

SAFE  
SOLUTIONS TO  
THE PROBLEMS  
OF SPECIALITY  
ANAESTHETIC  
AND SURGICAL  
PROCEDURES

# Speciality Anaesthesia Tubes



***tyco***

*Healthcare*

**MALLINCKRODT**

# Common Features

## Clear tube material

- Allows visualisation of condensed exhaled air indicating tracheal intubation.

## Thermosensitive material

- Clear thermosensitive material softens at body temperature to follow the natural airway profile and minimises the possibility of damage to the delicate tracheal mucosa.

## Thin walled tube

- Ensures the largest internal diameter in comparison to the external diameter. This allows a wider choice of tube size without compromising the airflow resistance.

## Atraumatic tip

- Reduces the risk of tracheal wall damage during intubation.

## Pilot balloon with self-sealing valve

- Inflation line with self-sealing valve and pilot balloon on all cuffed tubes.

## Magill shaped body

- Magill body curvature through to the distal tip conforming to relevant ISO & EN criteria.

## Radiopaque line

- Tip-To-Tip™ radiopaque line allows location and verification of the tube position by x-ray.

## 15 mm connector

- Standard connector for secure connection to the breathing system and an internal tapered shoulder facilitates easy passage of suction catheters. The tracheal tube size is marked on the connector.

## Sterile packed - for single use only

- Reduces the risk of cross-infection.

## Latex free\*

- All Mallinckrodt tracheal tubes, described in this catalogue, are made of Latex free material.

## CE Approved

- All Mallinckrodt tracheal tubes are CE approved in accordance with Council Directive 93/94/EEC of 14th June, 1993.

## Tracheal tube length

- The nominal length ( $\pm 10$ mm) specified for the tracheal tubes includes the 15 mm connector.

\* Except for products with the Lanz™ System.

# Brandt™ System

Limits the rise in intra-cuff pressure caused by diffusion of nitrous oxide into the tracheal tube cuff during general anaesthesia.



Brandt™ System

Extensive clinical studies have shown that during general anaesthesia, nitrous oxide diffuses into any air-filled tracheal tube cuff. This diffusion can cause a significant increase in cuff to tracheal wall pressure in as little as 15 minutes, which could result in damage to the delicate tracheal epithelium, tracheal wall or lead to other complications.

The patented Brandt™ System has been developed specifically to overcome, in a very simple and cost-effective way, the problems associated with nitrous oxide diffusion.

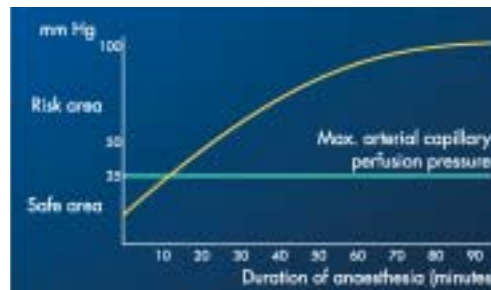
## Features and benefits:

- The Brandt™ System (pilot balloon) allows rediffusion of nitrous oxide, which helps to maintain a low pressure cuff seal of the tracheal tube.
- The Brandt™ System is available with the Hi-Contour™, RAE™ Oral, RAE™ Nasal and Safety-Flex™ tracheal tubes.

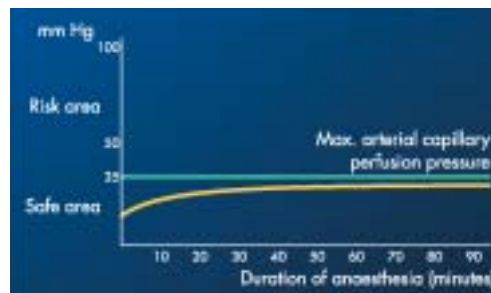
The Brandt™ System is featured in the video 'Intubation', available from Tyco Healthcare.

Scientific articles referring to 'Nitrous Oxide Diffusion' and 'The Brandt™ System' are available on request.

**For further explanation of the pressure-regulating Brandt™ System please contact your Tyco Healthcare representative or distributor.**



*Increase in intra-cuff pressure during nitrous oxide anaesthesia, using a conventional tracheal tube, without manual correction of cuff pressure.*



*Minimal increase in intra-cuff pressure during nitrous oxide anaesthesia, using a Brandt™ System product. Manual correction of cuff pressure is unnecessary.*

# RAE™ Oral and Nasal

## RAE™ Oral with Brandt™ System, RAE™ Nasal with Brandt™ System

For unobstructed access during head and neck surgery.

### Features and benefits:

- Preformed tube helps to reduce the risk of kinking.
- Improved access to the operative field, because the connections lie outside this area.
- Hi-Contour™ low pressure cuff helps to ensure an efficient low pressure cuff seal.
- Large diameter and thin-walled cuff helps to reduce the risk of tracheal wall damage.
- Specially moulded hooded tip to assist intubation and helping to provide high patient safety and comfort.
- Murphy eye incorporated as an additional safety feature.

RAE™ Tubes are also available with the Brandt™ System, a valve which allows rediffusion of nitrous oxide and maintains a low pressure cuff seal. For a detailed description, please refer to the page 'Brandt™ System'.

For uncuffed versions, please refer to the Neonatal/Paediatric Tracheal Tubes Brochure.

RAE™ - developed by Drs Ring, Adair and Elwyn

### Ordering information:

REF	REF Oral with Brandt™	I.D. (mm)	O.D. (mm)	Cuff Resting Diameter (mm)	Length (mm)
115-40	315-40	4.0	5.6	8	216
115-45	315-45	4.5	6.2	11	237
115-50	315-50	5.0	6.9	19	251
115-55	315-55	5.5	7.6	21	263
115-60	315-60	6.0	8.2	22	287
115-65	315-65	6.5	8.7	24	297
115-70	315-70	7.0	9.5	28	317
115-75	315-75	7.5	10.1	30	327
115-80	315-80	8.0	10.8	31	345
115-85	315-85	8.5	11.1	33	355
115-90	315-90	9.0	11.9	34	374

Carton Quantity: 10

REF	REF Nasal with Brandt™	I.D. (mm)	O.D. (mm)	Cuff Resting Diameter (mm)	Length (mm)
119-60	319-60	6.0	8.2	22	386
119-65	319-65	6.5	8.7	24	396
119-70	319-70	7.0	9.5	28	406
119-75	319-75	7.5	10.1	30	416
119-80	319-80	8.0	10.8	31	425

Carton Quantity: 10

All tubes are delivered sterile packed, for single use only.



RAE™ Oral



RAE™ Nasal

# Oxford

Preformed tracheal tube for short-term ventilation and emergency intubation.



*Oxford*

## Features and benefits:

- The bevelled tip (aligned to the posterior wall) facilitates rapid access to the trachea in emergency situations.
- Right angled tube shape reduces the risk of kinking in the oropharynx.
- Lo-Contour™ low pressure cuffs helps to ensure an efficient low pressure cuff seal.
- 15 mm connector bonded to the tracheal tube to eliminate the risk of accidental disconnection of the tube.
- Suitable for oral intubation.



*Lo-Contour™ low pressure cuff*

## Ordering information:

REF	I.D (mm)	O.D (mm)	Cuff Resting Diameter (mm)	Length (mm)
128-60	6.0	8.2	21	216
128-70	7.0	9.5	24	231
128-80	8.0	10.8	27	241
128-90	9.0	11.9	30	251
128-10	10.0	13.4	33	266

Carton Quantity: 10

All tubes are delivered sterile packed, for single use only.

# Safety-Flex™

## Safety-Flex™ with Murphy Eye

## Safety-Flex™ with Brandt™ System

Reinforced tracheal tube designed to reduce the risk of kinking when a patient's head is in an extended or flexed position.



Murphy Eye



Safety-Flex™

- Satin Slip™ inner surface of the tube facilitates easier introduction of suction catheters (e.g. Gentle-Flo™), fiberoptic endoscopes or intubation stylets (e.g. Satin Slip™ stylet).
- 15mm connector bonded to the tracheal tube to eliminate the risk of accidental disconnection of the tube.
- Suitable for both oral and nasal intubation.

### Features and benefits:

- Metal reinforcing spiral, uniformly and securely encapsulated in the wall of the tube helps to prevent the tube from kinking.
- Lo-Contour™ low pressure cuffs helps to ensure an efficient low pressure cuff seal.
- Two depth marks, above the cuff, aid correct positioning of the tracheal tube if the vocal cords can be visualised.
- Reinforcement supports X-ray control and verification of the tube position (no Tip-To-Tip™ radiopaque line).

**A bite block or Guedel airway is recommended when using Safety-Flex™ tracheal tubes.**

For uncuffed tracheal tubes, please refer to the Neonatal/Paediatric Tracheal Tubes Brochure. Safety-Flex™ is also available with the Brandt™ System. The Brandt™ System allows rediffusion of anaesthesia gases, which helps to maintain a low-pressure cuff seal. For a detailed description, please refer to the page 'Brandt™ System'.



Lo-Contour™ low pressure cuff

### Ordering information:

REF	REF with Murphy Eye	REF with Brandt™	I.D. (mm)	O.D. (mm)	Cuff Resting Diameter(mm)	Length incl. Connector(mm)
118-30	-	-	3.0	5.0	8	195
118-35	-	-	3.5	5.2	9	212
118-40	-	-	4.0	6.2	9	236
118-45	-	-	4.5	6.7	11	250
118-50	-	318-50	5.0	6.9	17	308
118-55	-	318-55	5.5	7.5	19	320
118-60	118-60 M	318-60	6.0	8.2	21	320
118-65	118-65 M	318-65	6.5	8.8	22	330
118-70	118-70 M	318-70	7.0	9.6	24	340
118-75	118-75 M	318-75	7.5	10.2	26	350
118-80	118-80 M	318-80	8.0	10.8	28	360
118-85	118-85 M	318-85	8.5	11.5	29	365
118-90	118-90 M	318-90	9.0	12.1	31	370
118-95	118-95 M	318-95	9.5	12.8	32	370

Carton Quantity:10

All tubes are delivered sterile packed, for single use only.

# MLT™

Tracheal tube for microlaryngeal surgery.



MLT™

## Features and benefits:

- Small diameter tube provides maximum access to the operative field.
- Length comparable to a standard tube with 8 mm internal diameter.
- Special low pressure / large diameter cuff to give maximum tracheal wall protection.
- Murphy eye incorporated as an additional safety feature.
- Suitable for both oral and nasal intubation.

**The MLT™ is not suitable for laser surgery.**



## Ordering information:

REF	I.D. (mm)	O.D. (mm)	Cuff Resting Diameter (mm)	Length with Connector (mm)
121-40	4.0	5.6	25	368
121-50	5.0	6.9	27	368
121-60	6.0	8.2	27	368

Carton Quantity: 10

All tubes are delivered sterile packed, for single use only.

# Laser-Flex™

Stainless steel dual cuffed tube for ventilation during CO<sub>2</sub> and KTP laser surgery of the laryngeal / tracheal area.



Dual cuff, Murphy eye



Laser-Flex™

## Features and benefits:

- Laser-resistant, non-flammable, flexible stainless steel tube.
- Accidental contact of the tube shaft with the laser beam results in the reflection of a defocused beam.
- Airtight steel spiral prevents air leaks occurring along the tube's length.
- Dual cuffs of extra large diameter and individual inflation lines for maximum safety.
- The pilot balloons with self-sealing valves are clearly marked 'proximal' and 'distal'.
- 15 mm connector bonded to the tracheal tube to eliminate the risk of accidental disconnection of the tube.
- Murphy eye incorporated as an additional safety feature

For uncuffed versions, please refer to the Neonatal/Paediatric Tracheal Tubes Brochure.

**For adequate protection during laser surgery, both cuffs must be filled with isotonic saline.**

## Ordering information:

REF	I.D. (mm)	O.D. (mm)	Cuff Resting Diameter (mm)	Length (mm)
160-45	4.5	7.0	-	349
160-50	5.0	7.5	-	349
160-55	5.5	7.9	-	349
160-60	6.0	8.5	-	349

Carton Quantity: 1

All tubes are delivered sterile packed, for single use only.

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# LGT™

Preformed laryngectomy tube for use during operations on the larynx or trachea, when a tracheal tube is contra-indicated.



LGT™

## Features and benefits:

- Two preformed curves separated by a short straight section facilitate tube placement, regardless of the tracheal shape.
- Anaesthesia circuit connections are removed from the surgical field.
- Large Diameter/low pressure cuff helps to ensure an efficient low pressure seal.
- Specially moulded hooded tip to assist intubation and helping to provide high patient safety and comfort.
- Murphy eye incorporated as an additional safety feature.



## Ordering information:

REF	I.D. (mm)	O.D. (mm)	Cuff Resting Diameter (mm)	Length (mm)
129-70	7.0	9.5	28	358
129-80	8.0	10.8	31	358

Carton Quantity: 10

All tubes are delivered sterile packed, for single use only.

# Tracheal Tube Accessories

High quality accessories enhance optimal product use as well as patient safety and comfort.



*Satin Slip™*

## Satin Slip™ Surface Intubation Stylet

### Features and benefits:

- Malleable aluminium with a plastic sheath assists in tracheal intubation under difficult circumstances.
- Soft distal tip to reduce the possibility of tracheal wall damage.
- Satin Slip™ surface for easier introduction and removal of the stylet.
- Packed clean, for single use only.

### Ordering information:

REF	Recommended Tube I.D. (mm)	Length (mm)
Satin Slip		
116-06	2.5 to 4.5	280
116-10	4.0 to 6.0	350
116-14	>5.0	350

Carton Quantity: 10



*Tracheal Tube Restraint*

## Tracheal Tube Restraint

### Features and benefits:

- Stabilises orally intubated tracheal tubes without adhesive tape.
- One size fits all tracheal tubes.
- Made from Velfoam to reduce skin irritation.
- Laminated with Velcro®\* for easy and rapid adjustment.
- Packed clean, for single use only.

### Ordering information:

REF	Length (mm)
Tracheal Tube Restraint	
330	700

Carton Quantity: 25

\* Velcro® is a registered trademark of Velcro Inc., USA

# Tracheal Tube Accessories

High quality accessories enhance optimal product use as well as patient safety and comfort.



*RADSC™*

## **RADSC™ Right Angled Double Swivel Connector**

### **Features and benefits:**

- Lightweight free-moving connector with two swivel joints. Reduces the risk of trauma and/or tube displacement by minimising the pull and torque on the tracheal or tracheostomy tube.
- Small removable cap allows suctioning and bronchoscopy and minimises air leakage.

### **Ordering information:**

REF  
RADSC

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104-13

Carton Quantity: 10



*Hand Pressure Gauge*

## **Hi-Lo™ Hand Pressure Gauge**

### **Features and benefits:**

- Convenient, ergonomic design
- Calibrated in cm H<sub>2</sub>O
- Fitted with clip attachment for storage and quick access.
- Each unit is supplied with a detachable, long flexible connecting tube.
- An extension tube is also available, separately packed, ready for use.

### **Ordering information:**

REF	Description	Carton Quantity
109-01	Hi-Lo Hand Pressure Gauge	1
109-05	Connecting Tube	10



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