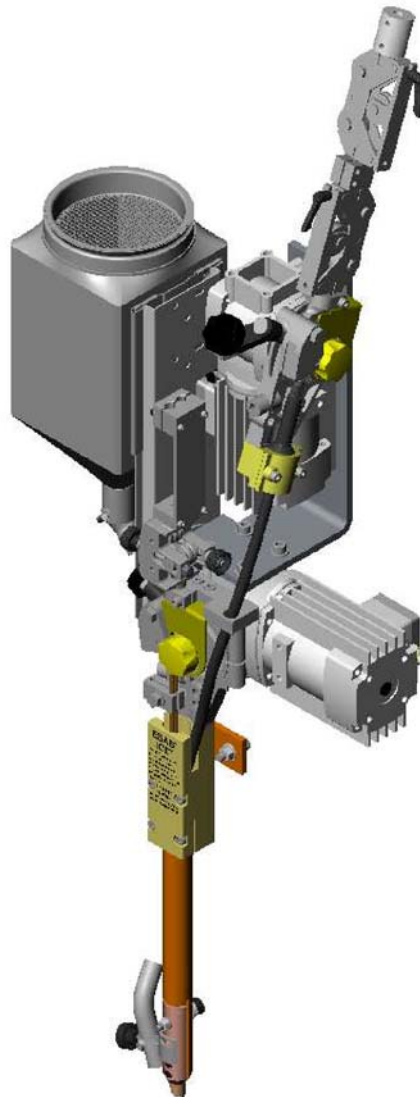




A6 S Arc Master ICE™



Instruction manual

ENGLISH 4

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DECLARATION OF CONFORMITY

In accordance with
the LV-Directive 2006/95/EC, the Machinery Directive 2006/42/EC, the EMC Directive 2004/108/EC

Type of equipment

Feeder of welding wire in combination with movable Welding Automats and stationary Welding heads, used with control box PEK

Brand name or trade mark Fabrikatnamn eller varumärke

ESAB

Type designation etc.

A2 Multitrac, A2 Tripletrac, A2 S-series, A6 Mastertrac, A6 Mastertrac Tandem, A6 S- series

Manufacturer or his authorised representative established within the EEA

Name, address, telephone No, telefax No:

ESAB AB, Welding Equipment
Esabvägen, SE-695 81 LAXÅ, Sweden
Phone: +46 584 81 000, Fax: +46 584 411 924

The following harmonised standards in force within the EEA have been used in the design:

EN 60974-5, Arc welding equipment – Part 5: Wire feeders
EN 12100-2, Safety of machinery – Part 2: Technical principles
EN 60974-10, Arc welding equipment – Part 10: Electromagnetic compatibility (EMC) requirements

Additional information: Restrictive use, Class A equipment, intended for use in locations other than residential

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.

Date / Datum
Laxå 2009-09-15

Signature / Underskrift

A handwritten signature in dark ink, appearing to read "Kent Eimbrodt", written over a light-colored background.

Kent Eimbrodt
Clarification

Position / Befattning
Global Director
Equipment and Automation

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1 SAFETY

Users of ESAB welding 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 welding 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 welding 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 welding equipment must be familiar with:
 - its operation
 - location of emergency stops
 - its function
 - relevant safety precautions
 - welding
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
3. The workplace must:
 - be suitable for the purpose
 - be free from draughts
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. Protection against other risks
 - Dust particles of a certain size can be harmful to man. A ventilation system and extractor should therefore be provided to eliminate this risk.
6. 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.



WARNING!

Risk of crushing when replacing the wire bobbin!

Do not use safety gloves when inserting the welding wire between the feed rollers.



WARNING



ARC WELDING AND CUTTING CAN BE INJURIOUS TO YOURSELF AND OTHERS. TAKE PRECAUTIONS WHEN WELDING. ASK FOR YOUR EMPLOYER'S SAFETY PRACTICES WHICH SHOULD BE BASED ON MANUFACTURER'S HAZARD DATA.

ELECTRIC SHOCK - Can kill

- Install and earth the welding unit in accordance with applicable standards.
- Do not touch live electrical parts or electrodes with bare skin, wet gloves or wet clothing.
- Insulate yourself from earth and the workpiece.
- Ensure your working stance is safe.

FUMES AND GASES - Can be dangerous to health

- Keep your head out of the fumes.
- Use ventilation, extraction at the arc, or both, to keep fumes and gases 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.

FIRE HAZARD

- Sparks (spatter) can cause fire. Make sure therefore that there are no inflammable materials nearby.

NOISE - Excessive noise can damage hearing

- Protect your ears. Use ear defenders or other hearing protection.
- Warn bystanders of the risk.

MALFUNCTION

- Call for expert assistance in the event of malfunction.

READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE INSTALLING OR OPERATING.

PROTECT YOURSELF AND OTHERS!

2 INTRODUCTION

2.1 General

The welding head which appears in this instruction manual is intended for submerged arc welding of butt and fillet joints.

It is designed for use with the **PEK** control box and ESAB's **LAF** or **TAF** welding power sources.

2.2 Welding method

submerged-arc welding

- **UP Heavy duty**

UP heavy duty with a connector Ø 35 mm, which allows a load of up to 1500 A. This design can be equipped with feed rollers for single or twin-wire welding (twin arc). For cored wire there are special grooved feed rollers that ensure the secure feed of the wire without its deformation due to high feed pressure.

2.3 Definitions

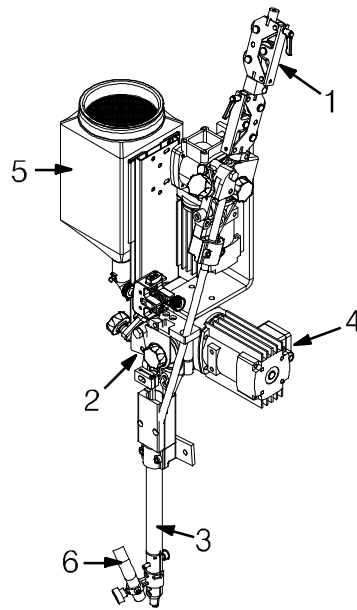
submerged-arc welding	During welding the weld bead is protected with a flux coating.
UP Heavy duty	This design allows a load of up to 1500 A and that heavier wire is used during welding.
Twin arc welding	Welding with two wires in a single welding head.
Cold wire	Welding with two wires and a non-conducting wire in a single welding head. The non-conducting wire is melted down by the heat from the other wires.



2.4 Technical data

	A6S Arc Master ICE
Rated load 100%	1500 A
Wire dimensions:	
twin wire	2x2,5mm
cold wire	2,5 mm
Wire feed speed	0,2-4,0 m/min
Flux hopper capacity (Not to be filled with preheated flux)	10 l
Weight (excluding wire and flux):	
with motorised linear slides	≈ 41 kg

2.5 Main parts A6S Arc Master ICE



- | | |
|-----------------------------|---------------------------|
| 1. <i>Wire straightener</i> | 4. <i>Motor with gear</i> |
| 2. <i>Wire feed unit</i> | 5. <i>Flux hopper</i> |
| 3. <i>Connector</i> | 6. <i>Flux nozzle</i> |

For a description of the main parts, see page 11.

2.6 Description of main parts

2.6.1 Wire Straightener

Wire straightener 1 is used to straighten and guide the cold wire.

Wire straightener 2 is used to straighten and guide the hot wires.

2.6.2 Wire feed unit

The wire feed unit is used to drive the welding wire down into the connector.

2.6.3 Connector

Provides the welding wire with current and provides contact against the workpiece.

Also contains insulating parts that hold the cold wire separate from the power conducting parts.

2.6.4 Motor with gear (A6 VEC)

The motor is used to feed forward the welding wire.

For more information regarding the **A6 VEC**, see instruction manual 0443 393 xxx.

2.6.5 Flux hopper / Flux hose / Flux nozzle

The welding flux is poured into the flux hopper and is then directed to the workpiece through the flux hose and the flux nozzle.

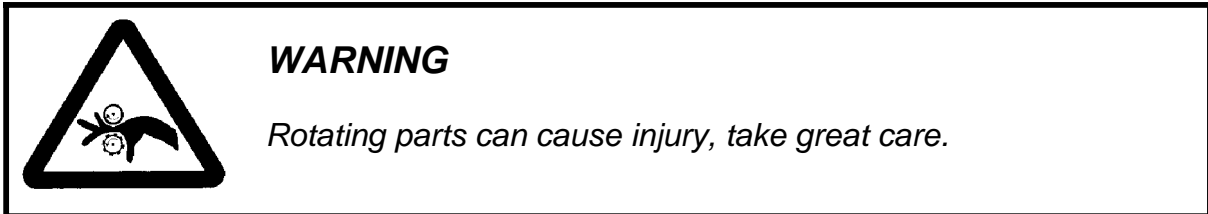
The amount of welding flux which is released is controlled via the flux valve which is fitted on the flux hopper.

See "**Filling the welding fluxes**" on page NO TAG.

3 INSTALLATION

3.1 General

The installation must be executed by a professional.



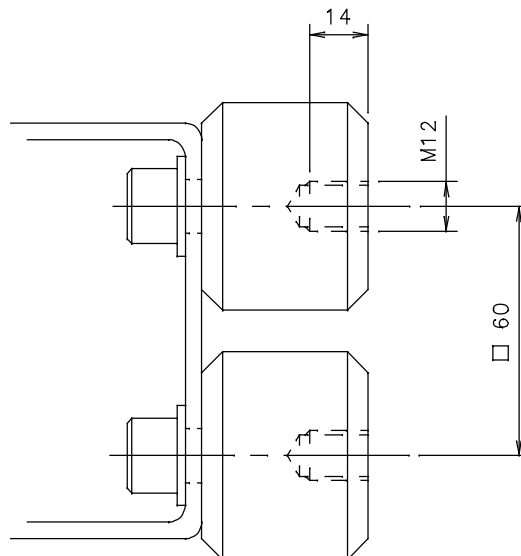
3.2 Mounting

3.2.1 Welding head

The welding head can be mounted on a beam-travelling carriage or on a welding column and boom with 4 x M12 screws.

NB!

Make sure the screw does not go to the bottom of the insulator, which has a thread depth of 14 mm

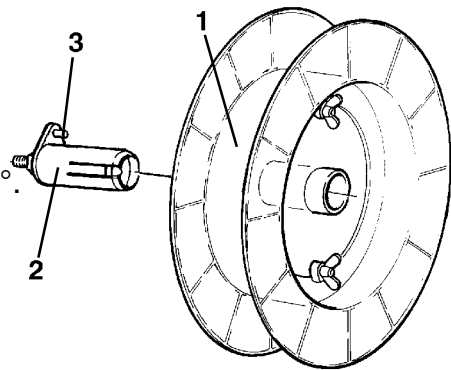


3.2.2 Wire drum (accessory)

The wire drum (1) is fitted on the brake hub (2).

- Note that the carrier (3) points up.

NOTE! The maximum angle for the wire bobbin is 25°. At extreme angles, wear will occur on the brake hub locking mechanism and the wire bobbin will slide off the brake hub.



WARNING

To prevent the reel sliding off the hub:

- Lock the reel in place by turning the red knob as shown on the warning label attached next to the hub.

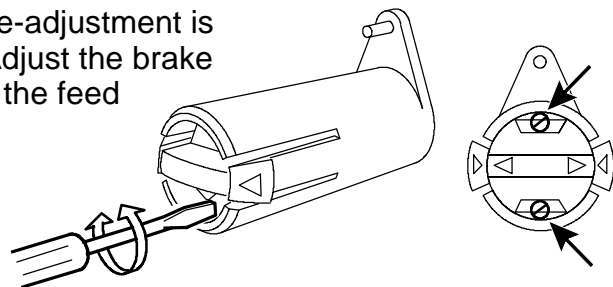


3.3 Adjusting the brake hub

The brake hub is adjusted on delivery, if re-adjustment is necessary follow the instructions below. Adjust the brake hub so that the wire is slightly slack when the feed stops.

- **Adjusting the brake torque:**

- Set the red knob in the locked position.
- Insert a screwdriver into the hub's springs.



Clockwise rotation of the springs for reduced brake torque.

Anticlockwise rotation for increased brake torque.

N.B. Turn the springs equally as much.

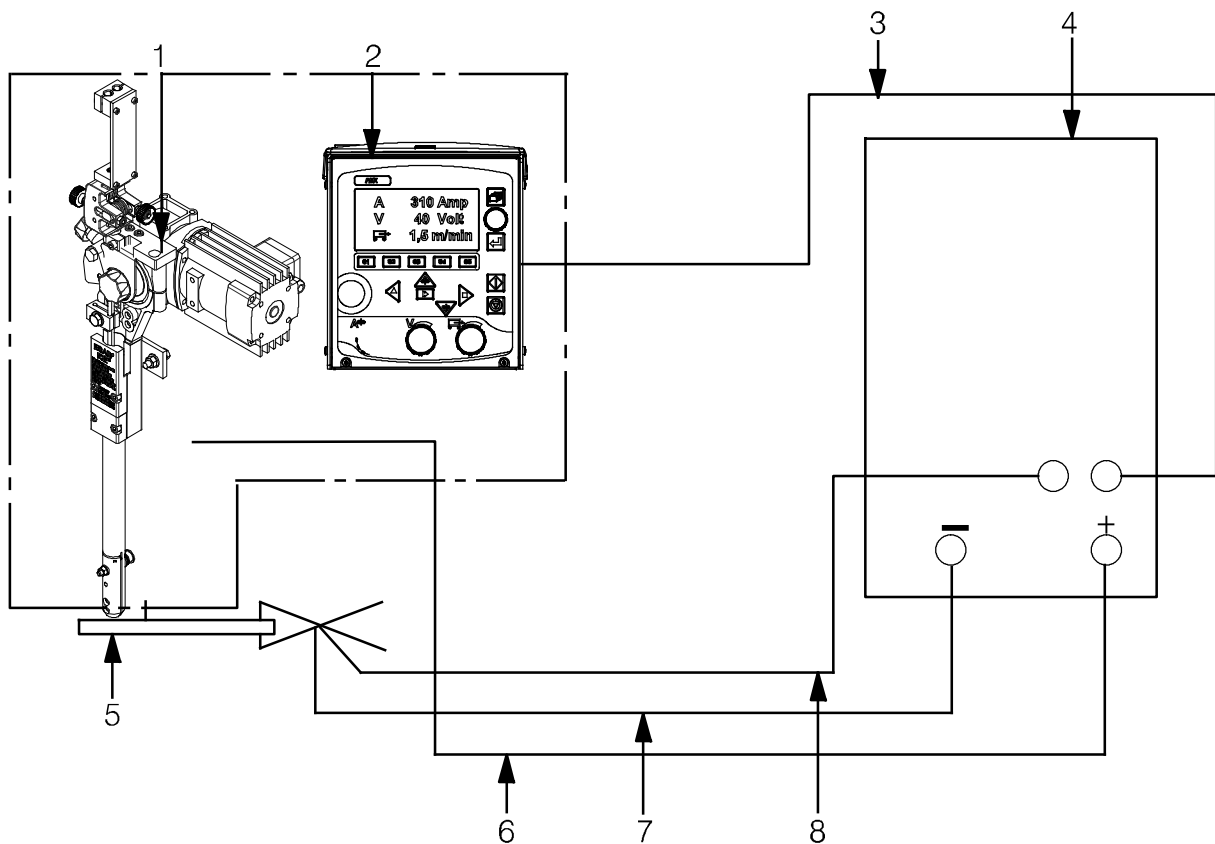
3.4 Connections

3.4.1 General information

- **PEK** is connected by a qualified person.
See instruction manual 0460 948 xxx, 0460 949 xxx, 0459 839 036.
- For the connection of the **A6 GMH** see instruction manual 0460 671 xxx.
- For the connection of the **A6 PAV** see instruction manual 0460 670 xxx.
- For the connection of the **FAA** unit, see ESAB's instructions for each machine.

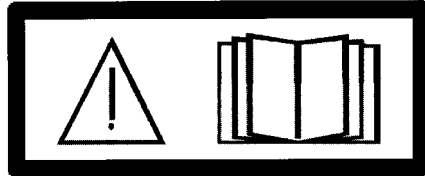
3.4.2 Welding head A6S Arc Master ICE

1. Connect the control cable (3) between the welding power source (4) and control box (2).
2. Connect the return cable (7) between the welding power source (4) and workpiece (5).
3. Connect the welding cable (6) between the welding power source (4) and welding head (1).
4. Connect the measuring cable (8) between the welding power source (4) and workpiece (5).



4 OPERATION

4.1 General



WARNING:

Have you read and understood the safety information?

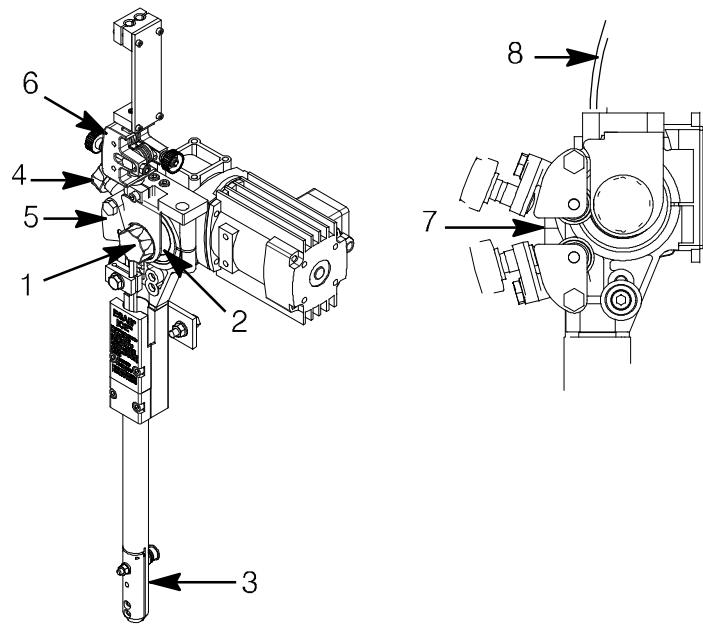
If not, the machine must not be used!


General safety regulations for the handling of the equipment can be found on page 5. Read through before you start using the equipment!

Return cable

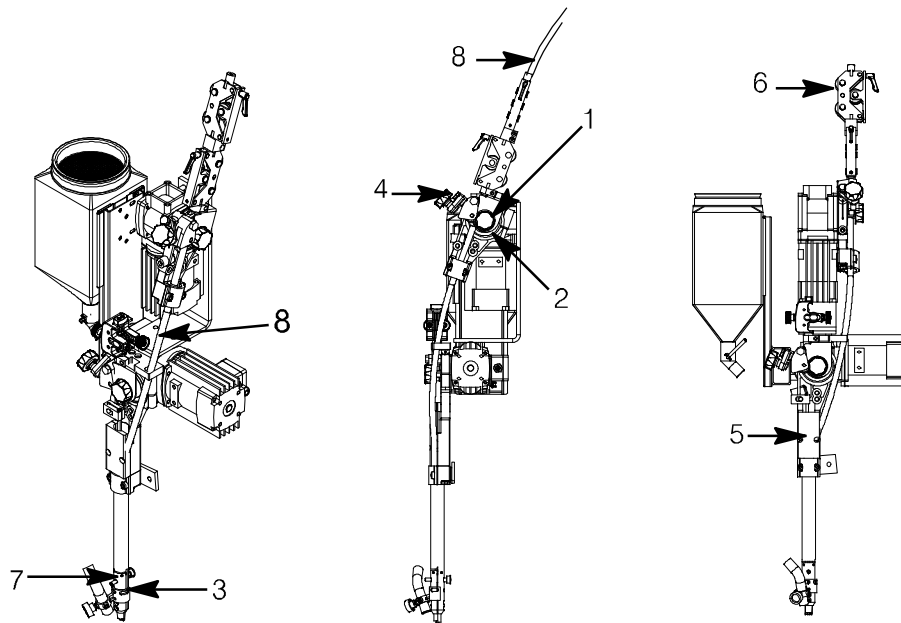
Before starting up, check that the return cable is connected. See page 14.

4.2 Loading the hot wire

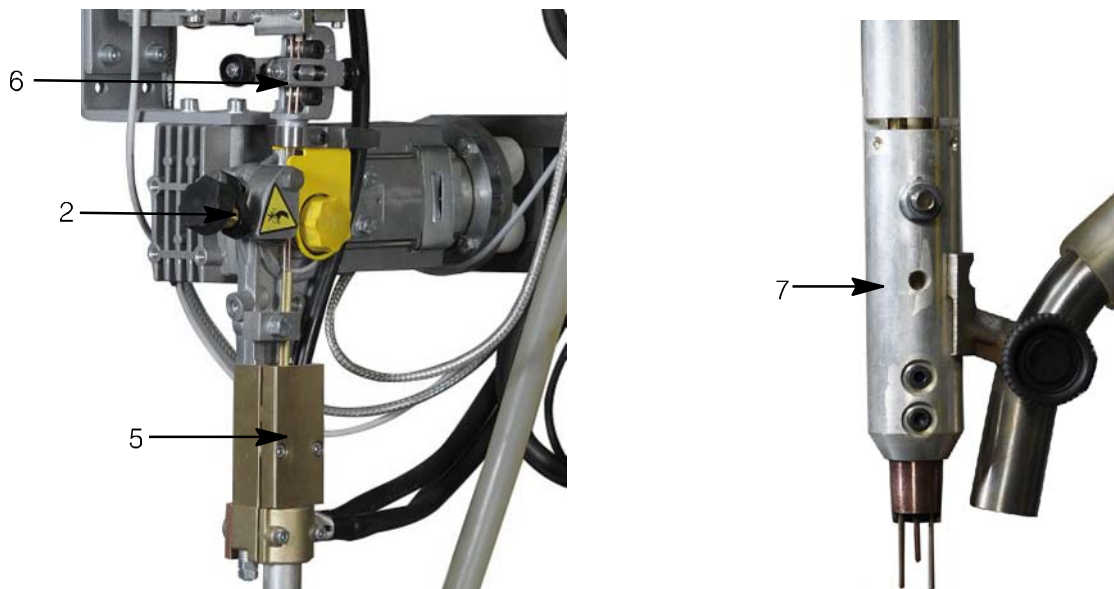


1. Fit the wire drum in accordance with the instructions on page 13.
2. Check that the feed roller (pos. **1**) and contact jaws, and contact nozzles (pos. **3**), are the correct dimension for the selected wire dimension.
3. Feed the welding wire into the wire liner (pos. **8**).
4. When welding with fine wire:
 - Feed the welding wire into the fine wire straightener (pos. **6**).
Make sure that the straightener is correctly set so that the wire will be routed straight out through the contact jaws and contact nozzle respectively (pos. **3**).
5. Route the wire's end through the wire feed unit (pos. **2**).
 - For a wire with a diameter greater than 2 mm: straighten out 0.5 m of the wire and feed it down by hand through the wire feed unit.
6. Position the wire end in the feed roller's (pos. **1**) groove.
7. Set the wire pressure against the feed roller with the knob (pos. **4**).
 - **N.B.** Do not tension harder than when secure feed is obtained.
8. Remove the contact jaw half and align the wires manually.
9. Always use a brass tube for a secure supply of fine thread
10. Feed the thread 30 mm below the contact jaws by pressing  on the control box **PEK**.
11. Position the wires in the grooves in the contact jaw.
12. Refit the contact jaw half.
Note: check that the ceramic parts for cold wire are straight and not pinched.
13. Align the wire by adjusting the knob (pos. **5**).

4.3 Loading the cold wire

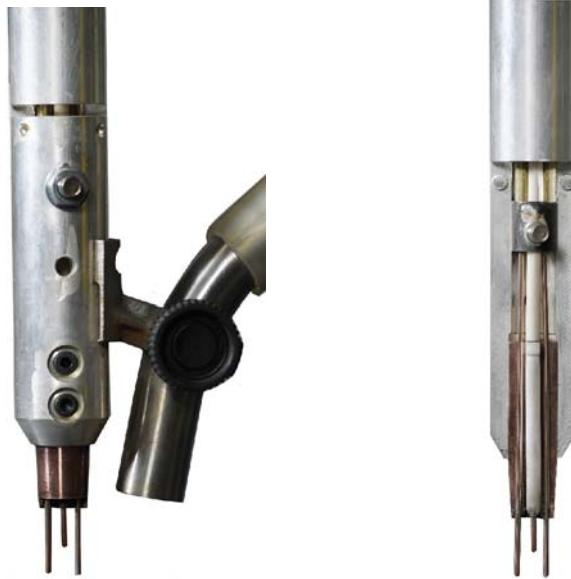


1. Fit the wire drum in accordance with the instructions on page 13.
2. Check that the feed roller (pos. 1) and contact jaws, and contact nozzles (pos. 3), are the correct dimension for the selected wire dimension.
3. File the end of the wire so that the wire does not have any sharp edges.
4. Feed the welding wire into the wire liner (pos. 8).
5. When welding with fine wire:
 - Feed the wire into the fine wire straightener (pos. 6) and the feed unit (pos. 2).
Make sure that the straightener is correctly set so that the wire will be routed straight out of the wire liner (pos. 8).



6. Remove the brass cover plate (pos. 5).
7. Remove the contact jaw half (pos. 7) and the ceramic sleeve (pos. 2).
8. Check that the wire liner and ceramic sleeve are not worn or damaged.

9. Pull out the ceramic sleeve.
10. Feed the cold wire through the Teflon wire guide so that the wire protrudes 40 mm from the wire liner.
11. Move the ceramic sleeve onto the wire and position the sleeve in the contact jaw.
12. Refit the contact jaw half and place the hot wires in the tracks of the contact jaw half.
Note: check that the ceramic sleeve for cold wire is straight and not pinched.
13. Feed out the wire so that the wire protrudes 30 mm below the contact jaws.

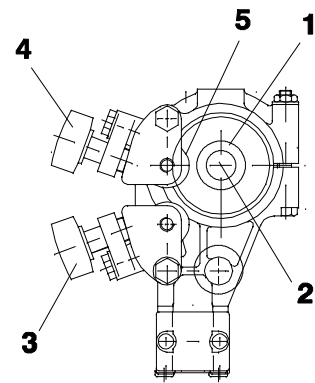


14. Refit the brass cover plate (pos.5).
15. Align the wires with the fine wire straightener.

4.4 Replacing the feed roller

Single wire

- Loosen the knobs (3) and (4)
- Loosen the hand wheel (2)
- Replace the feed roller (1)
They are marked with the respective wire dimension.



Twin wire (Twin arc)

- Replace the feed roller (1) with twin grooves in the same way as for a single wire.
- **N.B.** Also replace the pressure roller (5).
The special spherical pressure roller for twin wire replaces the standard pressure roller for single wire.
- Fit the pressure roller with a special stub shaft (ordering no. 0146 253 001).

Cored wire for grooved rollers (accessory)

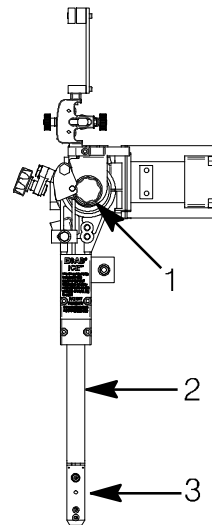
- Replace the feed roller (1) and pressure roller (5) in pairs for each respective wire dimension.
N.B. The pressure roller requires a special stub shaft (ordering no. 0212 901 101).
- Tighten the knob (4) with moderate pressure so that the cored wire is not deformed.

4.5 Contact equipment for submerged-arc welding

4.5.1 Cold wire 2.5 mm

- Wire feed unit (1)
- Connector D35 (2)
- Contact jaws (3)
- Insulating parts for cold wire

Make sure that good contact is obtained between the contact jaws and the welding wire.



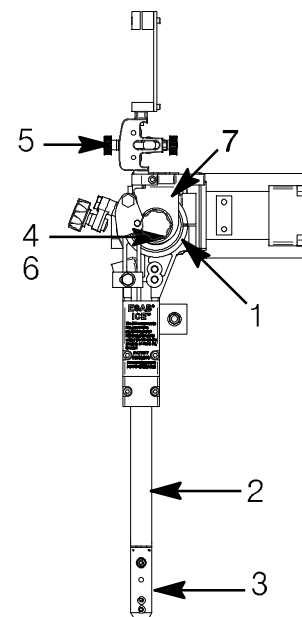
4.5.2 Twin wire 2 x 2.5 mm

- Wire feed unit (1)
- Connector, Twin D35 (2)
- Contact jaws (3)

Make sure that good contact is obtained between the contact jaws and the welding wire.

- Guide tube (4) and (6)

Important! The protection (7) must not be removed from the fine wire straightener (5)



Setting the wire for twin arc welding:

- Set the wires in the joint for optimum welding results by turning the connector. The two wires can be turned so that they are positioned one after the other in line with the joint or in any position up to 90° across the joint, i.e. one wire on each side of the joint.

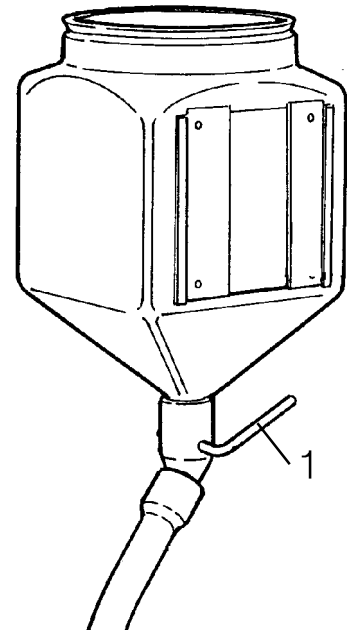
4.6 Refilling with Flux Powder

1. Close the flux valve (1) on the flux hopper.
2. Remove the cyclone on the flux recovery unit, if fitted.
3. Fill with flux powder.

NOTE! The flux powder must be dry.

4. Position the flux tube so that it does not become kinked.
5. Adjust the height of the flux nozzle above the weld so that the correct amount of flux is delivered.

Flux coverage should be sufficient so that penetration of the arc does not occur.



5 MAINTENANCE

5.1 General

Note:

All warranty undertakings given by the supplier cease to apply if the customer attempts to rectify any faults on the machine during the warranty period.

N.B. The mains voltage must be switched off during all maintenance work.

For maintenance of the control box **PEK** see instruction manual 0460 948 xxx, 0460 949 xxx, 0459 839 036.

5.2 Daily

- Keep the moving parts of the welding head clean.
- Check that the contact nozzles, all electrical cables and hoses are connected.
- Make sure all bolted joints are tightened and that the guide and feed rollers are not worn or damaged.
- Check the brake hub's brake torque. It must not be so small that the wire drum continues to rotate when the wire feed is stopped, and it must not be so great that the feed rollers slip. Guideline value for the brake torque for a 30 kg wire drum is 1.5 Nm. For adjusting the brake torque, see page 13.
- During each wire change, check that the wire liner and ceramic sleeve are not worn or damaged.

5.3 Periodically

- Check the wire motor's carbon brushes every three months. Replace when they are worn down to 6 mm.
- Check the slides and lubricate if they jam.
- Check the wire feed unit's wire guide, drive rollers and contact nozzle. Replace worn or damaged parts (see spare parts on page 27).
- Check the gas nozzle and clean regularly from weld spatter.
- Blow clean the wire liners regularly.
- Cleaning and replacement of the feed mechanism's wear parts should take place periodically in order to maintain an uninterrupted wire feed.
Note that preload that is set too hard may cause abnormal wear on the pressure roller, feed roller and wire liner.

6 TROUBLE SHOOTING

6.1 General

Equipment

- Instruction manual, control box **PEK**, 0460 948 xxx, 0460 949 xxx, 0459 839 036.

Check/inspect

- that the welding power source is connected to the correct mains voltage
- that all 3 phases have live voltage (phase sequence is not significant)
- that welding lines and connections for these are undamaged
- that the controls are in the desired position
- that the mains voltage is disconnected before repairs begin

6.2 Possible faults

1. Symptom Amperage and voltage values produce large variations in the display.

Cause 1.1 Contact jaws have poor contact, are worn or have the incorrect dimension.

Remedy/action Adjust or replace contact jaws.

Cause 1.2 The pressure on the feed rollers is inadequate.

Remedy/action Increase the pressure on the feed rollers.

2. Symptom The wire feed is uneven.

Cause 2.1 The pressure on the feed rollers is incorrectly set.

Remedy/action Change the pressure on the feed rollers.

Cause 2.2 Incorrect dimension for the feed rollers.

Remedy/action Replace the feed rollers.

Cause 2.3 The grooves in the feed rollers are worn.

Remedy/action Replace the feed rollers.

3. Symptom The welding cables are overheated.

Cause 3.1 Poor connections.

Remedy/action Clean and tighten all connections.

Cause 3.2 The welding cables have a dimension that is too fine.

Remedy/action Increase the cable dimension or use parallel cables.



- 4. Symptom** **Sparks and black burn marks around the cold wire.**
- Cause 4.1** Short circuit between cold wire and hot wire.
- Remedy/action** Check the ceramic details and other isolated details.

7 ACCESSORIES

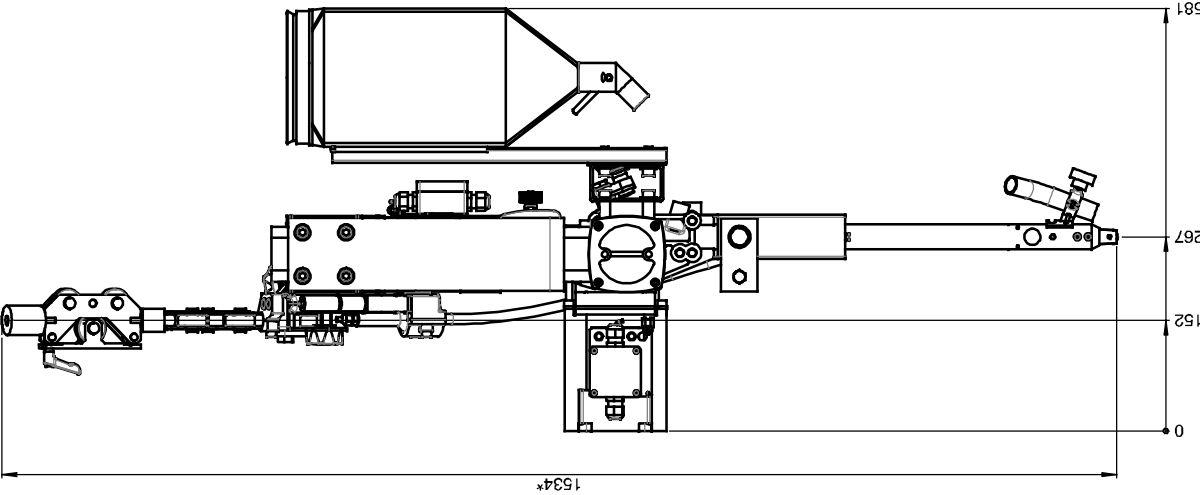
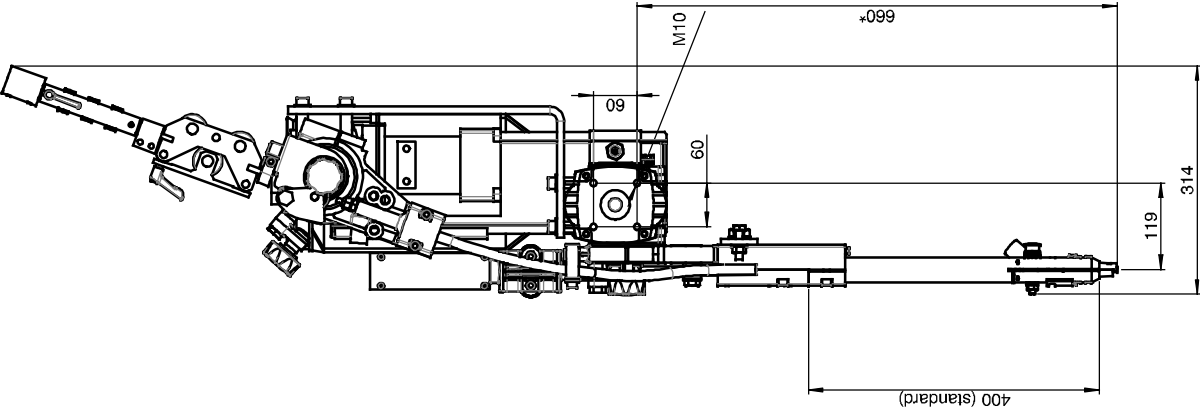
Denomination/designation:	Ordering number:
Pilot light	0153 143 885
Adapter M6/M10	0147 333 001

8 SPARE PART ORDERING

Spare parts are ordered through your nearest ESAB representative, see back cover. When ordering spare parts, please state machine type and number as well as designation and spare part number as shown in the spare parts list on page 27. This will simplify dispatch and ensure you get the right part.

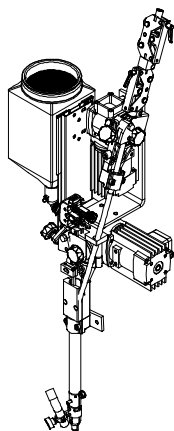
DIMENSION DRAWING

A6S Arc Master ICE



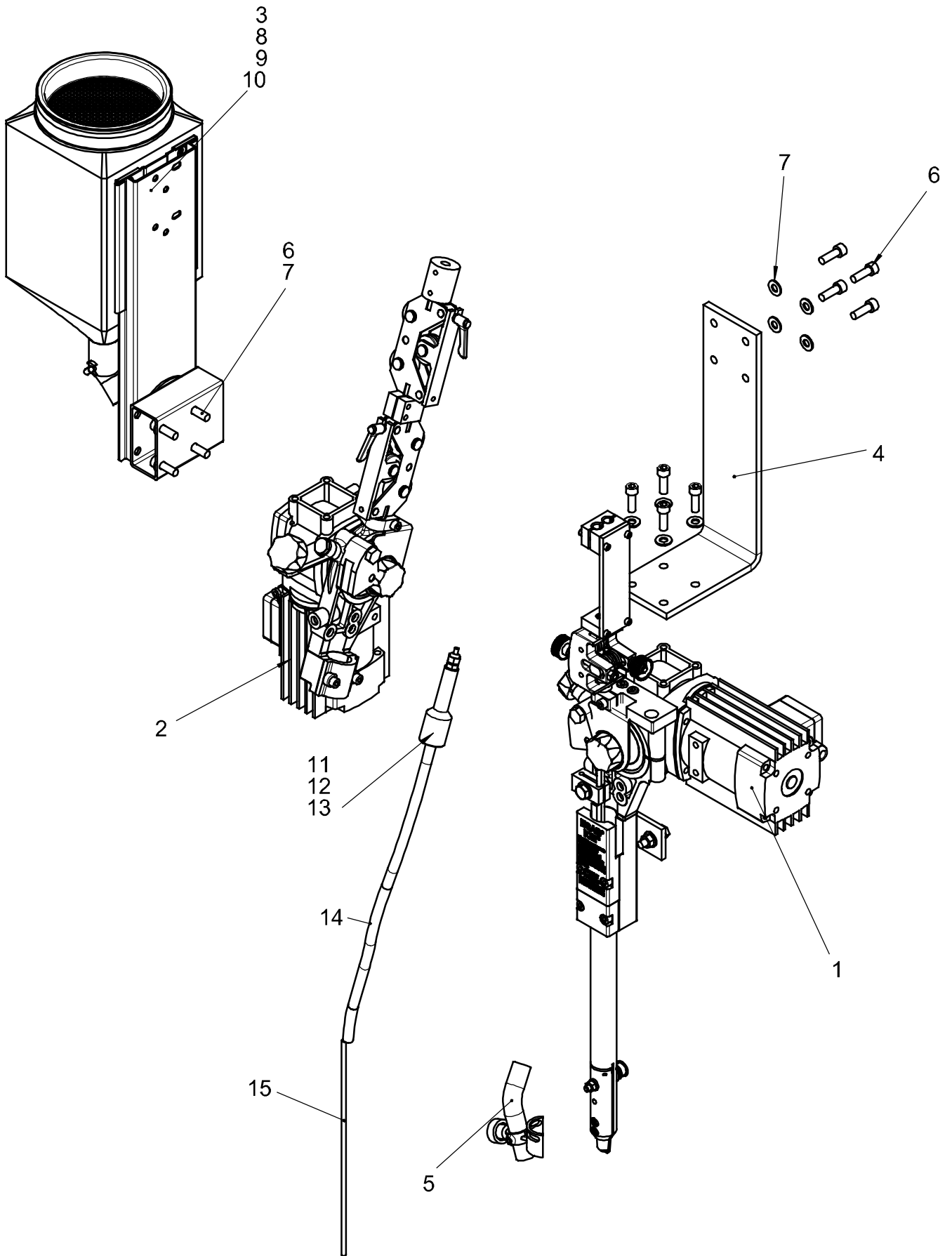
SPARE PARTS LIST

Edition 2012-06-01

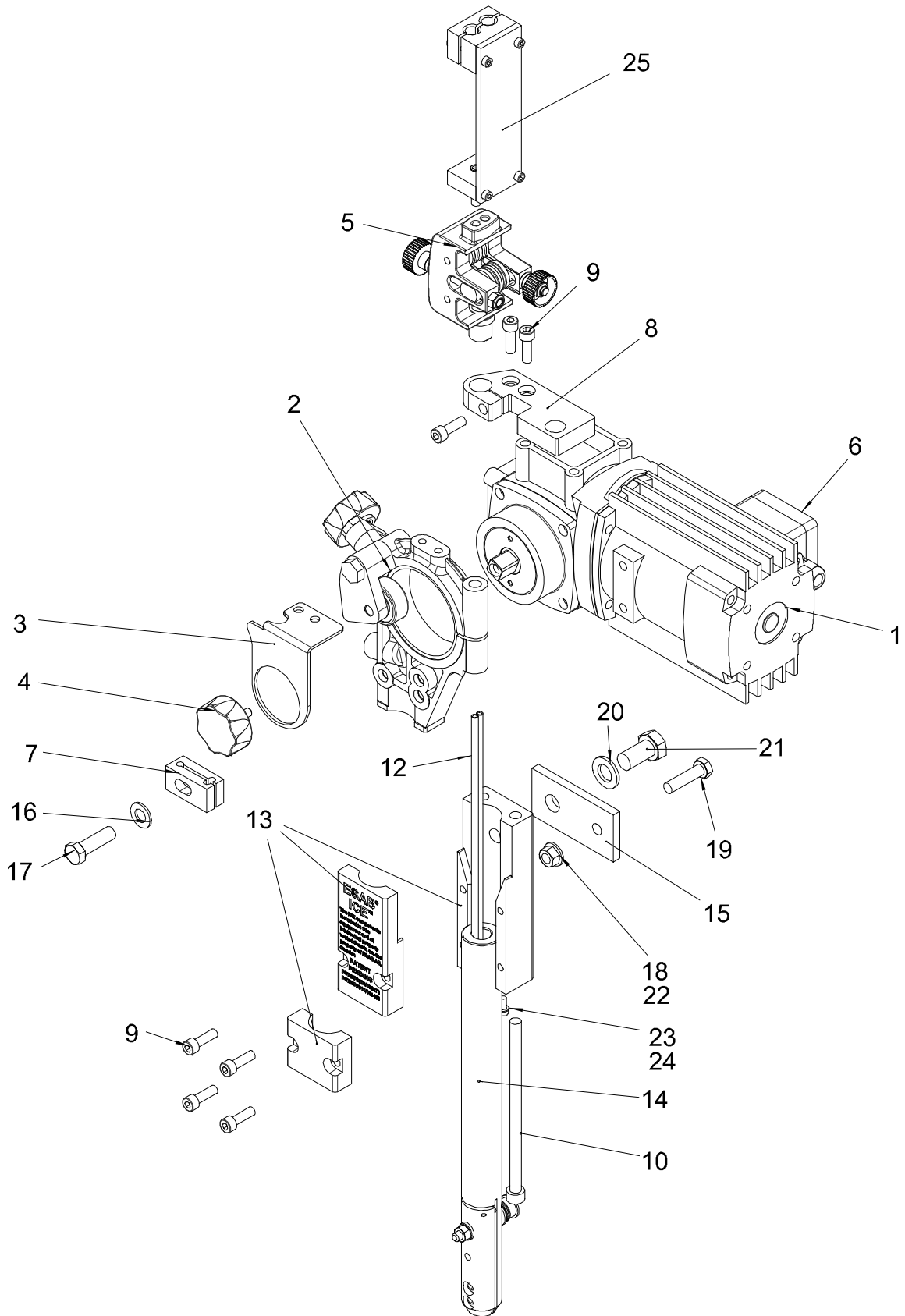


Ordering no.	Denomination	Notes
0821 775 880	Welding head	ICE Twin SAW

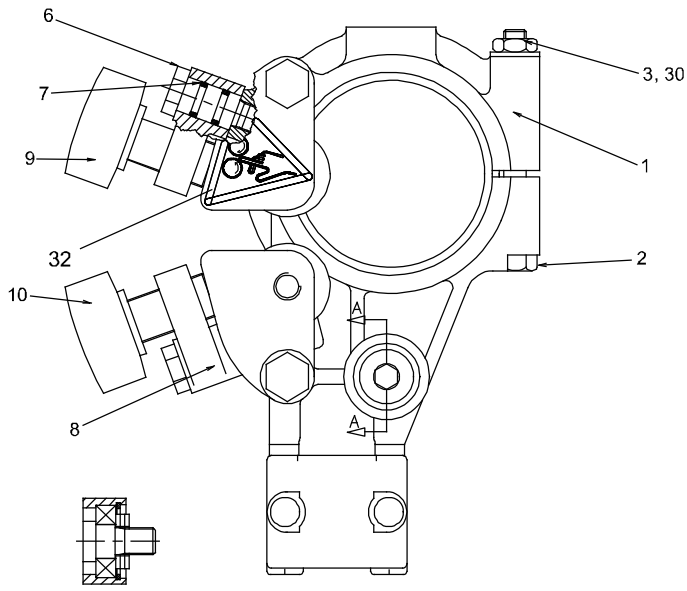
Item no.	Qty	Ordering no.	Denomination	Notes
		0821775880	Welding head	ICE Twin SAW
1	1	0824032880	Ice hot wire feeder	
2	1	0824033880	Ice cold wire feeder	
3	1	0147649882	Flux hopper	10l
4	1	0819770001	Bracket motor 2	
5	1	0153299880	Flux nozzle	
6	18	0192238495	Screw	m10x30
7	20	0215100023	Washer	10,5x22
8	1	0148487881	Bracket for flux hopper	a6
9	1	0822626001	Spacer	
10	2	0212601110	Nut	m10
11	1	0824037001	Wire liner socket	pg7
12	1	0212204502	Stop screw	m6x8
13	1	0193308101	Cable fitting	stp-k 7 polyamid
14	1	0821696001	Wire liner	d 7/14
15	1	0824038001	teflon wire liner	ptfe ice
20	1	0449253903	Cable	set 5m ice pek
99	1	0190665003	Plastic bag	250x400



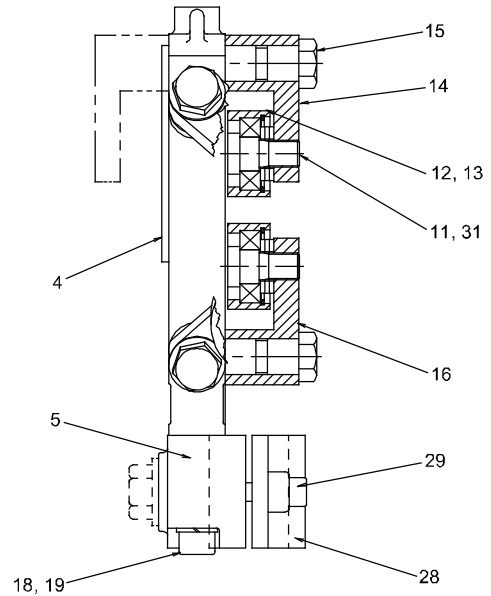
Item no.	Qty	Ordering no.	Denomination	Notes
		0824032880	ICE hot wire feeder	
1	1	0145063907	Geared motor	A6 VEC, see separate manual
2	1	0147639892	Wire straightener twin	a6 d35 twin (74:1) ice
3	1	0449528001	Protection right	
4	1	0218810183	Insulated hand wheel	
5	1	0145787880	Fine wire straightener for twin wire	
6	1	0449498880	Junction box complete	
7	1	0218518201	Clamp	
8	1	0822622001	Attachment	
9	7	0192238453	Screw	m8x25
10	2	0192238522	Screw	m10x180
12	2	0415032005	Guide tube	l=535 mm
13	1	0822575880	Clamp cwf	
14	1	0417959902	Contact device	l=400 ice
15	1	0457713001	Bar	
16	1	0190452178	Washer	m12
17	1	0212101630	Screw	m12x40
18	3	0212601110	Nut	m10
19	1	0212101608	Screw	m10x40 steel 8.8
20	1	0215100031	Washer	d30/17x3
21	1	0212101650	Screw	m16x30 steel 8.8
22	1	0215100023	Washer	10,5x22 steel hb-20
23	1	0192238325	Screw	m5x10
24	1	0215100011	Washer	d10/5,3x1
25	1	0801822880	Wire guide bracket	



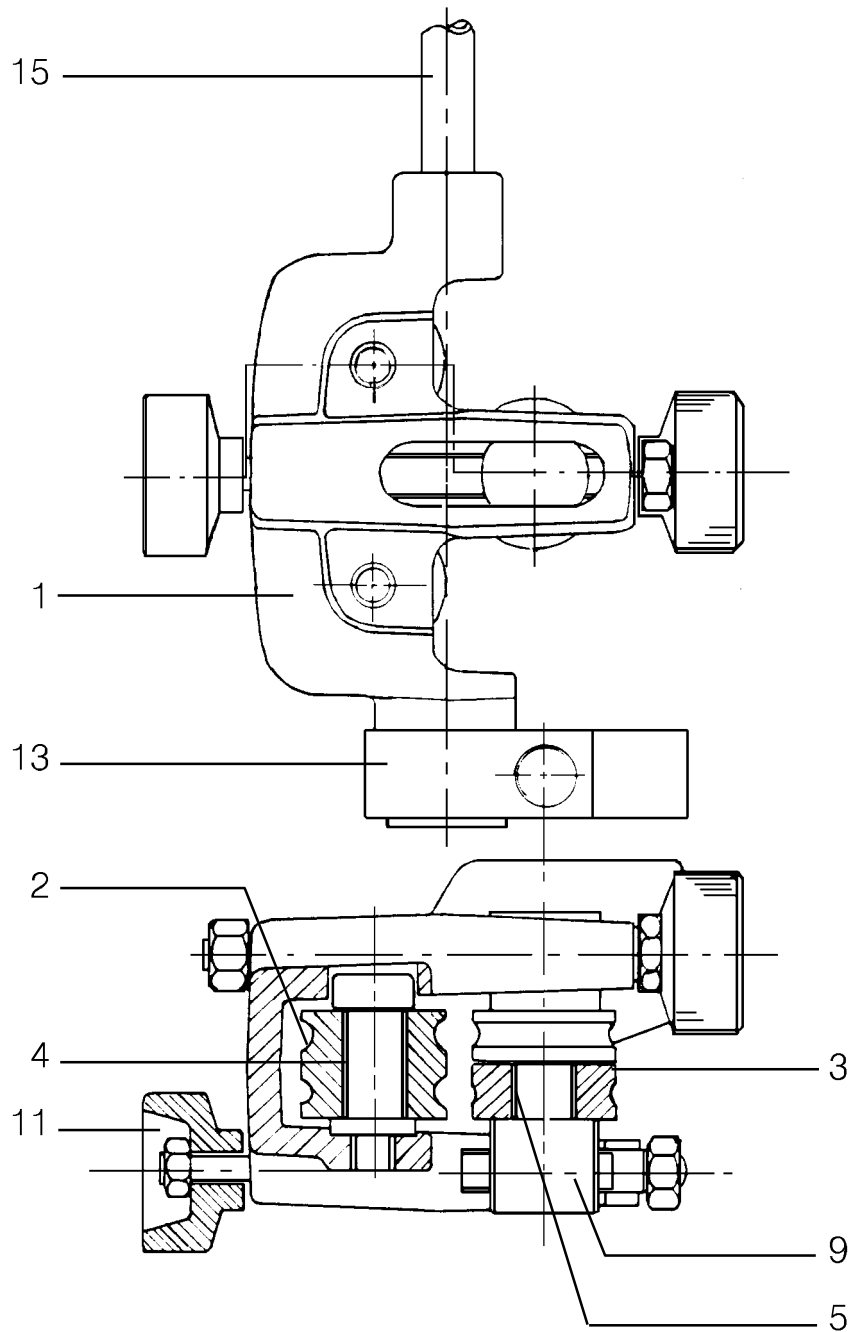
Item no.	Qty	Ordering no.	Denomination	Notes
		0147639892	Wire straightener twin	A6 D35 TWIN (74:1) ICE, RIGHT D35
1	1	0156449001	Clamp	a6
2	1	0212101618	Screw	m10x100
3	1	0215100023	Washer	10,5x22 steel hb-20
4	1	0215503601	Insulating collar	
6	1	0212900001	Fixing screw	a6
7	2	0215201209	O-ring	11,3x2,4
8	1	0218400801	Arm	a6/a2
9	1	0218810181	Insulated hand wheel	a6
12	1	0218524580	Pressure roller twin	a6
14	1	0415498001	Thrust roller carrier (top)	a2/a6
15	1	0212902601	Spacing screw	a6
30	1	0212601110	Nut	m10
31	9	0193500107	Washer	22/13x2
32	1	0443514001	Warning sign	



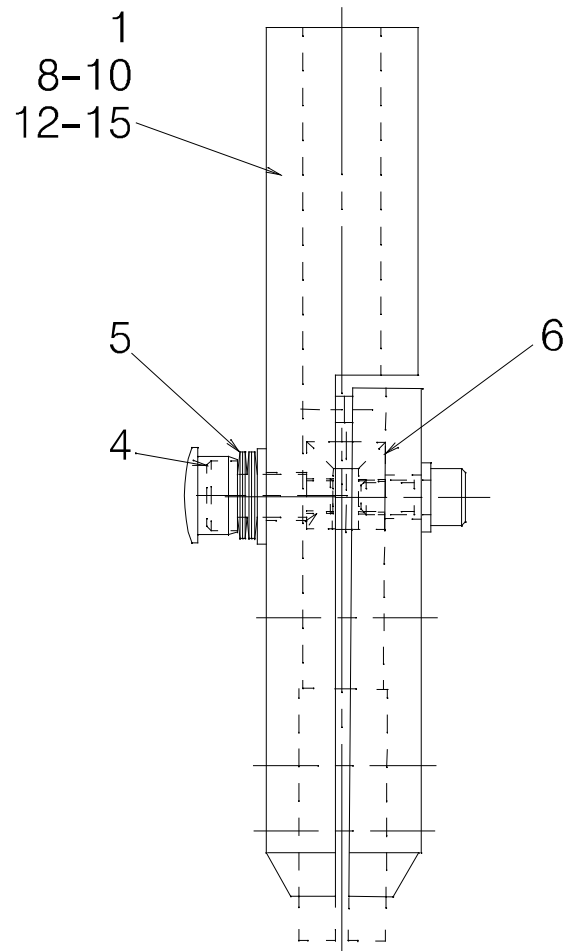
Snitt A-A / Cut A-A



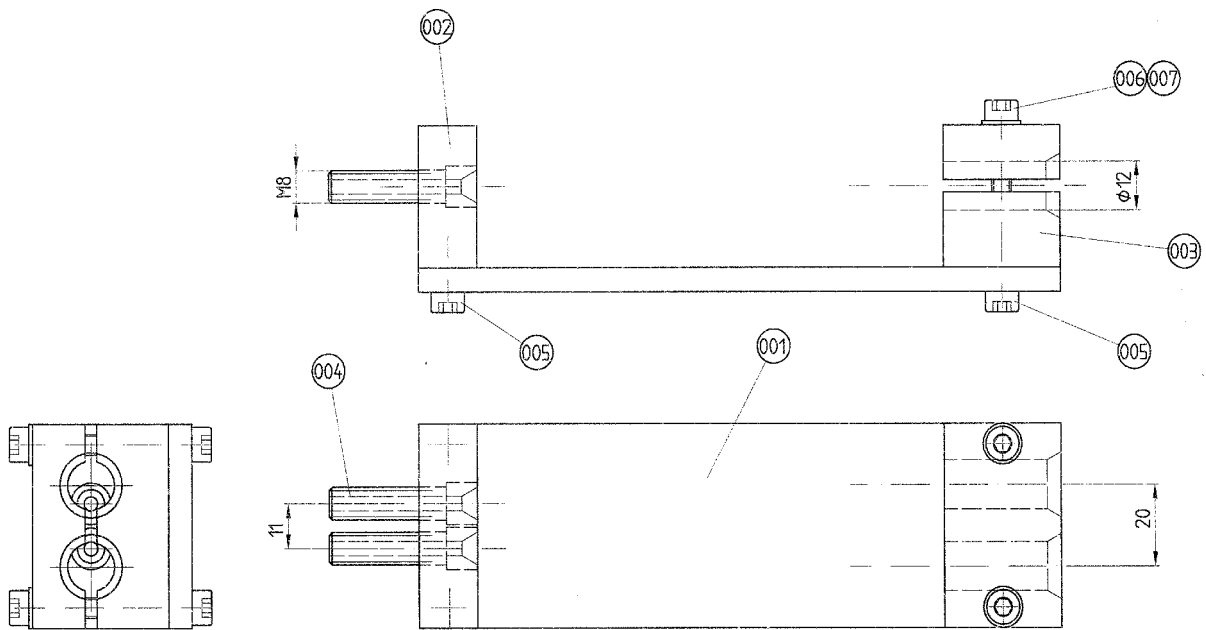
Item no.	Qty	Ordering no.	Denomination	Notes
		0145787880	Fine wire straightener for twin wire	
1	1	0145788001	Case	D12/10
2	2	0145789001	Roller	
3	2	0145790001	Roller	
4	2	0145791001	Searing bushing	
5	2	0190240103	Bearing bushing	
9	2	0145793001	Runner	
11	2	0145794001	Knob	
13	1	0145795001	Link	
15	1	0151287001	Hose	



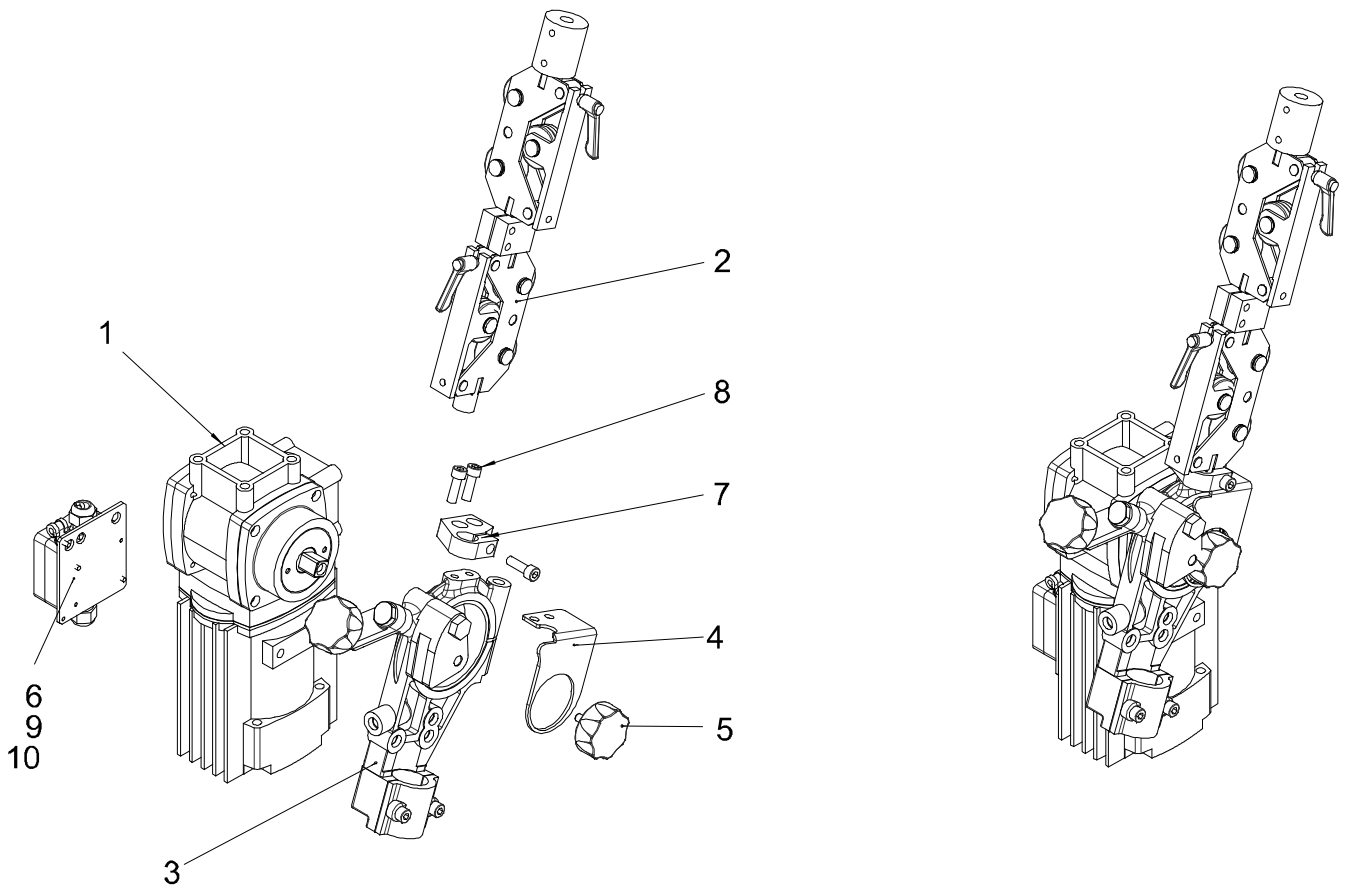
Item no.	Qty	Ordering no.	Denomination	Notes
		0417959902	Contact device	L=400 ICE
2	1	0215100103	Washer	d16/8,4x3
3	1	0192238449	Screw	
4	1	0443372001	Fitting bolt	
5	4	0219504307	Cup spring	d 20/10.2 x 1.1
6	1	0417979003	Ring	
7	1	0215100023	Washer	10,5x22 stål hb-20
9	1	0443344882	contact tube	l=400
11	1	0443374001	Protecting plug	



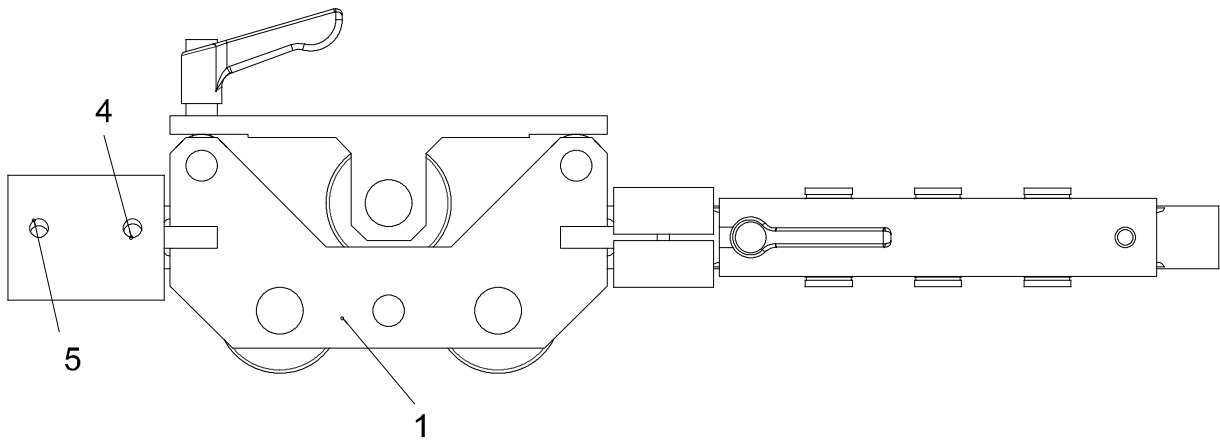
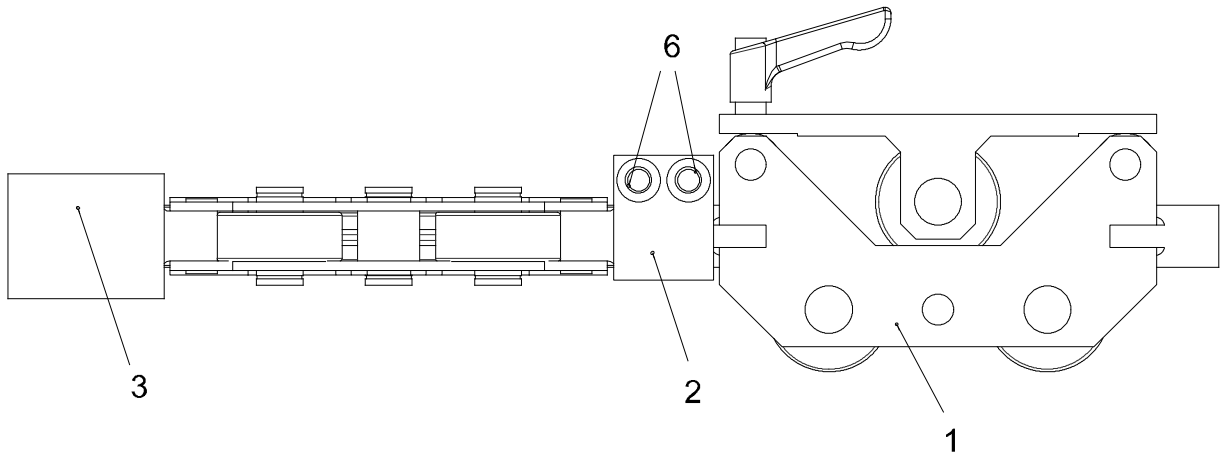
Item no.	Qty	Ordering no.	Denomination	Notes
		0801822880	Wire guide bracket	
1	1	0801823001	Palet	
2	1	0801824001	bracket	
3	1	0801825001	bracket	
4	2	0396450001	Guide screw	
5	4	0192238327	Screw	in6 steel 8.8 m5x12
6	2	0192238333	Screw	in6 8.8 m5x25 m5x25
7	2	0215100011	Washer	brb d10/5,3x1



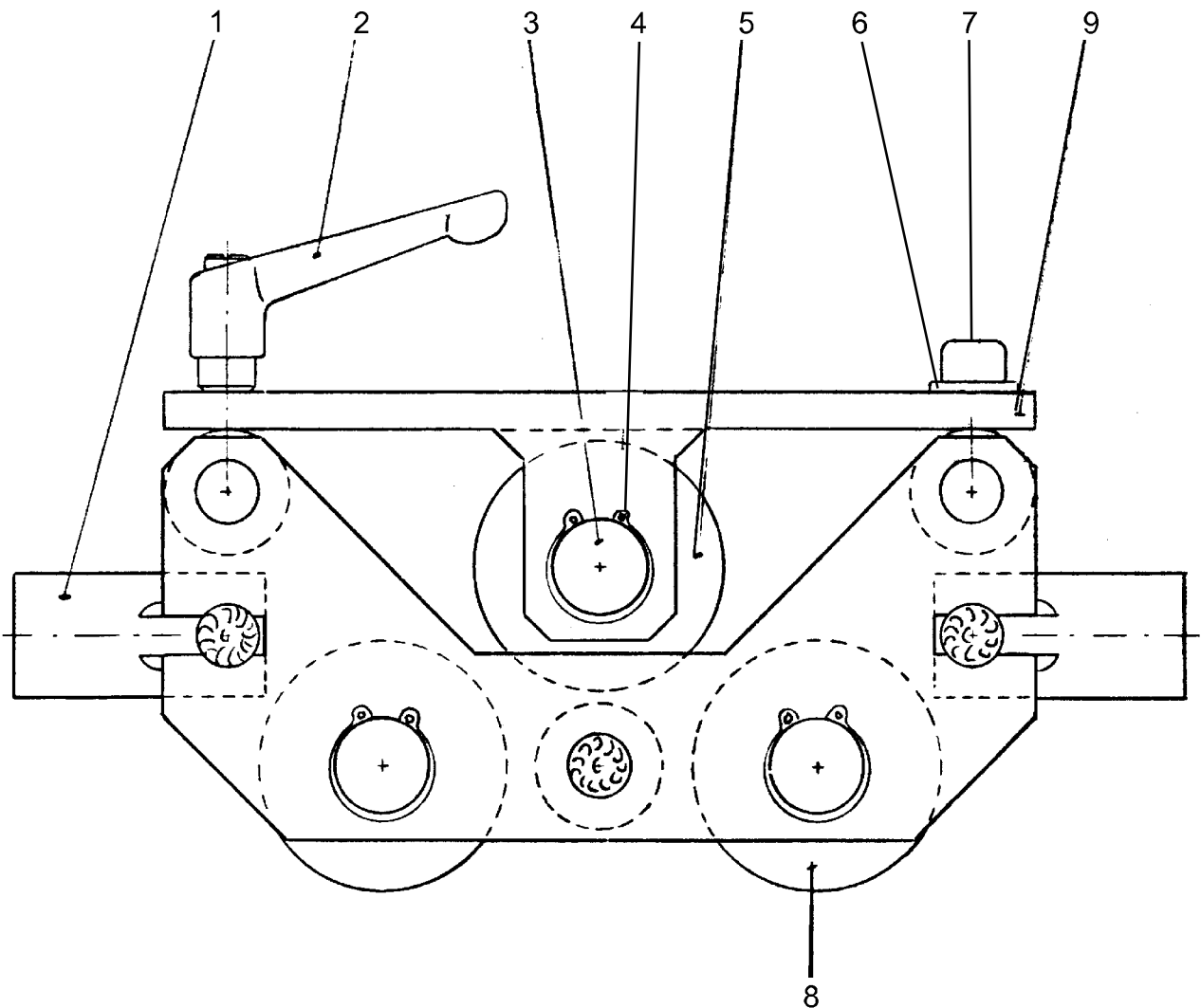
Item no.	Qty	Ordering no.	Denomination	Notes
		0824033880	ICE cold wire feeder	
1	1	0145063907	Geared motor	a6 VEC, see separate manual
2	1	0823227880	Straightener single assembly	
3	1	0147639880	Wire straightener	a6 d35
4	1	0449528001	Protection right	a2/a6
5	1	0218810183	Insulated hand wheel	a6
6	1	0449498880	Junction box complete	a6
7	1	0145795001	Link	a6
8	3	0192238453	Screw	m8x25
9	2	0215100023	Washer	10,5x22 steel hb-20
10	2	0192238489	Screw	m10x16 steel 8.8 f



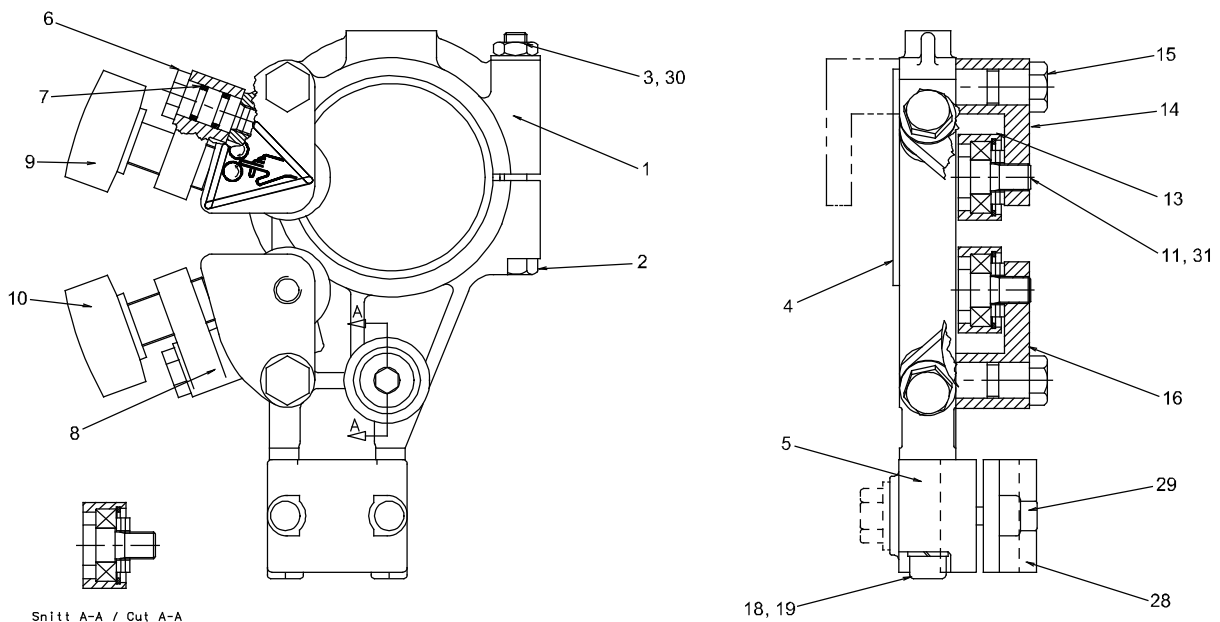
Item no.	Qty	Ordering no.	Denomination	Notes
		0823227880	Straightener single Assembly	
1	2	0334967880	Heavy duty wire straightener	a6
2	1	0413453001	Clamp	steel
3	1	0815721003	Wire liner attachment	för ø20 kontaktdon
4	1	0212204506	Screw stop	m6x16
5	1	0190511370	Screw stop	m6x20
6	2	0192238453	Screw	m8x25



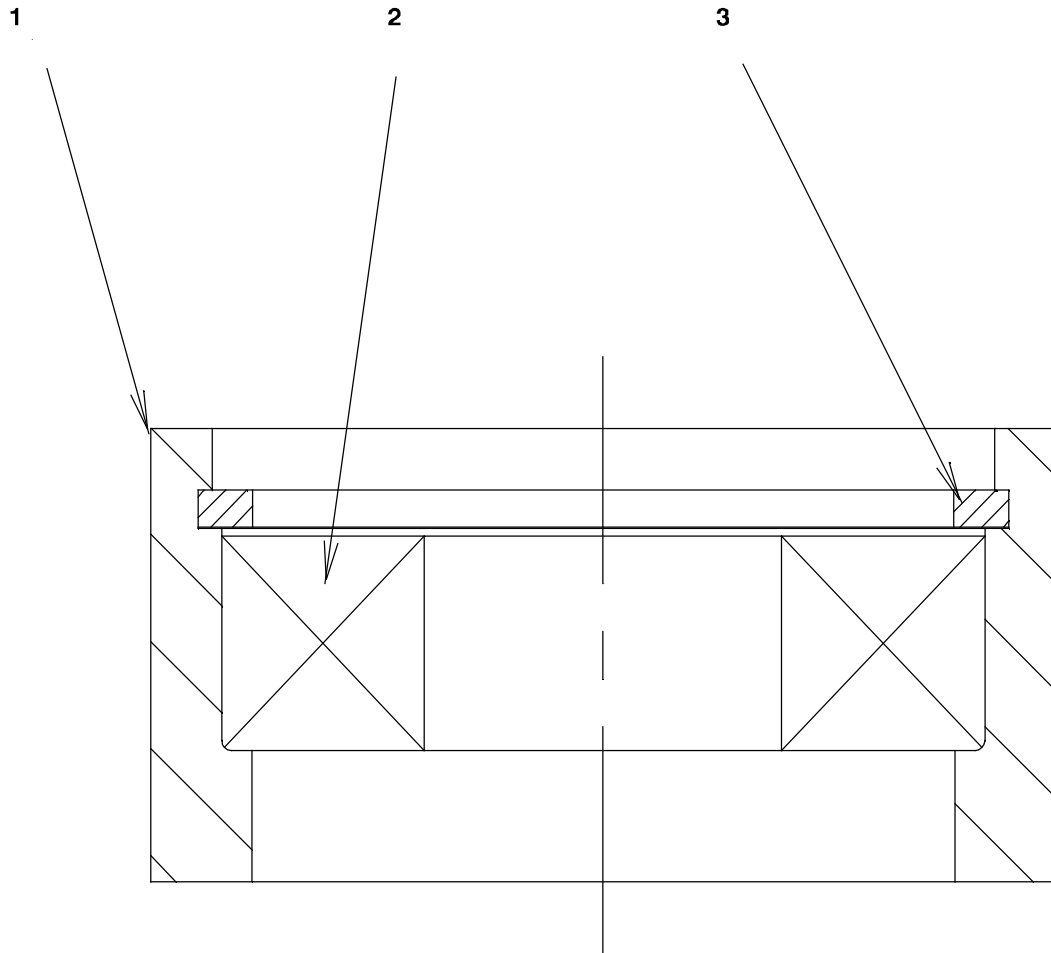
Item no.	Qty	Ordering no.	Denomination	Notes
		0334967880	Heavy Duty Wire Straightener	
1	1	0334968880	Housing	
2	1	0193570117	Locking lever	M6x25
3	3	0334974001	Shaft	
4	6	0215701012	Lock ring	D15
5	1	0413546001	Idling roller	
6	1	0215100013	Washer	12x6,4x1,5
7	1	0192238374	Screw	M6x30
8	2	0192039102	Idling roller	SKF 305702
9	1	0334969001	Clamp	



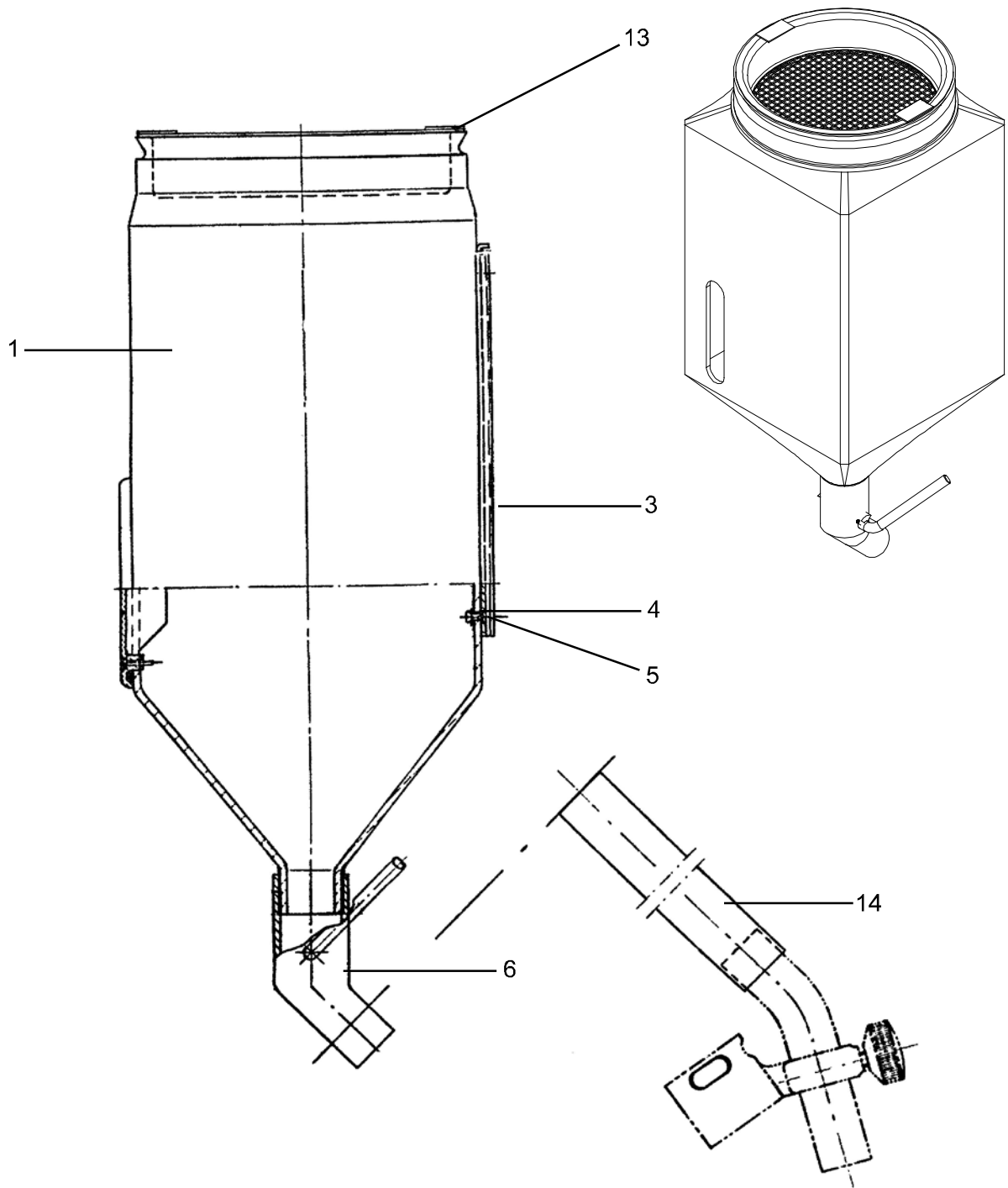
Item no.	Qty	Ordering no.	Denomination	Notes
		0147639880	Wire straightener(right mounted)	
1	1	0156449001	Attachment	
2	1	0212101618	Screw	M10x100
3	1	0215100023	Washer	22/10,5x2
4	1	0215503601	Insulating sleeve	
5	1	0156530001	Clamp half	D35
6	2	0212900001	Spacer screw	
7	4	0215201209	Sealing, O-ring	D11.3x2.4
8	2	0218400801	Pressure roller arm	
9	1	0218810181	Handwheel, insulated	
10	1	0218810182	Handwheel, insulated	
11	3	0332408001	Stub shaft	
13	3	0153148880	Pressure roller, free running	
14	1	0415498001	Pressure roller, upper	
15	2	0212902601	Spacer screw	
16	1	0415499001	Pressure roller, lower	
18	2	0192238503	Screw	M10x60
19	2	0219501013	Spring washer	D18.1/10.2
28	1	0156531001	Clamp half	D35
29	2	0192238455	Screw	M8x30
30	1	0212 601110	Nut	M10
31	9	0193500107	Washer	22/13x2



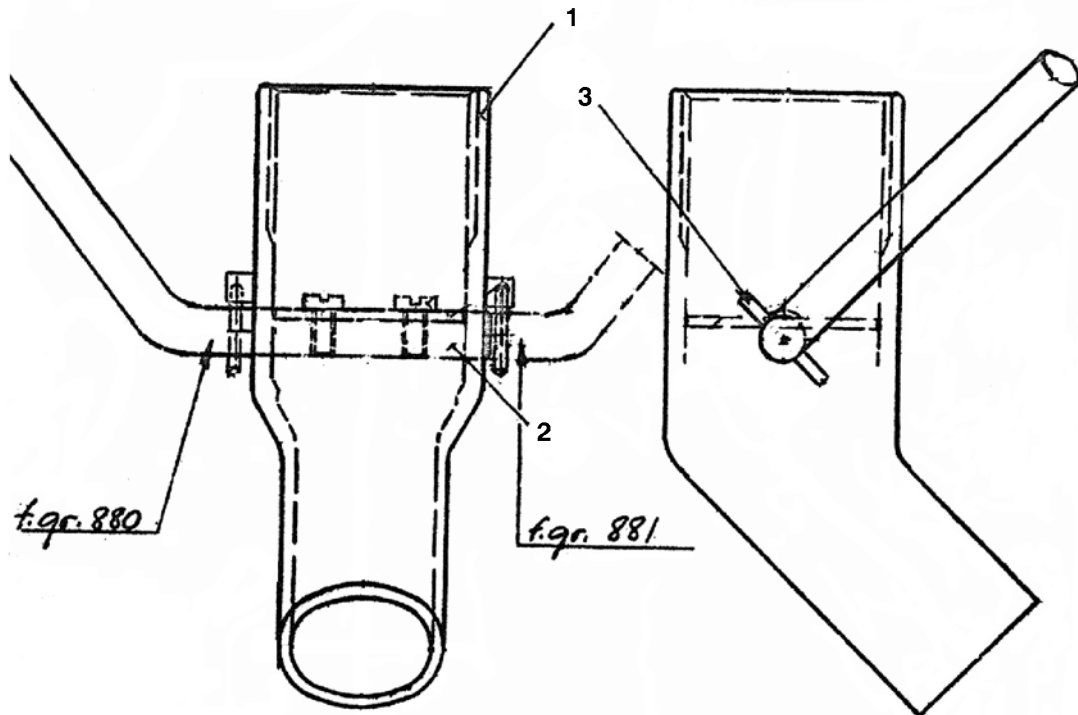
Item no.	Qty	Ordering no.	Denomination	Notes
		0153148880	Pressure roller, free running	
1	1	0147632001	Roller	
2	1	0190726002	Ball bearing	
3	1	0215701117	Lock ring	D32



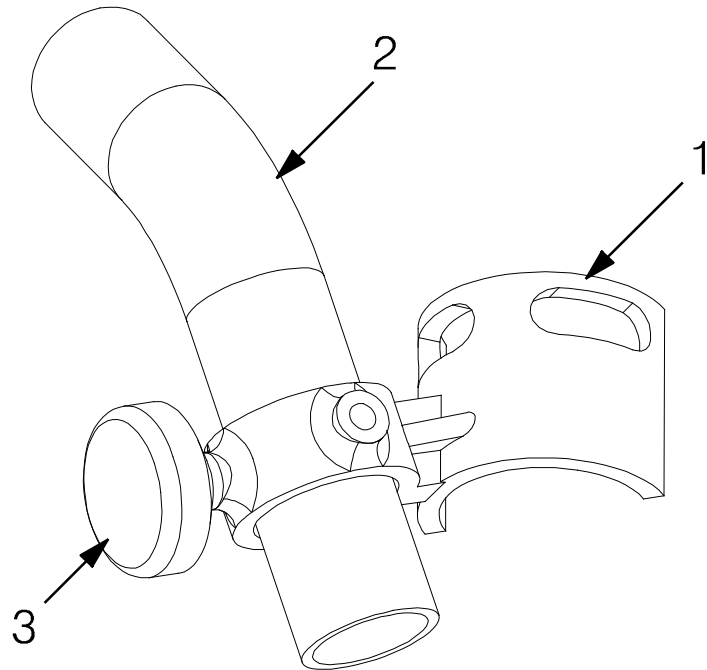
Item no.	Qty	Ordering no.	Denomination	Notes
		0147649882	Flux Hopper	10l
1	1	0154007002	Flux hopper	
3	1	0147645001	Mounting	
4	4	0215100010	Washer	D8/4,3x0,8
5	4	0191898108	Rivet	D4x11
6	1	0153347880	Flux valve	
13	1	0020301780	Flux strainer	
14	1	0443383002	Flux hose	L=500



Item no.	Qty	Ordering no.	Denomination	Notes
		0153347880	Flux valve	
1	1	0153348001	Outlet	
2	1	0153349001	Shaft	
3	1	0211102938	Roll pin	d 3x20

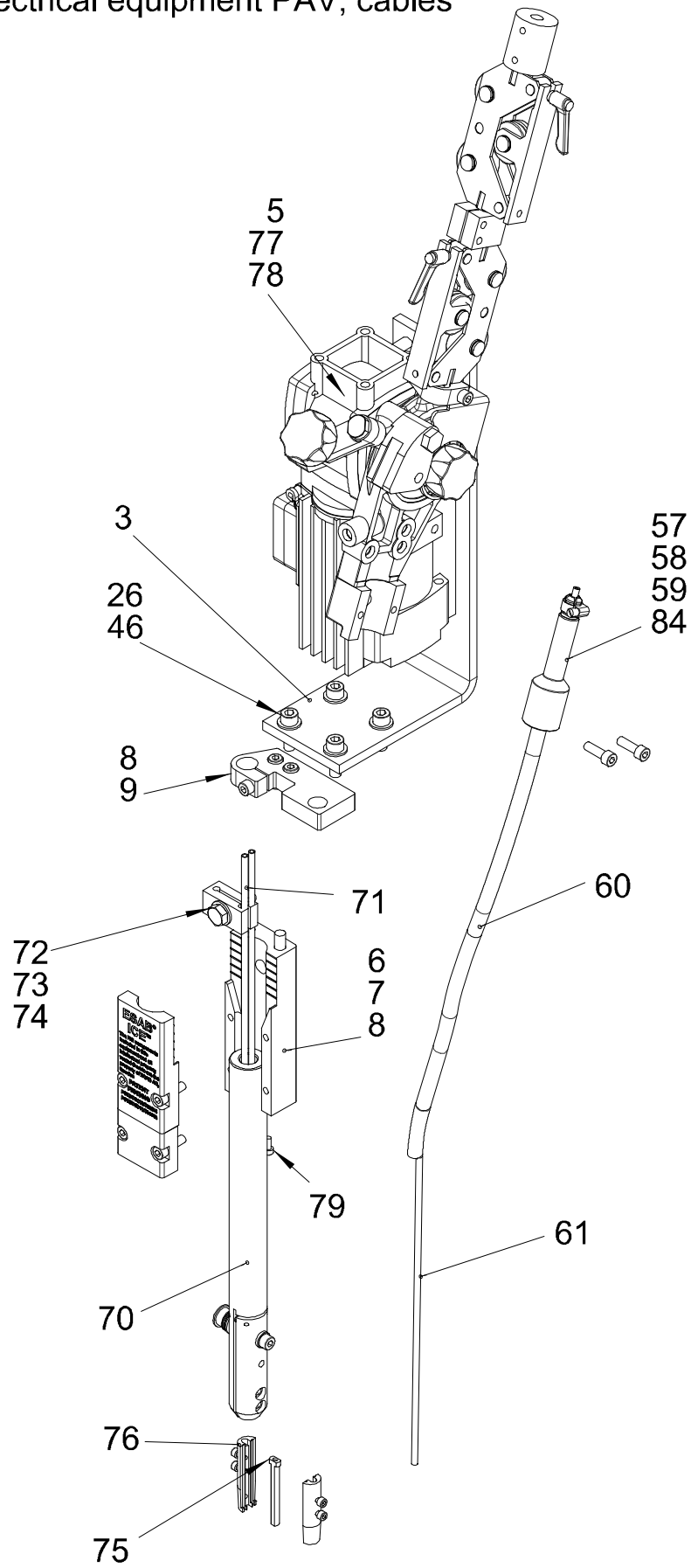


Item no.	Qty	Ordering no.	Denomination	Notes
		0153299880	Flux nozzle complete	
1	1	0153290002	Holder for flux pipe	
2	1	0153296001	Flux pipe, bent	
3	1	0153425001	Wheel	

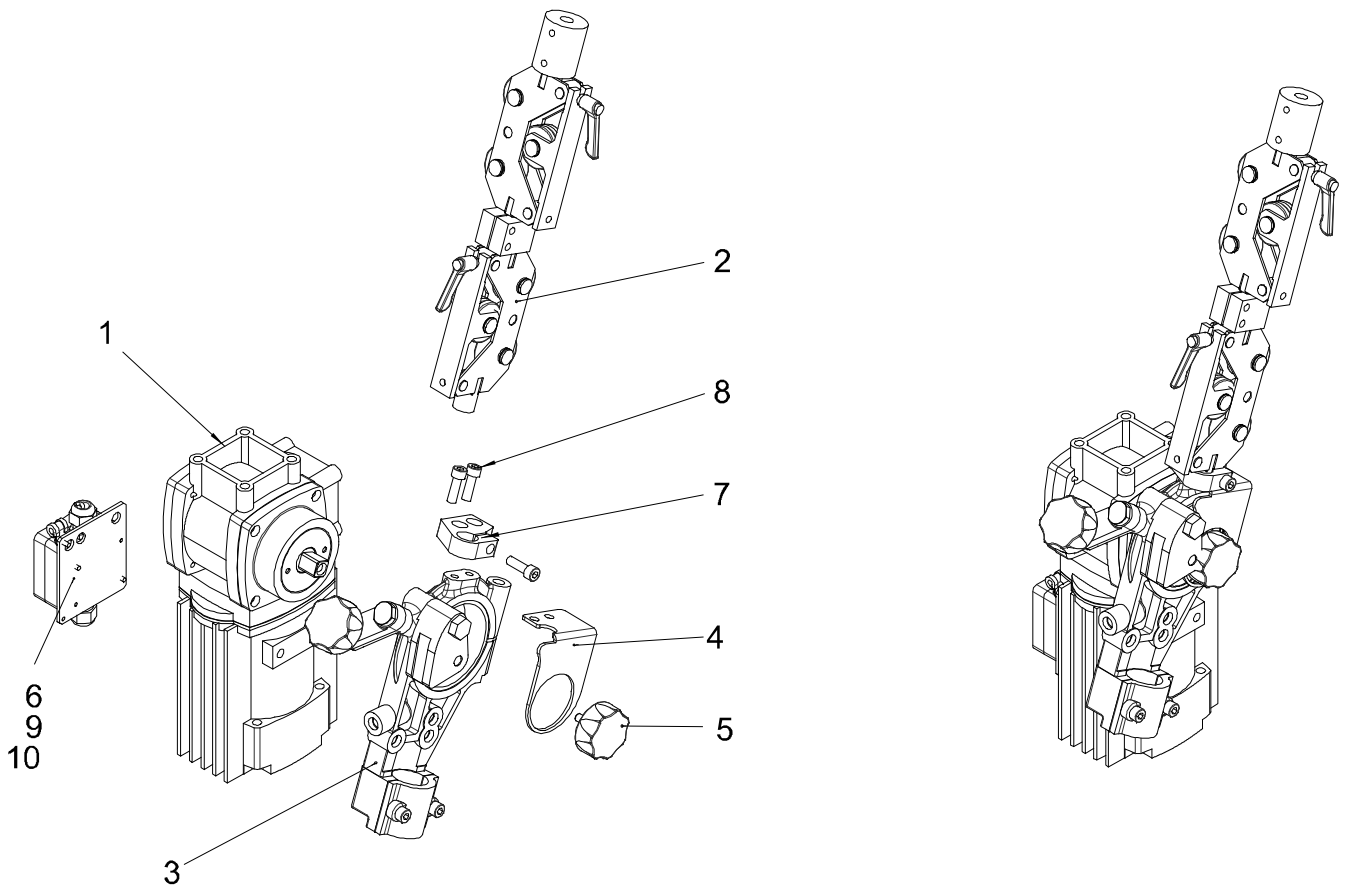


Item no.	Qty	Ordering no.	Denomination	Notes
		0824360881	Retrofit kit ICE Twin	Twin
3	1	0819770001	Bracket motor	
5	1	0824033880	ICE cold wire feeder	
6	1	0822575880	Clamp	
7	2	0192238522	Screw	m10x180
8	7	0192238453	screw	m8x25
9	1	0822622001		
26	8	0192238495	Screw	m10x30
46	8	0215100023	Washer	10,5x22 stål hb-20
57	1	0824037001	Wire liner socket	pg7
58	1	0212204502	Stop screw	m6x8
59	1	0825609001	Liner grip	
60	1	0821696001	Wire liner	dia 7/14
61	1	0824038001	Teflon wire liner	ptfe ice
70	1	0417959902	Contact device	l=400 ice
71	2	0415032005	Guide tube	l=535 mm
72	1	0218518201	Clamp	a6
73	1	0190452178	Washer	m12
74	1	0212101630	Screw	m12x40
75	3	0819883001	Ceramic sleeve	
76	3	0819882880	Contact jaw	
77	1	0218510283	Feed roller	2.5mm (a2/a6)
78	1	0153148880	Pressure roller, free running	a6
79	1	0192238327	Screw	m5x12
80	1	0460502880	PAV without control panel	See separate manual
81	1	0460907881	Motor cable	5m
82	1	0460908881	Encoder cable	5m
83	1	0820994880	CAN communication cable PEK-PAV	
84	1	0252900403	Hose clip	gemi 10-16

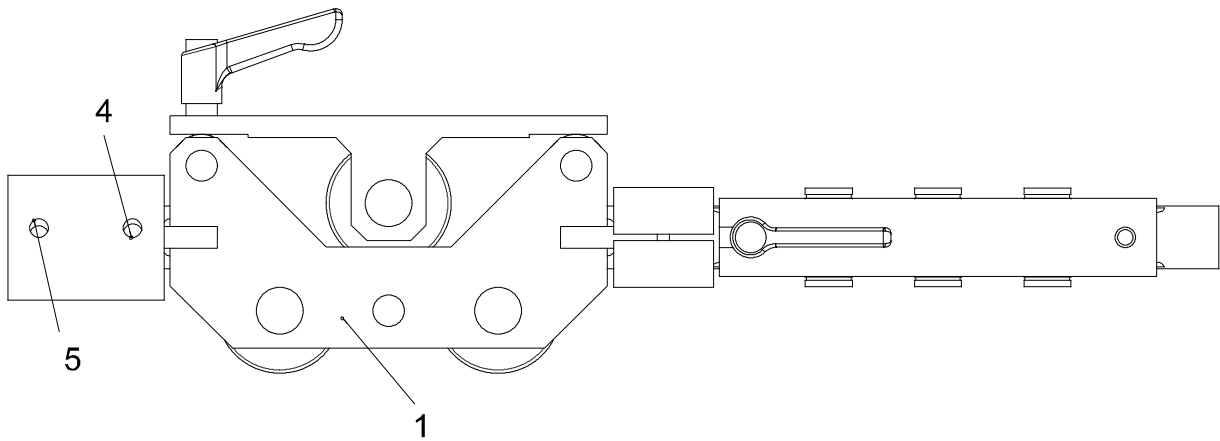
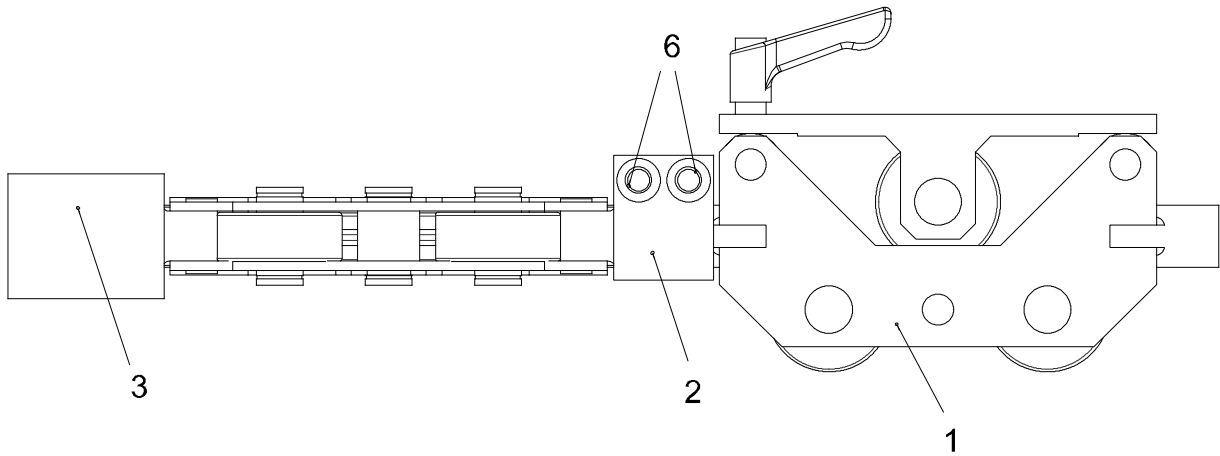
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 81 Electrical equipment PAV, cables
 82
 83



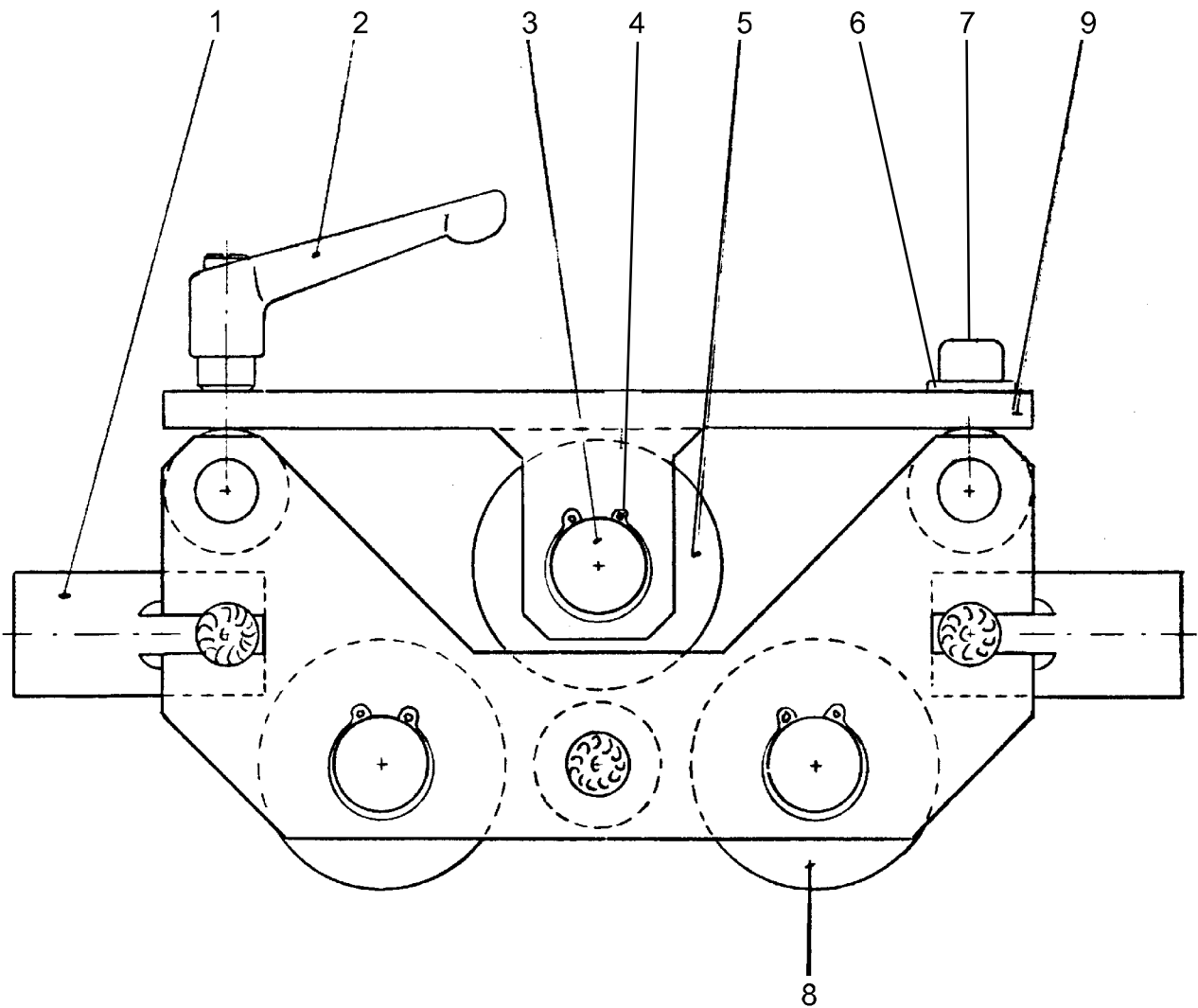
Item no.	Qty	Ordering no.	Denomination	Notes
		0824033880	ICE cold wire feeder	
1	1	0145063907	Geared motor	a6 VEC, see separate manual
2	1	0823227880	Straightener single assembly	
3	1	0147639880	Wire straightener	a6 d35
4	1	0449528001	Protection right	a2/a6
5	1	0218810183	Insulated hand wheel	a6
6	1	0449498880	Junction box complete	a6
7	1	0145795001	Link	a6
8	3	0192238453	Screw	m8x25
9	2	0215100023	Washer	10,5x22 steel hb-20
10	2	0192238489	Screw	m10x16 steel 8.8 f



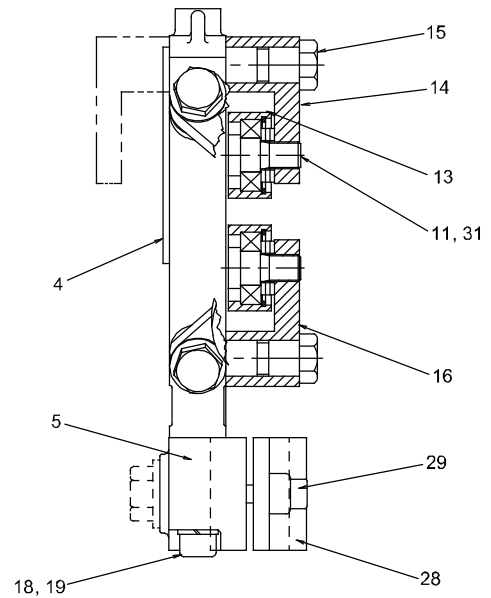
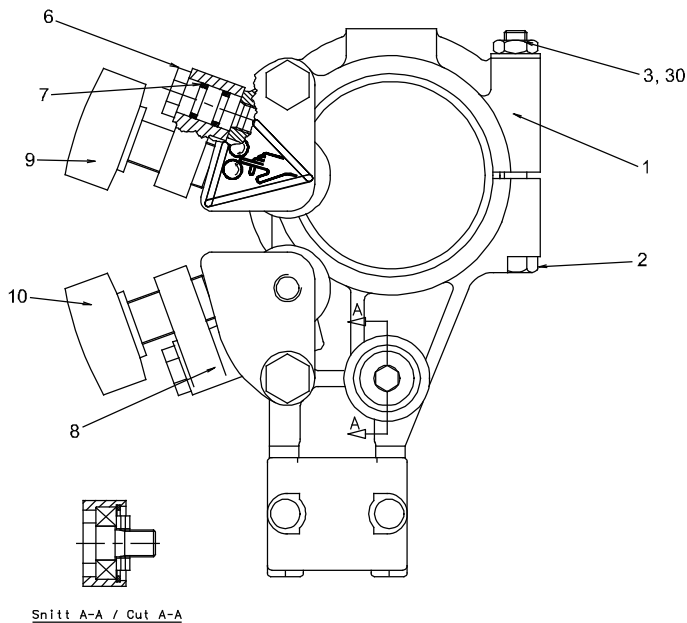
Item no.	Qty	Ordering no.	Denomination	Notes
		0823227880	Straightener single Assembly	
1	2	0334967880	Heavy duty wire straightener	a6
2	1	0413453001	Clamp	steel
3	1	0815721003	Wire liner attachment	för ø20 kontaktdon
4	1	0212204506	Screw stop	m6x16
5	1	0190511370	Screw stop	m6x20
6	2	0192238453	Screw	m8x25



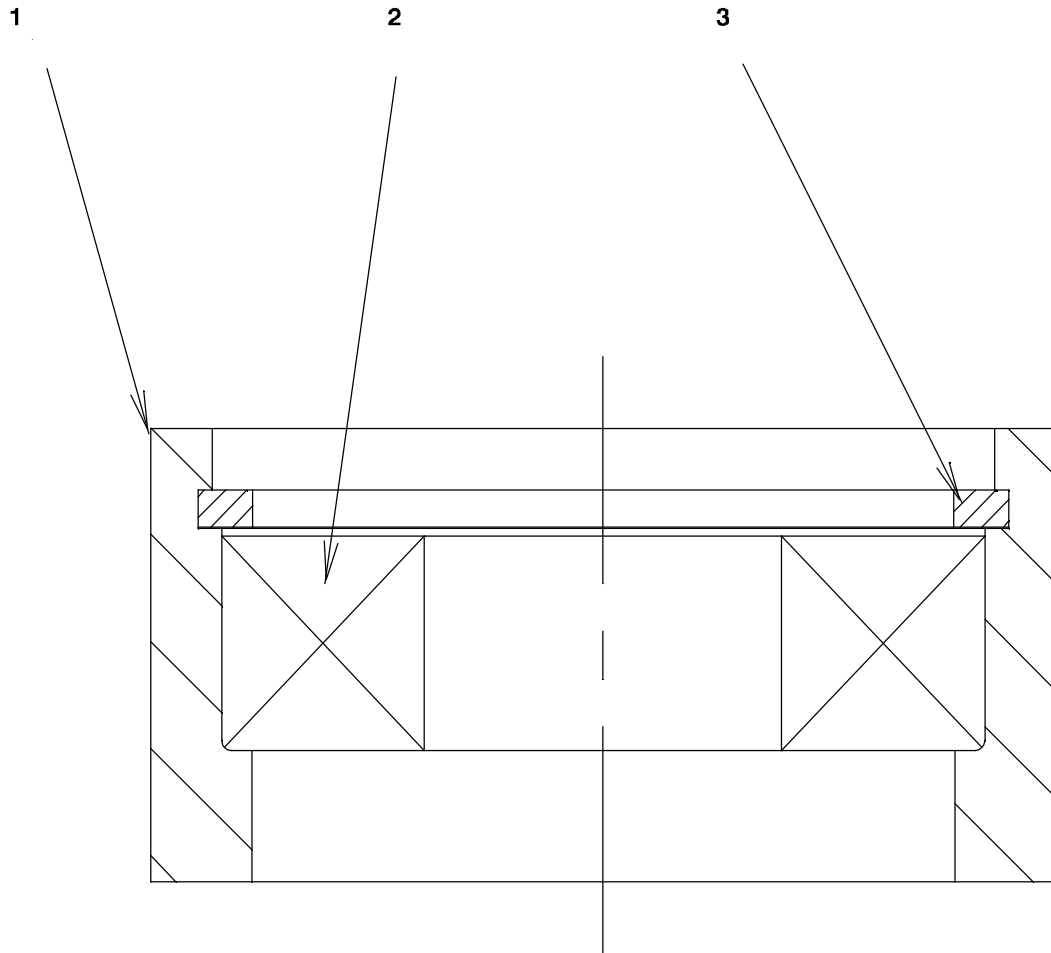
Item no.	Qty	Ordering no.	Denomination	Notes
		0334967880	Heavy Duty Wire Straightener	
1	1	0334968880	Housing	
2	1	0193570117	Locking lever	M6x25
3	3	0334974001	Shaft	
4	6	0215701012	Lock ring	D15
5	1	0413546001	Idling roller	
6	1	0215100013	Washer	12x6,4x1,5
7	1	0192238374	Screw	M6x30
8	2	0192039102	Idling roller	SKF 305702
9	1	0334969001	Clamp	



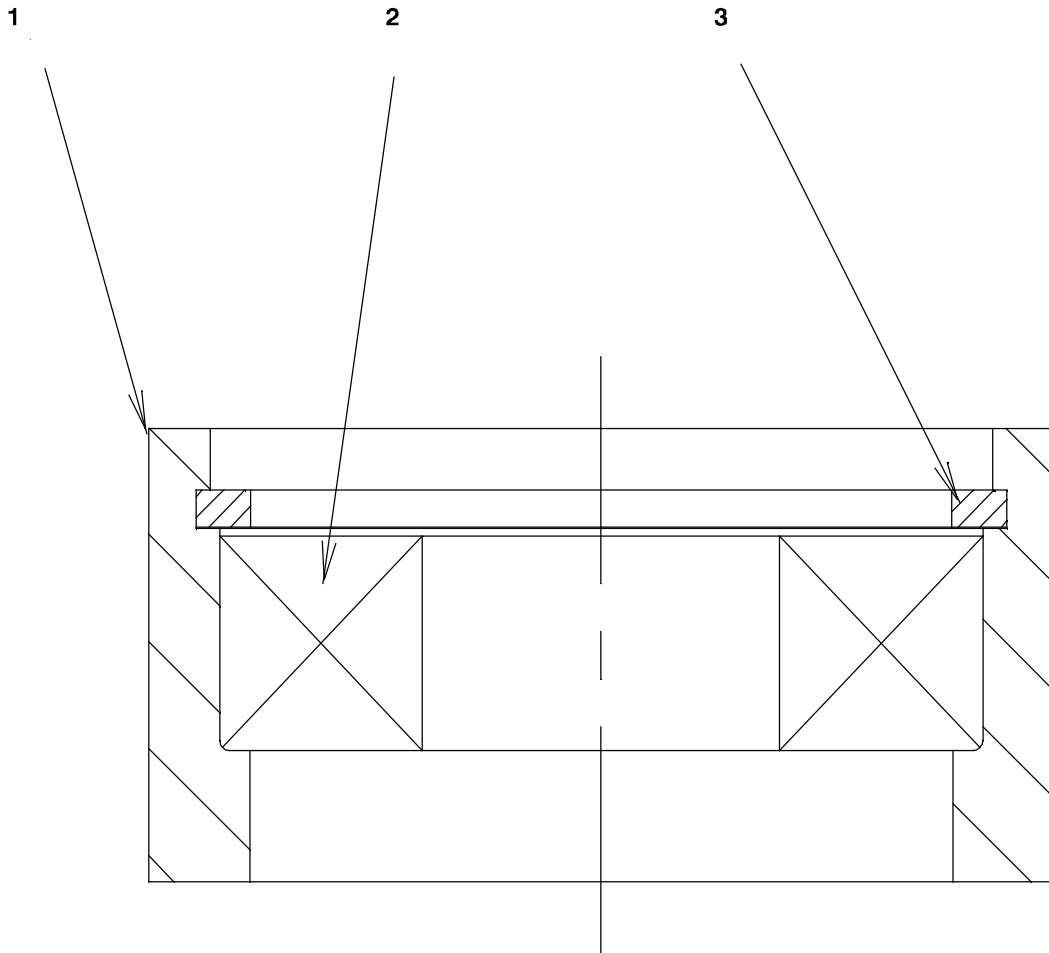
Item no.	Qty	Ordering no.	Denomination	Notes
		0147639880	Wire straightener(right mounted)	
1	1	0156449001	Attachment	
2	1	0212101618	Screw	M10x100
3	1	0215100023	Washer	22/10,5x2
4	1	0215503601	Insulating sleeve	
5	1	0156530001	Clamp half	D35
6	2	0212900001	Spacer screw	
7	4	0215201209	Sealing, O-ring	D11.3x2.4
8	2	0218400801	Pressure roller arm	
9	1	0218810181	Handwheel, insulated	
10	1	0218810182	Handwheel, insulated	
11	3	0332408001	Stub shaft	
13	3	0153148880	Pressure roller, free running	
14	1	0415498001	Pressure roller, upper	
15	2	0212902601	Spacer screw	
16	1	0415499001	Pressure roller, lower	
18	2	0192238503	Screw	M10x60
19	2	0219501013	Spring washer	D18.1/10.2
28	1	0156531001	Clamp half	D35
29	2	0192238455	Screw	M8x30
30	1	0212 601110	Nut	M10
31	9	0193500107	Washer	22/13x2



Item no.	Qty	Ordering no.	Denomination	Notes
		0153148880	Pressure roller, free running	
1	1	0147632001	Roller	
2	1	0190726002	Ball bearing	
3	1	0215701117	Lock ring	D32



Item no.	Qty	Ordering no.	Denomination	Notes
		0153148880	Pressure roller, free running	
1	1	0147632001	Roller	
2	1	0190726002	Ball bearing	
3	1	0215701117	Lock ring	D32



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