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Ordering and Warranty Information

Pricing:

Prices stated in specific written quotations are firm for thirty days from the date given, and are otherwise subject to change without prior notice. Pricing terms stated on written agreements are governed by such agreements.

Minimum Order Requirements:

Minimum order requirement is \$100 (a \$10 handling charge will be added to any order under \$100). For partial case orders, contact the Customer Service Department for quotation.

Shipments:

F.O.B. Integra NeuroSciences point of shipment within the continental United States. Shipping costs (including freight and insurance), shall be prepaid by Integra NeuroSciences and invoiced to customers.

Ordering Procedure:

A written purchase order on customer's form may be requested for purchases of Integra NeuroSciences products.

Acceptance of Orders:

Orders are accepted upon approval by Integra NeuroSciences in Plainsboro, New Jersey.

Return Policy:

- Authorization number must be obtained prior to returning product.
- Sterile product must be returned in unopened, undamaged cartons, packed to prevent damage.
- Non-sterile product must be returned in unused saleable condition.
- Custom or special order products will not be accepted for credit.
- Credit will be issued subject to the following:
 - a) Goods returned prior to 3 months from ship date...20% restocking charge.
 - b) Goods returned between 3 and 6 months of ship date...50% restocking charge.
 - c) Goods will not be accepted for credit after 6 months.

Customer Service Department:

Integra NeuroSciences
105 Morgan Lane
Plainsboro, New Jersey 08536
(800) 997-4868 (USA/Canada)
(800) 654-2873 (USA/Canada)
(609) 275-0500 (Outside USA)
Fax: (609) 275-5363

Integra NeuroSciences
Newbury Road
Andover
Hampshire SP10 4DR England
Telephone: +44 (0) 1264 345 700
Fax: +44 (0) 1264 332 113
www.Integra-NeuroSciences.com

Integra NeuroSciences Limited Warranty

INTEGRA NEUROSCIENCES warrants that each new INTEGRA NEUROSCIENCES product is free from defects in material and workmanship under normal use and service for a period of two (2) years (except as otherwise expressly provided as to accessory items) from the date of delivery by INTEGRA NEUROSCIENCES to the first purchaser, but not beyond the "Expiration" date stated on any product labeling. Surgical instruments are guaranteed to be free from defects in material and workmanship when used normally for their intended purpose. Any covered product which is placed by INTEGRA NEUROSCIENCES under a lease, rental or installment purchase agreement and which requires repair service during the term of such placement agreement shall be repaired in accordance with the terms of such agreement. If any such defect occurs during the warranty period or term of such placement agreement, the purchaser should communicate directly with the INTEGRA NEUROSCIENCES home office. If returned to INTEGRA NEUROSCIENCES at its home office, repair or replacement will be carried out at INTEGRA NEUROSCIENCES sole discretion, at INTEGRA NEUROSCIENCES expense, subject to the terms of this warranty and applicable agreements. The defective product should be returned promptly, properly packaged and postage prepaid. Loss or damage in return shipment to INTEGRA NEUROSCIENCES shall be at CUSTOMER's risk.

IN NO EVENT SHALL INTEGRA NEUROSCIENCES BE LIABLE FOR ANY INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE ACQUISITION OR USE OF ANY INTEGRA NEUROSCIENCES PRODUCT. Further, this warranty shall not apply to, and INTEGRA NEUROSCIENCES shall not be responsible for, any loss arising in connection with the purchase or use of any INTEGRA NEUROSCIENCES product which has been repaired by anyone other than an authorized INTEGRA NEUROSCIENCES service representative or altered in any way so as, in INTEGRA NEUROSCIENCES judgement, to affect its stability or reliability, or which has been subject to misuse, negligence or accident, or which has been used otherwise than in accordance with the instructions furnished by INTEGRA NEUROSCIENCES. This limited warranty is exclusive and in lieu of all other warranties, express or implied, and of all other obligations or liabilities on INTEGRA NEUROSCIENCES part and INTEGRA NEUROSCIENCES neither assumes nor authorizes any representative or other person to assume for it any other liability in connection with INTEGRA NEUROSCIENCES products.

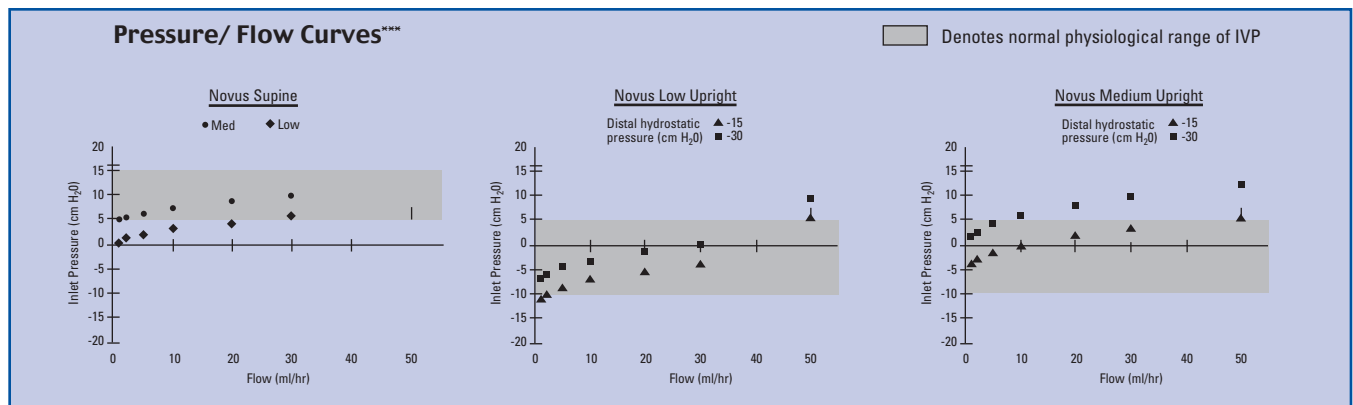
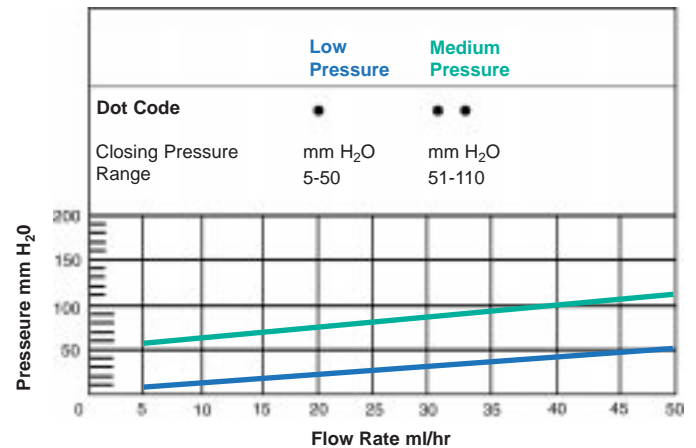
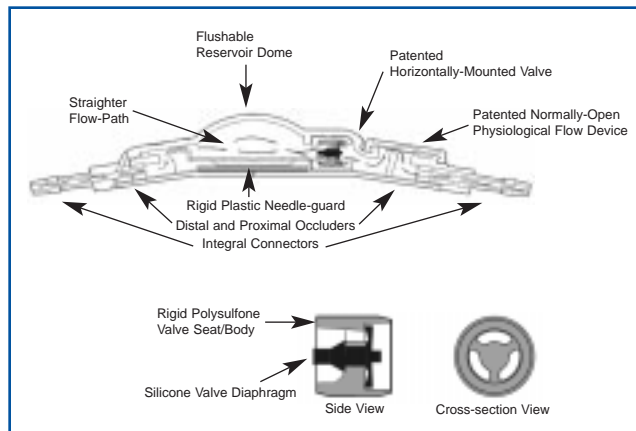
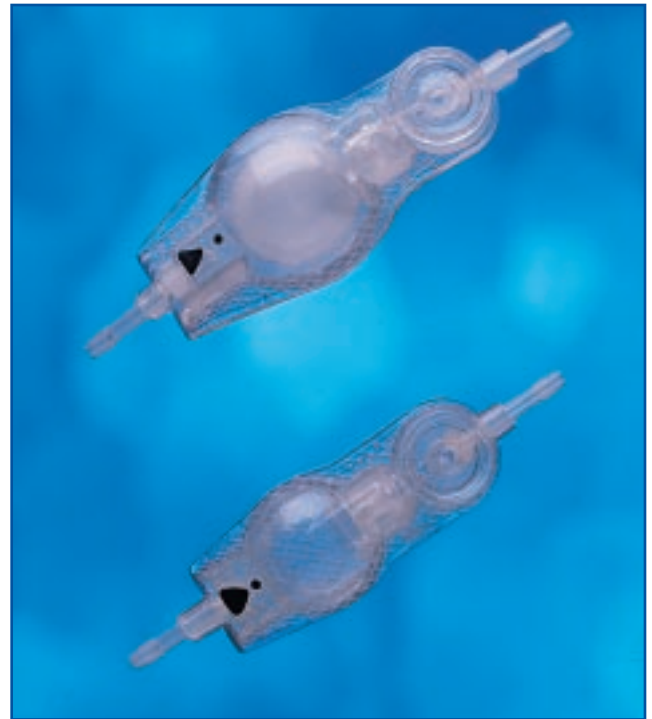
INTEGRA NEUROSCIENCES DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR APPLICATION OR WARRANTY OF QUALITY, OTHER THAN THOSE EXPRESSLY SET FORTH IN THE PRODUCT LABELING, INCLUDING THE APPLICABLE USER INFORMATION. The foregoing shall not relieve INTEGRA NEUROSCIENCES from strict tort liability, if otherwise applicable under governing law, for damages for personal injury caused by a product defect that made the product unreasonably dangerous at the time it was sold or placed.

Novus® Valve

The pressure/flow performance of the Novus Valve was specifically designed to resemble the characteristics of normal, healthy CSF physiology. Novus features an integral Anti-Siphon Device based on our normally-open design. This proven Heyer-Schulte innovation minimizes gravity-induced overdrainage when a patient sits or stands, maintaining intraventricular pressure within the normal physiologic range.

In addition, Novus's patented** horizontally-mounted T-valve mechanism allows a straighter flow path; the rigid plastic valve housing and polypropylene needle guard reduces the risk of improper needle placement when accessing the reservoir; and proximal and distal occluders permit selective flushing and patency testing. All Novus Valves include integral connectors to facilitate catheter connection, and are designed with no metal parts that can interfere with CT or MRI scans.

Novus is available in both standard and mini sizes. Because the normally-open configuration of our Anti-Siphon Device adds variable resistance to flow only as required by change in patient position, the flexibility to meet a variety of patient needs is obtained with two pressure ranges.



** U.S. Patent No. 4,781,674
*** Data on File

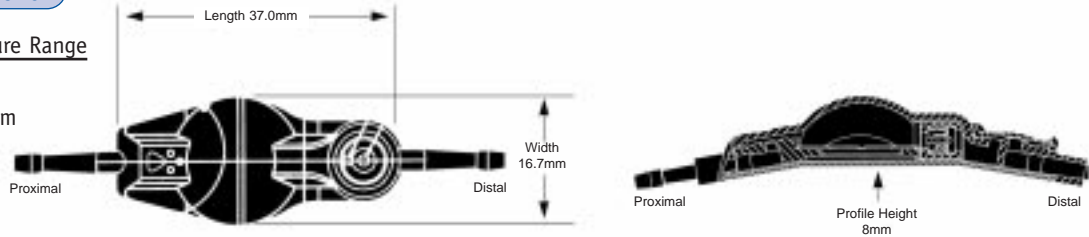
CSF Valves and Shunt Kits

Novus® Valve, Standard

Each Novus® Valve is packaged with a barium-impregnated silicone right angle ventricular catheter guide.

Novus® Valve, Standard

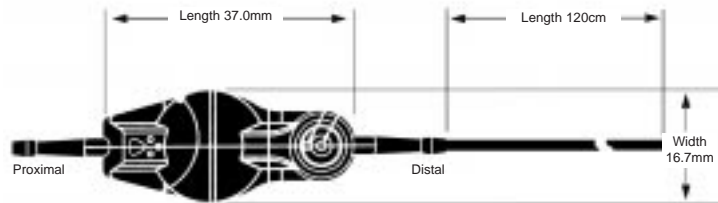
Catalog #	Pressure Range
NL850-9010	Low
NL850-9020	Medium



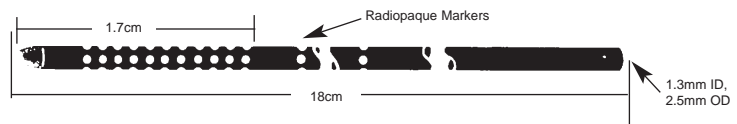
Novus® Shunt Kit, Standard

Each Standard Novus Shunt Kit contains:

- One (1) Standard Novus Valve with Integral 120cm open-ended, barium embedded striped peritoneal catheter.
- One (1) 18cm standard Pudenz ventricular catheter with stylet.
- One (1) barium-impregnated silicone right-angle ventricular catheter guide.



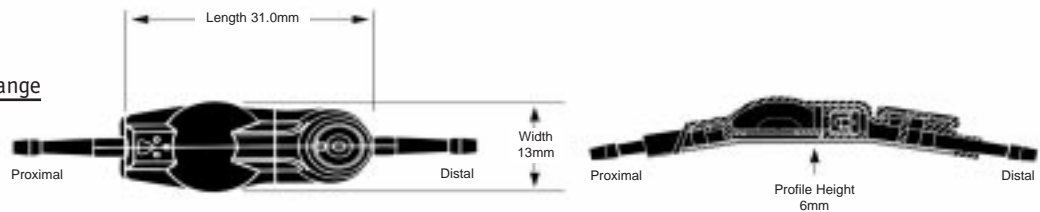
Catalog #	Pressure Range
NL850-9610	Low
NL850-9620	Medium



Novus® Valve, Mini

Novus® Valve, Mini

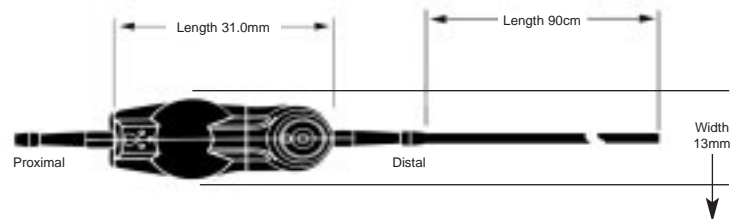
Catalog #	Pressure Range
NL850-9011	Low
NL850-9021	Medium



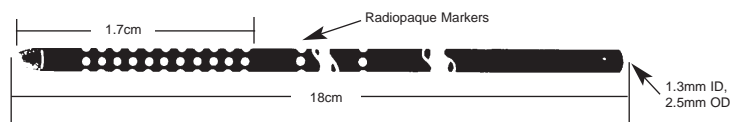
Novus® Shunt Kit, Mini

Each Mini Novus Shunt Kit contains:

- One (1) Mini Novus Valve with Integral 120cm open-ended, barium embedded striped peritoneal catheter.
- One (1) 18cm standard Pudenz ventricular catheter with stylet.
- One (1) barium-impregnated silicone right-angle ventricular catheter guide.



Catalog #	Pressure Range
NL850-9311	Low
NL850-9321	Medium

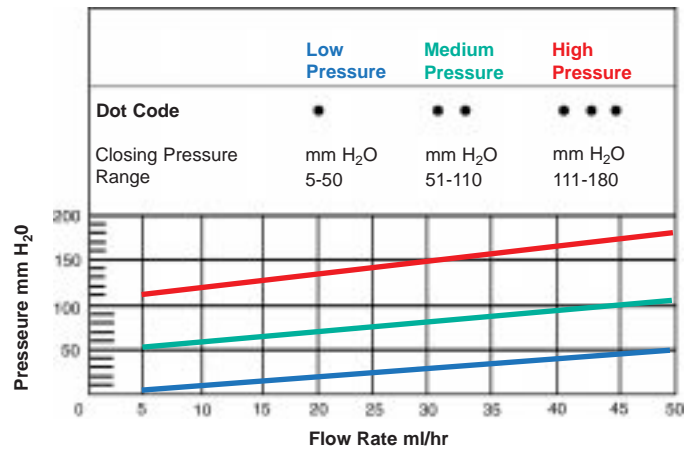
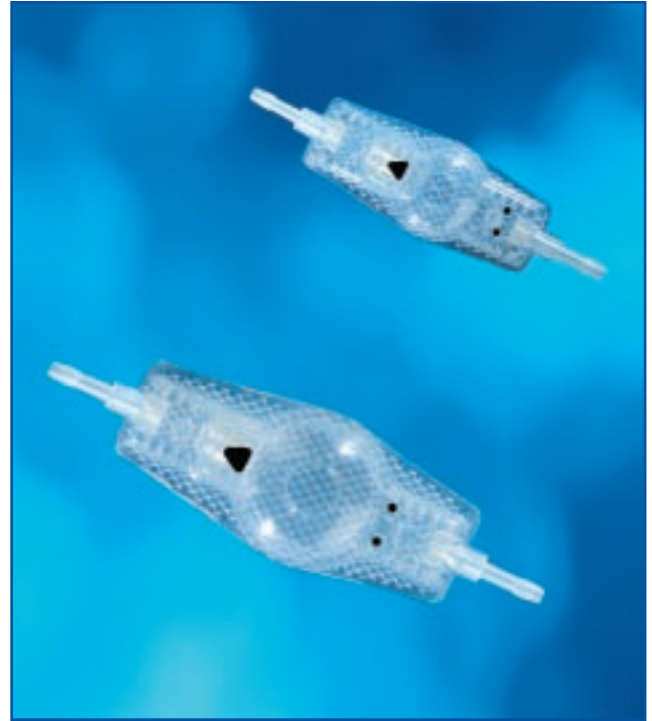


LPV® II Valve

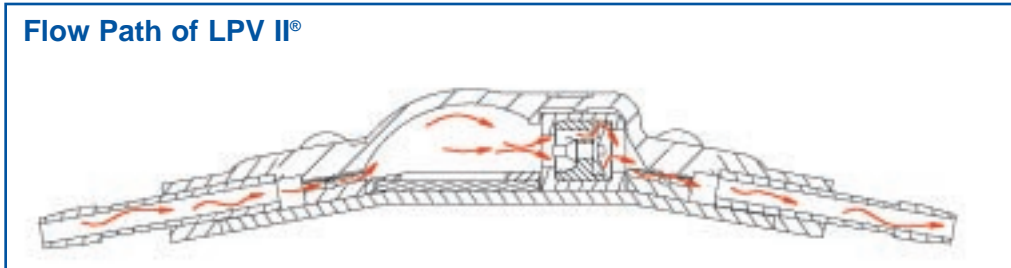
The original flat-bottom, low-profile, diaphragm CSF valve has been improved. The LPV II incorporates a patented* horizontal T-valve mechanism as well as an improved occluder design. These innovations create the most direct CSF flow path of any available flat bottom valve. This simple flow pattern helps to reduce occlusion rates, even in cases of abnormally high CSF protein. The rigid valve housing and polypropylene needle guard reduces the risk of accidental needle damage.

All LPV II valves include integral connectors to facilitate catheter connection, as well as an injectable domed reservoir. Occluders are located both proximal and distal to the valve mechanism, allowing for flushing and patency testing in both directions. LPV II valves are designed with no metal parts that can interfere with CT and MRI scans. Radiopaque markings demonstrate flow direction and pressure range.

LPV II is available in both standard and mini sizes as well as three pressure ranges to accommodate a wide variety of patient requirements.



Flow Path of LPV II®



* U.S. Patent No. 4,781,674

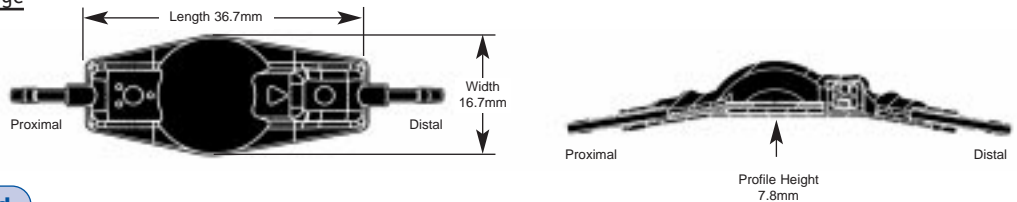
CSF Valves and Shunt Kits

LPV® II Valve, Standard

Each LPV®II Valve is packaged with a barium-impregnated silicone right angle ventricular catheter guide.

LPV® II Valve, Standard

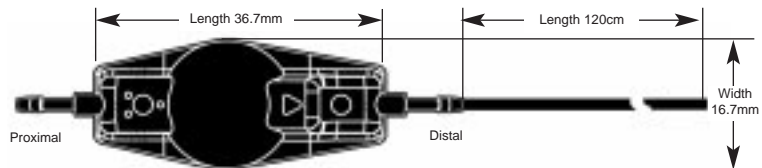
Catalog #	Pressure Range
NL850-9810	Low
NL850-9820	Medium
NL850-9830	High



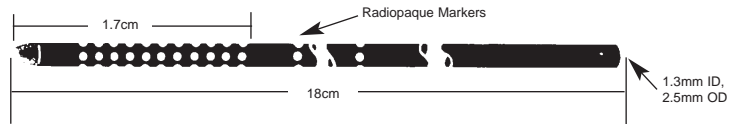
LPV® II Shunt Kit, Standard

Each Standard LPV®II Shunt Kit contains:

- One (1) Standard LPV II Valve with Integral 120cm open-ended, barium embedded striped peritoneal catheter.
- One (1) 18cm standard Pudenz ventricular catheter with stylet.
- One (1) barium-impregnated silicone right-angle ventricular catheter guide.



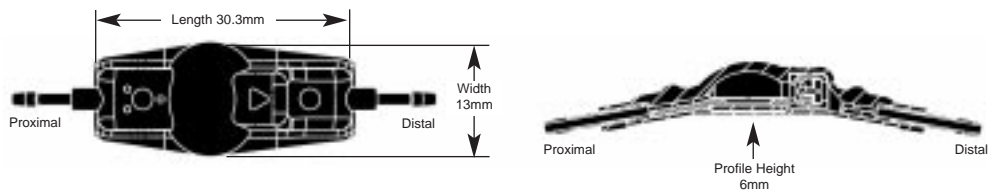
Catalog #	Pressure Range
NL850-9840	Low
NL850-9850	Medium
NL850-9860	High



LPV® II Valve, Mini

LPV® II Valve, Mini

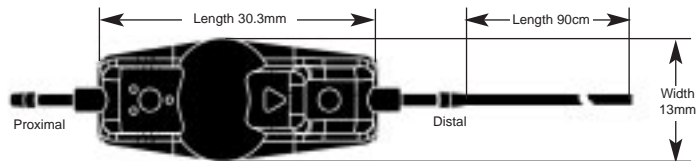
Catalog #	Pressure Range
NL850-9811	Low
NL850-9821	Medium
NL850-9831	High



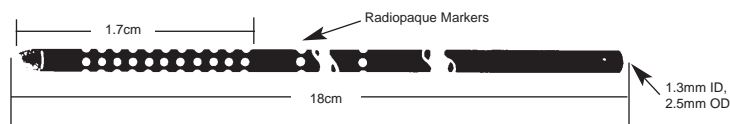
LPV® II Shunt Kit, Mini

Each Mini LPV®II Shunt Kit contains:

- One (1) Mini LPV II Valve with Integral 120cm open-ended, barium embedded striped peritoneal catheter.
- One (1) 18cm standard Pudenz ventricular catheter with stylet.
- One (1) barium-impregnated silicone right-angle ventricular catheter guide.



Catalog #	Pressure Range
NL850-9841	Low
NL850-9851	Medium
NL850-9861	High



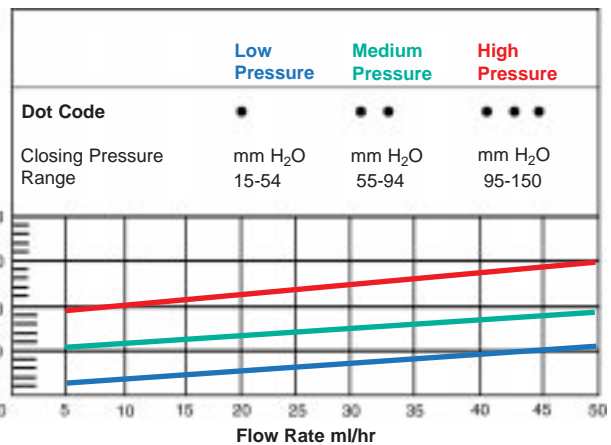
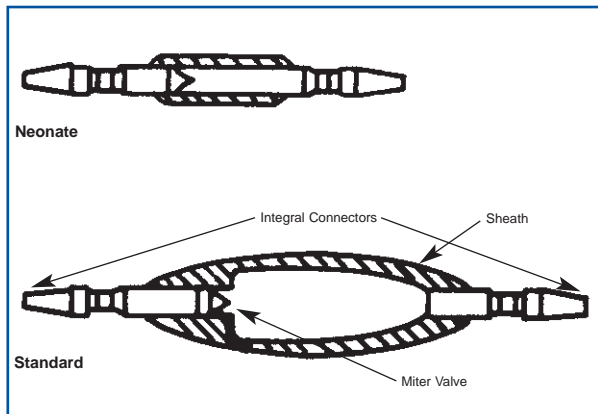
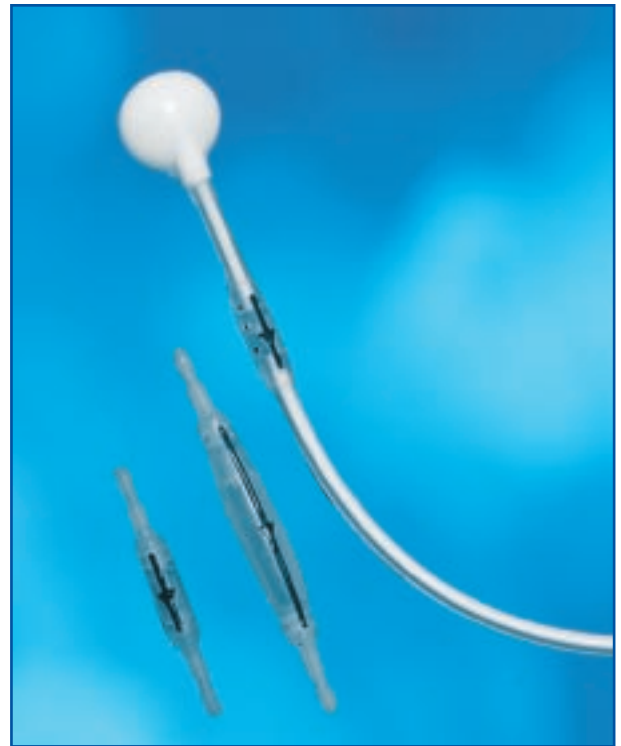
Ultra VS Cylindrical

The simple cylindrical shape of UltraVS lowers the profile of the valve system in order to reduce the risk of skin erosion. At only 13mm long and 3.8mm wide, the UltraVS Neonate is the smallest valve manufactured, and the Heyer-Schulte® valve most appropriate for neonatal patients.

UltraVS incorporates a miter valve mechanism, a design that naturally opens more slowly in response to hydrostatic pressure than a diaphragm type valve. The direct flow path of the UltraVS easily resists occlusion even in cases of excessively high protein CSF.

All UltraVS Valves incorporate integral connectors to facilitate catheter connection. The addition of an integral injectable Rickham-style reservoir allows CSF sampling.

UltraVS Valves are available in two sizes, and each size is available in three pressure ranges. The availability of several different system configurations gives UltraVS the ultimate in system flexibility.

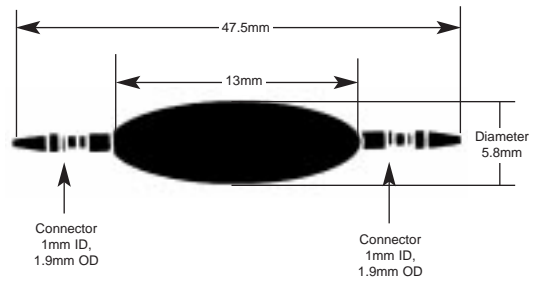


* Data on File

Ultra VS, Standard

Ultra VS Valve, Standard

Catalog #	Pressure Range
NL850-1109	Low
NL850-1110	Medium
NL850-1111	High

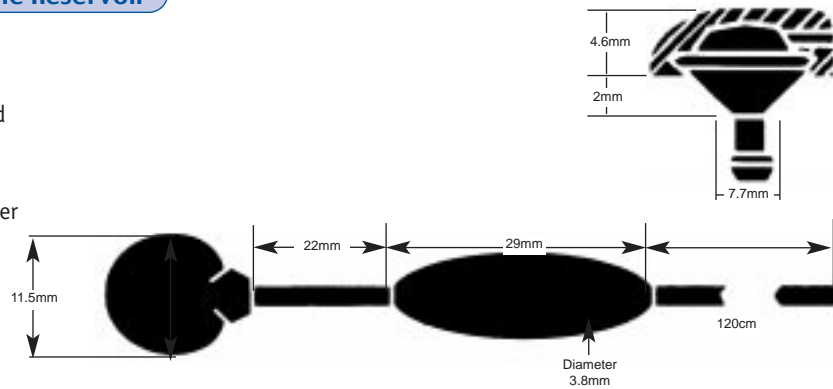


UltraVS Shunt Kit, Standard, Rickham-style Reservoir

Each Standard Ultra VS Shunt Kit contains:

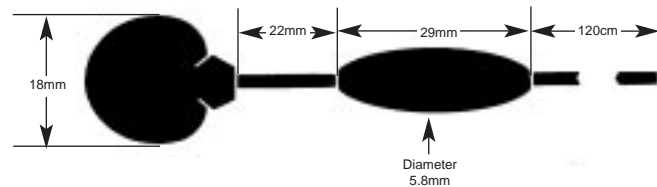
- One (1) Standard Ultra VS Valve with Integral 120cm, open-ended, barium embedded striped peritoneal catheter with side slits and Integral Rickham-style reservoir.
- One (1) 18cm small Pudenz ventricular catheter with stylet.

NL850-1113	Low
NL850-1114	Medium
NL850-1115	High



UltraVS Shunt Kit, Standard, with Large Rickham-style Reservoir

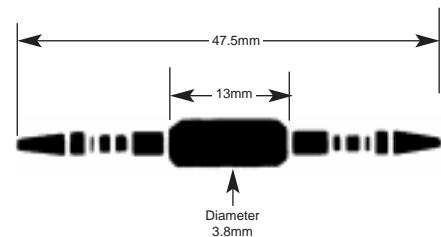
NL850-1129	Low
NL850-1130	Medium
NL850-1131	High



Ultra VS, Neonate

Ultra VS Valve, Neonate

Catalog #	Pressure Range
NL850-1126	Low
NL850-1127	Medium
NL850-1128	High

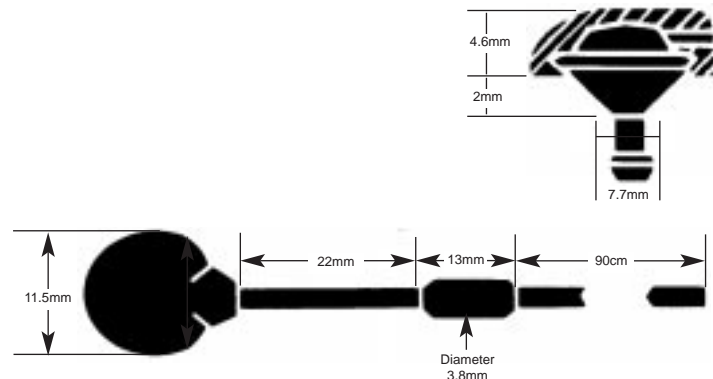


Ultra VS Shunt Kit, Neonate

Each Neonate Ultra VS Shunt Kit contains:

- One (1) Neonate Ultra VS Valve with Integral 90cm, open-ended, barium embedded striped peritoneal catheter with side slits and Integral Rickham-style reservoir.
- One (1) 18cm small Pudenz ventricular catheter with stylet.

NL850-1123	Low
NL850-1124	Medium
NL850-1125	High

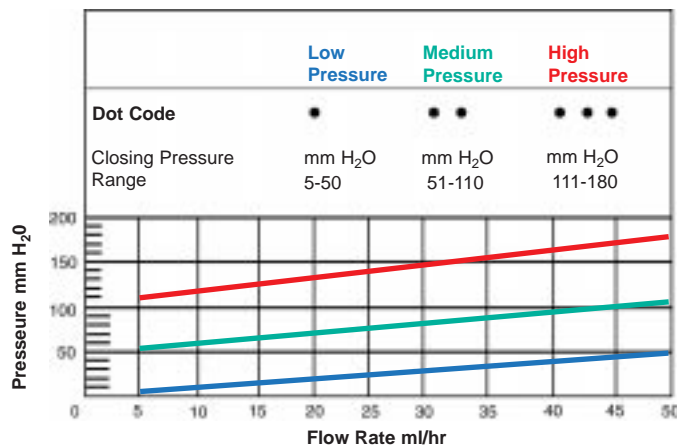


Pudenz

Heyer-Schulte®'s Pudenz Flushing Valves are available exclusively through Integra NeuroSciences.

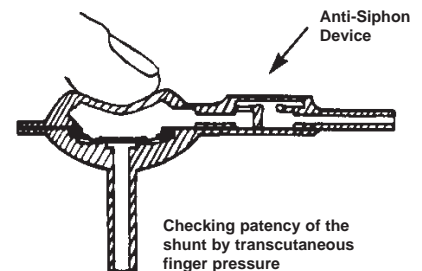
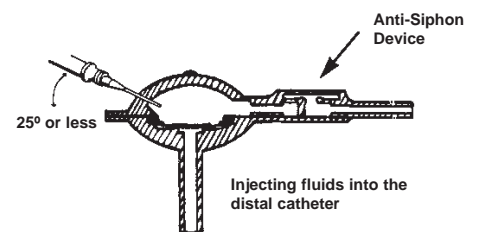
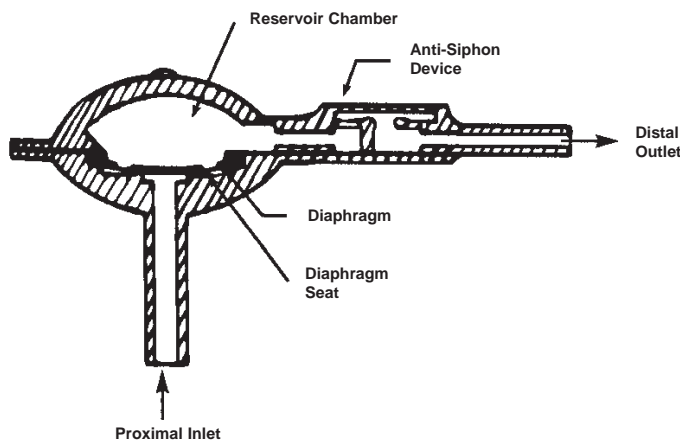
Reliability of performance and the widest variety of sizes and pressure ranges available have made Pudenz Valves the burr-hole valve of choice for over three decades. The addition of integral connectors to facilitate catheter attachment as well as the availability of an integral Anti-Siphon Device provide unmatched flexibility in meeting a variety of patient requirements.

All Pudenz Flushing Valves feature an injectable reservoir for CSF sampling, distal flushing and distal patency testing. A one-way diaphragm-type flow control valve and radiopaque pressure range indicators are incorporated in all Pudenz Valves.



Flushing Procedure for Pudenz CSF Valve

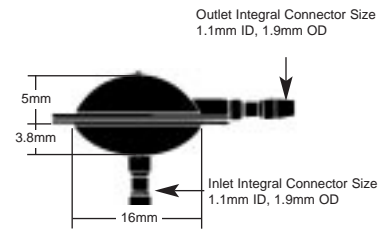
Diagrams are shown here for illustration purposes only. Always refer to the relevant Product Information Disclosure for complete clinical instructions.



Pudenz Valves

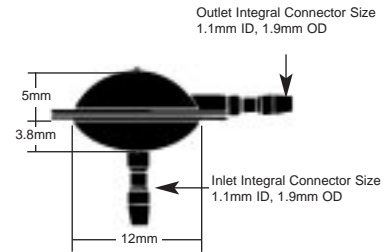
Pudenz Valve, 16mm

Catalog #	Pressure Range
NL850-1330	Low
NL850-1356	Medium
NL850-1358	High



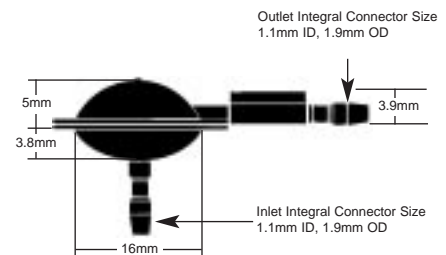
Pudenz Valve, 12mm

Catalog #	Pressure Range
NL850-1331	Low
NL850-1357	Medium
NL850-1359	High



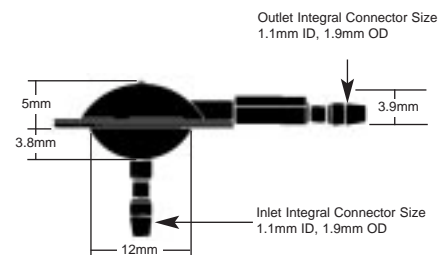
Pudenz Valve with Anti-Siphon Device, 16mm

Catalog #	Pressure Range
NL850-1410	Low
NL850-1412	Medium
NL850-1414	High



Pudenz Valve with Anti-Siphon Device, 12mm

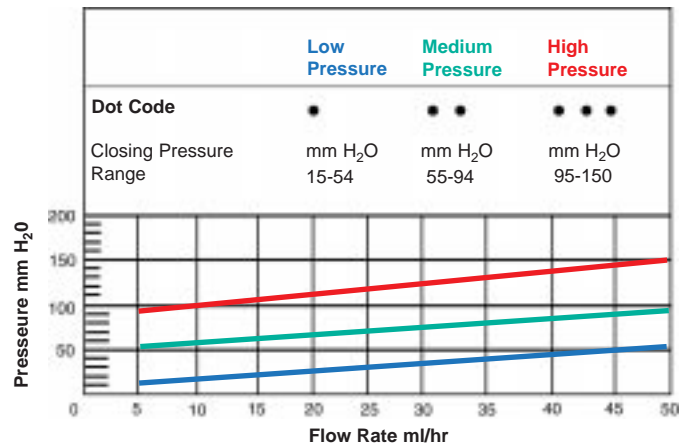
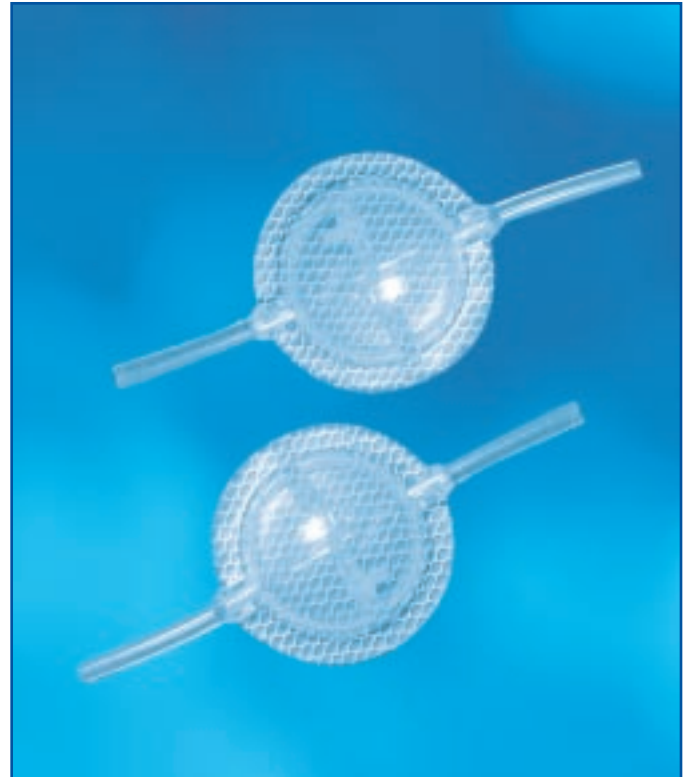
Catalog #	Pressure Range
NL850-1411	Low
NL850-1413	Medium
NL850-1415	High



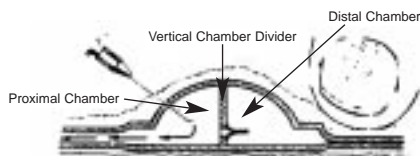
Mishler® Dual-Chamber

All Mishler Dual-Chamber Flushing Valves feature integral connectors to facilitate catheter connection, and are available in three pressure ranges.

The reservoir dome is divided by a center vertical chamber divider (see diagram) that incorporates a miter valve mechanism. This design permits injections and/or flushing, both proximally and distally, simultaneously or separately.



Flat-Bottom Configuration



Percutaneous injection to the proximal (ventricular side) reservoir chamber, while occluding the distal outlet with finger pressure.



Percutaneous injection to the distal chamber. The miter valve's one-way flow control allows injected material to flow in the distal direction only.



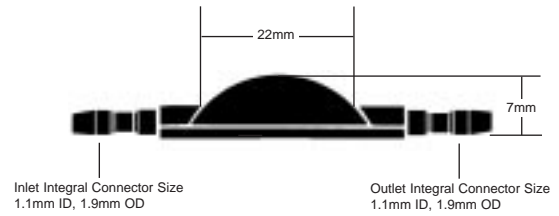
Finger pressure on the center section of the dome flushes the shunt proximally and distally.

Diagrams are shown here for illustration purposes only. Always refer to the relevant Product Information Disclosure for complete clinical instructions.

Mishler® Dual-Chamber

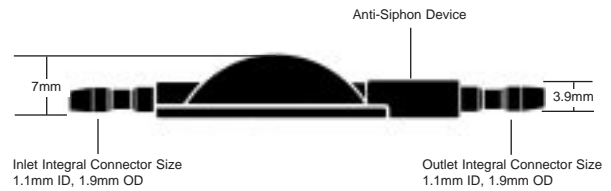
Mishler Dual-Chamber Flushing Device, Flat-Bottom

Catalog #	Pressure Range
NL850-0311	Low
NL850-0312	Medium
NL850-0313	High



Mishler Dual-Chamber Flushing Valve, Flat-Bottom with Anti-Siphon Device

Catalog #	Pressure Range
NL850-0314	Low
NL850-0315	Medium
NL850-0316	High

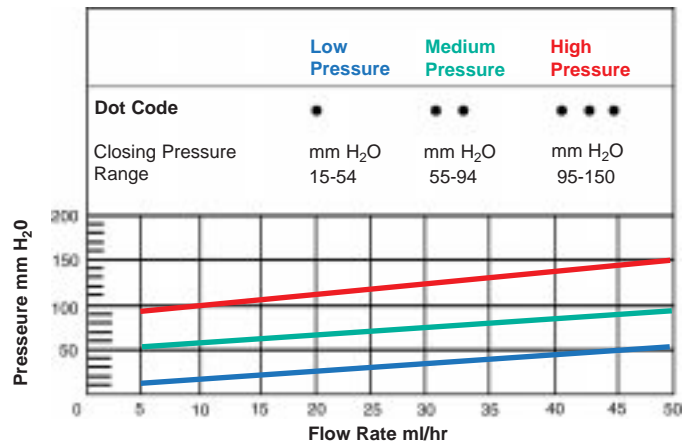
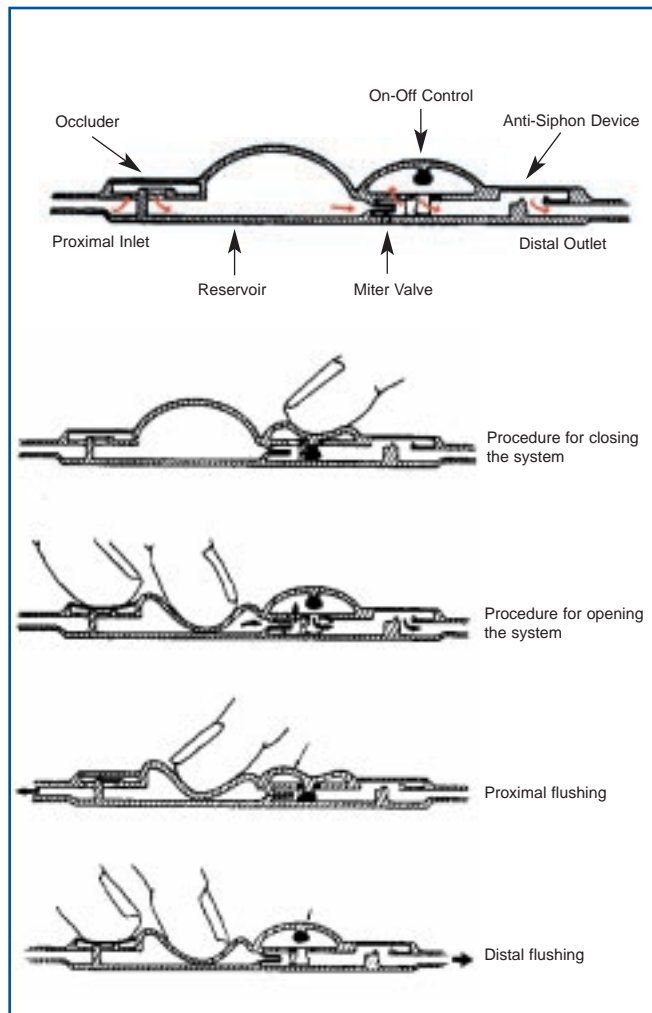
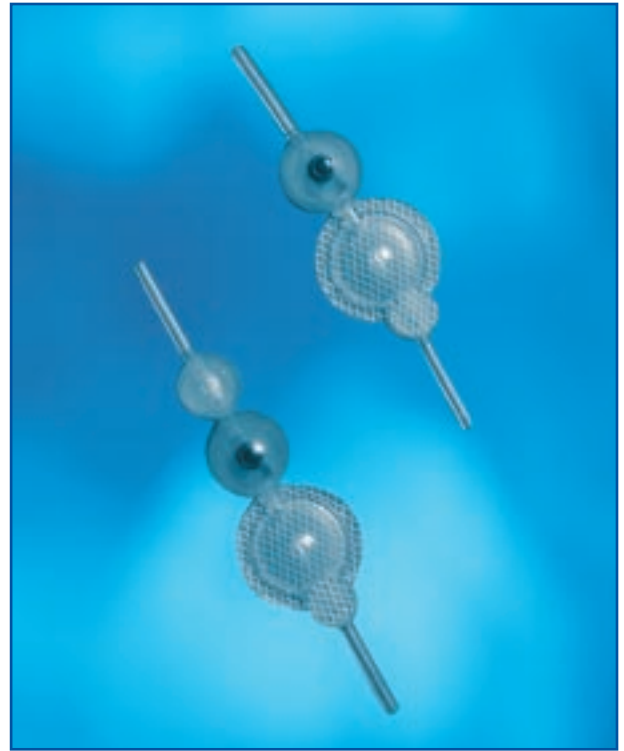


Multi-Purpose On-Off Flushing Valve

All Multi-Purpose On-Off Flushing Valves feature the exclusive Heyer-Schulte® On-Off Device. This integral on-off control can be utilized to monitor for shunt dependency, can assist in controlling ventricle decompression and allows easy proximal flushing and patency testing.

An integral proximal occluder allows easy opening of on-off mechanism and facilitates distal flushing, while the in-line reservoir assists with both proximal and distal flushing and provides access for CSF sampling and fluid/medication injection.

This easy-to-use flat bottom miter valve device is available in three pressure ranges, with or without an integral Anti-Siphon Device to meet a wide range of patient needs.



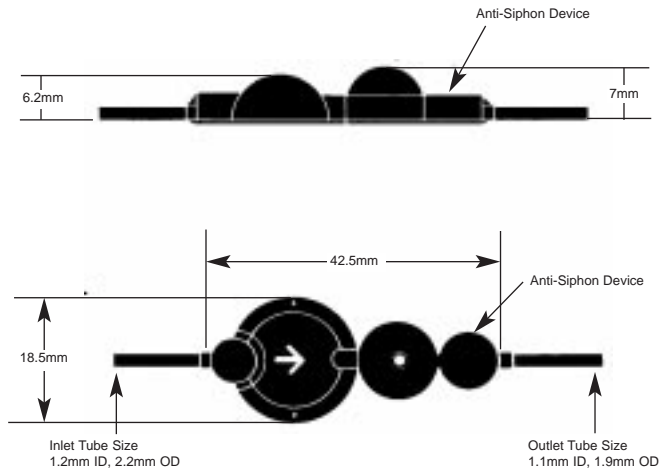
Diagrams are shown here for illustration purposes only. Always refer to the relevant Product Information Disclosure for complete clinical instructions.

CSF Valves and Shunt Kits

Multi-Purpose On-Off Flushing Valve

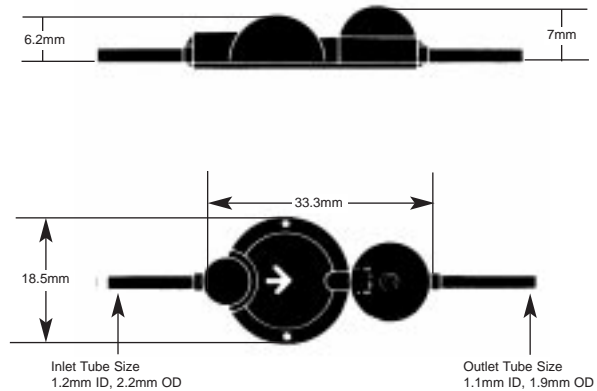
Multi-Purpose On-Off Flushing Valve with Anti-Siphon Device

Catalog #	Pressure Range
NL850-0105	Low
NL850-0108	Medium
NL850-0112	High



Multi-Purpose On-Off Flushing Valve without Anti-Siphon Device

Catalog #	Pressure Range
NL850-0125	Low
NL850-0128	Medium
NL850-0132	High



On-Off CSF Reservoirs

On-Off CSF reservoirs feature the exclusive Heyer-Schulte® On-Off Device, a proximal occluder and reinforced flat-bottom. The reservoir is offered with or without an Anti-Siphon Device.

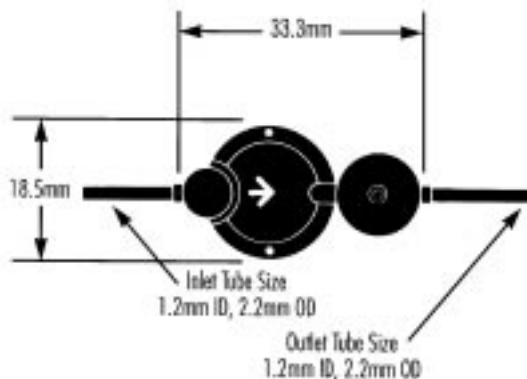


On-Off CSF Reservoir

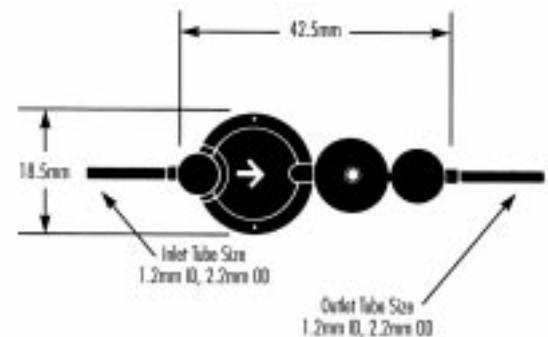
On-Off CSF Reservoir

Catalog #	Style
NL850-0150	without Anti-Siphon Device
NL850-0155	with Anti-Siphon Device

Flushing Reservoir without Anti-Siphon Device



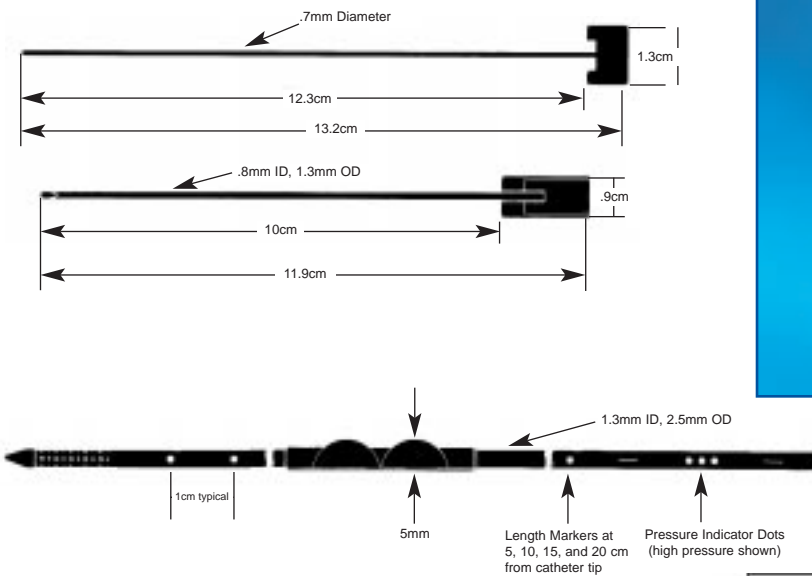
Flushing Reservoir with Anti-Siphon Device



CSF Valves and Shunt Kits

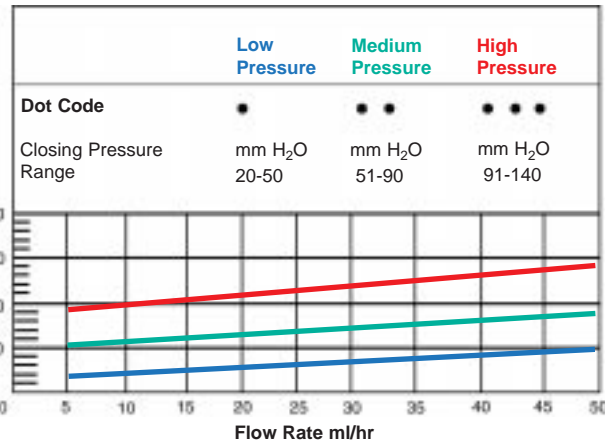
One-Piece Shunts

The Heyer-Schulte One-Piece Shunt incorporates quality features and components in a low-cost and easy-to-use kit. Tantalum markings and barium impregnated silicone elastomer provide full radiopacity; a double-dome reservoir with integral needle guard allows simple proximal as well as distal flushing, and a specially designed ventricular catheter introducer is included in each kit.



Each One-Piece Shunt Kit contains:

- One (1) One-Piece Shunt with double-dome reservoir in lengths as indicated in chart below.
- One (1) Ventricular Catheter Introducer NL850-2005
- One (1) silicone Tight-Angle Ventricular Catheter Guide.



Catalog #	Pressure Range	Ventricular Catheter Length	Total Length
NL850-6302	Medium	13cm	78cm
NL850-6401	Low	13cm	90cm
NL850-6402	Medium	13cm	90cm
NL850-6403	High	13cm	90cm
NL850-6502	Medium	13cm	102cm

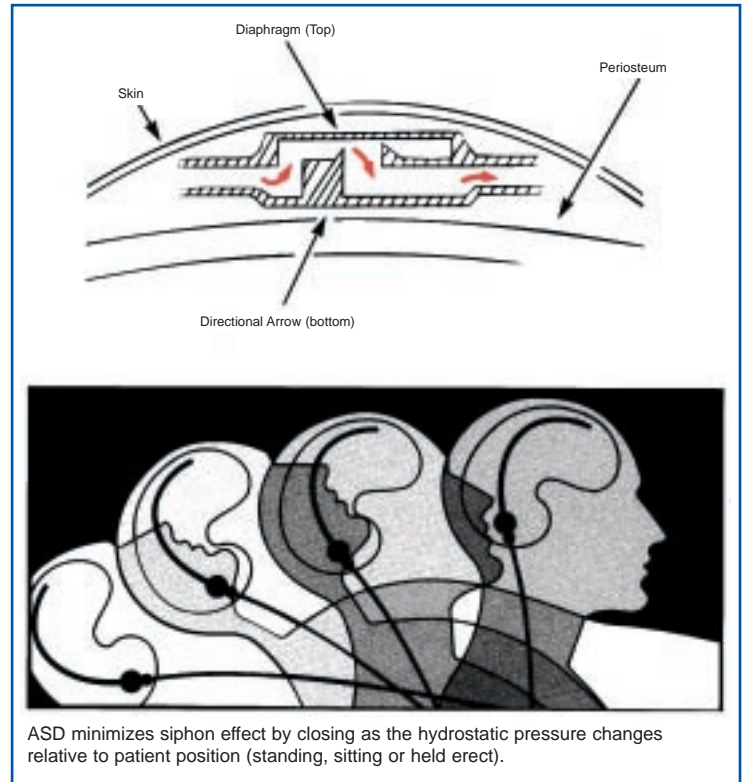
Specials

Catalog #	Pressure Range	Ventricular Catheter Length	Total Length
NL850-6101	Low	11cm	78cm
NL850-6102	Medium	11cm	90cm
NL850-6201	Low	11cm	90cm
NL850-6202	Medium	11cm	62cm
NL850-6301	Low	13cm	78cm
NL850-6501	Low	13cm	102cm
NL850-6503	High	13cm	102cm

Anti-Siphon Device

The original physiologically designed siphon control mechanism, the Heyer-Schulte® Anti-Siphon Device is normally open, reacting only as needed to changes in hydrostatic pressure. When a patient sits or stands, the device resists the hydraulic siphoning common to differential pressure CSF-control valves, preventing over-drainage and keeping the patient's intra-ventricular pressure within the physiological normal range. The Anti-Siphon Device may be connected in series with any flushing reservoir or proximal control valve using the connectors packaged with the device.

The Anti-Siphon Device is an integral component of many Heyer-Schulte valve systems.



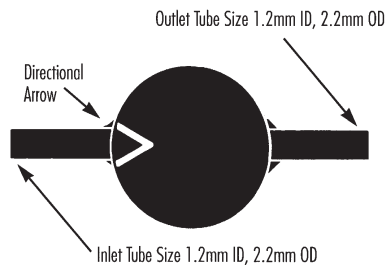
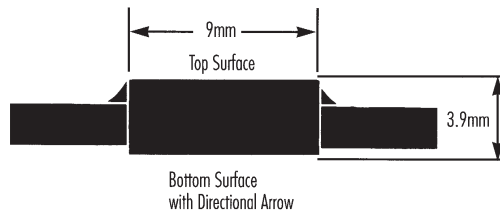
ASD minimizes siphon effect by closing as the hydrostatic pressure changes relative to patient position (standing, sitting or held erect).

Anti-Siphon Device

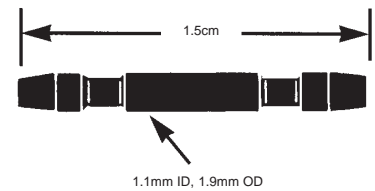
Each Anti-Siphon Device comes packages with two (2) Pudenz Straight Connectors

Catalog #	Description
NL850-0200	Anti-Siphon Device
NL850-1900	Pudenz Straight Connector

Anti-Siphon Device



Pudenz Straight Connector



CSF Reservoirs

Ommaya®

Ommaya is the most recognized name in CSF reservoirs, and Ommaya CSF Reservoirs are available only from Integra NeuroSciences. Designed as a closed ventricular access system, Ommaya Reservoirs facilitate CSF withdrawal as well as delivery of radioisotopes and chemotherapeutic agents. Several models are offered, providing the flexibility to accommodate many different treatment protocols, and the reservoir may also be converted to or added in-line to an existing shunt system.

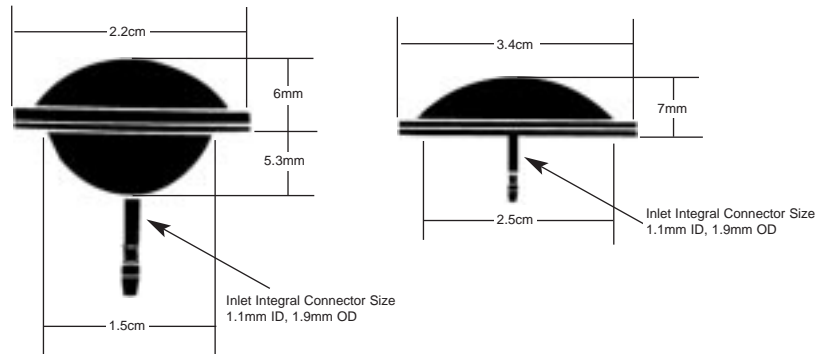
Each Standard Ommaya CSF Reservoir is packaged with a small Pudenz ventricular catheter (NL850-1504).



Standard Ommaya®

Each Standard Ommaya is packaged with:

- One (1) small Pudenz ventricular catheter (NL850-1504).



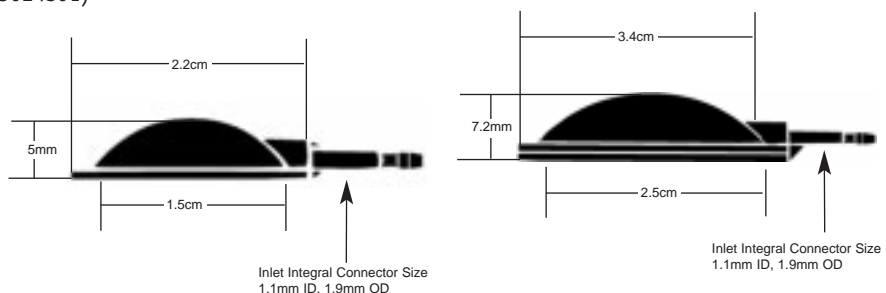
CSF Reservoir

Catalog #	Size	Style
NL850-1210	1.5cm	Burr-hole
NL850-1211	2.5cm	Flat-bottom

Side-Inlet Ommaya®

Each Side-Inlet Ommaya is packaged with:

- One (1) small Pudenz ventricular catheter (NL850-1504).
- One (1) right-angle catheter guide (NL83024S01)



CSF Reservoir

Catalog #	Size	Style
NL850-1214	1.5cm	Flat-bottom
NL850-1212	2.5cm	Flat-bottom

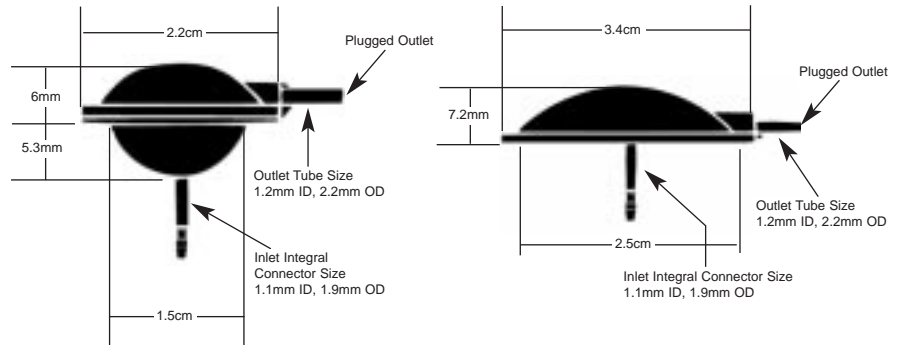
Convertible Ommaya®

Each Convertible Ommaya is packaged with:

- One (1) small Pudenz ventricular catheter (NL850-1504).
- One (1) right-angle catheter guide (NL83024S01)

CSF Reservoir

Catalog #	Size	Style
NL850-1215	1.5cm	Burr-hole
NL850-1213	2.5cm	Flat-bottom



Mini Ommaya®

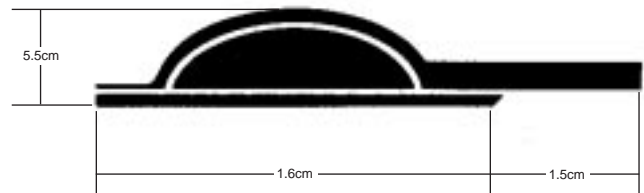
CSF Reservoir

Catalog #	Style
NL83026S01	Standard
NL83026S02	Side-Inlet
NL83026S03	Convertible
NL83026S04	Flat-bottom

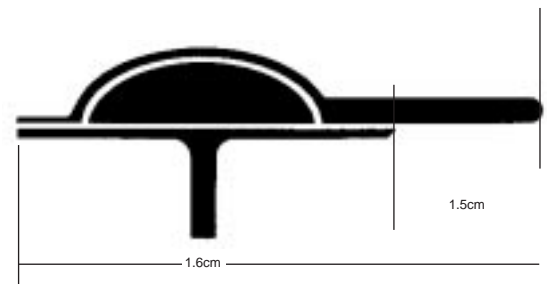
Standard



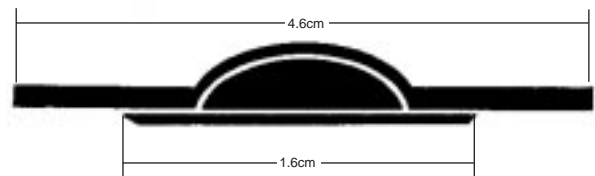
Side-Inlet



Convertible



Flat-bottom

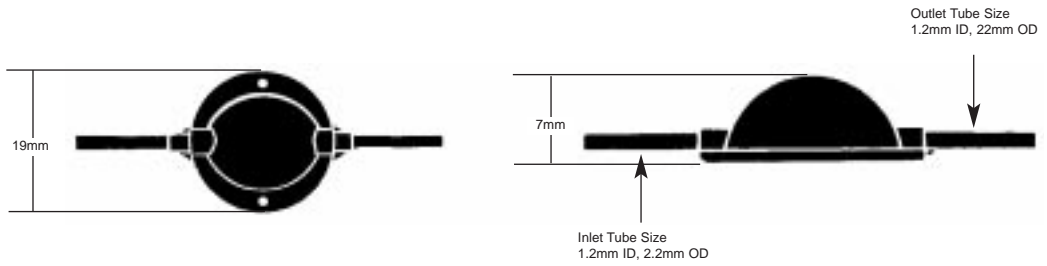


Foltz CSF Reservoir

The Foltz CSF Reservoir is a single-dome reservoir with a reinforced flat bottom.

Foltz CSF Reservoir

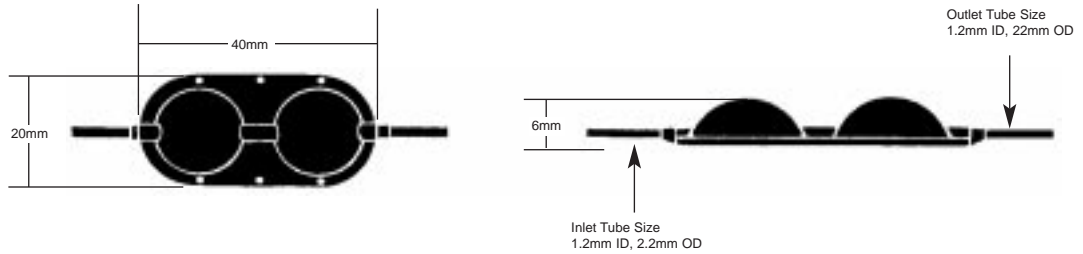
Catalog #
NL850-1195



Braden CSF Reservoir

Braden CSF Reservoir

Catalog #
NL850-1192

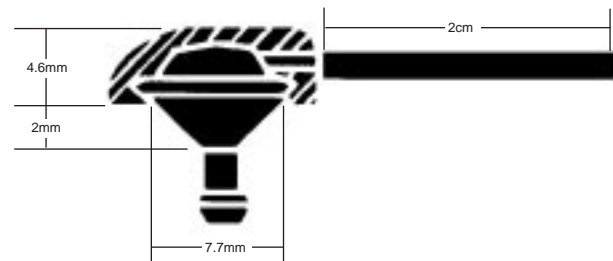


Rickham-Style CSF Reservoir

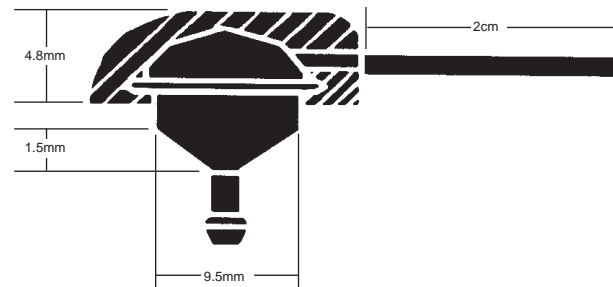
Rickham-Style CSF Reservoir

Catalog #	Size
NL850-1121	Standard
NL850-1132	Large

Standard

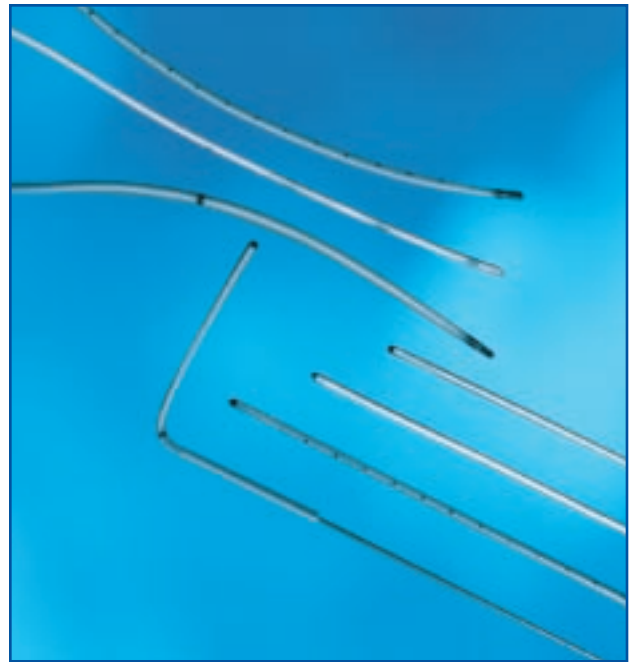


Large



CSF Catheters

Heyer-Schulte® CSF Catheters are available in a variety of configurations — fully impregnated with barium for complete radiopacity, or with an embedded barium radiopaque stripe to eliminate barium-to-tissue contact; straight and right-angled; and pressure-rated as well as non-pressure-rated.

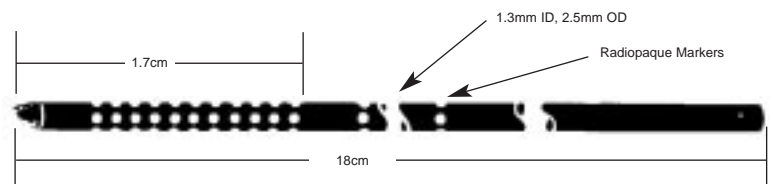


Ventricular Catheters

Radiopaque tantalum markings at cm intervals between 4cm and 10cm with larger markings at 5cm and 10cm aid in catheter placement

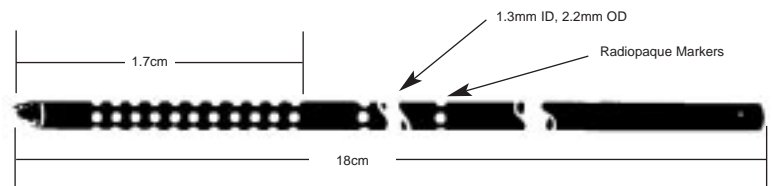
Pudenz Standard

Catalog #	Length	Style
NL850-1228	18cm	Barium Stripe



Pudenz Small

Catalog #	Length	Style
NL850-1504	18cm	Barium Stripe

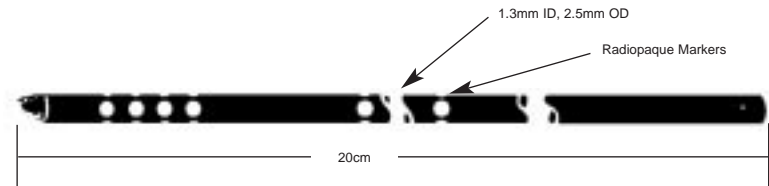


Ventricular Catheters , continued

Similar to Pudenz Standard, but 20cm in length and with larger holes, 4 on each side. Tantalum markings at 5cm, 6cm, 7cm, 10cm and 15cm.

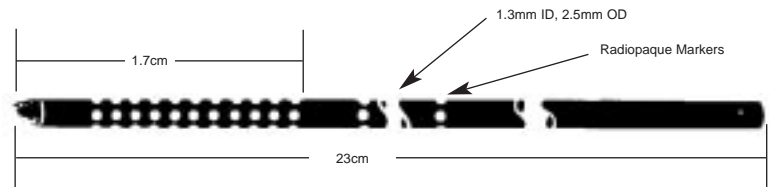
Ventricular Catheter with Large Holes

Catalog #	Length	Style
NL96001S01	20cm	Barium Stripe



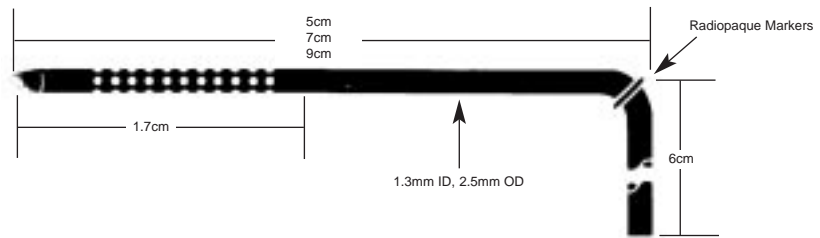
Ventricular Catheter, Large

Catalog #	Length	Style
NL99023S01	23cm	Full Barium Stripe



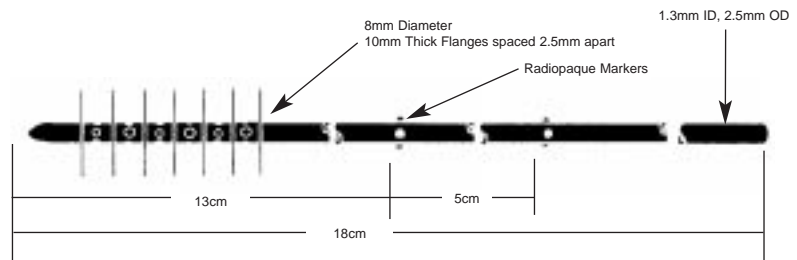
Pudenz Right-Angled

Catalog #	Size	Style
NL850-1515	5cm	Barium Stripe
NL850-1517	7cm	Barium Stripe
NL850-1519	9cm	Barium Stripe



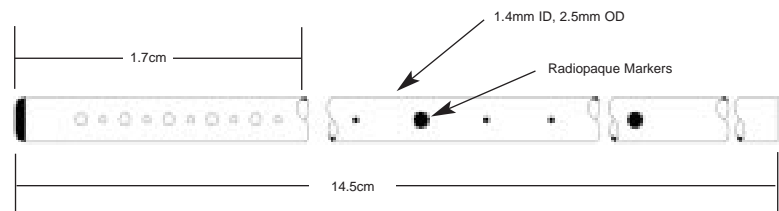
Portnoy Flanged

Catalog #	Length	Style
NL850-1229	18cm	Barium Impregnated, Flanged



Neuroview™ Endoscopic

Catalog #	Length	Style
NL850-1328	14.5cm	Barium Stripe, Slit-tip

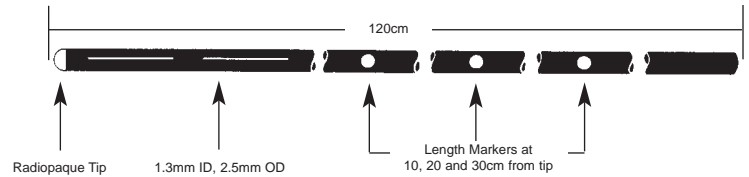


Peritoneal Catheters

Heyer-Schulte® peritoneal catheters are kink-resistant, slit-walled catheters featuring radiopaque tantalum markings. Most catheters feature an embedded barium stripe to eliminate barium-to-tissue contact.

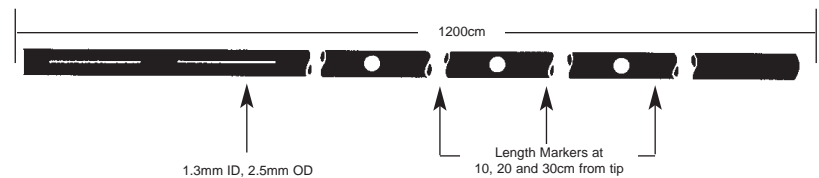
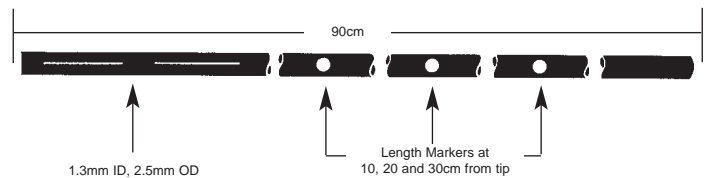
Reflux Control

Catalog #	Length	Style
NL850-1375	120cm	Barium Stripe



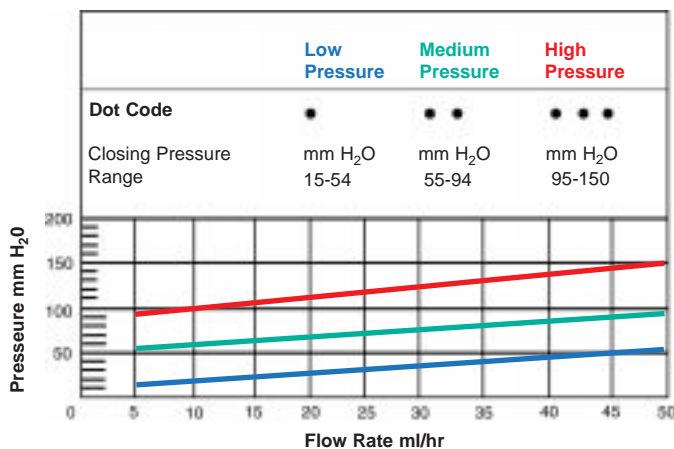
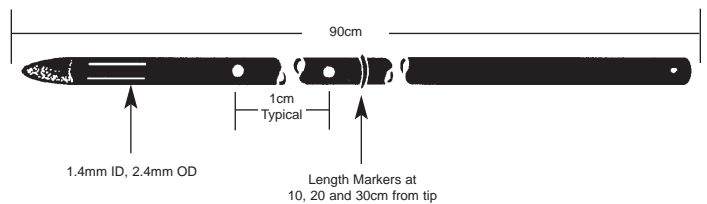
Open-Ended with Slits

Catalog #	Length	Style
NL850-1376	120cm	Barium Stripe
NL98003501	90cm	Barium Stripe



Pudenz Pressure Rated Catheters

Catalog #	Length	Style	Pressure Range
NL850-1380	90cm	Barium Stripe	Low
NL850-1381	90cm	Barium Stripe	Medium
NL850-1382	90cm	Barium Stripe	High

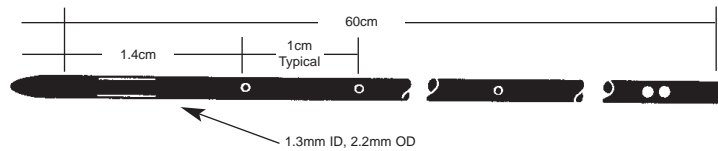


Atrial (Cardiac) Catheters

All atrial catheters feature embedded barium stripes to eliminate barium-to-tissue contact and conical tips to ease insertion. Standard and infant models are available in three pressure ranges for distal control, eliminating the need for a proximal valve. The infant model offers a reduced-diameter distal end to aid penetration of small vessels without trauma.

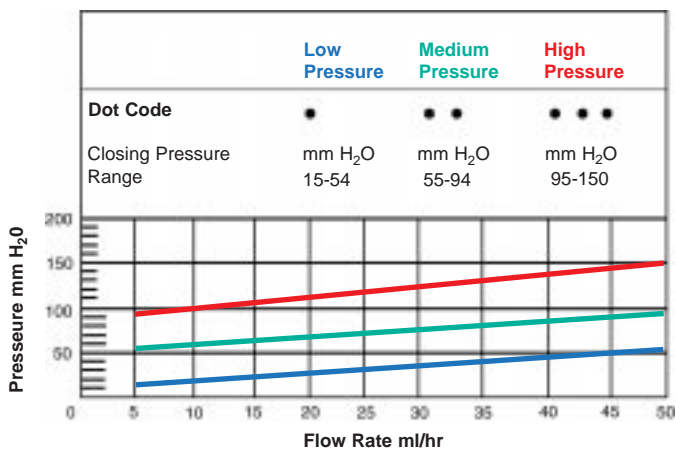
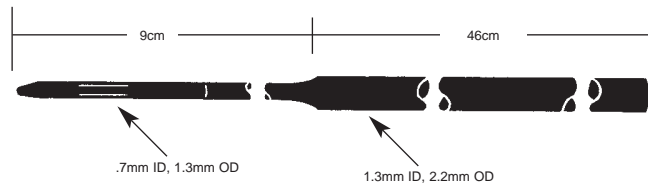
Pudenz Standard

Catalog #	Length	Style	Pressure Range
NL850-1201	60cm	Barium Stripe	Low
NL850-1200	60cm	Barium Stripe	Medium
NL850-1202	60cm	Barium Stripe	High



Pudenz Infant

Catalog #	Length	Style	Pressure Range
NL850-1221	55cm	Barium Stripe	Low
NL850-1220	55cm	Barium Stripe	Medium
NL850-1222	55cm	Barium Stripe	High



Spetzler® Lumbar-Peritoneal Shunts

Spetzler is the most recognized name in lumbar-peritoneal shunting products, available exclusively from Heyer-Schulte®. The original lumbar-peritoneal shunt designed for the treatment of communicating hydrocephalus in adults can be inserted without a laminectomy. Pressure control is achieved through a combination of the double slit valve at the peritoneal end and the small inner diameter catheter.

Each Spetzler Lumbar-Peritoneal Shunt is packaged as a complete kit. Optional in-line valves and reservoirs are also available.



Spetzler® Lumbar-Peritoneal Shunt Kits

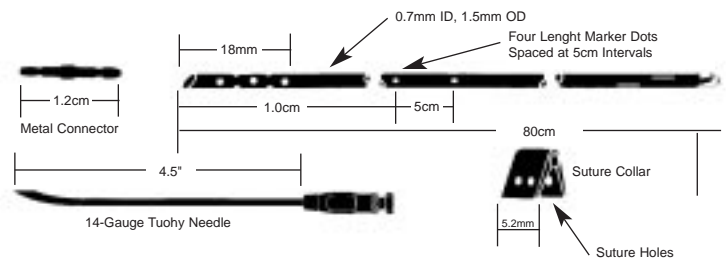
Each Spetzler Lumbar-Peritoneal Shunt Kit contains:

- One (1) lumbar peritoneal catheter.
- One (1) metal connector (NL75121-06).
- One (1) 14 gauge Touhy needle (NL82059-01).
- Three (3) suture collars (NL82059-02).

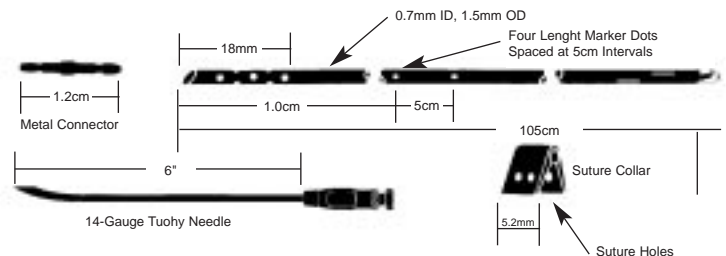
Spetzler® Lumbar-Peritoneal Catheter Pressure Ranges

Catheter alone, as packaged 50-400mm H₂O

Catalog #	Catheter Length	Touhy Needle Length
NL850-7210	80cm	4.5"



Catalog #	Catheter Length	Touhy Needle Length
NL97105S01	195cm	6"



Lumbar-Peritoneal Shunts

Spetzler® Lumbar-Peritoneal Shunts

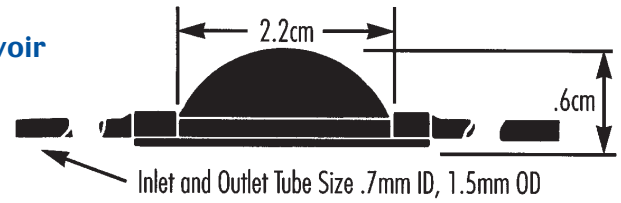
Spetzler Lumbar-Peritoneal CSF Reservoir

Each Spetzler Lumbar-Peritoneal CSF Reservoir is packaged with:

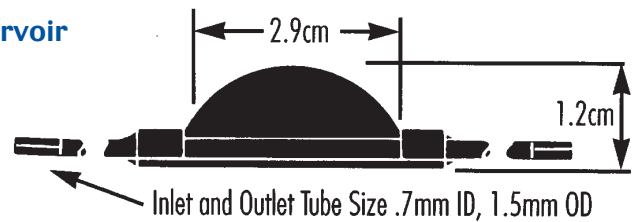
- Two (2) metal connectors (NL75121-06).

Catalog #	Size
NL850-7440	Small
NL850-7460	Large

Small Reservoir



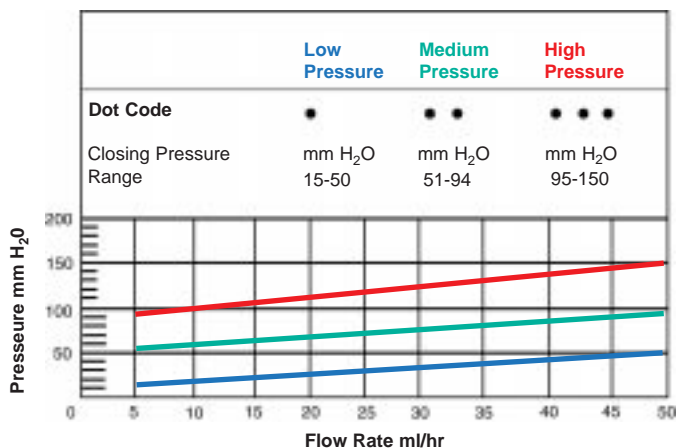
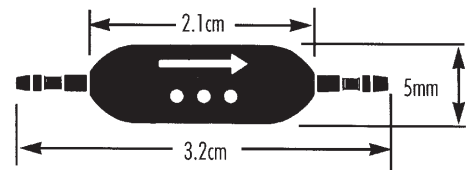
Large Reservoir



Spetzler Lumbar-Peritoneal In-Line Valves

All Spetzler Lumbar-Peritoneal In-Line Valves contain integral metal connectors.

Catalog #	Pressure Range
NL850-7420	Low
NL850-7421	Medium
NL850-7422	High



Edwards-Barbaro Syringo-Peritoneal Shunt

Edwards-Barbaro is the original T-tube catheter, designed to provide continuous drainage of fluid from within a spinal cord cyst (syrinx) to the peritoneum. The small T-tube diameter (approximately 5FR) minimizes the size of the myelotomy, and the "T" shape allows drainage from above and below the myelotomy site while minimizing the risk of kinking and migration. Multiple perforations reduce the chance of catheter occlusion at the spinal cord.



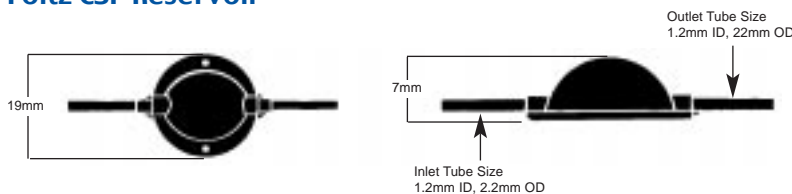
Edwards-Barbaro Syringo-Peritoneal Shunt Kit

Each Edwards-Barbaro Syringo-Peritoneal Shunt Kit contains:

- One (1) 80cm x 3.5cm 5FR T-tube (NL97005S01).
- One (1) 90cm peritoneal reflux control catheter.
- One (1) step down connector (NL86004-01).
- One (1) Foltz CSF Reservoir (NL850-1195).

Catalog #	Description
NL80076S01	Edwards-Barbaro Syringo-Peritoneal Shunt Kit

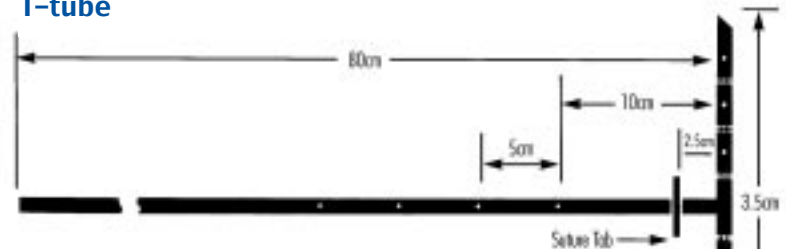
Foltz CSF Reservoir



Stepdown Connector



T-tube



Peritoneal Reflux Control Catheter



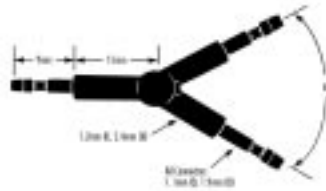
Shunt Accessories

Integra NeuroSciences offers a variety of disposable accessories, including the necessary catheter connectors, guides, passers and introducers.

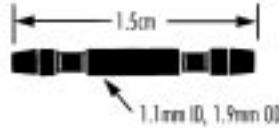
Catheter Connectors and Guides

Catalog #	Description
NL850-1900	Pudenz Straight Connector
NL850-1902	Pudenz Right-Angle Connector
NL850-1908	Pudenz Three-Way ("Y") Connector
NL850-1911	Threaded Straight Connector
NL850-1913	Threaded Right-Angle Connector
NL850-1919	Double-Threaded Straight Connector
NL86004-01	Stepdown Connector packaged non-sterile
NL83024S01	Silicone Right-Angle Ventricular Catheter Guide
NL75121-06	Metal Connector for Lumbar-Peritoneal Shunt, packaged non-sterile
NL82059-02	Suture Collar for Lumbar-Peritoneal Shunt, packaged non-sterile
NL97001S01	Luer Connector

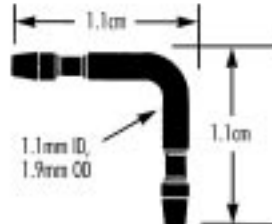
Pudenz Three-Way Connector



Pudenz Straight Connector



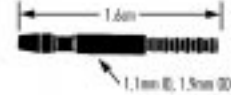
Pudenz Right-Angle Connector



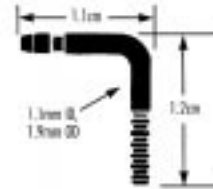
Luer Connector



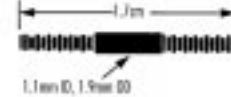
Threaded Straight Connector



Threaded Right-Angle Connector



Double-Threaded Straight Connector



Ventricular Catheter Guide



Stepdown Connector



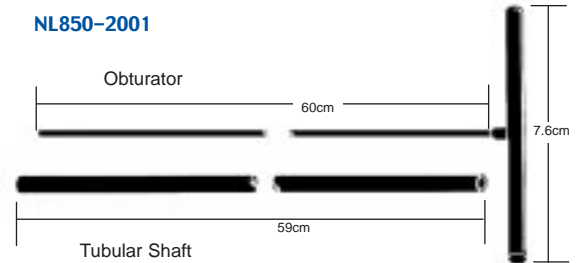
Shunt Accessories, *continued*

Integra NeuroSciences offers a variety of disposable accessories, including the necessary catheter connectors, guides, passers and introducers.

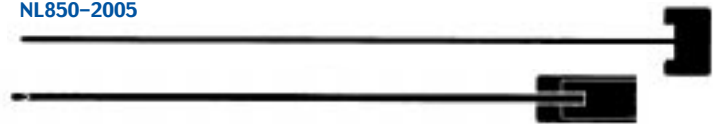
Catheter Passers and Introducers

Catalog #	Description
NL850-2001	Disposable Peritoneal Catheter Passer 60cm (box of 6)
NL850-2002	Disposable Peritoneal Catheter Passer 38cm (box of 6), not shown
NL850-2005	Ventricular Catheter Introducer for One-Piece Shunt
NLS850-2010	Subcutaneous Peritoneal Catheter Passer 45cm
NLS850-2050	Peritoneal Shunt Passer 70cm, with Bullet Tip and Extension
NLS850-2070	F-P Subcutaneous Catheter Passer 38cm
NL78013-01	Stylet for 18cm Ventricular Catheter packaged non-sterile
NL82059-01	Touhy Needle, 14g, 4.5" packaged non-sterile

NL850-2001



NL850-2005



NL850-2010



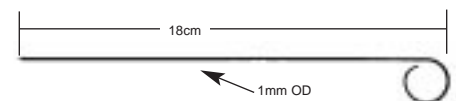
NL850-2050



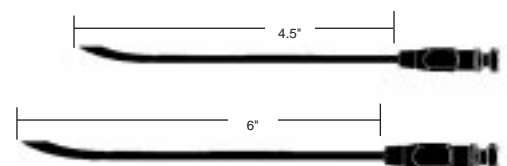
NL850-2070



NL78013-01



NL82059-01



Carotid Endarterectomy Shunts

Carotid Endarterectomy Shunts

Integra LifeSciences offers the most comprehensive line of carotid endarterectomy shunts available. Each device incorporates Heyer-Schulte®'s advanced silicone manufacturing technology, and has been designed and developed in cooperation with leading neurovascular surgeons.

All Heyer-Schulte carotid endarterectomy shunts feature soft silicone elastomer tubing with rounded edges, making the device less likely to damage the endothelium or to loosen and dislodge plaque during insertion or removal.

The variety of styles and sizes ensure the availability of the appropriate shunt based on surgical technique as well as the physiology of each patient.



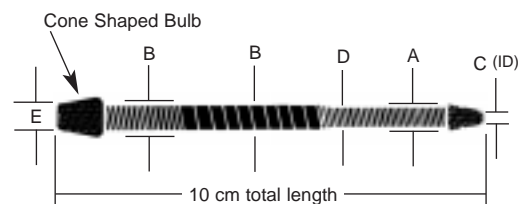
Sundt Carotid Endarterectomy Shunts

Sundt Carotid Endarterectomy Shunts are the original non-traumatic silicone shunts designed for use during carotid endarterectomy procedures. The soft cone-shaped bulb allows secure clamp placement. Clear tubing permits visualization of blood flow. Stainless steel spring reinforcement is tightly wound to resist kinking. The original Sundt Carotid Endarterectomy Shunts are available in three sizes of each of two basic designs. An additional configuration has recently been added to the product offering, featuring a 1cm non-reinforced segment to facilitate occlusion of the device by clamping.

Sundt Internal (Straight)

Original design (fully spring reinforced). Total length 10cm.

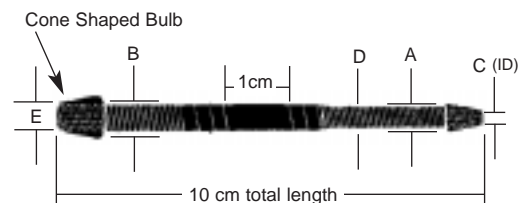
Catalog #	Nominal Size (Shunt OD)	Bulb OD A	Bulb OD B	Bulb ID C	Bulb ID E
	D (distal) x F (proximal)	(distal)	(proximal)	(distal)	(proximal)
NL850-5065	3.0mm x 4.0mm	3.8mm	5.5mm	1.3mm	2.1mm
NL850-5066	3.5mm x 5.0mm	4.6mm	6.3mm	1.6mm	3.1mm
NL850-5067	4.0mm x 5.0mm	5.5mm	6.3mm	2.2mm	3.1mm



Sundt Internal (Straight)

With 1cm non-reinforced center segment. Total length 10cm.

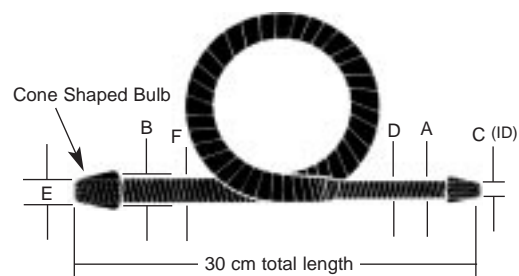
Catalog #	Nominal Size (Shunt OD)	Bulb OD A	Bulb OD B	Bulb ID C	Bulb ID E
	D (distal) x F (proximal)	(distal)	(proximal)	(distal)	(proximal)
NL850-5060	3.0mm x 4.0mm	3.8mm	5.5mm	1.3mm	2.1mm
NL850-5061	3.5mm x 5.0mm	4.6mm	6.3mm	1.6mm	3.1mm
NL850-5062	4.0mm x 5.0mm	5.5mm	6.3mm	2.2mm	3.1mm
NL850-5063	3.5mm x 4.5mm	4.6mm	5.9mm	1.6mm	2.6mm



Sundt External (Loop)

Original design (fully spring reinforced). Total length 30cm.

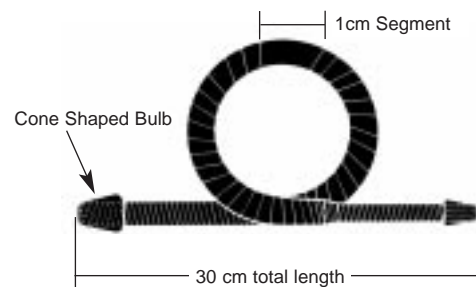
Catalog #	Nominal Size (Shunt OD)	Bulb OD A	Bulb OD B	Bulb ID C	Bulb ID E
	D (distal) x F (proximal)	(distal)	(proximal)	(distal)	(proximal)
NL850-5070	3.0mm x 4.0mm	3.8mm	5.5mm	1.3mm	2.1mm
NL850-5071	3.5mm x 5.0mm	4.6mm	6.3mm	1.6mm	3.1mm
NL850-5072	4.0mm x 5.0mm	5.5mm	6.3mm	2.2mm	3.1mm



Sundt External (Loop)

With 1cm non-reinforced center segment. Total length 30cm.

Catalog #	Nominal Size (Shunt OD)	Bulb OD A	Bulb OD B	Bulb ID C	Bulb ID E
	D (distal) x F (proximal)	(distal)	(proximal)	(distal)	(proximal)
NL850-5076	3.0mm x 4.0mm	3.8mm	5.5mm	1.3mm	2.1mm
NL850-5077	3.5mm x 5.0mm	4.6mm	6.3mm	1.6mm	3.1mm
NL850-5078	4.0mm x 5.0mm	5.5mm	6.3mm	2.2mm	3.1mm
NL850-5079	3.5mm x 4.5mm	4.6mm	5.9mm	1.6mm	2.6mm



Carotid Endarterectomy Shunts

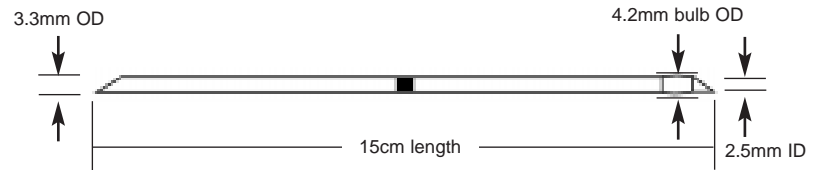
Loftus Carotid Endarterectomy Shunts

Integra LifeSciences offers two separate sizes of Loftus Carotid Endarterectomy Shunts to allow use of the shunt that most closely fits the distal internal carotid artery. Each shunt is constructed of translucent silicone elastomer, allowing for direct visualization of the flow into the shunt and flushing, if necessary, before the distal end is placed. A convex bulb near the proximal end of each shunt facilitates fixation within the common carotid artery; and a black ring near the midway point of the shunt for ease of centering.

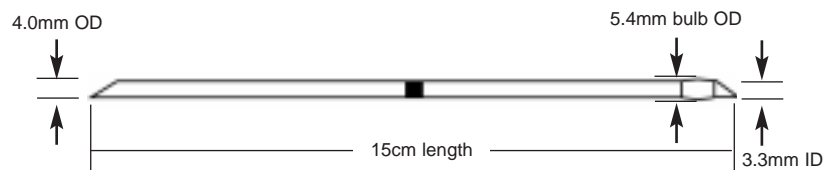
Loftus Carotid Endarterectomy Shunts

Catalog #	Description
NL850-5400	Small
NL850-5500	Medium

Small



Medium

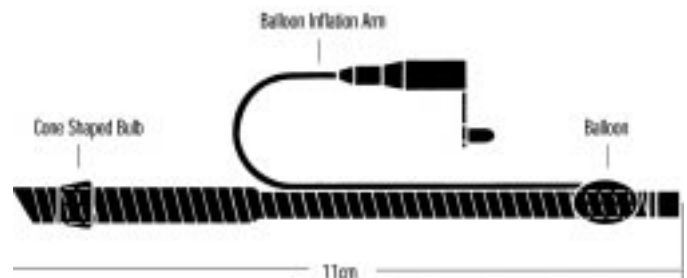


Brisman–Nova Carotid Endarterectomy Shunts

The Brisman–Nova Carotid Endarterectomy Shunt is similar to the original Sundt Intenal (Straight) design, with a distal bulb replaced by an inflation balloon, and provides an atraumatic method for preventing backflow around the device. Total length 11cm.

Brisman–Nova Carotid Endarterectomy Shunts

Nominal Size:	Shunt OD A	Shunt OD B	Bulb OD C
Catalog #	(distal)	(proximal)	(proximal)
NL71014S01	2.5mm	3.2mm	4.7mm
NL71014S02	3.3mm	3.2mm	4.7mm
* NL71014S03	2.5mm	4.0mm	5.5mm
* NL71014S04	3.2mm	4.0mm	5.5mm
* NL71014S06	2.5mm	6.2mm	6.2mm
* NL71014S07	3.2mm	6.2mm	6.2mm

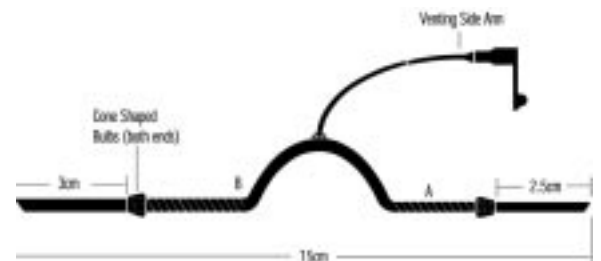


Hallin Carotid Endarterectomy Shunts

The Hallin Carotid Endarterectomy Shunt is similar to the Sundt designs, with center non-reinforced arch configuration and venting side arm. Total length 15cm.

Hallin Carotid Endarterectomy Shunts

Nominal Size:	Shunt OD A	Shunt OD B	Bulb OD C	Bulb OD D
Catalog #	(distal)	(proximal)	(distal)	(proximal)
NL75227S01	3.0mm	4.0mm	4.3mm	4.3mm
NL75227S02	3.5mm	4.5mm	4.8mm	4.8mm
* NL75227S04	4.5mm	5.0mm	5.8mm	5.8mm



*Special Order only. Please contact customer service for details.

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