

DUFT-TEC Solo

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Fragrance dosing for steam rooms

1. Function

The dosing unit DUFT-TEC Solo doses fragrance oil concentrate into the steam tubing of a steam cabinet in adjustable intervals of 1-10 minutes. The dosing quantity and so the aromatization intensity is also adjustable from 0-20 seconds.

2. Technical data

The dosing unit consists of:

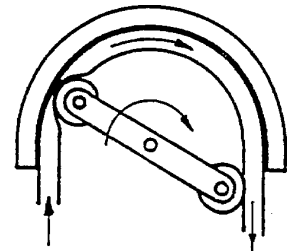
- Peristaltic dosing pump SA with
Special resistant hose and
Integrated controller
- Dosing performance: max. 30ml per hour

Options

- Dosing set with
Dosing valve 3/8" stainless steel and
3m dosing tube PTFE 6/4
- Mounted on a bracket for 3l or 10l canister
- Push button for external trigger

3. The fragrance pump

A peristaltic pump is used to dose the fragrance. The pump is ideal for achieving low dose rates and is self priming (i.e. no air bubbles). Rotating rolls press the dosing hose against the pump tube housing, whereby the liquid within the hose is pressed out in front of the rolls and at the same time drawn in behind them. The pump is extremely reliable and very simple to handle.



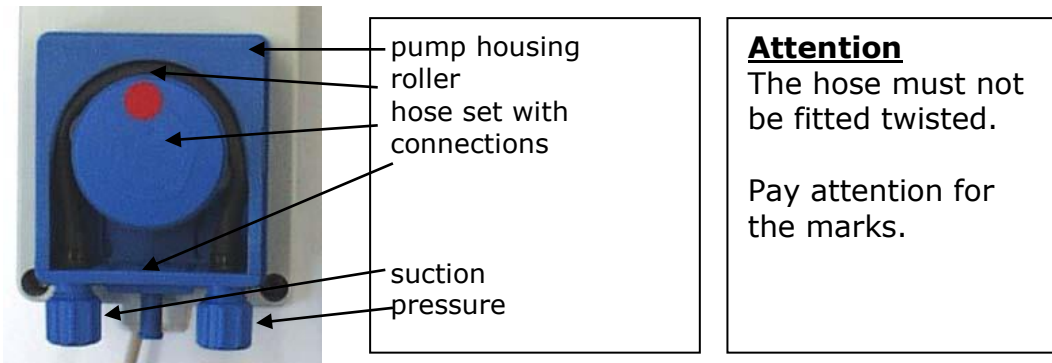
Fragrance concentrates are very aggressive.

The dosing hose used is resistant against most concentrates that are in common use in the industry but we still recommend to check with your equipment supplier prior to use.

No guarantee can be given for the resistance of the pump tubing against all fragrances!

3.1 Changing the hose set

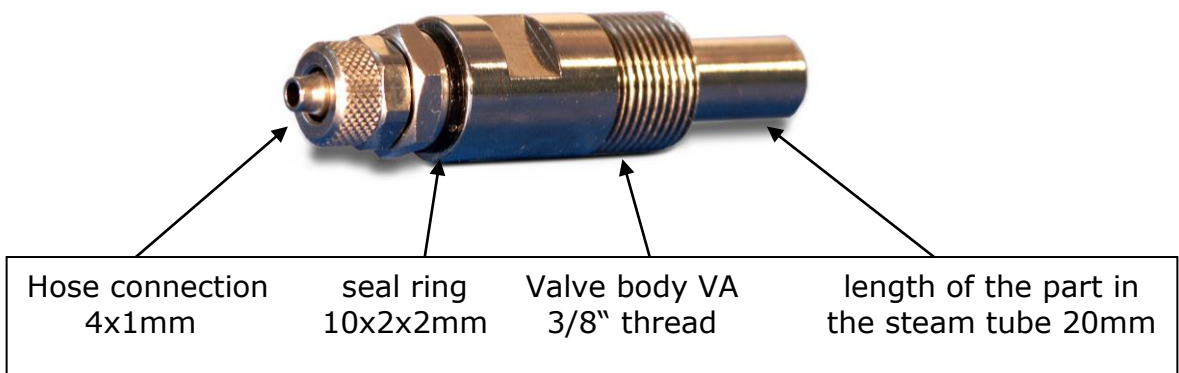
Remove the transparent pump cover and the yellow roller cover. To change the hose set the suction and pressure connections have to be pulled forward. Turn the roller to the right and pull out the pump hose over the cut out at the roller. On reassembly reverse this process. At the installation act contrariwise.



3.2 Dosing valve

A back pressure of steam into the fragrance tube is prevented safely by a spring loaded non-return valve. The valve body is completely made of stainless steel.

Dosing valve for fragrance (option)



Description

code id.

Dosing valve

| | |
|-----------------------|-------|
| Dosing valve complete | 15108 |
| Seal ring | 10421 |
| Hose connection | 10410 |
| Dosing tube PTFE 4x1 | 10432 |

4. **Bracket for the fragrance canister**

The standard version is delivered for wall mounting the fragrance canister is set on the ground.

Option bracket

The bracket is made for larger sizes of containers helping to keep the floor space clear.

5. **Installation / commissioning / dosing performance**

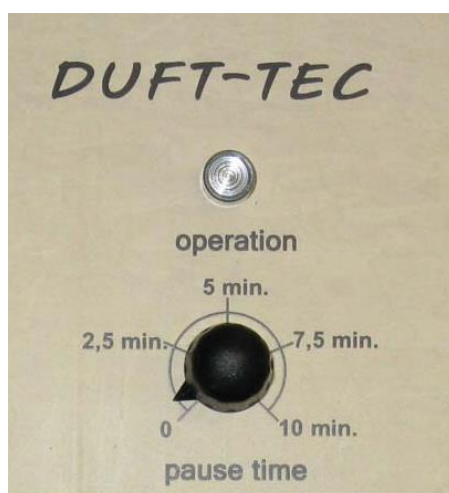
The unit has to be mounted in an easily accessible place. The fragrance canister is placed under the unit on the floor and the suction tube is hung onto it so that the end of the hose reaches the bottom of the canister.

For shipping and stock-keeping there 's no hose inserted in the pumps preventing a deformation of the hose.

The dosing/ non-return valve 3/8" is screwed into the tapping point. The dosing tube PTFE 6/4 is sheathed in an outer safety tube and connected to the dosing valve and pump outlet. (Right hand side connection).

Attention! Do not split the dosing tube when fitting! The fragrance may not be able to run back to the generator in the steam line!

Place the canister with the fragrance oil concentrate under the dosing pump, and put the suction lance into the canister. Set the rotary button on zero until you see the fragrance being drawn up (sucked up).



Afterwards adjust the required dosing programme by the rotary button on the housing: the dosing pump conveys 3 ml of fragrance per dosing impulse. For bigger steam rooms the dosing quantity can be adjusted on 12 or 24 ml per dosing impulse (see wiring diagram on page 5).

We recommend to combine the dosing of the fragrance with the function of the steam generator: e.g. interlock the power socket or install a temperature sensor to ensure dosing is distributed through the tubing into the steam cabinet when steam is being generated.

6. Maintenance

The DUFT-TEC pumps are practically maintenance-free and give long life if the following points are considered:

- unsuitable fragrances are not used
- check the pump head every time you change the canister
- **change the hose at least twice annually, or as required**

If the unit is taken out of service remove the dosing hose from the pump to prevent long term deformation of the hose. The pump head should be checked frequently to assess condition of the peristaltic hose and the roller springs (i.e. no corrosion/wear), if so change peristaltic hose and if necessary roller too. At least once a year the peristaltic hose should be replaced. If not checked, leakage could occur and damage the pump. For exchange cut off suction and injection tube at tube connector, fit the new ends to the connectors of the new peristaltic hose and fit it as described above.

Take out of service

If the unit is taken out of service remove the dosing hose from the pump to prevent long term deformation of the hose.

Trouble Shooting

Disturbance: „no fragrance dosing – no aroma in the Steam Room? “

Points to check:

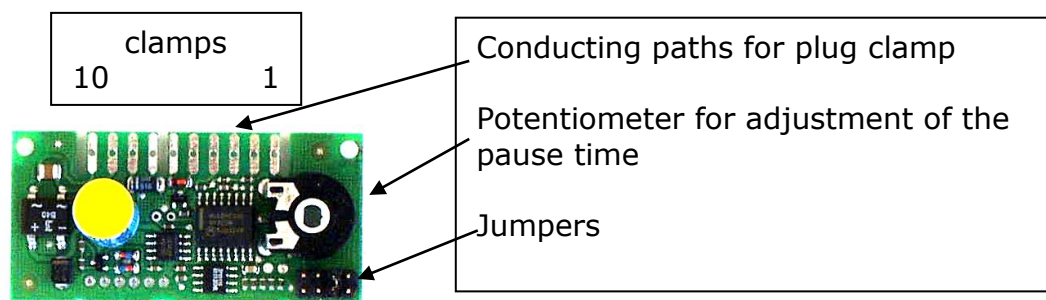
- Fragrance canister empty?
- Does the pump get voltage? → Pause time on "0" → Pump must run.
- Check the fragrance on pureness and cleanness.
- Check the function of the pump: Pull the suction hose of the pump out of the fragrance canister – does an air bubble appear in the hose? Is it aspirated? If yes, the suction function of the pump works.
- Is the roller of the pump rotating?
- Check the pump hose on cracks, deformation. Check the roller of the pump on tracks of wear, springs broken, is the hose mounted correct? Check the dosing valve (blocked, clotted?) Remove the dosing tube from the valve by opening the cap nut of the hose connection (**Pay attention that no fragrance splashes out as the hose is on pressure**). Switch-on the pump. If fragrance is pressed out of the tube the pump works properly. Unscrew the dosing valve of the steam tube and make the same test. If no fragrance is pressed out of the dosing valve it is blocked.

7. Wiring diagram

In every pump housing you find a connection diagram that fits to the type of the delivered unit.

Connections

- 1+2 hose break monitoring (not activated)
- 3+4 external control, non-volt contact (NO - option)
- 5+6 pilot lamp push-button 24V/DC max. 80 mA
- 7 (-) motor black
- 8 (+) motor red
- 9+10 supply 18V/AC**



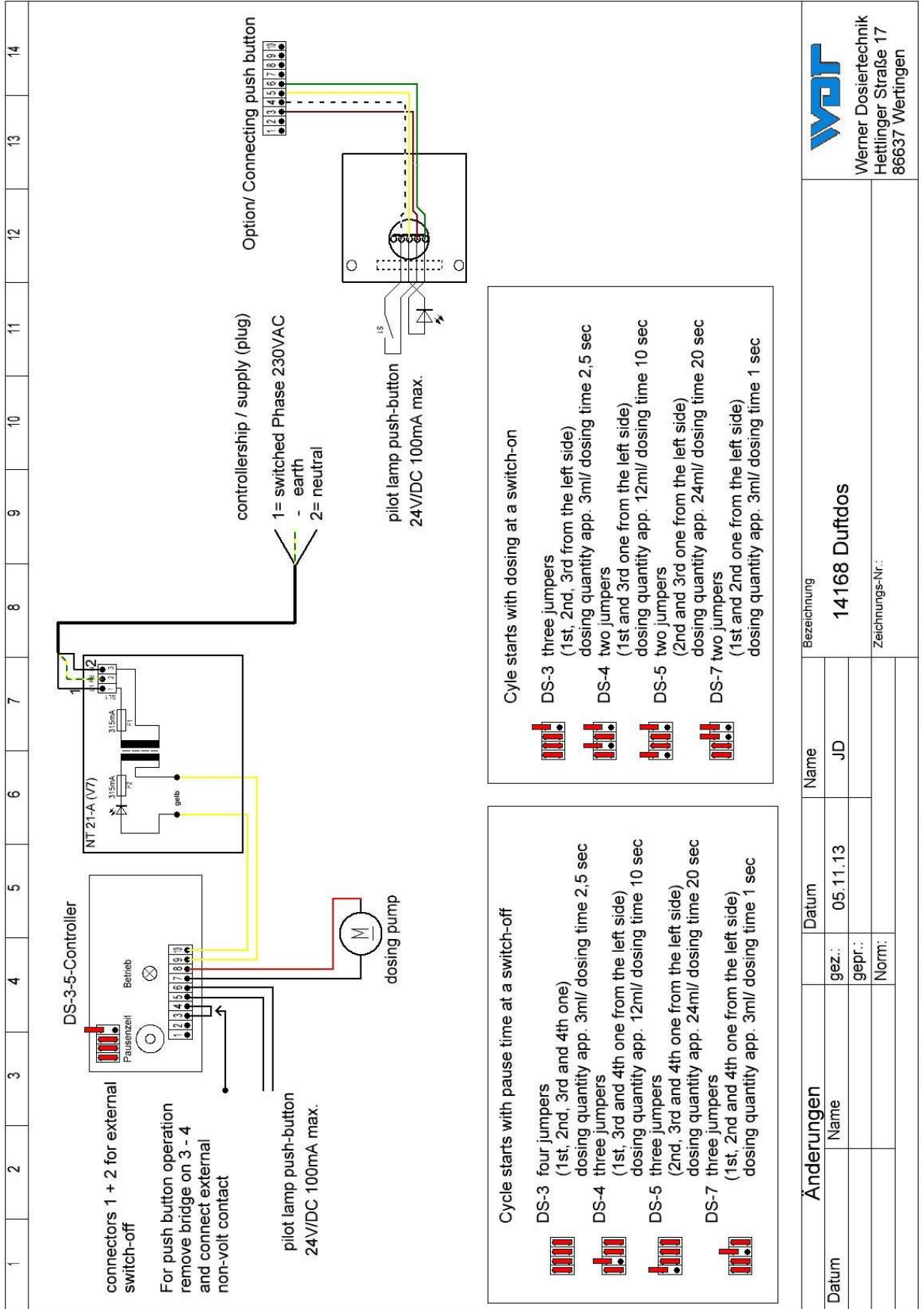
External trigger operation

The connection clamps 3-4 can be connected an external control with potential-free on / off-contact. For this, the jumper from 3 to 4 has to be removed, and the external contact can be connected. If the external contact is closed, the pump runs at the adjusted dosing value.

External push button operation

At clamp 3 + 4 an external controller with **non-volt on/ off contact** can be connected (e.g. a steam generator). Therefore the bridge on clamp 3 + 4 has to be removed and the push button has to be connected. If the external contact is closed a dosing impulse runs. After the lapse of the pause time a new impulse can be started.

Connection 230VAC



Cycle starts with dosing at a switch-on

DS-3 three jumpers (1st, 2nd, 3rd from the left side) dosing quantity app. 3ml/ dosing time 2,5 sec

DS-4 two jumpers (1st and 3rd one from the left side) dosing quantity app. 12ml/ dosing time 10 sec

DS-5 two jumpers (2nd and 3rd one from the left side) dosing quantity app. 24ml/ dosing time 20 sec

DS-7 two jumpers (1st and 2nd one from the left side) dosing quantity app. 3ml/ dosing time 1 sec

Cycle starts with pause time at a switch-off

DS-3 four jumpers (1st, 2nd, 3rd and 4th one) dosing quantity app. 3ml/ dosing time 2,5 sec

DS-4 three jumpers (1st, 3rd and 4th one from the left side) dosing quantity app. 12ml/ dosing time 10 sec

DS-5 three jumpers (2nd, 3rd and 4th one from the left side) dosing quantity app. 24ml/ dosing time 20 sec

DS-7 three jumpers (1st, 2nd and 4th one from the left side) dosing quantity app. 3ml/ dosing time 1 sec

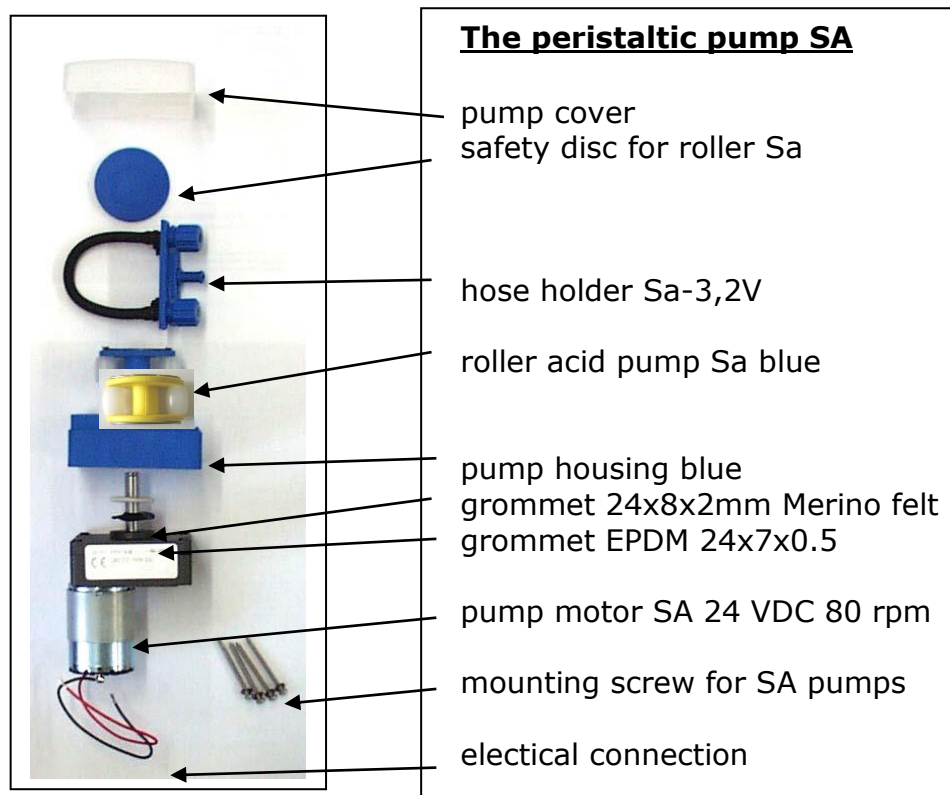


| Änderungen | | Bezeichnung | |
|------------|----------|-----------------|--|
| Datum | Name | 14168 Duftdos | |
| gez.: | 05.11.13 | Name | |
| gepr.: | | JD | |
| Norm: | | Zeichnungs-Nr.: | |

Anschluss 24VUC

| A | B | C | D | E | F | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------|----|------|----|--|--|-------|--|------|--|-------------|--|-------|----------|-------|----|------|----|--------|--|--|--|--------|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | <p>Cycle starts with pause time at a switch-off</p> <ul style="list-style-type: none"> DS-3 four jumpers (1st, 2nd, 3rd and 4th one) dosing quantity app. 3ml/ dosing time 2,5 sec DS-4 three jumpers (1st, 3rd and 4th one from the left side) dosing quantity app. 12ml/ dosing time 10 sec DS-5 three jumpers (2nd, 3rd and 4th one from the left side) dosing quantity app. 24ml/ dosing time 20 sec DS-7 three jumpers (1st, 2nd and 4th one from the left side) dosing quantity app. 3ml/ dosing time 1 sec | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | <p>Cycle starts with dosing at a switch-on</p> <ul style="list-style-type: none"> DS-3 three jumpers (1st, 2nd, 3rd from the left side) dosing quantity app. 3ml/ dosing time 2,5 sec DS-4 two jumpers (1st and 3rd one from the left side) dosing quantity app. 12ml/ dosing time 10 sec DS-5 two jumpers (2nd and 3rd one from the left side) dosing quantity app. 24ml/ dosing time 20 sec DS-7 two jumpers (1st and 2nd one from the left side) dosing quantity app. 3ml/ dosing time 1 sec | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Änderungen</th> <th colspan="2">Datum</th> <th colspan="2">Name</th> <th colspan="2">Bezeichnung</th> </tr> </thead> <tbody> <tr> <td>Datum</td> <td>31.05.06</td> <td>gez.:</td> <td>JW</td> <td>Name</td> <td>JW</td> <td colspan="2">24ACDC</td> </tr> <tr> <td></td> <td></td> <td>gepr.:</td> <td></td> <td></td> <td></td> <td colspan="2">Zeichnungs-Nr.: 14168-Duftdos-DS-e-10_3.spj/</td> </tr> </tbody> </table> | | | | | Änderungen | | Datum | | Name | | Bezeichnung | | Datum | 31.05.06 | gez.: | JW | Name | JW | 24ACDC | | | | gepr.: | | | | Zeichnungs-Nr.: 14168-Duftdos-DS-e-10_3.spj/ | |
| Änderungen | | Datum | | Name | | Bezeichnung | | | | | | | | | | | | | | | | | | | | | | | |
| Datum | 31.05.06 | gez.: | JW | Name | JW | 24ACDC | | | | | | | | | | | | | | | | | | | | | | | |
| | | gepr.: | | | | Zeichnungs-Nr.: 14168-Duftdos-DS-e-10_3.spj/ | | | | | | | | | | | | | | | | | | | | | | | |
| <p style="text-align: right;">Blattzahl: 1 Blatt-Nr.: 1</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

8. Spare part list



Description **code id.**

Pump

| | |
|--|-------|
| Lid for hose pump housing Sa, transparent | 14259 |
| Safety disc for roller Sa | 13633 |
| Roller acid pump Sa blue | 13039 |
| Acid pump housing Sa yellow | 12609 |
| Grommet 24x8x2mm Merino felt 2mm | 14166 |
| Grommet EPDM 24x7x0.5 for pump SA | 12709 |
| Pump motor SA 24 VDC 80 rpm | 18769 |
| Mounting screw for SA pumps | 17067 |
| Hose holder Sa-3,2V for fragrances with Viton hose | 13358 |
| Hose set (2 dosing hose 3, 2x1, 6 Viton Sa) | 12782 |

Controller

| | |
|--|-------|
| Knob 6mm with nose for control board | 11031 |
| Control plate for peristaltic pumps DS from 2004 | 15897 |