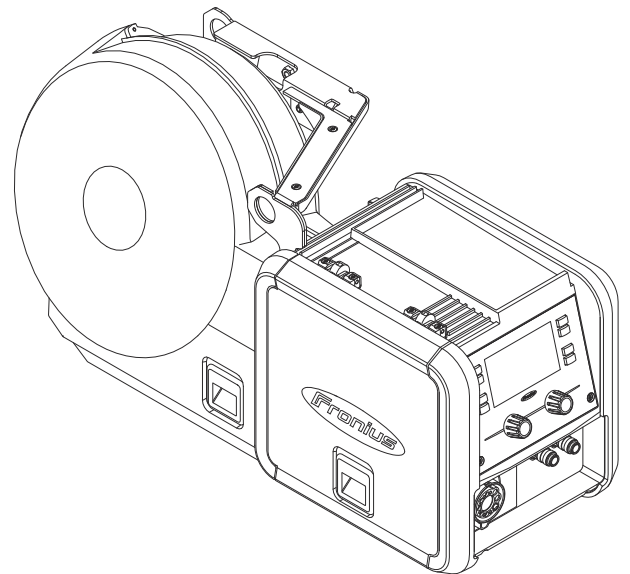


Operating Instructions

WF 25s



EN-US | Operating instructions



42,0426,0503,EA

002-22042025

Table of contents

General.....	5
Explanation of safety instructions.....	5
Obligations of the Operating Company.....	5
Obligations of Personnel.....	5
Safety symbols.....	6
Data backup.....	6
Copyright.....	6
Reading the available documents.....	6
Utilization in accordance with "intended purpose".....	8
Intended use.....	8
Foreseeable misuse.....	8
Information about the device.....	9
Device concept.....	9
Notes on the device.....	10
Warning notices on the device.....	10
Description of the warnings on the device.....	12
Options.....	14
OPT/s WF control unit.....	14
OPT/s gas test – Wire Inching.....	16
Further options.....	17
Operating controls, connections and mechanical components.....	18
Front, rear, underside.....	18
Wirefeeder side.....	19
Before installation and initial operation.....	20
Safety.....	20
Transport.....	20
Setup regulations.....	21
Placing the wirefeeder on the swivel pin holder.....	22
Placing the wirefeeder on the swivel pin holder.....	22
Connecting the wirefeeder to the welding machine.....	23
Connecting the wirefeeder to the welding machine.....	23
Inserting/changing feed rollers.....	25
Inserting/changing feed rollers.....	25
Connecting the welding torch.....	28
Connecting a MIG/MAG welding torch to the wirefeeder.....	28
Inserting the wirepool/basket-type spool.....	30
Safety.....	30
Inserting the wire spool.....	30
Installing the basket-type spool.....	32
Threading the Wire Electrode.....	35
Feeding in the wire electrode.....	35
Setting the contact pressure.....	37
Adjusting the brake.....	38
Adjusting the brake.....	38
Design of the brake.....	39
Commissioning.....	40
Safety.....	40
Requirements.....	40
Commissioning.....	40
Settings on the optional control panel.....	41
Selecting the welding process and operating mode.....	41
Setting the welding characteristic property and process function.....	42
Setting the welding parameters.....	43
EasyJobs.....	44
Troubleshooting.....	46
Troubleshooting.....	46
Service, maintenance and disposal.....	49
General.....	49
Safety.....	49
At every start-up.....	49

Every 6 months	49
Disposal.....	50
Technical data.....	51
Environmental conditions.....	51
WF 25s	51
HP 70s CON.....	52
HP 95s CON.....	52

General

Explanation of safety instructions



DANGER!

Indicates an immediate danger.

Could result in major injury or death.

► Avoid the described danger.



WARNING!

Indicates a dangerous situation.

Could result in serious injury or death.

► Avoid the dangerous situation.



CAUTION!

Indicates a harmful situation.

Could result in injury and damage to property.

► Avoid the harmful situation.

NOTE!

Indicates the possibility of damage to property and adverse effects on work results, as well as necessary additional information, tips and tricks, recommendations, etc.

Obligations of the Operating Company

- The operating company must only allow persons to work with the device if they
- Are familiar with the basic occupational safety and accident prevention regulations and are trained in handling the device
 - Have read and understood these Operating Instructions, especially the section "Safety Rules," and have confirmed this with their signature
 - Are trained according to the requirements for the work results

The safety-conscious work of the personnel must be checked regularly.

Obligations of Personnel

All persons who are assigned to work with the device must do the following before beginning the work:

- Follow the basic regulations for occupational safety and accident prevention
- Read these Operating Instructions, especially the section "Safety Rules," and confirm that they have understood and will follow them by signing

Before leaving the workplace, ensure that no personal injury or property damage can occur in one's absence.

Safety symbols

Devices with the CE label meet the requirements of all valid EU Directives, such as:

- Directive 2014/30/EU on electromagnetic compatibility
- Directive 2014/35/EU Low Voltage Directive
- Directive 2014/53/EU Radio Equipment Directive
- EN IEC 60974 Arc welding equipment
- and others

The full text of the EU Declaration of Conformity is available at <https://www.fronius.com>.

Devices bearing the CSA label satisfy the requirements of the relevant standards for Canada and the USA.

Data backup

With regard to data security, the user is responsible for:

- backing up any changes made to the factory settings
 - saving and storing personal settings
-

Copyright

Copyright of these operating instructions remains with the manufacturer.

Text and illustrations were accurate at the time of printing, subject to change. We are grateful for suggestions for improvement and information on any discrepancies in the operating instructions.

Reading the available documents



WARNING!

Danger from incorrect operation and work that is not carried out properly.

This can result in serious personal injury and damage to property.

- All the work and functions described in this document must only be carried out by technically trained and qualified personnel.
- Before working with and on the system components, ensure that you have read and understood the safety instructions of the welding machine and all the documents provided in hard copy and online.

The operating instructions for the welding machine are available as follows:

QR code

<https://...>



HTML

Fortis 270 C - 500 C, Fortis 320 - 400

<https://manuals.fronius.com/html/4204260498>

QR code

<https://...>



PDF

Fortis 270 C - 500 C, Fortis 320 - 400

[PDF manuals](#)

Find downloads: 42,0426,0498

The operating instructions can also be made available in printed form on request.

Utilization in accordance with "intended purpose"

Intended use

The WF 25s wirefeeder is intended exclusively for MIG/MAG welding in combination with Fronius system components.

The wirefeeder is designed for welding operation during crane transport (e.g., on the crane boom, on the balancer, on movable mountings, etc.).

Any other use shall be deemed to be not in accordance with the intended use. The manufacturer shall not be liable for any resulting damage.

Intended use also means

- Carefully reading and adhering to these operating instructions
- Observing and obeying all safety instructions
- Carrying out all the specified inspection and maintenance work

Foreseeable misuse

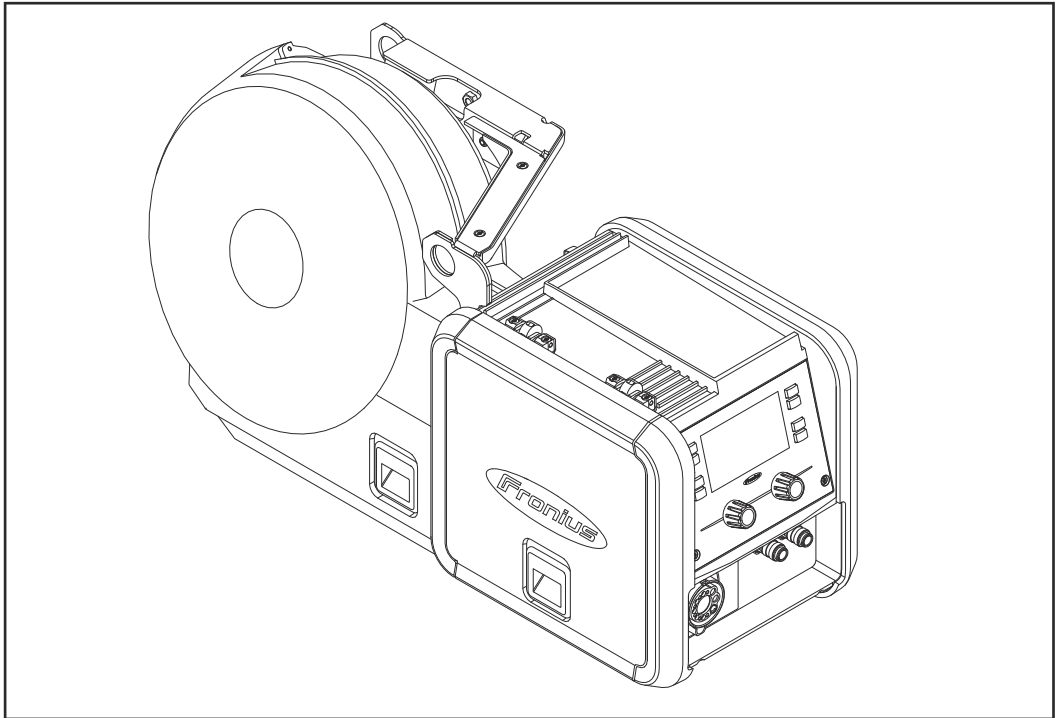
IMPORTANT! Any use that does not comply with the intended use shall be deemed misuse.

Impermissible misuse includes the following:

- Operation or storage of the device outside the environmental conditions specified in the technical data
- Operation or storage of the device outside the protection class specified in the technical data
- For underwater welding
- For winding and unwinding welding wire on wire spools or similar
- ...

Information about the device

Device concept



The WF 25s wirefeeder is equipped with a cover for wire spools with an external diameter of max. 300 mm (11.81 in.).

The standard 4-roller drive offers excellent wire feeding properties. The wirefeeder is also suitable for long hosepacks.

The wirefeeder is operated in conjunction with the Fortis 320 / 400 / 500 / GW welding machines and their variants.



Keep hands, hair, loose clothing, and tools away from moving parts, such as:

- Gears
- Feed rollers
- Wire spools and wire electrodes

Do not reach into rotating gears of the wire drive or into rotating drive parts.

Covers and side panels must only be opened/removed during maintenance and repair work.

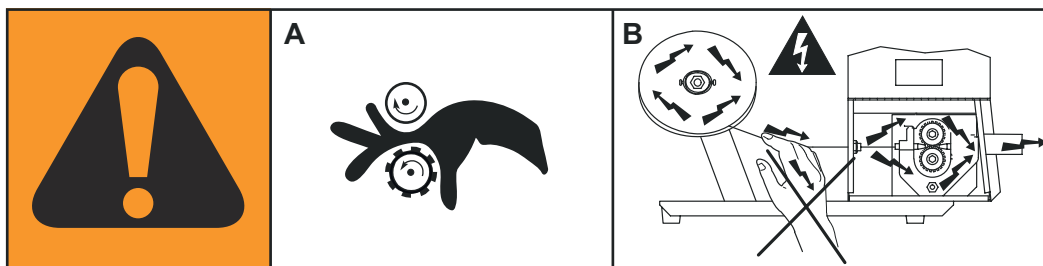
During operation

- Ensure that all covers are closed, and all side parts have been mounted properly.
 - Keep all covers and side parts closed.
-

Description of the warnings on the device

Warning notices are attached to the device for certain device versions.

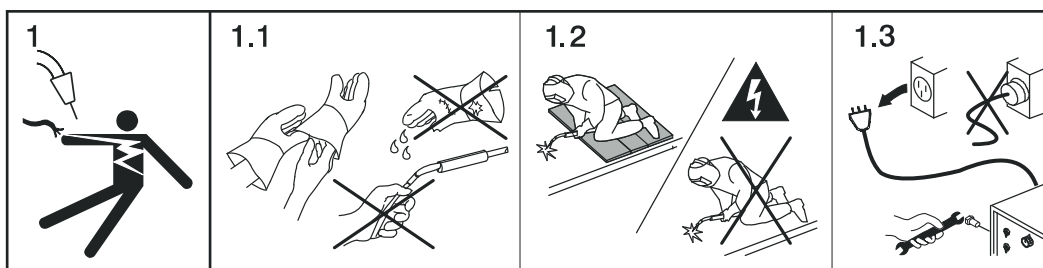
The arrangement of the symbols may vary.



! Warning! Caution!
The symbols represent possible dangers.

A Drive rollers can injure fingers.

B The welding wire and drive parts are under welding voltage during operation.
Keep hands and metal objects away!

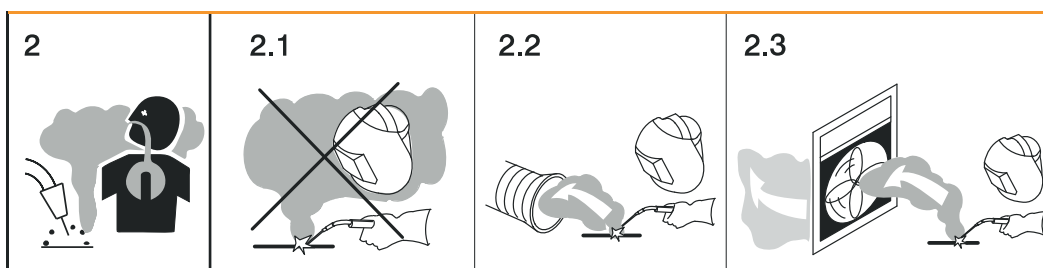


1. An electric shock can be fatal.

1.1 Wear dry, insulating gloves. Do not touch the wire electrode with bare hands. Do not wear wet or damaged gloves.

1.2 Use a base that is insulated from the floor and work area to protect against electric shock.

1.3 Before working on the device, switch off the device and remove the mains plug or disconnect the power supply.

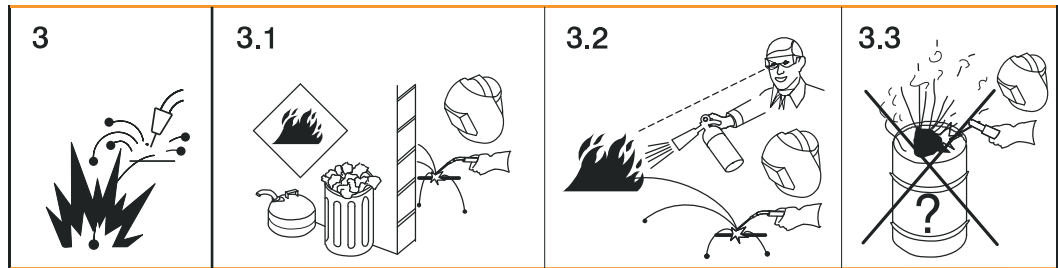


2. Inhalation of welding fumes can be harmful to health.

2.1 Keep your face away from any welding fumes.

2.2 Use forced-air ventilation or local extraction to remove welding fumes.

2.3 Remove welding fumes with a fan.

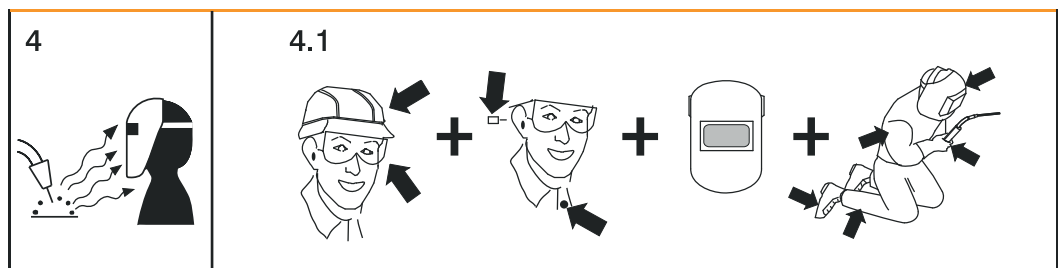


3. Welding sparks can cause an explosion or fire.

3.1 Keep flammable materials away from the welding process. Do not perform welding near flammable materials.

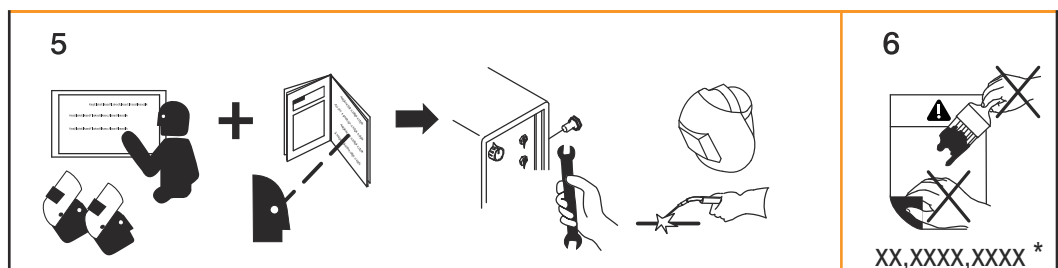
3.2 Welding sparks can cause a fire. Have fire extinguishers ready. If necessary, have a supervisor ready who can operate the fire extinguisher.

3.3 Do not weld on drums or closed containers.



4. Arc rays can burn the eyes and injure the skin.

4.1 Wear headgear and protective goggles. Use ear protection and wear a shirt collar with button. Use a welding helmet with the correct tinting. Wear suitable protective clothing over the entire body.



5. Before working on the machine or welding:
undertake training on the device and read the instructions!

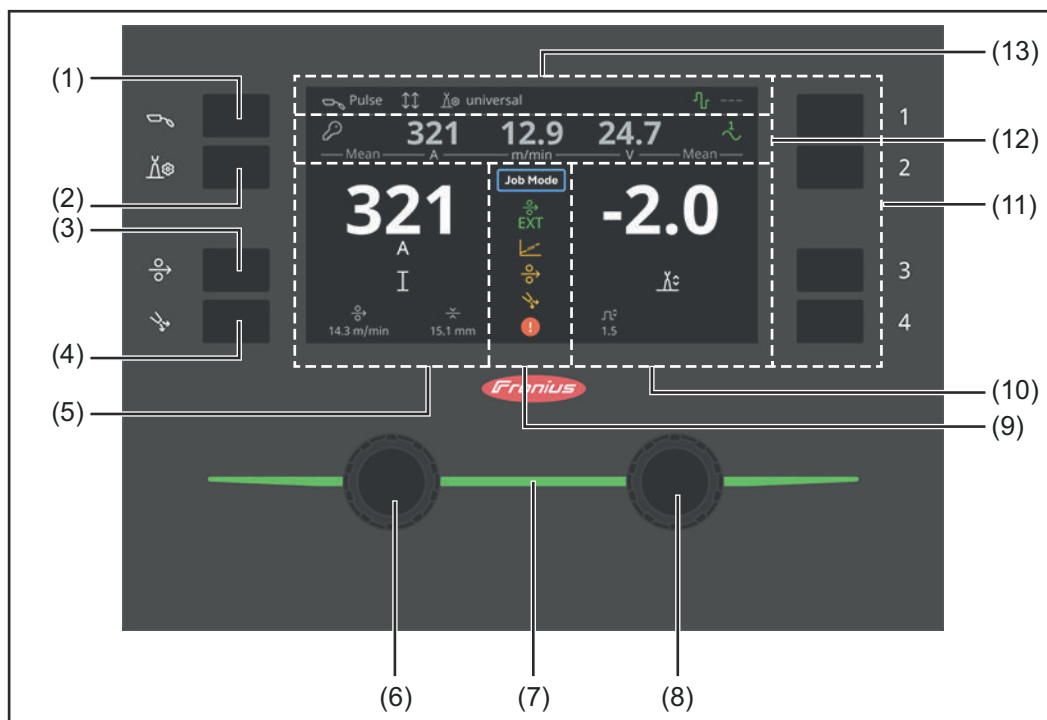
6. Do not remove or paint over the sticker with the warnings.

* Manufacturer order number of the sticker

Options

OPT/s WF control unit

The wirefeeder can be equipped with an optional control panel at the factory or have it retrofitted later.



No.	Description
(1)	Welding process / operating mode button Left-hand selection dial: for selecting the welding process Right-hand selection dial: for selecting the operating mode
(2)	Welding characteristic property / process function button Left-hand selection dial: for selecting the welding characteristic property Right-hand selection dial: for activating/deactivating process functions
(3)	Wire-threading button For threading the wire electrode into the torch hosepack without gas or current
(4)	Gas-test button To set the required quantity of gas on the gas pressure regulator. After pressing the Gas-test button, gas flows for 30 s. Pressing the button again ends the process early.
(5)	Left-hand display section The left-hand display section shows parameters and functions that are set using the left-hand selection dial. The parameters displayed vary according to the set welding process.
(6)	Left-hand selection dial with rotary/push button function For selecting and setting parameters in the left-hand display section

(7) Status indicator

Green animated ... Device starting up or restarting
Lights up green ... Device is ready for welding
Lights up white ... Notification
Lights up orange ... Warning
Lights up red ... Error
Blue animated ... Active welding mode
Yellow animated ... Gas test is active
Mint animated ... Wire threading is active

(8) Right-hand selection dial with rotary/push button function

For selecting and setting parameters in the right-hand display section

(9) Central display section

Relevant welding data are displayed in the central display section:



Current welding process line

(in Duo operation)

EXT = separate wirefeeder

The display of the WF 25s always shows EXT; switching is not possible.



Intermediate arc indicator



Wire threading indicator

lights up during wire threading if the wire threading graphic is hidden



Gas-test indicator

lights up when the Gas-test button is pressed if the gas-test graphic is hidden



Error

(10) Right-hand display section

The right-hand display section shows parameters and functions that are set using the right-hand selection dial.

The parameters displayed vary according to the set welding process.

(11) Multifunctional buttons

The multifunctional buttons can be assigned EasyJobs.
For details on EasyJobs, see from page 44 onwards

(12) Status bar 1

Contains information about:

- The currently selected welding process
- The currently selected operating mode
- The currently selected characteristic property
- Active process functions

(13) Status bar 2

Contains information about:

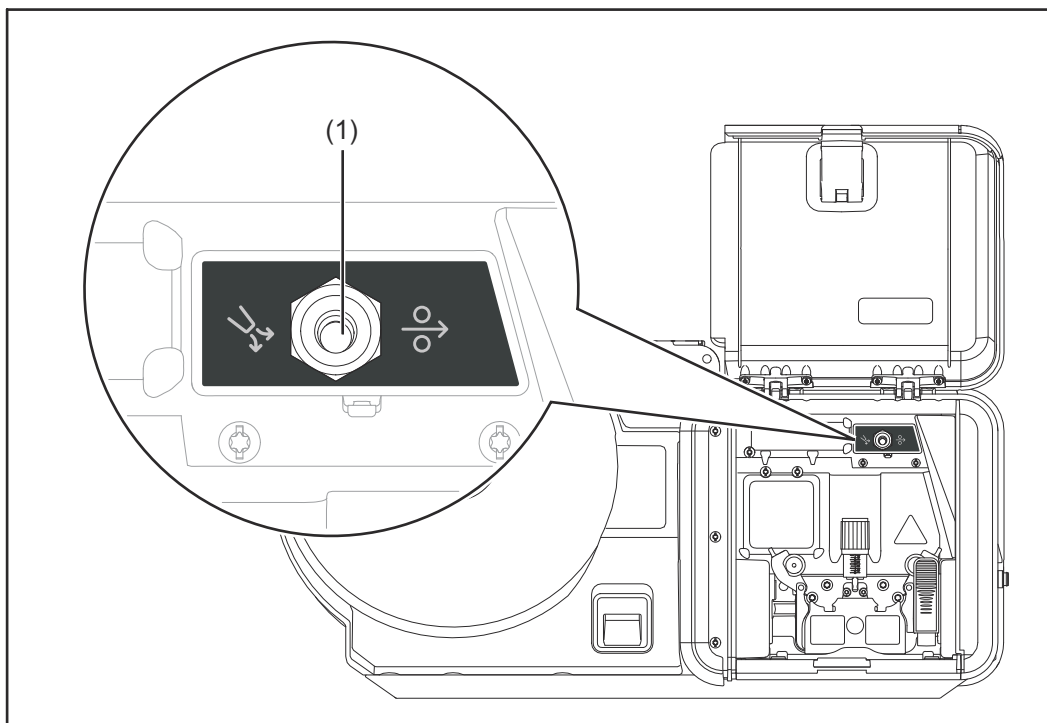
- The logged-on user / locked state of the welding machine
- The welding data welding current, wire speed, and welding voltage
- The single-phase power supply display (for /XT devices only)
- Activated Mean screen

Welding data displayed

Different values are displayed depending on the situation:

- When setting the standard value
- The actual value during welding
- The mean value after welding

**OPT/s gas test –
Wire Inching**



- (1) Wire threading / Gas-test button

Press the button to the left – gas test

For setting the required gas volume on the gas pressure regulator

- Tap button once: shielding gas flows out
- Tap button again: shielding gas flow stops

If the button is not tapped again, the shielding gas flow will stop after 30 seconds.

Press the button to the right – wire threading

For threading the wire electrode into the torch hosepack without gas or current.

While the button is being held down, the wirefeeder runs at feeder inching speed.

Further options

OPT/s WF water cooling

coolant connections for water-cooled welding machines

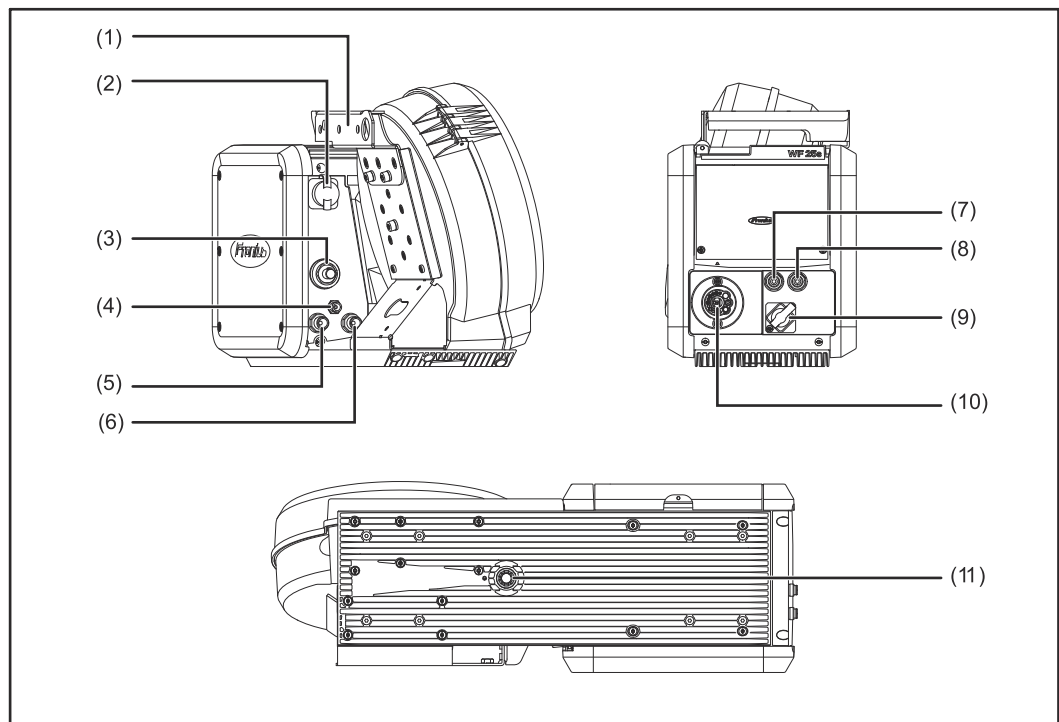
OPT/s WF TMC connection

remote control connection

All options are available for factory fitting or retrofitting.

Operating controls, connections and mechanical components

Front, rear, underside



No.	Function
(1)	Crane bracket handle
(2)	Control line connection socket For connecting the control line from the interconnecting hosepack
(3)	(+) Current socket with bayonet latch For connecting the power cable from the interconnecting hosepack
(4)	Shielding gas connection
(5)	Coolant return connection (red) Option For connecting the coolant hose from the interconnecting hosepack
(6)	Coolant supply connection (blue) Option For connecting the coolant hose from the interconnecting hosepack
(7)	Coolant supply connection (blue) Option For connecting the coolant hose from the torch hosepack
(8)	Coolant return connection (red) Option For connecting the coolant hose from the torch hosepack
(9)	TMC connection For connecting system add-ons, e.g., remote control

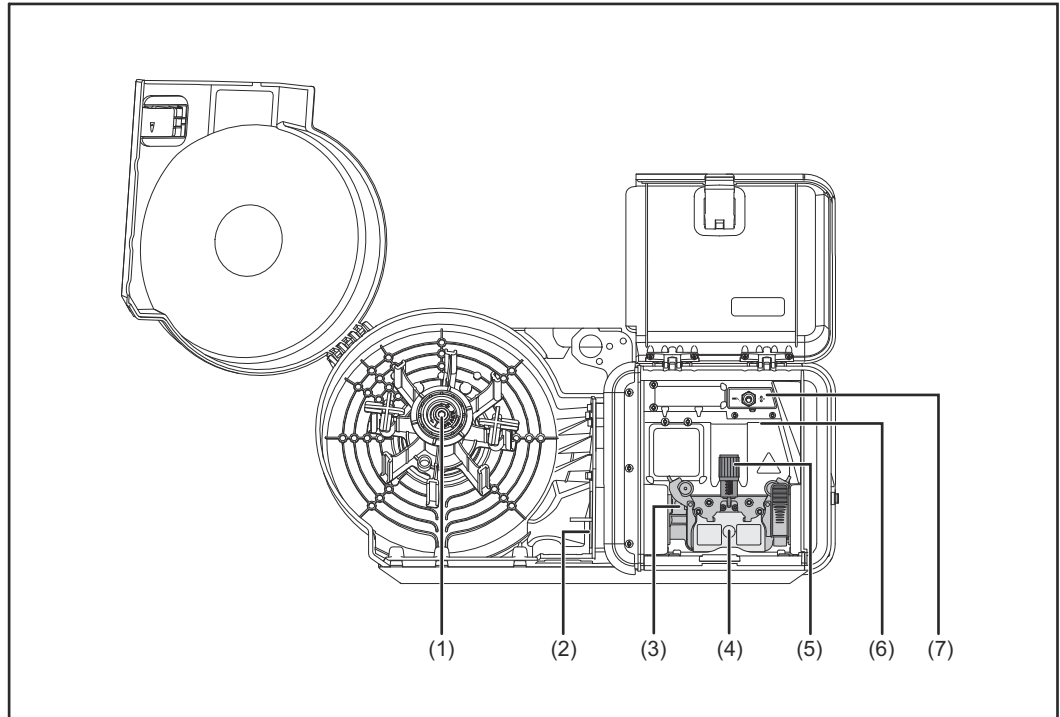
(10) Welding torch connection

For connecting the welding torch

(11) Swivel pin socket

For placing the wirefeeder on the swivel pin of the swivel pin holder

Wirefeeder side



No.	Function
-----	----------

(1)	Wire spool holder
------------	--------------------------

	For holding standard wire spools with a max. outer diameter of 300 mm (11.81 in.) and a max. weight of 19 kg (41.89 lbs.)
--	---

(2)	Wire spool lighting
------------	----------------------------

(3)	4-roller drive
------------	-----------------------

(4)	Protective cover of the 4-roller drive
------------	---

(5)	Clamping lever
------------	-----------------------

	For adjusting the contact pressure of the feed rollers
--	--

(6)	4-roller drive lighting
------------	--------------------------------

(7)	Option OPT/s gas test – Wire Inching
------------	---

Before installation and initial operation

Safety



WARNING!

Danger from incorrect operation and work that is not carried out properly.

This can result in serious personal injury and damage to property.

- ▶ All the work and functions described in this document must only be carried out by technically trained and qualified personnel.
- ▶ Read and understand this document in full.
- ▶ Read and understand all safety rules and user documentation for this equipment and all system components.



WARNING!

Danger from electrical current.

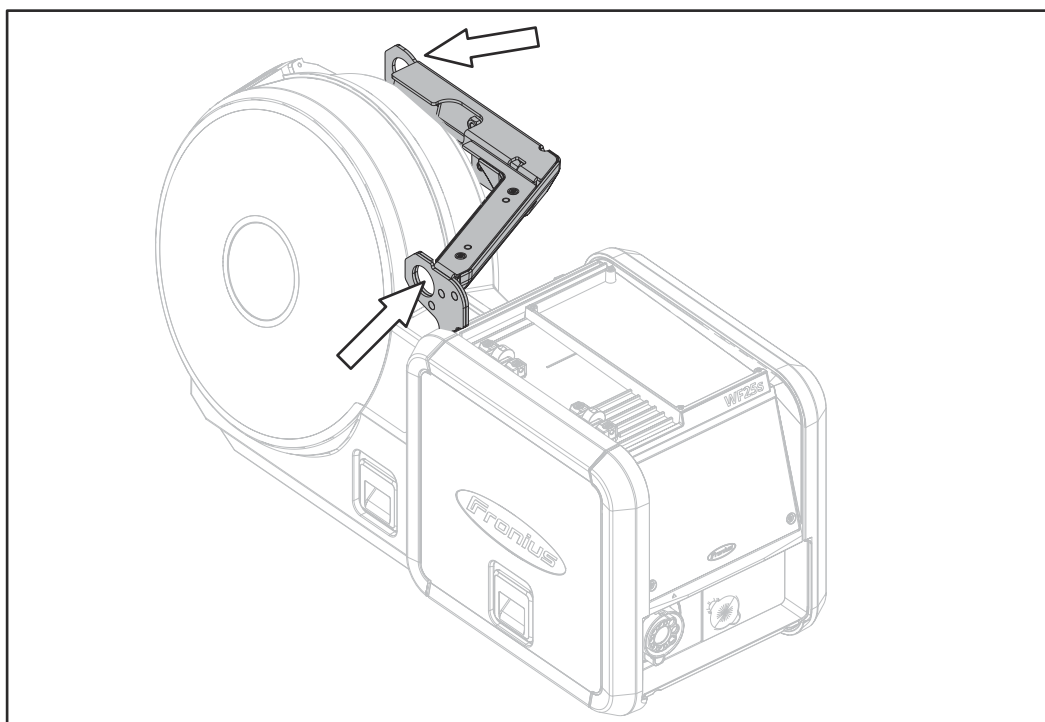
This can result in serious personal injury and damage to property.

- ▶ Before starting work, switch off all the devices and components involved and disconnect them from the grid.
- ▶ Secure all devices and components involved so they cannot be switched back on.

Transport

The WF 25s wirefeeder may be transported as follows:

- manually by holding the crane bracket handle
- using a crane on the crane bracket handle
- on the wirefeeder trolley Trabant
- on the TU Move 4 Pro trolley, with the welding system installed on the swivel pin holder



WF 25s: Crane transport eyelets on the crane bracket handle



WARNING!

Danger from devices or components falling during crane transport.

Serious personal injury and damage to property may result.

- ▶ For crane transport, use only the two crane transport eyelets on the crane bracket handle.
- ▶ Attach chains or ropes to both crane transport eyelets.
- ▶ The chains or ropes must form the smallest angle possible from vertical.
- ▶ Observe and comply with valid national and regional guidelines for accident prevention and hazards during transport and shipment.



WARNING!

Danger from devices and components falling as a result of damaged lifting equipment.

Could result in serious personal injury and damage to property.

- ▶ Regularly check all lifting equipment used for crane transport such as straps, buckles, chains, etc., for mechanical damage, corrosion, and changes due to other environmental influences.
- ▶ The inspection interval and scope of the inspection must comply with the relevant valid national standards and guidelines.

Setup regulations



WARNING!

Danger from devices falling or toppling over.

This can result in serious injury and damage to property.

- ▶ Set up all system components, upright brackets, and trolleys so that they are stable on a flat and solid surface.
- ▶ The maximum permitted tilt angle is 10°.
- ▶ When using a swivel pin holder, always ensure that the wirefeeder is firmly seated.

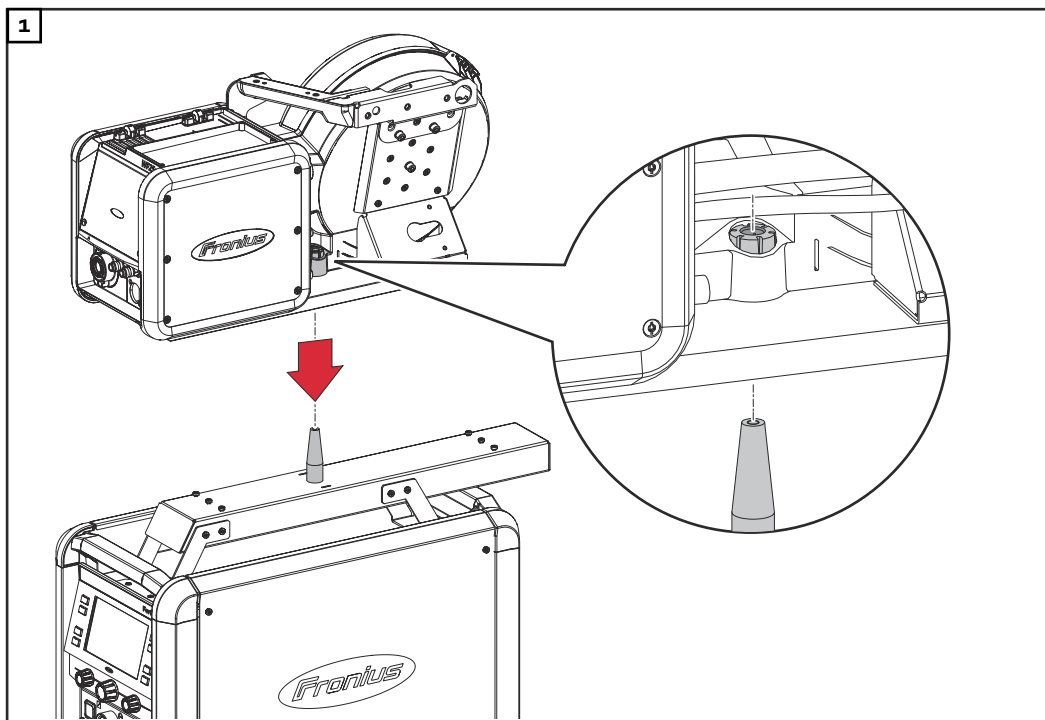
The WF 25s wirefeeder has been tested according to protection class IP 23. This means:

- Protection against the penetration of solid foreign bodies with a diameter of more than 12.5 mm (0.49 in.)
- Protection against spraywater at any angle up to 60° from the vertical

The wirefeeder can be set up and operated outdoors in accordance with protection class IP 23. Avoid the effects of direct moisture (e.g., from rain).

Placing the wirefeeder on the swivel pin holder

Placing the wirefeeder on the swivel pin holder



Connecting the wirefeeder to the welding machine

Connecting the wirefeeder to the welding machine

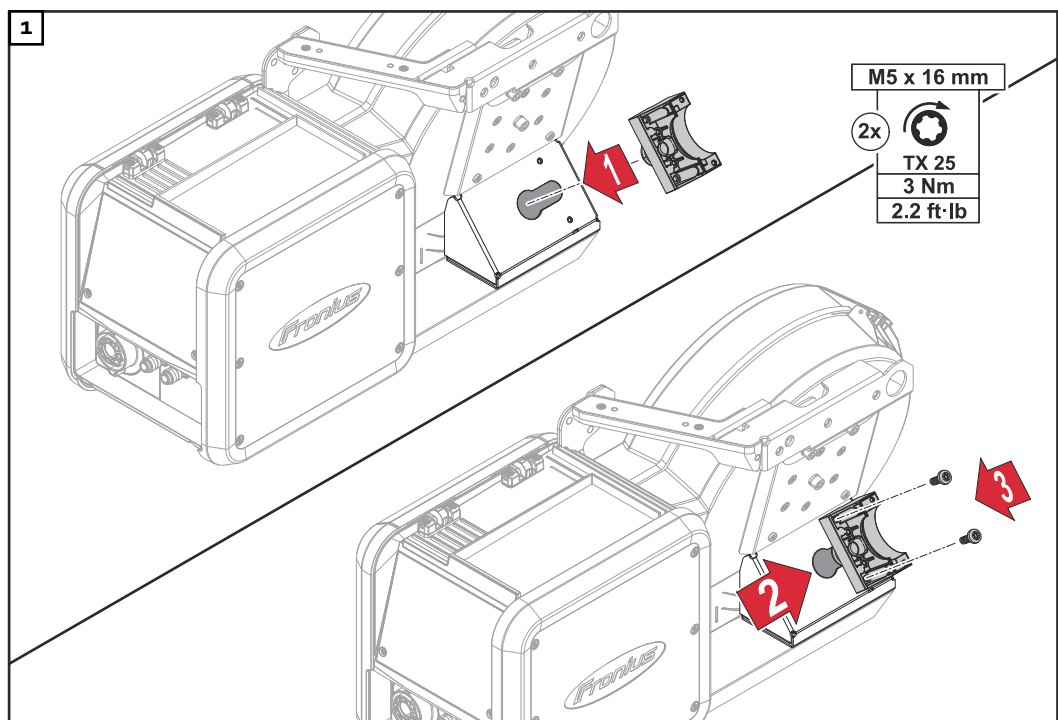
The wirefeeder is connected to the welding machine by means of the interconnecting hosepack.

CAUTION!

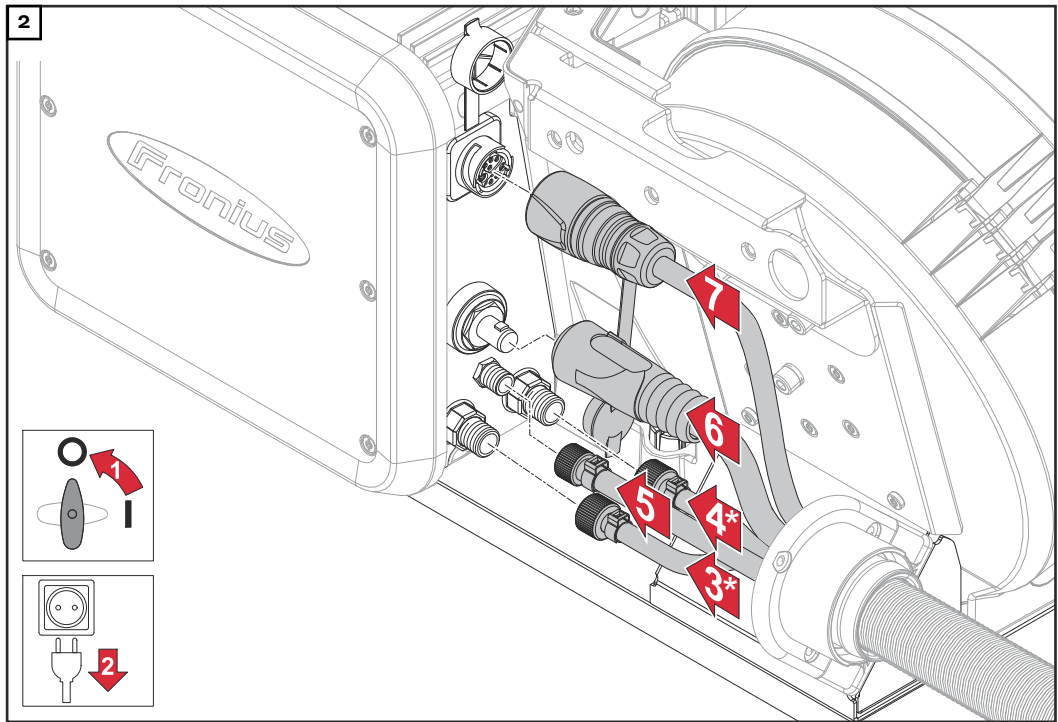
Danger from electric current due to defective system components.

Personal injury and damage to property may result.

- All cables, leads, and hosepacks must always be securely connected, undamaged, and correctly insulated.
- Only use adequately dimensioned cables, leads, and hosepacks.



For interconnecting hosepacks with a length of 1.2 m (3 ft. 11.24 in.), no strain-relief device is provided.

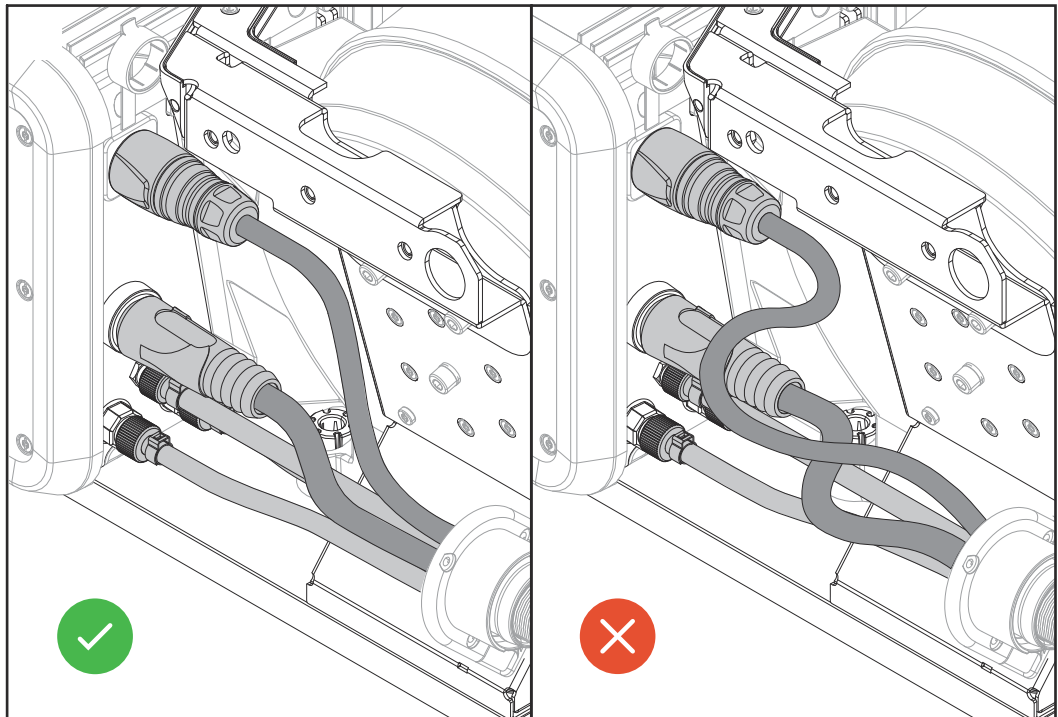


* Only if the coolant connections are installed in the wirefeeder and only if the interconnecting hosepack is water-cooled

NOTE!

Avoid damage when connecting the interconnecting hosepack!

► Route the cables and hoses in a loop inwards to the wirefeeder.



Inserting/changing feed rollers

Inserting/changing feed rollers

In order to achieve optimum wire electrode feed, the feed rollers must be suitable for the diameter and alloy of the wire being welded.

NOTE!

Only use feed rollers which match the wire electrode.

An overview of the available feed rollers and their possible uses can be found in the online spare parts catalog (O-ETK).



Online spare parts catalog (O-ETK):

<https://spareparts.fronius.com>

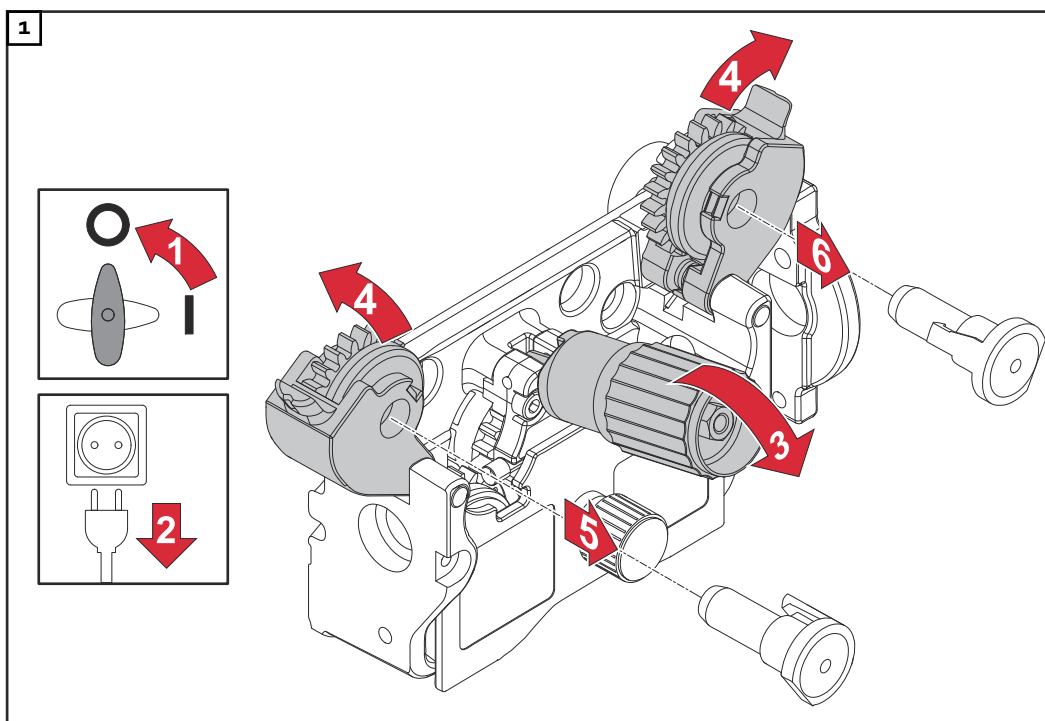


CAUTION!

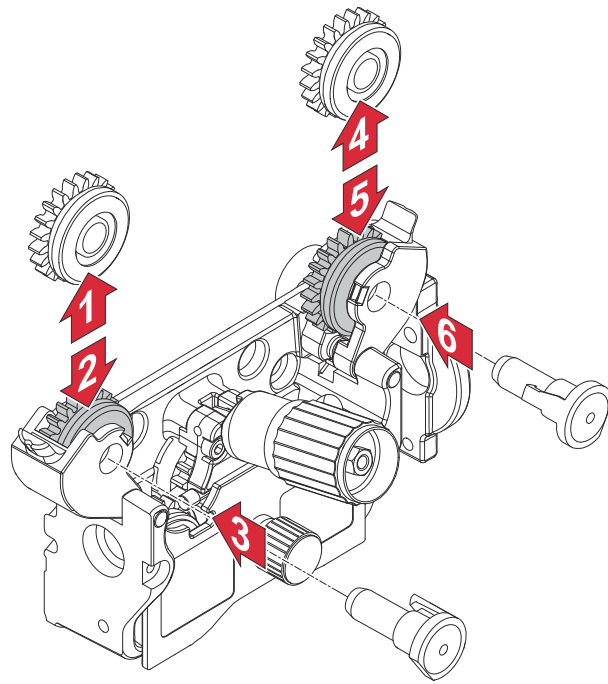
Danger due to feed roller holders shooting upwards.

This can result in personal injury.

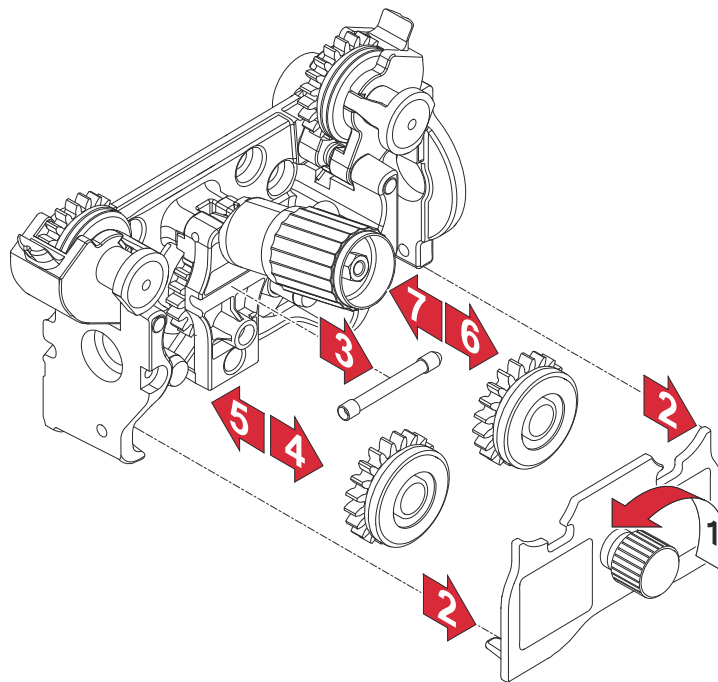
- When unlocking the lever, keep fingers away from the area to the left and right of the lever.



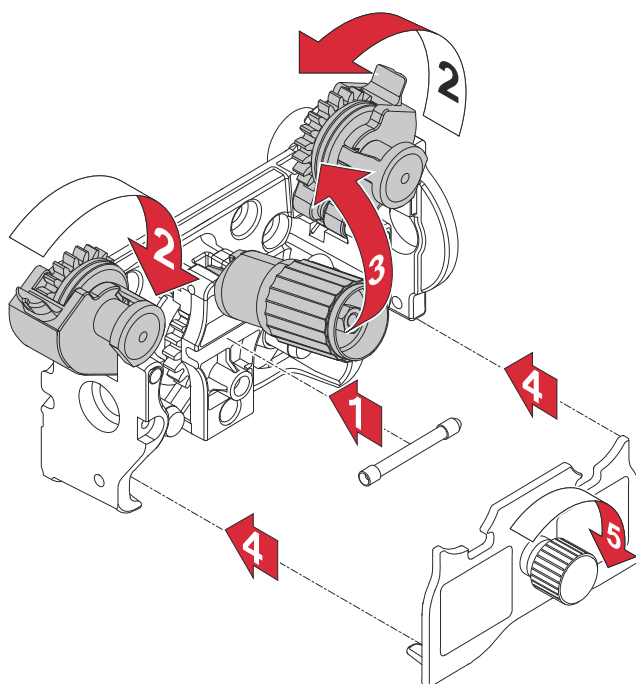
2



3



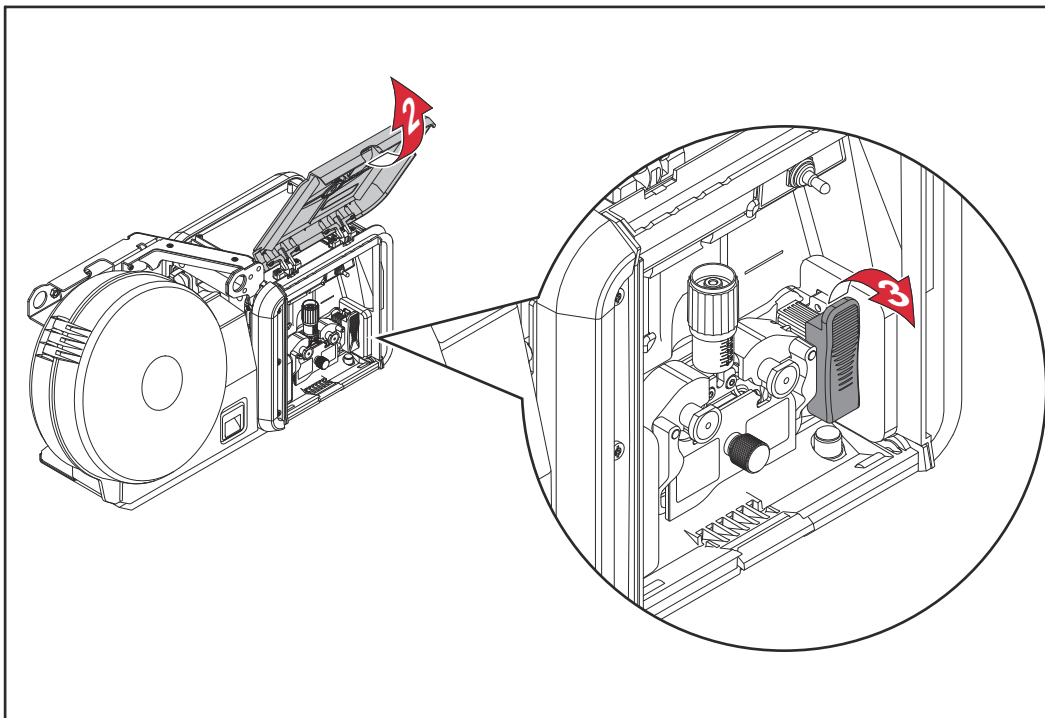
4



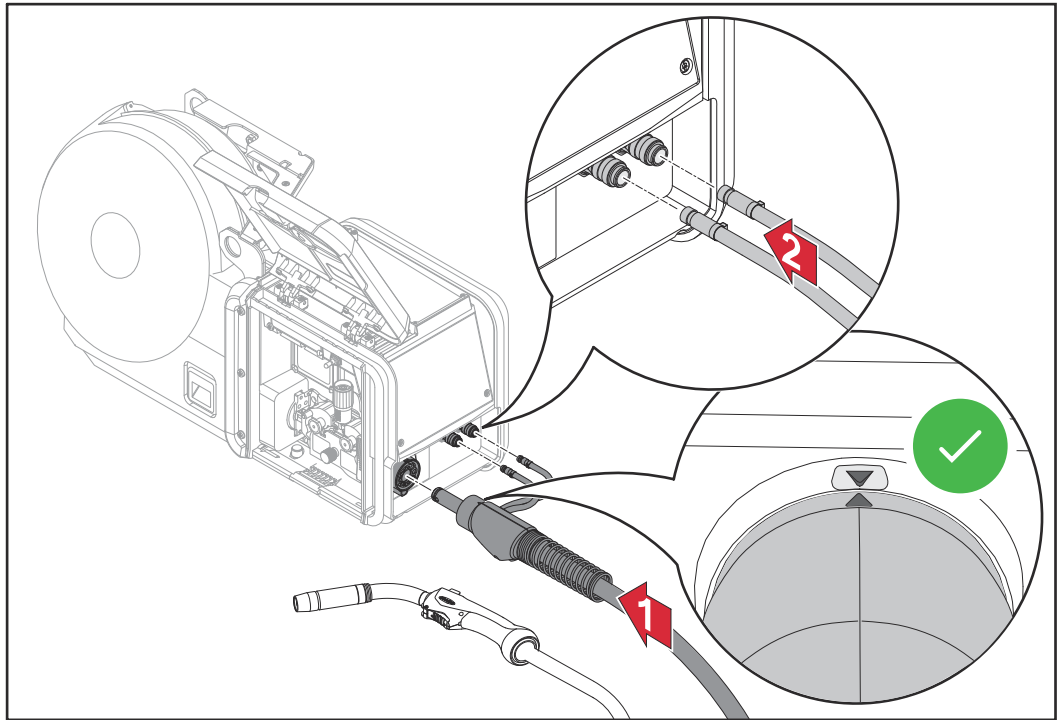
Connecting the welding torch

Connecting a MIG/MAG welding torch to the wirefeeder

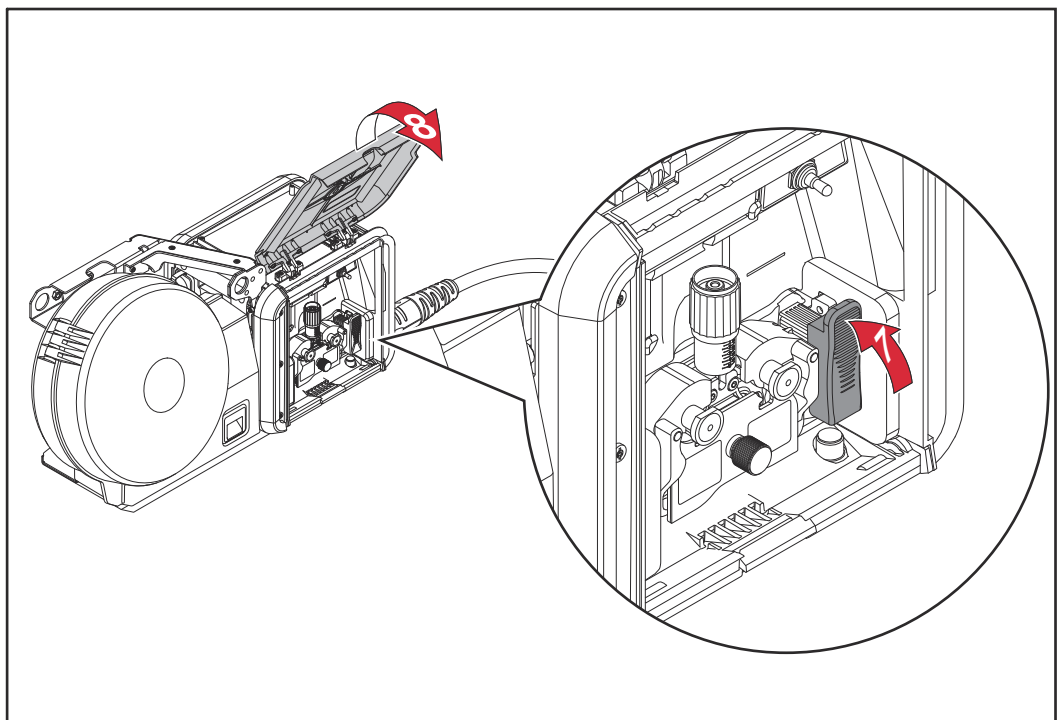
- 1 Check that all cables, leads, and hosepacks are undamaged and correctly insulated



- 2 Open the wire drive cover
- 3 Open the clamping lever on the wire drive



- 4** Push the correctly equipped welding torch with the marking facing up from the front into the welding torch connection of the wirefeeder
- 5** For water-cooled welding torches:
Connect the coolant supply hose to the coolant supply connection (blue)
- 6** Connect the coolant return hose to the coolant return connection (red)



- 7** Close the clamping lever on the wire drive
- 8** Close the wire drive cover
- 9** Check that all connections are secure

Inserting the wirepool/basket-type spool

Safety



WARNING!

Danger from electric current.

This can result in serious personal injury and damage to property.

- ▶ Before carrying out maintenance or service work, switch off all devices and components involved and disconnect them from the power supply.
- ▶ Secure all devices and components involved against being switched on again.
- ▶ After opening the appliance, use a suitable measuring device to ensure that electrically charged components (e.g. capacitors) are discharged.



CAUTION!

Danger from springiness of spooled wire electrode.

Personal injury may result.

- ▶ Wear safety goggles.
- ▶ When inserting the wirepool/basket-type spool, hold the end of the wire electrode firmly to avoid injuries caused by the wire electrode springing back.



CAUTION!

Danger from falling wire spool/basket-type spool.

Could result in injury.

- ▶ Ensure that the wire spool is fitted securely to the wire spool holder.
- ▶ Place the basket-type spool on the adapter provided in such a way that the bars on the spool are inside the adapter guideways.
- ▶ Make sure that the basket-type spool with basket-type spool adapter is fitted securely to the wire spool holder.

Inserting the wire spool



CAUTION!

Danger from springiness of spooled wire electrode.

Could result in injury.

- ▶ When inserting the wire spool, hold the end of the wire electrode firmly to avoid injuries caused by the wire electrode springing back.



CAUTION!

Danger from falling wire spool.

Could result in injury.

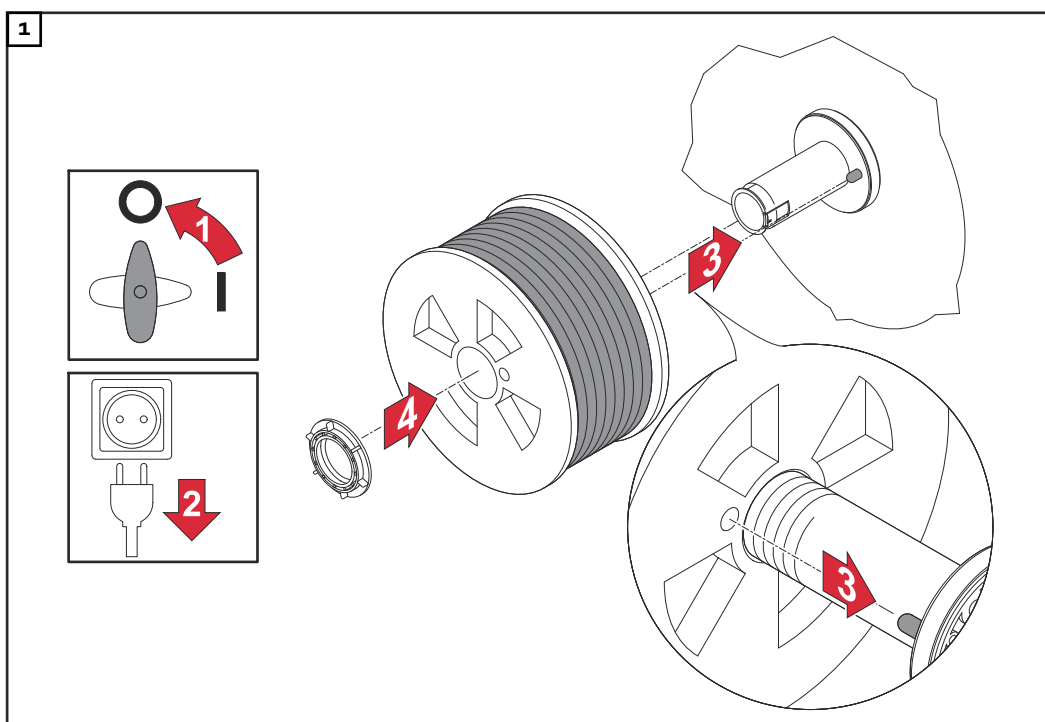
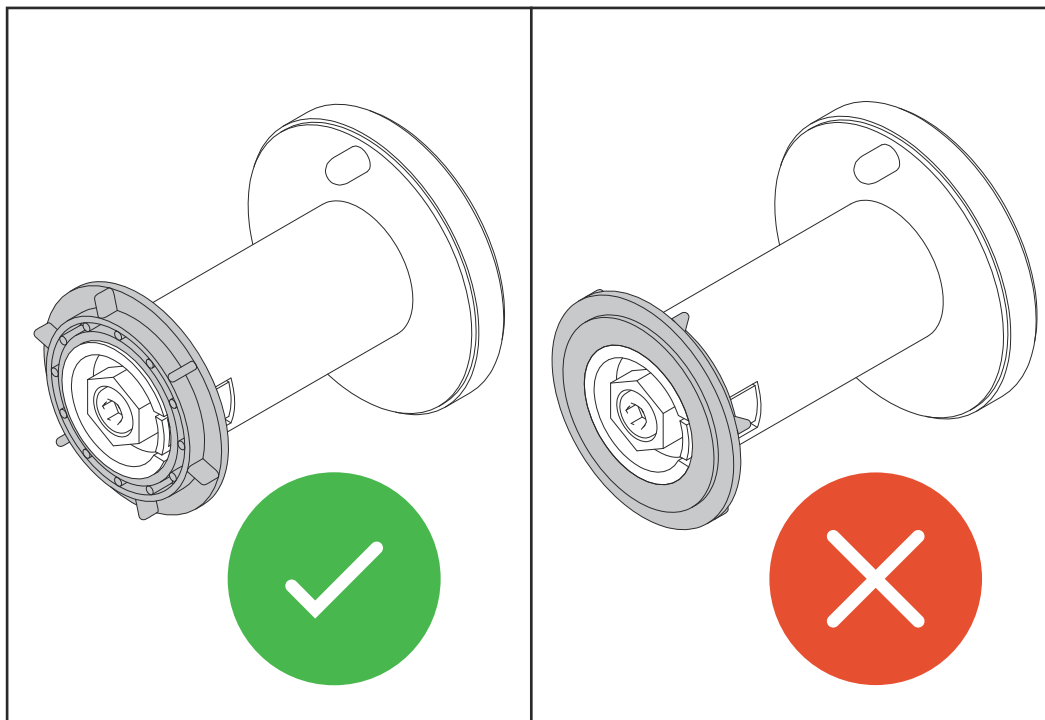
- ▶ Ensure that the wire spool is fitted securely to the wire spool holder.

⚠ CAUTION!

Danger due to falling wire spool as a result of the locking ring being fitted the wrong way round.

Could result in personal injury and functional impairments.

► Always position the locking ring as shown in the image below.



Installing the basket-type spool

NOTE!

When working with basket-type spools, only use the basket-type spool adapter supplied with the device.



CAUTION!

Danger from springiness of spooled wire electrode.

Personal injury may result.

- ▶ Wear safety goggles.
- ▶ When inserting the wirepool/basket-type spool, hold the end of the wire electrode firmly to avoid injuries caused by the wire electrode springing back.



CAUTION!

Danger from falling basket-type spool.

Could result in injury.

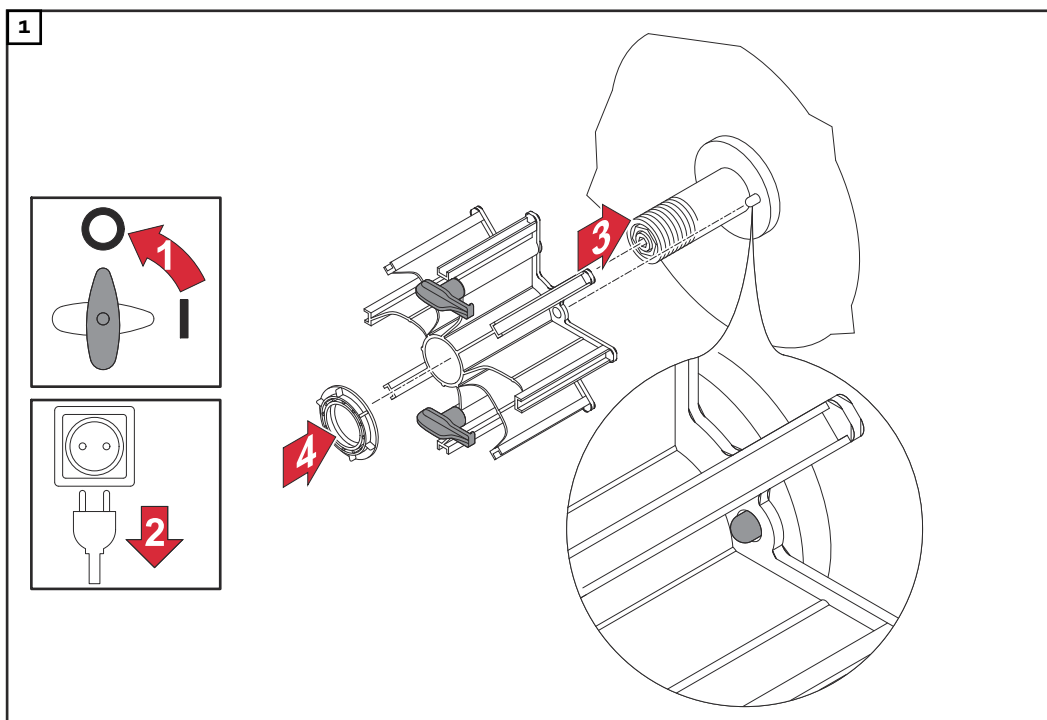
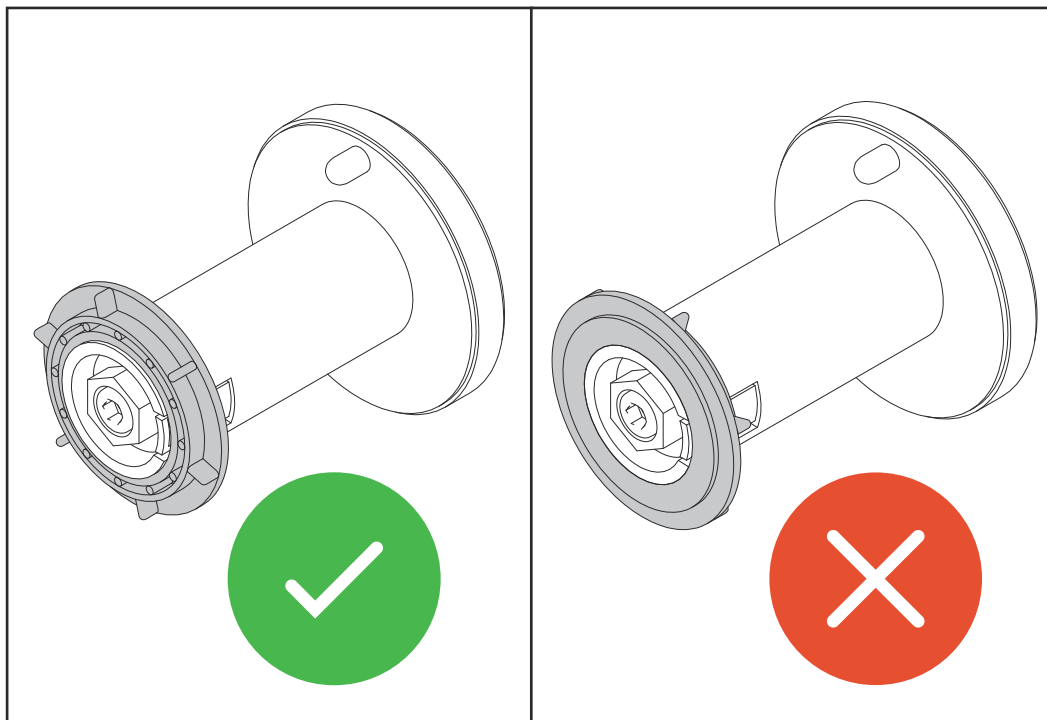
- ▶ Make sure that the basket-type spool with basket-type spool adapter is fitted securely to the wire spool holder.
- ▶ Place the basket-type spool on the adapter provided in such a way that the bars on the spool are inside the adapter guideways.

⚠ CAUTION!

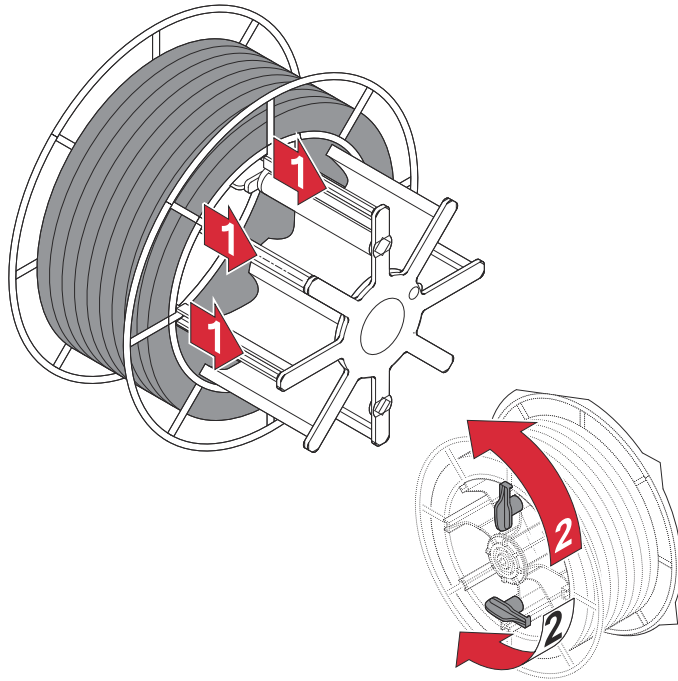
Danger due to falling basket-type spool as a result of the locking ring being fitted the wrong way round.

Could result in personal injury and functional impairments.

► Always position the locking ring as shown in the image below.



2



Threading the Wire Electrode

Feeding in the wire electrode

CAUTION!

Danger from springiness of spooled wire electrode.

Personal injury may result.

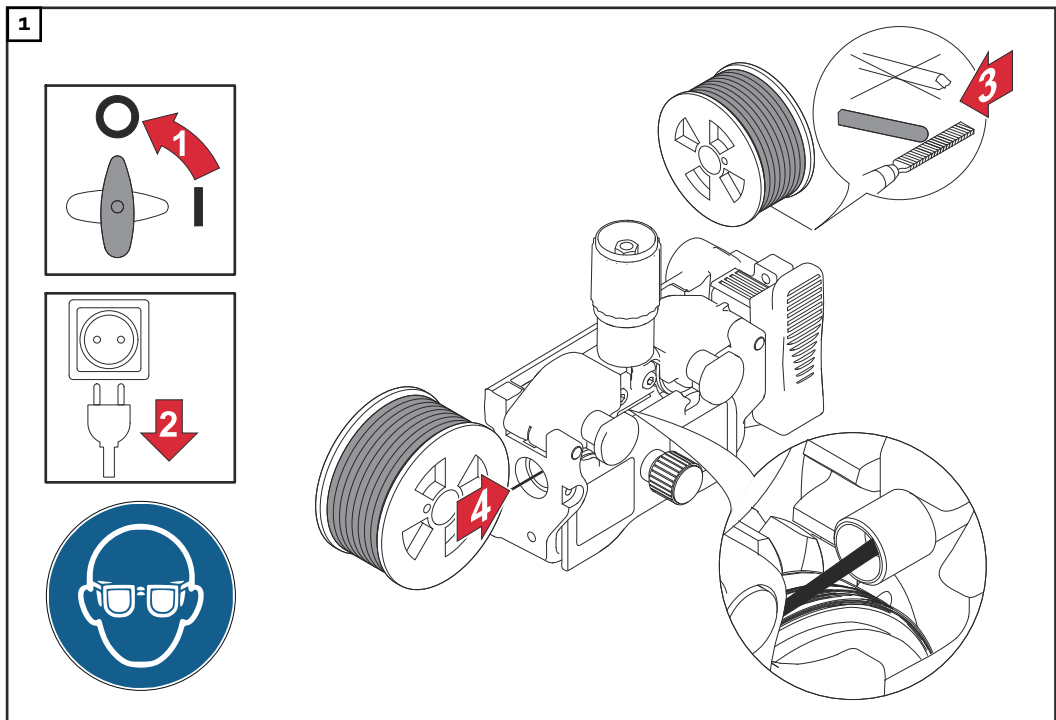
- ▶ Wear safety goggles.
- ▶ When inserting the wire spool/basket-type spool, hold the end of the wire electrode firmly to avoid injuries caused by the wire electrode springing back.

CAUTION!

Danger due to sharp end of the wire electrode.

This can damage the welding torch.

- ▶ Deburr the end of the wire electrode well before threading in.
- ▶ Lay out the torch hosepack as straight as possible.

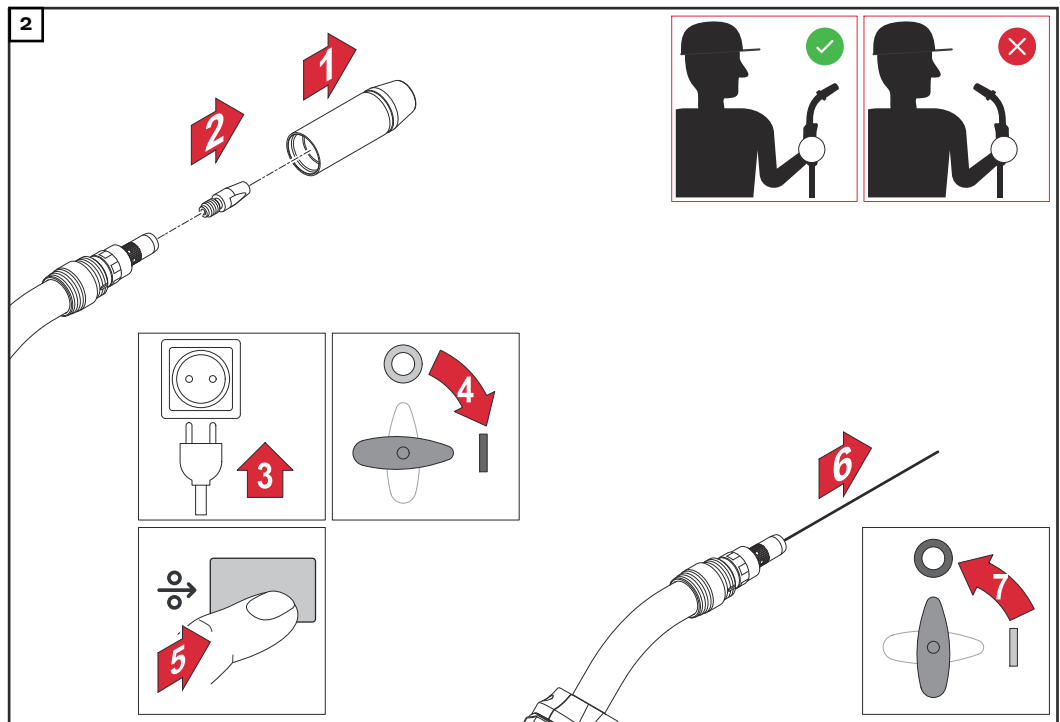


CAUTION!

Danger due to emerging wire electrode.

Personal injury may result.

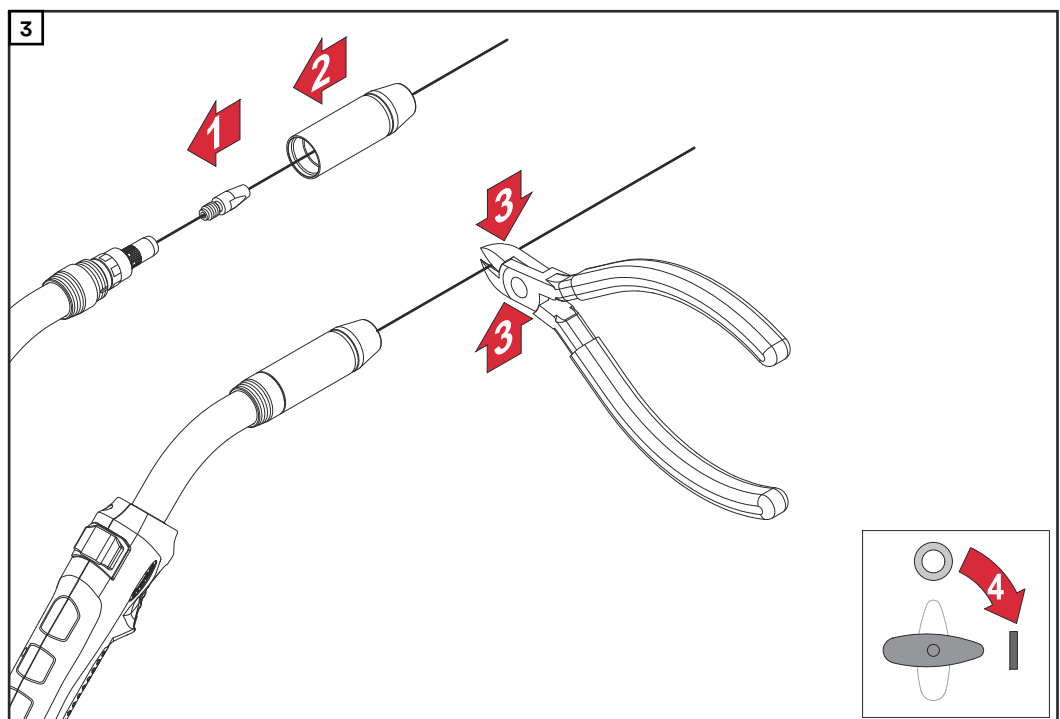
- ▶ Hold the welding torch so that the tip of the welding torch points away from the face and body.
- ▶ Wear suitable protective goggles.
- ▶ Do not point the welding torch at people.
- ▶ Ensure that the wire electrode can only intentionally make contact with electrically conductive objects.



NOTE!

The wire electrode can be threaded by pressing a wire threading button provided in the welding system or by pressing the torch trigger.

- The "Wire threading" dialog window is shown on the displays of the welding machine and wirefeeder.



Instructions for wire threading

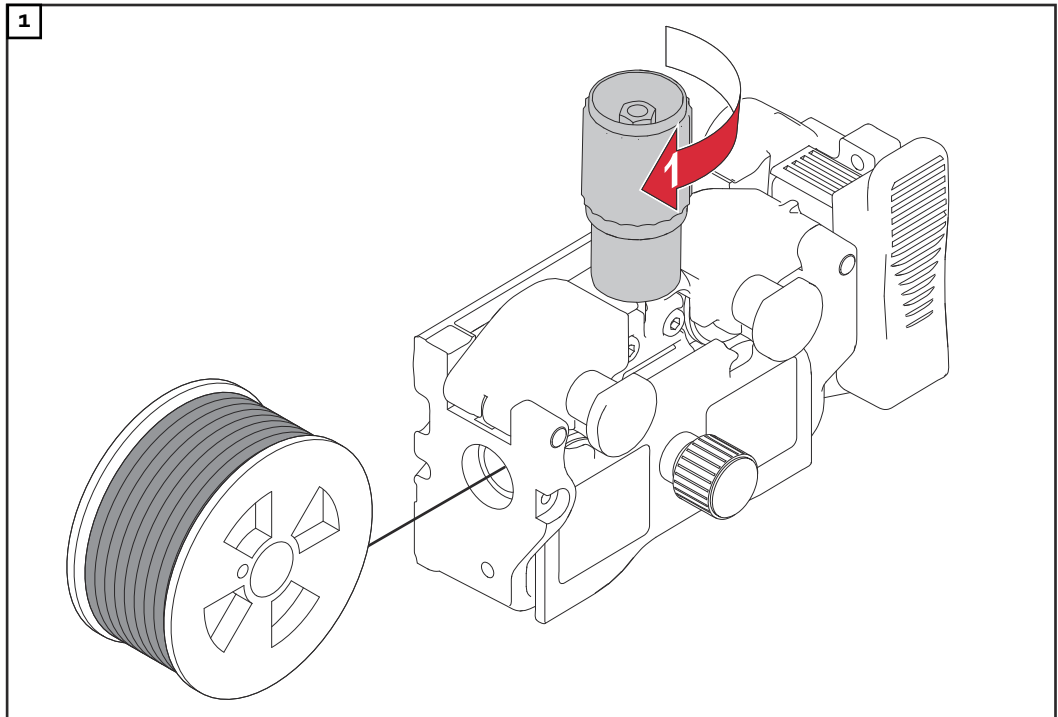
If contact is made with the ground during wire threading, the wire electrode is automatically stopped.

When the torch trigger is pressed once, the wire electrode moves forwards 1 mm.

Setting the contact pressure

NOTE!

Set the contact pressure in such a way that the wire electrode is not deformed but nevertheless ensures proper wirefeeding.



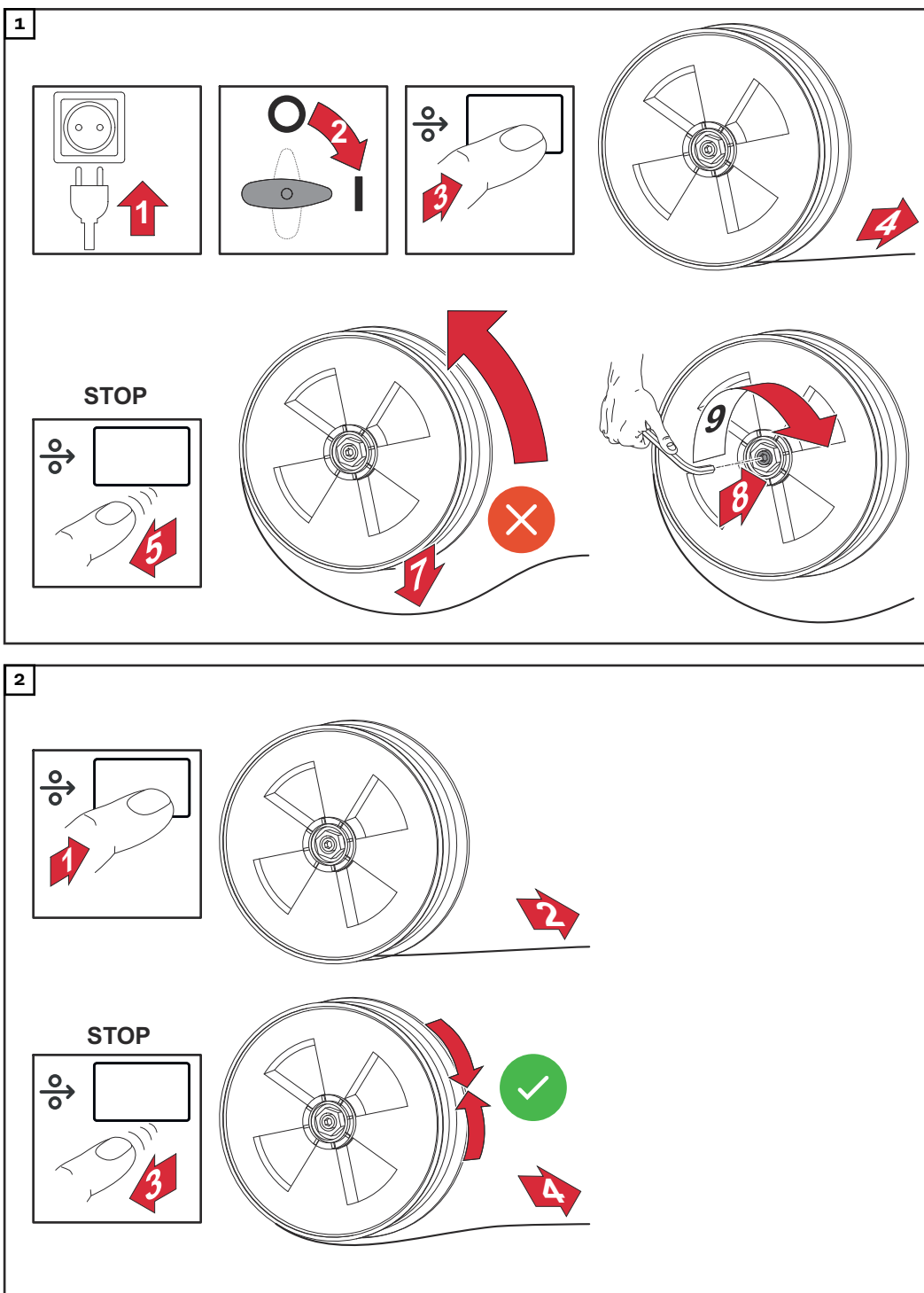
The standard values for the contact pressure can be found on the sticker on the 4-roller drive.

Adjusting the brake

Adjusting the brake

NOTE!

After releasing the torch trigger, the wire spool must stop unreeling. Adjust the brake if necessary.



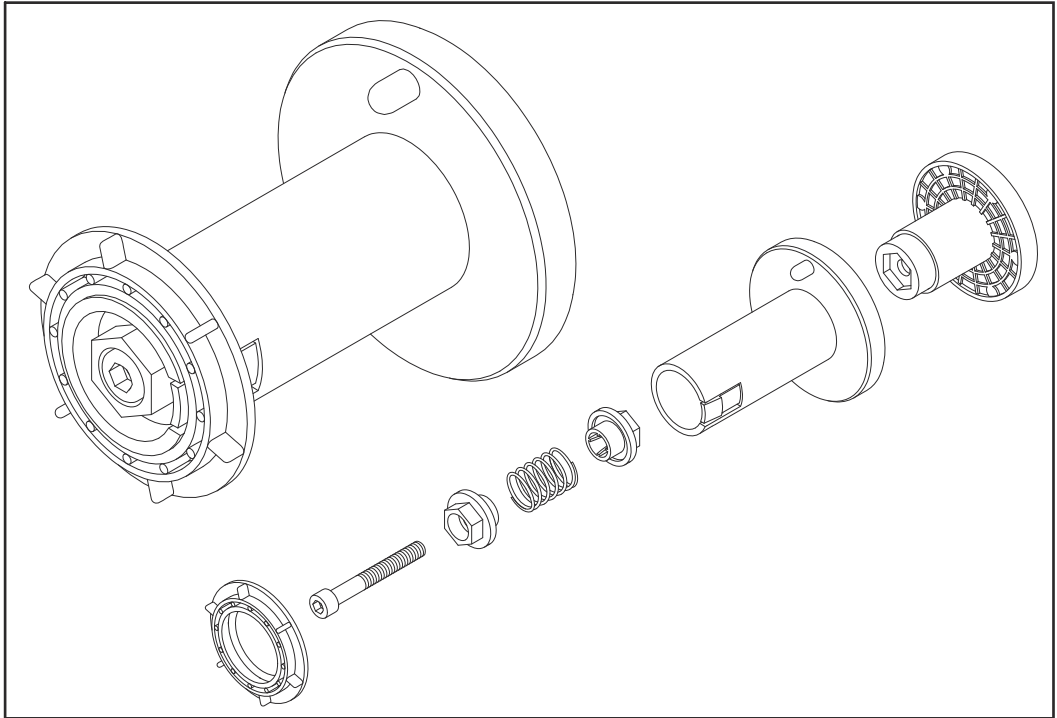
Design of the brake

CAUTION!

Danger from incorrect installation.

Personal injury and damage to property may result.

- ▶ Do not dismantle the brake.
- ▶ Maintenance and servicing of brakes is to be carried out by trained, qualified personnel only.



The brake is only available as a complete unit.
The illustration of the brake is for information purposes only.

Commissioning

Safety



WARNING!

Danger from incorrect operation and work that is not carried out properly.

This can result in serious personal injury and damage to property.

- ▶ All the work and functions described in this document must only be carried out by technically trained and qualified personnel.
- ▶ Read and understand this document in full.
- ▶ Read and understand all safety rules and user documentation for this equipment and all system components.

Requirements

The following requirements must be fulfilled for commissioning of the wirefeeder:

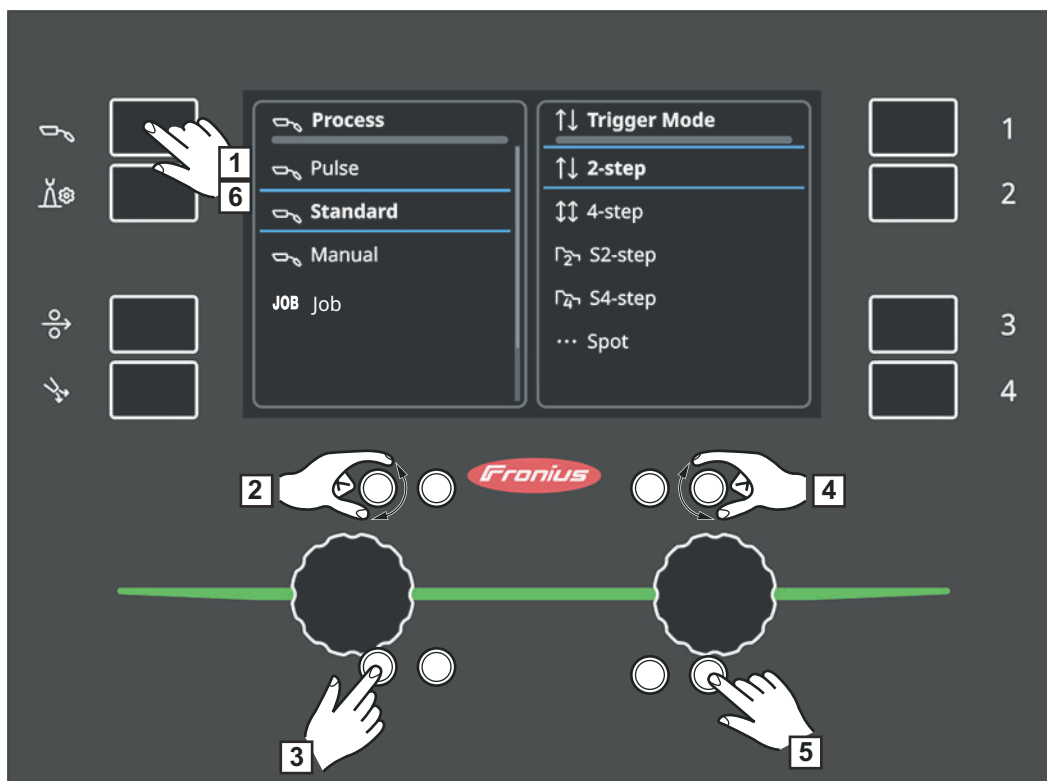
- Wirefeeder connected to welding machine by means of interconnecting hosepack
- Welding torch connected to wirefeeder
- Feed rollers inserted into wirefeeder
- Wirespool/basket-type spool and its adapter inserted into wirefeeder
- Wire electrode threaded in
- Contact pressure of the feed rollers set
- Brake adjusted
- All covers closed, all side parts mounted, and all protection devices in good order and installed in the location intended

Commissioning

The wirefeeder is started up by pressing the torch trigger when the welding machine is switched on.

Settings on the optional control panel

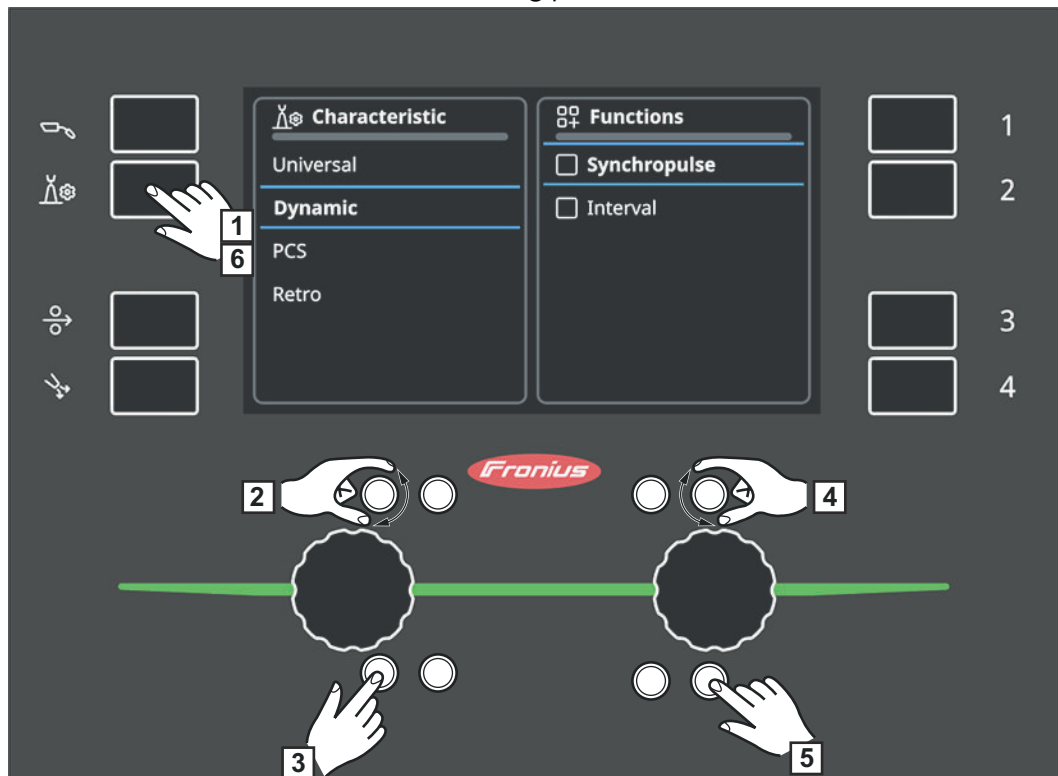
Selecting the welding process and operating mode



- 1** Press the welding process / operating mode button
- 2** Turn the left-hand selection dial and select the desired welding process
- 3** Press the left-hand selection dial to confirm the selection
- 4** Turn the right-hand selection dial and select the desired operating mode
- 5** Press the right-hand selection dial to confirm the selection
- 6** Press the welding process / operating mode button to exit the menu

Setting the welding characteristic property and process function

Setting the welding characteristic property and the process functions is only relevant for the Pulse and Standard welding processes.



- 1 Press the welding characteristic property / process functions button
- 2 Turn the left-hand dial and select the desired welding characteristic property.

NOTE!

Filler metal, diameter of the wire electrode, and shielding gas can only be set on the welding machine!

- 3 Press the left-hand selection dial to confirm the selection
- 4 Turn the right-hand selection dial and activate or deactivate the desired process function
- 5 Press the right-hand selection dial to confirm the selection
- 6 Press the welding characteristic property / process functions button to exit the menu

Setting the welding parameters



The welding parameter is selected

The welding parameter symbol is highlighted on the display between 2 blue lines.

- 1** Turn the dial and select the desired welding parameter
- 2** Press the dial

The value of the welding parameter can now be changed.



The value of the welding parameter can be changed

The value of the welding parameter is highlighted on the display.

- 1** Turn the dial and adjust the value of the welding parameter
- 2** Press the dial to apply the value

Welding parameters for pulsed and standard welding in the left-hand display section:

- Wire speed [m/min or ipm]
- Current [A]
- Sheet thickness [mm or inches]

If one of the welding parameters is changed, the remaining parameters are also adjusted.

Welding parameters for pulsed and standard welding in the right-hand display section:

- Arc length correction
- Dynamic correction for standard or pulse correction for pulsed

Welding parameters for manual welding in the left-hand display section:

- Wire speed [m/min or ipm]
- Arc-force dynamic

Welding parameters for manual welding in the right-hand display section:

- Welding voltage [V]

EasyJobs

The 4 multifunctional buttons can be assigned EasyJobs. The EasyJobs can then simply be retrieved at the touch of a button.

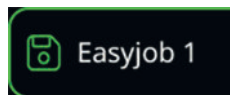
Saving an EasyJob

NOTE!

Up to four EasyJobs can be saved using the existing multifunctional buttons.
The EasyJobs are stored under job numbers 1 - 4 and can also be retrieved via Job Mode.
► Storing an EasyJob overwrites a job stored under the same job number!

- 1 Press one of the multifunctional buttons for approx. 3 seconds to store the current welding settings

After approx. 3 seconds, a symbolized button with a green frame and the Save symbol is shown on the display.

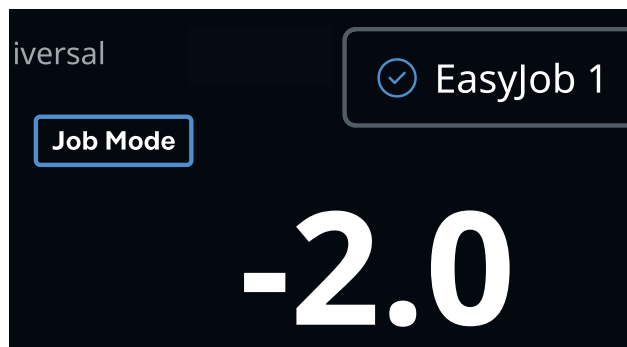


The settings have been saved. The last saved settings are activated.

Retrieving an EasyJob

- 1 To retrieve a saved EasyJob, briefly press the corresponding multifunctional button (< 3 seconds)

A symbolized EasyJob button is shown on the right edge of the display at the height of the button, and the active job mode is shown in the central display section.



Deleting an EasyJob

- 1 To delete an EasyJob, press the corresponding multifunctional button for approx. 5 seconds

After approx. 3 seconds, a symbolized button with a green frame and the Save symbol is shown on the display.

The EasyJob saved under the multifunctional button is overwritten with the current settings.

After a total of approx. 5 seconds, the symbolized button is displayed with a red frame and the Delete symbol.



The EasyJob was deleted from the storage location.

Troubleshooting

Troubleshooting

Make a note of the serial number and configuration of the device, and provide the service team with a detailed error description if:

- Errors occur that are not covered in this document
- The troubleshooting measures provided in this document are unsuccessful

Welding machine not working

Power switch is switched on; displays and indicators do not illuminate

Cause: Mains lead damaged or broken, mains plug not inserted

Remedy: Check mains lead, if necessary insert mains plug

Cause: Mains socket or mains plug faulty

Remedy: Replace faulty parts

Cause: Mains fuse

Remedy: Replace mains fuse

Cause: Short circuit on the 24 V power supply of the SpeedNet connection or external sensor

Remedy: Disconnect connected components

No function after pressing torch trigger

Power switch of the welding machine is switched on, indicators light up

Cause: Only for welding torches with an external control plug: Control plug not plugged in

Remedy: Plug in control plug

Cause: Welding torch or welding torch control line faulty

Remedy: Replace the welding torch

No welding current

Power switch of the welding machine switched on, indicators light up

Cause: Incorrect ground connection

Remedy: Check ground connection for polarity

Cause: Power cable in welding torch damaged or broken

Remedy: Replace the welding torch

no shielding gas

all other functions present

Cause: Gas cylinder empty

Remedy: Change gas cylinder

Cause: Gas pressure regulator faulty

Remedy: Replace gas pressure reducer

Cause: Gas hose not attached, or damaged

Remedy: Attach or replace gas hose

Cause: Welding torch faulty

Remedy: Change welding torch

Cause: Gas solenoid valve faulty

Remedy: Inform the service team

Irregular wire speed

Cause: Braking force has been set too high

Remedy: Loosen the brake

Cause: Contact tip hole too narrow

Remedy: Use suitable contact tip

Cause: Inner liner in the welding torch faulty

Remedy: Check the inner liner for kinks, dirt, etc. and replace if necessary

Cause: Feed rollers not suitable for wire electrode used

Remedy: Use suitable feed rollers

Cause: Feed rollers have the wrong contact pressure

Remedy: Optimize contact pressure

Wirefeed issues

For applications with long hosepacks

Cause: Improper laying of the hosepack

Remedy: Lay hosepack as straight as possible while avoiding tight bending radii

Welding torch gets very hot

Cause: Welding torch is inadequately sized

Remedy: Observe duty cycle and load limits

Cause: For water-cooled systems only: Coolant flow too low

Remedy: Check coolant level, coolant flow rate, coolant contamination, etc.
For more detailed information, refer to the Operating Instructions for the cooling unit

Poor-quality weld properties

Cause: Incorrect welding parameters

Remedy: Check settings

Cause: Poor ground earth connection

Remedy: Establish good contact with workpiece

Cause: Too little or no shielding gas

Remedy: Check gas pressure regulator, gas hose, gas solenoid valve, welding torch gas connection, etc.

Cause: Welding torch leaks

Remedy: Change welding torch

Cause: Incorrect or heavily worn contact tip

Remedy: Change contact tip

Cause: Incorrect wire alloy or incorrect wire diameter

Remedy: Check wire electrode in use

Cause: Incorrect wire alloy or incorrect wire diameter

Remedy: Check weldability of the base material

Cause: Shielding gas not suitable for wire alloy

Remedy: Use correct shielding gas

Service, maintenance and disposal

General

The device only requires minimal of service and maintenance under normal operating conditions. However, several points must be observed for the welding system to remain operational for years to come.

Safety



WARNING!

Danger from incorrect operation and work that is not carried out properly.

This can result in serious personal injury and damage to property.

- ▶ All the work and functions described in this document must only be carried out by technically trained and qualified personnel.
- ▶ Read and understand this document in full.
- ▶ Read and understand all safety rules and user documentation for this equipment and all system components.



WARNING!

Danger from electric current.

This can result in serious personal injury and damage to property.

- ▶ Before carrying out maintenance or service work, switch off all devices and components involved and disconnect them from the power supply.
- ▶ Secure all devices and components involved against being switched on again.
- ▶ After opening the appliance, use a suitable measuring device to ensure that electrically charged components (e.g. capacitors) are discharged.



CAUTION!

Danger due to hot system components and/or equipment.

This can result in burns or scalding.

- ▶ Before starting work, allow all hot system components and/or equipment to cool to +25°C/+77°F (e.g., coolant, water-cooled system components, wirefeeder drive motor, etc.).
- ▶ Wear suitable protective equipment if cooling down is not possible (e.g., heat-resistant gloves, safety goggles, etc.).

At every start-up

- Check all hosepacks and the ground earth connection for damage. Replace any damaged components.
- Check feed rollers and inner liners for damage. Replace any damaged components.
- Check contact pressure of the feed rollers and adjust if necessary.

Every 6 months



CAUTION!

Danger from compressed air at close range.

Electronic parts may be damaged.

- ▶ Do not bring the air nozzle too close to electronic parts.

- Open covers, dismantle device side panels, and blow the inside of the device clean with dry, reduced compressed air. After cleaning, restore the system to its original condition.
-

Disposal

Waste electrical and electronic equipment must be collected separately and recycled in an environmentally sound manner in accordance with the European Directive and national law. Used equipment must be returned to the distributor or through a local authorized collection and disposal system. Proper disposal of the used device promotes sustainable recycling of resources and prevents negative effects on health and the environment.

Packaging materials

- Collect separately
- Observe local regulations
- Crush cardboard boxes

Technical data

Environmental conditions

Temperature range of ambient air:

during operation

-10 °C to + 40 °C / 14 °F to 104 °F

during transport and storage

-20 °C to +55 °C / -4 °F to 131 °F

Relative humidity of ambient air:

at 40 °C / 104 °F

max. 50%

at 20 °C / 68 °F

max. 90%

WF 25s

Supply voltage	24 V DC / 42 V DC
Nominal current	0.5 A / 1.5 A
Welding current at 10 min/40 °C (104 °F)	40% ED* / 500 A 60% ED* / 430 A 100% ED* / 360 A
Maximum pressure of shielding gas	7 bar 101.53 psi
Coolant	Original Fronius
Maximum pressure of coolant	5 bar 72.53 psi
Wire speed	1-25 m/min 39.37-984.25 ipm
Wire drive	4-roller drive
Wire diameter	0.6-1.6 mm 0.02-0.06 in.
Wire spool diameter	Max. 300 mm Max. 11.81 in.
Wire spool weight	Max. 19 kg Max. 41.89 lb.
Protection class	IP 23
EMC emission class	A**
Mark of conformity	CE / CSA
Dimensions l × w × h	692 x 253 x 362 mm 27.2 x 10.0 x 14.3 in.
Weight	14.7 kg 32.4 lb.

* ED = duty cycle

** A device in emissions class A is not intended for use in residential areas in which the power is supplied via a public low-voltage grid. The electromagnetic compatibility may be influenced by conducted or radiated radio frequencies.

HP 70s CON

Length	1.2 / 5 / 10 / 15 / 20 m 3+11.2 / 16+4.9 / 32+9.7 / 49+2.6 / 65+7.4 ft + in.
Welding current at 10 min/40 °C (104 °F)	40% ED* / 400 A 60% ED* / 365 A 100% ED* / 320 A

* ED = duty cycle

HP 95s CON

Length	1.2 / 5 / 10 / 15 / 20 m 3+11.2 / 16+4.9 / 32+9.7 / 49+2.6 / 65+7.4 ft + in.
Welding current at 10 min/40 °C (104 °F)	40% ED* / 500 A 60% ED* / 450 A 100% ED* / 360 A

* ED = duty cycle



Fronius International GmbH

Froniusstraße 1
4643 Pettenbach
Austria
contact@fronius.com
www.fronius.com

At www.fronius.com/contact you will find the contact details
of all Fronius subsidiaries and Sales & Service Partners.