

# Lean Wash Center® X2

## User Manual

serial # X2-02-00001



Art. no EN28277

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# EC DECLARATION OF CONFORMITY FOR MACHINERY

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Original  
Directive 2006/42/EC, Annex II 1A

**Manufacturer (and where appropriate his authorised representative):**

Representative: Granuldisk  
Address: Jägershillsgatan 13, 213 75 Malmö

**Hereby declares that**

Type of machinery: Ware washing machine for commercial kitchens  
No. of machinery: X2 Lean Wash Center®

**Complies with the requirements of Machinery Directive 2006/42/EC.**

**Complies with the applicable requirements of the following EC directives:**

2014/35/EU, LVD  
2014/30/EU, EMC

**The following harmonized standards have been applied:**

EN 60335-2-58:2017  
EN 60335-2-58:2005/A12:2016  
EN 55014-1:2017/A11:2020  
EN 55014-2:2015  
EN 61000-3-2:2019  
EN 61000-3-3:2013/A1:2019  
EN 61000-6-2:2019  
EN 61000-6-3:2007/A1:2011/AC:2012

**The following other standards and specifications have been applied:**

SS-EN 1717:2000

**Authorized to compile the technical file:**

Name: Staffan Stegmark  
Address: Jägershillsgatan 13, 213 75 Malmö

**Signature:**

Place and date: Malmö, 11.10.2021  
Signature:



Name: Mikael Samuelsson  
Position: CEO



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# 1 General description and safety

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## 1.1 Notes and warnings



### **NOTE**

*X2 Lean Wash Center® is a universal washing solution for commercial kitchen that is designed for washing crockery, cutlery and glasses as well as pots, pans and containers.*

*This manual is your guide for the correct use of X2 Lean Wash Center®.*

*Granuldisk recommends that you study the manual thoroughly to be sure that X2 Lean Wash Center® is installed and used correctly and safely.*

*Ensure that the manual is always available during the whole lifetime of X2 Lean Wash Center®.*

*Granuldisk accepts no responsibility for damage to the equipment or other damage or injury caused by not following the directions in this manual.*

*The user must not carry out any repairs or maintenance works on the dishwasher. Service and maintenance must be carried out by qualified and authorised personnel.*

*Any assistance required on this dishwasher must be carried out by authorised personnel.*

*Use exclusively original spare parts, otherwise the product warranty issued and the manufacturer's responsibility will become void.*

*The machine is designed for commercial kitchens with a temperature between minimum 5°C and maximum 35°C.*

*Regarding the handling and use of detergent and rinse aid with the product, please see the chemical manufacturer's instructions. Use high quality products for best wash result. Also refer to information about detergent and rinse aid in the Service manual.*

*Use protective gloves and eye protection when handling the chemicals.*

*User manual in original.*

**WARNING**

*The following fundamental rules must be observed when using this appliance:*

- Never touch the appliance with wet hands or feet.
- Never use the appliance with bare feet.
- Do not install the appliance in workplaces where it could get sprayed/splashed with water.
- Do not put your bare hands into water containing detergent. Wash the hands thoroughly under running water straightaway if by accident this happens.

**WARNING**

*X2 Lean Wash Center is a professional machine. It must be used by adults and authorised personnel only. It must be installed and repaired exclusively by a qualified technician. The manufacturer declines all forms of responsibility for improper use, maintenance and repairs.*

*X2 Lean Wash Center must not be used by children or anybody who has restricted physical, sensorial or mental capacity or by anybody who has not been appropriately trained or properly supervised.*

**WARNING**

*X2 Lean Wash Center is designed only and exclusively to wash glasses, dishware and cockware soiled with residues of human food.*

*Do not use it to wash objects soiled with petrol or paint. Do not wash pieces of steel or metal, fragile objects or objects made of material that will not withstand the washing process. Do not use acid or alkaline corrosive chemical products, solvents or chlorine based detergent.*

**WARNING**

*The machine uses hot water. Risk of scalding.*

*Do not open the hood when machine is running. The dishwasher is equipped with a safety device that will immediately stop the machine to avoid leakage of water if the hood is opened accidentally.*



**WARNING**

*Do not place any items on top of the hood.*

*Do not stand on the machine, it is not designed to hold the weight of people.*

**ELECTRICAL**

*Do not use water to extinguish fire on electrical parts.*

**NOTE**

*When cleaning the machine, please follow carefully the instructions in chapter 4 Daily cleaning.*

## 1.2 Technical data

### General

|                            |  |
|----------------------------|--|
| Design                     | Compact and versatile cookware and dishware washing equipment  |
|                            | Stainless steel cookware washing basket - Polypropylene dishware washing basket - Polypropylene glassware washing basket |
| External dimensions        | H x W x D (open and table height 860 mm)   |
|                            | 1950 mm x 655 mm (+ handle 100 mm) x 745 mm (+ handle 95 mm) (Standard delivery)   |
|                            | 1950 mm x 655 mm (+ handle 100 mm) x 785 mm (+ handle 95 mm) (with option automatic hood lift)                           |
|                            | 2125 mm x 655 mm (+ handle 100 mm) x 785 mm (+ handle 95 mm) (with option EcoExchanger)                                  |
| Weight (empty / filled)    | 138 / 178 kg (Manual hood lift version)  |
|                            | 150 / 190 kg (with option automatic hood lift version)   |
|                            | 160 / 200 kg (with option EcoExchanger version)  |
|                            | 168 / 208 kg (with option automatic hood lift and EcoExchanger version)  |
| Tank volume                | 30 litres  |
| Clearance                  | 430 mm   |
| Rinse water volume         | 2,0 litres   |
| Wash water temperature***  | 60 °C  |
| Rinse water temperature*** | 85 °C  |
| Sound pressure level       | < 64 dB(A) ISO 11203   |

### PROGRAMS & CAPACITY

|                       |                              |
|-----------------------|------------------------------|
| Cookware washing mode | 6 min. (carbonized cookware) |
|                       | 3 min. (cookware)            |

|  |   |
|--|---|
| Dishware washing mode                        | 2 min. (plates, cutlery, utensils)<br>1 min. (glasses)  |
| EcoExchanger (option)                        | Extends washing cycle by 30 seconds.  |
| Capacity per program (cookware washing mode) | 2 GN 1/1 Depth 65 mm – 4 GN 1/2<br>Depth 65 mm – 1 Pot up to Ø 450 x<br>H 380 mm or sub sized – 1 GN 1/1<br>Depth 200 mm or sub-sized – |
| Capacity per program (dishware washing mode) | 18 Dinner plates or 12 Soup plates Ø<br>240 mm – 25 Glasses/mugs Ø 90<br>mm   |
| Start-up time (filling and heating)          | 9 min. at 55 °C inlet water<br>temperature  |
| Water exchange time                          | 5 min. at 55 °C inlet water<br>temperature  |

### ELECTRICAL CONNECTION

|                    |  |
|--------------------|--|
| Voltage**          | 380 / 400 / 415 V / 3N~ / 50 Hz<br>230 V / 3N~ / 50 Hz |
| Fuse               | 16 A (400 V)<br>32 A (230 V)                           |
| Frequency          | 50 Hz  |
| Maximum output     | 10 kW  |
| Pot washing pump   | 1,5 kW   |
| Dish washing pump  | 1,1 kW   |
| Rinse pump         | 0,18 kW  |
| Heater wash tank*  | 8 kW   |
| Heater rinse tank* | 8 kW   |
| Enclosure rating   | IPX5****   |

### WATER CONNECTION

|                     |   |
|---------------------|---|
| Hardness/Connection | Total hardness: < 4 °dH (7 °fH, 70 PPM)<br><br>Inlet hose with ¾" female<br><br>2 - 5 bar |
|---------------------|---|

### VENTILATION & DRAIN

|                          |          |
|--------------------------|----------|
| Ventilation requirements | 600 m³/h |
|--------------------------|----------|

|  |                            |
|--|----------------------------|
| Ventilation requirements with EcoExchanger                     | 450 m <sup>3</sup> /h      |
| Heat emitted to room (total/sensible/latent)                   | 5,8 kW / 2,1 kW / 3,6 kW   |
| Heat emitted to room with EcoExchanger (total/sensible/latent) | 4,9 kW / 2,1 kW / 2,8 kW   |
| Drainage   | Drain hose Ø 28 mm - 1,5 m |
| Drain capacity requirement                                     | 50 l / min.                |
| Drain water temperature  | 65 °C                      |
| Maximum lift height drain pump                                 | 800 mm                     |
| Drain pump   | 40 W                       |

### DETERGENT & RINSE AID

Liquid detergent and rinse aid dosing dispenser with peristaltic pumps are integrated into X2 Lean Wash Center®

Prepared for dosing installation.



#### **NOTE**

*X2 Lean Wash Center® must be installed according to national regulations. X2 Lean Wash Center® is supplied with a 2 metres long electric cable to be connected to an approved supply disconnecting device on the wall. The supply disconnecting device is not included in the delivery.*

\* Not in use simultaneously

\*\* For specific data regarding delivered units, please see rating plate

\*\*\* Factory settings. The settings can be changed according to the local standards.

\*\*\*\* Do not clean the machine with high-pressure water.

## 1.3 SIMpel – easy access to information

To make it easier for the operator to find information and how to use the unit there is a QR-code on X2 Lean Wash Center®.

The sticker is placed in the lower right corner of the hood.



- 1 Scan the QR code on the sticker.

See Fig. 1 *QR-code on the sticker*

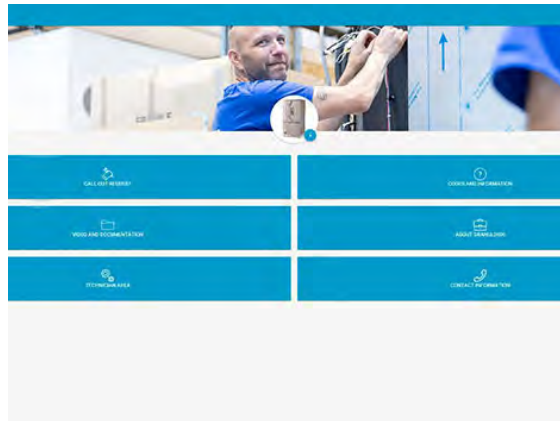


**Fig. 1 QR-code on the sticker**

2 When you scan the QR code, you enter the following menu.

(Note that the interface may vary depending on the device used).

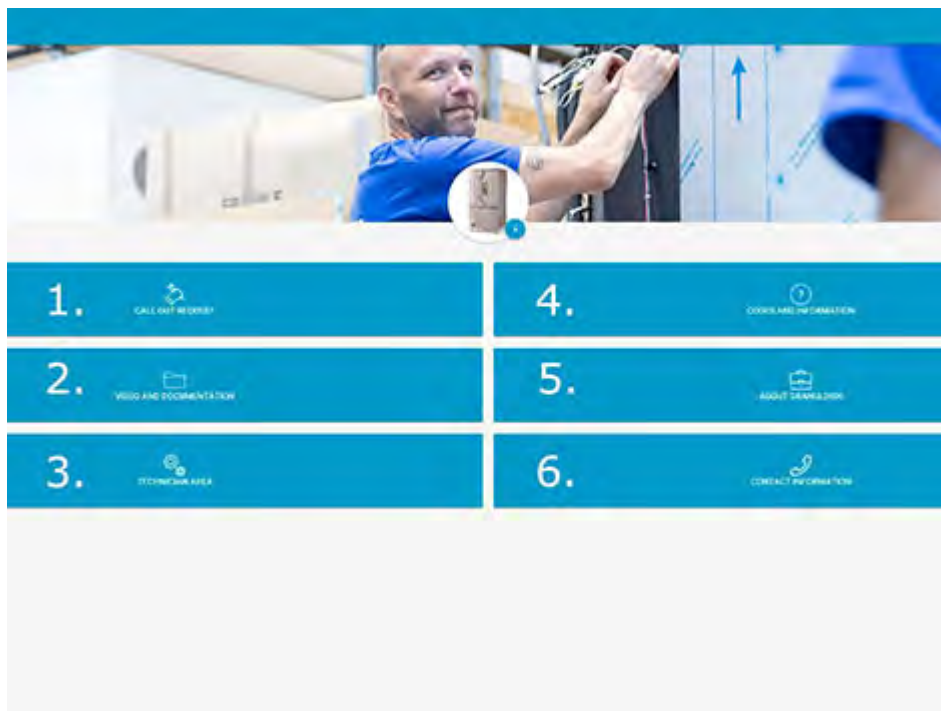
See Fig. 2 Menu



**Fig. 2 Menu**

3 Select the language in the upper right corner. English is default.

**Explanation of the different boxes:**



|                            |  |
|----------------------------|--|
| 1. CALL OUT REQUEST        | Make a service call on the machine                     |
| 2. VIDEO AND DOCUMENTATION | User manuals and videos of accessories/ daily cleaning |
| 3. TECHNICIAN AREA         | Only for technicians/service partners                  |
| 4. CODES AND INFORMATION   | List of error codes                                    |

|                        |  |
|------------------------|--|
| 5. ABOUT GRANULDISK    | Link to Granuldisk.com                 |
| 6. CONTACT INFORMATION | Contact information to service partner |





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## 2 Operating

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### 2.1 Control panel



1. ON/OFF
2. MENU – to enter the User settings.
3. Arrow UP – to toggle up in the display.
4. Arrow DOWN – to toggle down in the display.
5. CONFIRM
6. If **automatic hood**: deactivate the hood by pressing the red button on the right side of the panel.

When deactivated the hood can be used manually.

## 2.2 Start and operation

- 1 Switch on the main electrical switch.

The display lights up and goes in OFF-mode.

If **automatic hood**: the hood goes down to calibrate.

- 2 Press and hold the ON/OFF button in the upper left corner. The display lights up and X2 Lean Wash Center® starts to fill with water and heat up to the correct temperatures in the wash and rinse tank.

If automatic hood: the hood goes up and will remain open during the filling and heating phase.

The filling and heating time is approx. 9 min at 55 °C water inlet temperature.

The CONFIRM button is yellow during the filling and heating phase.

See Fig. 3 *Filling with water*

- 3 X2 Lean Wash Center® is ready to operate when the CONFIRM button has turned green.

See Fig. 4 *X2 is ready to use*



**Fig. 3 Filling with water**



**Fig. 4 X2 is ready to use**

- 4 Choose wash program with the buttons UP and DOWN.

X2 Lean Wash Center® has 2 wash modes. Which one is activated depends on which basket is loaded.

1.
  - Glassware – 1 min
  - Cookware – 3 min
2.
  - Dishware – 2 min
  - Burnt cookware – 6 min

See Fig. 5 *Glassware/Cookware* and Fig. 6 *Dishware/Burnt cookware*

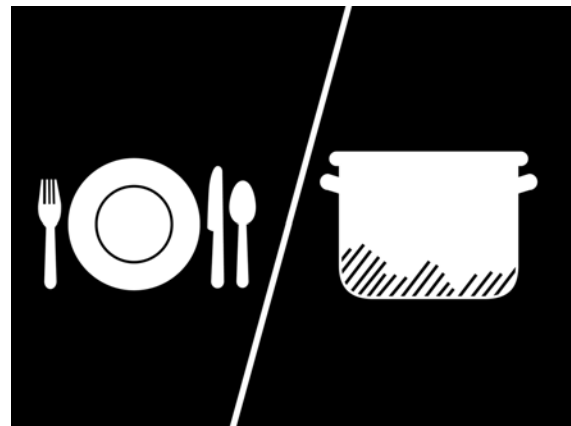


**NOTE**

30 seconds will be added to each cycle if X2 Lean Wash Center® has the option EcoExchanger.



**Fig. 5 Glassware/Cookware**



**Fig. 6 Dishware/Burnt cookware**

- 5 Start X2 Lean Wash Center® by:

- **Automatic hood:** By using the foot mechanism or pressing the CONFIRM button.

See Fig. 7 *Foot mechanism*

- **Manual hood:** the operator has to lower the hood manually.



**Fig. 7 Foot mechanism**

- 6 When X2 Lean Wash Center® is running the display will show a countdown of the wash cycle and the CONFIRM button turns blue.

See Fig. 8 *Countdown*



**Fig. 8 Countdown**

- 7 If the rinse temperature is not achieved the wash phase continues until the correct temperature is reached (85°).

See Fig. 9 *Thermostop*



**Fig. 9 Thermostop**

- 8 The program is ready when the CONFIRM button turns green.
- **Automatic hood**— the hood goes up automatically.
  - **Manual hood**— lift up the hood manually.

- 9 If water change is needed, press and hold the ON/OFF button and choose by arrow down "Water change"

See Fig. 10 *Choose Water change*

Confirm by pressing the CONFIRM button.

Draining, filling and heating the tank again takes about 5 min.



**Fig. 10 Choose Water change**

**NOTE**

*When the unit is not used for 20 minutes (this time can be programmed from the technicians menu) it will enter Standby mode, keeping the temperatures lower to save energy. To exit the function, press any button or open the hood.*



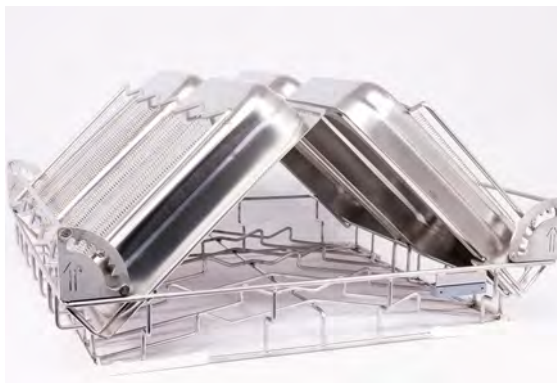
**Fig. 11 Standby mode**

## 2.3 Loading washware

### **Cookware basket (28147)**

Capacity: 2 GN 1/1 depth 65 mm or 4 GN 1/2 depth 65 mm or 1 GN 1/1 depth 200 mm.

See Fig. 12 *Cookware basket with 4 GN 1/2*



**Fig. 12 Cookware basket with 4 GN 1/2**

The cookware basket can be loaded with 1 GN 1/1 and small pots/containers on the other side.

See Fig. 13 *Cookware basket with 1 GN 1/1 and two pots*



**Fig. 13 Cookware basket with 1 GN 1/1 and two pots**

The cookware basket can be loaded with one large pot.

Capacity: Pot up to  $\varnothing$  450 mm H 380 mm.

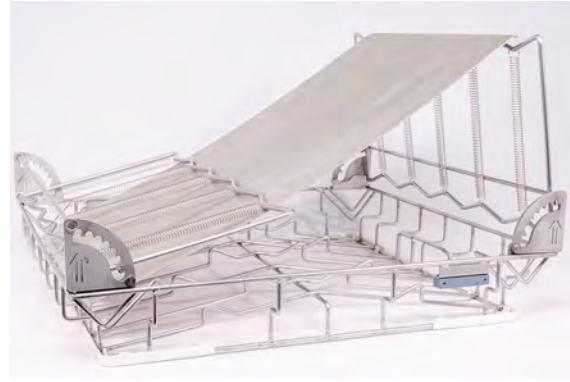
See Fig. 14 *Cookware basket with one large pot*



**Fig. 14 Cookware basket with one large pot**

The cookware basket can be loaded with **one** baking tray size 600 X 400 mm.

See Fig. 15 *Cookware basket with one baking tray*



**Fig. 15 Cookware basket with one baking tray**

### **Reversible wash basket (28575)**

**Dishware wash mode capacity:** 9 X GN 1/1, 18 x GN 1/2 serving trays max. depth 20 mm.

**Cookware wash mode capacity:** 18 GN 1/1 grids, 9 x GN 1/1 lids or chopping boards depth 200 mm or 2 baking trays or chopping boards depth 20 mm.

The basket is equipped with a magnet on one side, which means this basket can operate on both dishware and cookware mode depending on how soiled the items are.

See Fig. 16 *Reversible basket with one magnet*



**Fig. 16 Reversible basket with one magnet**

To run the **dishware wash mode** put the basket with the magnet pointing outwards. Program lengths to choose from is 1 or 2 minutes.

To run the **cookware wash mode** put the basket with the magnet to the inside of the cabinet. Program lengths to choose from is 3 or 6 minutes.

Put the items in the different brackets.

See Fig. 17 *Reversible basket loaded with grids, lids and chopping boards*



**Fig. 17 Reversible basket loaded with grids, lids and chopping boards**

To load pastry/baking trays 600 X 400 mm put them on the diagonal.

See Fig. 18 *Reversible basket with pastry/baking trays*

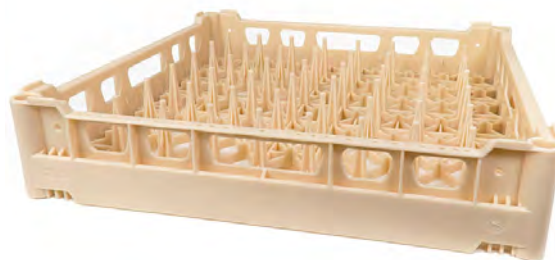


**Fig. 18 Reversible basket with pastry/baking trays**

### **Dishware basket for dinner or soup plates (28148)**

Capacity: 18 dinner or 12 soup plates ø 240 mm.

See Fig. 19 *Dishware basket*



**Fig. 19 Dishware basket**



**Glassware basket for glasses and mugs (28149)**

Capacity: 25 glasses/mugs ø 90 mm.

See Fig. 20 *Glassware basket*



**Fig. 20** *Glassware basket*



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## 3 User settings

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There are 4 (four) settings that can be changed as an operator of the machine.

- Clock
- Backlight
- Buzzer
- Language

See Fig. 21 Menu



**Fig. 21 Menu**

To enter the User settings press and hold the MENU button for 3 seconds.

Choose which parameter to change by toggling up and down with the arrows.

Confirm your choice with the CONFIRM button.

### **Change date and time**

Choose Clock in the User settings menu with the CONFIRM button.

Choose which parameter to change. Move up and down with the arrows.

The parameter to be modified is shown in green.

Change the value (in yellow) with the arrows.

Confirm with the CONFIRM button.

To exit the menu: press the ON/OFF button.

### **Switch off backlight**

Choose Backlight in the User settings menu with the CONFIRM button.

Change the value (in yellow) to NO with the arrows.

Confirm with the CONFIRM button.

To exit the menu: press the ON/OFF button.

### **Switch off buzzer**

Choose Buzzer in the User settings menu with the CONFIRM button.

Change the value (in yellow) to NO with the arrows.

Confirm with the CONFIRM button.

### 3 User settings

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To exit the menu: press the ON/OFF button.

#### **Change language**

Choose Language in the User settings menu with the CONFIRM button.

Change the value (in yellow) with the arrows.

Confirm with the CONFIRM button.

To exit the menu: press the ON/OFF button.

## 4 Daily cleaning

- 1 Take out the tank grid (A) and remove the filter (B).

See Fig. 22 *Remove tank grid and filter*



**Fig. 22** *Remove tank grid and filter*

- 2 Empty X2 Lean Wash Center® by pressing the ON/OFF button in the upper left corner. Choose "Switches off" in the display and CONFIRM.

The display will show the symbol for empty machine and a countdown of 20 seconds starts.

Emptying X2 Lean Wash Center will take about 3 minutes.

See Fig. 23 *Empty the X2 Lean Wash Center®*



**Fig. 23** *Empty the X2 Lean Wash Center®*

- 3 If you want to activate the Auto Clean Program press the CONFIRM button again. The symbol for Auto Clean will show in the upper right corner of the display.

See Fig. 24 *Auto Clean symbol*

- **Automatic hood:** The hood goes down automatically.
- **Manual hood:** The hood must be lowered automatically.



**Fig. 24** *Auto Clean symbol*

## 4 Daily cleaning

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Emptying and cleaning X2 Lean Wash Center® will take about 3 minutes.

- 4 Take out the two filters at the bottom of the tank.

See Fig. 25 *Remove the filters*



**Fig. 25 Remove the filters**

- 5 Flush and clean the filters and the tank grid.

See Fig. 26 *Clean the filters and the tank grid*



**Fig. 26 Clean the filters and the tank grid**

- 6 Put all parts back in place.

The three round filters are identical. They fit all at the bottom of the tank and in the tank grid.

- 7 Wipe along the edges of the tank with a wet cloth.

See Fig. 27 *Wipe along the edges of the tank*



**Fig. 27 Wipe along the edges of the tank**

- 8 X2 Lean Wash Center® is now ready for the next serving.

Leave the hood open to let air circulate.



**NOTE**

*Do not leave X2 Lean Wash Center® switched on if it is not used for some time or if the operator is not able to monitor it directly.*



**NOTE**





*If X2 Lean Wash Center® is not going to be used for quite some time you have to empty the detergent and rinse aid dispensing device to avoid crystallizations and damages to the pump. Remove the priming pipes from the detergent and rinse aid containers and soak them in a container of clean water. Run some wash cycles and empty the machine completely. To finish switch off the main off/on switch and shut off the water inlet tap.*





## 5 Error icons and troubleshooting

### 5.1 Error icons in the display

| ERROR ICONS   | MEANING   | SOLUTION   |
|---|---|--|
|    | Low water level in the wash tank.   | Check the mains water inlet.<br><br>Press CONFIRM to re-set the count.<br><br>If the problem persists after switching off and on again, call for technical assistance.   |
|   | Low water level in the rinse tank.  | Check the mains water inlet.<br><br>If the problem persists after switching off and on again, call for technical assistance.   |
|  | Anomaly or breakage of the temperature sensor in the wash- or rinse tank. | Switch off and on again. If the problem persists, call for technical assistance.   |
|  | High water level in the tank.   | Check if there are any obstructions in the drain pipe.<br><br>Check if the drain pump is working correctly.<br><br>Press CONFIRM to re-set the count.<br><br>Switch off and on again. If the problem persists, call for technical assistance.. |

## 5.2 Troubleshooting

| <b>PROBLEM</b>                       | <b>POSSIBLE CAUSE</b>  | <b>POSSIBLE SOLUTION</b>  |
|--------------------------------------|--|---|
| The mains light fails to switch on.  | Mains not connected.   | Check the electric mains connection.  |
| The wash cycle fails to start.       | The machine has not yet filled.<br>The machine has not reached the appropriate temperature yet.  | Wait until the CONFIRM button has turned green.   |
| Poor washing result.                 | The spray arms are clogged, or scale is obstructing them.<br>Not enough or unsuitable detergent or rinse aid.<br>Baskets not fitted properly.<br>Too low wash temperature.<br>The set cycle is unsuitable.<br>Machine does not run in pot washing mode | Dismantle and clean the spray arms.<br>Check the type and concentration of detergent/rinse aid.<br>Fit the baskets properly.<br>Check the temperature – if too low, call for technical assistance.<br>Choose a longer program.<br>Check that the pot symbol is visible in the display when pot-washing basket is used. Make sure the magnet is close to the sensor for cook ware. |
| Insufficient rinsing.                | The spray nozzles are clogged, or scale is obstructing them.   | Dismantle and clean the spray nozzles.  |
| The glasses and cutlery are stained. | The rinse aid is unsuitable or is not dispensed correctly.<br>Water hardness above 4 °dH or high dissolved salt content.   | Check the rinse aid container and if it is suitable for the type of mains water. If the problem persists, contact chemical supplier.  |

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|                                   |  |   |
|-----------------------------------|--|---|
| Water in the tank after draining. | The drain pipe is not positioned correctly or is partially obstructed. | Check if the pipe and the dishwasher drain are obstructed and if the drain is positioned too high up; maximum 800 mm.<br><br>Check the sieves in the machine. |
|                                   |  |   |
|                                   |  |   |



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## 6 Notes

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