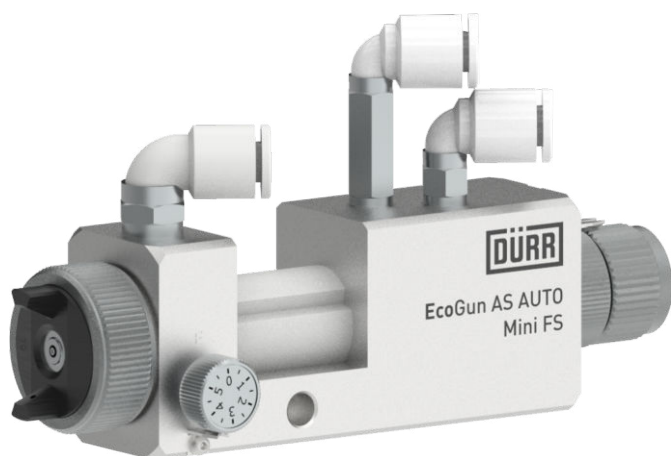


**LEADING IN
PRODUCTION
EFFICIENCY**



EcoGun AS AUTO Mini FS

Automatic Air Spray Gun

Operation manual

MSG00006EN, V04

N36210006V

Information about the document

This document describes the correct handling of the product.

- Read the document prior to every activity.
- Prepare the document for the application.
- Pass on the product only together with the complete documentation.
- Always follow safety instructions, handling instructions and specifications of every kind.
- Illustrations can deviate from the technical construction.

Validity range of the document

This document describes the following product:

N36210006V

EcoGun AS AUTO Mini FS



Hotline and Contact

If you have queries or would like technical information, please contact your dealer or sales partner.

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1 Product overview

1.1 Overview

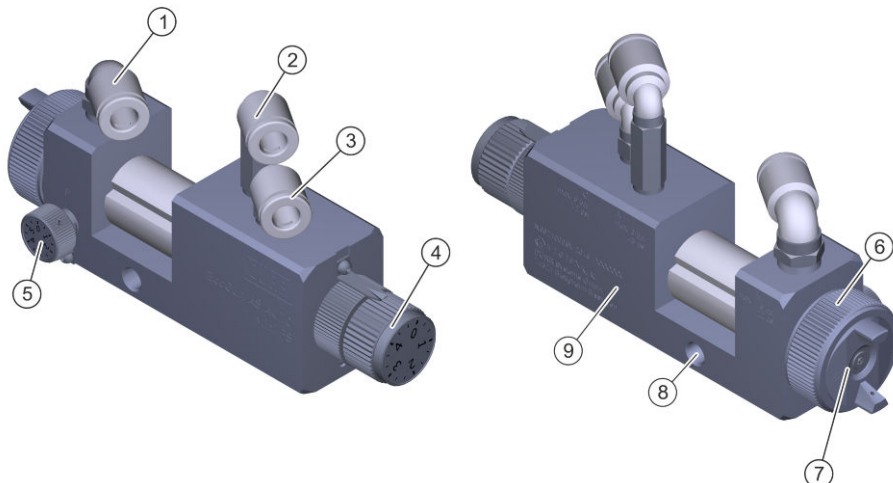


Fig. 1: Product overview

- | | | | |
|---|---|---|----------------|
| 1 | Material connection | 6 | Cap nut |
| 2 | Atomizer air connection | 7 | Air cap |
| 3 | Control air connection | 8 | Fastening bore |
| 4 | Material flow control | 9 | Housing |
| 5 | Horn air control / horn air connection (with optional external jet control) | | |

1.2 Short description

The spray gun is using compressed air to coat surfaces. The coating material is fed through lines.

The following factors influence the spray jet and the result:

- Alignment of the air cap
 - The alignment of the air cap determines the alignment of the spray pattern.
- Atomizer air pressure
- Horn air pressure
 - The higher the horn air pressure, the more oval is the spray jet.
- Control air pressure
 - Opens the needle and controls the material flow.
- Material pressure

The higher the material pressure, the higher is the material flow.

Control air pressures and the atomizer air pressure are controlled externally via valves.

You can set the horn air pressure on the spray gun. If you attach a connection for external jet control instead of the horn air regulation ↪ 11.3 “Accessories”, you can control the horn air pressure via an external valve.

You can also regulate the material flow via the regulator on the spray gun, if it is not to be controlled externally.

2 Safety

2.1 Presentation of Notes

The following notes can appear in this instruction:



DANGER!

High risk situation that can lead to serious injuries or death.



WARNING!

Medium risk situation that can lead to serious injuries or death.



CAUTION!

Low risk situations that can lead to minor injuries.



NOTICE!

Situations that can lead to material damage.



ENVIRONMENT!

Situations that can lead to environmental damage.



Additional information and recommendations.

2.2 Intended Use

Use

The **EcoGun AS AUTO Mini FS** spray gun is only intended for use in industry and craftsmanship.

The **EcoGun AS AUTO Mini FS** spray gun is solely intended for automatic coating of surfaces by one of the following operating methods:

- as an independent, not manual device
- as part of a fully automated painting system
- as part of a paint robot

The material feed can be effected optionally via the pressure line or under gravitation (flow beaker).

The use is only permitted within the specified technical data ↪ 10 “Technical data”.

The spray gun is approved for use in explosive areas of Ex zones 1 and 2.

Misuse

If used incorrectly, it can cause serious injuries or death.

Examples of wrong use are:

- Aiming the spray gun at humans or animals.
- Atomization of fluid nitrogen
- Use of unapproved materials
- Combination of the spray gun with components that are not approved by Dürr Systems for operation.
- Unauthorized modifications
- Use in explosive areas Ex zone 0

Ex labeling

 II 2G T6 X

II - Device group II: all areas except mining

2G - Device category 2 for gas

T6 - Temperature class T6: Surface temperature, max. 85°C

X - Specific conditions for safe operation

The following conditions must be observed for safe operation:

- Ground spray gun and work piece.
- Only use conductive lines.
- Ensure that static electricity can be discharged.

2.3 Residual risks

Explosion

Sparks, open flames and hot surfaces can cause explosions in explosive atmospheres. Serious injury and death could be the consequence.

- Before carrying out any work, make sure that there is no explosive atmosphere.
- Do not use sources of ignition and open light.
- Do not smoke.
- Ground the spray gun.
- Ground the work piece.
- Only use conductive lines.

Flammable coating materials and their detergents and cleaning agents can cause a fire or an explosion.

- Ensure that the flashpoint of the cleaning agent is at least 15K above the ambient temperature or clean Spray gun at the cleaning areas with active technical ventilation, in painting booths, according to EN 16985.
- Note explosion group of the fluid.
- Follow the safety data sheet.
- Ensure that forced ventilation and fire protection equipment are in operation.
- Do not use sources of ignition and open light.
- Do not smoke.
- Ground the spray gun.

Danger from harmful or irritant substances

Serious injuries or death can result if you come into contact with dangerous fluids or steam.

- Spray gun Check regularly for leakage. Observe local regulations and maintenance schedule.
- Ensure that the forced ventilation is operational.
- Follow the relevant safety data sheets.
- Wear specified protective equipment.

Escaping material

Material escaping under pressure can cause serious injuries.

Before working on the product:

- Disconnect the system, in which the product is installed, from compressed air and material supply.
- Secure system personalized from being switched on again.
- Depressurize the lines.

Moving parts

There is a risk of death if system components in the vicinity move unexpectedly.

- Switch off and lock out all system components personalized against being switched on again before working on the product.

Noise

The sound pressure level during operation may cause severe hearing damage.

- Wear ear protection.
- Do not spend more time than necessary in the work area.

Hot surfaces

During operation, the surfaces of components can get extremely hot. Contact with it can cause burns.

- Do not touch hot surfaces.
- Before carrying out any work:
 - Let components cool down.
 - Wear protective hand gloves.

2.4 Staff qualification



WARNING!

Inadequate qualification

Wrong estimation of dangers can cause serious injury or death.

- Only sufficiently qualified persons may execute all work.
- Some work requires additional qualification. Additional qualifications of specialized personnel are marked with a “+”.

This document is intended for qualified personnel in industry and craftsmanship.

The following describes the different qualifications required for the work in this document. The required qualification is presented prior to the individual tasks in the appropriate chapters.

Operator

The operator is trained specifically for the field of work in which he works.

Furthermore, the operator possesses the following knowledge:

- Technical Measures for occupational safety and health

The operator is responsible for the following work:

- Operate and monitor the system/ product.
- Introduce measures in the event of faults.
- Clean system/ product.

+ additional qualification explosion protection

In addition to the knowledge of the various specialist fields, the mechanic has knowledge of regulations and safety measures when working in potentially explosive areas.

Dürr Systems offers special product training for ↪ “Hotline and Contact”.

2.5 Personal protective equipment

Wear the required personal protective equipment when working. Provide the following personal protective equipment:



Eye protection

Protects eyes from dust, paint drops and particles.



Protective gloves

Protect the hands from:

- mechanical forces
- Thermal forces
- Chemical effects



Protective workwear

Tight fitting workwear with low tear strength, tight sleeves and no hanging parts.



Respiratory protection device

The respiratory protection device protects from hazardous gases, vapors, dust and similar materials and media. The version of the respiratory protection device must be suitable for the media used as well as their usage.



Use ear protection

Protects from auditory damage due to noise.

3 Transport, scope of supply and storage

3.1 Scope of delivery

The scope of supply includes the following components:

- Spray gun
- Tool kit ↪ 11.2 “Tools”

Inspect delivery on receipt for completeness and integrity.

Report defects immediately ↪ “Hotline and Contact”.

3.2 Handling of packaging material



ENVIRONMENT!

Incorrect disposal

Incorrectly disposed packaging material can damage environment.

- Dispose of material no longer required in an environment-friendly manner.
- Observe local disposal specifications.

3.3 Storage

Storage provisions:

- Do not store outdoors.
- Spray gun only store when in a clean and dry condition.
- Store in a dust-free place.
- Do not expose to aggressive media.
- Protect from solar radiation.
- Avoid mechanical vibrations.
- Temperature: 10°C to 40°C
- Relative humidity: 35% to 90%

4 Assembly

4.1 Requirements for the Installation point

- The control air supply and the material feed to the spray gun must be interrupted and secured against reconnection.
- Lines, seals and screw connections must be designed to conform to the requirements of the spray gun ↪ 10.5 "Operating values".
- A support bracket capable of securing the spray gun is required.
- The control air supply must be adjustable.


4.2 Assembly

Protective equipment:

- Protective workwear
- Protective gloves

Observe the following at assembly:

- Thread of the fastening bore: M6
- Nominal diameters:
 - Control air and atomizer air: Ø6mm push-in connector (M5 thread in the pistol housing)
 - Material connection: Ø6mm push-in connector (G1/8" thread in the pistol housing)
 - Horn air with connection for external jet control: Ø6mm push-in connector (M5 thread in the pistol housing)

1.  **WARNING!**
Sources of ignition may cause explosions!
Ensure a non-explosive atmosphere.

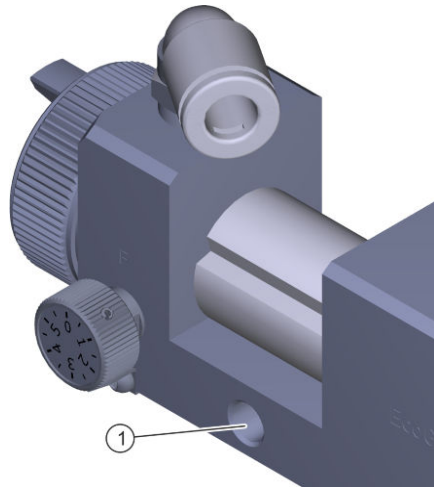



Fig. 2: Assembly

2. Fasten spray gun on the support bracket (M6 threads) with the fastening bore (1) and lock with nuts.

 Alignment is not important.

3. **WARNING!**

Statically charged components may cause explosions during operation!

Ground the spray gun through the fastening bore if the support bracket itself is non-conductive and/or is not grounded. Ensure housing contact.

- Resistance between housing and grounding terminal $\leq 1M\Omega$.

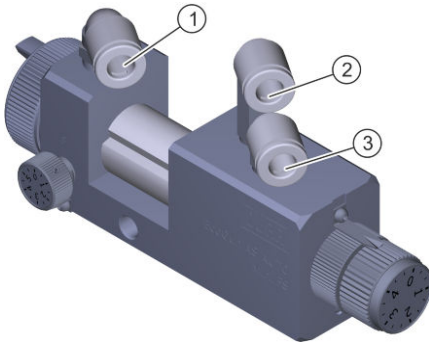


Fig. 3: Connect

4. With a wrong assignment of the lines, the spray gun will not function.

Connect lines and check for the correct assignment.

- 1 - Material
- 2 - Atomizer air
- 3 - Control air

Connect the external jet control connection

Protective equipment:

- Protective workwear
- Protective gloves

Instead of the mechanical horn air control on the spray gun, you can also control the horn air via an external valve. For this purpose, you will need to attach a connection for the external jet control on the spray gun.

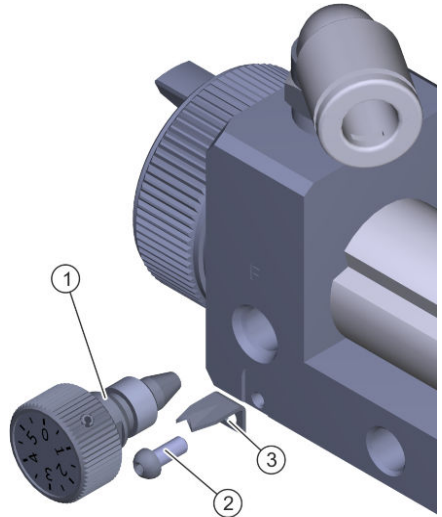


Fig. 4: Disassembly of horn air control

1. Loosen and remove screw (2) and the catch (3).
2. Unscrew valve (1) using an SW 6 open-end wrench.
3. Tighten the connection for jet control.
4. Connect horn air line to the connection of the jet control.

4.3 Setting the spray jet

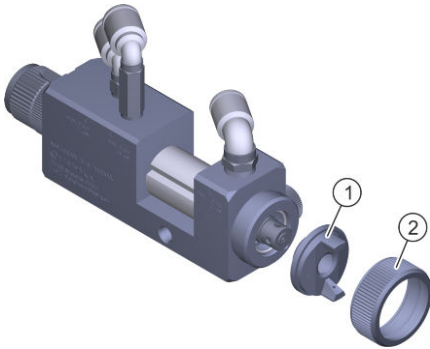


Fig. 5: Adjust spray jet

You can rotate the air cap (1) to any position to change the alignment of the spray jet.

1. Slightly loosen the cap nut (2).
2. Rotate air cap (1) into the required position.
3. Tighten cap nut (2) by hand.

5 Commissioning

Protective equipment:

- Use ear protection
- Eye protection
- Respiratory protection device
- Protective workwear
- Protective gloves

Depending on the design of the application system, two technicians must be present to execute the commissioning:

- Technician 1: Operates the controls.
- Technician 2: Check on the spray gun.


1. Actuate the spray gun without material via the control unit or the visualizer.
2. Check the switching behavior.
 - Does the needle open and close as required?
 - Are all types of air supply connected?
3. Purge spray gun ↪ 6.2 “Purging”.
4. Connect material. Create a trial spray pattern on a test work piece.

Setting the spray pattern

Protective equipment:

- Use ear protection
- Eye protection
- Respiratory protection device
- Protective workwear
- Protective gloves

You can adjust the spray pattern continuously between round and flat, by using horn air.

 You can vary the size of the jet pattern by adjusting the distance between the spray gun and the work piece.

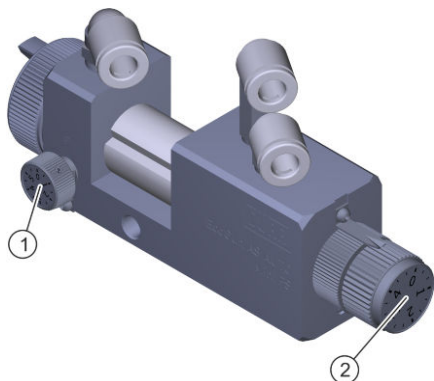




Fig. 6: Setting the spray pattern

1. Set the material quantity through valves in the control cabinet or at the material quantity control (2).

 Open the material flow control on the spray gun when controlling via the control and regulation cabinet.

2. Use valves in control cabinet to set the atomizer air.

 Please note the following characteristic curve.

3. Adjusting horn air:
 - on the horn air control (1)
 - Via valves in the control cabinet when using the connection for external jet control

⇒ When the horn air is blocked, the spray pattern is round.

Characteristic curve

The characteristic curve shows the dependence between the atomizer air pressure and the air consumption for a flat (1) and a round (2) jet pattern.

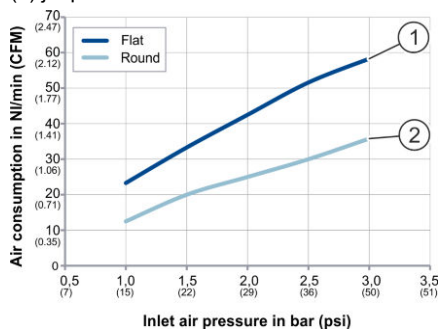


Fig. 7: Characteristic curve

6 Operation

6.1 Safety recommendations



WARNING!

Danger of explosion due to chemical reactions

Material, halogenated hydrocarbon-based rinsing agent or cleaning agent can chemically react with aluminum components of the product. Chemical reactions can cause explosions. Serious injury and death could be the consequence.

- Only use purging agents and cleaning agents that do not contain any halogenated hydrocarbons.

! NOTICE!

Material damage due to dried material residues

If material residues dry in the product, that can harm components.

- Purge product immediately after each use.

6.2 Purging

6.2.1 Safety recommendations

! NOTICE!

Material damage due to unsuitable rinsing agent

If the rinsing agent reacts chemically with the components or the material, components get damaged.

- Use only the rinsing agents that are compatible with the components and the material.
- Refer to safety data sheet of material manufacturer.

6.2.2 General notes

When purging, use fluid to remove inner soiling from components.

6.2.3 Purging

Personnel:

- Operator
- + additional qualification explosion protection

Protective equipment:

- Use ear protection
- Eye protection
- Respiratory protection device
- Protective workwear
- Protective gloves

The spray gun must be purged:

- After end of work
- Before every change of material
- Prior to cleaning
- Prior to dismantling
- Before a long time of non-use
- Before placing in storage



Additional purging intervals depend on the material used.

1. Purge the spray gun with an appropriate rinsing agent until the rinsing agent runs clean without any material residue.

7 Cleaning and maintenance

7.1 Safety recommendations



WARNING!

Danger of fire and explosion

Flammable coating materials and their detergents and cleaning agents can cause a fire or an explosion.

- Ensure that the flashpoint of the cleaning agent is at least 15K above the ambient temperature or clean product at the cleaning areas with active technical ventilation, in painting booths, according to EN 16985.
- Note explosion group of the fluid.
- Observe the security data sheets of the media being used.
- Ensure that forced ventilation and fire protection equipment are in operation.
- Do not use sources of ignition and open light.
- Do not smoke.
- Check grounding.

**WARNING!****Unsuitable spare parts in explosive areas**

Spare parts not compliant with the specifications of the ATEX directives can cause explosions in an explosive atmosphere. Serious injury and death could be the consequence.

- Use exclusively original spare parts.

**WARNING!****Danger from harmful or irritant substances**

Serious injuries or death can result if you come into contact with dangerous fluids or steam.

- Spray gun Check regularly for leakage. Observe local regulations and maintenance schedule.
- Ensure that the forced ventilation is operational.
- Follow the relevant safety data sheets.
- Wear specified protective equipment.
- Avoid contact (e.g. with eyes, skin).

**WARNING!****Escaping material and compressed air**

Escaping material under pressure can cause serious injuries.

Before carrying out any work:

- Disconnect the system, in which the spray gun is installed, from compressed air and material supply.
- Secure system personalized from being switched on again.
- Depressurize the lines.

**WARNING!****Danger of explosion due to chemical reactions**

Material, halogenated hydrocarbon-based rinsing agent or cleaning agent can chemically react with aluminum components of the product. Chemical reactions can cause explosions. Serious injury and death could be the consequence.

- Only use purging agents and cleaning agents that do not contain any halogenated hydrocarbons.

**NOTICE!****Unsuitable cleaning agents**

Unsuitable cleaning agents can damage the product.

- Only use cleaning agents approved by the material manufacturer.
- Follow safety data sheets.
- Place heavily soiled components in a cleaning bath.
 - Only place those parts in the cleaning bath, which are suitable for the cleaning bath.
 - Use only electrically conductive containers.
 - Ground the container.
 - Do not use ultrasound baths.
- Use alcohols (isopropanol, butanol) for non-flammable coating materials.
- Remove dried non-flammable coating materials using a material manufacturer-approved organic thinner.

! NOTICE!

Damage due to unsuitable cleaning tools

Unsuitable cleaning tools can damage the product.

- Only use cloths, soft brushes and paintbrushes.
- Do not use abrasive cleaning tools.
- Do not poke blocked nozzles with metallic objects.
- Do not use compressed air for cleaning.
- Do not use any thinner spray guns.
- Do not use high pressure for cleaning agents.

7.2 Cleaning

Clean spray gun

Protective equipment:

- Use ear protection
- Eye protection
- Respiratory protection device
- Protective workwear
- Protective gloves

1. Purge spray gun ↴ 6.2.3 "Purging".
2. Use a cleaning agent to carefully clean the spray gun. Dry with a soft cloth.

Cleaning the air cap und nozzle

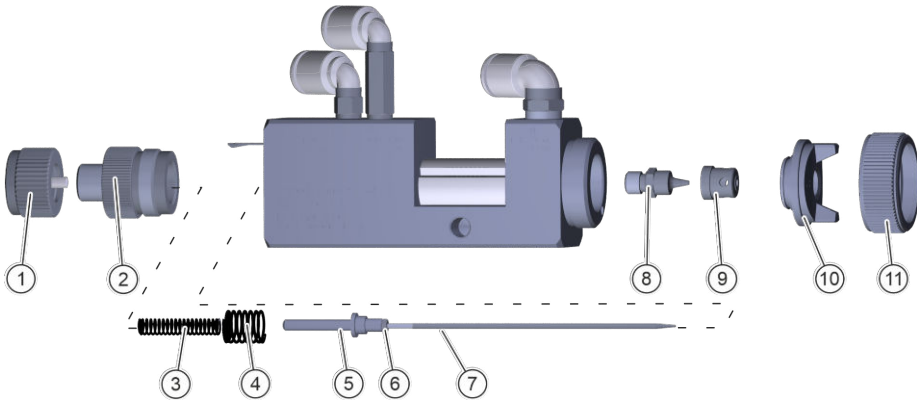






Fig. 8: Clean spray gun

For a thorough cleaning you can remove the air cap.

Disassembly

1. Unscrew the control knob (1).
2. Unscrew bolt (2).
3. Remove needle spring (3) and plunger spring (4).
4. Pull out distance bolt (5) including needle (7) and locknut (6).
5. Loosen cap nut (11).
6. Remove air cap (10).
7. Remove the manifold (9).
8. Unscrew and remove nozzle (8).
9. Clean air cap (10) using cleaning agent and cleaning brush  11.2 "Tools".
10. Blow out cleaned air cap (10) with compressed air.
11. Clean nozzle (8) in the cleaning bath.

Assembly

12.  **NOTICE!**
Risk of damage to the nozzle
Insert nozzle (8) and tighten with 3 Nm.
13. Insert the manifold (9).
14. Insert and align air cap (10).
15. Tighten cap nut (11) by hand.
16.  **NOTICE!**
Risk of damage to the needle
Moisten the needle shank with some lubricant ( 10.7 "Operating and auxiliary materials").
Carefully push in distance bolt (5) with needle (7) and locknut (6) into the housing.
17. Insert needle spring (3) and plunger spring (4).
18. Twist in bolt (2).
19. Twist in the control knob (1).

Faults

7.3 Maintenance


7.3.1 Maintenance schedule






The maintenance intervals given below are based on experiential values. Adjust maintenance intervals individually to increased requirements.

Interval	Maintenance work
daily	Check condition and tightness of the spray gun as well as connections and lines. Check fastening.
before every change of material	Clean ↪ 7.2 "Cleaning".
semi-annually	Remove and lubricate piston ↪ 8.2.2 "Replace needle seal".
after each alteration	Check grounding ↪ 4.2 "Assembly".

8 Faults

8.1 Defects table

Fault description	Cause	Correction
No material	Line pinched or broken	Check the line.
	Needle does not open.	Check Control air.
Material leaking when needle is closed.	Needle does not close correctly.	Check operation of needle. Replace needle, if defective, together with the nozzle ↪ 8.2.1 "Replace needle and nozzle".
	Nozzle soiled or defective	Clean and check the nozzle. If nozzle is defective, replace it along with the needle ↪ 8.2.1 "Replace needle and nozzle".
Twisted spray jet 	Air cap is misaligned.	Rotate air cap into the required position ↪ 4.3 "Setting the spray jet".
Spray jet too strong in center	Too much material	Reduce material feed.
		Increase atomizer air pressure.

Fault description	Cause	Correction
	Material too viscous	Change material consistency.
	Horn air pressure too low	Increase horn air pressure through the horn air control. Check external valve of the horn air supply.
Split spray jet 	Not enough material	Increase material feed. Decrease atomizer air pressure.
	Material too thin	Change material consistency.
	Horn air pressure too high	Lower the horn air pressure through the horn air supply. Check external valve of the horn air supply.
Cone-shaped spray jet 	Bores in air cap are soiled	Clean and check air cap. Replace air cap if defective ↪ 7.2 "Cleaning".
	Nozzle soiled or defective	Clean and check the nozzle. If nozzle is defective, replace it along with the needle ↪ 8.2.1 "Replace needle and nozzle".
Sickle-shaped spray jet 	Bores in air cap are soiled	Clean and check air cap. Replace air cap if defective ↪ 7.2 "Cleaning".
	Nozzle soiled or defective	Clean and check the nozzle. If nozzle is defective, replace it along with the needle ↪ 8.2.1 "Replace needle and nozzle".
	Cap nut or nozzle is not properly tightened	Tighten cap nut and nozzle ↪ 7.2 "Cleaning".
Uneven spray mist 	Nozzle soiled or defective	Clean and check the nozzle. If nozzle is defective, replace it along with the needle ↪ 8.2.1 "Replace needle and nozzle".
	Material pressure too low.	Increase material pressure.
	Infeed line pinched or broken	Check infeed line.
	Needle does not fully open.	Check Control air. Check operation of needle. Replace needle, if defective, together with the nozzle ↪ 8.2.1 "Replace needle and nozzle".

Fault description	Cause	Correction
	Nozzle is not properly tightened	Tighten nozzle ↪ 7.2 "Cleaning".
	Needle seal worn out.	Replace needle seal ↪ 8.2.2 "Replace needle seal".
Formation of large drops	Delay time for atomizer air supply too short	Set delay time ↪ 8.2.3 "Set delay time".

8.2 Troubleshooting

8.2.1 Replace needle and nozzle.

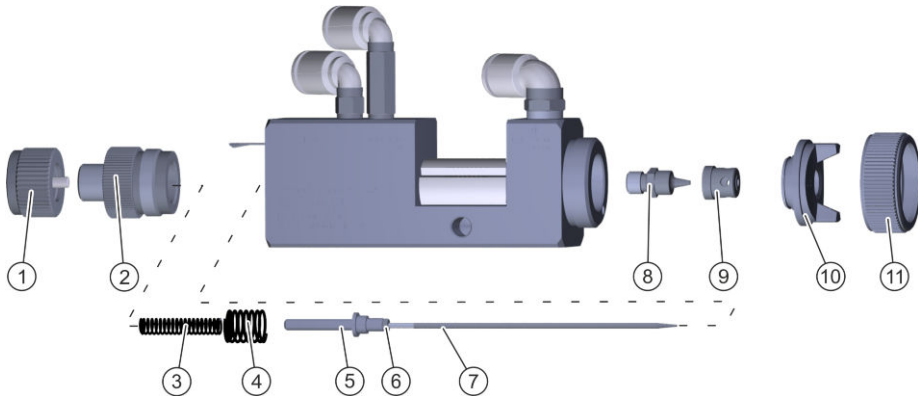


Fig. 9: Replace needle and nozzle

Protective equipment:

- Protective workwear
- Protective gloves

! NOTICE!

Property damage due to improper replacement of needle and nozzle

Replacing only the needle or only the nozzle could damage spray gun components. This can compromise the tightness of the spray gun. The spray pattern deteriorates.

- Observe order of replacement steps (needle – nozzle).
- Observe order of assembly steps (nozzle – needle).
- Always replace nozzle and needle at the same time.

! NOTICE!

Property damage due to improper handling

Mechanical load can damage needle and nozzle.

- Handle with care during installation and dismantling.
- Do not subject the needle to any mechanical pressure.
- Avoid collisions of components to be assembled and disassembled with the needle.
- Do not excessively tighten components.

Disassembly

1. Unscrew the control knob (1).
2. Unscrew bolt (2).
3. Remove needle spring (3) and plunger spring (4).
4. Pull out distance bolt (5) including needle (7) and locknut (6).
5. Loosen cap nut (11).
6. Remove air cap (10).
7. Remove the manifold (9).
8. Unscrew and remove nozzle (8).

9. Loosen cap nut (6).
10. Unscrew distance bolt (5) from the needle (7).
11. Replace worn out or defective components.

Assembly

12.

! NOTICE!

Risk of damage to the nozzle
Insert nozzle (8) and tighten with 3 Nm.



Depending on the use case, use a nozzle with a suitable diameter.

13. Insert the manifold (9).
14. Insert and align air cap (10).
15. Tighten cap nut (11) by hand.
16. Twist in the distance bolt (5) and cap nut (6) onto the needle (7).
17. Moisten the needle shank with some lubricant (↻ 10.7 “Operating and auxiliary materials”).
18. Set delay time ↻ 8.2.3 “Set delay time”.
- 19.

! NOTICE!

Risk of damage to the needle
Carefully push in distance bolt (5) with needle (7) and locknut (6) into the housing.

20. Insert needle spring (3) and plunger spring (4).
21. Twist in bolt (2).
22. Twist in the control knob (1).

8.2.2 Replace needle seal

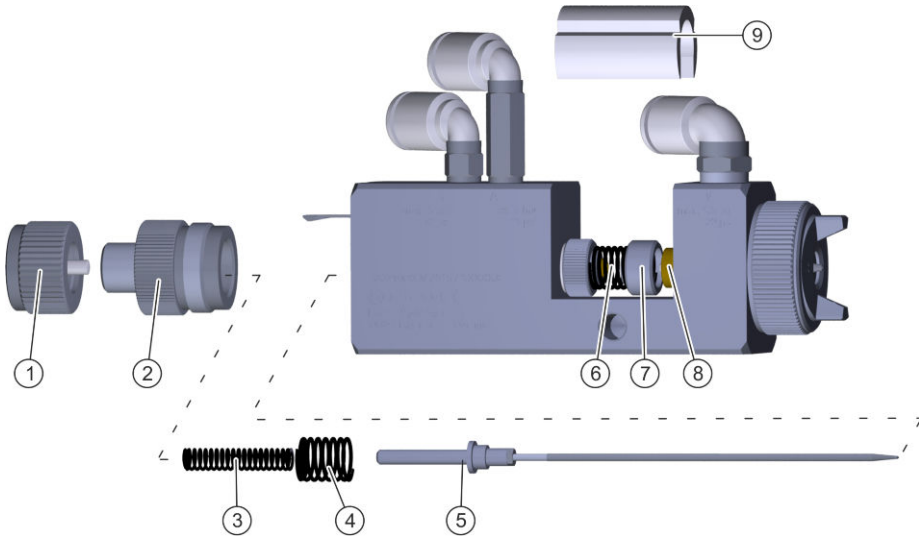


Fig. 10: Replacing needle seal

Protective equipment:

- Protective workwear
- Protective gloves

! NOTICE!

Property damage due to improper handling

Mechanical load can damage needle.

- Handle with care during installation and dismantling.
- Do not subject the needle to any mechanical pressure.
- Avoid collisions of components to be assembled and disassembled with the needle.

Disassembly

1. Unscrew the control knob (1).
2. Unscrew bolt (2).
3. Remove needle spring (3) and plunger spring (4).
4. Pull out the distance bolt with needle and locknut (5).
5. Remove cover (9).
6. Disassemble the compression spring (6) and remove the slip ring (7).
7. Remove the needle seal (8).
8. Use a cleaning agent to clean the contact face of the needle seal.

Assembly

9. Insert new needle seal (8).

10. Insert guide rod (7) and spring (6).

- 11.

 **NOTICE!**

Risk of damage to the needle

Moisten the needle shank with some lubricant (↪ 10.7 "Operating and auxiliary materials"). Carefully push in distance bolt with needle and cap nut into the housing.

12. Insert needle spring (3) and plunger spring (4).
13. Twist in bolt (2).
14. Twist in the control knob (1).
15. Fit cover (9). Let components engage.

8.2.3 Set delay time

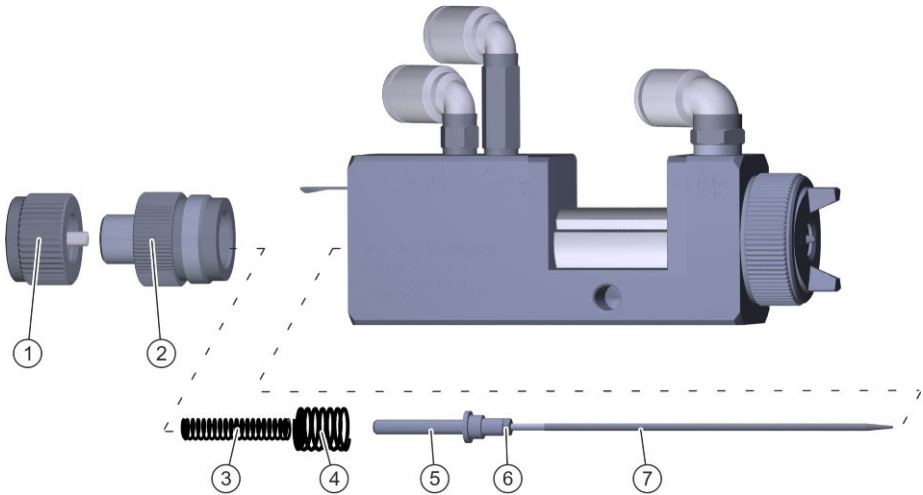


Fig. 11: Set delay time

Protective equipment:

- Protective workwear
- Protective gloves

! NOTICE!

Improper setting causes damage

The delay time is factory-set. Setting a wrong delay time can damage the nozzle and the needle.

- You should only change the delay time upon inserting a new needle or in case there are problems with the spray pattern.
- If in doubt, contact Dürr Systems ☎ "Hotline and Contact".

Disassembly

1. Unscrew the control knob (1).

2. Unscrew bolt (2).
3. Remove needle spring (3) and plunger spring (4).
4. Pull out distance bolt (5) including needle (7) and locknut (6).
5. Loosen cap nut (6).

Setting

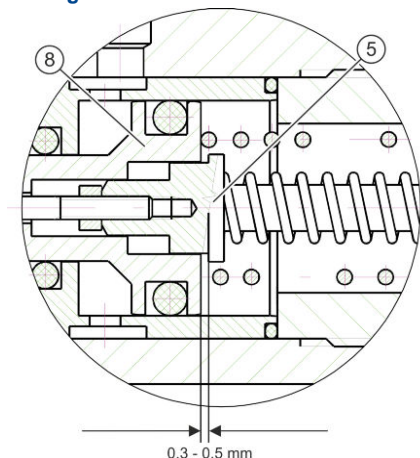



Fig. 12: Set distance from the distance bolt to the piston

6. Hold the needle (7) firmly on the shank. Turn distance bolt (5).
 - Turn it to the right to reduce the delay time.
 - Turn it to the left to increase the delay time.

 The recommended distance from the distance bolt (5) to the piston (8) is 0.3 to 0.5mm.

7. Tighten locknut (6).

Assembly

8. Moisten the needle shank with some lubricant (☞ 10.7 “Operating and auxiliary materials”).
9. **! NOTICE!**
Risk of damage to the needle
Carefully push in distance bolt (5) with needle (7) and locknut (6) into the housing.
10. Insert needle spring (3) and plunger spring (4).
11. Twist in bolt (2).
12. Twist in the control knob (1).

9 Disassembly and Disposal

9.1 Safety recommendations

WARNING!

Escaping material and compressed air

Escaping material under pressure can cause serious injuries.

Before carrying out any work:

- Disconnect the system, in which the spray gun is installed, from compressed air and material supply.
- Secure system personalized from being switched on again.
- Depressurize the lines.

9.2 Disassembly

Personnel:

- Operator
- + additional qualification explosion protection

Protective equipment:

- Use ear protection
- Eye protection
- Respiratory protection device
- Protective workwear
- Protective gloves

1. Purging ↪ 6.2.3 “Purging”.
2. Disconnect the compressed air supply and material feed. Secure against reconnection.
3. Disconnect all lines.
4. Disassemble the spray gun from the support bracket.

9.3 Disposal



ENVIRONMENT!

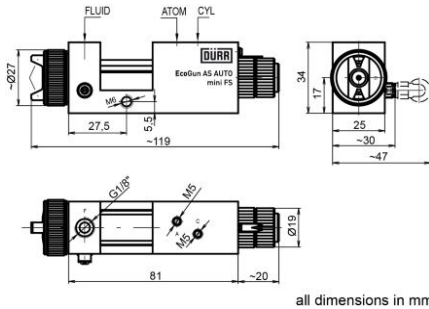
Improper waste disposal

Improper waste disposal threatens the environment and prevents re-use and recycling.

- Clean components before their disposal.
- Always dispose of components in accordance with their characteristics.
↪ 10.8 “Materials used”
- Collect leaked out utilities and auxiliaries completely.
- Dispose of work equipment soaked in coating materials or operating substances according to the disposal provisions in force.
- Dispose of utilities and auxiliaries according to the disposal provisions in force.
- In case of doubt, refer to the local disposal authorities.

10 Technical data

10.1 Dimensions and weight



all dimensions in mm

Fig. 13: Dimensions

Detail	Value
Length	119mm
Width (without/with connection for external jet control)	33/47 mm
Height (without connections)	34mm
Weight (ready for use with 1.0mm nozzle and connections)	256g
Nozzle diameter	depending on design: 0.6/0.8/1.0 mm

10.2 Connections

Connection	Nominal width
Material	Ø6 mm (G1/8" thread in pistol housing)
Control and atomizer air	Ø6 mm (M5 thread in pistol housing)

Connection	Nominal width
Horn air (optional)	Ø6 mm (M5 thread in pistol housing)

10.3 Operating conditions

Detail	Value
Ambient temperature, minimum	2°C
Ambient temperature, maximum	55 °C

10.4 Emissions

Detail	Value
Emission sound pressure level L_{pA} , A – according to EN 14462	79 dB
Uncertainty K_{pA}	5dB
Sound power level L_{WA} , A – according to EN14462	-
Uncertainty K_{WA}	-

10.5 Operating values

Detail	Value
Air consumption of horn air and atomizer air	5 "Commissioning"
Horn/atomizer air pressure, max.	3 bar
Control air pressure	3.5-5bar
Material pressure, max.	1.5bar

Spray jet width			
Nozzles- Ø mm	Outflow rate ¹ ml/min	Spray jet size, cm ²	
		Circular jet	Flat jet
0.6	67	4.5	14.5
0.8	109	5.0	17.0
1.0	166	5.5	18.5

¹ - with water

² - with 19cm spray distance

Compressed air quality

- Purity classes in accordance with ISO 8573-1: 1:4:2
- Limitations for purity class 4 (pressure dew point max.):
 - ≤ -3°C at 7bar absolute
 - ≤ +1°C at 9bar absolute
 - ≤ +3°C at 11bar absolute

10.6 Type plate

The type plate is placed on the housing and features the following details:

- Product name
- Material number
- Year of manufacture
- Serial number
- Ex labeling
- Manufacturer
- CE labeling

10.7 Operating and auxiliary materials

Designation	Material number
Grease Klüber Syntheso GLEP 1, 100g (for seals and threads)	W32020010


10.8 Materials used

Component	Material
Housing	anodized aluminum
Compression springs	Stainless steel
Materials in contact with material	Stainless steel/ano-dized aluminum
Seals in contact with material	PTFE Polyamide NBR
Seals without material contact	NBR PTFE FEPM FKM

10.9 Material specification

Suitable Material:

- Flammable and inflammable coating materials

 Do not use halogen - hydrocarbon based material.

11 Spare parts, tools and accessories

11.1 Spare parts

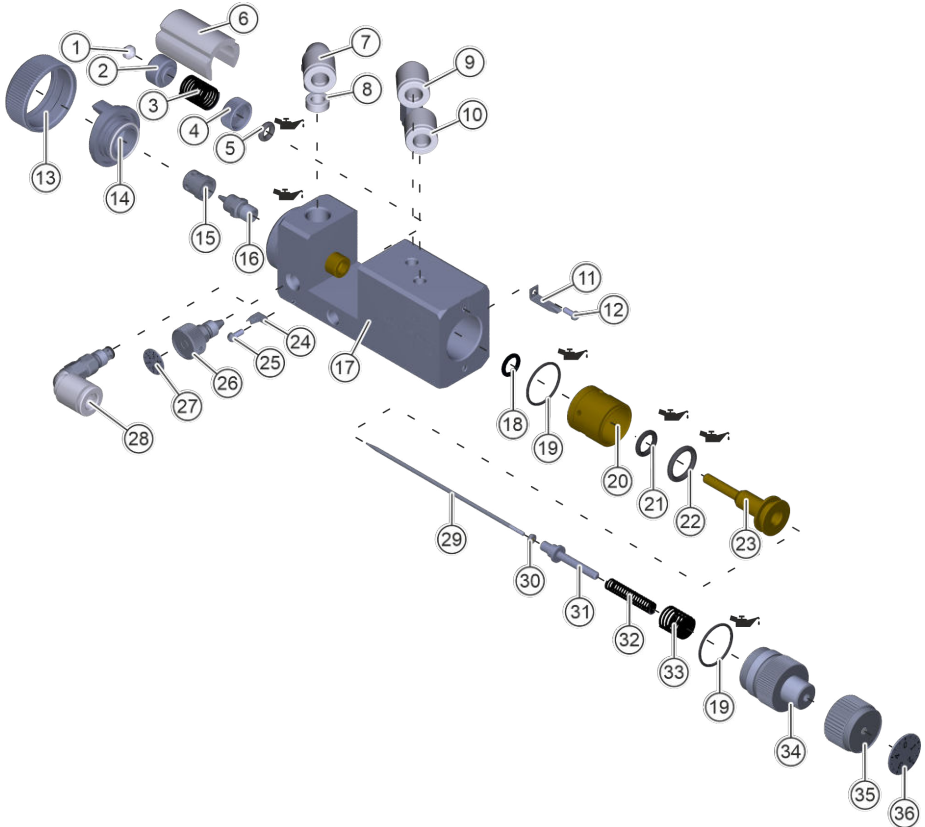


Fig. 14: Exploded view

 Klüber Syntheso GLEP1

Item	Denomination	Quantity	Material no.
1	Seal	1	M08130069
2	Slip ring	1	

Spare parts, tools and accessories



Item	Denomination	Quantity	Material no.
3	Compression spring	1	
4	Cap nut	1	
5	O-ring 3.6 x 2	1	M08030858
6	Cover	1	
7	Elbow plug-in connection D6 G1/8"	1	
8	Seal	1	N36960119
9	Elbow plug-in connection D6 M5	1	M57310094
10	Elbow plug-in connection D6 M5	1	M57310095
11	Catch	1	
12	Screw	1	
13	Cap nut	1	M30010320
14	Air cap complete with O ring	1	M35030093
	O RING 13x1	1	M08030864
15	Distributor	1	☞ "Overview - Air caps and nozzles"
16	Nozzle	1	☞ "Overview - Air caps and nozzles"
17	Housing	1	
18	O-ring 6 x 1.5	1	M08030812
19	O-ring 15 x 1	2	M08030863
20	Bushing insert	1	
21	O-ring 6.75 x 1.78	1	M08030860
22	O-ring 10 x 2	1	M08030862
23	Piston	1	
24	Catch	1	
25	Screw	1	
26	Jet control	1	M21210004
27	Scale plate	1	
28	External jet control connection ☞ 11.3 "Accessories"	1	
29	Needle	1	☞ "Overview - Air caps and nozzles"
30	Locknut	1	N36960117

Item	Denomination	Quantity	Material no.
31	Distance bolt	1	
32	Needle spring	1	N36960116
33	Plunger spring	1	
34	Bolt	1	M41030037
35	Control knob	1	M21030002
36	Scale plate	1	

Overview - Air caps and nozzles

Nozzle sets with air cap Checked

Nozzle	Item no.	Nozzle set
0.6 mm	14, 15, 16, 29, 30	M09800136
0.8mm		M09800137
1.0mm		M09800138

Nozzle sets without air cap

Nozzle	Item no.	Nozzle set
0.6 mm	15, 16, 29, 30	M09800062
0.8mm		M09800063
1.0mm		M09800064

Catch set N36960118

Description	Item no.	Quantity
Screw	12, 25	2
Catch	11	1
Catch	24	1

Scale plate set M44510177

Description	Item no.	Quantity
Scale plate	27	1
Scale plate	37	1

Plug bushing set N36960063

Description	Item no.	Quantity
Seal	1	1
O-ring 3.6 x 2	5	1
Compression spring	3	1

Piston set N36960082

Description	Item no.	Quantity
O-ring 6 x 1.5	18	1
O-ring 15 x 1	19	2
Bushing insert	20	1
O-ring 6.75 x 1.78	21	1
O-ring 10 x 2	22	1
Piston	23	1

Needle guide set N36960120

Description	Item no.	Quantity
Seal	1	1
Slip ring	2	1
Compression spring	3	1
Cap nut	4	1
O-ring 3.6 x 2	5	1
Cover	6	1

11.2 Tools

Maintenance kit:	
Denomination	Material number
Special key SW 6/7	N36960017
Extension rod for special key	
Cleaning brush	

11.3 Accessories



For an overview of the accessory, see the price list available at Dürr webshop or on request, ↗ "Hotline and Contact".

Item	Denomination	Material number
28	External jet control connection	M01010196
	Cleaning set (21 parts)	N36960038
	Cleaning set (17 parts)	N36960037
	DIN BUCKET 4mm	N08010047
	DIN BUCKET 2mm	N08010053
	DIN BUCKET 6mm	N08010054

11.4 Order



WARNING!

Unsuitable spare parts in explosive areas

Spare parts not compliant with the specifications of the ATEX directives can cause explosions in an explosive atmosphere. Serious injury and death could be the consequence.

- Use exclusively original spare parts.



WARNING!

Unsuitable spare parts

Spare parts of third-party suppliers may possibly not be able to hold the loads. Serious injury and death could be the consequence.

- Use exclusively original spare parts.

Ordering spare parts, tools and accessories as well as information on products that are listed without order number ↗ "Hotline and Contact".





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