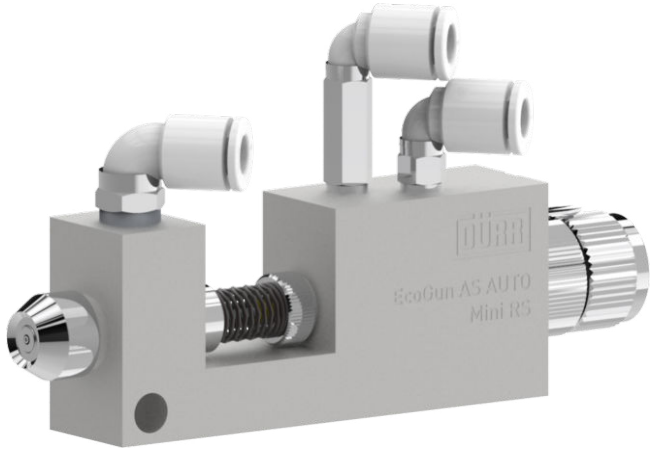
LEADING IN
PRODUCTION
EFFICIENCY



EcoGun AS AUTO Mini RS

Automatic Air Spray Gun

Operation manual

MSG00007EN, V04

N36210007V

www.durr.com

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:

N36210007V **Eco**Gun AS AUTO Mini RS	

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

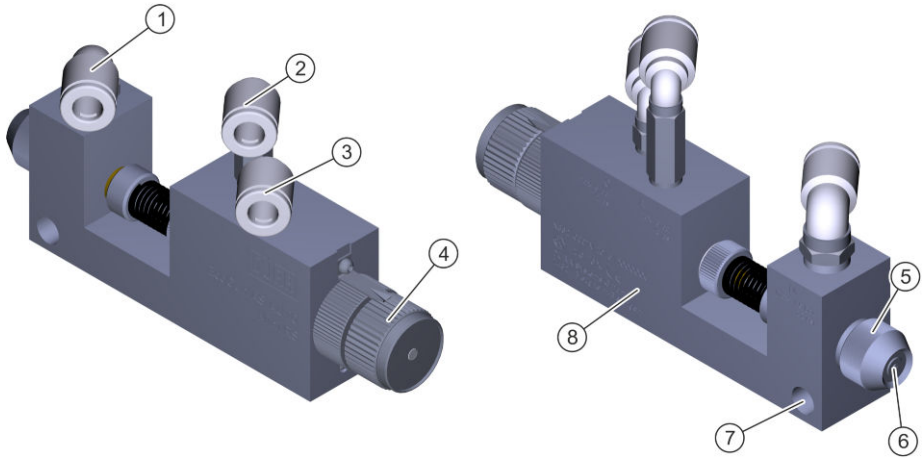


Fig. 1: Product overview

1 Material connection
2 Atomizer air connection
3 Control air connection
4 Material flow control
5 Screw cap
6 Nozzle
7 Fastening bore
8 Housing

1.2 Short description

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

The following factors influence the spray jet and the result:

- Atomizer air pressure
  The higher the atomizer pressure, the higher the atomizing and the finer the spray jet
- Control air pressure
  Opens the needle and controls the material flow.
- Material pressure
  The higher the material pressure, the higher the material flow

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

The material flow can also be regulated via the regulator on the atomizer, if it is not 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 **Eco**Gun AS AUTO Mini RS spray gun is only intended for use in industry and craftmanship.

The **Eco**Gun AS AUTO Mini RS 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

Ⓔx 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 then 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 craftmanship.

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 spray gun is included in the scope of supply.

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:

- Diameter of the fastening bore: 6.4mm
- 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)

1. **WARNING!**

   Sources of ignition may cause explosions!

   Ensure a non-explosive atmosphere.

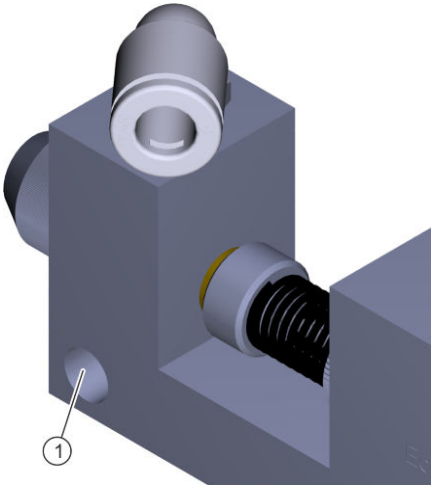


Fig. 2: Assembly

2. Push the atomizer with the fastening bore (1) onto the support bracket and secure.

   Alignment is not important.

3. **WARNING!**

   Statically charges components may cause explosions during operation!

   If the support bracket itself is not conductive and not grounded, ground the atomizer through the fastening bore. Ensure housing contact.

   - Resistance between housing and grounding terminal ≤ 1MΩ.

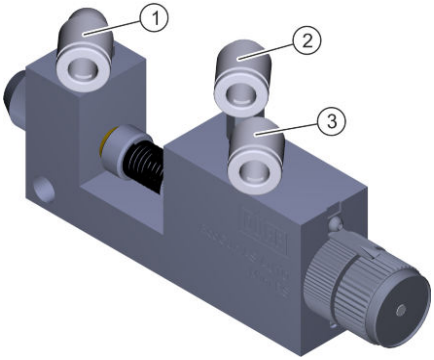


Fig. 3: Connect

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

   Connect lines. Ensure correct assignment.

   1 - Material

   2 - Atomizer air

   3 - Control air

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: Checks on the atomizer.

1. Actuate the atomizer without material through the control system 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 atomizer ↳ 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

The material quantity can be set for attaining the required jet pattern.

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

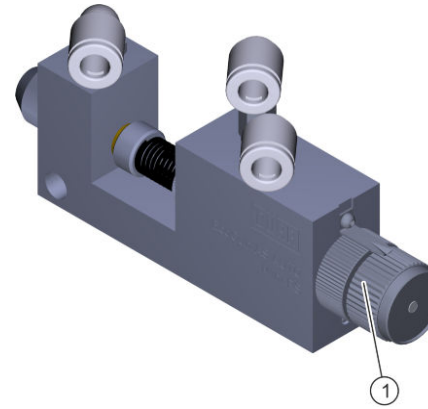


Fig. 4: Setting the spray pattern

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

   > Open the material quantity control on the atomizer when controlling via the control cabinet.

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

Characteristic curve

The characteristic curve shows the dependence between the atomizer air pressure and the air consumption.

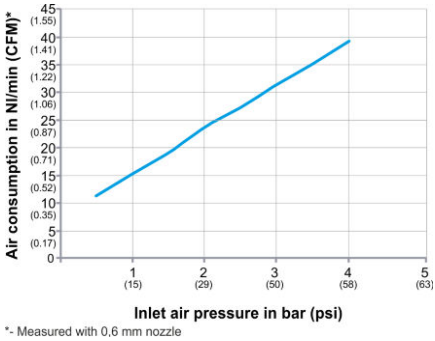


Fig. 5: Characteristic curve

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 atomizer

Protective equipment:

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

1. Purge atomizer ↳ 6.2.3 “Purging”:
2. Clean the atomizer carefully with cleaning agent. Dry with a soft cloth.

Clean the nozzle

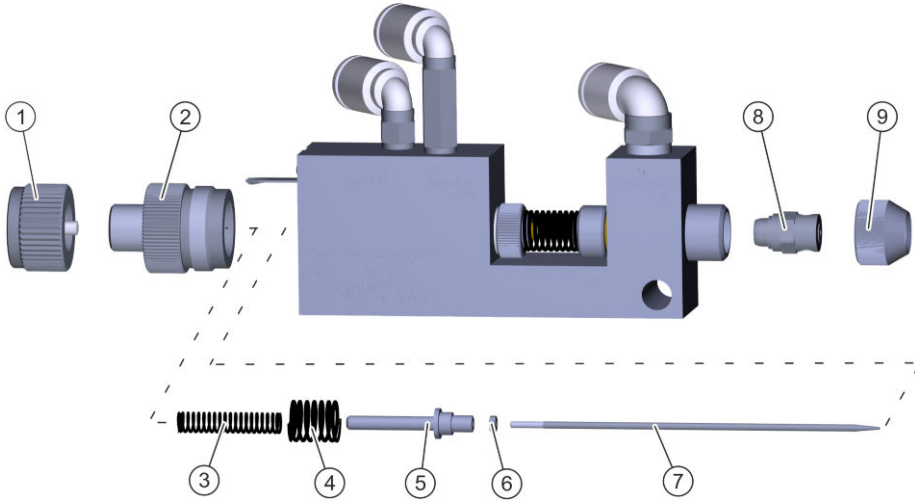


Fig. 6: Clean atomizer

Disassemble nozzle for a through cleaning.

1. Unscrew the control knob (1).
2. Unscrew bolts (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 (9).
6. Remove nozzle (8).
7. Clean nozzle (8) in the cleaning bath.

NOTICE!

Risk of damage to the nozzle

8. Insert nozzle (8) and tighten with cap nut (9) by hand. Do not over-tighten the cap nut.

NOTICE!

Risk of damage to the needle

9. Moisten the needle shank with some lubricant (10.7 “Operating and auxiliary materials”). Push in out distance bolts (5) including needle (7) and locknut (6).
10. Insert needle spring (3) and plunger spring (4).
11. Twist in bolt (2).
12. Twist in the control knob (1).

7.3 Maintenance

7.3.1 Maintenance schedule

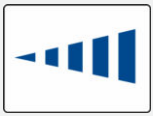
The maintenance intervals given below are based on experiential values. Adjust maintenance intervals individually to increased requirements.

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 together with the nozzle if defective ↳ 8.2.1 “Replace needle and nozzle.”.
	Nozzle soiled or defect.	Clean and check the nozzle. Replace nozzle with needle if defective ↳ 8.2.1 “Replace needle and nozzle.”.
Spray jet too strong in center. 	Too much material	Reduce material feed.
		Increase atomizer air pressure.
	Material too viscous.	Change material consistency.
Broken spray jet	Not enough material.	Increase material feed.
		Decrease atomizer air pressure.

Fault description	Cause	Correction
	Material too thin.	Change material consistency.
	Atomizer air pressure too high	Decrease atomizer air pressure.
		Check external valve of the atomizer.
Sickle-shaped spray jet 	Nozzle soiled or defect.	Clean and check the nozzle. Replace nozzle with needle if defective ↳ 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 jet 	Nozzle soiled or defect.	Clean and check the nozzle. Replace nozzle with needle if defective ↳ 8.2.1 “Replace needle and nozzle.”.
	Material pressure too low.	Increase material pressure.
	Feed line pinched or broken.	Check the feed line.
	Needle does not open fully.	Check control air.
		Check operation of needle. Replace needle together with the nozzle if defective ↳ 8.2.1 “Replace needle and nozzle.”.
	Cap nut or nozzle is not properly tightened.	Tighten cap nut and 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.

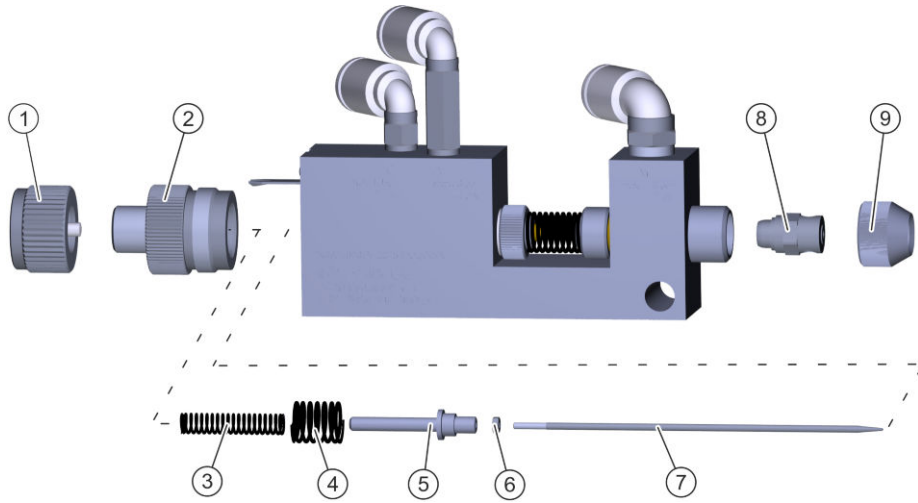


Fig. 7: Replace needle and nozzle

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 bolts (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 (9).
6. Remove nozzle (8).
7. Loosen locknut (6).
8. Unscrew distance bolt (5) from the needle (7).
9. Replace worn out or defective components.

Assembly

10. Insert nozzle (8).

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

11. **NOTICE!**

    Risk of damage to the nozzle

    Tighten cap nut (9) by hand. Do not over-tighten the cap nut.

12. Twist in the distance bolts (5) and cap nut (6) onto the needle (7).
13. Set delay time ↳ 8.2.3 “Set delay time”.
14. Moisten the needle shank with some lubricant (↳ 10.7 “Operating and auxiliary materials”).
15. **NOTICE!**

    Risk of damage to the needle

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

16. Insert needle spring (3) and plunger spring (4).
17. Twist in bolt (2).
18. Twist in the control knob (1).

8.2.2 Replace needle seal

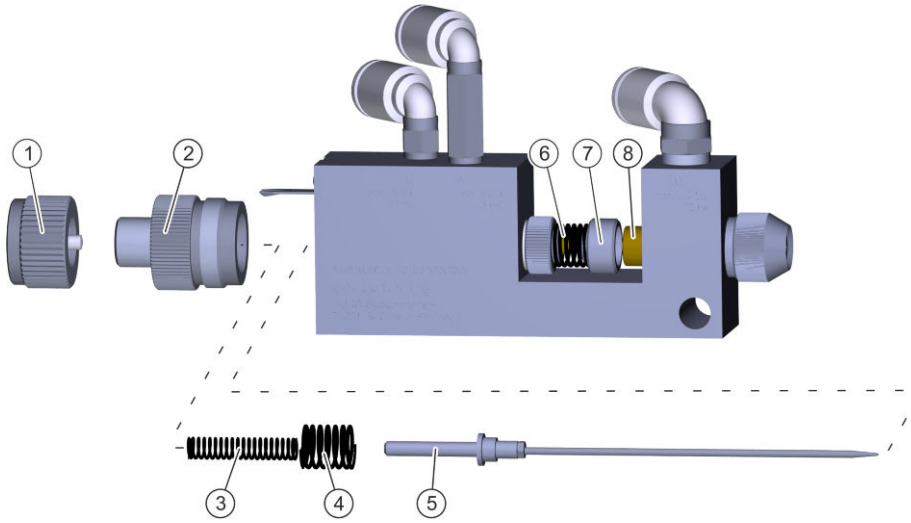


Fig. 8: Replacing needle seal

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 bolts (2).
3. Remove needle spring (3) and plunger spring (4).
4. Pull out the distance bolt with needle and locknut (5).
5. Remove the spring (6). Remove slip ring (7).
6. Remove the needle seal (8).
7. Use a cleaning agent to clean the contact face of the needle seal.

Assembly

8. Insert a new needle seal (8).
9. Insert guide rod (7) and spring (6).
10. **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 locknut (5) into the housing.
11. Insert needle spring (3) and plunger spring (4).
12. Twist in bolt (2).
13. Twist in the control knob (1).

8.2.3 Set delay time

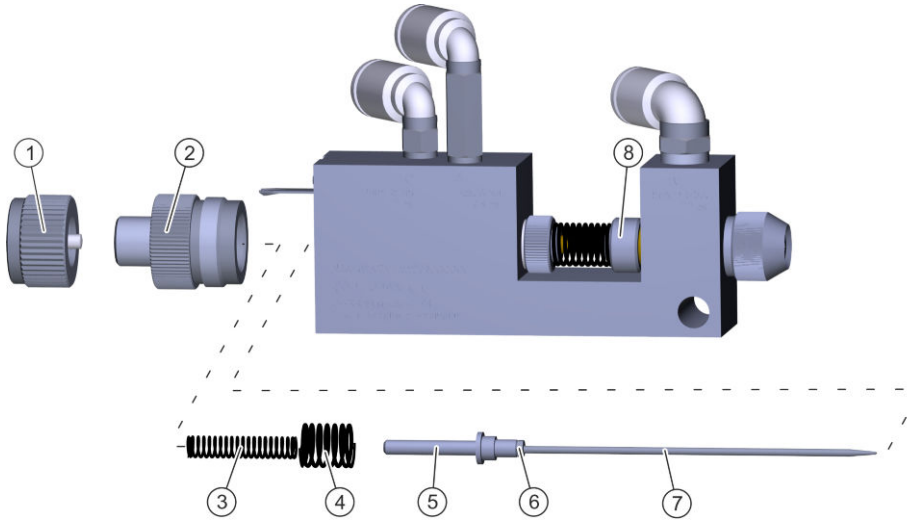


Fig. 9: Set delay time

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

Setting

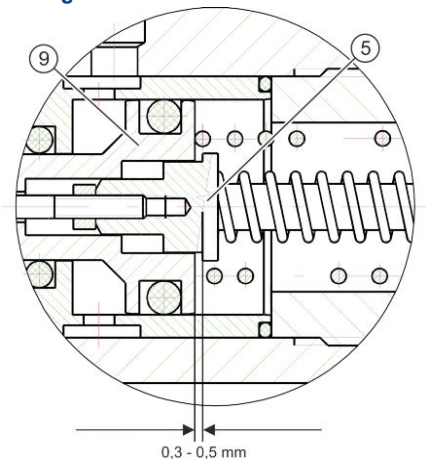


Fig. 10: Set distance from the distance bolt to the piston

6. Hold the needle (7) firmly on the shank. Turn distance bolts (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 (9) is 0.3 to 0.5mm.

7. Tighten locknut (6).

Assembly

8. **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.
9. Insert needle spring (3) and plunger spring (4).
10. Twist in bolt (2).
11. 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

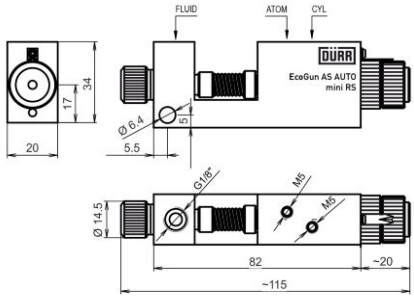


Fig. 11: Dimensions

Detail	Value
Length	115mm
Width	20mm
Height (without connections)	34mm
Weight (ready for use with 1.0mm nozzle and connections)	196g 229g (with extension)
Nozzle diameter	depending on design: 0.6/0.8/1.0/1.2 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)

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	74dB
Uncertainty K_{pA}	5dB
Sound power level L_{WA}, A – according to EN14462	-
Uncertainty K_{WA}	-

10.5 Operating values

Detail	Value
Air consumption atomizer air	↳ 5 “Commissioning”
Atomizer air pressure, maximum	3 bar
Control air pressure	3.5-5 bar
Material pressure, max.	1.5bar

Spray jet width

Nozzles-Ø mm	Outflow rate [1] ml/min	Spray jet size, cm [1] [2]
		Circular jet
0.6	55	4.5
0.8	101	5.0

Nozzles-Ø mm	Outflow rate [1] ml/min	Spray jet size, cm [1 2]
		Circular jet
1.0	192	5.5
1.2	275	6.0

[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	Nickel-plated or anodized aluminum
Compression springs	Stainless steel
Materials in contact with material	Stainless steel nickel-plated or anodized aluminum PE
Seals in contact with material	PTFE Polyamide NBR
Seals without material contact	NBR 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

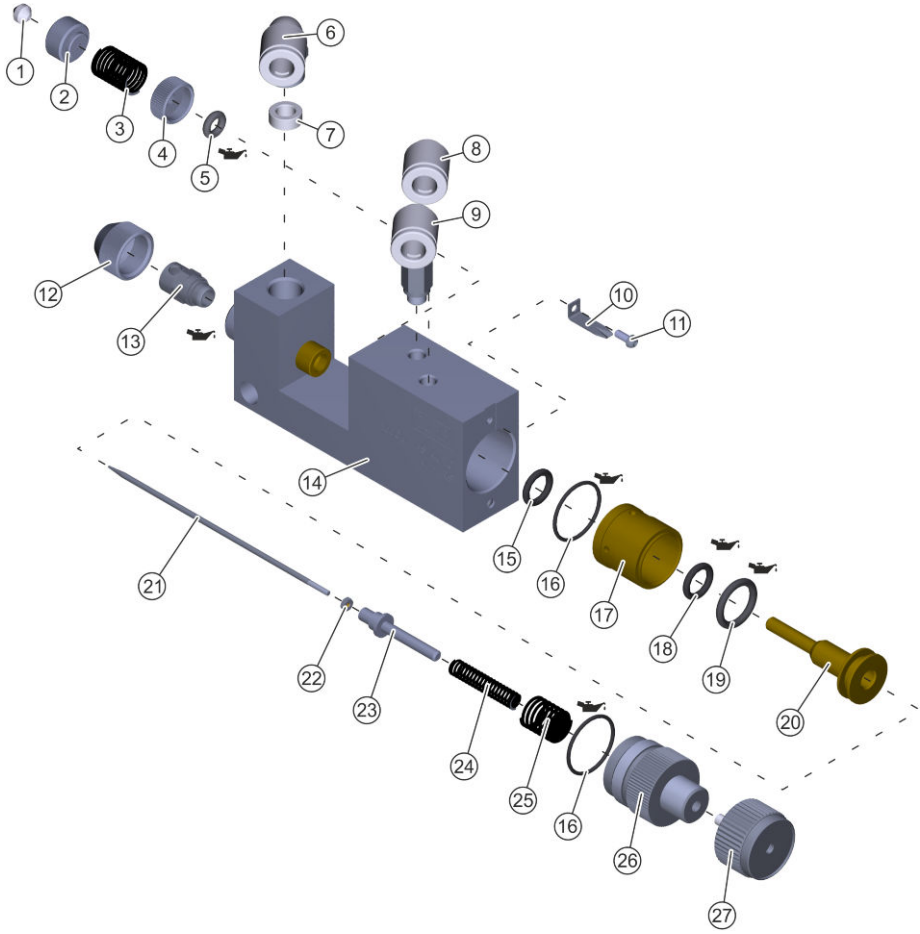


Fig. 12: Exploded view

Klüber Syntheso GLEP 1

Item	Denomination	Quantity	Material number
1	Seal	1	M08130069
2	Slip ring	1	
3	Compression spring	1	
4	Cap nut	1	
5	O-ring 3.6 x 2	1	M08030858
6	Elbow plug-in connection D6 G1/8”	1	N36960119
7	Seal	1	
8	Elbow plug-in connection D6 M5	1	M57310094
9	Elbow plug-in connection D6 M5	1	M57310095
10	Pawl	1	N36960118*
11	Screw	1	
12	Cap nut	1	M30010321
13	Nozzle ↳ “Overview - Air caps and nozzles”	1	
14	Housing	1	
15	O-ring 6 x 1.5	1	M08030859
16	O-ring 15 x 1	2	M08030863
17	Bushing insert	1	
18	O-ring 6.75 x 1.78	1	M08030860
19	O-ring 10 x 2	1	M08030862
20	Piston	1	
21	Needle	1	
22	Locknut	1	N36960117
23	Distance bolts	1	
24	Needle spring	1	N36960116
25	Plunger spring	1	
26	Bolt	1	M41030037
27	Control knob	1	M21030002

* - Contains parts that are not used in EcoGun AS AUTO Mini RS.

Overview - Air caps and nozzles

Nozzle sets		
Nozzle	**Item**	**Material no.**
0.6 mm	13, 21, 22	M09800065
0.8mm		M09800066
1.0mm		M09800067
1.2mm		M09800068

Plug bushing set N36960063

Description	Item	Quantity
Seal	1	1
Compression spring	3	1
O-ring 3.6 x 2	5	1

Piston set N36960082

Description	Item	Quantity
O-ring 6 x 1.5	15	1
O-ring 15 x 1	16	2
Bushing insert	17	1
O-ring 6.75 x 1.78	18	1
O-ring 10 x 2	19	1
Piston	20	1

Needle guide set N36960120

Description	Item	Quantity
Seal	1	1
Slip ring	2	1
Compression spring	3	1
Bushing	4	1
O-ring 3.6 x 2	5	1
Cover		1

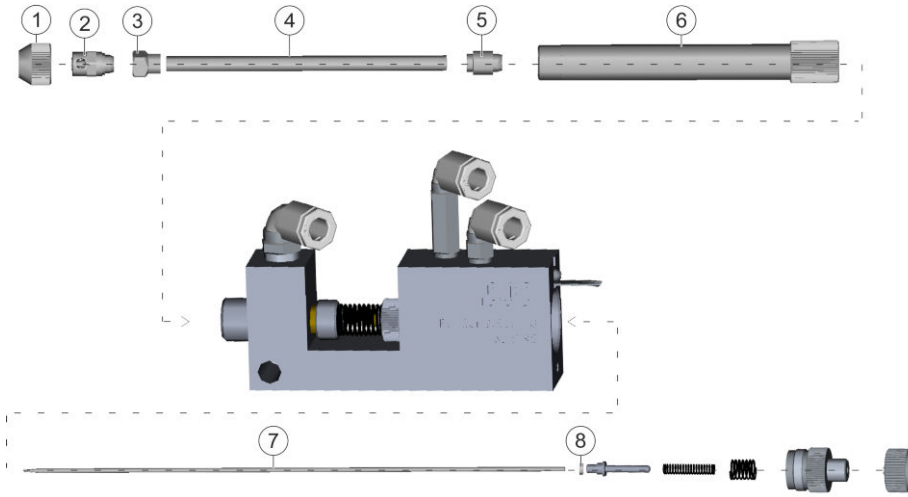


Fig. 13: Extension

Item	Description	Material no.
1	Cap nut	M30010321
2	Nozzle	↳ “Nozzle sets”
3	Centering sleeve, square	M08260052
4	Inner tube	↳ “Repair kit extension”
5	Centering sleeve, round	M03010417
6	Outer jacket	M19140053
7	Needle	↳ “Nozzle sets”
8	Locknut	↳ “Nozzle sets”

Extensions 100mm		
Item	**Description**	**Material no.**
1, 2, 3, 4, 5, 6, 7, 8	Nozzle 0.6mm	M19140006
	Nozzle 0.8mm	M19140007

Item	Description	Material no.
	Nozzle 1.0mm	M19140008
	Nozzle 1.2mm	M19140009

Nozzle sets		
Item	**Description**	**Material no.**
2, 7, 8	0.6mm	M09800429
	0.8mm	M09800430
	1.0mm	M09800431
	1.2mm	M09800432

Repair kit extension	
Item	**Material no.**
3, 4, 5	N36960185

11.2 Accessories

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

Description	Material number
Cleaning set (21 parts)	N36960038
Cleaning set (17 parts)	N36960037
DIN BUCKET 4mm	N08010047
DIN BUCKET 2mm	N08010053
DIN BUCKET 6mm	N08010054

11.3 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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Translation of the original operation manual
MSG00007EN, V04