



Humidification

Solutions for passive and active humidification devices for both ventilated and spontaneously breathing patients



Your choice for humidification

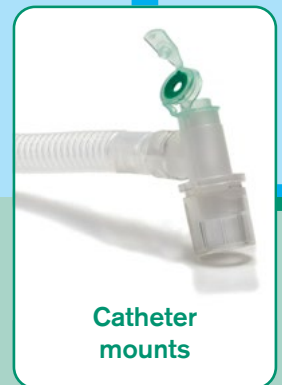
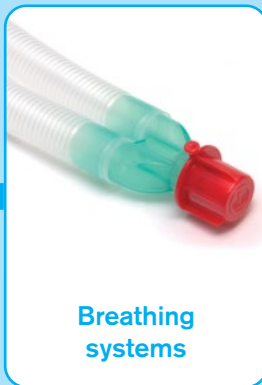
Intersurgical understand that each patient and clinical situation is different. Our aim is to provide a solution for all of your humidification requirements, active or passive, for both ventilated and spontaneously breathing patients.

For ventilated patients

Passive humidification

Passive humidification requires a heat and moisture exchanger to be positioned at the patient connection of a basic two limb breathing system. This is designed to replicate the functions of the upper airway conserving the patient's own expired heat and moisture and returning these to the patient during inspiration.

Passive



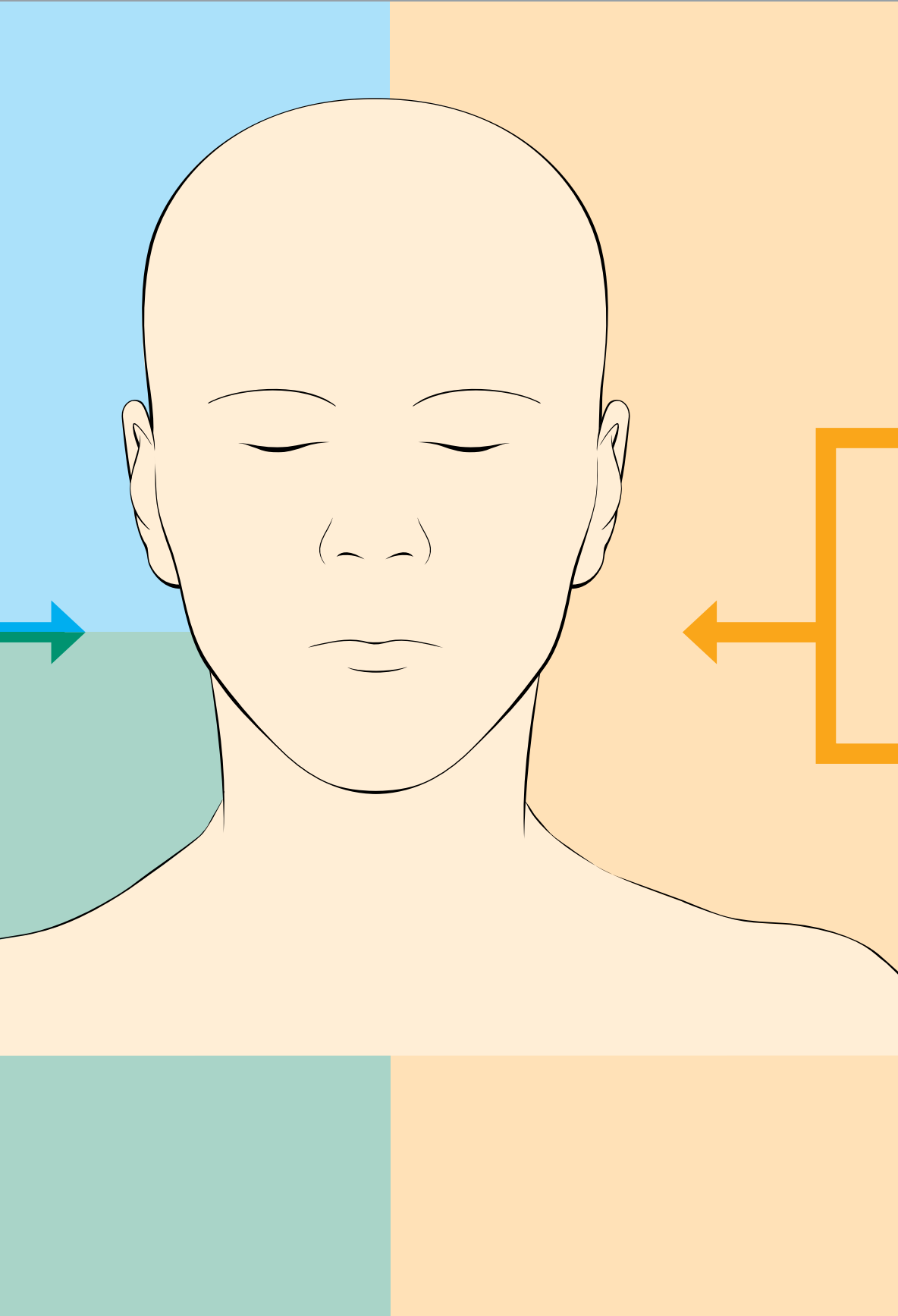
Active



Active humidification

Active humidification requires a water bath humidifier, humidification chamber and either a heated wire breathing system or water traps within the system. This technique is also designed to replicate the functions of the upper airway by the addition of heat and moisture from the humidifier. This provides a higher level of humidity than an HME and should be selected depending on the clinical requirements of the patient.

For spontaneously breathing patients



A guide to symbols used in this catalogue

Throughout the catalogue we use a number of symbols to identify specific characteristics about our products, please familiarise yourself with these below.




Sustainable development

The Eco range of products has been designed as part of our ongoing focus on sustainable development. Wherever you see the  logo we have reduced the environmental impact of these products compared to traditional PVC options.



Sterile range

A number of our products are only supplied sterile and are identified by the  symbol. Where we have both a non-sterile and sterile option available (S*) is shown after the code number. Simply add S to the end of the 7 digit code to order the sterile version.



Silver Knight™

A range of Silver Knight breathing systems with anti-microbial additive for anaesthesia and intensive care is available, offering an option to help reduce the risks of cross infection.



Single use and Latex free

All products detailed in this catalogue are single-use and latex-free unless otherwise stated.

 [Watch the video](#)

View product video

We have a large number of product videos to show how our products can be used and their features and benefits. These can be viewed on our website or where indicated by clicking the 'watch the video' button.

A guide to our ports and caps

Ports and caps are available on a variety of products including catheter mounts, elbows, T-pieces, Y-pieces and connectors. For added safety all Intersurgical port caps are tethered to the connectors, to prevent loss or misplacement in use.

 [Watch the video](#)

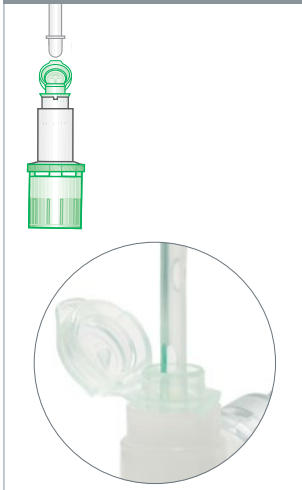
Luer ports

For secure attachment of gas sampling lines with luer lock fittings



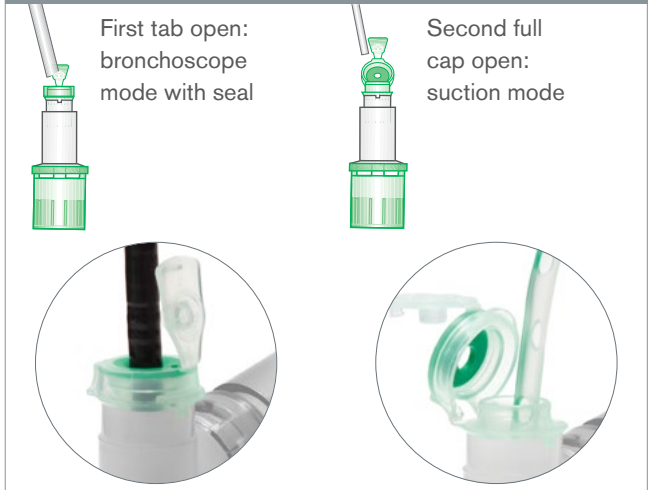
7.6 mm port and flip top cap

For insertion of all standard 7.6 mm probes or for suctioning



Double flip top cap with seal

Bronchoscopy and suction ports in one patient connection

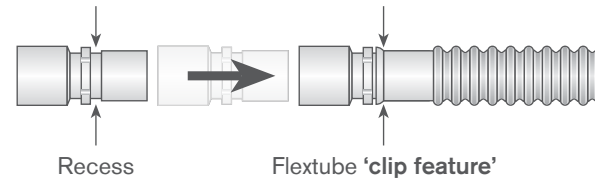


A guide to our tube types

We manufacture a variety of tubes to suit different applications and clinical requirements:

Flextube™ – for flexibility

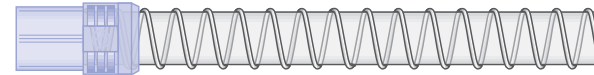
Most of our breathing systems, plus our Flexible range of catheter mounts, are made from Intersurgical Flextube. The tube is flexible and has a unique clip feature which can create an airtight fit when used with our connectors with a recess.



Smoothbore – for improved flow characteristics

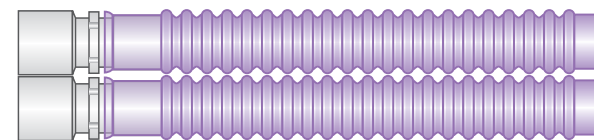
We have a range of breathing systems and catheter mounts made from Smoothbore tubing. A non-PVC Eco option is also available providing a lower environmental impact. The clear crush resistant tubing may offer improved ventilatory support, with:

- Improved flow characteristics
- Lower tubing compliance
- Lower system volume



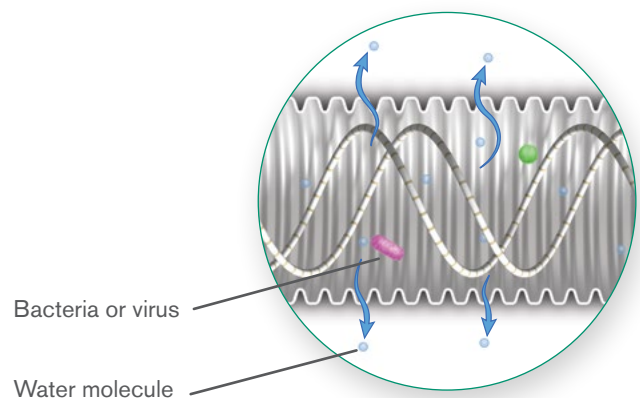
Anti-microbial breathing systems – reduce risks

In the continued fight against Hospital Acquired Infections, Intersurgical has developed the Silver Knight™ range of products with an anti-microbial additive to further enhance patient safety. This anti-microbial, silver-based ion additive has been introduced to a range of breathing systems for both anaesthesia and intensive care use. Testing to ISO Standard 22196 shows a reduction in bacterial viable count by 99.9% against controls.



Dri-Therm™ – reduced condensate technology

Dri-Therm expiratory tubing is made of material that allows small water molecules to pass through the limb wall. The permeability of the tube lowers the humidity of the gas and removes excess condensation. Larger bacteria and viruses cannot pass through the tubing and are contained within the breathing system so they can be safely filtered at the end of the limb. Intersurgical's transparent, lightweight tubing and connectors ensure complete visibility of the breathing system patency and performance throughout patient treatment.



Why is Humidification needed?

In normal respiration the anatomy of the upper airway helps to warm and humidify inspired air, and to retain the warmth and moisture contained in expired air. During inspiration, even cold or dry air is typically heated to 37 °C and, fully saturated, contains 44 mg H₂O per litre. In mechanical ventilation or anaesthesia, the patient's upper airway may be bypassed by the introduction of a tracheal tube. As a result the patient's lungs may be confronted with cold dry inspired gas.

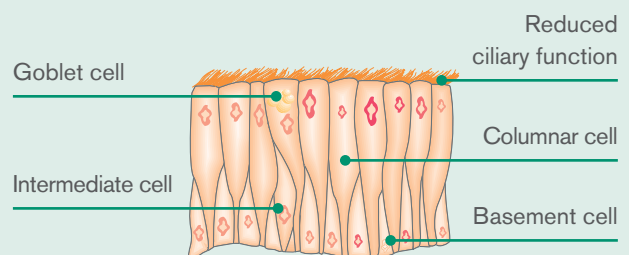
The drying and cooling effect is exacerbated by the presence of the tracheal tube, the normal process of re-absorption of heat and moisture by the upper airway during expiration is lost.

Prolonged exposure to dry ventilatory gases can lead to a number of problems as highlighted below.

Prolonged exposure to dry ventilatory gases can lead to:

- Localised inflammation of the trachea
- A reduction in ciliary function
- Retention and thickening of secretions
- Lowering of patient temperature
- Reduction in cardiopulmonary function
- Increased risk of tracheostomy tube occlusion
- Extended duration and cost of care

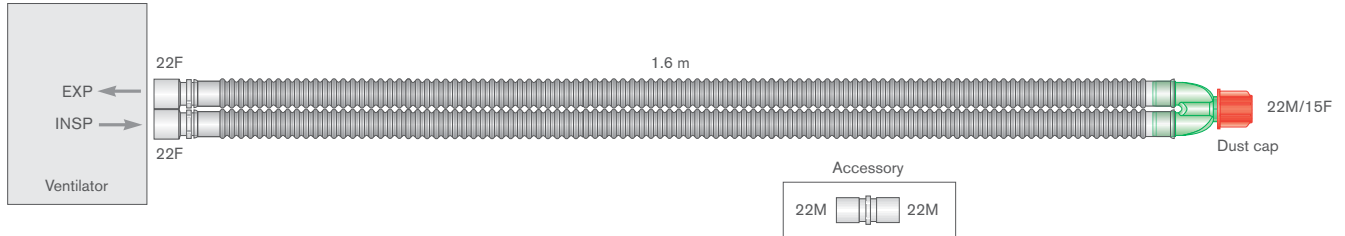
Respiratory epithelium adversely affected by heat and moisture loss





Flextube™ breathing systems for passive humidification

A range of Flextube breathing systems for passive humidification featuring a unique clip feature that can create an airtight fit when used with Intersurgical connectors, and can help prevent leaks or disconnections.

Please see page 5 for a guide to our tube types.

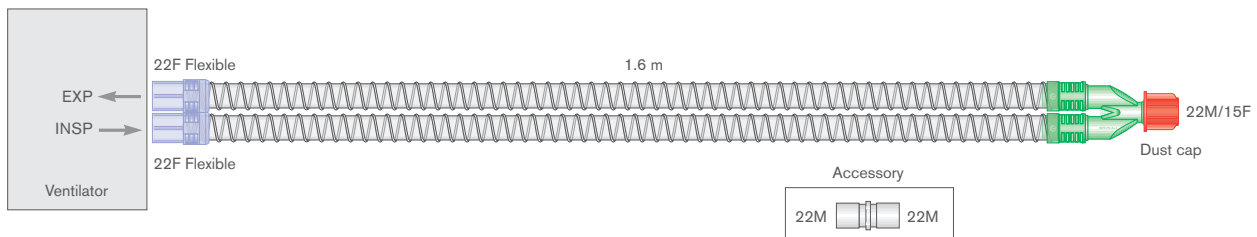




Code	Description	Box Qty.
2000000 (S*) 	22 mm Flextube breathing system. ≥ 1.6 m	20 (15*)
2000100	22 mm Silver Knight™ anti-microbial Flextube breathing system. ≥ 1.6 m	20 
2200000	22 mm Flextube breathing system with detachable limb. ≥ 1.6 m	20
2006000	22 mm Flextube breathing system. ≥ 2.0 m	15
2001000 (S*)	22 mm Flextube breathing system. ≥ 2.4 m	15 (10*)
4500000	15 mm Flextube breathing system with ported Y-piece. ≥ 1.6 m	12

Smoothbore breathing systems for passive humidification

Smoothbore tubing incorporates flexible end connectors at the machine end that are welded on to the tube, which can prevent leakage or disconnection.

Please see page 5 for a guide to our tube types.



Code	Description	Box Qty.
5000000 (S*) 	22 mm Smoothbore breathing system. ≥ 1.6 m	12 (20*)
5001000 (S*)	22 mm Smoothbore breathing system. ≥ 2.0 m	15 (15*)
5200000	22 mm Eco Smoothbore breathing system. ≥ 1.6 m	20 
5016000	15 mm Smoothbore breathing system with straight 15 mm Y-piece. ≥ 1.6 m	12
5024000	15 mm Smoothbore breathing system with straight 15 mm Y-piece. ≥ 2.4 m	10

What options are available?

There are two options for patient humidification, **passive** or **active**.

Passive humidification conserves the patient's own heat and moisture whilst **active humidification** adds additional heat and moisture via a humidifier.

We have a full range of products for both options to suit your patients requirements.

Passive Humidification

If your ventilated patient requires passive humidification then we have a wide range of basic breathing systems and heat and moisture exchangers.

In this brochure are a selection of options however for the full range please refer to our website www.intersurgical.com or our product catalogue.



Hydro-Therm™ HME range

A dedicated range of Heat and Moisture Exchangers designed to replicate the functions of the body's upper airway by conserving expired heat and moisture and returning them to the patient during inhalation. The Hydro-Therm is a small volume, lightweight device which is clinically suitable over a wide range of patient sizes.



Code	1850000	1855000	1442000
Box Qty.	20	20	30
Luer lock port	-	✓	-
Moisture loss	7.8 mg H ₂ O/L	7.8 mg H ₂ O/L	9.2 mg H ₂ O/L
Calculated moisture return	30.8 mg H ₂ O/L	30.8 mg H ₂ O/L	29.5 mg H ₂ O/L
Resistance at 5 L/min	-	-	0.3 cm H ₂ O
Resistance at 10 L/min	-	-	0.8 cm H ₂ O
Resistance at 30 L/min	0.5 cm H ₂ O	0.5 cm H ₂ O	-
Resistance at 60 L/min	1.6 cm H ₂ O	1.6 cm H ₂ O	-
Compressible volume	20 ml	20 ml	2.2 ml *
Weight	11.8 g	11.8 g	2.8 g
Connectors	15M – 22M/15F	15M – 22M/15F	15F/15M
Minimum tidal volume	> 60 ml	> 60 ml	> 10 ml

* Refers to the Dead Space

Hydro-Therm™ 3 HME range

A dedicated range of Heat and Moisture Exchangers designed to replicate the functions of the body's upper airway by conserving expired heat and moisture and returning them to the patient during inhalation. The Hydro-Therm 3 is a large-volume HME with rounded housing for use in anaesthesia and intensive care.



Code	1560000	1560011
Box Qty.	150	75
Luer lock port	✓	✓
Moisture loss	6.7 mg H ₂ O/L	6.7 mg H ₂ O/L
Calculated moisture return	31.6 mg H ₂ O/L	31.6 mg H ₂ O/L
Resistance at 30 L/min	0.2 cm H ₂ O	0.3 cm H ₂ O
Resistance at 60 L/min	0.7 cm H ₂ O	1.3 cm H ₂ O
Compressible volume	59 ml	59 ml*
Weight	31 g	45 g
Connectors	22F/15M-22M/15F	22F/15M-22F/15M
Minimum tidal volume	>200 ml	>200 ml
Accessories	–	Superset™ catheter mount** 3504000

We can provide both HME only options and a range combined with filters, HMEFs. These provide the performance of a dedicated HME with the filtration efficiency of a breathing filter.

Filta-Therm™ and Clear-Therm™ HMEFs



Code	1941000	1541000	1831000	1441000
Box Qty.	70	150	40	20
Luer lock port	✓	✓	✓	✓
Moisture loss	9.3 mg H ₂ O/L	7.8 mg H ₂ O/L	6.8 mg H ₂ O/L	12.3 mg H ₂ O/L
Calculated moisture return	29.5 mg H ₂ O/L	30.8 mg H ₂ O/L	31.7 mg H ₂ O/L	26.8 mg H ₂ O/L
Filtration efficiency	>99.999%	>99.99%	>99.99%	>99.99%
Resistance at 15 L/min	N/A	N/A	0.8 cm H ₂ O	1.4 cm H ₂ O
Resistance at 30 L/min	1.0 cm H ₂ O	0.8 cm H ₂ O	1.5 cm H ₂ O	N/A
Resistance at 60 L/min	2.4 cm H ₂ O	2.1 cm H ₂ O	N/A	N/A
Compressible volume	65 ml	60 ml	26 ml	11 ml
Weight	43 g	29 g	22 g	11 g
Connectors	22F - 22M/15F	22F/15M-22M/15F	22F/15M-22M/15F	15M-15F
Minimum tidal volume	>200 ml	>200 ml	>90 ml	>35 ml

* HME only

** Refer to information on catheter mount volumes in Patient Connections.

Inter-Therm™ range

The Inter-Therm range of sterile HMEFs is designed for use in breathing systems in the operating theatre and intensive care unit.

The Inter-Therm includes a wound paper HME media, providing excellent humidification and low resistance properties.

Inter-Therm Mini Angled offers an easy to use option with an integral 90° elbow for paediatrics, reducing the need for an additional catheter mount or separate patient elbow.

Turbo webs

Evenly distributes the air flow to ensure all of the filter media is utilised

Wound paper HME element

Providing high moisture return

HME on the patient side

Ensuring low resistance to flow during use

Self retaining port cap

Improving patient safety




Code	1341000S 	1341007S 	1341580S 
Box Qty.	50	50	50
Luer lock port	✓	–	✓
Moisture loss	6 mg H ₂ O/L	6 mg H ₂ O/L	6 mg H ₂ O/L
Calculated moisture return	32.3 mg H ₂ O/L	32.3 mg H ₂ O/L	32.3 mg H ₂ O/L
Filtration efficiency	>99.998%	>99.998%	>99.998%
Resistance at 30L/min	1.6 cm H ₂ O	1.6 cm H ₂ O	1.6 cm H ₂ O
Resistance at 60L/min	2.7 cm H ₂ O	2.7 cm H ₂ O	3.9 cm H ₂ O
Compressible volume	57 ml	57 ml	57 ml*
Weight	31 g	30 g	58 g
Connectors	22F/15M-22M/15F	22F/15M-22M/15F	22F/15M-22M/15F
Minimum tidal volume	>180 ml	>180 ml	>180 ml
Accessories	–	–	Smoothbore catheter mount with double swivel elbow and double flip top cap** 5180000

 Sterile

* HMEF only

** Refer to information on catheter mount volumes in Patient Connections.



Code	1332000S 	1333002 <i>NEW</i>
Box Qty.	50	50
Luer lock port	✓	✓
Moisture loss	8.5 mg H ₂ O/L	8.1 mg H ₂ O/L
Calculated moisture return	30.1 mg H ₂ O/L	30.5 mg H ₂ O/L
Filtration efficiency	>99.99%	≥99.65%
Resistance at 10L/min	–	0.7 cm H ₂ O
Resistance at 20L/min	–	1.5 cm H ₂ O
Resistance at 30L/min	2.2 cm H ₂ O	–
Resistance at 60L/min	–	–
Compressible volume	29 ml	16 ml
Weight	19 g	15 g
Connectors	15M-22M/15F	15M-22M/15F
Minimum tidal volume	>90 ml	50ml



Inter-Therm Midi

Inter-Therm Midi Angled

Inter-Therm Angled

Code	1331302 <i>NEW</i>	1332402 <i>NEW</i>	1341902 <i>NEW</i>
Box Qty.	60	60	40
Luer lock port	✓	✓	✓
Bacterial efficiency	99.99%	99.99%	> 99.999%
Viral efficiency	99.95%	99.95%	99.99%
Moisture loss	8.1 mg H ₂ O/L	8.1 mg H ₂ O/L	9.1 mg H ₂ O/L
Calculated moisture return	30.5 mg H ₂ O/L	30.5 mg H ₂ O/L	29.6 mg H ₂ O/L
Resistance at 30 L/min	1.7 cm H ₂ O	1.7 cm H ₂ O	0.9 cm H ₂ O
Resistance at 60 L/min	3.7 cm H ₂ O	3.7 cm H ₂ O	2.3 cm H ₂ O
Compressible volume	29 ml	31 ml	46 ml
Weight	20 g	22 g	32 g
Connectors	15M – 22M/15F	15M – 22M/15F	22F/15M – 22M/15F
Minimum tidal volume	100 ml	100 ml	150 ml

 Sterile

* HMEF only

** Refer to information on catheter mount volumes in Patient Connections.

Active Humidification

If your ventilated patient requires active humidification then we have an extensive range of breathing systems and accessory products available.

InterActive™ respiratory humidifier



The InterActive respiratory humidifier and system provides a new customer option for active humidification and combines advanced humidifier technology with Intersurgical's comprehensive range of heated wire breathing systems and accessories.

The standardised and versatile design enables connectivity with a multitude of equipment and devices, offering superior supply-chain confidence and simplified product integration.

The InterActive respiratory humidifier offers a number of key features:

- Two pre-set treatment modes
- Customisable manual treatment mode
- Large high resolution colour display with touch screen operation
- Automatic humidification chamber water level monitoring
- The InterActive respiratory humidifier is delivered ready for use with the temperature probe and heated wire adaptor lead included in the package

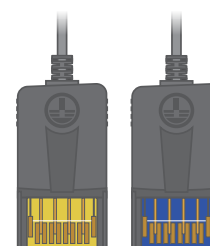


Infrared water level sensing

Immediate alarm notification before humidification is compromised

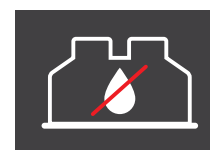
Top mounted leads

Colour coded for quick and easy set up



Alarm indication

Pictorial alarm display for fast error identification and resolution



Mode selection

Invasive, non-invasive and manual mode options, including last used settings memory



Touch-screen display

The intuitive user interface is navigated via a 4.2" colour touch-screen



Code	Description	Box Qty.
71000XX*	InterActive respiratory humidifier	1

*Contact Intersurgical for market specific code

Chambers for heated humidification

We offer a comprehensive range of active humidification chambers for use with the more commonly found humidifiers used in the intensive care areas.

Compatible with all our heated wire products, all three chamber options feature 22 mm male connectors and a clear polycarbonate body for instant and accurate visible fluid level assessment.

- **The dual float auto fill** humidification chamber can be used in a variety of respiratory support therapies ranging from CPAP through to full mechanical ventilation including high frequency oscillation for all size patients. This chamber offers the clinician a constant water level, as the used fluid is automatically replaced from a reservoir bag. As a result the system compressible volume does not fluctuate, making the auto fill chamber the first choice in all intensive care areas from neonatal through to adult.
- **The manual fill** chamber feature a clamp along the fill line which isolates the chamber from the fluid reservoir bag. This chamber requires the clinician to monitor the water level and open the clamp when more fluid is required. Seen as a lower cost alternative and is sometimes used in high driving pressure applications (eg. nFlow™).
- **The low volume** manual fill chamber also features the fill line clamp. With very low compressible volume, it is ideally suited for applications like advanced high frequency ventilation for all sizes of patient.

Inline filter

Prevents any debris entering the chamber

Dual valve

For added security

Clearly visible water level indicator

Easy to see for instant accurate fluid level assessment

Advanced dual float design

The closed cell material of the primary float ensures a totally reliable unsinkable rigid mechanism. Whilst the secondary float provides added security

Protective cassette

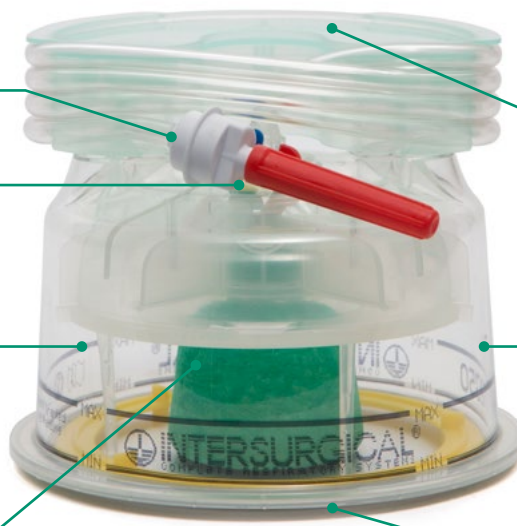
Protects the chamber from contamination and conveniently stores the fill set before use

Strong polycarbonate clear material

Improved compliance characteristics. Allows for easy visual assessment of the fluid level at all times

Shrouded heated plate cover

Prevents accidental burns when removing the chamber from the heater base



2310000



2320000



2330000

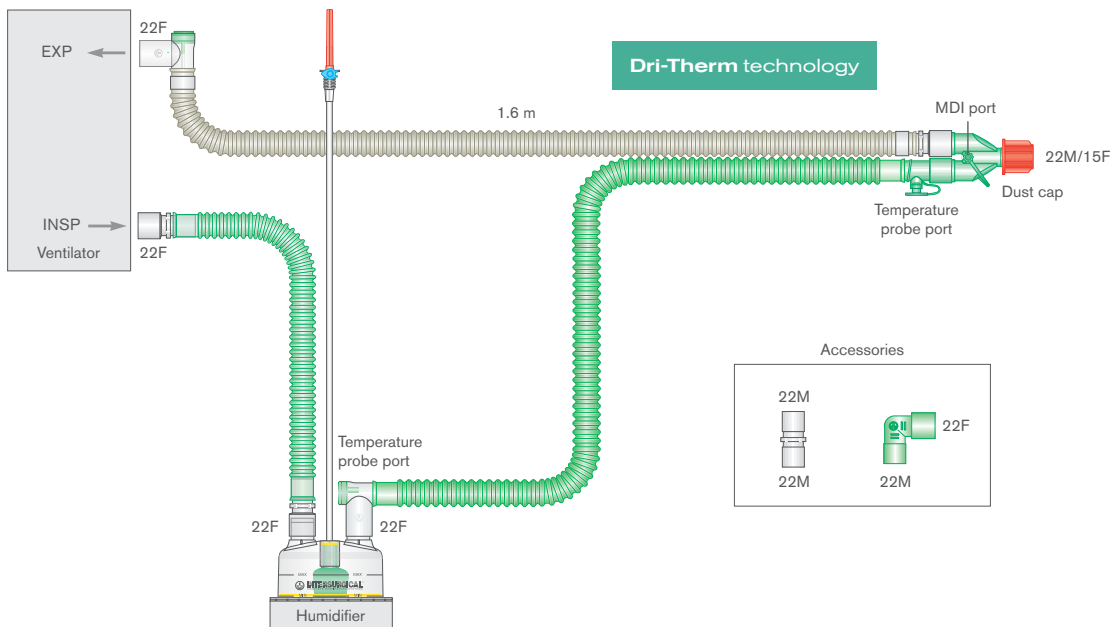
Code	Description	Box Qty.
2310000 (S*)	Dual float auto fill humidification chamber with fill set	30 (30*)
2320000	Manual fill humidification chamber with fill set and clamp	30
2330000	Low volume manual fill humidification chamber with fill set and clamp	30

 Sterile option available

(S*) Add an S to the seven digit code number for the sterile version of this product eg. 2310000S (sterile box quantity is shown in brackets).

Dri-Therm™ dual heated wire breathing systems

The Dri-Therm heated wire breathing system is designed to reduce the humidity of gas in the expiratory limb, keeping tubing clear of fluid, helping maintain a closed system and protecting the ventilator from high levels of humidity. The Dri-Therm system combines permeable tube technology with Intersurgical's twin coil wire and high quality product design. The temperature and humidity of the gas is conditioned to deliver the optimal level of humidification to the patient whilst minimising excess condensate in the gas pathway.



Code	Description	Box Qty.
2066310	22 mm Dri-Therm dual heated wire breathing system with auto fill chamber and extra limb. ≥ 1.6 m	7

Modular design

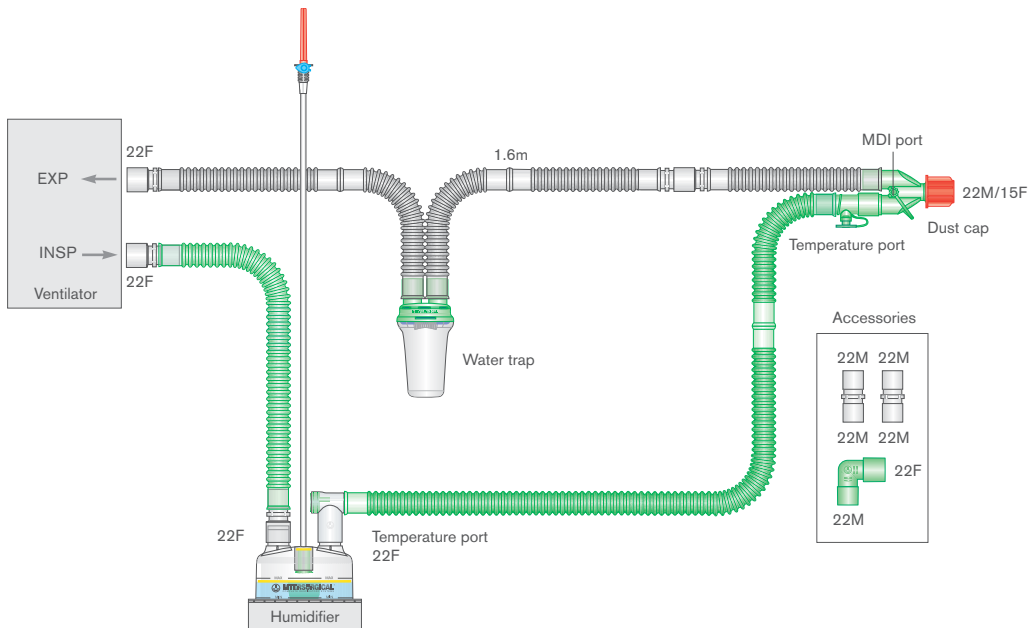
Allows easy transition between invasive ventilation, non-invasive ventilation and high flow oxygen therapy.



Flextube™ breathing systems for active humidification with heated wire

A range Flextube breathing systems for active humidification, available with single or dual heated wires.

Please see page 5 for a guide to our tube types.

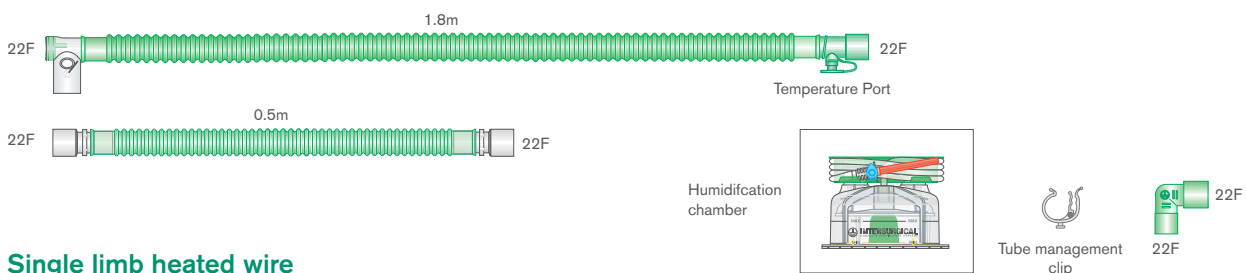


Dual heated wire

Code	Description	Box Qty.
2026310 (S*)	22 mm Flextube dual heated wire breathing system with auto fill chamber and extra limb. ≥ 1.6 m	7 (6*)
2026131	22 mm Flextube – Silver Knight™ dual heated wire breathing system with auto fill chamber and extra limb. ≥ 1.6 m	7
4504018	15 mm Flextube dual heated wire breathing system with auto fill chamber and limb. ≥ 1.2 m	7

Single heated wire

Code	Description	Box Qty.
2025310 (S*)	22 mm Flextube single heated wire breathing system with water trap, auto fill chamber and extra limb. ≥ 1.6 m	7 (5*)
2025131	22 mm Flextube – Silver Knight single heated wire breathing system with water trap, auto fill chamber and extra limb. ≥ 1.6 m	7
4504810	15 mm Flextube single heated wire breathing system with water trap, auto fill chamber and extra limb. ≥ 1.2 m	7



Single limb heated wire

Code	Description	Box Qty.
2060310	22 mm Flextube single heated wire limb with auto fill chamber and extra limb. ≥ 1.6 m	7
2031004	30 mm Flextube bilevel heated wire breathing system with swivel patient connector, CO ₂ leak port, auto fill chamber, monitoring line, filter and extra limb. ≥ 1.6 m	6

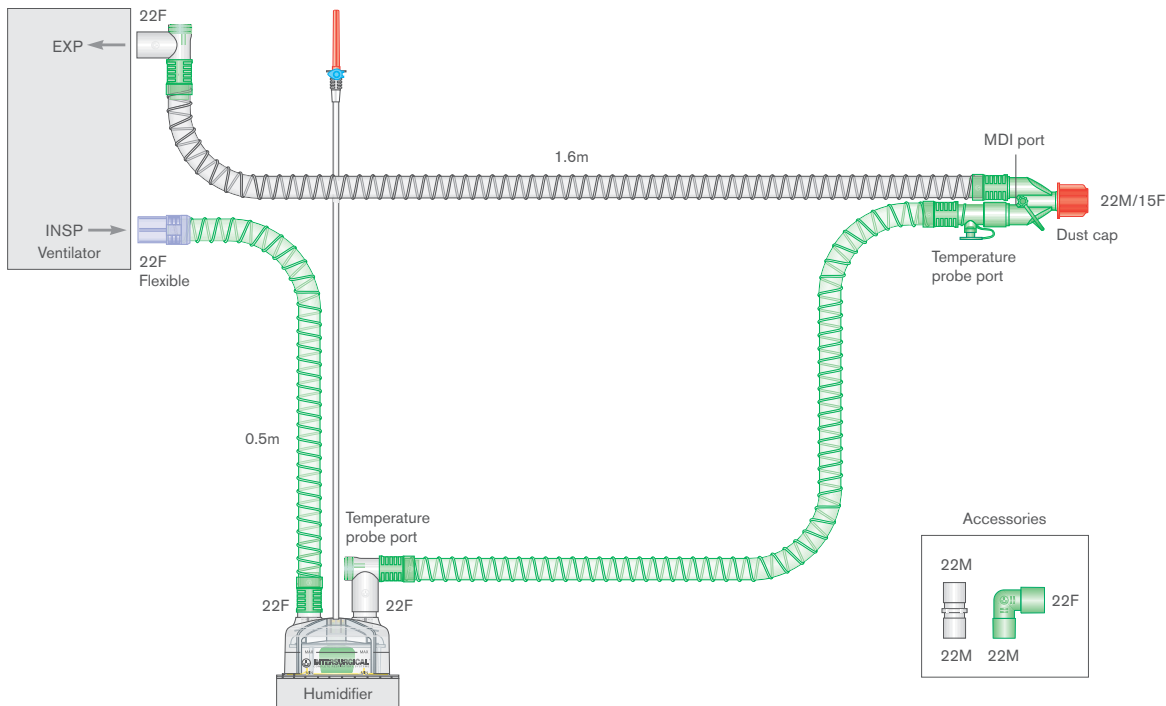
Illustrated Silver Knight - please see more information on page 5

(S*) Add an S to the seven digit code number for the sterile version of this product eg. 2026310S (sterile box quantity is shown in brackets).

Smoothbore breathing systems for active humidification with heated wire

A range of Smoothbore breathing systems for active humidification, available with single or dual heated wire.

Please see page 5 for a guide to our tube types.



Dual heated wire

Code	Description	Box Qty.
5026310 (S*)	22 mm Smoothbore dual heated wire breathing system with auto fill chamber and extra limb. ≥ 1.6 m	8 (7*)
5507850	15 mm Smoothbore dual heated wire breathing system with extra limb. ≥ 1.6 m	15

Single heated wire

Code	Description	Box Qty.
5025310 (S*)	22 mm Smoothbore single heated wire breathing system with water trap, auto fill chamber and extra limb. ≥ 1.6 m	7 (7*)
5504810	15 mm Smoothbore single heated wire breathing system with water trap, auto fill chamber and limb. ≥ 1.6 m	7

Exhalation valve heated wire

Code	Description	Box Qty.
5191850	22 mm Smoothbore exhalation valve heated wire breathing system with control and monitoring line and extra limb. ≥ 1.6 m	25
5194850	22 mm Smoothbore exhalation valve heated wire breathing system with control line and extra limb. ≥ 1.6 m	12

Illustrated Sterile option available

(S*) Add an S to the seven digit code number for the sterile version of this product eg. 5026310S (sterile box quantity is shown in brackets).

Patient connections

A wide range of patient connections are available in Flexible, Superset and Smoothbore tubing, see our product catalogue for the full range.

All port caps are retained to ensure they cannot be misplaced in use. Two varieties of flip top cap are available to allow for suctioning and the use of a fibre optic bronchoscope.

Please see page 4 for the guide to ports and caps.



Flexible catheter mounts

Code	3516000 (S*)
Box Qty.	50 (85*)
Compressible Volume	47 ml

Code	3505000 (S*)
Box Qty.	50 (85*)
Compressible Volume	48 ml

Superset™ catheter mounts

Code	3520000 (S*)
Box Qty.	75 (40*)
Compressible Volume	23-47 ml

Code	3521000 (S*)
Box Qty.	75 (40*)
Compressible Volume	26-50 ml

Smoothbore catheter mounts

Code	5180000 (S*)
Box Qty.	50 (85*)
Compressible Volume	37 ml

Sterile option available

(S*) Add an S to the seven digit code number for the sterile version of this product eg. 3516000S (sterile box quantity is shown in brackets).

Passive Humidification

For the spontaneously breathing patient with a tracheostomy or receiving oxygen therapy, both passive and active humidification options are available.

Hydro-Trach™ T range

A heat and moisture exchanger designed for use on tracheostomised patients, the Hydro-Trach T is an ideal product for prolonged use with spontaneously breathing patients.



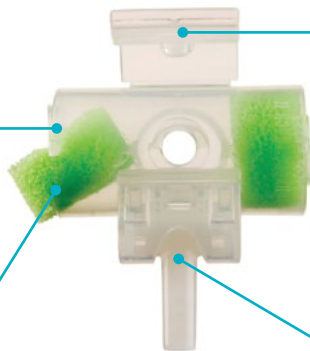
Clear housing

For easy visual inspection for possible secretion build up



Anti-occlusion mechanism

Allows the HME element to partially dislodge in the event of total occlusion or vigorous cough



Clipped suctioning port

Allows for easier suctioning without removal of the device

Small and lightweight

Reduces the pull on the patient connection

An integral swivel oxygen connector

Allows for connection of the oxygen tube without the need of a separate oxygen adapter, which can be easily folded away when not in use

Code	Description	Length	Box Qty.
1873000 (S*)	Hydro-Trach T Mk II HME		25 (100*)
1874000 (S*)	Hydro-Trach T Mk II HME with swivel tube connector and oxygen tube	1.8 m	40 (20*)

Average Fi O₂ at variable O₂ flow rates

Oxygen (L/min)	Fi O ₂ at 15 BPM
1	26.4%
2	31.8%
3	35.0%
4	38.2%
5	41.8%
6	44.9%
7	47.4%
8	49.6%

Code	1873000 (S*)	1874000 (S*)
Moisture loss	13.2 mg H ₂ O/L	13.2 mg H ₂ O/L
Moisture return	26 mg H ₂ O/L	26 mg H ₂ O/L
Resistance at 30 L/min	0.3 cm H ₂ O	0.3 cm H ₂ O
Resistance at 60 L/min	0.6 cm H ₂ O	0.6 cm H ₂ O
Internal volume	17 ml	17 ml
Weight	8 g	8 g
Connectors	15F	15F
Minimum tidal volume	> 60 ml	> 60 ml
Accessories	–	1.8 m oxygen tube

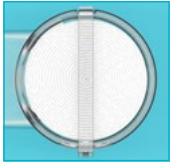
Sterile option available

(S*) Add an S to the seven digit code number for the sterile version of this product eg. 1873000S (sterile box quantity is shown in brackets).

Inter-Therm™ T HME

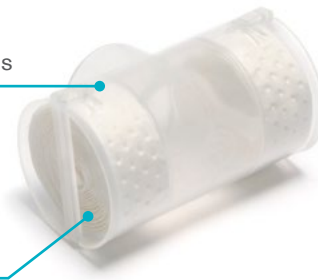
Clear housing and white HME elements

Optimises visualisation of possible pulmonary secretions



Unique corrugated paper design

Provides perfect combination between humidification output and low resistance to flow



Small and lightweight

Reduces pull and drag on the patient's airway

Optimal humidification

Reduces the side effects associated with breathing cold dry gases over a prolonged period of time

Code	Description	Length	Box Qty.
1875020 (S*)	Inter-Therm T HME		25 (100*)

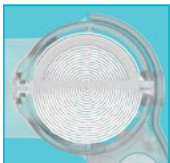
Inter-Therm™ T+ HME

Clipped suction port

Allows easy access for suctioning without removing the device

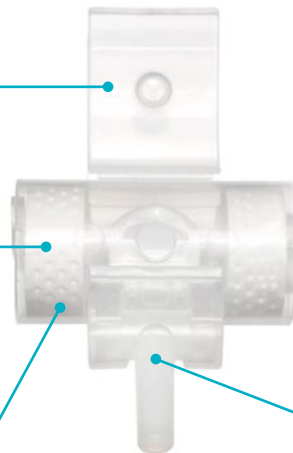
Clear housing and white HME elements

Optimises visualisation of possible pulmonary secretions



Unique corrugated paper design

Provides perfect combination between humidification output and low resistance to flow



Small and lightweight

Reduces pull and drag on the patient's airway

Optimal humidification

Reduces the side effects associated with breathing cold dry gases over a prolonged period of time

Integrated swivel oxygen connector

Allows for quick and convenient connection of supplemental oxygen and can be folded away when not in use

Code	Description	Length	Box Qty.
1875000 (S*)	Inter-Therm T+ HME		25 (100*)
1875001 (S*)	Inter-Therm T+ HME with swivel tube connector and oxygen tube	1.8m	40 (20*)

Code	Inter-Therm T	Inter-Therm T+	Inter-Therm T+	Average Fi O ₂ at variable O ₂ flow rates	
	1875020 (S*)	1875000 (S*)	1875001 (S*)	Oxygen (L/min)	Fi O ₂ at 15 BPM
Moisture loss	11.9 mg H ₂ O/L	13.1 mg H ₂ O/L	13.1 mg H ₂ O/L	1	26.4%
Moisture return	27.1 mg H ₂ O/L	26.1 mg H ₂ O/L	26.1 mg H ₂ O/L	2	31.8%
Resistance at 30L/min	0.3 cm H ₂ O	0.4 cm H ₂ O	0.4 cm H ₂ O	3	35.0%
Resistance at 60L/min	0.8 cm H ₂ O	1.1 cm H ₂ O	1.1 cm H ₂ O	4	38.2%
Internal volume	16 ml	19 ml	19 ml	5	41.8%
Weight	5 g	9 g	9 g	6	44.9%
Connectors	15F	15F	15F	7	47.4%
Minimum tidal volume	>60ml	>60ml	>60ml	8	49.6%
Accessories			1.8m oxygen tube		

[Make an enquiry](#)

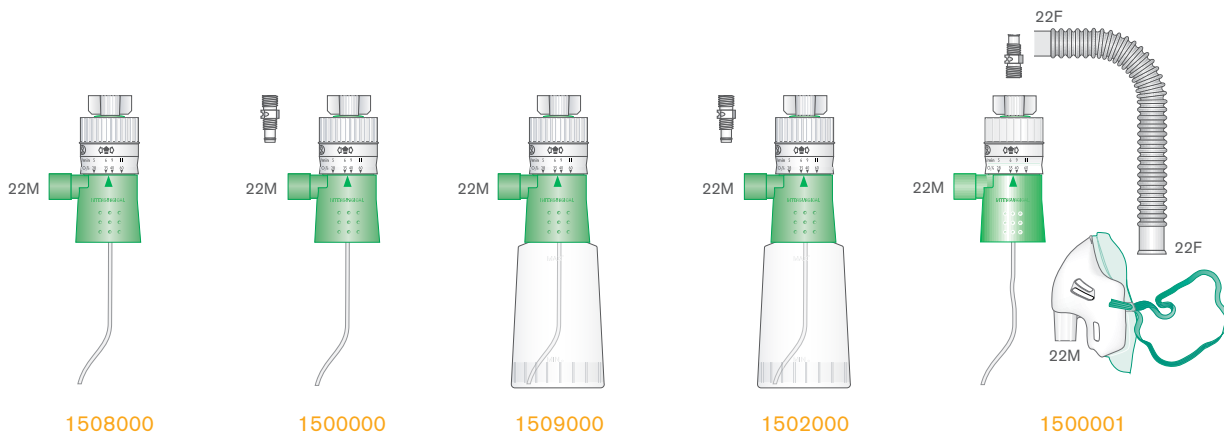
[Watch the video](#)

Sterile option available

(S*) Add an S to the seven digit code number for the sterile version of this product eg. 1875020S (sterile box quantity is shown in brackets).

AquaMist™ humidifier nebulisers

The Intersurgical AquaMist humidifier nebuliser has been designed to deliver a range of accurate concentrations of humidified oxygen, which may be selected to suit the clinical requirements.




Code	Description	Box Qty.
1508000	AquaMist, humidifier nebuliser without bottle	24
1500000	AquaMist, humidifier nebuliser without bottle, with BOC® adaptor	24
1509000	AquaMist, humidifier nebuliser with bottle, 500 ml	25
1502000	AquaMist, humidifier nebuliser with bottle and BOC® adaptor, 500 ml	25
1500001	AquaMist, humidifier nebuliser and Intersurgical EcoLite™ aerosol mask kit without bottle, BOC® adaptor, 2.0 m Flextube™	15

Tracheostomy masks and T-pieces

A high quality, lightweight mask with a quick-release elastic for ease of use.



The Intersurgical EcoLite adult tracheostomy mask is made from non-PVC materials reducing the environmental impact.



Code	Description	Connectors	Box Qty.
1200050 	Intersurgical EcoLite, adult, tracheostomy mask	22M	30 
1206000	Paediatric, tracheostomy mask	22M	35
1980000	Tracheostomy T-piece	22M-22M-22M/15F	25
1984000	Tracheostomy T-piece with 7.6 mm port	22M-22M-22M/15F	25

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[Watch the video](#)




 Illustrated  Lower environmental impact product

BOC is a registered trademark of The BOC Group Limited

Intersurgical EcoLite™ aerosol face masks

Intersurgical EcoLite aerosol masks are available in paediatric and adult sizes and are made from non-PVC material, part of our Eco range.



Code	Description	Connectors	Box Qty.
1188015 	Intersurgical EcoLite, adult, aerosol mask	22M	50 
1198015	Intersurgical EcoLite, paediatric, aerosol mask	22M	42 

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AquaFlow™ oxygen bubble humidifiers

A comprehensive range of devices for delivering unheated humidification to your patients. Supplied with a bottle, the AquaFlow range of bubble humidifiers are suitable for patients receiving variable oxygen therapy.



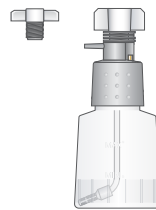
1507000



1505000



1521000



1520000

Code	Description	Box Qty.
1507000	AquaFlow, oxygen bubble humidifier with bottle, 500 ml	20
1505000	AquaFlow, oxygen bubble humidifier with bottle plus M12 adaptor, 500 ml	20
1521000	AquaFlow, homecare oxygen bubble humidifier with bottle, 120 ml	20
1520000	AquaFlow, homecare bubble humidifier with bottle plus M12 adaptor, 120 ml	20

[Make an enquiry](#)

Intersurgical EcoLite™ medium concentration oxygen masks

Welcome to the Comfort Zone

The unique design and materials used to manufacture the Intersurgical EcoLite mask provides improved patient comfort and a reduced environmental impact.

Comfortable for the Patient

Improved patient comfort has been key to the development of the Intersurgical EcoLite mask. The latest manufacturing technology has enabled us to combine two non-PVC materials in the same product, the polypropylene material forming the body of the Intersurgical EcoLite mask is clear, lightweight and rigid enough to maintain the masks shape, whilst the second softer TPE material is utilised in the seal, which is in contact with the patient's face.

Comfortable for the Environment

The Intersurgical EcoLite mask is an important part of our Eco range, designed as part of our ongoing focus on sustainable development. Various groups have questioned the use of PVC in medical products and its impact on the environment. The utilisation of alternative materials has resulted in the elimination of PVC from the Intersurgical EcoLite mask body and seal, reducing the environmental impact.

Intersurgical EcoLite

[Find out more](#)

Eco range

[Find out more](#)



Incurved nose seal

Conforms to different nose shapes designed to reduce the risk of oxygen entering patient's eyes

No metal nose clip

MRI compatible

Exhalation ports

Designed to minimise the amount of rebreathed carbon dioxide

A choice of "under chin" or "on chin" positions

Provides a better fit on a wider range of patient face shapes

Lightweight

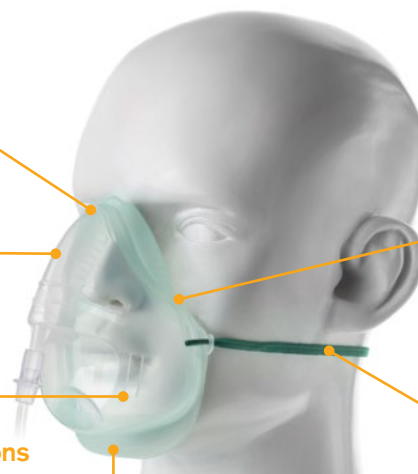
Mask manufactured using lightweight materials

Soft face seals

Increased patient comfort

Elastic can be positioned under or over the ears

Below ear position eliminates trauma to top of ears



Code	Description	Tube length	Box Qty.	
1136015	Intersurgical EcoLite, adult, medium concentration oxygen mask		55	
1135015	Intersurgical EcoLite, adult, medium concentration oxygen mask with tube	2.1 m	40	
1190015	Intersurgical EcoLite, paediatric, medium concentration oxygen mask		42	
1196015	Intersurgical EcoLite, paediatric, medium concentration oxygen mask with tube	2.1 m	40	

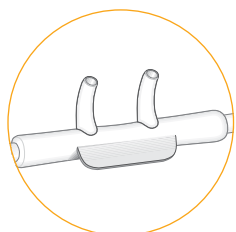
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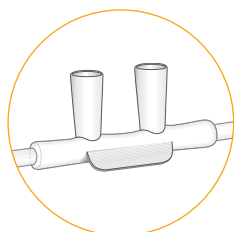
Nasal cannula

Conventional nasal cannula

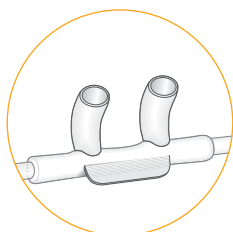
A range of products for adult, paediatric and neonates are available with a wide selection of prong shapes to suit all patient requirements. All oxygen tubing in the range is manufactured in a 'multi-channel' design, which permits oxygen flow even if the tubing is kinked. The Intersurgical Earguards™ option includes soft silicone foam cushions, which are easily adjusted and securely fitted to prevent trauma to the patient's ears.



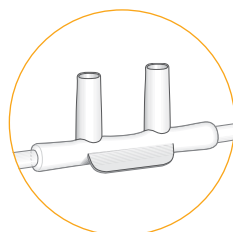
Curved prongs



Flared prongs



Curved and Flared prongs



Straight Prongs



Curved prongs with Intersurgical EarGuards

Code	Description	Length	Box Qty.
1161000	Adult, nasal cannula with straight prongs and tube	1.8 m	50
1161004	Adult, nasal cannula with straight prongs and tube	2.1 m	50
1162000	Adult, nasal cannula with straight prongs and tube	5 m	20
1169000	Adult, nasal cannula with straight prongs headset		100
1165000	Adult, nasal cannula with curved prongs and tube	1.8 m	50
1161020	Adult, Satin nasal cannula with straight prongs and tube	1.8 m	50
1165020	Adult, Satin nasal cannula with curved prongs and tube	1.8 m	50
1165002	Intersurgical EarGuard, adult, nasal cannula with curved prongs and tube	2.1 m	50
1165003	Intersurgical EarGuard, adult, nasal cannula with curved prongs and tube	5 m	40
1165021	Adult, Satin nasal cannula with curved prongs and tube	2.1 m	50
1161021	Adult, Satin nasal cannula with straight prongs and tube	2.1 m	50
1166000	Adult, nasal cannula with flared prongs and tube	1.8 m	50
1167000	Adult, nasal cannula with curved/flared prongs and tube	1.8 m	50
1168000	Adult, nasal cannula with curved/flared prongs headset		100
1163000	Paediatric, nasal cannula with curved prongs and tube	2.1 m	50
1164000	Neonatal, nasal cannula with curved prongs and tube	2.1 m	50

[Make an enquiry](#)

[Watch the video](#)

Note: Not all products are available in all markets, please contact your local office for details.

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The manufacturer Intersurgical Ltd is certified to ISO 14001:2015, ISO 9001:2015, ISO 13485:2016 and MDSAP

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