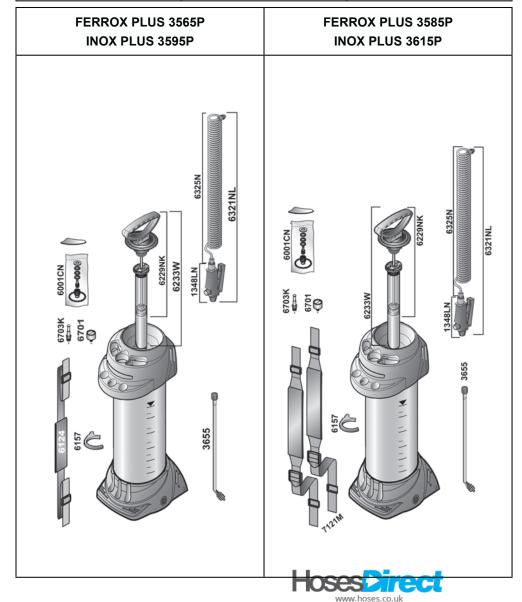
# **Compression Sprayers**



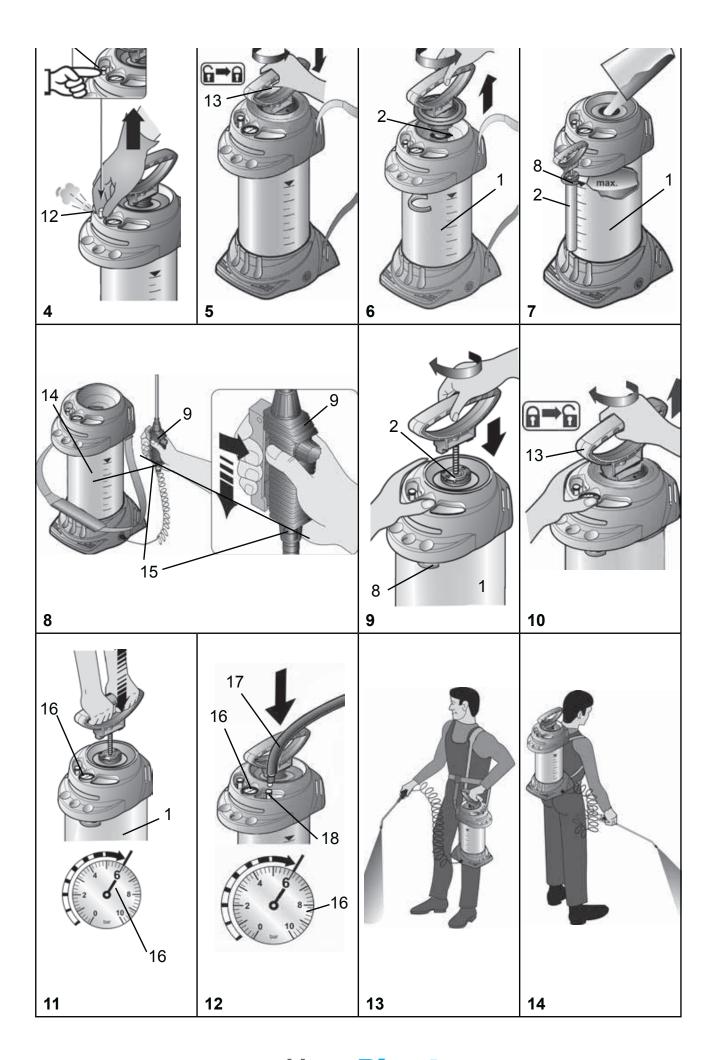


Ersatzteile	Spare Parts	Pièces de Rechange
Reserve-onderdelen	Piezas de repuesto	Pezzi di ricambio

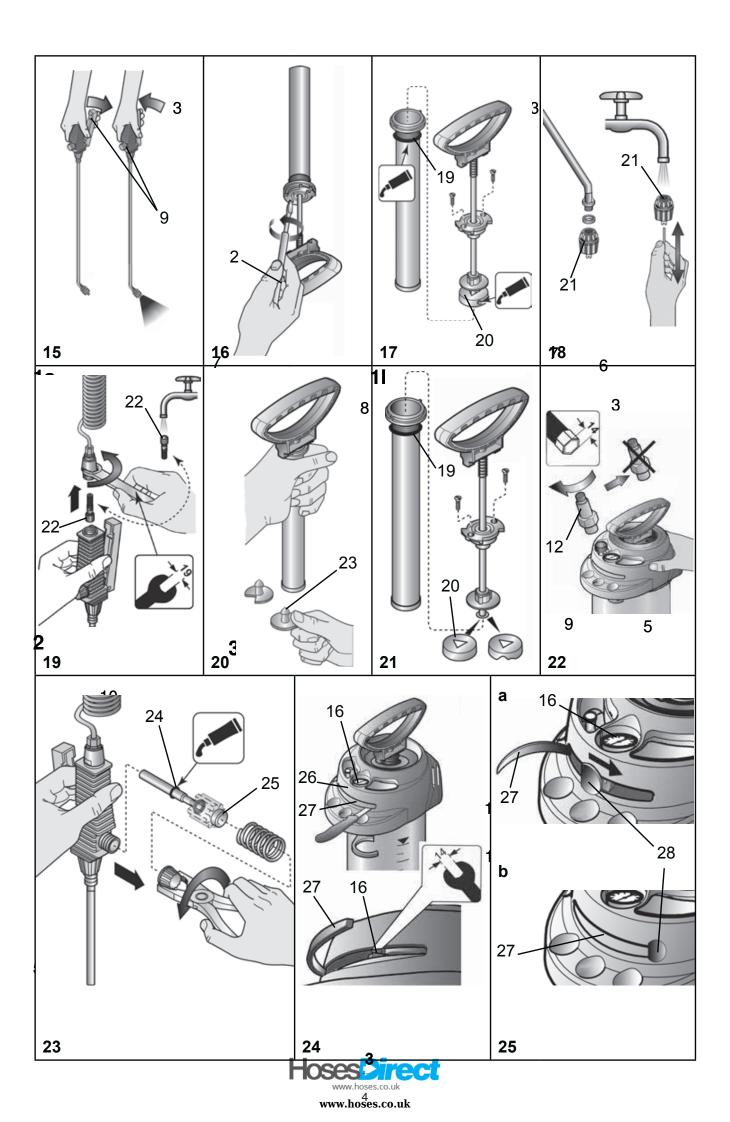


# **FERROX PLUS 3565P FERROX PLUS 3585P INOX PLUS 3595P INOX PLUS 3615P** 6 1b 1a 6 2a 2b 1Ó 3









# Welcome and congratulations

for purchasing your new MESTO spraying device. Thank you for the trust you have shown in our brand. Your satisfaction with MESTO products and services is very important for us. Please contact us if your expectations are not met.

You will find our address on the title page of these instructions for use.



Make certain to read the instructions for use before using the device! Keep the instructions for use in a safe place where they can be easily found.

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# Usage

Spraying devices FERROX PLUS 3565P, 3580P and INOX PLUS 3595P, 3615P are designed for the spraying of forming oils and low-viscosity mineral oils, slightly alkaline construction chemicals (pH = 9) as well as plant protection products, including weed killers, in the stipulated concentrations. INOX PLUS 3595P, 3615P can also be used for solvent-free and chloride-free, neutral cleaning agents as well as low-viscosity, solvent-free emulsion paints and paints.

Observe the manufacturer's instructions for using the product before each application. The spraying devices must only be used outdoors or in well ventilated rooms only. At the time of manufacture, there are no known harmful effects to the device caused by plant protection products approved by the BVL Federal Office.



Improper use may result in dangerous injuries and environmental damage.

You should only use other products if harmful effects on the device and endangerment of people and the environment can be excluded. Upon request, we will provide you with a list of active ingredients used in the spraying device.

Not suitable for

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- Combustible liquids
- Hydrogen peroxide and similar substances that give off oxygen
- Corrosive substances (certain disinfecting and impregnating agents, acids and bases)

11 Liquids containing ammonia

- Solvents and liquids containing solvents
- Viscous or sticky liquids or liquids that form residues (dyes, greases)
- Use in applications for foodstuffs.

#### Under no circumstances should you use

- · external pressure sources without a MESTO compressed air valve
- for flaming
- for storing and holding liquids

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16

as an eyewash.

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#### Safety



Children and adolescents who have not been properly instructed must not use the device.



Keep the spraying devices safe from access to children.



Take precautions to prevent hazardous substances from being misused.



Never spray on people, animals, electrical devices and lines, into the wind, or into bodies of water.

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15 14





Repairs and modifications to the tank are not permitted.

The effect of the safety valve must not be bypassed or made inoperative.



Contact between spraying device materials and hydrogen peroxide or other agents that give off oxygen may result in increased pressure similar in nature to an explosion. Never place such agents in the device.



Have damaged parts or parts that do not work properly repaired immediately by our customer service department or by service partners authorized by us.



Avoid ignition sources in the environment if you spray combustible liquids.



Do not allow the device to remain under pressure and/or exposed directly to sunlight. Make certain the device is not heated beyond the maximum operating temperature ( $\rightarrow$ *Table 1 below*).



Never blow through the nozzles or valves with your mouth.



Use only MESTO spare and accessory parts.

We cannot assume any liability resulting from the use of third-party parts.



Wear suitable protective equipment when working with hazardous substances.



When pumping, always observe the pressure gauge to ensure the maximum spraying pressure is not exceeded ( $\rightarrow$  *Table 1 below*).

Before filling, after use and before maintenance work, allow the residual pressure in the tank to dissipate completely ( $\rightarrow$  Section "After Use", Section 1).

# Scope of delivery

Tank [1], with pump [2] and spare parts pouch [3], spray line [4], instructions for use [5], carrying strap [6], spray lance [7]. (Figures 1a and 1b)



You will find the illustrations referred to above in the front fold-out pages 3 – 5 of these Instructions for Use.

#### Technical data

Device family	FERROX PLUS		INOX PLUS	
Туре	3565P	3585P	3595P	3615P
Max. filling amount	6 I	10 I	6 I	10 I
Total contents	91	13	91	13 I
Max. spraying pressure	6 bar (87 psi)			
Max. operating temperature	50 °C (130 °F)			
Weight when empty	4.7 kg	5.2 kg	4.2 kg	4.7 kg
Material of tank	Steel with polyester coating		Stainless steel	
Where device is carried	Shoulder	Back	Shoulder	Back
Technical residual quantity	0.03			
Max. volume flow	0.78 l/min			
Recoil force	< 5 N			

Table 1



# **Assembly**

- 1. Fasten the carrying strap(s) [6] on the tank [1]. (Figs. 2a + 2b)
- 2. Screw the spray line [4] tightly into the outlet port [10]. (Fig. 3). Note the location of the spigot in order to be able to insert the lock.

3. Insert the lock [11]. (Fig. 3).

- ▶ The lock closes and the spray line is secured from unscrewing out of the tank.
- 4. Screw the spray lance [7] onto the shut-off valve [9] (Fig. 3).

#### **Checks**

#### Visual inspection:

Are the tank [1], pump [2], spray line [4] with shut-off valve [9], pressure gage [16] and spray lance [7] undamaged? (Figs. 1, 11)



Pay special attention to the connections between the tank – spray line and the spray line shut-off valve and to the condition of the pump threading and spray line.

No leaks: Pump up the empty device to 2 bar.

▶ The pressure must not decrease more than 0.5 bar within 30 minutes.

Function:

Pull the red button on the safety valve [12]. (Fig. 4).

► The pressure must dissipate. Activate the shut-off valve [9] (Fig. 15).

► The shut-off valve must open and close.

# Making preparations



Observe the instructions in the section entitled "Safety".

- 1. Pull up the red button on the safety valve [12] until all excess pressure is released from the tank. (Fig. 4).
- 2. Press the pump handle [13] down and turn it counterclockwise.
  - ▶ The pump handle is locked in place. (Fig. 5).
- 3. Unscrew the pump [2] from the tank [1]. (Fig. 6).



To ensure the pump remains clean during storage, we recommend you attach the pump to the pump holder [8]. (Fig. 7).



We recommend you mix the spraying liquid in the device or premix it in an external tank: Fill to 1/3 with water, pour in the spraying agent, and then add more water until full.

- 4. Add the spraying liquid to the tank [1] (Fig. 7).
- 5. Check the filling height through the viewing glass [15] of the shut-off valve [9]. (Fig. 8).



All excess pressure must be released from the device.



Move the shut-off valve [9] on the tank [1] from top to bottom several times while pressing the lever (the level of liquid in the hose line and tank is equalized). The level of liquid visible in the viewing glass [15] then corresponds to the filling height of the tank, which can be read on the scale [14]. (Fig. 8).

- 6. Screw the pump [2] into the tank [1]. (Fig. 9).
- 7. Swivel in the pump holder [8]. (Fig. 9).



#### Without compressed-air filling valve

- 8. Press the pump handle [13] down and turn it clockwise.
  - ► The pump handle is unlocked. (Fig. 10).
- 9. Generate the required pressure ( $\rightarrow$  Table 2) in the tank [1] (Fig. 11)...
- The maximum pressure should not exceed 6 bar (red line on the pressure gauge [16], Fig. 11). If the maximum pressure is exceeded, the safety valve will engage and release the excess pressure
- 10. Press the pump handle [13] down and turn it counterclockwise.
  - ▶ The pump handle is locked in place. (Fig. 5).

# With compressed-air filling valve (option)

- 8. Connect the compressed-air hose [17] to the compressed-air filling valve [18]. (Fig. 12).
  - ► Pressure is built up (max. 6 bar (87 psi))



Ensure that the initial pressure is not higher than 15 bar.

9. When the required pressure has built up ( $\rightarrow$  Table 2), remove the compressed-air hose [17].

# **Spraying**



Observe the instructions in the section entitled "Safety".

Operate the device only while it is vertical or suspended upright and nearly vertical.

Avoid allowing drops of spray to drift onto areas that are not being treated.

Observe the instructions of the spray product manufacturer!

- 1. Suspend the device from your shoulder or place it on your back. (Fig. 13 and/or 14)
- To prevent dripping, hold the spray lance up when first spraying and activate the shut-off valve until no more liquid mixed with air is emerging.
- 2. Activate the shut-off valve [9] (Fig. 15).
  - Spraying may now begin.
- 3. Make certain the optimum spraying pressure is set ( $\rightarrow$  *Table 2*) on the pressure gauge [16].

Spraying pressure	Spraying rate with fan jet nozzle
1.5 bar (21.76 psi)	0.56 l/min
2.0 bar (29.01 psi)	0.64 l/min
3.0 bar (43.51 psi)	0.78 l/min

Table 2. Dependence: spraying rate and spraying pressure

4. If the spraying pressure decreases more than 0.5 bar (7.25 psi) from the optimum level, pump some more.



If liquid mixed with air emerges from the nozzle, the tank is empty.



# After usage



Observe the instructions in the section entitled "Safety".

- 1. Pull up the red button on the safety valve [12] until all excess pressure is released from the tank. (*Fig. 4*).
- 2. Lock the pump handle in place [13]. (Fig. 5).
- 3. Unscrew the pump [2] from the tank [1]. (Fig. 6).
- 4. In the case of plant protection products dilute the remaining quantity twice in a row with 1/2 liter of water each time and spray the resulting liquid onto the treated area.



Collect and dispose of the residual liquid according to all applicable laws, requirements and regulations. Observe the instructions of the spray product manufacturer!

- 5. Empty and rinse the device with clear water.
- 6. Wipe off the device with a moist cloth.
- 7. For drying and storing the device, keep the tank and pump separate in a dry place protected from sunlight and freezing temperatures.



Clean the protective equipment and yourself every time after usage.

#### Care and maintenance



Observe the instructions in the section entitled "Safety".

After using the device 50 times or at least once a year:

- Disassemble the pump [2] and grease the diaphragm [20]. (Fig. 16 -17).
- Clean the nozzle [21] under running water. If required use a needle. (Fig. 18).
- Remove the filter [22] from between the shut-off valve [9] and spray line [4] and clean it under running water. (Fig. 19).
- Grease the O-rings [19] and [24] (Fig. 17 and/or 23)



Observe the legal requirements of your country for accident prevention and check the device in regular intervals. If there are no special rules, we recommend you have the device examined externally by a competent professional every 2 years and subject it to an internal inspection every 5 years. We would be happy to provide you with an inspection schedule in German or English.

#### **Faults**



Use only MESTO spare and accessory parts (you will find some in the spare parts pouch [3], Fig. 1a and 1b).

Fault	Cause	Remedy
No pressure builds up in the device	The pump is not screwed on tightly.	Screw the pump on tightly.
	O-ring [19] on the pump is faulty.	Replace the O-ring. (Fig. 21).
	Diaphragm [20] is defective.	Replace the diaphragm. (Fig. 21).



Fault	Cause	Remedy
Liquid flows out of the pump.	Valve disk [23] dirty of defective.	Clean or replace the valve disk. (Fig. 20).
The nozzle does not spray even though pressure is present.	Filter [22] and / or nozzle [21] blocked.	Clean the filter or / and nozzle. (Fig. 18 +19).
Safety valves blows off too early.	Safety valve [12] is defective.	Replace safety valve. (Fig. 22).
The shut-off valve does not close. Liquid emerges without the lever being activated.	O-ring [24] on the pressure bolt not greased. Defective pressure bolt [25] or O-ring [24].	Grease the O-ring of the pressure bolt. (Fig. 23). Replace the pressure bolt or O-ring. (Fig. 23).
Pressure gage is not indicating any tank pressure.	Pressure gage [16] defective.	Sever attachments (at top, at bottom, on right) [26]. (Fig. 24) Open panel [27], unscrew pressure gage [16] with wrench and replace. (Fig. 24). Insert fixing knob [28] (from the spare parts pouch [3]), push to the right and insert panel [27]. (Fig. 25).

Contact address for additional information  $\rightarrow$  see *title page*.

# Warranty

We guarantee that from the time it is first purchased for a period of the legally valid required warranty period (maximum 3 years) this device will not exhibit any material or processing errors. If defects are discovered during the warranty period, MESTO or the distributor in your country will repair the device without charging for the labor or material or (at the discretion of MESTO) replace the device itself or its defective parts.

If such defects are discovered, please contact us immediately. We require the invoice or cash register receipt for purchase of the device.

The warranty does not include wearing parts (seals, O-rings, diaphragm, etc.) or defects which have occurred due to improper use or unforeseeable circumstances.

# **CE Declaration of Conformity**

according to EC Machinery Directive 2006/42/EC, Appendix II, No. 1A. We.

MESTO Spritzenfabrik Ernst Stockburger GmbH

Ludwigsburger Straße 71

D-71691 Freiberg

declare under our sole responsibility that the products high-pressure spraying devices of the series 3565, 3585, 3595, 3615 from factory number 1289536 in the version supplied comply with all relevant provisions of the Directive 2006/42/EC. Furthermore, the device complies with the Directive 97/23/EC for pressure equipment.

Rolf Rehkugler, Ludwigsburger Str. 71, D- 71691 Freiberg, is authorized to compile the technical documentation.

Freiberg, 15.12.2011

Bernd Stockburger - Managing Director -

