



because it works

Operation manual

WIWA RAM and LIFT

Type:

- Ram Press
- Twin-Post Lift
- Single-Post Lift
- Lift Trolley
- Lift Cart

Serial-No.



1 Contents

1.1 Preface

i This User's Handbook must always be available to operating personnel!

The operating authority of the equipment must ensure, that a User's Handbook is available to the operator, in a language which he understands.

In the User's Handbook, you can find all information required for the proper handling of your **WIWA**® Ram Press / **WIWA**® Lift / **WIWA**® Lift Trolley or **WIWA**® Lift Cart.

The manufacturer's instructions and handling guidelines for the paint or other material being processed must be observed at all times.

No method of operation should be exercised which impairs the safety of **WIWA**® products and the operating personnel.

1.2 Read before starting!

i Always pay close attention to the instructions and specifications found in the User's Handbook for the unit and any accessories!

Before each usage, be especially certain to:

- Check the seal and function of all connections and mounted parts.
- Observe the maximal allowed pressure of the unit and accessory parts.

Before beginning any work on the equipment and at any pause during operation, be absolutely sure to:

- Cut off the the supply of compressed air to the lift / ram press and set the operating lever (pict. 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (pict. 3.2.5, pos. 11) to the "STOP" position
- If a pump is mounted to the lift / ram, close the inbound air ball valve and depressurize the pump.

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 It is prohibited to pass on this operating manual for reproduction, utilisation or communication of its contents, unless this has been explicitly permitted. Infringements incur an obligation to pay damage compensation. All rights reserved in the event of registration of the patented design, industrial design or registered design.

This operating manual only applies in conjunction with the machine card that was given to you with the user manual for your equipment. Please check that the type plate data is identical with the information on the machine card. Please notify us immediately if there are discrepancies, if the user manual has been incorrectly compiled or if the type plate is missing.

2 Safety

2.1 Description of symbols

The warnings and symbols used in this User's Handbook have the following meaning:

i Note
This marks a section of text which is especially relevant to safety. Special attention should be paid to this section and its contents strictly observed.

! WARNING
This marks a situation which could be dangerous. If not observed, death or very serious injuries could result.

💣 DANGER OF EXPLOSION
This marks a situation which could lead to explosion. Special attention should be given and the warning strictly observed.

⚡ ELECTRICAL VOLTAGE
This marks a situation which could lead to explosion through electrostatic charging. Special attention should be given and the warning strictly observed.

🔥 HOT SURFACE
This marks a situation which could lead to burns from hot surfaces. Special attention should be given and the warning strictly observed.

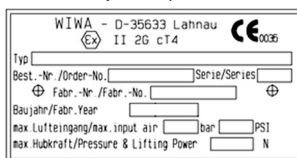
🧤 WEAR PROTECTIVE GLOVES
Protective gloves with lower arm protection must be worn to prevent burn injuries. Special attention should be given and the warning strictly observed.

2.2 Warning instructions on the unit

- Warning signs and symbols which have been placed on the unit are there to inform of possible dangers and must be observed.
- Warning signs and symbols may not be removed. Damaged and illegible warning signs and symbols are to be replaced immediately.

The following signs are located on the unit:

- Nameplate (Picture 2.2.1)



Picture 2.2.1

Please observe that the information located on the nameplate corresponds to data found on the machine card (Chapter "Technical Specification").

We request **immediate** notification should there be any discrepancies or if the nameplate is **missing**.

- Plastic sign: „AB / DOWN - STOP - AUF / UP“ (Picture 2.2.2)
The sign shows the direction of travel depending on the position of the operating lever.



Picture 2.2.2

AB /DOWN: The lift / ram travels downwards.

STOP:

The lift / ram stops at the desired position.

AUF /UP: The lift / ram travels upwards

2.3 Dangers arising from the equipment

This unit was designed and built in accordance with all safety aspects.

It corresponds with the present standards of technical regulations and current rules for accident prevention. It left the factory in perfect condition and warrants a high level of safety. However, the following dangers exist if operated incorrectly or used inappropriately:

- Risk of physical injury or death to the operator or third-persons or third persons
- Risk of damage to the unit and other property belonging to the owner
- Risk of malfunction or reduced operational efficiency

All personnel involved in the starting, operation and maintenance of the unit must read the following notes carefully and observe them.

It is a matter of their safety! We recommend that the managers responsible for the proper operation of the unit have this confirmed in writing.

In addition to the instructions found in this User's Handbook, all instructions and guidelines located in manuals covering accessory and/or auxiliary items are to be followed closely.

As a rule of thumb, no action is to be permitted that could endanger **WIWA**® products or operating personnel.

2.4 Applications of the machine

Ram Press

The ram press simplifies the processing of poorly flowing materials, such as grease, mastics, high-viscosity materials, etc.

Depending on the model, a follow plate / follow cover is guide into the material container with the aid of compressed air. All necessary accessories are mounted on the follow plate / follow cover. A force feeding of the material into the pump follows.

Lift

Lifts are used to raise pumps and accessories.

Ram Press and Lift

The follow plate / follow cover enable the use of several components at the same time in the feed container, such as a pump, agitator and level indicator.

Available accessories include:

- High-pressure pumps
- Extrusion pumps
- Low-pressure pumps
- Pneumatic geared agitators
- Electric geared agitators, etc.

All accessories are available in a variety of sizes / power ratings and are not included with the purchase of a ram press or lift.

To exchange the material container, the follow plate / follow cover (ram press) or the drum cover (lift), together with the mounted accessories, are lifted with the aid of compressed air.

Using this equipment in areas requiring protection from explosions

Marking:



This equipment fulfills the explosion-proof requirements found in the guideline 94/9/EC for the type of explosion, equipment category and temperature class found on the nameplate).

This equipment is able to be installed in areas requiring Zone I explosion protection. Due to the possibility that explosive gases and overspray may be created, this unit is to be considered as Group II, Equipment Category 2G.

The flash point for the materials being sprayed, as well as the solvent being used, must be above 200°C.

When operating this equipment, the User's Handbook must be followed closely.

The required inspection and maintenance intervals must be adhered to strictly.

All information found on the unit's signs or plates must be adhered to and not exceeded. Do not allow this unit to be overloaded. It is the responsibility of the operator of this equipment to determine the explosion risk (zone determination according to EC regulation 94/9/EC, Appendix II, Nr. 2.1-2.3) in the area of usage, in accordance with local regulatory authority guidelines. **Furthermore, it is the responsibility of the operator on-site to check and ensure that the technical specifications and markings according to ATEX are compliant with local requirements.**

Please observe that some components have their own nameplate with separate markings according to ATEX.

The marking with the lowest rating for explosion protection becomes valid for the entire system. If the intended application could lead to injury of personnel if this equipment malfunctions, on-site precautions and preventive measures must be implemented

If this equipment appears to be malfunctioning or beha-

ving strangely during operation, the unit must be shut down immediately and *WIWA* Customer Service contacted as soon as possible.

Other usage is not in line with regulations. Before *WIWA* equipment is used for other purposes or with other materials, and, therefore, not according to the regulations, permission should be obtained from the manufacturer as the guarantee is otherwise invalid. The observation of technical documentation and the compliance with specified operational, maintenance and starting guidelines are mandatory in accordance with the valid regulations.

2.5 Alterations, additions and emissions

Rebuilds and changes

For safety reasons, it is not allowed to carry out rebuilds or changes without authorization.

Protective equipment may not be dismantled, changed or neglected.

If using components which are not produced or delivered by *WIWA*, warranty coverage is negated as well as liability. The machine may only be operated within the prescribed limits and machine parameters.

Danger caused by attachments and spare parts

If you use original attachments and original spare parts from *WIWA*, the compatibility with our equipment is guaranteed. It is, however, essential that the safety regulations of the attachments and spare parts are observed. You can find these safety regulations in the User's Handbook located with the spare parts lists.

If you use attachments and spare parts from another source, *WIWA* cannot guarantee the safety of the entire system. In this case, our guarantee does not cover any damage or injury caused by such attachments and spare parts.

Emissions

The *WIWA* Single and Twin-Post Ram Presses, as well as the Twin-Post Lift, operate practically noise-free.

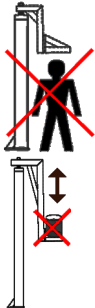
The operator is responsible for compliance with the rules covering the prevention of accidents due to „noise“ (BGR 500, Chap. 2.25). Therefore, pay special attention to the environmental conditions at the site, e. g. noise can be increased if the machine is installed in or on hollow bodies.

2.6 Sources of danger



Please remember that the equipment operates with compressed air and that the accessories (i.e. airless high pressure pump) may operate with very high pressures which could cause severe injury if used improperly.

Observe and follow these instructions:



- ▶ The raising and lowering of the unit, as well as falling objects, can cause severe injury and property damage.
 - ▶ Persons or other living creatures should never be placed on the frame or within the lifting range of this equipment.
 - ▶ Persons or other living creatures should never be raised or lowered using this equipment.
- ▶ When the traverse is moving up or down, crushing danger can arise in certain areas of the machine due to inattention.
 - ▶ Never place fingers, hands or other body parts between following plate / cover and container rim, frame and drum cover, traverse and piston rod or traverse and upper tube for air supply.
 - ▶ Take care that no clothing or other object comes between the following plate / cover and the container rim.
- ▶ The release of pressurized material, as well as contact with rotating parts, can cause severe injury.
 - ▶ Please mount accessories only when the equipment has been turned off. During assembly, the accessories must also be turned off and depressurized.
 - ▶ Observe and follow the instructions in the User's Handbook for this equipment and any accessories, such as agitators, pumps, etc.
- ▶ If accessories are removed from the material container with the motor still in operation, material or loose parts can be thrown out and cause severe injury and property damage.
 - ▶ Whenever the traverse is in motion (upward or downward) all mounted components must be turned off and not moving!
 - ▶ All mounted components must be secured to the following plate / cover before the traverse is placed in motion. No loose components may be transported!
- ▶ In case electric agitators, heaters or other electric accessories are installed, the explosion-proof rating must be checked. Connectors for heaters, agitators, etc., which are not explosion-proof may only be used outside of rooms which fall under explosion-proof ordinances, even though the accessory equipment may be explosion-proof.

- ▶ Do not exceed the maximum allowed lifting weight of the machine. Exact details can be found in Chap. "Technical Specifications".
- ▶ Uncontrolled raising and lowering can cause overheating due to friction and lead to fire or explosion.
- ▶ Raise and lower the traverse only when needed to avoid unnecessary friction.
- ▶ Operation of this equipment in a closed area can lead to danger caused by explosive atmospheres, resulting in possible severe injury and property damage.
- ▶ Smoking, open flames or other sources of ignition are not allowed in the area where the unit is operating.
- ▶ If operated outdoors, a lightning strike can present danger. Never operate the unit during a thunderstorm.

2.7 Operating personnel

Authorized personnel

People under the age of 16 should not operate this equipment. The management in charge of the operation of the unit must make the User's Handbook available to the operator and must make sure that he has read and understood it. Only then may the system be put into operation. **We recommend the manager has this confirmed in writing.** The operator is obliged to report any changes to the unit which might affect its safety to the manager, as he must ensure that the machine is functional.

The procedural responsibilities for operating the unit must be laid down clearly and adhered to. No unclear competences may remain, as these could endanger the safety of the users.

The operator must make sure that only authorised persons work with the unit. He is responsible for third parties in the working vicinity of the system.

The operator of the equipment is obliged to repeat instructions about dangers and safety measures at regular intervals (at least once a year, for juveniles twice a year).

Personal protective equipment

We call to your attention that the valid guidelines and regulations covering the site of operation (mining, closed areas etc.) must be adhered to.

2.8 Installation site and handling of the unit and auxiliary items

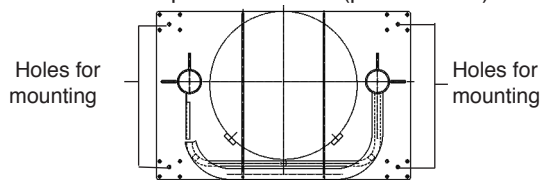
Installation site

i To prevent equipment damage or severe injury during installation of the machine, the following must be observed:

- The installation and mounting of the machine may be carried out by trained operating personnel only, in accordance with all safety instructions.
- Before beginning with installation of the machine, it must be inspected for transport damage.
- Read and observe the Chapter "Safety".

Safety measures on-site

- The system must have a secure position and sufficient space to ensure safe operating.
- Anchor the **WIWA**® Single- and Twin-Post Ram Presses, or the Twin-Post Lift to the foundation at the installation site using 4 bolts (M12). Mounting holes are found in the base plate of the unit (picture 2.8.1)



Picture 2.8.1 Base plate

- Mobile versions: Lock the wheels at the desired location using your foot to press down on each wheel brake. This prevents unwanted movement of the unit. Prior to transport of the unit, the wheels must be released by pulling upwards on each brake.
- The owner of this equipment must ensure that it is properly grounded and protected from lightning.
- Keep the working area, especially all gangways and standing areas, clean. Remove spilled paint or solvent immediately.
- **Comply strictly with the current rules for accident prevention**

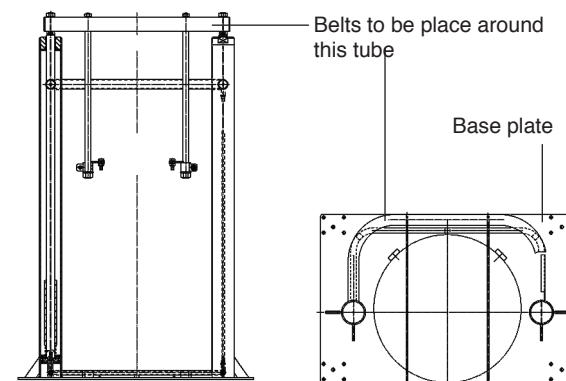
Handling of the unit and auxiliary items

- Adapting the unit to different production requirements, as well as servicing and cleaning, may only be done by trained operating personnel.
- Maintenance and repair may only be performed by trained and qualified personnel.
- Before starting such work as above, the supply of compressed air to the unit must be shut-off.
- The function of all safety features, as well as unit itself, must be checked after completing any work on the unit.

2.9 Transporting the unit and accessory

i Observe and follow these instructions to prevent equipment damage or severe injury during transportation!

- Transportation may only be carried out by qualified and authorized personnel.
- Cut off the supply of compressed air to the unit, even if transporting for short distances.
- Remove coating material containers and loose parts before loading!
- Be careful when loading, whether a hoist is being used or not!
- Only use suitable transportation vehicles with sufficient load capacity.
- Secure the unit to the transporting vehicle against slipping and falling down.
- When loading the machine with hoisting devices, pay attention to the maximum allowable load capacity. Place two appropriately rated hoisting belts around the frame tube (Picture 2.9.1 - applies only to Twin-Post Ram Press or Lift).
- The weights of the the **WIWA**® Single- and Twin-Post Ram Presses and the Twin-Post Lift are found in Chapter "Technical Specifications". The total weight of the unit, including all accessories, must be calculated before transport. The individual weights are found in the User's Handbook for each accessory component.
- Never transport the unit using lifting eyes found on accessory components (feed pump, etc.) These lifting points are not suitable for lifting the total weight of the unit.
- Never stand under raised loads or in the direct lifting area. Block and mark the transport route so that unauthorised persons do not enter the danger zone. Non-observance leads to danger of injury!
- Parts or equipment dismounted for transportation purposes must be properly remounted by trained personnel before start-up.

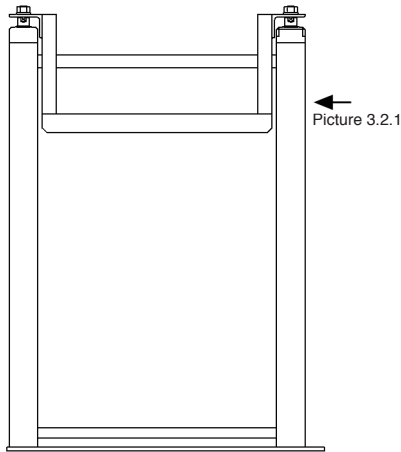


Picture 2.9.1

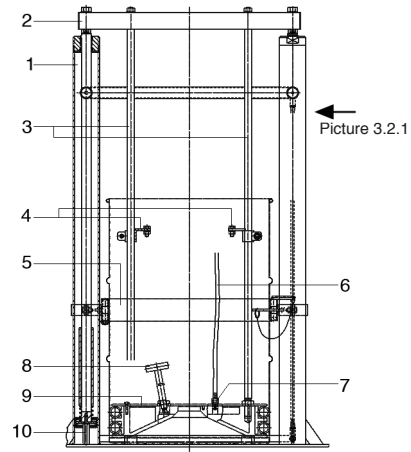
3 Unit descriptions

3.1 Available versions

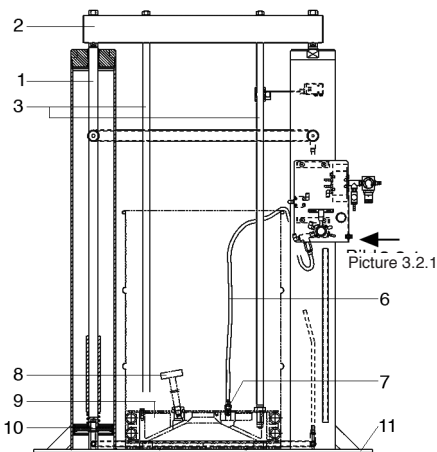
Twin-Post Ram Press



Picture 3.1.1: Twin-Post Ram Press - Capacity: 0,3t



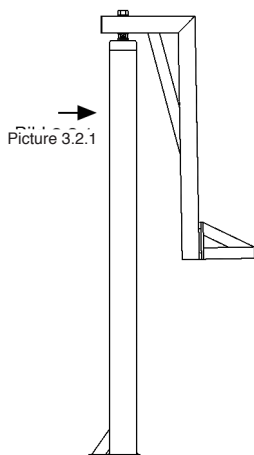
Picture 3.1.2: Twin-Post Ram Press - Capacity: 0,75t



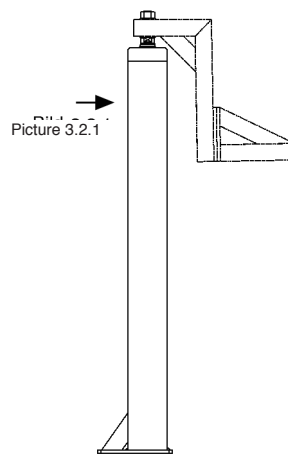
Picture 3.1.3: Twim-Post Ram Press - Capacity: 2,5t

Pos.	Description
1	Frame
2	Traverse
3	Press Rod
4	Holder for mounting kit
5	Drum holder (accessory)
6	Air hose
7	Hose sleeve
8	Plug handle
9	Follow plate (accessory)
10	Piston
11	Floor plate

Single-Post Ram Press

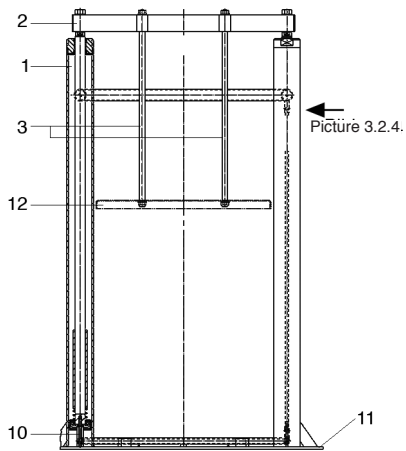


Picture 3.1.4: Single-Post Ram Press - Capacity: 0,375t, for 216,5 l-gal.drum

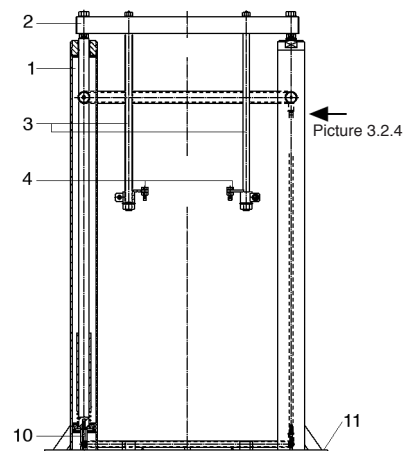


Picture 3.1.5: Single-Post Ram Press - Capacity: 0,375t, for 60 l-container

Twin-Post Lift



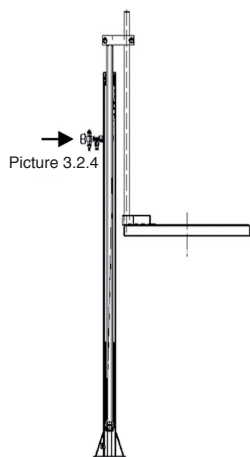
Picture 3.1.6: Twin-Post Lift for Drum Cover -
Capacity: 0,75 t, for 216,5 ltr. gal.drum



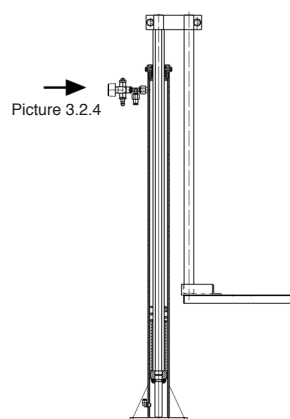
Picture 3.1.7: Twin-Post Lift
Capacity: 0,75 t, for 216,5 ltr. gal.drum

Pos.	Description
1	Frame
2	Traverse
3	Press Rod
4	Holder for Mounting Kit
10	Piston
11	Floor plate
12	Drum cover (accessory)

Single-Post Lift



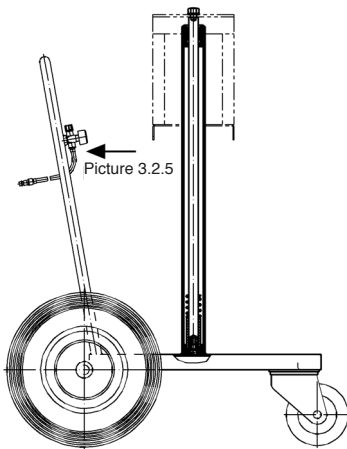
Picture 3.1.8: Single-Post Lift for Drum Cover -
Capacity: 98 kg
Elevating height: 930 mm



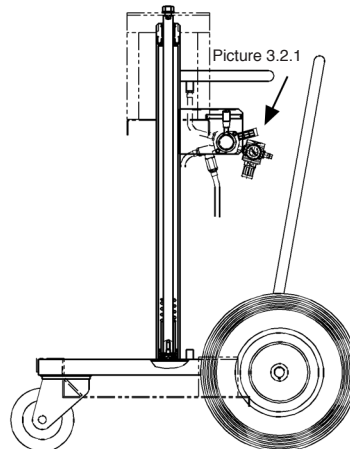
Picture 3.1.9: Single-Post Lift for Drum Cover
Capacity: 98 kg /
Elevating height: 600 mm

Unit descriptions

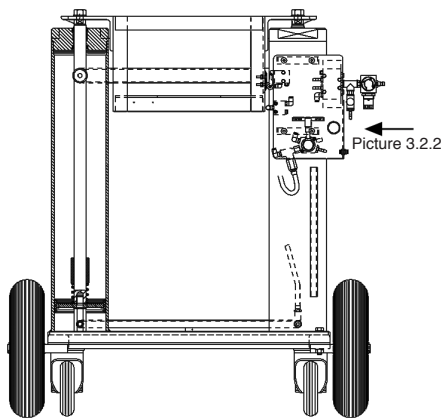
Lift Trolley



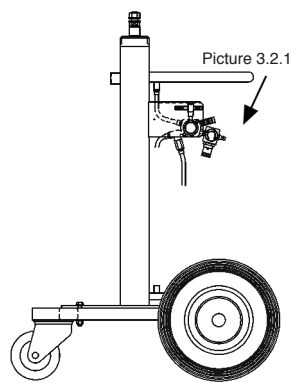
Picture 3.1.10: Lift Trolley - Lift version -
Capacity: 0,3 t, for 60 ltr. container



Picture 3.1.11: Lift Trolley - Ram Press version
Capacity: 0,3 t, for 60 ltr. container

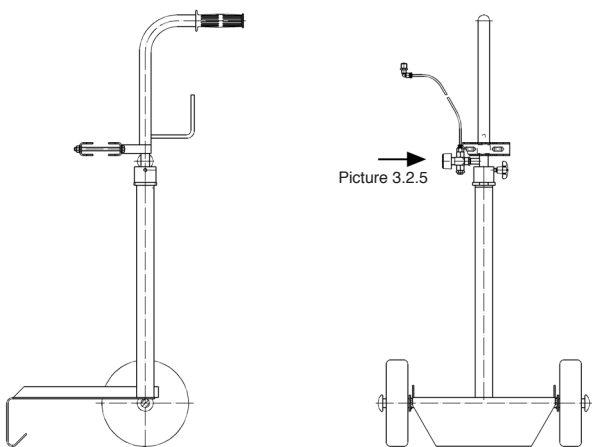


Picture 3.1.12: Lift Trolley - Ram Press / automatic version -
Capacity: 2,5 t, for 60 ltr. container



Picture 3.1.13: Lift Trolley - Ram Press version
Capacity: 0,75 t for 60 ltr. container

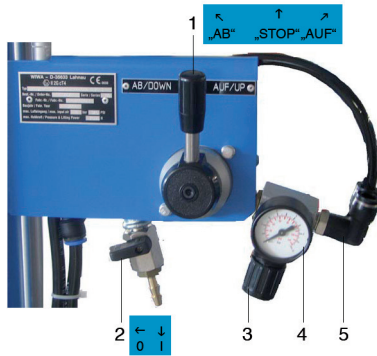
Lifting cart



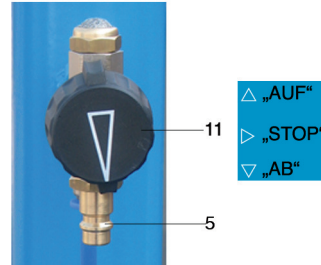
Picture 3.1.14: Lifting cart
Capacity: 62,5 kg

3.2 Regulator Units

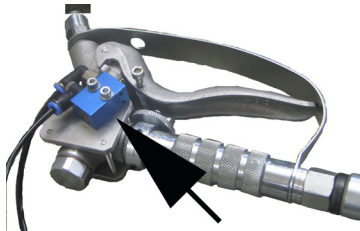
for Ram Press, Picture 3.2.1



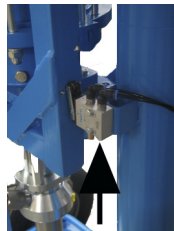
for Lifting Cart, Picture 3.2.5



for Ram Press / version with valve on ram and pump activation by spray gun, Picture 3.2.3

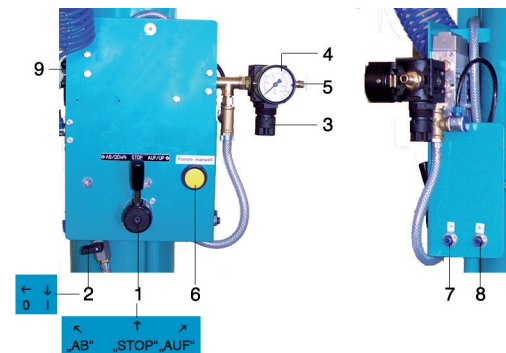


Push-rod valve on spray gun

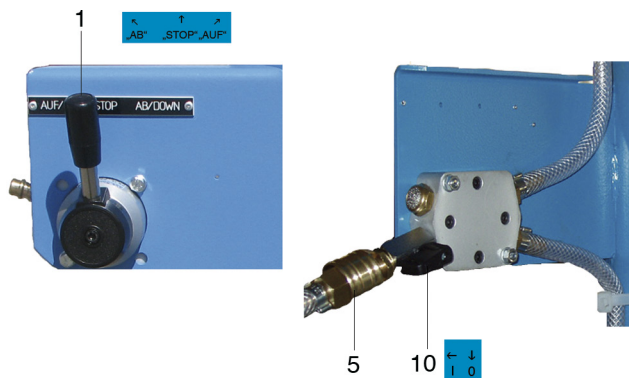


Roller-lever valve on ram

for Ram press / version with front plate and auto-matic function, Picture 3.2.2



for Lift, Picture 3.2.4



Pos.	Description
1	Rotary valve
2	Shut-off valve for air supply to follow plate or follow cover
3	Air pressure regulator
4	Air pressure gauge
5	Air connector
6	Switch for manual pump operation
7	Connection for automatic spray gun P = compressed air
8	Connection for automatic spray gun A = Drain/Circulate
9	Roller lever valve
10	Shut-off valve for air supply
11	3-way valve

4 Assembly and Operation

4.1 Setting up

Job

You wish to erect the machine at the site and prepare it for operation.

Prerequisite

All necessary accessories (follower plate / cover, pump, agitator, etc.) are onhand.

Procedure

- Place the machine on an even and solid surface. Only use M12 bolts (mech. strength class 8.8) to anchor the unit's base plate to the floor.
- i** ➤ All operational elements must be easily accessible.
- i** ➤ Only use oiled compressed air. Never use bottled gas (i.e. oxygen or propane) for air supply to the unit.
 - To ensure that sufficient air is supplied, the rating of the compressor must be compared to the unit's air consumption rate.
 - The diameter of the air supply hose must match the connections on the unit.
 - The equipment can be placed inside or outside of spraying booths.
 - Weight and dimensions of the unit can be found in Chap. "Technical Specifications".
- Inspect all nuts, bolts, hose connections and other turnable parts for tightness.

4.2 Equipment preparation and operation - Ram Press

Job

The unit is to be prepared for operation.

Prerequisite

All necessary accessories (follower cover/plate, pump, agitator, etc.) are mounted and the material to be processed is onhand.

- For models with front plate and automatic function:
 - Connect the pneumatic hoses to the valve of the spray gun and on the connections of the front plate (Picture 3.2.2, pos. 7 + 8)
 - Compressed air to the fitting marked "P"
 - Drain/circulate on the fitting marked "A"

- For models with valves on the ram press and spray gun for activation of the pump (Picture 3.2.3):
 - The roller lever valve on the ram press is connected with the spray gun and further to the air supply side of the air maintenance unit on the pump.

Procedure

i Special instructions for the **WIWA**® Twin-Post Ram Press:
To prevent unwanted lifting of the material container, i.e. the drum lifting from the base plate when the traverse moves upward, we recommend that a drum retaining ring (accessory) be installed on the ram press. The corresponding order number is found in the specification sheet, or can be provided by your **WIWA**® customer service representative or directly from the **WIWA**® factory.

- Ensure that the air supply is turned off:
 - Turn the adjusting knob on the air pressure regulator to the left until it turns freely and all pressure is released
 - Set the operating lever (c, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "STOP" position.
- Check for proper connection of all accessories.
- Connect the air supply line to the air supply fitting (Picture 3.2.1 - 3.2.5, pos. 5).
- Switch on the air supply to the equipment.
- Adjust the air pressure regulator (Picture 3.2.1 + 3.2.2, pos. 3) to a pressure of 2 bar.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos.11) to the "UP" position. The traverse (together with mounted components) moves upwards.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos.11) to the "STOP" position as soon as enough free space is reached between the traverse (incl. mounted components) and the top of the drum / container.
- Place the drum / container onto the base plate so that it rests against the lift's drum stop.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "DOWN" position. The traverse lowers the mounted components into the drum / onto the container.



Pay attention to correct seating of the follower plate/cover in the material container/drum.



When the traverse is moving up or down, crushing danger can arise in certain areas of the machine due to inattention.

- **Never place fingers, hands or other body parts between: following plate / cover and container rim, frame and drum cover, traverse and piston rod, traverse and upper tube for air supply.**
- **Take care that no clothing or other object comes between the following plate / cover and the container rim.**

- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "STOP" position as soon as the following plate / cover rests on top of the drum/container.
- Unscrew the plug (Picture 3.1.2 + 3.1.3, pos. 8) from the follower plate / cover to bleed any air from the material container or drum.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "DOWN" position and lower the accessories slowly into the material container or drum.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos.11) to the "STOP" position as soon as the material comes out of the bleed hole in the following plate / cover.
- Screw the plug (Picture 3.1.2 + 3.1.3, pos. 8) back into the follower plate / cover.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "DOWN" position.
- Adjust the air pressure regulator (Picture 3.2.1 + 3.2.2, pos. 3) to the desired operating pressure.



The maximum allowed operating pressure of the ram press is 8 bar / 116 psi.

Result

The start-up is complete.

You may now operate any mounted accessories. Observe and follow the instructions in the User's Handbook for each of the accessories



For versions with front plate and automatic function:

- The connected pump operates only when the gun is triggered and downwards movement of the ram press.
- When the ram reaches the lowest position, a contact on the roller lever valve/spring pin valve (Picture 3.2.2, pos. 9) shuts off the pump.
- To manually operate the pump (for example, to completely empty the material container), press the button on the operating panel of the ram press (Picture 3.2.2, pos. 6). Releasing the button will again shut off the pump.



For versions with valves on the ram press and spray gun for activation/deactivation of the pump:

- The connected pump operates only when the gun is triggered and there is movement of the ram within the travel limits set by the roller lever valve.
- The connected pump shuts off when:
 - The ram is in the lowest position,
 - The trigger of the spray gun is released.



Attention!

If the spray gun is triggered while the ram is in upward travel, the pump will draw air and must be bled before the next use.

Therefore, the trigger must be secured before and during upward movement of the ram (for example, on changing of the material container).

Read and follow the instructions in the user's handbooks for the spray gun and pump.



4.3 Preparation and operation - Lift

Task

Prepare the equipment for operation.

Prerequisite

All necessary accessories (drum cover, pompe, agitator, etc.) for the twin-post lift are mounted and the material to be processed is onhand.

Procedure

- Interrupt the air supply to the equipment:
 - Turn the ball valve (Picture 3.2.4, pos. 10) to the "CLOSED" position.
 - Adjust the rotary valve (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to "STOP".
- Check for proper connection of all accessory items.



If any accessories outside of the material container (i.e. agitator) are in motion, clothing may be caught or material splattered.

This can lead to severe injury or property damage.

- **Turn off all accessories before any upward or downward movement of the lift and wait until they are no longer in motion.**

- Connect the air supply line to the air supply fitting (Picture 3.2.1 - 3.2.5, pos. 5).

- Switch on the air supply to the equipment at the ball valve (Picture 3.2.4, pos. 10).
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "UP" position. The traverse (together with mounted components) moves upwards.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "STOP" position as soon as enough free space is reached between the traverse (incl. mounted components) and the top of the drum / container.
- Place the drum / container onto the base plate so that it rests against the lift's drum stop.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "DOWN" position. The traverse lowers the mounted components into the drum / onto the container.



When the traverse is moving up or down, crushing danger can arise in certain areas of the machine due to inattention.

- **Never place fingers, hands or other body parts between: following plate / cover and container rim, frame and drum cover, traverse and piston rod, traverse and upper tube for air supply.**
 - **Take care that no clothing or other object comes between the following plate / cover and the container rim.**
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "STOP" position as soon as the following plate / cover rests on top of the drum/container.

Result

The start-up is complete.

You may now operate any mounted accessories. Observe and follow the instructions in the User's Handbook for each of the accessories.

4.4 Follower plate / cover

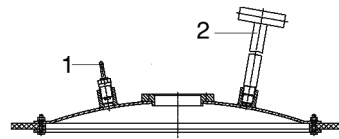
Job

A follower plate / cover should be mounted to or exchanged on a Ram Press.

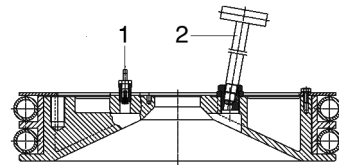
Prerequisite

The following items are necessary:

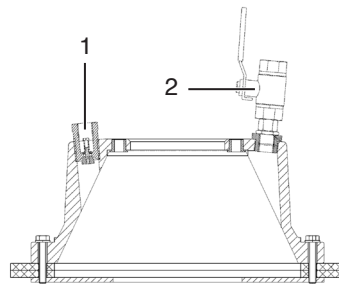
- 1 Follower Plate or Cover
- 1 Mounting Kit for Follower Plate or Cover



Picture 4.1.1
Follower cover
(for 216,5 L drum)



Picture 4.4.2
Follower plate
(not for single-post lifts)



Picture 4.4.3
Follower plate
(only PFP)

Pos.	Beschreibung
1	Hose connection
2	Handle for bleed valve

The use of a follower plate or cover is very specific to the application. The appropriate mounting kits must be ordered for the accessories used.

Contact your **WIWA**® Customer Service Center or the **WIWA**® factory directly for the correct order numbers for the follower plate / cover and mounting kits.

Procedure



Mounting and/or disassembly may only be performed when the unit is shut off!

All accessories must be shut off and pressure released.

Observe all warning found in the chapter "Safety".

- Perform all steps found in chapter 4.1.
- Lower the traverse to its lowest position.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "STOP" position.

- Cut off the air supply to the unit and turn the control knob on the pressure regulator counter-clockwise until it turns freely.
- According to version:
 - Attach the follower plate to the pressure 3.1.2 + 3.1.3, pos. 3) or
 - Mount the follower plate / cover directly to the material pump by using a mounting kit.
- Attach the mounting kit for the ram press to the holder (Picture 3.1.2 + 3.1.3, pos. 4).
- Mount accessory components (i.e. pump) to the ram press mounting assembly.
- Connect the air hose to the hose fitting (Picture 4.4.1 + 4.4.2, pos. 1) on the follow plate / cover.
- Proceed as described in Chapter 4.2.



- Contact with solvent or water can damage the equipment. Do not use materials containing solvent to clean the equipment and do not spray the equipment using high-pressure or water.

Electrically heated follow plate

Observe the following when using an electrically heated follow plate:

Through use of an electrically heated follow plate, high-viscosity can be heated and made to flow more easily.

The heating takes place through a special heater mounted in the follow plate.

The temperature can be adjusted by a temperature regulator (optional).

The electrically heated follow plate is suitable for use with 216,5 L drums.



- The equipment may not be used in areas where there is danger of .



- The heating of materials containing or flammable materials can lead to explosion, causing severe injury and property damage. Follow the processing instructions in the manufacturer's material data sheet-especially the information concerning the max. working temperature (flash point) of the material. Take care that the adjusted temperature for the heater is lower than the manufacturer's stated flash point.



- The connection of the equipment to the power supply may only be performed by properly trained. Observe the stated power rating when connecting the equipment. The equipment must be turned off before connecting to the power supply.



- Turn off the equipment prior to all maintenance and repair work.



- Danger of burn injury! The temperature of the follow plate surfaces, as well as the drum, can reach the max. adjusted temperature of up to 80°C. For this reason, always wear the proper protective hand and lower arm protection.



5 Shutting down

Task

Shut down the equipment after operation.

Prerequisite

Follow the shutdown procedure at each interruption of work.

Procedure

- Turn off all accessories (i.e. high pressure pump).



Observe and follow the instructions in the User's Handbook for each of the accessories.

Ram Press

- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "STOP" position. for versions with automatic function:
 - Trigger briefly the automatic spray gun.
- Adjust the air pressure regulator (Picture 3.2.1 + 3.2.2, pos. 3) to 0 bar.

Lift

- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "STOP" position.
- Close the ball valve (Picture 3.2.4, pos. 10)

6 Exchanging material container

1. Shut down

- Follow all steps of the shut down procedure (see Chapter 5).

2. Exchanging material container or drum



If any accessories outside of the material container (i.e. agitator) are in motion, clothing may be caught or material splattered. This can lead to severe injury or property damage.

- **Turn off all accessories before any upward or downward movement of the lift and wait until they are no longer in motion.**



We recommend that the follow plate/cover be externally cleaned with the material manufacturer's recommended cleaner at each exchange of material container or drum.

➤ Ram Press

- Open the ball valve (Picture 3.2.1 + 3.2.2, pos. 2).
- Adjust the air pressure regulator (Picture 3.2.1 + 3.2.2, pos. 3) to 2 bar.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "UP" position. Compressed air enters the empty drum and assists the upward movement of the follow plate/follow cover with accessories.
- As soon as the follow plate/follow cover with accessories is above the rim of the container:
 - Close the ball valve (Picture 3.2.1 + 3.2.2, pos. 2).
 - Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "STOP" position.
 - Exchange the material container/drum.

➤ Lift

- Open the ball valve (Picture 3.2.4, pos. 10) on the lift.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "UP" position.
- The lift raises the drum cover with accessories from the material container/drum.
- Raise the lift enough that the accessories are no longer inside the container/drum.
- Close the ball valve (Picture 3.2.4, Pos. 10) on the lift.
- Set the operating lever (Picture 3.2.1 - 3.2.2, pos. 3) or the 3-way valve (Picture 3.2.5, pos. 11) to the "STOP" position.
- Exchange the material container/drum.

3. Start up

- Follow all steps of the start up (Chapter 4).

7 Appendix

7.1 Inspection and maintenance

The equipment must be inspected:

- prior to initial start up
- after modifications or repair of components which affect the safety of the unit,
- after an interruption of operation of more than 6 months,
- as a minimum every 12 months.

For non-operational equipment, the inspection may be postponed until the next start up.

The results of the inspection must be recorded in writing and retained until the next inspection.

The inspection certificate must remain at the operating location of the equipment.

7.2 Troubleshooting

Fault	Possible Cause	Solution
Equipment doesn't raise or lower	<ul style="list-style-type: none"> ➤ No air supply connected ➤ Operating control „STOP“ position ➤ Ram press: Air pressure regulator closed ➤ Lift: air supply ball valve is closed ➤ Air pressure adjusted too low ➤ Piston rod seals worn 	<ul style="list-style-type: none"> ➤ Connect air supply ➤ Place operating control in position „UP“ or „DOWN“ ➤ Ram press : Open air pressure regulator ➤ Lift: open air supply ball valve ➤ Increase air pressure adjustment ➤ Replace piston rod seals (apply acid-free grease to piston rods prior to assembly)

7.3 Technical Specifications

Equipment	Dimensions and Weight						Connection Ratings / Performance	
	approx. height (mm) fully lowered	approx. Height (mm) fully raised	approx. width (mm) (Bottom plate / cart)	approx. length (mm) (floor plate) / trolley)	approx. weight (kg)	max. air inlet pressure (bar)	max. lift capacity at max. air pressure (t)	
Single-post ram press for 60 l - container	1065	1760	160	160	41	8	0,375	
Single-post ram press for 216,5 ltr. drum	1560	2600	200	200		8	0,375	
Twin-post ram press - 0,3 T	940	1670	665	500		8	0,3	
Twin-post ram press - 0,75 T / 216 ltr.	1580	2570	660	1000	113	8	0,75	
Twin-post ram press - 0,75 T / 60 ltr.	975	1625	670	650	113	8	0,75	
Twin-post ram press - 2,5 T - Automatic	1630	2600	830	1250	300	8	2,5	
Single post lift - 98 kg / lift range 930 mm	1700	2650	160*	160*		5	0,098	
Single post lift - 98 kg / lift range 600 mm	1135	1750	160*	160*		5	0,098	
Twin post lift - 0,75 T	1580	2570	660	1000	113	8	0,75	
Ram trolley version - 0,3 T – automatic	1050	1730	885	860	235	8	0,3	
Ram trolley version - 2,5 t - automatic	1185	1815	1055	855	235	8	2,5	
Ram trolley version - 0,75 t	1215	1865	910	890		8	0,75	
Lift trolley version	1050	1730	885	860		8	0,3	
Lifting cart	1010	1420	490	550		6,5	0,0625	

* = without floor plate

Noise level: Equipment operates practically noise-free



because it works

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