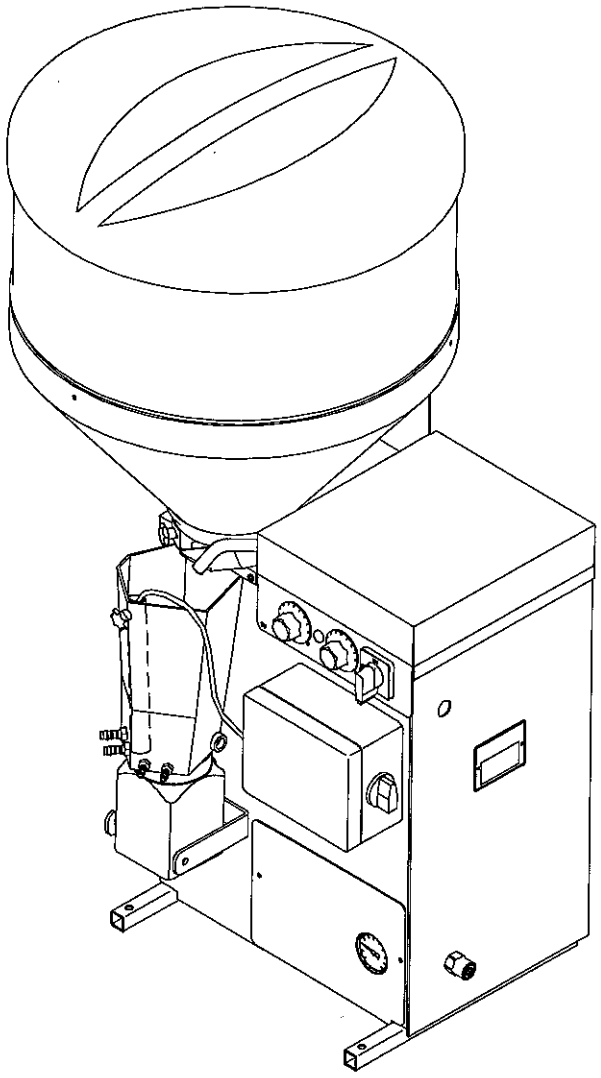
January 2006

Instruction Manual

Automatic Lamb Feeder

TAP0-EZ1-27
TAP0-EZ1-28-M
TAP0-EZ1-32-M
TAP0-EZ1-38-M



1 Introduction

- Read and understand this instruction manual before installing the automatic feeder. This is an important precondition for safe and trouble-free operation.
- Keep the instruction manual always ready to hand and pass it on to the next user.
- Treat the automatic feeder with care and carry out period maintenance. This will help you to enjoy this product for many years.

1.1 Safety instructions

- Only qualified and authorized service personnel is allowed to install, operate and repair the automatic feeder.
- In addition to the instruction manual, remember to follow any regulations for accident prevention in force in the operator's country as well as the rules of engineering practice for safe and expert working.
- Incorrect inputs may cause harm to animals' health. Therefore , always check whether all inputs are correct and the automatic feeder is running properly.
- Constantly check your livestock and the functions of the automatic feeder. If the animals are not or insufficiently provided with feed by the automatic feeder, make sure to feed them elsewhere.

1.2 Application

1.2.1 Intended use of the automatic feeder

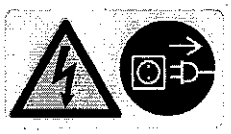
- Only use the automatic feeder for liquid feeding of lambs and kids.
- Only use commercially available milk powders and additives.

1.3 Danger signs

WARNING! Crush hazard due to rotating tools.

Keep hands clear of those parts carrying this danger sign! Otherwise, you run the risk of injury.

Turn the main switch to 0/OFF and pull the mains plug before carrying out any kind of operations on the labeled parts.

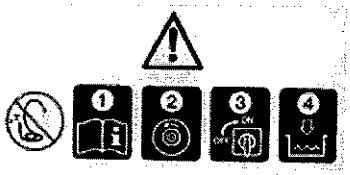


DANGER! Hazardous voltage! Electric shock hazard!

Do not touch any live parts, otherwise, current may flow through your body. This may cause severe physical injury.

Turn the main switch to 0/OFF and pull the mains plug before carrying out any kind of operations on the labeled parts.

1.4 Information signs



Before connecting the **automatic feeder** to the **mains supply** and **activating** the **heating** (see chapter 4 "Start-up", page 13), **carefully read** this **instruction manual**.

Any questions about this product? Then, feel free to get in touch with us. Before calling us, please write down the information (machine type, machine number) on the rating plate located at the left of the feeder chassis, as well as the program version).

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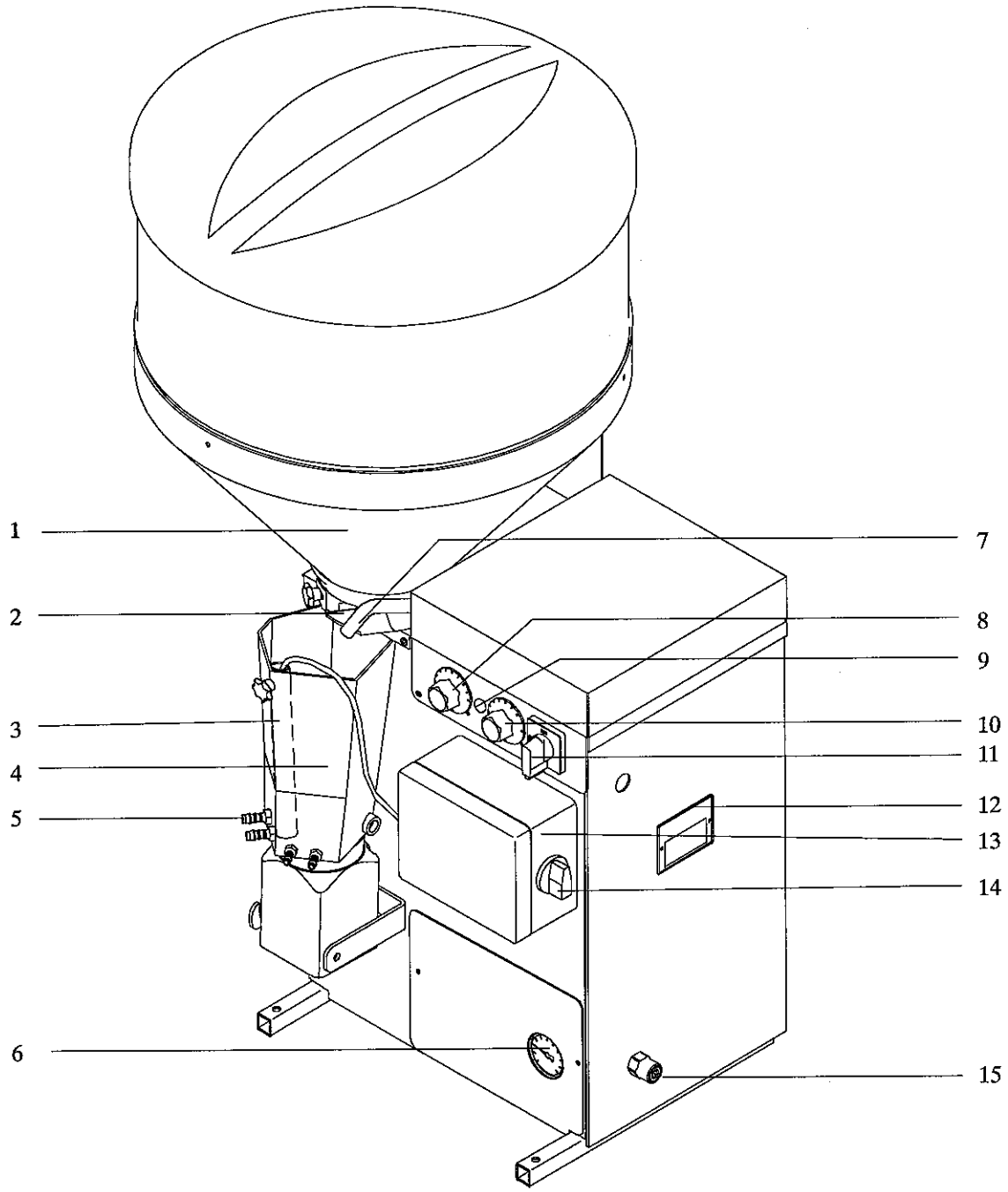
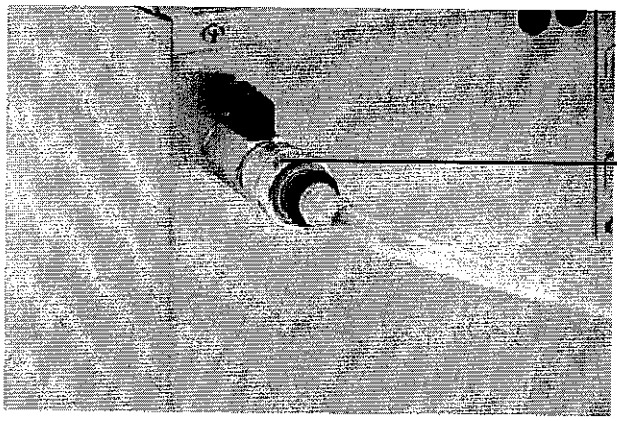
1.5 Components



1 = Milk powder hopper
2 = Dosing slide
3 = Pressure tube
4 = Mixer
5 = Suction hose connection
6 = Manometer
7 = Milk/Water outlet
8 = Thermostat for minimum operating temperature **(not for TAP0-EZ1-27)**
9 = Pilot lamp for heating
10 = Heating thermostat
11 = Main switch ON/OFF **(not for TAP0-EZ1-27)**
12 = Rating plate
13 = Power unit
14 = Program switch
15 = Water supply

Detailed view of the left side



1 = water cock for manual hose cleaning

2 Technical data

Please observe the information on the rating plate located at the left of the chassis!

Electrical connection

TAP0-EZ1-27

230V / L / N / PE, 50 Hz, 16 A

TAP0-EZ1-28-M (only for USA and Canada)

240V / L1, L2 / Grd / 60 Hz, 15 A

TAP0-EZ1-32-M

230V / L / N / PE, 50 Hz, 16 A

TAP0-EZ1-38-M

230V / 400V / 3 / N / PE, 50 Hz, 16 A

Dimensions of the automatic feeder

Height: 108 cm

Width: 61 cm

Depth: 53 cm

Weight (with basic equipment): approx. 40 kg

Water supply

1/2“ hose with 3/4“ hose coupling.

The local water pressure has to be between 2,5 and 6 bar.

Boiler

Boiler capacity: approx. 6 liters

Milk powder hopper (with top section) - capacity

approx. 35 kg

Number of feeding stations

Each automatic feeder can provide approx. 20 animals per feeding station with feed.

Specifications are subject to change without prior notice!

3 Locating the automatic feeder

3.1 Local electrical connection

- The local electrical connection must be installed by qualified electricians.
- Observe the local regulations and protective measures.
- A fault-current circuit breaker (30 mA) in the local power supply is compulsory in order to operate the automatic feeder.
- The automatic feeder requires its own power supply: *refer to chapter 2 „Technical data", page 8.*
- Observe rated voltage and rated frequency. The mains voltage indicated on the rating plate of the automatic feeder must correspond to the one of the mains supply.
- In case of overvoltage risk, an overvoltage protector must be installed in the main distribution frame.

Equipotential bonding

For animals' safety and to prevent electrical interferences, carry out equipotential bonding of all metal parts such as water pipe, feeding station, race-way and automatic feeder. At the rear of the automatic feeder is located the connection screw for the equipotential bonding. It is imperative to connect this screw to a local earth electrode by means of a short and flexible copper conductor (minimum cross section: 4 mm^2).

Lightning protection

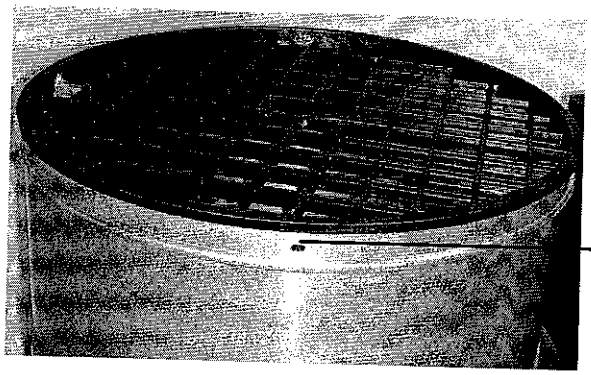
As it is technically impossible to protect such an installation against lightning stroke separately, it is to the owner to install an adequate protection against lightning, such as e.g. a lightning protection system for the entire building. We recommend to conclude a lightning protection insurance.

3.2 Locating the automatic feeder

- Place the automatic feeder ideally in a dry location, if possible separate from the animal area, e.g. in the fodder storage or the milk room.
- Protect the automatic feeder against dirt and flies.
- Be sure to protect the automatic feeder against frost, e.g. by means of the frost protection kit.

3.3 Mounting the protective grating of the top section of the hopper

The protective grating for the top section of the powder hopper prevents injuries due to rotating tools in the powder hopper. Injuries may occur e.g. when filling the milk powder into the hopper.



1 = Hole on the top section of the powder hopper
to screw in a self-cutting screw

- Remove the bags with the small pieces and the hoses as well as the instruction manual from the milk powder hopper.
- Mount the protective grating on the top section of the powder hopper.
- Screw the three self-cutting screws into the holes intended for them.

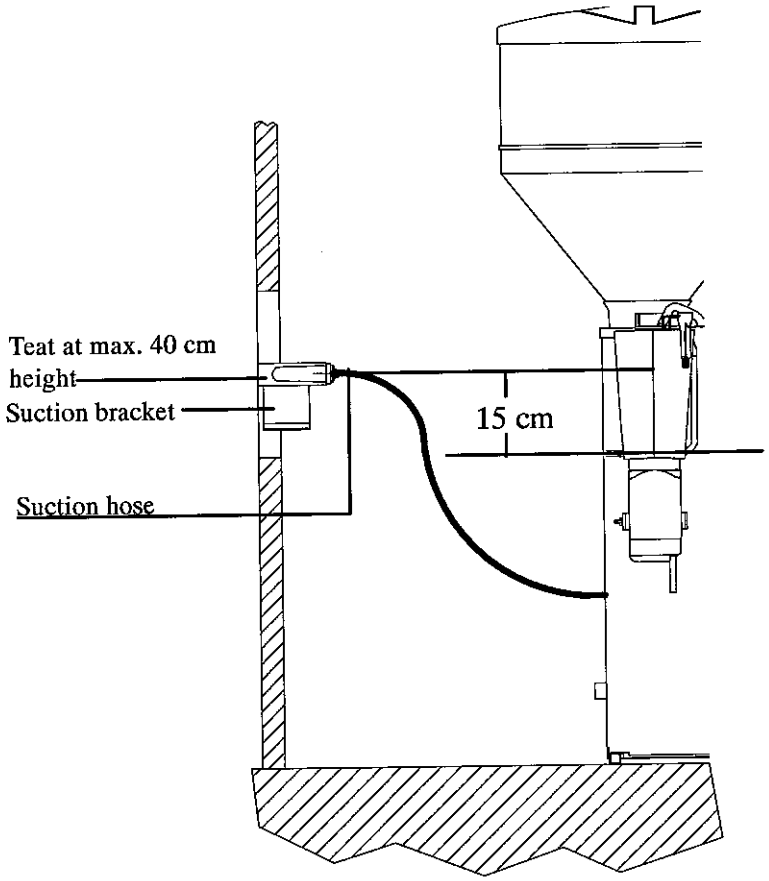
3.4 Water supply

- Connect the 1/2“ water hose with the 3/4“ screw-type hose coupling to the water connection located at the right of the automatic feeder.
- Make sure that the water pressure is constant. The water pressure supplied by customers has to be between 2.5 and 6 bar.
- Convert to the water box, if the minimum water pressure of 2.5 bar cannot be achieved.
- For the water supply of the automatic feeder, install a separate water stop-cock.

NOTE: if the water pipe has a small cross section, water pressure may drop during operation. The same applies to a water line from which water is extracted at different spots simultaneously.

3.5 Mounting the feeding station

- Install the feeding station 30 - 40 cm above the stable ground.
  Mount the teat approx. 15 cm above the suction hose connection of the mixer.
- Secure the suction hose in such a way that the mixer jar can easily be tilted in forward position. The suction hoses should not exceed a length of 2 meters.
- Mount the suction bracket with splash board towards the bottom.
- Make sure that there is no sag in the connecting hose between mixer and feeding pump, in order to prevent accumulation of water or milk.

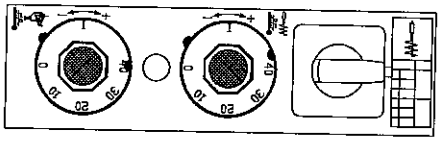


4 Start-up

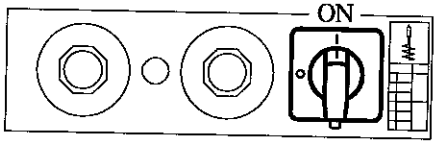
4.1 Filling the boiler with water

Warning: Before switching the heating on, fill up the boiler with water, otherwise the boiler will be damaged. There will be no guarantee for a reliable functioning of the automatic feeder.

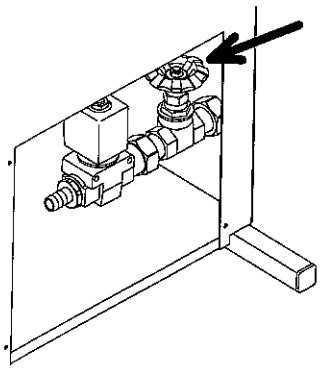
- Turn the main switch to **0/OFF.**



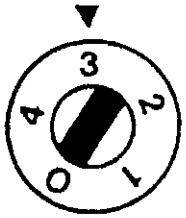
- Turn both thermostats to **0**.



- Connect the mains plug and turn the main switch to **I/ON** in order to switch the automatic feeder on.

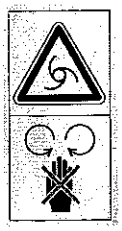


- Open the water control valve.



- Turn the program switch to 3.

4.2 Filling milk powder into the powder hopper



WARNING! Crush hazard due to rotating tools.

Keep hands clear of those parts carrying this danger sign! Otherwise, you run the risk of injury.

Turn the main switch to 0/OFF and pull the mains plug before carrying out any kind of operations on the labeled parts.

NOTE: there is no warning when the milk powder hopper is empty! The automatic feeder will operate without milk powder. This may effect that the animals are only fed with water, thus being insufficiently provided with feed.

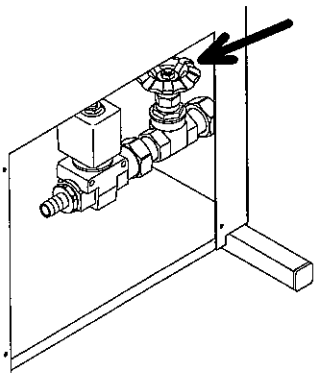
- Only fill in milk powder that is suitable for lamb and kid feeding.
- Make sure that there is no paper or other foreign matter in the powder hopper. Otherwise the dosing mechanism may be damaged or the dosing accuracy may be impaired.

4.3 Setting the concentration

You can set the concentration by varying the water flow rate.

- Take the pressure tube and the water hose out of the mixer.
- Hang a cup into the mixer in order to collect the dispensed powder.
- Place a measuring cup under the water outlet.
- Turn the program switch to **4** and collect the dispensed water into a measuring cup.
- After having collected 1 liter of water, immediately turn the program switch to **0.**

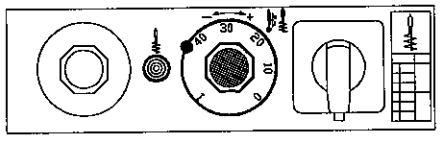
The milk powder amount that has been dispensed during the same time represents the milk powder concentration per liter of water.



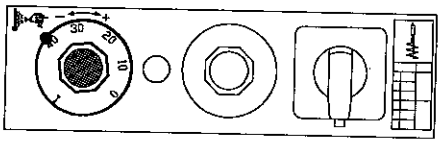
- If the dispensed milk powder amount is too low, close the water control valve a little bit.
- If the dispensed milk powder amount is too high, open the water control valve a little bit more.
- Remount the pressure tube. The lower end must touch the mixer base.
- Hang the water hose into the mixer once again.

4.4 Adjusting the temperature

The boiler has to be filled with water!



- Turn the heating thermostat so far clockwise until both red marks will coincide.



- Turn the thermostat for minimum operating temperature so far clockwise until both green marks will coincide.

The thermostat for minimum operating temperature is activated as soon as the water temperature in the boiler falls below the preset temperature.

The minimum operating temperature has always to be 3°C below the boiler heating temperature, in order to avoid overlapping of the adjustment range.

The marks are intended to help the operator adjust the temperature. Nevertheless, he has to check the set values on his own authority.

For cold-soluble milk powders, a temperature of approx. 38°C will be sufficient.

For those milk powders containing fats with higher melting point, the outlet temperature has to be between 42°C and 43°C.

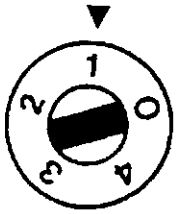
4.5 Avoiding measurement errors

The temperature must always be set very carefully!

Too low temperatures may cause digestive troubles due to undissolved fats.

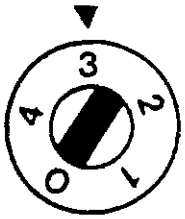
Too high temperatures may cause inflammation of the mucosa in the abomasum that on its part may lead to flatulences.

4.6 Measuring the temperature



- Turn the program switch to **1**.

- Wait until the yellow pilot lamp for heating goes out.



- Turn the program switch to **3**.

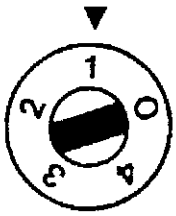
- Wait until the water dispense is interrupted by the pressure switch.

- Immediately afterwards measure the temperature by means of a precise thermometer.

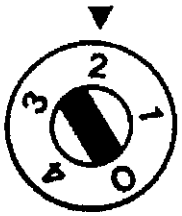
- Measure the temperature carefully and, if necessary, adjust the thermostats until the desired temperature is reached.

5 Functionality

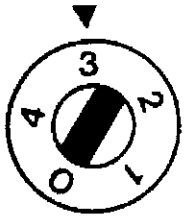
5.1 Program switch positions



1 = Option

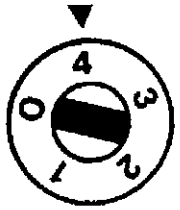


2 = Mixer ON



3 = Water conveyance

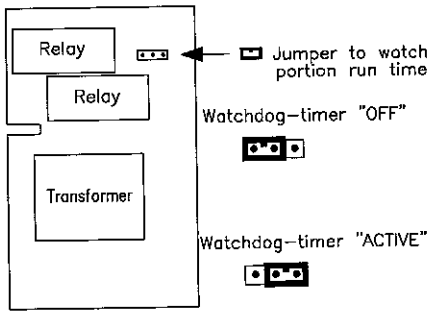
When the pressure tube is located outside the mixer, the water will flow incessantly.



4 = Automatic mode

The powder, the water and the mixer are activated simultaneously. The water tank or the pressure reducer are intended to ensure constant flow velocity. The water control valve is used to set the water flow rate.

The concentration is set by modifying the water flow rate.



The pressure switch connected to the pressure tube switches the water- and powder conveyance off, as soon as a certain pressure has been reached. After several seconds a relay switches the mixer off. A portion is prepared as soon as the mixer is empty. In case of water deficiency the automatic feeder switches off automatically after approx. 40 seconds, provided that the jumper is in position ON.

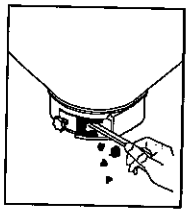
6 Care and maintenance

- Always keep the automatic feeder clean and dry. Never spray it with water!

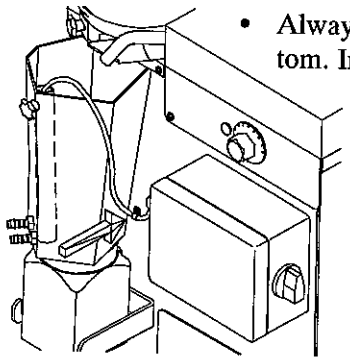
WARNING! Crush hazard due to rotating tools.

Keep hands clear of those parts carrying this danger sign! Otherwise, you run the risk of injury.

Turn the main switch to 0/OFF and pull the mains plug before carrying out any kind of operations on the labeled parts.



- Daily check the milk powder outlet and remove potential incrustations. Incrustations impair the dosing precision.
- In order to avoid injuries, always remove incrustations from the powder outlet by means of a small piece of wood or similar. Never use your fingers!



- Always lay the cable between the pressure tube and the pressure switch towards the bottom. In case the milk flows into the pressure tube, the latter will become inoperative.

6.1 After start-up

- The day after start-up, carry out the following:
  - Measure the feed temperature.
  - Check the concentration of the milk powder.

6.2 Regular operations

6.2.1 Cleaning the mixer jar (with detergent)

- Daily clean the mixer jar.
- Remove the suction hoses from the teat and suspend them.
- Turn the program switch to **3**.
- Fill the mixer with water until the pressure switch interrupts water conveyance.
- Add some detergent also used in dairy farming.
- Turn the program switch to **2**.
- Shortly afterwards, turn the program switch to **0**.
- Wipe out and empty the mixer resp. drain the cleaning water via the suction hoses.
- Turn the program switch to **3.** Rinse with clear water.
- Remount the suction hoses on the teat.
- Turn the program switch to **4**.

6.2.2 Cleaning the suction hoses with the sponge (and detergent)

We recommend to weekly clean each suction hose with the sponge and detergent, if necessary.

To do so, proceed as follows:

- Remove the suction hose from the mixer and the teat.
- Insert the cleaning sponge in the suction hose. In order to intensify the cleaning effectiveness, before inserting the sponge in the hose, dip it into a detergent used in dairy farming.
- Slip the end of the suction hose with cleaning sponge over the nozzle of the quick coupling of the water cock.
- Hang the other end of the suction hose into the drain.
- Open the water cock and let the water flow until the cleaning sponge comes out of the hose. If you used some detergent, you must rinse the suction hose until clear water comes out.

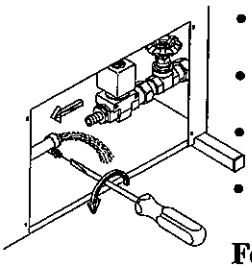
6.2.3 Miscellanous

- Check milk powder concentration after each new milk powder delivery.
- Check the temperature of the milk.
- In case of direct water supply, check whether the filter of the pressure reducer and the solenoid valve are clean. Clean them, if necessary.

6.3 Shutdown

- Turn the heating thermostat entirely counter-clockwise. Turn the main switch to position **0/OFF** to switch the automatic feeder off and pull the mains plug.

6.3.1 In case of frost risk



- Drain the whole water from the boiler and the pressure reducer.
- Remove the boiler hose and hold the hose towards the bottom to drain the water.
- Remount the boiler hose.
- Remove the whole pressure reducer and drain the water.
- Remount the pressure reducer.

For restart, proceed as for initial start-up.

7 Troubleshooting

We assume that the automatic feeder has been installed according to the information contained in this instruction manual and that the setting has been carried out correctly.

The causes are listed according to their frequecy. Therefore, during troubleshooting always start with the first one.

Fault	Cause	Countermeasure
1. The automatic feeder does not prepare any portion; the green LED is not illuminated.	The lid is open.	Close the lid.
	The minimum operating temperature has not been attained.	Check the heating and the thermostats.
	The line is interrupted.	Check the supply lead.
	The mains supply fuse (2,5 A) is defective.	Replace the fuse.
2. The automatic feeder does not prepare any portion; the green LED is illuminated.	There is water in the hose between the pressure tube and the pressure switch.	Clean and dry the hose.
	There is water in the pressure tube.	Replace the pressure tube.
3. The feed overflows.	The pressure tube is leaky.	Check the pressure tube. Seal it, if necessary.
	The hose between the pressure tube and the pressure switch is leaky.	Check the hose. Replace it, if necessary.
	The pressure switch is damaged.	Replace the pressure switch.
	The water solenoid valve does not close.	Replace the water solenoid valve.
4. The powder motor runs continuously (only for automatic feeders that are not equipped with an electronic protection against water deficiency).	The water supply is interrupted.	Check the water supply.
	The water solenoid valve does not open.	Check the water solenoid valve and the pressure reducer. Replace them, if necessary.

EC DECLARATION OF CONFORMITY

We, **Förster Technik GmbH**
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Fax: +49 (0)7733/9406-99

declare that our products with the designation:

TAP*-EZ1-27
TAP*-EZ1-28-M
TAP*-EZ1-32-M
TAP*-EZ1-38-M
including all accessories, *with chassis size 0 or 1

to which this declaration relates are in conformity with the following relevant regulations:

EN	292-1 / 11.91	Safety of machinery - Basic concepts, general principles for design; Part 1: basic terminology, methodology
EN	292-2 / 06.95	Safety of machinery - Basic concepts, general principles for design; Part 2: technical principles and specifications
EN	294 / 8.92	Safety of machinery - Safety distances to prevent danger zones from being reached by the upper limbs
EN	349 / 6.93	Safety of machinery - Minimum gaps to avoid crushing of parts of the human body
EN	50081-1 / 3.93	Electromagnetic compatibility(EMC) - Generic emission standard; Part 1: residential, commercial and light industries
EN	50082-1 / 11.97	Electromagnetic compatibility (EMC) - Generic immunity standard; Part 1: residential, commercial and light industry
EN	563 / 01.2000	Safety of machinery - Temperatures of touchables surfaces - Ergonomics data to establish temperature limit values for hot surfaces
EN	1070 / 01.99	Safety of machinery - Terminology
EN	60204-1 / 11.98	Safety of machinery - Electrical equipment of machines; Part 1: general requirements

Date: December 1, 2002

per the provisions of Council Directives 89/392/EEC, Annex II A, 89/336/EEC, 73/23/EEC and 93/68/EEC

.....
Wolfgang Latz

.....
Alfred Steiner

Signatory: Mister Latz, Head of Production
Mister Steiner, Head of Department Electrical Components

A

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C

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Ersatzteillisten

- spare part lists -

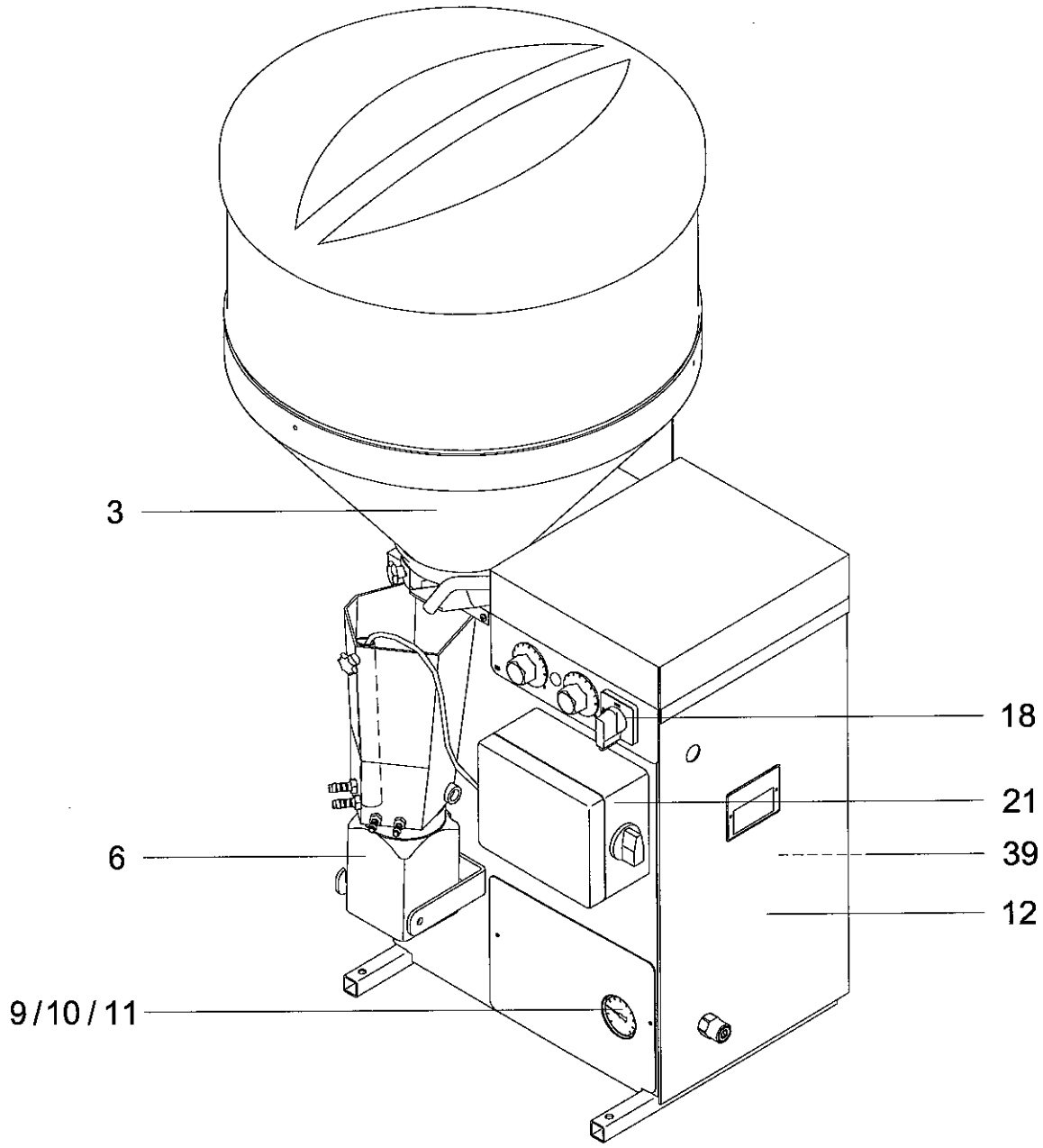
FÖRSTER TECHNIK®

für Lämmerautomat

for Lamb Feeder

Artikel: 44510

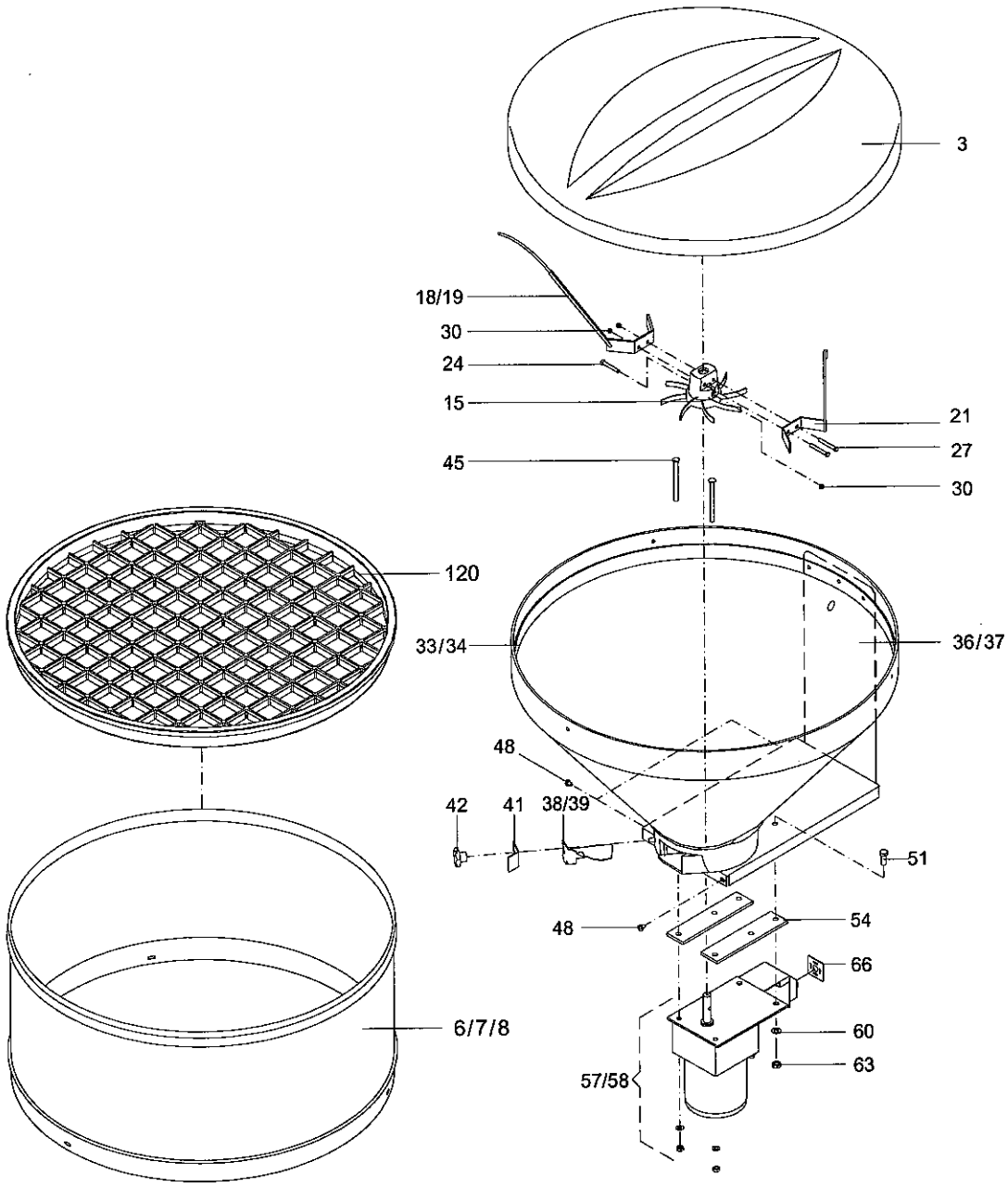
90911 / 11.01



TAP0-EZ1-M -CSA

90911::44510

Pos. *Item*	Teile-Nr. *Part-No.:*	Bezeichnung *Description*
003		Pulverförderung powder supply 0/1 230V
006		Intensivmixer intensive mixer
009		Wasserversorgung water inlet
012		Grundgestell 0 EZ TAP base frame 0 EZ TAP
018		Boiler-1 boiler
021	96345	Steuerung TAP EZ1 CSA/UL control TAP EZ1 CSA/UL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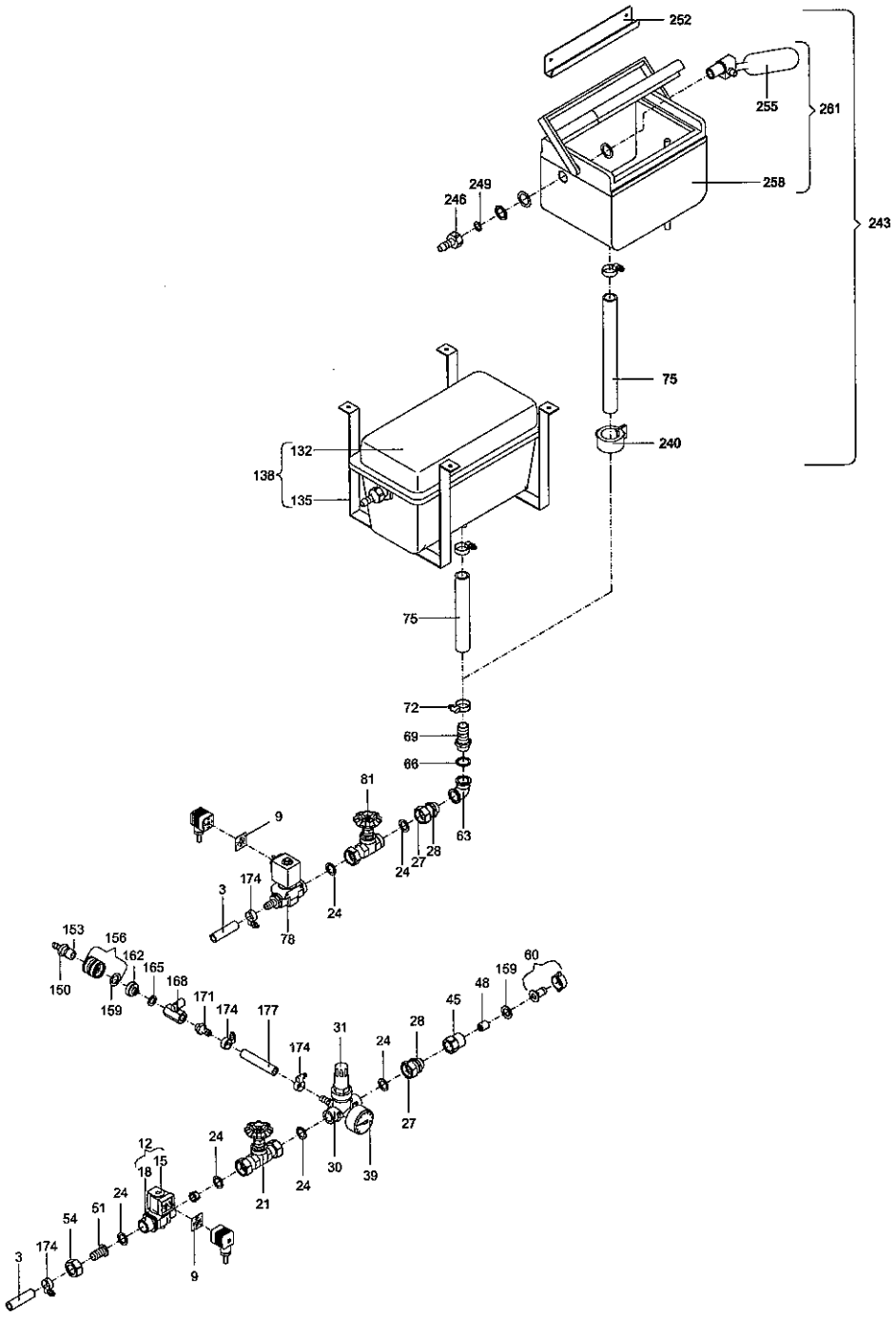
Pulverförderung
powder supply 0/1 230V

30017::30017

Die Ersatzteil-Liste stellt die verschiedenen Varianten der o.g. Baugruppe dar.
The spare-parts-list shows the different variants of the above-mentioned structural group.

Pos. *Item*	Teile-Nr. *Part-No.:*	Bezeichnung *Description*
003	30070	Pulverbehälterdeckel D:500mm powder hopper lid D:500mm
006	71805	Trichteraufsatz H:250 D:500 VA kompl. hopper extension H:250 D:500 VA complete
007	30043	Trichteraufsatz H:250 D:500 verzinkt kompl. hopper extension H:250 D:500 zinc-coated complete
008	40101	Trichteraufsatz H:400 D:500 VA kompl. Powder hopper top section H:400 D:500 stainless steel compl.
015	30012	Federstern 10mm metering star 10mm
018	20007	Rührflügel mit Feder 235mm stirrer blade with spring 235mm
021	20008	Rührflügel mit Feder 110mm stirrer blade with spring 110mm
033	91582	Pulvertrichter kompl. powder hopper complete
034	91584	Pulvertrichter mit Trichterstütze powder hopper with hopper holder
036	70795	Trichterstütze kompl. hopper support complete
038	96044	Dosierzunge für feinkörnige Pulversorten metering plate for fine-grained powder types
039	60043	Dosierzunge Pulverförderung TA0 und TA1 metering plate powder supply TA0 and TA1
041	90214	Pulverleitblech links guide plate for powder left
042	60117	Sternmutter M5 headed star nut M5
057	70908	Getriebemotor O 220-240V/60Hz kompl. gear motor O 220-240V/60Hz complete
058	40005	Getriebemotor O 220-240V/50Hz kompl. gear motor O 220-240V/50Hz compl.
066	90079	Dichtung GDM 3-17 seal GDM 3-17
120	43667	Schutzgitter Pulverförderung D:500mm kompl. protective grating powder supply D:500mm compl.
	* * * * * * * * * * *	
	30017	Pulverförderung 0/1 230V 50Hz powder supply 0/1 230V 50Hz
	71928	Pulverförderung 0/1 230V 60Hz powder supply 0/1 230V 60Hz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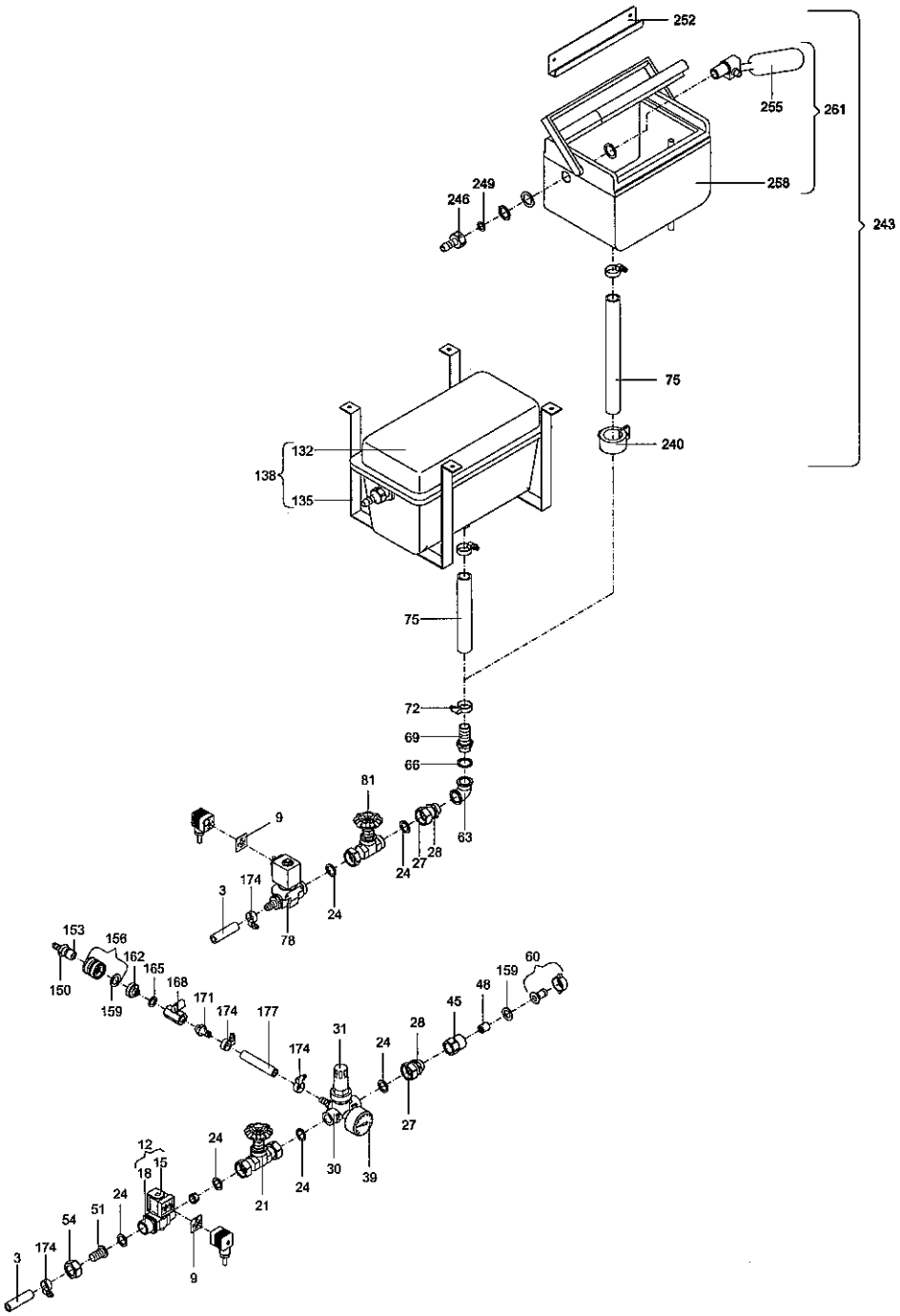
Wasserversorgung
water inlet

70820::70820

Die Ersatzteil-Liste stellt die verschiedenen Varianten der o.g. Baugruppe dar.
The spare-parts-list shows the different variants of the above-mentioned structural group.

Pos. *Item*	Teile-Nr. *Part-No.:*	Bezeichnung *Description*
009	90079	Dichtung GDM 3-17 seal GDM 3-17
012	90099	Wassermagnetventil 220-240V 50-60Hz 3/4" Gewinde beidseitig water solenoid valve 220-240V 50-60Hz 3/4" thread both sides
015	80015	Magnetspule (Magnetventil-80010/90099) solenoid coil (solenoid valve-80010/90099)
018	40017	Wassermagnetventil ohne Spule (für Artikel 90099) water solenoid valve without coil (for item 90099)
024	80059	Dichtung 24,0x17x2mm graphitiert seal 24,0x17x2mm graphite-coated
027	71477	Überwurfmutter 3/4" L:14mm ID:21,7mm sw30 union nut 3/4 " L:14mm ID:21,7mm sw30
028	60099	Verschraubung mit Überwurfmutter und Mutter screw connection with union nut and nut
030	96434	Druckminderer 1/2" 1,5bar | bis: 20.07.04 pressure reducer 1/2" 1,5 bar | up till: 20.07.04
031	97912	Druckminderer m. Manometer und Zusatztülle pressure reducer with manometer and additional nozzle
039	80009	Manometer - Anschluss hinten manometer - rear connection
045	70641	Reduzierung 3/4"AG 1/2"IG L:34 sw27 ID:19mm | bis: 06.03.01 reducing fitting 3/4"ET 1/2"IT L:34 sw27 ID:19mm | up till: 06.03.01
048	70466	Rückschlagventil 20,0 Durchmesser | bis: 06.03.01 non-return valve D:20,0 | up till: 06.03.01
	41060	Rückschlagventil-Rückflussverhinderer D:15mm m. Feder 0,4bar | ab: 07.03.01 nonreturn valve D:15mm | as of: 07.03.01
051	71472	Schlauchtülle 1/2" für Schlauchverschraubung 3/4" Ü.-Mutter hose nozzle 1/2" for threaded hose coupling 3/4" union nut
054	70964	Überwurfmutter 3/4" L:14mm ID:20,0mm sw30 union nut 3/4" L:14mm ID:20,0mm sw30
060	70740	Schlauchverschraubung 2-teilig IG 3/4" Tülle 13mm threaded hose coupling two pieces IT 3/4" nozzle 13mm
066	60161	Dichtung 27,0x21x2mm graphitiert seal 27,0x21x2mm graphite-coated
069	71920	Schlauchtülle AG 1/2" L:53mm sw27 hose nozzle ET 1/2" L:53mm sw27
075	91362	Schlauch 19,0x4,0mm PVC hose 19,0x4,00mm PVC
078	10112	Niederdruckmagnetventil 230V 50-60Hz 8,5mm mit Tülle u. Gewi low-pressure solenoid valve 230V 50-60Hz 8,5mm+nozzle/thread
138	96249	Wasserkasten 355x190x155 kompl. mit Halterung | bis: 14.05.03 water tank 355x190x155 complete with bracket | up till: 14.05.03
156	90368	Schlauchkupplung 3/4" (Steckdose) Einhandkupplung 3/4" hose coupling 3/4" (socket) quick coupling 3/4"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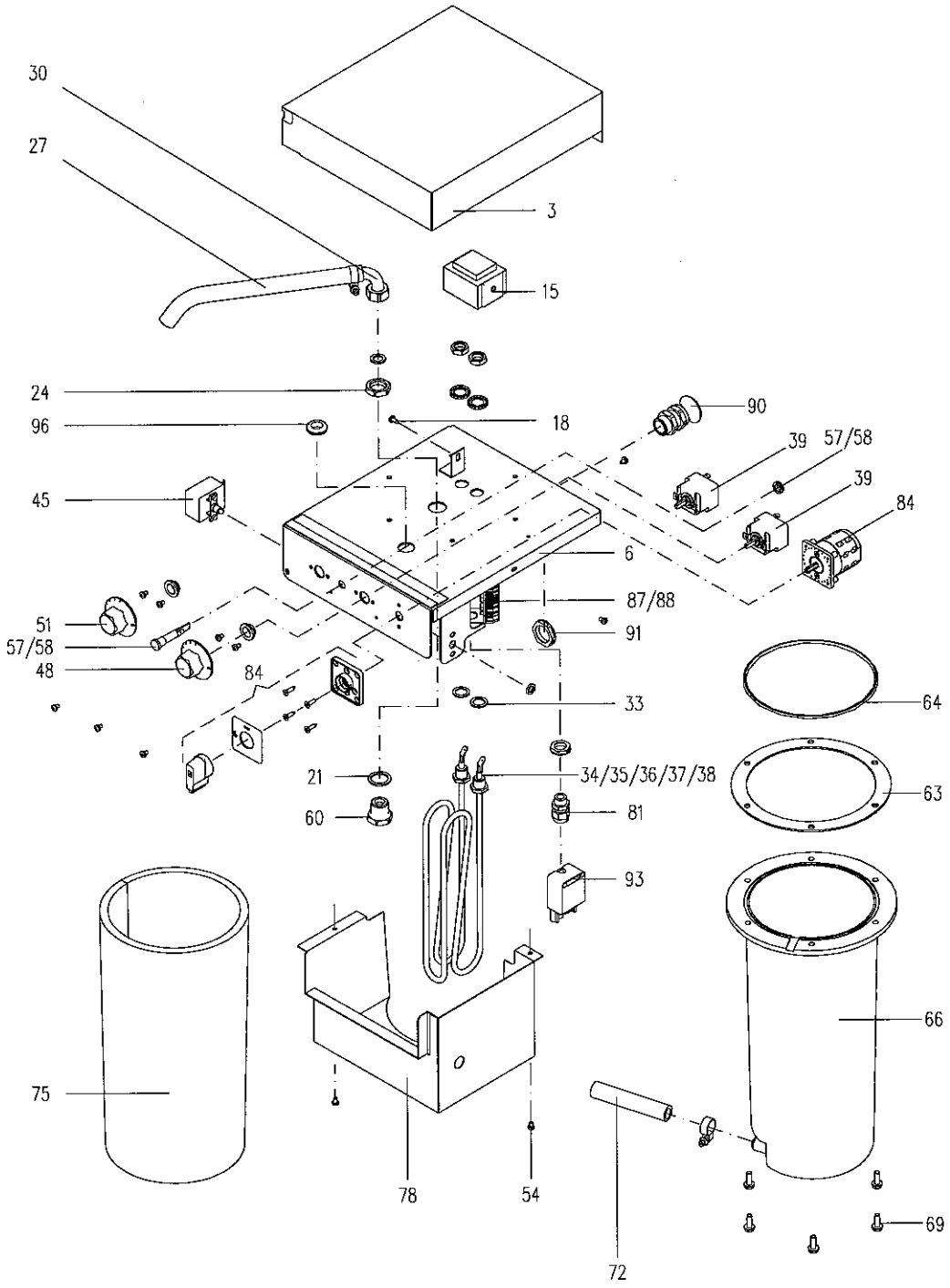
Wasserversorgung
water inlet

70820::70820

Die Ersatzteil-Liste stellt die verschiedenen Varianten der o.g. Baugruppe dar.
The spare-parts-list shows the different variants of the above-mentioned structural group.

Pos. *Item*	Teile-Nr. *Part-No.:*	Bezeichnung *Description*
159	90422	Gummidichtung ID16,0xAD25,0x2,0 schwarz (f.Schlauchkupplung) rubber seal ID16.0xED25.0x2.0 black (for hose coupling)
165	96298	Dichtung 20,0x13x2mm aus HD300, grün,bds. grafitiert seal 20,0x13x2mm HD300 green graphite-coated on both sides
168	97477	Kugelhahn 1/4" IG/IG ball valve 1/4" IT/IT
243	42802	Wasserkasten isoliert kompl. mit Halterung und Schlauch | ab: 15.05.03 water tank insulated compl. with bracket and hose | as of: 15.05.03
255	43792	Schwimmerventil 3/8" kompl. für Wasserkasten isoliert | ab: 01.03.04 float valve 3/8" compl. for water box insulated | as of: 01.03.04
261	43316	Wasserkasten isoliert kompl. | ab: 15.05.03 water tank insulated compl. | as of: 15.05.03
	* * * * * * * * * *	
	70820	Wasserversorgung TAP0 mit Kunststoffventil water supply TAP0 with plastic valve

90809 / 02.01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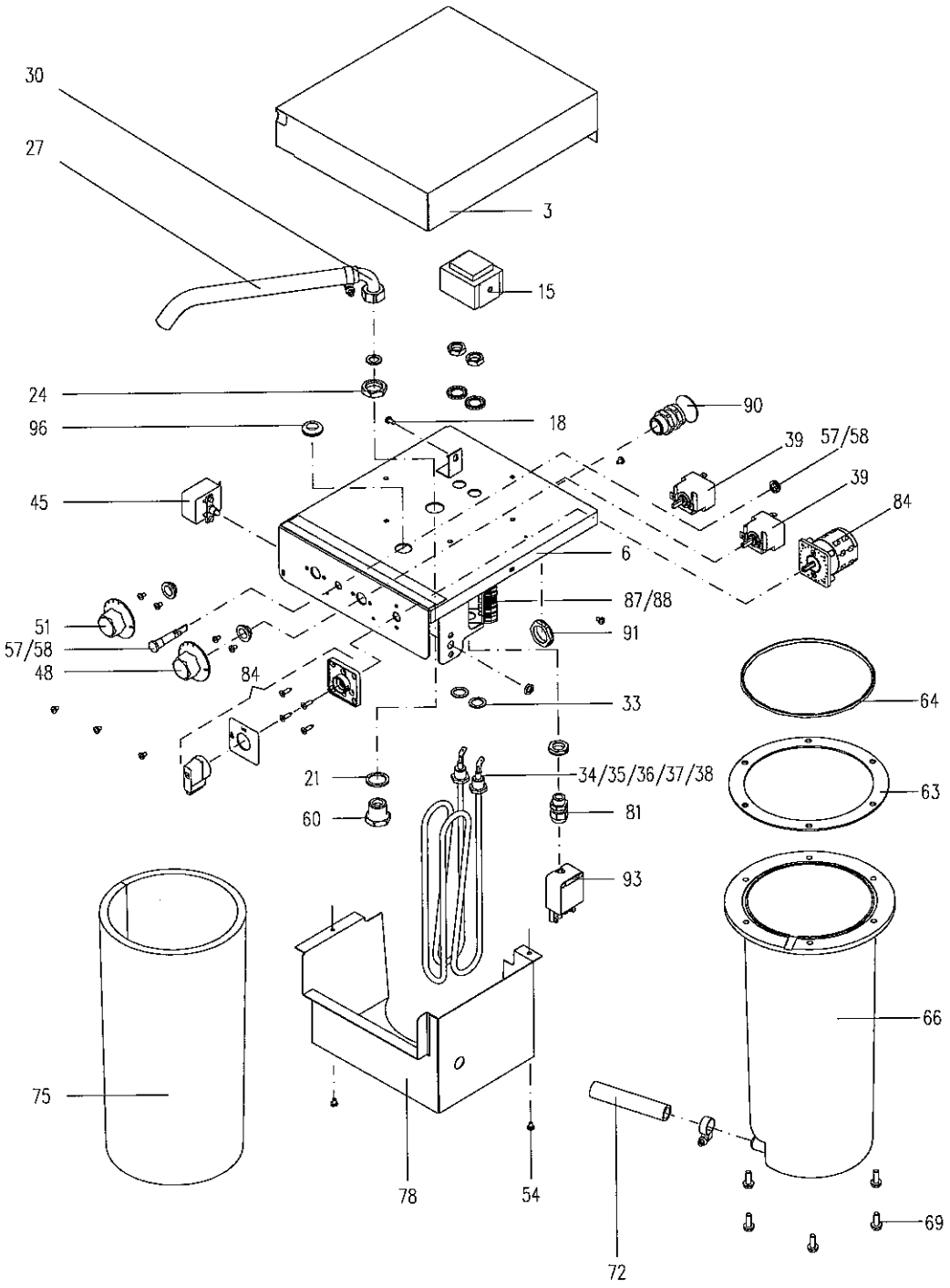
Boiler-1
boiler

90809::96344

Die Ersatzteil-Liste stellt die verschiedenen Varianten der o.g. Baugruppe dar.
The spare-parts-list shows the different variants of the above-mentioned structural group.

Pos. *Item*	Teile-Nr. *Part-No.:*	Bezeichnung *Description*
003	90819	Boilerabdeckung TAP1 kompl. boiler cover TAP1 complete
010		Die Ersatzteiliste wird derzeit aktualisiert. We are updating the spare parts list.
015	70651	Schutzhaube für Heizkörperanschlusss kompl. protective cover for heating element connection complete
021	60161	Dichtung 27,0x21x2mm graphitiert seal 27,0x21x2mm graphite-coated
027	30044	Wasserauslaufschlauch geformt water outlet hose shaped
030	71015	Boilerauslauf - flexibel komplett boiler outlet - flexible complete
033	90365	Dichtung 22,0x14,2 1,5mm stark Vulkanfiber rot, hart seal 22,0x14,2x1,5mm vulcanized fiber red hard
035	98048	Heizkörper 2,8KW/240V kompl. heating element 2.8KW/240V compl.
039	60022	Thermostat mit Spiralfühler (Wechsler) kompl. thermostat with helical sensor (two-way contact) compl.
045	42626	Thermostat Überhitzungsschutz 1-polig kompl. thermostat for overheating control 1 pin compl.
048	90014	Drehknopf / Heizungsthermostat (schwarz mit rot) rotary knob/heating thermostat (black + red)
051	90017	Drehknopf / Mindestbetriebstemperatur (schwarz mit grün) rotary knob/thermostat for MOT (black + green)
057	90089	Kontrollampe gelb 230V D:13mm pilot lamp yellow 230V D:13mm
064	99478	Dichtung Stärke D: 4mm für Boilerbehälter seal thickness D: 4mm for boiler container
066	96052	Boilerbehälter TA1 boiler container TA1
072	80051	Schlauch 13,0x3,5mm PVC mit Gewebe hose 13,0x3,5mm PVC fabric reinforced
075	91600	Isolierung Boiler 543/500x310 S:10 insulation boiler 543/500x310 S:10
081	60075	Kabelverschraubung mit Gegenmutter PG 9 screwed cable gland with counter nut PG 9
084	90411	Hauptschalter M221 20A main switch M221 20A
	* * * * * * * * * *	
	90806	Boiler-1 PEZ 2,7KW 230V boiler-1 PEZ 2,7KW 230V
	96344	Boiler-1 PEZ 2,8KW 230V; CSA/UL boiler-1 PEZ 2,8KW 230V CSA/UL

90809 / 02.01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Boiler-1
boiler

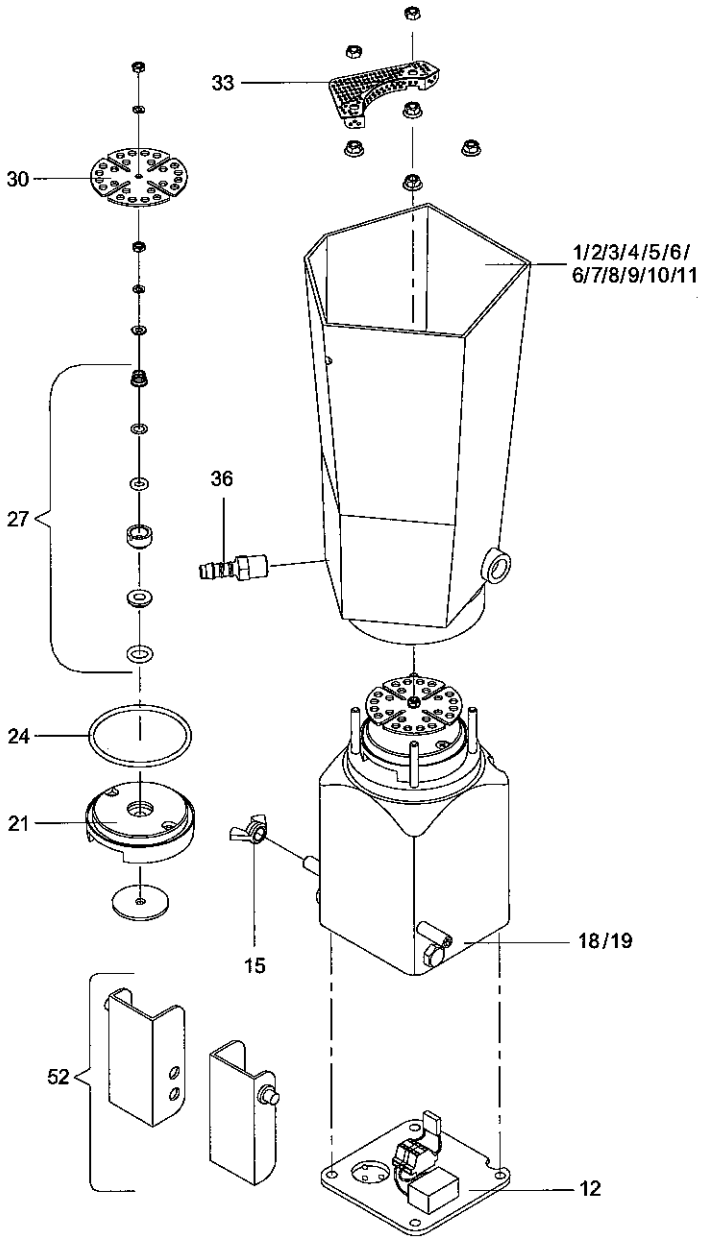
90809::96344

Die Ersatzteil-Liste stellt die verschiedenen Varianten der o.g. Baugruppe dar.
The spare-parts-list shows the different variants of the above-mentioned structural group.

Pos. *Item*	Teile-Nr. *Part-No.:*	Bezeichnung *Description*

90809 Boiler-1 PEZ 3,2KW 230V
boiler-1 PEZ 3,2KW 230V
91143 Boiler-1 PEZ 3,8KW 400V
boiler-1 PEZ 3,8KW 400V
40824 Boiler-1 PEZ 5,0KW 400V
boiler-1 PEZ 5,0KW 400V

97038 / 05.07



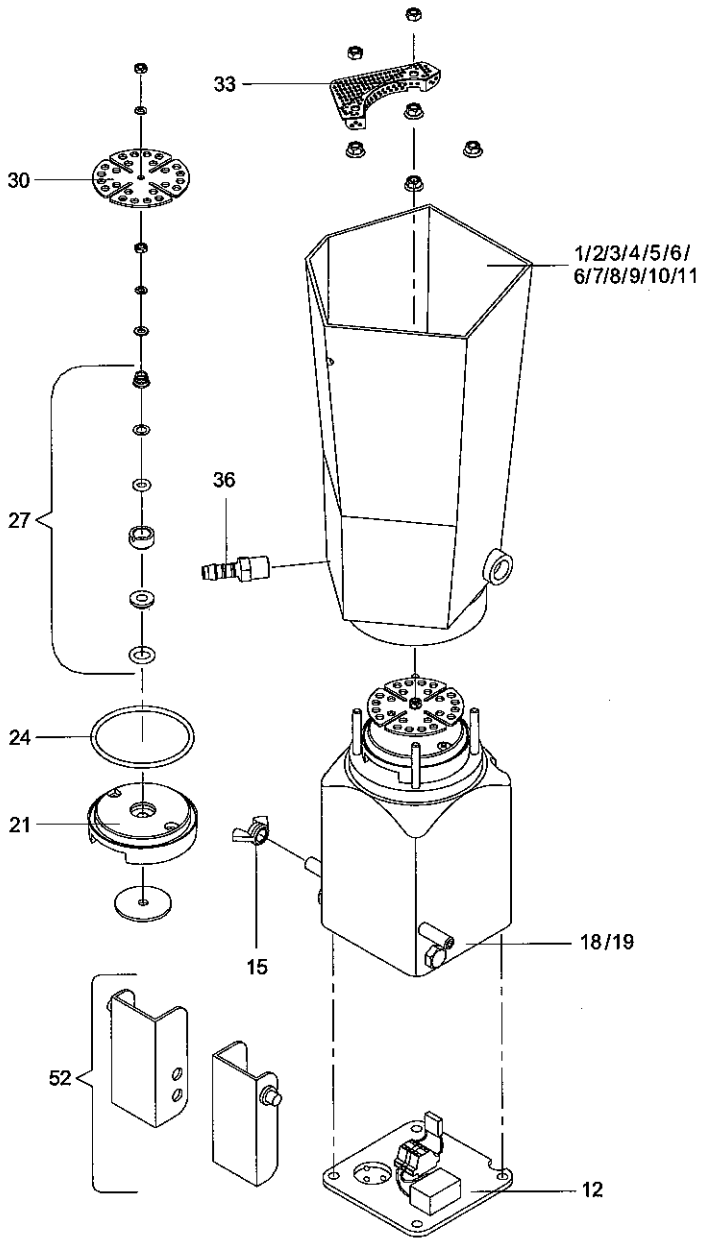
Intensivmixer
intensive mixer

97038::97038

Die Ersatzteil-Liste stellt die verschiedenen Varianten der o.g. Baugruppe dar.
The spare-parts-list shows the different variants of the above-mentioned structural group.

Pos. *Item*	Teile-Nr. *Part-No.:*	Bezeichnung *Description*
001	98971	Mixerglas mit 6 Tüllen 8R beheizt 230V/42V/24VA Druckr. mixer jar with 6 nozzles 8R heated 230V/42V/24VA press.tube
002	99285	Mixerglas mit 8 Tüllen 8R und Druckrohranpassung mixer jar with 8 nozzles 8R and pressure tube adaptation
003	98932	Mixerglas mit 8 Tüllen 8R beheizt 230V/42V/24VA Druckr. mixer jar with 8 nozzles 8R heated 230V/42V/24VA press.tube
004	99284	Mixerglas mit 4 Tüllen 8R beheizt 230V/42V/24VA Druckrohran mixer jar with 4 nozzles 8R heated 230V/42V/24VA press.tube
005	97078	Mixerglas mit 6 Tüllen 8R und Druckrohranpassung mixer jar with 6 nozzles 8R and pressure tube adaptation
006	97077	Mixerglas mit 4 Tüllen 8R und Druckrohranpassung mixer jar with 4 nozzles 8R and pressure tube adaptation
008	42849	Mixerglas mit 2 Tüllen 8R Druckrohranpassung mixer glass with 2 nozzles 8R pressure tube adaptation
009	42850	Mixerglas mit 2 Tüllen 8R Druckrohr.; beheizt 230V/42V/24VA mixer jar w. 2 nozzles 8R pressure tube;heated 230V/42V/24VA
011	97076	Mixerglas mit 1-2 Tüllen und Druckrohranpassung mixer jar with 1-2 nozzles and pressure tube adaptation
012	99537	Mixermotorabdeckung mit Verdrahtung für Intensivmixer | ab: 18.09.00 mixer motor cover with wiring for intensive mixer | as of: 18.09.00
018	97577	Mixermotor 230V/50-60Hz mit Thermoschutz kompl. CSA/UL mixer motor 230/50-60Hz with thermal protection compl.CSA/UL
019	97080	Mixermotor 230V/50-60Hz kompl. mixer motor 230V/50-60Hz complete
021	71741	Stützelement für Mixer supporting element for mixer
024	80019	O-Ring 58,0x3,0mm NBR 50 Shore (Mixermotor) 0-ring 58,0x3,0mm NBR 50 Shore (mixer motor)
027	80020	Gleitringdichtung kompl. rotary seal complete
030	60014	Quirl für Intensivmixer (D:58mm) rotary blade for intensive mixer D:58mm
033	97046	Sieb für Intensivmixer TA1 filter for intensive mixer TA1
036	80017	Schlauchtülle 1/4" GES 8 R hose nozzle 1/4" GES 8 R
052	98510	Adapterwinkelpaar Longlife-Mixer zum Intensivmixer adaptor bracket (couple) longlife-mixer to intensive mixer
	* * * * * * * * * * *	
	98021	Netzteil 230V/42V 24VA Mixerheizung Intensivmixer power supply 230V/42V 24VA mixer heating intensive mixer
	99576	Intensivmixer 230V 50-60Hz 2 Tüllen; 8R Druckr.; Thermosch. intensive mixer230V 50-60Hz 2 nozzles8R press.tube therm.pr.

97038 / 05.07



Intensivmixer
intensive mixer

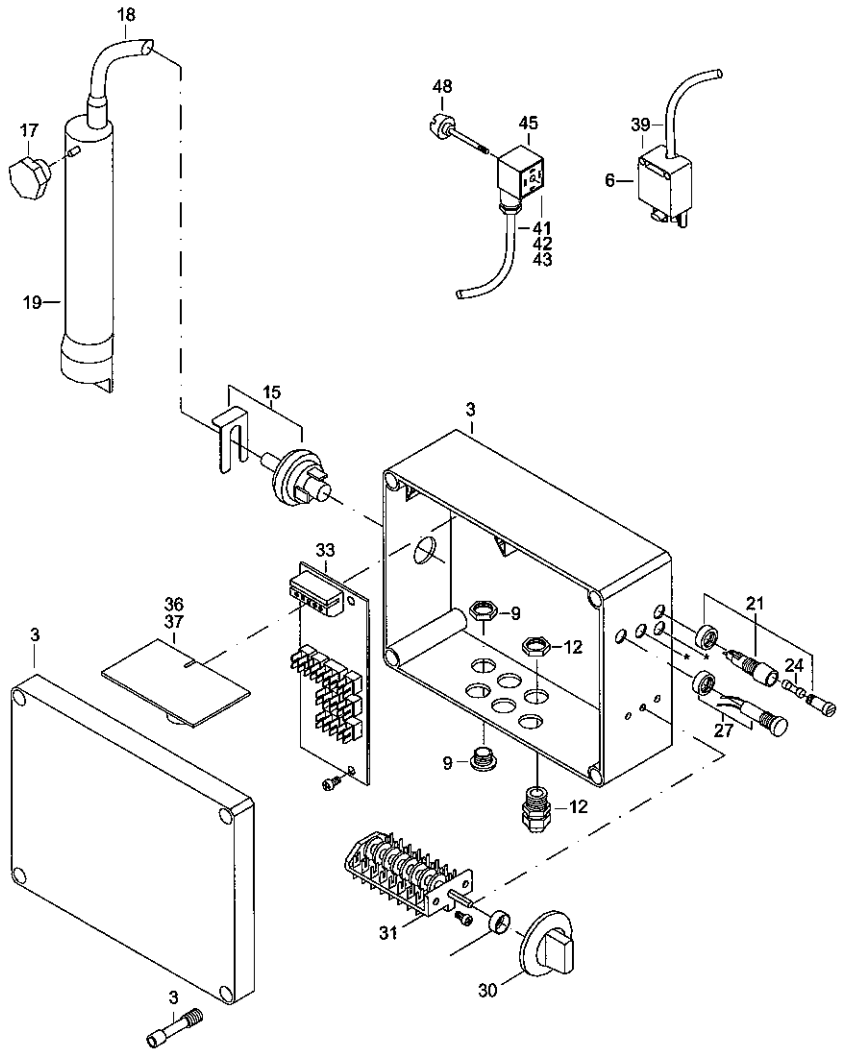
97038::97038

Die Ersatzteil-Liste stellt die verschiedenen Varianten der o.g. Baugruppe dar.
The spare-parts-list shows the different variants of the above-mentioned structural group.

Pos. *Item*	Teile-Nr. *Part-No.:*	Bezeichnung *Description*

98013 Intensivmixer 230V 50-60Hz 2 Tüllen 8R; Druckrohr. heizbar
intensive mixer 230V 50-60Hz 2 nozzles 8R press.tube heat.
97038 Intensivmixer 230V 50-60Hz 2 Tüllen 8R; Druckrohranpassung
intensive mixer 230V 50-60Hz 2 nozzles 8R press.pipe adapt.
98010 Intensivmixer 230V 50-60Hz 3 Tüllen 8R Druckrohr. heizbar
intensive mixer 230V 50-60Hz 3 nozzles 8R press. tube heat.
98260 Intensivmixer 230V 50-60Hz 3 Tüllen 8R Druckrohr.
intensive mixer 230V 50-60Hz 3 nozzles 8R press. tube adapt.
98011 Intensivmixer 230V 50-60Hz 4 Tüllen; 8R Druckrohr. heizbar
intensive mixer 230V 50-60Hz 4 nozzles 8R press. tube heat.
97040 Intensivmixer 230V 50-60Hz 4 Tüllen; 8R Druckrohranpassung
intensive mixer 230V 50-60Hz 4 nozzles 8R press. tube adapt
97579 Intensivmixer 230V 50-60Hz 6 Tüllen; 8R Druckr.; Thermosch.
intensive mixer 230V 50-60Hz 6 nozzles 8R press.tube th.pr.
97041 Intensivmixer 230V 50-60Hz 6 Tüllen; 8R Druckrohranpassung
intensive mixer 230V 50-60Hz 6 nozzles 8R press. tube adapt.
98012 Intensivmixer 230V 50-60Hz 6 Tüllen; 8R Druckrohr. heizbar
intensive mixer 230V 50-60Hz 6 nozzles 8R press. tube heat.
40680 Intensivmixer 230V 50-60Hz 6 Tüllen; 8R Druckr.; Therm/heizb
intensive mixer 230V 50-60Hz 6 nozzles8Rpress.tube;th./heat
98272 Intensivmixer 230V 50-60Hz 8 Tüllen; 8R Druckrohr. heizbar
intensive mixer 230V 50-60Hz 8 nozzles 8R press. tube heat.
98275 Intensivmixer 230V 50-60Hz 8 Tüllen; 8R Druckrohranpassung
intensive mixer 230V 50-60Hz 8 nozzles 8R press. tube adapt.
98939 Intensivmixer 230V 50-60Hz 6 Tüllen 8R, Druck;heizb. 42V 24V
intensive mixer 230V 50-60Hz 6 nozzles 8R press;heat.42V 24V

90777 / 05.00



Steuerung TAP EZ1 CSA/UL
control TAP EZ1 CSA/UL

Teilenummer: 96345 90777::96345
Part-No. : 96345
Die Ersatzteil-Liste stellt die verschiedenen Varianten der o.g. Baugruppe dar.
The spare-parts-list shows the different variants of the above-mentioned structural group.

Pos. *Item*	Teile-Nr. *Part-No.:*	Bezeichnung *Description*
012	60075	Kabelverschraubung mit Gegenmutter PG 9 screwed cable gland with counter nut PG 9
015	90041	Druckschalter pressure switch
017	60117	Sternmutter M5 headed star nut M5
019	90315	Druckrohr gerade für Longlife/Intensiv Mixer pressure tube straight for Longlife/intensive mixer
021	90074	Sicherungshalter FEB fuse holder FEB
024	90071	Sicherung 2,50A mittelträge 5x20mm fuse 2.50A medium time-lag 5x20mm
027	90104	Kontrollampe grün 230V D:13mm pilot lamp green 230V D:13mm
030	90012	Programmschalterknopf 4 Stellungen program switch 4 positions
031	90010	Programmschalter Pulver-Automat program switch Powder-feeder
033	10089	Platine Verteiler (EZ) PCB distributor (EZ)
036	10087	Platine Mixerrelais mit Wächter (EZ) PCB mixer relay with controller (EZ)
039	42779	Kabel EZ CSA Stromversorgung Steuerung zum Boiler 4-polig cable EZ CSA power supply control to boiler 4 pins
041	42778	Kabel EZ Wasserventil CSA cable EZ water valve CSA
042	42777	Kabel EZ Pulverförderung CSA cable EZ powder supply CSA
043	42776	Kabel EZ Mixer CSA cable EZ mixer CSA
045	90081	Steckdose GDM 3009 schwarz socket GDM 3009 black
048	90077	Rändelschraube 35mm lang screw, knurled L:35mm

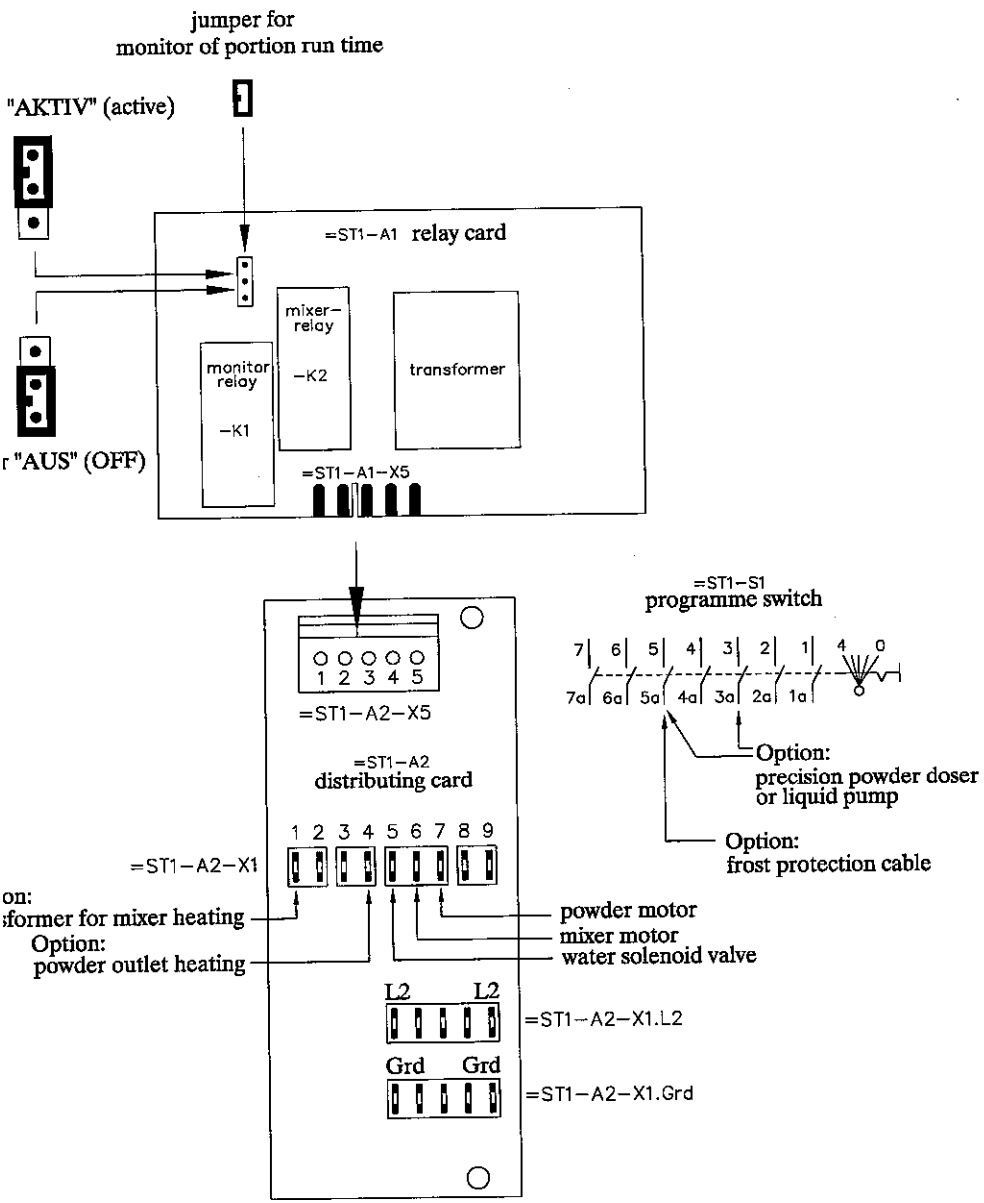
Zubehör - Beipack Lämmerautomat
accessories - miscellaneous automatic lamb feeder

::10235

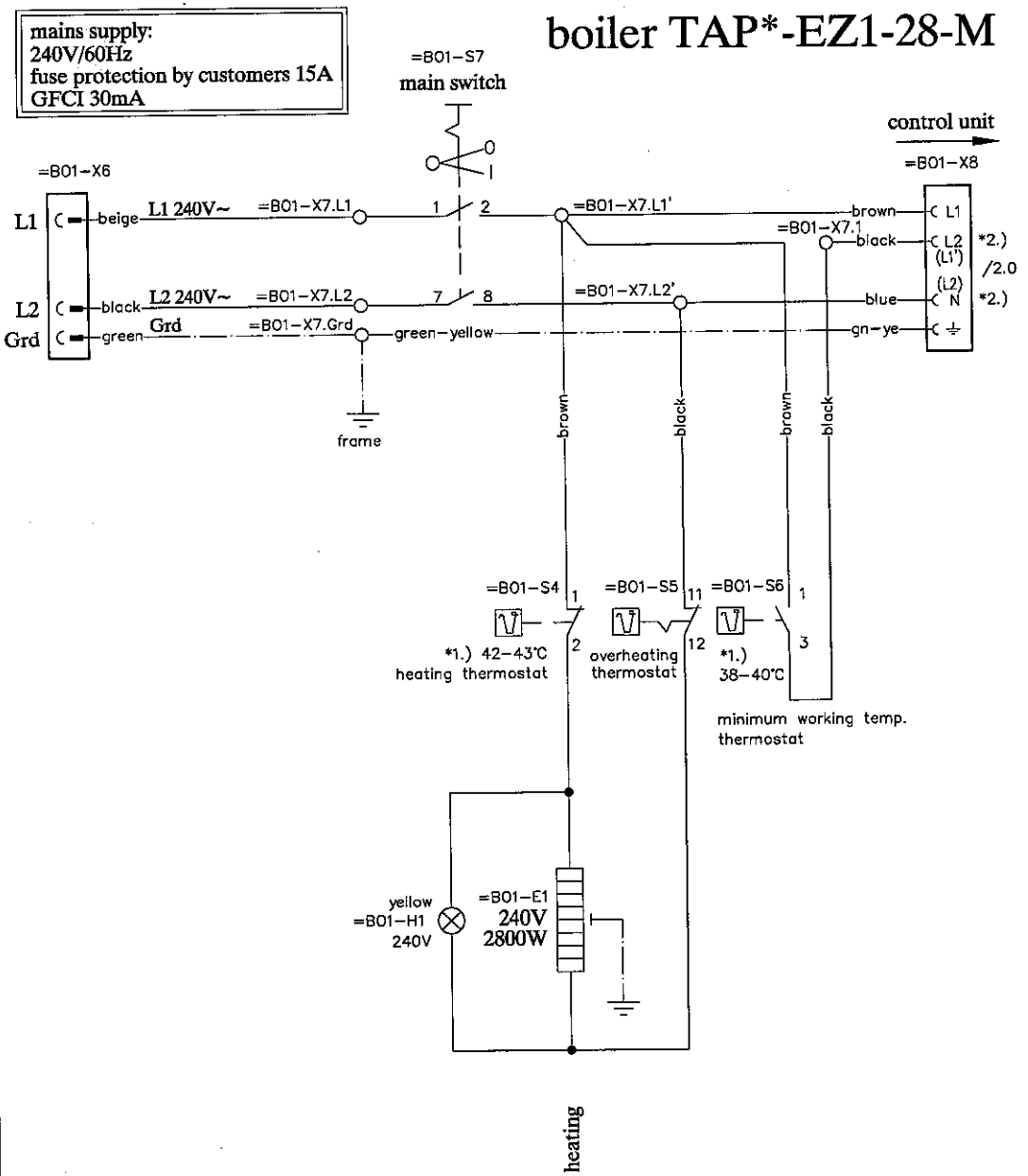
Die Ersatzteil-Liste stellt die verschiedenen Varianten der o.g. Baugruppe dar.
The spare-parts-list shows the different variants of the above-mentioned structural group.

Pos. *Item*	Teile-Nr. *Part-No.:*	Bezeichnung *Description*
	70740	Schlauchverschraubung 2-teilig IG 3/4" Tülle 13mm threaded hose coupling two pieces IT 3/4" nozzle 13mm
	10212	Dichtungssatz für Tränkeautomaten sealing set for automatic feeders
	30034	Saugbügel kompl. für Lämmer teat bracket compl. for lambs
	20006	Frontplatte 320x200mm mit 2 Löchern front plate 320x200mm with 2 holes
	20005	Frontplatte 600x200mm mit 3 Löchern front plate 600x200mm with 3 holes
	97383	Schlauchreinigungspistole kompl. hose cleaning gun complete
	70522	Schwammgummikugel (5'er-Pack) 12mm Durchm. sponge rubber bullet (5 pieces) D:12mm
	98364	Fliegengitter mit Scharnier - Intensivmixer - TA0/1 fly protection with hinge - intensive mixer - TA0/1
	97375	Fliegengitter, aufsetzbar - Intensivmixer - TA0/1 fly protection, attachable -intensive mixer- TA0/1
	99545	Fliegengitter - Intensivmixer - TA1 kombinierbar m. Feindos. fly protection-intensive mixer-TA1 to combine w. prec.doser
	90517	Schlauch 7,0x2,0mm TPE trüb hose 7,0x2,0mm TPE dim
	30028	Schwammgummikugel (10'er-Pack) 12mm Durchm. sponge rubber bullet (10 pieces) D:12mm
	71879	Schwammgummikugel (50'er-Pack) 12mm Durchm. sponge rubber bullet (50 pieces) D:12mm
	80003	Sauger kurz (für Lämmer) teat short (for lambs)

control unit TAP*-EZ1-28-M



boiler TAP*-EZ1-28-M

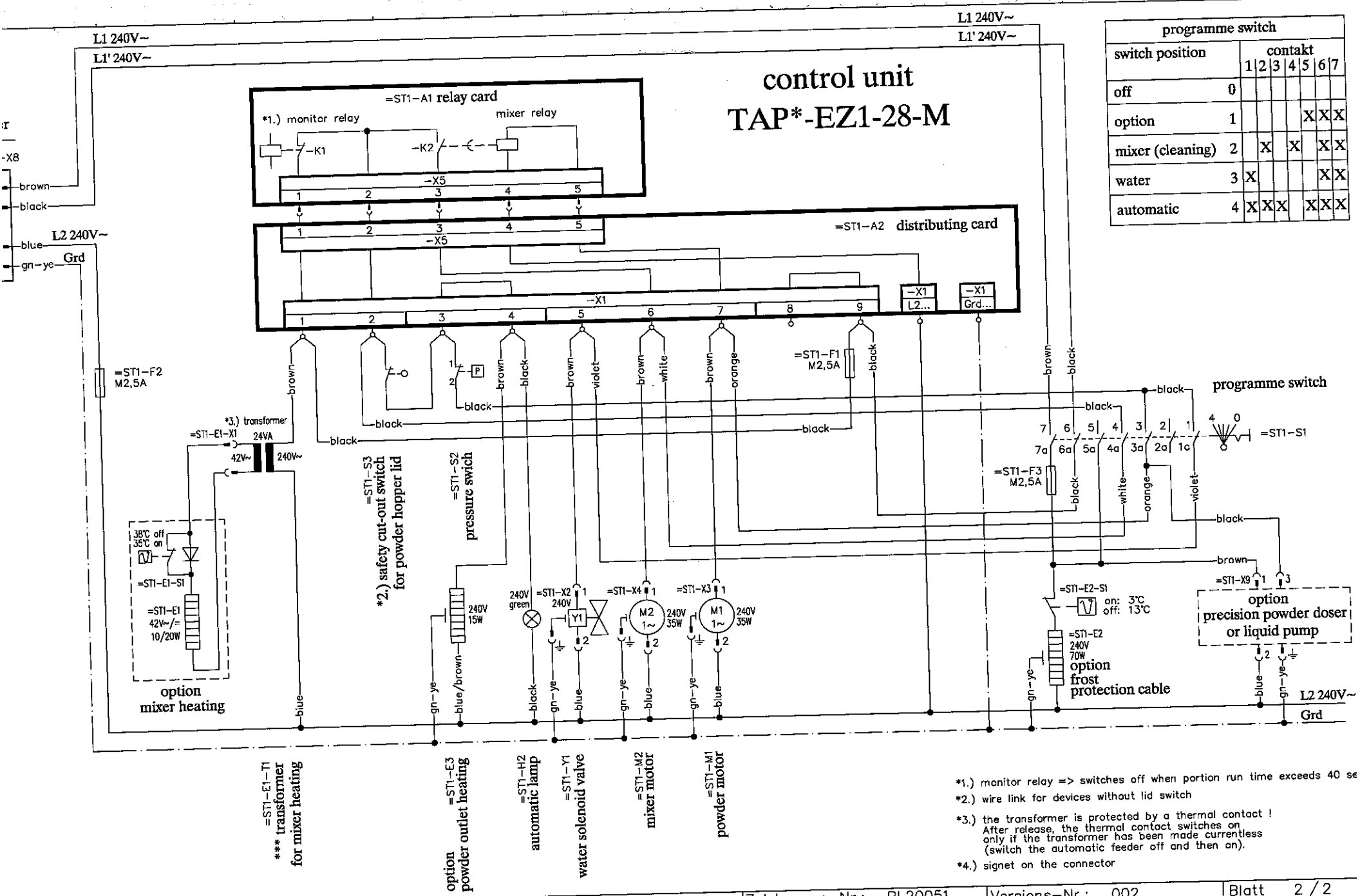


*1.) temperatures are for orientation
*2.) signet on the connector

ert:		TAP*-EZ1-28-M with mixer heating 10/20W USA/Canada	Zeichnungs-Nr.: PL20051		Versions-Nr.: 002	Blatt 1 / 2	
ellung	12.01.07 jr		erstellt: 16.02.2006 jr		Ersatz für:	Artikel-Nr.	
			bearbeitet: 12.01.2007 jr		gültig ab:	FÖRSTER TECHNIK	
			freigegeben: 05.07.2006 jr		gültig bis:		

control unit
TAP*-EZ1-28-M

programme switch								
switch position		contakt						
		1	2	3	4	5	6	7
off	0							
option	1					X	X	X
mixer (cleaning)	2		X		X		X	X
water	3	X					X	X
automatic	4	X	X	X		X	X	X



*1.) monitor relay => switches off when portion run time exceeds 40 se

*2.) wire link for devices without lid switch

*3.) the transformer is protected by a thermal contact ! After release, the thermal contact switches on only if the transformer has been made currentless (switch the automatic feeder off and then on).

*4.) signet on the connector

dert:		TAP*-EZ1-28-M with mixer heating 10/20W USA/Canada	Zeichnungs-Nr.: PL20051	Versions-Nr.: 002	Blatt 2 / 2
tellung	12.01.07 jr		erstellt: 16.02.2006 jr	Ersatz für:	Artikel-Nr.
			bearbeitet: 12.01.2007 jr	gültig ab:	FÖRSTER TECHNI
			freigegeben: 05.07.2006 jr	gültig bis:	