

INSTALLATION MANUAL & MAINTENANCE INSTRUCTIONS

**A G R I E X P O R T : 1 2 0 , 2 0 0 & 3 0 0**



# SAFETY PRECAUTIONS

## Foreword

*Read carefully before using the product!*

For best possible performance, continuous satisfactory safe operation, read and understand these instructions thoroughly before operating your equipment.

The information, instructions and parts listed are applicable and current on the date when issued. Høiax reserves the right to make changes without notice.

## Note to operator

It is your responsibility to see that any person involved with the use or operation of this equipment follows all safety and operational instructions. Under no circumstances should you allow this equipment to be used if the equipment is faulty or the operator does not completely understand the operation of the equipment.

## Definitions

Definitions of safety precautions

**Danger:** refers to imminent and severe risk. Failure to comply with instruction will result in serious injury or death.

**Warning:** refers to a potential but severe risk. Failure to comply with instruction could result in injury or death.

**Caution:** refers to a limited risk. Failure to comply with instruction could result in minor injury or product damage.



**Caution!** The water heater must be filled with water before electrical supply is turned on, or guarantee becomes invalid.



**Warning!** Electrical installations and repairs must only be carried out by an electrician.



**Caution!** Water installations and repairs must be carried out by a plumber.



**Warning!** When emptying the tank, make sure the electrical supply is switched off before the plug is opened.



**Caution!** Using products which do not meet specified requirements, for example spare parts or fluids, or not appropriately trained personnel for your Høiax product may void or limit the warranty.



**Warning!** Misuse or improper treatment of safety valves, thermostats or electric elements and wirings may result in an explosion due to pressure build-up. Safety valves must not be blocked.



**Warning!** Disconnect the electrical supply before covers are removed.

# Høiax Agri Export: 120, 200 & 300

## General description

Høiax water heaters are manufactured to resist higher amounts chlorides and build-up of calcium deposits. The water heater can manage up to 250 ml Cl/l water without corrosive effects. The outer jacket material is chosen to prevent corrosion when the heater is placed in damp or aggressive environments. The water heaters has less than 70 watts of heat loss and offers a maximum water temperature of 95°C for heatwater needs. The thermostat is set at 75°C from factory. The water heaters are equipped with an adjustable mixing valve and a hotwater outlet. The mixing valve can be connected from any direction, providing lower temperature for household appliances if needed. In water with a hardness level above 6°dH, Høiax Agri Export 250 DT (double tank) is preferred.

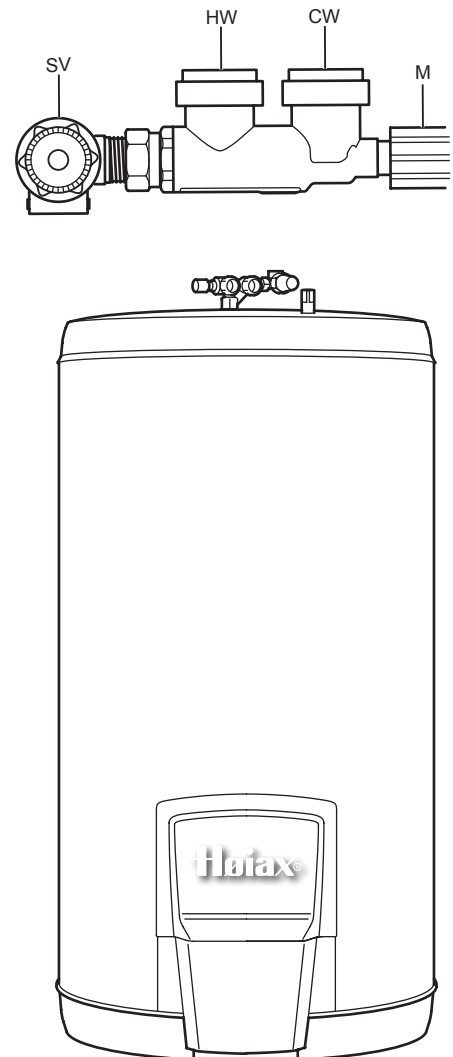
## Using two heaters

In areas where the water has higher concentration of minerals, it is possible to use two water heaters for lowering the precipitation, and increasing the time between cleaning.

When water temperature rises above 60°C, the precipitation increases. To increase the timespan between maintenance cleaning, the water heater can be connected in series with a simpler or equal heater, which pre-heats the water up to 60°C.

## Mixing valve overview

M = Temperature wheel  
CW = Mixed water  
HW = Hot water  
SV = Safety valve and overflow



# Høiax Agri Export: 120, 200 & 300

## Product data

### Technical data

Size	120	200	300
Power supply	3 x 230 V, 2 x 230 V, 3 x 400 V		
Power cable (preinstalled)	3 x 2.5 mm <sup>2</sup> + PE, silicone, 3 m		
Energy consumption	2000 W	3000 W	
Cut off thermostat/work thermostat	Thermodisk		
Max temp setting	95°C		
Heating element	2" SMO		
Dimensions (HxØ) mm	795 x 580	1195 x 580	1670 x 580
Weight incl. packing	32 kg	35 kg	50 kg
Pressure tank	Titanium stabilized stainless steel		
Outer metal jacket	Stainless steel		
Insulation	PU		
Heating time 15-95°C	4,5 hours	5,47 hours	9,10 hours
Mixing valve connections	15 mm		
Safety valve	9 bar with 15 mm clamp ring connection for overflow		
Hotwater outlet connection	22 mm		

## Installation

### Requirements

- The installation should be done according to existing norms for water supply and sewage system.
- The heater must be placed in a room with drainage.
- Cold and hot water pipes must be in copper or stainless steel. The connection is made with a 15 mm clamp ring connection.
- If using plastic piping, the mixing valve's cold and hot water connections must first be connected to copper pipes (at least 0.5 m long) before being connected to the plastic pipe. The mixing valve and the internal cold water pipe must be tightened before connection.
- Incoming cold water pressure must be at most 6 bar. When higher, a pressure reducing valve must be installed.
- The overflow pipe for the safety valve must have an internal dimension of at least 18 mm. The pipe must have a steady decline to drainage.
- The design allows installations in damp areas such as milkrooms, bathrooms, kitchens, laundry and such. This does not include saunas or areas with similar humidity.

**Warning!** Electrical installations and repairs must only be carried out by an electrician.



**Caution!** Water installations and repairs must be carried out by a plumber.



# Høiax Agri Export: 120, 200 & 300

## Installation

**Caution!** The water heater must be filled with water before electrical supply is turned on, or guarantee becomes invalid.

**Note!** When new, the water heater must be flushed with fresh water for about 30 minutes.



### Installation procedure

1. Place the water heater so that the electrical switch will be easily accessible and with enough space for maintenance to be possible. Make sure the safety valve has free drainage.

2. Mount the pipes.

3. The electrical cover is removed by pressing a screwdriver on the snap-hooks. The wires can be fitted into the grooves under the heater. (Drainage pipes with diameter less than 20 mm can also be fitted into the grooves.)

If the electric connection is done with fixed wiring, the water heater must be preceded by a switch disconnecter on the power feed cable.

Recommended fuse for main supply (3000 W): 400 VDC = 10 Amp., 230 VDC = 16 Amp.

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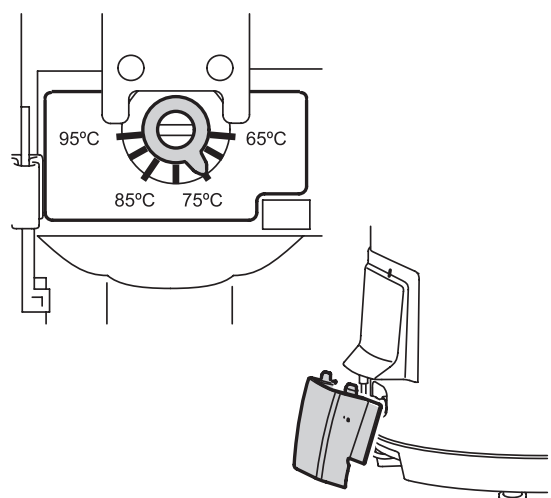
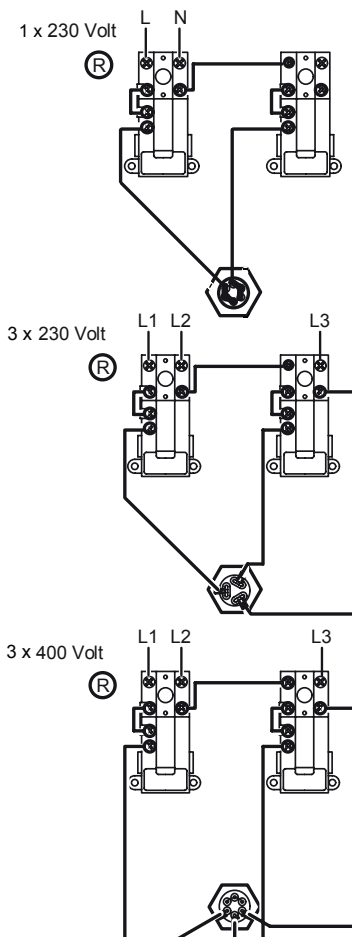
4. Adjust the thermostat by using a flat screwdriver to turn the screw to the correct set point.

5. Reattach the plastic cover by first inserting it at the top and then pressing it in to fixed position at the bottom.

6. The cover for safety valve snaps into place below the lid.

7. Verify the installation by turning on the electrical power supply. Remember that the water heater needs to be filled before power is turned on.

Water temperature from the mixing valve should be kept below 60°C to prevent scalding. Adjust by turning the temperature wheel (M) to + for warmer, or - for colder.



# Høiax Agri Export: 120, 200 & 300

## Maintenance

### *Maintenance guidelines*

**Note!** When new, the water heater must be flushed with fresh water for about 30 minutes.

**Warning!** When emptying the tank, make sure the electrical supply is switched off before the plug is opened.



## Cleaning procedure

The cleaning interval differs depending on the water hardness, quality and temperature.

First service should be made after 6 months, and thereafter adjusted to local conditions.

- Disconnect the power supply and close the cold water inlet valve.
- Open a hot water tap.
- Open the drain valve and drain the water heater.
- Open the electric lid, disconnect the wiring to the electric element and remove it.
- Clean out pressure tank for calcium deposits by entering through the hole where the heating element was located. Cleaning can be done with a wet vacuum cleaner. Clean out as much as possible from the bottom of the water heater.
- Remove the calcium deposits from the heating element. If necessary, a solvent mixture of phosphoric acid or citric acid can be used (conc. 10%).

- Check thoroughly for damages in surface of the heating element. Replace if necessary.
- Reattach the heating element and reconnect the wires.
- Close the drain valve.
- Open the cold water valve and let the heater be filled with water.
- Close the hot water tap.
- Close the electric lid and connect the power supply.

## Testing safety valve

The safety valve prevents high pressure build-up when the water is heated, by opening and let the expanded water out through the overflow pipe.

The safety valve must be operated manually every 12 months to ensure unrestricted drainage.

**Caution!** Do not use any tools that could scratch the surface of the heating element!

# Høiax Agri Export: 120, 200 & 300

## Troubleshooting

Water from mixing valve isn't hot enough isn't hot enough	<ul style="list-style-type: none"><li>• Check for any leaking hot water taps.</li><li>• Open mixing valve fully.</li><li>• Increase the thermostat temperature.</li></ul>
Water from hot water outlet isn't hot enough isn't hot enough	Increase the thermostat temperature. Check temperature on hot water taps from mixing valve. If needed, close mixing valve and hot water taps from mixing valve. If needed, close mixing valve slightly so that water from mixing valve is below 60°C.
No hot water No hot water	<ul style="list-style-type: none"><li>• Check fuses and/or power supply.</li><li>• Reset the thermal cut out thermostat by disconnecting electrical supply and push the reset button located on the electrical terminal connector.</li><li>• If the water heater still does not heat, replace electric heating element.</li></ul>
Leakage from safety valve Leakage from safety valve	This is normal if a pressure reducing valve is installed.
Water is too hot	If the temperature for any reason should rise above 95°C, the high-temperature cut-off will cut the current temperature at 99°C. If this occurs, make a smaller hot water tapping to reduce the temperature, switch off power supply and push the reset button located on the electrical terminal connector. Call for expert help if electric heating is not restored.

## EC Declaration of Conformity

**Høiax AS**  
**Trippeveien 5**  
**N-1618 Fredrikstad, Norway**

*declare under our sole responsibility that the product:*

### **Høiax Agri Export Type: 120, 200 & 300**

*to which this declaration relates is in conformity with requirements of the following directives*

**EC directive on:**

**Electromagnetic Compatibility (EMC): 2014/30/EU**

**Low Voltage Directive (LVD): 2014/35/EU**

**RoHS II 2011/65/EU**

**REACH**

*The conformity was checked in accordance with the following EN-standards*

**Test standard:**

**IEC 60335-2-21: 2002 (Fifth Edition) (incl. Corr.1: 2007) + A1: 2004 +**

**A2: 2008 used in conjunction with IEC 60335-1: 2001 (Fourth ed.)**

**(incl. Corr.1: 2002) + A1: 2004 + A2: 2006 (incl. Corr. 1: 2006) and/or**

**EN 60335-2-21: 2003 + A1: 2005 + A2: 2008 used in conjunction with**

**EN 60335-1: 2002 + A11: 2004 + A1: 2004 + A12: 2006 + A2: 2006 +**

**A13: 2008 and EN 50366: 2003 + A1: 2006**

*Safety std:*

- **EN 60335-2-21:2003 + A1:2005 + A2:2008 in conjunction with EN 60335-1:2002 + A11:2004 + A1:2004 + A12:2006 + A2:2006 + A13:2008**

*EMF std:*

- **EN 50366:2003 + A1:2006**

Date: 2016-03-15



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