



## Reusable Products

**Perfusion Cannula  
Coronary Ostial Cannula  
Cardiac Suckers**

### Options

- Swivel or Fixed Tip Cannulas
- Full Range of Interchangeable Sucker Tips
- Handle and Tips Configured Per Your Application

### Benefits

- Non-Traumatic Blood Handling Capabilities
- Ergonomic Delivery
- Unique Leak Proof Swivel Tips
- Significant Cost Saving Over Disposables



Pioneer of Environmentally  
Friendly, Ergonomic and  
Economically Sound  
Surgical Devices

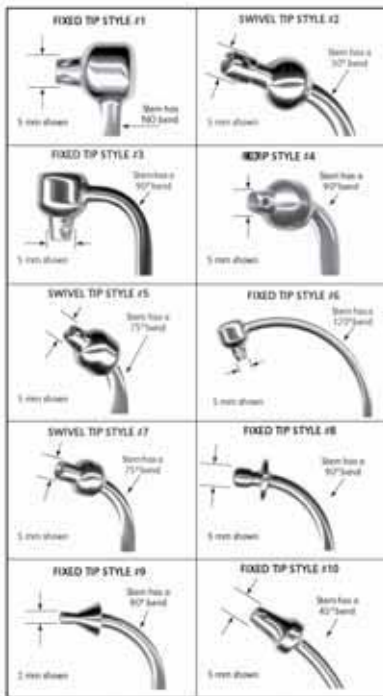




## Pemco Fixed Tip , Style #1

The unique ergonomic design of Pemco cannulas provides for proper placement of tip.

### Standard Tips Styles Available

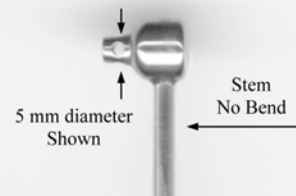


### 1580-A-1 Ordering number breakdown

#### 1580-A-1-5mm-0

- \* Base Number: **1580-**
- \* Handle Type: **A, P, F or T**
- \* Tip Style: **1** Fixed Tip with side holes
- \* Tip Size: **5 mm**
- \* Stem: **0°** Bend

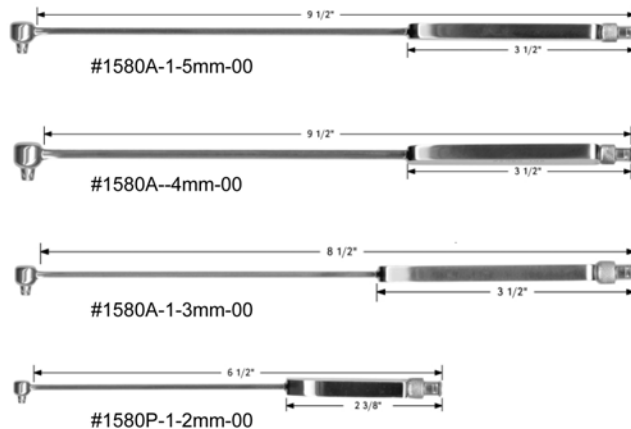
### Tip Style #1



### Four Standard Sizes, Style #1, Fixed Tip



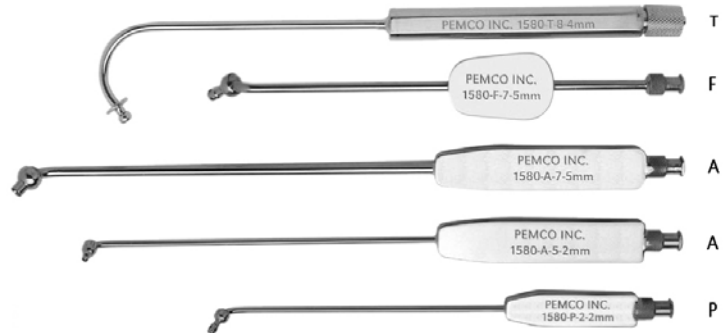
### Pemco Perfusion Cannulas—Fixed Tip #1580-style 1



- ◆ Pemco reusable cannulas are precision crafted from stainless steel and are available in Fixed or *Leak Proof* Swivel tip styles.
- ◆ Tip styles and handle configurations shown are examples of full product line
- ◆ Pemco cannulas can be sterilized with standard processes
- ◆ Long product life offers significant cost savings over disposables
- ◆ Refurbishing extends product life and provides additional cost savings

### Handle Styles

Handle Style:

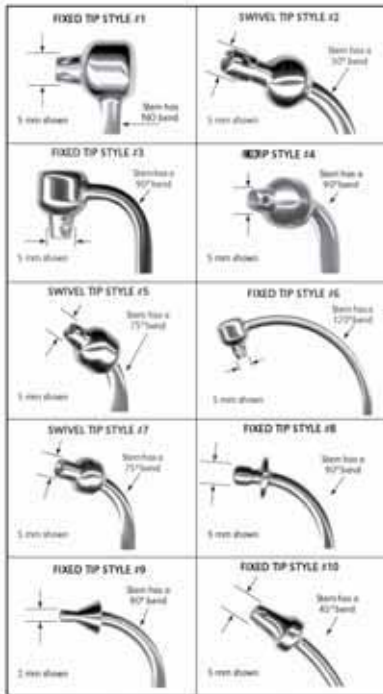




## Pemco Swivel Tip , Style #2

The unique ergonomic design of Pemco cannulas provides for proper placement of tip.

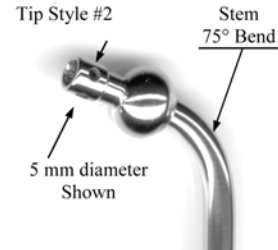
### Standard Tips Styles Available



### 1580-A-2 Ordering number breakdown

#### 1580-A-2-5mm-75

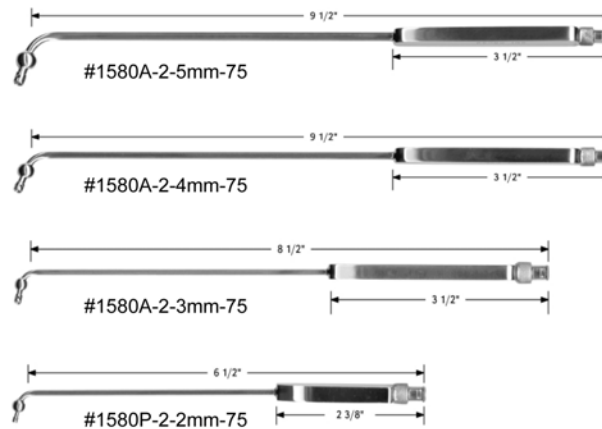
- \* Base Number: 1580-
- \* Handle Type: A, P, F or T
- \* Tip Style: 2, Swivel Tip with side holes
- \* Tip Size: 5 mm
- \* Stem: 75° Bend



### Four Standard Sizes, Style #2, Swivel Tip



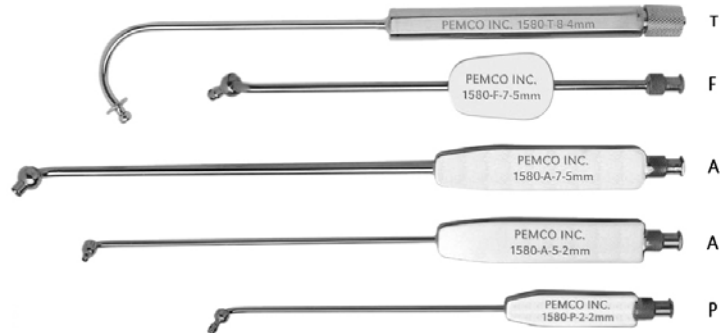
### Pemco Perfusion Cannulas—Swivel Tip #1580-style 2



- ◆ Pemco reusable cannulas are precision crafted from stainless steel and are available in Fixed or *Leak Proof* Swivel tip styles.
- ◆ Tip styles and handle configurations shown are examples of full product line
- ◆ Pemco cannulas can be sterilized with standard processes
- ◆ Long product life offers significant cost savings over disposables
- ◆ Refurbishing extends product life and provides additional cost savings

### Handle Styles

Handle Style:





### Pemco Fixed Tip , Style #3

The unique ergonomic design of Pemco cannulas provides for proper placement of tip.

**1580-A-3 Ordering number breakdown**

**1580-A-3-5mm-90**

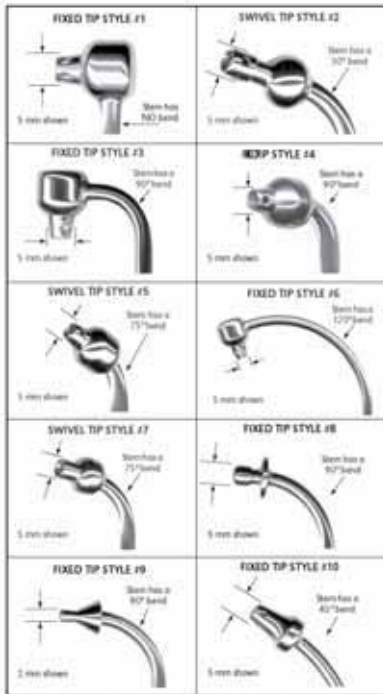
- \* Base Number: **1580-**
- \* Handle Type: **A, P, F or T**
- \* Tip Style: **3** Fixed Tip with side holes
- \* Tip Size: **5 mm**
- \* Stem: **90°** Bend

Four Standard Sizes, Style #3, Fixed Tip

**Pemco Perfusion Cannulas—Fixed Tip #1580-Style 3**

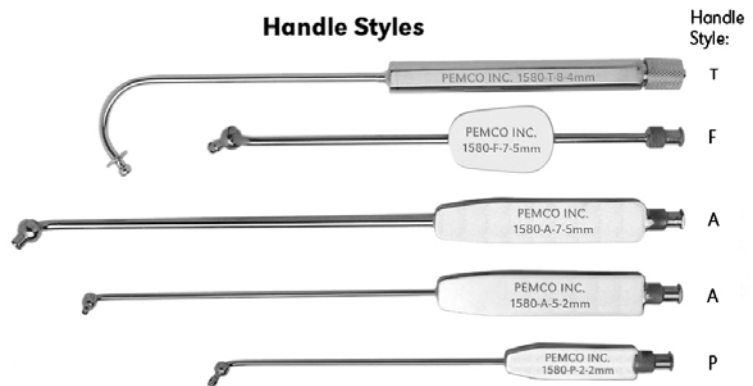
Model Number	Tip Size	Stem Bend	Overall Length	Insertion Length
#1580A-3-5mm-90	5 mm	90°	9 1/2"	3 1/2"
#1580A-3-4mm-90	4 mm	90°	9 1/2"	3 1/2"
#1580A-3-3mm-90	3 mm	90°	8 1/2"	3 1/2"
#1580P-3-2mm-90	2 mm	90°	6 1/2"	2 3/8"

#### Standard Tips Styles Available



- ◆ Pemco reusable cannulas are precision crafted from stainless steel and are available in Fixed or Leak Proof Swivel tip styles.
- ◆ Tip styles and handle configurations shown are examples of full product line
- ◆ Pemco cannulas can be sterilized with standard processes
- ◆ Long product life offers significant cost savings over disposables
- ◆ Refurbishing extends product life and provides additional cost savings

#### Handle Styles

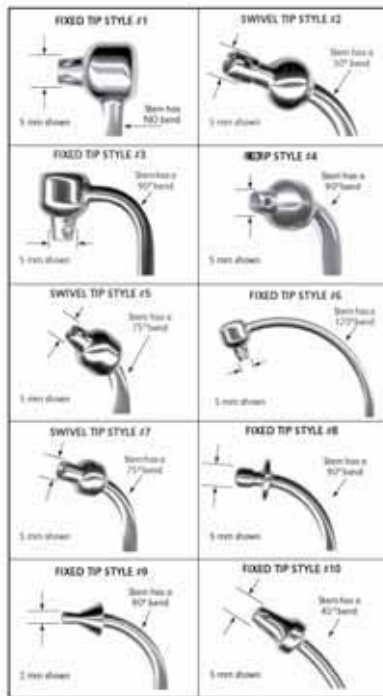




## Pemco Fixed Tip , Style #4

The unique ergonomic design of Pemco cannulas provides for proper placement of tip.

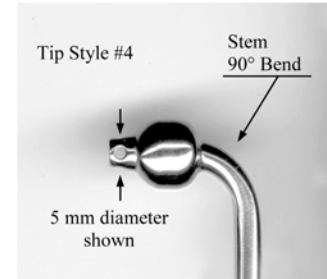
### Standard Tips Styles Available



### 1580-A-4 Ordering number breakdown

#### 1580-A-4-5mm-90

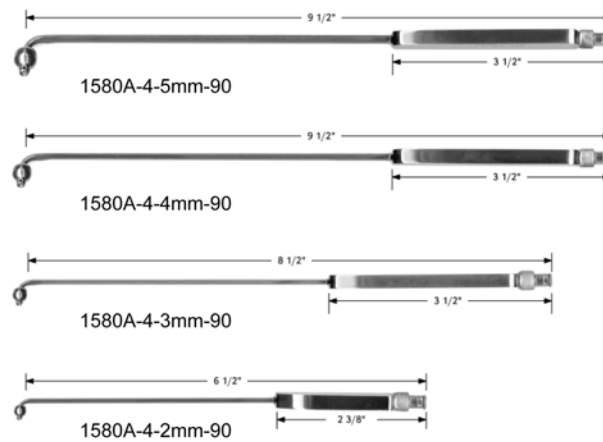
- \* Base Number: **1580-**
- \* Handle Type: **A, P, F or T**
- \* Tip Style: **4**, Fixed Tip with side holes
- \* Tip Size: **5 mm**
- \* Stem: **90° Bend**



### Four Standard Sizes, Style #4, Fixed Tip

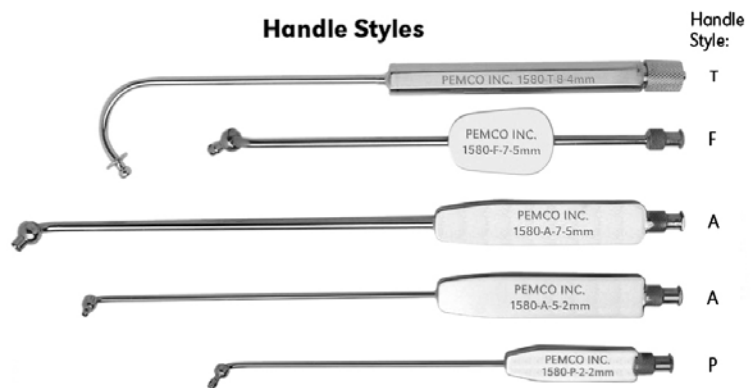


### Pemco Perfusion Cannulas—Fixed Tip #1580-style 4



- ◆ Pemco reusable cannulas are precision crafted from stainless steel and are available in Fixed or *Leak Proof Swivel* tip styles.
- ◆ Tip styles and handle configurations shown are examples of full product line
- ◆ Pemco cannulas can be sterilized with standard processes
- ◆ Long product life offers significant cost savings over disposables
- ◆ Refurbishing extends product life and provides additional cost savings

### Handle Styles

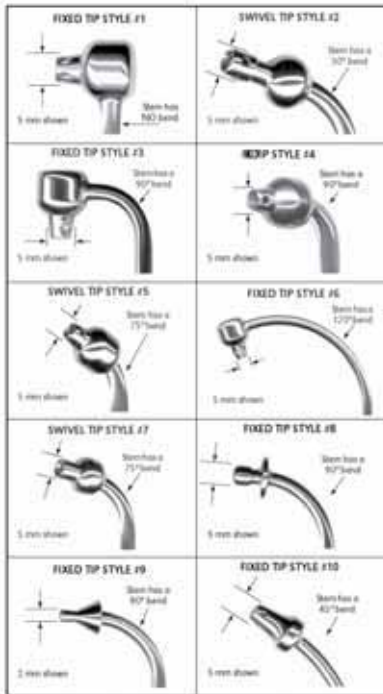




## Pemco Swivel Tip , Style #5

The unique ergonomic design of Pemco cannulas provides for proper placement of tip.

### Standard Tips Styles Available



### 1580-A-5 Ordering number breakdown

#### 1580-F-5-4mm-75

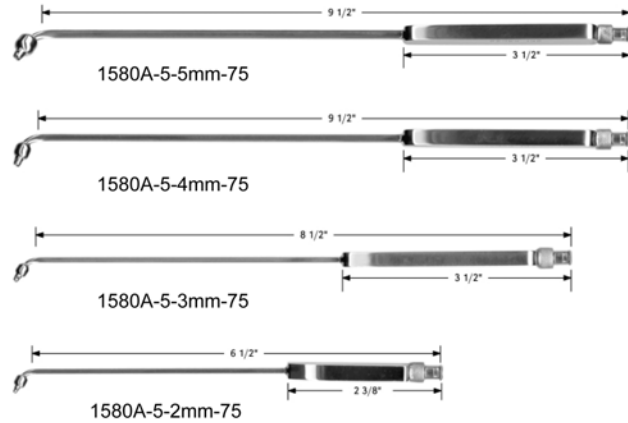
- \* Base Number: **1580-**
- \* Handle Type: **A, P, F or T**
- \* Tip Style: **5**, Swivel Tip with side holes
- \* Tip Size: **4 mm**
- \* Stem: **75° Bend**



### Four Standard Sizes, Style #5, Swivel Tip

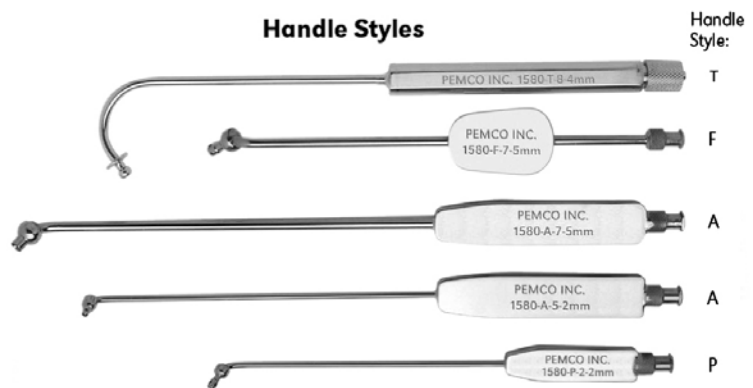


### Pemco Perfusion Cannulas—Swivel Tip #1580-Style 5



- ◆ Pemco reusable cannulas are precision crafted from stainless steel and are available in Fixed or *Leak Proof* Swivel tip styles.
- ◆ Tip styles and handle configurations shown are examples of full product line
- ◆ Pemco cannulas can be sterilized with standard processes
- ◆ Long product life offers significant cost savings over disposables
- ◆ Refurbishing extends product life and provides additional cost savings

### Handle Styles

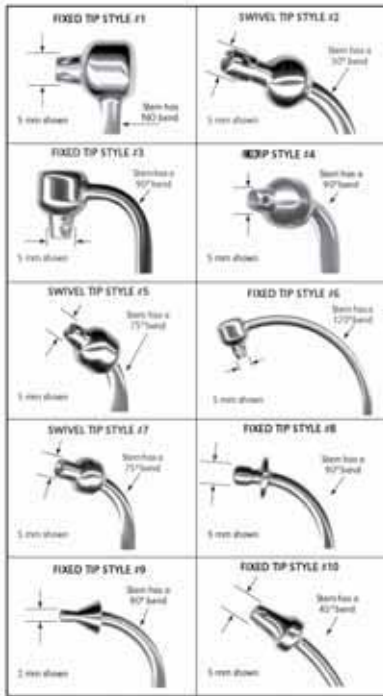




## Pemco Fixed Tip , Style #6

The unique ergonomic design of Pemco cannulas provides for proper placement of tip.

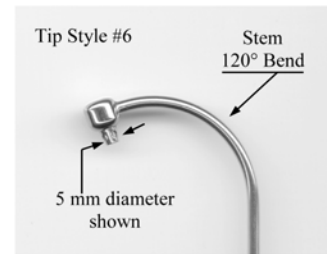
### Standard Tips Styles Available



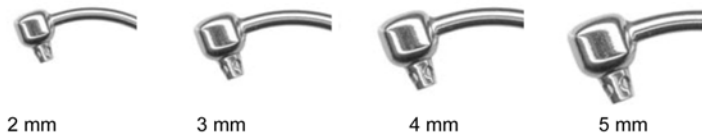
### 1580-A-6 Ordering number breakdown

#### 1580-A-6-5mm-120

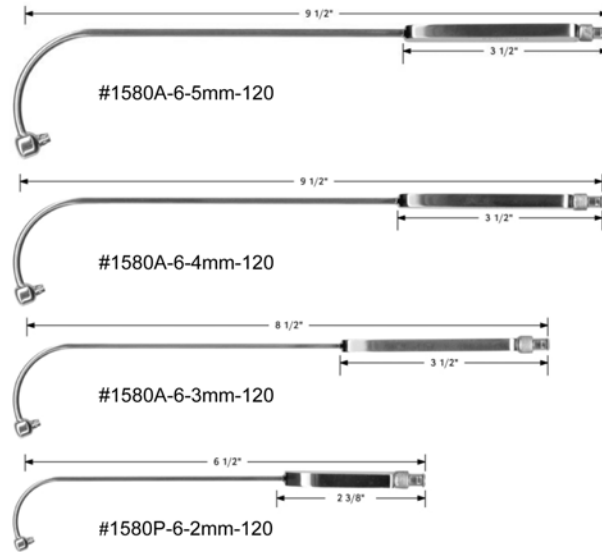
- \* Base Number: **1580-**
- \* Handle Type: **A, P, F** or **T**
- \* Tip Style: **6**, Fixed Tip with side holes
- \* Tip Size: **5 mm**
- \* Stem: **120°** Bend



### Four Standard Sizes, Style #6, Fixed Tip



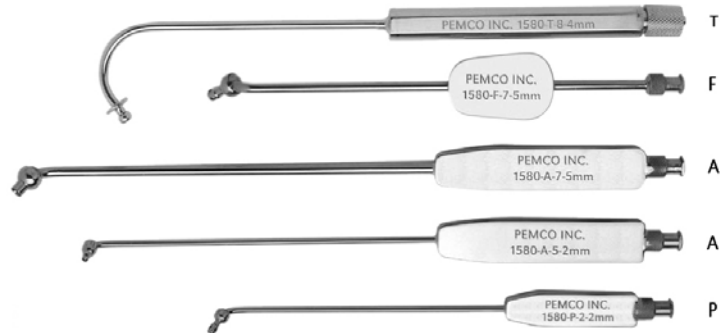
### Pemco Perfusion Cannulas—Fixed Tip #1580-style 6



- ◆ Pemco reusable cannulas are precision crafted from stainless steel and are available in Fixed or *Leak Proof* Swivel tip styles.
- ◆ Tip styles and handle configurations shown are examples of full product line
- ◆ Pemco cannulas can be sterilized with standard processes
- ◆ Long product life offers significant cost savings over disposables
- ◆ Refurbishing extends product life and provides additional cost savings

### Handle Styles

Handle Style:

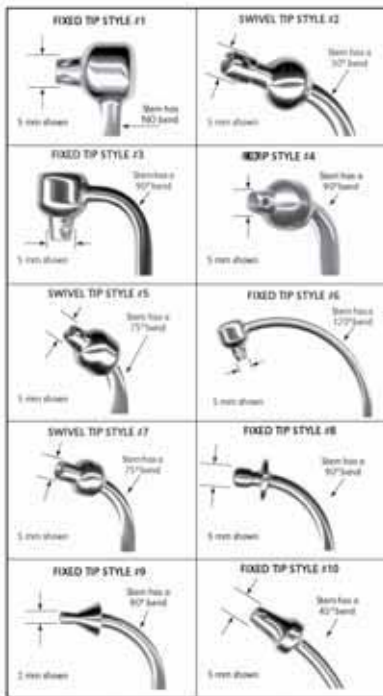




## Pemco Swivel Tip , Style #7

The unique ergonomic design of Pemco cannulas provides for proper placement of tip.

### Standard Tips Styles Available



### 1580-A-7 Ordering number breakdown

#### 1580-A-7-5mm-75

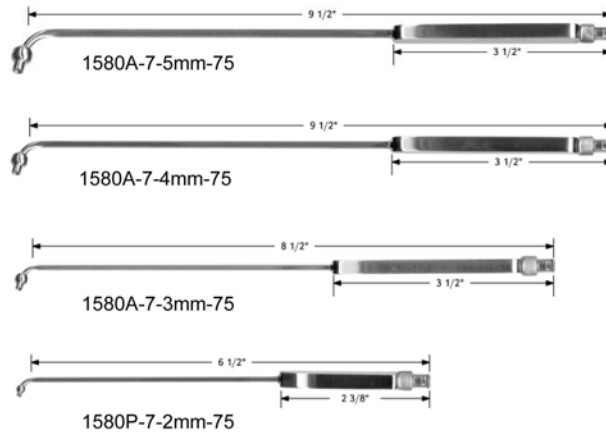
- \* Base Number: **1580-**
- \* Handle Type: **A, P, F or T**
- \* Tip Style: **7**, Swivel Tip with side holes
- \* Tip Size: **5 mm**
- \* Stem: **75° Bend**



### Four Standard Sizes, Style #7, Swivel Tip

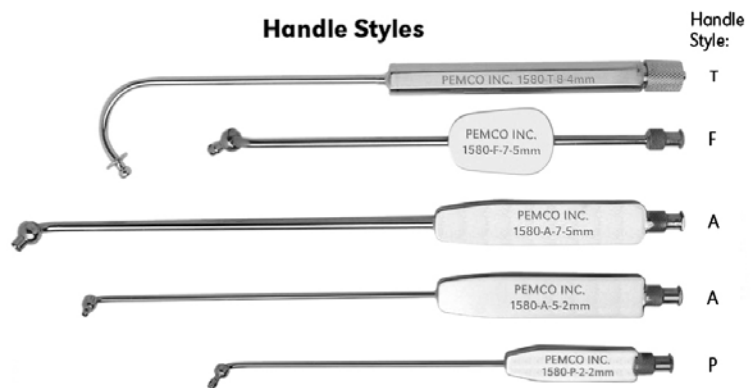


### Pemco Perfusion Cannulas—Swivel Tip #1580 style 7



- ◆ Pemco reusable cannulas are precision crafted from stainless steel and are available in Fixed or *Leak Proof* Swivel tip styles.
- ◆ Tip styles and handle configurations shown are examples of full product line
- ◆ Pemco cannulas can be sterilized with standard processes
- ◆ Long product life offers significant cost savings over disposables
- ◆ Refurbishing extends product life and provides additional cost savings

### Handle Styles



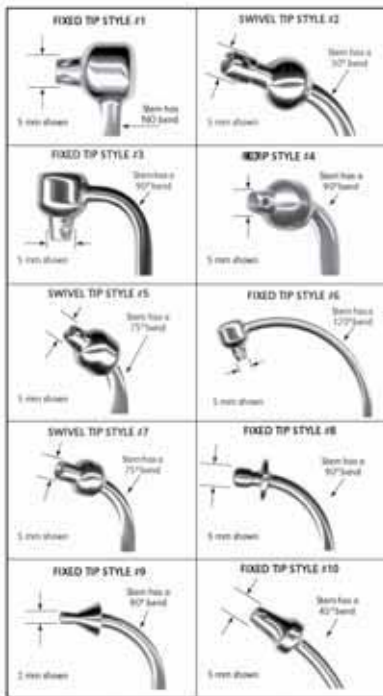




## Pemco Fixed Tip , Style #8

The unique ergonomic design of Pemco cannulas provides for proper placement of tip.

### Standard Tips Styles Available



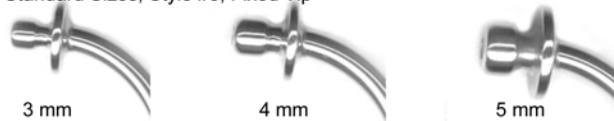
### 1580-A-8 Ordering number breakdown

#### 1580-T-8-5mm-90

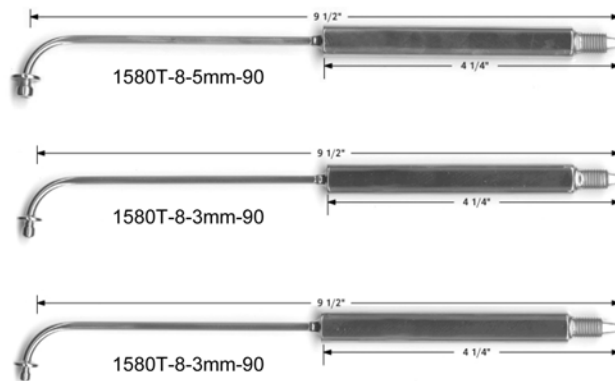
- \* Base Number: **1580-**
- \* Handle Type: **A, P, F** or **T**
- \* Tip Style: **8, Fixed Tip**
- \* Tip Size: **5 mm**
- \* Stem: **90° Bend**



### Three Standard Sizes, Style #8, Fixed Tip



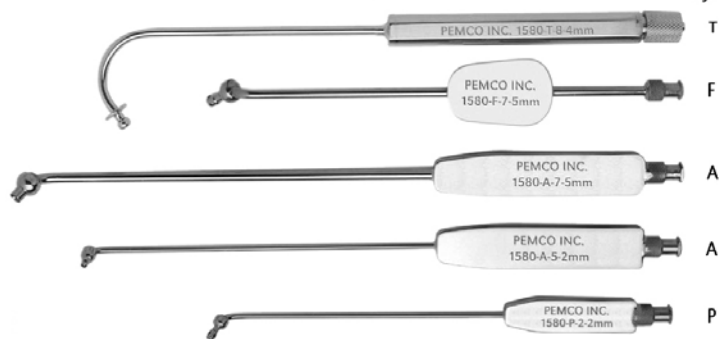
### Pemco Perfusion Cannulas—Fixed Tip #1580-style 8, Left Hand



- ◆ Pemco reusable cannulas are precision crafted from stainless steel and are available in Fixed or Leak Proof Swivel tip styles.
- ◆ Tip styles and handle configurations shown are examples of full product line
- ◆ Pemco cannulas can be sterilized with standard processes
- ◆ Long product life offers significant cost savings over disposables
- ◆ Refurbishing extends product life and provides additional cost savings

### Handle Styles

Handle Style:

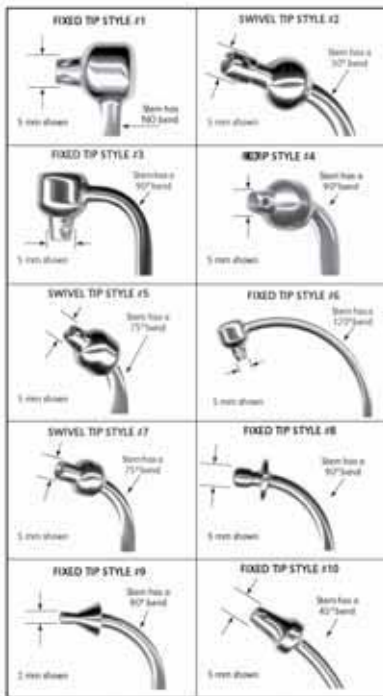




## Pemco Fixed Tip , Style #8

The unique ergonomic design of Pemco cannulas provides for proper placement of tip.

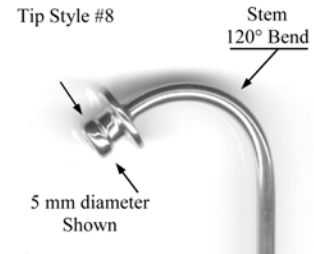
### Standard Tips Styles Available



### 1580-A-8 Ordering number breakdown

#### 1580-A-8-5mm-120

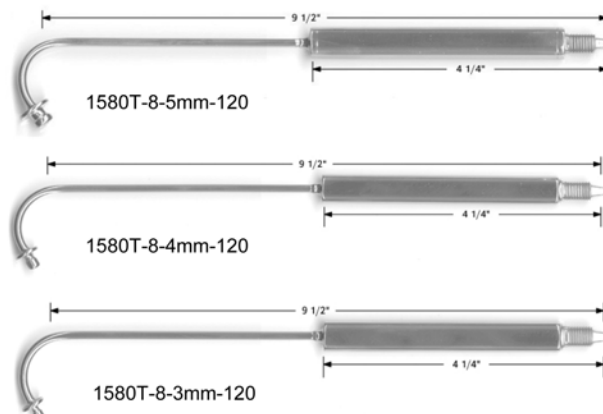
- \* Base Number: **1580-**
- \* Handle Type: **A, P, F or T**
- \* Tip Style: **8, Fixed Tip**
- \* Tip Size: **5 mm**
- \* Stem: **120° Bend**



### Three Standard Sizes, Style #8, Fixed Tip



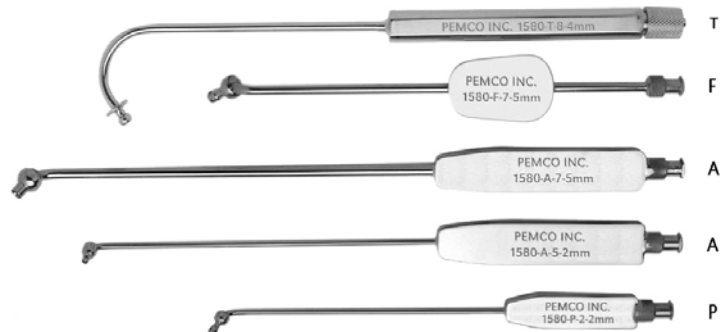
### Pemco Perfusion Cannulas—Fixed Tip #1580-style 8, Right Hand



- ◆ Pemco reusable cannulas are precision crafted from stainless steel and are available in Fixed or *Leak Proof Swivel* tip styles.
- ◆ Tip styles and handle configurations shown are examples of full product line
- ◆ Pemco cannulas can be sterilized with standard processes
- ◆ Long product life offers significant cost savings over disposables
- ◆ Refurbishing extends product life and provides additional cost savings

### Handle Styles

Handle Style:

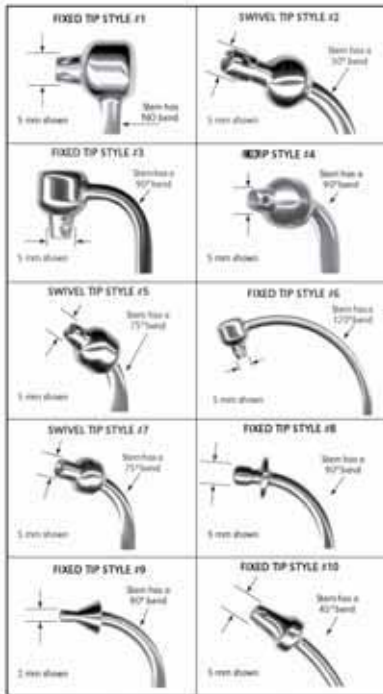




## Pemco Fixed Tip , Style #9

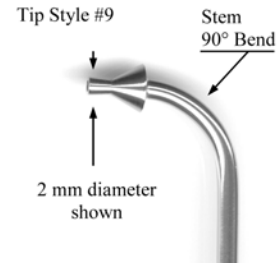
The unique ergonomic design of Pemco cannulas provides for proper placement of tip.

### Standard Tips Styles Available



### 1580-A-9 Ordering number breakdown

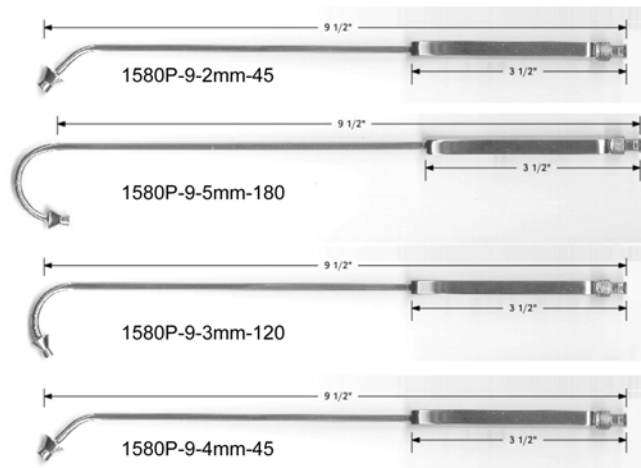
- 1580-P-9-2mm-90**
- \* Base Number: **1580-**
- \* Handle Type: **A, P, F or T**
- \* Tip Style: **9**, Fixed Tip
- \* Tip Size: **2 mm**
- \* Stem: **90° Bend**



### Four Standard Sizes, Style #9, Fixed Tip

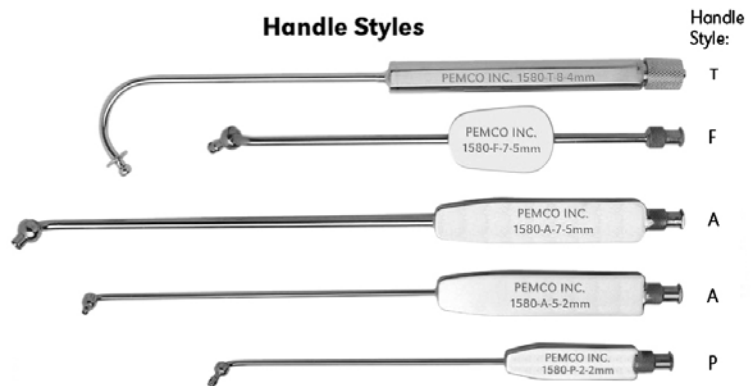


### Pemco Perfusion Cannulas—Fixed Tip #1580-style 9



- ◆ Pemco reusable cannulas are precision crafted from stainless steel and are available in Fixed or *Leak Proof Swivel* tip styles.
- ◆ Tip styles and handle configurations shown are examples of full product line
- ◆ Pemco cannulas can be sterilized with standard processes
- ◆ Long product life offers significant cost savings over disposables
- ◆ Refurbishing extends product life and provides additional cost savings

### Handle Styles

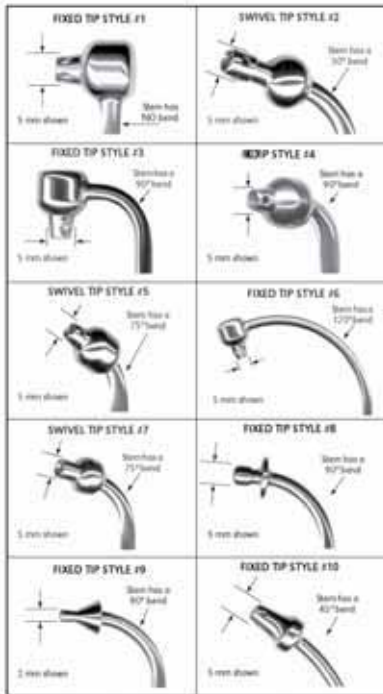




## Pemco Fixed Tip , Style #10

The unique ergonomic design of Pemco cannulas provides for proper placement of tip.

### Standard Tips Styles Available



### 1580-A-10 Ordering number breakdown

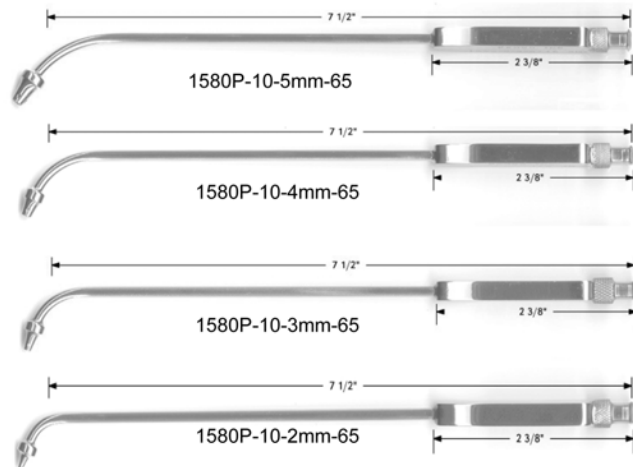
- 1580-P-10-5mm-65**
- \* Base Number: **1580-**
- \* Handle Type: **A, P, F or T**
- \* Tip Style: **10**, Fixed Tip with side holes
- \* Tip Size: **4 mm**
- \* Stem: **65°** Bend



### Four Standard Sizes, Style #10, Fixed tip



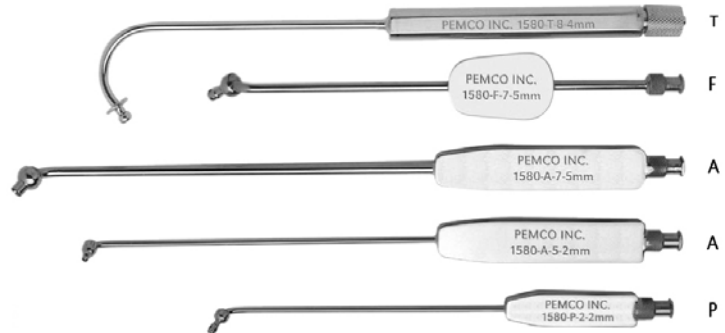
### Pemco Perfusion Cannulas—Fixed Tip #1580-Style 10



- ◆ Pemco reusable cannulas are precision crafted from stainless steel and are available in Fixed or *Leak Proof* Swivel tip styles.
- ◆ Tip styles and handle configurations shown are examples of full product line
- ◆ Pemco cannulas can be sterilized with standard processes
- ◆ Long product life offers significant cost savings over disposables
- ◆ Refurbishing extends product life and provides additional cost savings

### Handle Styles

Handle Style:





# Intracardiac Suckers Flat Handle

Available in sets or individually

- Tips are grooved and slotted to allow for better flow and prevent clogging
- Suckers come with 1/4 barbed end
- Alternate tip and handle styles are available
- Refurbishing extends product life and provides additional cost savings

## Round, Adult Handle Sets

The adult suckers are supplied as a set with four tips (#05, #06, #07 and #08). Handles and tips may be ordered as separate items. MODEL 1450: Intracardiac Sucker, Adult Handle at 30° Angle, Includes 4 tips. MODEL 1450-90: Intracardiac Sucker, Adult Handle at 90° Angle, Includes 4 tips.

### ADULT TIPS

#### Included with Set:

1450-05  
Intracardiac Sucker Tip  
10.5 mm diameter

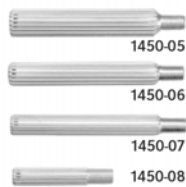
1450-06  
Intracardiac Sucker Tip  
8.8 mm diameter

1450-07  
Intracardiac Sucker Tip  
8.0 mm diameter

1450-08  
Intracardiac Sucker Tip  
6.4 mm diameter

*Note: All above tips fit 1480-04 sucker handle.*

Adult Tips



1450 Intracardiac Sucker Set with four Tips



(Handle Only 1450-01)

1450-90 Intracardiac Sucker Set with four Tips



(Handle Only 1450-01-90)

10 1/2 inches long

## Round, Pediatric Handle Sets

The pediatric suckers are supplied as a set with two tips (#15 and #16). Handles and tips may be ordered as separate items. MODEL 1450JR Intracardiac Sucker, Pediatric Handle with 30° Angle, includes two tips. MODEL 1450JR-90 Intracardiac Sucker, Pediatric Handle with 90° Angle, includes two tips.

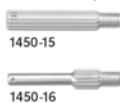
### PEDIATRIC TIPS

#### Included with Set:

1450-15  
Intracardiac Sucker Tip  
6.4 mm diameter

1450-16  
Intracardiac Sucker Tip  
4.0 mm diameter

Pediatric Tips



1450JR Intracardiac Sucker Set with two Tips



(Handle Only 1450JR-01)

1450JR-90 Intracardiac Sucker Set with two Tips



(Handle Only 1450JR-01-90)

7 inches long



# Intracardiac Suckers Flat Handle

Available in sets or individually

- Tips are grooved and slotted to allow for better flow and prevent clogging
- Suckers come with 1/4 barbed end
- Alternate tip and handle styles are available
- Refurbishing extends product life and provides additional cost savings

## Flat, Adult Handle

### MODEL 1480

Intracardiac Sucker  
Removable Tip, 7.0 mm diameter

(Note: All Adult Tips  
also fit 1480-04  
sucker handle)



1480 Adult Handle with One Removable Tip  
(1480-04 Handle Only / 1480-03 Tip Only)

1470 Adult Handle with Fixed tip

## Flat, Adult Handle

### MODEL 1470

Intracardiac Sucker  
Fixed Tip, 4.7 mm diameter

## Flat, Pediatric Handle

### MODEL 1460

Intracardiac Sucker  
Fixed Tip, 3.2 mm diameter



1460 Pediatric Handle with Fixed tip

**Pemco Reusable Instruments** reduce cost and save the environment by minimizing the use of disposables. Studies have demonstrated the following results for reusable instruments:

- Reduced disposable instrument purchases
- Reduced medical waste management expenses and scrapped plastics
- Reduced hazards to the environment, metals can be recycled
- Reduced risk to the health care worker, no need to "red-bag"
- Reduced licensing, handling, and inventory

### Other Benefits of Pemco Reusable Products:

- Proven safe and effective for over 50 years
- Routine instrument handling procedures
- Products are processed with your system
- Customized to your needs

**Pemco is committed to the best practices of your institution.**

3 UNITS PEMCO REUSABLE VS.  
200 CASES DISPOSABLE  
CANNULAS & SUCKERS



### Pemco Inc.

5663 Brecksville Rd. • Cleveland, Ohio 44131 U.S.A.  
Phone: 216-524-2990 • Fax: 216-642-8646 • pemco@pemcomed.com • www.pemcomed.com

### European Authorized Representative

Medimark® Europe  
Sar1 11 rue Emile Zola • 38033 Grenoble Cedex 2 • France

12121212



## Anesthesia Shield

### EXPANDS SURGICAL FIELD

The Pemco Anesthesia Shield has a tabletop surface that can be used for placement of surgical instruments, keeping them in the surgical field.

### PROTECTS PATIENT

The shield provides a protective area around the patient's head and shoulders, reducing undue application of pressure to the patient and to monitoring lines.

### DEFINES ANESTHESIA WORKING AREA

The shield provides a fixed and open space for the lines and vent tubes.

### MOVES WITH OR TABLE

The shield easily mounts at the head of the OR table. Its feet slip into rectangular holders which mount to the OR table railing, allowing the shield to move with the table.





**#4010-02 Dual Leg Anesthesia Shield**

Two leg mounting allows unit to be placed at edge of table.

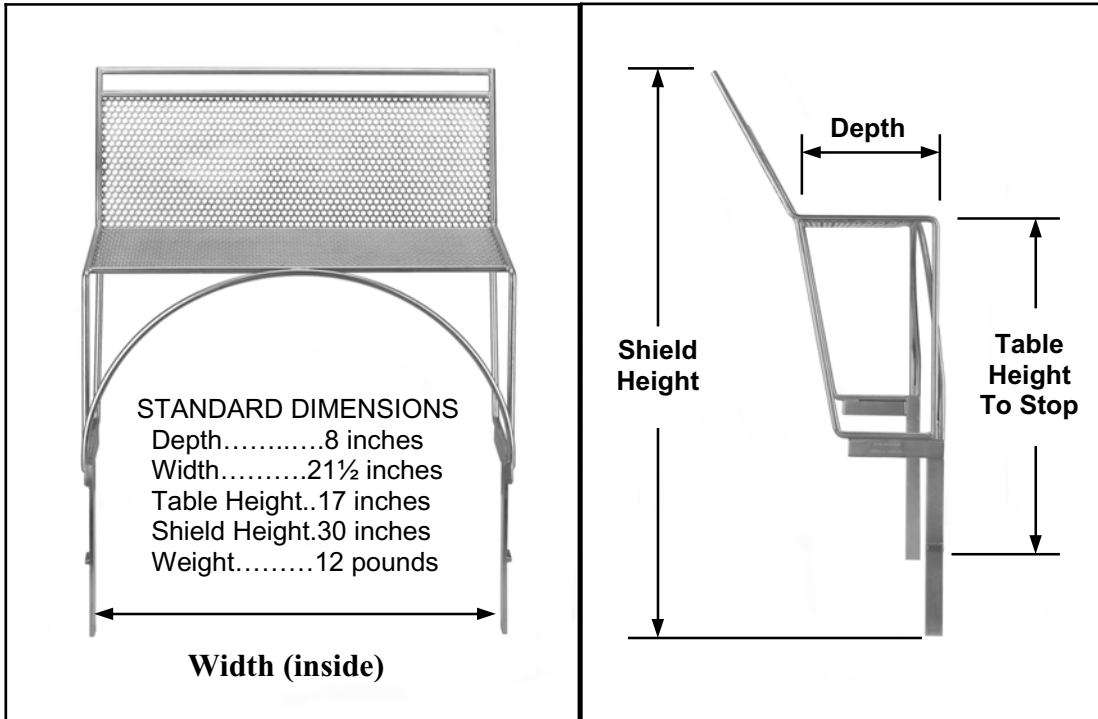


#4010-02 Dual Leg Anesthesia





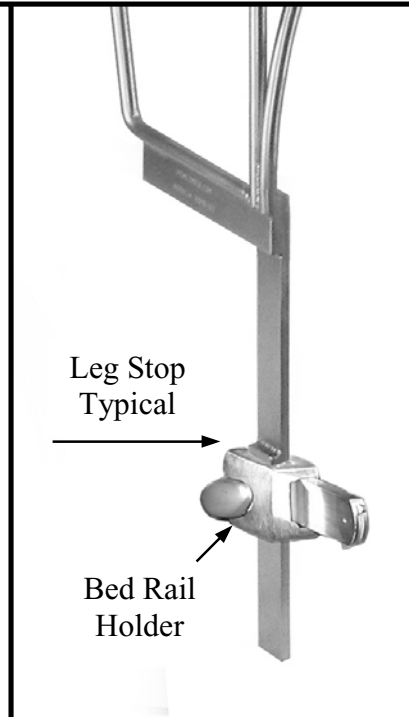
### #4010-02 Dual Leg Anesthesia Shield Specifications



#### When ordering:

Note the legs of the shield mount into rectangular bed rail holders. The legs have permanent stops to prevent slippage.

**Most** OR tables are similar in width. Please confirm dimension of table and shield width. These must be within 1/2" in order for the shield to fit properly. Pemco can manufacture the shield to the required width if needed.





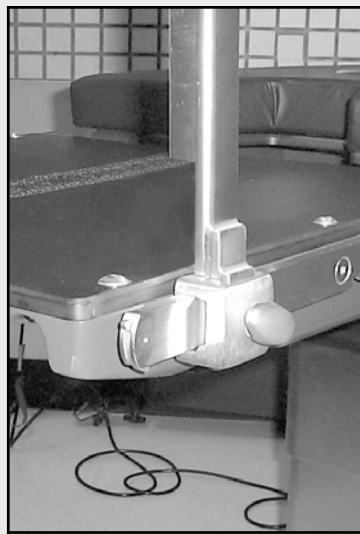
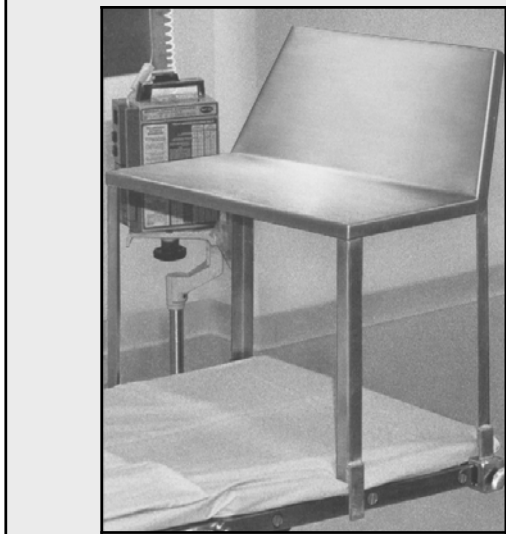
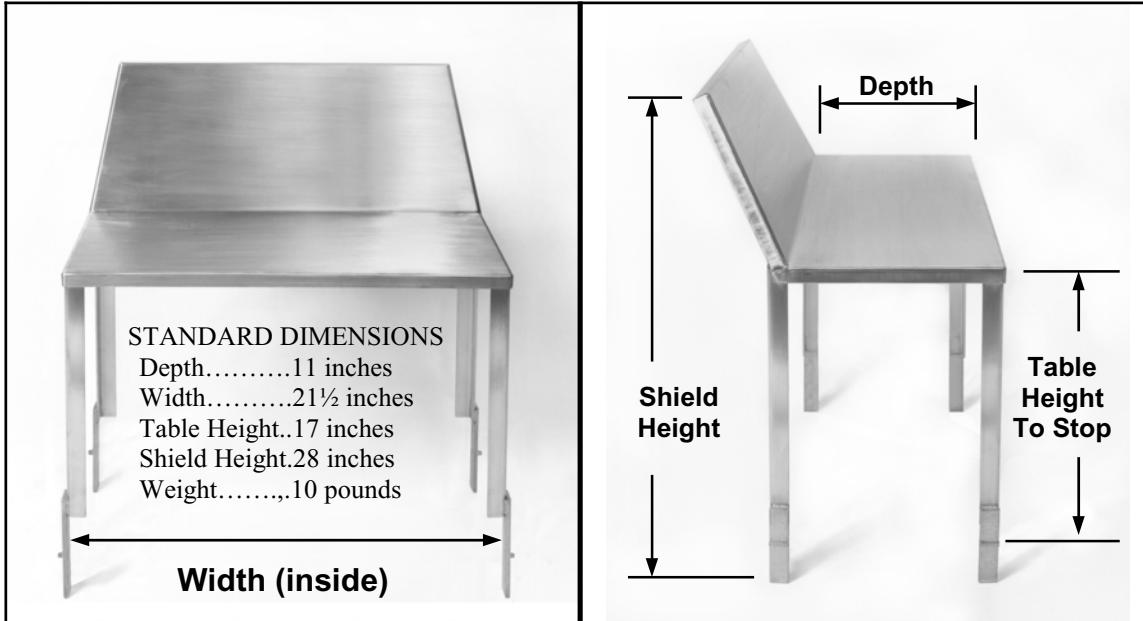
**#4010 Four Leg, Anesthesia Shield**



**#4010 Four Leg, Anesthesia Shield**



### #4010 Four Leg, Anesthesia Shield Specifications



**When ordering:**

- 1) Note the legs of the shield mount into rectangular bed rail holders. The legs have permanent stops to prevent slippage.
- 2) **Most** OR tables are similar in width. Please confirm dimension of table and shield width. These must be within 1/2" in order for the shield to fit properly. Pemco can manufacture the shield to the required width if needed.



## *INSTRUCTIONS FOR USE PEMCO INC. PERFUSION CANNULA*

### **Pemco Inc.**

5663 Brecksville Rd. Cleveland, Ohio 44131-1593 U.S.A.  
PH:(216) 524-2990 Fax:(216) 642-8646  
E-Mail: pemco@pemcomed.com  
www.pemcomed.com

**Caution: Federal Law (USA) restricts this device to sale by or on the order of a physician.**

### **Important**

**Pemco Products are to be used according to the instructions for use. All personnel who handle Pemco products must read these instructions prior to use of the instrument.**

### **DEVICE DESCRIPTION**

Pemco Perfusion Cannulas are designed to be used for perfusion of fluids to the heart. Various means of perfusion are available for use with the Pemco Cannulas; HOW SUPPLIED.

### **INTENDED USE**

Pemco Perfusion Cannulas are a manual, hand held surgical instrument intended for use in cardiac surgery when attached to perfusion device providing perfusion to the heart.

### **Note:**

The Pemco Cannulas are generally not serviceable. Any damaged Cannulas are generally replaced. All instruments must be decontaminated before being returned for service. Repair charges will apply to instruments repaired outside the guarantee.

### **CONTRAINDICATIONS**

There are no known contraindications to Pemco Products.



**European Authorized Representative**  
Scanlan Group, B.V.  
Postbus 75664, 1118 ZS Schiphol Triport, The Netherlands

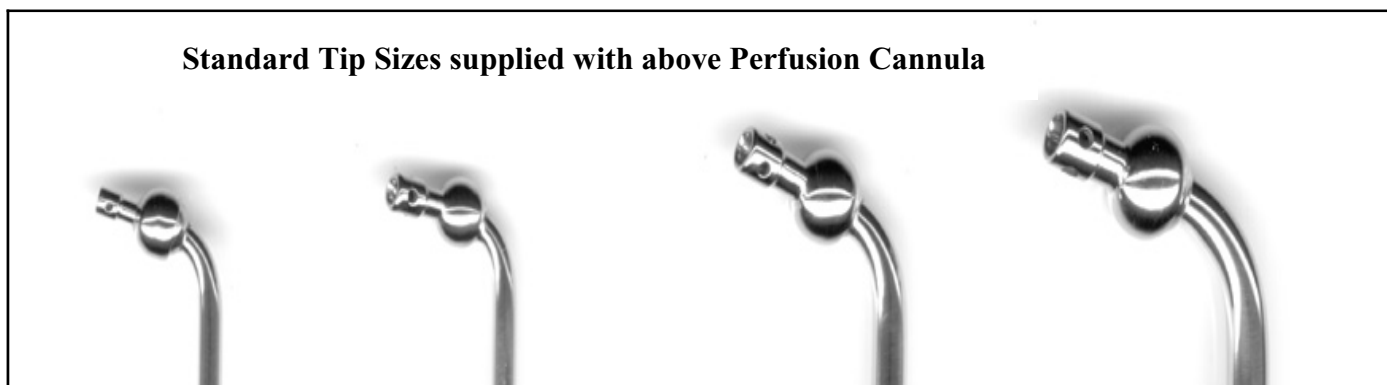
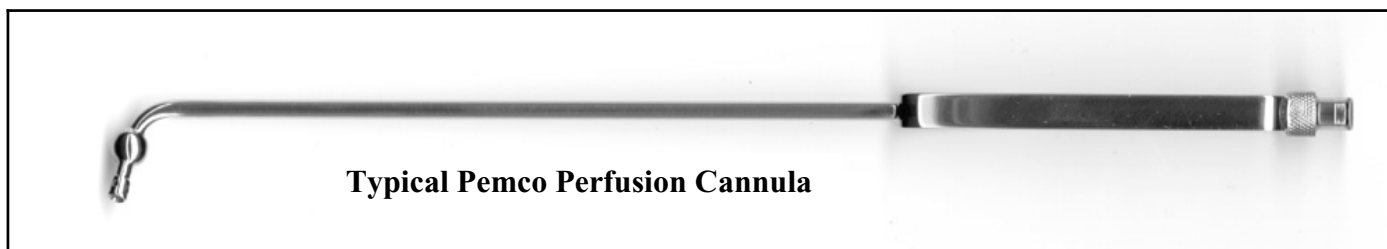
## INSTRUCTIONS FOR USE

**The Pemco Perfusion Cannula is a reusable hand held instrument. They are supplied non-sterile and must be cleaned and sterilized prior to initial use and all subsequent uses.**

Perfusion Cannula are supplied with a male luer end. When ordering a barbed end may be substituted. The tip is attached to the other end of the Perfusion Cannula and is not removable. The tip of the Perfusion Cannula is either attached in a fixed position on the stem or the swivel type to a ball. Tips are available in standard styles and sizes. The style and size required is determined by the user for the intended application. (see how supplied)

After Perfusion Cannulas have been sterilized, securely attach perfusion line by luer adaptor or tubing to barbed end of perfusion cannula handle.

The Perfusion Cannulas are a hand held instrument and must be held in location during use at the desired site.



### WARNING:

Do not attempt to repair, alter or modify a Pemco Inc. Cannula devices in any way. Repairs, alterations or modifications may have unintended consequences. Pemco Inc. is not responsible for any device that is repaired, altered or modified in any way by the user. Any unauthorized modification will void all warranties and release Pemco Inc. from any liability. If your Pemco suction device is damaged, return it to Pemco Inc at the address given or an authorized distributor.

## **CARE AND MAINTENANCE**

### **Cleaning**

01. Always remove female luer from or tubing from handle before cleaning.
02. Soak in a neutral-pH disinfecting solution. Do not soak for long periods of time.
03. Use only a neutral pH (6-8) solution. Use of acidic or alkaline detergents will remove chromium oxide from surface of stainless steel causing pitting or breakage of instruments. The Pemco guarantee is void if instruments are exposed to high acid (pH 4 to lower) or high alkaline (pH 10 or higher) solutions, detergents, disinfectants, stain removers, etc.
04. Instrument should be thoroughly rinsed with distilled water after cleaning to remove any residual debris or cleaning agent.
05. Dry immediately after cleaning.
06. If desired, the instrument may be sonicated in a neutral-pH solution. Remove instrument from sonicator and rinse with distilled water to remove any residue of solution.

## **STERILIZATION**

### **The following are GUIDELINES for product sterilization.**

**Guidelines for Sterilization :** The instruments may be sterilized by steam gravity sterilization using an autoclave, 2 cycles-minimum of 121°C (250°F) for 20 minutes up to a 160°C (320°F) for 2.5 minutes. Pemco has validated this method using Intertek Testing Services NA, Inc.

Perfusion Cannulas are reusable instruments. They are supplied non-sterile and must be cleaned and sterilized prior to initial use and all subsequent use.

Time, temperature and other conditions required for sterilization may vary according to type of sterilizer, cycle design, wrapping material, and/or other hospital practices.

Sterilization containers: must be validated by their manufacturer for use in sterilization process. Validated cycles should be indicated in the containers Instructions for Use.

**You must validate your own sterilization practice when they differ from the Instructions for Use provided by container or sterilizer manufacturer.**

Recommendations for sterilization may be obtained from, AAMI (Association for Advancement of Medical Instrumentation) at <http://www.aami.org/>

## **PRECAUTIONS**

**CAUTION:** Clean and sterilize the Perfusion Cannulas according to the instructions provided. Failure to do so could result in cross-contamination to the patient or health care professional.

**CAUTION:** Pemco Perfusion Cannulas are one piece assemblies. This includes Perfusion Cannulas with swivel tips. Do not attempt to remove swivel tips for cleaning or any other purpose. Attempting repair, alterations or modifications may have unintended consequences.

**CAUTION:** Always keep Perfusion Cannula in sterile field during use.

**CAUTION:** Pemco Perfusion Cannulas are one piece assemblies. Do not attempt to disassemble.

## **HOW SUPPLIED**

### **Pemco Perfusion Cannulas consist of one or more of the following items:**

- A) Pemco Perfusion Cannulas are available in numerous combinations of tips styles, tip sizes and handle styles. A sample listing of product configurations are listed below. Please see product literature or contact and authorized representative for more information.
- B) Perfusion Cannulas are supplied with a luer end to attach tubing. A barbed end is available on request when ordering.

### **PEMCO CUSTOM PERFUSION CANNLUA, NON-DISPOSABLE**

#### **#1580 SERIES—Standard Configurations**

Examples: 1580-P-7-2MM-75  
1580-A-7-3MM-75  
1580-A-7-4MM-75  
1580-A-7-5MM-75

## **GUARANTEE**

When used as directed, all Pemco instruments are guaranteed to be free of defects in material and workmanship. Any product that proves to be defective in material or workmanship will be repaired or replaced at our discretion. Parts covered by this guarantee will be replaced without charge. This guarantee specifically does not cover damage to the instrument by overstress, chemicals (including those used for cleaning and sterilization), mechanical shock or improper use.

Repair, alteration or modification of any product by persons other than Pemco or products subjected to misuse or abuse, will result in immediate loss of guarantee. A repair charge will apply when Pemco instruments are damaged by accident. This guarantee will be void if Pemco instruments are used for a purpose other than originally intended.



## *INSTRUCTIONS FOR USE PEMCO INC. INTACARDIAC SUCKERS*

### **Pemco Inc.**

5663 Brecksville Rd. Cleveland, Ohio 44131-1593 U.S.A.  
PH:(216) 524-2990 Fax:(216) 642-8646  
E-Mail: pemco@pemcomed.com  
www.pemcomed.com

**Caution: Federal Law (USA) restricts this device to sale by or on the order of a physician.**

### **Important**

**Pemco Products are to be used according to the instructions for use. All personnel who handle Pemco products must read these instructions prior to use of the instrument.**

### **DEVICE DESCRIPTION**

Pemco Intracardiac Suckers are designed to be used for suction of fluids from an incision sight. Various means of suction are available for use with the Pemco Intracardiac Suckers; HOW SUPPLIED.

### **INTENDED USE**

Pemco Intracardiac Suckers are a manual, hand held surgical instrument intended for use in cardiac surgery when attached to a suction device provides suction to the chest cavity. Pemco Intracardiac Suckers may also be used for other surgical procedures where suction is required.

### **Note:**

The Pemco Intracardiac Suckers are generally not serviceable. Any damaged suckers are generally replaced. All instruments must be decontaminated before being returned for service. Repair charges will apply to instruments repaired outside the guarantee.

### **CONTRAINDICATIONS**

There are no known contraindications to Pemco Products.



**European Authorized Representative**  
Scanlan Group, B.V.  
Postbus 75664, 1118 ZS Schiphol Triport, The Netherlands



## **INSTRUCTIONS FOR USE**

**The Pemco Intracardiac Suckers are a reusable hand held instrument. They are supplied non-sterile and must be cleaned and sterilized prior to initial use and all subsequent uses.**

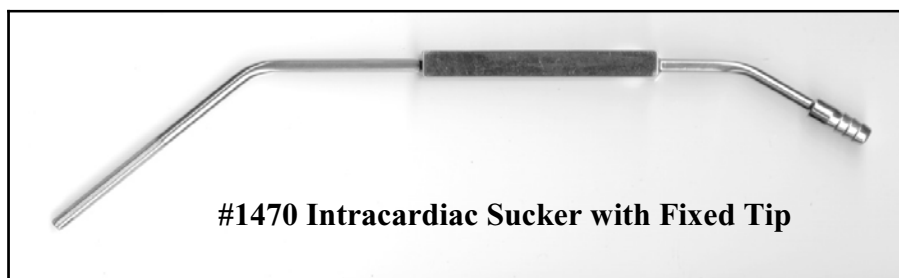
Intracardiac Suckers manufactured by Pemco Inc. are designed to be used in cardiovascular surgery but may be used for other surgical procedures where suction of fluids is desired.

One end of the sucker handle is barbed for suction line and the other end is threaded either for interchangeable tips or as supplied with a non-removable tip. (see how supplied)

The Intracardiac Suckers are a hand held instrument. The handle is bent in such a way that they can lie across the chest cavity. When the instrument is in this position a means of attaching to the O.R. table drape must be used.

The tips of the Intracardiac Suckers, either fixed or removable, have equally divided slots at the tip end to prevent clogging and improve suction.

After probes have been sterilized, securely attach desired tip to handle if applicable. Attach tubing to barbed end of sucker handle.



### **WARNING:**

Do not attempt to repair, alter or modify a Pemco Inc. suction devices in any way. Repairs, alterations or modifications may have unintended consequences. Pemco Inc. is not responsible for any device that is repaired, altered or modified in any way by the user. Any unauthorized modification will void all warranties and release Pemco Inc. from any liability. If your Pemco suction device is damaged, return it to Pemco Inc at the address given or an authorized distributor.

## **CARE AND MAINTENANCE**

### **Cleaning**

01. For Intracardiac Suckers with removable tips, the tip and handle should be separate for cleaning.
02. Soak in a neutral-pH disinfecting solution. Do not soak for long periods of time.
03. Use only a neutral pH (6-8) solution. Use of acidic or alkaline detergents will remove chromium oxide from surface of stainless steel causing pitting or breakage of instruments. The Pemco guarantee is void if instruments are exposed to high acid (pH 4 to lower) or high alkaline (pH 10 or higher) solutions, detergents, disinfectants, stain removers, etc.
04. Instrument should be thoroughly rinsed with distilled water after cleaning to remove any residual debris or cleaning agent.
05. Dry immediately after cleaning.
06. If desired, the instrument may be sonicated in a neutral-pH solution. Remove instrument from sonicator and rinse with distilled water to remove any residue of solution.

## **STERILIZATION**

### **The following are GUIDELINES for product sterilization.**

**Guidelines for Sterilization :** The instruments may be sterilized by steam gravity sterilization using an autoclave. 2 cycles-minimum of 121°C (250°F) for 20 minutes up to a 160°C (320°F) for 2.5 minutes. Pemco has validated this method using Intertek Testing Services NA, Inc.

Pemco Intracardiac Suckers are reusable instruments. They are supplied non-sterile and must be cleaned and sterilized prior to initial use and all subsequent use.

Time, temperature and other conditions required for sterilization may vary according to type of sterilizer, cycle design, wrapping material, and/or other hospital practices.

Sterilization containers: must be validated by their manufacturer for use in sterilization process. Validated cycles should be indicated in the containers Instructions for Use.

**You must validate your own sterilization practice when they differ from the Instructions for Use provided by container or sterilizer manufacturer.**

Recommendations for sterilization may be obtained from, AAMI (Association for Advancement of Medical Instrumentation) at <http://www.aami.org/>

## **PRECAUTIONS**

**CAUTION:** Clean and sterilize the suction probes according to the instructions provided. Failure to do so could result in cross-contamination to the patient or health care professional.

**CAUTION:** When suction handles are placed in the surgical site they should be attached to the surgical drape via the handle or attached tubing.

**CAUTION:** Always keep suction handle in sterile field.

**CAUTION:** Disassemble suctions with removable tips only prior to cleaning. Suctions with non-removable tips require no disassembly.

## **HOW SUPPLIED**

**Pemco Suction Probes consist of one or more of the following items:**

### **PEMCO SUCTION PROBES, NON-DISPOSABLE - SETS**

- #1450 Intracardiac Sucker, Adult Handle, w/ 4 Tips
- #1450-90 Intracardiac Sucker, Adult Handle, w/ 4 Tips
- #1450JR Intracardiac Sucker, Pediatric Handle w/ 2 Tips
- #1450JR-90 Intracardiac Sucker, Pediatric Handle w/ 2 Tips
- #1460 Intracardiac Sucker, Pediatric Handle w/Tip
- #1470 Intracardiac Sucker, Pediatric Handle w/Tip
- #1480 Intracardiac Sucker, Adult Handle w/Tip

### **PEMCO SUCTION PROBES, NON-DISPOSABLE - HANDLES ONLY**

- #1450-01 Intracardiac Sucker, Adult Handle
- #1450-01-90 Intracardiac Sucker, Adult Handle
- #1450JR-01 Intracardiac Sucker, Pediatric Handle
- #1450JR-01-90 Intracardiac Sucker, Pediatric Handle
- #1480-04 Intracardiac Sucker, Adult Handle

### **PEMCO SUCTION PROBES, NON-DISPOSABLE - TIPS ONLY**

#### **Large Handle tips:**

- #1450-05 Intracardiac Sucker Tip, 10.5mm
- #1450-06 Intracardiac Sucker Tip, 8.8mm
- #1450-07 Intracardiac Sucker Tip, 8.0mm
- #1450-08 Intracardiac Sucker Tip, 6.4mm
- #1480-03 Intracardiac Sucker Tip, 7.0mm

#### **Junior (JR) Handle tips:**

- #1450-15 Intracardiac Sucker Tip, 6.4mm
- #1450-16 Intracardiac Sucker Tip, 4.0mm
- #1450-17 Intracardiac Sucker Tip, 2.0mm (Special Order)

## **GUARANTEE**

When used as directed, all Pemco instruments are guaranteed to be free of defects in material and workmanship. Any product that proves to be defective in material or workmanship will be repaired or replaced at our discretion. Parts covered by this guarantee will be replaced without charge. This guarantee specifically does not cover damage to the instrument by overstress, chemicals (including those used for cleaning and sterilization), mechanical shock or improper use.

Repair, alteration or modification of any product by persons other than Pemco or products subjected to misuse or abuse, will result in immediate loss of guarantee. A repair charge will apply when Pemco instruments are damaged by accident. This guarantee will be void if Pemco instruments are used for a purpose other than originally intended.



The marketing initiative for the Pemco products discussed here is based upon the following factors, and we specifically emphasize the primary products: the coronary cannula line and the suction handle lines;

- Cost effectiveness of the use of reusable coronary cannula and hand held suckers
- Biocompatibility of blood handling- the stainless steel blood device has been used since the beginning of heart surgery, and is safe to use in all applications- particularly for Autotransfusion (the recovery of a patient's own blood from a surgical wound, using a device to wash that blood and return it.
- A set of specifically-designed cannula for the proper delivery of cardioplegia, both blood-based and crystalloid-based to meet all demands of the process of perfusion the coronary arteries directly.
- Durability and compatibility of the devices with all procedures
- Customization capability that is superior to anything available to a healthcare provider, particularly in the surgical specialties of cardiovascular and thoracic surgery, abdominal vascular surgery and others.
- The "Green Initiative": in no uncertain terms, reusable is better for the environment: cleaning with biodegradable detergents, less waste from packaging and blood contaminated "throw-away".

**COST EFFECTIVENESS:** The model outlined below shows the comparison of the Pemco reusable coronary sinus cardioplegia cannula with an average disposable version of the device. There are a limited number of competitors, including Medtronic, Terumo, Sorin- all of these companies manufacture not only these devices, but a number of other components for use in cardiac surgery.

\*all pricing models are in USD, based upon market price (2009) for both disposable (average of all 3) and the Pemco product line.

\*The models below assume 200 procedures a year

Coronary cannula comparison: Disposable vs. reusable (equivalent style devices for same application)

Pricing            Disposable: \$26.00 ea.            Pemco: \$700.00 ea.

Single use vs. reusable:

\*\*\*\*\* Compare: 25 uses before Pemco product is free

\*\*\*\*\*Reprocessing (washing, sterilization) is approx \$1.00

(5 min inspection, pressure rinse, soak with other cannulated instruments)

(Factors in time and cost of equipment and personnel)



**THE OPPORTUNITY: COST ANALYSIS**

Model example- avg. case load, hearts, 200 per year

	Disposable product	Pemco Product	
	200 x \$26 = \$5,200	\$2,100 (3 units)	
	SPD <u>0</u>	<u>2001</u>	
	\$5,200	\$2,300	
Disposal	<u>\$250</u>	<u>0</u>	
	\$5,450	\$2,300	annual expense

Disposal (cost of disposal of medical waste, blood contact; metal and plastic)

**OPPORTUNITY: A 57% savings in 1 year. Break even at approx 25 procedures.**

PRODUCT: Cardiac suction handles and tips ("sucker handles")

Pricing:	Disposable (\$18.50)	Pemco Product (\$540.00)
	200 x 18.50 = \$3,700	Pemco: \$1,620 (3 units)
	SPD <u>0</u>	SPD <u>200</u>
	\$3,700	\$1,820

**OPPORTUNITY: A 51% savings. Assume same breakeven point**

ASSUMPTIONS: THE CLINICAL REQUIREMENTS FAVOR THE PEMCO PRODUCT BECAUSE MORE THAN ONE IS NEEDED ON THE SHELF DUE TO POTENTIAL DROPPING OF THE STERILE PRODUCT, PROCESSING, EMERGENCIES, ETC.



**GREEN INITIATIVE:** The environmental initiative is taking many forms- medical waste is a critical issue. Globally, customers are seeking vendors who have environmentally sound, AND economically sound products. Less trash, less waste, less scrapped plastics and metals that cannot be recycled.

**Simple: following the above modest model:**

200 ea. 30110 Medtronic handheld disposable cannula yields approx.:  
**25 pounds of plastic**  
**5 pounds of scrap stainless steel tube**  
**50 pounds of paper and cardboard**  
**(10/bx, avg 5 bx/cs, 40 outer boxes, 200 wrapper packages, 1/2 Tyvek, 1/2 plastic)**

200 ea. 10061 DLP rigid suction tubes (suction handles)  
**40 pounds of plastic**  
**11 pounds of scrap stainless**  
**50 pounds of paper and cardboard (20/bx)**

Recent cost to dispose of medical waste: **22 c/pound (Med Econ 2009).**  
 Recent cost to dispose of regular waste: **14c/pound (Med Econ 2009).**

**DOES NOT INCLUDE HOSPITAL PERSONNEL HANDLING OF TRASH**  
**estimated to be 100% of cost of disposal (recovery, storage and disposal)**  
 (This is much higher in the UK and Western Europe, exact numbers not available)

Waste handling:  
 Cost Comparison (per year, same model):

	Disposable	Pemco
Suction devices	<b>\$345.00</b>	<b>ZERO \$</b>
Coronary cannula	<b>\$290.00</b>	<b>ZERO \$</b>



**PEMCO REUSABLE SUCTION AND CARDIOPLEGIA PRODUCTS  
ARE BETTER FOR THE HOSPITAL AND THE ENVIRONMENT!**

**PRODUCT: Coronary cardioplegia cannula Model example- 200 cases per year**

Disposable (\$26 ea.)	Pemco (\$700 ea.)
200 x \$26 = \$5,200	\$2,100 (3 units)
<b>SPD</b> <u>    0</u>	<u>   200</u>
\$5,200	\$2,300
<b>HAZMAT</b> <u>  \$650</u>	<u>    0</u>
\$5,850	<b>\$2,300</b>

**OPPORTUNITY: A 61% savings in 1 year!.**

**PRODUCT: Cardiac suction handles and tips Model example- 200 cases per year**

Disposable (\$18.50)	Pemco (\$540.00)
200 x 18.50 = \$3,700	\$1,620 (3 units)
<b>SPD</b> <u>    0</u>	<b>SPD</b> <u>   200</u>
\$3,700	\$1,820
<b>HAZMAT</b> <u>  \$735</u>	<u>    0</u>
\$4,435	<b>\$1,820</b>

**OPPORTUNITY: A 59% savings in one year!**

**THE COSTS OF HANDLING DISPOSABLE PRODUCTS GOES UP EVERY MONTH**

- licensing
- handling
- risk management
- inventory
- WASTE! Packaging, plastics, HAZMAT!

**PEMCO PRODUCTS**

PROVEN SAFE AND EFFECTIVE FOR 50 YEARS.

- NO WASTE
- ROUTINE HANDLING
- PART OF YOUR SYSTEM
- CUSTOMIZED TO YOUR NEEDS



**Note: Many procedures use both devices on the same case, and more than one- the cost/risk calculation is in reality HIGHER!**

**COST CALCULATION FACTORS:** Many customers use different sources and repackaging (pack makers) for these products. Cost factors are easily hidden in this process. This makes the cost of the packs less expensive when the reusable product is purchased.

Pricing sensitivity is very high in Western Europe as it is in the rest of the world- cost factor analysis favors the socialized medical program using reusable components- efficiency and central processing programs are enhanced with proper stocking of the equipment in central as well as regional locations, to avoid not having critical supply issues for procedure completion.

The price point of Pemco products are reasonable and justifiable in the current and future economic climate. The idea of disposable products are that they are BETTER because they don't need to be cleaned, they are made better, etc. They are not. A reusable product, handled correctly (training and in-servicing), and used for its intended purpose is superior. Selling reusable products includes service, customer support and an integral partnership with the customer.