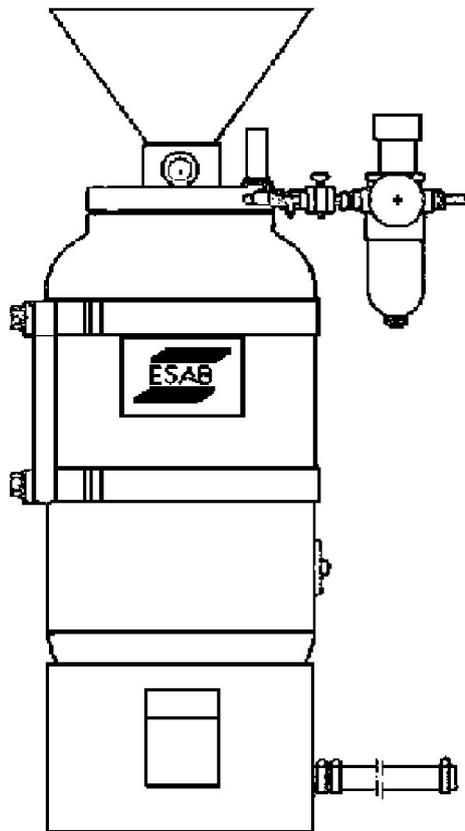


A6 TPC 75



Instruction manual

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1 SAFETY

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
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 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.



WARNING!

Arc welding and cutting can be injurious to yourself and others. Take precautions when welding and cutting. Ask for your employer's safety practices which should be based on manufacturers' hazard data.

ELECTRIC SHOCK - Can kill

- Install and earth the 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 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

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 earmuffs 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!



CAUTION!

Read and understand the instruction manual before installing or operating.



ESAB can provide you with all necessary welding protection and accessories.

2 INTRODUCTION

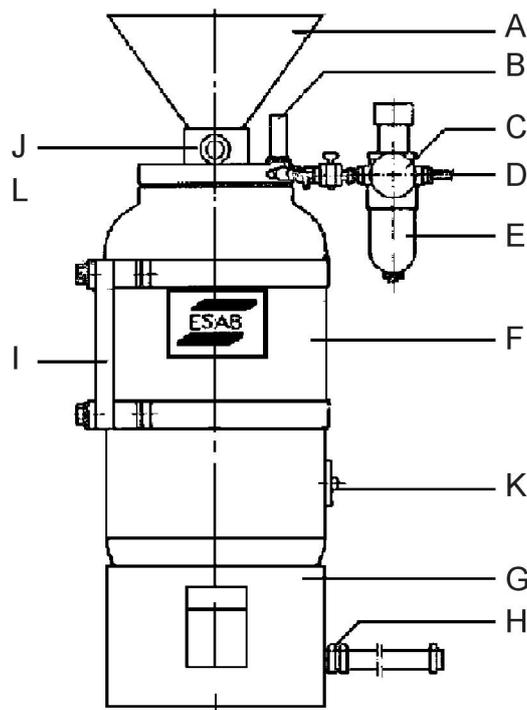
2.1 General

The TPC 75 pressurised flux tank is used to supply flux to welding equipment that requires a large amount of flux, or to compact welding equipment designed for use in restricted spaces.

The pressurised flux tank can be used as a free-standing floor unit or be mounted on a stand or column and boom using a support bracket. It is part of ESAB's range of flux equipment which includes flux vacuum systems and other flux handling equipment.

2.2 Equipment

The TPC 75 pressurised flux tank comprises the items presented in the graphic.



- | | |
|---|--|
| A. Flux sieve with removable mesh | G. Stand |
| B. Safety valve which opens if pressure in tank exceeds 0.6 MPa | H. Connection for flux hose 1" × 25 m |
| C. Gauge for monitoring pressure in tank | I. Support bracket (optional accessory) |
| D. Connection for compressed air hose 3/8" | J. Valve which closes if air pressure exceeds 0.15 MPa, even if tank is full and there is flux remaining in the funnel |
| E. Water trap with valve in base for draining condensed water from compressed air | K. Attachment for level sensor (optional accessory) |
| F. Pressurised flux tank | L. Lifting points for use during installation |

TPC 75:

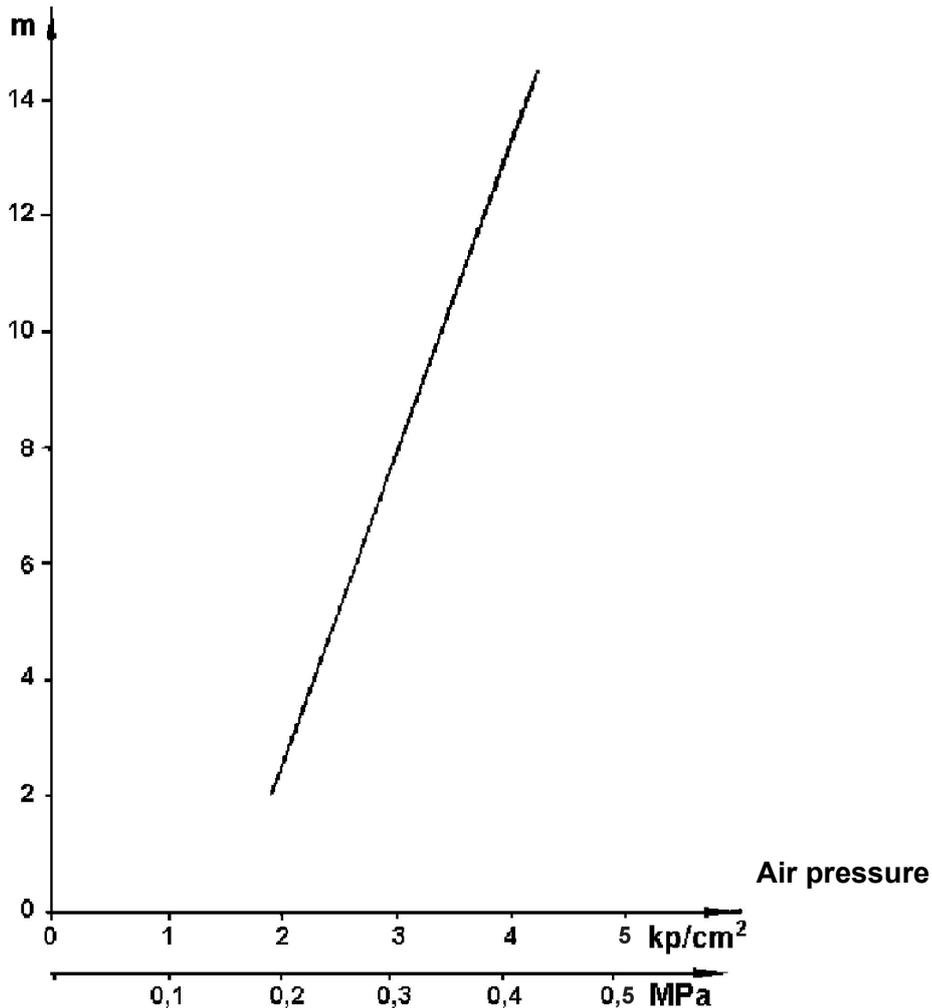
- Conforms to pressure vessel standards and is approved by Statens Anl ggningsprovning in Sweden and T V in Germany.
- Equipped with automatic shut-off valve which closes if air pressure exceeds 0.15 MPa.
- Equipped with:
 - Tap for air supply.
 - Tap for removal of air from the tank.
 - Filter regulator with automatic water trap.
 - Safety valve which opens if air pressure is too high.
 - Flux hose (25 m) for connection to flux container.

2.3 Optional accessories

Ordering no.	
	Minimum level control device complete with warning light
0395 133 880	Level indicator TPC 75, 24 V
0414 363 880	Sensor box for level indicator, 24 V
0414 364 001	Miniflash, flashing warning lamp
0433 865 880	Support bracket

2.4 Flux feed rate

Flux feed height

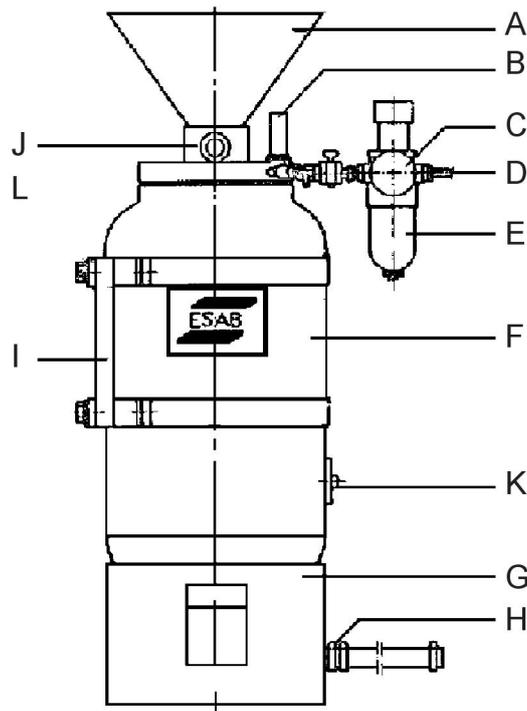


Flux feed height as a function of air pressure, for flux supplied at a rate of 2 l/min through a 40 m long 1" plastic hose

3 TECHNICAL DATA

A6 TPC 75	
Working pressure	0.2–0.4 MPa
Max. air consumption (max. working pressure)	300 litres/min
Max. permissible air pressure	0.6 MPa
Material classification	DIN 17 155, Kesselblech H11
Compressed air hose (internal diameter)	Ø10 mm
Tank capacity	75 l
Weight without flux	100 kg
Weight with flux	215 kg
Dimensions	See the "DIMENSIONS" appendix.

4 INSTALLATION AND OPERATION



1. See dimensions in the "DIMENSIONS" appendix.
2. The flux tank has two lifting holes (L) (M12) in the top flange for use during installation. If the flux tank is used on mobile welding equipment it must be fixed securely using the support bracket (I). Permanent installation is also recommended in stationary applications.
3. Connect the 1" flux hose (H) and compressed air hose (D) to the pressure regulator using double hose clamps to ensure secure connection.



NOTE!

Do not release compressed air from an empty flux tank. Remnants of flux may be blasted out of the flux outlet. The same applies if the flux hose comes loose. Escaping air can cause dust in the air. Minimise exposure to dust by regular cleaning.

4. Pour the flux into the funnel, which is fitted with a sieve (A). Recommended maximum capacity is about 10 cm below the level of the connection flange.



NOTE!

The self-sealing valve (J) closes at a pressure of 0.15 MPa even if the tank is full and there is flux in the funnel.

5. Open the compressed air valve (B).
6. Adjust to a suitable working pressure of 0.2–0.4 MPa using the pressure regulator, and read the pressure at the gauge (C).



NOTE!

Pressure should be no higher than necessary to obtain satisfactory operation with the welding equipment in use.

5 MAINTENANCE

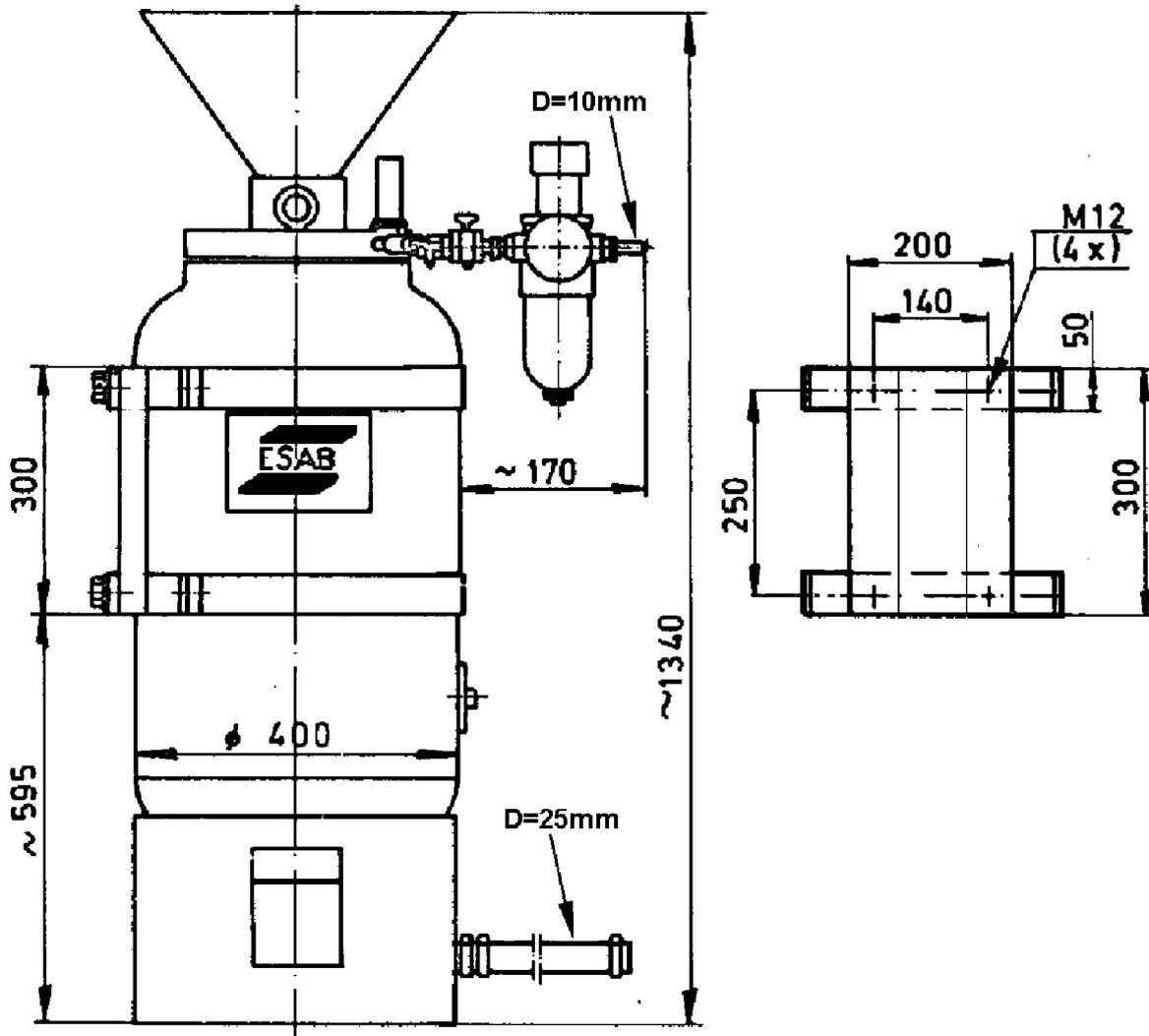
- Empty all flux from the flux tank when not being used for welding. Flux absorbs moisture from the air.
- When emptying the tank use the minimum air pressure necessary to avoid blasting flux out of the tank.
- Keep the work area free from dust and flux by cleaning regularly.
- Replace the flux hose when it becomes worn.
- Check the water trap daily to monitor compressed air quality. If water is present it may be necessary to install a dehumidifier.



NOTE!

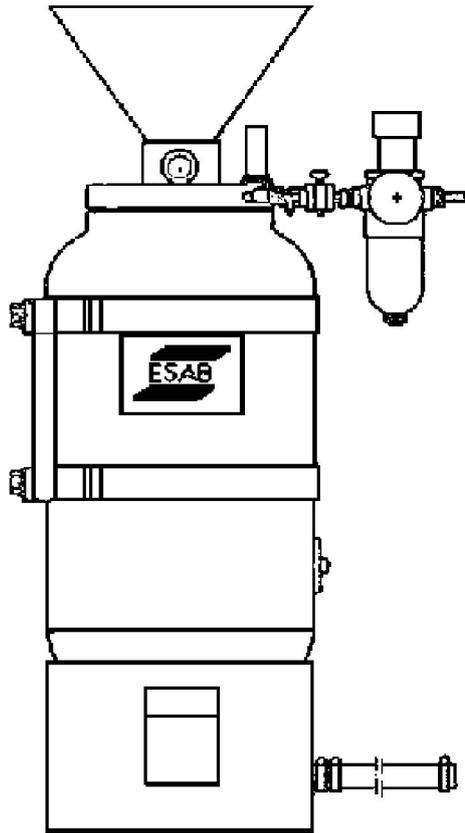
Pressure vessels used for flux distribution should be inspected for renewed approval every 5th year.

DIMENSIONS



SPARE PARTS LIST

Flux pressure tank, TPC 75

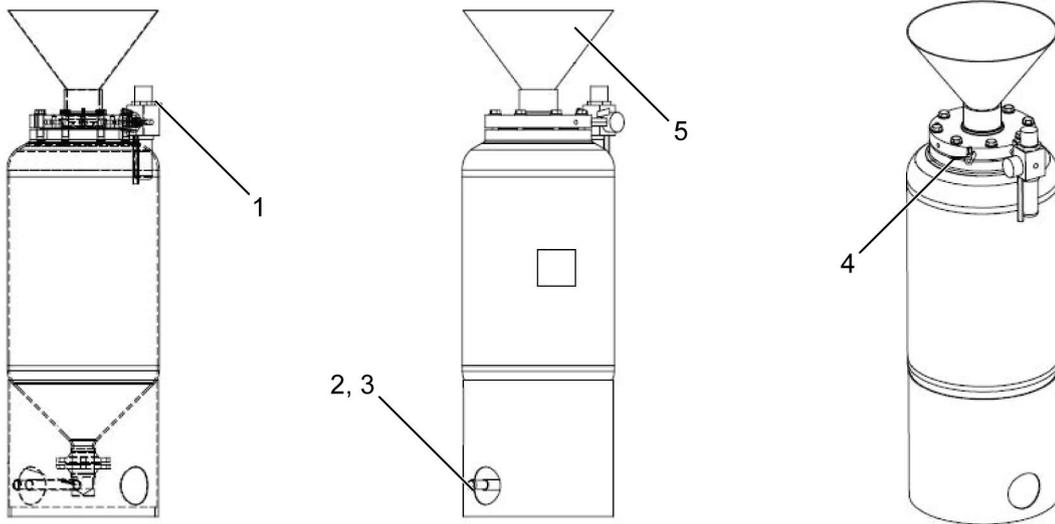


Ordering no.	Denomination	Notes
0333 225 880	Flux pressure tank, TPC 75	
(W) = This is a wear component		

Filter regulator

Item no.	Qty	Ordering no.	Denomination	Notes
1		0157 467 881	Filter regulator	(W) L = 25 m
2		0190 315 109	Hose PVC	
3	4	0252 900 408	Hose clip	
4		0156 806 880	Bleeding valve	
5		0156 252 880	Flux strainer	

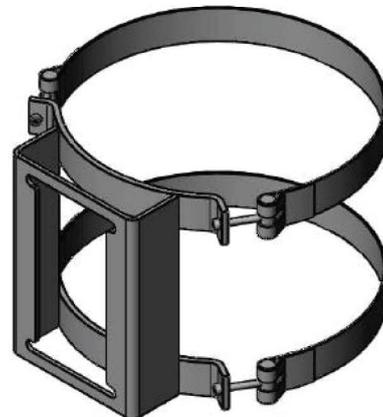
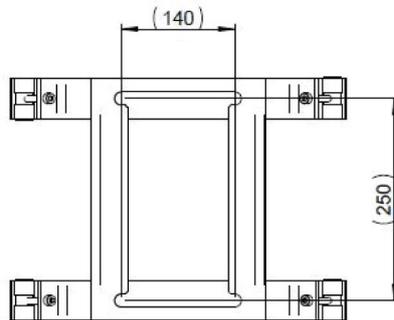
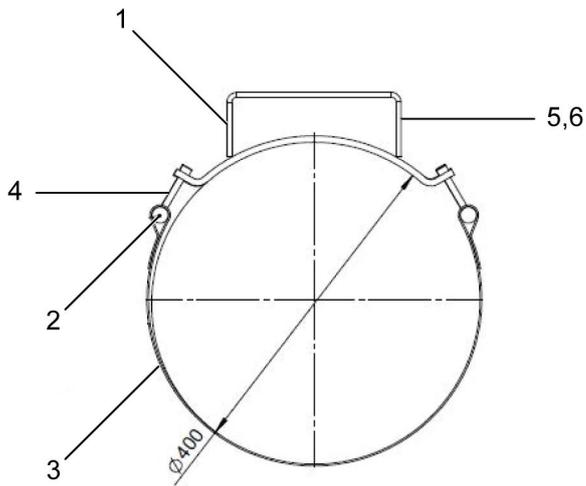
(W) = This is a wear component



Bracket TPC 75 complete

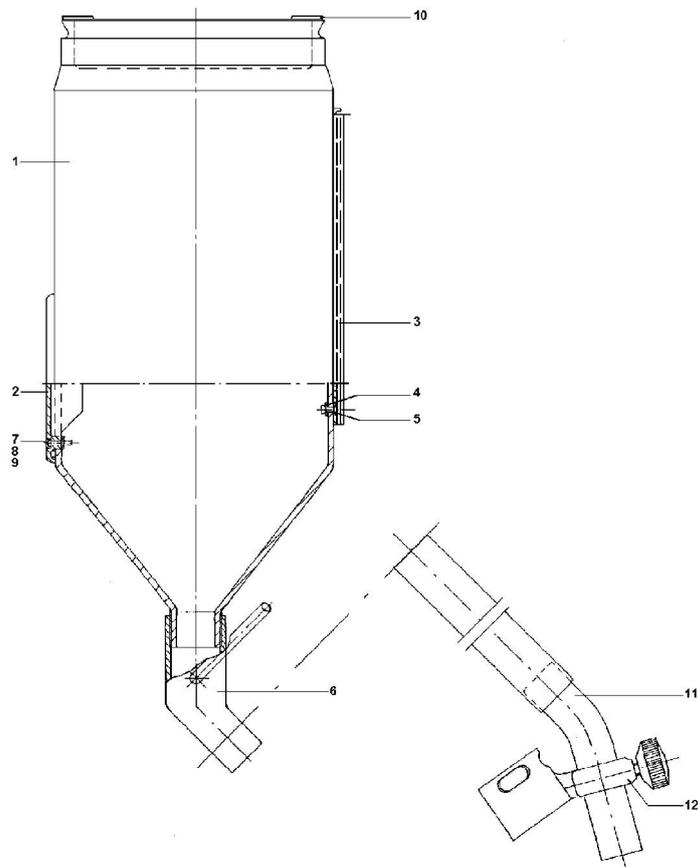
Item no.	Qty	Ordering no.	Denomination	Notes
		0433 865 880	Bracket TPC 75 complete	
1	1	0433 866 881	Bracket	
2	4	0145 550 001	Pin	
3	2	0145 551 001	Metal strip	
4	4	0212 106 257	Screw IN6	
5	4	0212 101 628	Screw	
6	4	0212 602 011	Nut	

(W) = This is a wear component



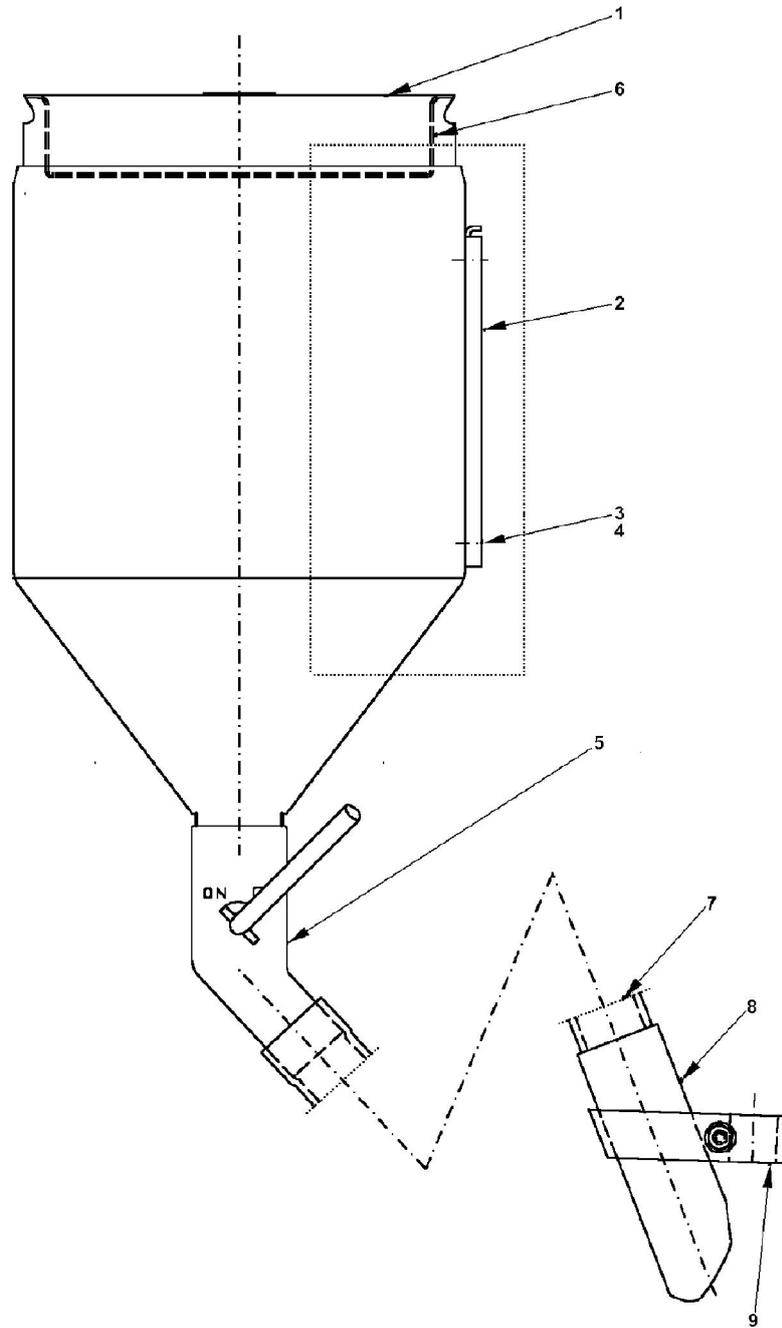
Flux hopper complete 10 l

Item no.	Qty	Ordering no.	Denomination	Notes
		0147 649 881	Flux hopper complete	10 l
1		0154 007 001	Flux hopper	
2		0148 837 001	Inspection window	
3		0147 645 001	Fitting	
4			Washer	D8/4,3×0.8
5		0191 898 108	Rivet	
6		0153 347 880	Flux valve	
7		0215 201 232	O-ring	
8		0148 799 001	Washer	
9			Screw	M3×16
10		0020 301 780	Flux strainer	
11		0443 383 001	Flux hose	L = 500
12		0153 299 880	Flux nozzle	



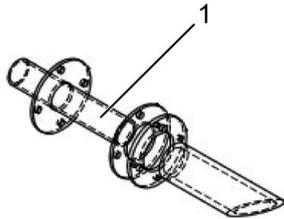
Flux hopper complete 6 l

Item no.	Qty	Ordering no.	Denomination	Notes
		0413 315 881	Flux hopper complete	6 l
1		0413 314 002	Flux hopper	
2		0147 645 003	Fitting	
3		0191 898 108	Rivet	
4			Washer	D8/4,3×0.8
5		0153 347 880	Flux valve	
6		0020 301 780	Flux strainer	
7		0443 383 002	Flux hose	L = 500
8		0332 948 001	Flux tube	
9		0333 094 880	Clamp	

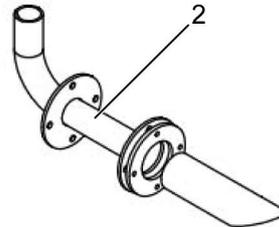


Inlet tube complete

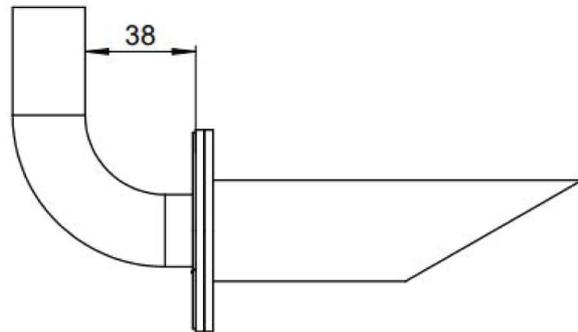
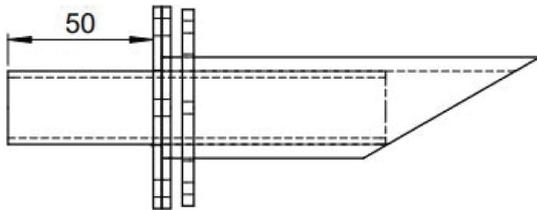
Item no.	Qty	Ordering no.	Denomination	Notes
		0186 961 xxx	Inlet tube complete	
1		0186 961 880	Straight inlet tube	D=25/21
2		0186 961 881	Bent inlet tube	D=25/21 90 degrees



Grupp/Group -880
Skale 1:5



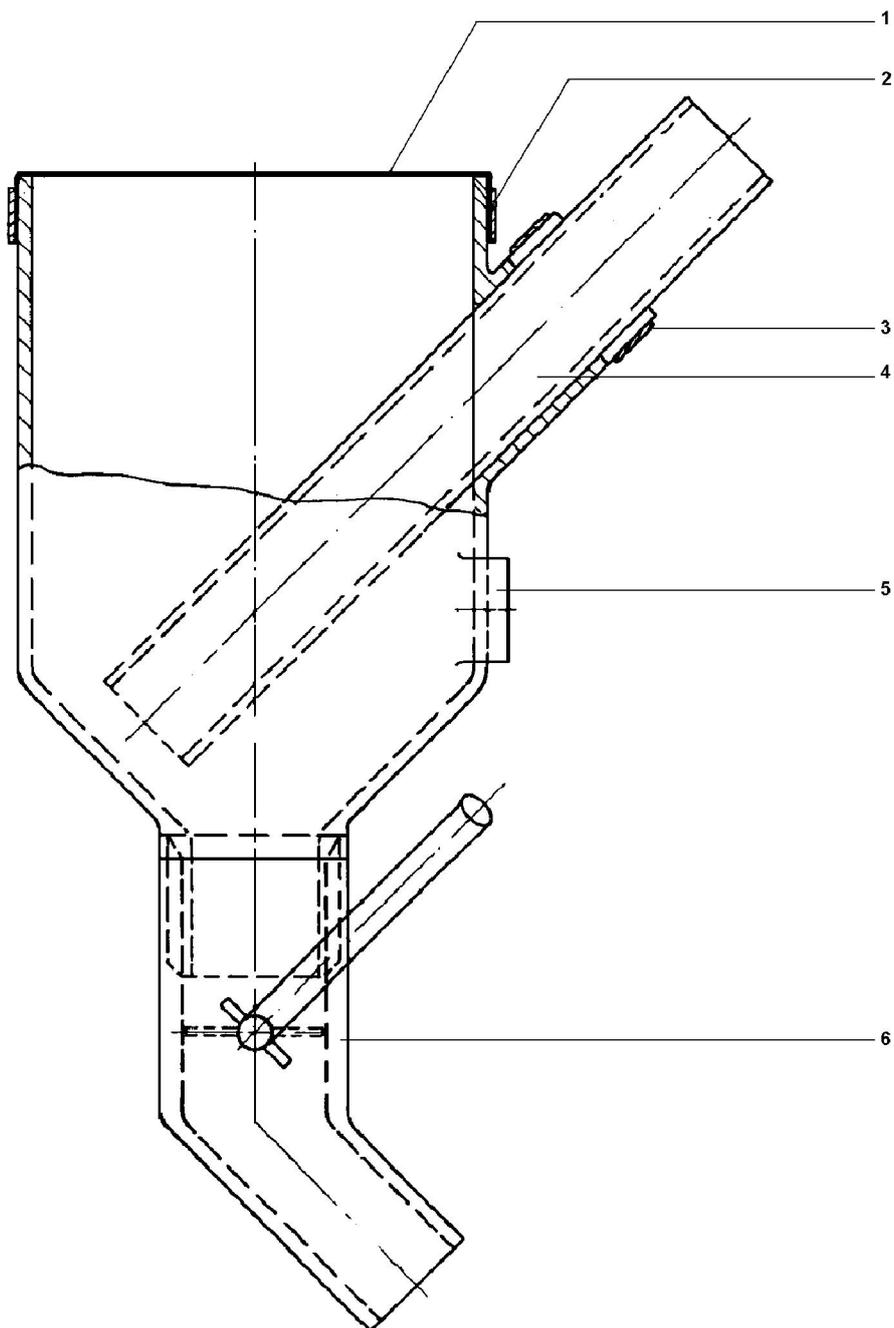
Grupp/Group -881
Scale 1:5



Flux inlet tubes to be mounted in flux hopper 0147 649 881 or 0413 315 881.

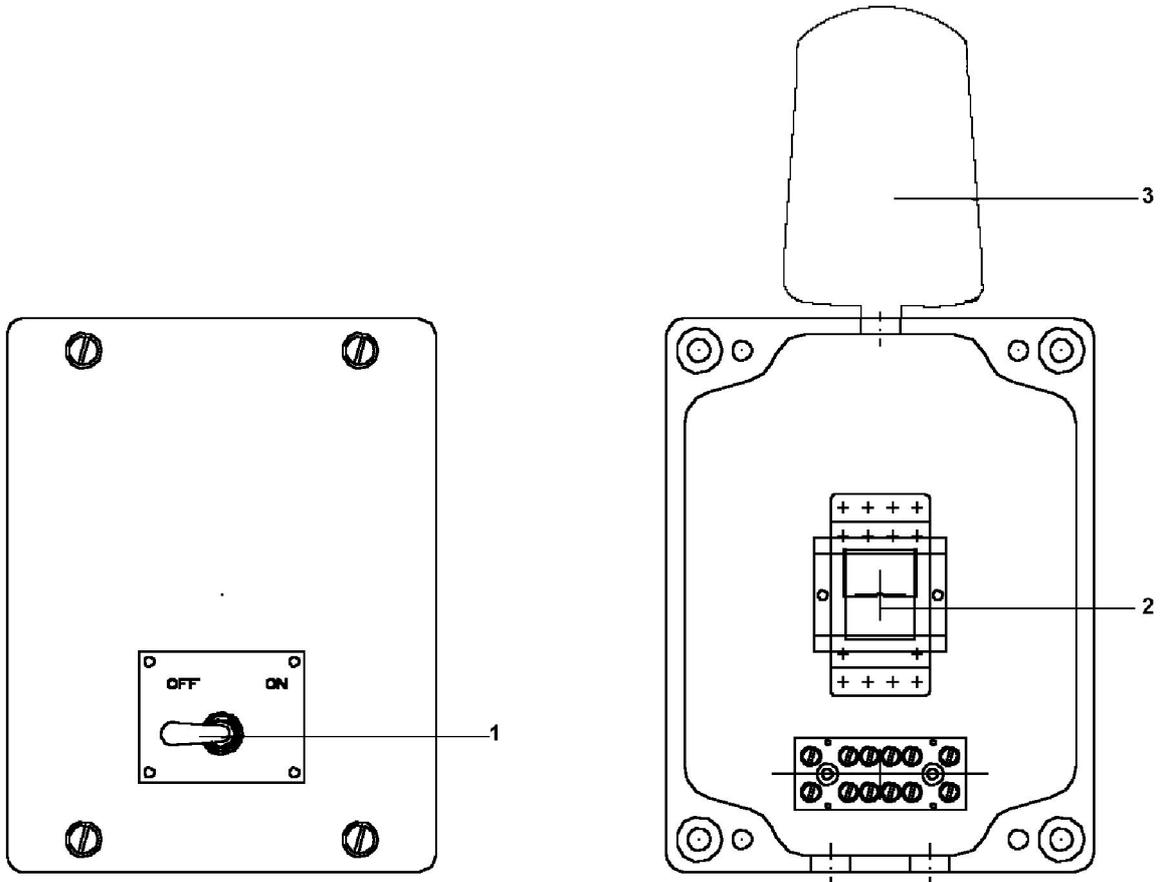
Flux hopper complete 0.75 l

Item no.	Qty	Ordering no.	Denomination	Notes
		0153 856 880	Flux hopper complete	0.75 l
1		0153 855 001	Filter	
2		0252 900 416	Hose clamp	
3		0252 900 406	Hose clamp	
4		0153 854 001	Tube	
5		0322 166 880	Holder	
6		0153 347 880	Flux valve	



Optional equipment - Apparatus cubicle

Item no.	Qty	Ordering no.	Denomination	Notes
		0414 363 880	Optional equipment	
1		0537 601 703	Switch	
2		0193 396 001	Relay	
3		0414 364 001	Miniflash	





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