



Bilevel breathing systems range



Critical Care ▪ Breathing Systems

Bilevel breathing systems range

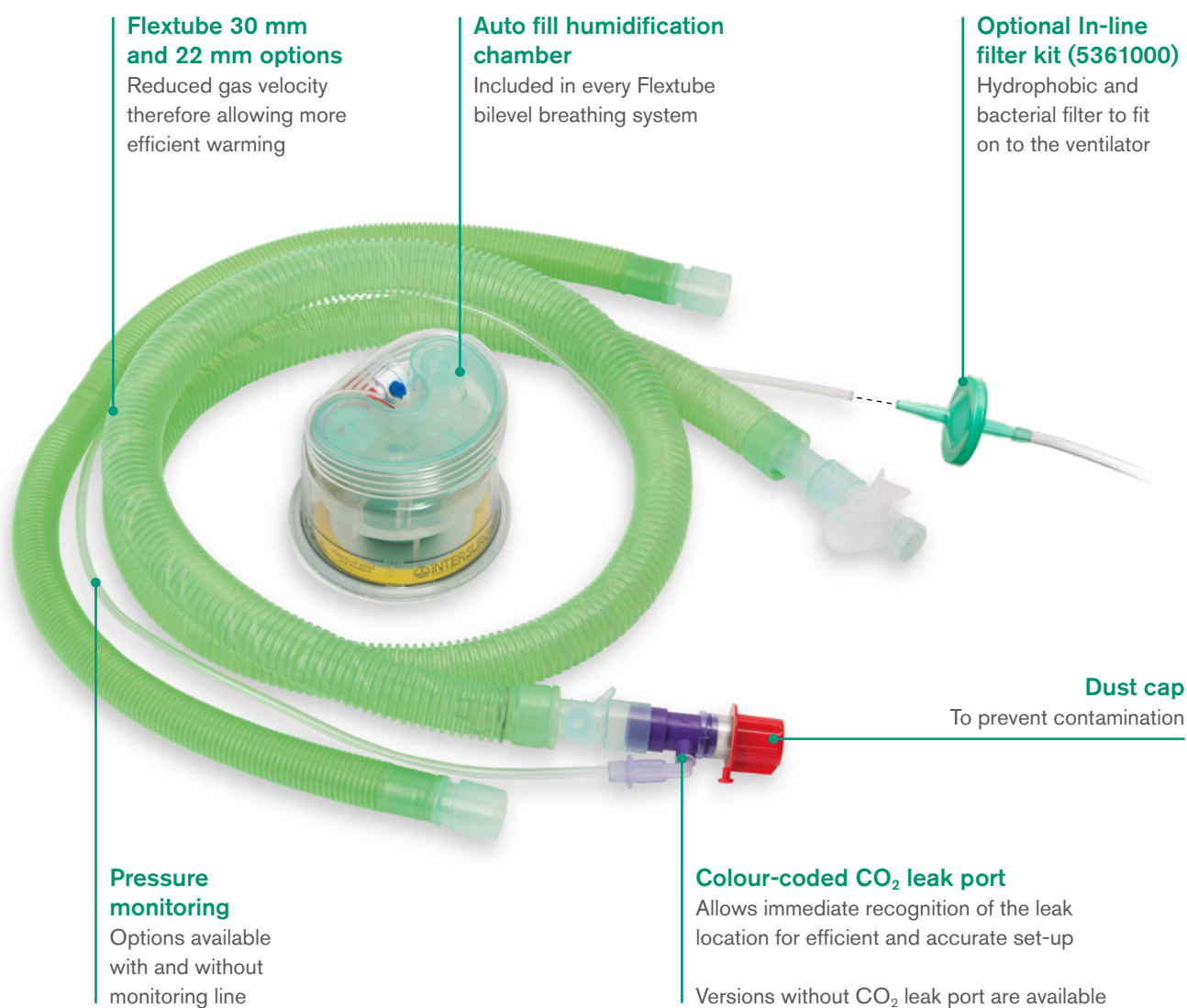
Intersurgical have a complete range of bilevel breathing systems compatible with the most popular bilevel machines that require a single limb breathing system.

Our bilevel products offer breathing system solutions with a CO₂ leak port for use with standard NIV (Non-invasive Ventilation) masks, and systems without a CO₂ leak port for use with vented NIV masks. Breathing systems without

proximal airway pressure monitoring lines are also available for those machines that do not require this feature.

Breathing systems in this range are suitable for adult and paediatric patients.

[Watch the video](#)



Flo-Guard breathing filter

99.99% efficient, low resistance, 7-day use breathing filter included where specified





Bilevel breathing systems range

Location of the intentional leak

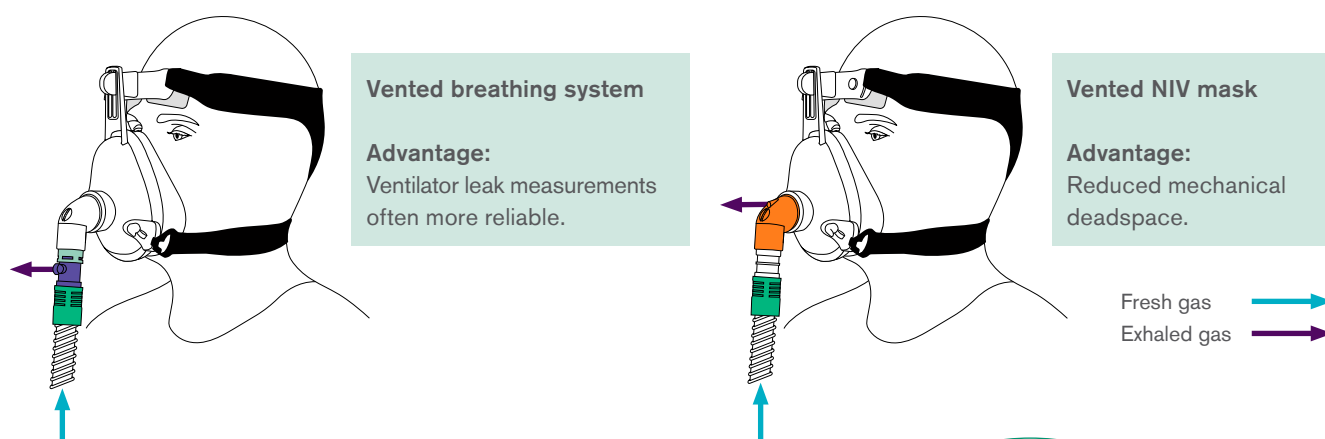
Both traditional two-limb breathing circuits and single limb, bilevel breathing systems deliver fresh gas flow from the ventilator to the patient via the inspiratory limb. The key difference lies in how expired gases are removed.

In two-limb systems, the patient's exhaled breath is returned to the ventilator through a second limb. In bilevel systems, however, the patient exhales directly to the atmosphere via an intentional leak or vent port. This leak ensures correct delivery

of the ventilated breath and enables the removal of exhaled CO_2 , making the vent port essential for safe patient ventilation.

NOTE: Always ensure a leak port is present in the single limb system set-up before starting ventilation.

The intentional CO_2 leak port, or vent can either be placed at the patient end of the breathing system, or built into the NIV mask.



Heated wire options

For extended non-invasive ventilation, active humidification is recommended to improve patient comfort and tolerance^[1]. Due to the relatively high flows used in bilevel treatments, the best solution for adult active humidification may be a 30 mm Flextube breathing system and a 22 mm Flextube breathing system for paediatrics.

Increasing the diameter of the tube over the heated wire section of the breathing system substantially reduces the gas velocity, improving the gas contact with the heated wire for greater efficiency without affecting flow rates.

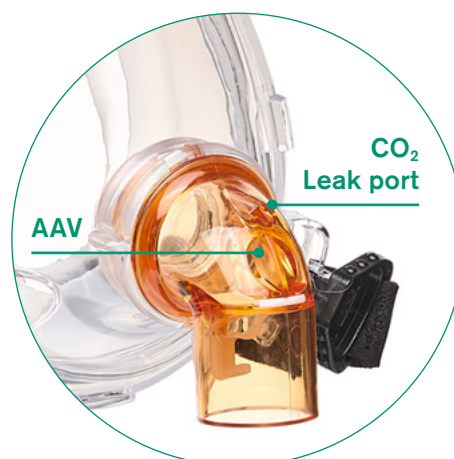
▶ Watch the video



The Anti-Asphyxia Valve (AAV)

An Anti-Asphyxia Valve (AAV) is intended to aid spontaneous breathing if ventilation is disrupted. If flow from the ventilator stops, the AAV opens and allows the patient to spontaneously breathe to atmosphere. Without an AAV, there is potential for increased work of breathing and exhaled CO_2 may become trapped within the breathing system leading to an increased risk of rebreathing.

NOTE: Not all masks with an AAV also contain an intentional leak, BiTrac™ NIV masks with a CO_2 leak port and AAV are identified by an orange elbow.



References:

[1] AARC clinical practice guideline. Humidification during mechanical ventilation. American Association for Respiratory Care. Respir Care. 1992 Aug;37(8):887-90. PMID: 10145779.

Bilevel breathing systems with a CO₂ leak port

Breathing system solutions with CO₂ leak port for use with standard/non-vented NIV (Non-Invasive Ventilation) masks.

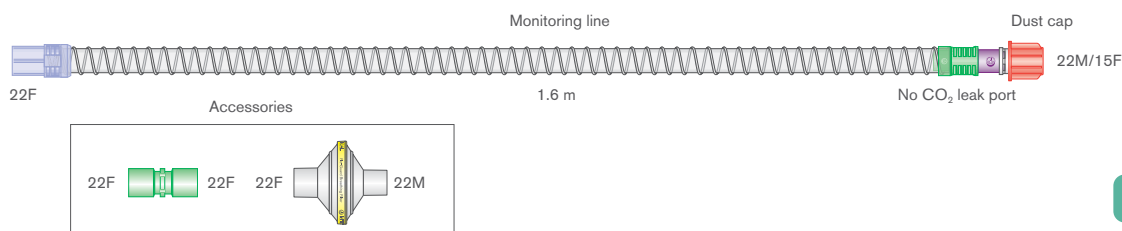
NOTE: Intersurgical breathing systems with a CO₂ leak port are identified by a purple leak connector.



Breathing system with a CO₂ leak port reference table:

Ventilator	22 mm Smoothbore		22 mm Smoothbore with water trap	30 mm Flextube heated wire		22 mm Flextube Heated wire
	No Filter	With Filter	With Filter	No Filter	With Filter	No Filter
Philips® V60 Mindray® SV70	5805000	5805044	5819001	2031000	2031004	2032000
Resmed® Astral® Breas® Vivo®	5804000	5804011	5809002	2334000	2234001	2332000
Nihon Kohden® NKV-330™	—	5805022	5819002	—	2031022	—

Smoothbore bilevel breathing systems


[Make an enquiry](#)

Code	Description	Box Qty.
5805000	22 mm Smoothbore bilevel breathing system with monitoring line and swivel CO ₂ leak port. ≥ 1.6 m	35
5805044	22 mm Smoothbore bilevel breathing system with monitoring line and swivel CO ₂ leak port and Flo-Guard filter. ≥ 1.6 m	25
5804000	22 mm Smoothbore bilevel breathing system with swivel CO ₂ leak port. ≥ 1.8 m	30
5804011	 22 mm Smoothbore bilevel breathing system with swivel CO ₂ leak port and Flo-Guard filter. ≥ 1.8 m	30
5805022	22 mm Smoothbore bilevel breathing system for use with the NKV-330™ ventilator, with monitoring line, swivel CO ₂ leak port and Flo-Guard filter. ≥ 1.6 m	25

Smoothbore bilevel breathing systems with water trap

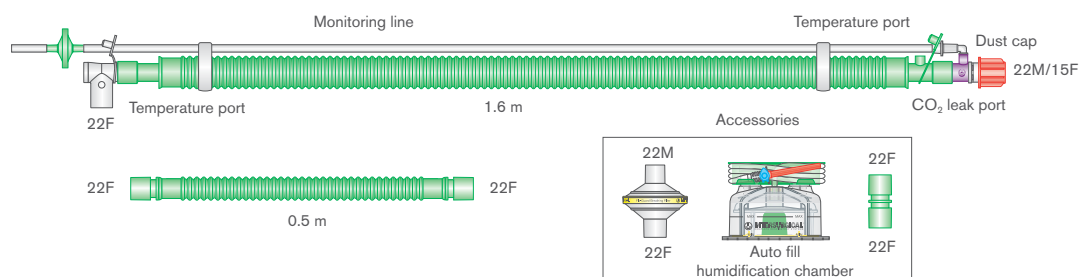
Code	Description	Box Qty.
5819001	22mm Smoothbore bilevel breathing system with monitoring line with filter, water trap, swivel CO ₂ leak port, extra limb and Flo-Guard filter. ≥ 1.6m	15
5809002	22 mm Smoothbore bilevel breathing system with monitoring line and swivel CO ₂ leak port and Flo-Guard filter. ≥ 1.6 m	10
5819002	22 mm Smoothbore bilevel breathing system for use with the NKV-330™ ventilator, with monitoring line, water trap, swivel CO ₂ leak port Flo-Guard filter and extra limb. ≥ 1.6 m	10

 Illustrated

NKV-330 is a trademark of Nihon Kohden. Nihon Kohden is a registered trademark of Nihon Kohden Corporation. Philips is a registered trademark of Koninklijke Philips N.V. Mindray is a registered trademark of Shenzhen Mindray Bio-Medical Electronics Co., Ltd. Resmed and Astral are registered trademarks of Resmed Pty Ltd. Breas and Vivo are registered trademarks of Breas Medical AB.



Flextube™ heated wire bilevel breathing systems


[Make an enquiry](#)

Code	Description	Box Qty.
2031000	30 mm Flextube bilevel heated wire breathing system with swivel CO₂ leak port , monitor line, auto-fill chamber and extra limb. ≥ 1.6 m	6
2031004 	30 mm Flextube bilevel heated wire breathing system with swivel CO₂ leak port , monitor line with filter, auto-fill chamber, Flo-Guard filter and extra limb. ≥ 1.6 m	6
2334000	30 mm Flextube bilevel heated wire breathing system with swivel CO₂ leak port , auto-fill chamber and extra limb. ≥ 1.6 m	6
2334001	30mm Flextube bilevel heated wire breathing system with swivel CO₂ leak port , auto-fill chamber, Flo-Guard filter and extra limb. ≥ 1.6m	7
2031022	30 mm Flextube bilevel heated wire breathing system for use with the NKV-330™ ventilator, with swivel CO₂ leak port , monitor line with filter, auto-fill chamber, Flo-Guard filter and extra limb. ≥ 1.6 m	6
2032000	22 mm Flextube bilevel heated wire breathing system with monitor line, swivel CO₂ leak port , auto-fill chamber and extra limb. ≥ 1.6 m	7
2332000	22 mm Flextube bilevel heated wire breathing system with swivel CO₂ leak port , auto-fill chamber and extra limb. ≥ 1.6 m	7

NIV masks for use with bilevel breathing systems with a CO₂ leak port

The BiTrac™ NIV product family features a variety of interfaces that are designed to increase patient comfort and compliance in respiratory distress scenarios. The full face and nasal masks are highly adjustable, and their seal's design minimise pressure exerted on the bridge of the nose.

NOTE: BiTrac NIV masks without a CO₂ leak port are identified by a clear elbow.



BiTrac Select™ NIV full face mask with interchangeable non-vented elbow with anti-asphyxiation valve

Code	Description	Box Qty.
313-9504	BiTrac Select NIV full face mask with interchangeable non-vented elbow with anti-asphyxiation valve, extra large adult	10
313-9503	BiTrac Select NIV full face mask with interchangeable non-vented elbow with anti-asphyxiation valve, large adult	10
313-9502	BiTrac Select NIV full face mask with interchangeable non-vented elbow with anti-asphyxiation valve, medium adult	10
313-9501	BiTrac Select NIV full face mask with interchangeable non-vented elbow with anti-asphyxiation valve, small adult	10

 Illustrated

NKV-330 is a trademark of Nihon Kohden.



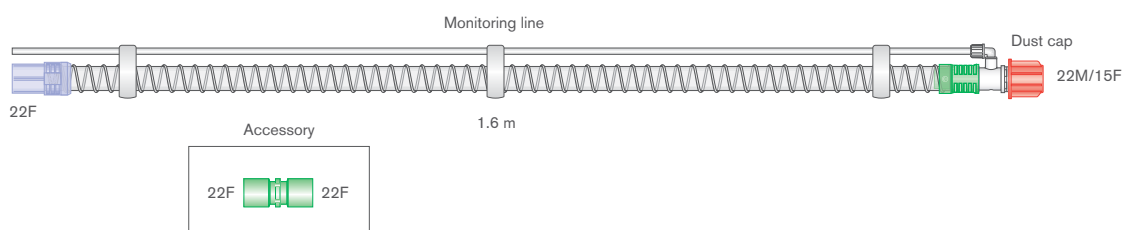
Bilevel breathing systems for use with vented NIV masks

Breathing system solutions without CO₂ leak port for use with vented NIV (Non-invasive Ventilation) masks.

Breathing system for use with vented NIV masks reference table:

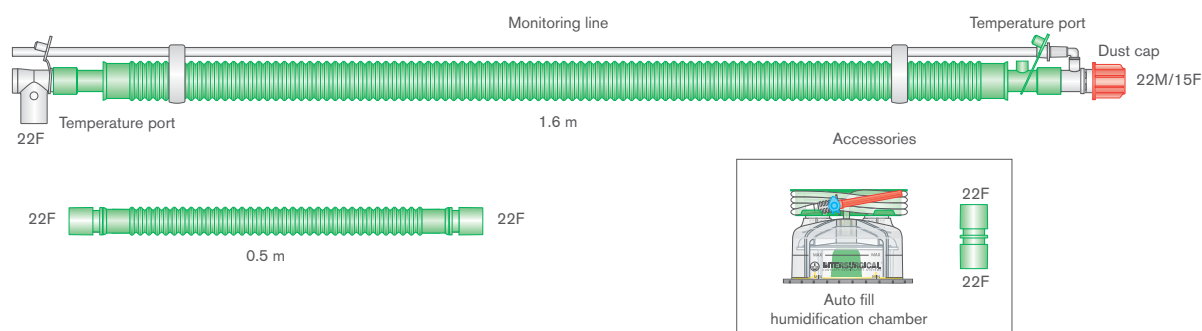
Ventilator	22mm Smoothbore	30mm Flextube heated wire	22mm Flextube Heated wire
Philips® V60	5825000		
Mindray® SV70	5825001	2331000	2431000
Resmed® Astral®	5018000	2335000	2432000
Breas® Vivo®			

Smoothbore bilevel breathing systems



Code	Description	Box Qty.
5825000	 22 mm Smoothbore bilevel breathing system with monitoring line and swivel patient connector. ≥ 1.6 m	25
5805001	22 mm Smoothbore bilevel breathing system with monitoring line, swivel patient connector and Flo-Guard filter ≥ 1.6 m	25
5018000 (S*)	22 mm Smoothbore tube with soft end connectors 22F – 22F. ≥ 1.8 m	20

Flextube™ heated wire bilevel breathing systems



Code	Description	Box Qty.
2331000	 30 mm Flextube bilevel heated wire breathing system with swivel patient connector, monitor line, auto-fill chamber and extra limb. ≥ 1.6 m	6
2335000	30 mm Flextube bilevel heated wire breathing system with swivel patient connector, auto-fill chamber and extra limb. ≥ 1.6 m	6
2431000	22 mm Flextube bilevel heated wire breathing system with swivel patient connector, monitor line, auto-fill chamber and extra limb. ≥ 1.6 m	7
2432000	22 mm Flextube bilevel heated wire breathing system with swivel patient connector, auto-fill chamber and extra limb. ≥ 1.6 m	7

 Illustrated  Sterile option available

(S*) Add an S to the seven digit code number for the sterile version of this product eg. 5018000S (sterile box quantity is shown in brackets).

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NIV masks for use with bilevel breathing systems without a CO₂ leak port

BiTrac™ NIV

The BiTrac NIV product family features a variety of interfaces that are designed to increase patient comfort and compliance in respiratory distress scenarios. The full face and nasal masks are highly adjustable, and their seal's design minimise pressure exerted on the bridge of the nose.



NOTE: BiTrac NIV masks with a CO₂ leak port are identified by an orange elbow.

BiTrac Select™ NIV full face mask with interchangeable non-vented elbow with anti-asphyxiation valve

Code	Description	Box Qty.
313-9514	BiTrac Select NIV full face mask with interchangeable vented elbow with anti-asphyxiation valve, extra large adult	10
313-9513	BiTrac Select NIV full face mask with interchangeable vented elbow with anti-asphyxiation valve, large adult	10
313-9512	BiTrac Select NIV full face mask with interchangeable vented elbow with anti-asphyxiation valve, medium adult	10
313-9511	BiTrac Select NIV full face mask with interchangeable vented elbow with anti-asphyxiation valve, small adult	10



Interchangeable elbows

Code	Description	Box Qty.
313-9599	BiTrac Select interchangeable standard non-vented elbow	10
313-9598	BiTrac Select interchangeable non-vented elbow with anti-asphyxiation valve	10
313-9593	BiTrac Select interchangeable vented elbow with anti-asphyxiation valve	10
313-9595	BiTrac Select interchangeable non-vented elbow with nebuliser port	10
313-9594	BiTrac Select interchangeable non-vented elbow with anti-asphyxiation valve and nebuliser port	10
313-9597	BiTrac Select interchangeable non-vented elbow with bronchoscopy port	10
313-9596	BiTrac Select interchangeable non-vented elbow with anti-asphyxiation valve and nebuliser port	10

22M – 22M Swivel connector

Code	Description	Box Qty.
5802000	Straight swivel 22M – 22M	30



Complementary products

Filtration

If monitoring line filtration is required, the optional in-line filter kit is available. Machine connection filtration can be added using a low-resistance Flo-Guard breathing filter (1690000).

Certain breathings systems are available with filtration solutions included. See product description for further details.



5361000



1690000

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

*Not compatible with NKV-330™ breathing systems

Humidification

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.



InterActive™

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

XX* Contact Intersurgical for market specific code

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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