

Tracheostomy Tube Reference Guide

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Table of Contents

General Notes About Trachs.....	Page 2
Shiley Flexible Adult Tracheostomy Tube.....	Page 3
Shiley Legacy Adult Tracheostomy Tube.....	Page 4
Shiley Adult Tracheostomy Tube Inner cannulas.....	Page 5
Shiley Fenestrated Tracheostomy Tube.....	Page 6
Shiley Single Cannula Tracheostomy Tube.....	Page 7
Shiley XLT Tracheostomy Tube.....	Page 8
Portex - Bivona Tracheostomy Tubes.....	Page 9
Portex-Bivona Adjustable Tracheostomy Tubes.....	Page 10
Portex - Bivona Aire-Cuf (vs TTS) Tracheostomy Tube.....	Page 11
Portex - Bivona Fome-Cuf Tracheostomy Tube.....	Page 12
Portex BluSelect and Blue Line Ultra Tracheostomy Tube.....	Page 13
Portex Regular Tracheostomy Tube.....	Page 14
Talk Attachment/Suction Aid Trachs	Page 15
Tracoe Tracheostomy Tube	Page 16
Blom Singer Tracheostomy Tube.....	Page 16
Jackson Tracheostomy / Laryngectomy Tubes.....	Page 17

The information in this document is meant for educational purposes only. Insights from clinical experience are included. Always reference company specific instructions and information.



General Notes about Trachs:

- 1) There are two different methods for sizing trachs. Understand that sizes amongst brands are not equivalent...
 - Jackson sizing is for Shiley regular and Flex trachs only. The size of the trach does not refer to any actual measurement of the trach.
 - ISO (International Sizing Organization) is used by all other trach manufacturers, and for Shiley XLTs. The size of the trach refers to the inner diameter of the trach WITHOUT the inner cannula.
- 2) Know your cuffs
 - High Volume Low Pressure (HVLP)
 - Mid-Range cuffs
 - High Pressure Low Volume (HPLV)
 - Fome-cuf
 - Barrel or cylinder shape cuffs
 - Round cuffs
 - Tapered cuffs
- 3) Cuff leaks - Cuff size does not always change with or correspond to trach size. When addressing ventilator leaks check the cuff diameter when inflated (called the “resting diameter”).
- 4) Custom trachs can be made based on bedside measurements or imaging.

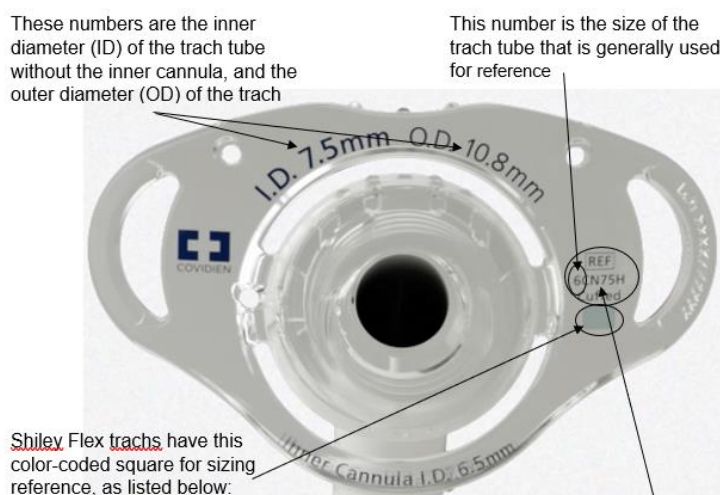
Shiley Flexible Adult Tracheostomy Tube

Indications: Regular/standard adult trach. Uses Jackson sizing.

Product Information: Flexible faceplate, 15mm adapter is part of trach, not inner cannula. Inner cannula can be removed to pass scope through smaller trachs and still connect to ventilator/ambu bag. Cap can be worn over inner cannula so inner cannula can be changed to keep trach patent. Increased patient comfort due to the more flexible material of the trach. Improved air flow around deflated cuff. Beveled tip for easier insertion and trach changes, percutaneous insertions. Sizes 4, 5, 6, 7, 8, 9, 10

Additional Information: Inner cannula has groove that prevents total finger occlusion. Some patients may not be able to finger occlude enough to produce speech. Also, some patients may not be able to wear a cap or speaking valve with inner cannula in place because the air leak will cause cap/speaking valve to blow off. If this is the case remove the inner cannula temporarily and take measures to prevent obstruction.

Cuff: Taperguard Low Volume Low Pressure



SKU#	I.D.	O.D.	INNER CANNULA I.D.	LENGTH	INNER CANNULA SKU#
4CN6SH	6.5 mm	9.4 mm	5.5 mm	62 mm	4IC65
5CN70H	7.0 mm	10.1 mm	6.0 mm	68 mm	5IC70
6CN75H	7.5 mm	10.8 mm	6.5 mm	74 mm	6IC75
7CN80H	8.0 mm	11.4 mm	7.0 mm	77 mm	7IC80
8CN85H	8.5 mm	12.2 mm	7.5 mm	79 mm	8IC85
9CN90H	9.0 mm	12.7 mm	8.0 mm	79 mm	9IC90
10CN10H	10.0 mm	13.8 mm	9.0 mm	79 mm	10IC10

SKU#	I.D.	O.D.	INNER CANNULA I.D.	LENGTH	INNER CANNULA SKU#
4UN6SH	6.5 mm	9.4 mm	5.5 mm	62 mm	4IC65
5UN70H	7.0 mm	10.1 mm	6.0 mm	68 mm	5IC70
6UN75H	7.5 mm	10.8 mm	6.5 mm	74 mm	6IC75
7UN80H	8.0 mm	11.4 mm	7.0 mm	77 mm	7IC80
8UN85H	8.5 mm	12.2 mm	7.5 mm	79 mm	8IC85
9UN90H	9.0 mm	12.7 mm	8.0 mm	79 mm	9IC90
10UN10H	10.0 mm	13.8 mm	9.0 mm	79 mm	10IC10

This complete number is the product reference number, also called the catalogue number, or SKU #

CN = Cuffed

UN = Uncuffed

75=The ISO (International Standard Organization) size, also the size of the inner diameter of the trach without the inner cannula in place. Will vary depending on trach size

H=Disposable inner cannula (R would indicate reusable)

Shiley “Legacy” Adult Tracheostomy Tube

Indications: Regular/standard adult trach. Uses Jackson sizing.

Product Information: Some patients who have used this trach for a long time or have trouble with speech with the Shiley Flex prefer to stay with the legacy version. See Shiley Flex advantages for comparison of features.

Cuff: Barrell-shape High Volume Low Pressures

Shiley abbreviations

DCT = Disposable (inner cannula) Cuffed Tracheostomy

DCFS = Disposable (inner cannula) Cuffless

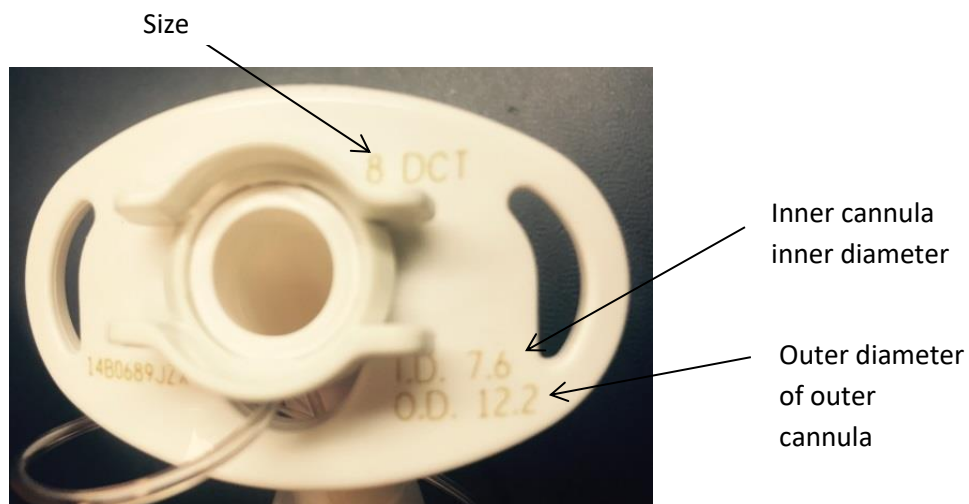
DCFN = Disposable (inner cannula) Cuffless Fenestrated

DFEN = Disposable (inner cannula) Fenestrated – cuffed

LPC – Low Pressure Cuff (softens with body temperature)

LGT = Laryngectomy Tube –shorter than a trach tube

PERC = Percutaneous tracheostomy



Types of Shiley Legacy Adult Tracheostomy Tube Inner Cannulas

Flex disposable inner cannula



Legacy disposable inner cannula (DIC) – Clip lock



Fenestrated inner cannula



Spare Inner Cannula (SIC) use if to temporarily connect to ventilator while cleaning reusable inner cannula



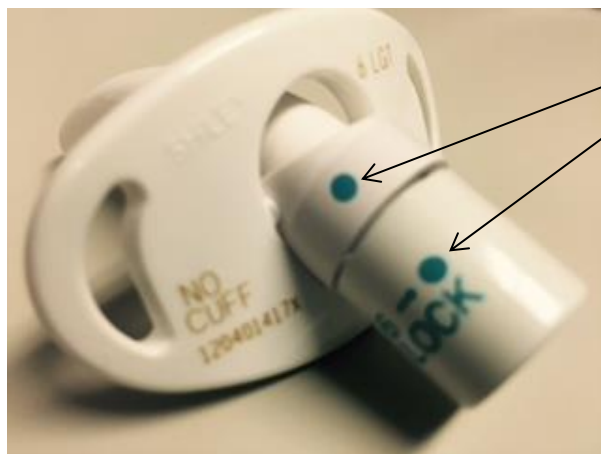
Reusable Inner Cannula (RIC) – Twist lock



Reusable low profile inner cannula, does not connect to ventilator



Shiley Adult Tracheostomy Tube Inner Cannulas continued



Blue dot indicates inner cannula is reusable. Shiley inner cannulas that twist to lock in place are reusable.

Fenestrated Tracheostomy Tubes

Indications: Regular size adult trach placed for speaking. Needs a fenestrated inner cannula to function for speaking purposes.

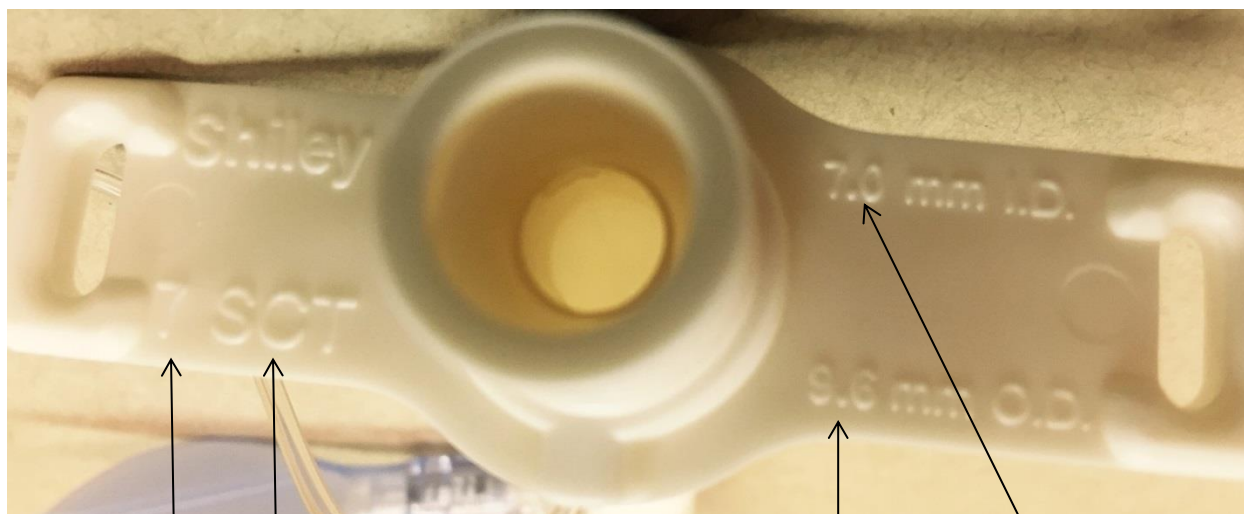
Product Information: Some patients are unable to pass air around regular tracheostomy tubes, so fenestrations can assist with voicing. Not usually first choice for speaking because fenestrations can cause tissue to adhere and bleeding issues. Do not place unless special indication and advanced consultation obtained. Some fenestrated tracheostomy tubes do not come with fenestrated inner cannulas, so they can only be used for voicing without an inner cannula in place.



Shiley Single Cannula Tracheostomy Tube (always cuffed)

Indications: Not generally used anymore, but still stocked in hospital distribution and on emergency carts. Uses ISO sizing meaning the inner diameter of the trach is the same as the size of the trach.

Product Information: No inner cannula provides a smaller inner diameter to outer diameter ratio. Can be useful in emergencies for recannulating and ventilation. The size 6 is actually smaller than a regular Shiley size 4, so we place the SCT 6 at bedside in the hospital as a size smaller for regular Shiley 4 trachs for use in emergencies. The larger sizes 8 and above are 89mm and longer, so considered extended length. No inner cannula, material trach is made from easily builds up secretions and can clog off easily. Patients who have this trach should change it and clean is once a week. DO NOT PLACE FOR ANY PROLONGED TIME, NOT ADVISABLE FOR DISCHARGE.



Size / SCT = Single Cannula Tracheostomy

Outer diameter

Inner diameter

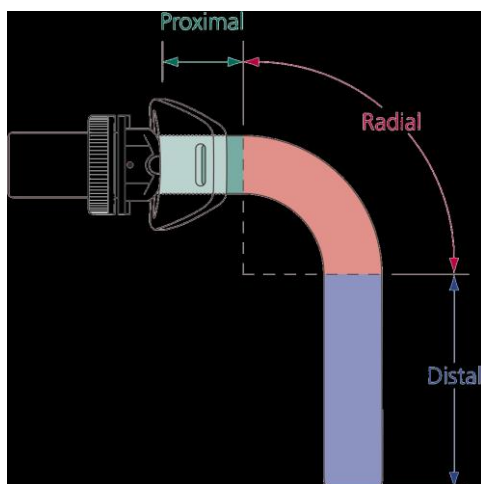
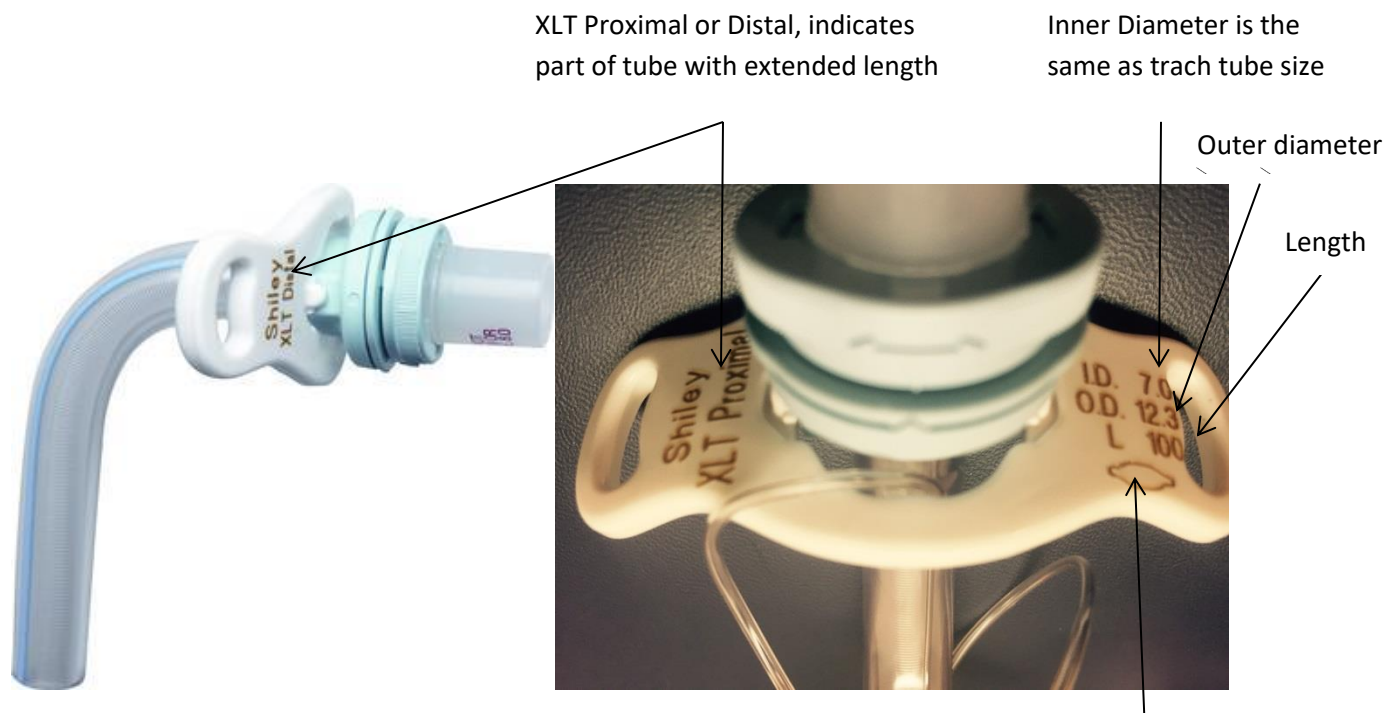


Shiley XLT Tracheostomy Tube

Indications: Proximal is used for large necks, Distal to bypass problematic areas in trachea. Uses ISO sizing meaning the inner diameter of the trach without the inner cannula is the same as the size of the trach.

Product Information: Longer lengths, different points of flexion. Generally, these are large trachs. Large outer diameters and small inner cannulas

Cuff: Round, High Volume Low Pressure



Picture of cuff indicates tube is cuffed

Portex - Bivona Tracheostomy Tubes

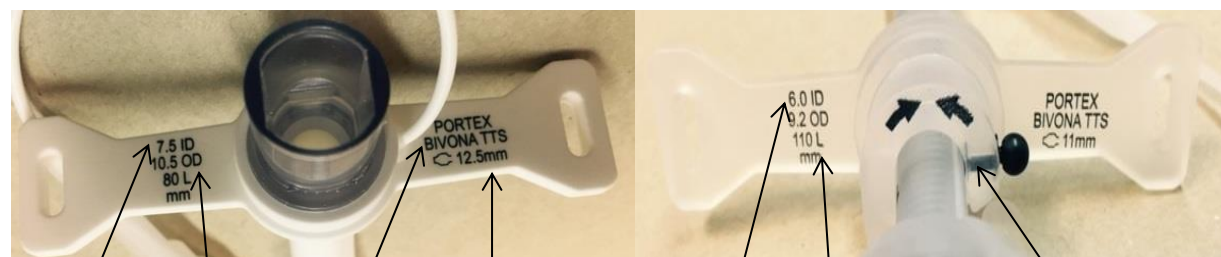
Indications: If a longer trach is needed, or a different trach plate is needed due to skin breakdown. The Adjustable length is used temporarily until the appropriate length is determined. Uses ISO sizing meaning the inner diameter of the trach is the same as the size of the trach.

Product Information: Low profile flexible trach plate. Longer versions (fixed or adjustable) are available. All three types can come with TTS cuffs or "Aire" cuffs. Longer hyperflex trachs are MRI compatible with caution (need to be secured, see package insert). Can be reprocessed up to 10 times (either autoclave or boiling process to sterilize at home by patient). No inner cannulas.

Cuff: Aire- Cuf – round, mid-range. TTS – High Volume High Pressure, water filled

Three general types (TTS cuffs pictured – clear pilot balloon)

Extended lengths have clear faceplates, standard lengths have white faceplates



Internal diameter is same as tube size (some half sizes available in regular length), special order

Bivona Tight to Shaft
Outside diameter

Diameter of cuff when **deflated**

Internal diameter is same as tube size

Length

Black insertion pin and arrows indicate tube is adjustable length (temporarily used to determine best fit for patient). If not present is fixed length.

Notes about Adjustable Length Portex-Bivonas

- Adjustable trachs are supposed to be used temporarily until the length can be determined. TTS low volume high pressure cuffs can be used because they are indicated for up to two weeks without regular prolonged cuff deflation. TTS can be advantageous for manipulating the length of this trach in the airway.
- Adjustable trachs can pose an airway safety issue. Patients dependent on the position of the trach should be monitored in the ICU in most cases. If patient transfers to the floor nursing and RT staff need education on monitoring and maintenance. Adjustable trachs are contraindicated for home or SNF discharge.
- The arrows on the trach indicate where the pilot balloon should be rotated. Otherwise the cinch used to keep the length of the trach in place can cause pressure on the balloon and cause cuff pressure issues.



- The hash marks on the tube do not indicate the internal length of the trach tube (which would be used for special ordering a fixed length). Subtract 2cm from the length observed externally to determine the internal length.

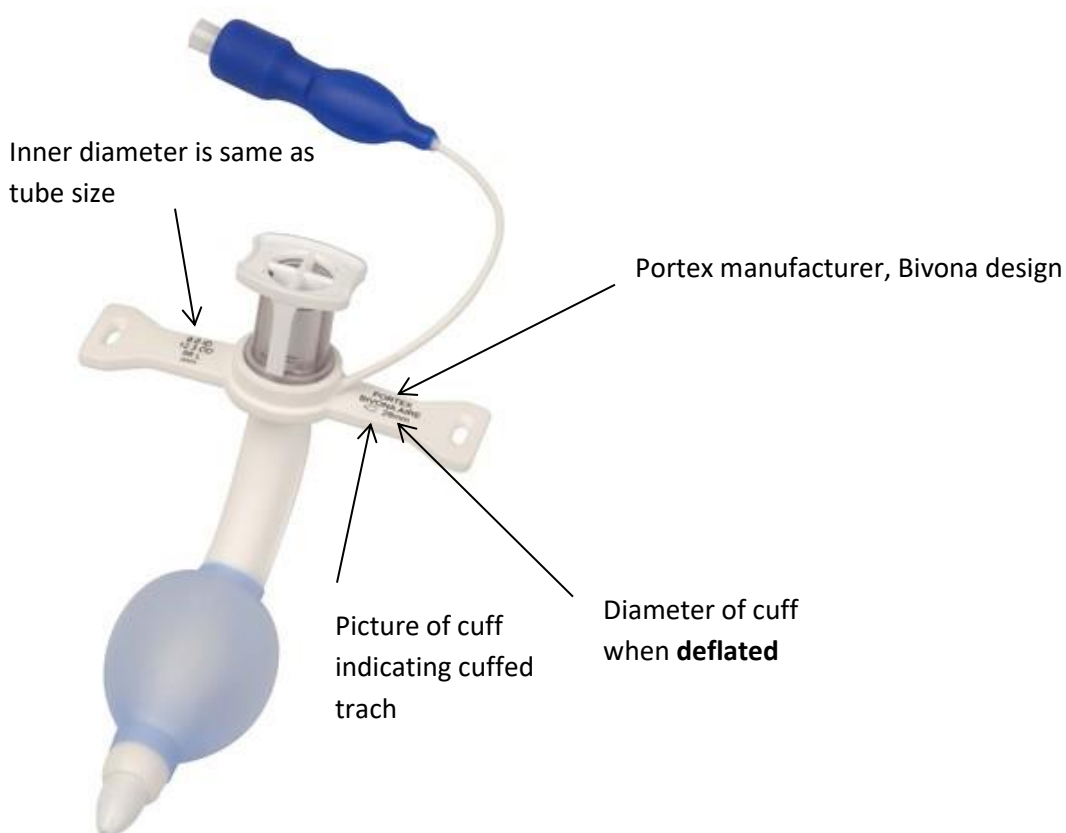


Notes about Tight to Shaft (TTS) versus “Aire” cuffs

- TTS “Tight to Shaft” means when deflated, the cuff lays flat against the shaft of the trach tube. This is a high pressure, low volume cuff and should only be used long term if it will regularly be deflated for speaking. Otherwise it is indicated for use less than two weeks. It is also beneficial because it makes trach changes easier, although this is not an indication for long term use in adults.
- Bivona TTS cuffs are filled with sterile water, not air. If it is filled with air it will diffuse out. Use minimal leak of minimal occlusive volume techniques for fill amount. If fill amount changes this is an indication that dilation of the traches may be occurring.
- “Aire” indicates cuff to be filled with air. Aire cuffs are “mid-range” high volume, low pressure cuffs. Standard cuff pressure is 25mmH2O measured with a manometer. If the silicone cuff is overinflated air will diffuse out.

Bivona “Aire-cuff” Tracheostomy Tubes – Blue pilot balloon)

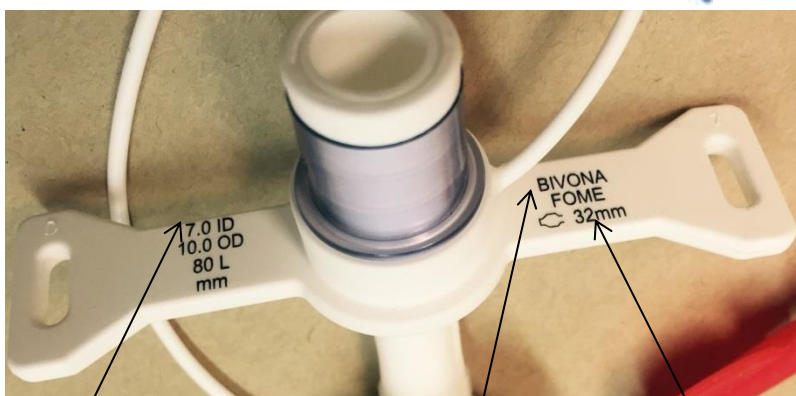
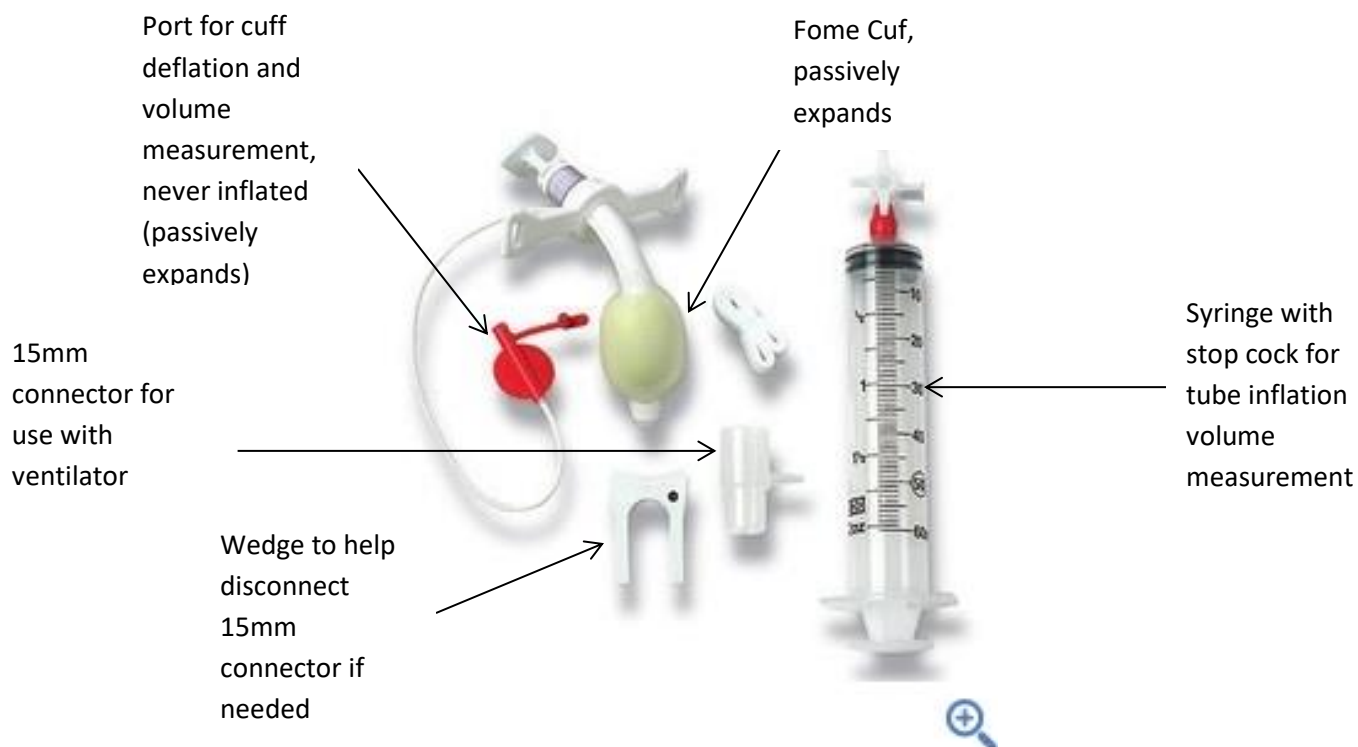
Portex-Bivonas regular length, fixed, and adjustable trachs can all come with TTS or Aire-cuffs



Bivona Fome-Cuf Tracheostomy Tube

Indications: To address or prevent cuff leaks in long term trached/vent dependent patients. Uses ISO sizing meaning the inner diameter of the trach is the same as the size of the trach.

Product Information: Places the least pressure on the tracheal wall of any cuff available. Difficult to determine the status of the cuff once it is placed, passively inflates. Requires specialized education for a patient to manage at home and for staff inpatient. **DO NOT overinflate, if the cuff breaks in the patient there is no way to deflate the fome part of the cuff. See Trach Resource website for more information (type "Trach in UCD intranet bar).**



Internal diameter is same as tube size

Fome = Fome – cuf trach tube

Diameter of cuff when passively expanded

Portex BluSelect Tracheostomy Tube

Indications: Regular/standard adult trach

Product Information: Flexible faceplate, 15mm adapter is part of trach, not inner cannula. Inner cannula can be removed to pass scope through smaller trachs and still connect to ventilator/ambu bag. Cap can be worn over inner cannula so inner cannula can be changed to keep trach patent. Clear Faceplate labeling, checkered edging indicated fenestrated trach. Sizes 6, 7, 7.5, 8, 8.5, 9,10.

New Portex product line, comes in with fenestrated and SuctionAid options

Cuff: Barrell-shape, High Volume Low Pressure "SOFT-SEAL" tubes"



Portex Blue Line Ultra Tracheostomy Tube

Indications: Regular/standard adult trach

Product Information: Will be discontinued soon, BluSelect is new product line

Cuff: Barrell-shape, High Volume Low Pressure



Portex Regular Tracheostomy Tube

Indications: Regular/standard adult trach

Product Information: Generally same as legacy Shiley. Uses ISO sizing for size of trach is the same size as the inner diameter of the trach without the inner cannula. Will be discontinued soon, BluSelect is new product line

Cuff: Barrell-shape, High Volume Low Pressure



Color coded tubes and inner cannulas

- Orange = 6
- Green = 7
- White = 8
- Blue = 9
- Yellow = 10

Internal diameter is same as tube size



Portex tracheostomy tube

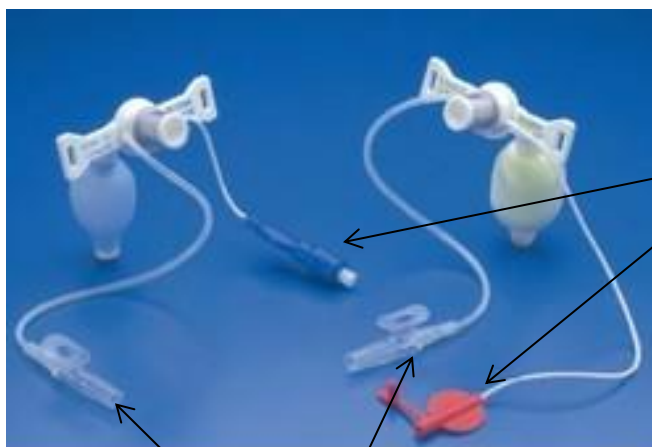
Inner cannula inner diameter

Inner diameter of trach without inner

Outer diameter

Trachs with Talk Attachments and Suction Aid

- Comes in Portex and Shiley brands. Ports can be used for subglottic suction or as talk attachments.
- Talk attachments are used for patients on ventilator (cuff inflated). The attachment opening is just above the cuff. Air can be infused when the cuff is inflated, and adjusted to achieve voicing. Occlude open port with finger for patient to speak.
- The suction port is for intermittent or continuous subglottic suction. Can attach to syringe and aspirate manually, or attach to wall suction at 100-120mmHg. Need to occlude open port with finger. For continuous subglottic suction detach open port and connect to wall suction.



Pilot balloons for cuff management

Talk attachment/Subglottic suction port with open port for finger occlusion

Tracoe Tracheostomy Tube

Indications: Regular/standard adult trach.

Product Information: Good for speaking, low profile for long term trach patients.



Blom-Singer Tracheostomy Tube

Indications: Regular/standard adult trach. Long term vent dependent patients, fenestration allows for speech regardless of cuff inflation. Equal size specifications as a Legacy Shiley.

Product Information: Speech cannula for ventilator patients with “Flap valve” and “bubble valve.” EVR (exhaled volume reservoir) attachment prevents false low expiratory minute volume alarms. LPV (low profile valve) for patients not on ventilator



Jackson Tracheostomy Tube

Indications: Long term trach patients

Product Information: Metal is inherently antimicrobial. Can be removed and cleaned easily and often. Patients report less problems with secretions and odor. Come with and without 15mm adapters on inner cannulas, with care used for speaking valves and caps.



Jackson Laryngectomy Tube

