



# JANSCHITZ

GMBH

## Liquid filler FD500



Janschitz G.m.b.H  
Eisenstrasse 81  
A – 9330 Althofen

Tel: +43 (0) 4262 22 51-0  
Fax: +43 (0) 4262 22 51-23  
[www.janschitz-gmbh.at](http://www.janschitz-gmbh.at)  
[office@janschitz-gmbh.at](mailto:office@janschitz-gmbh.at)

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## TABLE OF CONTENTS

|   |    |
|---|----|
| TABLE OF CONTENTS .....                 | 1  |
| 1. GENERAL SAFETY RECOMMENDATIONS ..... | 2  |
| 2. TECHNICAL SPECIFICATIONS .....       | 4  |
| 3. UNPACKING .....                      | 4  |
| Accessories .....                       | 5  |
| 4. DEVICE SETUP .....                   | 5  |
| Main components .....                   | 5  |
| 5. FILLING PROCEDURE.....               | 7  |
| 5.a FILLING TROUBLESHOOTING.....        | 8  |
| 6. CLEANING .....                       | 10 |
| Detergents .....                        | 12 |
| 7. MAINTENANCE AND SERVICE .....        | 12 |
| Troubleshooting .....                   | 12 |
| 8. DEVICE SPARE PARTS .....             | 13 |
| 9. WARRANTY.....                        | 14 |

# 1. GENERAL SAFETY RECOMMENDATIONS

- **Before any installation read this manual very carefully.**
- **When using this device follow instructions in this manual and instructions for safe work.**
  - **When working always wear tight clothes, do not wear a tie.**
  - **Protect long hair with suitable head protection.**
  - **Do not wear jewellery (rings, necklace, etc.).**
  - **Wear eye protection – protective glasses.**
  - **Be at full psychophysical abilities when using this device.**
  - **Illuminate the working area according to regulations.**
  - **Assure the clean and tidy working place, surrounding of the device should be free.**
- **Connect the device to a proper pneumatic socket.**
- **Only trained personnel is allowed to use this device.**
- **Before turning on the device always check:**
  - **That no part of the device is damaged.**
  - **That moving paths are clear of obstructions.**
- **The device has to be switched on by main switch.**
  
- **When there is a defect on the device, you must turn it off and put the plug from the compressed air source.**
- **Don't repair the device by yourself, in case of malfunction rather call authorized service provided by your distributor. Only authorized service with faultless tools can repair the device.**
- **Always report every brake down or defect on device.**
- **In case of serious malfunctions switch off the main switch and unplug the device from compressed air socket, then call authorized service.**
- **You are allowed to use only the procedures that are described in this manual. Use of any other procedures or adjustments could result in destruction of the device or injury. Injuries connected with such procedures can not be subject of any product liability claims.**
  - **Do not reach into danger area – moving parts!**
  - **Do not leave the working area when device is in operation!**
  - **Do not lean the device while in operation!**
  - **Do not remove warning labels or security devices. Blocking or removing the security devices is forbidden!**
  
- **It is forbidden to clean, lubricate or repair the device during operation.**
- **Disconnect device from compressed air socket before cleaning!**

**The machine is used for filling pasty liquid substances-yoghurt and cannot be used for other purposes.**

**CAUTION:  
MOVING PARTS - RISK OF INJURY.**



***WARNING!***

***Only trained people who are familiar with rules for safe work are allowed to work with this device.***

***We are glad that you decide to buy our filling device and we promise that it will serve you for a long time if you will use and clean it according to descriptions stated in this User`s manual.***

## 2. TECHNICAL SPECIFICATIONS

|  |                     |                   |
|--|---------------------|-------------------|
| <b>PRODUCT</b>   |                     | FD<br>500         |
| Power supply   |                     | Compressed<br>air |
| Compressed air pressure                                    | [MPa]               | 0,5 to 0,6        |
| Air consumption at 6 bar                                   | [l/min]             | 200               |
| Filling speed (up to – depends on different circumstances) | [pcs/h]             | 1200              |
| Filling accuracy   | [%]                 | 1                 |
| Container capacity   | [l]                 | 25 (35)           |
| Minimum capacity   | [ml]                | 100               |
| Maximum capacity   | [ml]                | 500               |
| Dimensions in cm   | [cm]<br>(w x d x h) | 100x42x65         |
| Net weight   | [kg]                | 24                |

### CAUTION!

Minimum pressure applied is 4 bar!

FD500 liquid filler can fill, yoghurt, yoghurt (with fruit), tomato paste. Creamy products can be bottled quickly and easy. The filling can be done in glasses, cups, bottles, drinks boxes etc.

Filling cylinder allows individual adjustment between 100 ml and 500 ml. The filling capacity depends on the volume of the filling and on the density of the filled medium. One can determine the filling speed by adjusting the valves on the main cylinder. Filling can be done manually by foot pedal or automatically – continuous filling. All parts that come into contact with the filling liquid are made of food grade stainless steel.

## 3. UNPACKING

Unpack the device carefully and check that nothing is left in the box. Place it on the plain and stable desk in clean, dry and dust-free place. Before use check that all parts are assembled according to instructions.

Before first use carefully clean the container with fresh water. Connect the device to compressed air plug with pressure up to 0,6MPa (6bar). Compressed air line must supply level pressure.

**Room temperature where device is placed must never fall under 10°C, also it is not recommended that room temperature exceeds 30 °C.**

## Accessories

Packaging of liquid filler SGF contains the following accessories:

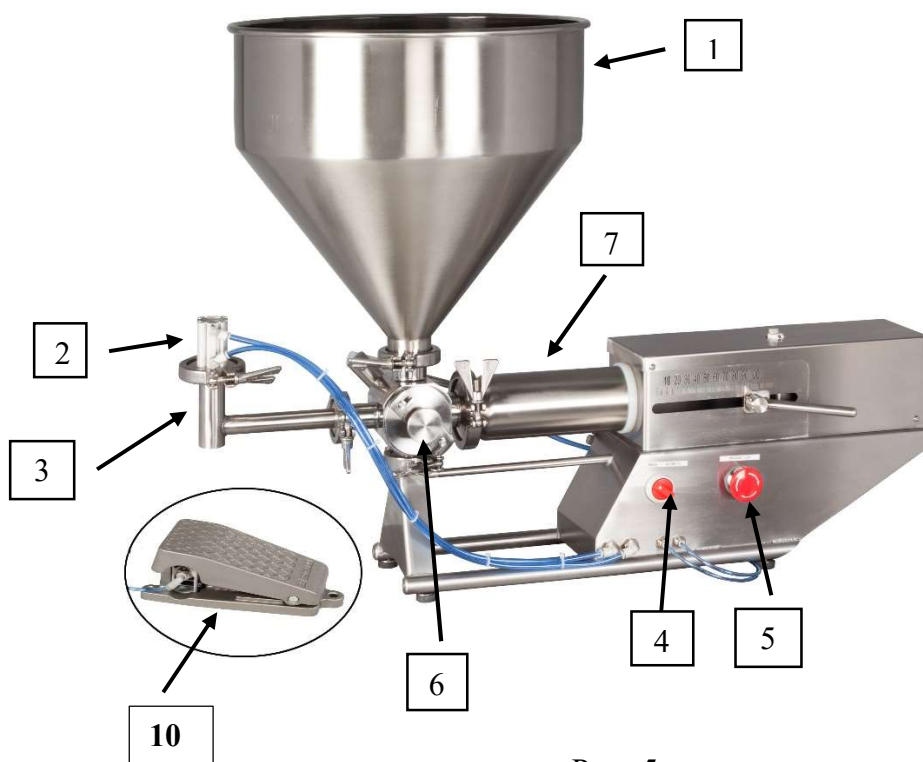
- Liquid filler
- Container
- Food grade grease for main piston
- Spare sealing rings
- User's Manual

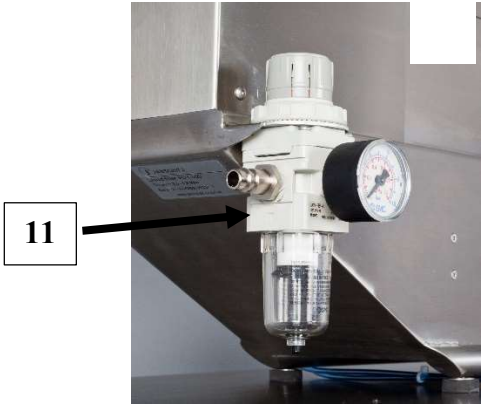
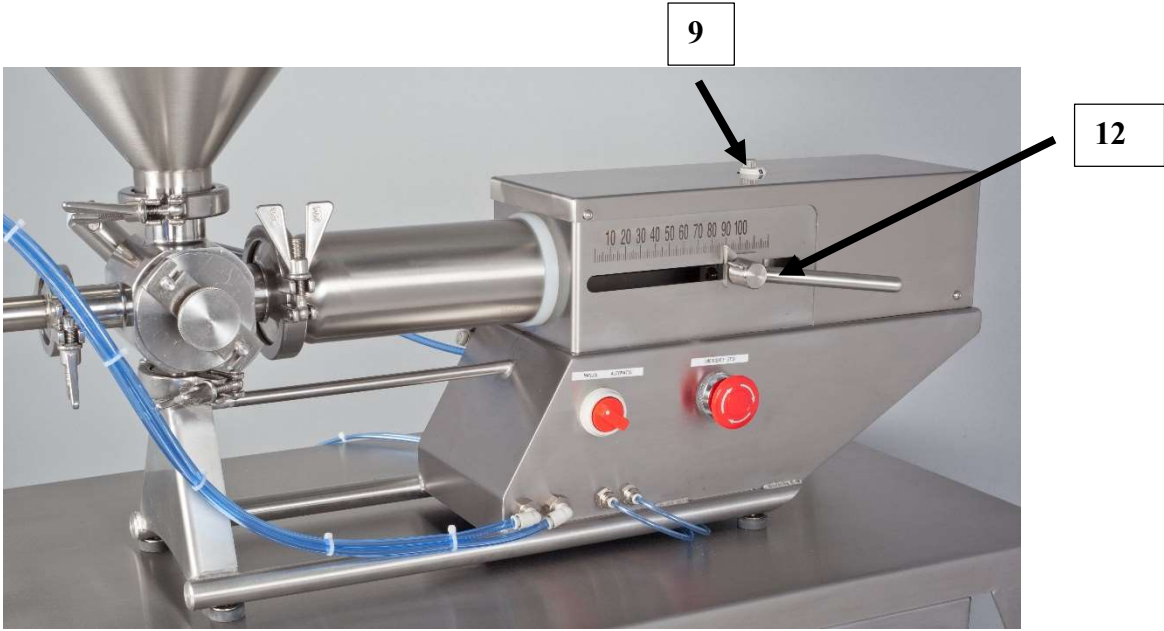
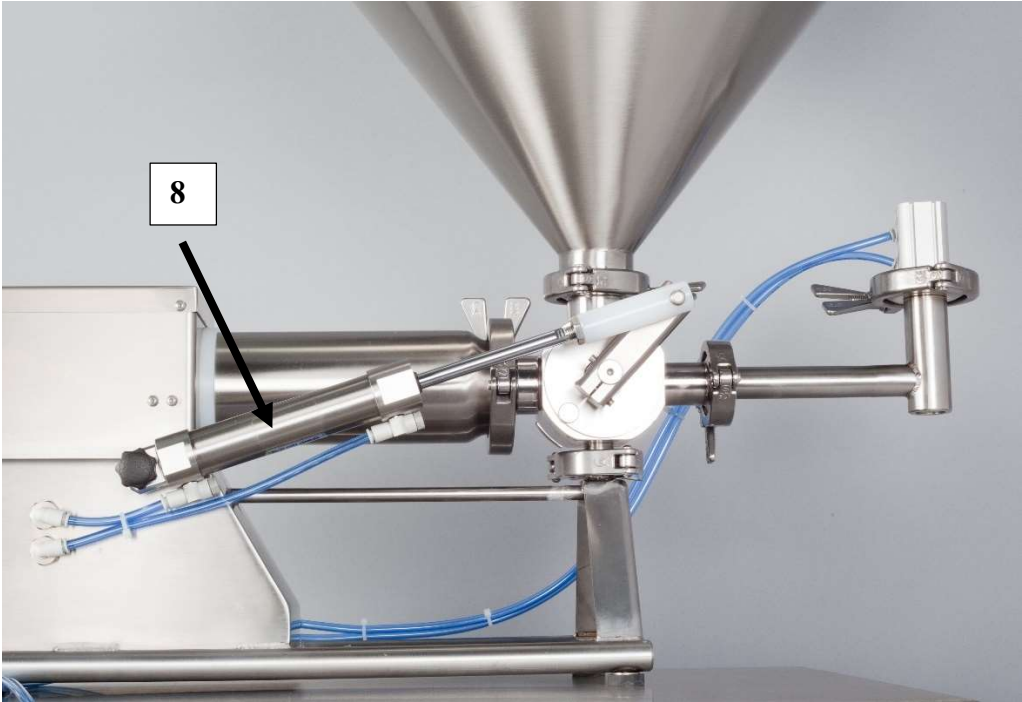
## 4. DEVICE SETUP

### Main components

All important parts of device are named and described below:

1. Container
2. Nozzle cylinder
3. Filling nozzle
4. Switch for automatic or manual functioning
5. Safety OFF switch
6. Rotating valve
7. Filling tube
8. Rotating cylinder
9. Speed controller
10. Manual foot switch
11. Pressure regulator
12. Filling quantity adjustment lever





## 5. FILLING PROCEDURE

The setting of the device before first use must be done. Compressed air pressure has great influence in functioning of the device – steady pressure with adequate flow is needed for reliable operation.

Before first use adjust both speed controllers on main cylinder on both valves (position 9) to achieve smooth filling. One speed controller sets the speed of discharging the container, the other sets the speed of filling. Speed controllers are adjustable on scale from 0 to 10, where 0 means fully closed and 10 fully open valve. Cylinder will move faster if speed controller is set to greater value.

On same speed controller setting, cylinder movement will be slower if more dense and high viscosity liquid is put into tank and cylinder movement will be faster if low viscosity liquid is put into tank.

### General recommendation:

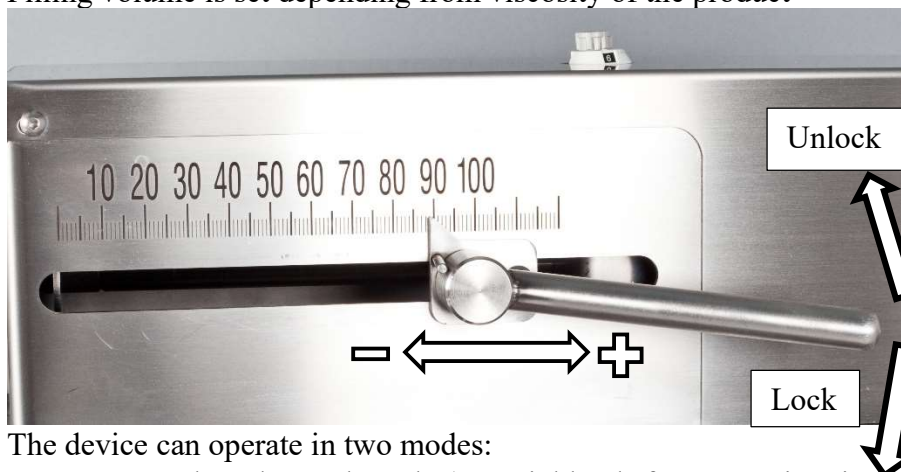
- Use greater speed controller values when filling liquids with greater viscosity, such as cream and dense fillings.
- Use lower speed controller values when filling liquids with lower viscosity such as yoghurt and other lighter products.

### Important!

**When filling different mediums that vary in density and viscosity the device adjustment prior filling is mandatory!**

After speed adjustment, filling quantity should also be adjusted. Filling quantity adjustment lever should be moved into proper position (position 12). By adjusting the lever filling quantity is defined. To move lever first unlock it and move lever then lock it.

Filling volume is set depending from viscosity of the product



The device can operate in two modes:

- Manual mode: Each cycle (material loads from container into filling tube and then extracts through the filling nozzle) is performed when operator switches the foot switch.
- Automatic mode: Cycles run infinitely after one cycle is done, the next cycle starts (material loads from container into filling tube and then extracts through the filling nozzle).

Modes can be selected by switch (position 4).



## 5.a FILLING TROUBLESHOOTING

Make sure that pressure regulator is set from 0,5 to 0,6 MPa and air compressor must have at least 250 LPM or more if it is has less - accuracy of the filling will not be constant.

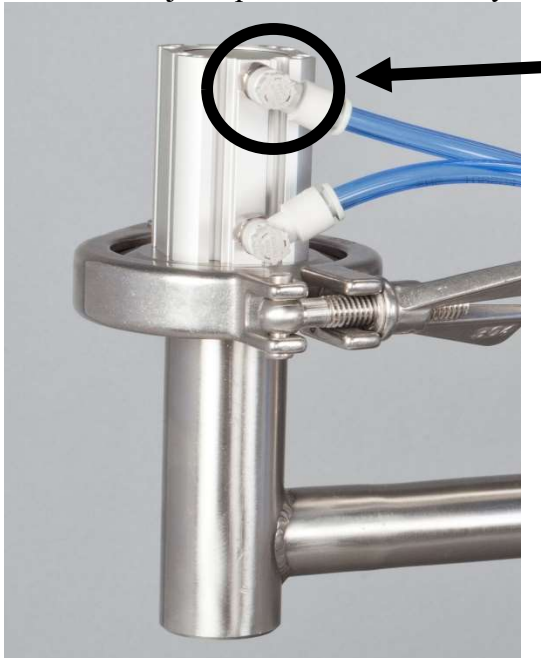
- **Filling machine is splashing**

Solution: Decrease speed controller (9-turn anticlockwise) and adjust speed of the nozzle cylinder clockwise



- **Filling nozzle is dripping**

Solution: Adjust speed of the nozzle cylinder anticlockwise

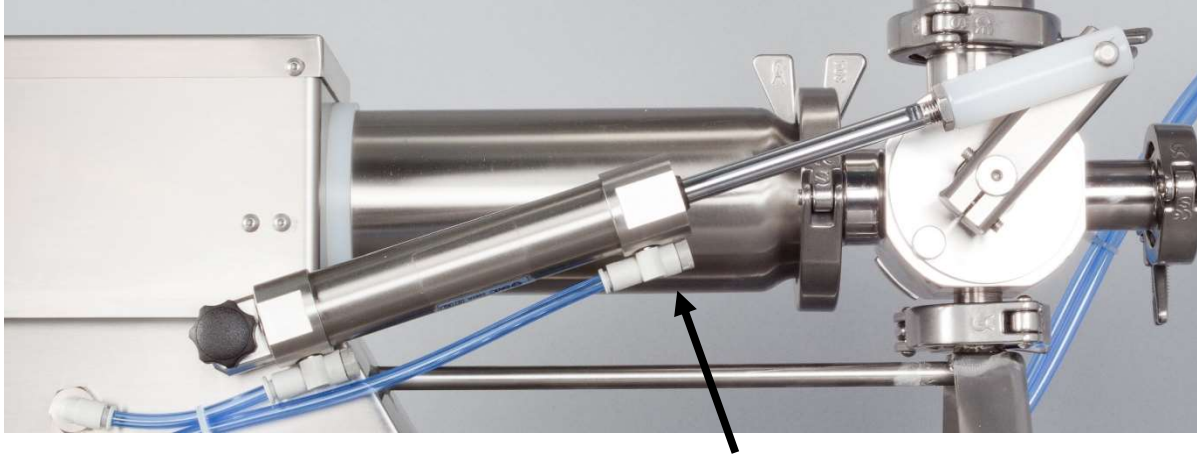


- **Filling volume is changing depending from volume in the container**  
Solution: rotating cylinder must be fully extended (air supply to the filling machine) and check that opening in the rotating valve is inline. Loosen two bolts and adjust lever.



- **Filling low viscosity product**

Solution: Decrease speed controller (9-turn anticlockwise) adjust speed of rotating cylinder



## 6. CLEANING

Before cleaning make sure that the device is switched off and disconnected from compressed air supply.

Clean outer parts with hot water (max. 50°C) by adding a detergent. For the last cleaning use hot clear water. After this the parts should be properly dried.

For cleaning inside the filling machine, pour warm water (30°C) by adding a detergent into the container and then apply the filling cycles until clear water comes out of filling nozzles.

Clean the body of filling machine with dry and soft towel – do not pour or spray with water! The housing is made of stainless steel, do not scrape surface with sharp and hard objects.

### **Detailed cleaning:**

The rotating valve, filling nozzle, filling tube and container can be disassembled for precise washing. When this is done, both pistons and gaskets (filling piston of filling tube and nozzle piston of nozzle) must be properly lubricated with food grade grease before assembly!

**Lubricating:****Important!**

**After use disassemble the filling cylinder and rotating valve and lubricate the sealings with supplied food grade grease after washing!**

**Recommendations:**

- All equipment shall be cleaned with wet cloth and afterwards dried with dry cloth.
- Do not use abrasive materials to avoid scratches.
- After use always clean and lubricate the device. Do not use aggressive detergent.
- If cream rests get dry do not remove them with sharp objects or sharp duster.

## Detergents

The base and acid for cleaning must meet the specifications of the manufacturer and should not contain foreign content, which would change the effect of the cleaning solution and affect the equipment. The same applies to disinfectants.

- The base detergent which is usually used is sodium hydroxide (NaOH, caustic soda) with concentration 30/36%. Dilute it to a final concentration of 0.2 / 2% at 70 ° C.
- Maximum content of chloride ions in the solution of sodium hydroxide is 50 ppm. The solution should not contain impurities.
- The acid detergent which is normally used is a solution of nitric acid (NOH3) 33/36% concentration. Dilute it to a final concentration of 0.5 / 2% at 65°C.
- Maximum content of chloride ions in the solution of nitric acid is 50 ppm. The solution should not contain impurities.

***Please note!***

***Before cleaning you must always disconnect device from compressed air source.***

## 7. MAINTENANCE AND SERVICE

### Troubleshooting

When device malfunctions, disconnect the device from compressed air supply and call the authorized service - do not repair it yourself!

#### **Filling amount inaccurate or no material fed**

- Signal valve position (Picture 4, position 9) has moved, check the position of signal valve.
- If material with high viscosity is filled, the speed of cylinder must be lower. If the filling cylinder movement is too fast there can be larger variations in volume, so cylinder speed must be reduced.
- The level of material in container must be kept above minimum level, if not there can be variations in filling volume.
- Check for leakage at pipe joints and repair if leakage occurs. Replace gaskets if necessary.

#### **Material leaks out from filling tube**

- Check the lubrication of sealing ring gasket. Lubricate the gasket and replace the sealing ring if necessary.
- Check if piston of filling tube is loosened, fasten if necessary.

#### **Material leaks out from filling nozzle**

- Check the lubrication of sealing ring gasket. Lubricate the gasket and replace the sealing ring if necessary.
- Check if piston of filling nozzle is loosed, fasten if necessary.

**Main cylinder doesn't move**

- Check the compressed air supply for adequate pressure.
- Check the compressed air inlet valve position and turn it on if it is deactivated (Picture 3, position 14)
- Check the position of upper and lower signal position valve (Picture 2, position 9) and readjust if necessary.
- Remove the filling tube and check if main piston is stuck in the filling tube. Apply the lubricant to the sealing ring and replace the sealing ring if broken.
- Check if piston of filling tube is loosed, fasten if necessary.
- Check the filling material viscosity. This machine is made for filling pasty liquid material.

**Main cylinder stuck on top position**

- Adjust the valve position by pressing the safety off switch. Check the signal valve position.

## 8. DEVICE SPARE PARTS

For spare parts order contact the manufacturer of the device:

Janschitz GmbH  
Eisenstraße 81  
A-9330 Althofen  
E-Mail: office@janschitz-gmbh.at

Fast and reliable shipment of spare parts is possible only if their description is clear enough. At the time of ordering please state clearly:

- Type of device
- Serial number printed on label plate at the rear side of device.

## 9. WARRANTY

- In case of troubles consult with your salesman or call authorized service.
- Equipment is warranted to be free from defects in material and workmanship for a period of 12 months against faulty components and assembly. Our obligation under this warranty is limited to the repair or replacement of the instrument or part thereof, which shall within 12 months after date of shipment prove to be defective after our examination.
- Defects or damages of the device, which are result of improper assembly, use, connection or maintenance are not covered by this warranty.
- The warranty also doesn't cover:
  - Device malfunction due to water or humidity inflow,
  - Gaskets
  - Repairs done by yourself or by other not authorized people,
  - Transport costs.
- Other rights, that are not mentioned in upper obligations of the manufacturer, especially responsibility for personal injury, are excluded.
- The given technical specifications are valid only when all conditions in this user's manuals are fulfilled.

***Dear Customer!***

***We are sure, you will find that our filling device is a helpful tool and we believe that it will serve you for a long time without any problems. We hope you will recommend it also to your friends!***

***Thank you for buying it!***