

VERO-S setup cart

RWA2

Assembly and operating manual

Translation of Original Operating
Manual

Imprint

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Technical changes:

We reserve the right to make alterations for the purpose of technical improvement.

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Dear Customer,

Thank you for trusting our products and our family-owned company, the leading technology supplier of robots and production machines.

Our team is always available to answer any questions on this product and other solutions. Ask us questions and challenge us. We will find a solution!

Best regards,

Your SCHUNK team

Customer Management

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Please read the operating manual in full and keep it close to the product.

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1 General

This operating manual is an integral component of the product and contains important information on safe and proper assembly, commissioning, operation, care, maintenance and disposal. This manual must be stored in the immediate vicinity of the product where it is accessible to all users at all times.

Before using the product, read and comply with this manual, especially the chapter "Basic safety notes". ▶ 2 [5]

If the product is passed on to a third party, these instructions must also be passed on.

Illustrations in this manual are provided for basic understanding of the product and may differ from the actual product design.

We accept no liability for damage resulting from the failure to observe and comply with this operating manual.

1.1 Presentation of Warning Labels

To make risks clear, the following signal words and symbols are used for safety notes.



⚠ DANGER

Dangers for persons!

Non-observance will inevitably cause irreversible injury or death.



⚠ WARNING

Dangers for persons!

Non-observance can lead to irreversible injury and even death.



⚠ CAUTION

Dangers for persons!

Non-observance can cause minor injuries.

NOTICE

Material damage!

Information about avoiding material damage.

1.2 Applicable documents

- General terms of business *
- Catalog data sheet of the purchased product *

The documents labeled with an asterisk (*) can be downloaded from [schunk.com](https://www.schunk.com).

2 Basic safety notes

Improper handling, assembly and maintenance of this product may result in risk to persons and equipment if this manual is not observed.

Report any damage and defects immediately and repair without delay to keep the extent of the damage to a minimum and avoid compromising the safety of the product.

Only original SCHUNK spare parts may be used.

2.1 Intended use

This product is used to store devices and tools as well as other suitable technical facilities.

The technical data specified by the manufacturer must never be exceeded.

The product is intended for industrial use.

Intended use also means that the user has read and understood this operating manual in its entirety, especially the chapter "Basic safety notes".

2.2 Not intended use

The product is not being used as intended if, for example:

- if it is used as a means of transport for the transportation of people, devices and tools as well as other suitable technical facilities.
- It is used in working environments that are not permissible.
- The technical data specified by the manufacturer are exceeded during usage.

2.3 Notes on particular risks

This product may pose a danger to persons and property if, for example:

- It is not used as intended;
- It is not installed or maintained properly;
- The safety and installation instructions, local applicable safety and accident prevention regulations or the EC Machinery Directive are not observed.



⚠ WARNING

Risk of injury due to falling parts when setting up, operating, dismantling, and transporting the setup cart.

Parts that have not been properly secured or incorrectly positioned parts can come loose and fall down.

- Use suitable lifting equipment and means of transport.
- Position the devices and tools safely.
- When transporting and using the setup cart, stay clear of the danger zone.
- Wear personal protective equipment.



⚠ WARNING

Risk of injury as a result of the setup cart tilting if loading of the storage rack or the drawers is uneven or top-heavy.

- Load the setup cart evenly.
- Observe the maximum load weight.



⚠ WARNING

Risk of injury due to crushing or hitting when moving the setup cart.

There is a danger of crushing or hitting when sliding the setup cart or if it starts moving of its own accord on uneven ground.

- Observe the stopping distance when sliding the setup cart.
- When setting down the setup cart, actuate at least both holding brakes (guide rollers must point outwards).
- When closing the drawer, there is a risk of crushing. The drawer cover and the base frame close flush.



⚠ WARNING

Risk of injury due to accessibility and body posture

During setup, operation, disassembly and transport, a required body posture can cause physical and psychological stresses.

- Use suitable lifting equipment.
- Wear personal protective equipment.
- Creating suitable work environment conditions.



⚠ CAUTION

Risk of injury from parts which are under spring force (drawer locking, drawer pull-out safety device)

- Wear protective gloves during assembly, operation and disassembly.



⚠ CAUTION

There is a risk of crushing when loading and unloading the setup cart.

- Use suitable lifting equipment.
- Wear personal protective equipment.



⚠ CAUTION

Risk of slipping or falling if the operational environment of the setup cart is not clean (e.g. contaminated with cooling lubricants or oil).

- Ensure that the working environment is clean before starting assembly, disassembly and de-installation work.
- Wear suitable safety boots.
- Observe the safety and accident prevention regulations when operating the setup cart.



⚠ CAUTION

Risk of injury due to sharp edges and rough or slippery surfaces.

There is a risk of suffering abrasions from raw components of the setup cart and its accessories.

- Wear personal protective equipment, particularly protective gloves.

2.4 Instructions for safe operation

- Make sure the load on the setup cart and on the drawers is equal when loading and unloading. Raise/Lower loads slowly.
- During storage as well as during loading and unloading, activate the holding brake at both guide rollers.
- Only use on even ground (according to DIN 18202). Take special care that the ground is even when loading and unloading.
- Always fully close the drawer after loading or unloading - drawer locking must be activated.
- Never use force when opening a drawer. Fully press the knurled knob when deactivating the drawer lock.
- Observe the permitted load rating of the individual drawers and the storage rack.
- Make sure the drawers are fully closed (locked) before sliding the setup cart.
- Use the handles to slide the setup cart.
- Never let the setup cart roll by itself.
- When on uneven or sloping surfaces, make sure that the setup cart does not tilt or is set into motion of its own accord.
- Make sure the clamping pin holder is positioned correctly.

2.4.1 Constructional changes, attachments, or modifications

Additional threads, bore holes or attachments which are not supplied as accessories by SCHUNK may affect safety. They may only be applied after obtaining the prior consent of SCHUNK.

2.5 Personnel qualification

Only qualified specialist personnel with the relevant safety training may commission and operate the setup cart.

All persons charged with operating the setup cart must have access to the operating manual, especially the chapter "Basic safety notes".

2.6 Organizational measures

Obeying the rules

The operator must employ suitable organizational measures and instructions in order to ensure that the relevant safety rules are obeyed by the persons asked to operate, maintain and repair the setup cart.

Monitoring the behavior of personnel

The operator must at least occasionally check that the personnel are behaving in a safety-conscious manner and are aware of the potential hazards.

Danger signs

The operator must ensure that the signs concerning safety and hazards on the machine where the setup cart is used are clearly legible and are observed.

Malfunctions

If safety-related malfunctions come about at the setup cart, then it must be shut down immediately until such a time as the malfunction has been found and remedied. Only allow specialists to remedy malfunctions.

Spare parts

Only use original SCHUNK spare parts.

Environmental regulations

Comply with the applicable legal norms when disposing of waste.

2.7 Personal protective equipment

Use of personal protective equipment

Personal protective equipment serves to protect staff against danger which may interfere with their health or safety at work.

- When working on and with the product, observe the occupational health and safety regulations and wear the required personal protective equipment.
- Observe the valid safety and accident prevention regulations.
- Wear protective gloves to guard against sharp edges and corners or rough surfaces.
- Wear heat-resistant protective gloves when handling hot surfaces.
- Wear protective gloves and safety goggles when handling hazardous substances.
- Wear close-fitting protective clothing and also wear long hair in a hairnet when dealing with moving components.

3 Warranty

If the product is used as intended, the warranty is valid for 24 months from the ex-works delivery date under the following conditions:

- Observe the applicable documents, ▶ 1.2 [4]
- Observe the ambient conditions and operating conditions
- Observance of the permitted load rating of the individual drawers and the storage rack. ▶ 6.2 [14]
- Observance of the specified care and maintenance instructions ▶ 8 [20]

Not covered by the warranty are clamping pin holders, storage racks, screw connections, springs, bearings, screws and wearing parts.

4 Scope of delivery

- 1 VERO-S setup cart 2 (RWA2)**
- 1 Assembly and operating manual**

4.1 Accessories

(see catalog or data sheets when ordering separately)

Clamping pin holder (RWH mini 74-25)

Clamping pin holder (RWH mini 74-45)

Clamping pin holder (RWH plus 74-25)

Clamping pin holder (RWH plus 74-45)

5 Technical data

| | |
|-------------------------------------------|-------------|
| Total height [mm] | 898 |
| Overall width [mm] | 1239.8 |
| Overall depth [mm] | 750 |
| Total weight [kg] | 112 |
| Max. load rating per drawer [kg] | 115 / 150 |
| Max. load rating of the storage rack [kg] | 400 |
| Full pull-out drawer [kg] | 483 |
| Clear height in the drawer [mm] | 199 / 239,5 |
| Storage height in the drawer [mm] | 279 / 319,5 |
| Operating temperature [°C] | +15 to +60 |

The product is intended for industrial use when operated in closed rooms. For this reason, it should be protected against excess humidity, chemical vapors and contamination.

6 Functional description and operation

The item numbers specified for the corresponding individual components relate to the chapter Drawings, ▶ 12 [24]

Carefully lift the product (e.g. using suitable lifting gear) from the packaging.



⚠ CAUTION

Danger of injury due to sharp edges and rough or slippery surfaces

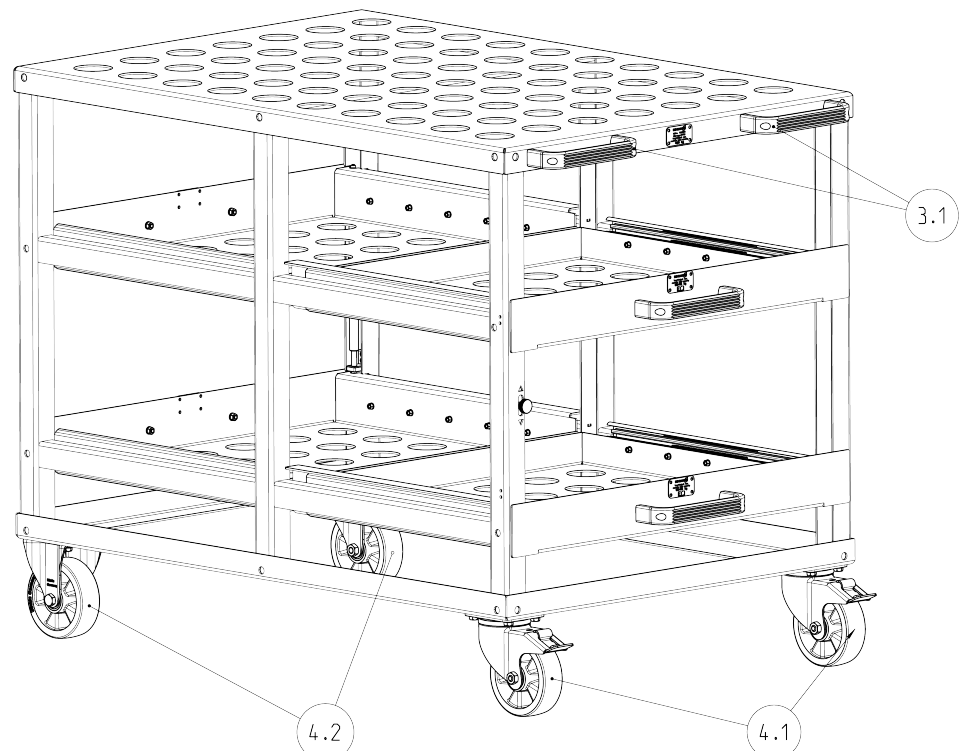
Use personal protective gear, especially safety gloves.

Check the delivery for completeness and for transport damage.

6.1 Sliding and setting down the setup cart

The setup cart has two fixed rollers for heavy loads (item 4.2) and two guide rollers (item 4.1) with holding brake.

The two guide rollers are arranged in such a way that when sliding the setup cart (forwards) the holding brake can always be activated on both of the guide rollers. There are two handles for the purpose of sliding the setup cart (item 3.1).



Setup cart with handles (item 3.1), guide rollers (item 4.1) and fixed rollers for heavy loads (item 4.2)

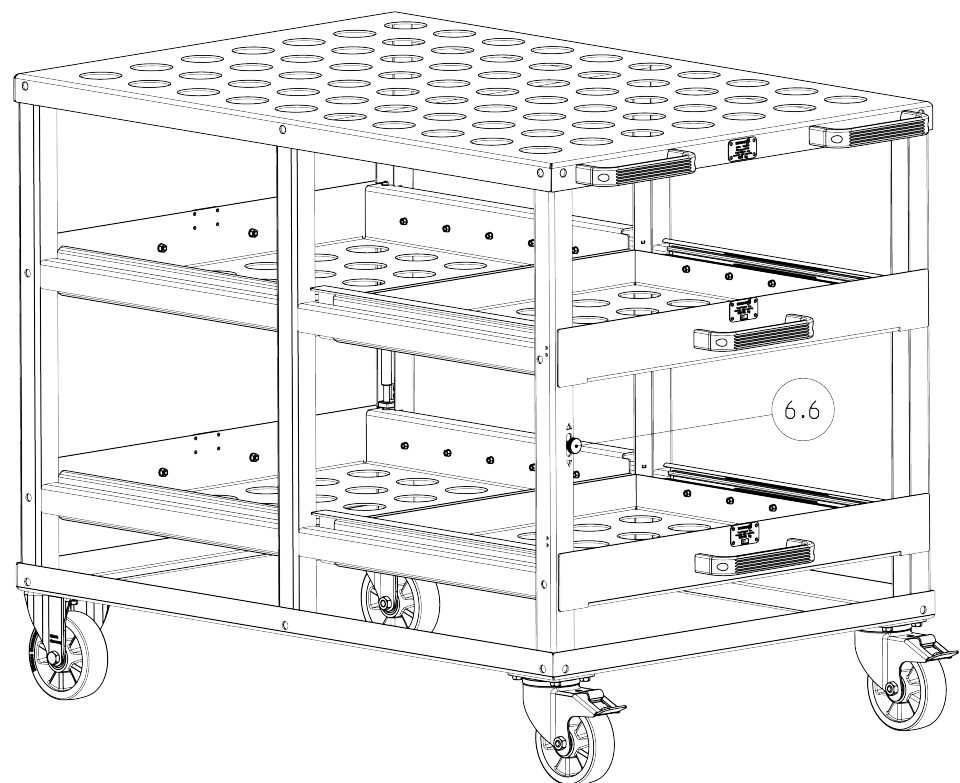
The setup cart is for the quick access to devices and tools as well as other suitable technical facilities directly on the machine. It is not intended for the transport of objects over long distances. For more information on transporting, please see chapter "Transport" ▶ 6.3 [16].

When sliding the setup cart, the stopping distance needs to be taken into consideration according to the load. **The holding brakes are not suitable for decelerating the setup cart.** The holding brake is used to prevent it from moving of its own accord after already stopping.

6.2 Drawers

The drawers each have a drawer lock as well as a drawer pull-out safety device.

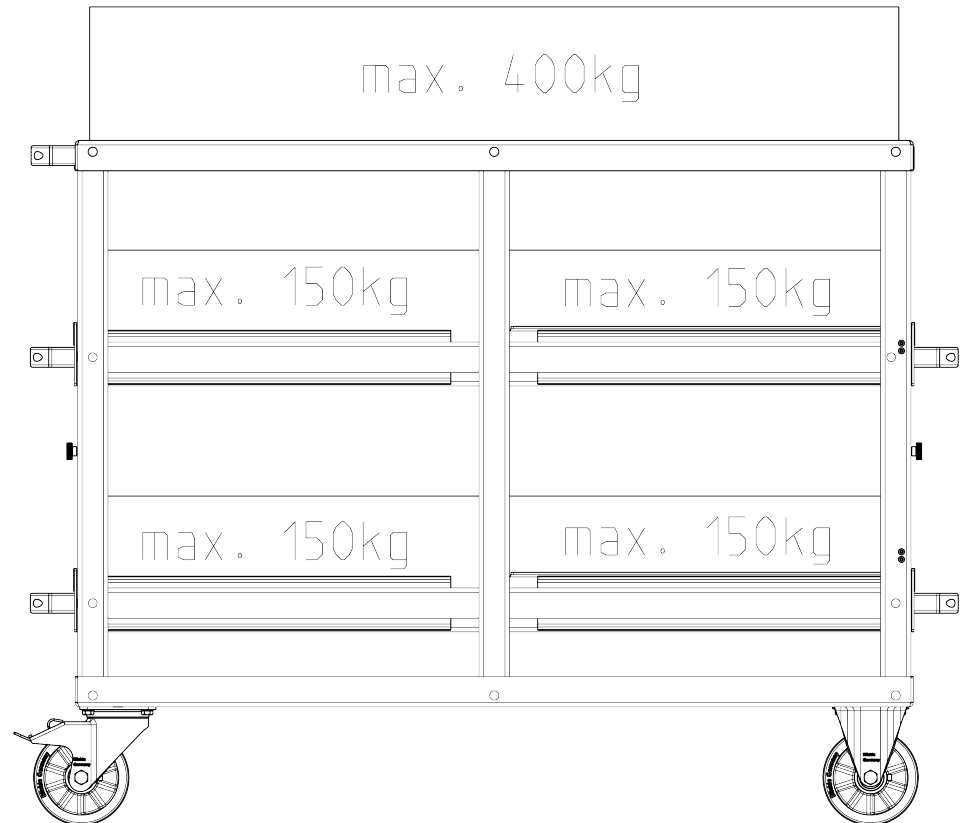
- **Drawer lock:**
The drawer lock locks the drawer in place when in closed position. The lock is released by moving the knurled knob (pos. 6.6) on the left-hand frame profile. As soon as the drawer is opened approx. 20 mm, it is no longer required to hold the knurled knob.
- **Drawer pull-out safety device:**
The drawer prevents the simultaneous opening of multiple drawers. Before you can open another drawer, the opened drawer must first be closed full and you need to hear the drawer lock audibly snap into place.



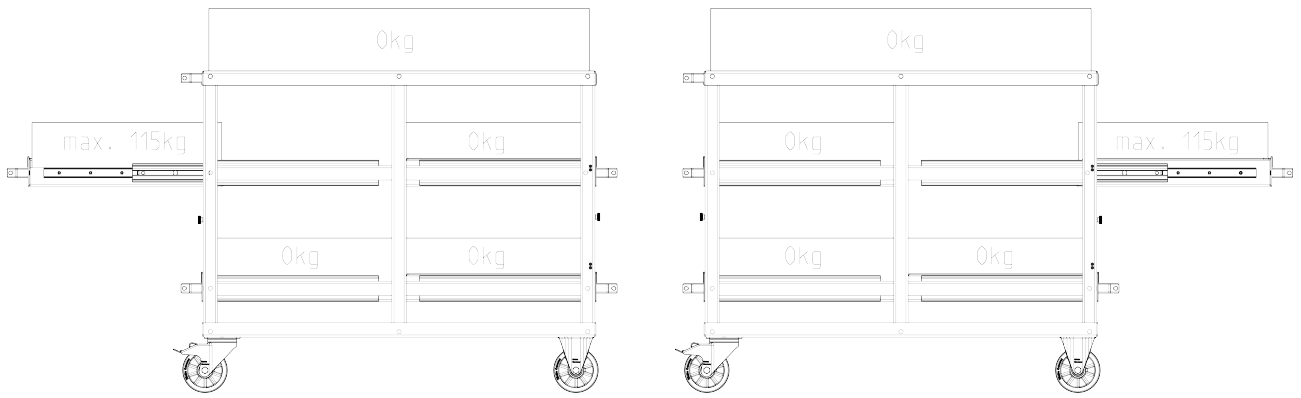
Drawer lock with Knurled knob (item 6.6)

Maximum loading of the drawers and avoiding the risk of tilting

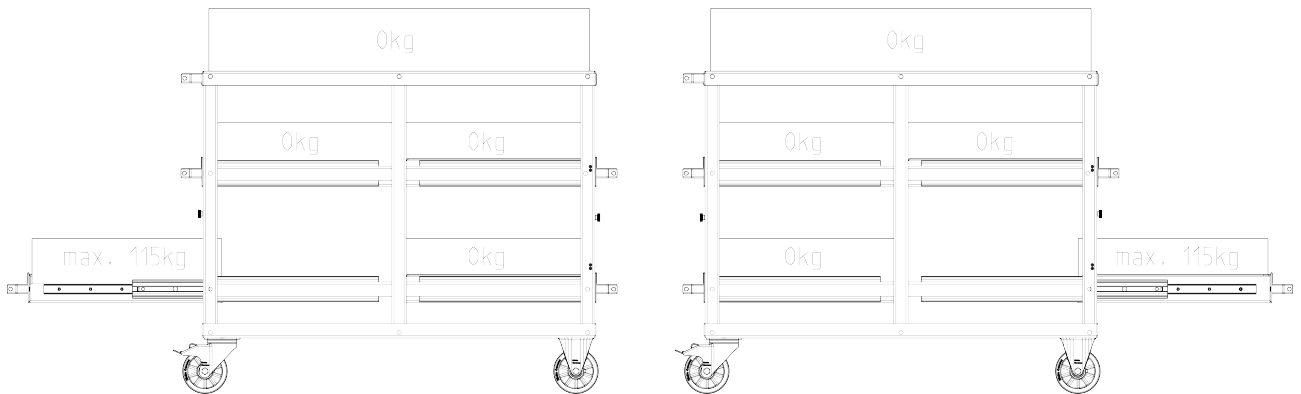
Every drawer has a max. load rating of 150 kg. If loading is uneven or if the setup cart is unloaded, the max. loading of a drawer reduces to 115 kg. Here, take the center of gravity position of the drawer loading into consideration.



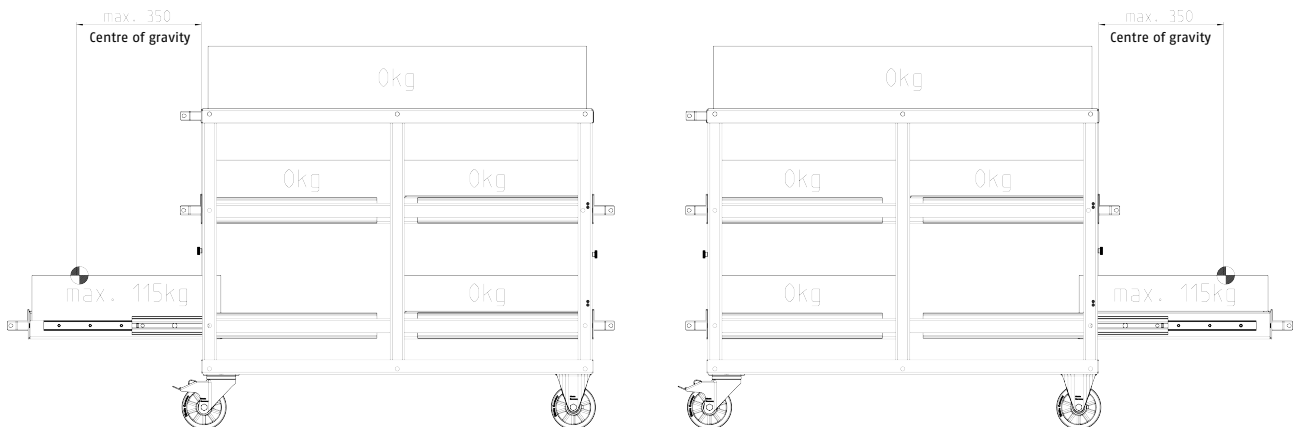
Maximum load rating of the storage rack and the four drawers of the setup cart



Maximum load of the upper drawers with otherwise unloaded setup cart



Maximum load of the lower drawers with otherwise unloaded setup cart

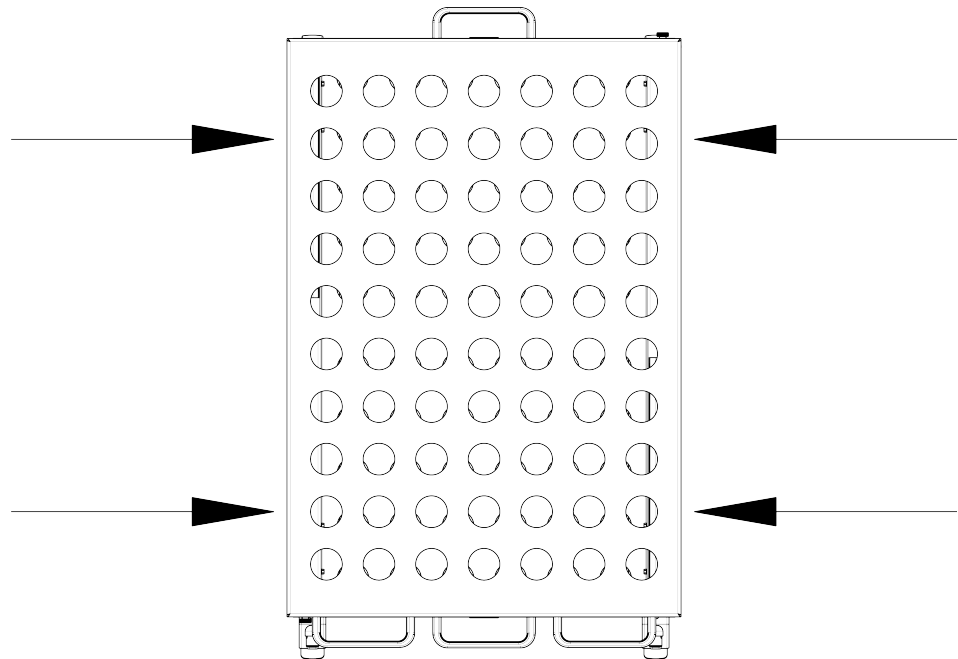


Observation of the drawer's centre of gravity position with otherwise unloaded setup cart

6.3 Transport

When sliding the setup cart over longer distances, the following notes must be taken into account depending on the means of transport:

- Sliding using manpower:
The setup cart does not have a brake which would make deceleration possible when sliding. If the setup cart is moved by hand, it will need to be brought to a standstill again manually. Depending on the load, the required stopping distance needs to be taken into consideration.
- Transport with forklift:
Select the position of the fork arms according to the load (center of gravity) of the setup cart. Only load up from the long side!
Position the fork arms up to the stop beneath the setup cart. Use anti-slip mats and secure the setup cart with tension belts.
Only perform the transport at low speeds. Provide additional fastening for top-heavy or heavy loads in the setup cart or remove them from the setup cart before transport.



When transporting with a forklift, only load up from the long side.

- Transport on EPAL Euro pallets:
Before lowering the setup cart to the EPAL Euro pallet, place anti-slip mats under the rollers.
Actuate the holding brake at the guide rollers. Secure the setup cart to the pallet using tension belts or straps.

7 Clamping pin holder

The item numbers specified for the corresponding individual components relate to the chapter Drawings, ▶ 12 [24]



⚠ CAUTION

There is a danger of crushing during assembly and disassembly of the clamping pin holders.

- Use assembly aid.
- Wear personal protective equipment.



⚠ CAUTION

Danger from noise.

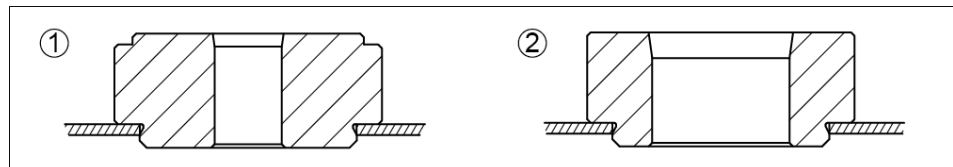
Noise stress from assembling and disassembling the clamping pin holders.

- Wear hearing protection.
- Use soft-head hammer.

7.1 Assembly

The clamping pin holders for holding SPx 20 or SPx 40 clamping pins can be positioned individually on the storage racks and drawers (items 1 and 2).

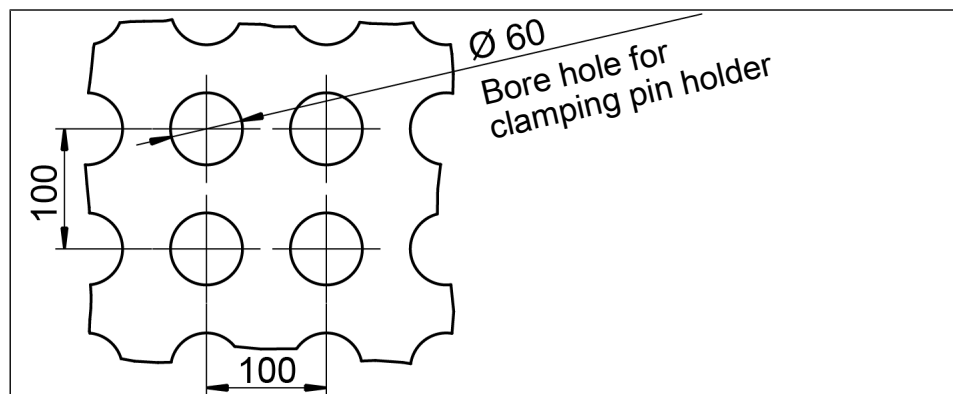
There is an undercut in the clamping pin holder for the fixed position in the locating hole.



1 Clamping pin holder for SPx 20-clamping pin

2 Clamping pin holder for SPx 40-clamping pin

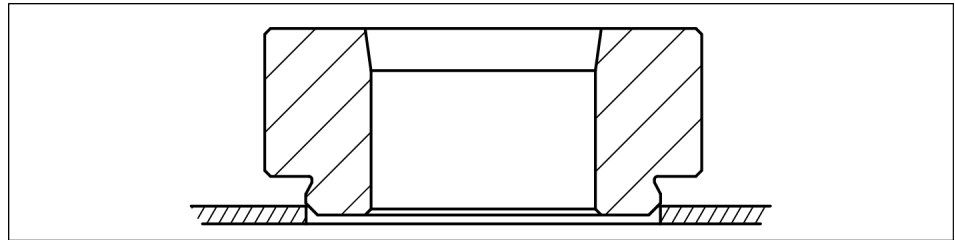
The storage rack and the drawers have a gauge for bore holes of 100 mm in both directions.



Gauge for bore holes of 100 mm of the storage rack and the drawers

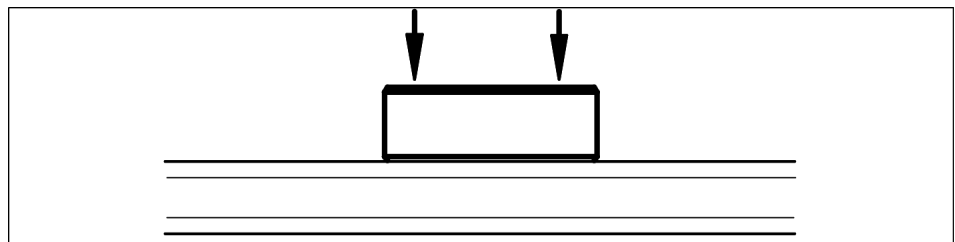
Assembly steps:

Positioning the clamping pin holders centrally above the bore hole of the storage rack or drawer.



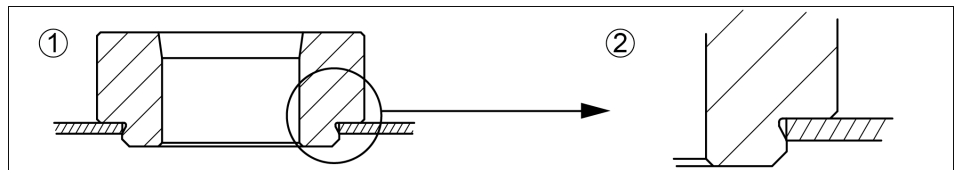
Positioning of the clamping pin holder centrally above the bore hole

Move the clamping pin holder to its end position with soft hammer blows.



Direction of the mating force

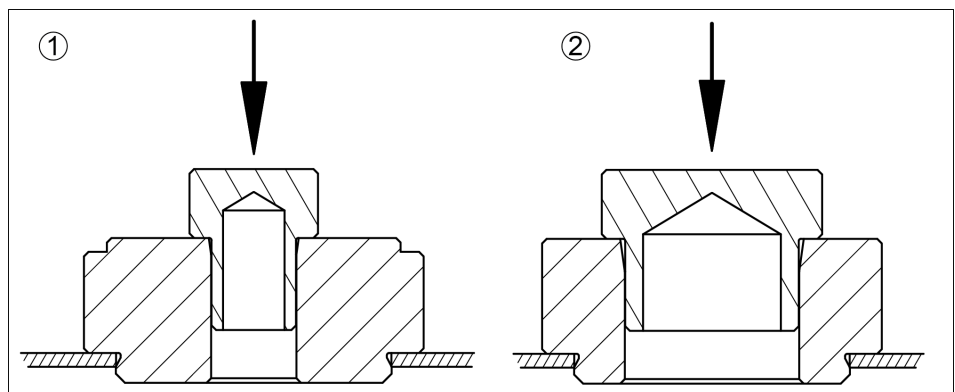
Check that the contact surface is resting flush on the rack.



- 1 End position of the clamping pin holder
- 2 Contact surface of the clamping pin holder flush on the rack

Using a soft-blow hammer is recommended for the assembly.

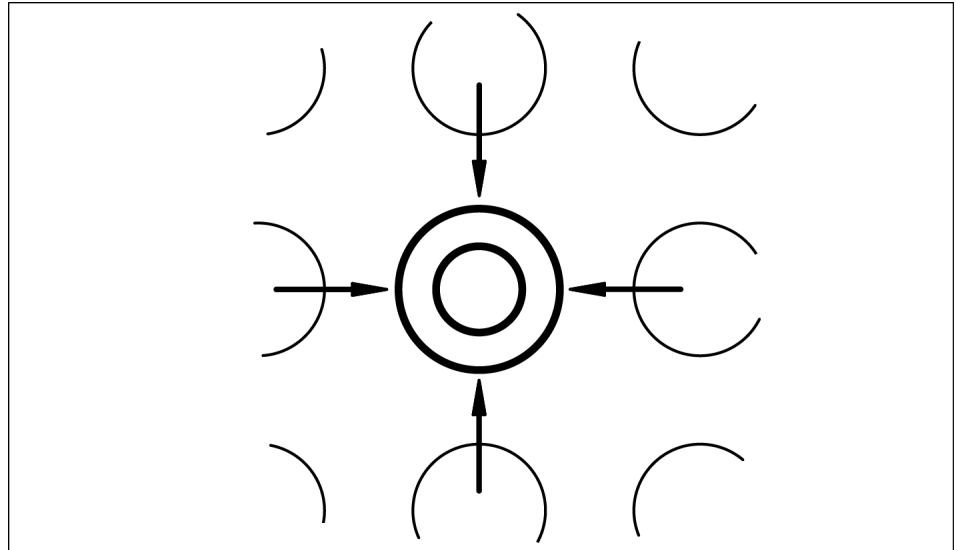
A turned part with collar can be used to make assembly easier. This can be inserted into the holding bore hole of the clamping pin and thus provides a central introduction of mating force.



- 1 For example, a turned part with collar as an assembly aid for the clamping pin holder SPx 20
- 2 For example, a turned part with collar as an assembly aid for the clamping pin holder SPx 40

7.2 Disassembly

The clamping pin holders for holding SPx 20 or SPx 40 clamping pins can be loosened again with light hammer blows along the length.



Hammer blows along the length of the clamping pin holder for disassembly

8 Maintenance

8.1 Maintenance

The setup cart is maintenance-free.

8.2 Care

The frame and the drawers of the setup cart are powder-coated. The storage rack and rack inserts are stainless steel.

Cleaning recommendation for powder-coated surfaces:
(check on non-visible surfaces first, e.g. on the underside of the drawer)

- Use cleaning towels or cloths / natural or plastic sponges. Do not use cleaning pads made of plastic or steel wool.
- For light dirt, clean with clear water (cold or lukewarm). If necessary, supplement with small amounts of neutral or slightly alkaline detergents.
- With stubborn contamination, like greasy or oily substances, aroma-free gasoline hydrocarbons can be used.
- Do not use any scouring or abrasive materials.
- Do not use any acidic or strongly alkaline cleaning or surface-active agents.
- Do not use any organic solvents which contain ester, ketone, alcohol, aromas, glycol ether, halogenated hydrocarbons or similar.
- Surface or detergent temperature < 25 °C.
- Do not use any steam blasters or high-pressure cleaners.

9 Trouble shooting

Drawer does not open / close correctly.

- Check that the drawer locking moves freely.

The parking brake of the guide roller can no longer be operated.

- Check that the brake works properly and replace the guide roll if necessary.

Steering or fixed castor blocked.

- Check for dirt in the castor, replace the castor if necessary.

10 Disposal

After decommissioning the setup cart:

- Disassemble the mounted clamping pin holders (plastic) and dispose of them properly in line with the statutory provisions.
- Dispose of the setup cart's metal parts as scrap metal.

Alternatively, you can return the setup cart to SCHUNK for proper disposal.

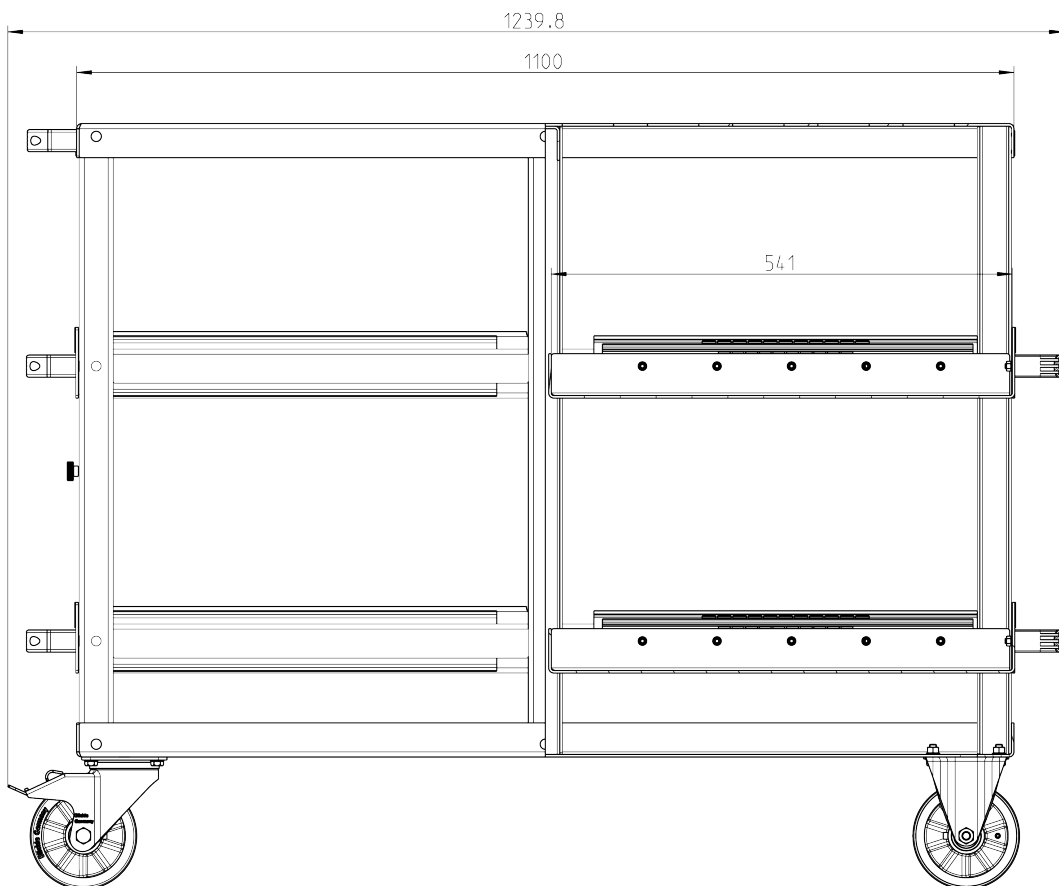
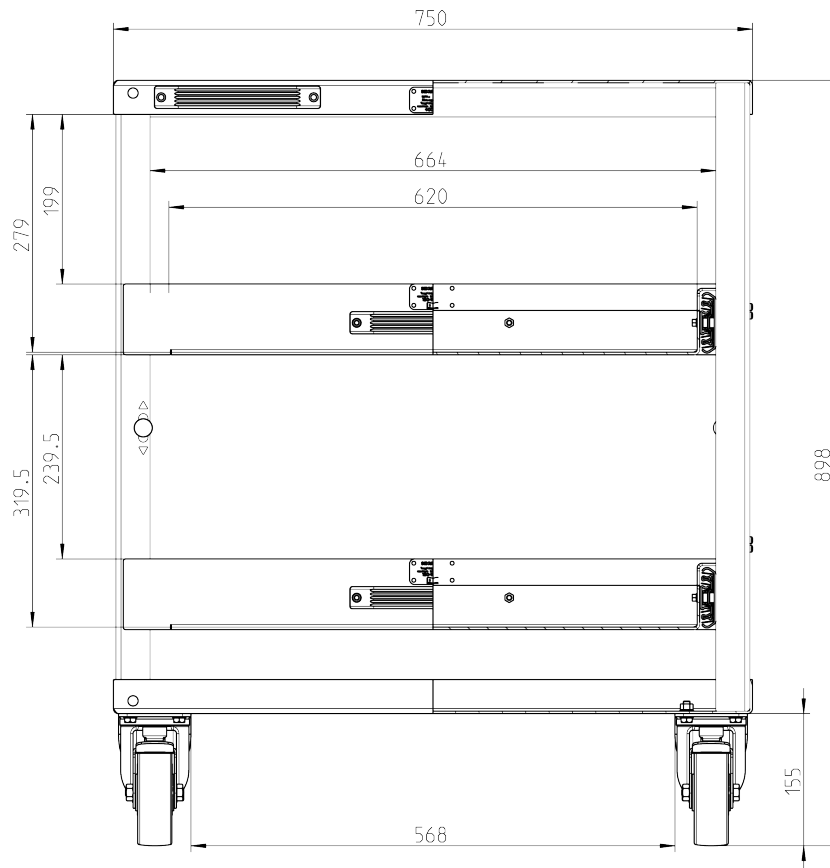
11 Spare parts

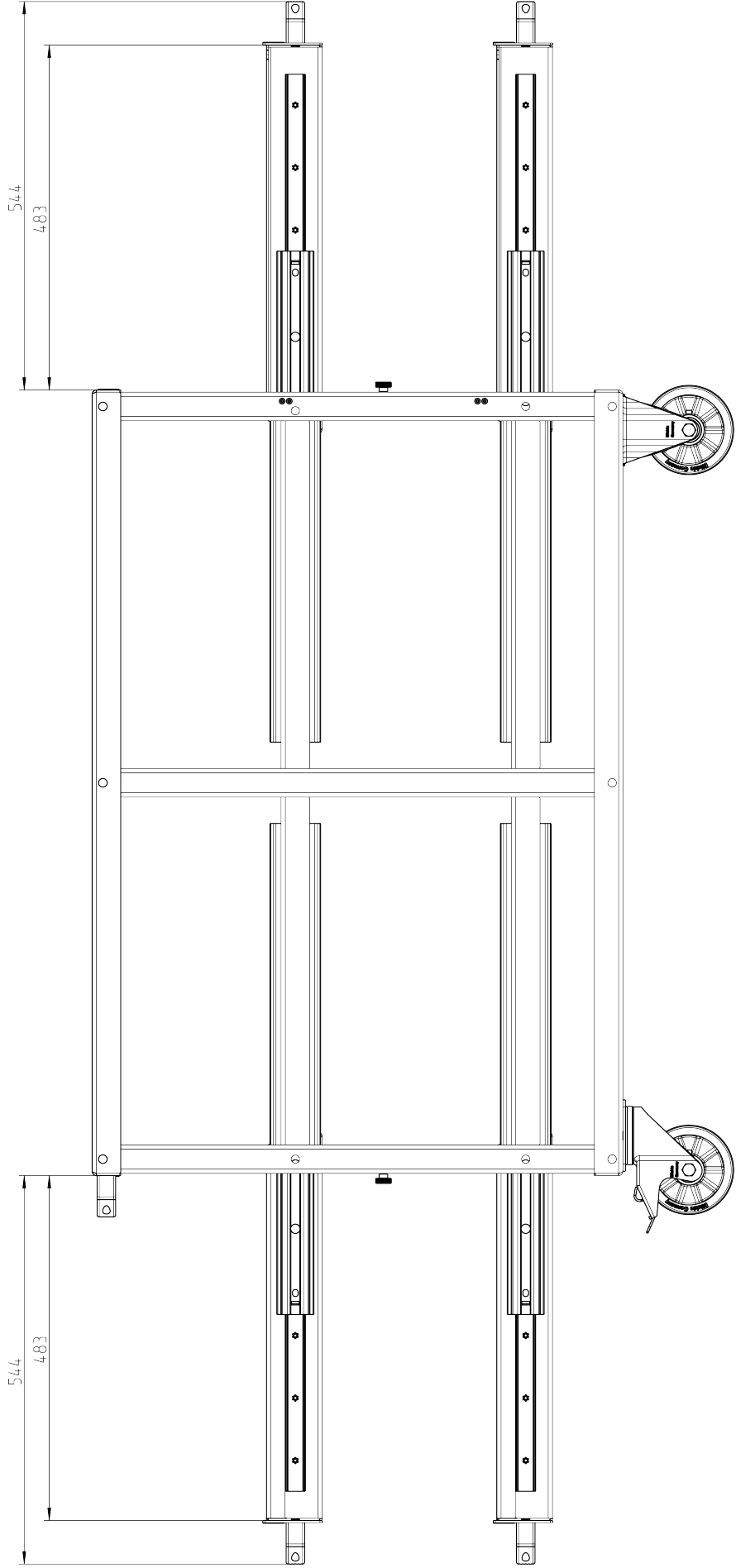
When ordering spare parts, it is indispensable that the exact designation of the spare parts be indicated.

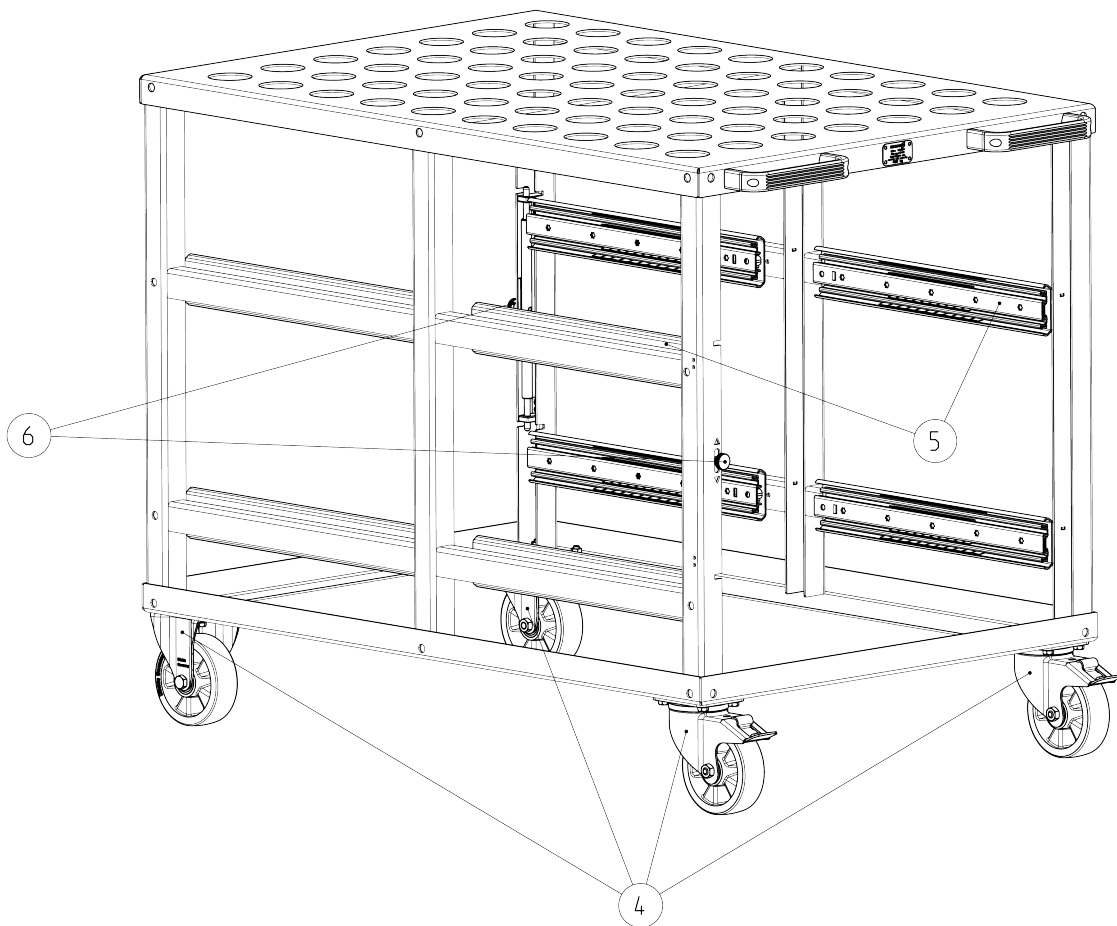
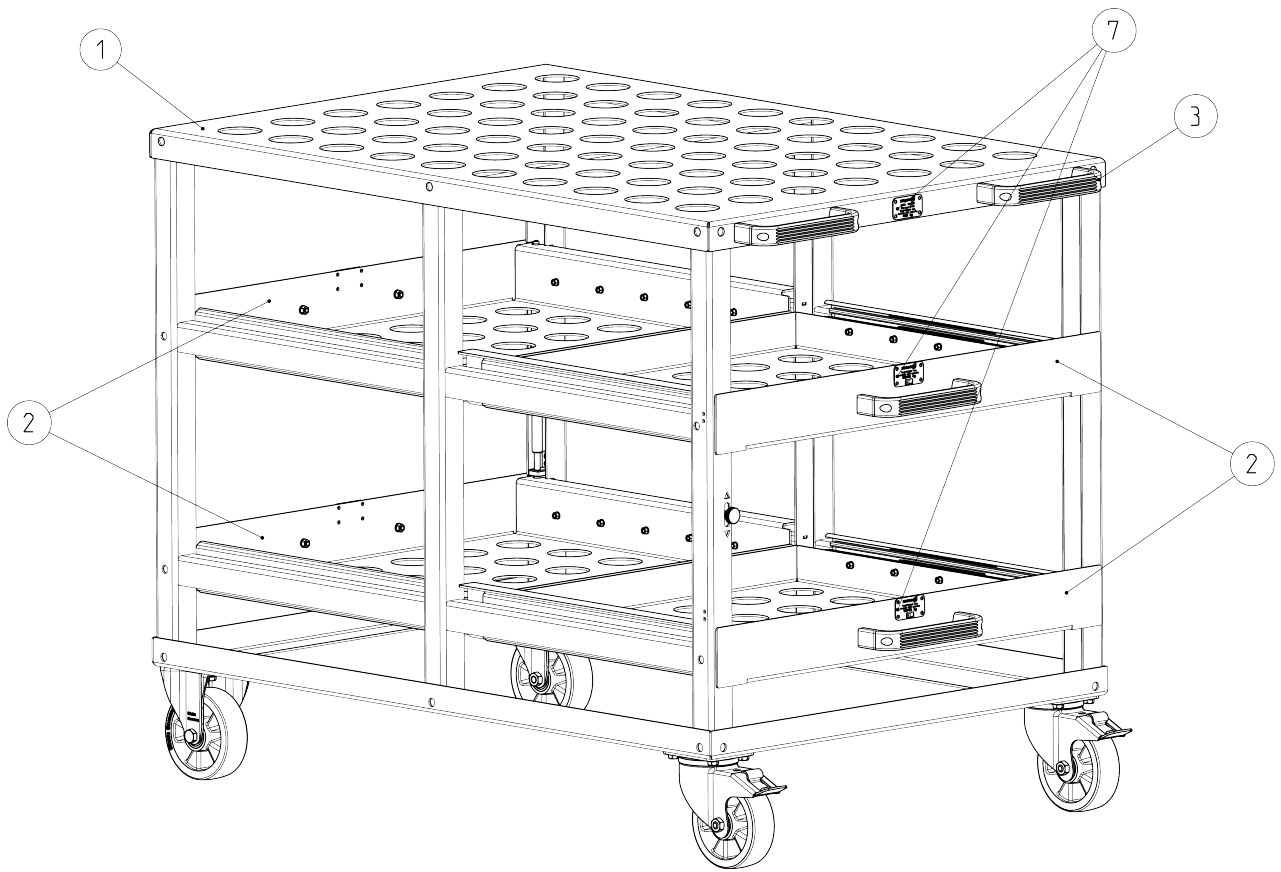
Generally not covered by the warranty are clamping pin holders, screw connections, springs, bearings, screws and wearing parts.

| Item | Designation | Quantity | Order Number |
|------|----------------|----------|--------------|
| 3 | U-handle | 1 | 1549597 |
| 4 | Roller set | 1 | 1549599 |
| 5 | Ball guide set | 1 | 1549600 |
| 6 | Drawer locking | 1 | 1549602 |
| 7 | Aluminium sign | 1 | 1549603 |

12 Drawings











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