Operating instructions

EN

Transport systems

Trolly 55-5

099-008632-EW501 | Observe additional system documents! | 05.12.2019

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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 location where the machine is operated.
- Safety and warning labels on the machine indicate any possible risks.
  Keep these labels clean and legible at all times.
- The machine has been constructed to state-of-the-art standards in line with any applicable regulations and industrial standards. Only trained personnel may operate, service and repair the machine.
- Technical changes due to further development in machine technology may lead to a differing welding behaviour.

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/en/specialist-dealers.

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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Dr. Günter-Henle-Strasse 8
56271 Mündersbach Germany
Tel.: +49 2680 181-0, Fax: -244
Email: info@ewm-group.com
www.ewm-group.com

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1 Contents

2 For your safety

2.1 Notes on the use of these operating instructions

⚠ DANGER

Working or operating procedures which must be closely observed to prevent imminent serious and even fatal injuries.

- Safety notes include the "DANGER" keyword in the heading with a general warning symbol.
- The hazard is also highlighted using a symbol on the edge of the page.

⚠ WARNING

Working or operating procedures which must be closely observed to prevent serious and even fatal injuries.

- Safety notes include the "WARNING" keyword in the heading with a general warning symbol.
- The hazard is also highlighted using a symbol in the page margin.

⚠ CAUTION

Working or operating procedures which must be closely observed to prevent possible minor personal injury.

- The safety information includes the "CAUTION" keyword in its heading with a general warning symbol.
- The risk is explained using a symbol on the edge of the page.

☞ ***Technical aspects which the user must observe to avoid material or equipment damage.***

Instructions and lists detailing step-by-step actions for given situations can be recognised via bullet points, e.g.:

- Insert the welding current lead socket into the relevant socket and lock.

2.2 Explanation of icons

Symbol	Description	Symbol	Description
	Indicates technical aspects which the user must observe.		Activate and release / Tap / Tip
	Switch off machine		Release
	Switch on machine		Press and hold
			Switch
	Incorrect / Invalid		Turn
	Correct / Valid		Numerical value – adjustable
	Input		Signal light lights up in green
	Navigation		Signal light flashes green
	Output		Signal light lights up in red
	Time representation (e.g.: wait 4 s / actuate)		Signal light flashes red
	Interruption in the menu display (other setting options possible)		
	Tool not required/do not use		
	Tool required/use		

2.3 Part of the complete documentation

These operating instructions are part of the complete documentation and valid only in combination with all other parts of these instructions! Read and observe the operating instructions for all system components, especially the safety instructions!

The illustration shows a general example of a welding system.

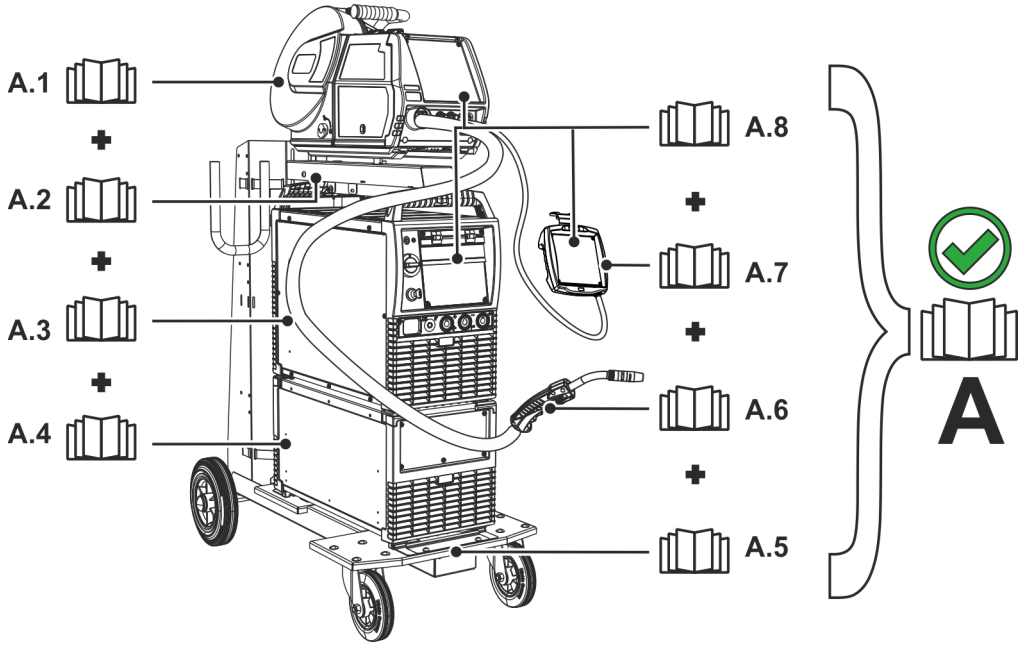


Figure 2-1

Item	***Documentation***
A.1	Wire feeder
A.2	Conversion instructions
A.3	Power source
A.4	Cooling unit, voltage converter, tool box etc.
A.5	Trolley
A.6	Welding torch
A.7	Remote control
A.8	Control
A	Complete documentation

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

One of the listed power sources must always be used on the transport cart as the basic module. The current sources can be expanded with further modules.

- Phoenix 355, -405, -505 [1] [2] [3]
- Taurus 355, -405, -505 [1] [2] [3]
- Picomig 185, -355 [1]
- Picotig 200 AC/DC [3] [4]
- Tetrix 230 [3] [4]

[1] Can be combined with a cooling unit cool50, a toolbox ON Case or a voltage converter voltConverter 230/400

[2] Can be combined with a wire feeder drive (expandable optionally)

[3] Can be combined with a wire feeder tigSpeed (expandable optionally)

[4] Can be combined with a cooling unit cool40, -41

For systems equipped with a wire feeder, additional options have to be retro-fitted. See the system overview for the relevant options and combinations > *see 5.1 chapter*.

4 Machine description – quick overview

4.1 Front view / side view from left

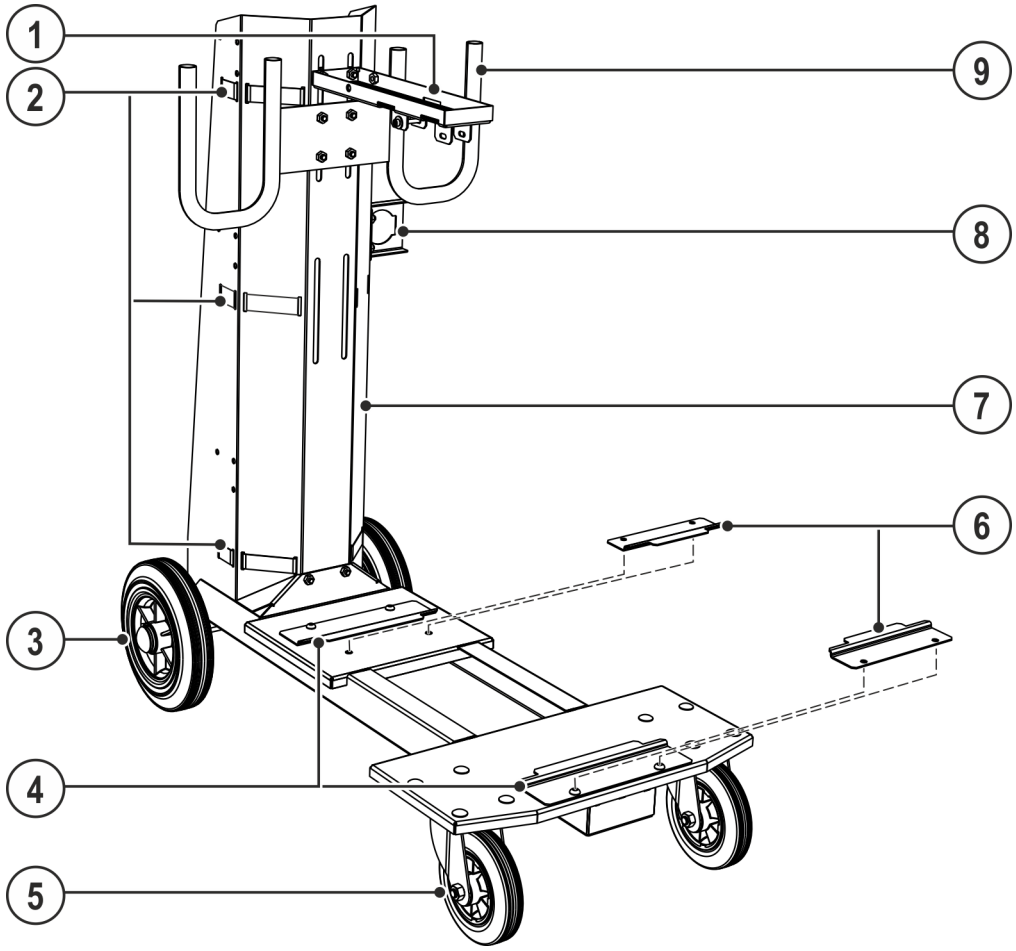


Figure 4-1

Item	Symbol	Description
1		**Cross arm** Upper device attachment
2		**Securing element** Clamping belt for attaching the shielding gas cylinder
3		**Wheels, fixed castors**
4		**Support bracket (BK260)** Lower device attachment (Picomig 185, -355; Phoenix 355, -405, -505; Taurus 355, -405, -505; cool50)
5		**Wheels, guide castors**
6		**Support bracket (BK210)** Lower device attachment (Picotig 200 AC; Tetrix 230; cool40, -41)
7		**Shielding gas cylinder holder > *see 5.4 chapter*** Carrier plate for the shielding gas cylinder
8		**Intermediate hose package strain relief > *see 5.3.1 chapter***
9		**Hose package holder**

5 Design and function

5.1 System overview

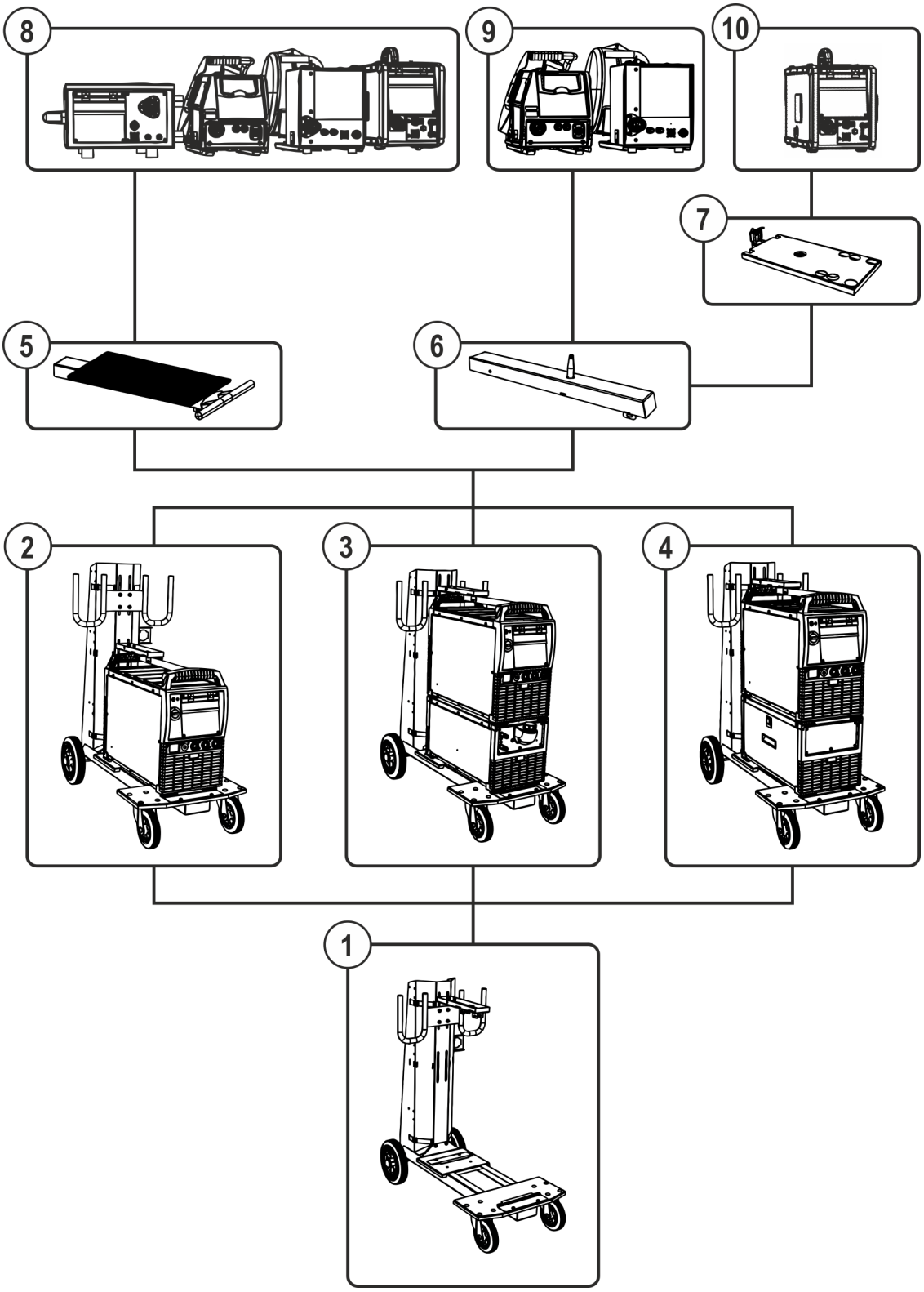


Figure 5-1

Item	Symbol	Description
1		Transport cart
2		Transport cart + one system component (e.g. power source)
3		Transport cart + two system components (e.g. power source + cooling module)
4		Transport cart + one system component (e.g. toolbox + power source)
5		Cross arm and holder for wire feeder
6		Pivot support (360°) for wire feeders
7		Pivot support for a wire feeders D200
8		All wire feeders - drive
9		Wire feeder (rotatable) - drive 4L/4X
10		Wire feeder (rotatable) - drive 200

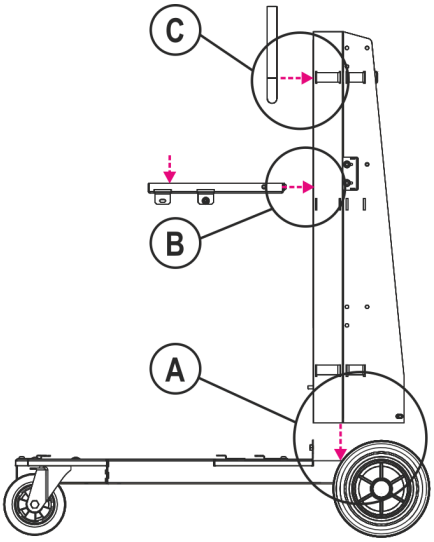
5.2 Assembling the transport cart

⚠ 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!



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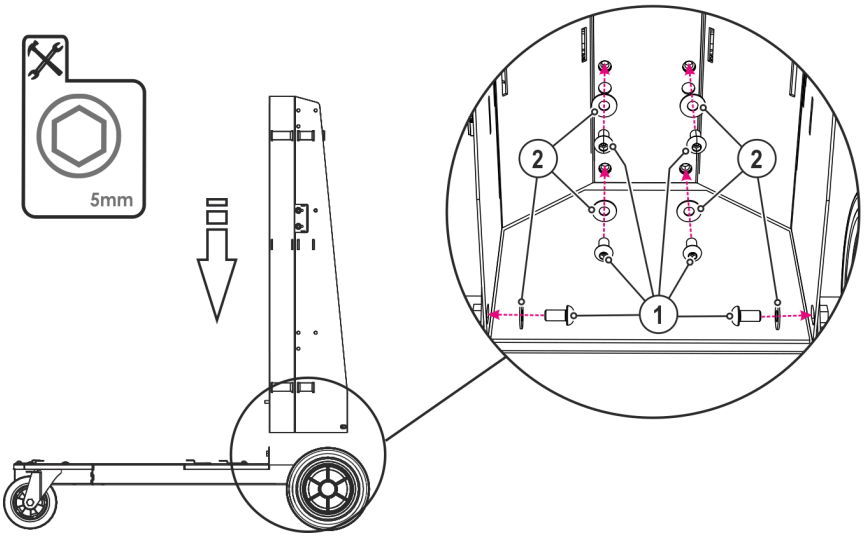


Figure 5-2

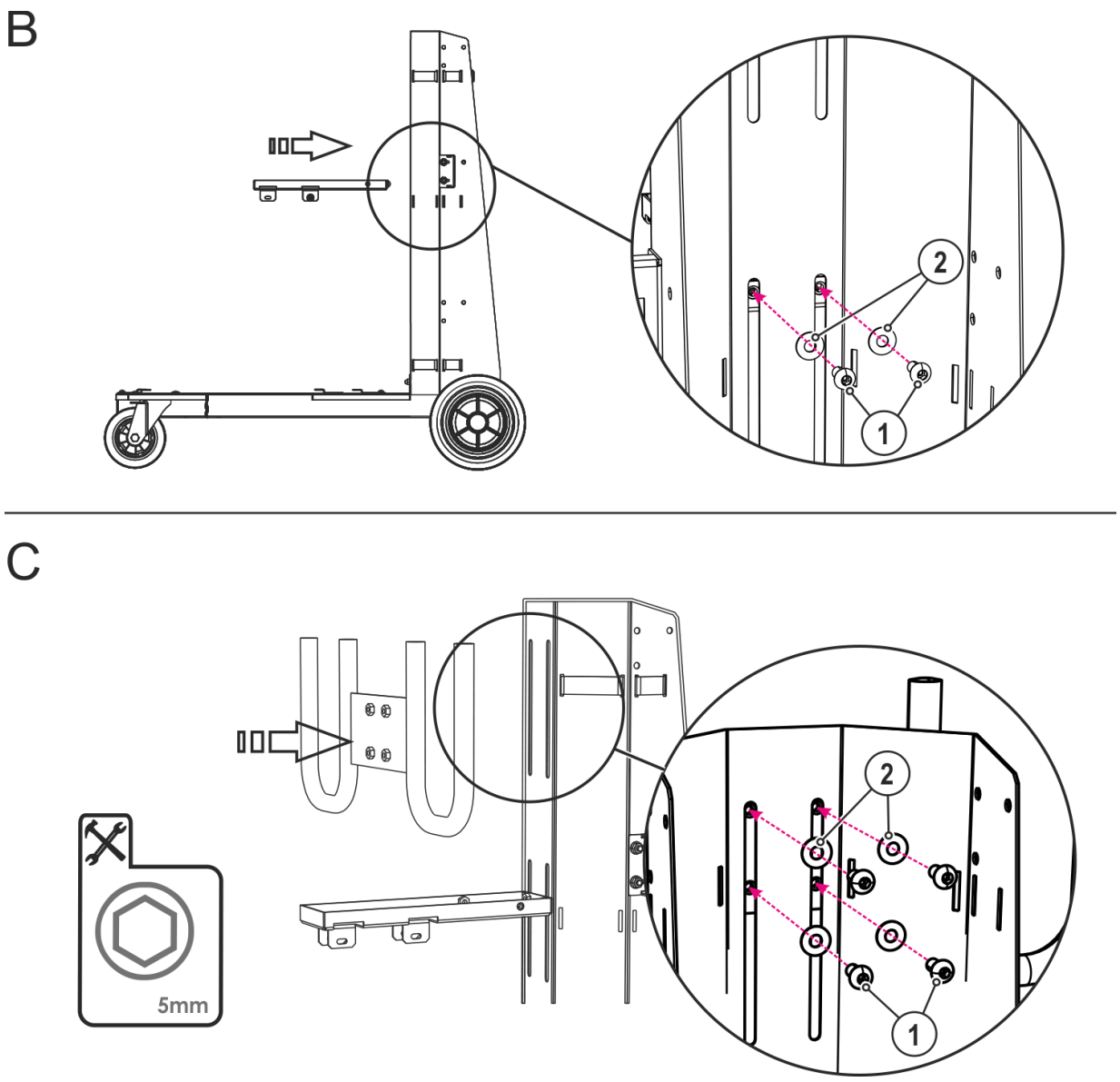


Figure 5-3

Item	Quantity	Description	Item number
1	**12**	M8 x 16, hexagonal pan screw	094-007803-00000
2	**12**	**Fender washer**	**064-000793-00000**

5.2.1 Final assembly

⚠ WARNING

Danger due to failure to carry out the final inspection!
Parts that are incorrectly fitted or that become loose are a source of danger.

- Check all mechanical connections to ensure that they are fitted correctly!
- Carry out the final inspection!
- Carry out the functional test!

5.3 Attach the system component to the transport cart

⚠ 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 *> see 3.1 chapter*.
- Check the fixing points before each transport and at regular intervals.

This transport system is designed to accommodate modular device systems.

The standard version allows the fitting of up to two system components (e.g. power source and cooling module or an identical module) to the transport cart. The modules are attached to the transport cart using device-dependent support brackets and the height-adjustable cross arm.

Attaching added options allows the combination of further devices or modules *> see 5.1 chapter*.

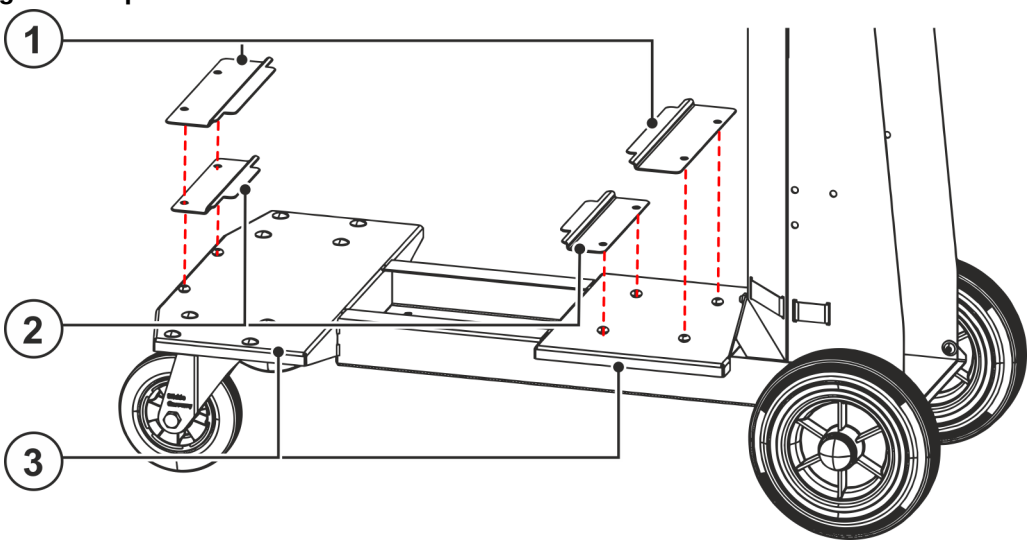


Figure 5-4

Item	Symbol	Description
1		**Support bracket (BK260)** Lower device attachment (Picomig 185, -355; Phoenix 355, -405, -505; Taurus 355, -405, -505; cool50)
2		**Support bracket (BK210)** Lower device attachment (Picotig 200 AC; Tetrix 230; cool40, -41)
3		**Machine support**

- Unscrew the support bracket.
  The further use of the support bracket depends on the system components to be used (please note the device assignment of the support bracket BK260/BK210). The attachment with the front and rear support brackets BK260 is shown below as an example.

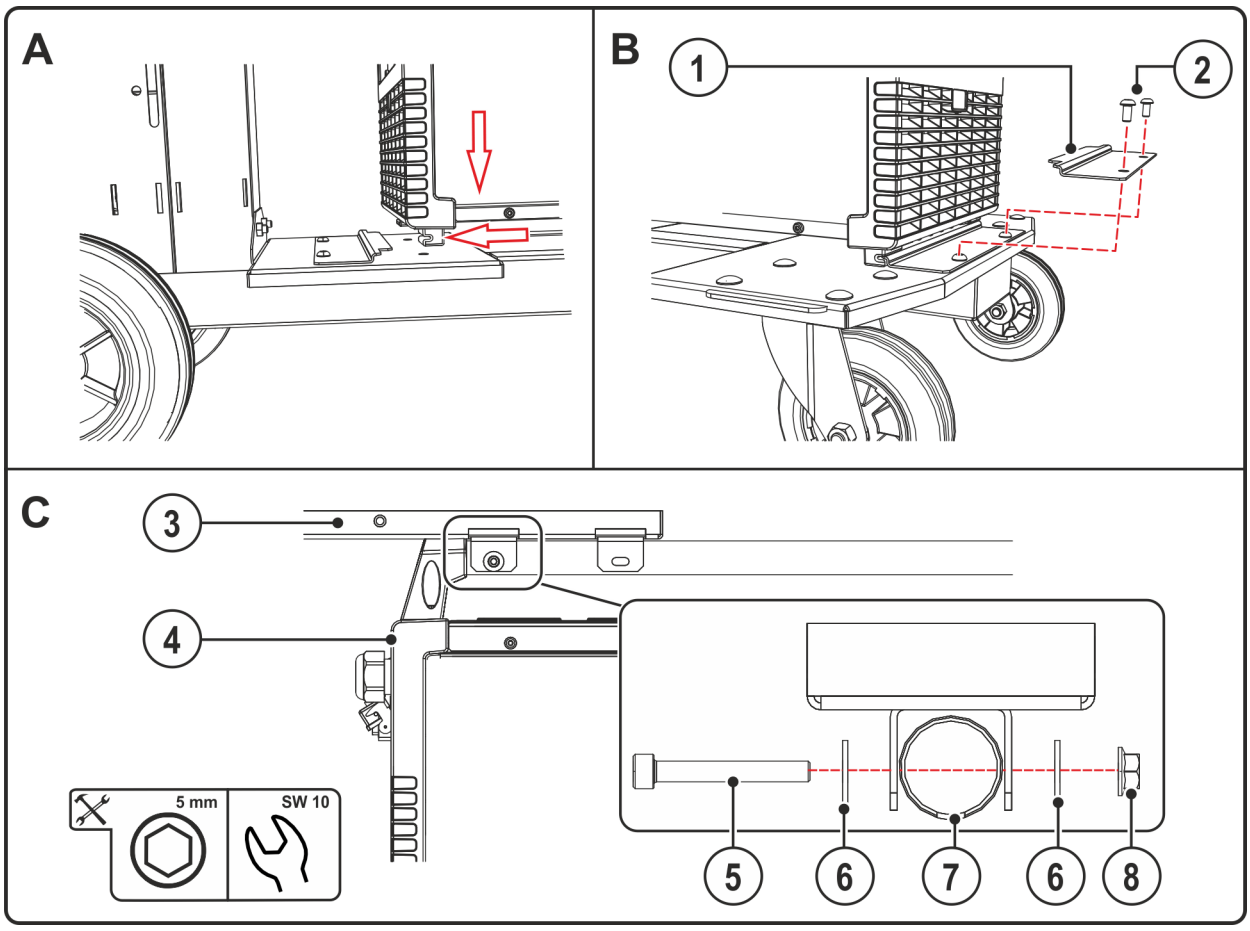


Figure 5-5

Item	Symbol	Description
1		**Support bracket (BK260)** Lower device attachment (Picomig 185, -355; Phoenix 355, -405, -505; Taurus 355, -405, -505; cool50)
2		**Pan screw, M8 x 16 mm**
3		**Cross arm** Upper device attachment
4		**System components** Power source
5		**Cylinder head screw, M6 x 45**
6		**Fender washer**
7		**Grip bar**
8		**Hexagon nut, M6**

- Place the system component with the device feet on the device carrier and secure in the rear support brackets.
- Fix the device feet of the system component with the front support bracket.
- Adapt the cross arm height to the height of the system component.
- Screw the tube handle of the system component to the cross arm.

5.3.1 Intermediate hose package strain relief

☞ ***Property damage due to strain relief not installed or not installed correctly!***
The strain relief absorbs tensile forces on cables, plugs and sockets.
If strain reliefs are not installed or not installed correctly, the connector plugs or sockets may be damaged.

- ***The attachment must always take place on both sides of the intermediate hose package!***
- ***The connections of the hose package must be locked properly!***

5.3.1.1 Locking the strain relief

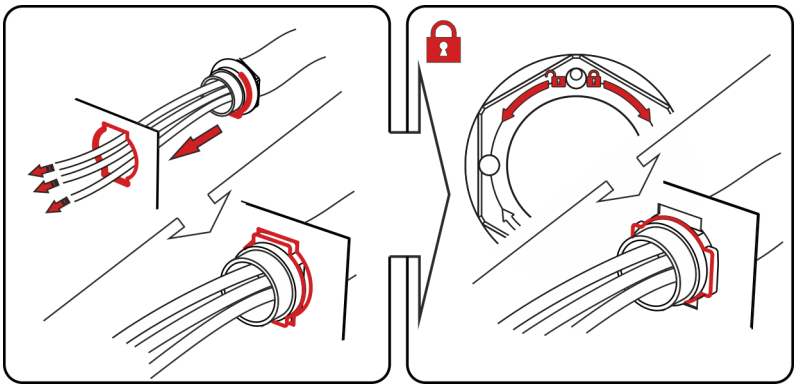


Figure 5-6

- Secure hose package end with the strain relief.

5.4 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.

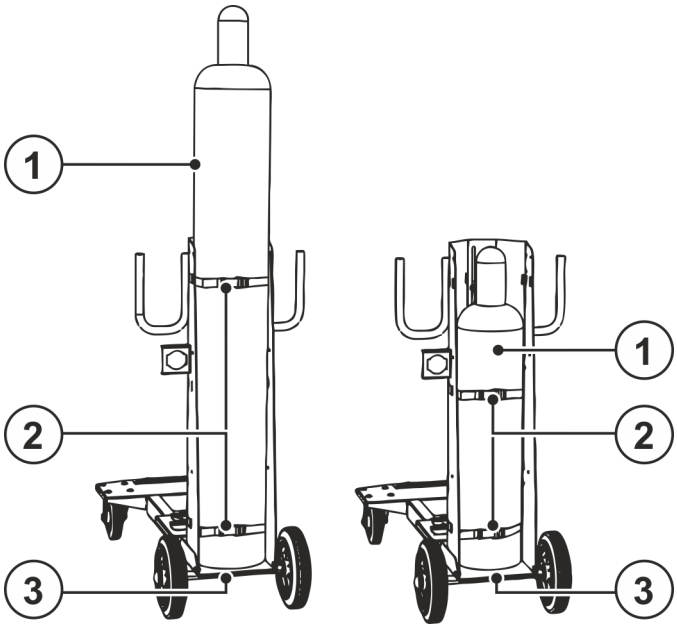


Figure 5-7

Item	Symbol	Description
1		**Shielding gas cylinder**
2		**Securing element** Clamping belt for attaching the shielding gas cylinder
3		**Shielding gas cylinder holder** Carrier plate for the shielding gas cylinder

- Open the tension closure on the straps.
- Place the shielding gas cylinder on the retainer.
- Secure shielding gas cylinder with clamping belts (ensure that the clamping belts are firmly seated!).

5.5 Transport and installation

⚠ WARNING

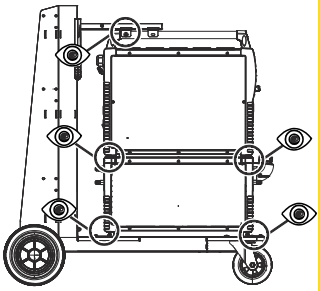
Risk of accident due to improper transport of machines that must not be lifted!
Do not lift or suspend the machine! The machine can drop and cause injuries! The handles, straps or brackets are suitable for transport by hand only!

- The machine must not be suspended or lifted using a crane.

⚠ CAUTION

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

- Following conversions and prior to each transport make sure all mounting elements are properly tightened!



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!

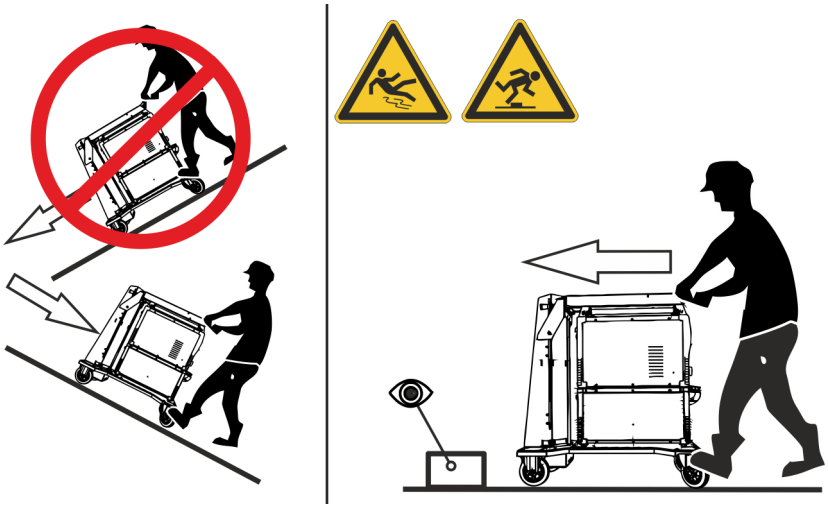


Figure 5-8

6 Maintenance, care and disposal

6.1 General

⚠ DANGER

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 last 4 minutes until the capacitors have discharged!

⚠ WARNING

Incorrect maintenance, testing and repair!
Maintenance, testing and repair of the machine may only be carried out by skilled and 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.

Observe the maintenance instructions > *see 6.2 chapter*.

- In the event that the provisions of one of the below-stated tests are not met, 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.

6.1.1 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.

6.1.2 Dirt filter

The duty cycle of the welding machine decreases as an effect of the reduced cooling air volume. The dirt filter must be remove at regular intervals and cleaned by blowing out with compressed air (depending on the level of soiling).

6.2 Maintenance work, intervals

6.2.1 Daily maintenance tasks

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

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).

6.2.2 Monthly maintenance tasks

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

Functional test

- Selector switches, command devices, emergency stop devices, voltage reducing devices, message and control lamps
- Check wire guide elements (wire feed roll holder, wire feed nipple, wire guide tube) for tight fit. Recommendation for replacing the wire feed roll holder (eFeed) after 2000 hours of operation, see replacement parts).
- 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.

6.2.3 Annual test (inspection and testing during operation)

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.

For more information refer to the "Warranty registration" brochure supplied and our information regarding warranty, maintenance and testing at www.ewm-group.com!

6.3 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!**

- According to European provisions (Directive 2012/19/EU on Waste of Electrical and Electronic Equipment), 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 has to be disposed of, or recycled, in accordance with the waste separation systems in use.
- According to German law (law governing the distribution, taking back and environmentally correct disposal of electric and electronic equipment (ElektroG)), 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 returning used equipment or about collections can be obtained from the respective municipal administration office.
- In addition to this, returns are also possible throughout Europe via EWM sales partners.

7 Technical data

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

7.1 Trolly 55-5

max. Height (Shielding gas cylinder)	1660 mm 65.35 inch
max. Diameter (Shielding gas cylinder)	229 mm 9 inch
Filling quantity (Shielding gas cylinder)	10 l-50 l 2.6 gal.-13.2 gal.
max. Filling pressure (Shielding gas cylinder)	300 bar 30 MPa
Dimensions L / B / H	1068 x 540 x 1150 mm 42 x 21.3 x 45.3 inch
Weight	35 kg 77.2 lb.

8 Accessories

Performance-dependent accessories like torches, workpiece leads, electrode holders or intermediate hose packages are available from your authorised dealer.

8.1 General accessories

Type	Designation	Item no.
ON PS Trolly 55-5 / 55-6	Pivot support	092-002712-00000
ON PS Trolly 55-5 / 55-6 drive D200	Pivot support	092-002634-00000
ON Case	Tool box for mounting to Trolly 55-5/6	092-002899-00000
ON TR Trolly 55	Cross arm and holder for wire feeder Trolly 55-5 and Trolly 55-6	092-002700-00000

9 Appendix

9.1 Searching for a dealer

Sales & service partners
www.ewm-group.com/en/specialist-dealers

"More than 400 EWM sales partners worldwide"