

# **Respiratory device filters**

A range of replacement filters for the protection of respiratory equipment CPAP, bilevel, oxygen concentrators and suction devices.











Quality, innovation and trust

#### **Device filtration**

## A range of replacement filters for the protection of respiratory equipment CPAP, bilevel, oxygen concentrators and suction devices.

As a specialist in respiratory care and filtration, Intersurgical is pleased to offer a wide range of filtration solutions for devices which are in common use in the treatment of patients with respiratory disorders. We can provide a replacement filtration solution for the majority of CPAP and bilevel devices, oxygen concentrators and suction devices commonly found in the market.

#### What is CPAP/bilevel?

Obstructive sleep apnoea (OSA) can have a major impact upon the health and life of the individual, but is a treatable condition. Treatment options include the use of a Continuous Positive Airway Pressure (CPAP) device, that prevents the airway from collapsing by delivering a continuous supply of compressed air via a mask whilst the patient is sleeping. In severe cases, a bilevel device which delivers different pressure during the inspiratory and expiratory breath may be required to allow normal uninterrupted sleep.

#### Why use a filter?

All CPAP and bilevel machines have a filter, normally located at the air intake on the back or side of the machine.

The CPAP machine takes in room air, filters and pressurises it to deliver therapy to help prevent the airway from collapsing during sleep. These devices can also attract debris from the environment, which, may include dust, pet hair and other potential allergens. The filter is designed to clear these elements from the air before it reaches the patient's lungs.

#### How often should I change the CPAP filter?

It is very important to regularly change the CPAP filter. If these become dirty, the air that is breathed in through the device will likely be unclean. In general, it is recommended that the filters be changed, or cleaned, at least once per month.

If the device is being used in a particularly dirty or dusty environment, it may be sensible to replace the filters more often. Regular checking of the filter will determine how dirty it is becoming and whether increased replacement is necessary. Even if the filter appears clean, it should be replaced on at least a monthly basis or in line with recommendation of the original manufacturer.

#### What are oxygen concentrators?

An oxygen concentrator is a portable or electrical device that extracts air from the surrounding environment, providing oxygen therapy to a patient via nasal cannula at higher concentrations than available in ambient air. They are used as a safer, less expensive and more convenient alternative to tanks of compressed oxygen.

Drawn air from the environment is passed through a cylinder filled with zeolite pellets where it is compressed to a few times normal atmospheric pressure (typically 20 psi/138 kPa gauge, or 2.36 atmospheres absolute) and passed through the zeolite bed. The bed adsorbs the nitrogen, leaving nearly-pure oxygen in the output - up to 90–95%. There is a compressor inside the machine that can make a noise during use. The reservoir and the concentrator have limited storage, so virtually all the oxygen saved is released into the oxygen tubing for delivery to the patient.

#### Why is a filter required?

Ambient air contains millions of particles, some of which will be sub-micron. Particles of this size can easily enter and clog the working components of the machine or penetrate deeply into the lungs of the patient.

Air filters are therefore required to:

- 1. Protect the oxygen concentrator
- 2. Protect the patient from particulate matter and the risk of infection
- 3. In some instances they also function as a dampener to reduce the level of noise emitted by the machine

#### **Suction devices**

These devices provide a source of negative pressure and a collection chamber to allow the safe removal of bodily fluids and secretions.

These devices are prone to both damage and contamination if they are exposed to bodily fluids due to operating errors. The position of a high quality hydrophobic bacterial and viral filter between the suction pump and the secretion canister will help prevent this possibility.

## Filters for respirators, ventilators and gas lines

	22M/15F 22I		22M
	8 mm	Air-Guard Clear	S INTERSURGICAL
	8 mm	22F	22F
Code	1635001	1790000	1690000
Description	Hydrophobic inline filter for air/ $O_2$ gas concentrators	Air-Guard™ Clear filter	Flo-Guard low resistance filter for CPAP, bilevel and cough assist applications
Box quantity	200	50	50
Bag quantity	1	1	1
Material	Polypropylene	Clear ABS and polycarbonate, hydrophobic pleated membrane filter	Clear ABS, polypropolene electrostatic membrane filter
Connections	8 mm barbed	22F-22M/15F	22F-22M
Filtration efficiency	99.999%	>99.9999%	>99.99%
Compressible volume	-	120 ml	80 ml
Effective filtration area	22 cm <sup>2</sup>	_	<b>33</b> cm <sup>2</sup>
Filtration ability	0.027 micron	_	-
Resistance to flow at 60 L/min	-	1.9 cm H₂O	0.8 cmH₂O
Weight	-	56 g	28 g

Suction unit filter	S 11 mm 11 mm 11 mm	9 mm 12 mm
Code	1635003	1635004

Description	Suction filter for DeVilbiss <sup>®</sup> Vacu-Aide™	Suction filter for ATMOS <sup>™</sup>
Box quantity	200	50
Bag quantity	1	1
Connections	11 mm barbed	12 mm/9 mm
Filtration efficiency	>99.999%	>99.999%
Effective filtration area	24.6 cm <sup>2</sup>	24.6 cm <sup>2</sup>
Maximum operating pressure	20 psi	20 psi

## HEPA filters, foam pre-filters and accessories for oxygen concentrators





Code	1790001	1790002
Description	Oxygen concentrator intake filter for Invacare® Platinum®	Oxygen concentrator intake filter for Respironics <sup>®</sup> EverFlo™
Box quantity	50	50
Bag quantity	1	1
Filtration efficiency	99.999%	99.999%







Code	1790003	1790004	1695025
Description	Oxygen concentrator intake filter for DeVilbiss® 525	Oxygen concentrator intake filter for DeVilbiss® 505/515	Foam pre-filter for Invacare® Homefil®
Box quantity	50	50	150
Bag quantity	1	1	10
Dimensions	_	_	170 mm x 85 mm x 12 mm
Capacity	Volume up to 100 L/min	Volume up to 100 L/min	_
Noise level	Acoustic media reduces noise	Acoustic media reduces noise	_
Filtration efficiency	99.999%	≥99.99%	_

## Foam pre-filters and filters for CPAP/bilevel equipment







Code	1695009	1695010	1695011
Description	Filter for ResMed <sup>®</sup> S8™	Filter for ResMed <sup>®</sup> S9™, S10™ Series	Foam pre-filter for Respironics® Rempro™ Harmony™ 2
Box quantity	500	2500	500
Bag quantity	1	5	1
Dimensions	35 mm tapering to 25 mm at the top (trapezoidal)	53.6 mm x 35.6 mm	94 mm x 40 mm







Code	1695012	1695013	1695015
Description	Foam pre-filter for Respironics® M Series/PR One	Filter for Respironics® M Series/PR One	Foam pre-filter for Respironics® Harmony™/Synchrony™
Box quantity	1000	500	100
Bag quantity	1	1	10
Dimensions	44 mm x 23 mm x 10 mm	45 mm x 23 mm x 1.5 mm	120 mm x 60 mm





Code	1695040	1695042
Description	DreamStation <sup>®</sup> Reusable CPAP Filter	DreamStation <sup>®</sup> Disposable CPAP Filter
Box quantity	1800	500
Bag quantity	6	6
Dimensions	42.8 mm x 22.2 mm	50.8 mm x 25.4 mm

## Foam pre-filters and filters for CPAP/bilevel equipment



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Code	1695052	1695053
Description	Filter For Resvent <sup>®</sup> iBreeze™ CPAP Systems	Filter for ResMed <sup>®</sup> Airsense <sup>™</sup> 11 CPAP Systems
Box quantity	150	1000
Bag quantity	2	2
Dimensions	19.1 mm x 46.5 mm	22.4 mm x 50.8 mm





Code	1695054	1695055
Description	DreamStation <sup>®</sup> 2 disposable CPAP fine filter	DreamStation <sup>®</sup> 2 disposable CPAP foam filter
Box quantity	5000	5000
Bag quantity	5	5
Dimensions	44.9 mm x 21.5 mm x 3.3 mm	64.5 mm x 28.3 mm x 16.9 mm





Code	1695056	1695057
Description	Prisma® VENT fine filter	Prisma <sup>®</sup> VENT foam filter
Box quantity	5000	5000
Bag quantity	5	5
Dimensions	38 mm x 59.5 mm	37.5 mm x 64 mm x 6 mm

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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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