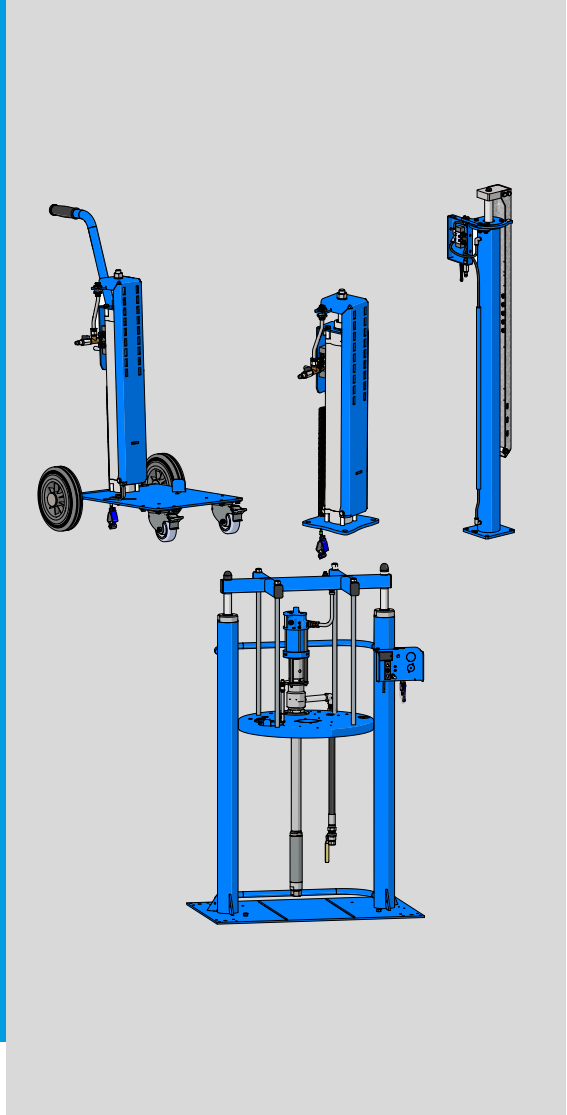


## Operation Manual

# LIFTS



Serial No.:



## EC declaration of conformity



in accordance with Annex II, No. 1 A of Machine Directive 2006/42/EC,  
as amended by 2009/127/EC

The company **WIWA Wilhelm Wagner GmbH & Co. KG**  
**35633 Lahnau**  
**Gewerbestraße 1–3**  
**Germany**

hereby declares that the **LIFTS**  
machine type  
with serial no.

conforms with the provisions of the above directives.

Responsible for documentation: **WIWA**, +49 (0)6441 609-0

Lahnau, April 11, 2025

Place, Date



Dipl.-Ing. (FH) Peter Turczak  
Managing Director

## EU declaration of conformity



in accordance with ATEX Directives

The company

**WIWA Wilhelm Wagner GmbH & Co. KG**

**35633 Lahnau**

**Gewerbestraße 1–3**

**Germany**

hereby declares that the  
machine type

**LIFTS**

with serial no.

conforms with the provisions of Directive 2014/34/EU.

The listed machine is assigned to Group II, Category 2G.

Labeling:  II 2G Ex h IIB T4 Gb

Lahnau, April 11, 2025

Place, Date



Dipl.-Ing. (FH) Peter Turczak  
Managing Director



# Contents

<b>1</b>	<b>Foreword</b>	<b>1</b>
<b>2</b>	<b>Safety</b>	<b>3</b>
2.1	Explanation of symbols . . . . .	3
2.2	Safety notes . . . . .	6
2.2.1	Risks during the lifting movement . . . . .	7
2.2.2	Risks due to electrostatic charge . . . . .	8
2.2.3	Explosion protection . . . . .	8
2.3	Safety signs . . . . .	10
2.4	Safety features . . . . .	10
2.4.1	Compressed air shut-off valve . . . . .	11
2.4.2	Ground cable . . . . .	12
2.4.3	Pneumatic agitator shutoff . . . . .	13
2.4.4	Electric agitator shutoff . . . . .	13
2.4.5	Self-resetting control lever . . . . .	14
2.5	Operating and maintenance personnel . . . . .	14
2.5.1	Obligations of the owner . . . . .	14
2.5.2	Personnel qualifications . . . . .	15
2.5.3	Authorized operator . . . . .	15
2.5.4	Personal protective equipment . . . . .	15
2.6	Warranty and liability . . . . .	16
2.6.1	Spare parts . . . . .	17
2.6.2	Accessories . . . . .	17
2.7	How to respond in an emergency . . . . .	17
<b>3</b>	<b>Description</b>	<b>18</b>
3.1	Intended use . . . . .	18
3.2	Erroneous use . . . . .	18
3.3	Construction . . . . .	19
3.3.1	Single-column lift for small containers . . . . .	19
3.3.2	Single-column lift for large containers . . . . .	22
3.3.3	Twin post lift for small containers . . . . .	23
3.3.4	Twin post lift for large containers . . . . .	24
3.3.5	Control lever . . . . .	25
3.4	Optional expansions and accessories . . . . .	26
3.4.1	Level monitoring . . . . .	27
3.4.2	Drum stops . . . . .	28
3.4.3	Throttle check valves for speed regulation . . . . .	29

<b>4</b>	<b>Transport, installation, and assembly</b>	<b>31</b>
4.1	Transport . . . . .	31
4.2	Installation site . . . . .	32
4.3	Assembly . . . . .	33
4.3.1	Grounding the machine . . . . .	34
4.3.2	Connecting the compressed air supply . . . . .	34
<b>5</b>	<b>Operation</b>	<b>37</b>
5.1	Commissioning . . . . .	37
5.2	Changing the material drum . . . . .	38
5.3	Decommissioning . . . . .	39
5.4	Care and maintenance . . . . .	39
5.5	Storage . . . . .	39
5.6	Disposal . . . . .	40
<b>6</b>	<b>Eliminating operational faults</b>	<b>41</b>
<b>7</b>	<b>Technical data</b>	<b>42</b>
7.1	Machine card . . . . .	42
7.2	Type plate . . . . .	42

# 1 Foreword

Dear valued customer,

We are delighted that you have chosen one of our machines.

This operation manual is directed at the operating and maintenance personnel. It contains all information required in order to work with this machine.



The owner must ensure that the operating and maintenance personnel always have access to a copy of the operation manual in a language that they understand.

In addition to the operation manual, further information is also essential for the safe operation of the machine. Read and observe the directives and accident prevention regulations valid in your country.

In Germany, these are:

- ▶ DGVV rule 100-500, chap. 2.29 “Processing coating materials”,
- ▶ DGVV rule 100-500, chap. 2.36 “Working with fluid jets”,

both from the professional association for gas, district heating and water management.

We recommend enclosing all relevant directives and accident prevention regulations with the operation manual.

Furthermore, always observe the safety data sheets, manufacturer’s instructions and processing guidelines for coating or conveyance materials.

If questions should arise, we would be happy to assist you.

We wish you excellent working results with your machine

WIWA Wilhelm Wagner GmbH & Co. KG

**Copyright**

© 2025 **WIWA**

The copyright to this operation manual belongs to  
WIWA Wilhelm Wagner GmbH & Co. KG  
Gewerbestraße 1–3 • 35633 Lahnau • Germany  
Phone: +49 (0)6441 609-0 • Fax: +49 (0)6441 609-2450  
Email: [info@wiwa.de](mailto:info@wiwa.de) • Website: [www.wiwa.de](http://www.wiwa.de)

This operation manual is intended exclusively for the preparation, operating and maintenance personnel. It is expressly prohibited to distribute this operation manual, duplicate, exploit or communicate its contents, unless expressly authorized to do so. Infringement will lead to compensation. All rights to any patent, utility model or design registrations are reserved.



## 2 Safety

This machine has been designed and manufactured taking into consideration all safety aspects. It conforms to the current state of the art and the applicable accident prevention regulations. The machine left the factory in faultless condition and guarantees a high level of technical safety. However, improper operation and misuse will pose a risk to:

- ▶ the life and limb of the operator or third parties,
- ▶ the machine and other property of the owner,
- ▶ the efficient function of the machine.

It is fundamentally prohibited to implement any method of work that has a negative influence on the safety of the operating personnel and the machine. All persons involved in the installation, commissioning, operation, care, repair and maintenance of the machine must have read and understood the operation manual beforehand – in particular the “Safety” chapter.

### **Your safety depends on it!**

We recommend that the machine owner have this confirmed in writing.

### 2.1 Explanation of symbols

Safety notes warn of potential accident risks and describe the measures required for accident prevention. In the **WIWA** operation manuals, safety notes are highlighted and labeled as follows:

#### **DANGER**

Signals a risk of accidents that are very likely to result in serious injuries and even death, if the safety note is not observed!

#### **WARNING**

Signals a risk of accidents that may result in serious injuries and even death, if the safety note is not observed!

**CAUTION**

Signals a risk of accidents that may result in injuries, if the safety note is not observed!



Signals important information for proper handling of the machine. A failure to observe this may result in damage to the machine or its environment.

Various pictograms are used in the safety notes for accident risks that may result in injury, depending on the hazard source.

Examples:



General risk of accident



Risk of explosion due to explosive atmosphere



Risk of explosion due to explosive substances



Risk of accident due to electricity or electrostatic charge



Warning of crushing



Warning of corrosive substances



Risk of injuries due to rotating machine parts



Risk of burning due to hot surfaces



Risk of freezing due to cold surfaces

The first line of the safety instructions indicates the personal protective equipment that must be worn. This is also highlighted and labeled as follows:



### **Wear protective clothing**

Signals an instruction to wear the prescribed protective clothing, in order to prevent skin injuries due to the processing material or gases.



### **Use eye protection**

Signals an instruction to wear protective goggles, in order to prevent eye injuries due to material spray, gases, vapors or dust.



### **Use ear defenders**

Signals an instruction to wear ear defenders, in order to prevent damage to hearing caused by noise.



### **Use respiratory protection**

Signals an instruction to use respiratory protection, in order to prevent damage to the respiratory tract caused by gases, vapors or dust.



### **Wear protective gloves**

Signals an instruction to wear protective gloves in order to prevent injuries due to aggressive chemicals, burns when processing heated materials, or freezing due to contact with very cold surfaces.

**Wear safety shoes**

Signals an instruction to wear safety shoes, in order to prevent foot injuries due to falling, toppling or rolling objects, as well as slipping on slippery floors.



Signals references to directives, work instructions and operation manuals that contain very important information and must be observed.



Indicates a special note on explosion protection.



Indicates a special note on grounding.

## 2.2 Safety notes

**WARNING**

Always remember that this machine operates at high pressures and can cause life-threatening injuries if handled incorrectly!

Do not leave the machine unattended during operation. You must be able to intervene immediately in an emergency.

Do not insert tools or other objects into the ventilation openings of motors or pumps and make sure that no dirt gets inside, otherwise injuries and damage to the machine may occur.



Always observe and follow all information in this operation manual and in the separate operation manuals for the individual machine parts and optional accessories.

## 2.2.1 Risks during the lifting movement



### WARNING

During the stroke movement of the lifts, fingers, hands or other body parts may be crushed by moving parts.

- ▶ Do not reach between the clamping piece and cylinder cover of the pneumatic cylinder or between the drum cover and material drum.



### WARNING

During the stroke movement of the lifts, loose items of clothing may get caught on machine parts, or may come between the drum cover and the material drum and be pulled into the container or upwards.

- ▶ Wear tight-fitting clothing with low tear-resistance, tight sleeves and no projecting parts.



### WARNING

If the attachments are lifted out of the material drum while the motor is running, serious injuries and property damage may be caused by ejected material.

- ▶ Bring all attachments to a standstill before each stroke movement.



### WARNING

During the stroke movement of the lift, moving parts may cause crushing and impact injuries.

- ▶ The lift may always only be operated by one person.
- ▶ No persons may remain inside the stroke area of the lift during stroke movement.

**WARNING**

Unwanted activation of the lift may cause crushing and impact injuries.

- ▶ Set the control lever of the lift to “Stop” whenever interrupting work.

**WARNING**

Objects placed on the lift may fall down during the stroke movement and cause injuries.

- ▶ Never place objects onto the lift!

### 2.2.2 Risks due to electrostatic charge

**WARNING**

The stroke movements and the operation of the attachments can result in an electrostatic charge. Static discharges can result in fire and explosions.

- ▶ Ensure that the machine is correctly earthed outside of EX zones!

**WARNING**

Dirty machines can become electrostatically charged. Static discharges can result in fire and explosions.

- ▶ Keep the machine clean.
- ▶ Always perform the cleaning work outside of EX zones.

### 2.2.3 Explosion protection


The following short designations are used in the instructions of **WIWA**:

- ▶ Ex protection: Explosion protection
- ▶ Ex area: potentially explosive or non-explosion protected area

- Non-Ex area: non-explosive or explosion protected area
- Ex zone: Explosion protection zone according to ATEX Directive
- ATEX knowledge: Knowledge of explosion protection according to ATEX Directive



Machines and accessories that are not explosion-protected may not be used in operating facilities that fall under the explosion protection ordinance!

Explosion-protected machines can be identified by the corresponding  mark on the type plate and/or the ATEX declaration of conformity provided.

When using the machine in Ex zones, the specialist personnel must have knowledge of ATEX.

Explosion-protected machines meet the requirements of the ATEX Directive for the device group, device category and temperature class cited on the type plate or in the declaration of conformity.

The owner is responsible for designating the zoning in accordance with ATEX Directive, Appendix II, No. 2.1-2.3 in accordance with the stipulations of the responsible regulatory body. The owner is required to check and ensure that all technical data and labeling comply with the applicable stipulations according to ATEX.

For applications, in which a failure of the machine could lead to dangers to personnel, the owner is required to implement appropriate safety measures.

Please note that some parts have their own type plate with separate labeling according to ATEX. In this case, the lowest explosion protection of all labels displayed applies to the entire machine.

## 2.3 Safety signs

The safety signs attached to the machine, such as for example the warning about the risk of crushing (see Fig. 1), indicate possible hazard points and must be observed.

The symbolism on the safety signs corresponds to the labeling of the safety notes described in section 2.1 on page 3.

The safety signs may not be removed from the machine.

Damaged and illegible safety signs must be replaced immediately.

Also read and observe the safety notes in the operation manual!



**Fig. 1:** Warning about the risk of crushing

## 2.4 Safety features



### WARNING

If one of the safety features is missing or is not fully functional, the operating safety of the machine is not guaranteed!

- ▶ Put the machine out of operation immediately if you detect safety feature defects or any other faults on the machine.
- ▶ Only put the machine back into operation once the faults have been fully rectified.

The machine is equipped with the following safety features:

- ▶ Compressed air shut-off valve
- ▶ Ground cable (if present)
- ▶ Agitator shutoff
- ▶ Self-resetting control lever

Check the safety features on the machine:

- ▶ Prior to commissioning,
- ▶ Always prior to starting work,



- After all set-up work,
- After all cleaning, maintenance, and repair work.

**Checklist:**

- Compressed air shut-off valve moves freely?
- Ground cable (if present) externally free of damage?
- Does the agitator shutoff function?
- Connections of the ground cable to the machine and to the conductor OK?

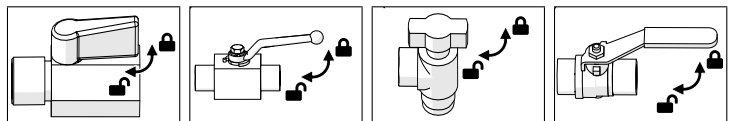


When checking additional safety features, observe the operation manuals for the optional accessories.

### 2.4.1 Compressed air shut-off valve

The compressed air shut-off valve at the air inlet interrupts the air supply to the entire machine. Furthermore, the machine can be equipped with additional compressed air shut-off valves, with which the air supply to individual components can be interrupted.

The design of the compressed air shut-off valve differs depending on the machine type.



**Fig. 2:** G1/4" (I/A)    **Fig. 3:** G1/4" (I/I)    **Fig. 4:** G1/2" (I/I)    **Fig. 5:** G1/2" (I/I) with forced venting

The functional principle of all compressed air shut-off valves installed on the machine is the same:

- Open ⇒ Position ball valve in the flow direction
- Close ⇒ Position ball valve transverse to the flow direction



After shutting off the air, the machine remains under pressure. It is therefore always necessary to fully relieve the pressure prior to any maintenance and repair work.

### 2.4.2 Ground cable

The ground cable serves to prevent electrostatic charging of the machine.

The single-column lift for small containers is already equipped with a ground cable.

The single-column lift for large containers and all twin post lifts are equipped with a grounding point. Grounding at the grounding point is to be carried out by the owner.

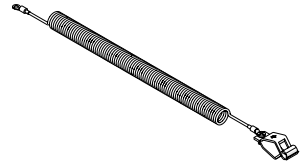


Fig. 6: Ground cable



The grounding points are labeled with the symbol shown on the left.



If a ground cable is lost or defective, it must be replaced immediately!

### 2.4.3 Pneumatic agitator shutoff

The pneumatic agitator shutoff switches off the agitator as soon as the lift with drum cover is moved upward and the contact plate of the pneumatic valve no longer touches the edge of the material container.

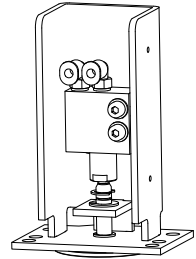


Fig. 7: Pneumatic valve

### 2.4.4 Electric agitator shutoff

The electric agitator shutoff switches off the agitator when the lift with drum cover is moved upward and contact between the position switch and plunger is interrupted.

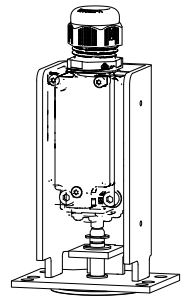


Fig. 8: Position switch

### 2.4.5 Self-resetting control lever

The lift is moved up or down in inching mode using the control lever. As soon as the lever is released, it jumps back to the “STOP” position. The lift stops.

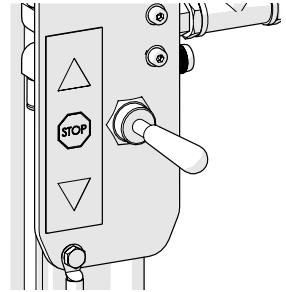


Fig. 9: Control lever

## 2.5 Operating and maintenance personnel

### 2.5.1 Obligations of the owner

The owner:

- ▶ is responsible for training the operating and maintenance personnel,
- ▶ must instruct the operating and maintenance personnel on correct handling of the machine, and on wearing the correct work clothing and protective equipment,
- ▶ must make work aids, such as e. g. lifting gear for transporting the machine or container, available to the operating and maintenance personnel,
- ▶ must make the user manual accessible to the operating and maintenance personnel and must ensure that it remains constantly available,
- ▶ must ensure that the operating and maintenance personnel have read and understood the user manual.

Only then are they permitted to put the machine into operation.

### 2.5.2 Personnel qualifications

Differentiation is made between two groups of personnel, depending on their qualifications:

- ▶ **Instructed operators** have received verified instruction from the machine owner regarding the tasks entrusted to him and the possible risks if the correct procedure is not followed.
- ▶ **Trained personnel** have received instruction provided by the machine manufacturer and are capable of carrying out maintenance and repair work on the machine, independently recognizing possible dangers and avoiding risks.

### 2.5.3 Authorized operator

Activity	Qualification
Set-up and operation	Instructed operator
Cleaning	Instructed operator
Maintenance	Trained personnel
Repair	Trained personnel



Children, young persons under the age of 16 and untrained personnel may not operate this machine.

### 2.5.4 Personal protective equipment



#### **Wear protective clothing**

Always wear the protective clothing stipulated for your working environment (e.g. anti-static protective clothing in potentially explosive areas) and also observe the recommendations in the safety data sheet of the material manufacturer.

**Use Eye Protection**

Wear protective goggles in order to prevent eye injuries due to material spray, gases, vapors or dust.

**Use Ear Defenders**

Suitable noise protection equipment must be made available to the operating personnel. The machine owner is responsible for compliance with the accident prevention regulation "Noise" (BGV B3). It is therefore necessary to pay particular attention to the conditions at the installation site – for example, noise pollution can increase if the machine is installed in or on hollow bodies.

**Use respiratory protection**

Although the airless and AirCombi spray processes minimize the paint mist with the right pressure adjustment and correct work method, we recommend that you use a respiratory protection mask.

**Wear Protective Gloves**

Wear anti-static, chemical-resistant protective gloves with forearm protection to prevent injuries due to aggressive chemicals, burns when processing heated materials, or freezing due to contact with very cold surfaces.

**Wear Safety Shoes**

Wear anti-static safety shoes, in order to prevent foot injuries due to falling, toppling or rolling objects, as well as slipping on slippery floors.

## 2.6 Warranty and liability

Except when otherwise stipulated,

- ▶ our General Terms and Conditions (GTC) apply for deliveries within Germany,
- ▶ our Orgalime SI 14 apply for deliveries to all other countries.

### 2.6.1 Spare parts

- ▶ When repairing and maintaining the machine, original spare parts from **WIWA** must be used.
- ▶ If spare parts are used that have not been produced or supplied by **WIWA**, the warranty is void and all liability shall be excluded.

### 2.6.2 Accessories

- ▶ If you use original **WIWA** accessories, their suitability for use in our machines is guaranteed.
- ▶ If you use third-party accessories, these must be suitable for the machine – in particular with respect to the working pressure, the current connection data, the connection variables, and use in Ex-zones, if applicable. **WIWA** will not be liable for any damage or injuries due to these parts.
- ▶ It is essential to observe the safety provisions applicable to the accessories. You can find these safety provisions in the separate operation manuals for the accessories.

## 2.7 How to respond in an emergency

In an emergency, shut down the machine immediately.

1. Set the control lever to the “STOP” position.
2. Close the compressed air shut-off valve.

### 3 Description

Lifts are used, supported by compressed air, to lift pumps and other attachments out of material drums or lower them into material drums. Optionally available drum covers for different container sizes enable the simultaneous use of several attachments in one material drum, such as e.g. agitator and level indicator.

#### 3.1 Intended use

Lifts are intended to lift pumps and other attachments out of material drums or lower them into material drums.




Intended use also includes:

- ▶ observing the technical documentation and
- ▶ complying with the operating, maintenance and servicing guidelines.

#### 3.2 Erroneous use

Any use other than that stipulated in the technical documentation is deemed to be erroneous use and will void the warranty.

Erroneous use applies in particular if

- ▶ the machine is used to lift other objects or persons,
- ▶ unauthorized modifications or changes are implemented,
- ▶ the safety features are removed, modified or bypassed,
- ▶ spare parts are installed that were not manufactured or delivered by **WIWA** (see section 2.6.1 on page 17),
- ▶ accessories are used that are not suitable for the machine (see section 2.6.2 on page 17),
- ▶ machines without  identification are used in potentially explosive atmospheres,



- ▶ the machine is operated outside of the operating limits according to the type plate.

### 3.3 Construction

#### 3.3.1 Single-column lift for small containers

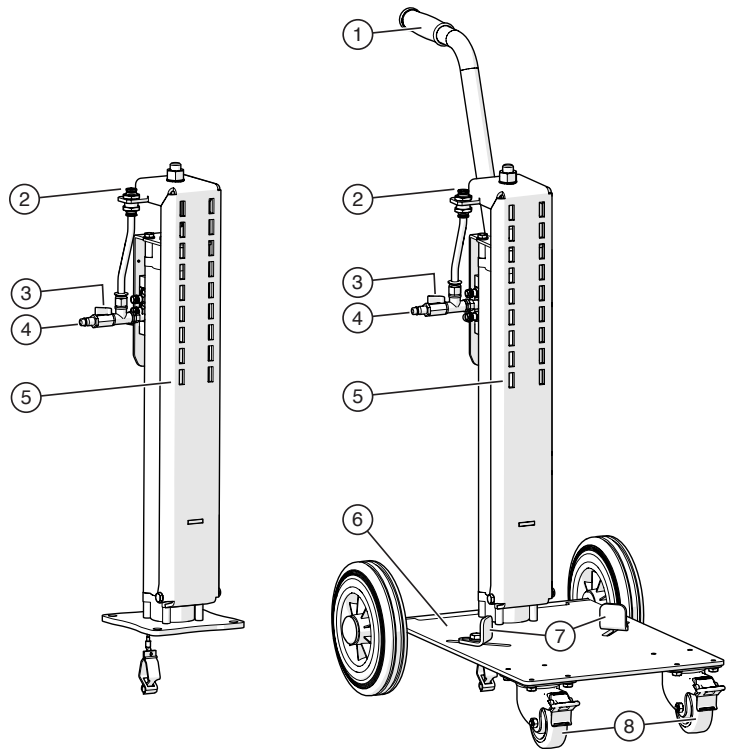


Fig. 10: Front view of a single-column lift on stand frame or cart

No.	Designation
1	Holder with handle

No.	Designation
2	Compressed air connection for pneumatically operated attachments
3 <sup>1</sup>	Compressed air shut-off valve
4 <sup>1</sup>	Compressed air connection
5	Guide rail for fastening drum covers, pumps, etc.
6	Cart
7	Drum stops
8	Castors with locking brake

<sup>1</sup> In combination with an air motor  $\geq 200$ , the compressed air connection and compressed air shut-off valve for the lift are located at the compressed air connection of the air motor (see section 4.3.2 on page 34)

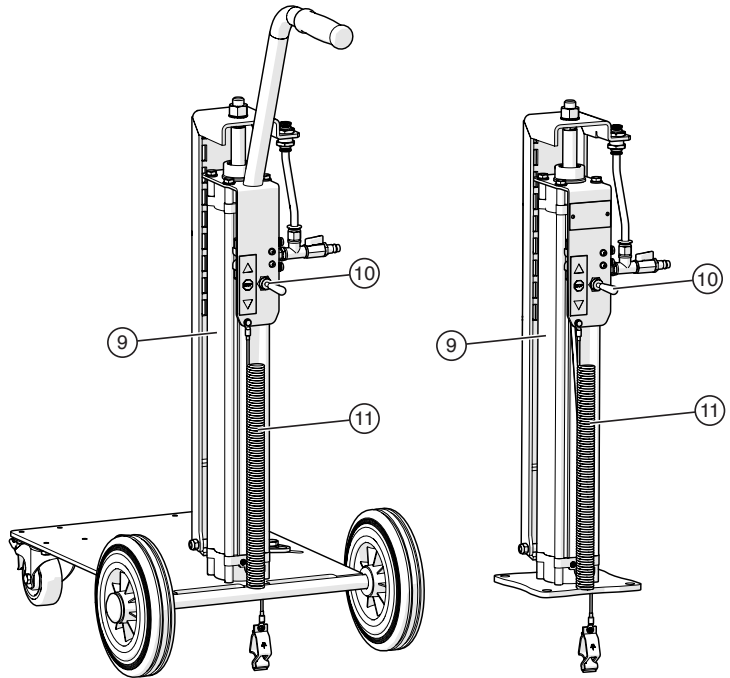
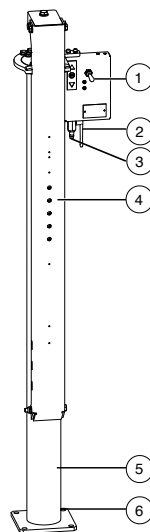


Fig. 11: Rear view of a single-column lift on cart or stand frame

No.	Designation
9	Pneumatic cylinder
10	Control lever
11	Ground cable

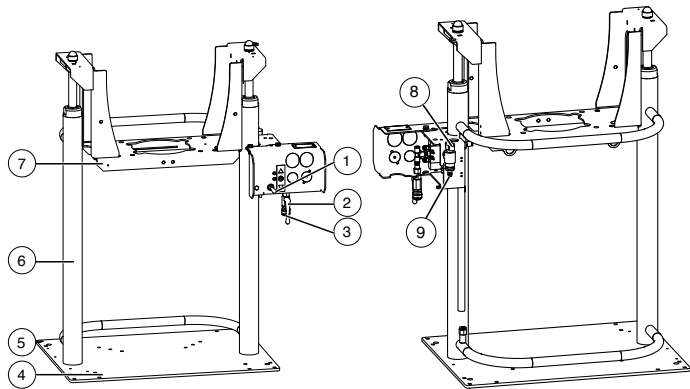
### 3.3.2 Single-column lift for large containers

No.	Designation
1	Control lever
2	Compressed air shut-off valve
3	Compressed air connection
4	Guide rail for fastening drum covers, pumps, etc.
5	Pneumatic cylinder
6	Grounding point (behind the column)



**Fig. 12:** Single-column lift for large containers

### 3.3.3 Twin post lift for small containers

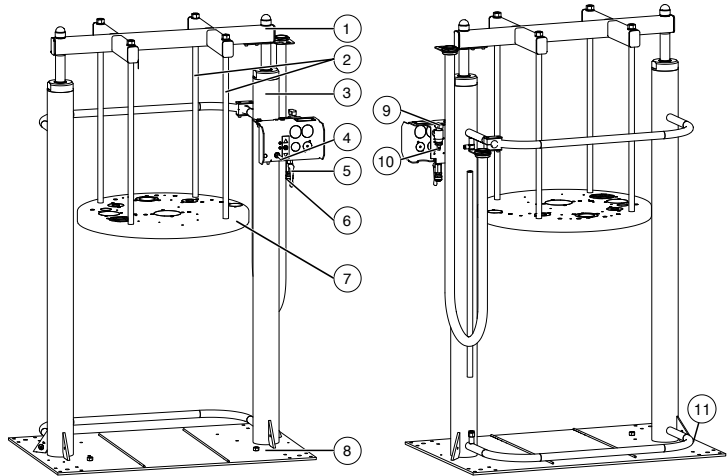


**Fig. 13:** Twin post lift for small containers (front view)

**Fig. 14:** Twin post lift for small containers (rear view)

No.	Designation
1	Control lever
2	Compressed air shut-off valve
3	Compressed air connection for additional consumers
4	Base plate
5	Grounding point
6	Pneumatic cylinder
7	Lifting table
8	Compressed air shut-off valve
9	Main compressed air connection

### 3.3.4 Twin post lift for large containers



**Fig. 15:** Twin post lift for large containers (front view)

**Fig. 16:** Twin post lift for large containers (rear view)

No.	Designation
1	Traverse beam
2	Pressure rods
3	Pneumatic cylinder
4	Control lever
5	Compressed air shut-off valve
6	Compressed air connection for additional consumers
7	Drum cover for accommodating additional attachments, such as e.g. pumps, agitators, level sensors
8	Base plate
9	Compressed air shut-off valve
10	Main compressed air connection
11	Grounding point

### 3.3.5 Control lever

The lift is moved up or down in inching mode using the control lever.

As soon as the lever is released, it jumps back to the STOP position.



**UP:** The lift moves up



**STOP:** The lift stops



**DOWN:** The lift moves down

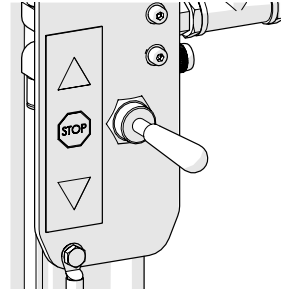


Fig. 17: Control lever

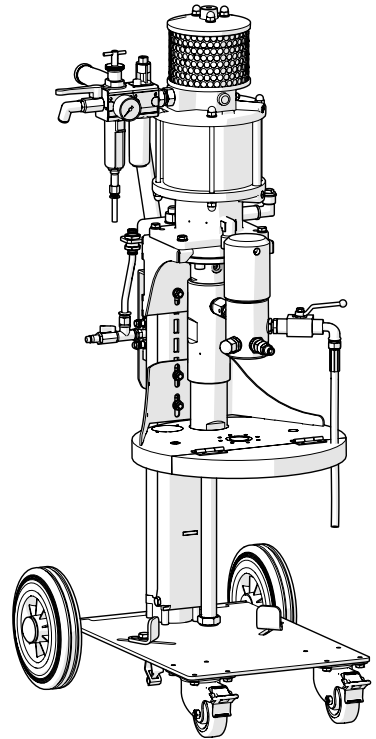
### 3.4 Optional expansions and accessories

**WIWA** Lifts can be optionally equipped with expansions and accessories. E. g.:

- High pressure pumps
- Feed pump
- Drum cover for fastening agitators, level sensors, etc.

The Fig. 18 shows a single-column lift with high pressure pump and drum cover as an example.

For twin post lifts, the use of a drum cover is absolutely necessary to be able to install optional attachments (such as e.g. pumps or agitators).



**Fig. 18:** Single-column lift with attachments

The following list contains just some of the most common accessories and expansions.

The detailed accessory catalog can be found at [www.wiwa.de](http://www.wiwa.de). For further information and order numbers, contact a dealer or the **WIWA** service department.



**CAUTION**

Exceeding the permissible lifting weight can result in damage to the lift.

- ▶ The total weight of all attachments must be less than the maximum lifting power of the lift.
- ▶ Exact information can be found on the machine card or the type plate.



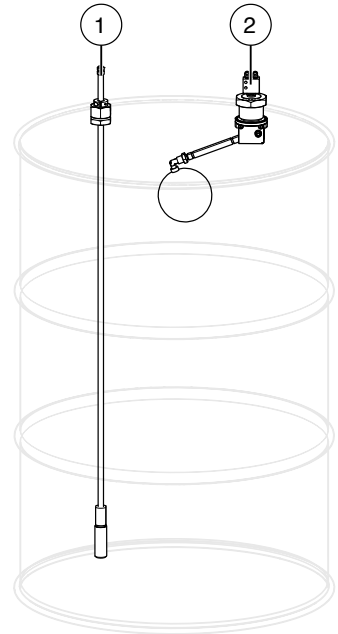
Observe and follow the operation manuals for the expansions and accessories.

### 3.4.1 Level monitoring

A level monitoring can be installed in the drum cover. The level monitoring checks whether there is sufficient material in the drum. If the minimum level is reached, a signal is transmitted to the controller.

There are various methods for monitoring the level:

No.	Description
1	Electronic level monitoring via sensor
2	Level monitoring via float (pneumatic, only for large containers)
3	Level monitoring via radar (electrical, only for large containers)



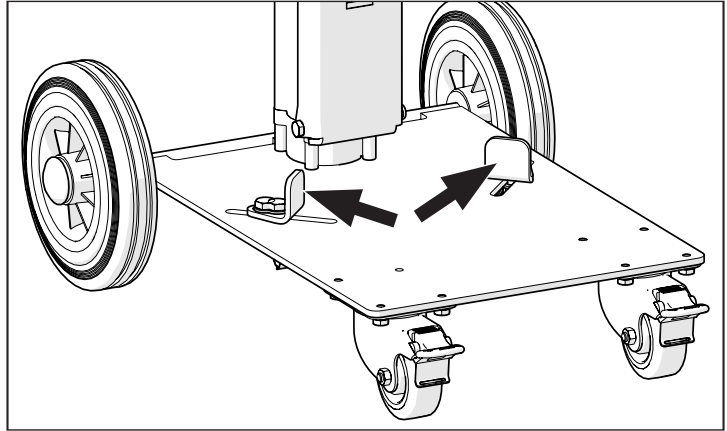
**Fig. 19:** Level monitoring



Observe and adhere to the separate operation manual.

### 3.4.2 Drum stops

The drum stops facilitate the positioning of the material drums.



**Fig. 20:** Drum stops (example)

The drum stops can be adjusted to the container size as follows:

1. Loosen the screw connection of the drum stops.
2. Slide the drum stops all the way back.
3. Place the container on the cart and align it.
4. Slide the drum stops to the container and screw them tight.

### 3.4.3 Throttle check valves for speed regulation

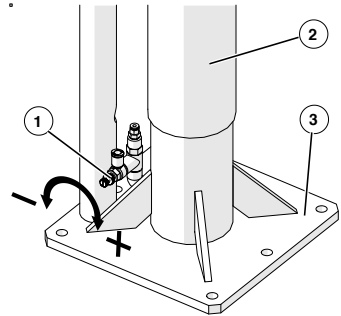
The air flowing through the cylinder can be regulated in one direction with the throttle check valves, affecting the travel speed of the pistons during the upward and/or downward movement.

#### **Throttle check valve on the single-column lift**

The travel speed of the piston in the cylinder for the upstroke can be set with this valve.

The throttle check valve is located above the base plate on the cylinder.

No.	Description
1	Throttle check valve
2	Cylinder
3	Base plate

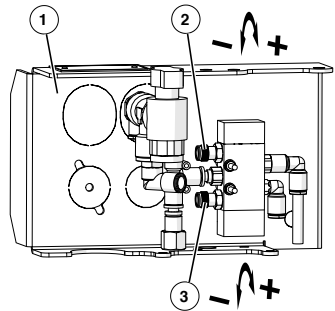


**Fig. 21:** Throttle valve on the single-column lift

### Throttle check valve on the twin post lift

The travel speed of the pistons in the cylinders for the upstroke and downstroke can be set with these valves. The throttle check valves are located on the back of the regulator cluster.

No.	Description
1	Regulator cluster
2	Throttle check valve for the upstroke
3	Throttle check valve for the downstroke



**Fig. 22:** Throttle valves on the twin post lift

## 4 Transport, installation, and assembly



The machine left the factory in faultless condition, packaged correctly for transport.

Check the machine at the time of receipt for any transport damage and for completeness.

### 4.1 Transport

When transporting the machine, observe the following information:

- ▶ When loading the machine, ensure sufficient load-bearing capacity of the lifting gear and lifting accessories. The dimensions and weight of the machine can be found on the machine card and on the type plate.
- ▶ Place the machine on a transport pallet for lifting.
- ▶ When lifting or loading the machine, do not transport other objects simultaneously (e. g. material drums) with the machine.
- ▶ Never stand under suspended loads or in the loading area. There is a risk of death here!
- ▶ Secure the load on the transport vehicle to prevent sliding and falling.

If the machine has previously been in operation, please observe the following:

- ▶ Disconnect the entire energy supply to the machine - even for short transport distances.
- ▶ Remove all loose parts (e. g. tools) from the machine.

## 4.2 Installation site

### Ambient temperature:

- ▶ minimum: 0 °C or 32 °F
- ▶ maximum: 40 °C or 104 °F



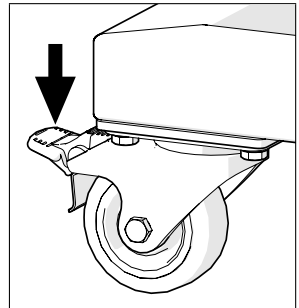
### WARNING

If the machine is used outdoors during a storm, a life-endangering situation may arise for the operating personnel due to lightning!

- ▶ Never operate a machine outdoors during a storm!
- ▶ The owner must ensure that the machine is equipped with suitable lightning protection equipment.

### Safety measures at the installation site:

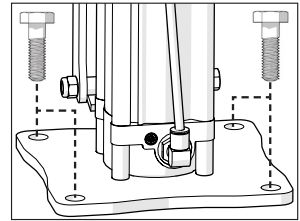
- ▶ Position the machine horizontally on a floor that is level, firm and free of vibrations. The machine may not be tilted or tipped.
- ▶ Make sure that all controls and safety features are easy to reach.
- ▶ Fasten the machine to its installation site, in order to secure it against unintended movement.
- ▶ Keep the working area clean, especially all walking and standing areas. Remove any spilled material and cleaning agents immediately.



**Fig. 23:** Pressing down the wheel brake for mobile lifts

In order to ensure a safe operation, the lifts must be securely bolted to the ground on stand frames.

The base plate for the single-column lift as well as the base plate for the twin post lift are each provided with four holes ( $\varnothing$  13 mm).



**Fig. 24:** Bolting the base plate to the ground

- ▶ Make sure that the machine can not tip over.
- ▶ Select the fastening material according to the characteristics of the ground.

### 4.3 Assembly



#### WARNING

If untrained personnel carry out assembly work, they endanger themselves and others, and risk the operational safety of the machine.

- ▶ Electrical and electronic parts may only be installed by specialist personnel with electrical training; all other parts, e. g. the spraying hose and spray gun, may only be installed by personnel trained for this.



#### WARNING

During assembly work, ignition sources may arise (e. g. due to mechanical sparks, electrostatic discharge, etc.).

- ▶ Carry out all assembly work outside of potentially explosive areas.

### 4.3.1 Grounding the machine



#### WARNING

The stroke movements and the operation of the attachments can result in an electrostatic charge. Static discharges can result in fire and explosions.

- ▶ Connect the ground cable of the machine to an electrically conductive object outside of Ex zones.



The grounding points on this machine are labeled with the symbol shown on the left.

### 4.3.2 Connecting the compressed air supply



#### CAUTION

Lines laid on walking surfaces are a tripping hazard capable of causing injuries to the operating personnel.

- ▶ Place the compressed air line so that a tripping hazard for the operating personnel cannot result.



To ensure the required quantity of air, the compressor output must comply with the air requirement of the machine, and the diameter of the air supply hoses must match the connections.



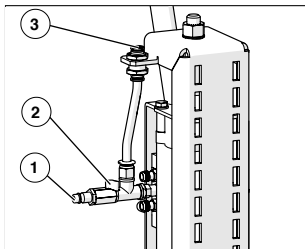
Operation with contaminated or moist compressed air leads to damage in the machine's pneumatic system.

- ▶ Use only dried, oil-free and dust-free compressed air, which corresponds to purity class [7:5:4] according to ISO 8573-1:2010!

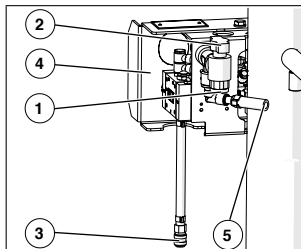
1. Make sure that the compressed air shut-off valve is closed and the control lever is at "Stop".



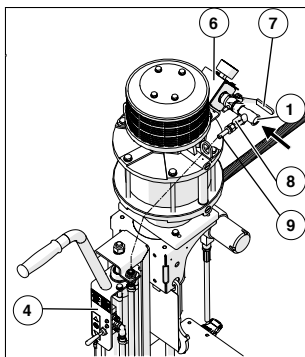
2. Connect the compressed air line to the compressed air connection on the machine. The compressed air connection is located on the regulator cluster of the lift (Fig. 25 and Fig. 26). An exception is the use of the lift in combination with an air motor  $\geq 200$ . Here, the compressed air is connected, enabled and blocked at the air inlet of the air motor (Fig. 27 and Fig. 28).



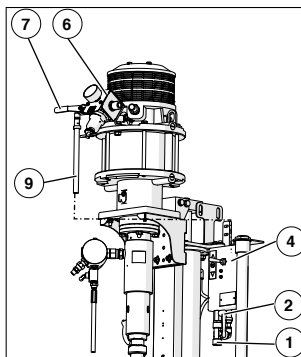
**Fig. 25:** Compressed air connection on the single-column lift



**Fig. 26:** Compressed air connection on the twin post lift



**Fig. 27:** Compressed air connection on the single-column lift in combination with air motor  $\geq 200$ , stroke 410 mm



**Fig. 28:** Compressed air connection on the single-column lift in combination with air motor  $\geq 200$ , stroke 410 mm

No.	Description
1	Main compressed air connection
2	Compressed air shut-off valve for the entire machine
3	Connection for optional expansions, e.g. agitator
4	Compressed air regulation unit for the lift

No.	Description
5	Compressed air line from the lift to the air motor
6	Compressed air regulation unit for the air motor
7	Compressed air shut-off valve for the air motor
8	Compressed air shut-off valve for the lift
9	Compressed air line for connection of the compressed air regulation units

## 5 Operation



Only put the machine into operation if you are equipped with the prescribed personal protective equipment. Details on this can be found in section 2.5.4 on page 15.

Prerequisites:

- ▶ The machine must be correctly installed and connected to the compressed air supply.
- ▶ All attachments must be completely installed.

### 5.1 Commissioning

Checklist prior to commissioning:

- ▶ Check if all safety features are present and fully functional.
  - ▶ Make sure that the lift is securely bolted to the ground.
  - ▶ During commissioning, check if all lift parts are leak-tight and tighten the connections if necessary.
  - ▶ Make sure that the lift is properly grounded (see section 4.3.1 on page 34)
1. Open the compressed air shut-off valve.
  2. Set the control lever to “UP”.
  3. As soon as there is enough free space for the placement of the material drum, release the control lever.
  4. Place the material drum on the cart and align it using the drum stops.
  5. Set the control lever to “DOWN”.

**WARNING**

During the stroke movement of the lifts, fingers, hands or other body parts may be crushed by moving parts.

- ▶ Do not reach between the clamping piece and cylinder drum of the pneumatic cylinder or between the drum cover and material drum.



Only when using a drum cover:

Make sure that the drum cover is placed correctly on the material drum when bringing down the lift.

6. As soon as the lift has reached the lowest position, release the control lever.
7. Put the attachments into operation.



Observe and follow the operation manuals for the attachments.

## 5.2 Changing the material drum

1. Bring all attachments to a standstill.
2. Set the control lever to "UP".
3. As soon as there is enough free space for the placement of the material drum, release the control lever.
4. Remove the old material drum.
5. Place the new material drum on the cart and align it using the drum stops.
6. Set the control lever to "DOWN".

**WARNING**

During the stroke movement of the lifts, fingers, hands or other body parts may be crushed by moving parts.

- ▶ Do not reach between the clamping piece and cylinder drum of the pneumatic cylinder or between the drum cover and material drum.



Only when using a drum cover:

Make sure that the drum cover is placed correctly on the material drum when bringing down the lift.

7. As soon as the lift has reached the lowest position, release the control lever. The lift stops.
8. Put the attachments back into operation.

### 5.3 Decommissioning

1. Set the control lever to the “STOP” position.
2. Close the compressed air shut-off valve.

### 5.4 Care and maintenance

Lifts are maintenance-free.

It is sufficient to regularly clean the machine of contamination.

### 5.5 Storage

The location for storing the machine must be

- ▶ clean,
- ▶ dry,
- ▶ frost-free and

- ▶ protected against direct sunlight.

Storage temperature:

- ▶ minimum: 0 °C or 32 °F
- ▶ maximum: 40 °C or 104 °F

## 5.6 Disposal

Residues of processing material, flushing agents, oils, greases and other chemical substances must be collected according to the legal regulations for recycling or disposal. The official local waste water protection laws apply.

At the end of the machine's use it must be put out of use, disassembled and disposed of according to the legal regulations.

- ▶ Thoroughly clean the machine of material residues.
- ▶ Disassemble the machine and separate the materials – metals must be taken to a scrap metal depot, plastic parts can be disposed of with household waste.

## 6 Eliminating operational faults

fault	possible cause	remedy
Lift does not complete the stroke movement	Air connection is not established	Connect machine to a suitable compressed air supply
	Control lever is in the "STOP" position	Set control lever to the "UP" or "DOWN" position
	Air inlet pressure too low	Increase air inlet pressure
	Gaskets of the piston rod are worn	Replace gaskets (apply acid-free grease to the pistons beforehand)

## 7 Technical data

You can find the technical data for your machine on the machine card enclosed, on the type plate or in the documentation for the individual components.

### 7.1 Machine card

The machine card contains all important and safety-relevant data and information for the machine.

- ▶ precise designation and manufacturer's data
- ▶ technical data and limit values
- ▶ equipment and test confirmation
- ▶ procurement data
- ▶ machine identification (machine components and accessories supplied with article and spare parts numbers)
- ▶ a list of the supplied documentation.

### 7.2 Type plate

The type plate is located next to the control lever. It contains the most important technical data for the machine:

- ▶ Name and address of the manufacturer
- ▶ ATEX marking
- ▶ Device type
- ▶ Max. air inlet pressure in bar/psi
- ▶ Max. lifting power in newtons
- ▶ Serial number





Please ensure that the data on the type plate matches the information on the machine card. In case of errors or a missing type plate, please inform us immediately.







### Headquarter and production

#### **WIWA Wilhelm Wagner GmbH & Co. KG**

Gewerbestraße 1–3  
35633 Lahnau  
Germany  
Phone: +49 (0)6441 609-0  
Fax: +49 (0)6441 609-2450  
Email: [info@wiwa.de](mailto:info@wiwa.de)  
Website: [www.wiwa.de](http://www.wiwa.de)

### WIWA subsidiary USA

#### **WIWA LLC – USA, Kanada, Lateinamerika**

107 N. Main St.  
P.O. Box 398, Alger, OH 45812  
USA  
Phone: +1-419-757-0141  
Fax: +1-419-549-5173  
Email: [sales@wiwa.com](mailto:sales@wiwa.com)  
Website: [www.wiwausa.com](http://www.wiwausa.com)

QR-Code

[www.wiwa.de](http://www.wiwa.de)