

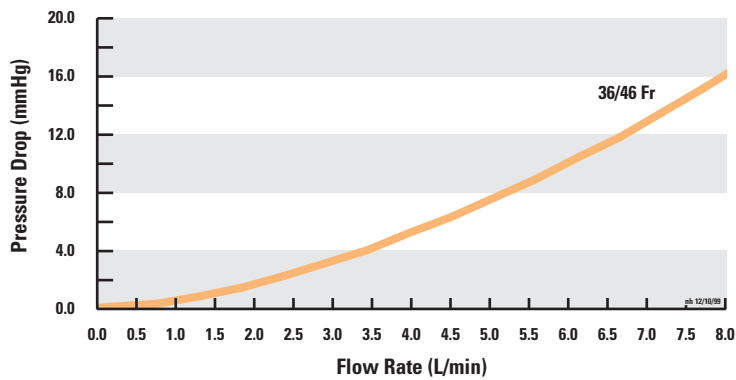


Sarns™ Venoatrial Catheters

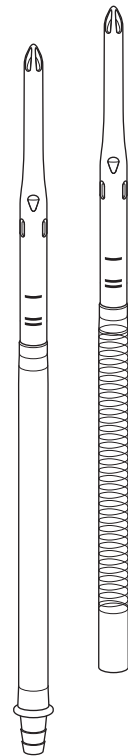
To drain the right atrium and inferior vena cava

PRESSURE DROP VS. FLOW RATE SARNST™ VENOATRIAL CATHETERS

Terumo in vitro evaluation. Data obtained with water.



Sarns™ Venoatrial Catheters



▶ Ordering Information

DESCRIPTION	CATALOG NO.	UNITS/CASE
Non-wire		
36/46 Fr with 1/2" flare, 15.5" (39 cm) long	164505	20
Wire reinforced		
Ⓢ 36/46 Fr with 1/2" flare, 15.5" (39 cm) long	164525	20
36/46 Fr with 1/2" connector, 17.0" (43 cm) long	4440	20

Sarns™ Venoatrial Catheters U.S. patent 4,863,441

✓ Features

Sarns™ Venoatrial Catheters

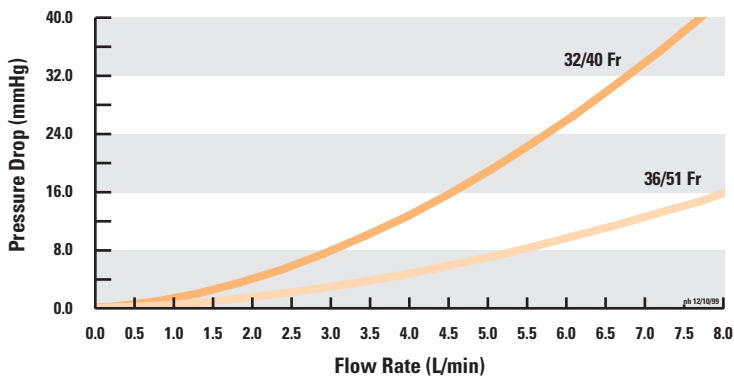
- Back-drafted collector holes
- Internal flow directors
- Reduced turbulence



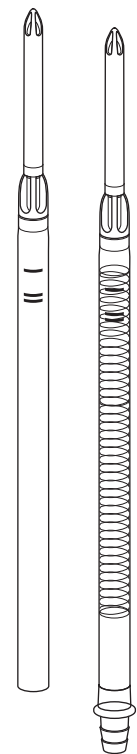
Sarns™ Two-stage Venous Return Catheters

To drain the right atrium and vena cava with a single conical-tipped catheter

PRESSURE DROP VS. FLOW RATE SARNST™ TWO-STAGE VENOUS RETURN CATHETERS
Terumo in vitro evaluation. Data obtained with water.



Sarns™ Two-stage Venous Return Catheters



▶ Ordering Information

DESCRIPTION	CATALOG NO.	UNITS/CASE
Non-wire		
Ⓢ 36/51 Fr with 1/2" flare, 15.5" (39 cm) long	12340	20
36/51 Fr with 1/2" connector, 17.0" (43 cm) long	4441	20
Wire reinforced		
32/40 Fr with 3/8" flare, 15.5" (39 cm) long	14992	20
32/40 Fr with 1/2" connector, 17.0" (43 cm) long	4442	20
Ⓢ 36/51 Fr with 1/2" flare, 15.5" (39 cm) long	15949	20
36/51 Fr with 1/2" connector, 17.0" (43 cm) long	4443	20

✓ Features

Sarns™ Two-stage Venous Return Catheters

- Rigid, tapered transition
- Bullet tip and insertion depth markers

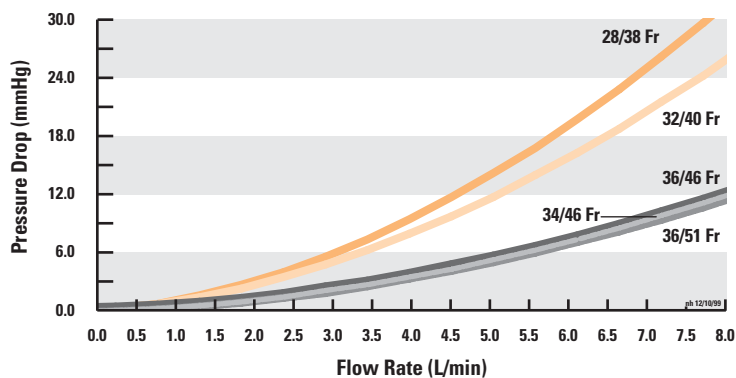


Sarns™ Dual-stage Venous Return Catheters

To drain the right atrium and vena cava with a single-piece construction catheter

PRESSURE DROP VS. FLOW RATE SARNST™ DUAL-STAGE VENOUS RETURN CATHETERS

Terumo in vitro evaluation. Data obtained with water.



Sarns™ Dual-stage Venous Return Catheters



▶ Ordering Information

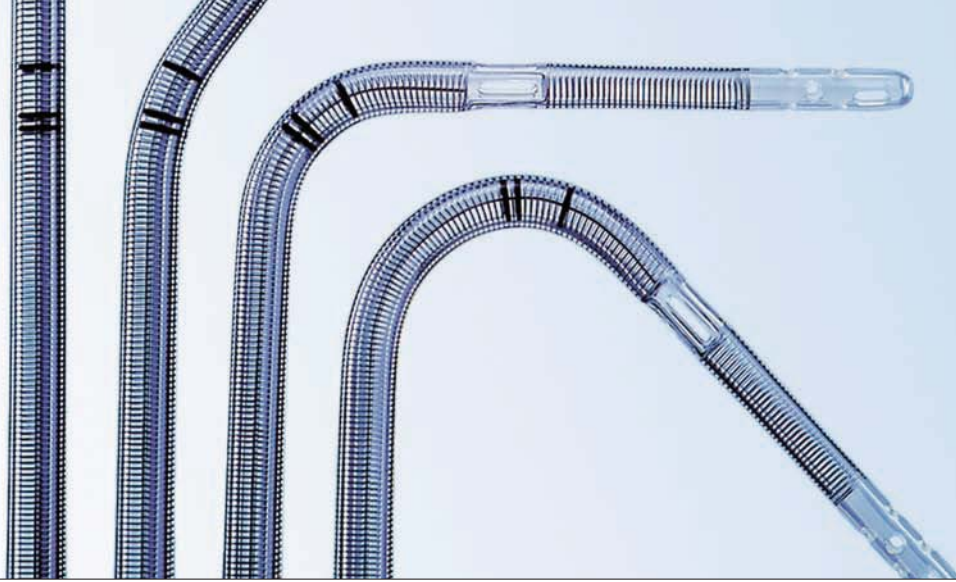
DESCRIPTION	CATALOG NO.	UNITS/CASE
Wire reinforced		
28/38 Fr with 1/2" flare, 15" (38 cm) long	16471	20
28/38 Fr with 1/2" connector, 16" (41 cm) long	4864	20
32/40 Fr with 1/2" flare, 15" (38 cm) long	16472	20
32/40 Fr with 1/2" connector, 16" (41 cm) long	4865	20
34/46 Fr with 1/2" flare, 15" (38 cm) long	16473	20
Ⓢ 34/46 Fr with 1/2" connector, 16" (41 cm) long	4866	20
36/46 Fr with 1/2" flare, 15" (38 cm) long, with X Coating™	16474X	10
36/46 Fr with 1/2" connector, 16" (41 cm) long	4867	20
36/51 Fr with 1/2" flare, 15" (38 cm) long	16475	20
Ⓢ 36/51 Fr with 1/2" connector, 16" (41 cm) long	4868	20

✓ Features

Sarns™ Dual-stage Venous Return Catheters

- Single-piece construction
- Efficient venous drainage
- Thin, flexible and kink resistant
- Wire reinforced atrial basket
- Available with X Coating™

Xcoating™ is Terumo's own biocompatible hydrophilic polymer surface coating

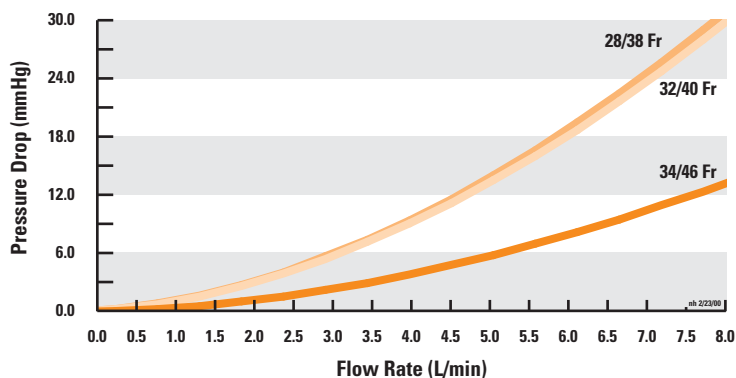


Sarns™ Malleable Dual-stage Venous Return Catheters

To drain the right atrium and inferior vena cava with a single-piece construction catheter

PRESSURE DROP VS. FLOW RATE SARNST™ MALLEABLE DUAL-STAGE VENOUS RETURN CATHETERS

Terumo in vitro evaluation. Data obtained with water.



Sarns™ Malleable Dual-stage Venous Return Catheters



▶ Ordering Information

DESCRIPTION	CATALOG NO.	UNITS/CASE
Wire reinforced		
28/38 Fr with 1/2" connector, 14.5" (37 cm) long	4934	10
28/38 Fr with 1/2" connector, 14.5" (37 cm) long, with X Coating™	4934X	10
Ⓢ 32/40 Fr with 1/2" connector, 15.0" (38 cm) long	4935	10
Ⓢ 34/46 Fr with 1/2" connector, 15.0" (38 cm) long	4936	10
34/46 Fr with 1/2" connector, 15.0" (38 cm) long, with X Coating™	4936X	10

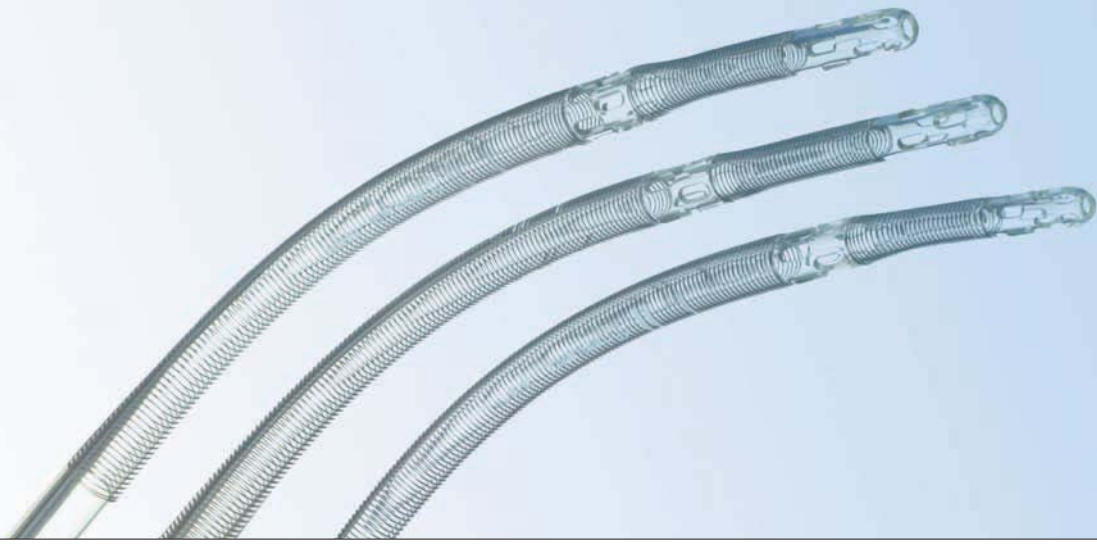
✓ Features

Sarns™ Malleable Dual-stage Venous Return Catheters

- Shape retention
- Ease of positioning
- Single-piece construction with open lighthouse tip and wire reinforced malleable tubing
- Available with X Coating™

Xcoating™ is Terumo's own biocompatible hydrophilic polymer surface coating

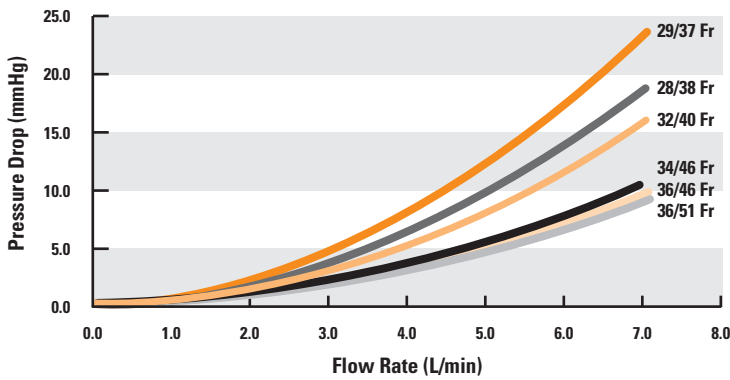
Ⓢ standard item – delivery from stock



Terumo® Dual-stage Venous Return Cannulae

Redesigned to meet the needs of surgeons

PRESSURE DROP VS. FLOW RATE TERUMO® DUAL-STAGE VENOUS RETURN CANNULAE
Terumo in vitro evaluation. Data obtained with water.



Terumo® Dual-stage Venous Return Cannulae with connector



Terumo® Dual-stage Venous Return Cannulae with flare

Ordering Information

DESCRIPTION	CATALOG NO.	UNITS/CASE
Length: (with flare) 15" (38 cm), (with connector) 16" (41 cm)		
28/38 Fr with 1/2" flare	813579	10
28/38 Fr with 1/2" connector	813580	10
29/37 Fr with 1/2" flare	813581	10
29/37 Fr with 1/2" connector	813582	10
32/40 Fr with 1/2" flare	813583	10
Ⓢ 32/40 Fr with 1/2" connector	813584	10
34/46 Fr with 1/2" flare	813585	10
Ⓢ 34/46 Fr with 1/2" connector	813586	10
36/46 Fr with 1/2" flare	813587	10
Ⓢ 36/46 Fr with 1/2" connector	813588	10
36/51 Fr with 1/2" flare	813589	10
36/51 Fr with 1/2" connector	813590	10

Features

Terumo® Dual-stage Venous Return Cannulae

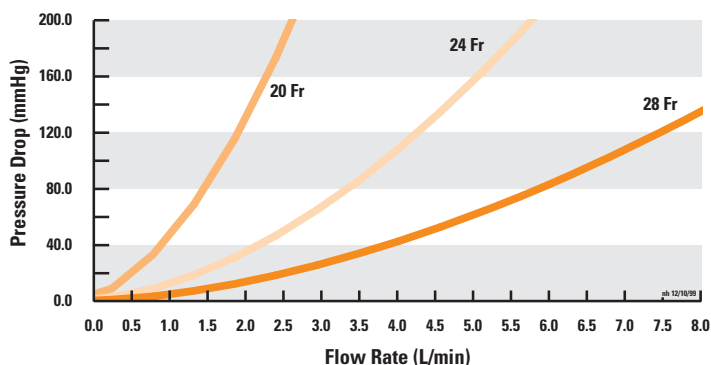
- Better flow performance
- Extreme flexibility
- Reduced damage to vessels

Sarns™ Venous Return Catheters

To drain the superior or inferior vena cava

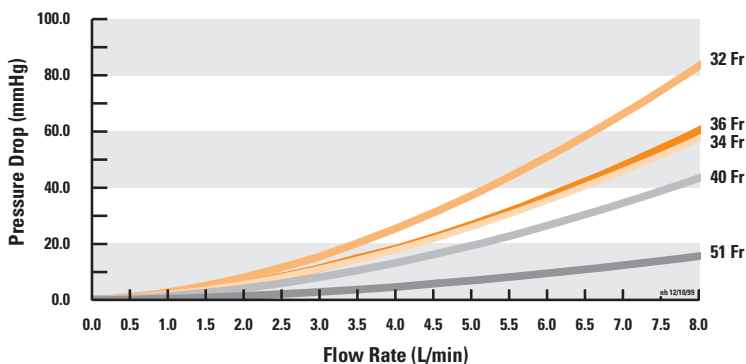
PRESSURE DROP VS. FLOW RATE SARNST™ VENOUS RETURN CATHETERS, STRAIGHT BULLET TIP, 20-28 FR

Terumo in vitro evaluation. Data obtained with water.



PRESSURE DROP VS. FLOW RATE SARNST™ VENOUS RETURN CATHETERS, STRAIGHT BULLET TIP, 32-51 FR

Terumo in vitro evaluation. Data obtained with water.



Ordering Information

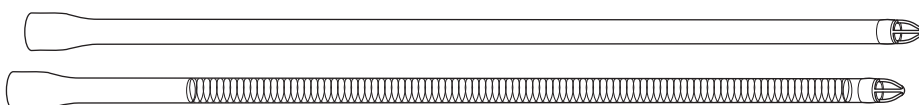
DESCRIPTION	CATALOG NO.	UNITS/CASE
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Non-wire, straight bullet tip

28 Fr with 3/8" flare, 15.5" (39 cm) long	946420
32 Fr with 3/8" flare, 15.5" (39 cm) long	1230020
34 Fr with 3/8" flare, 15.5" (39 cm) long	9468	.....20
36 Fr with 3/8" flare, 15.5" (39 cm) long	4329	.....20
40 Fr with 3/8" flare, 15.5" (39 cm) long	11070	.....20
51 Fr with 1/2" flare, 15.5" (39 cm) long	4337	.....20

Wire reinforced, straight bullet tip

20 Fr with 1/4" flare, 14.5" (37 cm) long	9473	.....20
⊗ 24 Fr with 3/8" flare, 14.5" (37 cm) long	9453	.....20
28 Fr with 3/8" flare, 14.5" (37 cm) long	9465	.....20
⊗ 32 Fr with 3/8" flare, 14.5" (37 cm) long	14032	.....20
⊗ 34 Fr with 3/8" flare, 14.5" (37 cm) long	9469	.....20
⊗ 36 Fr with 3/8" flare, 14.5" (37 cm) long	14036	.....20
40 Fr with 3/8" flare, 14.5" (37 cm) long	14040	.....20



Features

Sarns™ Venous Return Catheters

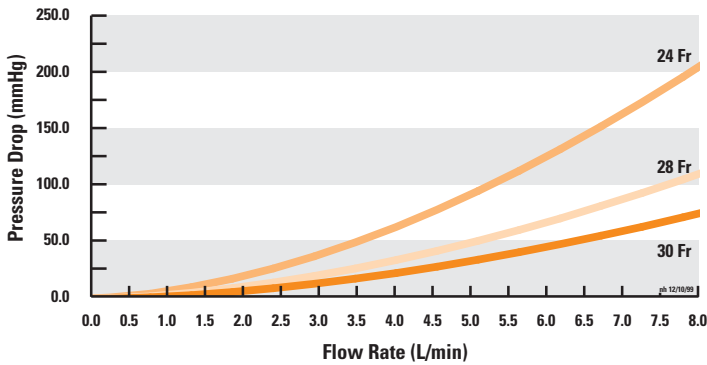
- Available in wire reinforced or non-wire tubing
- Large selection of sizes



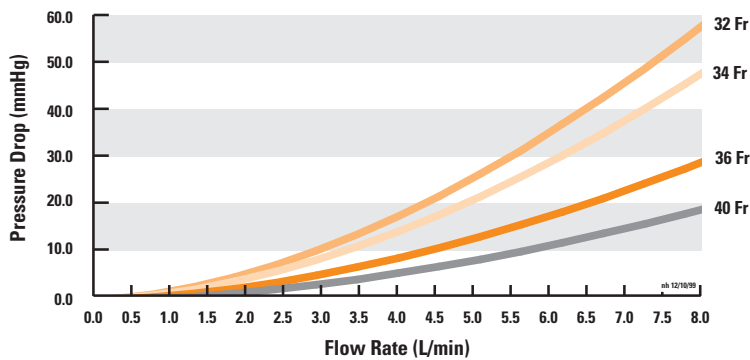
Sarns™ Malleable Venous Return Catheters

To drain the superior or inferior vena cava

PRESSURE DROP VS. FLOW RATE SARNST™ MALLEABLE VENOUS RETURN CATHETERS, 24-30 FR
Terumo in vitro evaluation. Data obtained with water.



PRESSURE DROP VS. FLOW RATE SARNST™ MALLEABLE VENOUS RETURN CATHETERS, 32-40 FR
Terumo in vitro evaluation. Data obtained with water.



Ordering Information

DESCRIPTION	CATALOG NO.	UNITS/CASE
Wire reinforced, lighthouse tip		
Ⓢ 24 Fr with 3/8" flare, 14" (35 cm) long	4881	10
24 Fr with 3/8" flare, 14" (35 cm) long, with X Coating™	4881X	10
Ⓢ 28 Fr with 3/8" flare, 16" (41 cm) long	4882	10
28 Fr with 3/8" flare, 16" (41 cm) long, with X Coating™	4882X	10
Ⓢ 30 Fr with 3/8" flare, 16" (41 cm) long	4883	10
30 Fr with 3/8" flare, 16" (41 cm) long, with X Coating™	4883X	10
Ⓢ 32 Fr with 3/8" flare, 16" (41 cm) long	4884	10
32 Fr with 3/8" flare, 16" (41 cm) long, with X Coating™	4884X	10
Ⓢ 34 Fr with 3/8" flare, 16" (41 cm) long	4885	10
34 Fr with 3/8" flare, 16" (41 cm) long, with X Coating™	4885X	10
Ⓢ 36 Fr with 1/2" flare, 16" (41 cm) long	4886	10
36 Fr with 1/2" flare, 16" (41 cm) long, with X Coating™	4886X	10
40 Fr with 1/2" flare, 16" (41 cm) long	4887	10



Sarns™ Malleable Venous Return Catheters



Features

Sarns™ Malleable Venous Return Catheters

- Single-piece construction
- Shape retention
- Open lighthouse tip
- Wire reinforced
- Available with X Coating™

Xcoating™ is Terumo's own biocompatible hydrophilic polymer surface coating

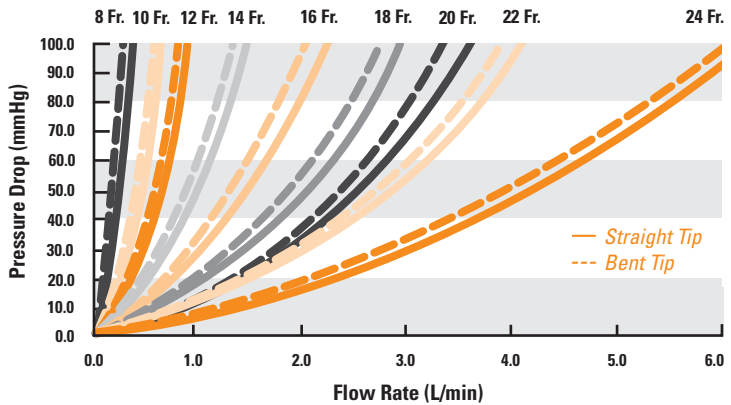
Ⓢ standard item – delivery from stock



TenderFlow™ Pediatric Venous Return Cannulae

Developed for pediatric surgeons and their smallest patients

PRESSURE DROP VS. FLOW RATE TENDERFLOW™ PEDIATRIC VENOUS RETURN CANNULAE
Terumo in vitro evaluation. Data obtained with water.



TenderFlow™ Pediatric Venous Return Cannulae

▶ Ordering Information

DESCRIPTION	CATALOG NO.	UNITS/CASE
Straight: 12" (30.5 cm) long, bent: 11.5" (29.2 cm) long		
2.7 mm (8 Fr) with 1/4" flare, WR	813541	10
2.7 mm (8 Fr) with 1/4" flare, WR, bent tip	813542	10
3.3 mm (10 Fr) with 1/4" flare, WR	813543	10
3.3 mm (10 Fr) with 1/4" flare, WR, bent tip	813544	10
4.0 mm (12 Fr) with 1/4" flare, WR	813545	10
4.0 mm (12 Fr) with 1/4" flare, WR, bent tip	813546	10
4.7 mm (14 Fr) with 1/4" flare, WR	813547	10
4.7 mm (14 Fr) with 1/4" flare, WR, bent tip	813548	10
5.3 mm (16 Fr) with 1/4" flare, WR	813549	10
5.3 mm (16 Fr) with 1/4" flare, WR, bent tip	813550	10
6.0 mm (18 Fr) with 1/4" flare, WR	813551	10
6.0 mm (18 Fr) with 1/4" flare, WR, bent tip	813552	10
6.0 mm (18 Fr) with 3/8" flare, WR	813553	10
6.0 mm (18 Fr) with 3/8" flare, WR, bent tip	813554	10
6.7 mm (20 Fr) with 1/4" flare, WR	813555	10
6.7 mm (20 Fr) with 1/4" flare, WR, bent tip	813556	10
6.7 mm (20 Fr) with 3/8" flare, WR	813557	10
6.7 mm (20 Fr) with 3/8" flare, WR, bent tip	813558	10
7.3 mm (22 Fr) with 1/4" flare, WR	813559	10
7.3 mm (22 Fr) with 1/4" flare, WR, bent tip	813560	10
7.3 mm (22 Fr) with 3/8" flare, WR	813561	10
7.3 mm (22 Fr) with 3/8" flare, WR, bent tip	813562	10
8.0 mm (24 Fr) with 3/8" flare, WR	813565	10
8.0 mm (24 Fr) with 3/8" flare, WR, bent tip	813566	10

✓ Features

- TenderFlow™ Pediatric Venous Return Cannulae*
- Wide range of sizes
 - Step-down design
 - Straight and bent tips

WR: wire reinforced

Ⓢ standard item – delivery from stock