



LEADING IN PRODUCTION EFFICIENCY

EcoPump AD Package

Operation manual

MPU00015EN, V04



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Translation of the original operation manual

MPU00015EN, V04

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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

N92120001V

EcoPump AD Package



Applicable documents

MPU00006* - **EcoPump AD 150 7 ACE 1/2"**

MPU00008* - **EcoPump AD 72 8 ACE 1/4"**

MPU00009* - **EcoPump AD 83 7 ACE 3/8"**

MPU00010* - **EcoPump AD 150 7 SST 1/2"**
EcoPump AD 150 7 ALU 1/2"

MFT00003* - Filter HP

MRE00007* - **EcoFlow LPF M**



An asterisk (*) in the document number replaces the symbol of the language variant.

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

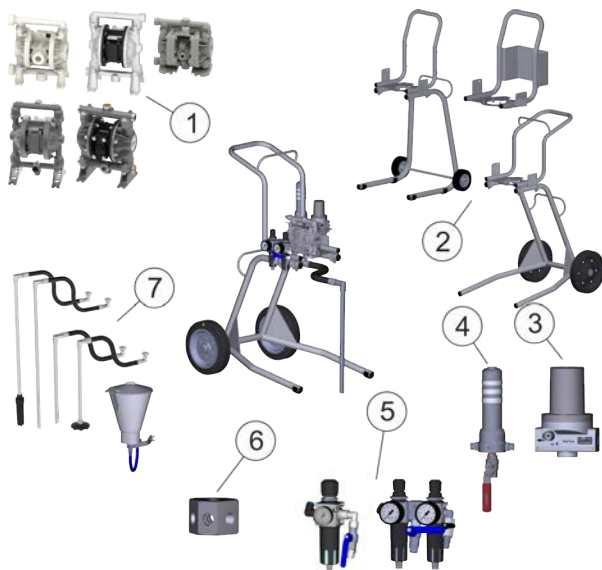


Fig. 1: Overview

- 1 Pump
- 2 Transport carriage, mobile stand, wall mount
- 3 Material pressure regulator
- 4 Filter with ball valve for depressurization
- 5 Maintenance unit
- 6 Distributor block
- 7 Suction module

1.2 Short description

The **EcoPump AD Package** (hereafter called "System") is a modularly constructed, pneumatic low pressure paint supply system.

The system can be made by combining the following components:

- » Pump
- » Transport carriage, mobile stand or wall mount
- » Material pressure regulator
- » Filter with ball valve to depressurization
- » Maintenance unit
- » Suction module
- » Distributor block

The system can be operated independently of the transportation module at a fixed or moving location. The system is not electric. The pump is operated exclusively with compressed air.

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

The system is approved exclusively for pumping and processing of fluid coating materials and other fluids.

The system is approved for pumping and working with the following media:

- » Flammable fluid coating materials of the explosion group IIA
- » Non-flammable fluid coating materials
- » Its approved detergents and cleaning agents

Operate the system only within the approved technical data ↪ 12 "Technical data".

The system is intended for use in industry and trade only.

If using a material pressure regulator, use a filter with a mesh size of $\leq 1000\mu\text{m}$ ↪ 13.1 "Spare part".

The system may be used under the following conditions:

- » In explosive areas of Ex zones 1 and 2
- » In non-explosive areas
- » With flammable fluid coating materials of the explosion group IIA
- » With non-flammable fluid coating materials


Misuse

Not using as intended entails danger to life.

Examples of wrong use are:

- » Installation of the system in an areas without technical ventilation
- » Use of unapproved materials, see safety data sheets
- » Making conversions or changes on your own
- » Operation of the system in explosive areas without grounding
- » Use of non-conductive lines in explosive areas
- » Combination of the system with components that are not suitable for the operation and not approved by Dürr Systems.
- » Use of the system in Ex zone 0

Ex labeling

 II 2G Ex h IIA T4 Gb X

- II - Device group II: all areas except mining
- 2G - Device category 2 for gaseous ex-atmosphere
- Ex h - Ignition protection category for non-electrical devices
- IIA - Explosion group IIA
- T4 - Temperature class 4
- Gb - Device protection level: Zone 1
- X - Restriction: The device is configured for operation in an ambient temperature of 15°C to 40°C.

2.3 Residual risks

Danger of explosion due to sources of ignition in an explosive atmosphere.

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 any sources of ignition and no open light in the work area.
- » Do not smoke.
- » Do not unpack System in Ex zone.
- » Dispose of packaging according to regulation outside of Ex zone or store it.
- » Use tools with Ex approval.
- » Ground System.
- » Wear suitable protective equipment.

Danger from harmful or irritant substances

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

- » System Check regularly for leakage. Observe local regulations and maintenance schedule.
- » Ensure that the forced ventilation is operational.
- » Follow the safety data sheet.
- » Wear specified protective equipment.

Escaping material

Material escaping under pressure can cause serious injuries.

Before working on the system:

- » Disconnect system from material supply.
- » Depressurize the lines.
- » Secure the system against being switched on again.

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.

Compressed air

Hoses under pressure can tear or burst. Escaping compressed air can cause serious injury.

- » Protect compressed air hoses from heat and sharp edges.
- » Wear specified protective equipment.

If hoses under pressure come off loose, the hoses can lash around and cause injuries.

- » Check that the hose connections are seated tightly.
- » Check compressed air hoses for damage.
- » Disconnect the compressed air hoses from the compressed air supply after end of work.
- » Depressurize compressed air hoses before carrying out any work.

Sparks due to electrostatic discharge

If the system is not properly grounded or the potential equalization fails, components may get charged electrostatically. Electrostatic discharge can cause sparks that in explosive atmosphere can cause a fire or an explosion. Serious injury and death could be the consequence.

- » Ground System as specified.
- » Check connection of grounding cable during operation.
- » Measure volume resistivity.

2.4 Conduct in the event of a hazardous situation

Conduct in case of danger depends on the operator's installation situation.

Perform the following activities:

- » Close lines.
- » Secure against reconnection.
- » Depressurize lines.

2.5 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.

Electrician

Electricians assemble, install, service and repair electrical systems in a professional manner.

Furthermore, electrical engineers have the following knowledge:

- » Guidelines, Standards and Rules of Engineering
- » Local conditions
- » Electrical Systems and Their Loading Limits
- » Technical Measures for occupational safety and health

Mechanic

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

Furthermore, he has the following knowledge:

- » Guidelines, Standards and Rules of Engineering
- » Local conditions
- » Technical Measures for occupational safety and health

The mechanic is responsible for the following activities on equipment and components:

- » Assembly
- » Waiting
- » Maintenance
- » Disassembly

+ 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”.

2.6 Personal protective equipment

When working in explosive areas, the protective clothing, including gloves, must meet the requirements of DIN EN 1149-5. Footwear must meet the requirements of EN ISO 20344 and EN IEC 61340-4-3. The volume resistivity must not exceed 100MΩ.

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



Anti-Static Safety Boots

Protect feet from crushing, falling items and slipping on slippery ground.

Moreover, anti-static safety boots reduce electrostatic charge by discharging the electrostatic charges.



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.



Use ear protection

Protects from auditory damage due to noise.

3 Design and Function

3.1 System

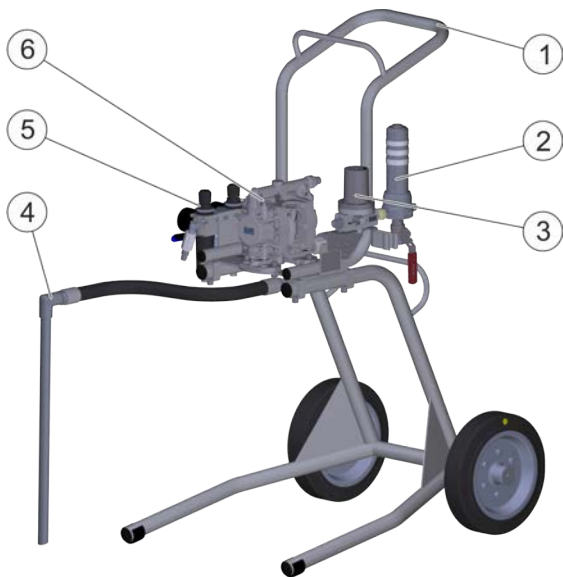


Fig. 2: System design (example)

The system can be made by combining various components.

- » Transportation module (1)
- » Filter with ball valve (2)
- » Material pressure regulator (3)
- » Suction module (4)
- » Maintenance unit with filter regulator (5)
- » Pump (6)

Two mass streams, air stream and material stream flow into the system. The pump (6) is charged with compressed air via the maintenance unit (5). The maintenance unit (5) separates the air flow into pump air and atomizer air. The pressures needed for pump pressure and atomizer air are controlled at the filter regulators of the maintenance unit (5). The suction module (4) suctions material into the pump (6). The material flows out from the material outlet of the pump (6) into the filter (2) and from there to the spray gun or in the recirculation. Optionally, a filter (2) or distributor block is mounted. Up to three spray guns can be operated and a pressure gage connected at the two fittings simultaneously. The system is depressurized through the ball valve on the filter (2). Incident condensation is drained via the filter regulator.

3.2 Pumping

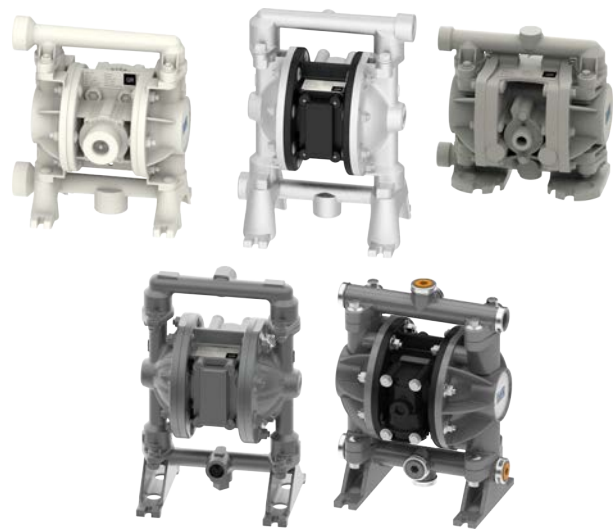


Fig. 3: Pumping

Depending on the requirement, the system can be fitted with a suitable pump.

Systems are available in various versions:

Denomination	Material number
EcoPump AD 72 8 ACE 1/4" DE	N24140005
EcoPump AD 83 7 ACE 3/8" DE	N24140006
EcoPump AD 150 7 SST 1/2" DE	N24140007
EcoPump AD 150 7 ACE 1/2" DE	N24140008
EcoPump AD 150 7 ALU 1/2" DE	N24140009

For further information, refer to operating instructions **EcoPump AD** ↗ "Applicable documents".

3.3 Pneumatic maintenance unit for compressed air preparation

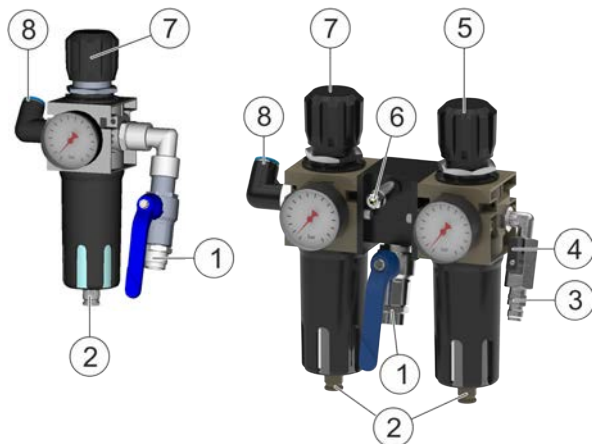


Fig. 4: Pneumatic maintenance units

- 1 Compressed air supply connection
- 2 Condensate discharge
- 3 Atomizer air connection
- 4 Ball valve for atomizer air
- 5 Regulator for atomizer air
- 6 Nozzle cleaning
- 7 Regulator for pump pressure
- 8 Pump connection

Depending on the requirement, the system can be fitted with a suitable pneumatic maintenance unit. Systems are available in versions with one or two filters. The pneumatic maintenance unit is available with a 1/4" or 1/2" compressed air supply connection.

Condensate forms in the maintenance unit due to contaminated compressed air. Condensate must be drained regularly. A semi-automatic drain on the underside of the maintenance unit controls the condensate drain (2). If the condensate drain (2) is below the center position, the air escapes out automatically. The air can also be vented manually ↪ 8.2 "Cleaning".

Optionally, the pneumatic maintenance unit has nozzle cleaning facility (6). Nozzles can be cleaned with air pressure using nozzle cleaning (6). A separator connection for atomizer air (3) is also available as an option.

When using the nozzle cleaning (6), remember the following:

- » During operation, leave the protective cap on the nozzle cleaning (6) to avoid unintended switching-on. Remove protective cap only for using the nozzle cleaning (6).
- » Dissipate Ex atmosphere before using the nozzle cleaning (6).
- » Wear specified protective equipment during nozzle cleaning (6). Do not stand in front of the cleaning valve (outlet valve).

3.4 Suction module



Fig. 5: Suction model

- 1 Direct suction with filter
- 2 Suction lance 950mm
- 3 Suction lance 950mm with filter
- 4 Suction lance 500mm
- 5 Suction lance 500mm with filter
- 6 Feed cup 5L

Allowable fluids are suctioned into the pump through the suction module.

Depending on purpose of use, the following suction modules are available:

- » Direct suction with filtration (for transport carriage and mobile stand)
- » Flexible suction with or without filtration from dispatch packaging
- » Flexible suction with or without filtration from vessels or containers
- » Suction from a feed cup with connection to the pump

Feed cup

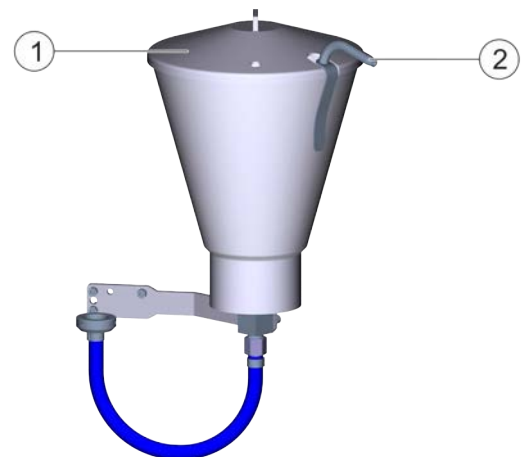


Fig. 6: Hose guide

When using the feed cup, remember the following:

- » Operate feed cup only with lid (1).
- » Open the lid (1) (e.g. for topping up) only if the system is depressurized.
- » Do not open during operation or during purging.
- » Do not circulate fluids.
- » Clean the feed cup only if the system is not under pressure.
- » Insert recirculation module (hose or tube) (2) securely with the retaining bracket in the feed cup for the operation.
- » Do not take the recirculation module (2) from the feed cup during operation or during purging.

3.5 Filter



Fig. 7: Filter

The filter on the suction module protects the system from coarse dirt particles. The filter filters out dirt from the material before the material is sucked into the pump via the suction module. A filter insert is also fitted on the feed cup.

The following accessories can be connected on the filter:

- » Pressure gage
- » Ball valve for Pressure Release
- » Manifold for the connection of two spray guns
- » Material pressure regulator **EcoFlow LPF**

For further information, refer to operating instructions of the filter ↪ “Applicable documents”.

3.6 Distributor block

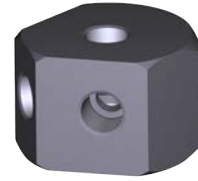


Fig. 8: Distributor block

The distributor block can be mounted on the material pressure controller. Up to three spray guns and a pressure gage can be connected simultaneously to the distributor block.

3.7 Ball valve


-  Prior to opening the ball valve:
- Disconnect the system from compressed air and material supply system.
 - Secure the system against being switched on again.



Fig. 9: Opened ball valve

The ball valve has a fuse that prevents any unintended operation. The system is de-pressurized if the ball valve is opened. The remaining medium can flow out. The ball valve is connected to the underside of the filter or of the manifold.

3.8 Material pressure regulator



Fig. 10: Material pressure regulator

The material pressure regulator controls the material pressure and avoids pressure shocks. A filter can be operated on the material pressure regulator.

! NOTICE!

Material damage due to operation without filter

Operation without filter can damage the material pressure regulator.

- On the suction module, a filter with a mesh size of \leq Install 1000 μ m ↪ 13.1 “Spare part”.

For further information, refer to operating instructions **EcoFlow LPF** ↪ “Applicable documents”.

- » The pump can be easily transported using the Transport carriage (1). The rollers of the trolley (1) are dissipative.
- » The mobile stand (2) has a firm stand during application. Wheels are relieved. The rollers of the mobile stand (2) are dissipative.
- » The wall mount (3) allows flexible suction for stationary fastening.

4 Transport, scope of supply and storage

4.1 Scope of delivery

Depending on the order, the scope of supply includes the following components:

- » Pump
- » Transport carriage, mobile stand or wall mount
- » Maintenance unit with filter regulator
- » Filter or manifold with ball valve for depressurization
- » Material pressure regulator **EcoFlow LPF**
- » Suction module with filter insert and suction hoses

Inspect system on receipt for completeness and integrity.

Report defects immediately ↪ “Hotline and Contact”.

4.2 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.

4.3 Storage

Storage provisions:

- » Do not store outdoors.
- » Store System only when dry.
- » 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%

3.9 Transportation module

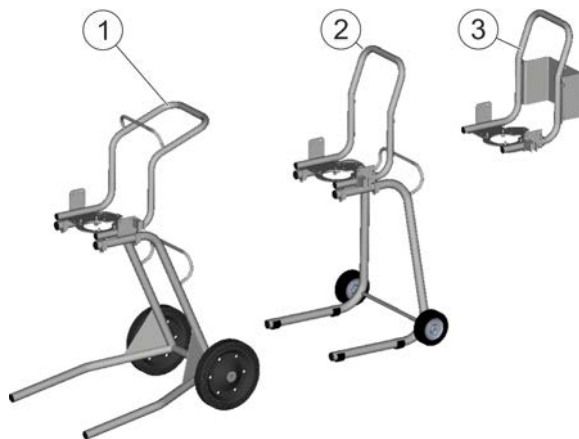


Fig. 11: Transport module

- 1 Transport trolley
- 2 Mobile stand
- 3 Wall mount

The system can be combined with three different transportation modules.

4.4 Transport

! NOTICE!

Incorrect Transport

Improper transportation of the system may cause the agitator the system to fall and suffer damage.

- Protect System from moisture.
- Protect System from vibrations.

Permissible ambient temperature during the transportation for a few hours:
-40°C to 60°C

Personnel:

- » Mechanic

Protective equipment:

- » Protective gloves
- » Anti-Static Safety Boots

Requirements:

- » The system has been purged and emptied
 - ↳ 7.5 "Rinsing".
- 1. Bolt the system on a palette through holes in the foot of the transportation module.
- 2. Secure the system with tension belts.
- 3. Check system for firm seating.
- 4. Transport palette with a fork lift.

5 Assembly

5.1 Requirements for the Installation point.

- » Compressed air supply can be interrupted and secured against reconnecting.
- » Requirements for the operation of pneumatic motors
 - » Dry and suitable ambient air
 - » Avoidance of excessive heating of the compressed air inside of the motor by sufficient dimensioning of the pneumatic motor
- » Technical ventilation
- » Grounding facility
- » For transport carriage and mobile stand: Firm and flat ground without slope. The cross force is max. 70N.
- » For wall mounting: Wall that withstands the weight of the system and vibrations during operation
 - ↳ 12 "Technical data".

5.2 Assembly

Assembling wall mount

Assemble the system under the following conditions:

- Work in pairs when assembling the system.
- Use M10 anchor bolts.
- Ensure that the wall mount is seated firmly.

Personnel:

- » Mechanic
- » + additional qualification explosion protection

Protective equipment:

- » Eye protection
- » Protective workwear
- » Protective gloves
- » Anti-Static Safety Boots

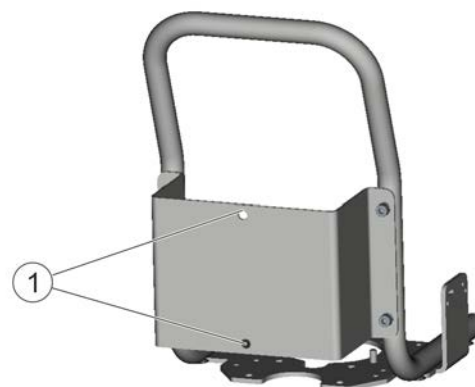


Fig. 12: Mark the drill holes

1. Mark holes of the wall mount. Depending on the suction module, maintain a sufficient height from the floor. Distance of bores (1): 140mm
2. Mount wall mount horizontally.

5.3 Connecting

Connect paint hose

Personnel:

- » Mechanic
- » + additional qualification explosion protection

Protective equipment:

- » Protective workwear
- » Protective gloves
- » Anti-Static Safety Boots

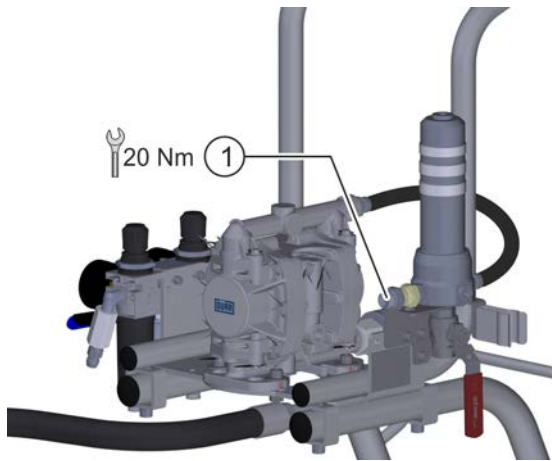


Fig. 13: Connect paint hose to the filter

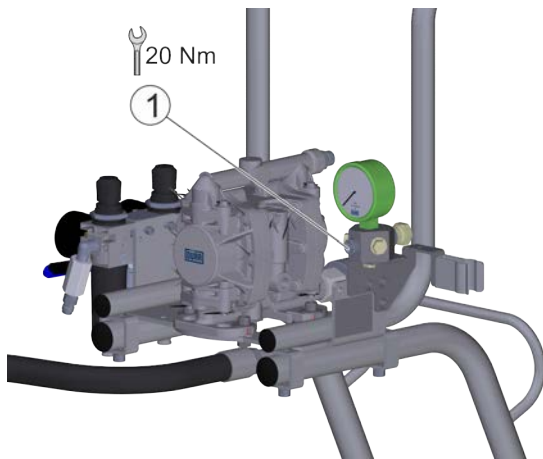


Fig. 14: Connect paint hose to the distributor

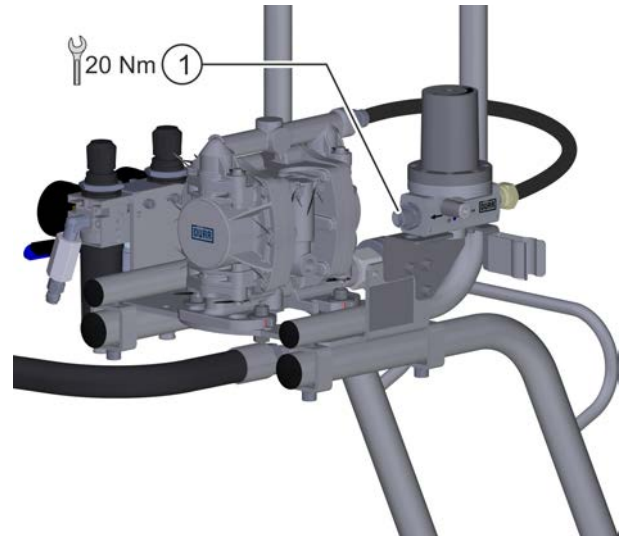


Fig. 15: Connect paint hose to the material pressure controller

1. Screw paint hose to outlet (1).
 - » Observe tightening torque.

Connect compressed air hose

Personnel:

- » Mechanic
- » + additional qualification explosion protection

Protective equipment:

- » Protective workwear
- » Protective gloves
- » Anti-Static Safety Boots

⚠ WARNING!

Use of wrong hose types

The use of wrong hose types may cause severe injuries and damages.

- Ensure that the resistance of the hose is higher than the max. compressed air ≤ 12 "Technical data".



Compressed air supply

If the compressed air supply is not sufficiently dimensioned, the optimum pump power may not be reached.

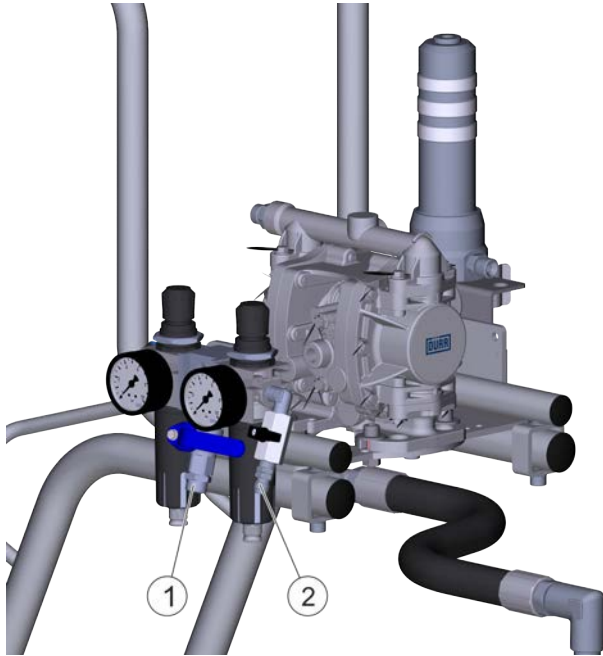


Fig. 16: Screw on the compressed air hoses

1. Screw the compressed air hose onto the maintenance unit (1).

Optional

2. Connect the atomizer air (2).

5.4 Assembling ground conductor



WARNING!

Sparks due to electrostatic discharge

If the system is not grounded, there can be an electrostatic charge on the the system. Electrostatic discharge can cause sparks that in explosive atmosphere can cause a fire or an explosion. Serious injury and death could be the consequence.

- Ground System as specified.
- Before carrying out any work, make sure that there is no explosive atmosphere.



The ground conductor and potential equalization cable are not in the scope of supply. Selection of suitable lines is the responsibility of the operator.

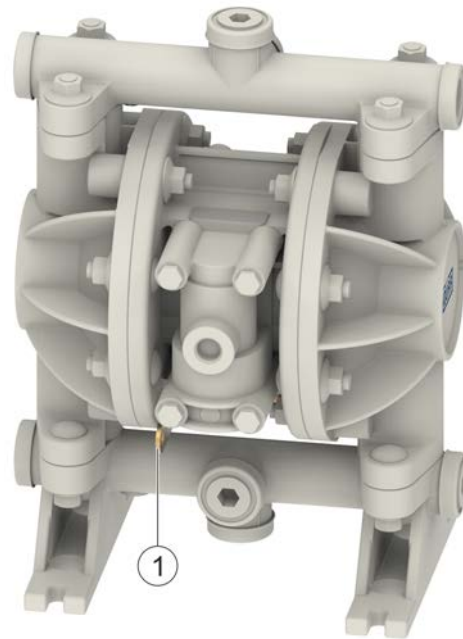


Fig. 17: Connecting Ground (Example)

Personnel:

- » Electrician
- » + additional qualification explosion protection

Protective equipment:

- » Protective workwear
- » Protective gloves
- » Anti-Static Safety Boots

1. Assemble ground conductor on the ground connection (1).
2. Assemble potential equalization cable.
3. Measure grounding resistance.

For further information, refer to operating instructions **EcoPump AD** → “Applicable documents”.

6 Commissioning

6.1 Safety Instructions

WARNING!

Risk of injury from whipping hoses

If hoses under pressure come off loose, the hoses can lash around and cause injuries.

- Check that the hose connections are seated tightly.
- Check hoses for damage.
- Before carrying out any work:
 - » Depressurize hoses.
 - » Secure the system against reconnection.

WARNING!

Excessive input pressure

Charging the pump with excessive input pressure will damage the pump. Serious injuries and death can be the consequence.

- Charge the pump with low pressure at the time of commissioning.
- Before increasing the pressure, check that hoses and connections are seated tightly.
- Increase pressure gradually, until the maximum input pressure is reached.
- Do not exceed maximum input pressure.
 - ↳ 12.5 “Operating values”.

WARNING!

Escaping material

Escaping compressed material can cause serious injury.

Before commissioning:

- Check ball valve for functioning.

WARNING!

Risk of injury due to noise

Leakages in compressed air lines can generate a high noise level. This might damage the hearing.

In case of leakages:

- Switch off the system. Secure against reconnection.
- Depressurize lines.
- Rectify the defect.

6.2 Commissioning

Personnel:

- » Mechanic

- » + additional qualification explosion protection

Protective equipment:

- » Protective gloves
- » Protective workwear
- » Anti-Static Safety Boots
- » Use ear protection
- » Eye protection

Requirements:

- » System is assembled ↳ 5 “Assembly”.
- » System is grounded ↳ 5.4 “Assembling ground conductor”.
- » There is still some test medium in the pump.
- » Ball valve of the compressed air supply is closed.
- » Regulator of the pneumatic maintenance unit is closed.
- » Ball valve is closed.
- » Application device (e.g. gun) is closed.

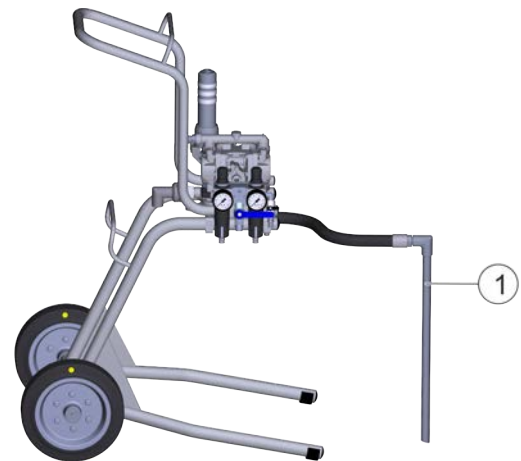


Fig. 18: Commissioning (example)

1. Put or place suction module (1) in a vessel with suitable detergent. Secure against falling out. When using a feed cup: Fill up feed cup with suitable detergent.
2. If applicable, place recirculation in a collector tray. Secure against falling out. When using flammable media, ensure that a suitable potential equalization line is clamped to the collector vessel.

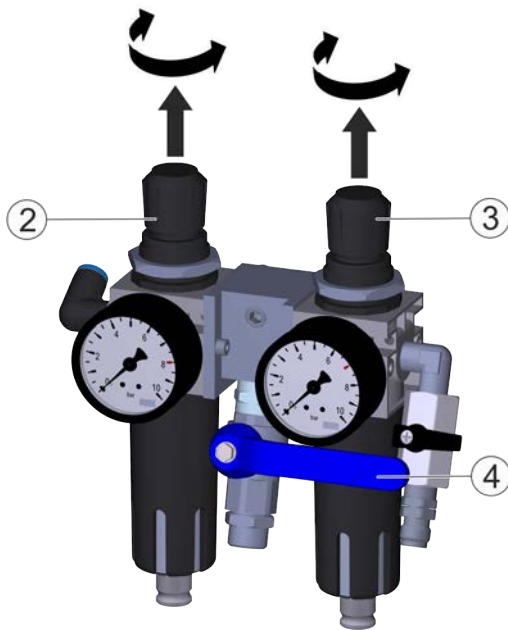


Fig. 19: Set maintenance unit

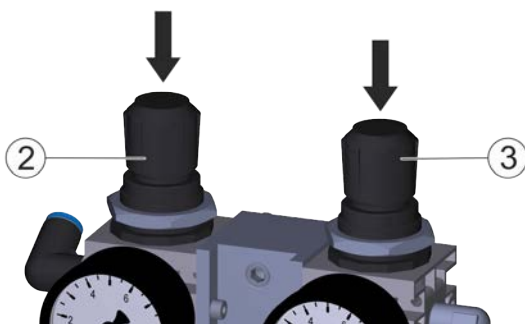


Fig. 20: Fix regulator

3. Open ball valve (4) on the maintenance unit.

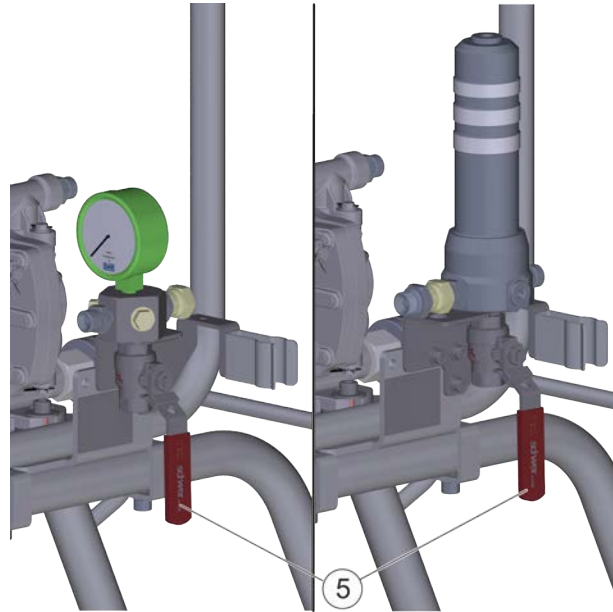


Fig. 21: Open ball valve

4. Open ball valve (5) on the depressurization module.
5. Adjust compressed air on regulator (2) step-by-step to a value of max. 2bar.
⇒ The pump begins to pump detergent.
6. Fix regulator (2).
7. Adjust compressed air on regulator (2) to a value of max. 1bar.
8. Fix regulator (2).
9. Optionally, set atomizer air on the controller (3) according to paint data sheet.
10. Fix regulator (3).
11. Purge system until pure detergent flows out.
12. Close ball valve (4) on the maintenance unit.
⇒ The pump stops.
13. Unlock application device (e.g. spray gun).
Align with the tip on the container wall of the collecting tray.
14. Open application device.
⇒ The pump starts.
15. Purge application device until pure detergent flows out.
16. Close and lock application device.
⇒ The pump stops.
17. Check hose lines and connection points for tightness and firm seating.

18. Close ball valve of the compressed air supply.
19. Ensure proper disposal of contaminated detergent in the collecting tray.
 - ⇒ The system is ready for operation.

7 Operation

7.1 Safety recommendations

WARNING!

Danger of fire and explosion

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

- When purging, avoid back-spray of the combustible fluids.
- Do not spray into a closed container with the application device.
- Ensure that forced ventilation and fire protection equipment are in operation.

WARNING!

Danger of explosion due to sources of ignition in an explosive atmosphere.

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

- Do not use any sources of ignition and no open light in the work area.
- Ensure that the forced ventilation is operational.
- Do not smoke.
- Ground System.
- Wear suitable protective equipment.

WARNING!

Danger due to squirting material

This can cause serious injuries.

- Use only spray guns designed for the maximum pressure of the pump.
- Perform a tightness test according to the maintenance schedule.
- Use feed cup only with lid.

Before every operation:

- Check the system for damages and leakages.
- Check sealing paint of the pump nuts for distortion.

WARNING!

Use of wrong hose types

The use of unapproved hose types can cause damage to personal injury and property damage.

- The hose materials are process-dependent.
- Only use approved hose types.

WARNING!

Hot Surface

In operation, the surfaces of the product can heat intensely. Contact can cause burn injuries.

- Wear safety gloves.
- Before each use, check suction module for clogging.

7.2 General notes

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.

NOTICE!

Dried material residues

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

- Purge system immediately after each use.

7.3 Switching on

Personnel:

- » Mechanic
- » + additional qualification explosion protection

Protective equipment:

- » Protective gloves
- » Protective workwear
- » Anti-Static Safety Boots
- » Eye protection

Requirements:

- » Compressed air supply is switched on ↪ 5.3 "Connecting".
- » System is grounded ↪ 5.4 "Assembling ground conductor".
- » System has been put into operation ↪ 6.2 "Commissioning".
- » Coating material is prepared.

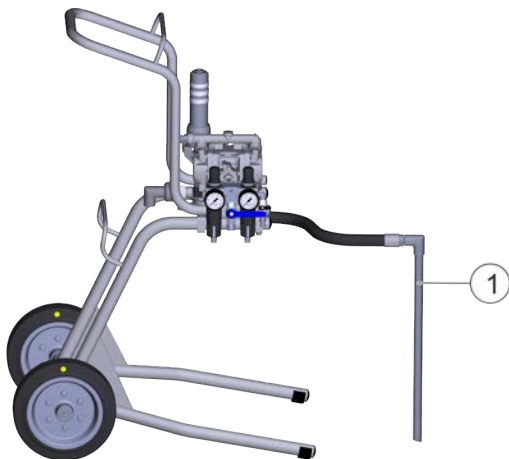


Fig. 22: Switch on system (example)

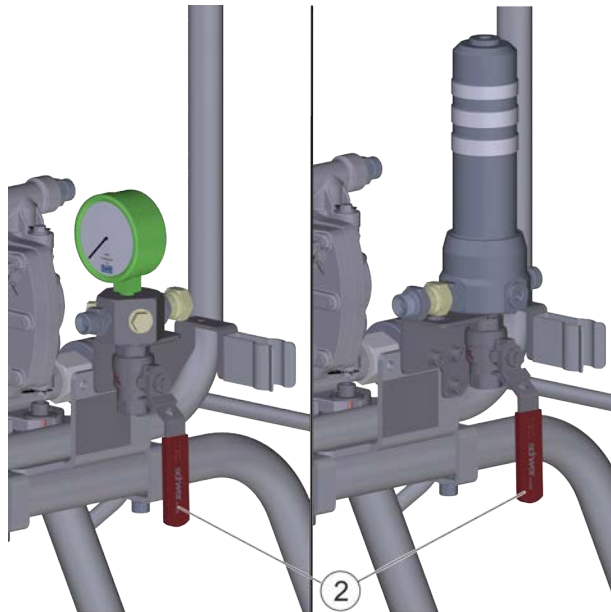


Fig. 23: Open ball valve

1. Remove suction module (1) from the vessel with suitable detergent. Dip into the prepared coating material.
When using a feed cup, open ball valve (2) on the depressurization module. Let the remainder of the detergent in the collecting tray flow out. Close ball valve (2). Fill prepared coating material in the feed cup.
2. If applicable, put or place recirculation in a collector tray. Secure against falling out.
When using flammable media, ensure that a suitable potential equalization line is clamped to the collector vessel.
3. Open ball valve of the compressed air supply. There may be material pressure after the purging.

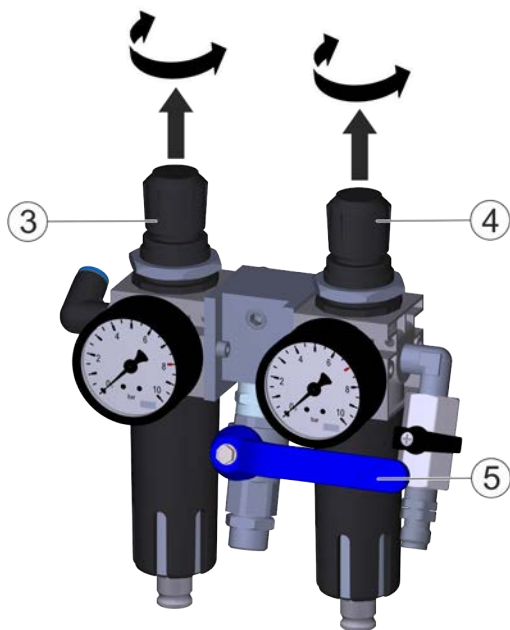


Fig. 24: Set maintenance unit

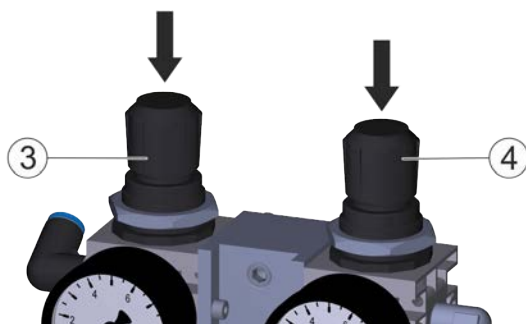


Fig. 25: Fix regulator

4. If applicable, adjust compressed air on regulator (3) step-by-step to a value of max. 2bar. Respect maximum pressures ↪ 12.7 "Type plate".
5. Fix regulator (3).
6. Open ball valve (5) on the maintenance unit.
 - ⇒ The remaining detergent from the purging process flows into the collecting tray.
7. Once the system begins to pump the coating material, adjust compressed air on regulator (3) to a value of max. 1bar.
 - ⇒ The coating material flows into the collecting tray.
8. Close ball valve (2) on the depressurization module.
 - ⇒ The pump stops.

9. Unlock application device (e.g. spray gun). Align with the tip on the container wall of the collecting tray.
10. Open application device.
 - ⇒ The pump starts. The coating material flows out.
11. Close and lock application device.
 - ⇒ Coating material is under pressure.
12. Adjust compressed air on regulator (3) to the required value. Respect maximum pressures ↪ 12 "Technical data".
13. Check hose lines and connection points for tightness and firm seating.
14. Close ball valve of the compressed air supply.
15. In the case of air assisted application, adjust the required atomizer pressure on the regulator (4).
16. Fix regulator (4).
17. Check following parameters:
 - » Atomizer air
 - » Pump air
 - » Material pressure
 - Readjust, if necessary.
18. Ensure proper disposal of contaminated detergent in the collecting tray.
19. Set application parameters.
20. Open ball valve of the compressed air supply.
21. Test spray jet on a suitable surface. Set pump to the lowest pressure, at which a qualitative atomization is achieved.
 - ⇒ The system is ready for operation.

7.4 Switching off

Personnel:

- » Mechanic
- » + additional qualification explosion protection

Protective equipment:

- » Protective workwear
- » Protective gloves
- » Anti-Static Safety Boots
- » Eye protection

1. Close and lock application device.
 - ⇒ The pump stops.
2. Purge the system ↪ 7.5 "Rinsing".
3. Ensure that the ball valve on the compressed air supply is closed.

7.5 Rinsing

i Purge and clean system after end of work every time.

It is advisable to create a purging program and cleaning program in relation to the coating material used, to ensure reliable functioning of the system.

Personnel:

- » Mechanic
- » + additional qualification explosion protection

Protective equipment:

- » Protective gloves
- » Protective workwear
- » Anti-Static Safety Boots
- » Eye protection

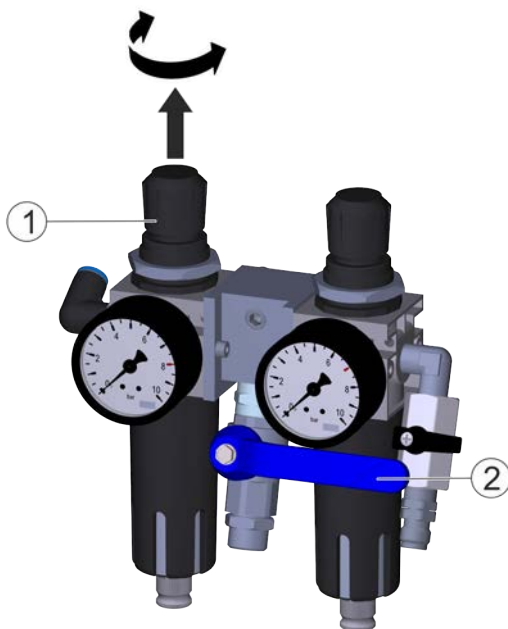


Fig. 26: Set maintenance unit

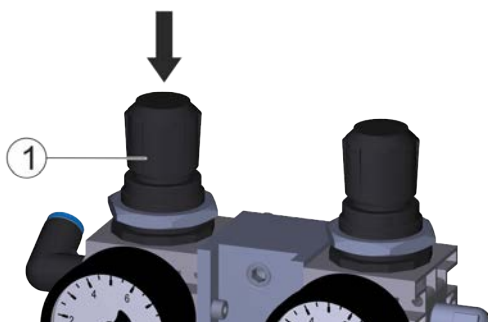


Fig. 27: Fix regulator

1. Adjust compressed air on regulator (1) to a value of max. 1.5bar.
2. Fix regulator (1).
3. Close ball valve of the compressed air supply.

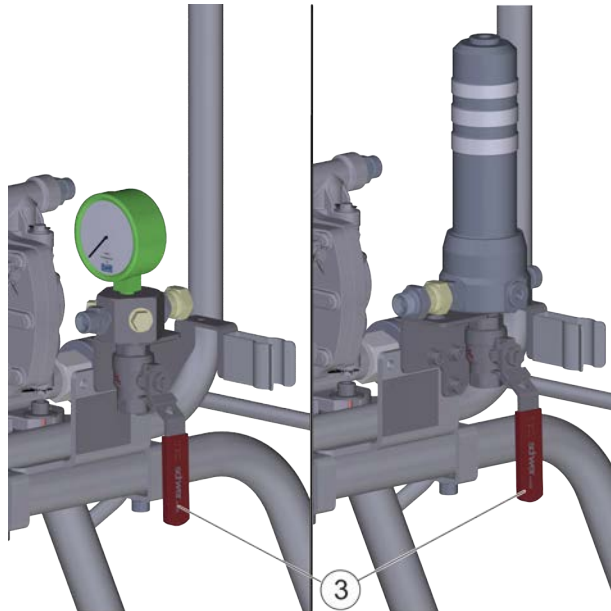


Fig. 28: Open ball valve

4. Open ball valve (3) on the depressurization module. Collect the medium flowing out in a container.
⇒ The system is de-pressurized.
5. When using a multi-component medium with corresponding processing time, ensure proper disposal of the medium.

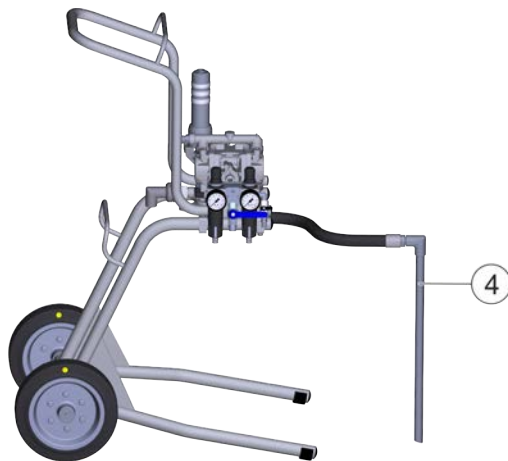


Fig. 29: Purge

6. Clean suction module (4) from outside.
When using a feed cup, clean the feed cup from inside by means of suitable brushes or cloths.
7. Put or place suction module (4) in a vessel with suitable detergent. Secure against falling out.
When using a feed cup, fill up the feed cup with suitable detergent.
8. If applicable, put or place recirculation in a collector tray. Secure against falling out.
When using flammable media, ensure that a suitable potential equalization line is clamped to the collector vessel.
9. Open ball valve (2) of the pneumatic maintenance unit.
⇒ The pump begins to pump detergent.
10. Adjust compressed air on regulator (1) to a value of max. 1bar.
11. Fix regulator (1).
12. Close ball valve (3) on the depressurization module.
⇒ The pump stops.
13. Unlock application device (e.g. spray gun).
Align with the tip on the container wall of the collecting tray.
14. Open application device.
⇒ The pump starts.
15. Purge application device until pure detergent flows out.
16. Close and lock application device.
⇒ Coating material is under pressure.
17. If applicable, put or place recirculation in a collector tray. Secure against falling out.

When using flammable media, ensure that a suitable potential equalization line is clamped to the collector vessel.

18. Open ball valve (3) on the depressurization module.
⇒ The system is de-pressurized.
19. If applicable, remove, clean and again assemble filter inserts.
20. If applicable, disassemble suction module (4).
Clean using suitable cleaning agent. Assemble again.
21. If applicable, disassemble suction piece. Clean using suitable cleaning agent. Assemble again
↳ “Applicable documents”.
22. Clean hose lines and application device
↳ “Applicable documents”
23. Repeat steps for commissioning ↳ 6.2 “Commissioning”.
⇒ The system is ready for operation.

8 Cleaning

8.1 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 fluid is at least 15K above the ambient temperature.
- Only electrically conductive containers may be used for the cleaning fluid. Containers must be grounded.
- 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 System.

WARNING!

Danger of fire and explosion

Sources of ignition in explosive atmosphere can cause a fire or an explosion. Serious injuries and death can be the consequence.

- Before carrying out any cleaning and maintenance work, ensure there is no explosive atmosphere.

! WARNING!

Danger from harmful or irritant substances

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

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

! NOTICE!

Unsuitable cleaning agents

Unsuitable detergents can cause material damage.

- Only use cleaning agents approved by the material manufacturer.
- Follow safety data sheets.

! NOTICE!

Unsuitable Cleaning Tools

Unsuitable cleaning tools can cause damage.

- Only use cloths, soft brushes and paint-brushes.
- Do not use abrasive cleaning tools.
- Do not use compressed air for cleaning.
- Do not use any thinner spray guns.
- Do not use high pressure for cleaning agents.

8.2 Cleaning

Clean the nozzle

EX WARNING!

Danger of fire and explosion

In explosive atmosphere, the nozzle cleaning can cause a fire or an explosion.

- Before nozzle cleaning, ensure that the atmosphere is not explosive.
- If the atmosphere is explosive, ensure that the protective cap fits on the nozzle cleaning.

! WARNING!

Damage to hearing due to escaping compressed air

Setting the nozzle incorrectly on the nozzle cleaner will allow compressed air to escape. This could lead to damage to hearing.

- Wear ear protection during nozzle cleaning.
- Ensure that the nozzle cleaning fits well on the nozzle.
- Do not stand in front of the cleaning valve (outlet valve) during nozzle cleaning.

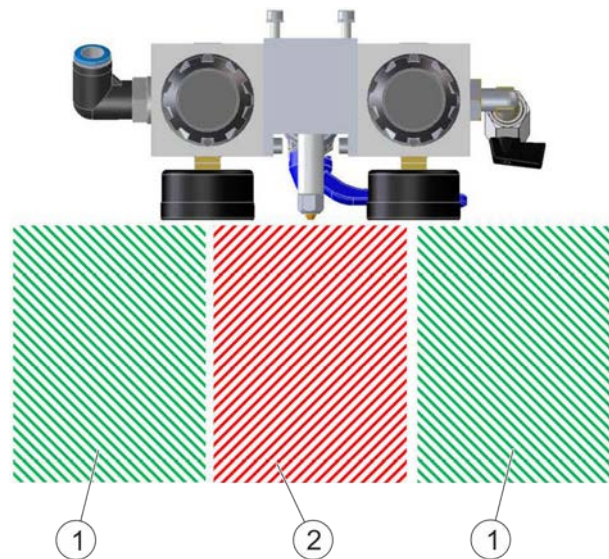


Fig. 30: Danger zone nozzle cleaning

- 1 Safe area
- 2 Danger Zone

Personnel:

- » Mechanic
- » + additional qualification explosion protection

Protective equipment:

- » Use ear protection
- » Protective workwear
- » Protective gloves
- » Anti-Static Safety Boots
- » Eye protection

Nozzle cleaning is available as a replacement part
 ↳ 13.1 "Spare part".



Fig. 31: Drain condensate

1. Remove the captive protective cap from the cleaning valve.
2. Press nozzle on the nipple (1) of the cleaning valve.
⇒ The nozzle is cleaned with compressed air.
3. After the cleaning procedure, fit the captive protective cap back on the cleaning valve again.
If worn out: Replace nozzle.

Drain condensate

1. Keep container ready to collect the condensate.
2. Pull condensate drain (2) in the direction of the arrow.

9.2 Maintenance schedule



If a maintenance assistant is used in the system visualizer, the maintenance intervals of the maintenance assistant are valid.

⇒ The condensate is drained.

9 Maintenance

9.1 Safety recommendations

WARNING!

Danger of fire and explosion

Sources of ignition in explosive atmosphere can cause a fire or an explosion. Serious injuries and death can be the consequence.

- Before carrying out any cleaning and maintenance work, ensure there is no explosive atmosphere.

WARNING!

Risk of injury from unsuitable replacement parts in explosive areas.

Replacement parts not compliant with the specifications of the ATEX guidelines can cause explosions in an explosive atmosphere. Serious injuries and death can be the consequence.

- Use exclusively original replacement parts.

WARNING!

Risk of injury due to escaping material and compressed air

Escaping compressed material can cause serious injury.

Before carrying out any work:

- Disconnect the system from compressed air and material supply system.
- Secure the system against being switched on again.
- Depressurize the lines.

The maintenance intervals given below are based on experiential values. Adapt the maintenance intervals to suit requirements.

Interval	Maintenance work
Before every use	Check system for damages and leakages.
	Check system for contamination and rust formation.
	Check paint for damage.
	Check suction module for damage and clogging.
	Check grounding. Assemble new ground conductor if there is any damage ↪ 5.4 “Assembling ground conductor”.
Weekly	Check input pressure and control pressure.
	Check state and tightness of the components, connections and lines.
	Check noise generation.
Monthly	Check for steady delivery pressure.
	Check filter of feed cup and suction lance. Replace worn out filter disk ↪ 9.4 “Replacing filter disk”.
Annually	Check filter of feed cup and suction lance. Replace worn out filter disk ↪ 9.4 “Replacing filter disk”.
Annually	Check grounding for damage. Measure grounding resistance. Assemble new ground conductor if there is any damage ↪ 5.4 “Assembling ground conductor”.
Every 2 years/ 1000 operating hours	Have the motor inspected by Customer Service.
Every 3 years	Check hoses for tightness.
After every replacement of components	Pressure verification
As necessary	Drain condensate on the maintenance unit ↪ 8.2 “Cleaning”.

9.3 Replace filter of the maintenance unit.

Personnel:

- » Mechanic
- » + additional qualification explosion protection

Protective equipment:

- » Protective workwear
- » Protective gloves
- » Anti-Static Safety Boots
- » Eye protection

Requirements:

- » System is switched off ↪ 7.4 “Switching off”.

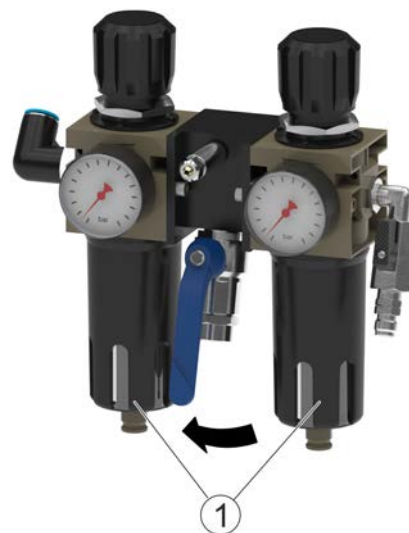


Fig. 32: Replace filter

1. Rotate condensate container (1) in the direction of the arrow.
 - ⇒ The condensate container (1) comes off loose from the maintenance unit.

2. Remove condensate container (1).
3. Loosen filter using a screw driver.
4. Remove filter.
5. Insert new filter.
6. Tighten filter.
7. Tighten condensate container against the direction of the arrow.
8. Check tightness.
 - ⇒ The filter is replaced.

9.4 Replacing filter disk



Fig. 33: Replace filter disk

- Personnel:
- » Mechanic
 - » + additional qualification explosion protection
- Protective equipment:
- » Eye protection
 - » Protective workwear
 - » Protective gloves
 - » Anti-Static Safety Boots
- Requirements:
- » System is purged ↪ 7.5 “Rinsing”.
 - » System is switched off ↪ 7.4 “Switching off”.
 - » System is depressurized and secured against restarting.
1. Loosen circlip (1).

2. Replace filter disk (2).
3. Insert circlip.
 - ⇒ The filter disk is replaced.

9.5 Replace filter cartridge



Fig. 34: Replace filter cartridge

- Personnel:
- » Mechanic
 - » + additional qualification explosion protection
- Protective equipment:
- » Eye protection
 - » Protective workwear
 - » Protective gloves
 - » Anti-Static Safety Boots
- Requirements:
- » System is purged ↪ 7.5 “Rinsing”.
 - » System is switched off ↪ 7.4 “Switching off”.
 - » System is depressurized and secured against restarting.
1. Loosen bayonet catch in the direction of the arrow (1).
 2. Pull out filter housing (2).
 3. Replace filter cartridge.
 4. Push in filter housing (2).
 5. Close bayonet catch.
 - ⇒ The filter cartridge is replaced.

9.6 Dismantling

Personnel:

- » Mechanic
- » + additional qualification explosion protection

Protective equipment:

- » Eye protection
- » Protective workwear
- » Protective gloves
- » Anti-Static Safety Boots

Requirements:

- » System is purged ↪ 7.5 “Rinsing”.
- » System is switched off ↪ 7.4 “Switching off”.
- » System is depressurized and secured against restarting.

Disassemble maintenance unit

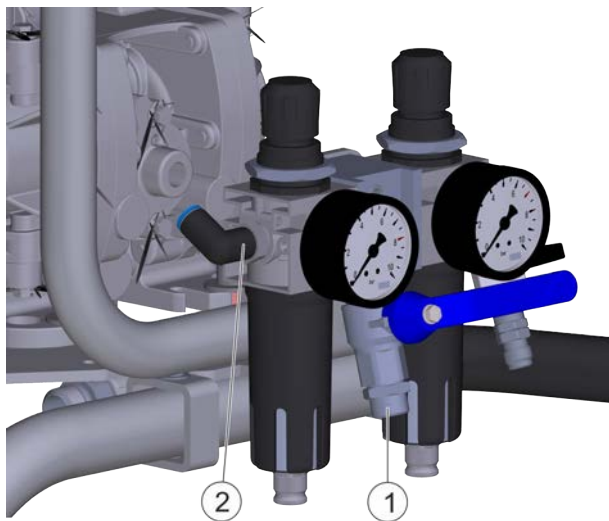


Fig. 35: Disassemble maintenance unit

1. Ensure that the ball valve (1) on the maintenance unit is closed.
2. Disconnect system from compressed air supply.
3. Disassemble compressed air hose on the pump (2) using a hexagon spanner.

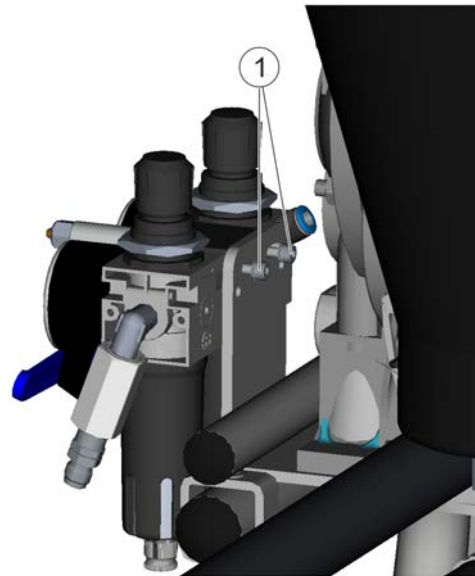


Fig. 36: Disassemble maintenance unit

4. Secure maintenance unit against toppling.
5. Loosen screws (1) on the angle bracket of the transportation module.

6. Remove maintenance unit from the transportation module.

Disassemble filter or distributor

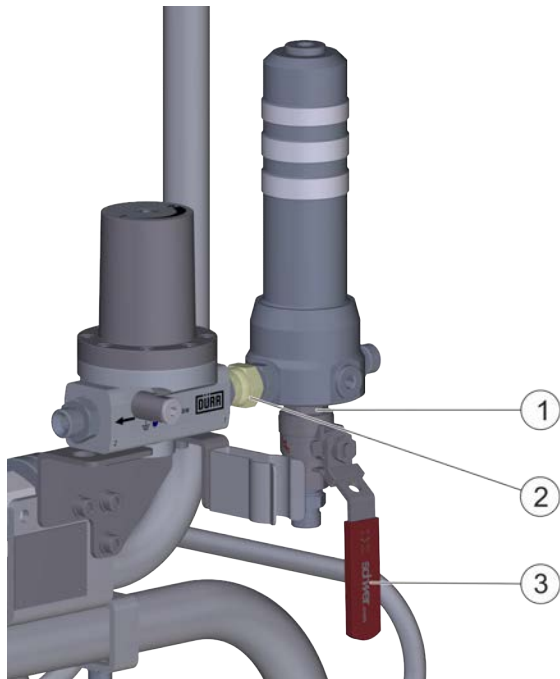


Fig. 37: Disassemble filter

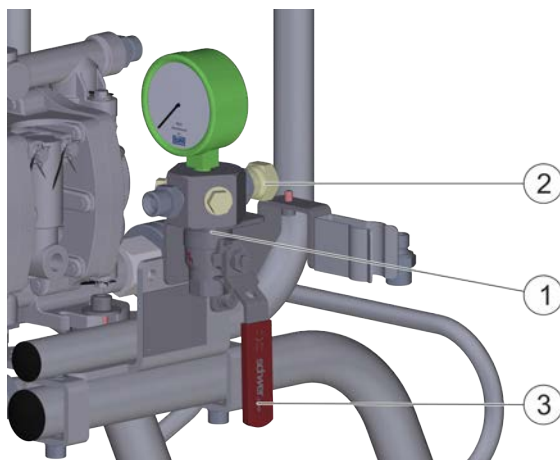


Fig. 38: Disassemble distributor

- 7. Disconnect screw connection (1).
- 8. Loosen screw connection (2).
- 9. Remove filter or distributor.

Disassembling ball valve

- 10. Fix filter or distributor in a vise.
- 11. Disassemble ball valve (3) and pressure gage.

Disassemble material pressure controller

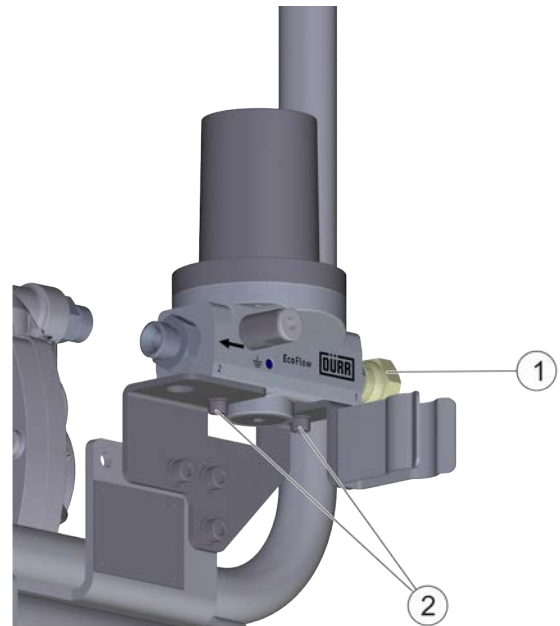


Fig. 39: Disassemble material pressure controller

- 12. Disconnect screw connection (1).
- 13. Unscrew the screws (2) on the angle bracket of the transportation module.
- 14. Remove material pressure controller from the transportation module.

Disassemble pump

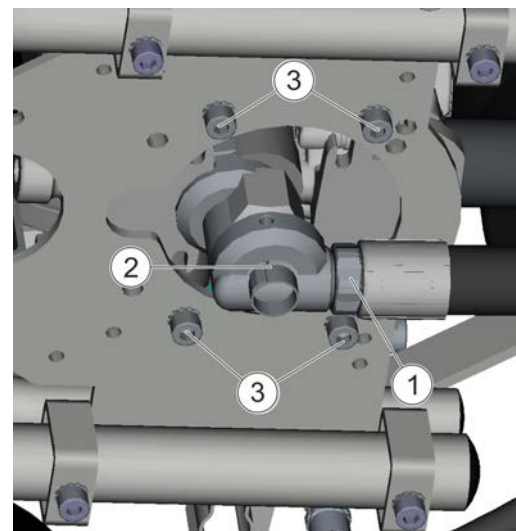


Fig. 40: Disassemble pump

- 15. Disconnect screw connection (1). Collect the material in a container.

16. Remove suction module from the transportation module.
17. Loosen elbow union (2).
18. Unscrew the screws (3).
19. Remove pump.
⇒ The system is dismantled.

For dismantling of pump, filter and spray guns, see operating instructions of the components ↪ “Applicable documents”.

9.7 Assembly



CAUTION!

Risk of injury due to screw connections disengaging themselves

Bolted connections could loosen up if there are vibrations. This can cause serious injuries and material damage.

- Use screw locking.
- Comply with manufacturer’ data.
- If it is a chemical thread protection, observe the drying time as specified by the manufacturer.

Personnel:

- » Mechanic
- » + additional qualification explosion protection

Protective equipment:

- » Eye protection
- » Protective workwear
- » Anti-Static Safety Boots
- » Protective gloves

Requirements:

- » Individual components are assembled as described in the operating instructions ↪ “Applicable documents”.

Assemble pump

1. Place pump on the transportation module.

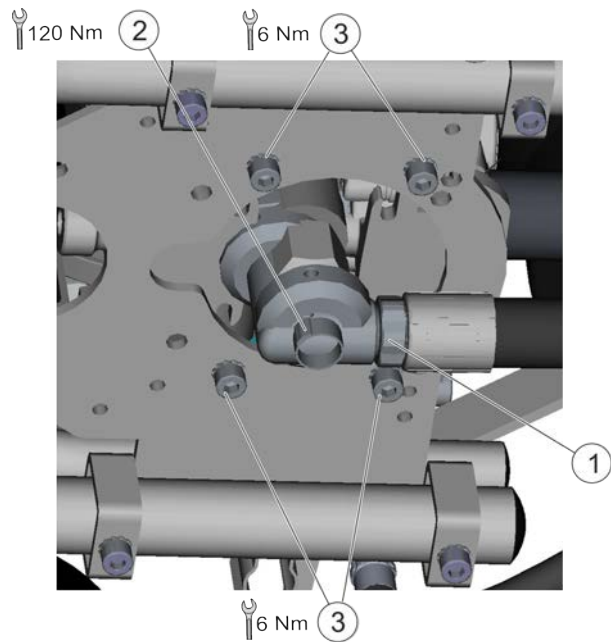


Fig. 41: Assemble pump

2. Drip the screw locking paint into the bore holes
↪ 12.8 “Operating and auxiliary materials”.
3. Fasten pump to transportation module using screws (3).
» Observe tightening torque.
4. Tighten elbow union (2).
» Observe tightening torque.

5. Tighten screw connection (1).
 - » Observe tightening torque.

Assemble material pressure controller

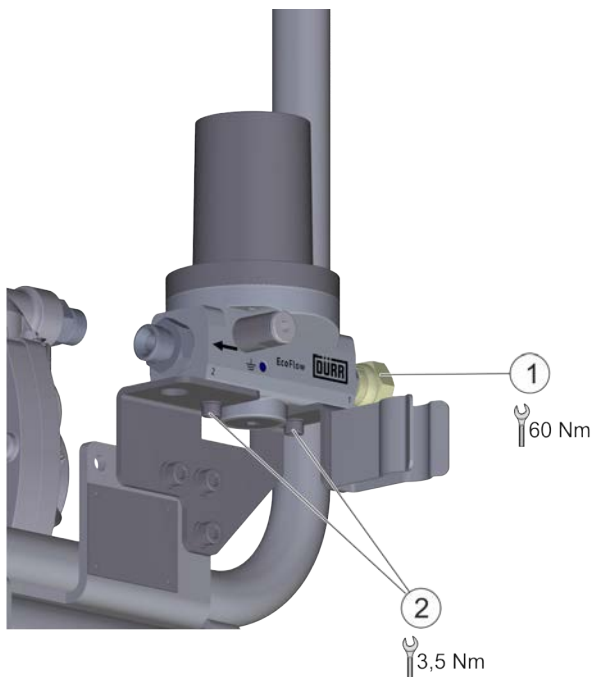


Fig. 42: Assemble material pressure controller

6. Attach material pressure controller with screws (2) to the angle bracket of the transportation module.
 - » Observe tightening torque.
7. Tighten screw connection (1).
 - » Observe tightening torque.

Assembling ball valve

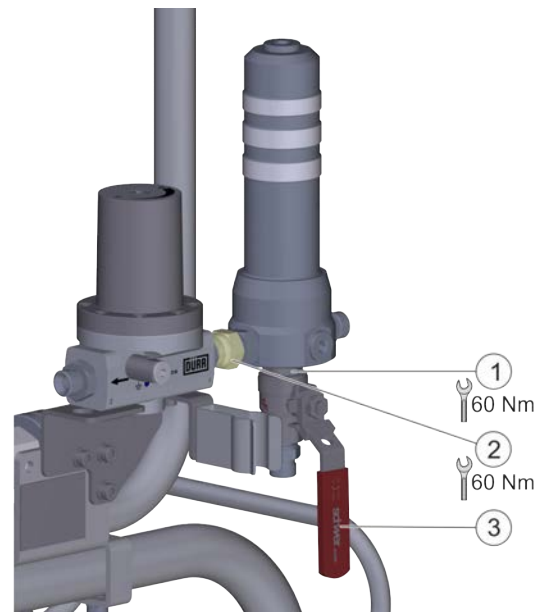


Fig. 43: Assemble ball valve and filter

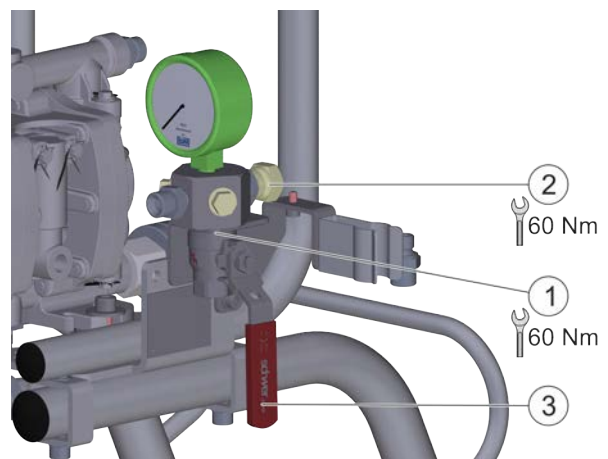


Fig. 44: Assemble ball valve and distributor

8. Fix filter or distributor in a vise.
9. Disassemble ball valve (3) and pressure gage.

Assemble filter or distributor

10. Tighten screw connection (2).
 - » Observe tightening torque.

11. Tighten screw connection (1).
 - » Observe tightening torque.

Attach the Maintenance unit.

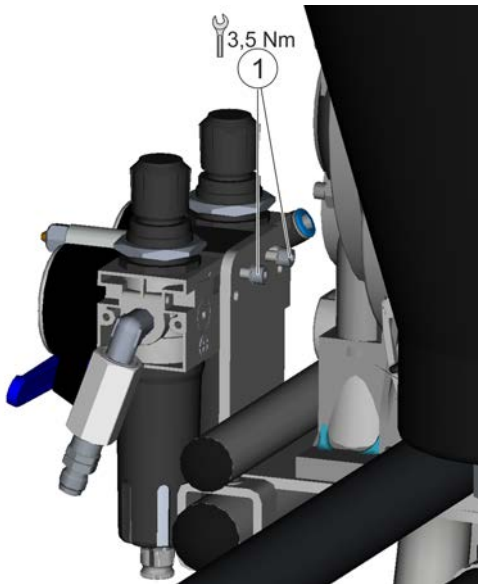


Fig. 45: Assemble maintenance unit

12. Secure maintenance unit against toppling.
13. Attach maintenance unit with screws (1) to the angle bracket of the transportation module.
 - » Observe tightening torque.

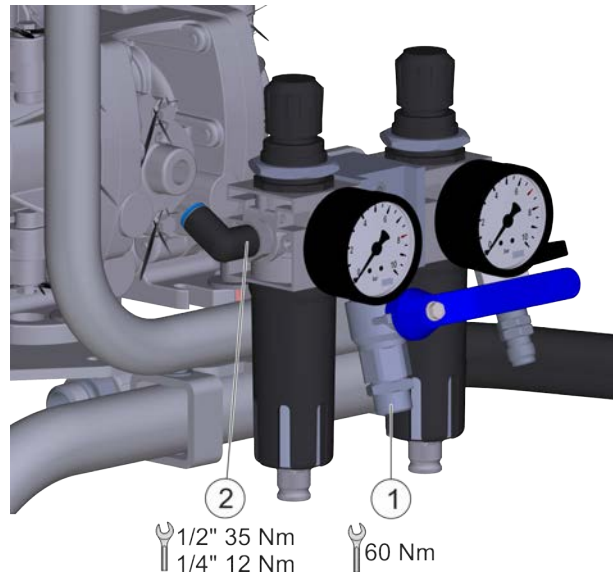


Fig. 46: Assemble maintenance unit

14. Screw compressed air hose to the control air inlet of the maintenance unit (1) using a hexagon spanner.
 - » Observe tightening torque.
15. Connect compressed air supply (1).
 - » Observe tightening torque.
 - ⇒ The system is assembled.

10 Faults

10.1 Behavior during faults

If faults occur:

- » Switch off compressed air supply. Secure against reconnection.
- » Depressurize lines.
- » Follow the defects table to correct the fault.

10.2 Defects table

Fault description	Cause	Remedy
Pump pressure and material pressure are too low.	Filter soiled.	Replace filter, see operating instructions "Filter HP".
	Pneumatic maintenance unit is incorrectly set.	Check setting of the pneumatic maintenance unit.
	Air hose is buckled.	Check air hose.
Material pressure is too low.	Filter disk of the feed cup or suction lance contaminated	Replace filter disk ↪ 9.4 "Replacing filter disk".
If the trigger is drawn, no material is discharged.	Pump pressure too low	Increase pump pressure.
	Filter clogged.	Clean filter, see operating instructions "Filter HP".
	Nozzle blocked	Clean the nozzle. Disassemble nozzle, see operating instructions of the spray gun.
Rise in the pump frequency	Hose line defective	Replace hose line.
Pump delivery is not uniform.	Material too viscous.	Thin the material according to manufacturer's data. Use filter with a larger mesh size.
	Filter disk of the feed cup or suction lance contaminated	Replace filter disk ↪ 9.4 "Replacing filter disk".

11 Disassembly and Disposal

11.1 Safety recommendations

 **WARNING!**

Danger from harmful or irritant substances

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

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

 **WARNING!**

Risk of injury due to escaping material

If material escapes at high pressure, the material can penetrate the body. The injury can look like a harmless cut wound. Death or serious injuries may result.

Before disassembly:

- Check ball valve for functioning.
- Disarm the system. Secure against reconnection.
- Depressurize the lines.

11.2 Disassembly

Personnel:

- » Mechanic
- » + additional qualification explosion protection

Protective equipment:

- » Eye protection
- » Protective workwear
- » Protective gloves
- » Anti-Static Safety Boots

Requirements:

- » System is purged ↪ 7.5 "Rinsing".
- » System is depressurized ↪ 7.4 "Switching off".
- » Compressed air supply is switched off.
- » All ball valves are closed.
- » Collecting vessel is under the pump.

1. Unscrew compressed air hose from the maintenance unit.
2. If applicable, disassemble the wall mount.
3. Dismantle system into the individual components ↪ 9.6 "Dismantling".

11.3 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.
↪ 12.9 "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.

12 Technical data

12.1 Dimensions and weight

The dimensions and weight details refer only to the transportation module.

Transport carriage

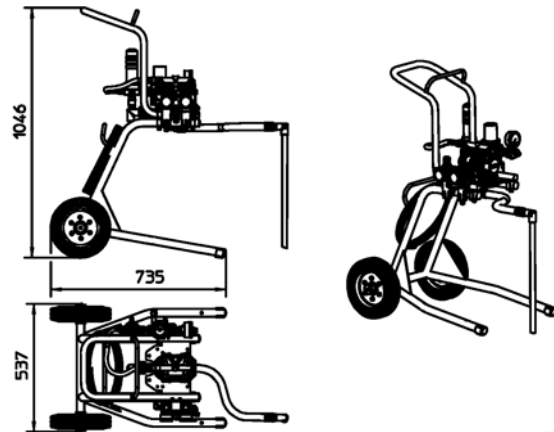


Fig. 47: Transport carriage

Transport carriage	Value
Height	1046 mm
Width	537 mm
Depth	735 mm
Weight	< 24 kg

Mobile stand

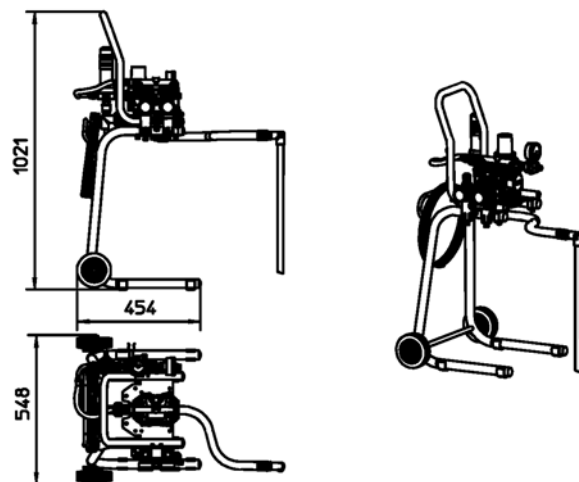


Fig. 48: Mobile stand

Mobile stand	Value
Height	1021 mm
Width	548 mm
Depth	454 mm
Weight	< 15 kg

Wall mount

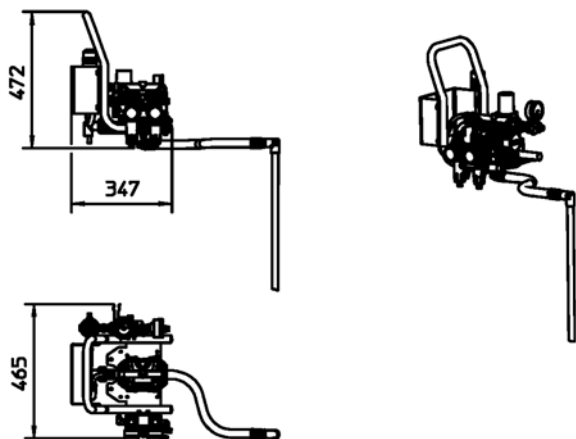


Fig. 49: Wall mount

Wall mount	Value
Height	472 mm
Width	465 mm
Depth	347 mm
Weight	< 5.5 kg

12.2 Connections

Connection	Value
Material outlet	M 16 x 1.5 60°
Material inlet on pump	See pump data sheet.
Compressed air supply (depending on the version)	G 3/8", G 1/2"

12.3 Operating conditions

Detail	Value
Operating temperature, min.	10 °C
Operating temperature, max.	50 °C
Media temperature, min.	10 °C
Media temperature, max.	50 °C

i In the case of hand guided spray guns, the maximum media temperature drops to 43°C. For media temperatures above 43°C, wear protective hand gloves.

12.4 Emissions

Detail	Value
Sound level	< 73 dB

12.5 Operating values

i The performance data depend on the pump used. See operating instructions for the pump → "Applicable documents".

12.6 Compressed air quality

- » Purity classes following ISO 8573-1::2010 1:3:1 1:4:1
- » Limitations for purity class 4 (pressure dew point max.):
 - » ≤ -3°C at 7bar absolute
 - » ≤ +1°C at 9bar absolute
 - » ≤ +3°C at 11bar absolute

12.7 Type plate

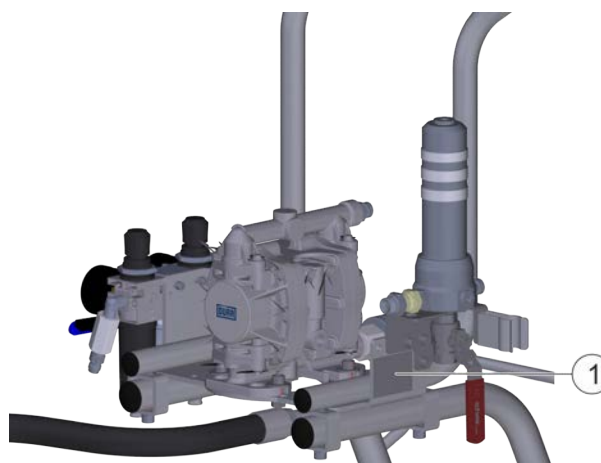


Fig. 50: Type plate

The type plate (1) shows the following details:

- » Product denomination
- » Material number
- » Year of manufacture
- » Serial number
- » Maximum air pressure
- » Maximum material pressure
- » ATEX marking
- » CE labeling
- » Manufacturer
- » QR Code

12.8 Operating and auxiliary materials

Cleaning agents

Cleaning agents must meet the following requirements:

- » Suitable for use in explosive areas.
- » Compatible with the materials used

Detergent

Only use approved detergents that meet the following requirements:

- » Suitable for use in explosive areas.
- » Compatible with the material used
- » Compatible with the materials used

Auxiliary materials

Description	Material number
Screw locking part	W36020001
Lubricating paste grease Molykote TP-42	W32020044

12.9 Materials used

Component	Material
Connections	Stainless steel
Suction hose	U-Polyethylene
Paint hose	Polyamide
Feed cup	Nylon
Suction module	Stainless steel
Filter	Stainless steel
Paint pressure regulator	Stainless steel, ceramic

For materials used for pump, spray gun, hose line and Filter HP, see Operating instructions of the product ↗ "Applicable documents".

12.10 Material specification

Material

- » Vapor pressure max 0.5bar above atmosphere
- » Flash point >50°C
- » Max. temperature 50°C, always 15K below flashpoint
- » Viscosity: <200mPas
- » In the case of hand guided spray guns, the maximum media temperature drops to 43°C.

13 Replacement parts, tools and accessories

13.1 Spare part

Filter insert for suction modules

Value	Material number
100µm	M13010014
140µm	M13010018
200µm	M13010019
250µm	M13010020
280µm	M13010021
315µm	M13010022
1000µm	M13010023

Retainer ring for filter insert

Material number
M66020020

Filter housing for filter insert

Material number
M16090128

Filter for feed cup

Value	Material number
840µm/20mesh	M13010030 (installed by default)
595µm/30mesh	M13010031
300µm/50mesh	M13010032

Filter cartridges for suction modules and Filter HP

Value	Material number
30mesh/500µm	M13020061
60mesh/250µm	M13020062
100mesh/149µm	M13020063
150mesh/105µm	M13020073
200mesh/74µm	M13020064

Pressure gage for maintenance unit

Description	Material number
Pump air max. 8bar	W07010347
Pump air max. 7bar	W07010346
Atomizer air max. 3bar	W07010345

Maintenance unit with filter regulator

Description	Material number
1/4", 2 filter regulator	N35070163
1/2", 2 filter regulator	N35070164
1/2", 1 filter regulator	N35070167

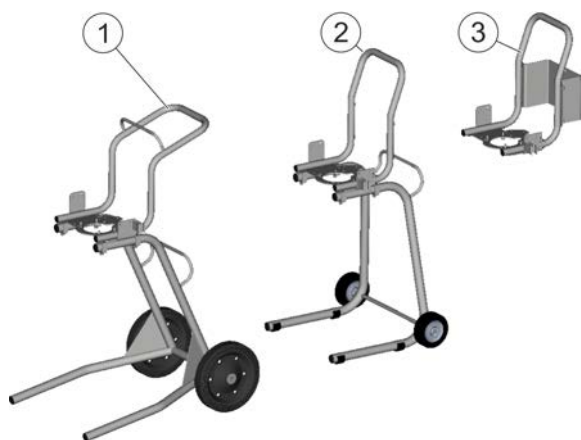


Fig. 51: Transportation modules

Transportation modules

Item	Denomination	Material number
1	Transport trolley	N25090024
2	Mobile stand	N25090025
3	Wall mount	N25010140

Nozzle cleaning

Material number
M34080011

Material pressure regulator

Description	Material number
EcoFlow LPF M	N26210005
Pressure gage G 1/8", 0 to 10bar	W07010201

Filter

Description	Material number
Filter HP	N35430015 N35430019 N35430023 N35430027 N35430031 N35430042 N35430044 N35430045 N35430046 N35430047
Pressure gage G 1/4", 0 to 10bar	W07010199

Distributor

Description	Material number
5 x G 1/4", 1 x G 3/8"	M27020091
Pressure gage G 1/4", 0 to 10bar	W07010202

Ball valve for depressurization of manifold and filter

Description	Material number
1/4", DN 6	M54300196

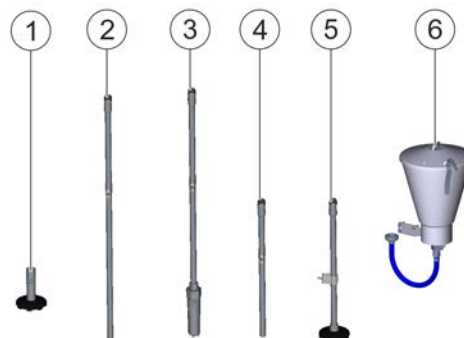


Fig. 52: Suction module

Suction module

Item	Denomination	Material number
1	Direct suction with filter, G1/2", 565 mm	M34010536
	Direct suction with filter, G1/2", 580 mm	M34010537

Item	Denomination	Material number
	Direct suction with filter, G1/2", 602 mm	M34010538
	Direct suction with filter, G1/2", 630 mm	M34010539
2	Suction lance 950mm	M34010517
3	Suction lance 950mm with filter	M34010516
4	Suction lance 500mm	M34010515
5	Suction lance 500mm with filter	M34010513
6	Feed cup 5L	N08010041
	Suction hose 850 mm	W40130191
	Suction hose 1500 mm	W40130190

Compressed air hoses for maintenance unit and pump

Description	Material number
6 x 8	W40030002
9 x 12	W40030019

Material hose for pump and material pressure regulator

Description	Material number
3/8", 500mm, M16 x 1.5	W40030965
G3/8", 500mm	W40031046

13.2 Tools

Hook spanner for connecting the suction lance and the feed cup

Material number
W12010008

13.3 Accessories

Spray guns

Value	Material number
EcoGun 910S	N36200001V
EcoGun 246	N36200007V
EcoGun 249	N36200008V

Hose Lines

Denomination	Material number
Hose lines, configurable	W40650001V
Air hose for Air Assist painting, DN 6, 8000 mm, 1/4"	W40130201
Protective hose for hose line 8000 mm	W40070078

Various

Denomination	Material number
Adapter M 16 x 1.5 to 1/4"	M55100169
Pneumatic quick coupling	M58900227
Connection set for additional spray gun	N92960001

13.4 Order



WARNING!

Risk of injury from unsuitable replacement parts in explosive areas.

Replacement parts not compliant with the specifications of the ATEX guidelines can cause explosions in an explosive atmosphere. Serious injuries and death can be the consequence.

- Use exclusively original replacement parts.



WARNING!

Risk of injury from unsuitable replacement parts

Parts of third party suppliers may not bear the loads. Serious injuries and death can result.

- Only use original replacement parts.

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

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