

Operation

Handling / Operation and handling failures

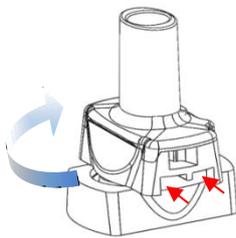


Advantages or the Mora Ellipse compared to other devices

The Mora Ellipse twists 180° in any direction.
Smooth movement to pierce.
The handling area is with enough space to operate it with more fingers.

Comparable devices have two push buttons that need to be pushed to pierce the capsule.
Here mistakes can be made by pushing just one push button and/or forgetting to release the buttons.
The push buttons are very small and not convenient to push for everyone.

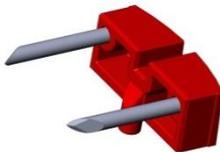
Piercing force



Less piercing force due to simple rotation of 180°. During piercing the needle, the spring does not increase the piercing force.

Comparable devices need a high piercing force due to the effect of the spring.

Number of needles



2 needles pointing in the same direction. Piercing is on the length side of the capsule to work with the elastic deformation of the capsule and to avoid too high initial piercing force.

Comparable devices have 8 needles; 4 at each side, facing opposite direction.
Piercing is done from the top side. Top side is very stiff. Therefore the initial piercing force is very high. This can lead to a damage of the capsule.

Piercing force on capsule
Split parts during inhalation



Due to the rotation mechanism force on capsule the holes will be uniform all the time.

For **comparable devices** the piercing force depends upon the human factor. This does not provide a uniform piecing force and could lead to a damage of the capsule while piercing.
Split parts during inhalation could go to the lung.

Needle shape

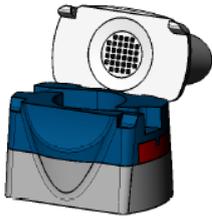


The Needles are placed with the sharp edge facing to the outer side for easy piercing and to avoid the blocking of the powder from coming out of the capsule.

In **comparable devices** the needles are placed with the cone pin point for piercing, due to which the capsule gets cracks.

	Mora Ellipse Device	Mematec  Solutions

Device quality



There will be no dis-assembled parts during the usage of the device. The mouth piece is fixed to the body base.

At **comparable devices** the mouthpiece is not fixed and thus can get dis-assembled. It can also come off during the usage.

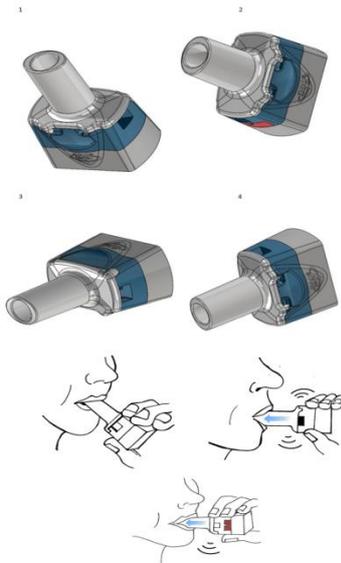
Capsule



The Mora Ellipse allows the piercing of different types of capsule. It is able to handle HPMC capsules as well as HGC.

Using a HPMC capsule in **comparable devices** could lead to damaging of the capsule during the piercing process (as shown before).

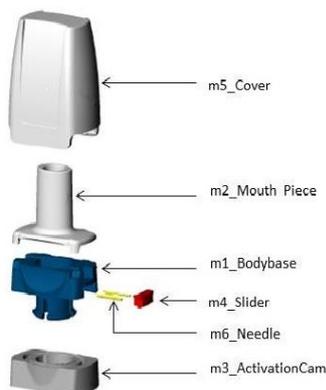
Usage of the device Device operation orientation



The Mora Ellipse can be used in all positions and directions. It is suitable for left hander as well as right hander.

For **comparable devices** the preferred direction is the horizontal operation position of the device. In any other position the capsule will block in the rotation chamber and does not rotate during the inhalation process.

Number of device parts



The Mora Ellipse is made up of

- 6 individual parts,
- 2 needles,
- 2 metal parts.

Comparable devices are made up of

- 6 individual parts ,
- 2 sliders,
- 8 needles,
- 8 springs
- 16 metal parts (needles and springs).

Flow resistance

There is a high- and a low resistance body base and 3 filter variations for ideal impact of powder in the device.

1) Standard filter



(a) Full Grid case

2) Nesat filter



3) High volume

