

# Hygojet



EN

Installation and Operating instructions

CE 0297

9000-616-04/30



 **DÜRR  
DENTAL**

2017/03SE



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EN



## Important Information

### 1. General

#### 1.1 General Notes

- These Installation and Operating Instructions form an integral part of the unit. They must be kept close to the unit at all times. Precise observance of these instructions is a precondition for use of the unit for the intended purpose and for its correct operation. New personnel must be made aware of the contents, and they should be passed on to future operating staff.
- Safety for the operator as well as trouble-free operation of the unit are only ensured if use is made of original equipment parts. Additionally, only parts specifically referred to in these Installation and Operating Instructions or accessories specifically recommended by Dürr Dental may be used. If other accessories are used with this appliance, Dürr Dental cannot guarantee safe operation or proper functioning. No liability on the part of the manufacturer will be accepted in the case that damage arises through the use of non-approved accessories.
- Dürr Dental are only responsible for the equipment with regard to safety, reliability and proper functioning where assembly, resettings, changes or modifications, extensions and repairs have been carried out by Dürr Dental or an agency authorized by Dürr Dental and if the equipment is used in conformity with the Installation and Operating Instructions.
- These Installation and Operating Instructions conform to the relevant version of the equipment and the underlying safety standards valid at the time of going to press.
- The translation of these Installation and Operating Instructions has been carried out in good faith. No liability can be accepted for mistakes in the translation. The enclosed German version of these Installation and Operating Instructions is the reference version. If there is any doubt about the translation please consult your dealer.
- Any reprinting of the technical documentation, in whole or in part, is subject to prior approval of Dürr Dental being given in writing.

- Retain the packaging for possible return of the product to the manufacturers. Only the original packaging provides adequate protection during transport of the unit. Should return of the product to the manufacturers be necessary during the guarantee period, Dürr Dental accepts no responsibility for damage occurring during transport where the original packaging was not used! Ensure that the packaging is stored away from children.

#### 1.2 Disposal

##### Unit



The unit may be contaminated. Instruct the company disposing of the waste to take the relevant safety precautions.

- Decontaminate potentially contaminated parts before disposing of them.
- Uncontaminated parts (e.g. electronics, plastic and metal parts etc.) should be disposed of in accordance with the local waste disposal regulations.
- If you have any questions about the correct disposal of parts, please contact your dental trade supplier

##### Decontamination of potentially contaminated parts

The following parts of the unit may be contaminated.

- All inside areas of the sluices
- Drainage mesh
- Waste water connection
- Spray head and spray head housing
- Glass cover plate
- Arm reach-through

These parts must first be decontaminated before disposal. To do this, carry out the following steps:

- Remove all fixed connections for fresh water and waste water.
- Remove coarse organic and anorganic soiling disinfection wipe soaked in alcohol.
- Disinfect these parts with a surface disinfectant e.g. FD 322, FD 333 (Dürr Dental).

### 1.3 Notes on the Product

This product must only be operated by persons who, as a result of training or experience, can be confidently expected to operate it correctly.

### 1.4 Intended purpose

Dürr Dental Hygojet is a hygiene lock for dental practices and dental laboratories.

### 1.5 Proper intended use

Dürr Dental Hygojet is used to manually apply water, compressed air and (if applicable) MD 520 impression disinfection (Dürr Dental). Thanks to the enclosed housing, the risk of any aerosols escaping and the surroundings becoming contaminated as a result is prevented.

Dürr Dental Hygojet is approved for use with MD 520 impression disinfection (Dürr Dental).

### 1.6 Incorrect Usage

Any use of this appliance/these appliances above and beyond that laid down in the Installation and Operating Instructions is deemed to be incorrect usage. The manufacturer cannot be held liable for any damage resulting from incorrect usage. The operator will be held liable and bears all risks.

## 2. Safety


### 2.1 General Safety Notes


This appliance has been so designed and developed by Dürr Dental that under correct usage that there can be no danger to operator or patient. In spite of this, we feel it is our duty to mention the following safety measures in order to prevent any possible danger.

- When using this appliance all local and relevant regulations must be observed! Converting or modifying the appliance in any way is strictly prohibited. In such cases, any and all guarantees immediately become invalid. The operation of modified appliances can be punishable by law. In the interests of trouble-free operation the operator is responsible for observing these regulations.
- Installation must be carried out by a technical expert.
- Before every use the operator must check the functional safety and the condition of the appliance.
- The operator must be knowledgeable in the operation of the appliance.
- The product is not designed to be used in medical treatment areas where there exists the danger of explosion. Areas where explosions could occur are those where flammable anesthetic material, skin cleansers, oxygen and skin disinfectants are present. This appliance is not to be used in areas where the atmosphere could cause fire.


### 3. Warnings and Symbols


In the operating instructions the following warnings and symbols have been used:


 **Specific data relating to the efficient operation of the machine and other information.**


 Information and/or instructions or prohibitions regarding personal safety or extensive material damage.

 Read the operating and installation instructions carefully!

 For the safety of staff it is recommended that personnel wear protective gloves when working with the Hygojet!


 Symbols for water flow on water connection on rear of Hygojet.


 Symbol for waste water flow on waste water connection on rear of Hygojet. Symbol for air flow on air connection on rear of Hygojet


 Symbols for air air connection on rear of Hygojet.



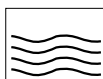
 Symbol for compressed air on pressure reducer.

 Symbol for water connection on pressure reducer.

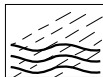
 Before beginning work-  
open water inlet.

 After finishing work-  
close water inlet.

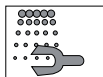
### Symbols when operating the Hygojet



Pre-clean the materials with water.



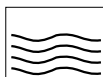
The force of the spray jet can be increased by pressing the air button as well; this button can also be used to manually blow out any remaining water after cleaning.



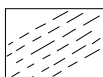
Manual application of disinfectant, e.g. MD 520



Observe the required reaction time as required (MD 520: 10 minutes)



Manual subsequent cleaning with water



Manual drying

### 3.1 Model identification plate

The model identification plate can be found to the rear side of the appliance.



Symbol Health Industry Bar Code (HIBC)



Symbol Order no. / model no. (REF)



Symbol Serial-No. (SN)



Manufacturer



CE-Labeling with Notified Body Number

## 4. Delivery Contents

Hygojet, complete.....	6040-000-00
Accessories, complete.....	6040-004-00
Wall-mounted console with pressure reducer.....	6040-060-00
Operating and Installation- instructions Hygojet .....	9000-616-04/30

### 4.1 Special accessories

The following parts are optional and are not supplied with the Hygojet. Order as required!

- 1 Conversion kit for arm access .... 6040-023-00

### 4.2 Disposable materials

- 1 MD 520 Impression disinfectant  
4 x 2,5 l Ready solution ..... CDA520C6150
- 1 Elbow-long disposable rubber gloves,  
50 pieces ..... 9000-500-10

## 5. Technical Data

### Connections

Water:	flow pressure. ....	2,5 bar
	min. 2 bar max. 3 bar	
	Consumption .....	c. 2 l/min
	Connection .....	R 3/4"
Air:	Flow pressure. ....	2.5 bar
	min. 2 bar max. 3 bar	
	Consumption .....	c. 88 l/min
	Connection for quick release .....	Ø 12 mm
Drainage:	With continuous descending gradient .....	Ø 20mm

### Consumption

Disinfectant consumption every time the disinfectant button is pressed (until the "chem control" display reappears). 10m

### Size (HxBxT, cm)

Unit .....	34 x 56 x 32
Unit chamber .....	20 x 30 x 25

**Weight (kg)** ..... 12.7

### Environmental conditions operational

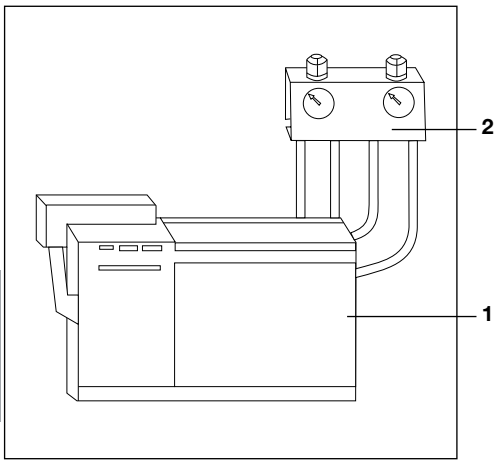
Operating temperature .....	+10 to +40°C
Operating humidity (%) .....	max.80

### Environmental conditions at storage and transport

Temperature (°C) .....	-25 to +70°C
Operating humidity (%) .....	max.95

### Air supply

We recommend using oil-free compressed air



## Mounting

### 6. Installation

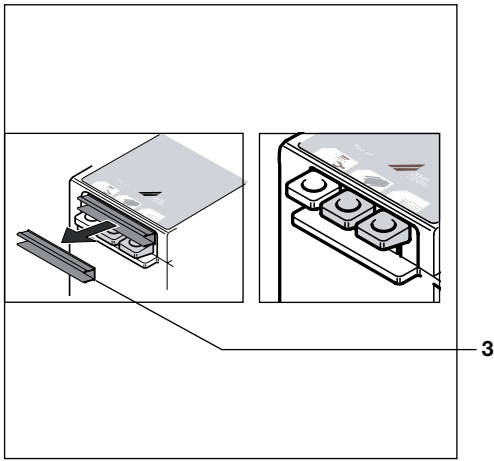


When connecting to the sanitary system then all national and local regulations must be observed.

In the Hygojet the disinfectant used, the air supply and the water pressure are pneumatically controlled, so there is no need for an electrical connection.

#### 6.1 Location

- Choose a suitable location for setting up the Hygojet (1). Both a fresh water and a compressed air supply must be available within c. 2 m.
- The wall-mounted console (2) for the pressure reducing control must be placed within c. 1 m of the Hygojet.



#### 6.2 Remove transport protectors



**Remove transport protector (3) before initial operation.**

#### 6.3 Water connection

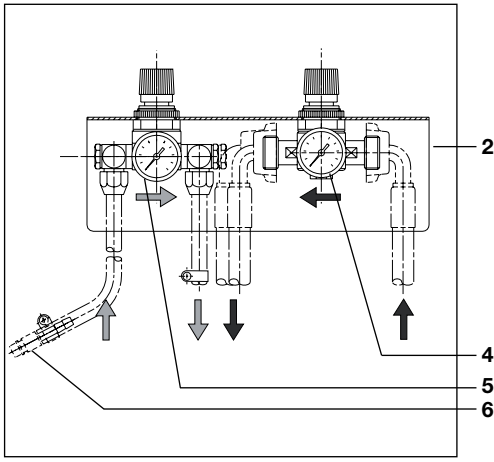
- Connect both of the blue water hoses to the water pressure reducer (4). Note direction (arrow) carefully!
- Connect the water hose from the right of the water reducer to the main water supply.
- Connect the water hose from the left of the water reducer to the Hygojet (8) (see p. 9).



The Hygojet water inlet is R3/4". For added safety a non-return valve has been fitted into the unit.



**Set the flow rate on water pressure reducer (4) to 2.5 bar.**



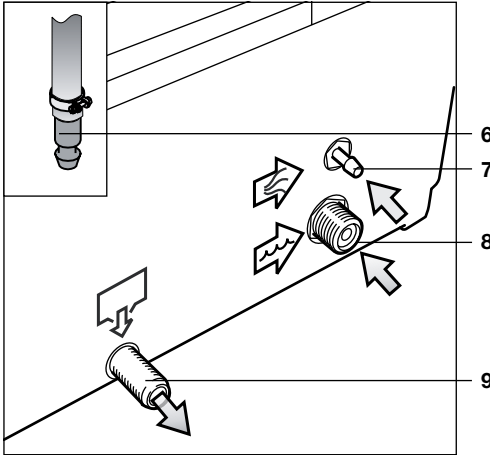
#### 6.4 Air supply



We recommend the use of oil-free compressed air.

- Connect both of the air hoses to the air pressure reducer (5). Note direction (arrow) carefully!

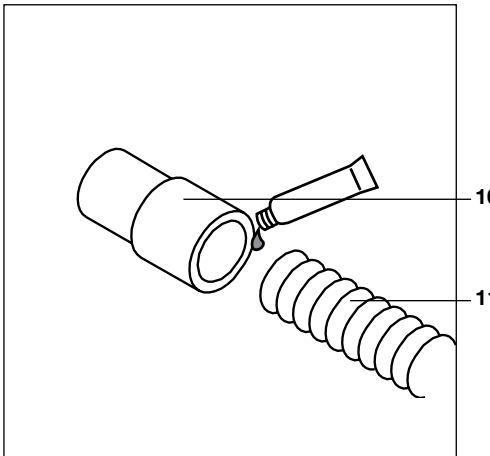




- Attach the air hose (without quick release) on the right of the air reducer and lead to the Hygojet, shorten as required and fit to the air intake (7) and connect with a hose clip.
- Attach the air hose (quick release (6), Ø12mm) on the left of the air reducer and lead to the surgery air supply and connect.

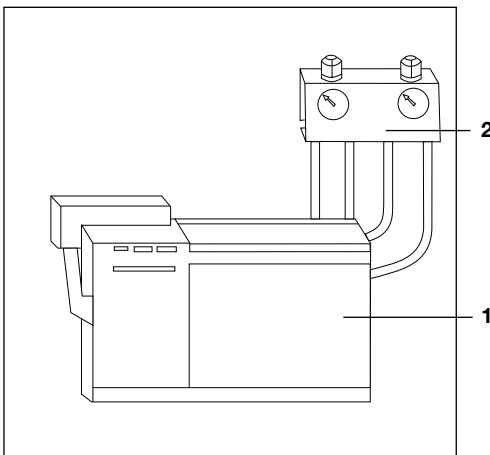


**Set the flow rate on air pressure reducer (5) to 2.5 bar (see p. 8).**



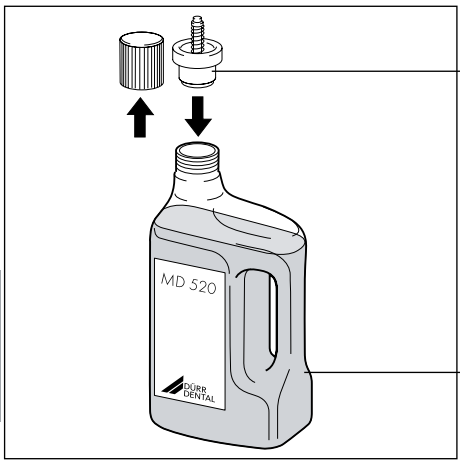
### 6.5 Water connection

- Screw the supplied white adapter (10) onto the spiral hose (11) and attach to the waste water outlet (9) of the Hygojet.
- Lay the spiral hose in such a way that it continuously declines in order to prevent water collecting in the hose.
- Fit an aerated odour trap (siphon) with standard 20 mm washing machine connector.
- The maximum distance of the siphon from Hygojet: 2 m.



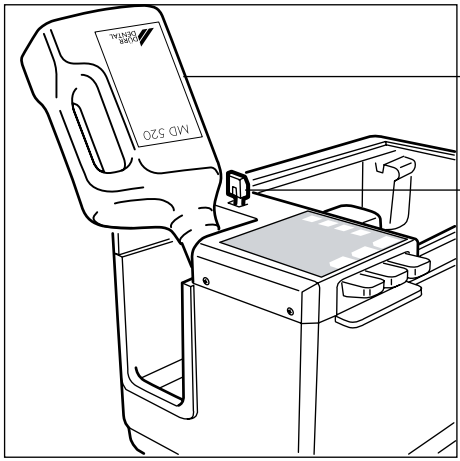
### 6.6 Installation Wall-mounted air reducer console

Mount the wall console (2) in a suitable location using the screws and dowels supplied.



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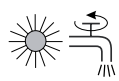
13

14



## Use

### 7. Operation



Before beginning work open water inlet



After finishing work close water inlet



**For the protection of operating personnel, protective gloves should be worn when working on the Hygojet.**

Use gloves that extend up to the elbow and meet the requirements of the disinfectant used.



MD 520 has been tested and approved for use in Hygojet. Dürr Dental will not accept any warranty claims if other preparations are used.

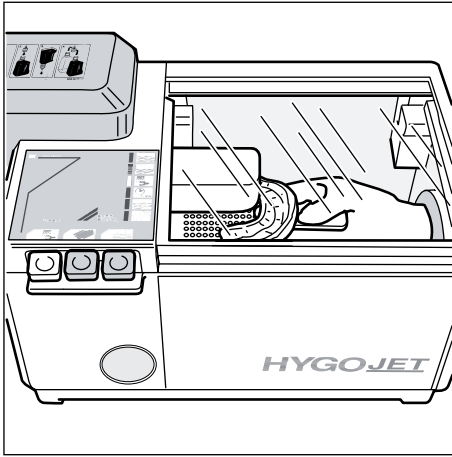
#### 7.1 Insert the bottle of disinfectant in the Hygojet, e.g. MD 520.

- Remove cover, lock (14) must be turned inwards.
- Unscrew the lid of the disinfectant MD 520 (13). Note the recommended date of use!
- Place the splash preventer cap supplied (12) onto the bottle of MD 520.



The bottle of MD 520 must not be used without first fixing the splash preventer in place, as fluid could otherwise leak out.

- Place the bottle (13) in the holding device within the Hygojet.



## 7.2 Application process



Which materials can be processed in the hygiene lock depends on the material and media used. Please refer to the manufacturer's information.

### • Insert the materials

Impression example: write on the label with ink that is not water-soluble, and then apply the label to the impression. Place the impression in the hygiene lock. Up to 6 impressions can normally be placed simultaneously in the hygiene lock. Close the glass lid.

### • 1. Pre-cleaning with water

Impression example: Wearing the protective gloves, hold the impression under the spray head, press the water button (17) and rinse off both sides thoroughly under the water jet. To increase the force of the spray jet, press the air button (18) as well. Then press the air button to dry.

### • 2. Application of the disinfectant

Press the yellow disinfectant button (19) until the impression is sufficiently coated on all sides. Repeat the process if required.



Pressing the button once until "chem control" (16) is displayed again applies approx. 10 ml of disinfectant.

To ensure that the required disinfection is achieved, it is important to make sure that the disinfectant used is allowed to soak for the correct reaction time. (MD 520: 10 minutes)

### • 3. Allow the required reaction time

Use the timer provided (20).

Example MD 520: Set the timer to 10 minutes – refer to the supplied operating instructions for the timer.

A signal will sound after 10 minutes.

### • 4. Subsequent cleaning with water

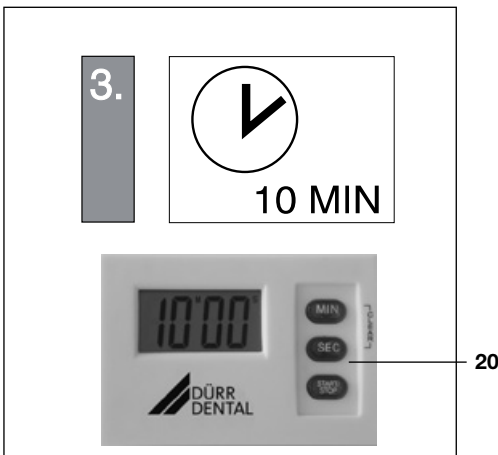
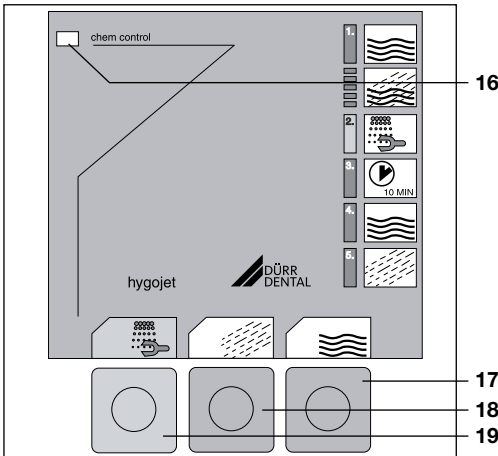
Press the water button (17) and rinse off both sides thoroughly under the water jet. To increase the force of the spray jet, press the air button (18) as well.

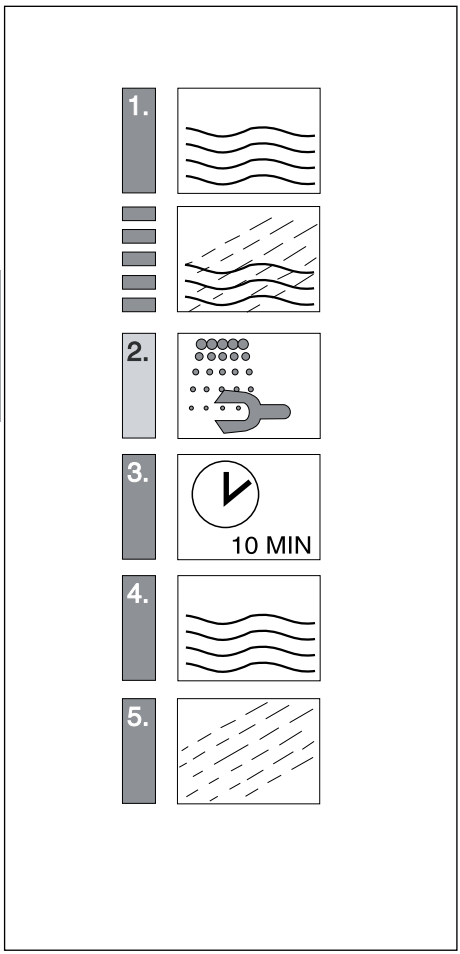
### • 5. Drying

If necessary dry the impressions with air (refer to the manufacturer's information) by pressing the air button (18).



Since this is a manual process, the requirements of the material and disinfectant manufacturers will need to be taken into account depending on the application. The operator must check that the items are properly wetted and rinsed off and that the required reaction time is satisfied.

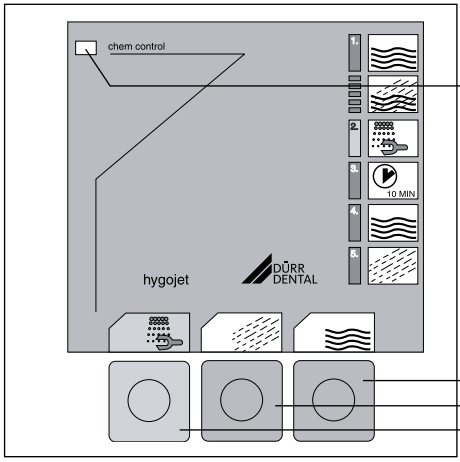




### 7.3 Brief instructions

#### Application process

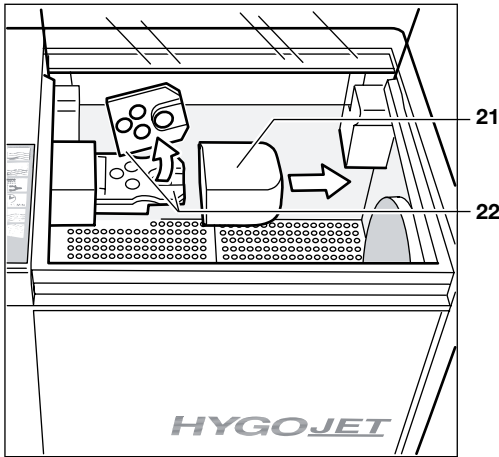
- **1.Pre-clean the materials with water:**  
Press the water button (17).
- To increase the force of the spray jet, press the air button (18) as well.
- **2.Application of the disinfectant:**  
Press the yellow disinfectant button (19) until the material is sufficiently coated on all sides.
- **3.Allow the required reaction time:**  
Set the timer.
- A signal will sound at the end of the selected time, e.g. after 10 minutes.
- **4.Subsequent cleaning with water:**  
Press the water button (17). To increase the force of the spray jet, press the air button (18) as well.
- **5.Drying:**  
If necessary dry the material with air (refer to the manufacturer's information) by pressing the air button (18).



### 8. Transport of the Hygojet

Should the Hygojet unit be moved to another location, then the following measures must be made prior to transport:

- Take out the bottle of disinfectant (e.g. MD 520).
- Close water connection and stop air in-flow.
- To remove any pressure in the unit, operate water (17) and air (18) controls.
- Remove all hose connections (air, water, waste water) at the rear of the Hygojet.
- Remove all wall console hose connections and dismount wall console
- Hygojet, wall console, and all hoses should now be carefully packed into the casing in order to prevent possible damage to the unit.



## 9. Maintenance

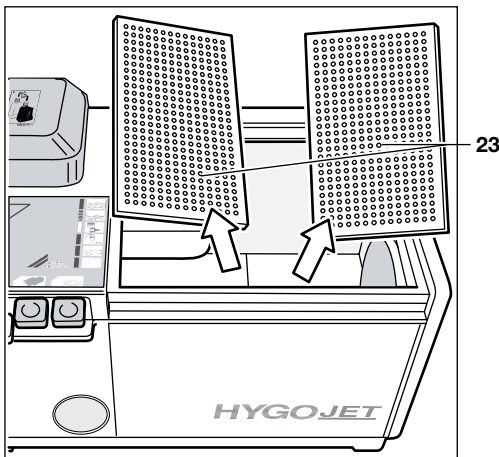
The following maintenance work must be performed every time the bottle of disinfectant is changed (e.g. MD 520):



For the safety of staff it is recommended that personnel wear protective gloves when working with the Hygojet!

### 9.1 Cleaning the spray

- Remove the spray head cap (21) out sideways.
- Rinse (water only) O-ring and nozzle (22) of spray.
- Replace the spray head cap.
- Order numbers of the O-rings:  
 Ø 10mm : 9000-401-05 (1 piece)  
 Ø 18mm : 9000-401-93 (1 piece)



### 9.2 Cleaning drainage mesh

Larger particles, eg from impressions or casts, can block the mesh (23). The mesh can easily be lifted out and rinsed under running water.

### 9.3 Function test

Press the buttons for water (17), air (18) and disinfectant (19) and check that water, air and disinfectant come out from the spray head. If necessary refer to section 10 "Tips for troubleshooting".

### 9.4 Check water connections

Check the water supply and the waste water hoses for signs of leakage.

### 9.5 Exterior cleaning of Hygojet

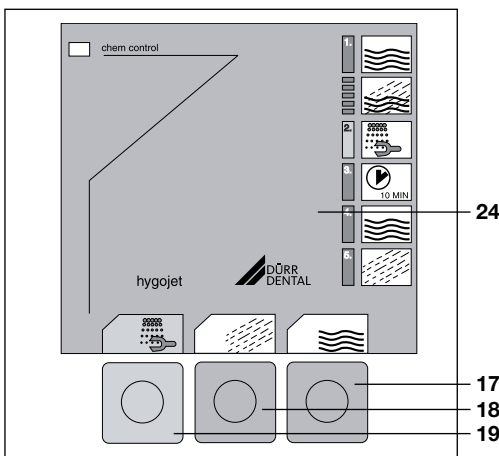
After every application process clean and disinfect the unit from the outside with a surface disinfectant approved by Dürr Dental, e.g. FD 322.

### 9.6 Hose change every 3 years

The hoses through which the disinfectant, water and air are supplied are located underneath the operating panel (24) in the Hygojet. In the Hygojet idle state these hoses are pressed together using a lever mechanism. Operation of the controls (17,18,19) releases the pressure and the hoses are open, and fluids or air can be carried to the nozzles. The hoses are under constant pressure and must therefore be changed every three years.



To change the hoses use hose set, order number 6040-981-00.



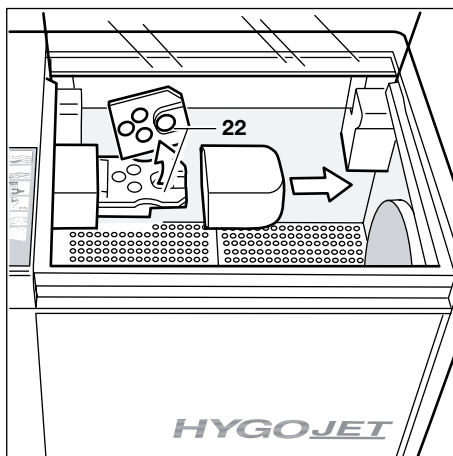
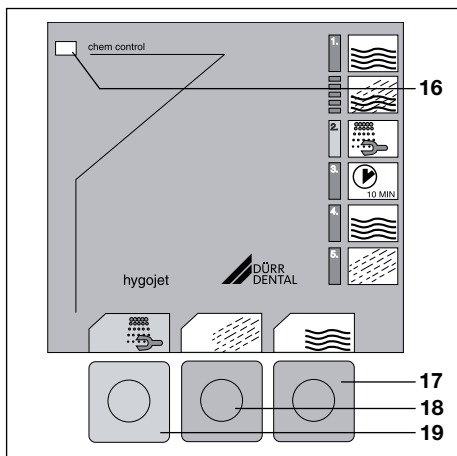


# Trouble-shooting

## 10. Trouble-shooting Tips

Repairs and maintenance above and beyond the normal maintenance herein described may only be carried out by suitably qualified personnel or a member of our Service Team

10.1 Problem	10.2 Possible causes	10.3 Solution
1. No disinfectant spray at the spray head (after pressing the disinfectant button (19))	Disinfectant supply interrupted.	<ul style="list-style-type: none"> <li>• Check whether the yellow "chem control" display (16) appears. If necessary change the bottle of disinfectant.</li> <li>• Clean nozzles in spray head (22).</li> </ul>
2. No water at spray head (when operating at spray head water control (17))	<ul style="list-style-type: none"> <li>• Water supply interrupted.</li> </ul>	<ul style="list-style-type: none"> <li>• Check that water inlet is open.</li> <li>• Clean nozzles in spray head (22).</li> </ul>
3. No air at spray head (when operating air control (18))	<ul style="list-style-type: none"> <li>• Air supply interrupted.</li> </ul>	<ul style="list-style-type: none"> <li>• Check air supply hose.</li> <li>• Clean nozzles in spray head (22).</li> </ul>





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