

# Respiratory Patient Pathway

Meeting patient needs from oxygen therapy to ventilation



Edition 3



To provide best practice respiratory product solutions for patients and clinicians, offering quality, innovation and choice.

## Intersurgical

Intersurgical is a designer, manufacturer and supplier of a wide range of high quality medical devices to assist in the treatment and management of patients requiring respiratory support.

Our solutions range from devices providing supplementary oxygen therapy, to more extensive options, as treatment plans change and vary to suit the patient requirements.


This catalogue contains details of a limited range of products specifically designed for the treatment of patients requiring oxygen therapy, High flow oxygen therapy, CPAP, NIV through to full ventilation and the breathing systems and accessories needed to support this.

If you require any further information please review our full range at [www.intersurgical.com](http://www.intersurgical.com)

With nearly 40 years' experience, we understand the changing and challenging clinical environments and needs of our customers and their patients. Our company goal is to provide best practice respiratory product solutions for patients and clinicians, offering quality, innovation and choice.

Quality	Innovation	Choice
All of our products are designed and manufactured to meet the requirements of relevant international, European and national standards, and our Management System is assessed and certified as meeting the requirements of ISO 9001 and ISO 13485.	Innovation is important in all areas, helping us to deliver high quality products and services matched by cost effective solutions to meet today's needs.	Our wide product portfolio allows for both patient and clinical requirements to be met.

We are also committed to lowering the environmental impact of our products and services and have implemented an Environmental Management System certified to international standard ISO 14001.

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.

We hope we can provide a solution for your needs.



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# Oxygen and Nebuliser Therapy



## Oxygen Therapy

We have a wide range of oxygen therapy products including both nasal cannula and oxygen masks. All oxygen tubing in the range is manufactured in a 'multi-channel' design, which permits oxygen flow even if the tubing is 'kinked'.

### Nasal canulae

Nasal canulae are available in a variety of tube lengths and with Intersurgical EarGuard™ if required.

#### Non-slip toggle

Enables user to adjust for best possible fit

#### Clear material

Unobtrusive



#### Over-ear design

Secure positioning (Intersurgical EarGuard available for added comfort)

#### Latex free

Suitable for patients with latex allergy

#### Soft prongs

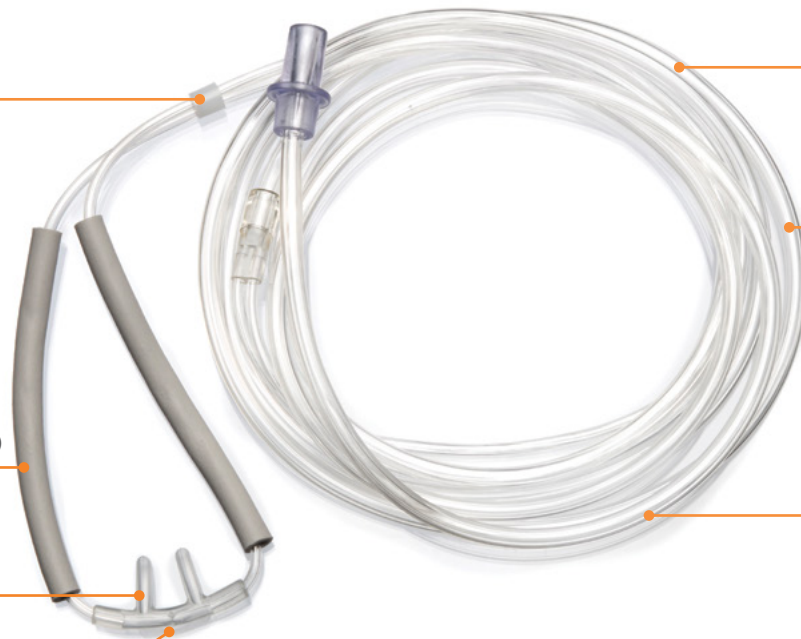
Minimise irritation

#### Location saddle

Assists in the optimum positioning of the prongs

#### Multi-Channel oxygen tubing

Allows oxygen to continue to flow if the tubing becomes kinked



illustrated

Code	Description	Length	Box Qty.
1161000	Adult, nasal cannula with straight prongs and tube	1.8m	50
1161004	Adult, nasal cannula with straight prongs and tube	2.1m	50
1165002	Intersurgical EarGuard, adult, nasal cannula with curved prongs and tube	2.1m	50

### Adult medium concentration oxygen masks

Code	Description	Length	Box Qty.
1136015	Intersurgical EcoLite™, adult, medium concentration oxygen mask		55
1135015	Intersurgical EcoLite, adult, medium concentration oxygen mask with tube	2.1m	40

## FiltaMask™

Patients with respiratory infections have specific needs and yet pose a specific risk. Conventional oxygen masks can generate a plume of particles from their exhalation ports, which can travel a distance of 0.4 metres<sup>(1) (2)</sup> resulting in a potential risk.

The FiltaMask combines an oxygen delivery system with a filter media covering the exhalation ports. FiltaMask is intended for use on patients with respiratory infections who may be a source of aerosolised infectious pathogens and who also require supplementary oxygen.

The FiltaMask is designed to reduce the risk to paramedics, hospital staff and visitors<sup>(3)</sup>.

### Greener

The elimination of PVC from the masks has dramatically lowered their environmental impact

### 'Incurved' face seal

providing improved level of fit and comfort

### Integral filter media

Reducing the risk of escaping aerosols


### 'On-chin' positioning

provides a better fit to a wider range of face shapes

### Low elastic position

Eliminating trauma to the patient's ears



Code	Description	Tube length	Box Qty.
1145000	FiltaMask, Eco, adult, medium concentration oxygen mask with tube	2.1m	15 

 Lower environmental impact product

#### References

(1) Airflows around Oxygen Masks. David S. Hui et al: Chest. 2006;130:822-826

(2) Exhaled Air Dispersion During Oxygen Delivery via a Simple Oxygen Mask. David S. Hui et al: Chest. 2007;132:540-546



## High concentration oxygen mask

The Intersurgical EcoLite adult mask design is both comfortable for the patient and seals on the patients face which results in higher oxygen concentrations as less ambient air enters the mask.

**Incurved nose seal**  
Conforms to different nose shapes designed to prevent oxygen entering patient's eyes

**No metal nose clip**  
MRI compatible

**Two integrated safety valves**  
Allows patient to breathe room air in the event oxygen supply failure

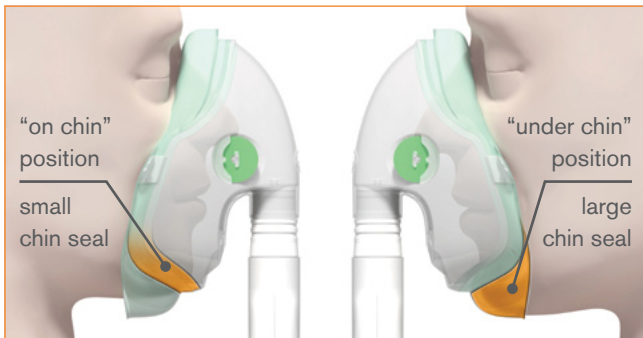
**A choice of "under chin" or "on chin" positions**  
Provides a better fit on a wider range of patient face shapes

**Soft face seals**  
Increased patient comfort

**Elastic can be positioned under or over the ears**  
Below ear position eliminates trauma to top of ears

**Clear mask**  
permits visualisation of the patient's nose and lips

**Improved sealing**  
Higher oxygen concentrations



Code	Description	Tube length	Box Qty.
1181015	Intersurgical EcoLite, adult, high concentration oxygen mask with tube	2.1m	24

## FiltaNeb™

To meet the changing requirements of the global healthcare market this product option has been developed to reduce particulates entering the environment during nebuliser therapy. The FiltaNeb™ features a non-vented mask based upon the Intersurgical EcoLite™ mask, with a filter on the exhalation gas pathway. The mask seal is coloured green to distinguish this non-vented mask from standard aerosol masks. To ensure that the best possible fit can be achieved, the mask kit includes an additional head strap.

The system provides >95% reduction of particulates into the environment, helping to minimise potentially infected exhaled gases and emissions escaping during nebulisation therapy, reducing the risk to healthcare professionals.

The Cirrus™2 nebuliser incorporates a number of features, including a graduated drug cup that provides guidance on how much drug is in the nebuliser. The cup has a quick-release fitting which enables the nebuliser to be attached, as well as detached, with a quarter turn. This speeds up the refilling process and provides a more reliable seal between the cup and the nebuliser body.

The Cirrus2 nebuliser is designed to deliver drugs for tracheobronchial deposition. At a driving gas flow of 8 L/min, the Mass Median Diameter (MMD) is 3.1 microns.

### Incurved nose seal

Conforms to different nose shapes designed to prevent aerosolised drug entering patient's eyes

### Filter on exhalation port

Reduces particulates entering the environment during nebuliser therapy

### Graduated nebuliser cup guide

Faster preparation

### Low residual volume

Reduced drug waste

### Additional head strap

provides an improved seal between the mask and the patient's face

### Soft face seals

Increased patient comfort

### Green mask seal

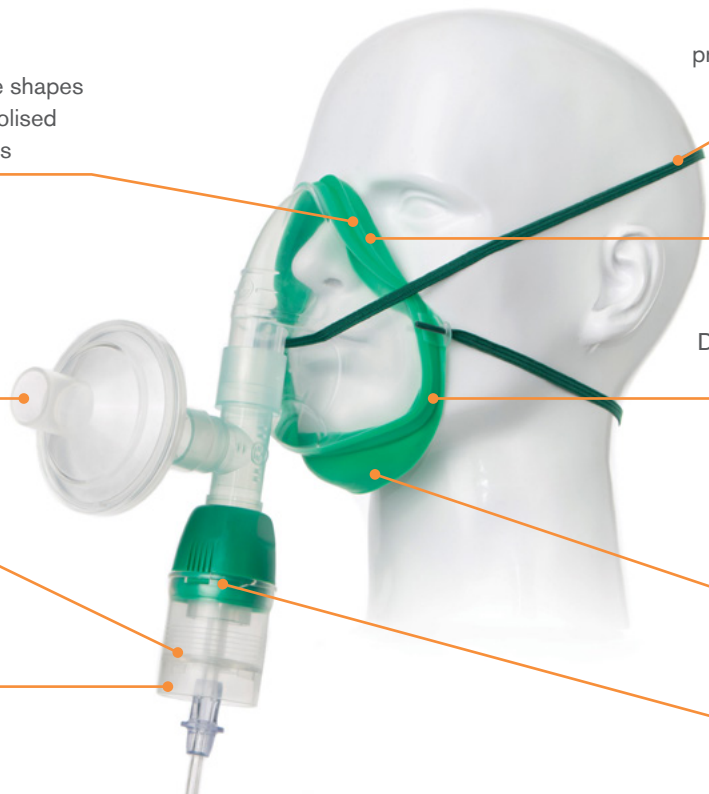
Differentiates the non-vented mask from standard aerosol masks

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

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

### Quick-release fitting

Attaches and detaches easily

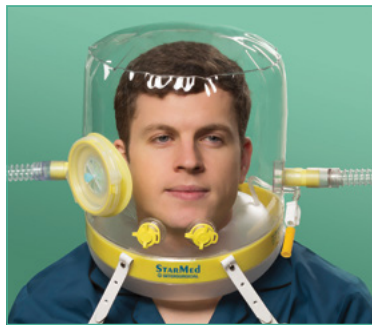


Code	Description	Tube length	Box Qty.
1453044	FiltaNeb™ Cirrus™2 nebuliser, adult, Intersurgical EcoLite™ non-vented mask kit with filter and tube	2.1m	15 





# Patient Interfaces and Breathing Systems for High Flow Oxygen Therapy, NIV and CPAP Therapy



## Intersurgical i-flo™ - High flow nasal cannula

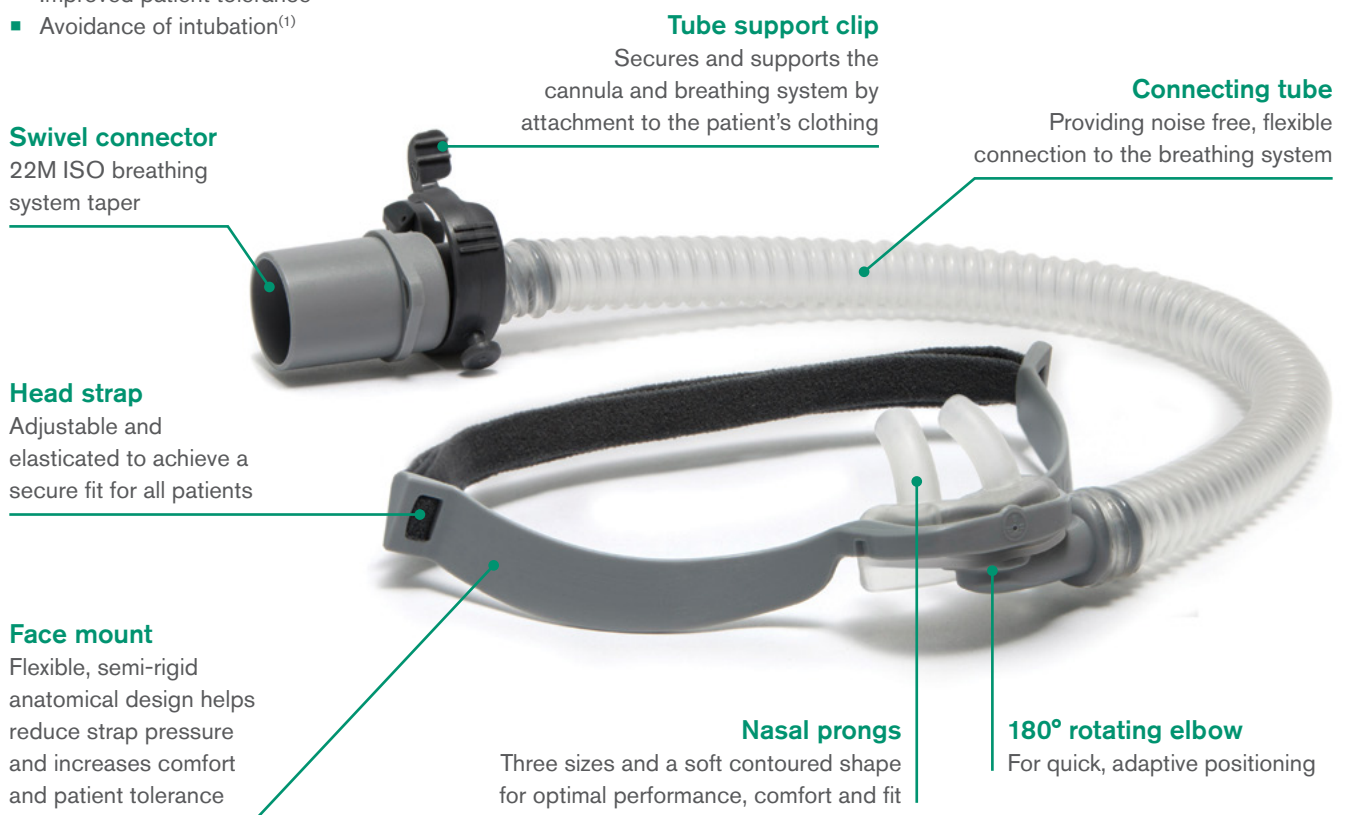
The i-flo cannula is Intersurgical's single use patient interface designed for the delivery of High Flow Oxygen Therapy (HFOT). The i-flo cannula is available in three sizes and is for use with adult patients in a hospital environment.

HFOT has become a key mode of respiratory support in patients with hypoxemic respiratory failure and is considered to offer a number of benefits versus more conventional oxygen therapies. These benefits have been shown to include:

- Improved oxygenation
- Reduced work of breathing
- Improved secretion clearance
- Improved patient tolerance
- Avoidance of intubation<sup>(1)</sup>

The i-flo cannula complements Intersurgical's extensive range of Critical Care breathing systems and interfaces and the unobtrusive design has been developed with a focus on performance and patient comfort.

The i-flo includes a number of unique features and benefits to help ensure the optimal delivery of high flow oxygen therapy.



Code	Description	Box Qty.
7300000	i-flo high flow nasal cannula, small adult	7
7301000	i-flo high flow nasal cannula, medium adult	7
7302000	i-flo high flow nasal cannula, large adult	7

## Single limb breathing systems

Code	Description	Box Qty.
2060310	22mm Flextube single heated wire limb with auto-fill chamber and extra limb. ≥ 1.6m	7

### Reference

(1) Masaji Nishimura. High-Flow Nasal Cannula Oxygen Therapy in Adults: Physiological Benefits, Indication, Clinical Benefits, and Adverse Effects. Resp.Care 2016 Apr;61(4):529-41

## VariFit™ featuring AIR°gel® technology

The VariFit is a single patient use hospital NIV mask featuring a cushion with AIR°gel® technology for enhanced patient comfort. Colour coded elbows help the clinician to choose the correct mask for bilevel/CPAP using a single limb breathing system, or non-invasive ventilation using a dual limb breathing system. The breathable, quick release headgear is designed to fit easily to the patient and improve patient comfort.

**AIR°gel®** Maximum comfort, minimum weight.  
AIR°gel® minimises pressure points and skin irritation

### Advanced Cushion Technology™

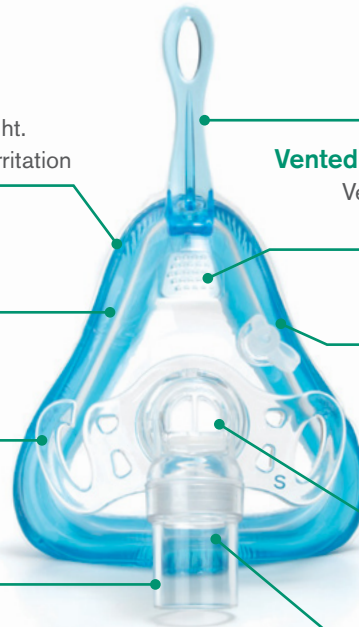
The ergonomic cushion technology forms an effective seal for a comfortable fit

### Active Headgear Connector™

Moves with the patient for a reliable seal

### 360° rotating elbow

For optimal tube positioning and easier mobility



### Flexible Spacebar™

The unique bendable design provides superior stability, maintaining a seal without contacting the skin

### Vented Mask (2260000, 2261000, 2262000 and 2277000)

Vented mask option with an anti-asphyxiation valve for use with CPAP or bilevel devices

### Oxygen Port

Allows easy delivery of supplementary oxygen

### Anti-asphyxiation valve

(not codes 2265000, 2266000, 2267000 and 2279000)

Prevents rebreathing in the case of inadequate ventilation

### Colour Coded Elbows

To help the clinician choose the correct option

Code	Description	Colour coded elbow	Box Qty.
<b>For use with single limb breathing systems that do not have a CO<sub>2</sub> leak port</b>			
2277000	VariFit NIV vented mask with anti-asphyxiation valve, extra large adult	○	8
2262000	VariFit NIV vented mask with anti-asphyxiation valve, large adult	○	8
2261000	VariFit NIV vented mask with anti-asphyxiation valve, medium adult	○	8
2260000	VariFit NIV vented mask with anti-asphyxiation valve, small adult	○	8
<b>For use with single limb breathing systems that have a CO<sub>2</sub> leak port</b>			
2278000	VariFit NIV non vented mask with anti-asphyxiation valve, extra large adult	◐	8
2269000	VariFit NIV non vented mask with anti-asphyxiation valve, large adult	◐	8
2264000	VariFit NIV non vented mask with anti-asphyxiation valve, medium adult	◐	8
2263000	VariFit NIV non vented mask with anti-asphyxiation valve, small adult	◐	8
<b>For use with dual limb breathing systems</b>			
2279000	VariFit NIV non vented mask, extra large adult	●	8
2267000	VariFit NIV non vented mask, large adult	●	8
2266000	VariFit NIV non vented mask, medium adult	●	8
2265000	VariFit NIV non vented mask, small adult	●	8



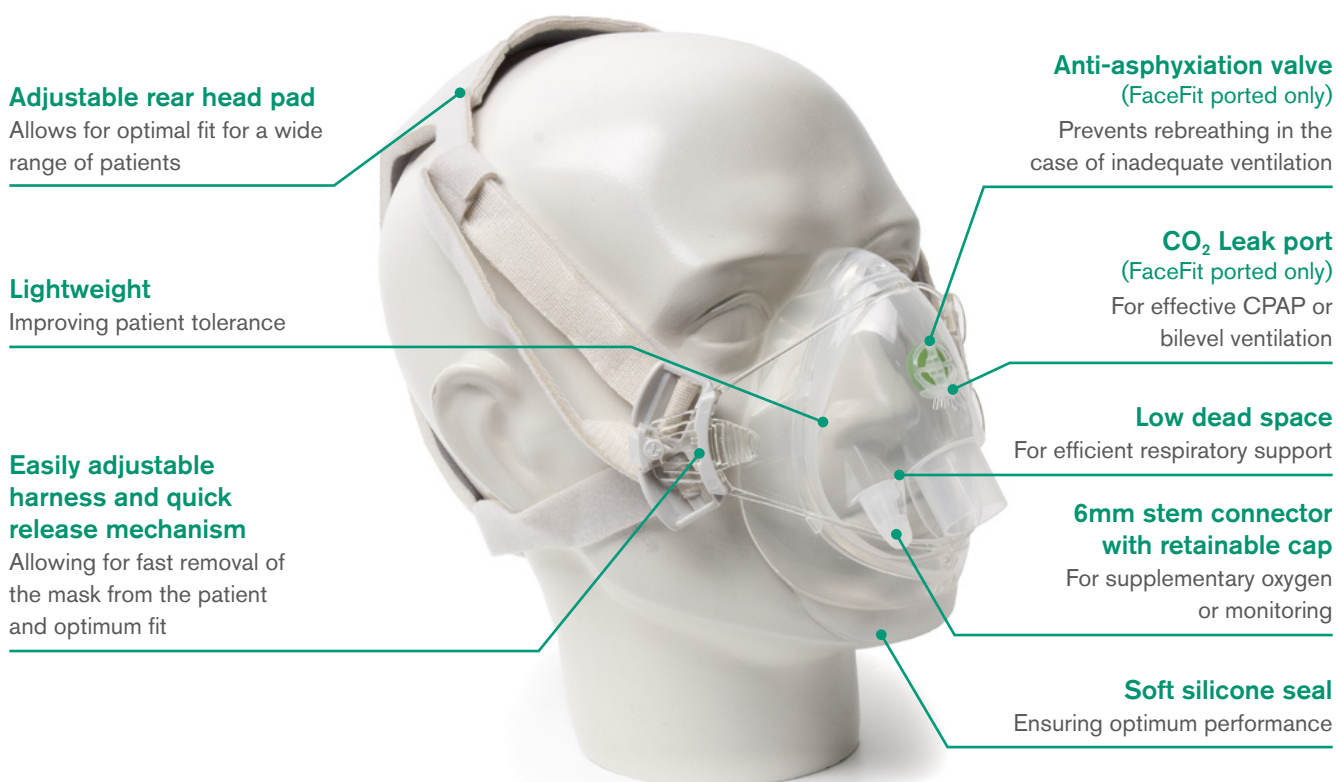
AIRgel is a registered trademark of Sleepnet Corporation. Flexible Spacebar, Advanced Cushion Technology and Active Headgear Connector are trademarks of Sleepnet Corporation.

## FaceFit™ NIV masks

FaceFit is a comfortable single use adult hospital mask for use in non-invasive ventilation.

Two options are available; one option is for use with conventional dual limb breathing systems, and the second for bilevel and CPAP applications where an anti-asphyxiation valve and CO<sub>2</sub> leak port is required.

FaceFit masks are available in small, medium and large sizes to fit a wide range of patients. A size guide is included to help with making the right choice prior to opening the packaging.



### FaceFit NIV Mask - without anti-asphyxiation valve and without CO<sub>2</sub> leak port

For use with dual limb breathing systems

illustrated

Code	Description	Box Qty.
2257000	FaceFit, NIV mask, large adult	12
2256000	FaceFit, NIV mask, medium adult	12
2255000	FaceFit, NIV mask, small adult	12

### FaceFit NIV Ported Mask - with anti-asphyxiation valve and CO<sub>2</sub> leak port

For use with single limb breathing systems that do not have a CO<sub>2</sub> leak port

Code	Description	Box Qty.
2252000	FaceFit, NIV Ported Mask, with anti-asphyxiation valve and CO <sub>2</sub> leak port, large adult	12
2251000	FaceFit, NIV Ported Mask, with anti-asphyxiation valve and CO <sub>2</sub> leak port, medium adult	12
2250000	FaceFit, NIV Ported Mask, with anti-asphyxiation valve and CO <sub>2</sub> leak port, small adult	12

## Single limb breathing systems

### 22mm Smoothbore tubing

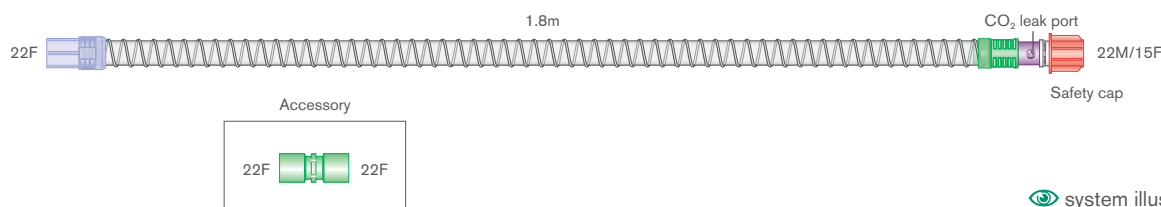


system illustrated

Code	Description	Box Qty.
5018000 (S*)	22mm Smoothbore tube with soft end connectors, 22F-22F. $\geq 1.8\text{m}$	20 (7*)
5020000 (S*)	22mm Smoothbore tube with soft end connectors, 22F-22F. $\geq 2.0\text{m}$	15

## Breathing systems with a CO<sub>2</sub> leak port

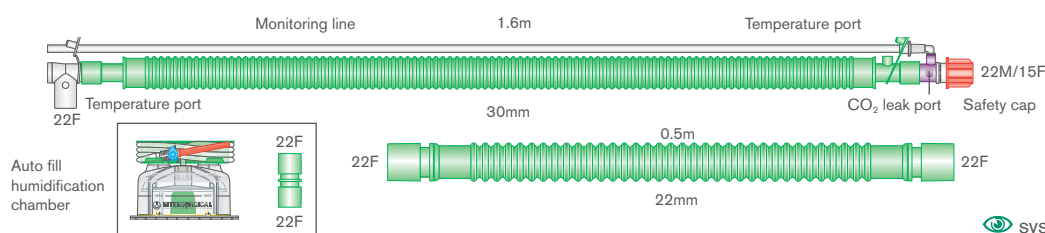
### Single limb breathing systems without pressure monitoring line



system illustrated

Code	Description	Box Qty.
5804000	22mm adult/paediatric, Smoothbore bilevel breathing system with swivel patient connector and CO <sub>2</sub> leak port. $\geq 1.8\text{m}$	30
5804011	22mm adult/paediatric, Smoothbore bilevel breathing system with swivel patient connector, CO <sub>2</sub> leak port and filter. $\geq 1.8\text{m}$	30
2334001	30mm Flextube™ bilevel heated wire breathing system with swivel CO <sub>2</sub> leak port, auto-fill chamber, Flo-Guard 7 and limb. $\geq 1.6\text{m}$	7

### Single limb breathing systems with pressure monitoring line



system illustrated

Code	Description	Box Qty.
5805000	22mm adult/paediatric, Smoothbore bilevel breathing system with swivel patient connector, CO <sub>2</sub> leak port and monitoring line, $\geq 1.6\text{m}$	35
2031000	30mm Flextube bilevel heated wire breathing system with swivel CO <sub>2</sub> leak port, monitor line, auto-fill chamber and limb. $\geq 1.6\text{m}$	6

## Filter options

Code	Description	Box Qty.
5361000	In-line filter kit for bilevel breathing systems	60
1690000	Flo-Guard breathing filter	50

## CPAP masks and harnesses

Intersurgical twin-ported CPAP masks offer a comfortable patient interface and are available in two sizes: small and medium/large adult. The soft anatomically shaped cushion will comfortably fit a wide range of patient faces.



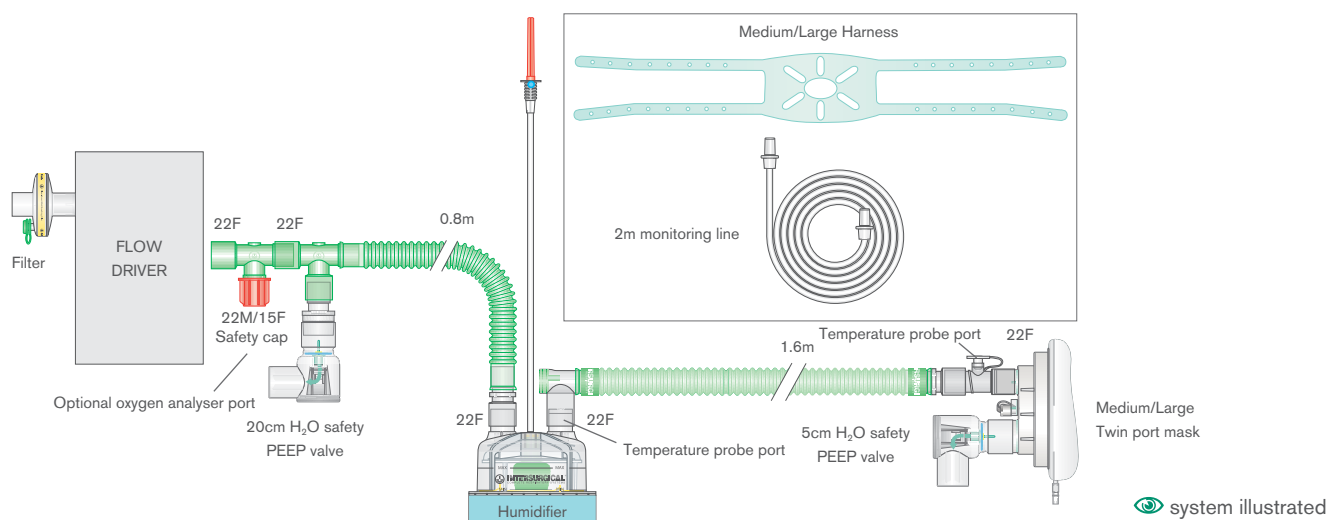
Code	Description	Box Qty.
2222000	Twin ported CPAP mask adult, medium/large	12
2221000	Twin ported CPAP mask adult, small	12
2224000	Harness for CPAP mask adult, medium/large	12
2223000	Harness for CPAP mask adult, small	12


## CPAP breathing systems for use with flow drivers requiring a safety valve

CPAP (Continuous Positive Airway Pressure) breathing systems offer active and passive humidification options with a mask or T-piece patient connector, and are compatible with the most common venturi types of flow drivers used in hospitals.

Conveniently designed for use straight from the pack.

All systems include a 20cm H<sub>2</sub>O safety valve, a 5cm H<sub>2</sub>O PEEP valve and air inlet filter.

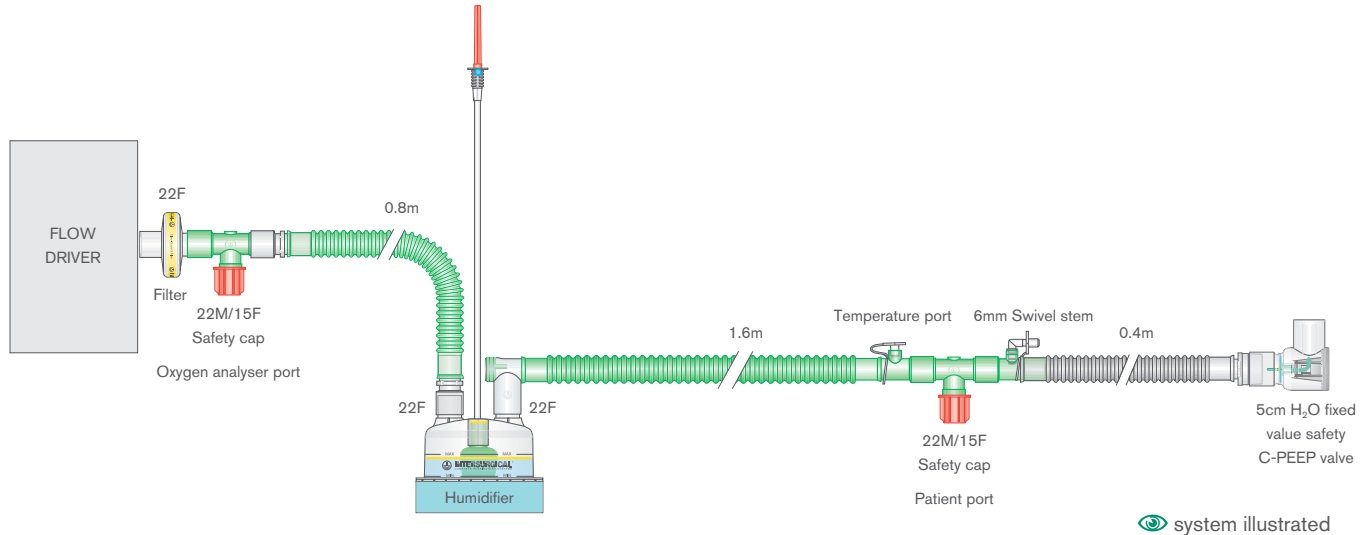


Code	Description	Box Qty.
2230000	22mm Flextube CPAP breathing system with monitoring line (removable), mask, harness, 5 and 20cm H <sub>2</sub> O PEEP valves and Clear-Guard™ Midi™ filter. ≥ 2.0m	15
 2231000	22mm Flextube CPAP heated wire breathing system with mask, harness, monitor line, 5 and 20cm H <sub>2</sub> O PEEP valves, auto-fill chamber, Clear-Guard Midi and extra limb. ≥ 1.6m	12
2234000	22mm Flextube CPAP breathing system with monitoring line (removable), 5 and 20cm H <sub>2</sub> O PEEP valves and extra limb. ≥ 2.0m	20
2235000	22mm Flextube CPAP heated wire breathing system with 5 and 20cm H <sub>2</sub> O PEEP valves, monitor line, auto-fill chamber, Clear-Guard Midi and extra limbs. ≥ 1.6m	12

## CPAP breathing systems for use with flow drivers with built-in safety valve

CPAP breathing systems offer active and passive humidification options with a mask or T-piece patient connector, and are compatible with flow drivers with built-in safety valves commonly used in hospitals.

Conveniently designed for use straight from the pack. All systems include a 5cm H<sub>2</sub>O PEEP valve and filter.



👁 system illustrated

Code	Description	Box Qty.
2232000	22mm Flextube CPAP breathing system with mask, harness, 5cm H <sub>2</sub> O PEEP valve and Clear-Guard™ Midi filter. ≥ 2.0m	15
👁 2237000	22mm Flextube CPAP heated wire breathing system with 5cm H <sub>2</sub> O C-PEEP valve, auto-fill chamber Clear-Guard™ Midi and extra limbs. ≥ 1.6m	12

## C-PEEP™ valves

This range includes seven fixed value PEEP valves ranging from 2.5 to 20cm H<sub>2</sub>O. Each valve is colour-coded in line with similar products found in the market.

Intersurgical valves are 100% tested and individually identified with a code on the valve itself, so that performance data is available for future reference. The transparent body design, coupled with the coloured internal components, allow for easy blockage assessment and monitoring of patient's respiratory rate. Within the lightweight, robust L-shaped design an internal disc valve is included to satisfy the patient if the peak flow requirement exceeds the set flow.



Code	Description	Fixed value	Colour	Box Qty.
● 2220000	C-PEEP fixed value PEEP valve	Preset at 20cm H <sub>2</sub> O	Brown	5
● 2215000	C-PEEP fixed value PEEP valve	Preset at 15cm H <sub>2</sub> O	Red	5
● 2212000	C-PEEP fixed value PEEP valve	Preset at 12.5cm H <sub>2</sub> O	Dark pink	5
● 2210000	C-PEEP fixed value PEEP valve	Preset at 10cm H <sub>2</sub> O	Green	5
● 2207000	C-PEEP fixed value PEEP valve	Preset at 7.5cm H <sub>2</sub> O	Yellow	5
● 2205000	C-PEEP fixed value PEEP valve	Preset at 5cm H <sub>2</sub> O	Blue	5
● 2202000	C-PEEP fixed value PEEP valve	Preset at 2.5cm H <sub>2</sub> O	Black	5
2226000	Adjustable PEEP valve 2.5 – 20cm H <sub>2</sub> O 22m			10

## CaStar R hood for NIV

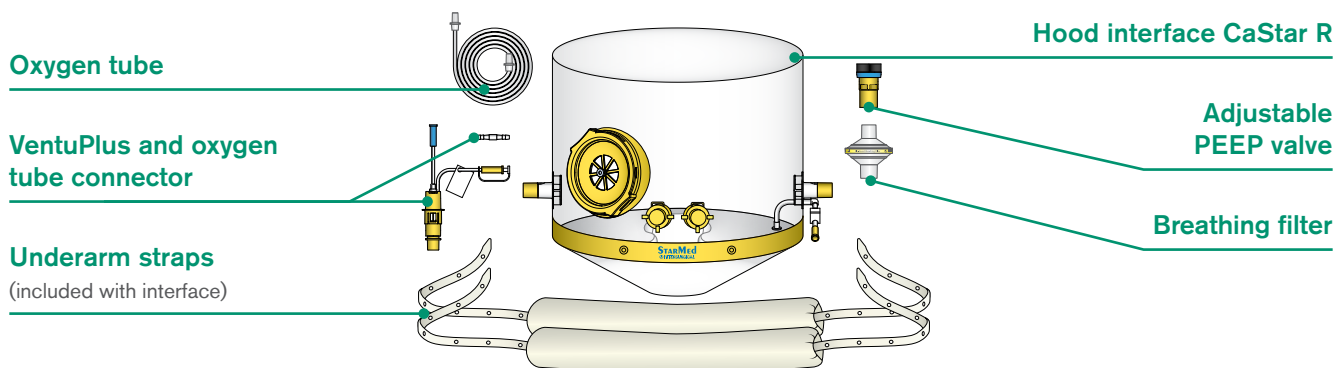
The CaStar R is a comfortable, versatile and lightweight patient interface for non-invasive mechanical ventilation (NIV) designed to offer an alternative to traditional methods of NIV delivery. The CaStar R is well tolerated for extended periods and can reduce the risks associated with both endotracheal intubation and face mask use. It can be used in semi-recumbent, supine and prone positions providing an ideal option for NIV therapy.



### CaStar R hood for NIV with inflatable neck cushion, bi-directional anti-asphyxiation valve and patient access port\*\*

Code	Size	Neck circumference	Box Qty.
CP211XXL/2R	Extra Extra Large	≥50cm	5
CP211XL/2R	Extra Large	45-52cm	5
CP211L/2R	Large	40-47cm	5
CP211M/2R	Medium	34-41cm	5
CP211S/2R	Small	27-34cm	5
CP211XS/2R	Extra Small	17-27cm	5

## StarMed CaStar hood kit for NIV and CPAP use



Generally used on a mechanical ventilator for delivering NimV (non-invasive mechanical ventilation), the CaStar R is also a versatile interface that can be used to provide optimal CPAP therapy via a constant flow generator and a mechanical PEEP valve.

We have provided a complete kit to allow for the flexible delivery of the required therapy: the same hood can be used on the mechanical ventilator for NimV, or it can be used for CPAP via external equipment or with the convenient Venturi valve accessory.

### CaStar R hood kit for NIV and CPAP use with Venturi flow generator, breathing filter and PEEP valve

Code	Size	Neck circumference	Box Qty.
CP1170XXL/2R	Extra Extra Large	≥50cm	5
CP1170XL/2R	Extra Large	45-52cm	5
CP1170L/2R	Large	40-47cm	5
CP1170M/2R	Medium	34-41cm	5
CP1170S/2R	Small	27-34cm	5
CP1170XS/2R	Extra Small	17-27cm	5

\*\*Tubings not included and have to be ordered separately. Please refer to the website for the range of accessories.



## CaStar R Up openable hood for NIV

Openable CaStar R Up is a comfortable, versatile and lightweight patient interface for non-invasive mechanical ventilation (NIV). The unique design of the Up allows for one operator to easily remove the upper part of the hood and have full access to the patient, while any probes or catheters can remain in position on the lower part of the hood. It can be used in semi-recumbent, supine and prone positions providing an ideal option for NIV therapy.



CaStar R Up openable hood for NIV with inflatable neck cushion, bi-directional anti-asphyxiation valve and patient access port\*\*

Code	Size	Neck circumference	Box Qty.
CA022XXL/2R	Extra Extra Large	≥50cm	5
CA022XL/2R	Extra Large	45-52cm	5
CA022L/2R	Large	40-47cm	5
CA022M/2R	Medium	34-41cm	5
CA022S/2R	Small	27-34cm	5
CA022XS/2R	Extra Small	17-27cm	5

## Ventukit CPAP hood with Venturi flow driver

StarMed Ventukit is a complete and easy to use system simply activated by connecting to the O<sub>2</sub> source available in the hospital departments. The Ventukit's unique design consists of oxygen tubes and a Venturi flow driver integral to a CPAP hood. The kit also includes an adjustable PEEP valve for immediate therapy activation.



Ventukit CPAP hood with Venturi flow driver, bi-directional anti-asphyxiation valve and patient access port, adjustable PEEP valve and ear plugs (eliminates the need for a flow driver)

Code	Size	Neck circumference	Box Qty.
CV100XXL/2	Extra Extra Large	≥50cm	5
CV100XL/2	Extra Large	45-52cm	5
CV100L/2	Large	40-47cm	5
CV100M/2	Medium	34-41cm	5
CV100S/2	Small	27-34cm	5
CV100XS/2	Extra Small	17-27cm	5

\*\*Tubings not included and have to be ordered separately. Please refer to the website for the range of accessories.

## Ventumask with Venturi flow driver and adjustable PEEP valve

The Ventumask is a unique design for CPAP therapy that is simply activated by connecting to an appropriate oxygen supply. It can be used in a hospital environment or pre-hospital use, for example in an ambulance. Ventumask is a complete and easy to use system, where the oxygen supply tubes, a Venturi flow driver and an adjustable PEEP valve are integral to a CPAP mask.



Code	Description	Size	Box Qty.
CV200XL	Ventumask CPAP mask with integral Venturi flow driver and adjustable PEEP valve	Extra Large	5
CV200L	Ventumask CPAP mask with integral Venturi flow driver and adjustable PEEP valve	Large	5
CV200M	Ventumask CPAP mask with integral Venturi flow driver and adjustable PEEP valve	Small / Medium	5

## Ventumask 30 with integral pressure manometer



Code	Description	Size	Box Qty.
CV204XL	Ventumask 30 CPAP mask with integral Venturi flow driver and adjustable PEEP valve	Extra Large	5
CV204M-L	Ventumask 30 CPAP mask with integral Venturi flow driver and adjustable PEEP valve	Medium / Large	5
CV204S	Ventumask 30 CPAP mask with integral Venturi flow driver and adjustable PEEP valve	Small	5

## Ventumask 30 with integral pressure manometer and nebuliser access



Code	Description	Size	Box Qty.
CV205XL	Ventumask 30 CPAP mask with integral Venturi flow driver, adjustable PEEP valve and nebuliser access	Extra Large	5
CV205M/L	Ventumask 30 CPAP mask with integral Venturi flow driver, adjustable PEEP valve and nebuliser access	Medium / Large	5
CV205S	Ventumask 30 CPAP mask with integral Venturi flow driver, adjustable PEEP valve and nebuliser access	Small	5

Code	Description	Box Qty.
STS.15/30	Dual oxygen flow meter 15 + 30 L/min with O <sub>2</sub> coupling (manufactured by FLOW METER S.p.A.)	1



## Airway Devices and Accessories



## i-view™ video laryngoscope

### One size ▪ Single use

i-view is the new, single use video laryngoscope from Intersurgical, providing the option of video laryngoscopy wherever you might need to intubate.

By incorporating a Macintosh blade, i-view can also be used for direct laryngoscopy and the technique for insertion is more familiar and instinctive than for devices with a hyper-angulated blade. Ready to use seconds after removing from the packaging, the ergonomic design ensures i-view is easy to use, and the integral LCD screen provides an optimal view in a variety of light conditions.

### i-view provides the opportunity of video laryngoscopy 'whenever and wherever you might need to intubate'

Where availability of a video laryngoscope may be limited due to the cost implications of purchasing reusable devices for multiple sites, i-view provides a cost effective solution, by combining all the advantages of a fully integrated video laryngoscope in a single use, disposable product. This also makes i-view an ideal option when there are concerns related to infection control.

i-view is ideal for use in;

- pre-hospital
- emergency medicine
- resuscitation
- anaesthesia
- difficult airway
- intensive care

#### Integral LCD screen

provides an optimal view in a variety of light conditions

#### Ergonomic design

ensures i-view is comfortable and instinctive to use



#### On/Off switch

i-view is ready to use seconds after removing from the packaging

#### Camera and LED light

for optimal visualisation



#### Macintosh blade

i-view can also be used for direct as well as video laryngoscopy



Code	Description	Box Qty.
8008000 <i>NEW</i>	i-view video laryngoscope	8

## Plastic single use laryngoscope blades

Intersurgical plastic single use laryngoscope blades provide a safe, strong, light and cost-effective alternative to reusable metal versions. The range of Miller and Macintosh blades provides effective illumination and visualisation of the airway to aid with intubation and airway clearance. Our blades are compatible with the ISO7376 green specification handles, as indicated by the green dot near the heel of the blade.

### Macintosh style



Code	Description	Size	Box Qty.
7044000	Plastic laryngoscope blade, fibre optic, Macintosh	4	40
7043000	Plastic laryngoscope blade, fibre optic, Macintosh	3	40
7042000	Plastic laryngoscope blade, fibre optic, Macintosh	2	50

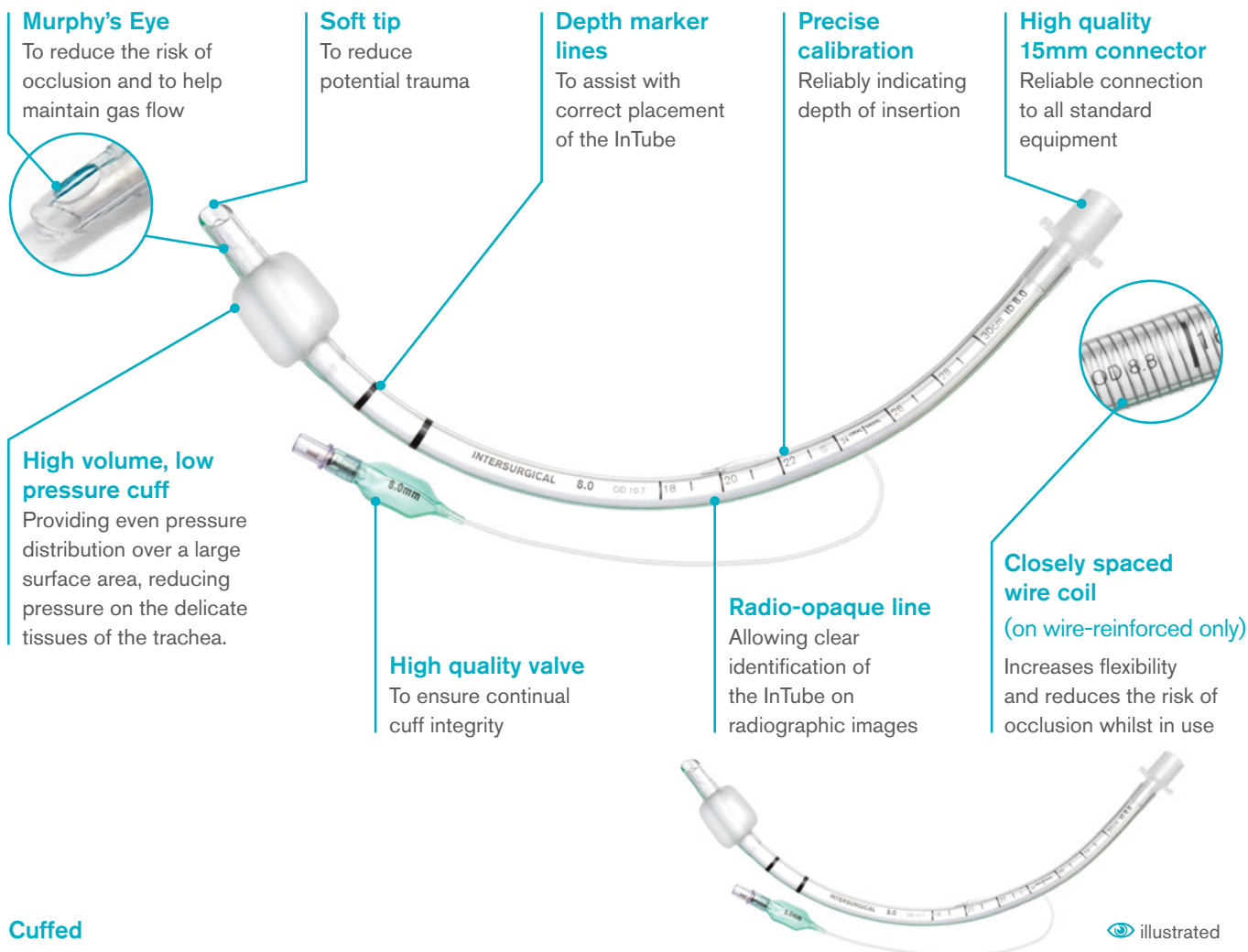
### Miller style



Code	Description	Size	Box Qty.
7041000	Plastic laryngoscope blade, fibre optic, Miller	1	70
7040000	Plastic laryngoscope blade, fibre optic, Miller	0	70

## Intersurgical InTube™ tracheal tubes

Designed for use in anaesthesia, A&E and emergency medicine, the Intersurgical InTube range offers three varieties of tracheal tube: cuffed, reinforced and uncuffed, in a comprehensive range of sizes from paediatric to adult. Supplied sterile, individually packed, latex free and for single use.



### Cuffed














illustrated

Code	Description	Size (Inner Diameter)	Box Qty.
8040100	InTube tracheal tube, cuffed	10.0mm	10
8040095	InTube tracheal tube, cuffed	9.5mm	10
8040090	InTube tracheal tube, cuffed	9.0mm	10
8040085	InTube tracheal tube, cuffed	8.5mm	10
8040080	InTube tracheal tube, cuffed	8.0mm	10
8040075	InTube tracheal tube, cuffed	7.5mm	10
8040070	InTube tracheal tube, cuffed	7.0mm	10
8040065	InTube tracheal tube, cuffed	6.5mm	10
8040060	InTube tracheal tube, cuffed	6.0mm	10
8040055	InTube tracheal tube, cuffed	5.5mm	10
8040050	InTube tracheal tube, cuffed	5.0mm	10
8040045	InTube tracheal tube, cuffed	4.5mm	10



### Wire-reinforced












 illustrated

Code	Description	Size (Inner Diameter)	Box Qty.
8060100	InTube tracheal tube, wire-reinforced cuffed	10.0mm	10 
8060095	InTube tracheal tube, wire-reinforced cuffed	9.5mm	10 
8060090	InTube tracheal tube, wire-reinforced cuffed	9.0mm	10 
8060085	InTube tracheal tube, wire-reinforced cuffed	8.5mm	10 
8060080	InTube tracheal tube, wire-reinforced cuffed	8.0mm	10 
8060075	InTube tracheal tube, wire-reinforced cuffed	7.5mm	10 
8060070	InTube tracheal tube, wire-reinforced cuffed	7.0mm	10 
 8060065	InTube tracheal tube, wire-reinforced cuffed	6.5mm	10 
8060060	InTube tracheal tube, wire-reinforced cuffed	6.0mm	10 
8060055	InTube tracheal tube, wire-reinforced cuffed	5.5mm	10 
8060050	InTube tracheal tube, wire-reinforced cuffed	5.0mm	10 
8060045	InTube tracheal tube, wire-reinforced cuffed	4.5mm	10 



### Uncuffed

 illustrated

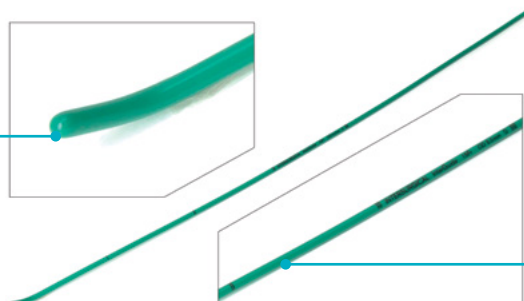
Code	Description	Size (Inner Diameter)	Box Qty.
8050070	InTube tracheal tube, uncuffed	7.0mm	10 
8050065	InTube tracheal tube, uncuffed	6.5mm	10 
8050060	InTube tracheal tube, uncuffed	6.0mm	10 
 8050055	InTube tracheal tube, uncuffed	5.5mm	10 
8050050	InTube tracheal tube, uncuffed	5.0mm	10 
8050045	InTube tracheal tube, uncuffed	4.5mm	10 
8050040	InTube tracheal tube, uncuffed	4.0mm	10 
8050035	InTube tracheal tube, uncuffed	3.5mm	10 
8050030	InTube tracheal tube, uncuffed	3.0mm	10 
8050025	InTube tracheal tube, uncuffed	2.5mm	10 

## InterGuide tracheal tube introducer




InterGuide is a flexible tracheal tube introducer commonly known as a bougie. It allows positive location of the trachea and subsequent placement of the endotracheal tube in difficult airway situations. InterGuide is single use, latex free and supplied sterile in easy-to-open individual packs.

### Atraumatic coudé tip

To reduce the potential for patient trauma



**Low-friction surface**  
For easy insertion and operation

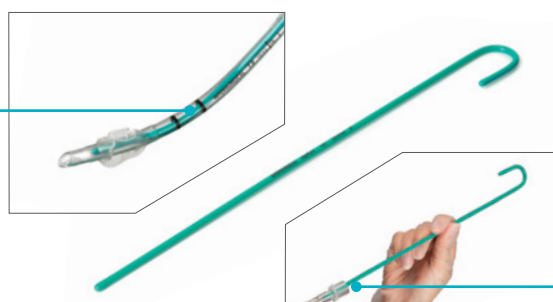
Code	Description	Size	Outer Diameter (OD)	Length	Box Qty.
8070015	InterGuide tracheal tube introducer bougie	15FR	5.0mm	700mm	10 
8070010	InterGuide tracheal tube introducer bougie	10FR	3.3mm	700mm	10 
8070006	InterGuide tracheal tube introducer bougie	6FR	2.0mm	530mm	10 

## InterForm intubating stylet


InterForm is a malleable stylet, allowing the user to form the endotracheal tube into a suitable shape to ease insertion and give more control of the airway device. InterForm is single use, latex free and supplied sterile in easy-to-open individual packs.

### Aluminium core

Allows user to easily form suitable shapes



**Low-friction surface**  
For easy insertion and removal

Code	Description	Size	Outer Diameter (OD)	Length	Box Qty.
8080014	InterForm intubating stylet	14FR	4.7mm	340mm	10 
8080010	InterForm intubating stylet	10FR	3.3mm	340mm	10 
8080006	InterForm intubating stylet	6FR	2.0mm	275mm	10 



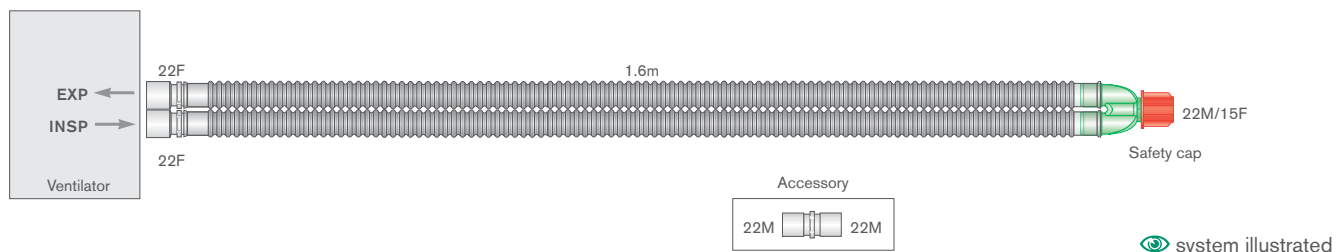


## Breathing Systems and Accessories for Ventilation



## Flextube™ breathing systems for passive humidification

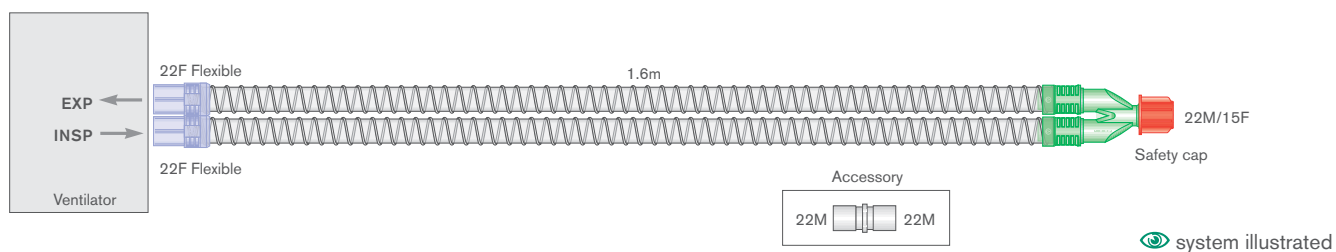
A range of 22mm Flextube breathing systems for passive humidification featuring a unique clip feature that creates an airtight fit when used with Intersurgical connectors, and ensures no leaks or disconnections.



Code	Description	Box Qty.
2000000 (S*)	22mm Flextube breathing system. ≥ 1.6m	20 (15*)
2000100	22mm Silver Knight™ anti-microbial Flextube breathing system. ≥ 1.6m	20
2200000	22mm Flextube breathing system with detachable limb. ≥ 1.6m	20

## Smoothbore breathing systems for passive humidification

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



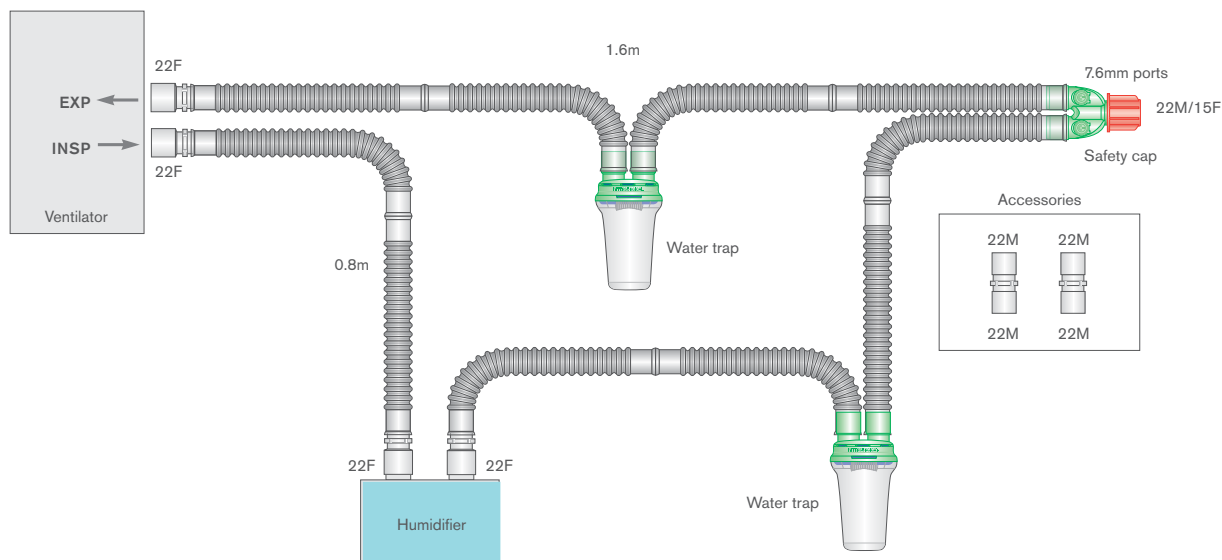
Code	Description	Box Qty.
5000000 (S*)	22mm Smoothbore breathing system. ≥ 1.6m	12 (20*)
5001000 (S*)	22mm Smoothbore breathing system. ≥ 2.0m	15 (15*)
5200000	22mm Eco Smoothbore breathing system. ≥ 1.6m	20

Lower environmental impact product Silver Knight Sterile option available

(S\*) Add an S to the seven digit code number for the sterile version of this product eg. 5000000S (sterile box quantity is shown in brackets).

## Flextube™ breathing systems for active humidification with self-sealing water traps

These Flextube breathing systems are available for a variety of applications, including active humidification where a heated wire is not required. Featuring our self-sealing water trap used for collection of condensate, the self-sealing facility allows the water trap to be emptied without interrupting flow or losing pressure while remaining airtight.



system illustrated

Code	Description	Box Qty.
2009000 (S*)	22mm Flextube breathing system with water traps, ported Y-piece and extra limb. $\geq 1.6\text{m}$	15 (7*)
2009100	22mm Silver Knight™ anti-microbial Flextube breathing system with water traps, ported Y-piece and extra limb. $\geq 1.6\text{m}$	15
2209000	22mm Flextube breathing system with detachable limb and extra limb. $\geq 1.6\text{m}$	15

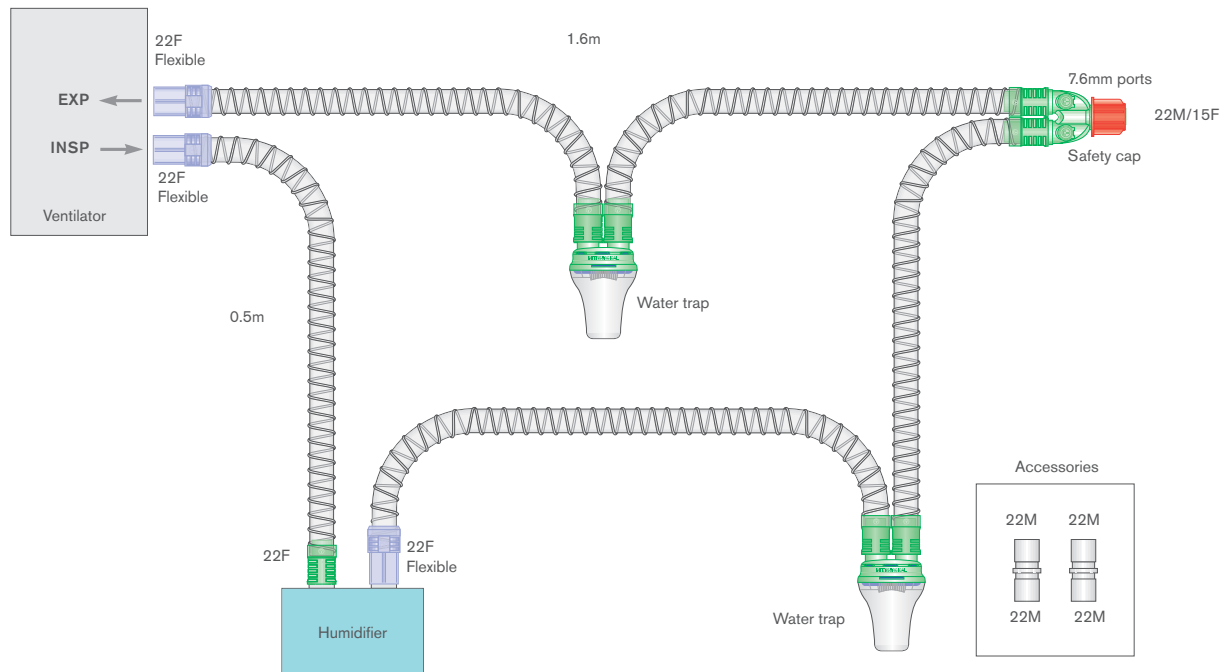
Silver Knight

Sterile option available

(S\*) Add an S to the seven digit code number for the sterile version of this product eg. 5000000S (sterile box quantity is shown in brackets).

## Smoothbore breathing systems for active humidification with self-sealing water traps

Smoothbore breathing systems with water trap offer a lower tube compliance, more efficient water management and reduced system volume for more efficient ventilation.



system illustrated

Code	Description	Box Qty.
5009000 (S*)	22mm Smoothbore breathing system with water traps, ported Y-piece and extra limb. $\geq 1.6\text{m}$	10 (12*)
5209000	22mm Eco Smoothbore breathing system with water traps, ported Y-piece and extra limb. $\geq 1.6\text{m}$	16

Lower environmental impact product

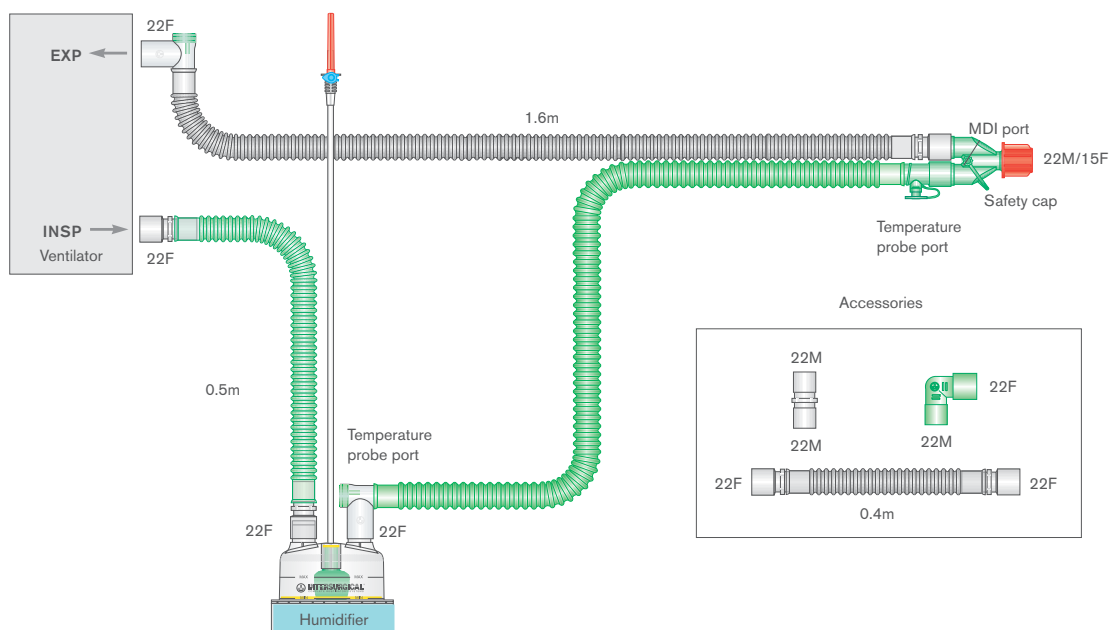
Sterile option available

(S\*) Add an S to the seven digit code number for the sterile version of this product eg. 5000000S (sterile box quantity is shown in brackets).

## Flextube™ breathing systems for active humidification with heated wire

Available with single or dual heated wires and an auto fill humidification chamber if required. All Intersurgical active humidification breathing systems are suitable for use with the majority of humidification base units.

Silver Knight™ breathing systems include anti-microbial protection designed to help slow down the proliferation of micro-organisms and reduce cross infection within the Intensive Care environment. On heated wire Silver Knight breathing systems, both the green inspiratory and the lilac expiratory limbs include the anti-microbial additive for added protection against healthcare acquired infections.



### Dual heated wire

system illustrated

Code	Description	Box Qty.
2026000	22mm Flextube dual heated wire breathing system with extra limbs. $\geq 1.6\text{m}$	10
2026310 (S*)	22mm Flextube dual heated wire breathing system with auto-fill chamber and extra limb. $\geq 1.6\text{m}$	7 (6*)
2026100	22mm Flextube – Silver Knight dual heated wire breathing system with extra limb. $\geq 1.6\text{m}$	10
2026131	22mm Flextube – Silver Knight dual heated wire breathing system with auto-fill chamber and extra limb. $\geq 1.6\text{m}$	7

### Single heated wire

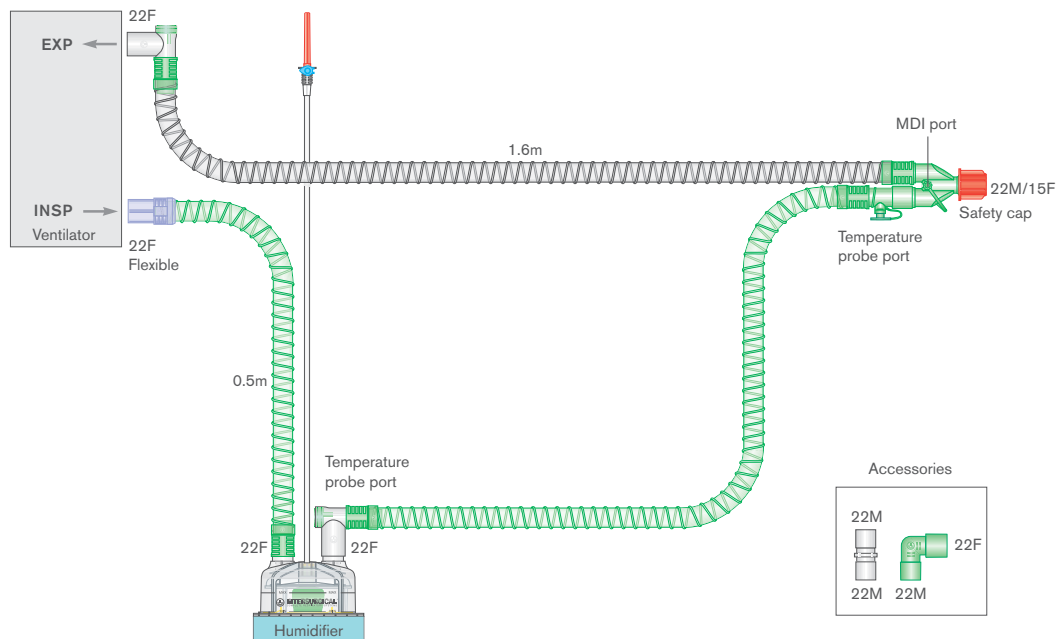
Code	Description	Box Qty.
2025000	22mm Flextube single heated wire breathing system with water trap and extra limb. $\geq 1.6\text{m}$	10
2025310 (S*)	22mm Flextube single heated wire breathing system with water trap, auto-fill chamber and extra limb. $\geq 1.6\text{m}$	7 (5*)
2025100	22mm Flextube – Silver Knight single heated wire breathing system with water trap and extra limb. $\geq 1.6\text{m}$	10
2025131	22mm Flextube – Silver Knight single heated wire breathing system with water trap, auto-fill chamber and extra limb. $\geq 1.6\text{m}$	7

Sterile option available Silver Knight

(S\*) Add an S to the seven digit code number for the sterile version of this product eg.5000000S (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 wires and an auto fill humidification chamber if required.



### Dual heated wire

system illustrated

Code	Description	Box Qty.
5026000	22mm Smoothbore dual heated wire breathing system with extra limb. $\geq 1.6\text{m}$	10
5026310 (S*)	22mm Smoothbore dual heated wire breathing system with auto-fill chamber and extra limb. $\geq 1.6\text{m}$	8 (7*)

### Single heated wire

Code	Description	Box Qty.
5025000	22mm Smoothbore single heated wire breathing system with water trap and extra limb. $\geq 1.6\text{m}$	10
5025310 (S*)	22mm Smoothbore single heated wire breathing system with water trap, auto-fill chamber and extra limb. $\geq 1.6\text{m}$	7 (7*)

Sterile option available

(S\*) Add an S to the seven digit code number for the sterile version of this product eg. 5000000S (sterile box quantity is shown in brackets).

## 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, including the Intersurgical 7000 Series Respiratory Humidifier.

Compatible with all our heated wire products, all three chamber options feature 22mm 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.

### 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

### Inline filter

Prevents any debris entering the chamber

### Dual valve

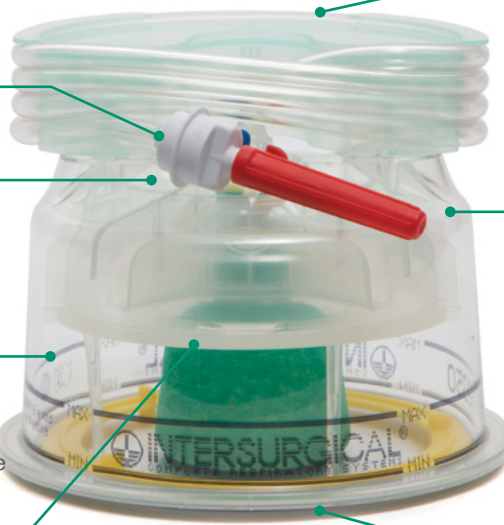
For added security

### 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



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. 5000000S (sterile box quantity is shown in brackets).

## TrachSeal™ Closed suction systems

Every time any part of a breathing system is opened to the atmosphere a number of problems for both the patient and nursing staff can occur:

- There is an immediate loss of PEEP to the patient and a potential for compromising patient ventilation
- Oxygen desaturation may have an impact on the patient's overall condition
- Bacteria and other pathogens may find their way into the lungs with the introduction of an open catheter
- A coughing reflex by the patient may put the healthcare provider at risk from cross-infection

Since the introduction of closed suction systems in 1987, care providers have been offered a solution to keep the breathing system, and consequently PEEP, intact resulting in patient ventilation uncompromised.

Closed suction enables the clinician to clear the lungs of secretions while maintaining ventilation and minimising contamination with the least possible disruption to the patient.

### Prevention of VAP

Ventilator associated pneumonia (VAP) is a hospital acquired infection, which can be efficiently fought when applying certain strategies. It has a significant impact on patient's health, length of stay and hospital cost.

Closed suction greatly reduces the potential for contamination from the bacteria which cause VAP. Maintaining a closed breathing system is part of the ventilator care bundle, designed to reduce the incidence of VAP in the hospital.

Another important factor in infection control is the cough reflex of the patient. By using a closed suction system the care provider reduces the risk of cross infection by aerosolised pathogens.

### Intersurgical TrachSeal closed suction systems

TrachSeal features an ultra clear, new softer sleeve, allowing the clinician greater feel when inserting the catheter with optimum visibility of blockage assessments.

Our suction control valve is responsive and allows for single handed control of the applied suction force. The positive locking mechanism is designed to prevent suction being accidentally applied.

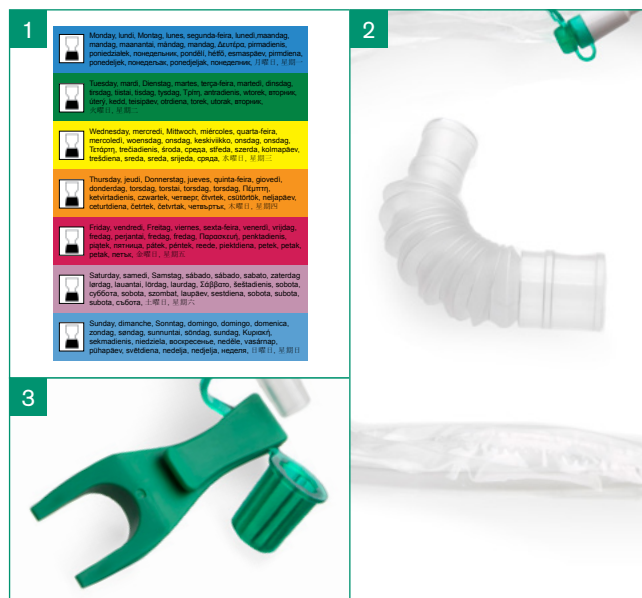


### Adult TrachSeal closed suction systems

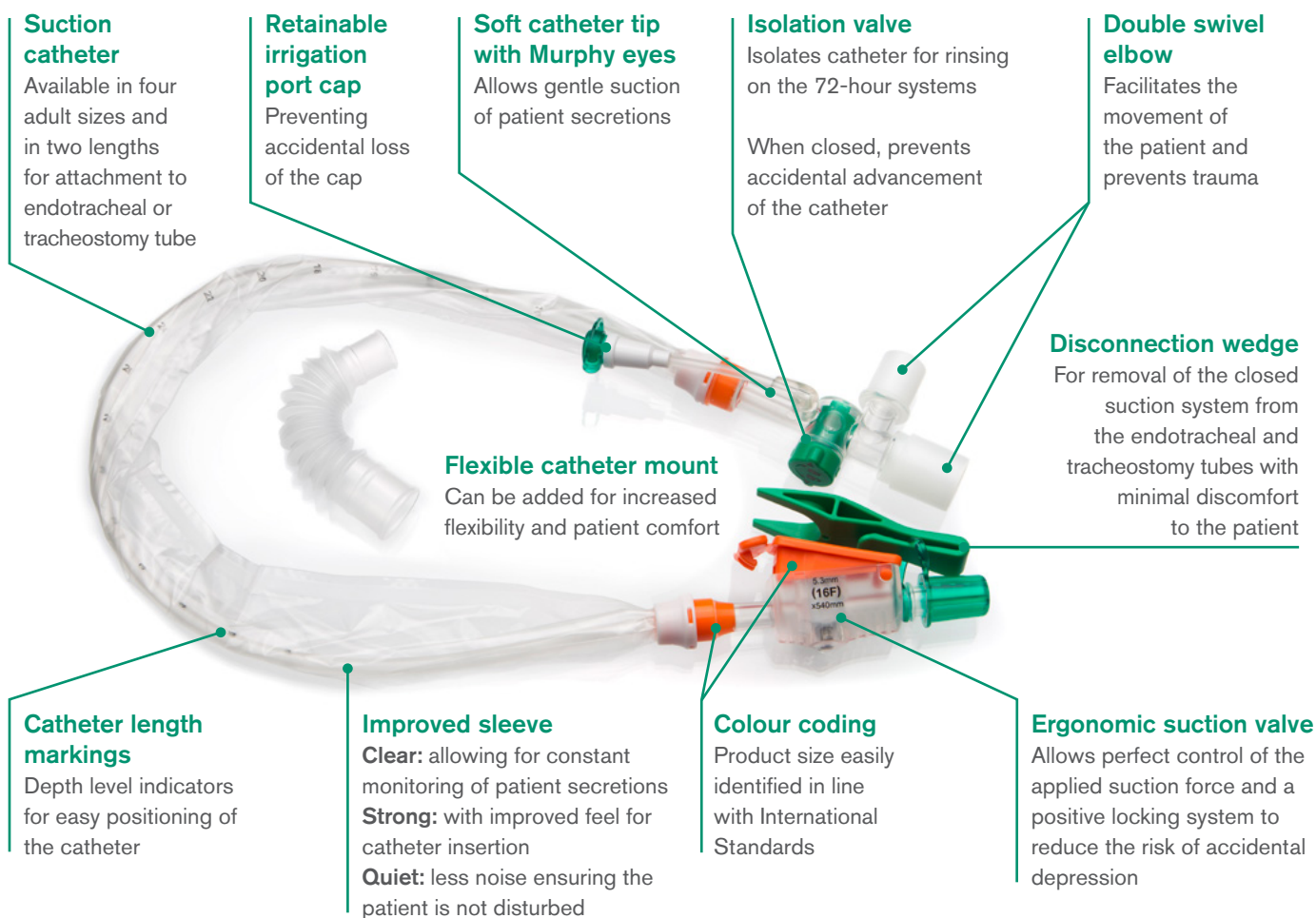
Trachseal closed suction systems are available for 24 hour or 72 hour usage depending on patient requirements. There are two length options to allow attachment to either endotracheal or tracheostomy tubes. The endotracheal products feature a catheter length of 54cm and the tracheostomy tube variants have a catheter length of 30.5cm.

All Intersurgical TrachSeal systems are supplied with:

1. Day stickers which easily identify change requirements
2. 15F–22F catheter mount for flexible connection to the patient
3. A disconnection wedge for removal of the closed suction system from the endotracheal and tracheostomy tubes with minimal discomfort to the patient







**24 hour TrachSeal**

Code	Description	Size	Box Qty.
● 3240002	TrachSeal adult <b>endotracheal</b> closed suction system, 24 hour	F16	15
● 3240001	TrachSeal adult <b>endotracheal</b> closed suction system, 24 hour	F14	15
○ 3240000	TrachSeal adult <b>endotracheal</b> closed suction system, 24 hour	F12	15
● 3240003	TrachSeal adult <b>endotracheal</b> closed suction system, 24 hour	F10	15
● 3240007	TrachSeal adult <b>tracheostomy</b> closed suction system, 24 hour	F16	15
● 3240006	TrachSeal adult <b>tracheostomy</b> closed suction system, 24 hour	F14	15
○ 3240005	TrachSeal adult <b>tracheostomy</b> closed suction system, 24 hour	F12	15
● 3240004	TrachSeal adult <b>tracheostomy</b> closed suction system, 24 hour	F10	15

**72 hour TrachSeal**

Code	Description	Size	Box Qty.
● 3720002	TrachSeal adult <b>endotracheal</b> closed suction system, 72 hour	F16	15
● 3720001	TrachSeal adult <b>endotracheal</b> closed suction system, 72 hour	F14	15
○ 3720000	TrachSeal adult <b>endotracheal</b> closed suction system, 72 hour	F12	15
● 3720003	TrachSeal adult <b>endotracheal</b> closed suction system, 72 hour	F10	15
● 3720007	TrachSeal adult <b>tracheostomy</b> closed suction system, 72 hour	F16	15
● 3720006	TrachSeal adult <b>tracheostomy</b> closed suction system, 72 hour	F14	15
○ 3720005	TrachSeal adult <b>tracheostomy</b> closed suction system, 72 hour	F12	15
● 3720004	TrachSeal adult <b>tracheostomy</b> closed suction system, 72 hour	F10	15

## Cirrus™2 nebuliser

Based on the well-established Cirrus nebuliser the Cirrus2 incorporates a number of improved features. These include a graduated drug cup which provides guidance on how much drug is in the nebuliser. The cup now has a quick-release fitting which enables the nebuliser to be attached, as well as detached, with a quarter turn. This speeds up the refilling process and provides a more reliable seal between the cup and the nebuliser body.

The Cirrus2 nebuliser is designed to deliver drugs for tracheobronchial deposition. At a driving gas flow of 8 L/min, the Mass Median Diameter (MMD) is 3.1 microns.

### Graduated nebuliser cup guide

Faster preparation

### Low residual volume

Reduced drug waste



### Standard 22F Taper

Fits masks, T-pieces and mouthpieces

### Quick-release fitting

Attaches and detaches easily

Code	Description	Box Qty.
1402000	Cirrus2 nebuliser	75

### Self-sealing T-piece

The Cirrus2 is available with a self-sealing T-piece, which enables the nebuliser to be attached (or detached) from the ventilator without interfering with patient ventilation or inadvertently activating any alarms.



Code	Description	Tube length	Box Qty.
2609000	Cirrus™2 nebuliser, self-sealing T-piece kit 22M-22F with tube	1.8m	35
1814000	Self-sealing T-piece 22M-22F		40



## Breathing Filters and HMEFs



## Use of Breathing Filters

Breathing filters provide an effective barrier that prevent cross contamination between patients, respiratory breathing systems, equipment and the clinical environment. Their use is widely recognised as beneficial and is recommended by a number of Anaesthetic Associations<sup>1</sup>.

### The threat to patients

Patients who require an artificial airway have their natural physiological protection bypassed. This will increase the risk of cross contamination between patients and healthcare equipment. The cross contamination of patients via an anaesthetic system has been reported, and documented areas of concern regarding infection includes *Hepatitis C*, *Mycobacterium tuberculosis*, blood in sputum and the *SARS* virus.

Critically ill patients are commonly at risk of infection and particularly from Ventilator Associated Pneumonia (V.A.P.). This nosocomial infection increases morbidity and potential mortality as well as the cost of treating the patient. The strategic use of an efficient breathing filter will provide an effective barrier between patients, breathing systems and ventilatory equipment.

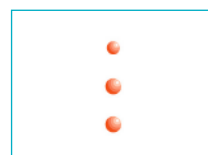
### Proven efficiency

The Intersurgical range of breathing filters has been designed for the protection of the patient, breathing system and equipment. They have been independently tested and proven to be highly efficient in preventing the passage of bacteria and viruses. Clinically relevant testing is carried out on all products using *Bacillus subtilis* (1.0µm x 0.7µm) and Ø174 bacteriophage, additional testing includes *Mycobacterium tuberculosis* (0.3µm x 1.0µm), *Hepatitis C* (0.03µm) and *MS-2 coliphage* (0.02µm). These tests provide you with clinically relevant information to allow evidence-based decisions to be made on the most appropriate product to meet your clinical requirements.

### Potential infectious viruses [Particle sizes µ microns]

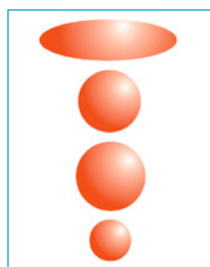


Coliphage T1 [0.017µ]  
MS-2 coliphage [0.02µ]  
Hepatitis C [0.03µ]  
Adenovirus [0.07µ]

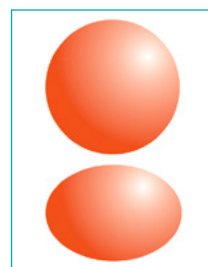


HIV [0.11µ]  
Cytomegalovirus (CMV) [0.1µ]  
Orthomyxovirus [0.1µ]

### Potential infectious bacteria [Particle sizes µ microns]



*Mycobacterium tuberculosis*  
[0.3µ x 1.0µ smallest size]  
*Serratia marcescens* [0.45µ]  
*Pseudomonas aeruginosa* [0.5µ]  
*Brevundimonas diminuta* [0.3µ]



*Staphylococcus aureus* [1.0µ]  
*Bacillus subtilis* [1.0µ x 0.7µ]

### Essential requirements

The Intersurgical range of breathing filters offers a choice of electrostatic and pleated mechanical filters with a range of patient connections, providing a choice of products to meet various clinical situations.

- Independently validated Filtration Efficiency<sup>2</sup>
- Proven filtration against *Mycobacterium tuberculosis* and *Hepatitis C*
- Proven efficiency not affected by anaesthetic agent
- Safe inert material
- Option of patient connections – conveniently packed and ready for use
- Lightweight – reducing patient trauma
- Low compressible volume – reducing rebreathing of CO<sub>2</sub>
- Low resistance to flow – over 24 hours
- Safe, secure ISO connectors
- Compliance to all relevant international standards

### Filtration efficiency

Filtration performance is determined by independent microbiological testing against clinically relevant bacterial and viral challenges. The level of breakthrough of the challenge determines the efficiency. This efficiency is reported as a percentage based upon this break-through.

Number of organisms challenging the filter	Number of organisms passing through the filter	Efficiency of the filter
100,000	1,000	99%
	100	99.9%
	10	99.99%
	1	99.999%

#### References

1. Association of Anaesthetists of Great Britain and Ireland 1996. Danish Society of Anaesthetists 1998. French Society of Anaesthetists 1998.
2. All filters are independently validated for filtration efficiency at the Health Protection Agency, Porton Down, Salisbury, Wiltshire, U.K and Nelson Laboratories Inc, USA. All quoted performance figures are mean values.

## Filta-Guard™ range

### High-efficiency

A dedicated breathing filter designed for use in breathing systems in anaesthesia and intensive care, the high-efficiency Filta-Guard protects the patient, hospital personnel and equipment from potential microbial contamination. The Flow diffuser improves performance and optimises resistance to flow.



Code	1944000	1944003	1944011
Box Qty.	70	70	20
Luer lock port		✓	✓
Filtration efficiency	>99.999%	>99.999%	>99.999%
Resistance to flow at 30L/min	1.0cm H <sub>2</sub> O	1.0cm H <sub>2</sub> O	1.1cm H <sub>2</sub> O
Resistance to flow at 60L/min	2.3cm H <sub>2</sub> O	2.48cm H <sub>2</sub> O	2.8cm H <sub>2</sub> O
Compressible volume	67ml	67ml	67ml*
Weight	40g	41g	54g
Connections	22F-22M/15F	22F-22M/15F	22F-22M/15F
Minimum tidal volume	>200ml	>200ml	>200ml
Accessories			Superset™ catheter mount** 3504000

## Inter-Guard™ range

### Sterile

The Inter-Guard range of sterile breathing filters is designed for use in breathing systems in the operating theatre and the intensive care unit for the protection of the patient, breathing system and equipment. The perfect combination between size and performance.



Code	1344007S 	1344000S 	1344711S 
Box Qty.	50	50	50
Luer lock port		✓	
Filtration efficiency	>99.998%	>99.998%	>99.998%
Resistance to flow at 30L/min	0.8cm H <sub>2</sub> O	0.8cm H <sub>2</sub> O	1.1cm H <sub>2</sub> O
Resistance to flow at 60L/min	2.0cm H <sub>2</sub> O	2.0cm H <sub>2</sub> O	2.7cm H <sub>2</sub> O
Compressible volume	41ml	42ml	42ml*
Weight	22g	23g	36g
Connectors	22F/15M-22M/15F	22F/15M-22M/15F	22F/15M-22M/15F
Minimum tidal volume	>150ml	>150ml	>150ml
Accessories			Superset™ catheter mount** 3504000

 Sterile

\* Filter only

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

## Hydro-Guard™ range


### Pleated membrane filter

A versatile, low-volume breathing filter with a pleated mechanical membrane for use in anaesthesia as an HMEF (moisture return: 23mg H<sub>2</sub>O/L at VT 500ml), or in ITU as a filter only. Available as a sterile option if required.



Code	1745000	1745011	1745012	1745197
Box Qty.	40	75	75	50
Luer lock port	✓	✓	✓	✓
Filtration efficiency	>99.999%	>99.999%	>99.999%	>99.999%
Resistance to flow at 30L/min	1.3cm H <sub>2</sub> O	1.4cm H <sub>2</sub> O	1.7cm H <sub>2</sub> O	1.6cm H <sub>2</sub> O
Resistance to flow at 60L/min	2.9cm H <sub>2</sub> O	3.4cm H <sub>2</sub> O	4.4cm H <sub>2</sub> O	3.9cm H <sub>2</sub> O
Compressible volume	63ml	63ml*	63ml*	63ml*
Weight	30g	44g	45g	37g
Connectors	22F/15M-22M/15F	22F/15M-22M/15F	22F/15M-22M/15F	22F/15M-22M/15F
Minimum tidal volume	>200ml	>200ml	>200ml	>200ml
Accessories		Superset™ catheter mount** 3504000	Superset™ catheter mount with fixed elbow** 3502000	fixed elbow** 1997000



Code	1745711	1745180	1744000S 	1744011S 	1744580S 
Box Qty.	75	100	50	50	50
Luer lock port	✓	✓	✓	✓	✓
Filtration efficiency	>99.999%	>99.999%	>99.999%	>99.999%	>99.999%
Resistance to flow at 30L/min	1.7cm H <sub>2</sub> O	1.5cm H <sub>2</sub> O	1.7cm H <sub>2</sub> O	1.6cm H <sub>2</sub> O	1.73cm H <sub>2</sub> O
Resistance to flow at 60L/min	4.4cm H <sub>2</sub> O	3.4cm H <sub>2</sub> O	3.6cm H <sub>2</sub> O	3.7cm H <sub>2</sub> O	4.0cm H <sub>2</sub> O
Compressible volume	63ml*	63ml*	63ml	63ml*	63ml*
Weight	50g	59g	36g	50g	62g
Connectors	22F/15M-22M/15F	22F/15M-22M/15F	22F/15M-22M/15F	22F/15M-22M/15F	22F/15M-22M/15F
Minimum tidal volume	>200ml	>200ml	>200ml	>200ml	>200ml
Accessories	Superset™ catheter mount with detachable elbow** 3504000 1997000	Smoothbore catheter mount** 5180000		Superset™ catheter mount** 3504000	Smoothbore catheter mount with double swivel elbow and double flip top cap** 5180001S

 Sterile

\* Filter only

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

## Flo-Guard

### Low-resistance breathing filter for CPAP and bilevel

Flo-Guard provides a combination of filtration performance with low-resistance, ideal for use in both the hospital and the home, where high flow rates may be used, including CPAP, bilevel and cough-assist applications.

#### Electrostatic filter media

Providing an excellent filtration efficiency

#### Large surface area

To reduce resistance to flow

#### Clear housing

For good visibility

#### Conical shape

To aid airflow



Code	1690000
Box Qty.	50
Filtration efficiency	>99.99%
Resistance at 30L/min	0.4 cm H <sub>2</sub> O
Resistance at 60L/min	0.8cm H <sub>2</sub> O
Resistance at 90L/min	1.4cm H <sub>2</sub> O
Resistance at 120L/min	2.0cm H <sub>2</sub> O
Resistance at 150Lmin	2.7cm H <sub>2</sub> O
Resistance at 180L/min	3.4cm H <sub>2</sub> O
Resistance at 210L/min	4.3cm H <sub>2</sub> O
Resistance at 240L/min	5.1cm H <sub>2</sub> O
Compressible volume	80ml
Weight	27.8g
Connectors	22F-22M



## Air-Guard

### For use in respiratory systems and oxygen concentrators

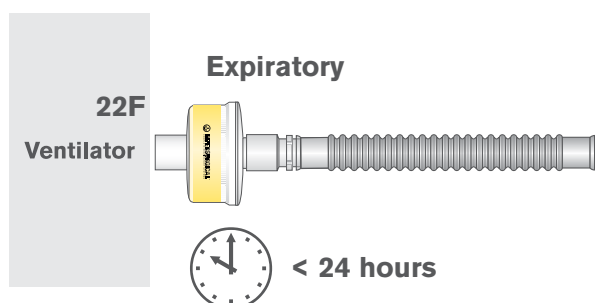
The Intersurgical Air-Guard is a hydrophobic pleated mechanical filter for the protection of oxygen concentrators and other respiratory equipment.

Providing an excellent level (>99.9999%) of protection against bacterial and viral challenges, the Air-Guard's product performance has been tested, validated and verified at independent microbiological laboratories.

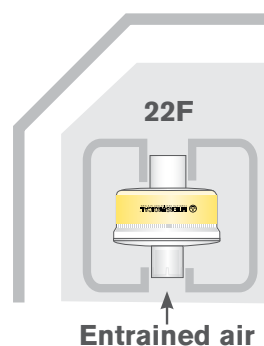
The Air Guard pleated mechanical filter is validated for 24-hours use but this can be extended when used in non-humidified gas flow. The product can be used for extended periods of time for the protection of oxygen concentrators, upon the discretion of the clinician.

**Please note:** This product is contraindicated for use at the patient connection end of the breathing system.

#### Respiratory system protection



#### Oxygen concentrator protection



#### Air-Guard Clear

Code	1790000 (S*)
Box Qty.	50 (40*)
Filtration efficiency	>99.9999%
Resistance to flow at 30L/min	0.9cm H <sub>2</sub> O
Resistance to flow at 60L/min	1.9cm H <sub>2</sub> O
Compressible volume	120ml
Weight	56g
Connectors	22F-22M/15F
Minimum Tidal Volume	>360ml



 Sterile option available

(S\*) Add an S to the seven digit code number for the sterile version of this product eg. 5000000S (sterile box quantity is shown in brackets).



## The Heat and Moisture Exchanging Filters (HMEFs)





The range of Heat and Moisture Exchanging Filters (HMEFs) combines the filtration efficiency of dedicated breathing filters with optimum moisture return provided by the addition of an HME element. Designed for use at the patient connection.

### Filta-Therm™ range

#### High efficiency

A high-efficiency HMEF offered with a variety of patient connections. Filta-Therm Plus (1941001) provides the optimum solution for intensive care with improved HME performance and high filtration efficiency.



Code	1941001	1941000	1942000	1941011
Box Qty.	70	70	70	20
Luer lock port	✓	✓		✓
Moisture loss	8.3mg H <sub>2</sub> O/L	8.1mg H <sub>2</sub> O/L	8.1mg H <sub>2</sub> O/L	8.1mg H <sub>2</sub> O/L
Calculated moisture return	30.3mg H <sub>2</sub> O/L	30.5mg H <sub>2</sub> O/L	30.5mg H <sub>2</sub> O/L	30.5mg H <sub>2</sub> O/L
Filtration efficiency	>99.999%	>99.999%	>99.999%	>99.999%
Resistance at 30L/min	1.1cm H <sub>2</sub> O	1.2cm H <sub>2</sub> O	1.2cm H <sub>2</sub> O	1.1cm H <sub>2</sub> O
Resistance at 60L/min	2.5cm H <sub>2</sub> O	2.6cm H <sub>2</sub> O	2.6cm H <sub>2</sub> O	2.8cm H <sub>2</sub> O
Compressible volume	65ml	65ml	66ml	65ml*
Weight	44g	43g	42g	57g
Connectors	22F-22M/15F	22F-22M/15F	22F-22M/15F	22F-22M/15F
Minimum tidal volume	>200ml	>200ml	>200ml	>200ml
Accessories				Superset™ catheter mount** 3504000
				
Code	1941197	1941351	1906000	2015000
Box Qty.	50	20	70	20
Luer lock port	✓	✓	✓	✓
Moisture loss	8.1mg H <sub>2</sub> O/L	8.1mg H <sub>2</sub> O/L	9.9mg H <sub>2</sub> O/L	9.9mg H <sub>2</sub> O/L
Calculated moisture return	30.5mg H <sub>2</sub> O/L	30.5mg H <sub>2</sub> O/L	28.9mg H <sub>2</sub> O/L	28.9mg H <sub>2</sub> O/L
Filtration efficiency	>99.999%	>99.999%	>99.999%	>99.999%
Resistance at 30L/min	1.4cm H <sub>2</sub> O	1.4cm H <sub>2</sub> O	1.2cm H <sub>2</sub> O	1.2cm H <sub>2</sub> O (HMEF only)
Resistance at 60L/min	3.8cm H <sub>2</sub> O	4.0cm H <sub>2</sub> O	2.4cm H <sub>2</sub> O	2.4cm H <sub>2</sub> O (HMEF only)
Compressible volume	65ml*	65ml*	70ml	70ml (HMEF only)
Weight	49g	60g	45g	45g (HMEF only)
Connectors	22F-22M/15F	22F-22M/15F	22M-22M-22M/15F	22F-22F-22M/15F
Minimum tidal volume	>200ml	>200ml	>210ml	>210ml
Accessories	Fixed elbow** 1997000	Flexible catheter mount with fixed elbow** 3501000		Breathing system 1.6m

\* HMEF only

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

## Inter-Therm™ range

### Sterile

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

#### HME on the patient side

Ensuring low resistance to flow during use





#### Wound paper HME element

Providing high moisture return

#### Self retaining port cap

Improving patient safety



Code	1341000S 	1341007S 	1341197S 	1341351S 
Box Qty.	50	50	50	50
Luer lock port	✓		✓	✓
Moisture loss	6mg H <sub>2</sub> O/L	6mg H <sub>2</sub> O/L	6mg H <sub>2</sub> O/L	6mg H <sub>2</sub> O/L
Calculated moisture return	32.3mg H <sub>2</sub> O/L	32.3mg H <sub>2</sub> O/L	32.3mg H <sub>2</sub> O/L	32.3mg H <sub>2</sub> O/L
Filtration efficiency	>99.998%	>99.998%	>99.998%	>99.998%
Resistance at 30L/min	1.6cm H <sub>2</sub> O	1.6cm H <sub>2</sub> O	1.5cm H <sub>2</sub> O	1.7cm H <sub>2</sub> O
Resistance at 60L/min	2.7cm H <sub>2</sub> O	2.7cm H <sub>2</sub> O	4.0cm H <sub>2</sub> O	4.6cm H <sub>2</sub> O
Compressible volume	57ml	57ml	57ml*	57ml*
Weight	31g	30g	38g	47g
Connectors	22F/15M-22M/15F	22F/15M-22M/15F	22F/15M-22M/15F	22F/15M-22M/15F
Minimum tidal volume	>180ml	>180ml	>180ml	>180ml
Accessories			Elbow** 1997000	Flexible catheter mount with fixed elbow** 3501000

 Sterile

\* HMEF only

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



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