



A6 OPC

Flux recovery unit

Instruction manual and spare parts list

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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 MANUFACTURERS' 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.

MALFUNCTION

- Call for expert assistance in the event of malfunction.

**READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE
INSTALLING OR OPERATING THE EQUIPMENT**

PROTECT YOURSELF AND OTHERS!

SAFETY

SAFETY

Users of ESAB automatic welding machines have ultimate responsibility for ensuring that anyone who works on or near the equipment observes all the relevant safety precautions.

The following recommendations should be observed in addition to the standard regulations that apply to the work place.

All work must be carried out according to the specified instructions by personnel who are thoroughly familiar with the operation of the welding machine.

Incorrect or unintentional operation of the equipment may lead to a hazardous situation which can result in injury to the operator and damage to the equipment.

1. Anyone who uses the automatic welding machine must be familiar with:
 - its operation
 - the location of emergency stops
 - its function
 - relevant safety precautions

To make this easier each switch, pushbutton or potentiometer is marked with a symbol or text that indicates its function when activated.

2. The operator must ensure that:
 - no unauthorized person is stationed within the working area of the machine when it is started up.
 - that no-one is in a hazardous position when the carriage or slide mechanisms are operated.
3. The work place must:
 - be clear of mechanical components, tools, or other obstructions that could prevent the operator from moving freely within the working area.
 - be organized so that there is free access to the emergency stop.
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, etc., which could become trapped.

5. General precautions

Live electrical components are normally shielded from accidental contact.

- Make sure the return cable is connected securely.
- Work on high voltage components 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 its operation.

TECHNICAL DESCRIPTION

The OPC flux recovery unit is intended for use on stationary and transportable welding units, where a small, compact flux recovery unit is needed,

Maximum permissible air pressure: 6 kp/cm²

Air consumption at various pressures:

kp/cm ²	4	5	6
liter/min	175	225	250

Rubber parts in the flux recovery unit can withstand temperatures encountered when using Greeted flux at up to 220°C and with workpiece temperatures not exceeding 350°C.
Note that a metal flux hopper must be used.

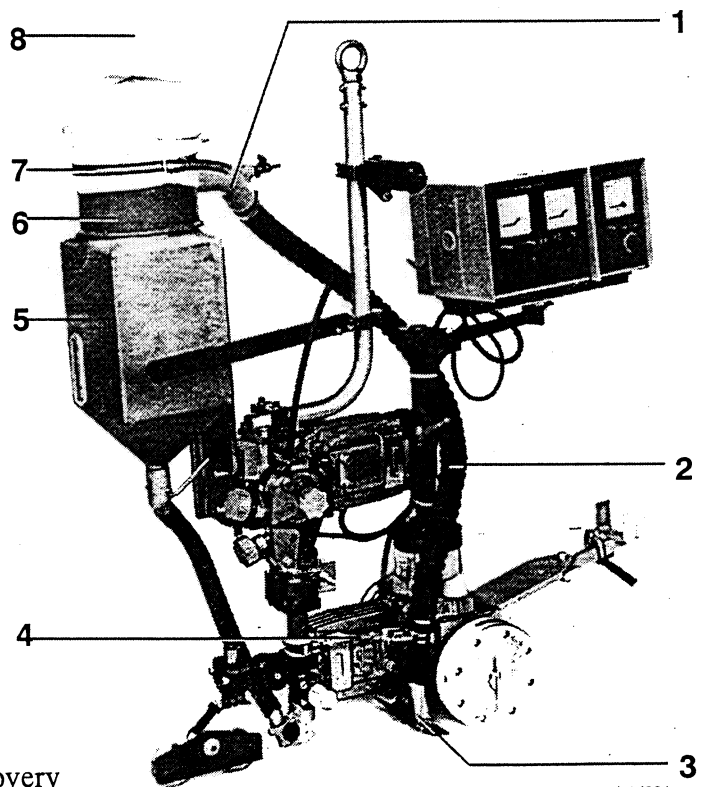
Suction capacity: see page 7.

The OPC flux recovery unit consists of:

1. Ejector, powered by compressed air.
The side of the ejector intended for connection to the cyclone is fitted with a flange.
Connections are provided on the other side of the ejector for the suction hose and compressed air hose 1/4".

2. Suction hose, connects the recovery unit to the suction nozzle.
3. Suction nozzle, available in four versions:
 - for normal butt welds
 - for larger butt welds
 - for fillet welds, left
 - for fillet welds, right

4. Nozzle bracket, holds the flux recovery nozzle in position above the weld.
5. Flux hopper, optional accessories.
6. Cyclone, for separating the recovered flux from the air and returning it to the flux hopper. Fitted above the flux hopper.
7. Securing strap
8. Filter bag

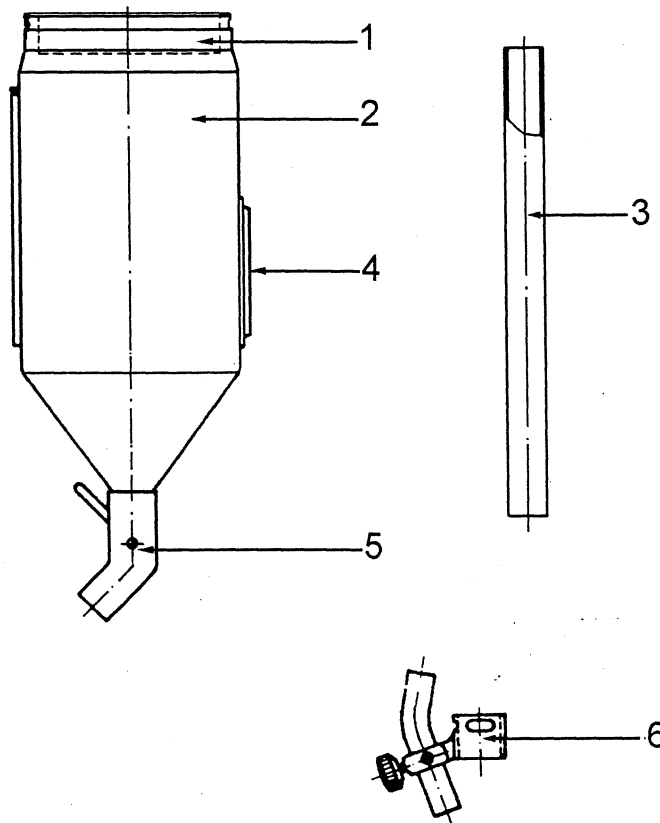


cgb4d001

TECHNICAL DESCRIPTION

The flux hopper consists of:

1. Flux strainer, separates slag from flux
2. Flux hopper (10 l)
3. Flux hose, 1" x 500 mm
4. Inspection window, for checking flux level
5. Manual flux valve
6. Adjustable flux outlet nozzle, for fitting to the welding head

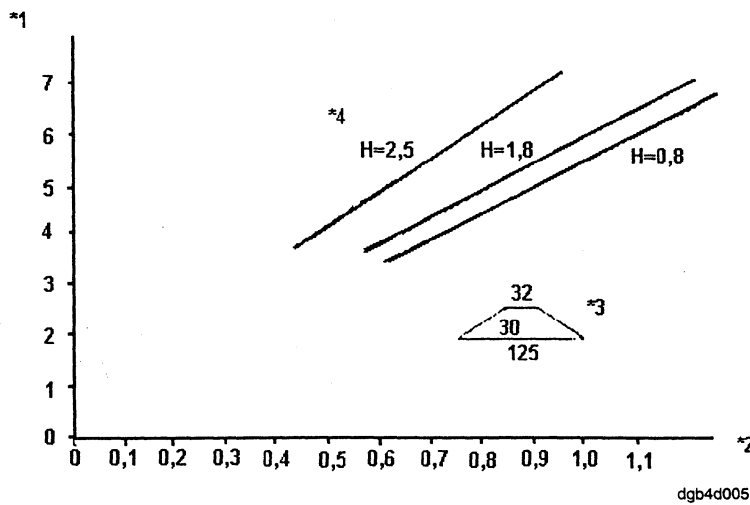
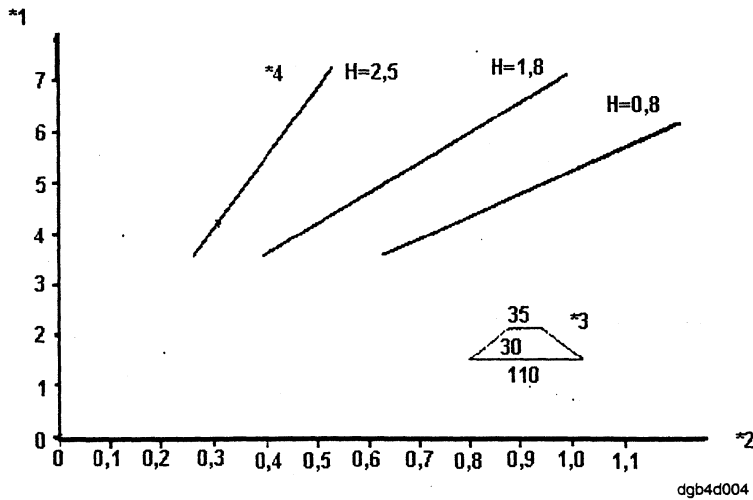


OPERATION

1. Check that the equipment is properly installed and that all hoses are secured.
2. Check that the flux valve is closed.
3. Fill the flux hopper with flux.
4. open the flux valve, allowing the flux to run down on to the weld joint through the supply nozzle.
5. Start welding and the suction unit at the same time. Unused flux will be sucked up through the suction nozzle and hose into the cyclone, where the flux will be separated from the slag. The flux falls through the strainer into the flux hopper, while the dust-laden air is cleaned by the filter bag before being discharged.
6. Dimension drawing: see on page 8.

MAINTENANCE

1. Check that the rubber lining of the cyclone is undamaged, and replace it if necessary.
2. Check that all gaskets and joints are sealing properly.
3. Replace the filter bag when indicated by suction effect falling off after about 3–5 working hours. Performance can be improved by shaking the filter bag clean between replacements.



- *1 Air pressure (bar)
- *2 Welding speed (m/min)
- *3 Flux area (mm)
- *4 H=Height of lift in m

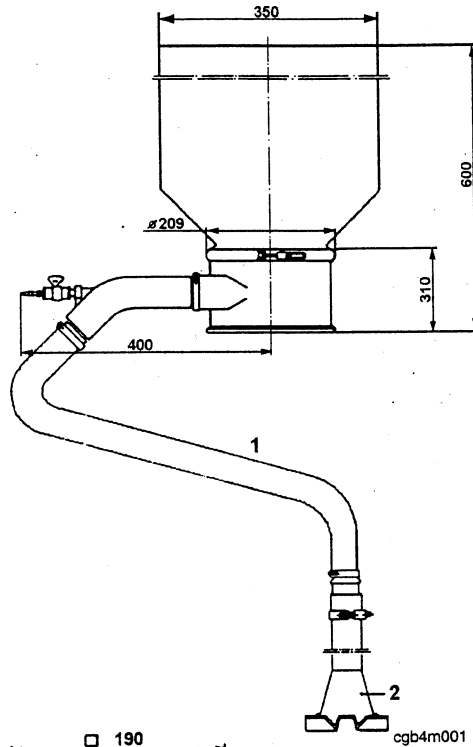
At a lifting head of 0.8 m, welding speed is not affected by the type of flux used.

Air pressure (kp/cm ²)	Lifting head (m)	Max. welding speed (m/h)
6	0.8	70
5	0.8	60
4	0.8	45

DIMENSION DRAWING

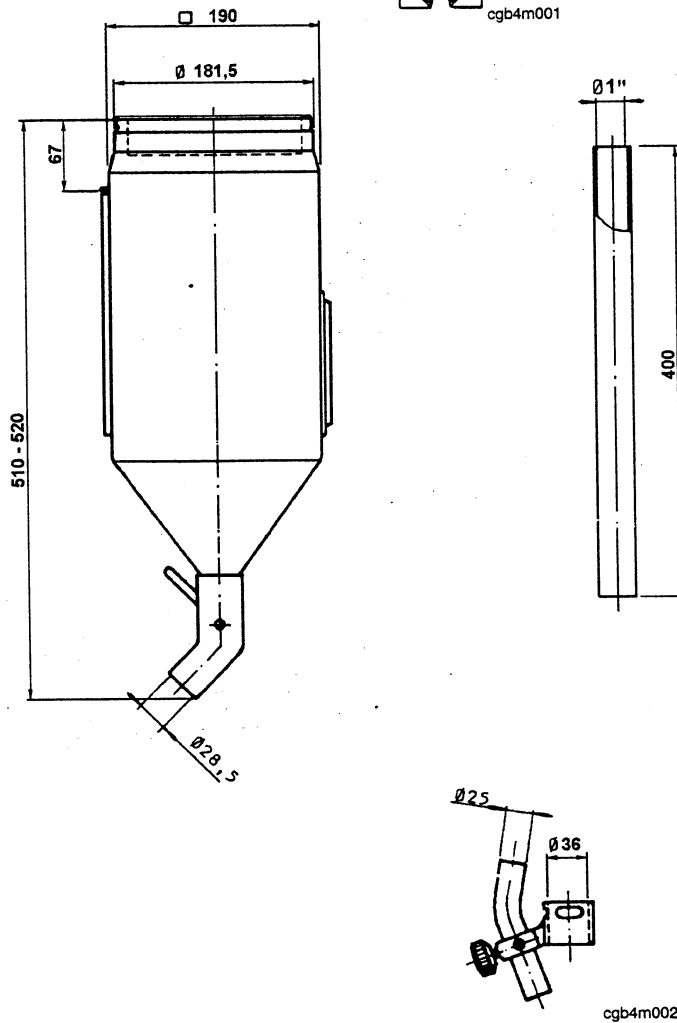
DIMENSION DRAWING

Flux recovery unit



1 Hose length 1000 mm
2 Nozzle length 210 mm

Flux hopper



Spare parts list

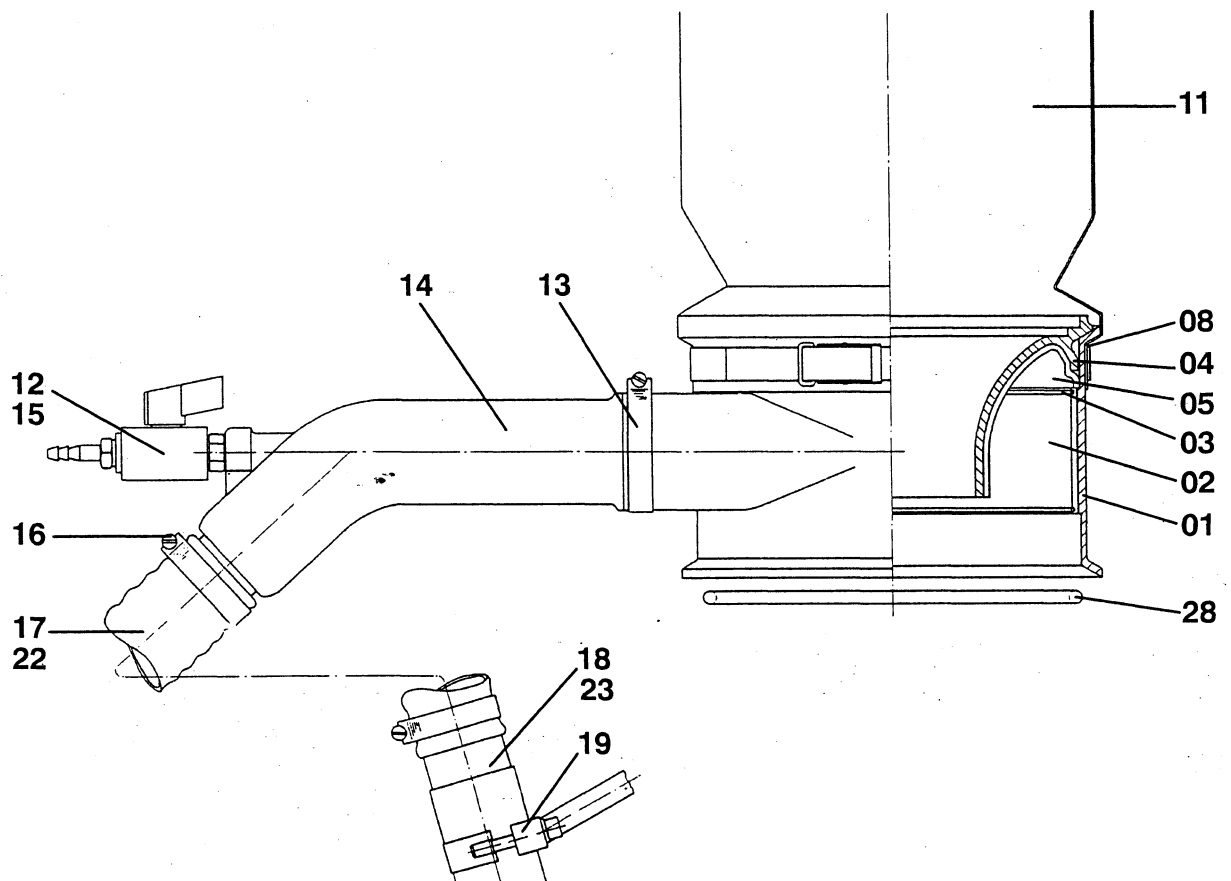
OPC

Edition 9805

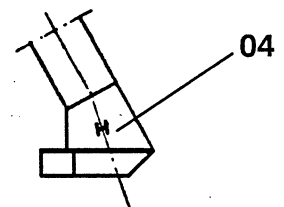
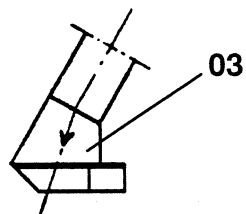
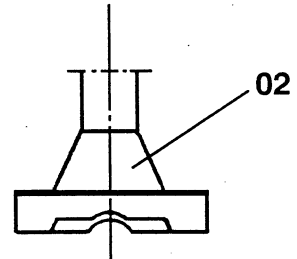
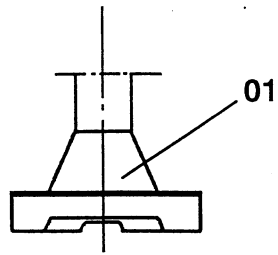
Spare parts are to be ordered through the nearest ESAB agency as per the list on the back of the cover. Kindly indicate type of unit, serial number, denominations and ordering numbers according to the spare parts list.

C = component designation in the circuit diagram

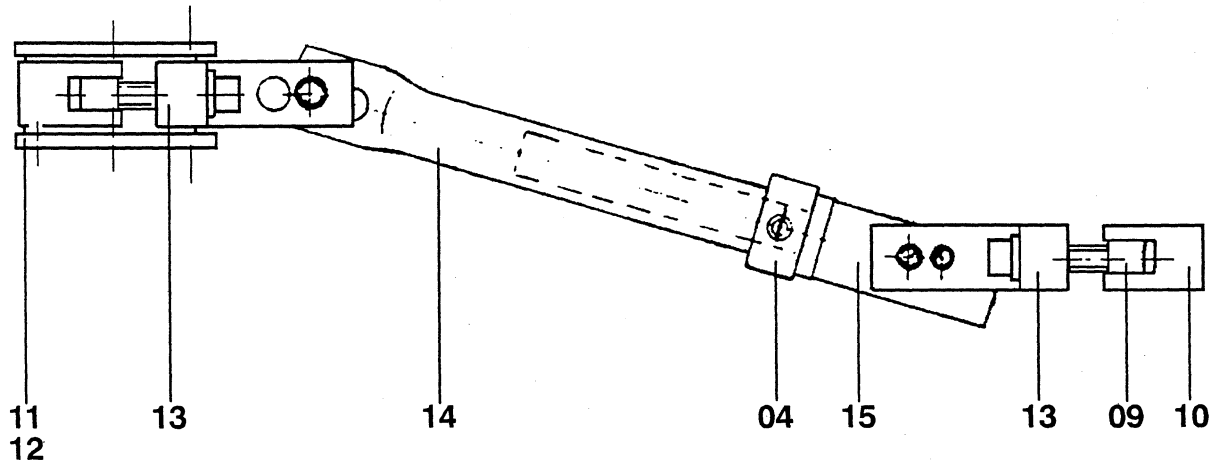
Item	Qty	Orderingno.	Denomination	Notes	C
		148 140-880	Flux recovery unit		
1	1	148 141-001	Cyclone		
2	1	145 073-001	Rubber lining (cyclone)		
3	2	145 815-001	Locking ring		
4	1	148 142-001	Funnel		
5	1	145 565-001	Rubber lining		
8	1	192 855-002	Securing strap		
11	2	155 966-001	Filter bag		
13	1	2529 004-11	Hose clamp		
14	1	147 640-880	Ejector		
15	1	145 824-881	Valve		
16	2	2529 004-09	Hose clamp		
17	1	191 813-801	Hose		
18	1	145 740-880	Suction nozzle		
19	1	147 384-881	Nozzle holder		
28	1	2152 013-45	O-ring		



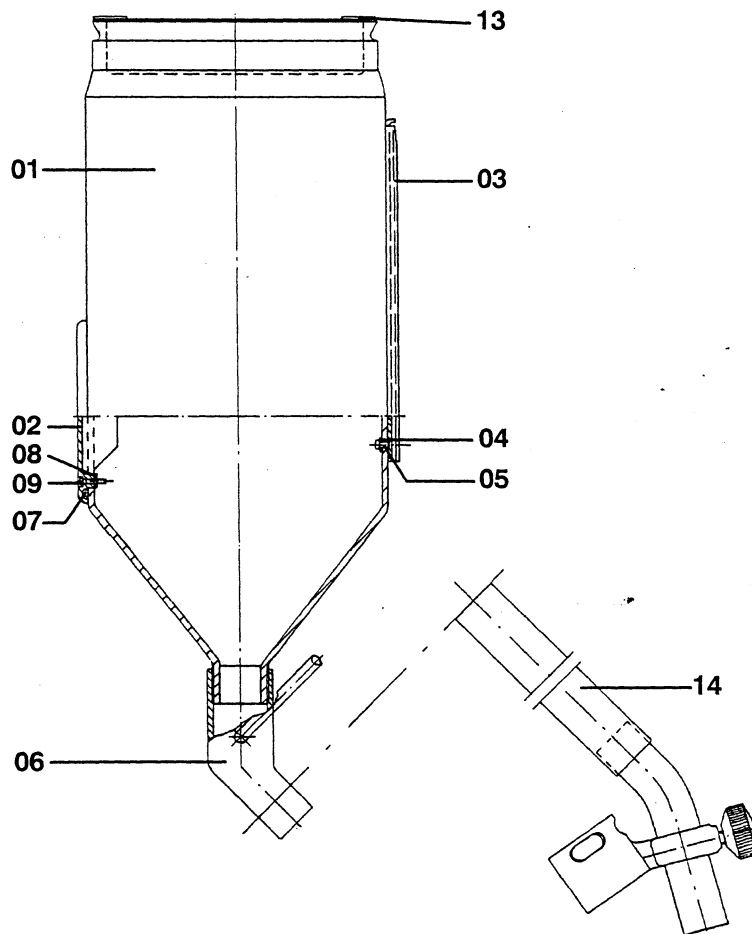
Item	Qty	Orderingno.	Denomination	Notes	C
		145 740-880	Flux recovery unit		
1	1	145 501-001	Suction nozzle		
2	1	145 502-001	Suction nozzle		
3	1	145 504-001	Suction nozzle		
4	1	145 505-001	Suction nozzle		



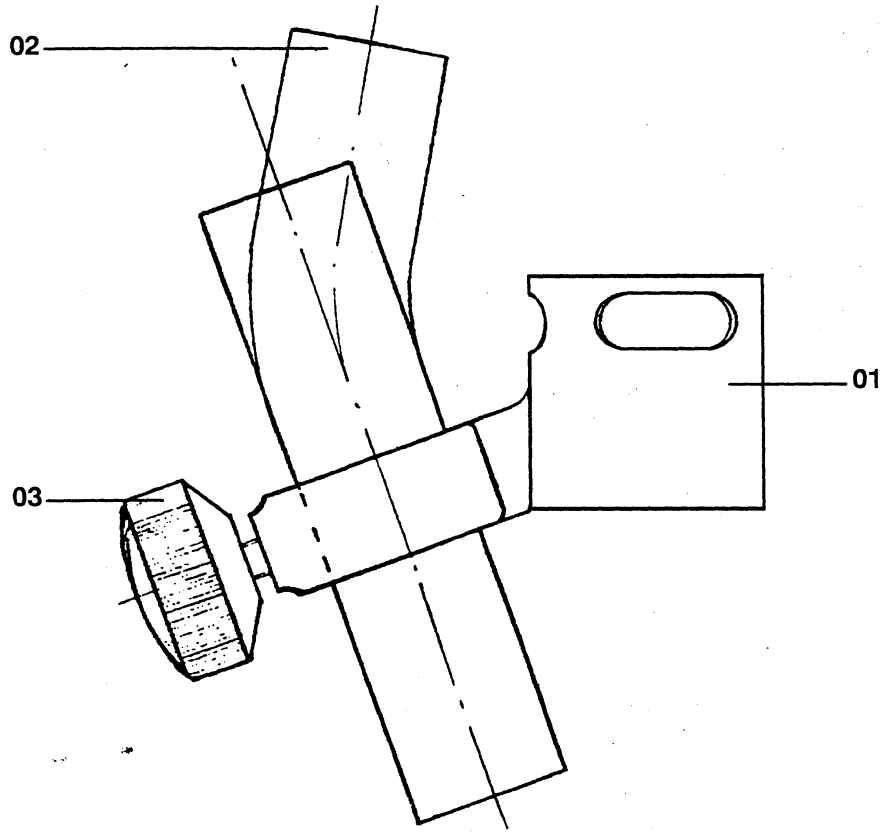
Item	Qty	Orderingno.	Denomination	Notes	C
		147 384-881	Nozzle holder		
4	1	147 387-001	Stop ring		
9	4	147 391-001	Nut		
10	2	147 392-001	Strip		
11	1	145 131-002	Insulating sleeve		
12	1	145 131-003	Insulating sleeve		
13	2	154 739-001	Attachment		
14	1	154 738-001	Boom		
15	1	154 737-001	Boom		
16	1	145 141-004	Insulating sleeve		



Item	Qty	Orderingno.	Denomination	Notes	C
		147 649-881	Flux hopper compl.	Optional equipment (OPC)	
01	1	154 007-001	Hopper for flux		
02	1	146 837-001	Window		
03	1	147 645-001	Fitting		
04	4		Washer	D8/4.3x0.8	
05	4	191 898-108	Rivet		
06	1	153 347-880	Flux valve		
07	1	148 823-001	Seal		
08	2	148 799-001	Washer		
09	2		Screw	M3x16	
13	1	0203 017-80	Flux strainer		
14	1	443 383-002	Flux hose	L=500	



Item	Qty	Orderingno.	Denomination	Notes	C
		153 299-880	Flux nozzle	Optional equipment (OPC)	
01	1	153 290-002	Pipe holder		
02	1	153 296-001	Pipe bend		
03	1	153 425-001	Wheel		



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