

Transport systems

Trolley 35.2-2

099-008296-EW501

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26.07.2016

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General instructions

WARNING



Read the operating instructions!

The operating instructions provide an introduction to the safe use of the products.

- Read and observe the operating instructions for all system components, especially the safety instructions and warning notices!
- Observe the accident prevention regulations and any regional regulations!
- The operating instructions must be kept at the site of operation.
- Safety and warning labels at the machine indicate any possible risks. Keep these labels clean and legible at all times.
- The machine has been constructed to the state of the art and any regulations and standards applicable. It may be operated, serviced and repaired by trained personnel only.



In the event of queries on installation, commissioning, operation or special conditions at the installation site, or on usage, please contact your sales partner or our customer service department on +49 2680 181-0.

A list of authorised sales partners can be found at www.ewm-group.com.

Liability relating to the operation of this equipment is restricted solely to the function of the equipment. No other form of liability, regardless of type, shall be accepted. This exclusion of liability shall be deemed accepted by the user on commissioning the equipment.

The manufacturer is unable to monitor whether or not these instructions or the conditions and methods are observed during installation, operation, usage and maintenance of the equipment.

An incorrectly performed installation can result in material damage and injure persons as a result. For this reason, we do not accept any responsibility or liability for losses, damages or costs arising from incorrect installation, improper operation or incorrect usage and maintenance or any actions connected to this in any way.

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The content of this document has been prepared and reviewed with all reasonable care. The information provided is subject to change, errors excepted.

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2 Safety instructions

2.1 Notes on the use of these operating instructions

2.1.1 Complete documentation



*This document is part of the complete documentation and valid only in combination with the "Power source" operating instructions for the product being used!
Read and observe the operating instructions for all system components, especially the safety instructions!*

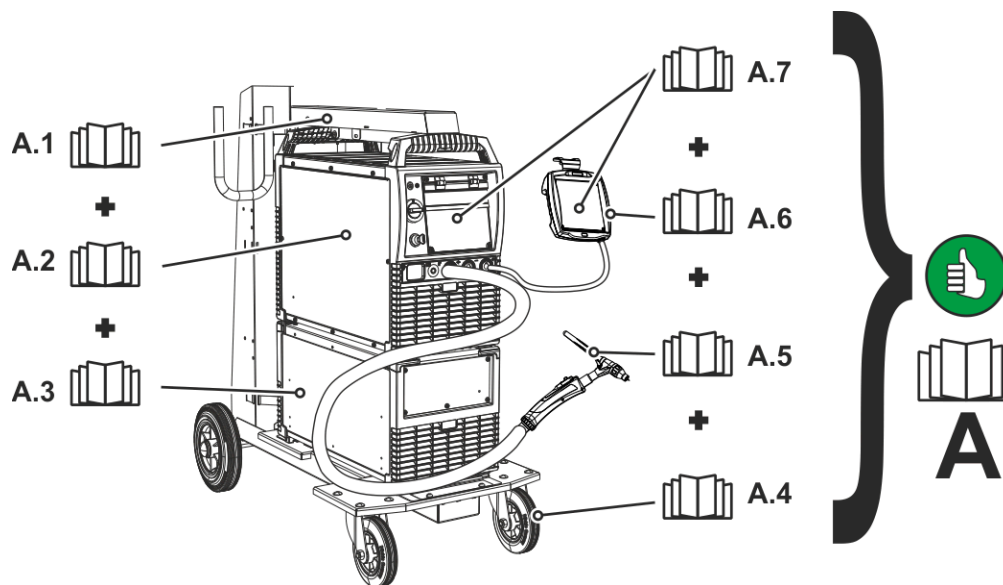


Figure 2-1

The illustration shows a general example of a welding system.

Item	Documentation
A.1	Conversion instructions
A.2	Power source
A.3	Cooling unit, voltage converter, tool box etc.
A.4	Trolley
A.5	Welding torch
A.6	Remote control
A.7	Control
A	Complete documentation

2.1.2 Explanation of icons

Symbol	Description	Symbol	Description
	Indicates technical aspects which the user must observe.		Activate and release/tap/tip
	Switch off machine		Release/do not activate
	Switch on machine		Press and hold
			switch
	Wrong		Turn
	Correct		Numerical value – adjustable
	Menu entry		Signal light lights up in green
	Navigating the menu		Signal light flashes green
	Exit menu		Signal light lights up in red
	Time representation (e.g.: wait 4 s/activate)		Signal light flashes red
	Interruption in the menu display (other setting options possible)		
	Tool not required/do not use		
	Tool required/use		

2.2 Transport and installation

WARNING



Risk of injury due to improper handling of shielding gas cylinders!
Improper handling and insufficient securing of shielding gas cylinders can cause serious injuries!

- Observe the instructions from the gas manufacturer and any relevant regulations concerning the use of compressed air!
- Do not attach any element to the shielding gas cylinder valve!
- Prevent the shielding gas cylinder from heating up.

CAUTION



Risk of accidents due to supply lines!
During transport, attached supply lines (mains leads, control cables, etc.) can cause risks, e.g. by causing connected machines to tip over and injure persons!

- Disconnect all supply lines before transport!



Risk of tipping!
There is a risk of the machine tipping over and injuring persons or being damaged itself during movement and set up. Tilt resistance is guaranteed up to an angle of 10° (according to IEC 60974-1).

- Set up and transport the machine on level, solid ground.
- Secure add-on parts using suitable equipment.



The units are designed for operation in an upright position!
Operation in non-permissible positions can cause equipment damage.

- ***Only transport and operate in an upright position!***



Accessory components and the power source itself can be damaged by incorrect connection!

- ***Only insert and lock accessory components into the relevant connection socket when the machine is switched off.***
- ***Comprehensive descriptions can be found in the operating instructions for the relevant accessory components.***
- ***Accessory components are detected automatically after the power source is switched on.***



Protective dust caps protect the connection sockets and therefore the machine against dirt and damage.

- ***The protective dust cap must be fitted if there is no accessory component being operated on that connection.***
- ***The cap must be replaced if faulty or if lost!***

3 Intended use

WARNING



Hazards due to improper usage!

The machine has been constructed to the state of the art and any regulations and standards applicable for use in industry and trade. It may only be used for the welding procedures indicated at the rating plate. Hazards may arise for persons, animals and material objects if the equipment is not used correctly. No liability is accepted for any damages arising from improper usage!

- The equipment must only be used in line with its designated purpose and by trained or expert personnel!
- Do not improperly modify or convert the equipment!

To transport arc welding systems and process-dependent components such as shielding gas cylinders.

3.1 Use and operation solely with the following machines

In general, the trolley accommodates machines with with round or rectangular feet. For machines with rectangular feet, the machine feet adapter (included) has to be installed on the trolley.

The following table shows system component combination options:

	cool35 U31	cool40 U31	cool41 U31	cool50 U40
Tetrix 230 TM	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tetrix 300 TM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tetrix 300 puls TM	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tetrix 400-2 TM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taurus 355 TKM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phoenix 355 TKM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

possible

not possible

4 Machine description – quick overview

4.1 Trolley 35-2-2

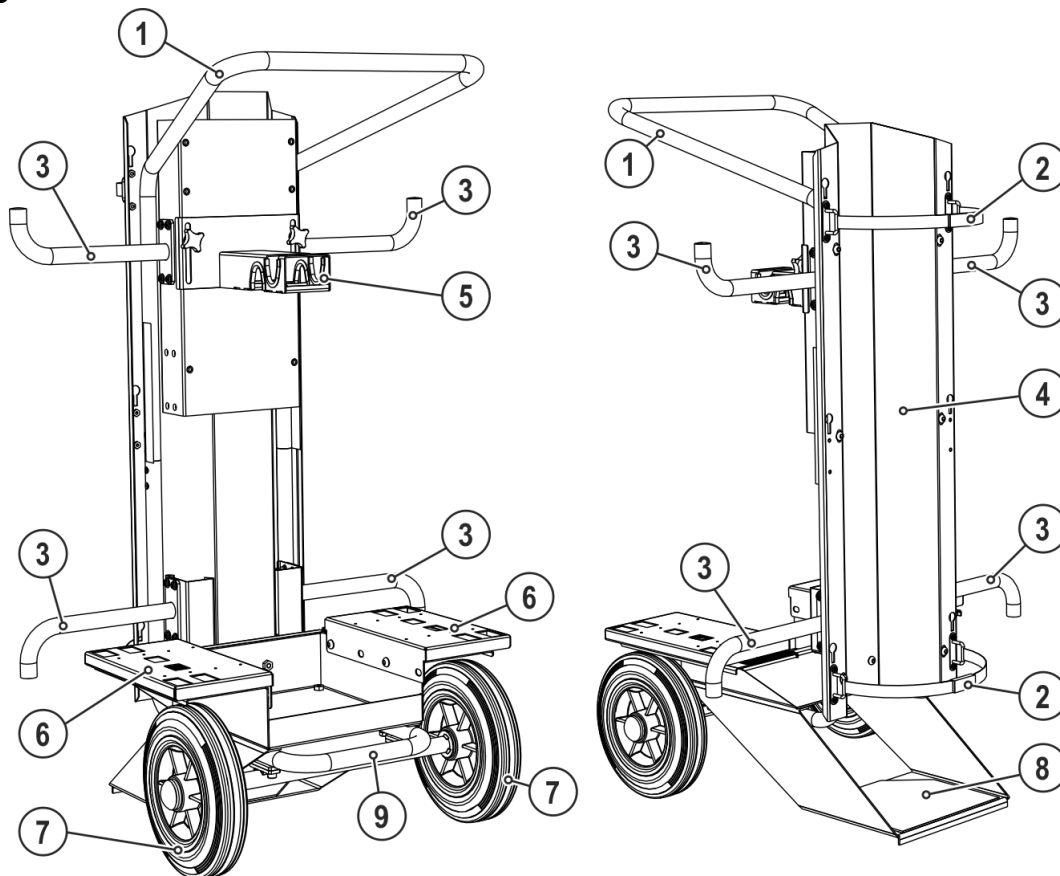


Figure 4-1

Item	Symbol	Description
1		Carrying handle
2		Straps
3		Bracket for cables and hoses (opposite mounting)
4		Retainer panel for gas cylinder
5		Machine hold-down device
6		Machine feet adapter
7		Transport wheel
8		Shielding gas cylinder holder Carrier plate for the shielding gas cylinder
9		Foot bar

5 Design and function
5.1 Assembly

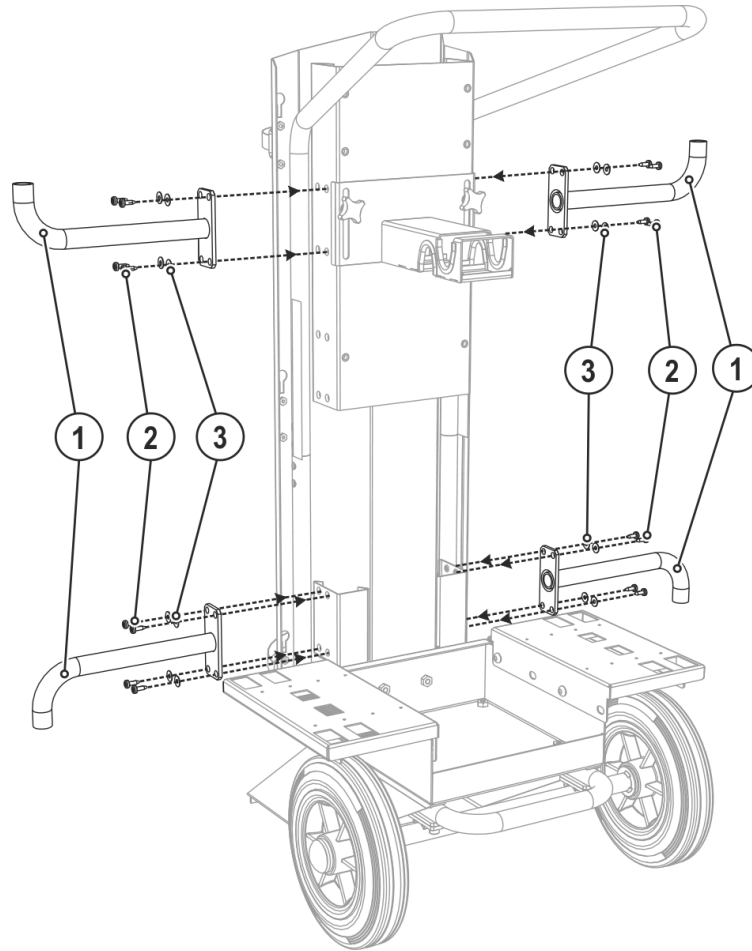


Figure 5-1

Item	Symbol	Description
1		Bracket for cables and hoses (opposite mounting)
2		Threaded grooved pin M5 x 16 mm
3		Cup spring M5

- Install the brackets to the trolley using an allen key (T25) and the supplied screws (see figure).

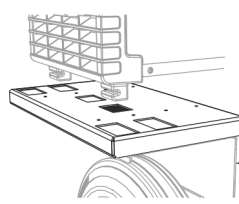
5.1.1 Install the machine feet adapter

In general, the trolley accommodates machines with round or rectangular feet. For machines with rectangular feet, the machine feet adapter (included) has to be installed on the trolley.

⚠ CAUTION

! Risk of accidents due to improperly prepared transport vehicle!
Depending on the machine series the trolley has to be adapted to mount the machine. Failing to adapt the trolley can cause the machine being transported to topple and lead to injuries!

- Use trolley with machine feet adapter for machines with rectangular feet.
- Remove machine feet adapter for machines with round feet.



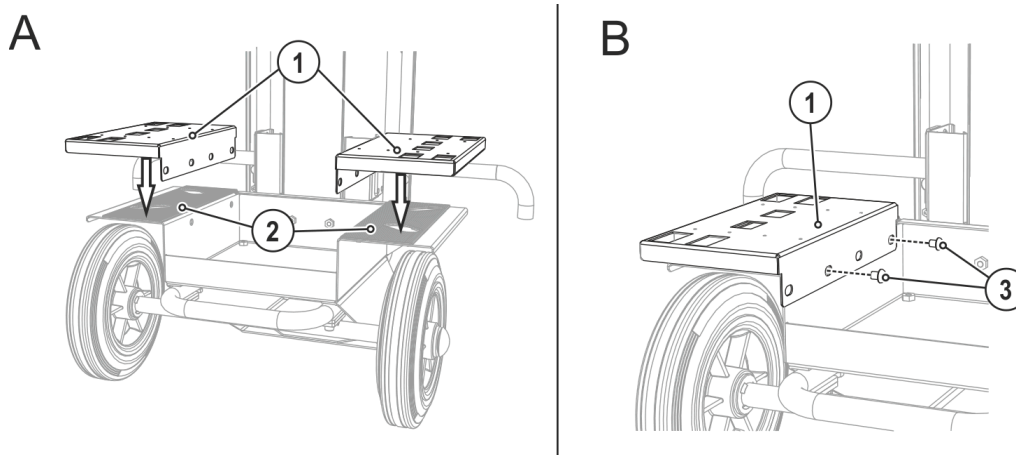


Figure 5-2

Item	Symbol	Description
1		Machine feet adapter
2		Machine carrier plate To support the welding machine.
3		Tallow-drop hexagon screw M8x10

- Install the machine feet adapter on the machine support using an allen key (5 mm) and the supplied screws,

5.2 Mounting the machine

5.2.1 Fixing the welding machine

Mounting process using an example. Procedure is similar for other models as appropriate.

The position of the cross bar depends on the casing width.

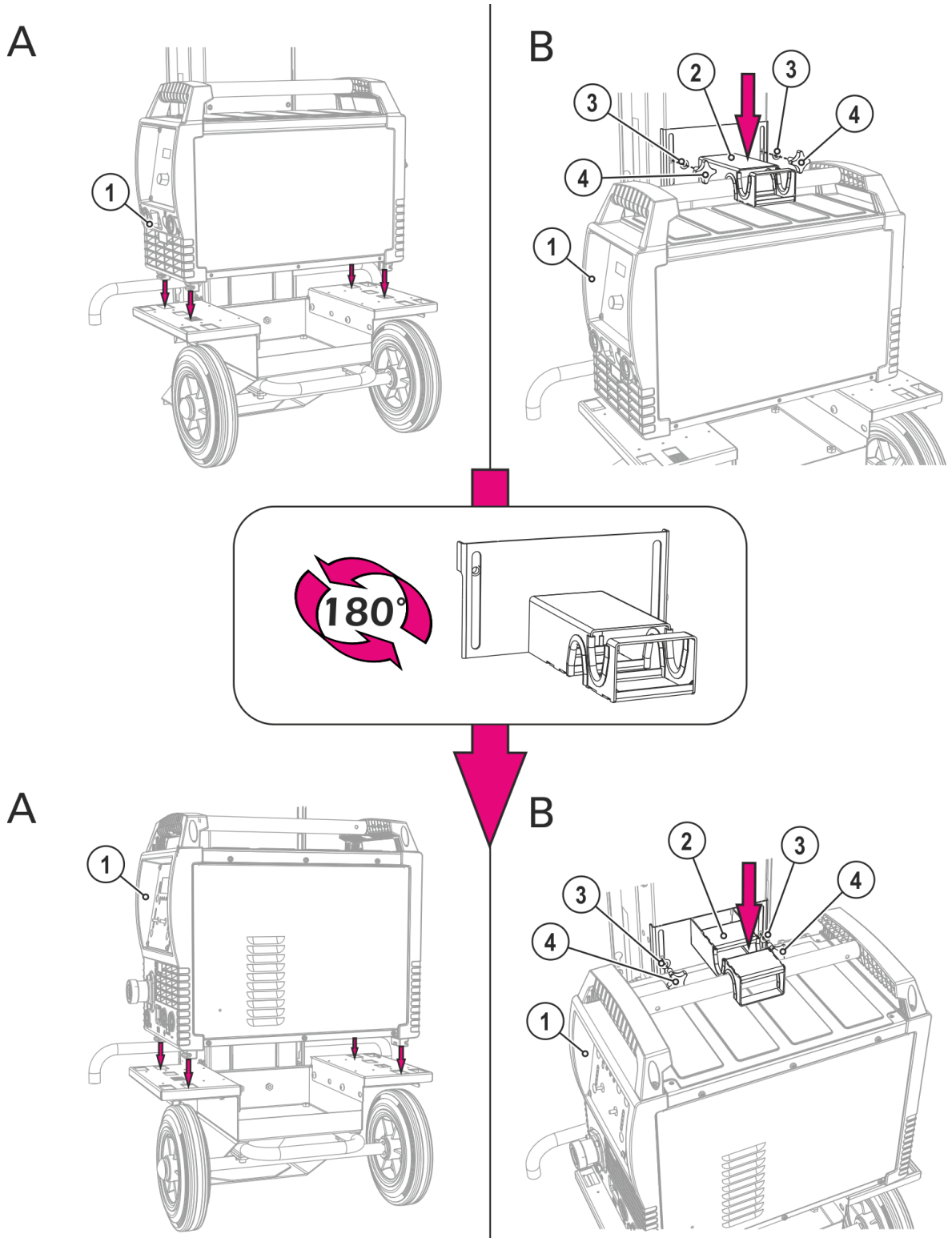


Figure 5-3

Item	Symbol	Description
1		Power source
2		Hold-down fitting for welding machine
3		Plain washer M5
4		Star handle M8x20

- Place the welding machine with its feet in the holes provided.
- Lower machine hold-down fitting onto the handle of the power source.
- Secure the machine hold-down fitting using star handles.

5.2.2 Fixing a welding machine with cooling module



The illustration serves as an example only.

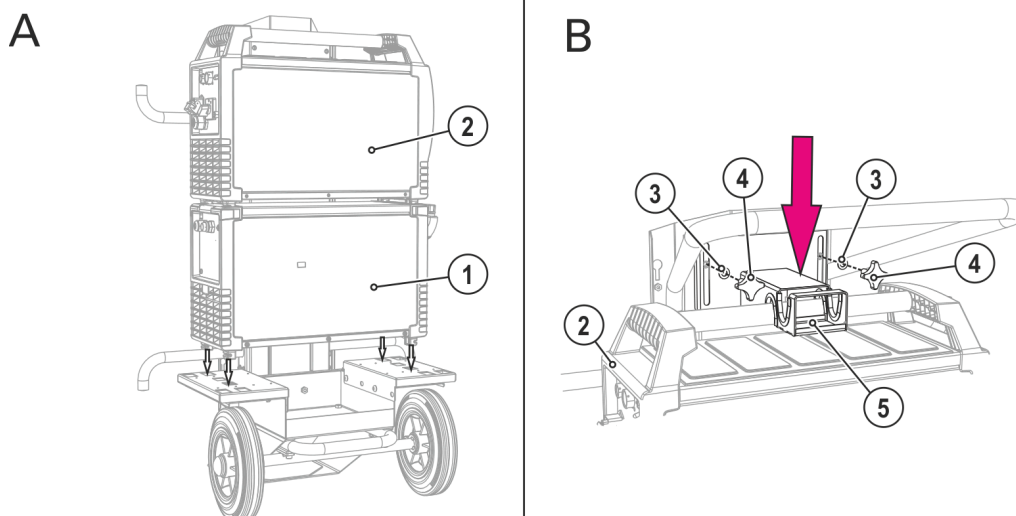


Figure 5-4

Item	Symbol	Description
1		Cooling unit
2		Power source
3		Plain washer M5
4		Star handle M8x20
5		Hold-down fitting for welding machine

- Place the cooling unit with its feet in the recesses provided.
- Connect the welding machine with the cooling unit. (See operating instructions for cooling unit/power source)
- Lower machine hold-down device to the handle of the power source.
- Secure the machine hold-down device using star knobs.

5.3 Securing the shielding gas cylinder

⚠ WARNING



**Risk of injury due to improper handling of shielding gas cylinders!
Improper handling and insufficient securing of shielding gas cylinders
can cause serious injuries!**

- Secure shielding gas cylinders using the standard fastening elements on the unit (chain/belt)!
- Two fastening elements have to be used! Adjust the position of the fastening elements to the shielding gas cylinder size!
- The fastening elements must tightly enclose the shielding gas cylinder.

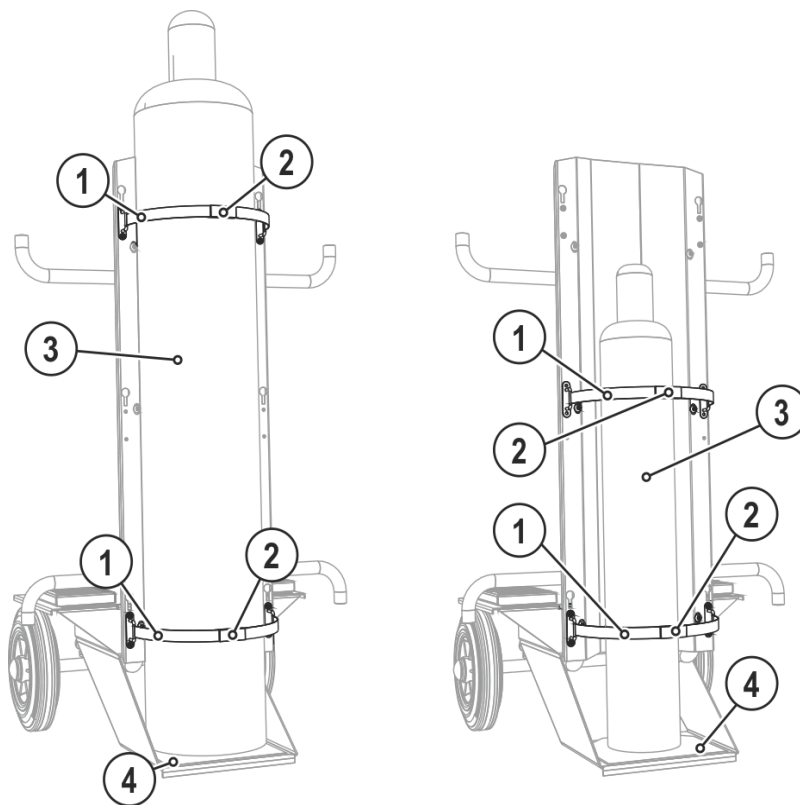
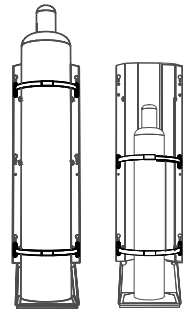


Figure 5-5

Item	Symbol	Description
1		Straps
2		Tension closure
3		Shielding gas cylinder
4		Shielding gas cylinder holder Carrier plate for the shielding gas cylinder

Both large and small shielding gas cylinders can be moved with the transport system.

- Open the tension closures on the straps.
- Place the shielding gas cylinder on the retainer.
- Secure the shielding gas cylinder with the straps.
- Fasten the straps using the tension closures.
- Make sure that the straps fit securely around the gas cylinder.

5.4 Using the transport system

⚠ WARNING



Improper work carried out!

In the event of improper work carried out on the display stand, the display stand may lose stability, tip over and result in serious injury!

- Only use the construction and fitting parts supplied!
- Do not load the display stand without reinforcement panels affixed!

⚠ CAUTION

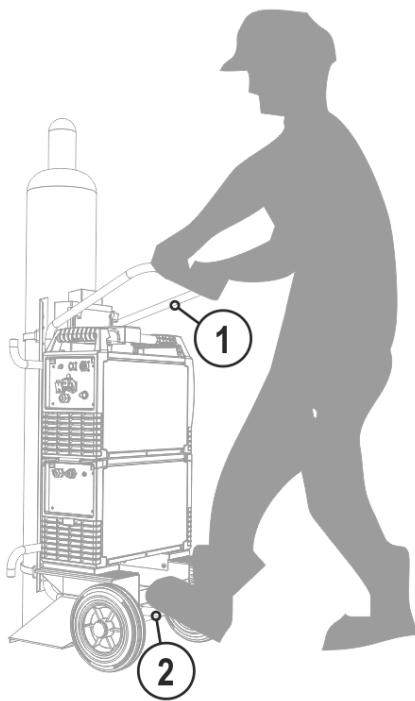


Improperly secured equipment!

Equipment, equipment combinations and accessories incorrectly fastened onto transport systems can tip over during transport and cause injuries!

- Only used the original parts supplied to fasten the equipment.
- Use the systems only for transporting the machines .
- Check the fixing points before each transport and at regular intervals.

A



B

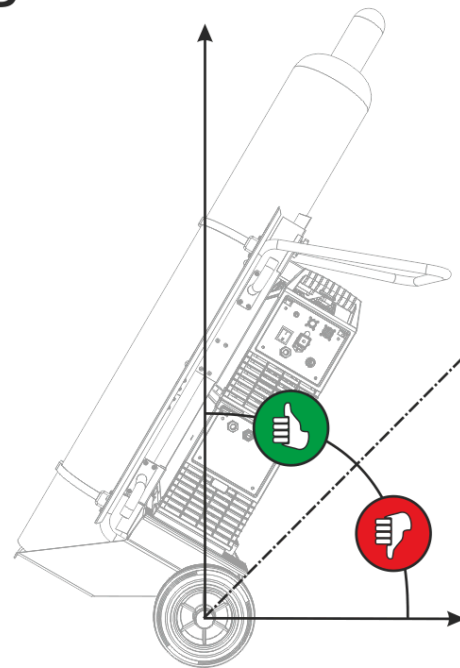


Figure 5-6

Item	Symbol	Description
1		Carrying handle
2		Foot bar

- Hold the trolley by the transport handle.
- Secure the trolley at the axle with your foot.
- Tilt the trolley at an angle of 40° to move it.

The warning signs are illustrated with different machines.

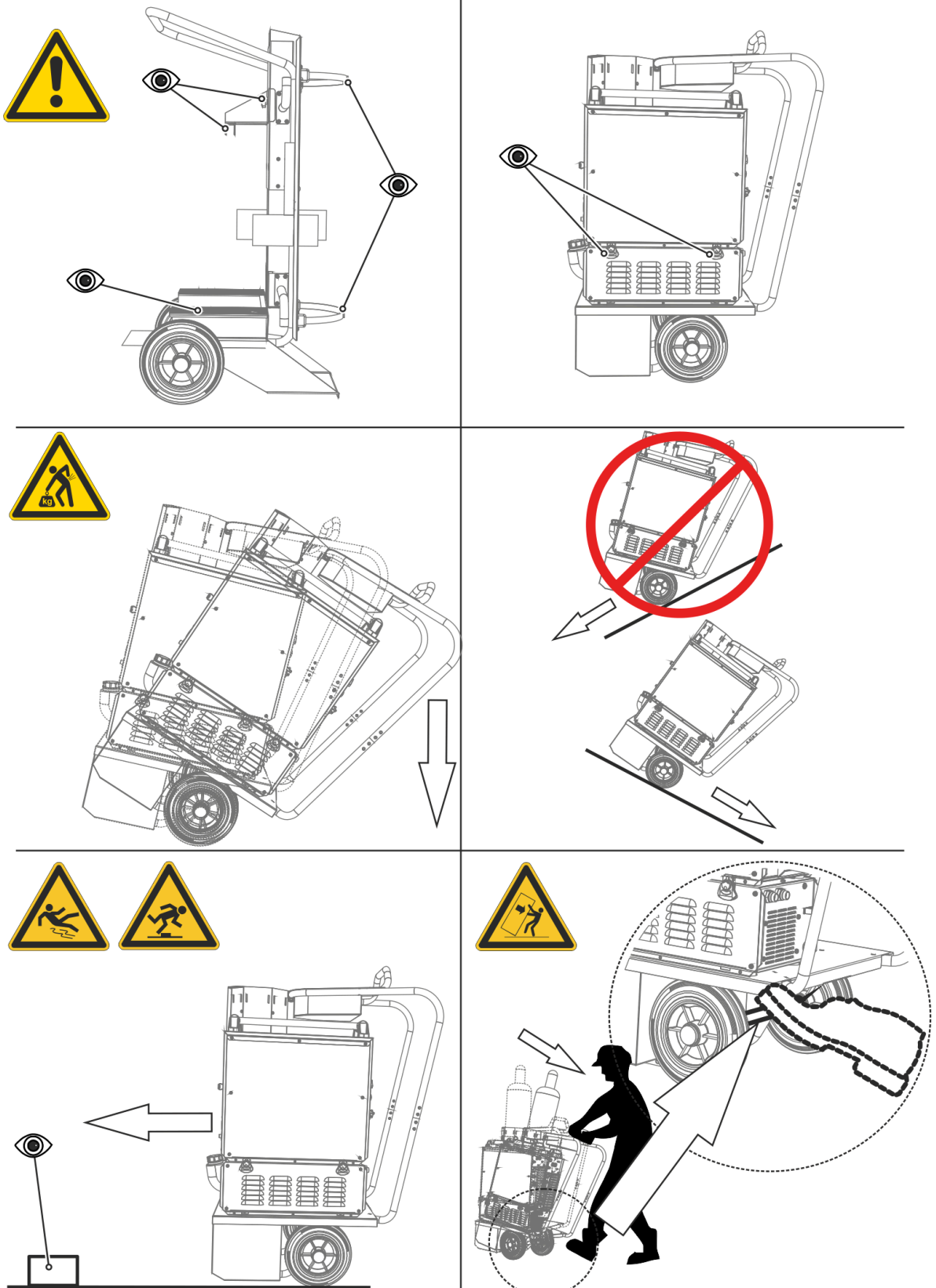


Figure 5-7

6 Maintenance, care and disposal

6.1 General

DANGER



Incorrect maintenance and testing!

The machine may be cleaned, repaired and tested by skilled and qualified personnel only. A qualified person is one who, due to their training, knowledge and experience, can detect any hazards and possible consequential damage when checking the machine, and can take the necessary safety measures.

- Observe the maintenance instructions > see 6.3 chapter!
- The machine may only be put into operation again once the testing has been successful.



Risk of injury due to electrical voltage after switching off!

Working on an open machine can lead to fatal injuries!

Capacitors are loaded with electrical voltage during operation. Voltage remains present for up to four minutes after the mains plug is removed.

1. Switch off machine.
2. Remove the mains plug.
3. Wait for at least 4 minutes until the capacitors have discharged!

WARNING



Cleaning, testing and repair!

Cleaning, testing and repairing of the welding machine may only be carried out by competent, qualified personnel. A qualified person is one who, because of his or her training, knowledge and experience, is able to recognise the dangers that can occur while testing welding power sources as well as possible subsequent damage, and who is able to implement the required safety procedures.

- In the event of failure of any one of the following tests, the machine must not be operated again until it has been repaired and a new test has been carried out.

Repair and maintenance work may only be performed by qualified authorised personnel; otherwise the right to claim under warranty is void. In all service matters, always consult the dealer who supplied the machine. Return deliveries of defective equipment subject to warranty may only be made through your dealer. When replacing parts, use only original spare parts. When ordering spare parts, please quote the machine type, serial number and item number of the machine, as well as the type designation and item number of the spare part.

Under the specified ambient conditions and normal working conditions this machine is essentially maintenance-free and requires just a minimum of care.

Contamination of the machine may impair service life and duty cycle. The cleaning intervals depend on the ambient conditions and the resulting contamination of the machine. The minimum interval is every six months.

6.2 Cleaning

- Clean the outer surfaces with a moist cloth (no aggressive cleaning agents).
- Purge the machine venting channel and cooling fins (if present) with oil- and water-free compressed air. Compressed air may overspeed and destroy the machine fans. Never direct the compressed air directly at the machine fans. Mechanically block the fans, if required.
- Check the coolant for contaminants and replace, if necessary.

6.3 Maintenance work, intervals

Repair and maintenance work may only be performed by qualified authorised personnel; otherwise the right to claim under warranty is void. In all service matters, always consult the dealer who supplied the machine. Return deliveries of defective equipment subject to warranty may only be made through your dealer. When replacing parts, use only original spare parts. When ordering spare parts, please quote the machine type, serial number and item number of the machine, as well as the type designation and item number of the spare part.

6.3.1 Daily maintenance tasks

6.3.1.1 Visual inspection

- Mains supply lead and its strain relief
- Gas cylinder securing elements
- Check hose package and power connections for exterior damage and replace or have repaired by specialist staff as necessary!
- Gas tubes and their switching equipment (solenoid valve)
- Check that all connections and wearing parts are hand-tight and tighten if necessary.
- Check correct mounting of the wire spool.
- Wheels and their securing elements
- Transport elements (strap, lifting lugs, handle)
- Other, general condition

6.3.1.2 Functional test

- Operating, message, safety and adjustment devices (Functional test)
- Welding current cables (check that they are fitted correctly and secured)
- Gas tubes and their switching equipment (solenoid valve)
- Gas cylinder securing elements
- Check correct mounting of the wire spool.
- Check that all screw and plug connections and replaceable parts are secured correctly, tighten if necessary.
- Remove any spatter.
- Clean the wire feed rollers on a regular basis (depending on the degree of soiling).

6.3.2 Monthly maintenance tasks



6.3.2.1 Visual inspection

- Casing damage (front, rear and side walls)
- Wheels and their securing elements
- Transport elements (strap, lifting lugs, handle)
- Check coolant tubes and their connections for impurities

6.3.2.2 Functional test


- Selector switches, command devices, emergency stop devices, voltage reducing devices, message and control lamps
- Check that the wire guide elements (inlet nipple, wire guide tube) are fitted securely.
- Check coolant tubes and their connections for impurities
- Check and clean the welding torch. Deposits in the torch can cause short circuits and have a negative impact on the welding result, ultimately causing damage to the torch.

6.3.3 Annual test (inspection and testing during operation)

-  **The welding machine may only be tested by competent, capable persons! A capable person is one who, because of his training, knowledge and experience, is able to recognise the dangers that can occur while testing welding power sources as well as possible subsequent damage and who is able to implement the required safety procedures.**
-  **For more information refer to the "Warranty registration" brochure supplied and our information regarding warranty, maintenance and testing at www.ewm-group.com!**

A periodic test according to IEC 60974-4 "Periodic inspection and test" has to be carried out. In addition to the regulations on testing given here, the relevant local laws and regulations must also be observed.

6.4 Disposing of equipment

-  **Proper disposal!**
The machine contains valuable raw materials, which should be recycled, and electronic components, which must be disposed of.
- **Do not dispose of in household waste!**
- **Observe the local regulations regarding disposal!**



6.4.1 Manufacturer's declaration to the end user

- According to European provisions (guideline 2012/19/EU of the European Parliament and the Council of July, 4th 2012), used electric and electronic equipment may no longer be placed in unsorted municipal waste. It must be collected separately. The symbol depicting a waste container on wheels indicates that the equipment must be collected separately.
This machine is to be placed for disposal or recycling in the waste separation systems provided for this purpose.
- According to German law (law governing the distribution, taking back and environmentally correct disposal of electric and electronic equipment (ElektroG) from 16.03.2005), used machines are to be placed in a collection system separate from unsorted municipal waste. The public waste management utilities (communities) have created collection points at which used equipment from private households can be disposed of free of charge.
- Information about giving back used equipment or about collections can be obtained from the respective municipal administration office.
- EWM participates in an approved waste disposal and recycling system and is registered in the Used Electrical Equipment Register (EAR) under number WEEE DE 57686922.
- In addition to this, returns are also possible throughout Europe via EWM sales partners.

6.5 Meeting the requirements of RoHS

We, EWM AG Mündersbach, hereby confirm that all products supplied by us which are affected by the RoHS Directive, meet the requirements of the RoHS (Directive 2011/65/EU).

7 Technical data

7.1 Trolley 35-2-2

 **Performance specifications and guarantee only in connection with original spare and replacement parts!**

Shielding gas cylinder support (10 l/20 l/50 l)	max. pressure: 300 bar max. height: 970 mm (+/-20) max. diameter: 204 mm (+/-1%)
Dimensions (L x W x H) in mm	600 x 750 x 1200
Weight without accessories	approx. 35 kg
Constructed to standard	IEC 60974-1

8 Appendix A

8.1 Overview of EWM branches

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