Phillips Medisize
a molex company

FOX™ VIBRATING MESH NEBULIZER

The FOX device is a handheld, breath-activated, battery-powered inhalation system that delivers nebulized liquid drugs with high performance using a vibrating mesh technology.

The FOX device is suitable for the delivery of small molecules and biologics formulated as solutions or nanosuspensions.

Key Features

Breath activated
Reduced medication waste and improved efficiency.[1]
The patient is in control of their dosing.

Low inspiration flow rate
Maximizes lung delivery.[2]

Guided inhalation
LED feedback and air control guide patient use.

Bluetooth® connectivity
Available for digital health applications, including monitoring adherence and compliance.

CE marked
Has a 510(k) premarket notification for marketing in the US.

Formulation optimization
Services available to support product development.

Bring Your Product To Life With Discovery To Delivery Capabilities

Industry-leading innovation requires industry-leading expertise. At Phillips Medisize, a Molex company, our unique capabilities help customers deliver safe and effective solutions that can help people live healthier, more productive lives. From front-end innovation and development to manufacturing and post launch, we work with you at every step — or any stage in between — to help your product succeed in the market.

1. Gessler T, Hossein-Ardeschir G, Held M, et al. The safety and pharmacokinetics of rapid iloprost aerosol delivery via the BREELIB nebulizer in pulmonary arterial hypertension. Pulm Circ. 2017;7:505–513.

2. Brand P, Friemel I, Meyer T, Schulz H, Heyder J, Haubetainger K. Total deposition of therapeutic particles during spontaneous and controlled inhalations. J Pharm Sci. 2000;89:724–731

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Product Information	Fill Volume (mL)	Delivered Dose (%)	Residual Dose (%)	Treatment Time (minutes)	Average Droplet Size (µm)	Geometric Standard Division
Solution (0.9% w/v NaCl)	0.2	94	6	1	4.3	1.5
Peptides 5 mg/mL Semaglutide Viscosity: 0.9 cP	0.5	90	10	4	5.0	1.5
Proteins 85 mg/mL IgG antibody Viscosity: 2.1 cP	1.0	95	5	11	3.8	1.5
Solution (0.1% w/v albuterol)	2.0	90	9	9	5.0	1.7

Indicative performance only: Product performance is formulation dependent.
Device maximum fill volume is 4 mL.
Treatment time is estimated by adjusting the number of breaths by a simulated 1:1 inhalation/exhalation time.

Platform specifications

Fill volume range 0.1–4.0 mL

Charge time: 15 minutes as per IFU

Solution performance (salbutamol sulphate)

Delivered dose: 90%

Residual dose: 9%

Aerosol output rate: 0.52 mg/min

Delivered dose, residual dose and delivery rate performance of FOX Device with a 2 mL fill of 1 mg/ml salbutamol (i.e. 0.1% w/v albuterol) in 0.9% sodium chloride solution in accordance with EN ISO 27427:2019. Data is reported as a percentage of filled content.

Reference documents:

Newman, J. Aerosol Characterization and In Silico Lung Deposition Modeling of a Breath Activated Mesh Nebulizer as Compared with a Continuously Producing Nebulizer. Poster presented at the International Society for Aerosols in Medicine, June 2025.

https://doi.org/10.1089/jamp.2025.12100.abstract

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