Pharma Systems

Protects and Humidifies

Heat & Moisture Exchangers & Bacterial/Viral Filters (HMEF)

Humidification & Protection

Pharma Systems Heat & Moisture Exchanger and Bacterial/Viral Filters (HMEF) are single-use devices that combine high-efficiency bacterial and viral filtration with effective heat and moisture exchange. They protect both patients and equipment by minimizing the risk of cross-contamination from airborne pathogens, such as bacteria and viruses. By capturing heat and moisture from exhaled air and returning it during inhalation, HMEFs also support the maintenance of optimal respiratory conditions, particularly during mechanical ventilation or other forms of respiratory support.

The HMEFs are intended for use when mechanical ventilation and other respiratory support therapies are performed and they:

- ✓ Ensure a high level of bacterial and viral filtration efficiency, reducing the risk of cross-contamination.
- ✓ Support airway protection by maintaining mucosal hydration.
- ✓ Provide passive humidification of inspired gases by retaining heat and moisture from exhaled air.
- ✓ Minimize the need for active humidification systems.

When & Where

To use

HMEFs are suitable for use in the following settings but not limited to:

Intensive Care Units (ICUs)
Home Care Environments
Transport Ventilation
Emergency Care
Operating Rooms (ORs)

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Pharma Systems

Respiratory solutions

Pharma Systems, a certified MedTech manufacturer based in Sweden, provides a comprehensive portfolio of Heat and Moisture Exchangers (HMEs), Bacterial/Viral Filters (BVFs) and combined HMEFs, developed for patients ranging from Neonates to Adults — whether intubated or tracheostomized.

All products are manufactured using certified, high-quality materials and incorporate advanced filtration technologies to support reliable clinical performance in demanding healthcare environments.

Pharma Systems' entire product line is fully compliant with MDR and holds ISO, FDA, and CE certifications, ensuring the highest standards of safety, performance, and regulatory compliance.

HME BVF HMEF Pharma Trach

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HME & Bacterial/Viral Filters (HMEFs)

	Pharma Mini Basic	Pharma Mini Port	Pharma Mini Port 2	Pharma Mini Port Angle	Bact-HME Midi Port	Bact-HME Midi Port Angle	Bact-HME Basic	Bact-HME Port
Product code	6100	6120	6121	6130	6310	6320	6000	6020
Dead space	26 ml	23 ml	23 ml	23 ml	47 ml	49 ml	74 ml	76 ml
Tidal volume	50-900 ml	50-900 ml	50-900 ml	50-900 ml	100-1200 ml	100-1200 ml	250-1500 ml	250-1500 ml
Bacterial Filtration Efficiency*	99,99%	99,99%	99,99%	99,99%	99,99%	99,99%	99,99%	99,99%
Viral Filtration Efficiency*	99,9%	99,9%	99,9%	99,9%	99,9%	99,9%	99,9%	99,9%
Flow resistance 15 L/min	1,1 cm H_2O/60 Pa	1,1 cm H_2O/60 Pa	1,1 cm H_2O/60 Pa	1,1 cm H_2O/60 Pa	0,6 cm H_2O/60 Pa	0,6 cm H_2O/60 Pa	0,45 cm H_2O/45 Pa	0,45 cm H_2O/45 Pa
Flow resistance 30 L/min	2,5 cm H_2O/150 Pa	2,5 cm H_2O/150 Pa	2,5 cm H_2O/150 Pa	2,5 cm H_2O/150 Pa	1,5 cm H_2O/150 Pa	1,5 cm H_2O/150 Pa	1,15 cm H_2O/115 Pa	1,15 cm H_2O/115 Pa
Flow resistance 60 L/min	5,8 cm H_2O/340 Pa	5,8 cm H_2O/340 Pa	5,8 cm H_2O/340 Pa	5,8 cm H_2O/340 Pa	3,2 cm H_2O/320 Pa	3,2 cm H_2O/320 Pa	2,9 cm H_2O/290 Pa	2,9 cm H_2O/290 Pa
Moisture return (output) at Vt 250 ml	32 mg H_2O/L air	32 mg H_2O/L air	32 mg H_2O/L air	32 mg H_2O/L air	33 mg H_2O/L air	33 mg H_2O/L air	34 mg H_2O/L air	34 mg H_2O/L air
Moisture return (output) at Vt 500 ml	23 mg H_2O/L air	23 mg H_2O/L air	23 mg H_2O/L air	23 mg H_2O/L air	32 mg H_2O/L air	32 mg H_2O/L air	33 mg H_2O/L air	33 mg H_2O/L air
Capnography port	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Patient connection	15F/22M	15F/22M	15F/22M	15F/22M	15F/22M	15F/22M	22F/15M	22F/15M
Ventilator connection	15M	15M	15M	15M	15M/22M	15M	22F	15M/22F
Weight	17 g	15 g	15 g	15 g	29 g	29 g	34 g	34 g

Always follow Instructions For Use (IFU).
All products are intended for single use, available as sterile and are available with tethered cap.
*Filtration efficiency data from the Bacterial Filtration Efficiency (BFE) and Viral Filtration Efficiency (VFE) tests, Nelson Laboratories Inc., Salt Lake City, UT, USA.

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