

# SEVERO

professional pill grinder

## User manual



*Please read this user manual  
carefully before use!*

**This manual and a one page user protocol is  
online available in English**

See [www.severo.nl/manuals](http://www.severo.nl/manuals)

**Dieses Handbuch ist online in deutscher  
Sprache verfügbar**

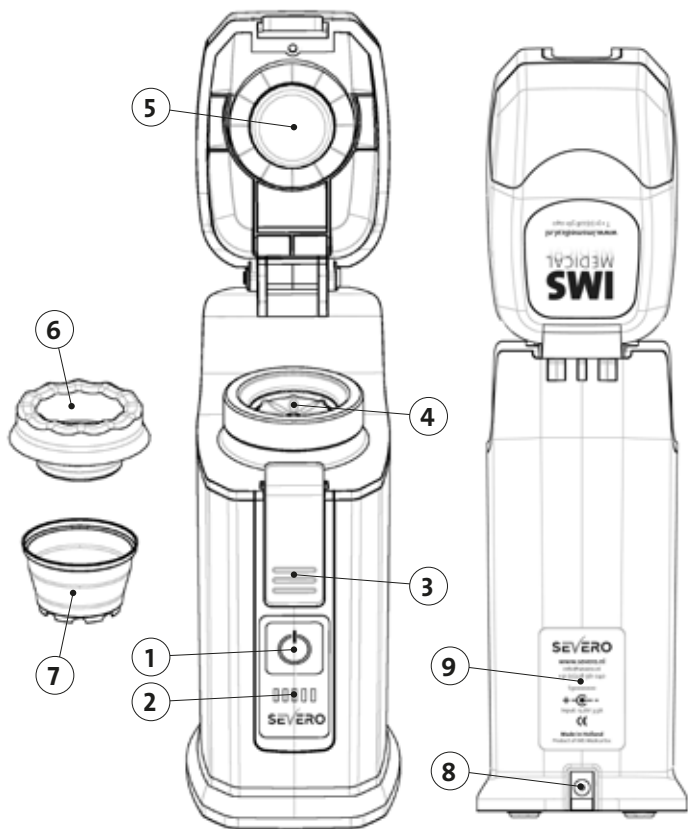
Sehen Sie [www.severo.nl/manual/de](http://www.severo.nl/manual/de)

# Contents

Components and controls .....	4
Use as intended .....	5
General safety information.....	5
Using the Severo .....	6
Charging the battery of the Severo.....	6
User instructions.....	6
The grinding procedure.....	7
Aerosols .....	8
Maintenance and cleaning.....	8
(Mal)functions and problems.....	9
Warranty.....	10
CE certificate .....	11

# SEVERO

Electric pill grinder



## Components and controls

- |                          |                                 |
|--------------------------|---------------------------------|
| 1 Power button           | 6 Stainless steel grinding head |
| 2 Battery indicator leds | 7 SeveroCup                     |
| 3 Clip to open lid       | 8 DC connector                  |
| 4 Plateau                | 9 Device information sticker    |
| 5 Lid                    |                                 |

## Use as intended

The Severo electric pill grinder is intended for the crushing/ grinding of medication. Only use the Severo in combination with the SeveroCup, SeveroRondel and the SeveroCupLid. The Severo is primarily intended for use in the professional health care sector. Warranty will be void when the Severo is used for any other purposes or with other accessories as stated above.

## General safety information

Attention! Completely read the general safety information.

- The SeveroCup, SeveroRondel and SeveroCupLid may only be used once.
- Keep the Severo away from children.
- Only use the Severo when no damage is visible to the Severo or the AC/DC adapter.
- If the Severo is malfunctioning, always disconnect the AC/DC adapter.
- Some medication can't or shouldn't be grinded, in case of doubt always check with the attending physician.
- To avoid unnecessary risk, repairs to the Severo should only be carried out by technicians from IMS Medical or by local representatives trained by IMS Medical.
- Only use the AC/DC adapter that was supplied with the Severo to charge the Severo.
- The AC/DC adapter wire:
  - should not be brought in contact with hot surfaces.
  - should not be pulled over/across sharp objects.
  - should not be pulled on.
- The Severo must be placed on a stable working area, for example a medical trolley or a table.
- The Severo must be used in a dry and clean environment.
- Make sure that there is an ample light source in the area where the Severo will be used.
- Do not open de lid of the Severo during grinding, wait until the LED has turned green.
- We advise to use the Severo disconnected from the AC/DC adapter.

## Using the Severo

The AC/DC adapter should be disconnected when using the Severo on a mobile platform, for example a medical trolley.

The Severo can be switched ON(short press) and OFF(long press) with the power button, short press the power button when the Severo is ON will result in the Severo starting to grind.

Take notice of the power button LED. When this is RED and the last battery indicator LED is flashing the Severo cannot be used and needs to be charged.

## Charging the battery of the Severo

The Severo is powered through either the Battery and/or the AC/DC adapter. This enables the Severo to be portable and to be used in a fixed place. The battery capacity can be checked via the battery indicator LED's on the front of the Severo. With a fully charged new battery the Severo is able to perform around 1000 grinding cycles.

When the battery indicator turns RED, the Severo needs to be charged. By connecting the plug of the AC/DC adapter to the Severo's charging port and connecting the AC/DC adapter to a wall socket outlet, the Severo will start charging. Even when a battery is empty or defective, the Severo can always be used for medication grinding when connected to the AC/DC adapter.

The Severo is able to function without its battery or when the battery is defective. Simply plug it into the charger and turn ON the Severo. The battery indicator LED's will light up as if the Severo is fully charged, but when you unplug the Severo from the charger the Severo will turn off immediately.

## User instructions

Attention! A printable one-page user protocol with images can be downloaded from: [www.severo.nl](http://www.severo.nl)

Take the medications that need to be administered and check if these may be grinded. When in doubt always check with the attending physician whether the medication may be grinded.

# The grinding procedure

## ***With the use of the SeveroRondels (recommended)***

1. Put the medication in the SeveroCup, fill it no more than the first line and place a SeveroRondel centered on top. Place the metal grinding head on top, push it in the cup.
2. Open the Lid of the Severo and place the SeveroCup with the medication on the plateau.
3. If the Severo has been turned ON the Severo will start grinding when the lid is closed (the lid may be closed with a little bit of pressure). The power button LED will turn WHITE during the grinding process and will turn GREEN when the grinding process has been completed successfully.
4. If visible that the crushed medication needs to be finer pressing the power button once will let the Severo grind again.
5. After grinding, take out the SeveroCup with the grinding head.
6. Take off the grinding head and check for visual contaminations. Take off the SeveroRondel, check for damages and tap off any remaining medication. Dispose of the SeveroRondel!
7. Mix the grinded medication with a liquid and present it to the patient.

## ***Without the SeveroRondels***

1. Put the medication in the SeveroCup, fill it no more than the first line and place the metal grinding head on top.
2. Open the Lid of the Severo and place the SeveroCup with the medication on the plateau.
3. If the Severo has been turned ON the Severo will start grinding when the lid is closed (the lid may be closed with a little bit of pressure). The power button LED will turn WHITE during the grinding process and will turn GREEN when the grinding process has been completed successfully.
4. If visible that the crushed medication needs to be finer pressing the power button once will let the Severo grind again.
5. Slightly lift the grinding head and give it a firm tap with, for example, a metal spoon. This way most of the medication will fall off.
6. Preventing cross-contamination! Take an alcohol cloth and thoroughly wipe the grinding head clean. To reduce the risk of cross-contamination use the SeveroRondels.

### ***Use of the SeveroCup***

The SeveroCup is designed to ensure optimal grinding of medication. Before administration, the grinded medication can easily be mixed with a fluid inside the SeveroCup.

### ***Use of the SeveroRondel***

The SeveroRondels are extra durable cellophane sheets that prevent direct contact of the grinding head with the medication during grinding. The use of rondels keeps the Severo pill grinder clean and ready for direct re-use at all times. The use of rondels is recommended as it saves cleaning time and eliminates the risk on cross contamination for patient and nurse.

### ***Use of the SeveroCupLid***

The SeveroCupLids are ideal for minimizing spills and contamination risks during grinding and medication rounds. After grinding simply close the grinding cups with the cup lids and the medication can safely be handled by personnel and distributed to patients without having to worry about spills.

## **Aerosols**

The grinding and subsequent pouring of grinded medication can create aerosols. These are an occupational risk in hospitals and nursing homes. For this reason it is recommended that the medication is grinded in a closed environment and that mixing and pouring of medication is avoided as much as possible. The Severo grinds medication in a closed compartment and allows the grinding, mixing and administration of medication to be done from the same cup, this way minimizing the risk of inhalation of aerosols.

## **Maintenance and cleaning**

Visible contaminations on the Severo can safely be removed with an damp cloth and if necessary some detergent. The plateau can be easily be taken out of the Severo and should be regularly cleaned with a dishwashing brush, water and some detergent. The grinding head and the plateau can also be cleaned in a dishwasher.



## **(Mal)functions and problems**

The Severo will automatically turn OFF if the Severo has not been used for 10 minutes.

### **The SeveroCup breaks during grinding,**

this indicates that the plateau needs to be cleaned.

### **If the lid is not closed properly when wanting to grind or the lid is opened during grinding,**

the power button LED will turn RED, remove the cup with medication and close the lid so the plateau can return to its home position.

### **The Severo turns of when disconnected from the AC/DC adapter,**

this indicates that the battery is absent or defective.

### **The Severo does not start grinding when the lid has been closed,**

this could indicate dirt between the sensor and the lid, clean the area under the lid and the lid itself.

- If this did not solve the issue than the sensor is defective, please contact your dealer.

### **The Severo stops grinding after a few seconds and turns back,**

The overload sensor was enabled, too much medication to be grinded in one cycle.

### **The Severo after turning ON (with the lids closed) turns for 4 seconds and then stop with the power button turning RED,**

This indicates a defective position switch or motor, please contact your dealer.

### **For other malfunctions or technical enquiries**

please contact our customer support or your local dealer.

*Phone number* +31 (0) 228 561 040

*Email* info@imsmedical.nl

## Warranty

There is a 2 year warranty on the Severo and its accessories.

There is a 6 month warranty on the battery.

The warranty will be void when the Severo has been used for other purposes as intended or when the Severo has been used inappropriately. Examples of the above are: dropping the Severo or any of its accessories on the floor, keeping the Severo permanently connected to the AC/DC adapter and/or grinding other materials than medication.

subject TO WHOM THIS MAY CONCERN:

## CE EC CERTIFICATE

Address	Industrieweg 1F, 1613KT Grootebroek
Telephone	+31 (0)228 56 10 40
Fax	+31 (0)84 839 44 18
E-mail	info@inomedical.nl
Website	www.inomedical.nl

date 5 MAY 2017

### EC DECLARATION OF CONFORMITY

According to Annex II,IA of Directive 2006/42/EC on machinery

We, A.L.F. Mijs and R. Mijs, being the directors of IMS Medical B.V.,  
Industrieweg 1F, 1613-KT Grootebroek, The Netherlands,  
Hereby declare under our sole responsibility that the CE marked product:

### SEVERO ELECTRIC PILL CRUSHER MODEL 3.0

Used for crushing pills are class I devices, according to Annex II, 1A of Directive  
2006/42/EC on machinery and fulfils all the relevant provisions of Directive 2006/42/EC  
and the following directives and/or other relevant provisions:

**EMC guideline 2004/108/EG**  
**Low Voltage Directive 2006/95/EG**

This Declaration is valid for the above device manufactured by IMS Medical B.V. and  
for an undefined period of time.

Authorized to compile the technical file:

**A.L.F. Mijs, Industrieweg 1F, 1613-KT Grootebroek, The Netherlands.**

Identity of signatory,



A.L.F. Mijs (Director)



R. Mijs (Commercial Director)



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