID MODE OPERATION

- Press ON/OFF/RESET button.
- Cuff inflation alternates between the two legs every 30 seconds.
- Distal aircell inflates first and the proximal aircell follows.
- Pressures settle at 45mmHg ± 15%. (Foot Cuff peak ~130 mmHg.)
- After six seconds the cuff deflates.
- Alarm will sound if the system is not functioning properly.

5 S MODE OPERATION

- When powered on, the VenaFlow Elite System will default to standard rapid inflation mode. If a slower inflation is desired, select the S mode operation button.
- Once selected, both cuffs will inflate simultaneously once per minute.
- Both cuffs will inflate and compress for a total of 10 seconds.
- While in S mode the icon will appear in the top center of the graphical display. The device will remain in S mode until user presses the S mode operation button again. This button allows user to toggle between standard rapid inflation mode and S mode.

6 LOCKING IN STANDARD RAPID OR S MODE

- To lock in standard rapid mode, make sure the device is in standard rapid mode, then press and hold the S mode button for 5 seconds. Do the same to unlock it.
- To lock in S mode, make sure the device is in S mode and press and hold the S mode button for 5 seconds. Do the same to unlock it.

ALARM RESET

To reset any alarm, press the center ON/OFF/RESET button and take steps to correct the alarm if necessary.

Note: Pressing ON/OFF/RESET following alarm only resets the alarm. The device will continue to run and will not shut down. Alarm will continue at next cycle if not corrected.

Check Tubes Alarm
(Kinked or Disconnected Tube)

Call For Service Alarm
(Ship back to DJO for repair)

AIRCAST®

VENAFLOW® Elite

ORDERING INFORMATION

PART NUMBER	DESCRIPTION	QTY	MAXIMUM CALF CIRCUMFERENCE
30B	VenaFlow Elite System	1	N/A
30B-B	VenaFlow Elite System with Battery	1	N/A
30B-SB	VenaFlow Elite System S-Mode	1	N/A
3040	VenaFlow Elite Calf Cuff	Pair	19"
3042	VenaFlow Elite XL Calf Cuff	Pair	22"
3043	VenaFlow Elite Bariatric Calf Cuff	Pair	30"
3045	VenaFlow Elite Thigh Cuff	Pair	29"
3046	VenaFlow Elite Foot Cuff	Pair	One size fits all
3050	VenaFlow Elite Foam Calf Cuff	Pair	19"
3008	Tube Assembly, 5.5'	Each	
3008XL	Tube Assembly, 8.5'	Each	
3008XXL	Tube Assembly, 10.5'	Each	
3008XXXL	Tube Assembly, 12.5'	Each	

SYSTEM REPLACEMENT PARTS

PART NUMBER	DESCRIPTION
3070	Power cord (U.S.), Hospital Grade
3071	Bed hanger
3072	Tube attachment tag
3073	Fuse
3074	Battery pack

DJO®

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MKT00-8739 Rev A

1. Liu K et al: "Influences of Inflation Rate and Duration on Vasodilatory Effect by Intermittent Pneumatic Compression in Distant Skeletal Muscle." Journal of Orthopaedic Research, 1999.
2. Labropoulos N, Oh DS, Golts E et al: "Improved Venous Return by Elliptical, Sequential and Seamless Air-cell Compression". Loyola University Medical Center, 2003.
3. DJO, Inc., Biomechanics Lab; internal data collection
4. Eisele R, Kinzl L, and Koelsch T: "Rapid-Inflation Intermittent Pneumatic Compression for Prevention of Deep Venous Thrombosis." JBJS, 2007.
5. Westrich GH, Rana, AJ, Terry MA, et al: "Thromboembolic Disease Prophylaxis in Patients With Hip Fracture." Journal of Orthopedic Trauma, April 2005.