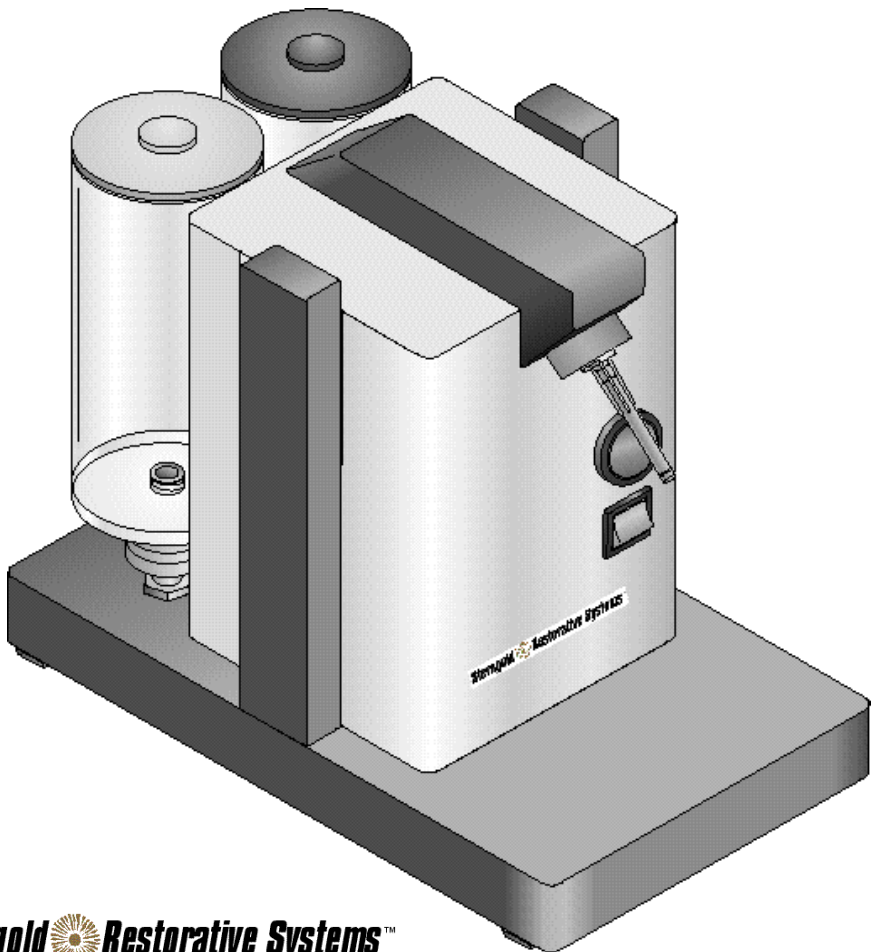


INSTRUCTIONS FOR USE

**Stern**  **Tek**™

***Duplicating Dispensing Unit***

Automatic mixing and dispensing unit  
for thin-flowing duplication silicones



**Sterngold**  **Restorative Systems**™



## CONTENTS

Exploded view

Spare part list

Technical data

Declaration of conformity

Safety instructions

Description of the unit

Operation

Putting into service

Care and maintenance

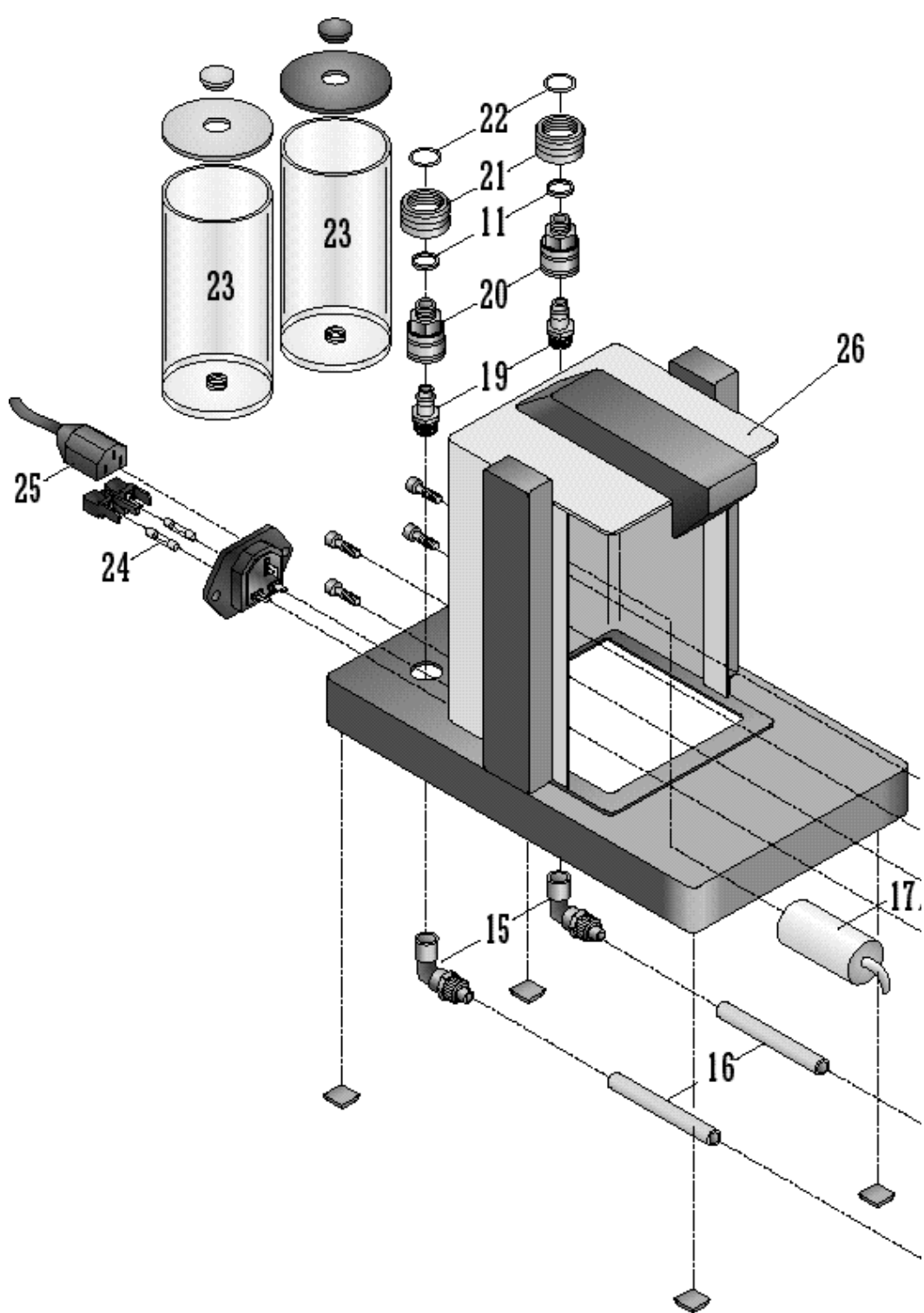
General notes

Trouble shooting

Wiring diagram

## GUARANTEE for STERNTEK™ DUPLICATING DISPENSING UNIT

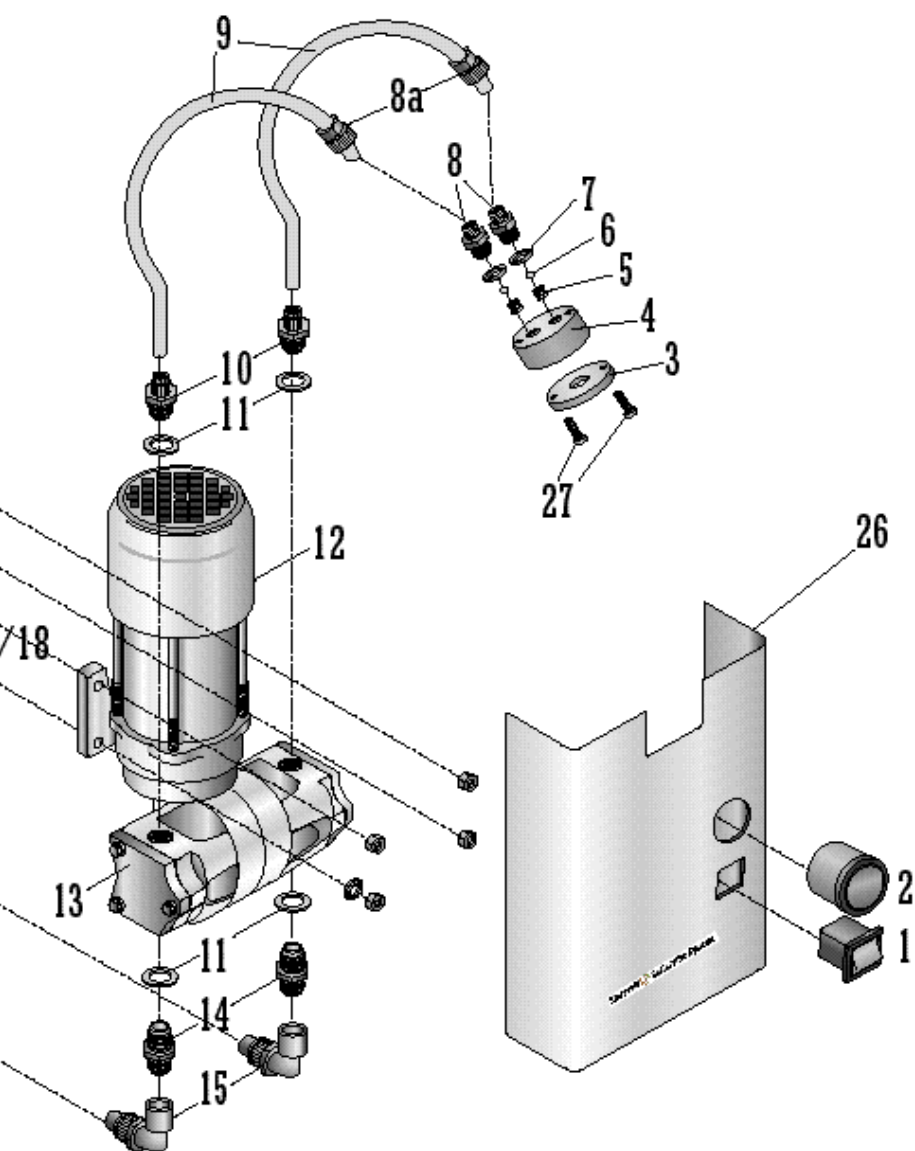
We give a two-year's guarantee for the SternTek™ Duplicating Dispensing Unit, starting from the date of delivery (this is subject to proper use of the unit). Exception: For wear and tear parts (e. g. gears, etc.) we grant a guarantee of 6 months, .



# Stern Tek™

## Duplicating Dispensing Unit

EXPLODED VIEW



## Duplicating Dispensing Unit

### SPARE PART LIST

- 1 Operation switch ..... Item No. 1507E
- 2 Push-button ..... Item No. 1508E
- 3 Mixing head flange ..... Item No. 1503E
- 4 Mixing head for SternTek™ Duplicating Dispensing Unit Item No. 1502E
- 5 1 piece spring ..... Item No. 1517E
- 6 1 piece ball ..... Item No. 1516E
- 7 1 piece gasket 1/8" ..... Item No. 1515E
- 8 1 piece straight screw connection 1/8" - 6 x 1 ..... Item No. 1520E
- 8a 1 piece union nut
- 9 1 piece mecnayle tube 6 x 1 ..... Item No. 1513E
- 10 1 piece straight screw connection 1/4"-6x1 ..... Item No. 1519E
- 11 1 piece gasket 1/4" ..... Item No. 1514E
- 12 Dosage pump ..... Item No. 1504E
- 13 2 pieces lid / pump flange ..... Item No. 1534E
- 14 1 piece reducing nipple 1/4"-3/8" ..... Item No. 1522E
- 15 1 piece angled screw connection 3/8" - 12 x 1 ..... Item No. 1521E
- 16 1 piece polyamide tubing 12 x 1 ..... Item No. 1512E
- 17 Condensator 230 Volt ..... Item No. 1540E
- 18 Condensator 115 Volt ..... Item No. 1539E
- 19 1 piece coupling plug ..... Item No. 1506E
- 20 1 piece coupling ..... Item No. 1505E
- 21 1 piece bottle adapter ..... Item No. 1501E
- 22 1 piece o-ring 18 x 2 ..... Item No. 1511E
- 23 2 pieces material reservoir ..... Item No. 5021
- 24 2 pieces miniature fuse (1A/T) ..... Item No. 1587E
- 25 Power cable ..... Item No. 1589E
- 26 Housing ..... Item No. 1500E
- 27 1 piece hexagon socket screw ..... Item No. 1588E
- 28 1 piece tooth wheel with key groove ..... Item No. 1535E
- 29 1 piece tooth wheel without key groove ..... Item No. 1536E
- 30 1 piece radial wave sealing ..... Item No. 1537E

### TECHNICAL DATA

H x W x D: 330 x 245 x 370 mm  
WEIGHT: 12,5 kg  
VOLTAGE: 230V/50Hz,  
220V/60Hz, 115V/60Hz  
(Voltage / frequency see type  
plate)

POWER INPUT: 250 W  
HOUSING: Robust metal  
housing,  
coated with powder  
Gearmotor with super-heated  
protection

# EU-DECLARATION OF CONFORMITY

According to the EU-guideline machines 89/392/EWG, appendix II A, EU-guideline for electromagnetic compatibility EMC 89/336/EWG and the EU-guideline for electrical appliances for low tension 73/23/EWG

Herewith we declare that the machine described below is in its conception and design and in the shape delivered by us in accordance with the fundamental requirement for safety and health as prescribed in the applicable EU-guidelines.

In the case of any change or modification of the machine not authorised by us this declaration becomes invalid.

Designation of the machine  
SternTek™ Duplicaring Dispensing Unti

**Type of machine:**  
Dosing and mixing unit for silicone molds

**Applicable EU-guidelines:**  
89/392/EWG EU-guideline machines  
89/336/EWG EU-guideline for electromagnetic compatibility EMC  
73/23/EWG EU-guideline for electrical appliances for low tension

**Applied harmonised standards:**  
EN 292-1 Safety of machinery; basic concepts, general principles for design;  
part 1: basic terminology, methodology  
EN 292-2 Safety of machinery; basic concepts, general principles for design;  
part 2: technical principles and specifications  
EN 50081-1 Expert basic standard interference sending, living area  
EN 50082-2 Expert basic standard interference resistance, living area  
EN 60204 Part 1 Safety of machinery, electrical equipment of machines;  
Part 1: general requirements  
EN 61010 Part 1 Safety requirements for electrical equipment for measurement,  
control and laboratory use; Part 1: general requirements

Manufactured in Germany for:

**Sterngold  Restorative Systems™**

23 Frank Mossberg Drive  
Attleboro, MA02703-0967 USA  
Tel: (508)226-5660 • (800)243-9942  
Fax: (508)226-5473 • (800)531-2685  
[www.sterngold.com](http://www.sterngold.com)

European Representative:  
Sterngold ImplaMed AB  
Hästsковägen 8 - 13464  
Ingarö, SWEDEN  
Tel./Fax: +468753 41 80

## ***Duplicating Dispensing Unit***

### **SAFETY INSTRUCTIONS**

**ATTENTION!** Read the following notes before connecting and putting the unit into service. The operating service and the function of the unit can only be guaranteed, if the general safety and accident prevention instructions of the legislation as well as the safety instructions of the working instruction are observed.

1. This unit must only be used according to the present working instructions. We cannot be held liable for damages which have been caused by improper treatment or faulty manners of operation.
2. The indicated voltage on the type plate has to meet the voltage of the power source.
3. Connect the unit only to a socket with protective conductor. Never touch the plug with wet hands.
4. The unit has to be placed onto a stable and even surface.
5. Do not intrude any objects into the unit.
6. Only those appliances and spare parts may be used which are released by the manufacturer. We are not responsible for damages caused by the use of outside parts.
7. Do not lock the operation button of the unit.
8. The unit has to be examined before operation in view of proper condition and general safety. If the unit is not in proper condition, it must not be used and has to be marked accordingly.
9. Before cleaning and maintenance of the unit or the changing of parts the plug has to be disconnected.
10. Plates and labels have to be maintained in a legible condition and must not be removed.
11. The opening of the unit and repairs are only to be carried out by trained experts.

### **DESCRIPTION OF THE UNIT**

The SternTek™ Duplicating Dispensing Unit is an automatic mixing and dosing unit for thin-flowing addition-vulcanising two-component duplication silicones. At the touch of a button the components are

mixed in a ratio of 1:1 and dispensed for duplication. The quick-coupling allows the use of the 1 kg original packaging drums, refillable material reservoirs or the 6 kg resp. 25 kg large cubitainers.

## PUTTING INTO SERVICE

*Ensure that the indicated voltage on the type plate meets the voltage of the power source.*

*Plug the power cable into the socket of the unit and create a connection with the euro-plug.*

## OPERATION

### PREPARATION OF THE SILICONE CONTAINERS

*1kg bottles, material reservoirs or cubitainers can be connected with the SternTek™ Duplicating Dispensing Unit.*

*BOTTLES: Open the bottles with the components A and B and apply bottle adapter.*

**ATTENTION: Colored bottle adapter is screwed onto the bottle filled with colored silicone material-component B. (Base)**

*MATERIAL RESERVOIR: The color-marked transparent containers which have already been equipped with a quick-coupling are optionally available. The colored silicone component has to be filled into the colour-marked reservoir.*



*CUBITAINER: Unscrew the caps of the canister and fit colour-marked connection hoses.*

**ATTENTION: Keep the two silicone components separated - do not interchange connections! In case the two components have been mixed the silicone cures in the unit which makes considerable repairs in our plant necessary.**

### FILLING OF THE UNIT

*The SternTek™ Duplicating Dispensing Unit is delivered with testing liquid in the system. When putting the unit into service this liquid is produced by touching the button until the duplication material reaches the hoses.*

*Remove the lock caps from the coupling plugs*



(no. 19). Press the quick-coupling / bottle adapter onto the coupling plugs of the unit and let them snap audibly.

**ATTENTION!** The components A and B have to be connected according to the printing on the unit and the applied colour marking. Cut an opening of approx. 0.5 cm<sup>2</sup> into the bottoms of the



cupitainers in order to let air come in when producing. Remove protection cap from mixing head (no. 4) and do not reuse. Turn on the unit at the operation button. Put a reception bowl under the mixing head and press push-button (no. 2). Keep the push-button pressed until the test silicone has been produced completely and both components come out homogeneously



at the

mixing head. Fix mixing canula at the mixing head (no. 4) by means of turning it to the right by 90°. The turning of the mixing canula can be eased by means of the enclosed star-turn handle (Item-no. 1565E).

The SternTek™ Duplicating Dispensing Unit is now ready to operate. Put duplication flask under the opening of the mixing canula and press push-button (no. 2). As long as the material is not cured in the mixing canula (approx. 4 minutes) several flasks can be filled in succession.

After having finished the filling process do not remove the mixing canula. Only remove the mixing canula before the next duplication by means of a 90° turn to the left.





**ATTENTION:** Never dispense against a mixing canula with cured material!

## CHANGE OF BOTTLES/CUBITAINERS

Remove the quick-coupling / bottle adapter from the unit by means of pulling upwards the lock-up. Screw quick-coupling / bottle adapter onto the new bottles / cubitainers and connect as described above. Observe the correct coordination of the components according to the colour.

Observe the contents of the containers at any time! They must not be emptied completely, as otherwise air gets into the system and the unit has to be bled under great effort. A minimal filling of 2 -3 cm has to remain in the containers.

## CARE AND MAINTENANCE

Disconnect the unit from main power supply before care and maintenance! Cleaning is effected with a mild cleaning liquid. Wipe away silicone

remainders from the unit. Keep coupling plug and mixing head clean. The cleaning liquid must not get into the unit.

## GENERAL NOTES

Repairs on the SternTek™ Duplicating Dispensing Unit may only be executed by experts. Disconnect the unit from main power supply. Sterngold is only responsible for the safety, reliability and performance of the unit, if

- the unit is exclusively used for the corresponding field of application.
- operation is only carried out by

trained personnel.

- the unit is operated in accordance with these working instructions.
- extensions, new adjustments, changes or repairs are executed by persons authorised by the company.

As we are currently developing our products, we reserve the right for technical changes.

## Duplicating Dispensing Unit

### TROUBLE SHOOTING

#### PROBLEM

*Unit does not dispense.*

#### Cleaning of the mixing head



*Unit does not dispense.*

*Unit does not dispense.*

#### CAUSE

*Mixing head is clogged.*

*Cured material in old mixing canula.*

*The components A and B have been interchanged, the silicone has cured in the system of the unit.*

#### CAUSE

#### AID

*Clean the mixing head carefully by means of the enclosed cleaning drills.*

*ATTENTION: Use a different drill for each cleaning, as otherwise the two components would mix and cure.*

*Assemble new mixing canula.*

*The unit has to be disassembled completely and cleaned by an expert.*

#### AID

### Exchange of the miniature fuses



## PROBLEM

*Unit does not dispense.*

*The filling of the silicone containers has fallen below the minimum level. The system has sucked air.*

*Unscrew mixing head flange (no. 27) with a 4 mm hexagon spanner, take out mixing head (no. 3) to the front. Loosen the union nuts (no. 8a), using a 10mm spanner, from the hoses and pull off hoses. Refill silicone material and wait for approx. 20 minutes until the silicone has flowed into the pipe. Put a bowl under the opening of the hoses, switch unit on and press button until both components have come out of the hoses free of air bubbles. Reassemble unit.*

*Miniature fuse is defect.*

*Examine miniature fuse and exchange, if necessary.*

*Unit does not dispense, lamp of the operating button does not light up.*

*The silicone components do not have the same viscosity.*

*Use material recommended by the manufacturer (a deviation of about 5 % can be tolerated).*

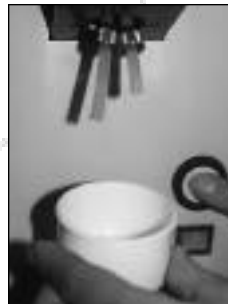
*Unit does not dispense in a mixing ratio of 1:1.*

*The gears in the pump are worn unequally.*

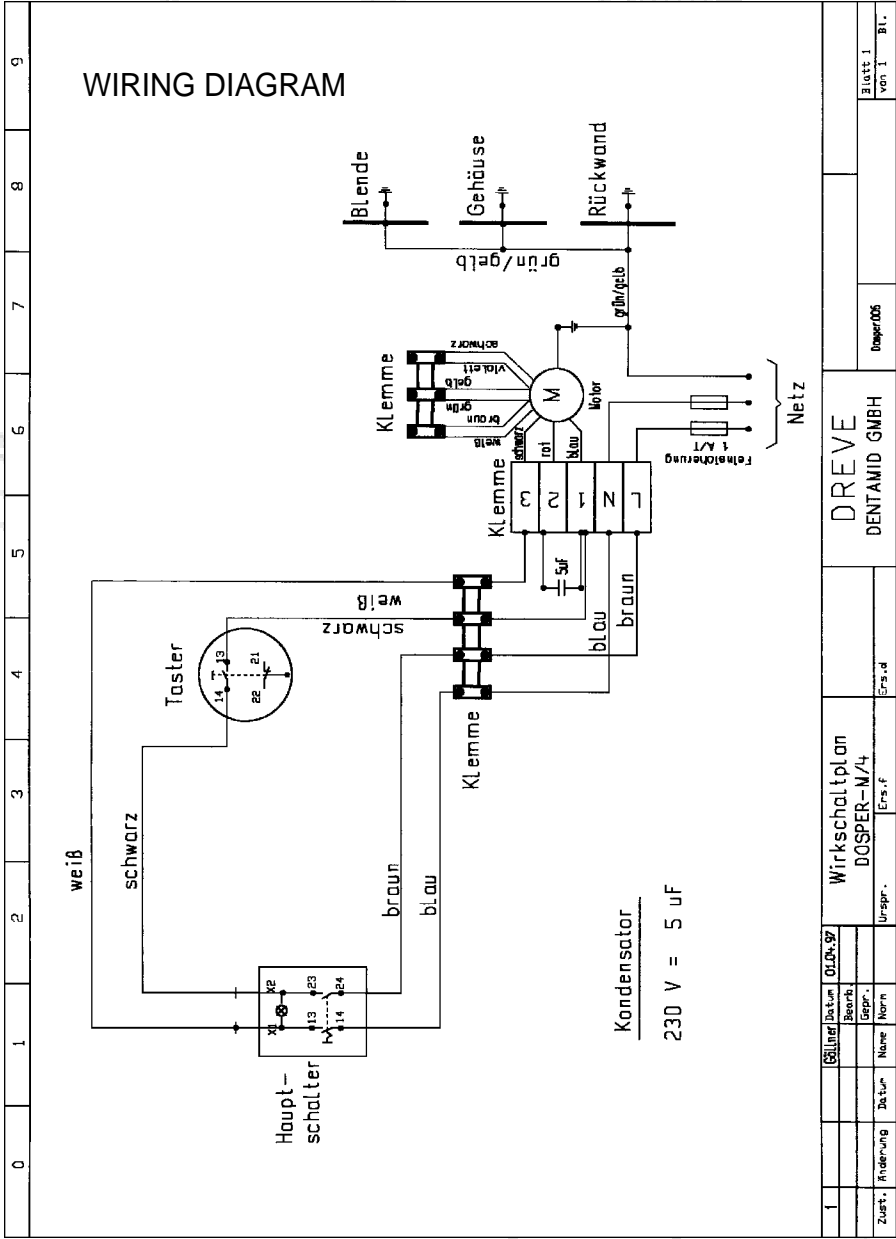
*The unit has to be overhauled by an expert.*

*Unit does not dispense in a mixing ratio of 1:1.*

## Ventilation of the dispense system



## Duplicating Dispensing Unit



0 1 2 3 4 5 6 7 8 9

1	Übersicht	Datum	01.04.97	Wirkschalplan		DREVE		Dosep006		Blatt 1	
	Zusch.			DOSPER-M/4		DENTAMID GMBH				von 1	
Zust. / Änderung	Datum	Name	Urspr.	Ers. F	Ers. d					Bl.	