



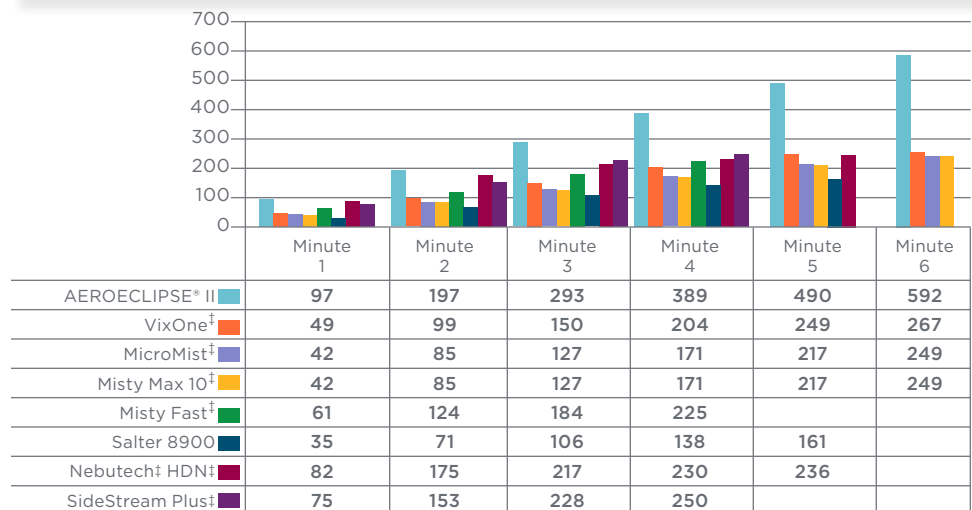
The Monaghan Advantage

- ❖ Breath actuated technology
- ❖ Consistent respirable dose
- ❖ Virtually no drug lost to the environment
- ❖ Protection from secondhand aerosols
- ❖ Minimal medication waste
- ❖ Efficient treatment times
- ❖ Biofeedback button confirms actuation and inhalation
- ❖ Reduced ER length-of-stay and admission rates¹
- ❖ Not made or manufactured with BPA, natural rubber latex, DEHP or lead

THE PATH TO GREAT CLINICAL PERFORMANCE BEGINS WITH A SUPERIOR AEROSOL.

The AEROECLIPSE® II BAN™ NEBULIZER combines high Emitted Dose with high Respirable Fraction to deliver a high Respirable Dose to the patient.

Respirable Dose in 6 Minutes²



518.561.7330 phone
800.833.9653 toll free
518.561.5088 fax

Monaghan Medical Corporation
Plattsburgh, New York 12901
monaghanmed.com

¹ Bong CJH, MD, MPH; Eady M, MD; Bowman CM, MD; Titus MO, MD. Breath actuated nebulizer improves quality of care in pediatric emergency department asthma and leads to system wide implementation. PAS Conference, Baltimore, Maryland 2009.

² TMI Aerosol Lab, data on file. 3.0 ml Albuterol Solution 0.83 mg/ml, 8 lpm, 50 psi, V_T 0.6 L, Rate 10 bpm

AEROSOL PHYSICS

... *In vitro* measurements of emitted dose and particle size guide the user as to the likelihood of successful delivery of the inhaled medication to the lower respiratory tract. ...

... Physical properties of the aerosol affecting deposition include particle size, shape and density. These are determined by the aerosol generator's performance characteristics and the aerosol formulation.

Consensus Statement: Aerosols and Delivery Devices. *Resp Care* 2000;45(6):589-596.

With constant-output nebulizers some of the aerosol is lost during exhalation, which causes release of aerosol to the ambient air through the expiratory limb of the T-piece. Constant output nebulizers have been criticized as unreliable and inefficient, because a low percentage of the dose reaches the patient.

Performance comparison of nebulizer designs: Constant-output, breath enhanced, and dosimetric. *Resp Care* 2004;48(2):174-179.

Clinically Important Characteristics of Nebulizer Performance

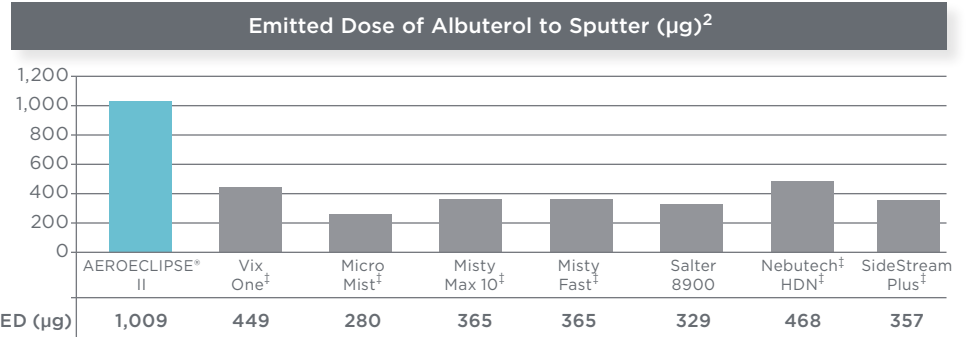
The most important characteristic of nebulizer performance is the respirable dose provided for the patient. The respirable dose is determined by the mass output of the nebulizer and the size of the droplets that are produced. ...

Hess D. Nebulizers: Principles and Performance. *Respiratory Care* 2000;45(6):609-22.

AEROECLIPSE® II BAN™ NEBULIZER: FAST, ASSURED DELIVERY

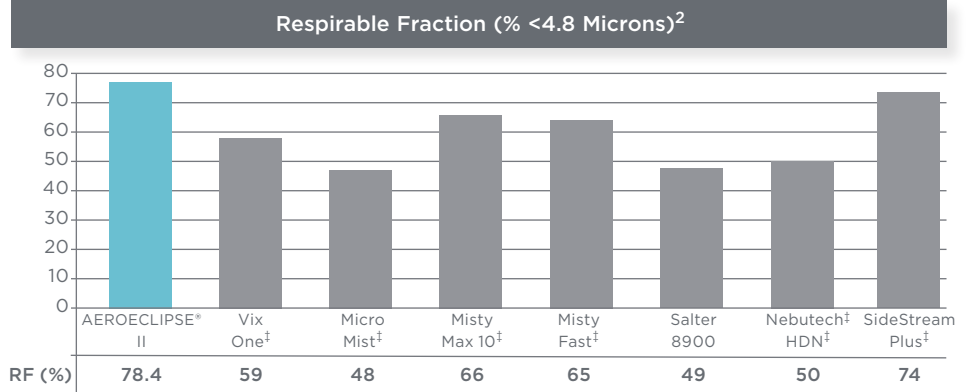
$$\text{Emitted Dose (ED)} \times \text{Respirable Fraction (RF)} = \text{Respirable Dose (RD)}$$

$$\text{ED} \times \text{RF} = \text{RD}$$



Emitted Dose (ED) to the Patient: Total amount of drug delivered to the patient - any particle size. Superior aerosol delivery means delivering a higher rate of output. *The AEROECLIPSE® II NEBULIZER is unsurpassed by any of these nebulizers (SVN) for drug delivery to the patient.*

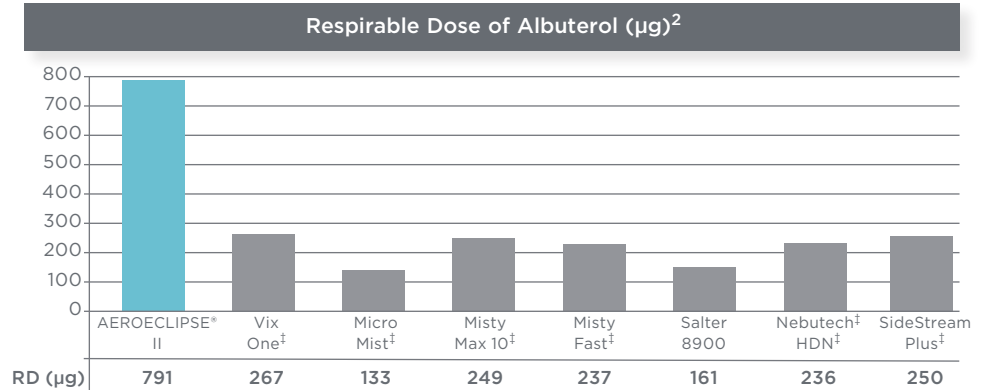
$$\text{ED} \times \text{RF} = \text{RD}$$



Respirable Fraction (RF): The part of the aerosol that will reach the small airways and produce the desired outcome.

Particles are generally considered respirable if they are < 5 µm. The fraction (percent) of the particles in the ED that are less than 5 µm is called the Respirable Fraction. The higher the portion of the ED that is respirable, the better the delivery of drug to the small airways. *The AEROECLIPSE® II NEBULIZER delivers a high Respirable Fraction.*

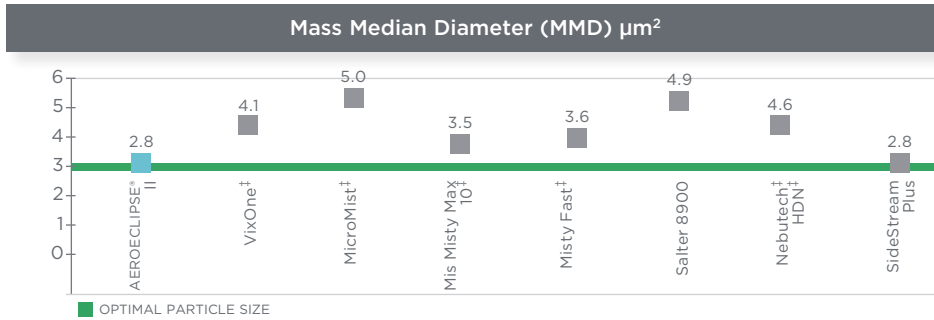
$$\text{ED} \times \text{RF} = \text{RD}$$



Respirable Dose (RD): The part of the medical aerosol that is available for deposition. To maximize RD the device must deliver both high ED and high RF. *The AEROECLIPSE® II NEBULIZER outperforms all these nebulizers in this critical measure.*

AN IDEAL AEROSOL IS CHARACTERIZED BY AN MMD OF AROUND 2.8 μM

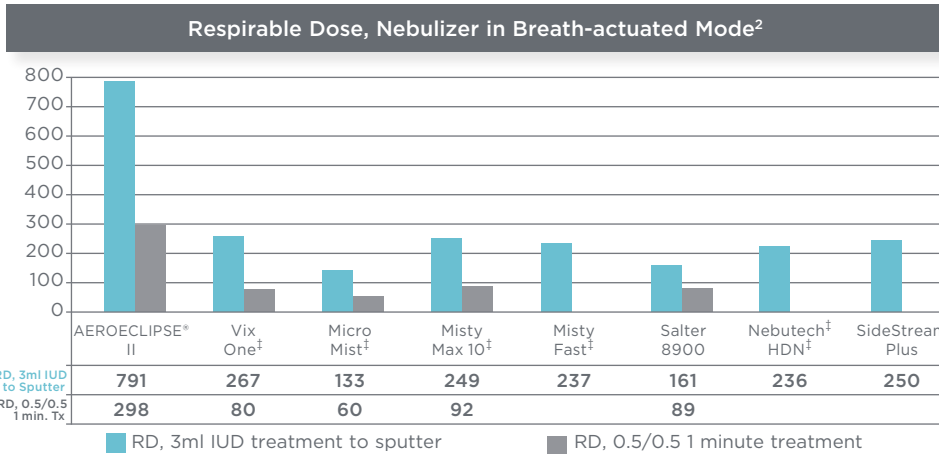
AEROECLIPSE® II NEBULIZER MMD = 2.8 μM



Aerosol Particle Size: Particles must be the right size to reach the small airways but large enough to stay put and deliver a meaningful amount of drug.

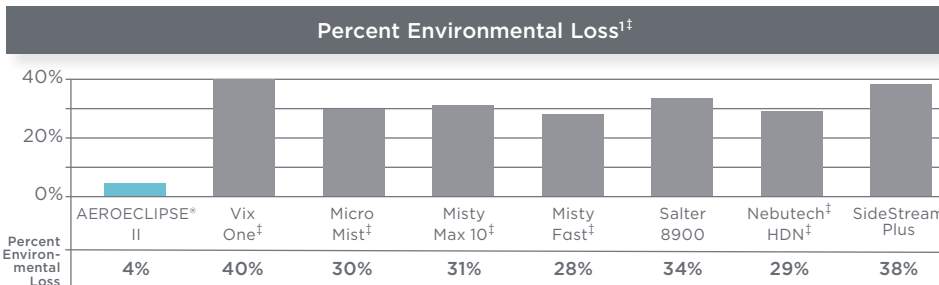
Studies have shown that the ideal medical aerosol will be characterized by a Mass Median Diameter (MMD) of about 2.8 μm.

Superior Drug Delivery



The AEROECLIPSE® II NEBULIZER provides superior drug delivery in breath actuated mode.

Reduction of Clinician Drug Exposure



Because the AEROECLIPSE® II NEBULIZER delivers aerosol on patient inspiration only (patient on-demand therapy) virtually all of the aerosolized drug goes to the patient and not into the environment.

(See insert on *Second-hand Aerosols in Acute Care*.)

[†] Mass loss includes drug that escaped from the nebulizer to the surrounding atmosphere together with trace amounts left behind in the ampule.



The higher the portion of the ED that is respirable, the better the delivery of drug to the small airways.

The AEROECLIPSE® II NEBULIZER delivers a high Respirable Fraction.

AEROECLIPSE® II NEBULIZER Delivers Drug Versatility

Aerosol amount and particle characteristics are determined by both the aerosol generator and the substance aerosolized. The AEROECLIPSE® II NEBULIZER delivers superior aerosols with each of your most widely used medications including:

- Albuterol
- Ipratropium Bromide
- Budesonide
- Levalbuterol
- Chromolyn Sodium
- Combination Albuterol and Ipratropium
- Methacholine

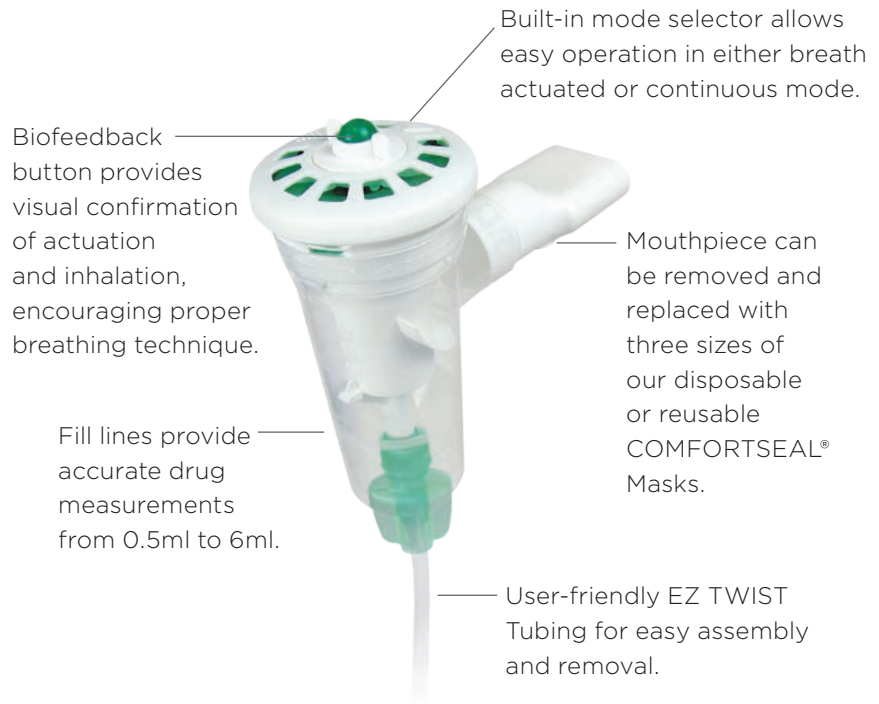
Benefits include:

- Less medication waste
- High efficiency
- Patient compliance
- Safer healthcare worker environments



AEROECLIPSE® II BAN™ NEBULIZER Is Produced and Tested in a Clean Room Facility

- There is 100% quality testing of the jet orifices and breath actuation mechanism to ensure proper function of every AEROECLIPSE® II BAN™ NEBULIZER.
- AEROECLIPSE® II BAN™ NEBULIZER is produced in a cleanroom that meets ISO Class 8 (100,000 particles per cubic foot standard) to ensure a high quality manufacturing environment for medical devices.



ORDERING INFORMATION



PART #	NAME/DESCRIPTION	UNITS PER CASE
64594050	AEROECLIPSE® II Nebulizer	cs/50
65050E	AEROECLIPSE® II Nebulizer with Elbow Adapter	cs/50
69350	AEROECLIPSE® II Nebulizer w/Universal Tubing	cs/50
60050	Filter Mouthpiece	cs/50
10550394010	Reusable COMFORTSEAL® Mask with Elbow - Small	cs/10
10550294010	Reusable COMFORTSEAL® Mask with Elbow - Medium	cs/10
10550494010	Reusable COMFORTSEAL® Mask with Elbow - Large	cs/10
65750	Disposable Aerosol Mask - Small	cs/50
65950	Disposable Aerosol Mask - Medium	cs/50
65850	Disposable Aerosol Mask - Large	cs/50
65005	Elbow Adapter for use with the AEROECLIPSE® II NEBULIZER	cs/50

Contact your Monaghan Sales Territory Manager for more information or for a demonstration.



REGISTERED
ISO 13485
QUALITY SYSTEM

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