

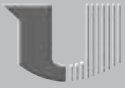


Operating Manual

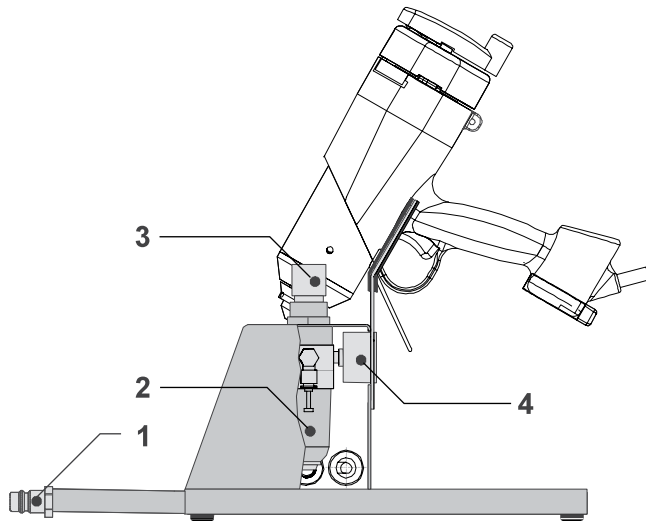
Hot Melt Applicator HB 710/HB 710 Spray



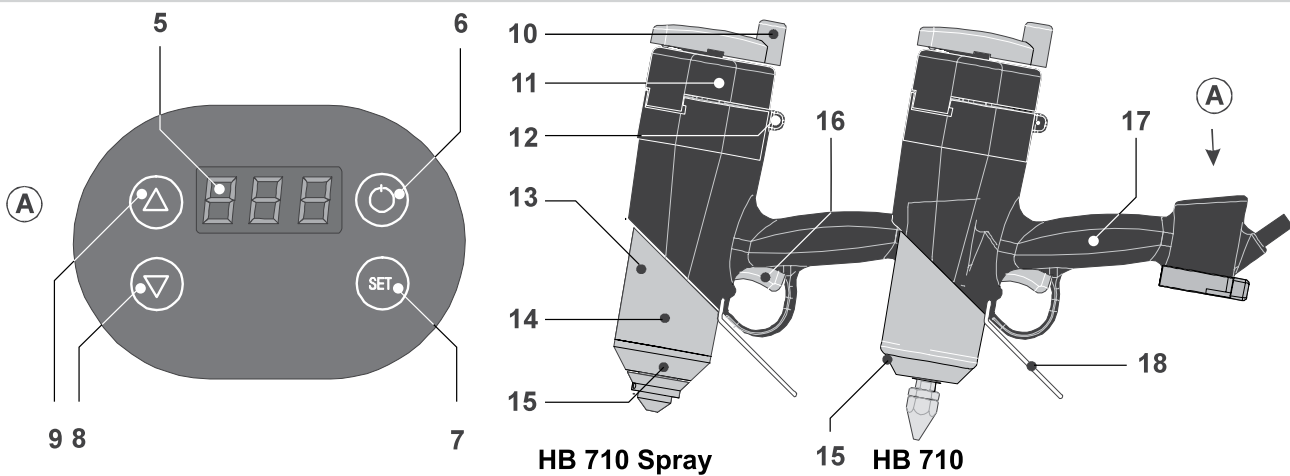
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Working bracket



Applicator



Pos.	Description
1	Compressed air connection
2	Water separator
3	Pressure regulator
4	Pressure gauge
5	Digital display
6	Start/Stop button
7	Set button
8	Down button
9	Up button

Pos.	Description
10	Lever
11	Closure cap
12	Suspension point
13	Protection cap
14	Spray air choke
15	Protection cap
16	Trigger
17	Handle
18	Stand hoop



1 General

Please read this Operating Manual through carefully and completely before first using the Applicator. Pay particular attention to the safety instructions in Section 2.

This Operating Manual must always be within easy reach for any user.

1.1 Scope of use

The HB 710/HB 710 Spray Applicator is for the melting and metered discharge of melts (thermoplastic substances such as hot-melt adhesives, waxes, etc.) as a bead (HB 710) or spray-on coating (HB 710 Spray) using interchangeable application tools (use as intended).

1.2 Technical data

Model	HB 710	HB 710 Spray
Part No.	H218600	H218700
Kit includes	Applicator, toolset, working bracket / workstation (optional)	
Weight	approx 3 lbs / 1.35 g	approx 3.3 lbs / 1.50 kg
Power connection	120V AC / 60 Hz / earthing-pin plug	
Power requirement [W]	600	
Power consumption [A]	2.6	
Protection (as per DIN IEC 34 T5)	IP30	
Safety class (as per DIN VDE 0720)	I (safety earth terminal)	
Temperature control	electronic	
Temperature limitation	thermal cut-out (500° F ±19.8° F / 260 °C ±11 °C)	
Operating temperature	104° F...410° F / 40 °C...210 °C	
Temperature constancy	±3.6° F / ±2.0 °C	
Factory presetting	356° F / 180 °C	
Temperature indication	digital via LED display	
Automatic temperature reduction (ACE)	Factory preset to reduce temperature by 104° F / 40 °C after 30 min non-use	
Warm-up time [min]	~3.0...4.0	
Hot-melting capacity (dependent on melt)	with plugs: 7.05 lbs/h / 3.20 kg/h with granulate: 2.87 lbs/h / 1.30 kg/h	
Capacity of melt reservoir	7.76 fl oz / 200 ml	
Conveyor system	compressed air	
Compressed-air connection	max. 145 psi / 10 bar (service unit with quick-action coupling) The compressed air must be condensate- and acid-free	
Operating pressure	21.8...87.0 psi / 1.5...6.0 bar	
Protection against overpressure	limited by reducing valve to 87 psi / 6 bar	
Air consumption (at 72.5 psi / 5 bar operating pressure)	33.8 fl oz / 1 l per trigger actuation	max. 33.8 fl oz/s / 1 l/s
Nozzles (standard)	cone nozzle Ø 1.5 mm	swirl spray head Ø 1.5 mm
Length of supply line with electrical and pneumatic connections	9.84 ft / 3.0 m	
Recommended melting stock	BÜHNEN hot-melt adhesives in plug or granular form	



2 Safety instructions

2.1 Potential hazards



Danger!

Never point the operation-ready device at people.
Danger from high pressure!



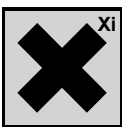
Burn Hazard

Nozzle (1) and molten adhesive can be over 390° F / 200 °C hot.
Wear heat-resistant gloves if contact is unavoidable.



Risk of Explosion!

When working with oxygen or combustible gases there is risk of explosion!



Odor nuisance!

Hot-melt adhesives give off fumes which can cause odour nuisance – so ensure adequate ventilation.
Improper use may in isolated cases lead to irritation of the mucous membrane. In this case seek immediate medical advice!

2.2 Instructions for safe operation

Guard against malfunctions and operating errors by always following these instructions precisely:

- In no circumstances may the maximum permitted operating pressure (87 psi / 6 bar) be exceeded.
- Remove combustible or heat-sensitive objects from the area of the nozzle (1).
- When warm the device must be put down on the support hoop (18) or working console. It must not be laid on its side.
Otherwise melt may escape uncontrolled through the vent holes and present a burn hazard.
- Never operate the trigger (16) forcibly.
- Protect the device from moisture and damp (protection against electric shock).
- Observe the instruction leaflet for the hot-melt adhesive (protection against processing errors).
- Operate the device only with the nozzle pointing downwards. It must not be operated above head height!
- Unplug from the mains before performing any operation on the device (servicing, cleaning).
- The device must be powered only from sockets with a protective conductor.
- Any extension cable used must have a protective conductor. Check that the protective conductor is undamaged before use.
- Unplug from the mains after each use. Allow the device to cool down completely before putting it away.
- If you notice any damage to the device or leads, unplug from the mains immediately. Have the device promptly checked over by an expert. It must not be used again until it has been properly repaired (see Sections 6 and 7).



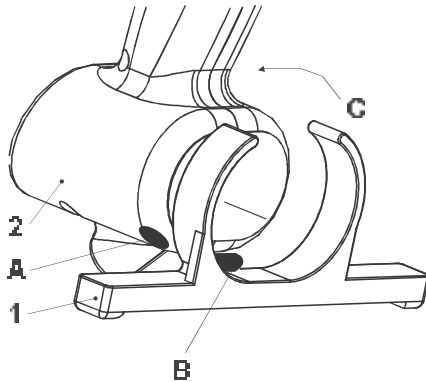
3 Starting

3.1 Connecting up

3.1.1 Connecting up (operation without working bracket/workstation)

To connect up the device proceed as follows:

1. Fit the stand:



- To do this insert pin (B) of the base (1) into hole (A) in the casing.
- Move the base (1) in direction (C) until it is just in contact with the casing.
- To dismantle the base do the above in reverse order.

2. Place the device on the base and stand hoop.

3. Fit the supplied pressure-reducing valve to a quick-action coupling in the compressed-air supply. The water separator must be facing downwards when you do this.

Observe the requirements made of the compressed-air supply (Section 1.2, "Technical data").

4. Set the operating pressure to 58 psi / 4 bar with the pressure regulator (3).

5. Connect the mains plug to a socket outlet with earthing contact.

6. Switch on the device.

The device is now ready for use.

3.1.2 Connecting up (operation with working bracket/workstation)

To connect up the device proceed as follows:

1. Place the device in the working bracket.

2. Attach the working bracket's compressed-air connection (1) (see illustration on p. 20) to the compressed-air supply.

Observe the requirements made of the compressed-air supply (Section 1.2, "Technical data").

3. Set the operating pressure to 58 psi / 4 bar with the pressure regulator (3).


4. Connect the mains plug to a socket outlet with earthing contact.

5. Switch on the device.

The device is now ready for use.



Info

The display is switched on briefly (approx. 1 sec) as a check after the power plug is inserted and after a mains voltage failure:  .

The device then switches off for safety reasons

3.2 Switching on



To switch the device on press and hold the Start/Stop button (6) for at least 1 s.

The digital display lights up and indicates the current temperature. The device heats up immediately to the preset temperature (target temperature). The decimal point on the left flashes until the target temperature has been reached.

The target temperature can be displayed by pressing the Set button (7).



3.3 Settings on the temperature regulator

3.3.1 Setting the working temperature

1. To set the working temperature press the Set button. The current working temperature is displayed.



2. Hold the Set button down. Select the required working temperature using the Up/Down buttons.



Briefly pressing the Up or Down button changes the working temperature in steps of 1° F / 1°C per button-press. Pressing the button for longer changes the working temperature continuously.

The new setting is saved automatically when the buttons are released.

3.3.2 Reading out and setting the control parameters

Pressing the Up and Down buttons simultaneously for at least 4 s brings up a parameter list. Some parameters can be set, others only read out. The table below summarises the parameters:

Pa-ram-eter	Function	Settable	Setting range	Standard value	Customer value
P1	Setpoint lowering If the device is not used for some time, the temperature regulator automatically switches to operation at lowered temperature. A temperature is adjusted to which is below the set working temperature by the value set here.	✓	1...180° F 1...100 °C	72° F 40 °C	
P2	Waiting time before setpoint lowering If the device is not used for longer than the time set here, temperature lowering starts.	✓	1...999 min	30 min	
P11	Hours-run counter The hundreds, tens and units digits are displayed.	-			
P12	Hours-run counter The thousands digits are displayed.	-			
P13	Number of actuations The hundreds, tens and units digits are displayed.	-			
P14	Number of actuations The thousands digits are displayed.	-			
P19	Keylock Adjustment of working temperature with the Up/Down buttons can be locked here. If an attempt is made to adjust the working temperature despite the keylock, the display shows “_” 0: not locked 1: locked	✓	0 or 1	0	

You can browse upwards through the parameter list with the Up button and downwards with the Down button. Press the “Set” button to display the value assigned to a parameter. You can adjust the value assigned to a settable parameter by additionally pressing the Up/Down buttons.

The diagram below shows the procedure schematically:

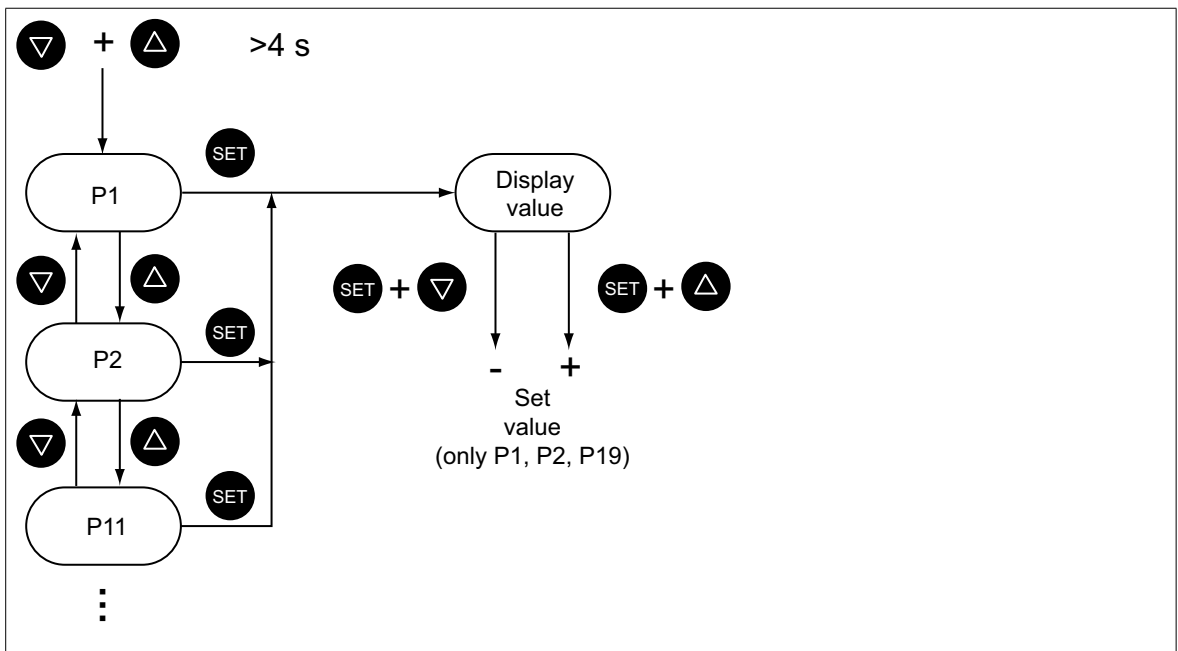


Fig. 3.3.2/1: Setting parameters

4
4.1 **Operation**
Operating position

The device may be operated **only with the nozzle pointing downwards**. In other positions melt may get into the compressed-air ducts and damage the device.

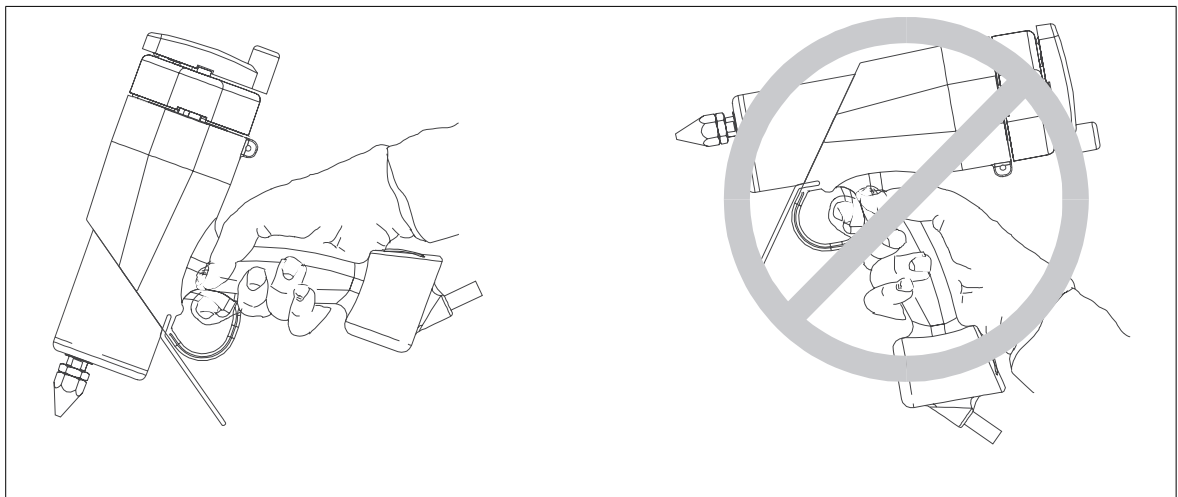


Fig. 4.1/1: Permitted operating position



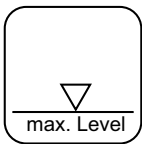
4.2 Charging



Burn hazard!

Nozzle and molten adhesive can be over 390° F / 200 °C hot. Always wear heat-resistant gloves when performing the steps described below.

1. Place the device in the working bracket or on the base.
2. Switch the device on (see Section 3.2). Wait until the working temperature has been reached.
3. Take hold of the device by the handle with one hand (17). With the other hand turn the lever (10) clockwise through 180° and swivel the closure cap open.
4. Fill the tank to a level not less than 2 cm below the rim. The maximum level is marked on the device with a sticker (see illustration left). Do not charge the device above this level since the melt expands when heated.
5. Swivel the closure cap back. Turn the lever (10) anticlockwise as far as it will go, in order to lock the cap.



4.3 Discharging and metering melt

1. Place the device in the working bracket or on the base.
2. Switch the device on. Wait until working temperature has been reached.
3. Check that there is enough melt in the tank.



Burn hazard!

If the device is “run dry” drops of melt may escape uncontrolled and endanger the operator and persons in the vicinity.

Every time you actuate the trigger, therefore, first carry out step (3.) above.

4. Actuate the trigger (16)
You can meter the quantity discharged by altering the pressure (max. 87 psi / 6 bar) at the pressure regulator (3) and/or selecting an appropriate nozzle.
5. After the trigger (16) has been released the compressed-air supply is cut off immediately and the tank vented.



4.4 Adjusting the spray pattern (HB 710 Spray only)

The spray pattern is altered by adjusting the spray air.

Set the optimum spray pattern by turning the spray-air choke (14) in the protective sleeve (13):

- Turning it clockwise decreases the spray-air pressure.
- Turning it anticlockwise increases the spray-air pressure.

4.5 Automatic temperature reduction (ACE)

Unnecessary thermal loading of the melt should be avoided. The device therefore switches to standby mode at reduced temperature when the trigger has not been actuated for a considerable time (paused operation).

In the condition as supplied the temperature is reduced by 72° F / 40 °C after 30 minutes' paused operation. The programming of the relevant parameters is described in Section 3.3.2.

Briefly actuate the trigger or the Up or Down button to quit standby mode. The device immediately reheats to working temperature.

4.6  Switching off

1. Press the Start/Stop button (6) for approx. 1 s until the display goes out.
2. Adjust the operating pressure down to "0" with the pressure regulator (3) or disconnect the compressed-air supply.

5 What if...

This Section summarises the status and error messages and provides help in eliminating errors.

If malfunctions occur please check first

- that the power supply and
- compressed-air supply are functioning correctly, and
- whether there is mechanical damage to the device or supply lines (power supply, compressed air).

If you find any mechanical damage, the device may in no circumstances be started up again. Have it checked and repaired by a qualified service agent.

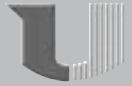
5.1 Status and error messages in the display

Indication	Cause	Action
Decimal point on left flashes	Warm-up phase active	The warm-up phase is ended when a temperature 2° F / 2 °C short of the set working temperature has been reached.
Decimal point on right is lit	Setpoint lowering active	See parameters P1 and P2 (Section 3.3.2)
ERR	Permitted maximum temperature of 500° F / 260 °C exceeded	Allow to cool down
F1L	Sensor fault, short circuit	Have the device checked by a qualified service agent.
F1H	Sensor fault, sensor breakage	Have the device checked by a qualified service agent.
--	Keylock active	See parameter P19 (Section 3.3.2)
EP	Data loss in parameter memory	The regulator must be replaced by a qualified service agent.



5.2 Troubleshooting

Fault	Possible cause	Remedy	See Section
Controller cannot be switched on or off	Micro switch at trigger continuously activated or defective	Eliminate deadlock at micro switch (sheet metal tongue) or replace micro switch	
Nozzle goes on dripping	Nozzle valve partially obstructed or damaged	Drain the device. Actuate the trigger for approx. 5 s to clear the nozzle. HB710: Clean or replace nozzle end HB 710 Spray: Clean or replace swirl nozzle, pressure spring and ball	6.2
Too little or no melt is discharged	Operating pressure too low	Increase operating pressure (max. 6 87 psi / bar)	4.3
	Compressed-air supply disconnected	Check compressed-air supply	
	Nozzle system clogged	HB710: Clean or replace cone nozzle and if necessary nozzle end HB 710 Spray: Clean or replace swirl nozzle, pressure spring and ball	6.2, 6.3
	Stock temperature too low	Raise temperature	3.3.1
Compressed air escapes from closure cap (11)	Insufficient cover pressure	Increase cover pressure	6.4
	Gasket dirty	Clean sealing faces	
Compressed air escapes from service unit	Connections not airtight	Tighten or replace gaskets	
	Sight glass of water separator (2) cracked	Replace sight glass	
HB 710 Spray only			
Spray pattern not ideal	Spray pattern wrongly set	Adjust spray air	4.4
	Nozzle system clogged or damaged	Clean or replace swirl nozzle, pressure spring and ball	6.3.4



6 Servicing/maintenance



Danger!

Danger due to inadvertent triggering.

Disconnect the compressed air supply before all maintenance and service work.



Danger!

Voltage hazard.

All operations which necessitate opening the device may be performed only by qualified electricians.



Burn hazard!

Nozzle (1) and molten adhesive can be over 390° F / 200 °C hot. Wear heat-resistant gloves when performing servicing and maintenance operations.

6.1 Service intervals

Observe the stated service intervals to ensure always correct and reliable operation:

Weekly:	Inspect and if necessary drain the service-unit water separator (see Fig. 6.1/1)
	Check that all parts are present, leak-free and undamaged and all screws and lines securely seated
	Remove adhesive residues and other contaminants, especially on the inside of the cover

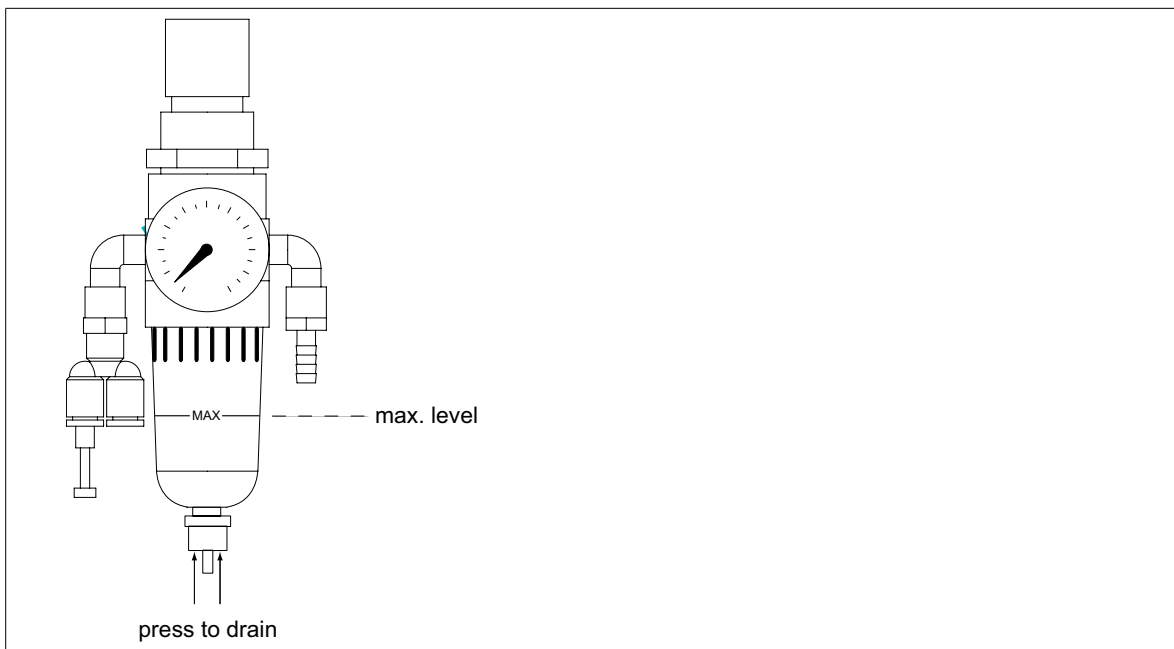


Fig. 6.1/1: Draining the water separator

6.2 Cleaning

- Do not use aggressive cleaning agents for cleaning the device. These may damage device components.
We recommend cleaning with paraffin oil.
- Replace completely parts which are no longer cleanable (e.g. because of burnt-on or reacted hot-melt adhesive). We recommend having this work done by the manufacturer or distributor.
- Remove residues of hot-melt adhesive and other contaminants by mechanical means only, e.g. with a cloth, soft brush, wooden spatula or similar.



6.2.1 Cleaning the nozzle

- Wipe the nozzle with a cloth to remove slight external dirt.
- To remove blockages insert a drill bit, needle or wire of suitable diameter into the nozzle orifice.

In stubborn cases replace the nozzle (see Section 6.3).

6.3 Nozzle systems

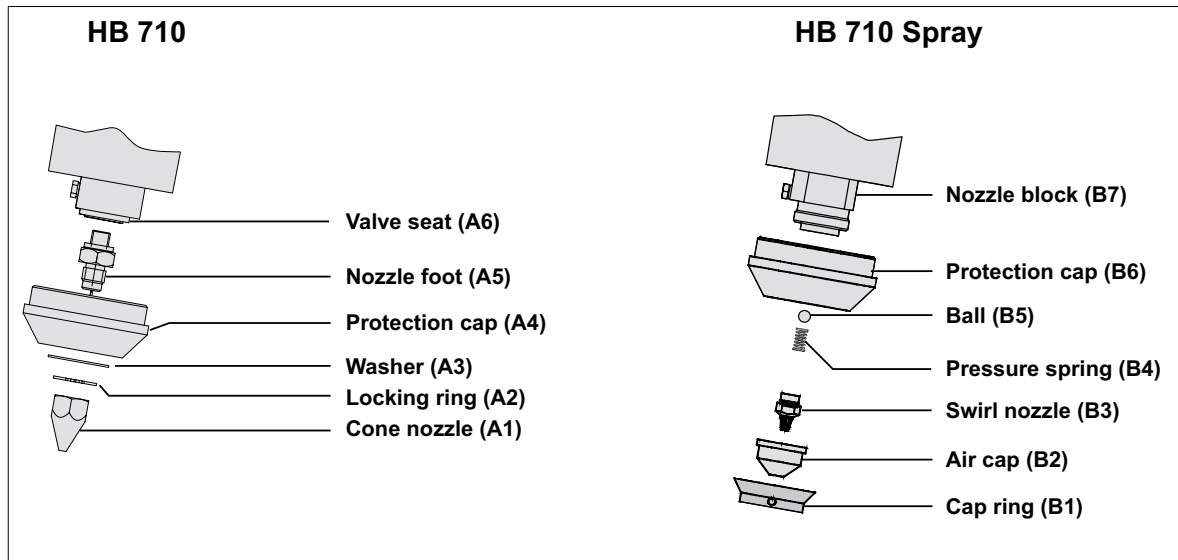


Fig 6.3/1: Nozzle systems in detail

6.3.1 Replacing the cone nozzle (HB 710)

Tools needed

- 2 open-end spanners size 19
- 1 Seeger circlip ring pliers

1. Disconnect the compressed air supply.
2. Let the device heat up thoroughly.
3. Secure the nozzle foot (A5) and unscrew the cone nozzle (A1).
4. Screw on the new cone nozzle (A1) by hand first and allow to heat up for 2 minutes.
5. Re-secure the nozzle foot (A5). Tighten the new cone nozzle (A1) without using force.
6. Assemble the remaining parts in reverse order.

6.3.2 Replacing the nozzle end (HB 710)

Tools needed

- 2 open-end spanners size 19
- 1 open-end spanner size 36 or pipe wrench
- 1 Seeger circlip ring pliers

There must be no melt at all in the tank when the nozzle end is replaced. Therefore discharge the melt completely, e.g. into a collecting vessel.

1. First, proceed as described in chapter 6.3.1 up to Point 3 (dismantling the nozzle).
2. Remove the locking ring (A2).
3. Remove the washer (A3) and the protection cap (A4).
4. Secure the valve seat (A6) with the open-end spanner size 36 or the pipe wrench. Unscrew the nozzle foot (A5).
5. Screw on the new nozzle foot handtight. Now tighten lightly (without using force) with the open-end spanner.
6. Assemble the remaining parts in reverse order.



6.3.3 Replacing the swirl nozzle, pressure spring & ball (HB 710 Spray)

- Tools needed**
- 1 hook spanner
 - 1 open-end spanner size 11
 - 1 open-end spanner size 32 or pipe wrench

There must be no melt at all left in the tank when the nozzle end is replaced. Therefore discharge the melt completely, e.g. into a collecting vessel.

1. Disconnect the compressed-air supply.
2. Release the cap ring (B1) by turning it **when warm** without using force.
3. Remove the protection cap (B6) and air cap (B2).
4. Loosen the swirl nozzle (B3) with the open-end spanner size 11. Fix it by locknut with the open-end spanner SW32 or pipe wrench.
5. Remove the pressure spring (B4) behind the swirl nozzle and the ball (B5).
6. Fit the new components in reverse order.

6.4 Adjusting the cover pressure

- Tools needed**
- 1 hexagon socket spanner size 1.5
 - 1 hexagon socket spanner size 2,5
 - 1 hexagon socket spanner size 3

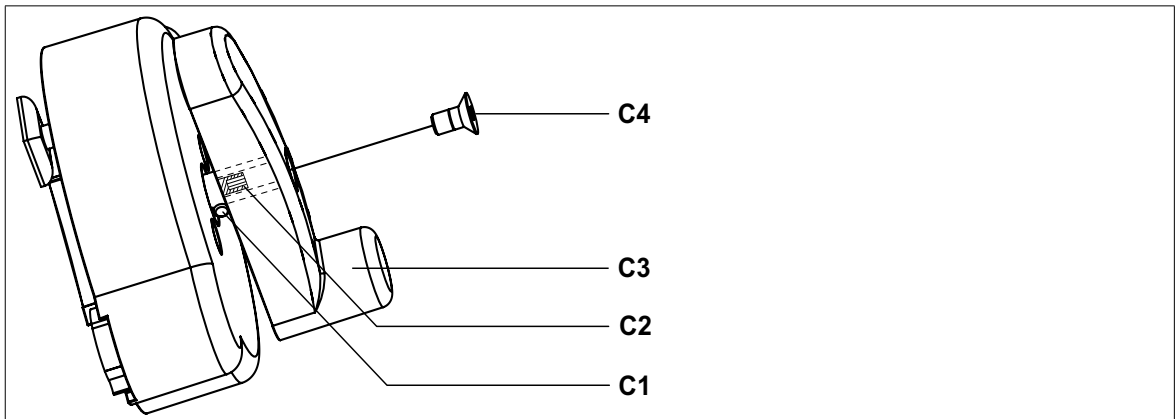


Fig. 6.4/1: Adjusting the cover pressure

1. Rotate the lever (C3) clockwise and swivel the cover until fully open.
2. Loosen the lever fixing screw (C4) with the hexagon socket spanner SW3. Withdraw the screw.
3. Loosen the clamping screw (C1) with the hexagon socket spanner size 1.5 (approx. 1,5 turns).
4. Insert the hexagon socket spanner size 2.5 into the adjusting screw through the lever screw-hole. Turn the adjusting screw clockwise initially by approx. 90°.
5. Close and lock the cover.
If the cover will not close, keep turning the adjusting screw back (clockwise) by approx. 15° until the cover closes easily.
6. Actuate the trigger.
 - If the cover now closes correctly, proceed at step 7.
 - If the cover still does not close correctly, repeat the adjustment from section 4.
7. Open the cover again.
8. Tighten the clamping screw (C1).
9. Fit the lever fixing screw (C4).



6.5 Replacing the cover gasket

Tools needed

- 1 Phillips-type screwdriver size 1

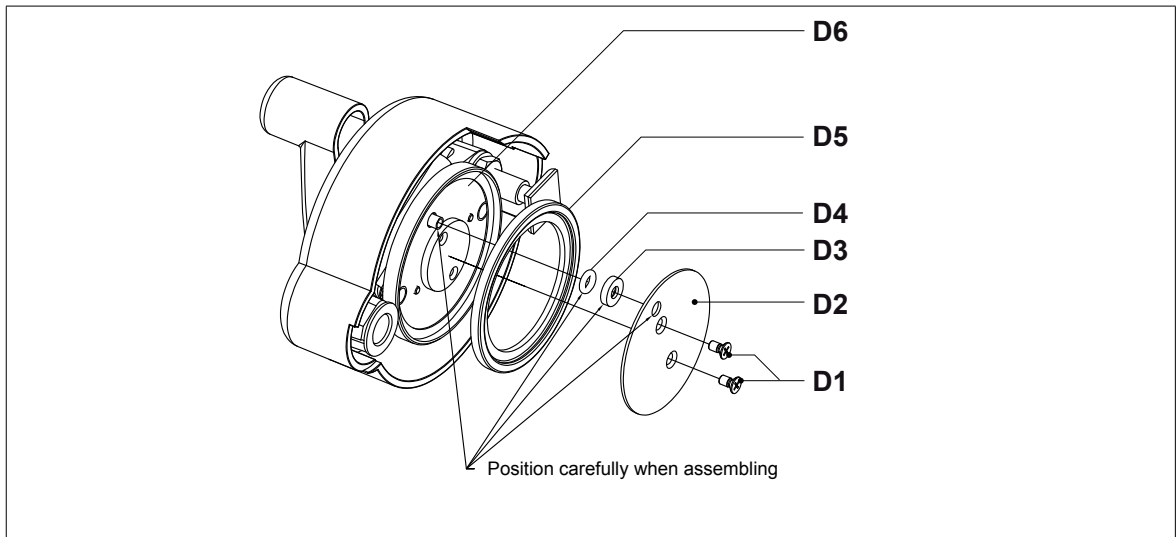


Fig. 6.5/1: Replacing the cover gasket

There must be no melt at all left in the tank when the cover gasket is replaced. Therefore discharge the melt completely, e.g. into a collecting vessel.

1. Let the device heat up.
Continue activating the trigger until the tank is completely empty.
2. Disconnect the compressed air supply.
3. Disassemble the entire closure unit (see Chapter 6.7).
4. Release the fastening screws (D1) of the sealing plate (D2) with the Phillips screwdriver. Carefully remove the sealing plate.
5. Carefully remove the gasket (D5) from the pressure plate (D6).
6. Set the new gasket in the pressure plate in such a way that it fits evenly all over.
7. Mount the sealing plate. Observe the position of the washer (D3) and the O-ring (D4) of the ventilation opening. Tighten the counter nuts (D1) alternately.



6.6 Replacing the valve assembly

Tools needed

- 1 hexagon socket spanner size 1
- 1 hexagon socket spanner size 2.5
- 1 hexagon socket spanner size 3
- 1 auxiliary screw M4

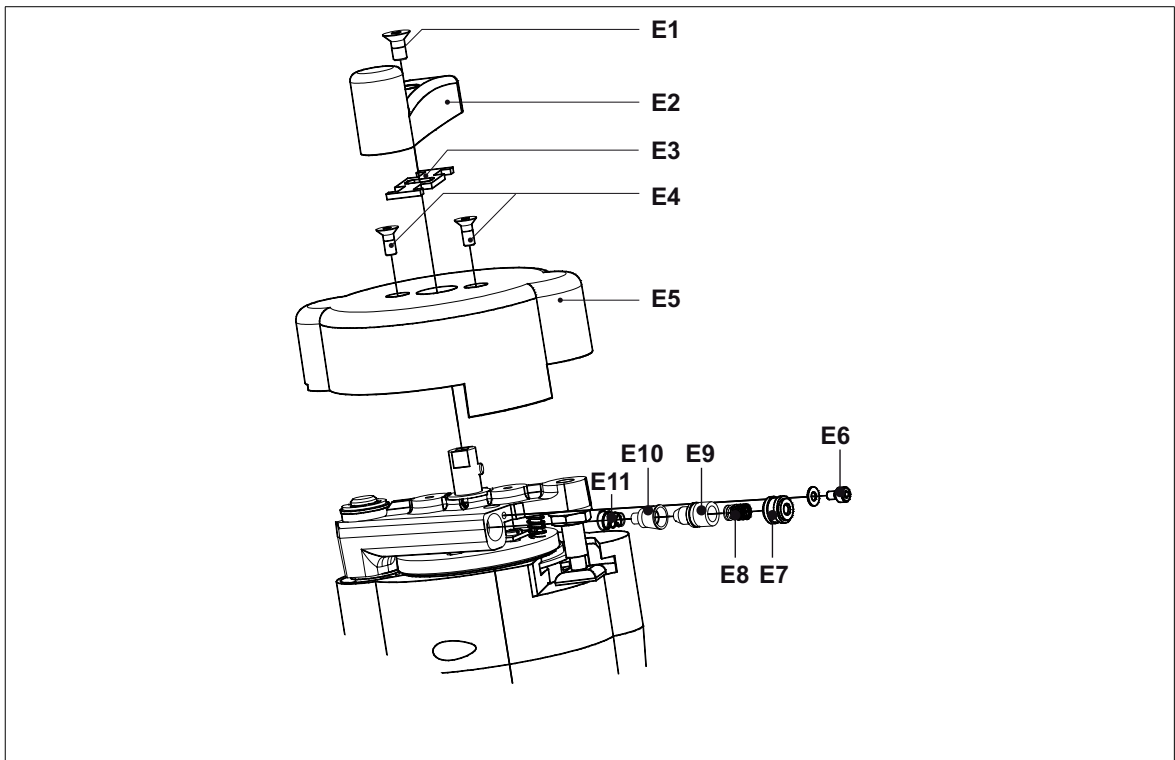


Fig 6.6/1: Replacing the valve assembly

1. Let the device heat up. Continue activating the trigger until the tank is completely empty.
2. With the cover closed undo the fixing screw (E1) of the lever (E2) with the hexagon socket spanner size 3. Remove the lever and carrier (E3).
3. Undo the screws (E4) with the hexagon socket spanner size 2.5. Remove the cover casing (E5).
4. Screw the auxiliary screw M4 in to the clamping piece (E7). Release the clamping screw (E6) with washer with a 2.5 mm Allen key. Carefully remove the clamping piece with auxiliary screw M4 from the valve housing. Also remove the spring (E8) and the cone (E9).
5. Decrease the pressure to 14.5...29 psi / 1...2 bar. Briefly actuate the trigger. The burst of pressure ejects the valve (E9) and spring (E10) from the valve housing. Hold a cloth in front of the opening to catch these (hot!) parts.
6. Fit the new components, cover casing and lever in reverse order.



6.7 Replacing the (complete) cover

Tools needed

- 1 hexagon socket spanner size 2.5
- 1 hexagon socket spanner size 3
- 1 open-end spanner size 13

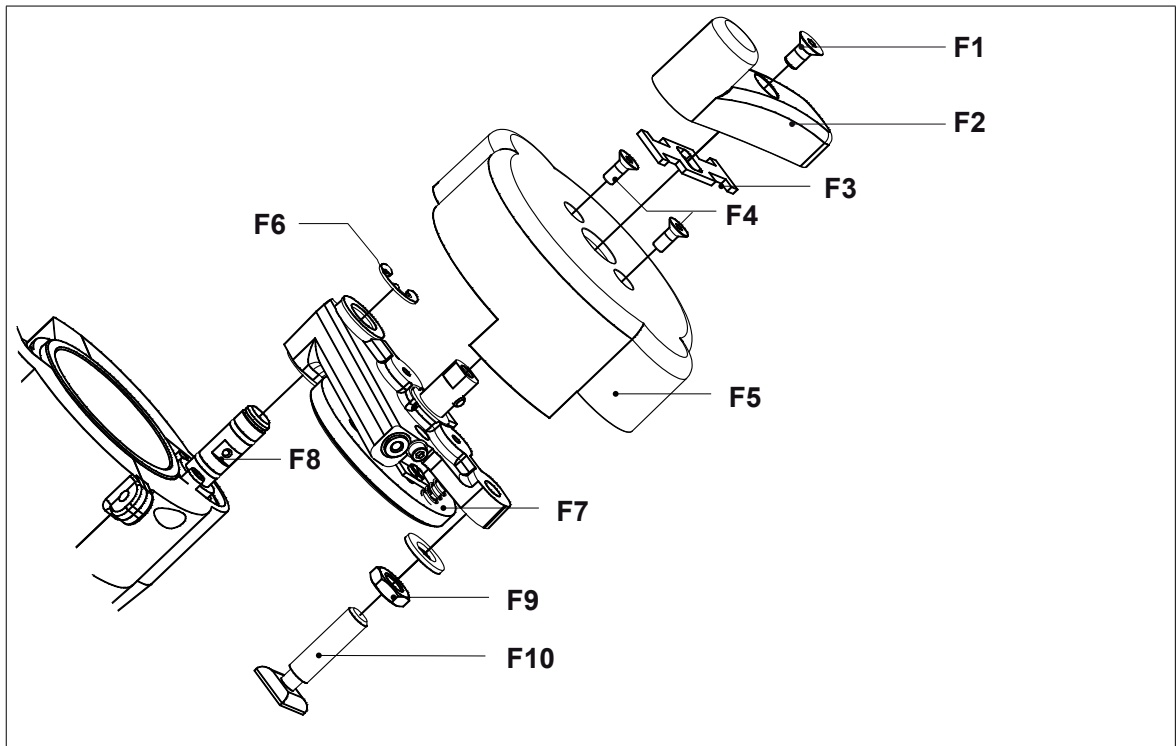


Fig. 6.7/1: Replacing the cover

1. Let the device heat up. Continue activating the trigger until the tank is completely empty.
2. With the cover open undo the fixing screw (F1) of the lever (F2) with the hexagon socket spanner size 3. Remove the lever and carrier (F3).
3. Undo the screws (F4) with the hexagon socket spanner size 2.5. Remove the cover casing (F5).
4. Release and remove the Seeger circlip ring (F6).
5. Pull the entire closure unit (F7) off from the axle (F8). Carefully set the new closure unit on the axle.
6. Mount the Seeger circlip ring (F6).
7. Release the counter nut (F9) with the SW 13 open-end wrench.
8. Adjust the tie bolt by twisting it so that its foot slides cleanly into the recess in the housing when the lid closes. Then retighten the counter nuts. Check again to see if the cover closes cleanly. If necessary, readjust the tie bolt.
9. Mount the cover casing and the lever.



7 Repairs

Repairs other than those described in this Operating Manual may be undertaken only by persons appointed by the manufacturer or other technically competent persons using BÜHNEN original replacement parts.

8 Warranty

The device has been developed and manufactured in accordance with the most up-to-date technical knowledge. We provide the initial purchaser with a warranty according to statutory requirements for function, materials and processing. Normal wear and tear is excepted.

The warranty ends if improper treatment, use of force, repairs by third parties or the fitting of non-original replacement parts is evident.

The warranty covers repair or replacement at our discretion. A warranty extending beyond the kit supplied by us is precluded, since proper and expert use of the device is outside our control.

Please note our terms of business!

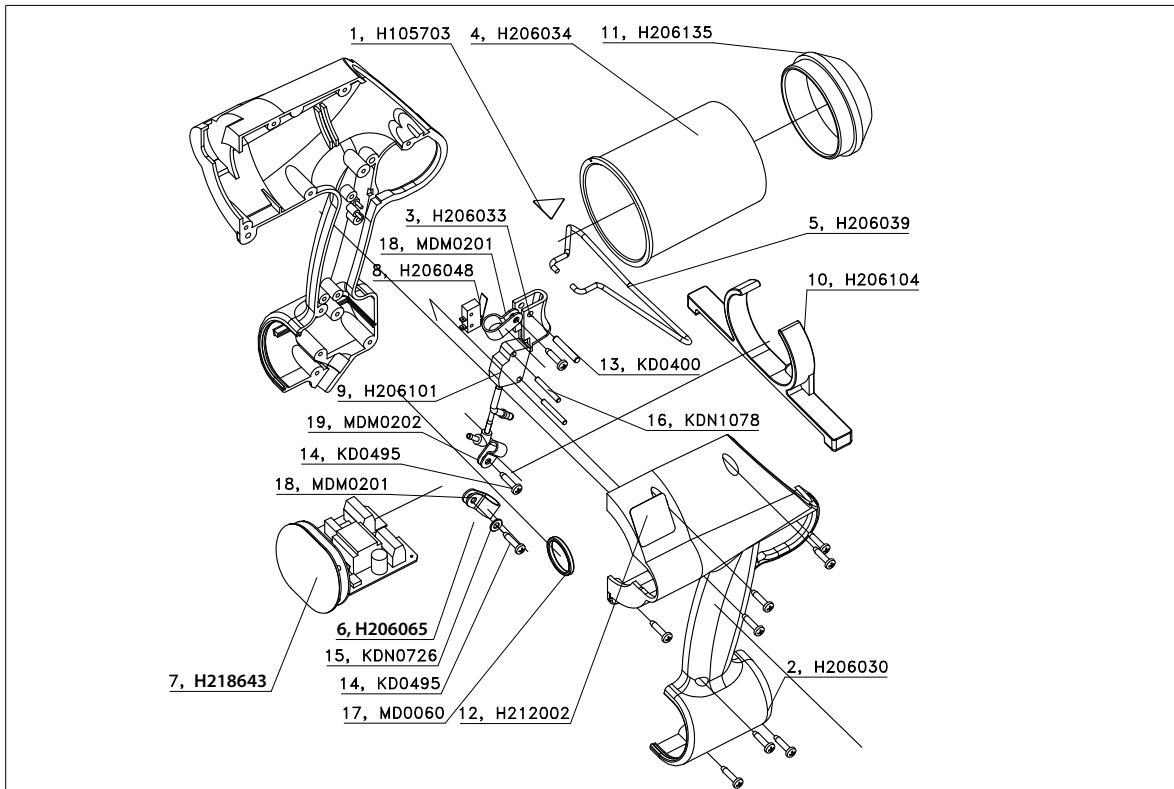
9 Disposal



Pass the device, packing and fittings for environmentally correct recycling/reuse (in accordance with European Parliament and Council Directive 2002/96/EC of 27th January 2003).



10 Spare parts
10.1 HB 710
10.1.1 Base Unit

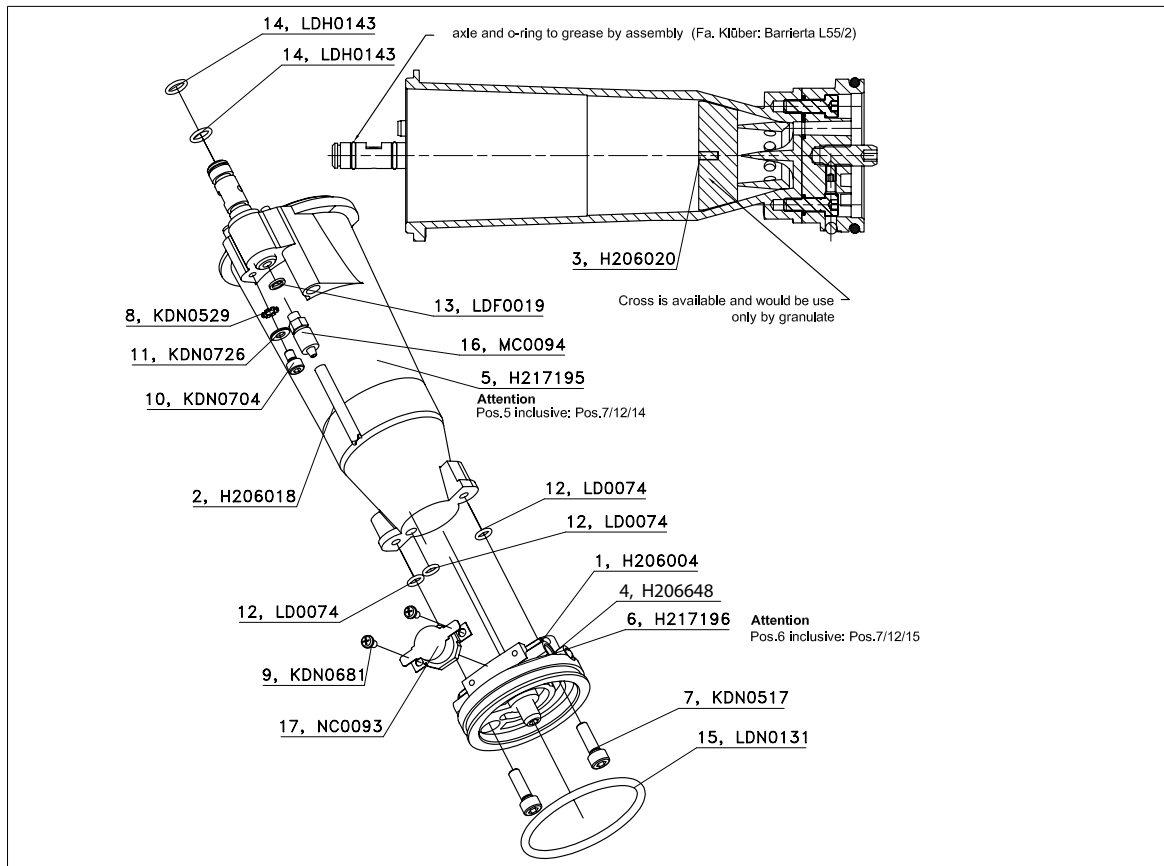


Spare parts list

Pos.	Order no.	Quantity	Designation
1	H105703	1	Warning label
2	H206030	1	Grip shell kit
3	H206033	1	Trigger
4	H206034	1	Tank insulation
5	H206039	1	Stand hoop
6	H206065	1	Supply cable 3 m US
7	H218643	1	Thermostat complete 120 V
8	H206048	1	Micro switch
9	H206101	1	Valve complete
10	H206104	1	Foot
11	H206135	1	Protection cap
12	H212002	1	Warning label
13	KD0400	1	Dowel pin
14	KD0495	11	Screw
15	KDN0726	2	Washer
16	KDN1078	2	Dowel pin
17	MD0060	1	Suspension ring
18	MDM0201	2	Clamp
19	MDM0202	1	Clamp



10.1.2 Melt Tank

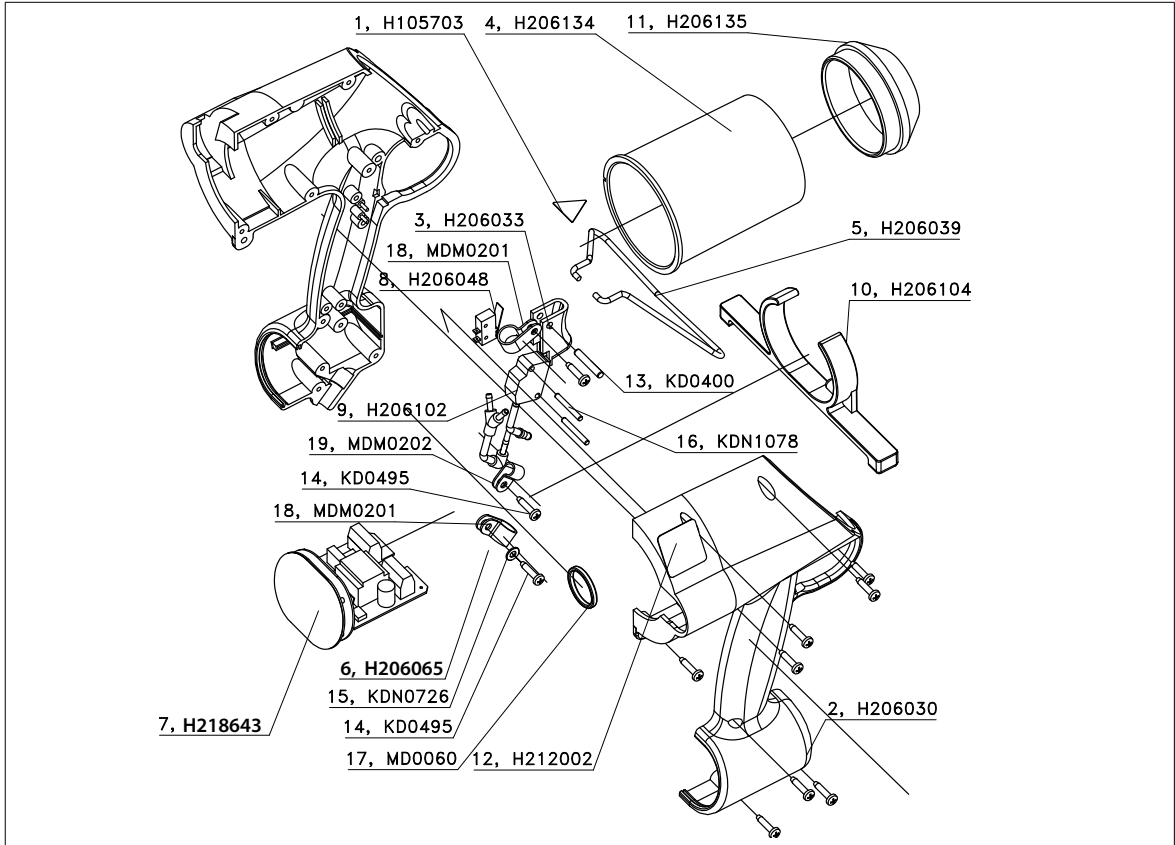


Spare parts list

Pos.	Order no.	Quantity	Designation
1	H206004	1	Temperature tracer
2	H206018	1	Hose
3	H206020	1	Rib
4	H206648	1	Heater
5	H217195	1	Tank unit
6	H217196	1	front kit unit bead
7	KDN0517	2	Screw
8	KDN0529	1	Toothed washer
9	KDN0681	2	Screw
10	KDN0704	1	Screw
11	KDN0726	1	Washer
12	LD0074	3	O-ring
13	LDF0019	2	Sealing ring
14	LDH0143	2	O-ring
15	LDN0131	1	O-ring
16	MC0094	1	Hose connector
17	NC0093	1	Thermostat



10.2 HB 710 Spray
10.2.1 Base Unit

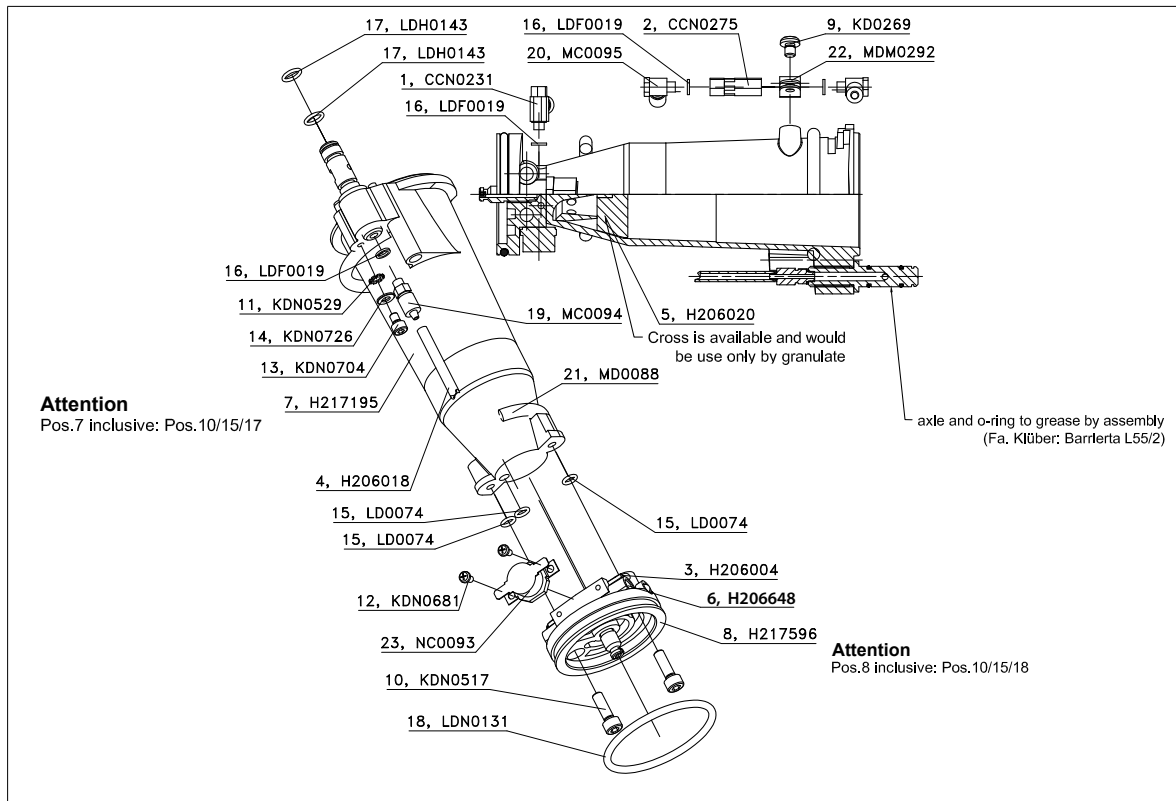


Spare parts list

Pos.	Order no.	Quantity	Designation
1	H105703	1	Warning label
2	H206030	1	Grip shell kit
3	H206033	1	Trigger
4	H206134	1	Tank insulation
5	H206039	1	Stand hoop
6	H206065	1	Supply cable 3 m US
7	H218643	1	Thermostat complete 120 V
8	H206048	1	Micro switch
9	H206102	1	Valve complete spray
10	H206104	1	Foot
11	H206135	1	Protection cap
12	H212002	1	Warning label
13	KD0400	1	Dowel pin
14	KD0495	11	Screw
15	KDN0726	2	Washer
16	KDN1078	2	Dowel pin
17	MD0060	1	Suspension ring
18	MDM0201	2	Clamp
19	MDM0202	1	Clamp



10.2.2 Melttank

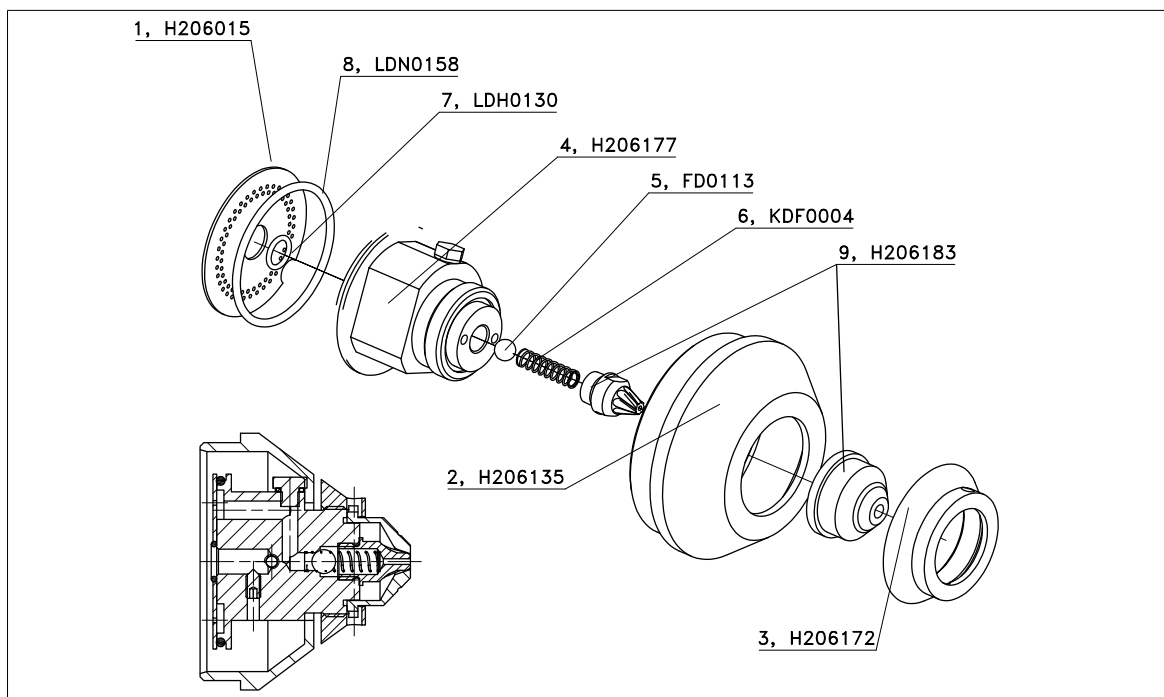


Spare Parts list

Pos.	Order no.	Quantity	Designation
1	CCN0231	1	Reduction valve
2	CCN0275	1	Valve
3	H206004	1	Temperature tracer compl.
4	H206018	1	Hose
5	H206020	1	Rib
6	H206648	1	Heater
7	H217195	1	Tank unit
8	H217596	1	Front kit unit spray
9	KD0269	1	Screw
10	KDN0517	2	Screw
11	KDN0529	1	Toothed washer
12	KDN0681	2	Screw
13	KDN0704	1	Screw
14	KDN0726	1	Washer
15	LD0074	3	O-ring
16	LDF0019	5	Sealing ring
17	LDH0143	2	O-ring
18	LDN0131	1	O-ring
19	MC0094	1	Hose connector
20	MC0095	2	Swivel joint
21	MD0088	1	Hose
22	MDM0292	1	Clamp D = 8 mm
23	NC0093	1	Thermostat



10.2.3 Nozzle Kit

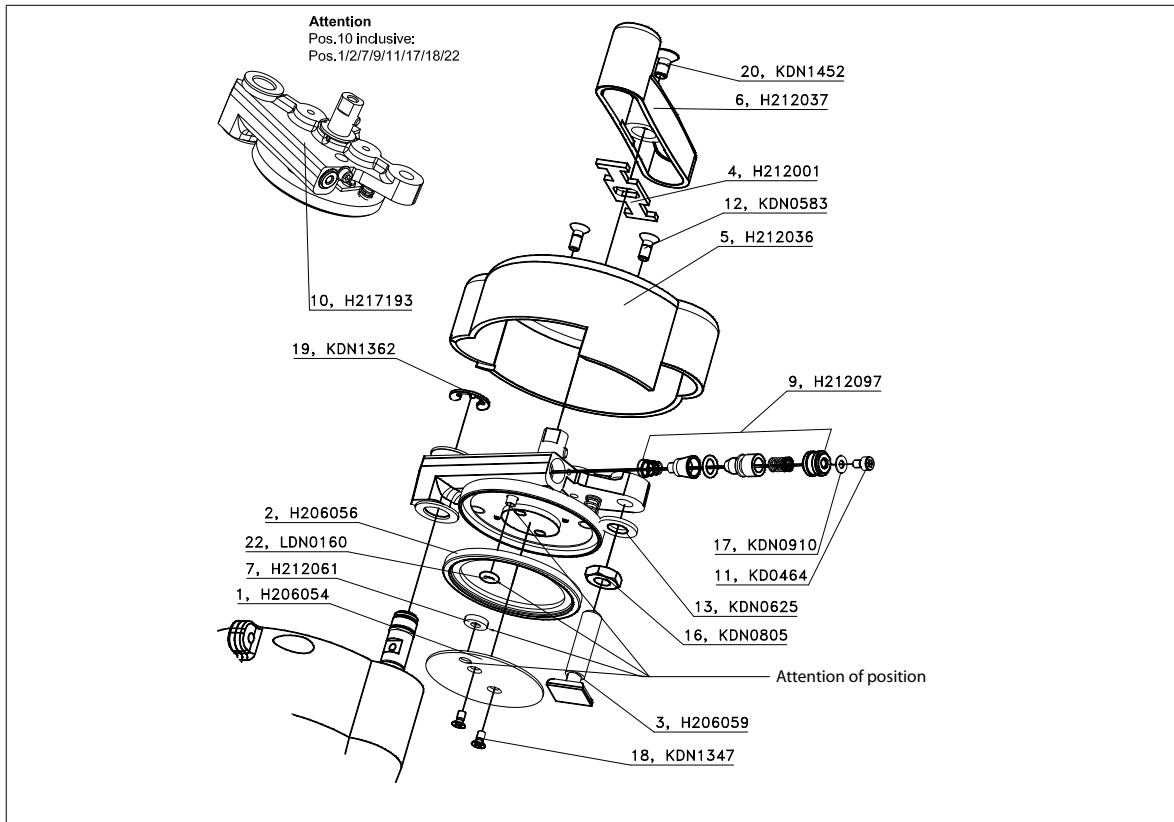


Spare parts list

Pos.	Order no.	Quantity	Designation
1	H206015	1	Dividing wall
2	H206135	1	Protection cap
3	H206172	1	Nut
4	H206177	1	Nozzle block complete
5	FD0113	1	Ball
6	KDF0004	1	Spring
7	LDH0130	1	O-ring
8	LDN0158	1	O-ring
9	H206183	1	Spray nozzle kit, 37° 1.5 mm



10.3 Closure

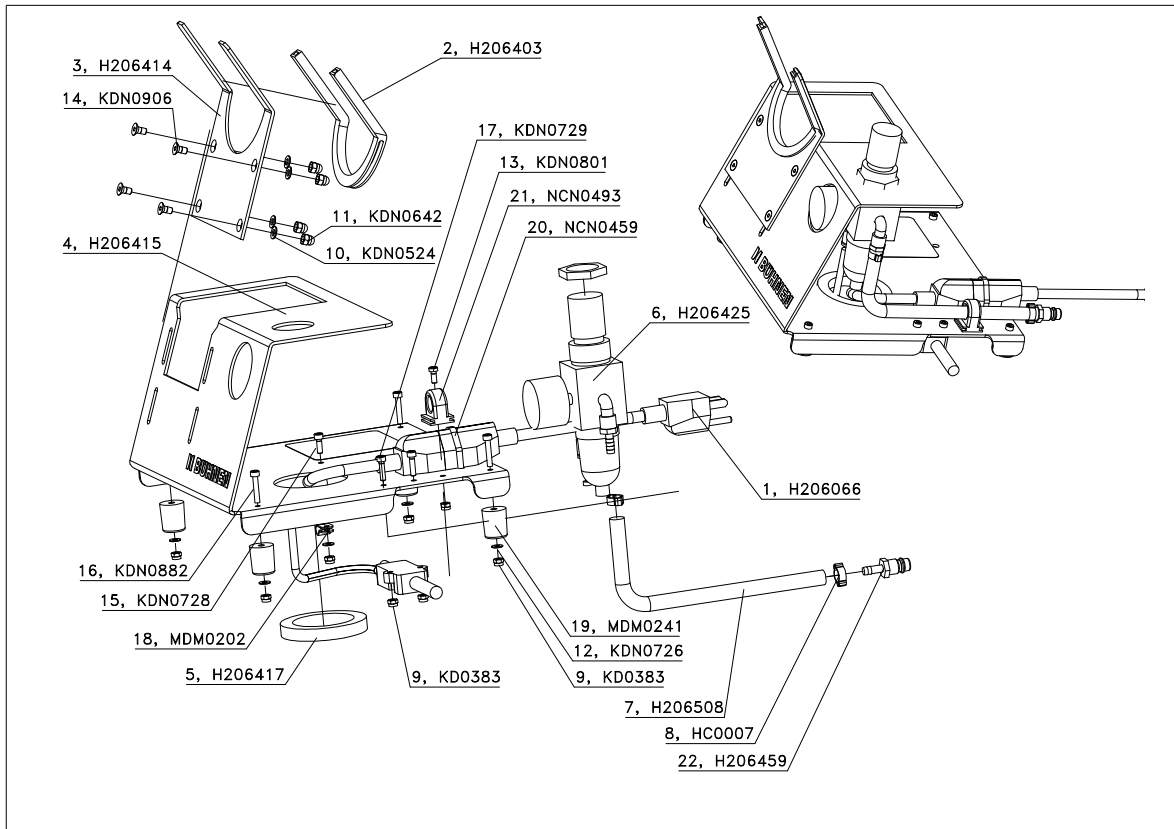


Spare parts list

Pos.	Order no.	Quantity	Designation
1	H206054	1	Sealing plate
2	H206056	1	Cover sealing
3	H206059	1	Tie bolt
4	H212001	1	Carrier
5	H212036	1	Closure cap
6	H212037	1	Lever
7	H212061	1	Washer
8	H212062	1	Cover
9	H212097	1	Valve compl.
10	H217193	1	Closure unit
11	KD0464	1	Screw
12	KDN0583	2	Screw
13	KDN0625	1	Washer
14	KDN0661	2	Screw
15	KDN0720	1	Cylinder pin
16	KDN0805	1	Nut
17	KDN0910	1	Spacer
18	KDN1347	2	Screw
19	KDN1362	1	Locking washer
20	KDN1452	1	Screw
21	LD0028	1	O-ring
22	LDN0160	1	O-ring



10.4 Working Bracket

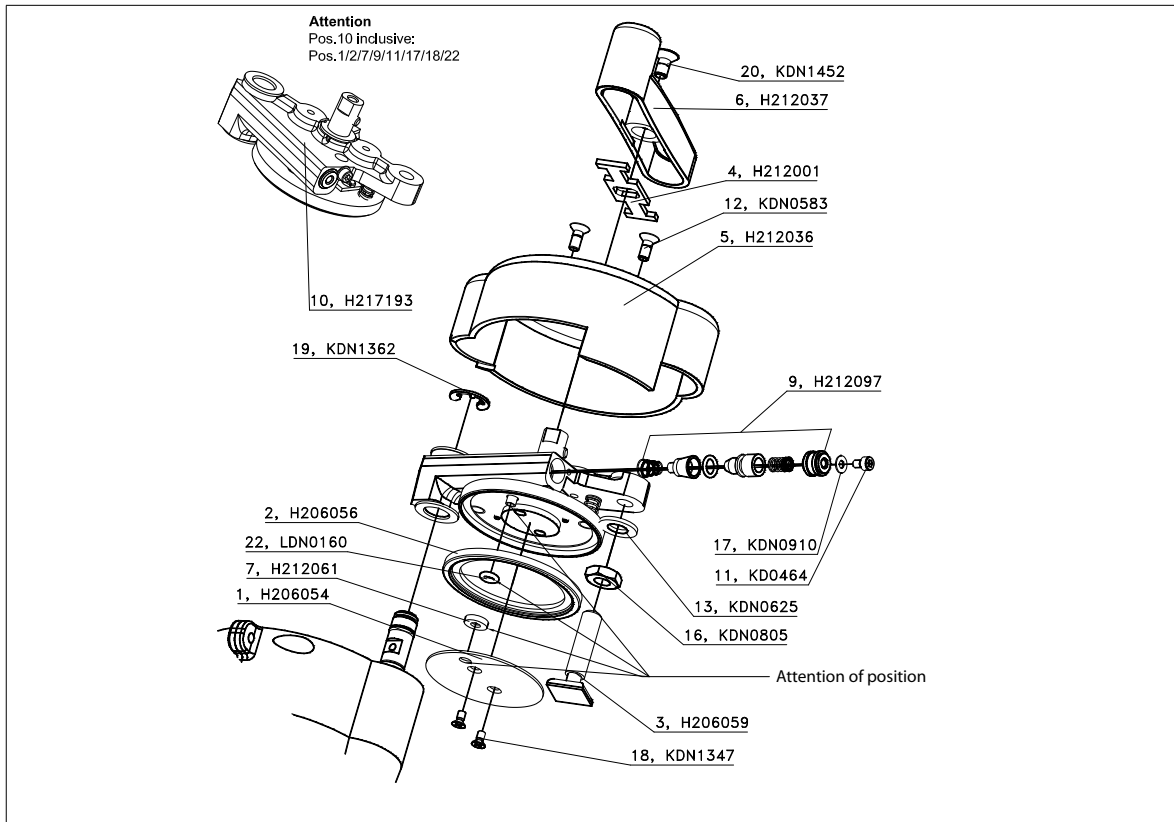


Spare parts list

Pos.	Order no.	Quantity	Designation
1	H206066	1	Power cord assy.
2	H206403	1	Edge protection 300 mm
3	H206414	1	Holding fixture
4	H206415	1	Console
5	H206417	1	Edge protection 200 mm
6	H206425	1	Air kit D = 33, complete
7	H206508	1	Hose
8	HC0007	2	Hose clamp
9	KD0383	9	Hexagon nut
10	KDN0524	4	Washer
11	KDN0642	4	Cap nut
12	KDN0726	5	Washer
13	KDN0801	2	Screw
14	KDN0906	4	Screw
15	KDN0728	1	Screw
16	KDN0882	4	Screw
17	KDN0729	2	Screw
18	MDM0202	1	Clamp
19	MDM0241	4	Housing base, black
20	NCN0459	1	Strap
21	NCN0493	1	Hose support
22	H206459	1	Hose clip



10.3 Closure

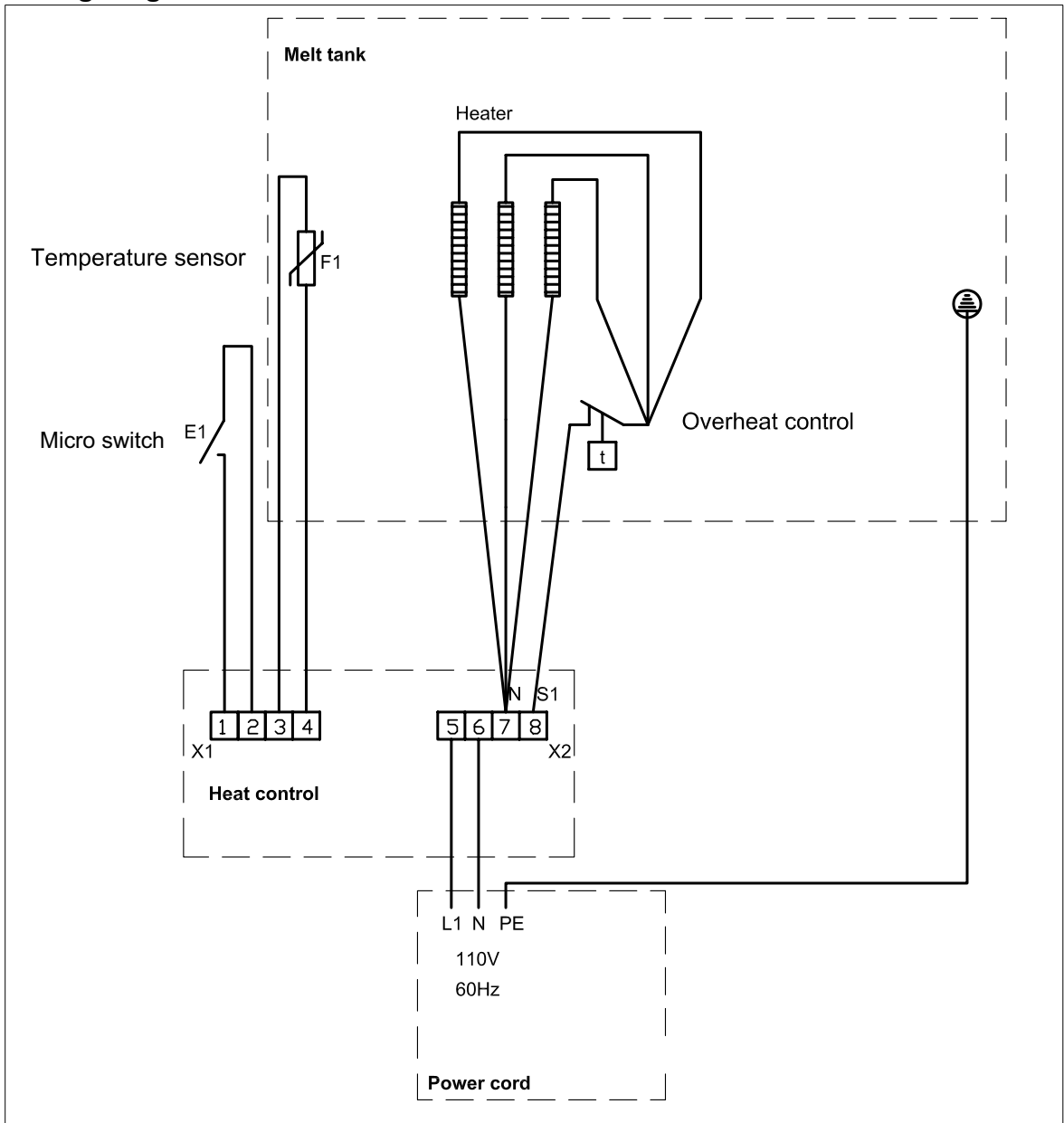


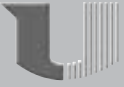
Spare parts list

Pos.	Order no.	Quantity	Designation
1	H206054	1	Sealing plate
2	H206056	1	Cover sealing
3	H206059	1	Tie bolt
4	H212001	1	Carrier
5	H212036	1	Closure cap
6	H212037	1	Lever
7	H212061	1	Washer
8	H212062	1	Cover
9	H212097	1	Valve compl.
10	H217193	1	Closure unit
11	KD0464	1	Screw
12	KDN0583	2	Screw
13	KDN0625	1	Washer
14	KDN0661	2	Screw
15	KDN0720	1	Cylinder pin
16	KDN0805	1	Nut
17	KDN0910	1	Spacer
18	KDN1347	2	Screw
19	KDN1362	1	Locking washer
20	KDN1452	1	Screw
21	LD0028	1	O-ring
22	LDN0160	1	O-ring



11 **Diagrams**
11.1 **Wiring diagram**





11.2 Pneumatic diagram

