



# ORS

OWENS RECOVERY SCIENCE

## PERSONALIZED BLOOD FLOW RESTRICTION

### PRODUCT CATALOG

2021



PERSONALIZED  
TOURNIQUET  
SYSTEMS *for* BFR

# PTS for BFR

## A Personalized Approach with Predictable results

Our newest development, the **PTS Personalized Tourniquet System for Blood Flow Restriction (BFR)** has been specifically designed to safely regulate and control tourniquet pressure for Blood Flow Restriction applications.

The patented technology in the **PTS for BFR** is based on Delfi's proven surgical tourniquet instruments and cuffs, and includes advanced personalization and safety features developed specifically for BFR applications.

The **PTS Personalized Tourniquet System for BFR** facilitates the safe use of proven BFR rehabilitation training methods and helps provide optimal clinical outcomes. Featuring preset upper and lower limb therapy protocols recommended by Owens Recovery Science for strength, endurance, and cyclic BFR make set-up quick and easy.

(Intended for use on those patients for whom a physician or physician's designated licensed health care practitioner has indicated perioperative blood flow restricted exercise.)

## A REVOLUTION IN MUSCLE RECOVERY



## SYSTEM FEATURES

### PERSONALIZED PRESSURE

Delfi's patented Limb Occlusion Pressure (LOP) technology allows a patient specific LOP to be measured and automatically calculates the patient's Personalized Tourniquet Pressure (PTP) as percentage of LOP.

### BFR PRESSURE APPLICATION TIMER

An easily adjusted BFR pressure application timer controls the length of time that the cuff will remain pressurized, and for safety automatically deflates the cuff when the application time elapses. A clearly visible digital display of pressurization time remaining is shown.

### ADVANCED PRESSURE REGULATION

The same advanced pressure regulation technology as used in our surgical tourniquets maintains the cuff near the selected pressure during limb movement.

### 12 PRESET PROTOCOLS

Preset upper and lower limb therapy protocols recommended by Owens Recovery Science for strength, endurance, and cyclic BFR make set-up quick and easy. Key parameters can be adjusted on the spot for automatic personalization.

### INTERVAL TIMER

User activated timer counts down pre-programmed rest time intervals between sets, visual and audio signals alert user to begin next set.

### REPS INDICATOR

Monitors progress in a protocol by displaying the number of exercise sets and reps as completed.

### INTUITIVE USER INTERFACE

Easily verify key parameters and therapy session progress. A responsive touch-screen with graphical interactive elements simplifies operation and adjustments.

### SESSION HISTORY

Automatically records key tourniquet parameters including: Limb Occlusion Pressure, Personalized Tourniquet Pressure, cuff inflation pressures, pressure application time and number of pressurization cycles.

### REPERFUSION TIMER FOR BFR

After a BFR cuff pressurization cycle is completed, a programmable reperfusion timer prevents the cuff from being pressurized again until the reperfusion time has elapsed, helping ensure adequate time between pressurization cycles for limb reperfusion.

### SAFETY ALARMS

Audio and visual alarms warn of cuff over and under pressurization. Self test and calibration test on start-up verify proper instrument operation.

### INTERGRATED LEAK TESTING

Cuffs, tubing and connectors may be automatically tested for leaks before or after use.

### BATTERY BACK UP

Up to 4 hours of operation with a tested cuff



PTS for BFR systems shown in a twin configuration, sold separately

# EASI-FIT

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## Variable Contour and Cylindrical BFR Cuffs

Delfi's **Easi-Fit** Tourniquet Cuffs for Blood Flow Restriction (BFR) are uniquely designed to make cuff application easy and consistent. The contour cuff shape in combination with a patented variable fastener allows a superior personalized fit along both proximal and distal edges of the cuff to help lower limb occlusion pressure.

**Easi-Fit** Tourniquet Cuffs for BFR are available in four standard lengths 18", 24", 34" and 44" to accommodate a wide range of limb circumferences.

Matching Limb Protection Sleeves are recommended to help protect the skin beneath the cuff while the cuff is pressurized.

ULTIMATE IN EASY AND  
CONSISTENT APPLICATION



## FEATURES

### OFFSET PORT DESIGN

Takes the guesswork out of port location, allows the ports to be positioned in the desired location prior to securing the cuff around the limb

### CONTOUR CUFF SHAPE

In combination with a unique variable fastener allows a superior fit along both proximal and distal edges of the cuff

### VARIABLE FASTENER

Allows the cuff to conform to a wide range of limb shapes for uniform transfer of cuff pressure across the entire cuff width to help lower limb occlusion pressure

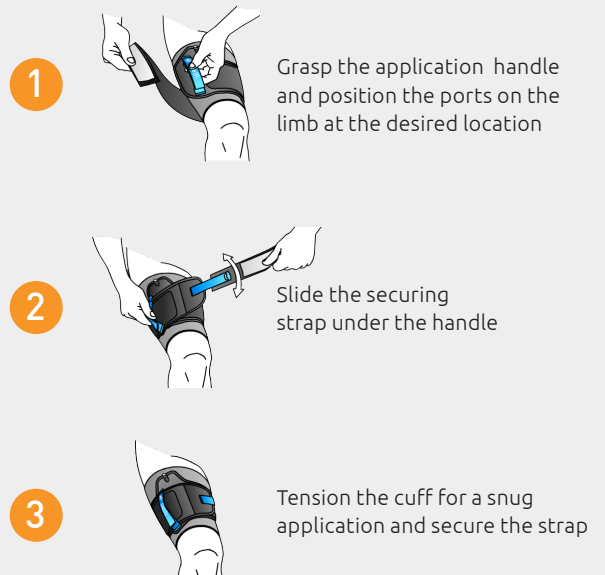
### APPLICATION HANDLE

Makes cuff application more consistent, opens to make cuff removal faster and helps maintain the cuff in a stable position on the limb

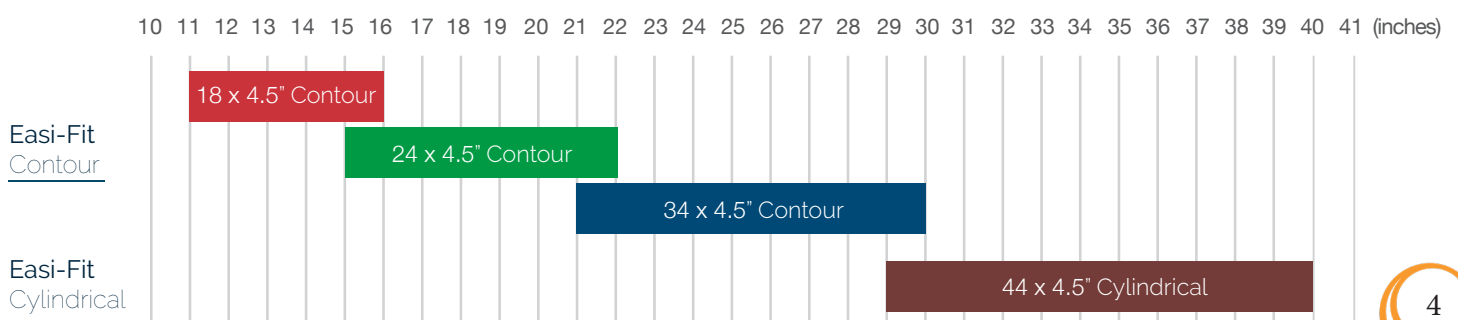
### SECONDARY FASTENER

For enhanced stability and ease of application

## CUFF APPLICATION "EASI" AS 1,2,3



### Easi-Fit BFR Limb Circumference Range



# MLPS

## Matching Limb Protection Sleeves

Delfi's Matching Limb Protection Sleeves (MLPS) are uniquely matched to the size and shape of each specific Delfi cuff model, to provide optimal personalized limb protection.

Delfi's MLPS help protect underlying skin and soft tissues from injuries such as pinching, wrinkling and shearing. The use of Delfi MLPS is supported by published surgical literature.

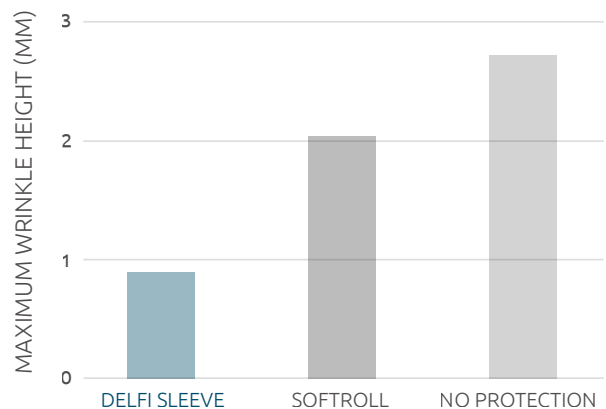
As recommended in current AORN Standards, Recommended Practices and Guidelines, using appropriate limb protection under the cuff can significantly reduce soft tissue damage

Every Delfi Easi-fit BFR reusable cuff includes one Matching Limb Protection Sleeve (MLPS). For MLPS selection refer to Purchasing Guide.



## LIMB PROTECTION COMPARISON

In extensive testing using a molding and digitizing technique, results have shown that a fitted sleeve that is matched to a specific cuff and that applies a controlled amount of compression to the limb virtually eliminates pinching and wrinkling of the underlying skin reducing localized pressure gradients, which can result in soft tissue damage.



## CLASSIC SINGLE-PATIENT USE MLPS



### FEATURES

- Quick and easy application
- Soft and wrinkle-free
- Two layers of protection
- Prevents skin entrapment at cuff overlap
- Latex-free
- Save time with colour coding for easy selection
- Protects skin from pinching and shearing
- Does not clog hook fasteners
- Helps extend the life of reusable cuffs
- Non slippery material prevents cuff from sliding

## NEW SINGLE-USE DISPOSABLE MLPS



### NEW FEATURES

- Helps reduce cross contamination of tourniquet cuffs
- Easy tear seam removal
- Absorbent cloth-like fibers

Delfi's new disposable **Matching Limb Protection Sleeves** promote improved hygiene and help reduce cross contamination of tourniquet cuffs. The new patented design is the ultimate solution in single-use limb protection, made of soft absorbent material with a unique tear seam for easy removal.

# ROLL STAND



## PTS Roll Stand

The **PTS Roll Stand** is a strong and sturdy mobile stand for use in a wide range of healthcare and clinical environments, including rehabilitation clinics and training rooms. Designed to securely hold up to two separate PTS for BFR instruments, plus accessories.

The combination of a low-profile base, all-locking castors, and a solid aluminum column improves stability, and increases maneuverability. The included **PTS Roll Stand Basket** stores the tourniquet cuffs, keeps hoses tidy and makes access easy.

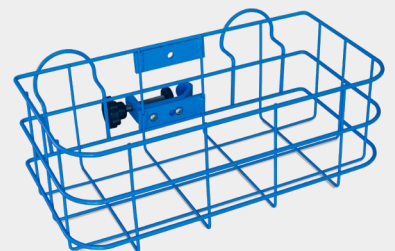
### FEATURES

- Sturdy, mobile roll stand
- Five locking castors
- Accessory wire basket included, featuring dual hose management hooks
- Small foot print
- Easy to clean design

### DIMENSIONS

- 50.25" x 22" (Assembled)
- Weight 14 Lbs

Additional PTS Roll Stand Basket with mounting clamp can be purchased separately.





# CASES

## PTS Transport Bag & Case

Delfi's **PTS Transport Bag and Case** are custom designed to hold a single or twin **PTS for BFR System** including accessories and cuffs. The light and rugged cases are optimized for transport and storage of Delfi's **PTS Personalized Tourniquet Systems**, making it the ideal solution for clinicians on the move.

### TRANSPORT BAG FEATURES

- Rugged fabric construction
- Rubber feet
- Removable adjustable carrying strap
- Low profile handle
- Pass-through luggage pocket
- Business card holder
- Separate padded PTS case and cuff pouch

### DIMENSIONS

- Exterior (LxWxD) 16" x 8.5" x 9.5" in
- Weight empty 3 Lbs



### TRANSPORT CASE FEATURES

- Automatic purge valve - keeps water and dust out while balancing air pressure
- Watertight, crush-proof, and dust-proof
- Super-light polymer
- Custom fitted PTS foam insert
- Business card holder
- Temperature range - 60° / 160° F (-51° / 71° C)
- Limited lifetime warranty

### DIMENSIONS

- Exterior (LxWxD) 19.18" x 15.79" x 10.50" in
- Weight empty 8.2 Lbs



Contents shown not included

# Delfi PTS for BFR System Purchasing Guide

## PTS for BFR Tourniquet System & Cuff Set

9-2200-200BFR

(1)	PTS BFR System	9-2200-001BFR
(1)	18" Easi-Fit BFR Cuff	9-7550-018
(1)	24" Easi-Fit BFR Cuff	9-7550-024
(1)	34" Easi-Fit BFR Cuff	9-7550-034
(1)	PTS Transport Bag	9-2200-300
(1)	Mounting Bracket	9-2200-008
(1)	Power Supply	9-2200-020
(1)	Single Hose, 11ft	9-2200-025
(1)	Rechargeable Battery	9-2200-007



## Easi-Fit BFR Cuffs, Reusable

Size (WxL)

18" x 4.5"	Contour	9-7550-018
24" x 4.5"	Contour	9-7550-024
34" x 4.5"	Contour	9-7550-034
44" x 4.5"	Cylindrical	9-7550-044



\*Delfi BFR Tourniquet Cuffs are latex free, with quick-connect connectors, and include one Matching Limb Protection Sleeve (MLPS).

## Easi-Fit BFR Matching Limb Protection Sleeves (MLPS)

	Classic Single-Patient Use	New Single-Use Disposable
18" MLPS	9-7950-018 (10 per box)	9-7960-018 (25 per box)
24" MLPS	9-7950-024 (10 per box)	9-7960-024 (25 per box)
34" MLPS	9-7950-034 (10 per box)	9-7960-034 (25 per box)
44" MLPS	9-7950-044 (5 per box)	9-7960-044 (12 per box)
Multi Pack Set (4 of each 18"/24"/34")	9-7950-300 (12 per box)	



## Accessories

PTS Roll Stand with Basket	9-2200-550
PTS Portable Basket w/ Pole Clamp	9-2200-501
PTS Transport Bag w/ PTS Case & Cuff Pouch	9-2200-300
PTS Transport Case w/ Foam Insert	9-2200-410



## Replacement Parts

Power Supply	9-2200-020
Rechargeable Battery	9-2200-007
Mounting Bracket	9-2200-008
Single Hose, 11ft	9-2200-025

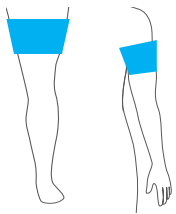


# Delfi PTS for BFR Tourniquet Cuffs Selection & Application Guide

## Recommended Tourniquet Cuff Selection

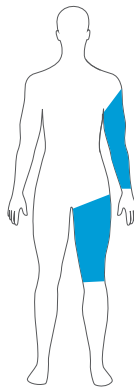
- Determine the patient's limb shape using diagrams below, then measure the limb circumference. For cuff size selection, next refer to the Limb Circumference Chart on page 4.
- To ensure the selected cuff is the correct size for the patient, verify there is sufficient overlap for the Secondary Fastener (located on underside) to fully engage with the loop material on surface of the cuff. Secondary Fasteners provide added stability to the cuff during use.

### Tapered Adult Limbs



Select an Easi-Fit BFR Contour Cuff and Matching Limb Protection Sleeve

A unique contour shape and pivoting fasteners allow the cuff to conform to a variety of tapered (conical) limb shapes.

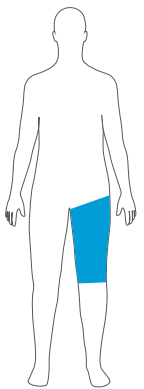
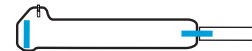


### Cylindrical XL Adult Limbs



Select an Easi-Fit BFR Cylindrical Cuff and Matching Limb Protection Sleeve

A cylindrical cuff provides the best fit for cylindrical shaped and larger limbs.



WARNING: For Delfi's PTS for BFR tourniquet instrument and cuffs, always follow manufacturer's detailed instructions.

## Recommended Tourniquet Cuff Application

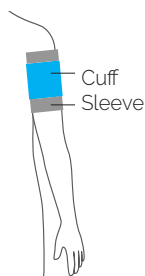
This Guide was prepared in consultation with James McEwen, PhD, the inventor of automatic tourniquets, to summarize relevant published guidelines and recommendations.\*

Select the most appropriate tourniquet cuff considering limb size and shape:

- Cuff shape should allow a snug fit along both proximal and distal edges.
- Cuff width should be the greatest width that still assures recommended distances from cuff edges to limb joints.
- Cuff length should be the minimum that assures overlap around the limb sufficient to fully engage fasteners.

Use limb protection, ideally a sleeve specifically matched to the selected cuff.

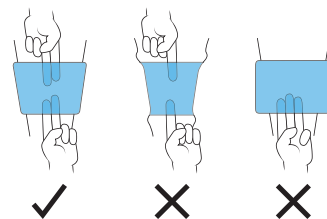
A limb protection sleeve matched to the size and shape of the selected cuff provides the best protection against skin wrinkling, bruising and other soft tissue injuries to the limb beneath the cuff.\*



Apply the selected tourniquet cuff snugly on the limb, over limb protection.

A snugly applied cuff allows two fingers easily under the cuff at both proximal and distal edges. If only one finger fits, the cuff is too tight; if three fingers fit, the cuff is too loose.

A loose cuff will require higher pressure to stop blood flow and may slide to an unsafe position on the limb during use. A tight cuff could impede venous return of blood from the limb even when deflated.



An automatic tourniquet instrument with modern safety features and audio-visual alarms should be used with the cuff.

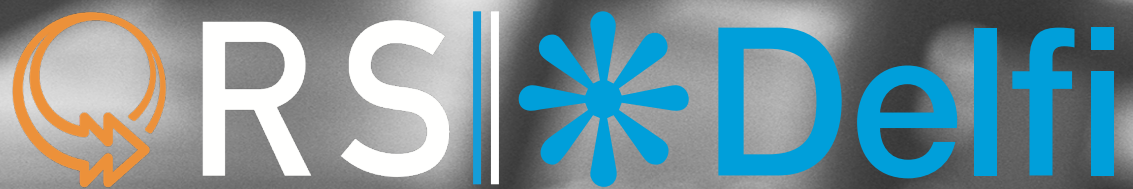
The optimum tourniquet pressure for each patient and cuff application can be set or checked by measuring Limb Occlusion Pressure (LOP).\*

Monitoring of tourniquet safety parameters reduces the risk of complications. During treatment, it is important to monitor tourniquet pressure and time, and to minimize both.

Upon final deflation of the tourniquet, the tourniquet cuff and underlying limb protection should be immediately removed from the limb.

\* Refer to [www.tourniquets.org](http://www.tourniquets.org) for an expanded guide and relevant references.

WARNING: For specific tourniquet instruments and cuffs, always follow manufacturers' instructions.



Purchase of Delfi's PTS for Blood Flow Restriction requires course certification; available only to healthcare professionals. For more information on Personalized Blood Flow Restriction (PBFR) training visit:

[www.owensrecoveryscience.com](http://www.owensrecoveryscience.com)

### **About Us**

Owens Recovery Science is a single source for PTs, OTs, ATCs, DCs and other medical professionals seeking certification in personalized blood flow restriction rehabilitation training (PBFR) and the equipment needed to apply it.

### **Contact Us**

For purchasing information contact the purchasing department at:

Phone: 210.767.1856

Fax: 210.801.9466

[Purchasing@owensrecoveryscience.com](mailto:Purchasing@owensrecoveryscience.com)

To learn more on how our tourniquet systems help provide personalized safe and effective care for your patients visit:

[www.delfimedical.com](http://www.delfimedical.com)