

Machine type : LARON Version 2  
Date : 09.05.2008  
Serial no. :

Technical Data :

Voltage	VAC	230	400
Frequency	Hz	50/60	50/60
Power consumption heating up controlled operation	W	4600	5700
	W	1750	2200
Drive	m/min	0,5 – 7 stepless	0,5 – 7 stepless
Welding temperature	°C	30 – 620 stepless	30 – 620 stepless
Air flow	%	60 – 100	60 – 100
Size LxWxH	mm	610 x 410 x 320	610 x 410 x 320
Weight	kg	35	35

We retain all copyrights of all descriptions, drawings and schedules contained in these operating instructions which may not be reproduced nor be made accessible by third parties or by competitors, neither in whole nor in part, unless we have expressly consented thereto.

Before start-up these operating instructions must be examined carefully because we will not assume any liability for any failures resulting from improper use. No warranty claims will be accepted if the automatic welding machine has been modified unless this has been done in consultation with the manufacturer / supplier.

**The tool can be used for the applications mentioned in the present operating instructions only !**

**These operating instructions should always be accessible by the operator.**

**For after-sales service and orders please contact:**

BAK Thermoplastic Welding Technology AG  
Birkenweg 3  
CH-6056 Kägiswil/Switzerland

Telefon: (0041) 041 6612250  
Telefax: (0041) 041 6612251

**Safety:**

Pursuant to sec. 55 of VDE 0 100 (Regulations of the Association of German Electrotechnical Engineers), the automatic welding machine must be operated using a protective switch or an isolation transformer.

Protect the tool from wet and humidity!!!!

Operating the automatic welding machine is subject to applicable national regulations.

Observe applicable regulations for the prevention of accidents as well as technical rules for safe and professional operation.

Directive 92/ 57/ EWG dated June 24, 1992, shall be applicable by analogy.

**Utilisation:**

The Laron is an automatic welding machine for overlap welding to weld geomembranes (geomembranes width 20mm or 40mm). The machine must only be used to weld geomembranes (PE, PVC, TPO, ECB, EPDM, CSPE and bitumen) at the edge and uneven surfaces.

Automatic welding machines are manufactured according to the latest technology and in compliance with safety requirements.

Any improper use may result in dangers for the operator or third parties or may adversely affect machines and assets.

Only use the automatic welding machine if in technically perfect condition and for the purposes for which they are intended while observing the operating instructions.

For the neglect or for damages resulting from it the manufacturer / supplier will not accept any liability .

Any utilisation of the automatic welding machine, for other purposes than those for which it is intended, is subject to the consent of the manufacturer / supplier.

Work on electrical parts of welding machine may only be performed by an electrical engineer in compliance with electro-technical rules.

**Indication of special risks:**

All automatic welding machines may only be held and operated using the handles provided for this purpose.

A risk of burning exists on all uncovered metal parts. Avoid contact with these parts as they may achieve temperatures of up to 650°C.

Attention: Heat can reach combustible materials which are hidden.

**Safety area:**

The hot air stream of the automatic welding machine may not be directed to temperature-sensitive objects or living things. Ensure that a safety distance of 2 m is observed in all directions. Do not point the hot air stream onto the same position for a long time.

**Security:**

Before connecting the tool to the mains, check the rated voltage.

The mains voltage must correspond to the rated voltage shown on the tool plate.

Pursuant to sec. 55 of VDE 0 100 the automatic welding machine must be operated using a protective switch or an isolation transformer.

Do not use the automatic welding machine if the connecting line or the plug is damaged, repairs have to be done by the manufacturer or authorised service personnel.

**Extension cords:**

When using extension cords the minimum diameter of cables must be observed.

Extension cords must be approved and marked for their place of utilisation.

**Stop operating the automatic welding machine if:**

- connecting line or plug have been damaged
- safety installations have been damaged
- changes occur in the operating state

To separate the automatic welding machine from the electric system, change the main switch to “OFF” und unplug the mains plug.

**Never spray water on automatic welding machine**

**(risk of short circuit)**

**Never use the automatic welding machine in hazardous or inflammable areas.**

**Do not leave the tool unobserved !!!**

**Attention: Let the automatic welding machine cool down before packing.**

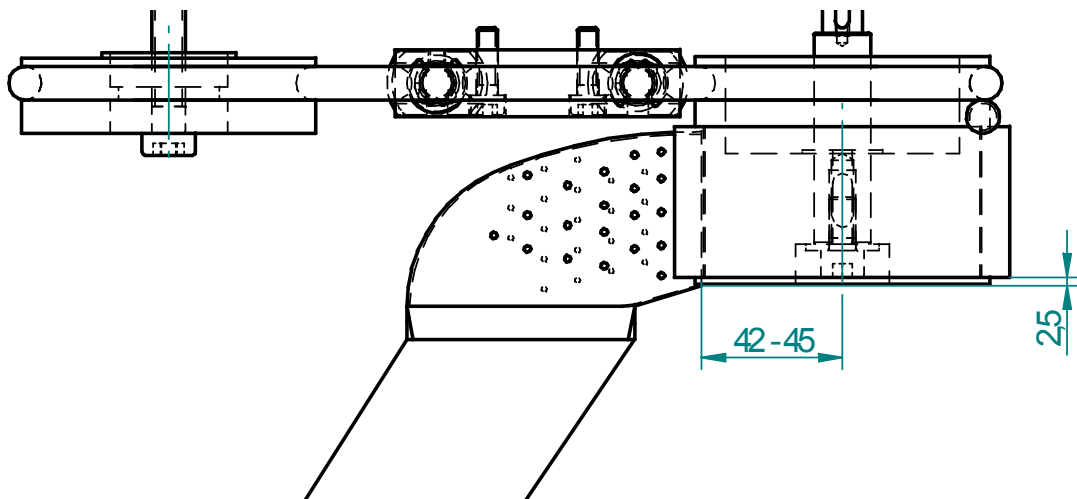
Before operating the machine examine the tool adjustment.

**Basic adjustment:**

Proceed with adjustments only in cold condition (burn danger!).

**Nozzle adjustment:**

- Changes of the nozzle adjustments can be done if screws are loosen
- For recommended settings use the following sketch

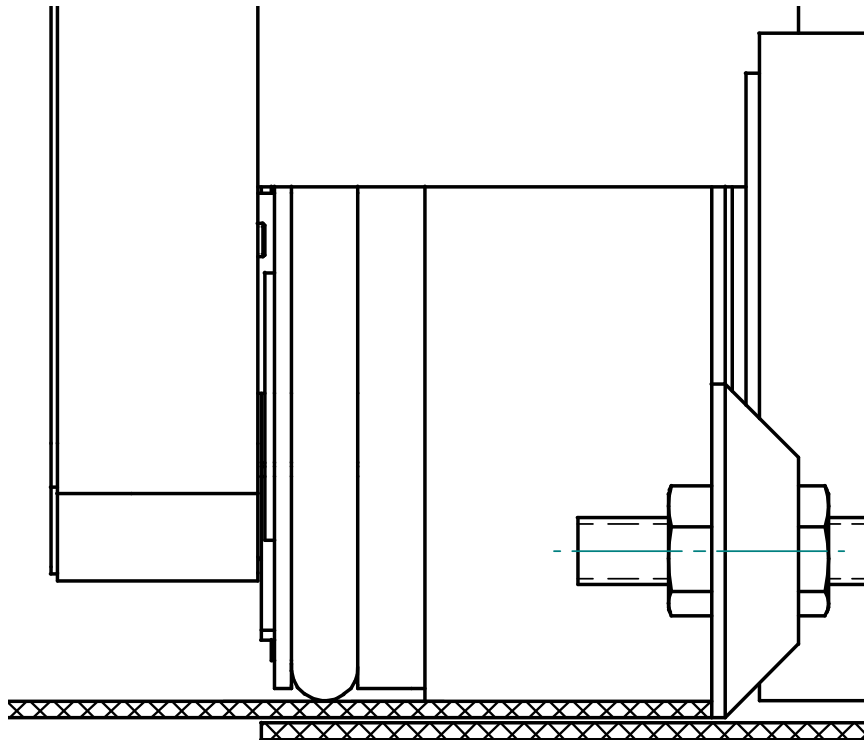


### Guide roller adjustment:

- Bring the automatic welding machine into the welding position.
- Push the transport roller to the right in welding position  
take care that the spring sheet engages.
- push the guide roller downward and fix it with the hexagon nut on the threaded bar.

Outside edge of the overlap, outside edge of pressure roll and  
outside edge of guide roller must form a line.

(see following sketch).



## Start up of the automatic welding machine

**Observe the section concerning safety of these operating instructions.**

Before connecting the tool to the mains supply please check that:

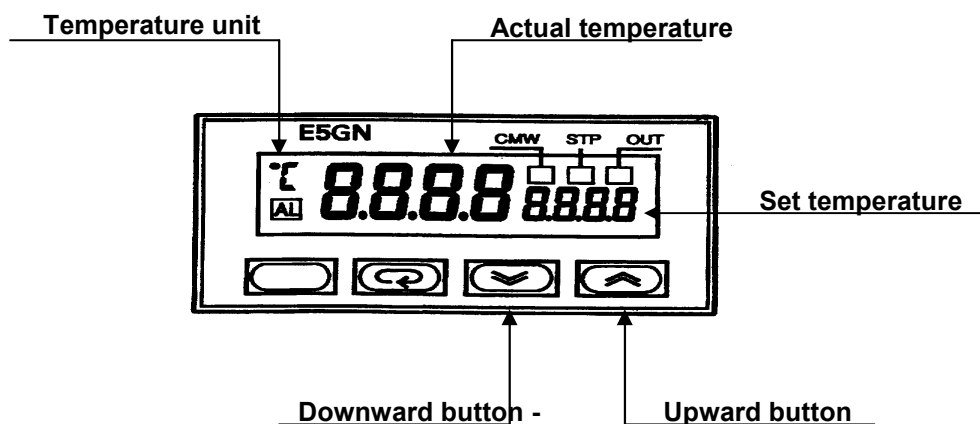
- The main switch is on Pos. 0 OFF
- Drive switch is on Pos. 0
- Heating switch is on Pos. 0
- Potentiometer of the air flow is on Pos. 0 (100%)
- The hot air blower is on Pos. stand by (lifted up)
- Put the plug is into the socket and put the main switch on pos. 01

Switch the heating switch on.

The tool now heats up to the last selected set temperature.

To change the set temperature check the section of the controller adjustment.

### Controller adjustment:

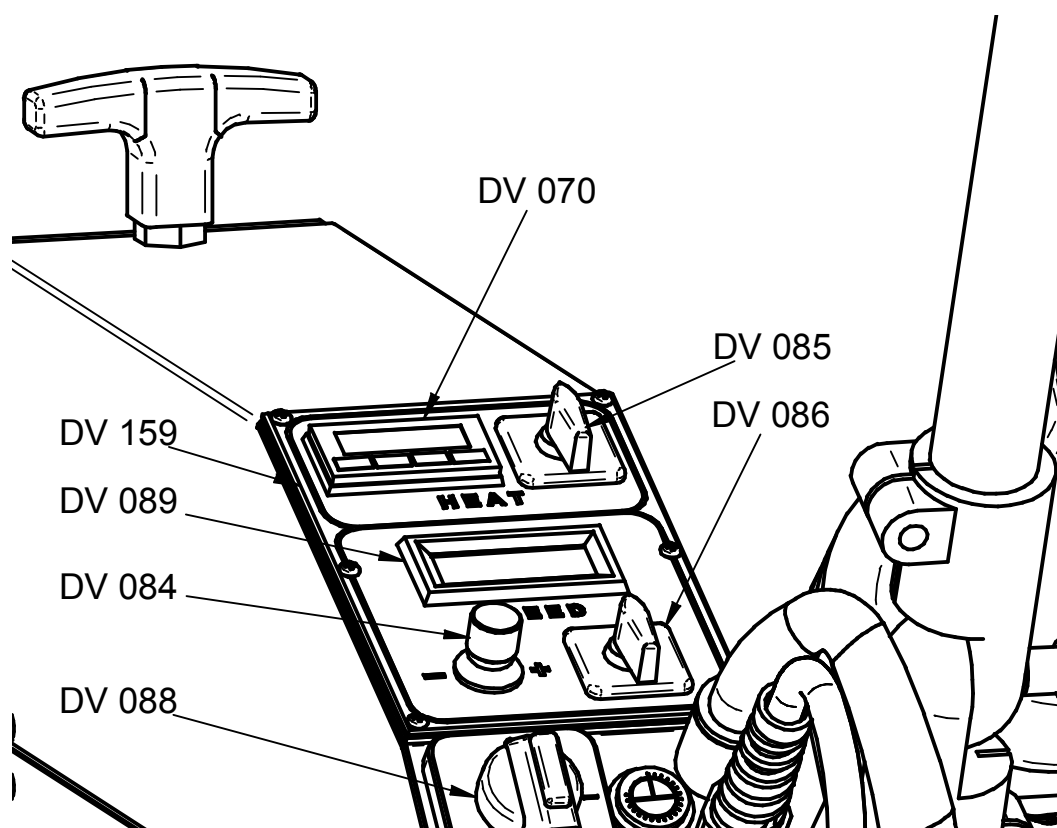


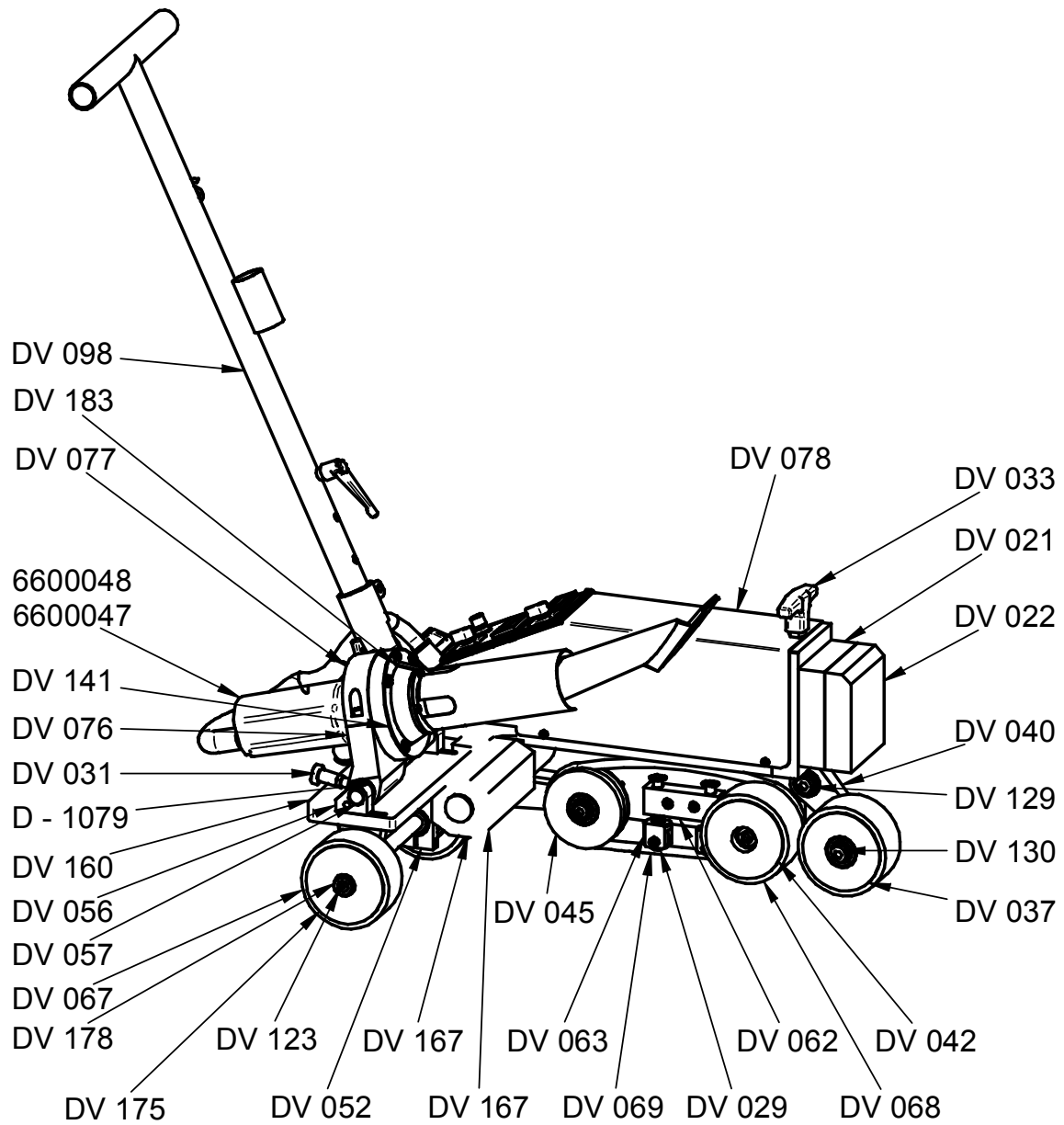


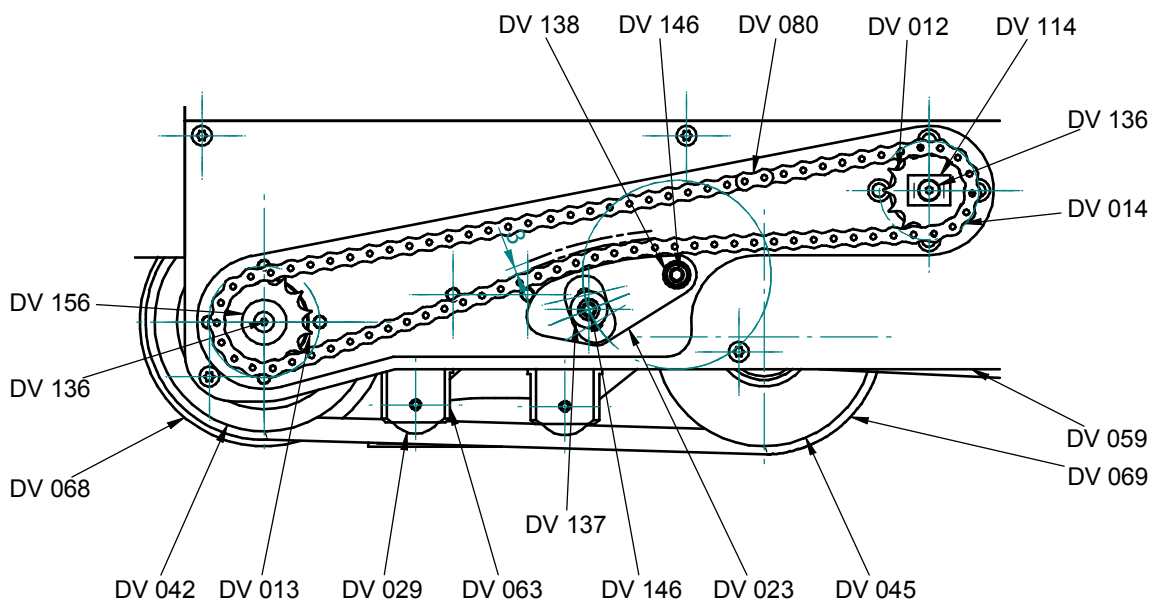
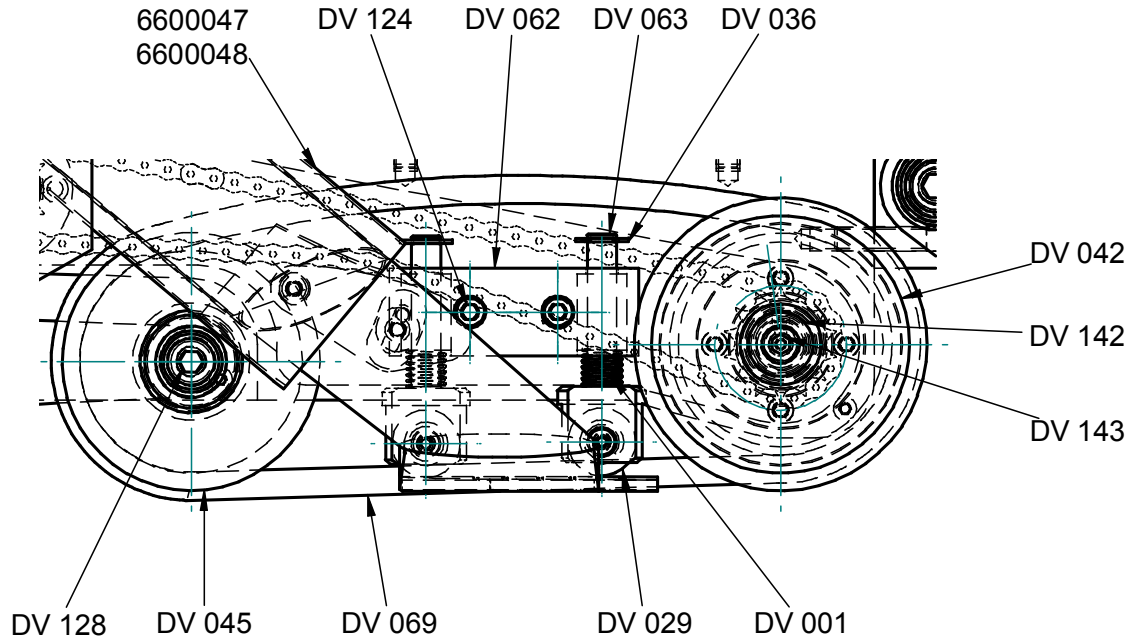
Select on the potentiometer the desired welding speed.

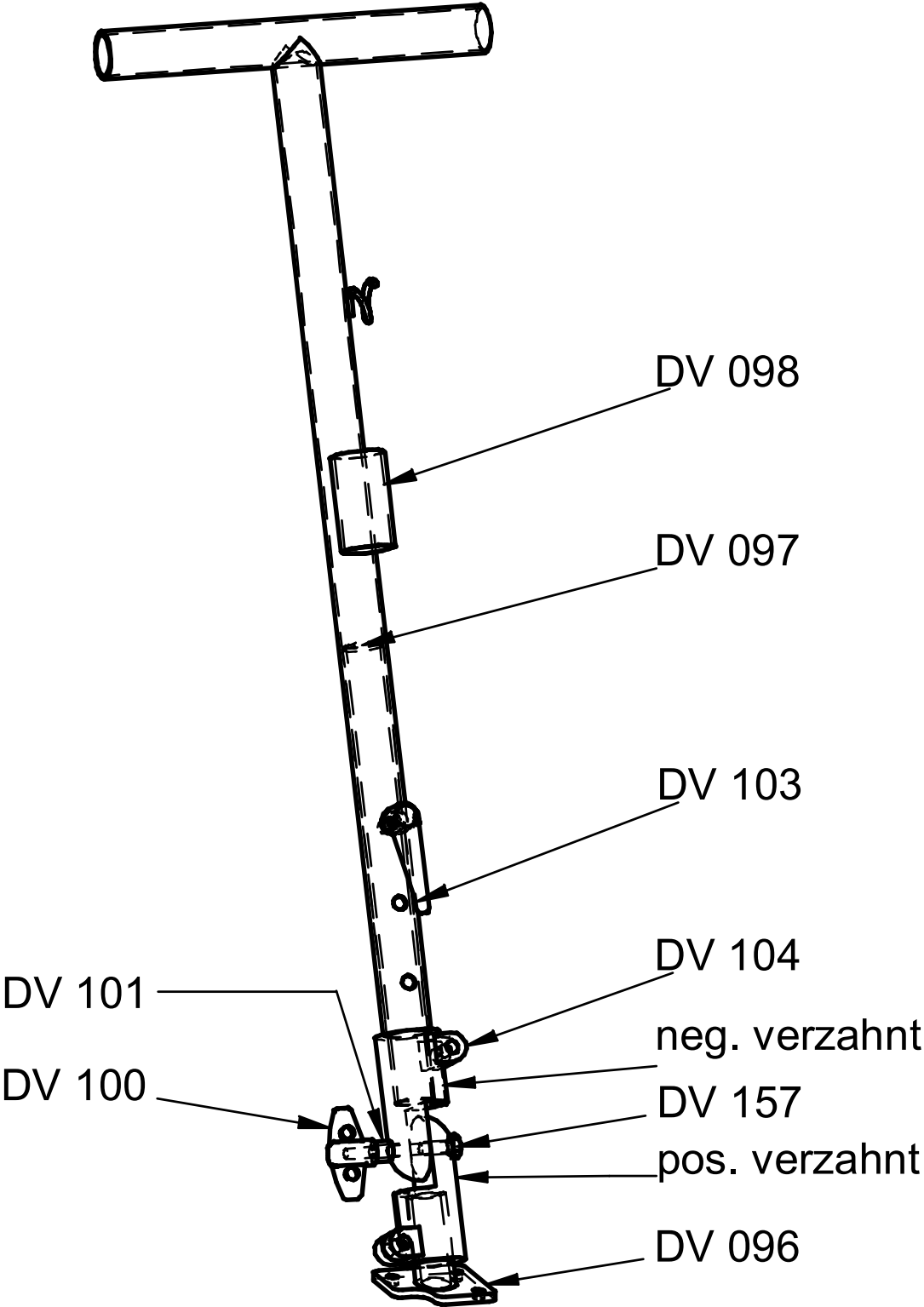
On switching position ON the drive starts immediately and is constantly running.

On switching position AUTO the drive starts only after sliding the nozzle into the welding seam and stops immediately after taking out the nozzle.









**Laron**

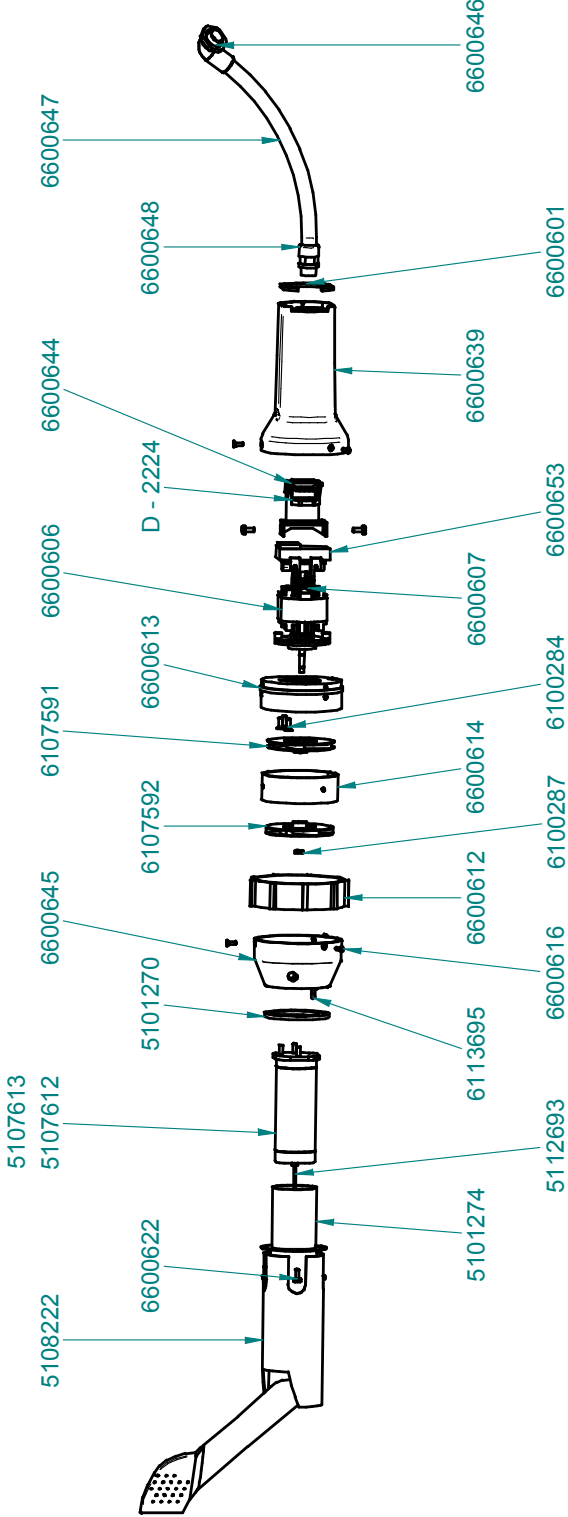
**Art. No. Description**

6600047 Eron 230V Laron  
6600048 Eron 400V Laron  
D-1079 O-ring 19x3.5 DIN3771  
6601111 Pressure spring (DV001)  
6601112 Sprocket wheel Z13 (DV012)  
6601113 Sprocket wheel Z14 (DV013)  
6601114 Single roller chain (DV014)  
6601118 Weight 1 (DV021)  
6601119 Weight 2 (DV022)  
6601120 Chain tension adjuster (DV023)  
6601121 Guide roller (DV029)  
6601122 Stop bolt with counter nut (DV031)  
6601123 T-handle (DV033)  
6601125 Circlip RA9 (DV036)  
6601126 Drag roller (DV037)  
6601127 Rocker drag roller (DV040)  
6601128 Drive pressure roller (DV042)  
6601129 Round belt roller (Dv045)  
6601133 Fixation block (DV052)  
6601135 Bearing (DV056)  
6601136 Shaft (DV057)  
6601138 Gear sheet (DV059)  
6601139 Guide handle block (DV062)  
6601140 Guide rod (DV063)  
5107093 Rubber ring white (DV067)  
6601142 Silicon ring (DV068)  
6601143 Round belt (DV069)  
6601103 Controller Laron (DV070)  
6601144 Locking ring Eron(lower part) (DV076)  
6601145 Locking ring Eron(upper part) (DV077)  
6601147 Chain lock (DV080)  
6601148 Knob (Dv084)  
DV085 Cam switch, 1-pole  
6601102 Cam switch, had-off-auto (DV086)

**Art. No. Description**

6601100 Main switch (DV088)  
6601149 LCD Display (DV089)  
6601150 Steering bar base plate (DV096)  
6601151 Steering bar lower part (DV097)  
6601152 Grip of steering bar (Dv098)  
DV100 Wing nut  
6601153 Distance bushing (DV101)  
6601155 Adjustable clamping lever (DV103)  
6601156 Joint clamping link (DV104)  
6601157 Button scale (DV105)  
6601159 Power supply cord 230V (DV111)  
6601160 Power supply cord 400V (DV112)  
6601161 Sprocket wheel clamp (DV114)  
DV123 Countersunk screw, M6x16 DIN7991  
6601162 Cheese head screw, M6x20 (DV124)  
6601164 Cheese head screw, M10x20 (DV128)  
6601165 Cheese head screw, M12x35 (DV129)  
6601166 Cheese head screw, M12x70 (DV130)  
6601168 Countersunk screw M4x10 (DV136)  
6601169 Disk A5,3 (DV137)  
6601170 Disk A5,3 (DV138)  
6601172 Support turbine housing Eron (DV141)  
6601173 Disk B8,4 DIN9021 (DV142)  
6601174 Cheese head screw, M8x16, DIN 912 (DV143)  
6601175 Cheese head screw, M5x20 (DV146)  
DV156 Disk B 6.4 DIN 9021  
DV157 Hexagon bolt M8x50, DIN 933  
DV158 Housing Laron  
DV159 Front plate Laron  
DV160 Base plate  
DV167 Planetary gear motor  
DV175 Transport roller V2A  
DV178 Cover transport roller  
DV183 Ground piece

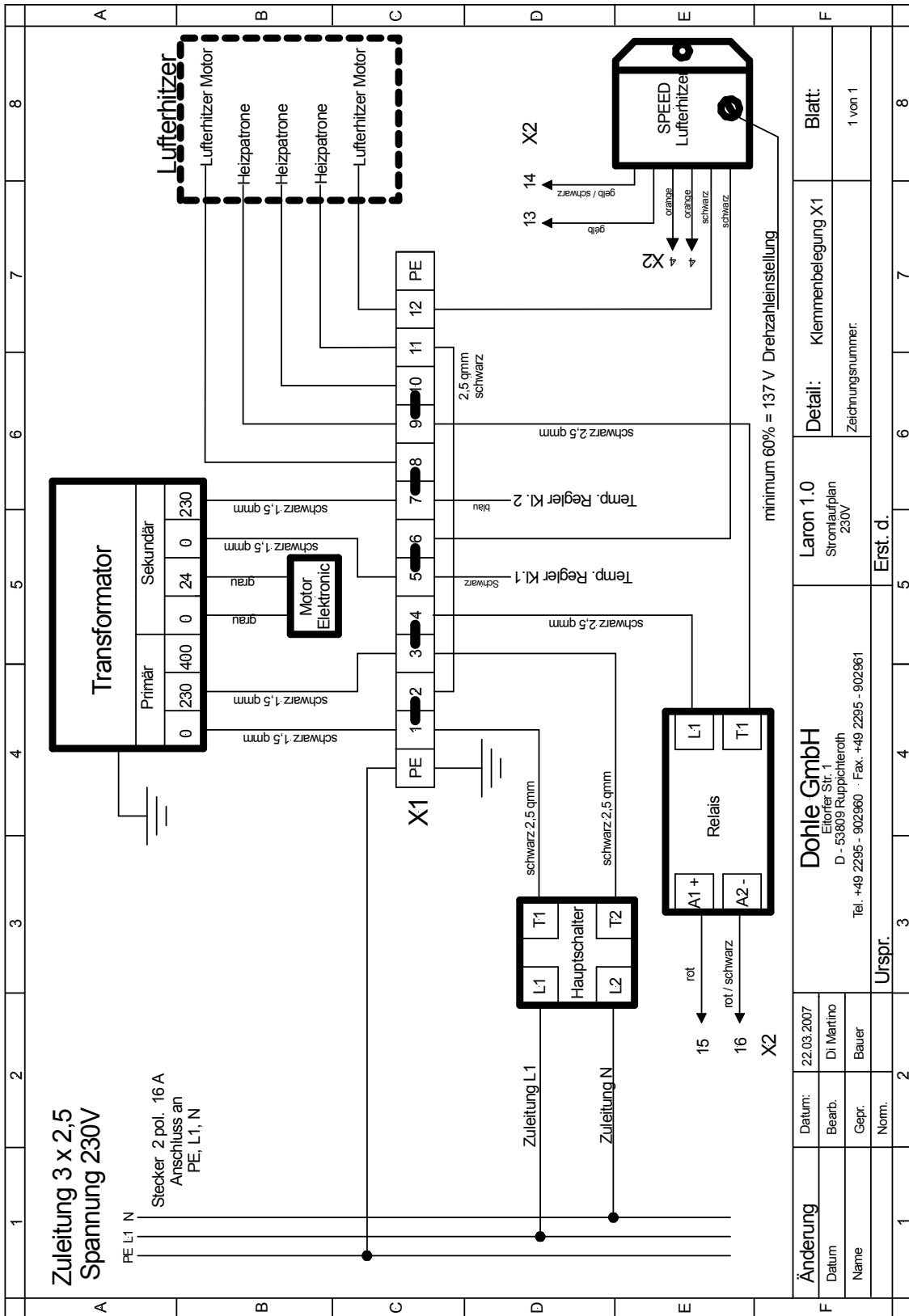
ERON 230V/400V, Art.-No.: 6600047/6600048



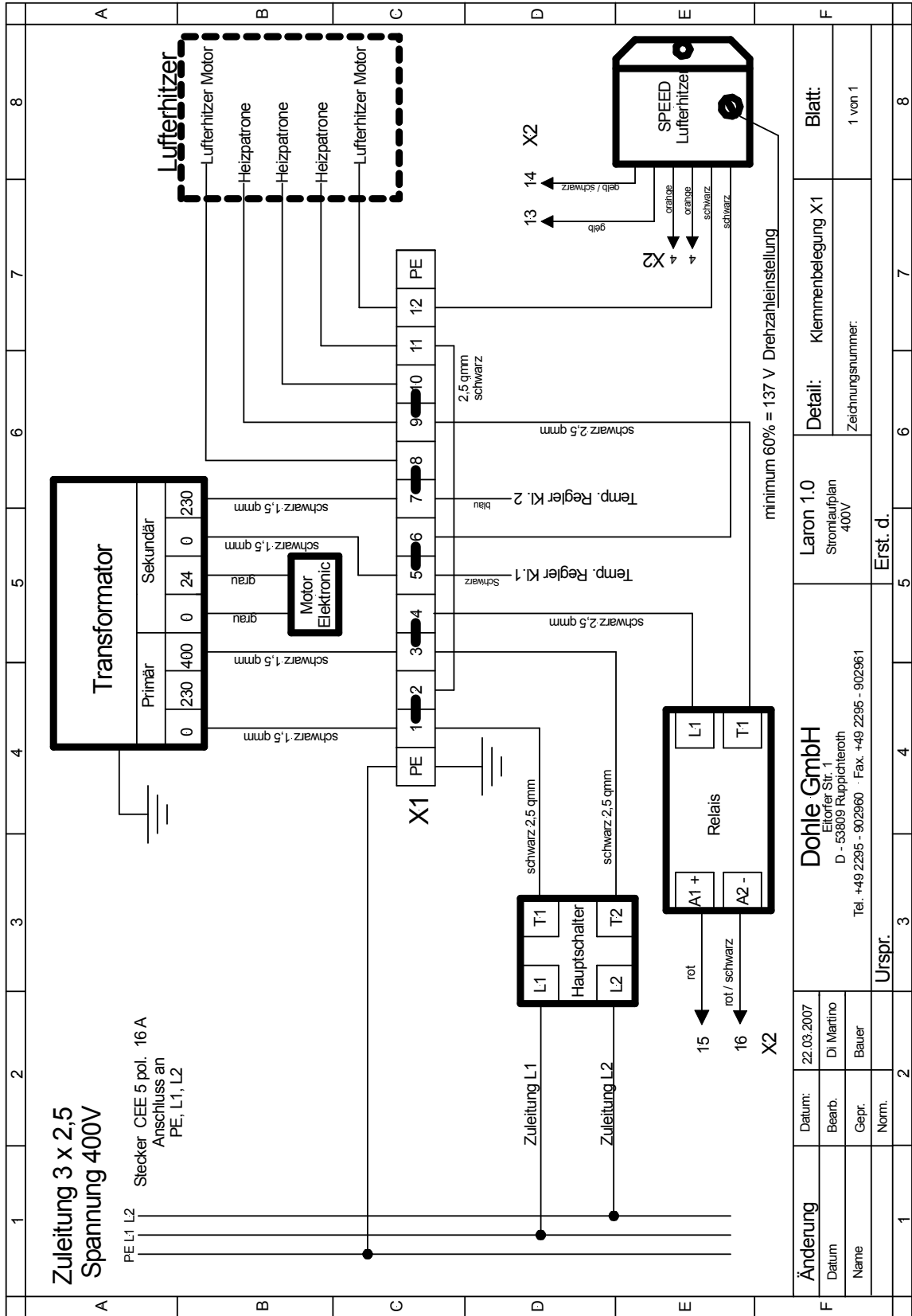
**Spare parts list Eron 230V/400V, Art.-No.: 6600047/6600048**

Art. No.	Description	Qty.
5101270	Gasket 70x48x4	1
5101274	Mica tube 47.6x134	1
5107612	Heating element Laron 230V	1
5108222	Overlap welding nozzle 40mm	1
5112693	Thermocouple	1
6100284	Countersunk screw M4x12 TX	3
6100287	Hexagon nut M5	1
6107591	Turbine	1
6107592	Turbine	1
6113695	Clixon 135°C	1
6600601	Air filter	1
6600606	Motor 230V SL	1
6600607	Carbon	2
6600612	Rubber ring	1
6600613	Turbine housing lower	1
6600614	Stripper	1
6600616	Countersunk screw M3x10 TX	6
6600622	Fillister head screw M4x10 TX	6
6600639	Handle	1
6600644	Terminal support	1
6600645	Turbine housing upper, with hole 1/4"	1
6600646	Elbow	1
6600647	cabl sleeve 290mm	1
6600648	Hose coupling straight	1
6600653	Electronic circuit board 230V/400V	1
D-2224	Plastic hexagon nut PG16	2





Änderung	Datum: 22.03.2007	Laron 1.0	Detail: Klemmenbelegung X1	Blatt:
Datum	Bearb. Di Martinho	Stromaufplan 230V	Zeichnungsnummer:	1 von 1
Name	Gepr. Bauer	Dohle GmbH Eiffort Str. 1 D - 53809 Ruppichteroth Tel. +49 2295 - 902960 - Fax. +49 2295 - 902961		
Norm.	Urspr.	Erst. d.		



<b>Änderung</b>	Datum:	22.03.2007	<b>Detail:</b>	Klemmenbelegung X1	<b>Blatt:</b>	8
Datum	Bearb.	DI Martino	Laron 1.0	Strömtauplan 400V	1 von 1	
Name	Gepr.	Bauer	Zeichnungsnummer:			
Norm.	Urspr.		Erst. d.			

