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# Bedienungsanleitung

# Operating Instructions

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**ExOn3A, DX306**  
**ExOn3A-5, DX314**



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 hand-held welding and extruding machine has been modified unless this has been done in consultation with the manufacturer/ supplier.

**The appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.**

**Children must be supervised not to play with the appliance.**

**The extruder shall be used for extrusion weld works only !**

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

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

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**english**

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## **1. Type**

Article-no. / Type of machine :	DX306 ExOn3A / DX314 ExOn3A-5
Machine no. :	.....
Required voltage :	230 V / 50 – 60 Hz
Heating unit :	3500W/15A
Processing of :	PE, PP

## **2. Safety**

Pursuant to section 55 of VDE 0 100 (Regulations of the Association of German Electrotechnical Engineers), the extruder must be operated using a protective switch or an isolation transformer. Always keep extruder dry!

Operating hand-held welding and extruding machines 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:**

Hand-held welding and extruding machines are manufactured according to the latest state of the art 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 hand-held welding and extruding machines if in technically perfect condition and for the purposes for which they are intended while observing the operating instructions.

The manufacturer / supplier will not accept any liability for any failure to comply with the above or for damages resulting there from.

Any utilisation of the hand-held welding and extruding 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 the hand-held welding and extruding machines may only be performed by an electrical engineer in compliance with electro-technical rules.

### **Special risks:**

All hand-held welding and extruding 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 because they may achieve temperatures of up to 350 °C.

**Caution: Heat can reach combustible materials!**

### **Safety area:**

The hot air stream of the hand-held welding and extruding machine may not be directed to temperature-sensitive objects or living things. Ensure that a safety distance of 2m is observed in all directions.

**Don't concentrate the heat stream long time on the same area.**

**Operation:**

Never use hand-held welding and extruding machines without air supply.  
In case of external air supply ensure that the feed line is of sufficient size.  
The pressurised air that is supplied **must be free of oil and water.**

**Overhead work:**

When working overhead always wear appropriate safety devices (such as helmet, safety glasses, etc.).

**Safety:**

Check for correct nominal voltage before connecting the hand-held welding and extruding machine to the mains voltage.

Mains voltage must be identical to the nominal voltage shown on the type plate of the hand-held welding and extruding machine.

Pursuant to sec. 55 of VDE 0 100 the hand-held welding and extruding machine must be operated using a protective switch or an isolation transformer.

**Extension cords:**

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

Length up to 18 m: diameter 2.5 mm<sup>2</sup>

Length up to 50 m: diameter 4.0 mm<sup>2</sup>

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

**Stop operating the hand-held welding and extruding machine if:**

- connecting line or plug have been damaged
- safety installations have been damaged
- foreign objects or liquids have entered the hand-held welding and extruding machine
- changes occur in the operating state

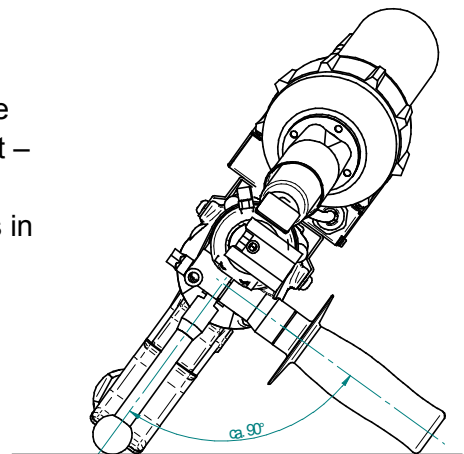
**Never spray water on hand-held welding and extruding machines  
(risk of short circuit)**

**Never use hand-held welding and extruding machines in hazardous or inflammable areas.**

**To park the tool:**

To save the stand, click the machine base out and put the tool on the three points (machine base – handle drive unit – pivoted handle).

Make sure that the machine base to the pivoted handle is in angle of 90°.



### **3. Start-up**

#### **General:**

Observe the notes on safety contained in these operating instructions. In addition, the regulations on the prevention of accidents and the national regulations shall apply.

#### **Assembling the hand-held welding and extruding machine**

Our hand extruders are largely fully assembled ready for accommodated.

#### **Weld shoe**

The machine is supplied with one weld shoe blank which can be machined to suit your requirements.

Note: please observe guideline DVS 2207 part 4.

If you indicate your required form of seam and thickness of plates we will supply one weld shoe machined ready for use.

#### **Start-up of hand-held welding extruder**

Observe the Safety chapter of this manual.

Before plugging in the power cord, please check that

- The heating is switched off at the air heater
- The engine is not set for continuous adjustment
- Plug in the power cord

Enter the power cord into an AC outlet (230V, 16A), use only easily accessible electrical outlets, you represent now the on - off the heater switch on the ON position.

The machine heats now on to the last selected setpoint temperature.

To change the temperature, they change the setting of Potentiometer on the heat gun.

The hand extruders exon 3A has a bi-metal cold start protection, the Device only partially protects against major damage. Always observe the longer Heat-up times and minimum temperatures of the materials to be processed. Incorrect operation has a fraction of the screw or the transmission of Follow.

Warranty claims that are due to incorrect operation cannot be claimed

**Caution: Observe minimal heat time of 20min.**

**Let the appliance unattended while it is operating.**

### **Change of the welding shoe**

In order to be sure that no more old welding rod is in the hand welding extrusion, heat up the machine on operating temperature, remove the welding shoe and change the nozzle (**note: left hand thread!**).

### **Changing the welding filler**

Heat up the hand-held welding and extruding machine until operating temperature is reached to ensure that no welding filler is present in the machine, remove the weld shoe and exchange the die (caution, left-handed thread) by a new one or by a die used with the material to be applied now.

### **Note: with work on heated machine burn danger.**

When the nozzle is changed drive for approx. 1 min. the new welding rod in the hand welding extrusion.

### **Interruption of the welding**

Do not leave the hand welding extruder unsupervised.  
The air supply must remain maintained

### **Switch off the hand welding extruder**

Bring the potentiometer of the air heater in position 0 and pull after ca.2 minutes the power supply plug.

### **Note: Even after 15 minutes still exists burn danger on bright metal parts.**

**No water or other materials for accelerating the cooling procedure must be used.**

### **Maintenance**

Before maintenance work on the equipment, pull power supply plug!  
Maintenance work may be accomplished only by electrical specialists.

### **Consider the security chapter!**

After approximately 300 operation hours the hand welding extruder, including the drive unit must be cleaned, greased and controlled. These work may be implemented only by electrical specialists.

### **Drive**

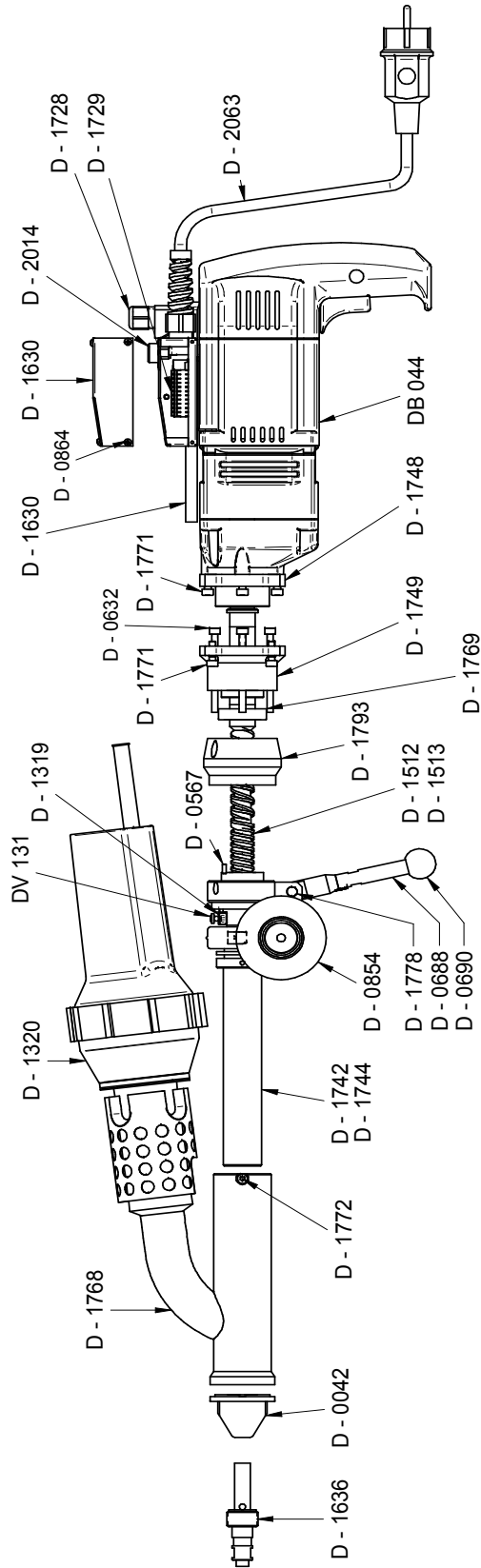
The carbon brushes conductors of the drive must be examined approx. every 120 operation hours and renewed if necessary.

### **Deep groove ball thrust bearing /barrel extruder**

The deep groove thrust bearing and the barrel extruder should be cleaned approx. every 120 operation hours and again be greased. (Note: Only high temperature grease can be used.)

## 4. Drawings, Informations

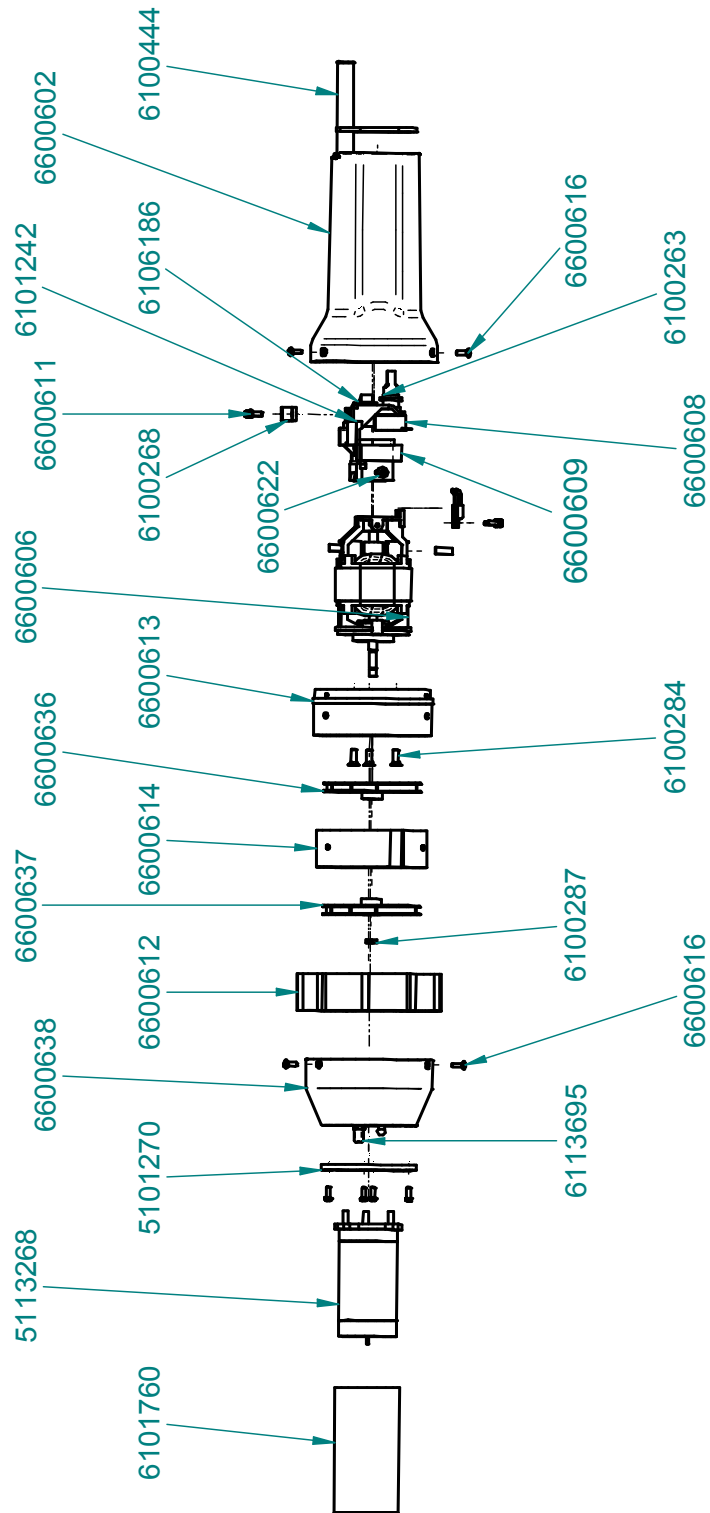
DX306 ExOn3A, DX314 ExOn3A-5



article-no	description	qty
D- 0012	feather key	1
D- 0042	air die multi fix 32mm	1
D- 0632	screw M5x65	4
D- 0680	compression spring handle	1
D- 0687	link	1
D- 0688	link joint 1502-3002	1
D- 0690	ball button 1502 - 6002	1
D- 0726	ball	1
D- 0727	press sleeve 3x16	1
D- 0845	screw M5x6	2
D- 0854	handle	1
D- 0864	screw 2,9x6,5 DIN7981	4
D- 1302	Potentiometer scale Micro	1
D- 1319	temperature switch T10B	1
D- 1320	Exon Extruder Ex03A	1
D- 1512	worm Ex03	1
D- 1513	worm Ex03-5mm	1
D- 1630	control box Ex03A	1
D- 1636	die Ex03A	1
D- 1728	angle screwed cable M16x1,5	1
D- 1729	phase angle control	1
D- 1742	cylinder Ex03A 4mm	1
D- 1744	cylinder Ex03A 5mm	1
D- 1748	flange Ex02-4	1
D- 1749	indentation1 Ex02-4	1
D- 1768	burner pipe Ex03A	1
D- 1769	deep groove ball bearing 61904 2Z ISB	1
D- 1771	screw M5x16	8
D- 1772	screw M4x6 T20 DIN985	2
D- 1778	axis Ex02-6	1
D- 1793	indentation2 Ex02A+3A	1
D- 2014	potenziometer 100k	1
D- 2050	screwed cable buckle proofed PG1	1
D- 2063	rain cable 8m	1
DB044	drive unit BSM275, 230V, 1400W	1
DV131	screw M4x8 T20 DIN985	1



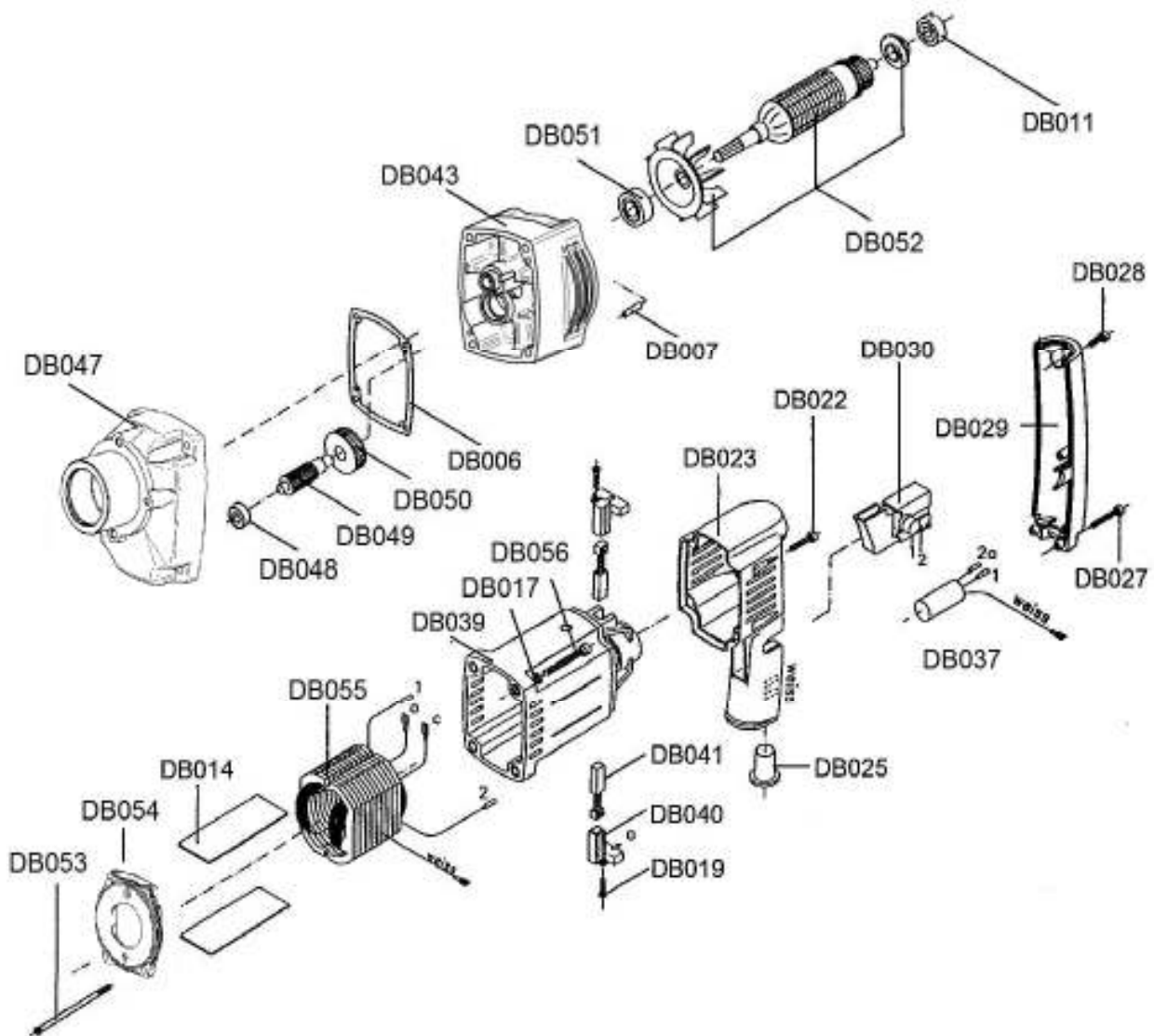
### D-1320 Eron 230V/2300W



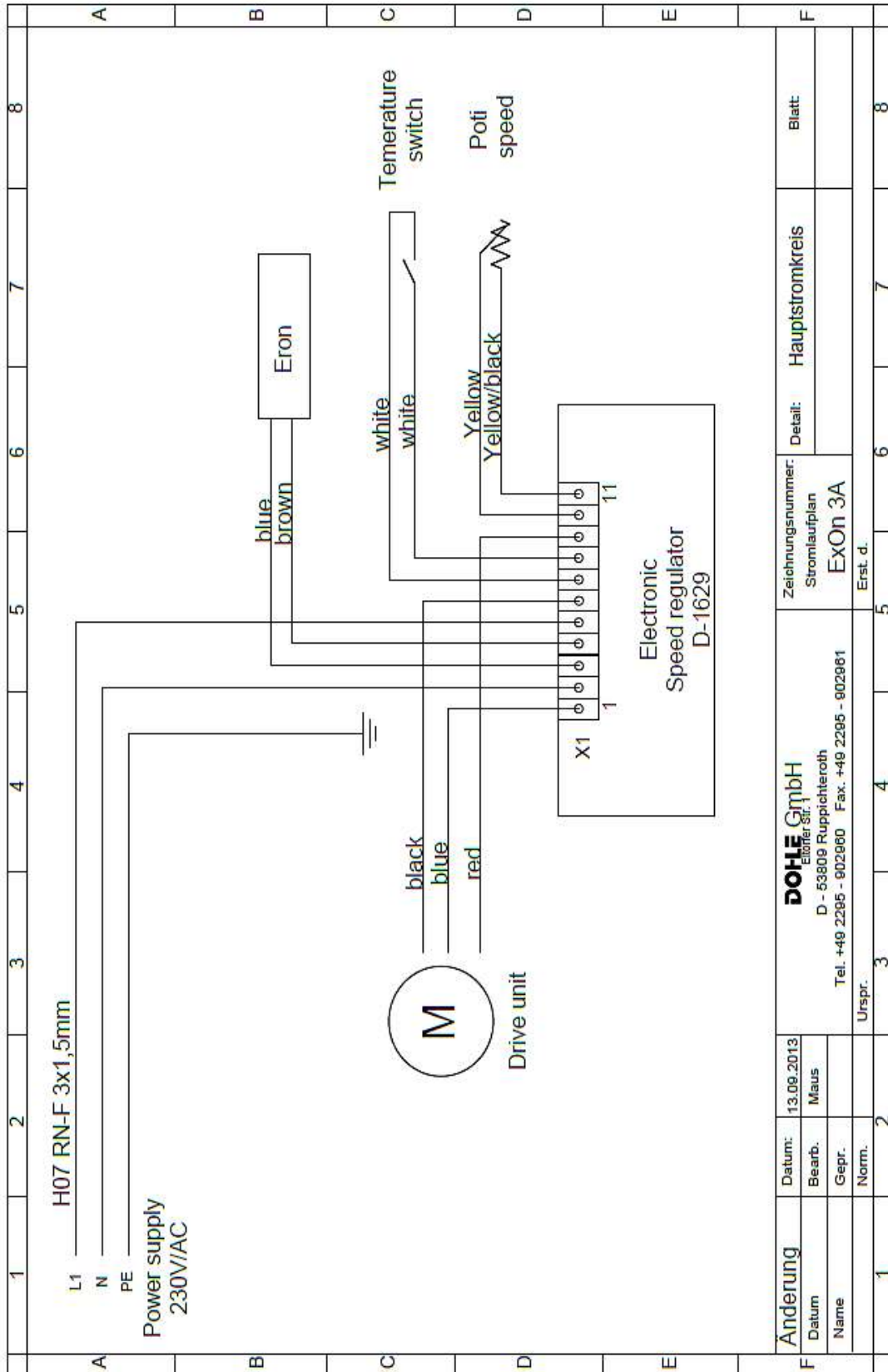
article-No	description	qty
5101270	gasket 70x48x4	1
5113268	heating element 230V/2200W	1
6100263	potentiometer knob red	1
6100268	strain relief	1
6100284	countersunk screw M4x12 TX	3
6100287	hexagon nut M5	1
6100444	cord guard 9,6x75	1
6101242	connecting shackle	1
6101760	mica tube 47,6x95	1
6106186	rocker switch	1
6113695	temperatur limit switch 135°C	1
6600601	air filter	1
6600602	handle	1
6600606	motor 230V SL	1
6600607	carbon brush	2
6600608	potenziometer 10KOhm	1
6600609	electronic circuit board 230V	1
6600610	triac 25A/800V	2
6600611	PT fillister head screw M3x8 TX	8
6600612	rubber ring	1
6600613	turbine housing lower part	1
6600614	stripper	1
6600615	phototransistor	1
6600616	countersunk screw M3x10 TX	4
6600622	fillister head screw M4x10 TX	2
6600636	turbine	1
6600637	turbine	1
6600638	turbine housing upper part	1

## Spare Parts Drive Unit

### DB044



<b>Art.No</b>	<b>Qty</b>	<b>Description</b>
DB047	1	Gear BSM 275
DB049	1	Idler 8Z
DB050	1	Gearwheel 26 Z
DB006	1	Flat Gasket
DB007	2	Cylinder Pin 4m6, 6x16 DIN7
DB043	1	Engine Flap
DB051	1	Ball Bearing 6201 2RS
DB052	1	Armature Winding BSM 275
DB011	1	Ball Bearing 608-2Z
DB053	2	Raised Head Screw M4x100 DIN84
DB054	1	Air Ring
DB014	2	Insulating Plate
DB017	4	Spring Washer M5 DIN 7980
DB056	1	Cheese Heat Screw M5 x 85 DIN 912
DB019	2	Cheese Heat Screw 2,9 x 9,5 DIN 7971
DB022	1	Raised Head Screw 3,9 x 19 DIN 7981 G
DB023	1	Handle BSM 270 green
DB025	1	Stopper
DB027	1	Raised Head Screw 3,9 x 25 DIN 7981 G
DB028	1	Raised Head Screw 3,9 x 13 DIN 7981 G
DB029	1	Handgrip Black
DB030	1	Switch ON-OFF
DB048	1	Ball Bearing 626-2Z
DB034	1	Shaft BSM 270 – 280
DB036	1	Drive Unit BSM 270, 230 V, 800 W, green
DB037	1	Capacitor 2007 BSM 270
DB055	1	Field 230 V
DB039	1	Motor Case Green
DB040	2	Carbon Holder BSM 270
DB041	2	Carbon Brush BSM 270

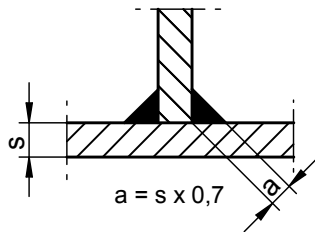


Änderung	Datum:	13.09.2013	Zeichnungsnummer:	Hauptstromkreis	Blatt:		
	Bearb.	Maus				Stromlaufplan	
	Gepr.						ExOn 3A
	Norm.						
1					8		

## Welding Shoes

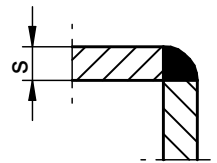
**s = thickness of material**

### fillet weld



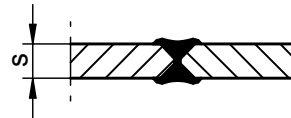
thickness of material	order - no.
5-8	D-0174
10-12	D-0175
15	D-0177
20	D-0178
25	D-0179
30	D-0180
35	D-0181
40	D-0182

### corner weld



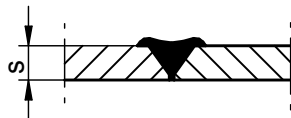
thickness of material	order - no.
5-8	D-0195
10-12	D-0196
15	D-0197

### X - weld



thickness of material	order - no.
10	D-0198
15	D-0199
20	D-0200
25	D-0201
30	D-0202
35	D-0203
40	D-0204

### V-seam

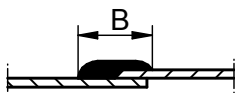


thickness of material	order - no.
5-8	D-0183
10	D-0184
12	D-0185
15	D-0186
20	D-0187
25	D-0188
30	D-0189
35	D-0190
40	D-0191

### welding shoe, round

	order - no.
Ø15	D-0600
Ø20	D-0366
Ø25	D-0337

### overlap weld



width of weld B	order - no.
25	D-0192
30	D-0193
35	D-0194
40	D-0599

### welding shoe - unshaped

size	order - no.
30 x 30 x 45	D-0223
30 x 40 x 50	D-0224
30 x 45 x 45	D-0225
50 x 60 x 80	D-0247
50 x 70 x 80	D-0248
Ø35	D-0598

please require for shoes for special application