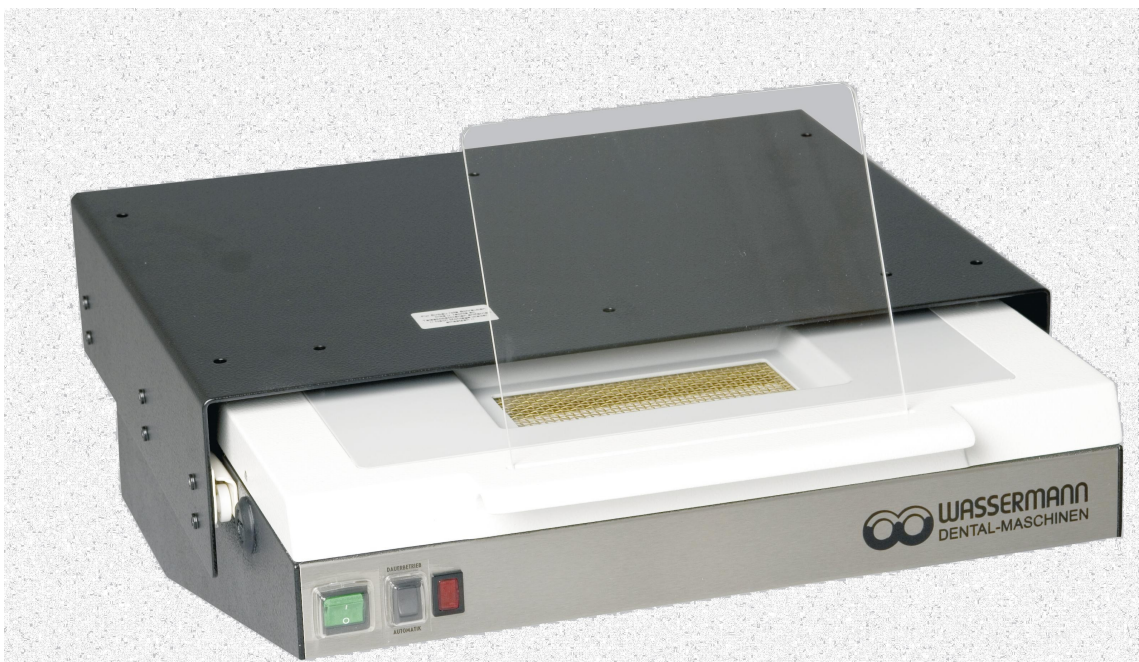


- Dust-extraction-drawer  
LSG-02 D and LSG-02 DE



LSG-02 DE equipped with an auto-start-system

● SERVICE MANUAL

**Dear customer,**

Thank you for choosing a product from the Wassermann range. Wassermann dental equipment incorporates the highest standards of quality and the latest technology.

In order to enjoy maximum performance and years of trouble-free operation, please read this service manual carefully before you connect this device and start work, and operate the device according to the recommended guidelines. The operation safety and the functionality of this device can only be guaranteed if you follow both the general safety guidelines and the applying laws to prevent accidents as well as the precautions given in this service manual. We are not liable for any damages which occur due to inappropriate usage or faulty operation of this device.



Make sure that anyone using this device has read and understood this service manual.

**Keep this service manual in a safe place where it can be referred to as required at any time.**

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## 1 Features

The LSG-02 D/DE is used for extracting dust.

The LSG-02 D has an automatic level check, which stops the unit when the filter is full, while triggering the red warning light. In that case the filter has to be changed.

Switching the unit off cancels the signal. The filter capacity is pre-set at the factory.

The LSG-02 DE has an automatic level check and an automatic restart device. As soon as the handpiece motor is used, the extractor unit cuts in automatically. It incorporates a 20-second delay to allow for short breaks in the work process.

- easily operated single position suction with high degree of effectiveness
- LSG-02 DE: automatic switch-on facility for the automatic switching on of suction via the technical apparatus
- suitable for continuous operation (switchable)
- automatically switches off at filter saturation point – including all peripheral appliances
- optical display when filter change required
- problem-free installation, simple filter change
- gold and debris drawer optionally available as an interim drawer as well as a high durability, monomial activated carbon filter.
- simple to handle, high safety standards via coasting automatics
- practical accessory variations with the possibility of later assembly
- manufactured totally from metal

## 2 Safety guidelines

### 2.1 Safety symbols used in this manual



#### **Warning!**

This is a warning of risk situations and dangers.

Failure to observe this warning could be life-threatening. These warnings must be observed.



#### **Information!**

This symbol draws your attention to specific features that must be observed.

### 2.2 Safety guidelines



- Configuring and operating this equipment requires ***precise knowledge*** and ***observance*** of the instructions in this ***service manual***. The equipment is designed only for its intended application.
- **Servicing and repairs should be carried out only by authorised specialists.**
- Make sure that the unit is connected to the correct mains voltage.

### 2.3 Responsibility for operation and damage

The responsibility for operating the unit lies exclusively with the owner or user if the said unit is incorrectly serviced, maintained or altered by persons not employed by an accredited dealer or if the unit is used in a manner contrary to its specified purpose.

The unit must be maintained and operated in accordance with this service manual. Wassermann Dental-Maschinen GmbH is not responsible for damage arising from the ***non-observance*** of these instructions.

Guarantee and responsibility provisions contained in the sales and supply conditions of Wassermann Dental-Maschinen GmbH are not extended by these instructions.



**Product responsibility lapses if the equipment is altered by unauthorized third parties or if non-original parts are installed. Use only original WASSERMANN replacement parts.**

### **3 Application**

The LSG-02 D/DE extractor drawers are technically proven and solid items of equipment made entirely of metal. Once pulled out, the drawers switch on automatically as soon as you start work. If a finishing motor is attached to the extractor, it starts as soon as the drawer is pulled out. This connection automatically switches the handpiece motor off again as soon as the drawer is pushed in. Working without dust extraction is not possible with this configuration.

Only use the device for this type of application.

### **4 Before starting**

#### **4.1 Transport**

Before transporting the unit, ensure that it has been unplugged from the power socket. Make sure that it is packed correctly in order to avoid accidental damage.



Be sure to check for any transport damage when unpacking the goods. Note down any damage if found.

## 4.2 Installation

Open the box, remove the packing materials, and carefully lift out the device and accessories. Check the included accessories.

**i**

Do not install the unit outdoors or in places without proper ventilation. Before start-up, be sure the device reaches room temperature.

## 4.3 Storage

If the unit is to be stored for an extended period, protect it from moisture and dust.

# 5 Start-up / Installation

## 5.1 Assembly

To install the unit, first undo the red safety screws on the left and right of the frame until the frame can be removed from the extractor drawer.

Attach the drawer to the table plate. The front screw hole should be 110 mm from the front edge of the plate. Fasten the frame with 4 x M5 metal screws or 5 mm strong wood screws. Then locate the drawer on the telescopic rails. Tighten the red safety screws again to limit the outward travel of the drawer.

# 6 Operation

Connect the drawer to mains power.

1. Press the (green) rocker switch.
2. A microswitch starts the extractor and any attached finishing motor as soon as the draw is pulled out.

**i**

Switch the unit off if it will not be used for an extended period.

## 6.1 How to set the automatic switch-on facility of LSG-02 DE

- 1.) Pull the drawer completely out of the mounting frame. On the upper site of the unit there is a plastic blank plug, under which the potentiometer for setting is situated.
- 2.) Switch on the Suction-drawer, switch on the Automatic-starting.
- 3.) Turn the potentiometer with the help of a little screwdriver very slowly anti-clockwise until it blocks.
- 4.) Let motor run, a little higher than lowest speed, recommended speed 5.000 min<sup>-1</sup>
- 5.) Turn the potentiometer very slowly and carefully clockwise up to that point the suction unit starts.
- 6.) Setting is finished.

## 7 Troubleshooting

### 7.1 LSG-02 D

| Fault  | Cause               | Remedy  |
|--|---------------------|---|
| Filter saturation - red light comes on           | Filter full         | Change filter or switch to continuous operation |
| Green rocker switch comes on but nothing happens | Faulty mains switch | Mains switch must be replaced                   |

### 7.2 LSG-02 DE

| Fault  | Cause                           | Remedy  |
|--|---------------------------------|---|
| Filter saturation - red light comes on           | Filter full                     | Change filter or switch to continuous operation |
| Green rocker switch comes on but nothing happens | Faulty mains switch             | Mains switch must be replaced                   |
| No control from micromotor                       | Trim potentiometer not adjusted | Adjust trim potentiometer to match model        |



**If the above recommendations do not solve the problem, contact your dental depot or our service department.**



## 8 Care and maintenance

### 8.1 Cleaning



Disconnect the power plug before starting any maintenance work.

The identification plate must always be kept in easily legible condition and must not be removed.

The equipment should be cleaned at regular intervals to ensure trouble-free operation.

It requires only normal cleaning (sponge, damp cloth, mild detergent) - no chemical additives.



**Use only cold cleaners to avoid damaging the paintwork or removing the lettering.**

### 8.2 Maintenance

Filter change (optical display when filter change required).

In spite of changing the filter if required the LSG-02 D / LSG-02 DE does not require any servicing. Just make sure that the device is kept clean.

### 8.3 Warranty



The warranty period for our equipment is 12 months. If faults occur within the warranty period, contact your dental depot or get in touch directly with our service department.

Your equipment should only be operated in perfect condition. If faults occur which could harm operators or third parties, the unit should not be used until it has been fixed.

This warranty does not cover damage caused by improper use, external mechanical causes, transport damage or interference with the unit by unauthorized persons.

## 8.4 Spare parts

If necessary please contact our service hotline phone:

0049 (0)40 / 730 92 6-0

| REF.   | Spare part                       |
|--------|----------------------------------|
| 144011 | Safety screen                    |
| 511044 | Rocker switch, green             |
| 511051 | Protective cap for rocker switch |

## 8.5 Scope of delivery / Accessories

| REF.   | Included in delivery  |
|--------|---|
| 144011 | Protection sheet  |
| 592012 | Supply line   |
| - - -  | Micro fine dust filterbag (dust class M)                            |
| REF.   | Accessories   |
| 145005 | Additional drawer (can also be retrofitted)                         |
| 145006 | Mounting frame for KaVo tables                                      |
| 145200 | Universal extractor hood with base plate                            |
| 145240 | Activated carbon filter   |
| 611015 | Spare micro fine dust filterbag (dust class M)<br>1 set = 3 pieces  |
| 611017 | Spare filterbag for plaster (class 1 / class 2)<br>1 set = 3 pieces |

## 8.6 Repairs



Servicing or repairs to the unit must only be carried out by qualified technicians.

Only original spare parts are to be used. Responsibility for the product is voided if unauthorised persons alter it or if inappropriate components are installed.

## 9 Technical data

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| <b>LSG-02 D</b>                   | <b>REF. 145998</b>                    |
| <b>LSG-02 DE</b>                  | <b>REF. 145997<sup>+</sup></b>        |
| Voltage*                          | 220–240 V / 50/60 Hz                  |
| Output                            | 105 W                                 |
| Power consumption                 | 0.5 A                                 |
| Power consumption connection unit | max. 2 A                              |
| W x H x D/D max.                  | 445 x 190 x 505/720 mm                |
| Weight                            | 17.2 kg, 17.5 kg <sup>+</sup>         |
| Sound level                       | 61 dB(A)                              |
| Suction capacity                  | 360 m <sup>3</sup> / h (free-blowing) |

\*Other voltages upon enquiry

The noise level of the unit amounts to ≤ 70 dB(A).



The technical data are subject to change without prior notice.

**10 EC Conformity Certificate**

in accordance with 2006/95/EG (low-voltage guidelines) and 2004/108/EG (EMV guidelines) and 2006/42/EG (machinery guidelines)

Manufacturer : W A S S E R M A N N      Product description : Suction unit for dental application  
Dental-Maschinen GmbH  
Rudorffweg 15 - 17  
D-21031 Hamburg

Model : LSG-02 D      REF. 145998  
LSG-02 DE      REF. 145997

Applicable standards : DIN EN 61010-1  
DIN EN 61000-6-3  
DIN EN 61000-6-1  
DIN 45635-1  
DIN EN 60335-1

Hiermit wird bestätigt, dass die oben bezeichnete Maschine den genannten EG-Richtlinien entspricht. Diese Erklärung wird ungültig, falls die Maschine ohne unsere Zustimmung verändert wird.

This is to confirm that the above mentioned machine complies with the described EC rules. This declaration becomes invalid if the machine is modified without our approval.

Cette machine est conforme aux normes en vigueur de la Communauté Européene. Cet avis est nul et non avenant si cette machine est modifiée sans notre accord.

Esta máquina, anteriormente mencionada, cumple con los limites requeridos por el reglamento EC. Ahora bien, esta declaración quedará invalidada en caso de realizar modificaciones al aparato sin nuestra aprobación.

Hiermee wordt bevestigd dat bovengenoemde machine voldoet aan de voorgeschreven EU normen. Deze verklaring verliest geldigheid als er zonder onze uitdrukkelijke toestemming wijzigen aan de machine worden aangebracht.

Place, date : Hamburg, 05.03.13

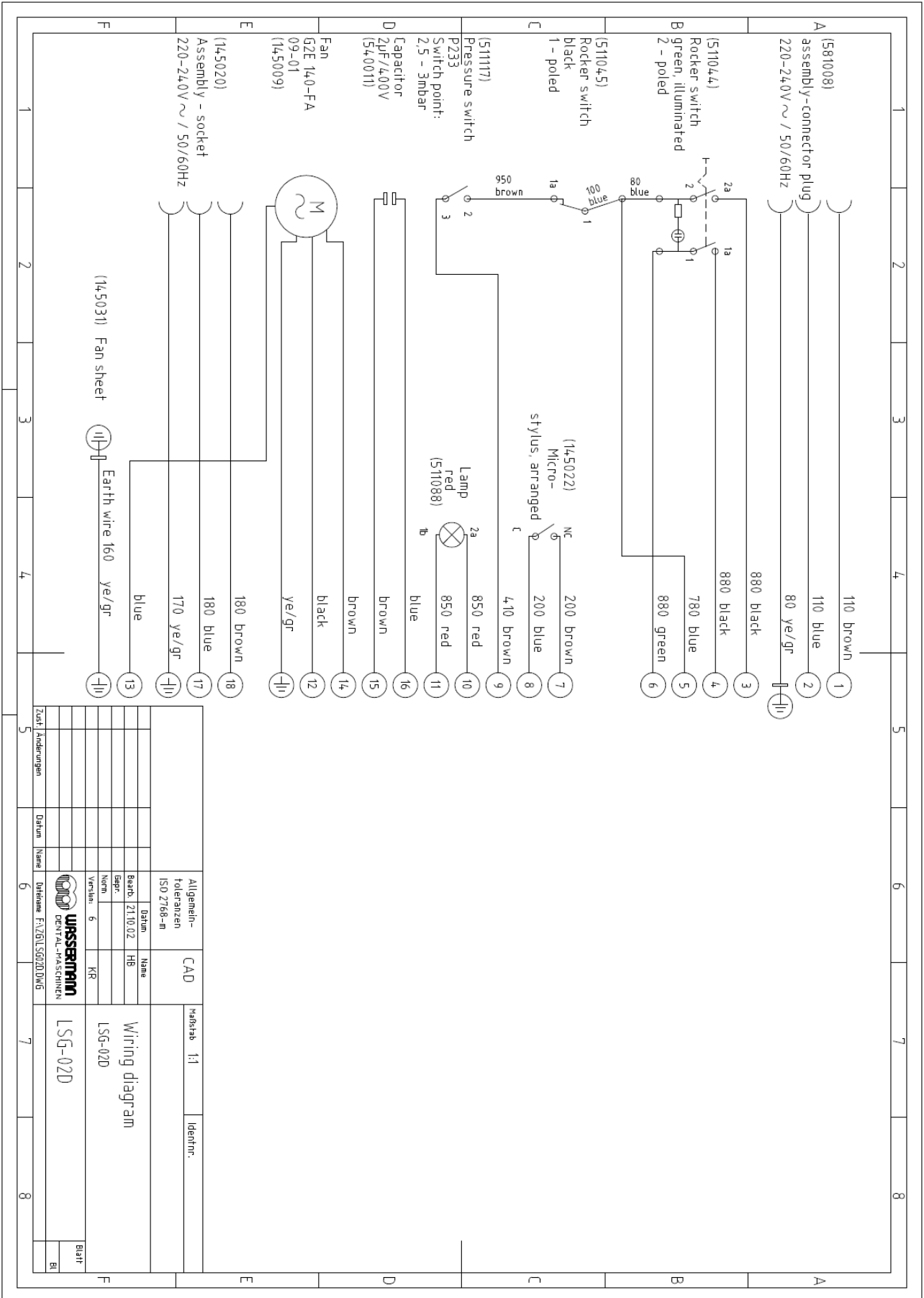
Company stamp :



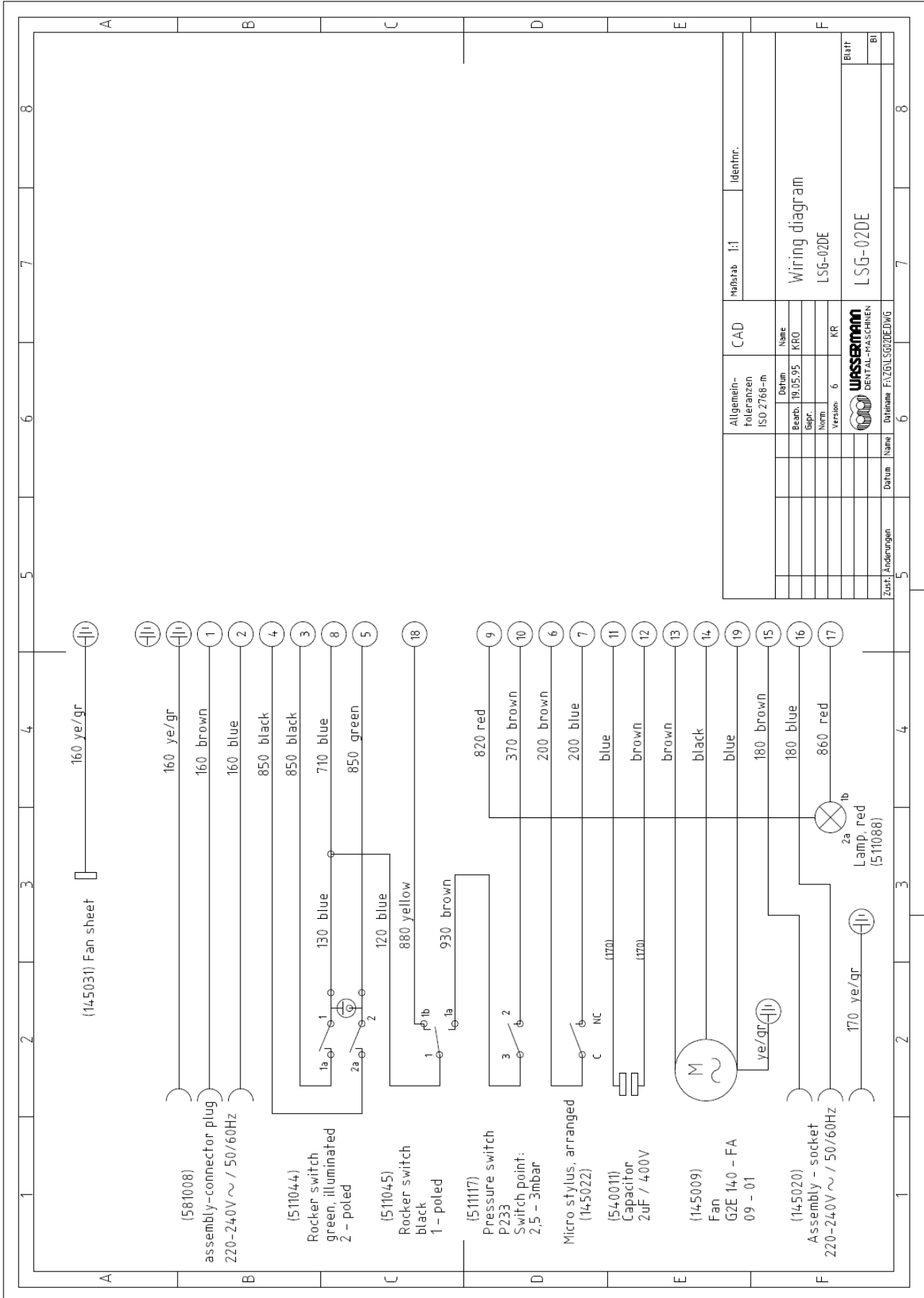
**WASSERMANN**  
DENTAL-MASCHINEN GMBH  
Rudorffweg 15 - 17 · 21031 Hamburg

Signature : \_\_\_\_\_  
Wilfried Wassermann  
(Managing Director)

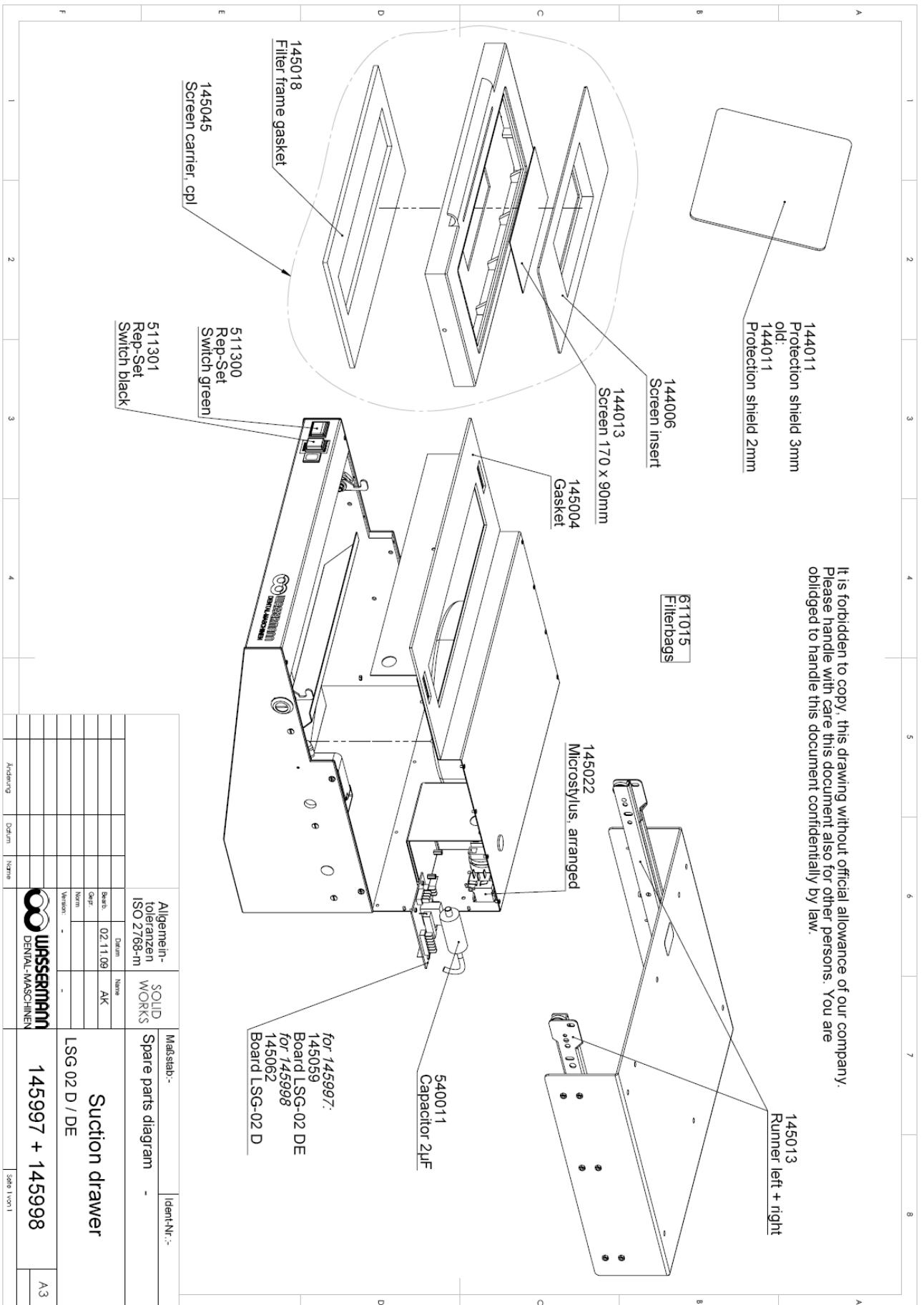
# 11 Wiring diagram LSG-02 D



## 12 Wiring diagram LSG-02 DE



**13 Spare part diagram LSG-02 D/DE**



It is forbidden to copy, this drawing without official allowance of our company. Please handle with care this document also for other persons. You are obliged to handle this document confidentially by law.

for 145997:  
145059  
Board LSG-02 DE  
for 145998  
145062  
Board LSG-02 D

|  |          |                |    |                     |  |             |  |
|--|----------|----------------|----|---------------------|--|-------------|--|
| Allgemein-<br>toleranzen<br>ISO 2768-m |          | SOLID<br>WORKS |    | Maßstab:-           |  | Ident.Nr.:- |  |
| Bezeichnung                            | Datum    | Name           | AK | Spare parts diagram |  |             |  |
| Bezeichnung                            | 02.11.09 | Name           | AK | -                   |  |             |  |
| Gez.                                   |          |                |    | Suction drawer      |  |             |  |
| Nr.                                    |          |                |    | LSG 02 D / DE       |  |             |  |
| Version                                |          |                |    | 145997 + 145998     |  |             |  |
|  |          |                |    | Seite 1 von 1       |  | A3          |  |

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