

ARITERM



INSTALLATION INSTRUCTIONS

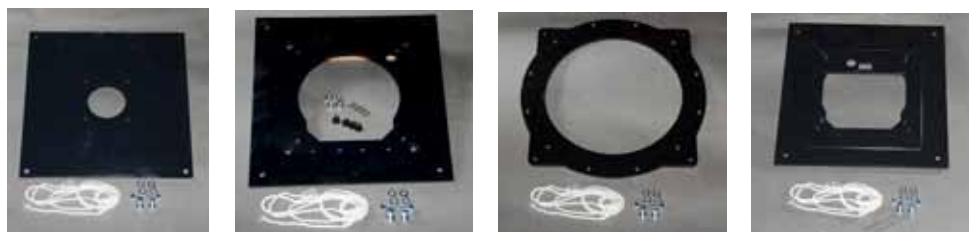
Accessories of the ARIMAX BIO
300/3000 series and their installation



■ BURNER EQUIPMENT

A boiler burner adapter is needed for the installation of a bio burner or another type of burner when the size of the burner differs from the size of the hole intended for it. The adapter is delivered with Hakejet or Biojet burners when it is ordered in connection with the boiler. The adapter must be ordered separately in connection with Bequem, Farmjet or oil burners.

When oil burners are used, a hinged oil burner hatch may also be used instead of the adapter.



Burner adapter, gasket tape and fastening bolts.

Product numbers	Bio 340	Bio 360	Bio 380	Bio 3120	Bio 3150
Oil burner adapter, Ø 90 mm	501020 OB	501021 OB	501022 OB	501032 OB	501035 OB
Farmjet 50 burner equipment	501020 PELL	501021 PELL	-	-	-
BeQuem 50 burner equipment	501020 PELL	501021 PELL	-	-	-



Burner adapter bolted to the boiler.

NB! The oil burner must always be installed on the upper hatch of the furnace. Never install it on the lower hatch of the ash pan!

■ BURNER EQUIPMENT

■ Oil burner equipment

A hinged burner hatch is available for the Arimax Bio boiler when the boiler is used with oil. The hatch is the same as the upper hatch of the wood heating series (see "Upper hatch with reflecting tile" below). Under the draft regulator valve there is an oil burner adapter ($\varnothing 90$ mm). The hatches are fastened by means of bolts. Make sure that the connection is tight. The hatch can be installed on the desired side of the boiler. The holes of the boiler furnace are all the same size. Therefore, the hatch may be moved from a hole to another one.

The oil burner must not be used at the same time as the bio burner. The oil burner must be installed by an authorised burner installer.

Product numbers	Bio 340	Bio 360	Bio 380	Bio 3120	Bio 3150
Hinged oil burner hatch	25001	25001	25001	25001	25001

■ Wood heating series BIO 340/360/380

The Arimax Bio boiler may also be used to burn wood by means of the wood heating series available as an accessory. Due to the top fire principle, wood heating is to be considered mainly as a backup heating method. In practice, wood heating also requires the use of an accumulator. There must be the possibility to store somewhere the large amount of heat energy produced at once. The wood heating series consists of damper-equipped hatches (2 pcs) and cell grids. The cell grids are installed on top of the brackets located in the boiler furnace. The hatch series can be installed on the desired side of the boiler. The holes of the boiler furnace are all the same size. Therefore, the hatch may be moved from a hole to another one.

The hatches are fastened by means of bolts. Make sure that the connection is tight. It is advisable to equip the dampers with a draft regulator. In this case, the dampers close slowly when the boiler begins to reach the upper temperature. The wood fuel boilers must always be equipped with a safety device unit that prevents over-boiling (product number 5012922).



Upper hatch with reflecting tile / Oil burner hatch, lower hatch and grid series.

■ BURNER EQUIPMENT



Product numbers	Bio 340	Bio 360	Bio 380
Wood heating series	501020KPA	501021KPA	501022KPA

Wood heating series hatches installed on the boiler front.

■ Electrical resistance 6kW

The boiler may be equipped with an electrical resistance of 6 kW (1-2 pcs) for emergency operation and summer use. The resistance is installed on the DN50 return unit located on the side of the boiler. It should be noted that one of the four units must be reserved for the return water pipe of the boiler. If two resistances are used, they must not be installed on opposite units because they would come in contact with each other. The installation depth is 500 mm. The resistance must be connected only by an authorised electrician.



Electrical resistance (6 kW) and thermostat / overheating protection. Resistance and thermostat installed on the boiler.

Product numbers	
Electrical resistance 6kW DN50	5210
Control thermostat	5212

■ FLUE GAS BLOWER

The efficient and correct operation of the Bio boiler requires the presence of a certain value of vacuum in the furnace. The vacuum can be created by means of either a correctly dimensioned chimney or a vacuum-controlled flue gas blower. One of the advantages of the blower is the weather-independent, uniform draft. The correct flue gas blower series shall be chosen from the options below depending on the size of the boiler.

Product numbers	Bio 340	Bio 360-380	Bio 3120-3150
Flue gas blower	20058	20059	20060
Flue gas blower series	20066	20067	20068

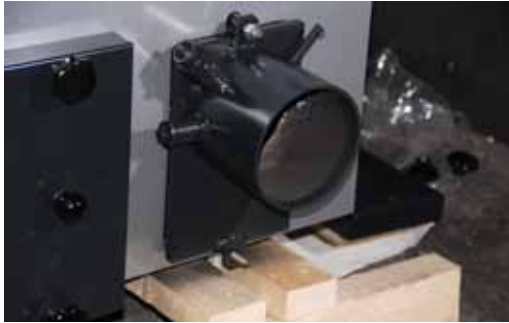
In addition to the blower, the blower series also contains the fitting parts of the blower, a vacuum transmitter and an overpressure switch. The blower is controlled through the AM200 centre by means of a frequency converter. Separate control is required for Farmjet and Bequem burners.



Flue gas extractor, fitting parts and junction box.

The flue gas extractor can be installed on the flue duct behind the boiler or on either side (in the first hole on the right in the figure).

■ FLUE GAS BLOWER



Flue gas blower fitting part installed on the boiler outlet.



Flue gas blower installed on a fitting part.

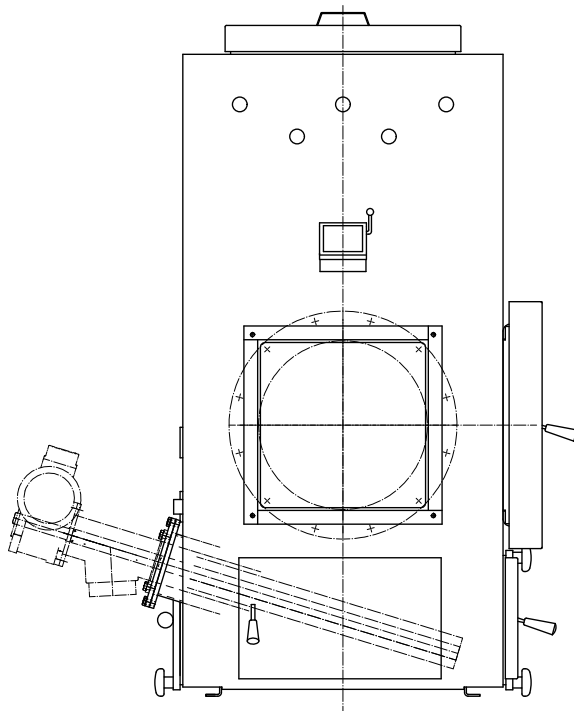


Extension duct installed on the blower. The product number of the extension duct is 5012981.

When designing the flue duct connection, it must be ensured that the flue gas enters the duct in the most direct way possible. Curves always increase the resistance to drawing and horizontal surfaces collect fly ash. It must be possible to clean the flue duct from every point.

■ ASH SCREWS

The Arimax Bio boilers may be equipped with an automatic ash removal system. The screw to be installed on the boiler removes the ash from under the furnace. All boilers belonging to the Bio 300/3000 series are equipped with an ash screw unit. The unit is always on the other side, opposite to the burner hole located in the flank. The ash screws are controlled through the AM200 centre or a separate control centre (to be acquired by the client). The ash screws can be realised as single or double-screw installations. The double-screw installation is illustrated below.



■ ASH SCREWS

■ Installation:

It should be noted that the screw can be pushed only if there is enough installation space next to the boiler. The short screw can also be threaded into position through the furnace.



1. Fasten the feed module of the boiler screw to the unit located in the boiler by means of bolts. Unfasten the blind flange in the unit if the unit contains one.



2. Push the boiler screw into position



3. Install the fitting ring on the engine fasteners



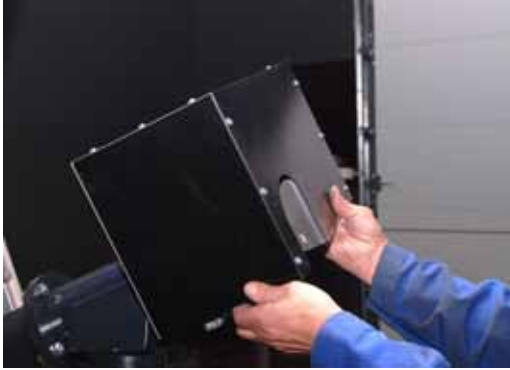
4. Push the engine screw on top of the shaft and make sure that the shaft spline is in the right place. Fasten to the fitting ring using bolts.



5. Installation of the conveyor screw into position by means of a flexible drop tube. Make sure that the connections are tight. The orientation of the conveyor belt is flexible.



6. Part to be installed of the protective cover



7. Protective cover installed.

It should be noted that air leaks from an empty ash screw into the vacuum furnace and that this might hinder, to some extent, the adjustment of the plant (e.g. the residual oxygen values). The screw should be disconnected and its head should be covered, for instance, by means of a bag until there is enough ash to be removed. The ash in the screw pipe prevents the air from flowing into the wrong direction.

Remember to install a lock safety switch on the screw engines. All electrical installations must be carried out only by an electrician.

PART LIST

No.	Name	pcs
1	Feed module / Interflange assembled, A3000-711a / A3000-603a	1
2	Ash screw welded, elevation 50 (fire-resistant), A3000-600a	1
3	Engine fitting flange, A3000-703	1
4	Countersunk allen screw M8 x 20	8
5	Wedge 6 x 8 x 100	1
6	Gear motor, Motovario NRMV 063-60-071B14, 0.55 kW	1
7	Washer Ø40 / Ø11	1
8	Washer M10	8
9	Hexagonal screw M10 x 20	8
10	Hexagonal screw M10 x 16	1
11	Heat-resistant connecting tube Ø105 x 1000	1
12	Tube clamp	3
13	Feed module, A3000-711a	2
14	Ash screw, elevation 70, A3000-700a	1
15	Sheath pipe module, A3000-712a	1
16	Countersunk allen screw M8 x 20	8
17	Gear motor, Motovario NRMV 063-60-071B14, 0.55 kW	1
18	Hexagonal screw M8 x 16	4
19	Washer M8	4
20	Self drilling screw	4
21	Rain cover frame	1
22	Rain cover	1





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