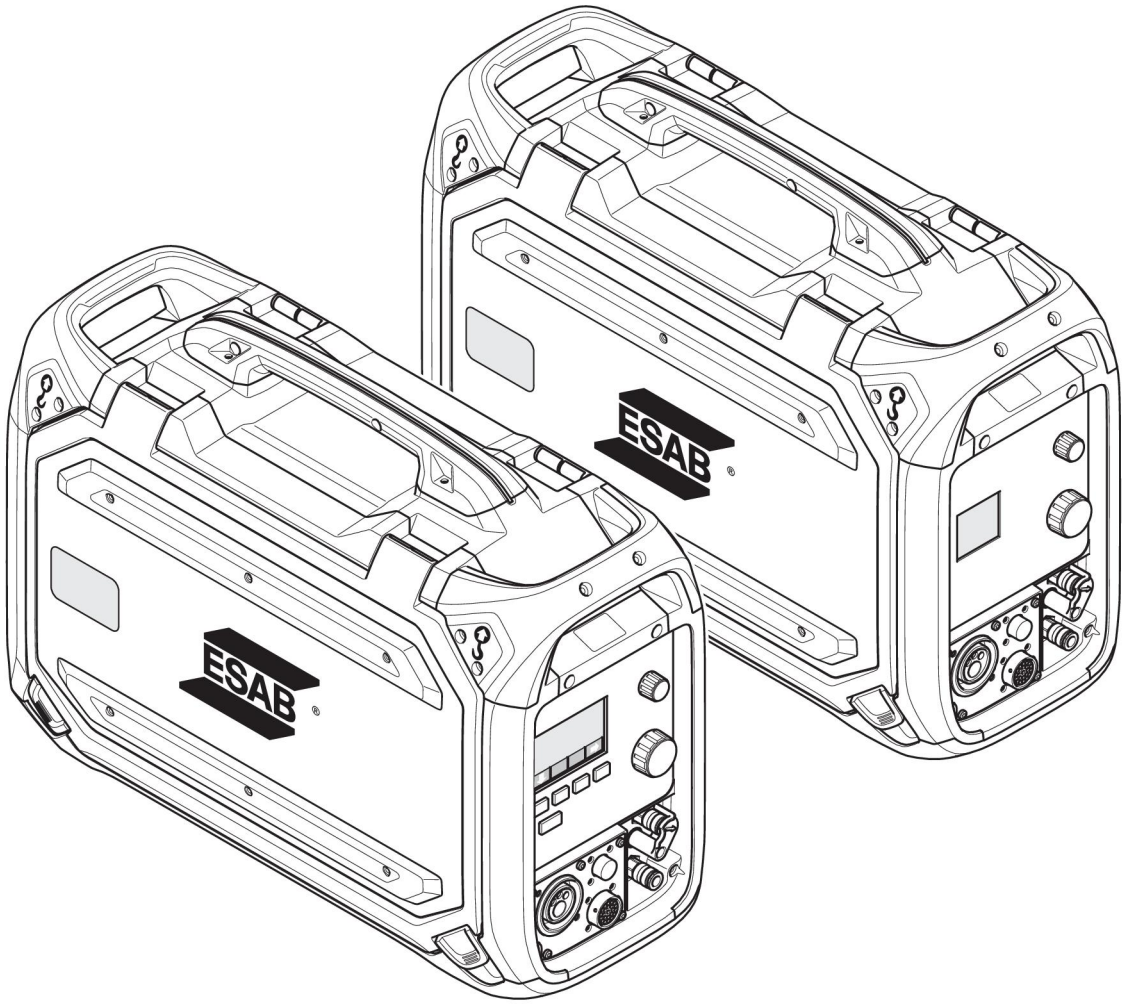
Aristo®

RobustFeed U6, RobustFeed Pulse



Instruction manual

0446 253 201 GB 20221228

Valid for: serial no. 014-, 019-, 251-xxx-xxxx

EU DECLARATION OF CONFORMITY

According to
The Low Voltage Directive 2014/35/EU
The EMC Directive 2014/30/EU
The RoHS Directive 2011/65/EU

Type of equipment
Arc welding wire feeder

Type designation	From serial number
Robust Feed, Pulse,	014 xxx xxxx (2020 w14)
Robust Feed, U6,	014 xxx xxxx (2020 w14)
Robust Feed, U8$_2$	111 xxx xxxx (2021 w11)

Brand name or trademark
ESAB

Manufacturer or his authorised representative established within the EEA
Name, address, and telephone No:
ESAB AB
Lindholmsallén 9, Box 8004, SE-402 77 Göteborg, Sweden
Phone: +46 31 50 90 00, www.esab.com

The following harmonised standard in force within the EEA has been used in the design:

EN IEC 60974-5:2019	Arc Welding Equipment – Part 5: Wire feeders
EN 60974-10:2014	Arc Welding Equipment – Part 10: Electromagnetic compatibility requirements

Additional Information:
Restrictive use, Class A equipment, intended for use in location other than residential.
Robust Feed Pulse, Robust Feed U6 and Robust Feed U8$_2$ are part of ESAB Aristo® product family.

By signing this document, the undersigned declares as manufacturer, or the manufacturer's authorised representative established within the EEA, that the equipment in question complies with the safety requirements stated above.

Gothenburg, 2021-03-10

Pedro Muniz
Standard Equipment Director

CE

UK DECLARATION OF CONFORMITY

According to:

- Electric Equipment (Safety) Regulations 2016;
- Electromagnetic Compatibility Regulations 2016;
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (as amended)

Type of equipment
Arc welding power source

Type designation

Robust Feed, U6,	from serial number 014 XXX XXXX (2020 w14)
Robust Feed, Pulse,	from serial number 014 XXX XXXX (2020 w14)
Robust Feed, U8 2	from serial number 111 XXX XXXX (2021 w11)

Brand name or trademark
ESAB

Manufacturer or his authorised representative established within United Kingdom
ESAB Group (UK) Ltd,
322 High Holborn, London, WC1V 7PB, United Kingdom
www.esab.co.uk

The following British Standards and Instruments in force within the United Kingdom has been used in the design:

- EN IEC 60974-5:2019	Arc welding equipment - Part 5: Wire feeders
- EN 60974-10:2014	Arc welding equipment - Part 10: Electromagnetic compatibility (EMC)

Additional Information:
Restrictive use, Class A equipment, intended for use in locations other than residential.
Robust Feed Pulse, Robust Feed U6 and Robust Feed U8 2 are part of ESAB Aristo® product family

By signing this document, the undersigned declares as manufacturer, or the manufacturer's authorised representative established within the UK, that the equipment in question complies with the safety and environmental requirements stated above.

Signature

Gary Kisby

Gary Kisby
Sales & Marketing Director,
ESAB Group UK & Ireland
London, 2022-12-13

1 SAFETY

1.1 Meaning of symbols

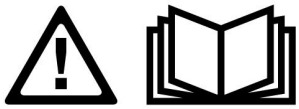
As used throughout this manual: Means Attention! Be Alert!

DANGER!
Means immediate hazards which, if not avoided, will result in immediate, serious personal injury or loss of life.

WARNING!
Means potential hazards which could result in personal injury or loss of life.

CAUTION!
Means hazards which could result in minor personal injury.

WARNING!
Before use, read and understand the instruction manual and follow all labels, employer´s safety practices and Safety Data Sheets (SDSs).



1.2 Safety precautions

Users of ESAB equipment have the ultimate responsibility for ensuring that anyone who works on or near the equipment observes all the relevant safety precautions. Safety precautions must meet the requirements that apply to this type of equipment. The following recommendations should be observed in addition to the standard regulations that apply to the workplace.

All work must be carried out by trained personnel well-acquainted with the operation of the equipment. Incorrect operation of the equipment may lead to hazardous situations which can result in injury to the operator and damage to the equipment.

1. Anyone who uses the equipment must be familiar with:
   - its operation
   - location of emergency stops
   - its function
   - relevant safety precautions
   - welding and cutting or other applicable operation of the equipment
2. The operator must ensure that:
   - no unauthorised person is stationed within the working area of the equipment when it is started up
   - no-one is unprotected when the arc is struck or work is started with the equipment
3. The workplace must:
   - be suitable for the purpose
   - be free from drafts

4. Personal safety equipment:
   - Always wear recommended personal safety equipment, such as safety glasses, flame-proof clothing, safety gloves
   - Do not wear loose-fitting items, such as scarves, bracelets, rings, etc., which could become trapped or cause burns
5. General precautions:
   - Make sure the return cable is connected securely
   - Work on high voltage equipment **may only be carried out by a qualified electrician**
   - Appropriate fire extinguishing equipment must be clearly marked and close at hand
   - Lubrication and maintenance must **not** be carried out on the equipment during operation

If equipped with ESAB cooler

Use ESAB approved coolant only. Non-approved coolant might damage the equipment and jeopardize product safety. In case of such damage, all warranty undertakings from ESAB cease to apply.

For ordering information, see the "ACCESSORIES" chapter in the instruction manual.

WARNING!
Arc welding and cutting can be injurious to yourself and others. Take precautions when welding and cutting.

ELECTRIC SHOCK - Can kill

- Do not touch live electrical parts or electrodes with bare skin, wet gloves or wet clothing
- Insulate yourself from work and ground.
- Ensure your working position is safe

ELECTRIC AND MAGNETIC FIELDS - Can be dangerous to health

- Welders having pacemakers should consult their physician before welding. EMF may interfere with some pacemakers.
- Exposure to EMF may have other health effects which are unknown.
- Welders should use the following procedures to minimize exposure to EMF:
  - Route the electrode and work cables together on the same side of your body. Secure them with tape when possible. Do not place your body between the torch and work cables. Never coil the torch or work cable around your body. Keep welding power source and cables as far away from your body as possible.
  - Connect the work cable to the workpiece as close as possible to the area being welded.

FUMES AND GASES - Can be dangerous to health

- Keep your head out of the fumes
- Use ventilation, extraction at the arc, or both, to take fumes and gases away from your breathing zone and the general area

ARC RAYS - Can injure eyes and burn skin

- Protect your eyes and body. Use the correct welding screen and filter lens and wear protective clothing
- Protect bystanders with suitable screens or curtains

NOISE - Excessive noise can damage hearing

Protect your ears. Use earmuffs or other hearing protection.

MOVING PARTS - Can cause injuries

- Keep all doors, panels and covers closed and securely in place. Have only qualified people remove covers for maintenance and troubleshooting as necessary. Reinstall panels or covers and close doors when service is finished and before starting engine.
- Stop engine before installing or connecting unit.
- Keep hands, hair, loose clothing and tools away from moving parts.

FIRE HAZARD

- Sparks (spatter) can cause fire. Make sure therefore that there are no inflammable materials nearby
- Do not use on closed containers.

HOT SURFACE - Parts can burn

- Do not touch parts bare handed.
- Allow cooling period before working on equipment.
- To handle hot parts, use proper tools and/or insulated welding gloves to prevent burns.

MALFUNCTION - Call for expert assistance in the event of malfunction.

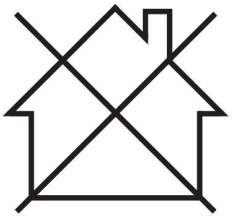
PROTECT YOURSELF AND OTHERS!

CAUTION!

This product is solely intended for arc welding.

CAUTION!

Class A equipment is not intended for use in residential locations where the electrical power is provided by the public low-voltage supply system. There may be potential difficulties in ensuring electromagnetic compatibility of class A equipment in those locations, due to conducted as well as radiated disturbances.



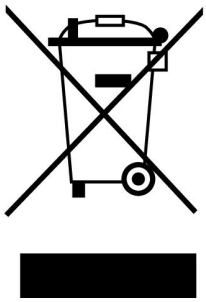
NOTE!

Dispose of electronic equipment at the recycling facility!

In observance of European Directive 2012/19/EC on Waste Electrical and Electronic Equipment and its implementation in accordance with national law, electrical and/or electronic equipment that has reached the end of its life must be disposed of at a recycling facility.

As the person responsible for the equipment, it is your responsibility to obtain information on approved collection stations.

For further information contact the nearest ESAB dealer.



ESAB has an assortment of welding accessories and personal protection equipment for purchase. For ordering information contact your local ESAB dealer or visit us on our website.

2 INTRODUCTION

The RobustFeed equipped with a U6 or Pulse control panel, is intended for MIG/MAG welding together with 400 A, 500 A and 600 A CAN based welding power sources.

The wire feed unit comes in different variants (see the "ORDERING NUMBERS" appendix).

NOTE!
Wire feed unit variants equipped with ESAB Logic Pump (ELP), is intended to be used together with welding power sources equipped with ELP. For further information about ELP, see the "Cooling liquid connection" section.

The wire feed units are sealed and contain four-wheel drive wire feed mechanisms as well as control electronics.

It can be used together with standard Ø 200 mm and Ø 300 mm wire bobbin or with ESAB's Marathon Pac™ with a wire adapter to feed the wire.

The wire feed unit can be placed on a trolley, suspended above the workplace or on the floor (standing up or laying down and with or without a wheel set).

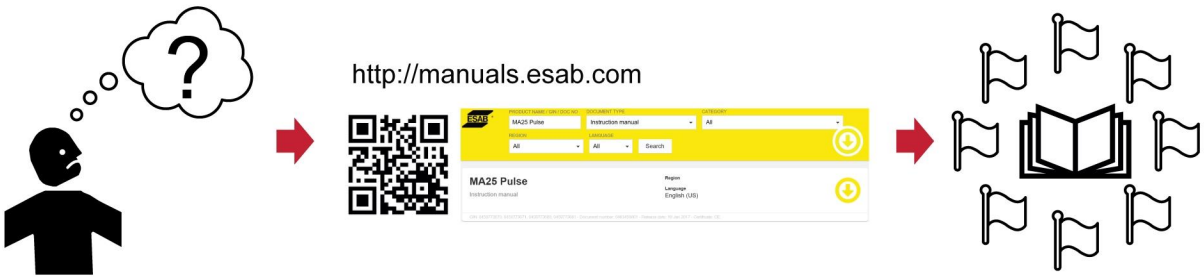
ESAB accessories for the product can be found in the "ACCESSORIES" chapter of this manual.

2.1 Equipment

The wire feed unit is supplied with:

- Instruction manual - Wire feed unit
- Instruction manual - Control panel
- Quick start guide
- Drive rolls: 0.9/1.0 mm (0.040 in.) / 1.2 mm (0.045 in.)
- Wire guides: 0.6–1.6 mm (0.023–1/16 in.)

Instruction manuals in other languages can be downloaded from the Internet:
manuals.esab.com



3 TECHNICAL DATA

RobustFeed U6, RobustFeed U82 and RobustFeed Pulse	
Power Supply voltage	42 V AC, 50–60 Hz
Power requirement	181 VA
Rated supply current I_1	4.3 A
Settings data:	
Wire feed speed[1]	0.8–25.0 m/min (32–984 in./min)
Torch connection	EURO, Tweco 4
Max. diameter wire bobbin	300 mm (12 in.)
Wire dimension:	
Fe	0.6–2.0 mm (0.023–5/64 in.)
Ss	0.6–1.6 mm (0.023–1/16 in.)
Al	0.8–1.6 mm (0.031–1/16 in.)
Cored wire	0.9–2.4 mm (0.035–3/32 in.)
Weight	16.7–18.5 kg (36.8–40.8 lb.)
Maximum weight wire spool	20.0 kg (44.1 lb.)
Dimensions (l×w×h)	595×250×430 mm (23.4×9.8×16.9 in.)
Operating temperature	-20 to +55 °C (-4 to +131 °F)
Transport and storage temperature	-40 to +80 °C (-40 to +176 °F)
Shielding gas	All types intended for MIG/MAG welding
Maximum gas pressure	5 bar (72.5 psi)
Coolant [1)]	ESAB's ready mixed coolant
Maximum coolant pressure	5 bar (72.5 psi)
Permissible load at +40 °C:	
35% duty cycle	630 A
60% duty cycle	500 A
100% duty cycle	400 A
Permissible load at +55 °C:	
35% duty cycle	600 A
60% duty cycle	450 A
100% duty cycle	350 A
Enclosure class	IP44

1) For "*RobustFeed U6, Offshore, Water*", "*RobustFeed U6, Offshore, Water, Push Pull*", "*RobustFeed Pulse, Offshore, Water*", "*RobustFeed U82, Offshore, Water*", "*RobustFeed U82, Offshore, Water, Push Pull*" and "*RobustFeed Pulse, Offshore, Water, Push Pull*")

Duty cycle

The duty cycle refers to the time as a percentage of a ten-minute period that you can weld or cut at a certain load without overloading.

Enclosure class

The **IP** code indicates the enclosure class, i.e. the degree of protection against penetration by solid objects or water.

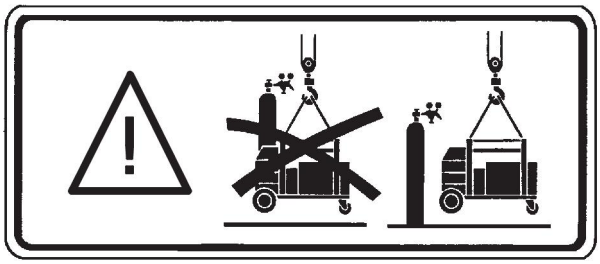
Equipment marked **IP44** is intended for indoor and outdoor use and can withstand rain from all directions.

4 INSTALLATION

The installation must be carried out by a professional.

WARNING!
When welding in an environment with increased electrical danger, only power sources intended for this environment may be used. These power sources are marked with the symbol S.

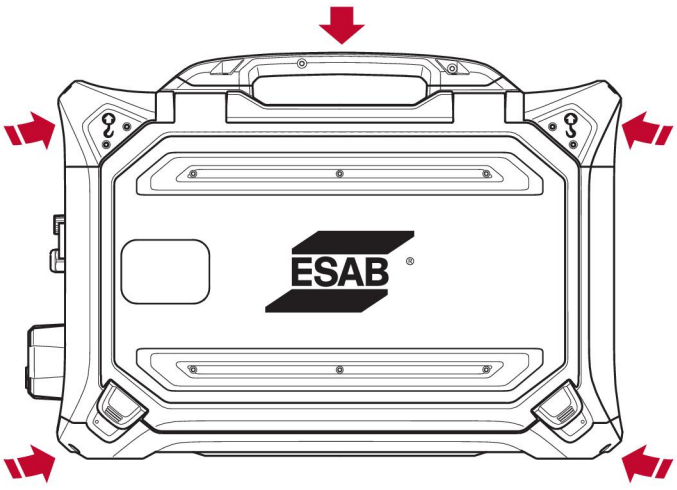
CAUTION!
This product is intended for industrial use. In a domestic environment this product may cause radio interference. It is the user's responsibility to take adequate precautions.

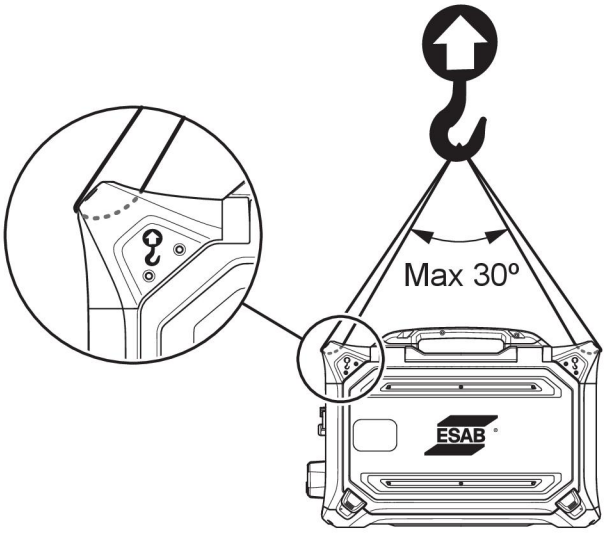


4.1 Lifting instructions

CAUTION!
Risk of crushing when lifting the wire feeder. Protect yourself and warn bystanders of the risk.

CAUTION!
To avoid personal injury and damage of equipment, lift using methods and attachment points presented below.





CAUTION!

Do not place heavy objects on or attached to the wire feeder when lifting. The lifting points are rated for a **maximum total weight of 44 kg / 97 lb.** when lifted in the two outer upper lifting handles according to the graphic above!

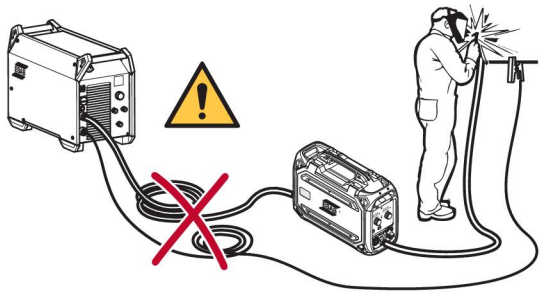
The 44 kg / 97 lb. approved weight consists of wire feeder plus accessories (standard feeder weight is 18.5 kg / 40.8 lb., for all weights see the TECHNICAL DATA chapter).

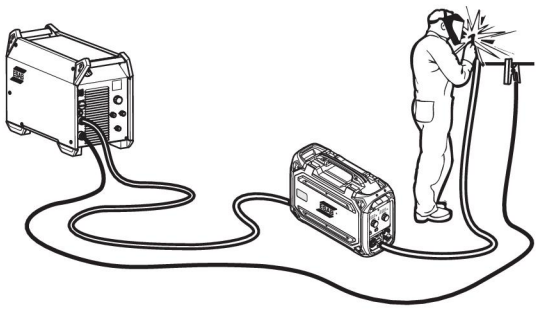
5 OPERATION

General safety regulations for handling the equipment can be found in the "SAFETY" chapter of this manual. Read it through before you start using the equipment!

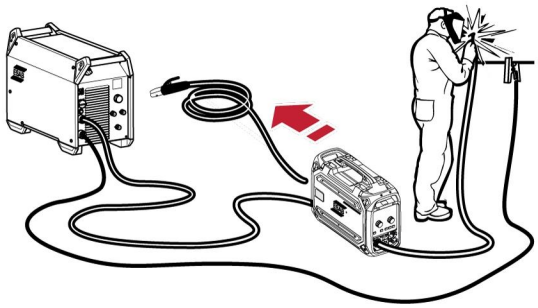
WARNING!
To avoid shock, do not touch electrode wire or parts in contact with it, or uninsulated cable or connections.

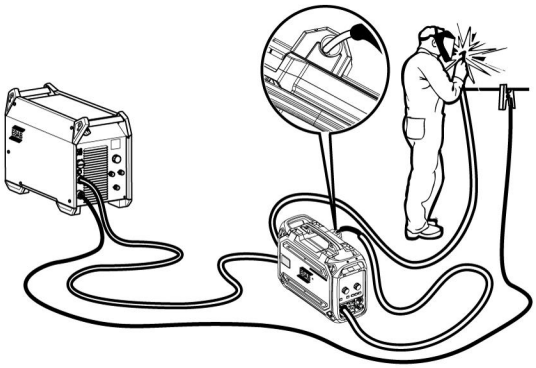
NOTE!
When moving the equipment, use handle intended for transportation. Never pull the equipment by the welding torch.





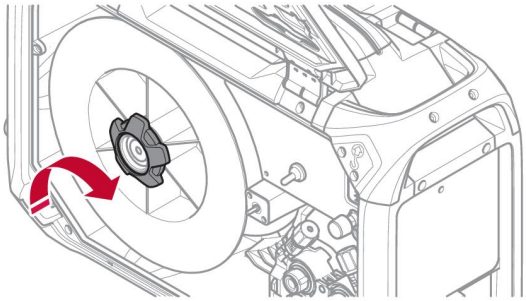
WARNING!
Wire feeders are intended to be used with power sources in MIG/MAG and MMA mode. If used in MIG/MAG, the MMA holder must be disconnected from the wire feeder and the OKC must be covered. If used in MMA, the MIG/MAG torch must be isolated or kept in the torch holder if available, or else the torch/holder becomes live or energized.





WARNING!
Assure that the side panels are closed during operation.

WARNING!
To prevent the reel from sliding off the hub, lock the reel by tightening the nut!



CAUTION!
Before threading welding wire, make sure the chisel point and burrs have been removed from the end of the wire to prevent the wire from jamming in the torch liner.

WARNING!
Rotating parts can cause injury, take great care.

WARNING!
Secure the equipment, especially if used on an uneven or sloping surface.

5.1 Recommended maximum current values for connection cables set

At an ambient temperature of +25 °C and normal 10 minutes cycle:

Cable area	Duty cycle			Voltage loss per 10 m
	100%	60%	35%	
70 mm²	350 A	400 A	480 A	0.28 V / 100 A
95 mm²	400 A	500 A	600 A	0.21 V / 100 A

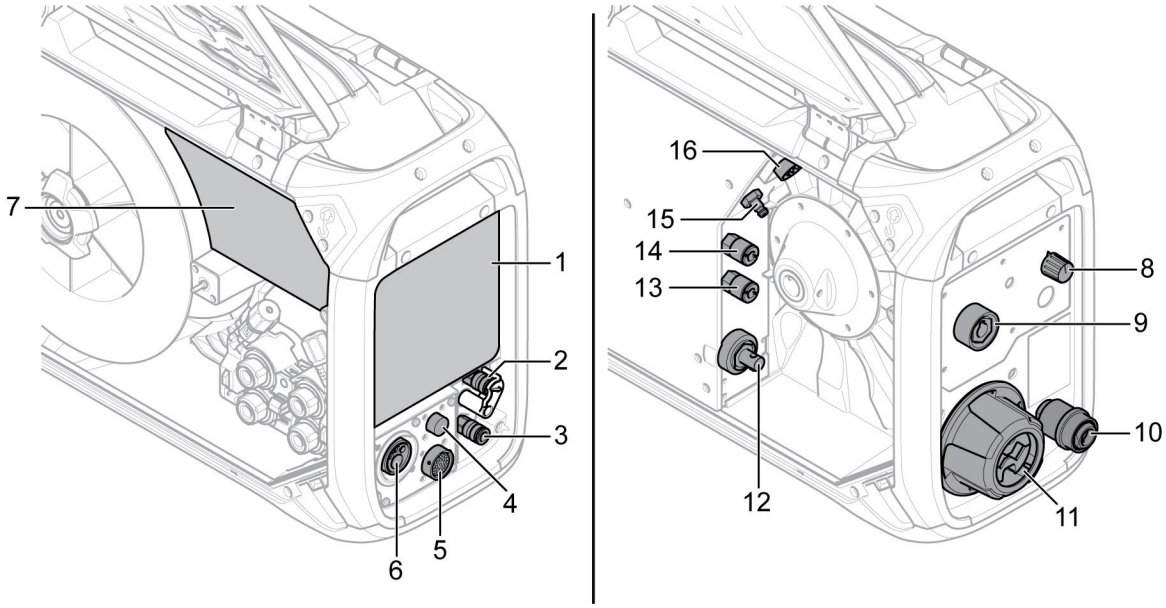
At an ambient temperature of +40 °C and normal 10 minutes cycle:

Cable area	Duty cycle			Voltage loss per 10 m
	100%	60%	35%	
70 mm²	310 A	350 A	420 A	0.30 V / 100 A
95 mm²	375 A	430 A	525 A	0.23 V / 100 A

Duty cycle

The duty cycle refers to the time as a percentage of a ten-minute period that you can weld or cut at a certain load without overloading.

5.2 Connections and control devices



1. External control panel (see the "CONTROL PANEL" chapter)
2. Connection for cooling liquid to the welding torch, with ELP[1)] (only on product variants with ELP)
3. Connection for cooling liquid from the welding torch
4. Connection for Tweco trigger cable (only in combination with Tweco torch)
5. Connection for remote control unit (optional)
6. Connection for MIG/MAG welding torch (Euro or Tweco type)[2)]
7. Internal control panel (see the "CONTROL PANEL" chapter)
8. Heat kit switch (Offshore variants)
9. Connection for MMA welding torch (OKC)[3)] (only on product variants with MMA)
10. Wire inlet for use with Marathon Pac™ (optional)
11. Interconnection strain relief for cables from power source
12. Connection for welding current from power source (OKC)
13. Connection for cooling liquid to the power source (the cooling unit)
14. Connection for cooling liquid from the power source (the cooling unit)
15. Connection for shielding gas
16. Connection for control cable from power source

1) ELP = ESAB Logic Pump (see the "Cooling liquid connection" section)

WARNING!

The right and left side doors of the wire feed unit must be closed when welding and/or wire feeding occurs. Never weld or feed the wire without having closed both doors!

2) Electrical hazard! During **MIG/MAG welding**, the **MMA electrode** should be removed from the electrode holder and must be kept away from the work piece and any other current leading material. If possible, the electrode holder should be removed from the welding unit OKC connector and the connector should be covered with an isolating cap.

3) Electrical hazard! During **MMA welding**, the wire stick out should be cut to minimize the possibility of unintentional contact by the **MIG/MAG torch**. The torch must be kept away from the work piece and any other current leading material!

5.3 Cooling liquid connection

When connecting a liquid-cooled welding torch, the main power supply switch of the power source must be in the OFF position and the cooling unit switch must be in position 0.

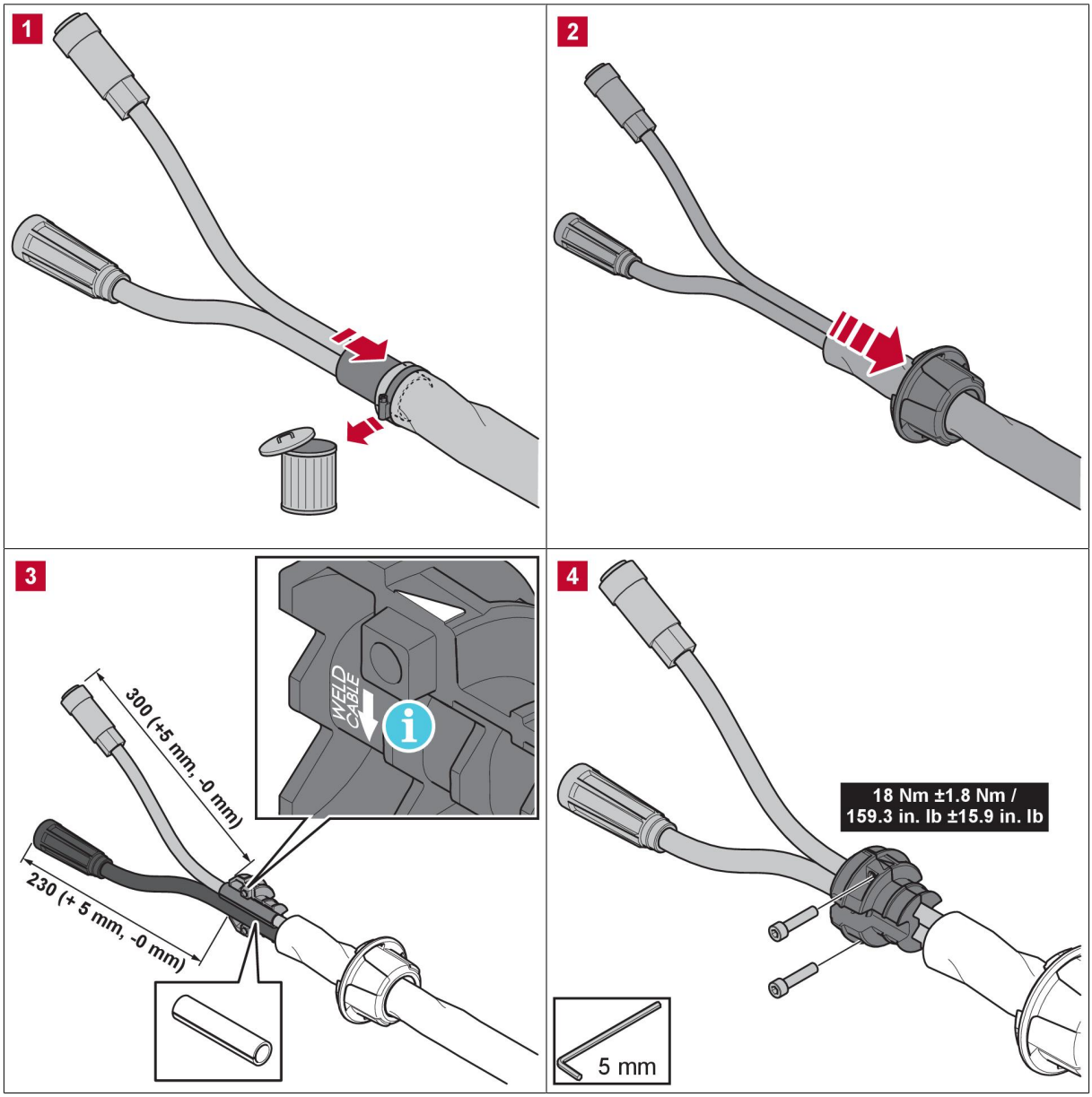
Some wire feed unit variants with cooling liquid connections included, are equipped with a detection system called ESAB Logic Pump (ELP) which checks that the water hoses are connected. When connecting a water-cooled welding torch, the water pump starts automatically. The detection only works with power sources that are equipped with ELP (for instance Aristo 4004i together with Cool 1). For power sources **without** ELP function (for instance Aristo 500ix together with Cool 2), the cooler unit must be turned on and off **manually**.

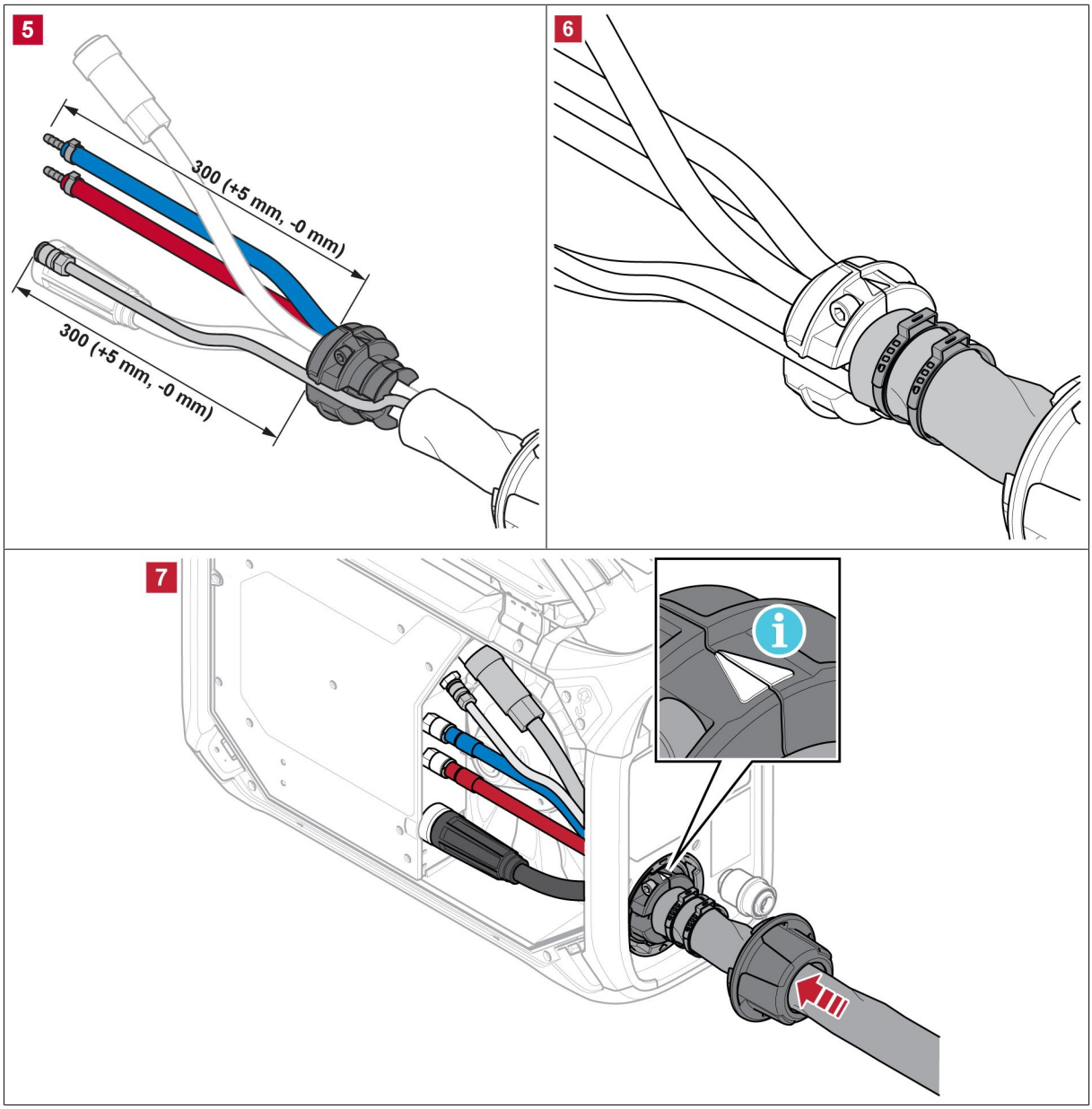
CAUTION!

Non-ELP feeder variants should **not** be used together with power sources equipped with ELP! If non-ELP feeders are used together with power sources equipped with ELP, the liquid cooled torch may be damaged due to lack of coolant flow!

A liquid cooling kit can be ordered as an accessory (see the "ACCESSORIES" appendix).

5.4 Retrofit of interconnection strain relief kit





The graphic above shows retrofit of the interconnection strain relief kit (ordering no. 0446 050 881) where the welding current and control cables and, if applicable, also the cooling liquid and shielding gas hoses are routed through the strain relief device.

There is also the possibility to use a pre-assembled interconnection cable kit, including strain relief (see the "ACCESSORIES" appendix).

NOTE!

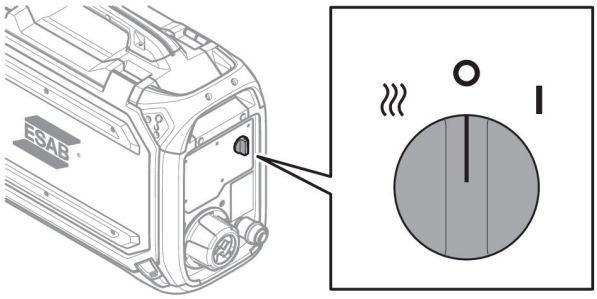
- The interconnection strain relief should be clamped to clean cables.
- Locate the welding current cable in the larger of the two holes in the strain relief clamp!
- Ensure that the cable ties around the insulating sleeve are tightened properly!

5.5 Heat kit switch (Offshore variants only)

O Welding OFF [1)]

I Welding ON

Heat ON and welding OFF
The bobbin area is heated so that the welding wire is kept dry. Heating of the bobbin area is of great advantage in high humidity or when temperature changes throughout the day. [1)]



1) The external control panel will be in OFF condition, when any of these settings are selected.

5.6 Starting procedure

When the wire feed starts, the power source generates welding voltage. If there is no welding current flow within three seconds, the power source switches the welding voltage off.

The wire feed continues until the welding torch's switch is switched off.

NOTE!
It is important that the power source used together with the feeder is set to GMA (MIG/MAG) mode when the system is powered on! This is to ensure that calibration is made between the feeder and the power source before any welding can be done. If the power source is set to another welding method at power on, the voltage settings on the feeder panel **cannot** be guaranteed! If this happens, switch off the power source, set the mode switch to GMA (MIG/MAG) and restart the power source again!

5.7 Lighting inside the wire feed unit

The wire feed unit is equipped with lights inside the cabinet.

The light located by the wire bobbin turns on automatically when welding starts or when the left side door is opened. The light is automatically turned off 4 minutes after welding has stopped or the side door has been closed.

The light located by the feeder mechanism turns on automatically when the left side door is opened and turns off when the door is closed again.

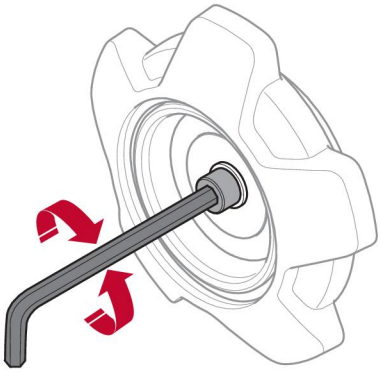
The lights are turned on automatically when the feeder is started, when any of the parameters on the internal control panel is changed, when wire inching is performed and also after welding. The lights are automatically turned off after a few minutes.

5.8 Bobbin brake

The bobbin brake force should be increased just enough to prevent wire feed overrun. The actual brake force needed, is dependent of the wire feed speed and the size and weight of the bobbin spool.

Do not overload the bobbin brake! A too high brake force may overload the motor and reduce the welding result.

The bobbin brake force is adjusted using the 6 mm hexagon Allen screw in the middle of the spool nut.



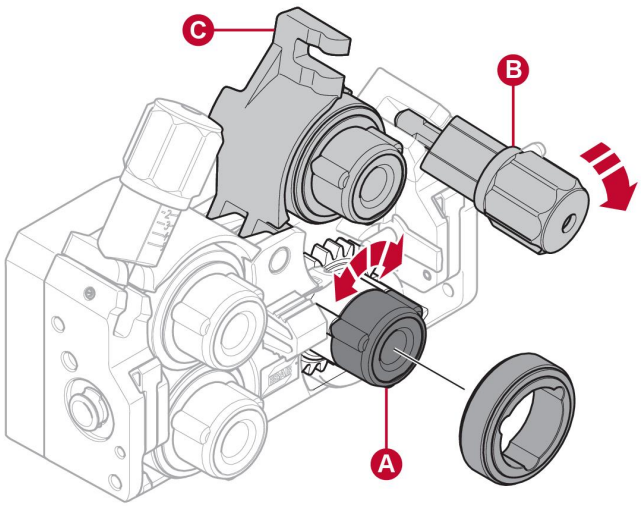
5.9 Changing and loading wire

1. Open the left door of the wire feeder.
2. Untighten and remove the spool nut and remove the old wire spool.
3. Insert a new wire spool into the feeder unit and straighten out the new welding wire 10–20 cm. File away burrs and sharp edges from the end of the wire before inserting it into the feeder mechanism.
4. Lock the wire spool onto the hub, by tightening the spool nut.
5. Thread the wire through the feeder mechanism (according to the illustration at the inside of the feeder unit).
6. Close and lock the left door of the wire feeder.

5.10 Changing feed rollers

When changing to a different type of wire, the feed rollers should be changed to match the new type of wire. For information about correct feed roller depending on wire diameter and type, see the WEAR PARTS appendix. (For a tip about easy access to necessary wear parts, see the "Wear parts storage compartment" section in this manual.)

1. Open the left door of the wire feeder.
2. Unlock the feed rollers to be exchanged, by rotating the roller quick lock (A) for each roller.
3. Relieve the pressure on the feed rollers, by folding the tensioner units (B) down and thereby releasing the swing arms (C).



4. Remove the feed rollers and install the correct ones (according to the WEAR PARTS appendix).
5. Reapply the pressure on the feed rollers, by pushing the swing arms (C) down and secure them using the tensioner units (B).

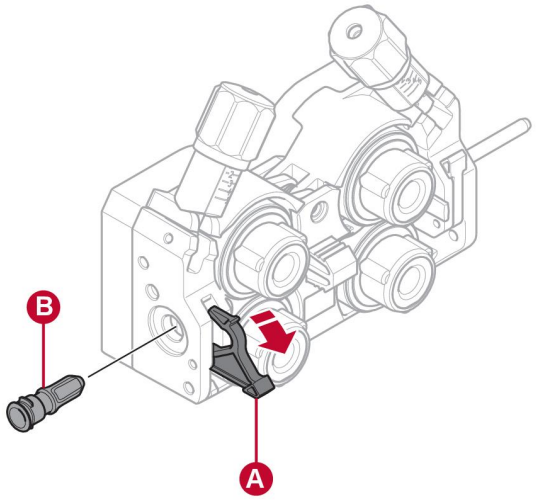
6. Lock the rollers by rotating the roller quick locks (A).
7. Close and lock the left door of the wire feeder.

5.11 Changing the wire guides

When changing to a different type of wire, the wire guides may have to be changed to match the new type of wire. For information about the correct wire guides depending on wire diameter and type, see the WEAR PARTS appendix. (For a tip about easy access to necessary wear parts, see the "Wear parts storage compartment" section in this manual.)

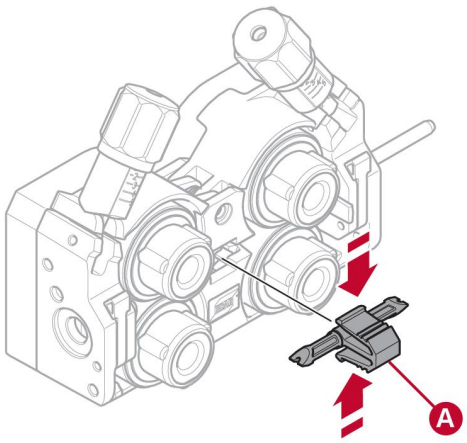
5.11.1 Inlet wire guide

1. Unlock the inlet wire guide quick lock (A) by folding it out.
2. Remove the inlet wire guide (B).
3. Install the correct inlet wire guide (according to the WEAR PARTS appendix).
4. Lock the new inlet wire guide using the wire guide quick lock (A).



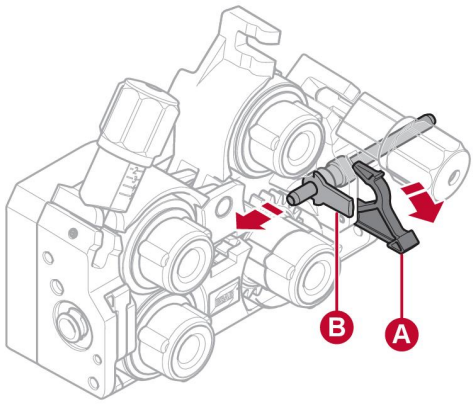
5.11.2 Middle wire guide

1. Apply a little pressure on the middle wire guide clip and pull out the middle wire guide (A).
2. Push in the correct type of wire guide (according to the WEAR PARTS appendix). The clip automatically locks the wire guide when in the correct position.



5.11.3 Outlet wire guide

1. Remove the lower right feed roller (see the "Changing feed rollers" section).
2. Remove the middle wire guide (see the "Middle wire guide" section).
3. Unlock the outlet wire guide quick lock (A) by folding it out.
4. Remove the outlet wire guide (B).
5. Install the correct outlet wire guide (according to the WEAR PARTS appendix).
6. Lock the new outlet wire guide using the wire guide quick lock (A).
7. Reattach the second pair of feed rollers and reapply the roller pressure (see the "Changing feed rollers" section).



5.12 Roller pressure

The roller pressure should be adjusted separately on each tensioner unit, depending on used wire material and diameter.

Start by making sure that the wire moves smoothly through the wire guide. Then set the pressure of the wire feeder's pressure rollers. It is important that the pressure is not too high.

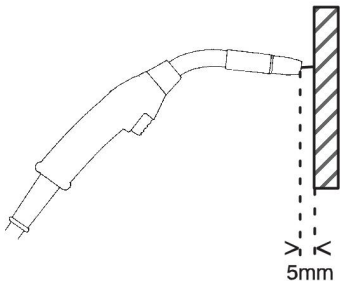


Figure A

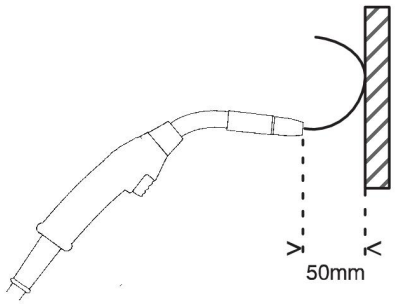


Figure B

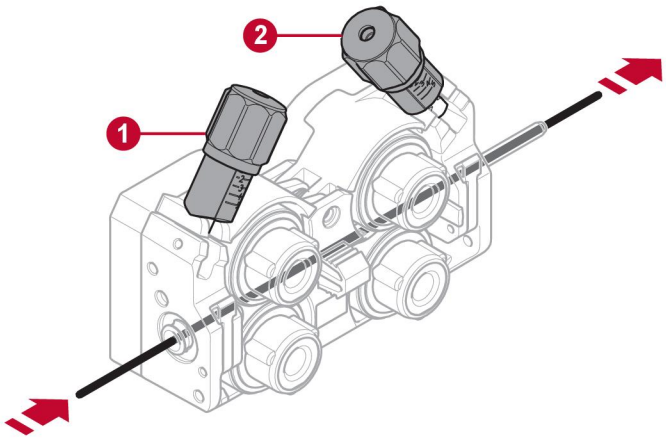
To check that the feed pressure is set correctly, you can feed out the wire against an insulated object, e.g. a piece of wood.

When you hold the welding torch approx. 5 mm (0.2 in.) from the piece of wood (figure A) the feed rollers should slip.

If you hold the welding torch approx. 50 mm (2 in.) from the piece of wood, the wire should be fed out and bend (figure B).

The table below serves as a guideline showing approximate roller pressure settings for standard conditions with correct bobbin brake force. In case of long, dirty or worn torch cables, the pressure setting may have to be increased. Always check the roller pressure setting in each specific case by feeding out the wire against an insulated object as described above. A table showing approximate settings can also be found on the left side inside the wire feeder.

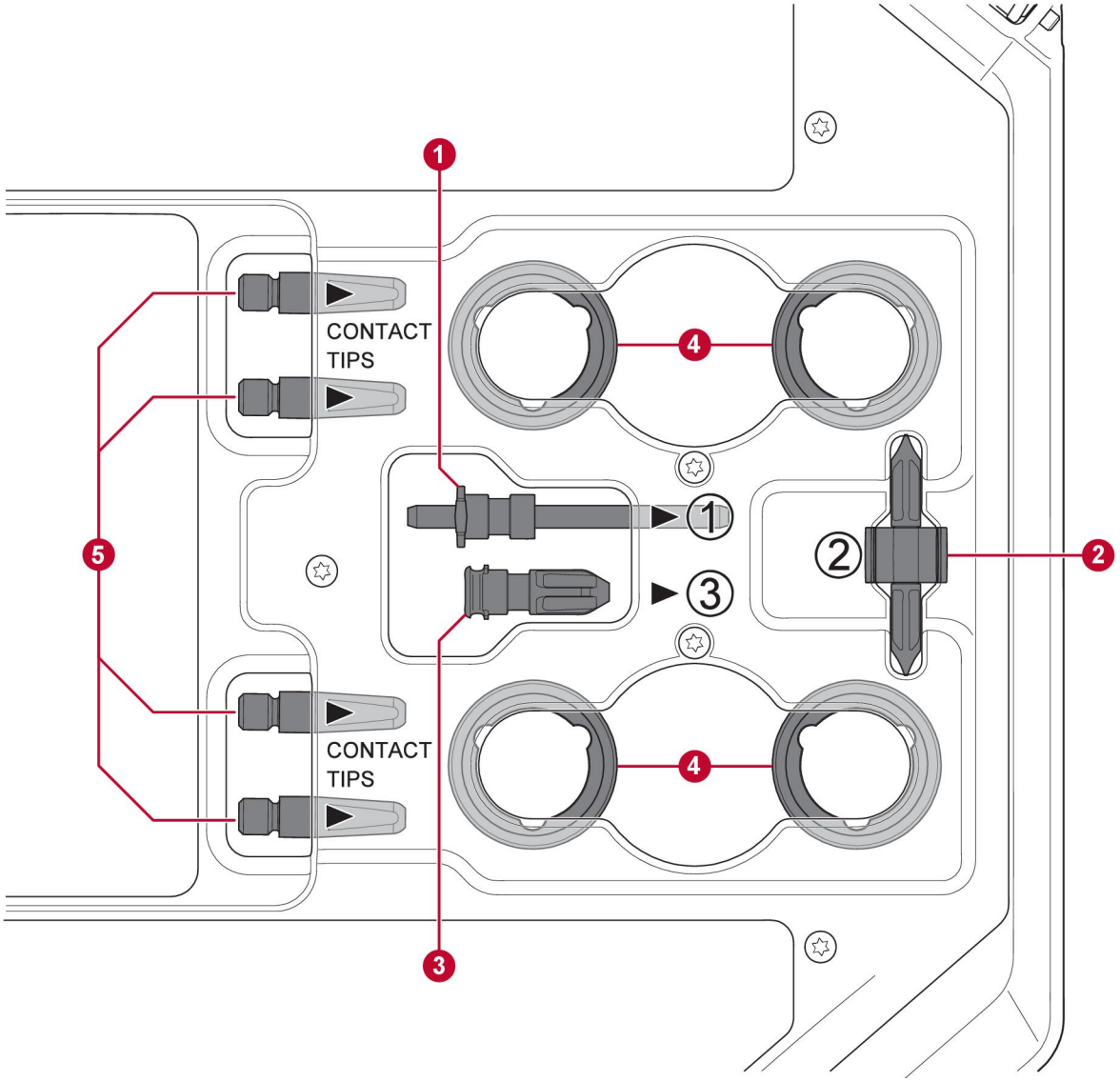
			Wire diameter (in.) (mm)	.023 0.6	.030 0.8	.040 1.0	.045 1.2	.052 1.4	1/16 1.6	.070 1.8	5/64 2.0	3/32 2.4
				Pressure setting								
Wire material	Fe, Ss	Tensioner unit 1		2.5								
		Tensioner unit 2		3–3.5								
	Cored	Tensioner unit 1				2						
		Tensioner unit 2				2.5–3						
	Al	Tensioner unit 1			1							
		Tensioner unit 2			2–3							



1. Tensioner unit 1
2. Tensioner unit 2

5.13 Wear parts storage compartment

A wear parts storage compartment can be found on the inside of the left door of the wire feeder, for easy access to an extra set of rollers and wire guides.



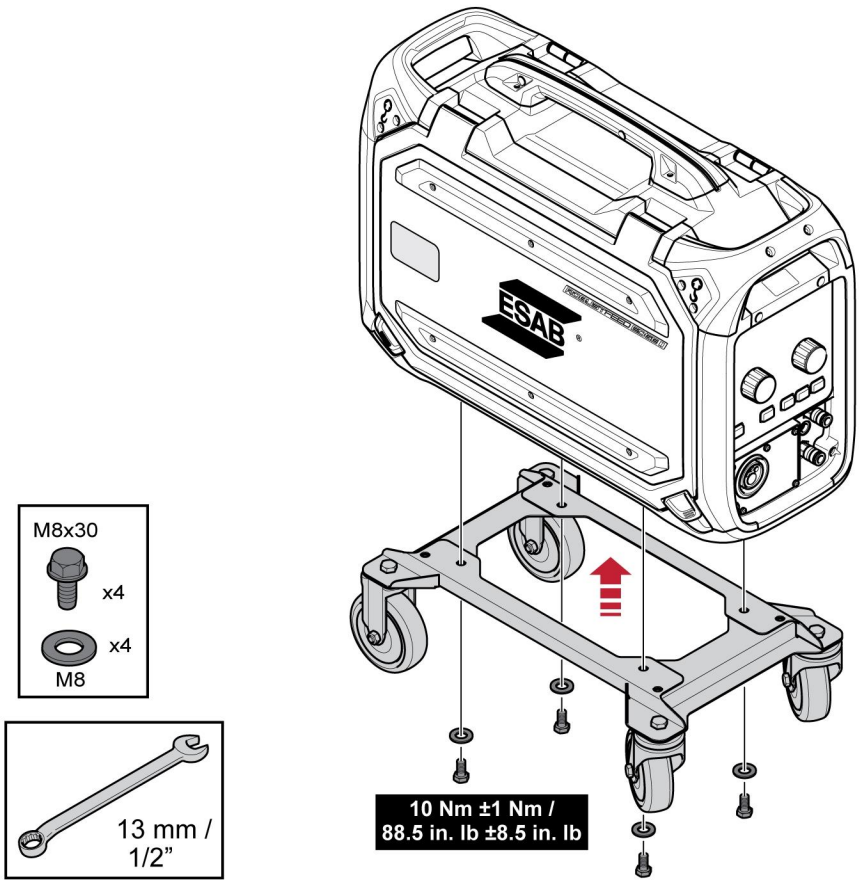
1. Inlet wire guide
2. Middle wire guide
3. Outlet wire guide
4. Feed rollers (×4 pcs)
5. Contact tips for the welding torch (×4 pcs)

5.14 Attachment of wheel kit

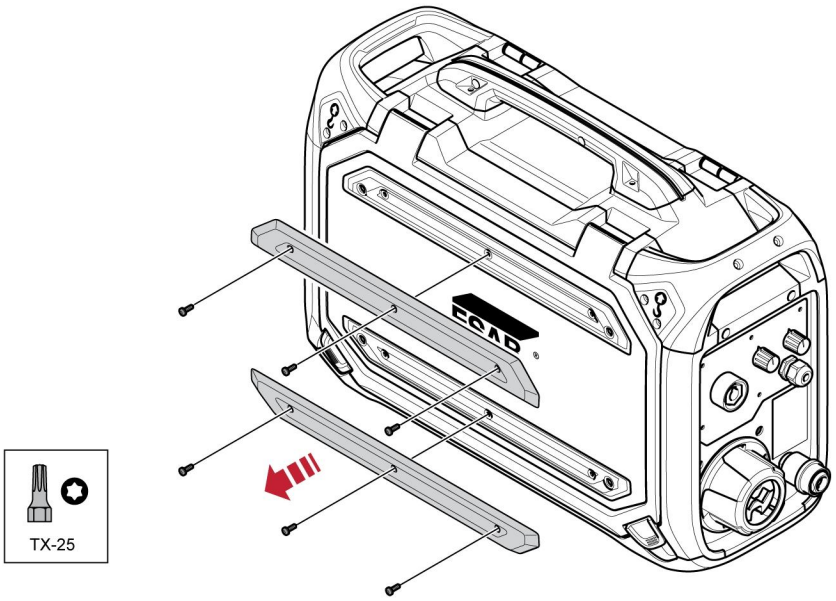
5.14.1 Attachment of the wheels to the wheel kit frame

Before the wire feed unit is attached to the wheel kit, fasten the wheels to the frame by means of the M12 screws, washers and nuts, using a tightening torque of 40 ±4 Nm (354 ±35.4 in. lb). The fixed wheels at the rear end should be positioned parallel to the frame.

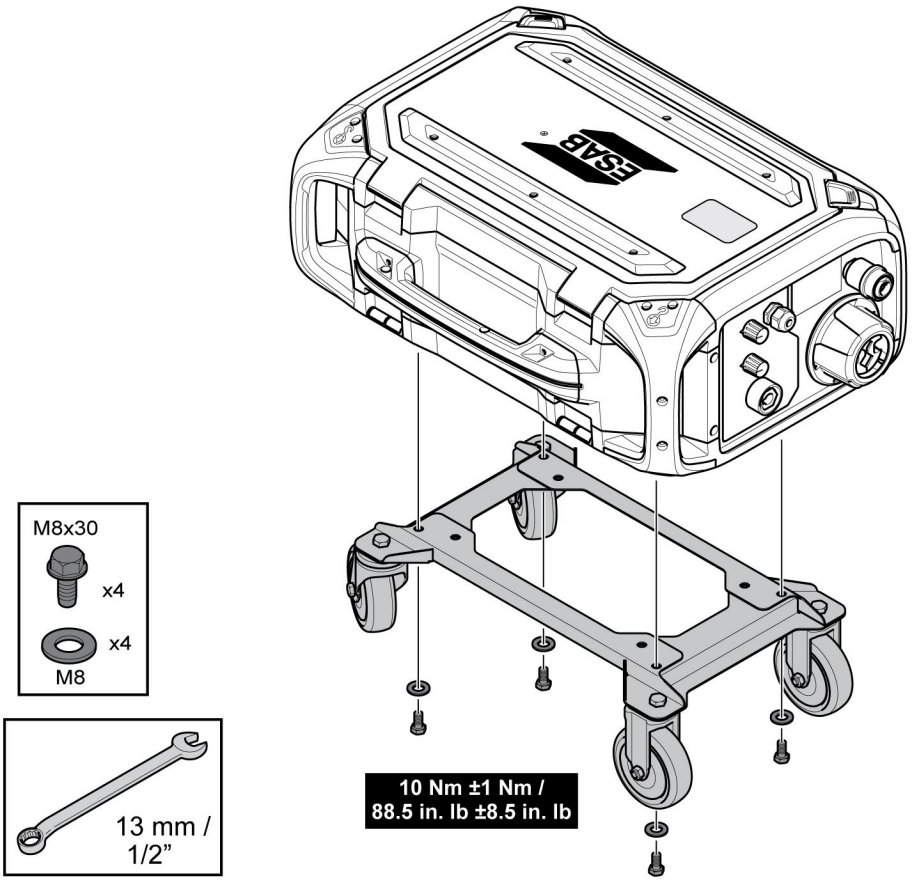
5.14.2 Wire feed unit in vertical position



5.14.3 Wire feed unit in horizontal position



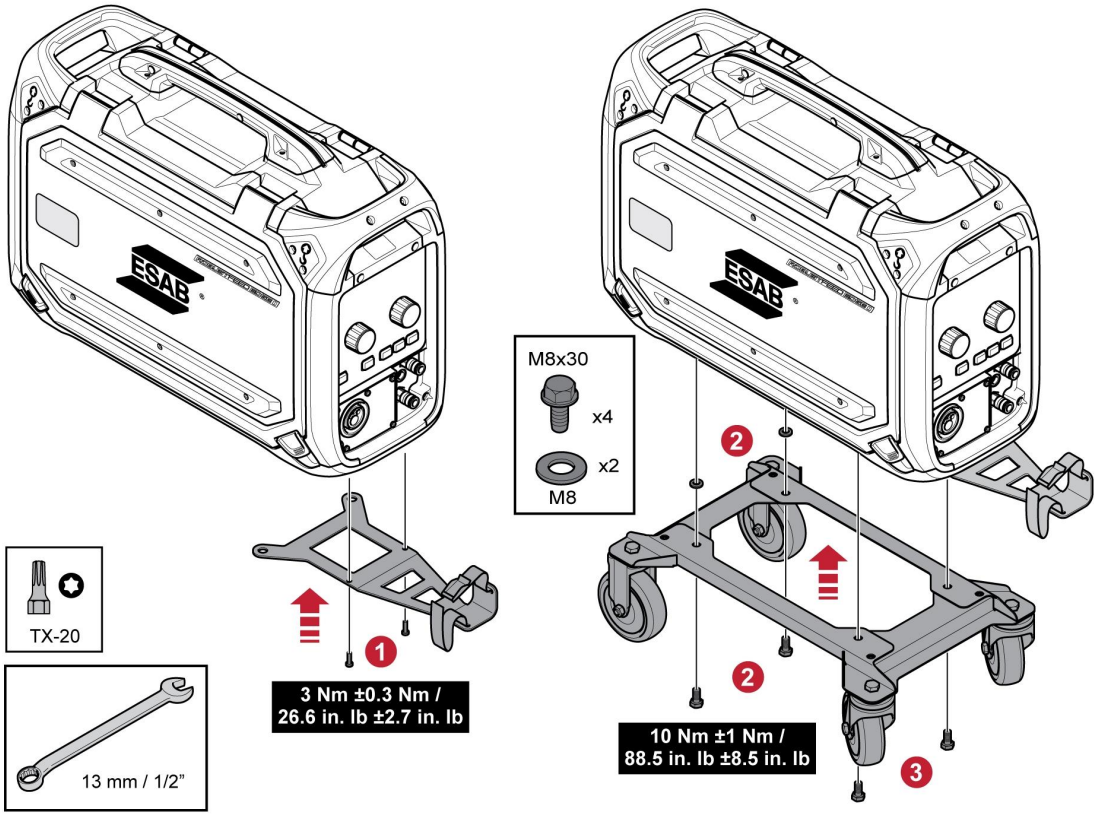
NOTE!
To be able to attach the wire feeder in horizontal position on the wheel kit, the two bumpers on the wire feeder door must be removed!



5.15 Attachment of both wheel kit and the torch strain relief accessory

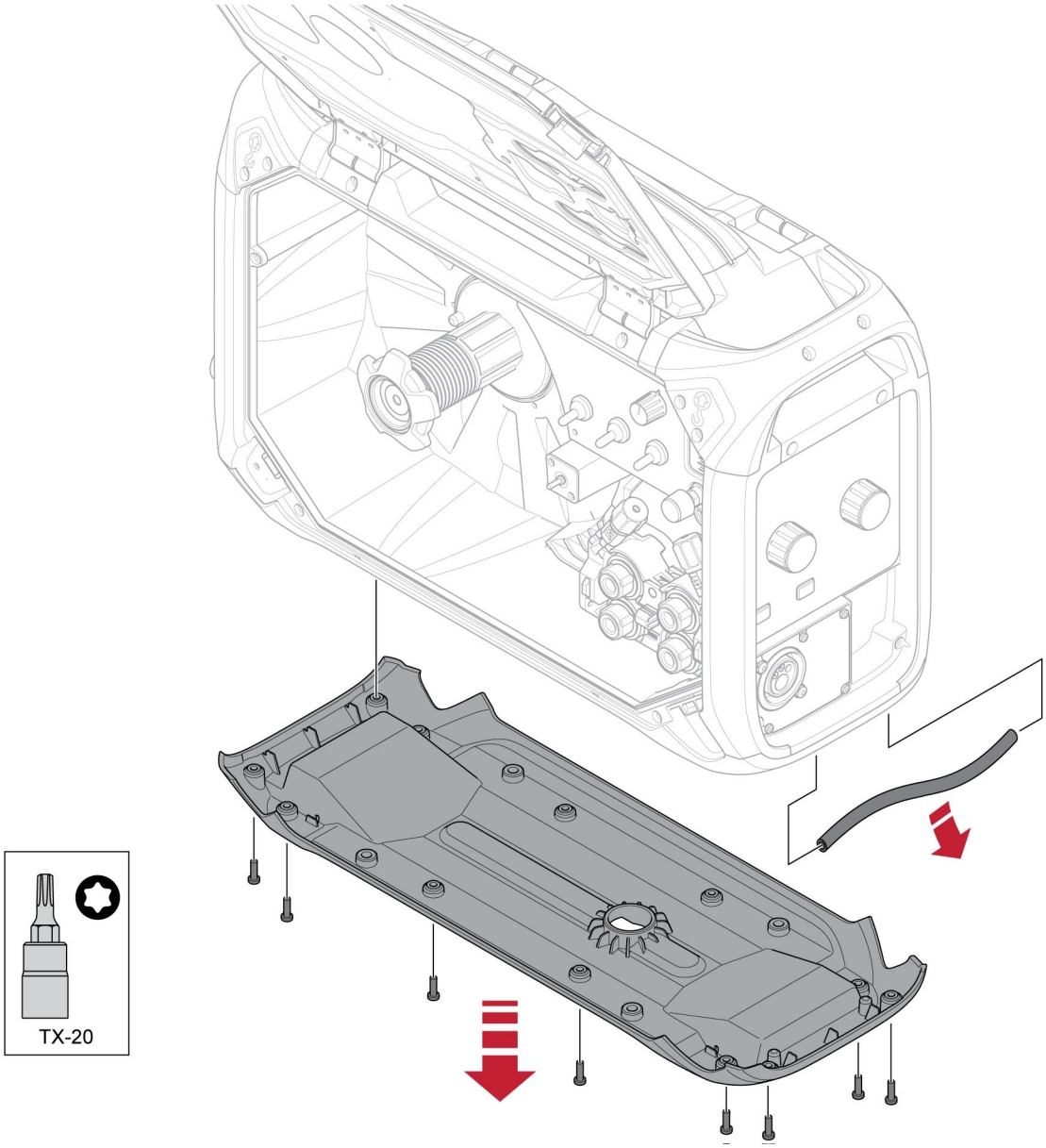
If the torch strain relief accessory are to be used in connection to the wheel kit being attached in vertical position, the assembly has to be made in the following order:

1. Attach the torch strain relief to the wire feed unit, using the two Torx 5 screws.
2. Attach the wheel kit to the wire feeder, using the two screw joints near the rear end of the wire feeder. Make sure the two distance washers are inserted between the wheel kit and the wire feeder!
3. Fasten the wheel kit **and** the torch strain relief to the wire feeder, using the two screw joints closer to the front end of the wire feeder.

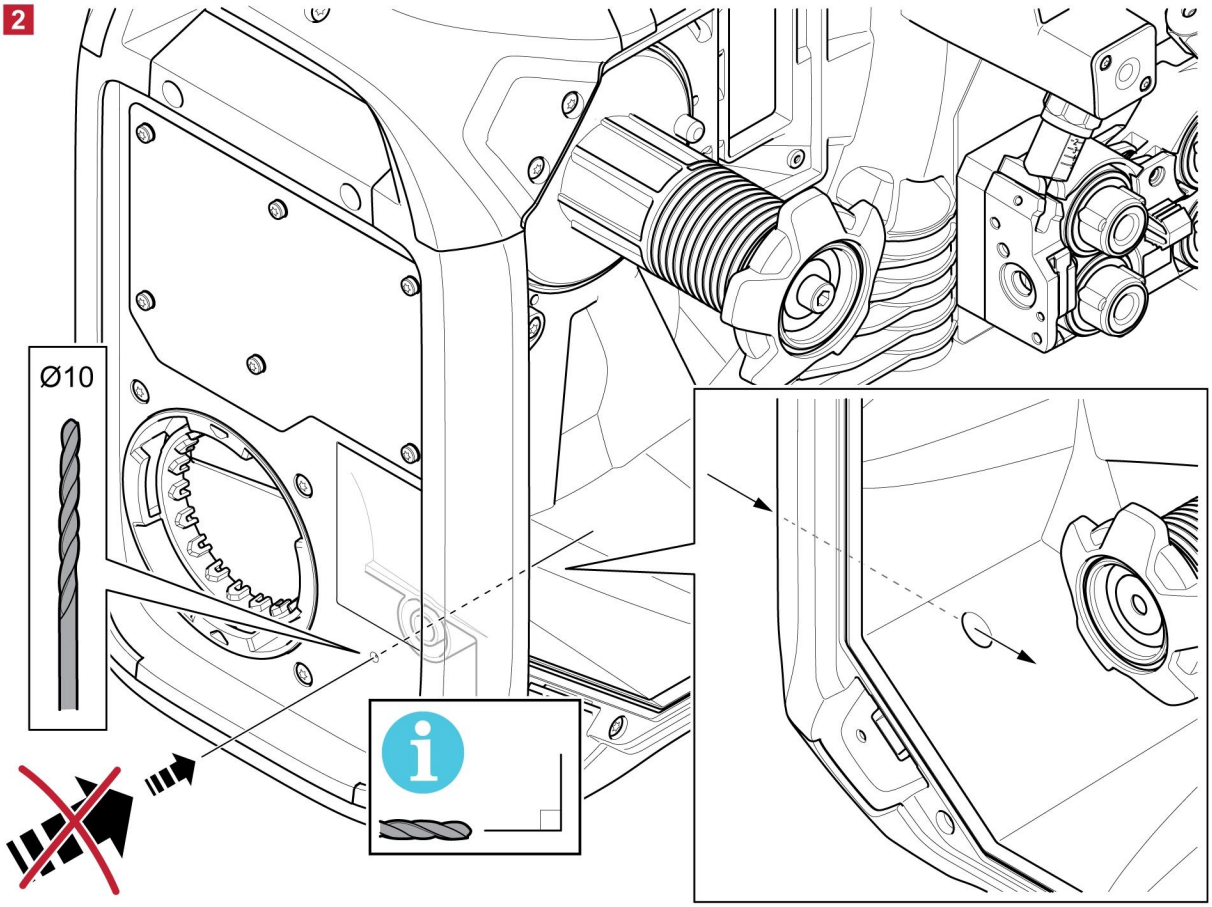


5.16 Marathon Pac™ installation

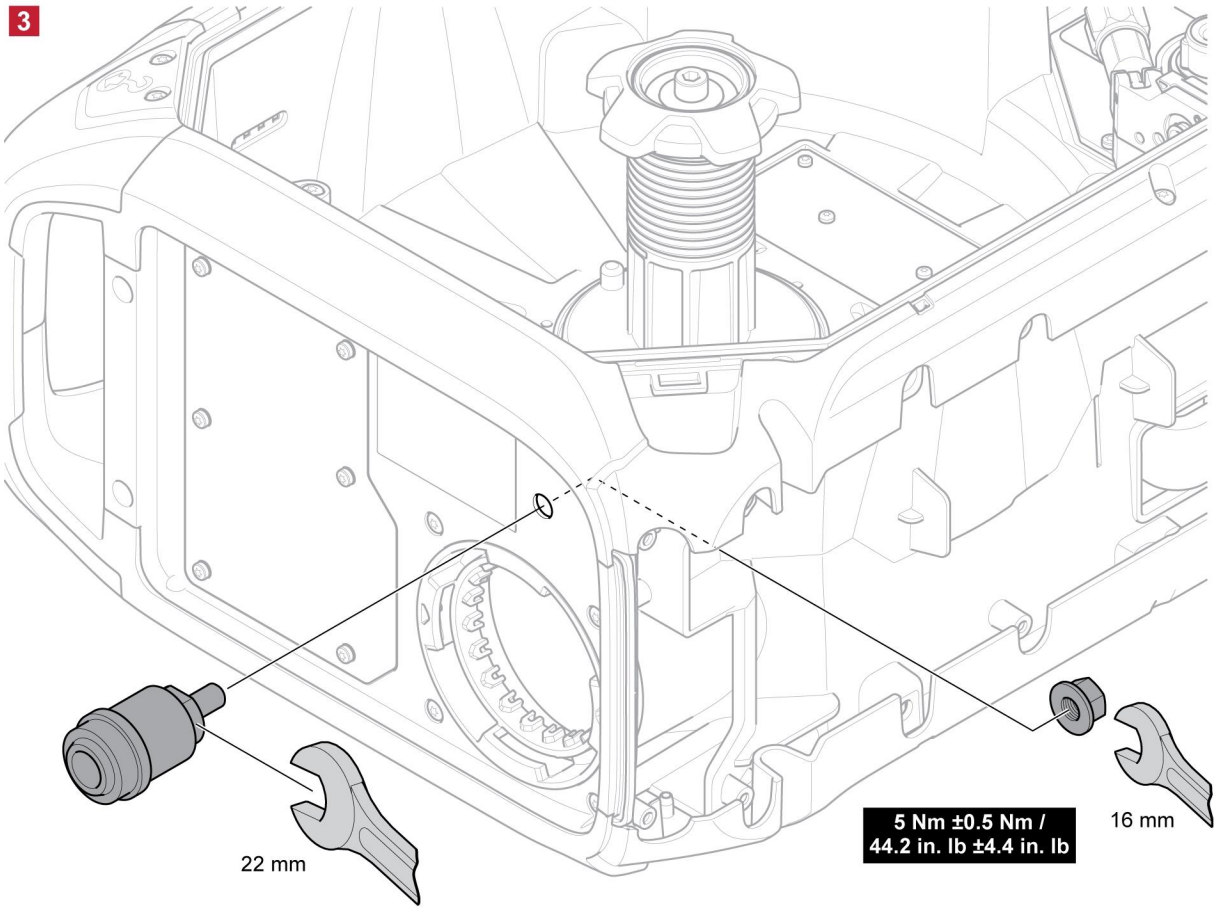
1



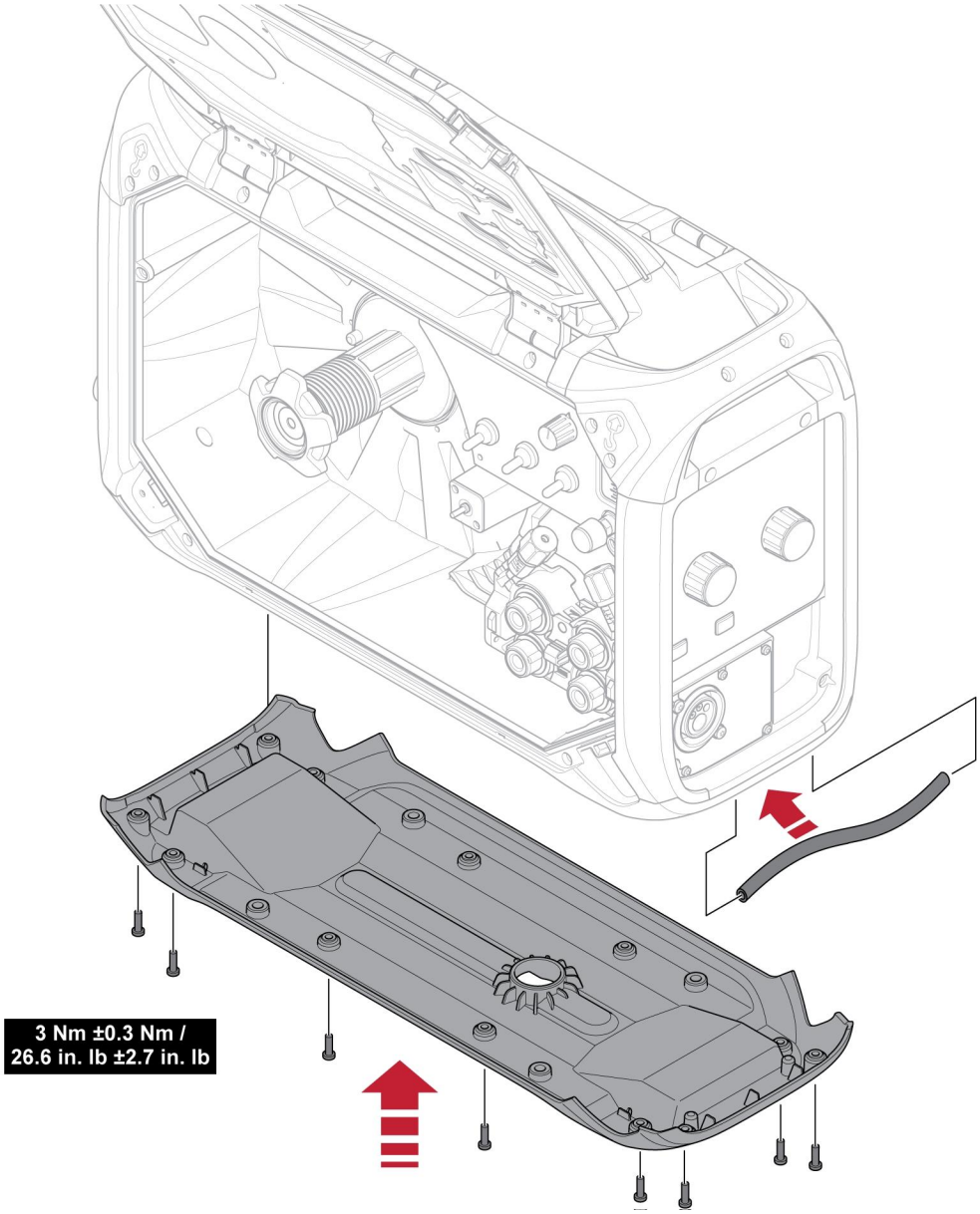
2



3



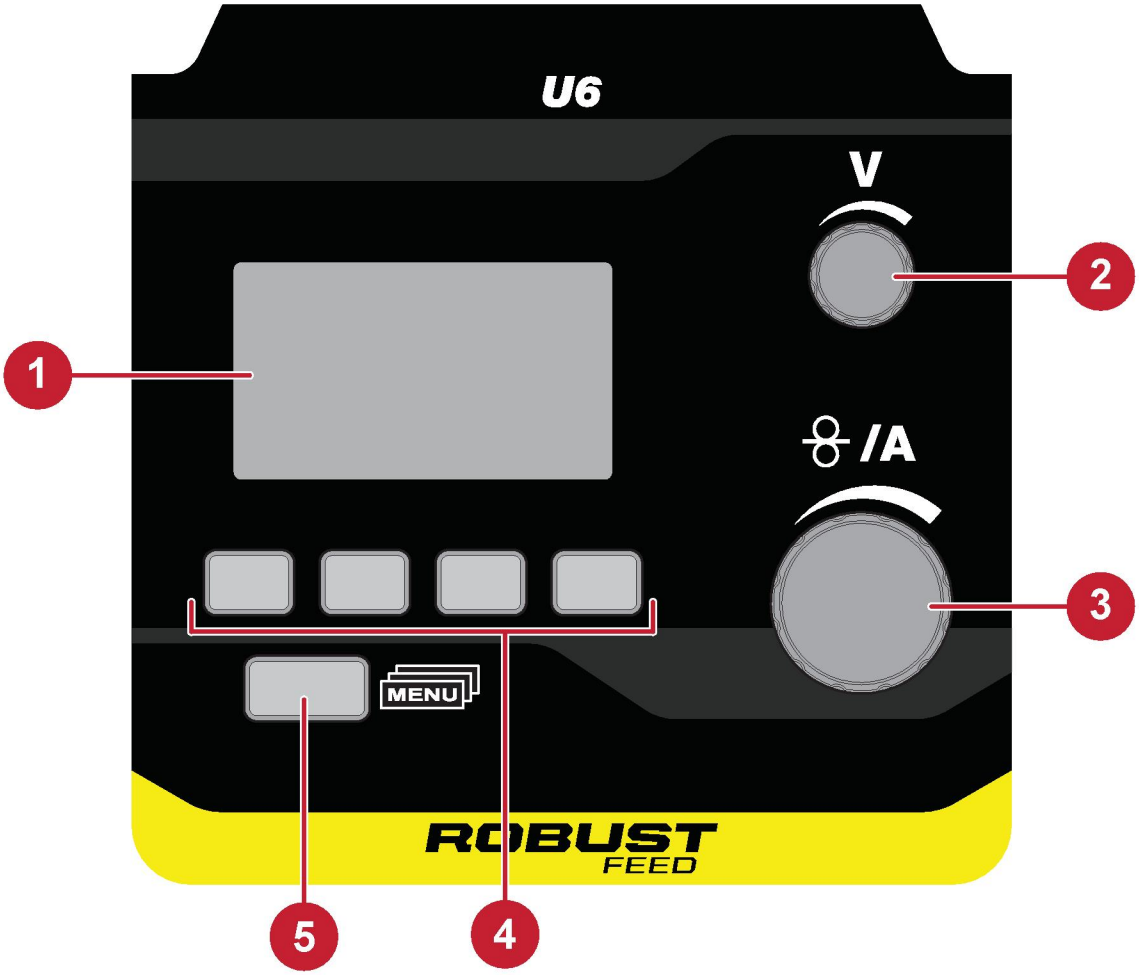
4



6 CONTROL PANEL

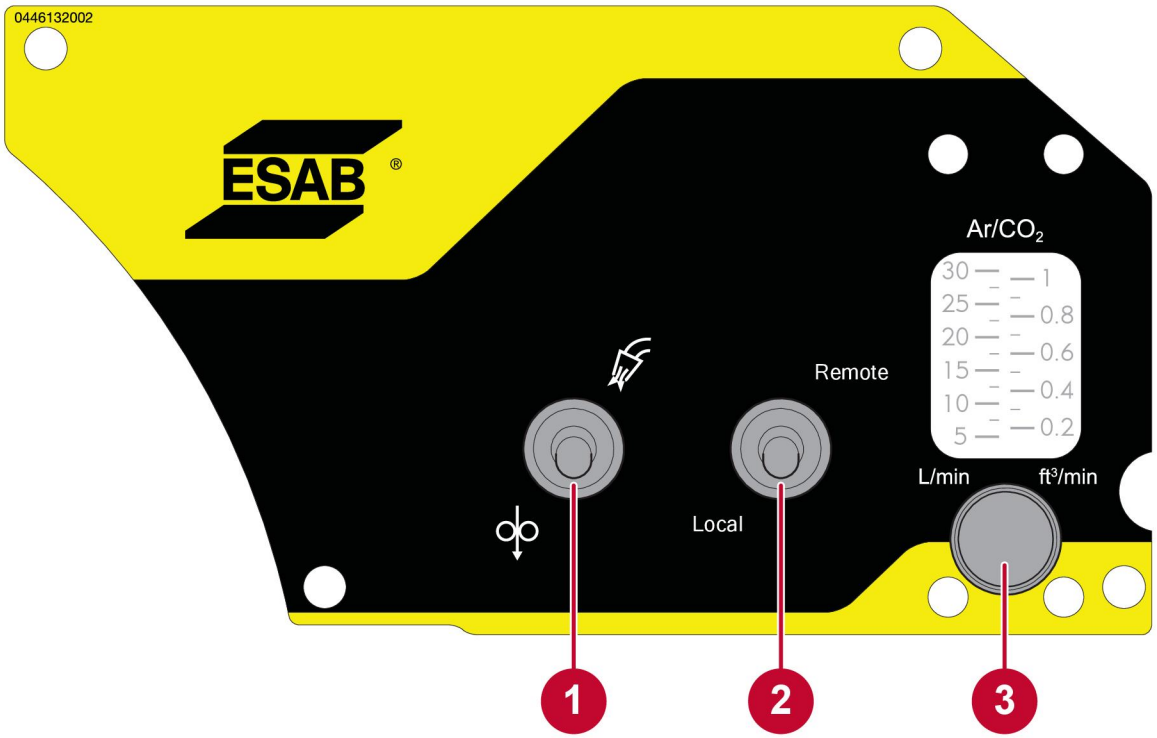
6.1 U6

6.1.1 External control panel



1. Display
2. Knob for setting the voltage
3. Knob for setting the wire feed speed and current
4. Soft pushbuttons (function keys), see further explanation in the U6 control panel instruction manual
5. Menu button

6.1.2 Internal control panel



1. Switch for gas purge or wire inching
2. Switch for remote or local (only for Push Pull variants)
3. Knob for setting the gas flow rate (only for product variants containing a gas flow meter)

6.1.3 Function explanations

Gas purging

Gas purging is used when measuring the gas flow or to flush any air or moisture from the gas hoses before welding starts. Gas purging occurs for as long as the button is held depressed and occurs without voltage or wire feed starting.

Wire inching

Wire inching is used when one needs to feed wire without welding voltage being applied. The wire is fed as long as the button is depressed.

Remote

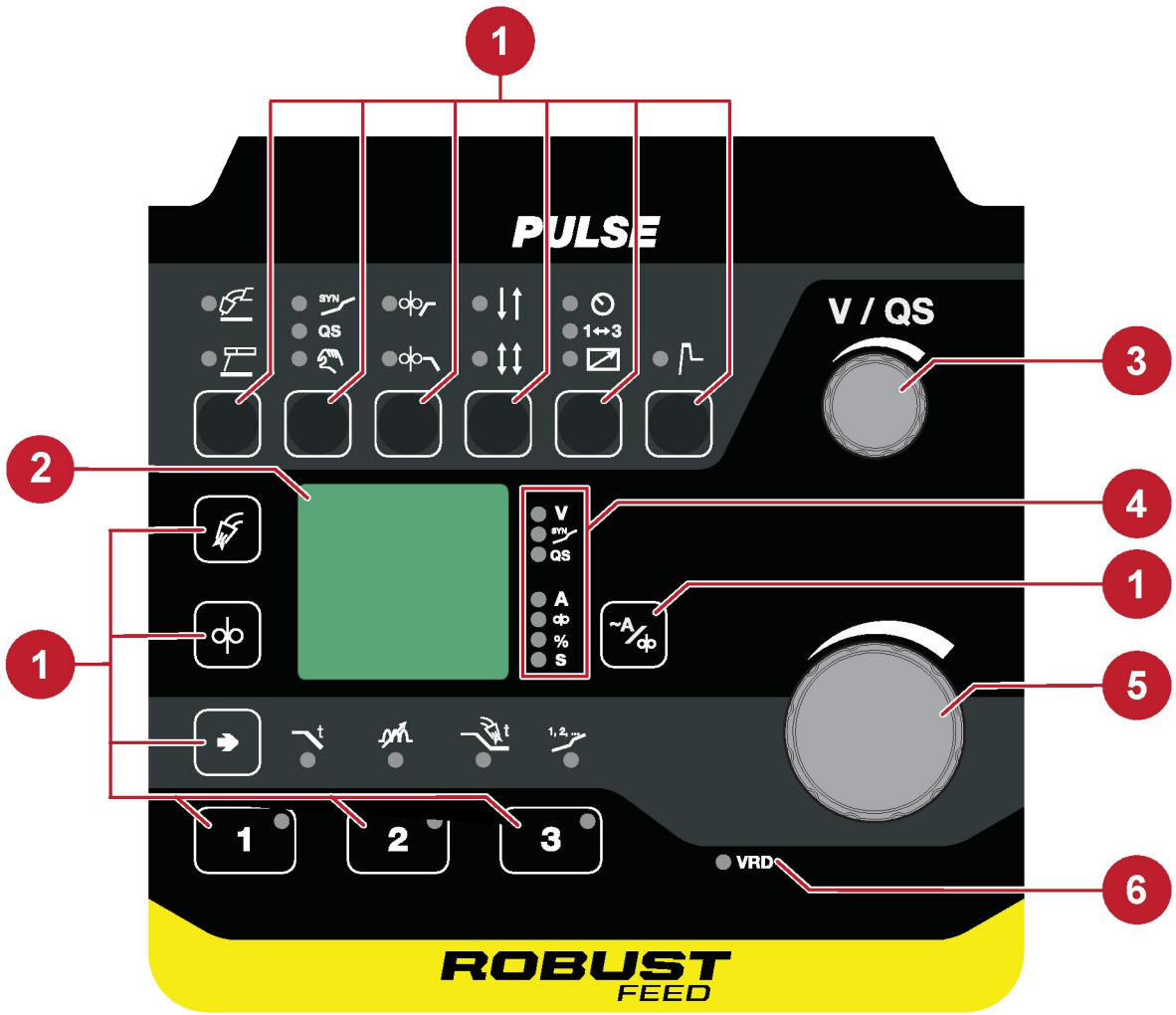
The remote function enables the remote control for Push Pull torch or Miggytrac/Railtrac options and disables the external control panel on the wire feeder.

Local

The local function enables the external control panel in the wire feeder and disables the remote control for Push Pull torch or Miggytrac/Railtrac options.

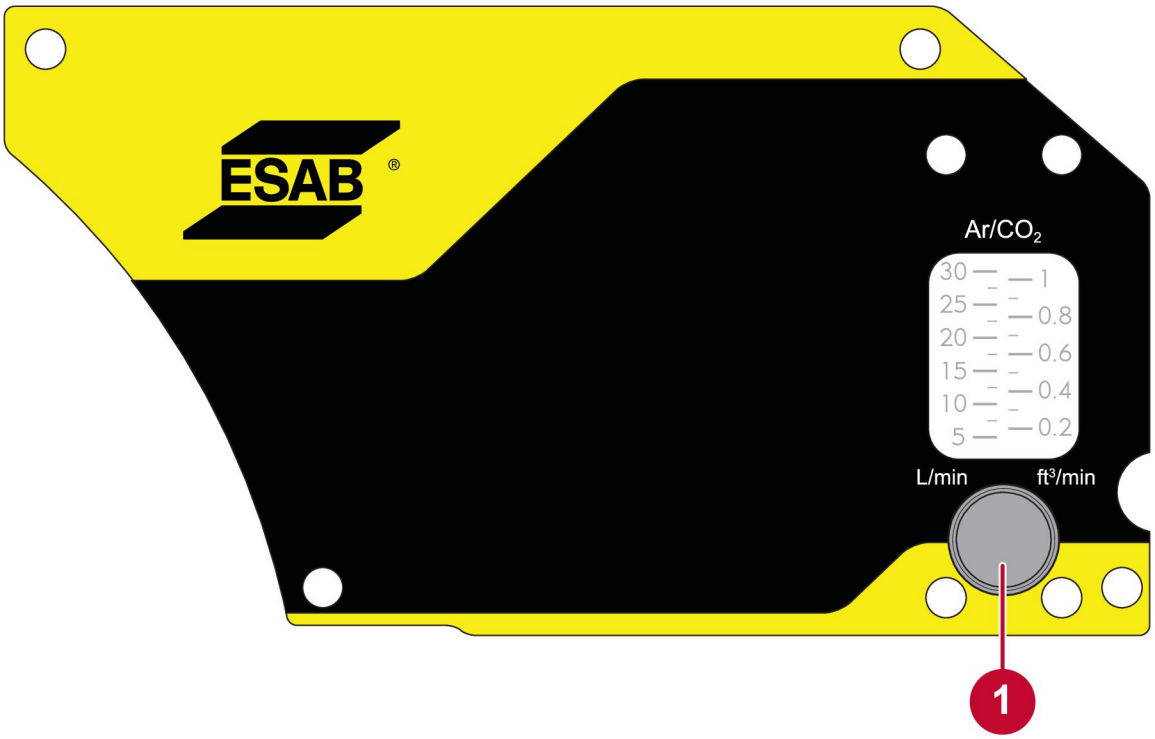
6.2 Pulse

6.2.1 External control panel



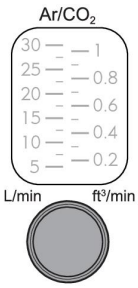
1. Function buttons, see further explanation in the Pulse control panel instruction manual
2. Display
3. Knob for setting of voltage/QSet™
4. Indication of which variables and units are shown in the display
5. Knob for setting the wire feed speed and current
6. Indication of activated VRD (Voltage Reducing Device)

6.2.2 Internal control panel



1. Knob for setting the gas flow rate

6.3 Setting the gas flow



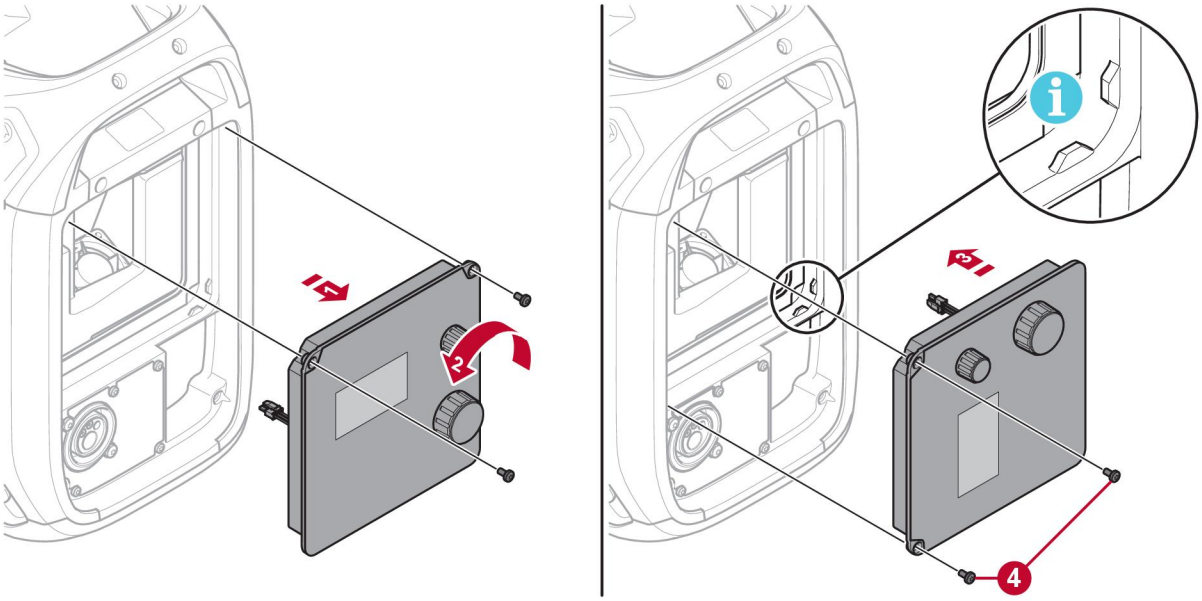
The gas flow is adjusted using the knob on the internal control panel. The present gas flow rate is presented on the gas flow meter above the knob.

NOTE!
The reading on the flow meter scale will only be correct if the wire feeder is in **upright** position!

6.4 Rotating the external control panel

For use of the wire feeder in horizontal position there is a possibility to rotate the external control panel 90°.

1. Remove the two screws for the control panel and remove the panel.
2. Rotate the control panel 90° counter-clockwise.
3. Attach the control panel making sure the small tabs are in the correct position.
4. Fasten the screws.



7 MAINTENANCE

NOTE!
Regular maintenance is important for safe and reliable operation.

CAUTION!
All warranty undertakings from the supplier cease to apply if the customer attempts any work to rectify any faults in the product during the warranty period.

7.1 Inspection and cleaning

Wire feed mechanism

Check regularly that the wire feed unit is not clogged with dirt.

- Cleaning and replacement of the wire feed unit mechanism's worn parts should take place at regular intervals in order to achieve trouble-free wire feed. Note that if pre-tensioning is set too hard, this can result in abnormal wear on the pressure roller, feed roller and wire guide.
- Clean the liners and other mechanical parts of the wire feed mechanism, using compressed air, at regular intervals or if the wire feed seems slow.
- Changing nozzles
- Checking driving-wheel
- Changing the cog-wheel package

Welding torch

- The wear parts of the welding torch should be cleaned and replaced at regular intervals in order to achieve trouble-free wire feed. Blow the wire guide clean regularly and clean the contact tip.

8 TROUBLESHOOTING

For explanation of errors that may appear on the external control panel, see the instruction manual for the control panel in question.

Perform the following checks and inspections before sending for an authorised service technician.

Fault symptom	Corrective actions
The wire feed is slow/stiff through the wire feed mechanism.	• Clean the liners and other mechanical parts of the wire feed mechanism, using pressurized air.

9 ORDERING SPARE PARTS

CAUTION!

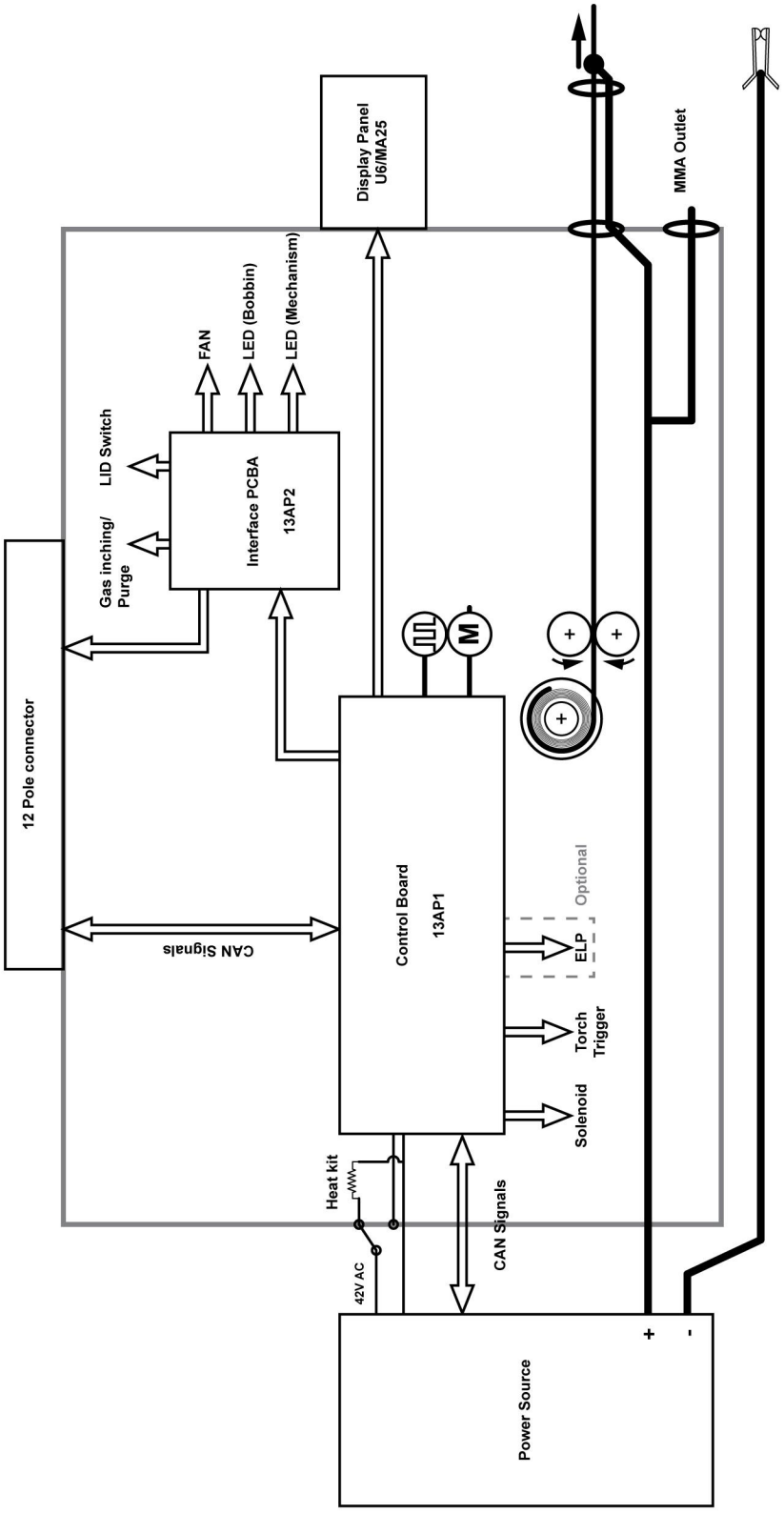
Repair and electrical work should be performed by an authorised ESAB service technician. Use only ESAB original spare and wear parts.

RobustFeed U6 and RobustFeed Pulse are designed and tested in accordance with the international and European standards **EN IEC 60974-5** and **EN IEC 60974-10 Class A**, Canadian standard **CAN/CSA-E60974-5** and US standard **ANSI/IEC 60974-5**. It is the obligation of the service unit which has carried out the service or repair work to make sure that the product still conforms to the mentioned standards.

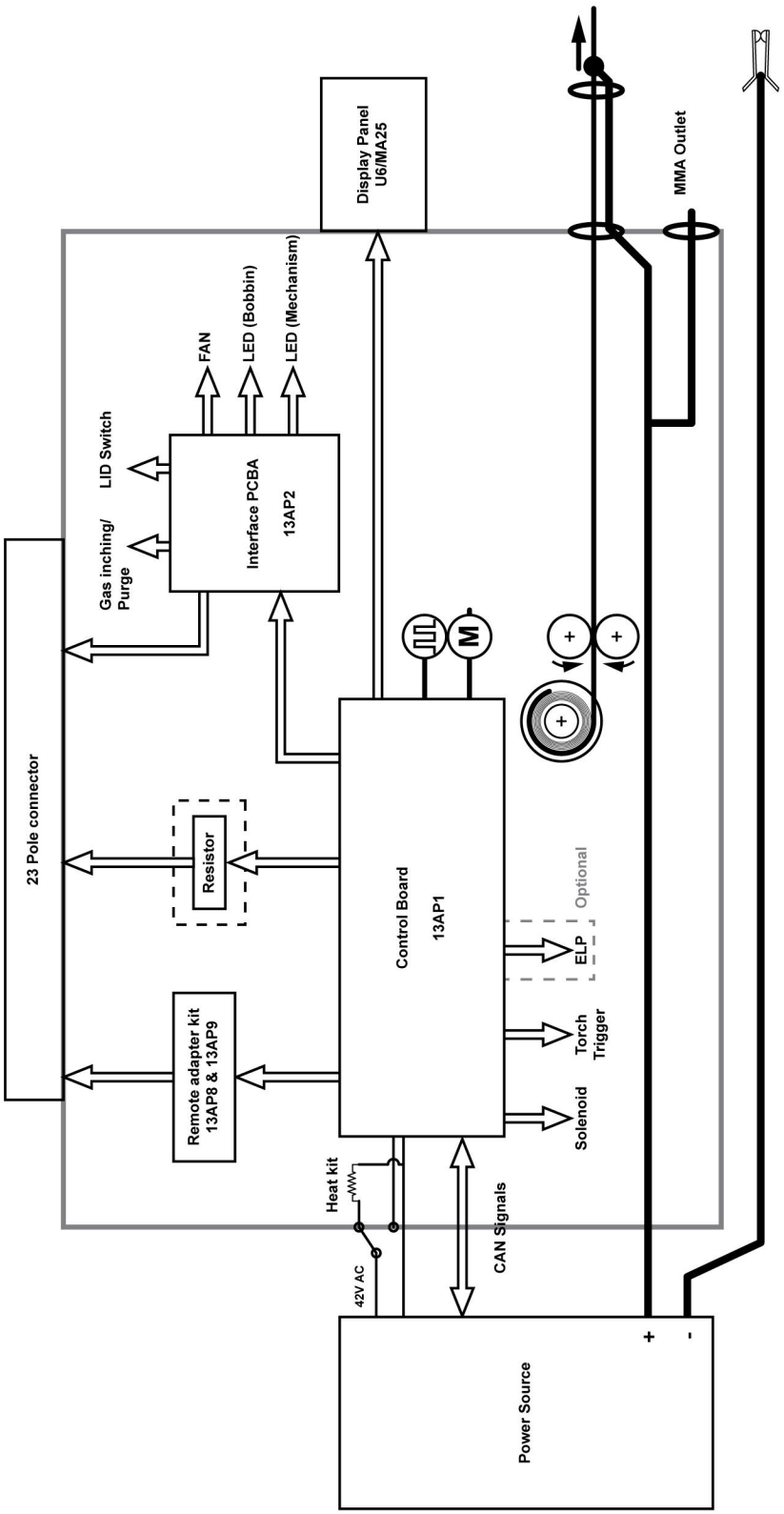
Spare parts and wear parts can be ordered through your nearest ESAB dealer, see esab.com. When ordering, please state product type, serial number, designation and spare part number in accordance with the spare parts list. This facilitates dispatch and ensures correct delivery.

DIAGRAM

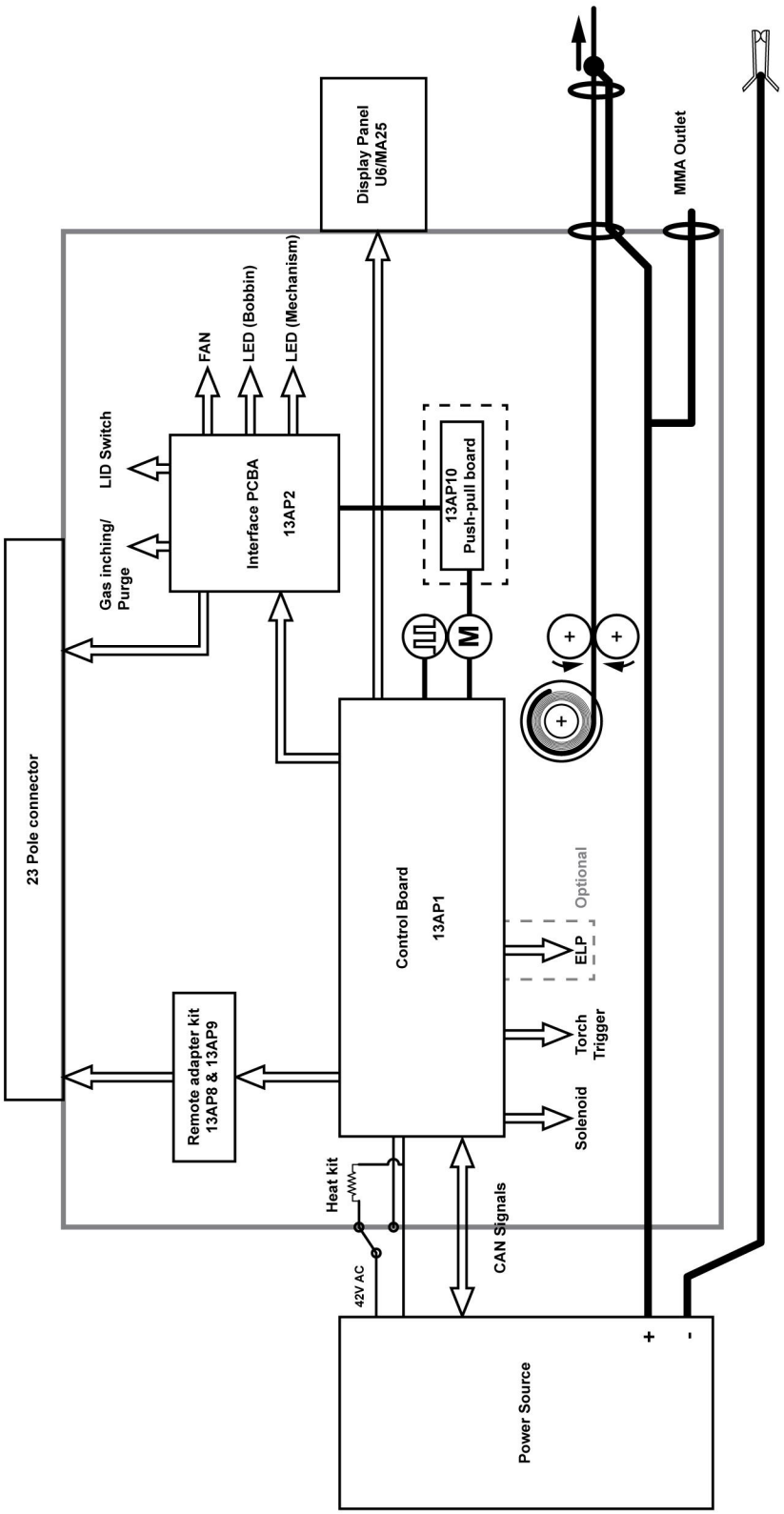
RobustFeed U6/Pulse



RobustFeed U6/Pulse EURO Push Pull



RobustFeed U6/Pulse Tweco Push Pull



ORDERING NUMBERS

Ordering no.	Denomination	Note
0445 800 897	RobustFeed U6, Water	With EURO connector, torch cooling system
0445 800 887	RobustFeed U6, Offshore, Water	With EURO connector, torch cooling system, heater, gas flow meter and MMA
0445 800 888	RobustFeed U6, Offshore, Water, ELP, Push Pull, Mechanized MIG	With EURO connector, torch cooling system, ELP, heater, gas flow meter and MMA
0445 800 894	RobustFeed Pulse, Water	With EURO connector, torch cooling system
0445 800 891	RobustFeed Pulse, Offshore, Water	With EURO connector, torch cooling system, heater, gas flow meter and MMA

Ordering no.	Denomination	Note
0445 800 892	RobustFeed Pulse, Offshore, Water, ELP, Push Pull, Mechanized MIG	With EURO connector, torch cooling system, ELP, heater, gas flow meter and MMA
0445 800 890	RobustFeed U6, Offshore, Push Pull, Mechanized MIG	With Tweco 4 connector, heater, gas flow meter and MMA
0445 800 893	RobustFeed Pulse, Offshore, Push Pull	With Tweco 4 connector, heater, gas flow meter and MMA
0445 800 902	RobustFeed U6, Offshore, Water, ELP, Push Pull, Mechanized MIG (VRD activated)	With EURO connector, torch cooling system, ELP, heater, gas flow meter and MMA (for AU region)
0463 708 001	Spare parts list	RobustFeed U6, RobustFeed Pulse
0463 707 001	Service manual	RobustFeed U6, RobustFeed Pulse
0459 287 *	Instruction manual	Aristo® U6
0463 459 *	Instruction manual	MA25 Pulse

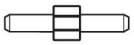
The three last digits in the document number of the manual show the version of the manual. Therefore they are replaced with * here. Make sure to use a manual with a serial number or software version that corresponds with the product, see the front page of the manual.

Technical documentation is available on the Internet at: www.esab.com

WEAR PARTS

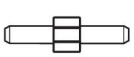
Fe, Ss and cored wire

Wire diameter (in.) (mm)	.023 0.6	.030 0.8	.040 0.9/1.0	.045 1.2	.052 1.4	1/16 1.6	.070 1.8	5/64 2.0	 Feed roller
V-groove 	X	X							0445 850 001
		X	X						0445 850 002
			X						0445 850 003
			X	X					**0445 850 004**
				X					0445 850 005
					X	X			0445 850 006
								X	0445 850 007

Inlet wire guide 	Middle wire guide 	Outlet wire guide 
0445 822 001 (2 mm)	0446 080 882	0445 830 883 (Tweco)
		0445 830 881 (Euro)

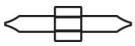
Cored wire – Different wire guides dependent on wire diameter!

Wire diameter (in.) (mm)	.040 0.9/1.0	.045 1.2	.052 1.4	1/16 1.6	.070 1.8	5/64 2.0	3/32 2.4	 Feed roller
V-K-knurled 	X	X						0445 850 030
		X						0445 850 031
		X	X					0445 850 032
				X				0445 850 033
					X			0445 850 034
						X		0445 850 035
							X	0445 850 036

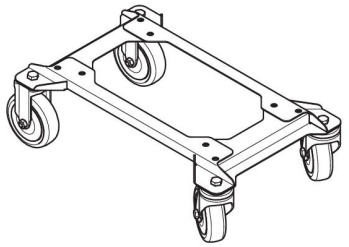
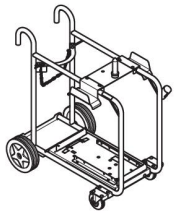
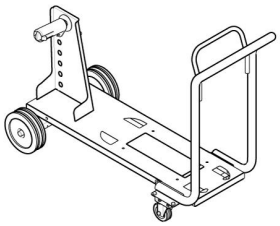
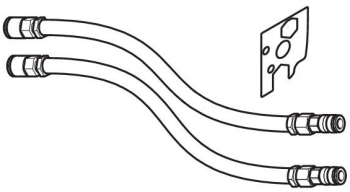
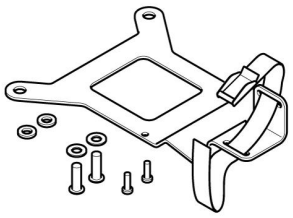
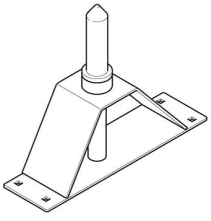
	Inlet wire guide 	Middle wire guide 	Outlet wire guide 
Wire diameter 0.040–1/16 in. 0.9–1.6 mm	0445 822 001 (2 mm)	0446 080 882	0445 830 883 (Tweco)
			0445 830 881 (Euro)
Wire diameter 0.070–3/32 in. 1.8–2.4 mm	0445 822 002 (3 mm)	0446 080 883	0445 830 884 (Tweco)
			0445 830 882 (Euro)

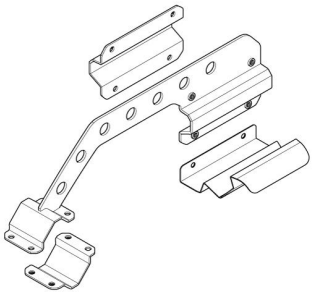
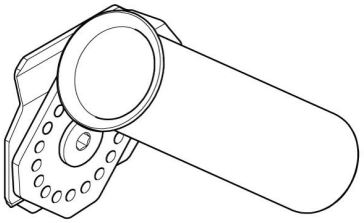
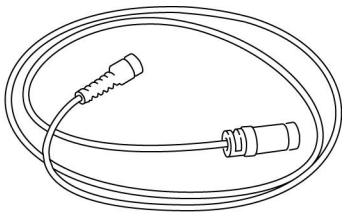
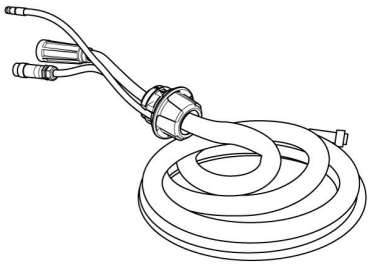
Al wire

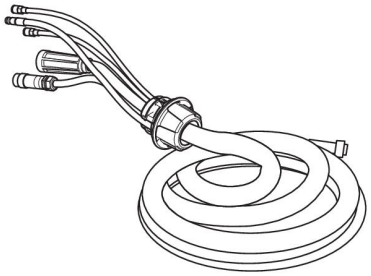
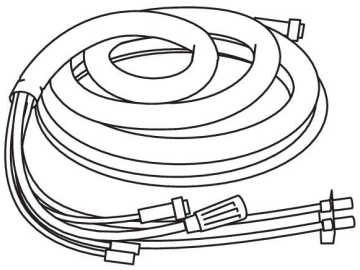
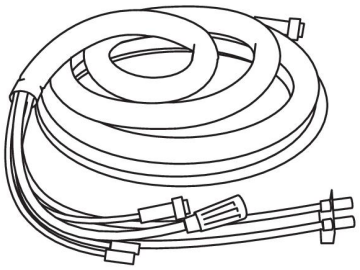
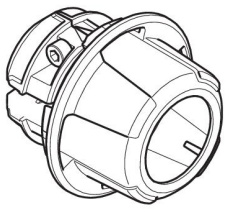
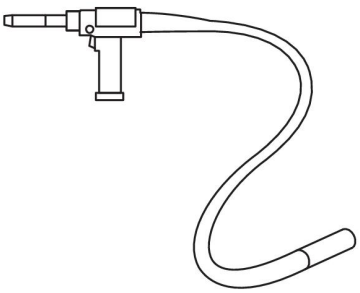
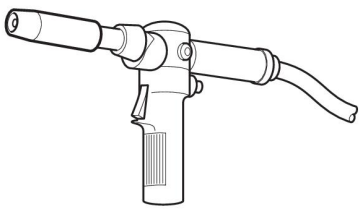
Wire diameter (in.) (mm)	.023 0.6	.030 0.8	.040 0.9/1.0	.045 1.2	.052 1.4	1/16 1.6	.070 1.8	 Feed roller
U-groove 		X	X					0445 850 050
			X	X				0445 850 051
				X		X		0445 850 052

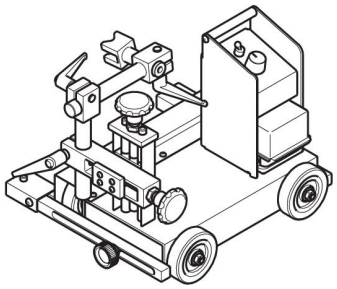
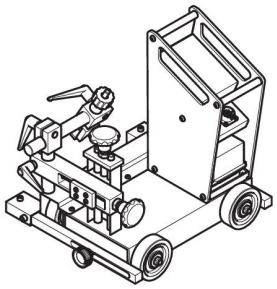
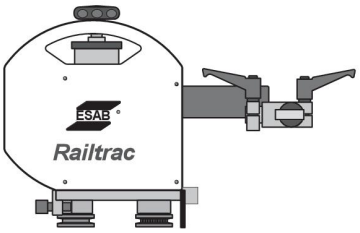
Inlet wire guide 	Middle wire guide 	Outlet wire guide 
0445 822 001 (2 mm)	0446 080 881	0445 830 886 (Tweco)
		0445 830 885 (Euro)

ACCESSORIES

0446 081 880	Wheel kit	
0349 313 450	Trolley	
0349 313 700	Wire feeder trolley for 400 mm coils	
0446 123 880	Liquid cooling kit	
0446 082 880	Torch strain relief	
F102 440 880	Quick connector Marathon Pac™	
0465 508 880	**Guide pin extension kit** For the feeder assembled with the wheel kit	

0446 956 880	**Boom adaptor kit** including a stopper for RobustFeed door For assembly instructions, refer to the Boom adaptor assembly instruction manual	
0446 958 880	**Torch holder** For assembly on the RobustFeed For assembly instructions, refer to the Torch holder assembly instruction manual	
0459 491 880	**Remote control unit MTA1 CAN** • MIG/MAG: wire feed speed and voltage • MMA: current and arc force • TIG: current, pulse and background current	
0459 491 882	**Remote control unit M1 10Prog CAN** • Choice of one of 10 programs • MIG/MAG: voltage deviation • TIG: and MMA current deviation	
0459 554 880	Remote cable CAN 4 pole – 12 pole, 16 ft 5 in. (5.0 m)	
0459 554 980	Remote cable CAN 4 pole – 12 pole, 16 ft 5 in. (5.0 m) HD	
Interconnection cable with pre-assembled strain relief, Air cooled, 70 mm^2:		
0446 255 880	2 m (7 ft.)	
0446 255 881	5 m (16 ft.)	
0446 255 882	10 m (33 ft.)	
0446 255 883	15 m (49 ft)	
0446 255 884	20 m (66 ft)	
0446 255 885	25 m (82 ft)	
0446 255 886	35 m (115 ft)	

Interconnection cable with pre-assembled strain relief, Liquid cooled, 70 mm^2:		
0446 255 890	2 m (7 ft.)	
0446 255 891	5 m (16 ft.)	
0446 255 892	10 m (33 ft.)	
0446 255 893	15 m (49 ft)	
0446 255 894	20 m (66 ft)	
0446 255 895	25 m (82 ft)	
0446 255 896	35 m (115 ft)	
Interconnection cable without strain relief, Air cooled, 95 mm^2:		
0459 528 960	1.7 m (7 ft.)	
0459 528 961	5 m (16 ft.)	
0459 528 962	10 m (33 ft.)	
0460 528 963	15 m (49 ft)	
0460 528 964	25 m (82 ft)	
0460 528 965	35 m (115 ft)	
Interconnection cable without strain relief, Liquid cooled, 95 mm^2:		
0459 528 970	1.7 m (7 ft.)	
0459 528 971	5 m (16 ft.)	
0459 528 972	10 m (33 ft.)	
0459 528 973	15 m (49 ft)	
0459 528 974	25 m (82 ft)	
0459 528 975	35 m (115 ft)	
0446 050 881	Interconnection strain relief kit (for update of cables without strain relief)	
MIG/MAG welding torches:		
More information at the nearest ESAB agency	**EURO, Tweco and Push Pull torches**	

0457 357 882	**Miggytrac™ B501** Equipment for mechanized welding	
0459 990 645	**Miggytrac™ B5001** Equipment for mechanized welding	
0398 146 016	**Railtrac™ B42V** Equipment for mechanized welding	
0459 990 644	**Railtrac™ BV2000** Equipment for mechanized welding	

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