

## Flexineb E3 Cup

### Description

The Flexineb E3 Cup is the heart of the Flexineb E3. Liquids which are intended to act in the lungs are put into the Flexineb E3 cup and are converted into a fine mist to be inhaled by the horse. It is a consumable part with a lifespan that depends on the liquids and volumes nebulized by the cup and how well the cup is maintained.

### Full Product Description

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The Flexineb E3 Cup will hold 10 ml of liquid but is expandable to 30 ml using the Flexineb Cup Volume Extender.

The liquid is converted into a fine mist (aerosol) through vibration of the mesh/membrane (90.000 times per second) acting like a micro pump.

The performance and life of the Flexineb E3 Cup is highly dependent on how well it is maintained between uses. The type of drug or liquid used also influences the lifespan as the technology must pump the drug or liquid through tiny holes to form the aerosol.

If a liquid with a high viscosity (e.g. like honey) is placed in the Flexineb E3 Cup it may not nebulise. Dilution may help if the liquid is water based. If a liquid is oil-based dilution will not help.

Another factor that will affect performance is if the drug or liquid used is a Solution or Suspension.

Solution type drugs have their active agent completely dissolved in the liquid (like sugar in coffee).

Suspension type drugs have their active agent suspended in the liquid in the form of tiny solid particles (like sand in water).

## Product Variants

Grey: The grey E3 cup is the universal E3 cup which is compatible with most liquids used in nebulization.

Green: The green E3 cup is suitable for use with thicker liquids which are more difficult to nebulize.

Blue: The blue E3 cup is suitable for use with thin liquids and smaller doses.

## Cleaning and Care

Clean the Flexineb E3 Cup after each use

Always protect the electronics using the clear cap

Clean with distilled water and one drop of mild dish soap

Rinse thoroughly and air dry

Never use sharp objects

Do not use harsh or chemical cleaners

## Lifespan of the Flexineb E3 Cup

The Flexineb E3 cup is a consumable part, the lifespan is highly dependent on the volume and variants of liquids nebulized by the cup.

The average lifespan of the cup is up to 100 uses.\*

*\* based on nebulizing 10ml 0.9% saline solution per use – this equals 1000ml in total.*

*\* If liquids other than 0.9% saline solution are used, the cup's lifespan may be reduced by up to 50%.*

## Technical Information

### Flow Rate

Typically 1.0 mL/min with 0.9% NaCl solution. The flow rate is very dependent on the solution nebulized.

### Aerosol Droplet Size

Flexineb E3 generates aerosol droplets in the respirable range for delivery to the airways of the horse. The aerosol droplet size is highly dependent on the solution nebulized.



## **Flexineb E3 Cup Volume**

The Flexineb E3 Cup will hold 10ml of liquid but is expandable to 30ml using the Flexineb Cup Volume Extender supplied. The Flexineb E3 Controller has a timer function therefore, if the Flexineb Cup Volume Extender is used the Controller will need to be re-started to complete the nebulization.

## **Warranty**

The Flexineb E3 cup is a consumable part, the lifespan is highly dependent on the volume and variants of liquids nebulized by the cup and how well it is maintained therefore it is not covered by warranty.

## **Flexineb E3 Cup FAQs**

### **What is the Flexineb E3 Cup?**

The Flexineb E3 Cup is the heart of the Flexineb system. It's the part that holds the liquid and transforms it into the fine mist. This happens through a delicate gold-plated mesh that vibrates 90,000 times per second, creating the aerosol that your horse inhales.

The Flexineb E3 Cup works hard and contains sensitive components, therefore, it is a consumable part that naturally wears out over time and should be replaced periodically to maintain consistent performance.

### **How do I know which colour of Flexineb E3 Cup to use?**

Choosing the right Flexineb E3 Cup colour depends on the type of liquid you're nebulizing:




- Grey Cup – Ideal for most thin, water-like solutions. If your liquid flows easily, like salt fully dissolved in water, the grey cup is usually the best fit.
- Green Cup – Designed for slightly thicker liquids or mild suspensions. Think of a liquid with sugar partially dissolved, or something just a little thicker than water. If your solution struggles to nebulize in the grey cup—even on higher power settings—the green cup is a better choice.
- Blue Cup – Best used for small volumes of thin liquids.



### Getting the Best Results:

- Start with the grey cup on power level 1.
- Increase the power only if needed—slower nebulization is often more effective.
- Avoid using the green cup with very thin solutions, as it may nebulize too quickly and cause dripping.
- Use a separate Flexineb E3 Cup for each type of substance to help extend cup life and maintain performance.

### What Works Well—and What Doesn't:

-  Works well: Water-based solutions that are thin and fully dissolved (like salt in water).
-  May work: Slightly thicker liquids or mild suspensions (like sugar water with a bit of residue). Some compounded substances aren't suitable for nebulization and may cause the cup to wear out faster.
-  Not suitable:
  - Thick or sticky substances (like syrup or honey)
  - Oils (e.g., essential oils)
  - Suspensions with visible particles (like sand in water)

If you're using a water-based liquid that's too thick, dilution may help. But if the liquid is oil-based, diluting won't make it suitable for use.

Because the Flexineb E3 Cup includes delicate components like a vibrating mesh, it's a consumable part and will need replacing over time to maintain proper function.

### **How many uses will I get from my cup before I need to replace it?**

The lifespan of the Flexineb E3 Cup varies depending on the substances nebulized within it and the cleaning frequency. The cup is lined with gold-plated mesh, which can corrode over time due to certain substances. Thicker substances may also gradually clog the mesh. Using separate cups for different substances is recommended to maximize lifespan and avoid cross-contamination.

Additionally, using too high of a power level for the substances being nebulized can damage the cup. The E3 cup is designed for an expected lifespan of up to 100 uses when used exclusively with 10ml of 0.9% saline solution. If other solutions are used, the lifespan may be reduced by up to 50%. Users who nebulize specialized or medicated substances should expect a shorter duration of effective use. It's advisable to keep a backup cup in stock.



### **How long should it take to nebulize 10ml of 0.9% saline solution?**

For the grey-coded Flexineb E3 Cup, the nebulization process typically takes approximately 8-12 minutes to nebulize 10ml of 0.9% saline solution. Minor variations in the nebulization time for the same substance at the same volume should not be a cause for concern.

The flow rate is dependent on the substance being nebulized and the power level used. Thicker substances will require more time to nebulize. If a substance appears to be nebulizing at a slower-than-expected rate, you may consider increasing the power level. For thicker substances that still struggle at power level 3 with the grey-coded cup, switching to the green-coded cup may be necessary.

### **How do I know when to change my Flexineb E3 Cup?**

You'll know it's time to change your Flexineb E3 Cup if, despite appropriate usage and cleaning, it suddenly stops working or performs abnormally. Signs may include substances dripping from the cup instead of aerosolizing, or decrease in performance. Visually inspect the cup for signs of wear. If you notice these signs, it's time to replace the cup. Periodically replacing the Flexineb E3 Cup is essential, so having a backup is advisable.