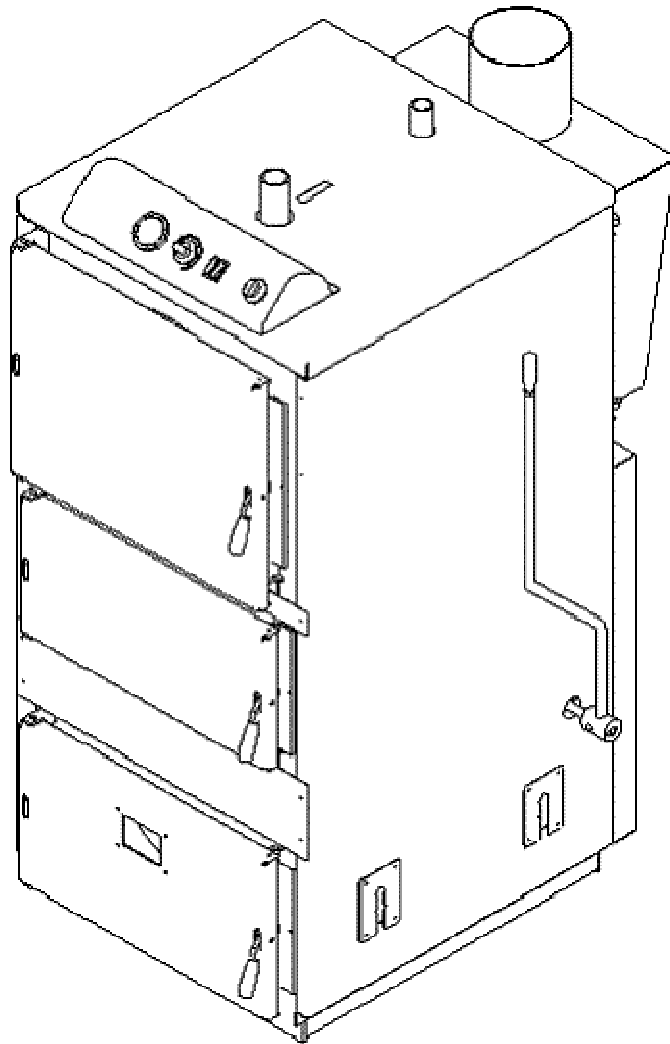




BAYMAK LİNYİTOMAT PLUS DOMESTIC SOLID FUEL BOILERS



INSTRUCTION AND OPERATING MANUAL

BAYMAK LİNYİTOMAT PLUS DOMESTIC SOLID FUEL BOILERS INSTRUCTION AND OPERATING MANUAL

WARNING!

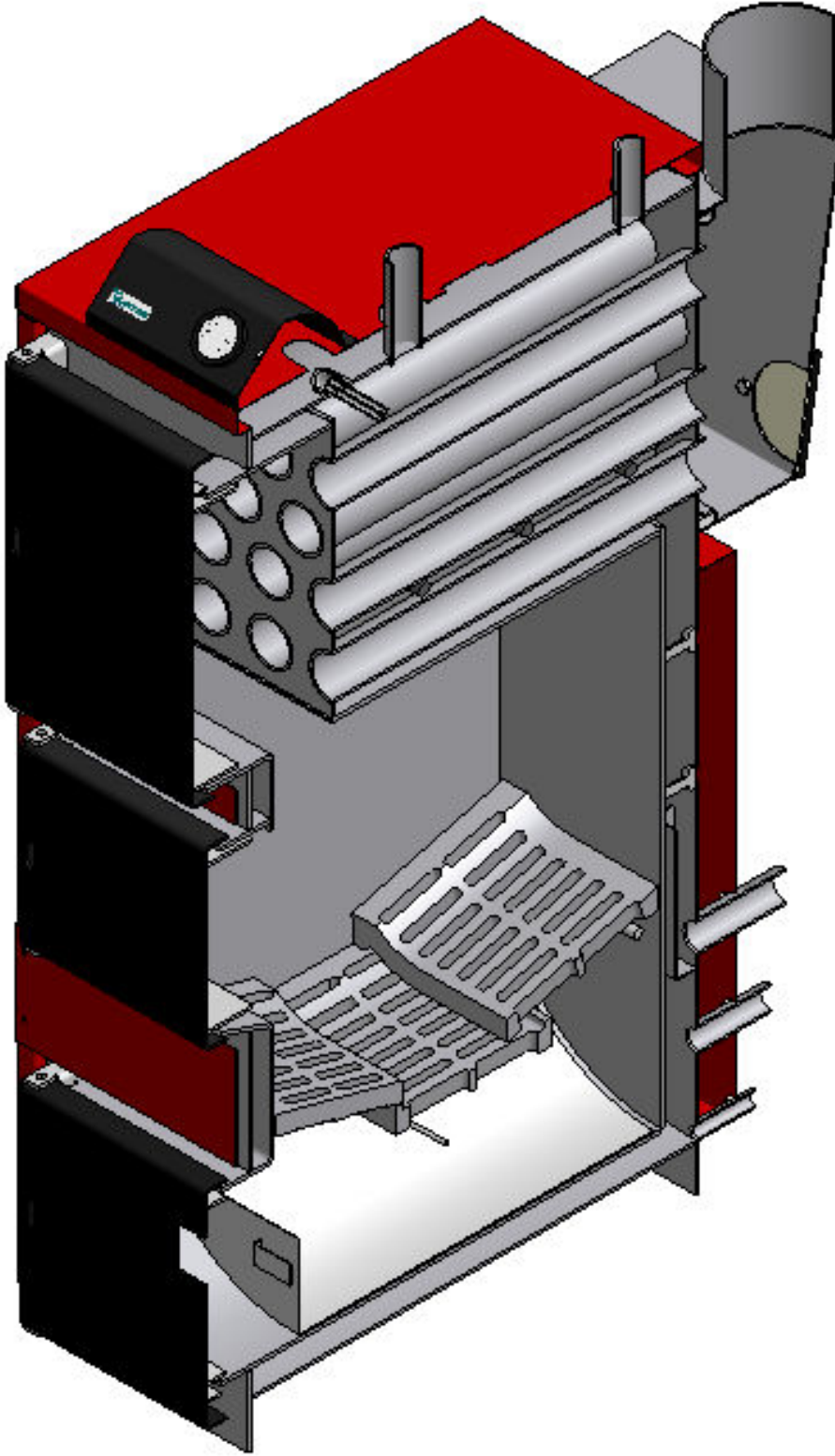
All local regulations, including those referring to national and European standards need to be complied with when installing the appliance.

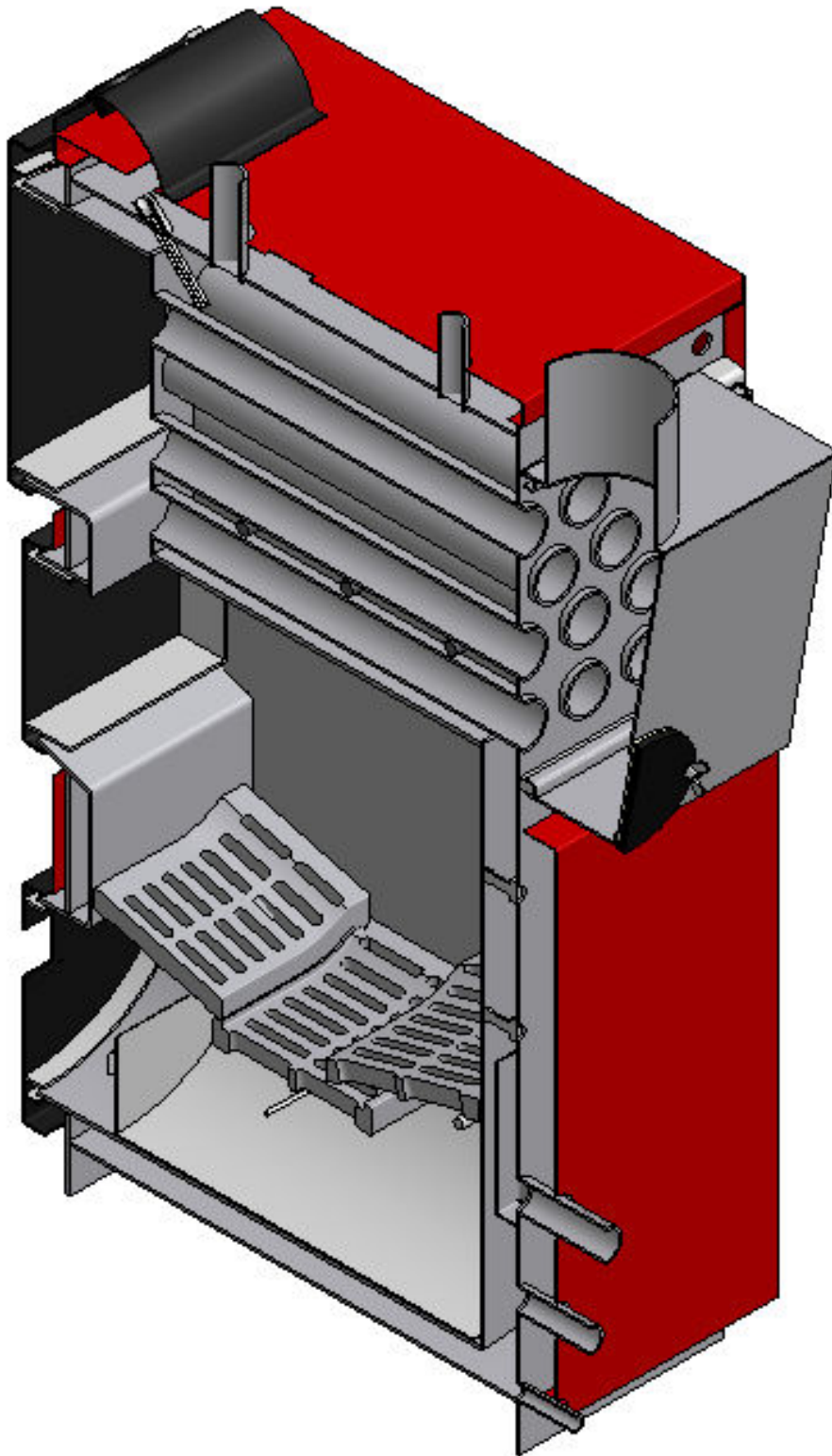
Please read this manual carefully before you use the boiler. You will have the “Service Center Address Book” which include the information dealing with the authorised service center with this book.

The boiler’s initial operating must be done by Baymak authorised service, otherwise the boiler will be out of warranty.

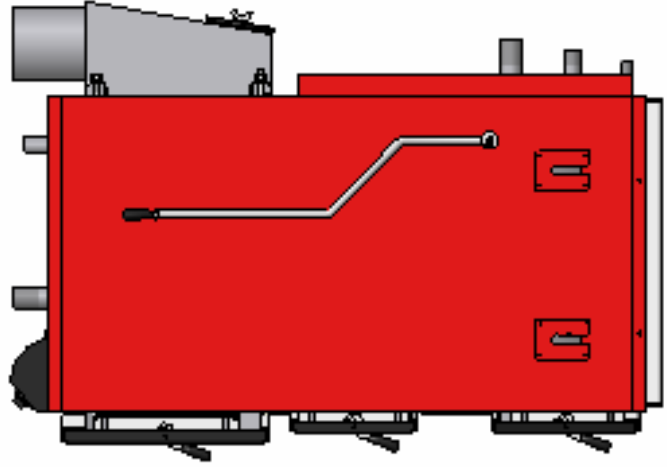
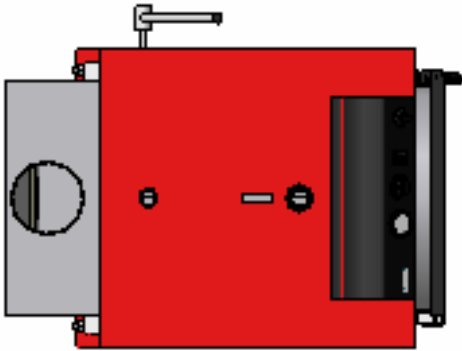
BAYMAK
MAKİNE SANAYİ VE TİCARET A.Ş.
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LİNYİTOMAT PLUS 20-40-60-80

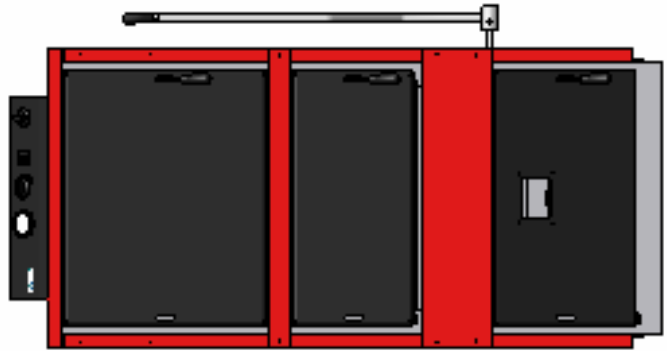




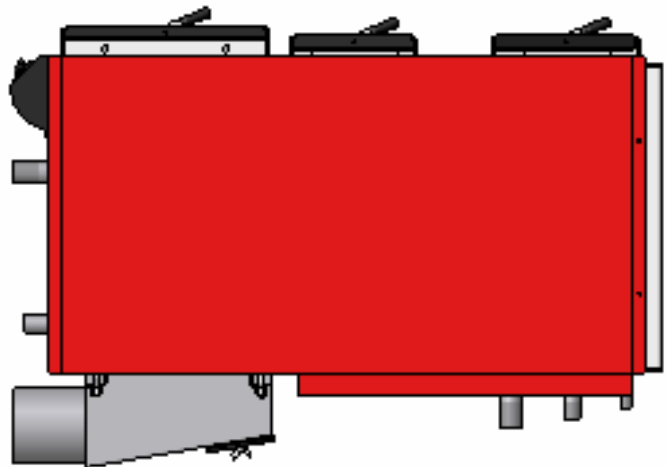
Top view



Right side view

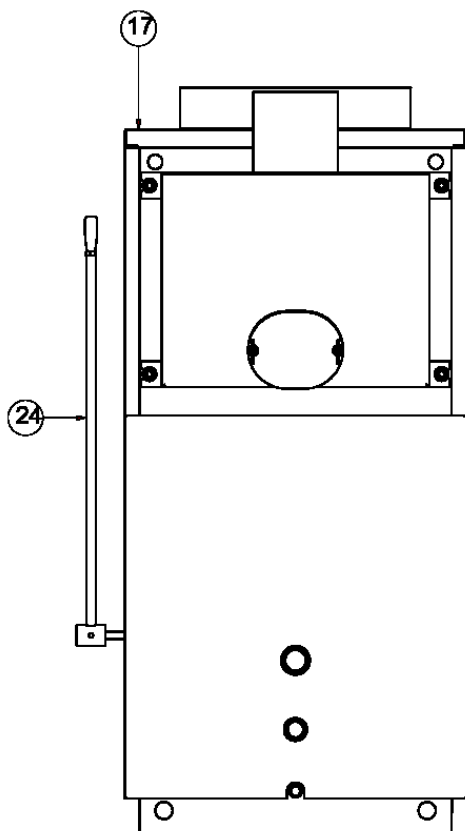
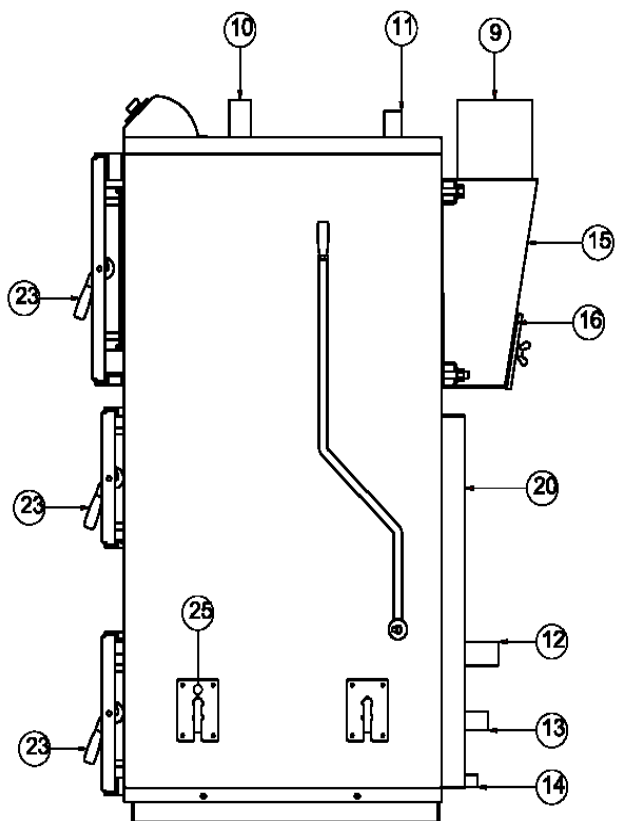
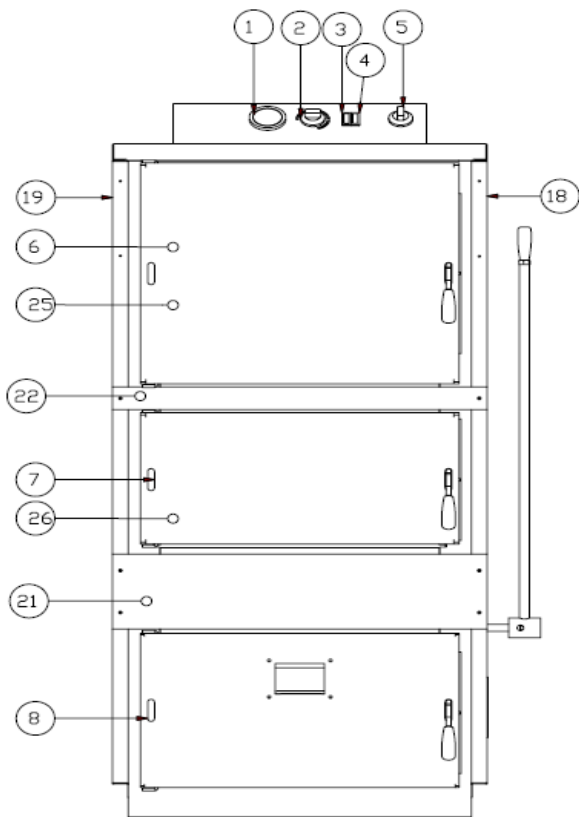


Front view



Left side view





- 1.)Boiler water temperature indicator
- 2.)Temperature adjustment thermostat
- 3.)Fan starting button
- 4.)Pump working button
- 5.)Manuel-0 Automatic Selection button
- 6.)Flue pipe cleaning door
- 7.)Coal loading door
- 8.)Ash cleaning door
- 9.)Flue gas box pipe
- 10.)Boiler water outlet pipe
- 11.)Expansion tank outlet pipe
- 12.)Boiler water inlet pipe
- 13.)Expansion tank outlet pipe
- 14.)Boiler filling and drainage pipe
- 15.)Fluegas box
- 16.)Fluegas box cleaning door
- 17.)Boiler top casing
- 18.)Boiler right side casing
- 19.)Boiler left side casing
- 20.)Boiler back casing
- 21.)Boiler front bottom casing
- 22.)Boiler front middle casing
- 23.)Door opening&closing handle
- 24.)Ash shaking&discharging handle
- 25.)Top door casing
- 26.)Middle door casing

Symbols in the manual



Danger! Negligence of this warning creates danger for your body and life



Electricshock danger! Negligence of this warning creates danger for your body and life due to electricshock.



Attention! Negligence of this warning creates danger for ambient health and device.



Warning / Info : You can find special information and advices here.



Reference to additional information in other documents.

General Safety Cautions

All local regulations, including those referring to national and European standards need to be complied with when installing the appliance.

Don't use the appliance as an incinerator or any other different way from which it has been conceived.

Don't use unsuitable or non-recommended fuels.

Don't use liquid fuels.

Don't make any unauthorized modification on the appliance.

Use only replacement parts recommended by the manufacturer.



Danger! Please take into consideration the cautions on the boiler. Wrong operation of the boiler causes serious damages.

Applications of first start-up, setting, maintenance and cleaning must only be done by authorized service.

When breakdowns occur in the heating system, system must be shut down. Damaged components must be changed by authorized service stations.

The accessories in the system must be suitable to technical rules, components in question must be approved by manufacturer relating to Baymak boiler.



Connections sealed with bolt paint must not be pulled out by a person who is not expert or member of service! These seals prove that bolts which is necessary for perfect and safe operation has not been changed. If seals get damage, boiler will be out of warranty!



Alteration, structural cursory modifications and all similar works are forbidden. These kind of modifications may be dangerous for people and cause damages on boiler. In case of negligence of these subjects, boiler will be out of warranty.

Obstruction of holes of air ventilation and air relief is dangerous and forbidden.

Do not place easy explosive and ignitable materials near to boiler.



Danger in case of gas smell! In case of existing gas smell, do not operate switches by electricity. Ventilate the room and shut down gas prevention mechanism. If the source of the smell can not be found, gas supplier administration must be informed.

Poisoning Danger! Do not drink heating system water! Water is not clean due to precipitates.



Caution! Safety valve and air release line must be open everytime because of water discharge for safety. Safety valve must be checked occasionally. Safety valve must be installed onto boiler directly and there must not be any other valve or equipment. All used equipment must be in accordance with CE standards.



Electricshock Danger! Before protective hat and pieces of cover are taken out, all electrical connections on boiler must be disassembled. Works that will be done when electric is on, must be carried on by authorized people after all necessary precautions are supplied.



Please read this manual before using the boiler.

Start-up must be done by authorized service station. Otherwise the boiler will be out of warranty.

Important Points for Mounting and Mounting Place

The appliance shall be installed on floors with an adequate load-bearing capacity. If an existing construction doesn't meet this prerequisite, suitable measures (e.g. load distributing plate) shall be taken to achieve it.

The installation of the appliance need to provide access for cleaning the appliance, the flue gas connector and the chimney flue.

Caution! Subjects referring considerations during mountings related with operations of heating or a tank are below.



To prevent from water damages that will occur due to especially water leakages in tank, convenient precautions must be taken for mounting. Drain lines and safety system must be suitable and checked periodically during first start-up and operation.

Ambient where is boiler in must be dry and must not frost (between 0° and 45°).



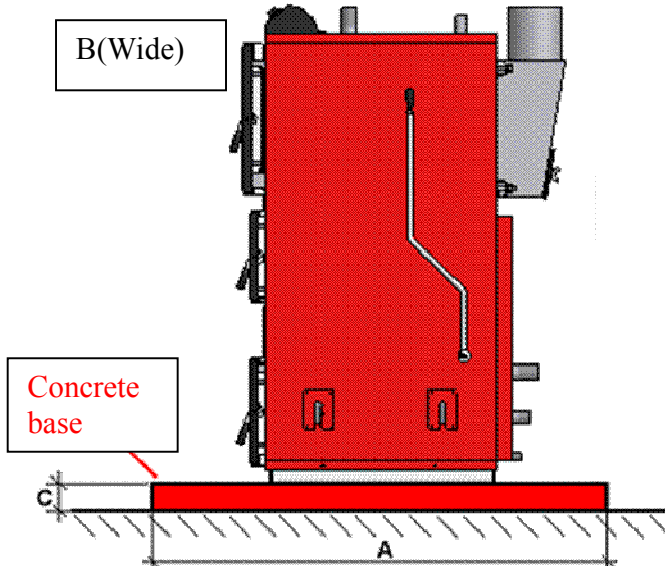
Operations about supplying required air to burn the boiler and discharging waste gas must be in accordance with CE standards and local distribution companies that is responsible from that region.

Place the boiler to a boiler room.

Do not place the boiler to your bedroom!



Settle the boiler onto concrete base. Ambient where is boiler in should not be dusty and moist.



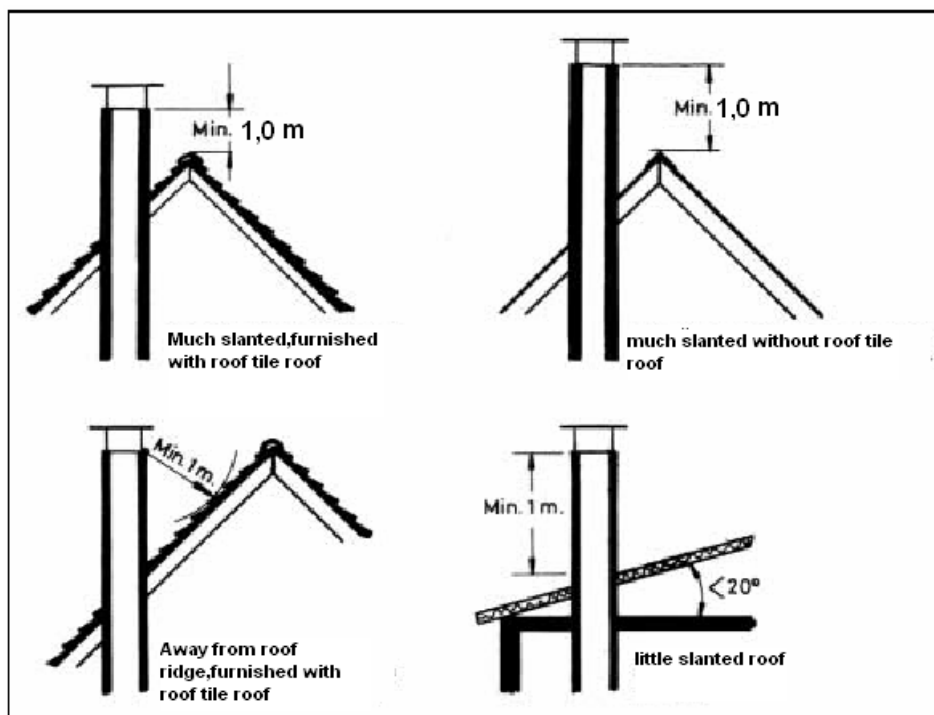
Model	A	B	C
	Depth	Wide	Height
	m	m	m
Linytomat PLUS LP 20	0,8	0,7	0,10
Linytomat PLUS LP 40	1,0	0,8	
Linytomat PLUS LP 60	1,2	0,8	
Linytomat PLUS LP 80	1,2	0,9	

- *The boiler should be placed onto the concrete base.
- *The size of the concrete base is shown on the table.
- *After placing the boiler on to base, it should be balanced from the ground surface.

Caution! Waste gas way must be as short as possible. Waste gas pipes must be installed as in slanting direction towards chimney and connections must have full imperviousness.



The chimney must be designed considering technical specifications determined in DIN 4705 and built according to DIN 18160.

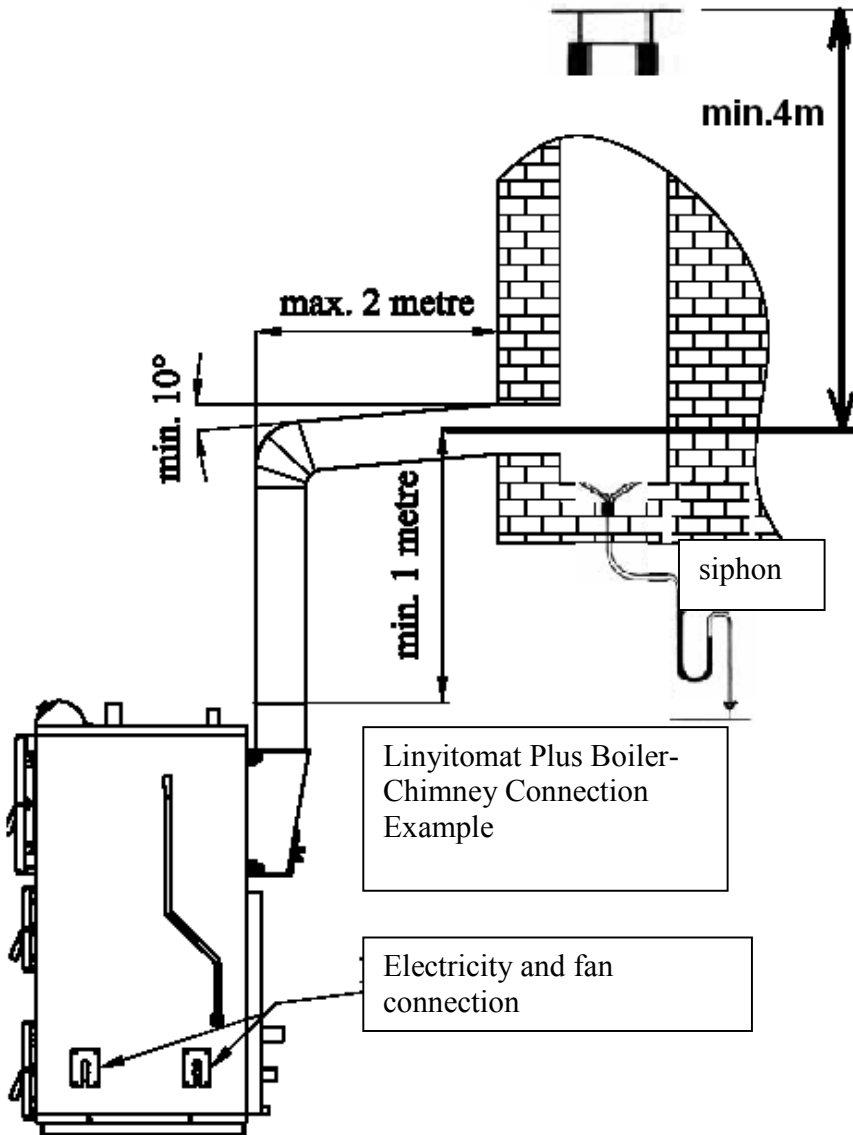


Both boiler back pressures and boiler pressures must be in consideration at chimney calculations.

If the waste gas heat is under 160°C in continuous operating, it is forbidden to use an ordinary chimney.



Mount the flue gas connection pipe on to the chimney with ascending slope. The flue gas pipe must have min.1(one)m height and, if necessary; elbow pipe should be used after this height. It must have min. 10° towards the chimney and its length never passes the 0,25 x height of the chimney.



Linyitomat Plus Boiler Model	LP 20	LP 40	LP 60	LP 80
Flue Gas Pipe Connection Diameter(mm)	Ø130	Ø150	Ø180	Ø200

Chimney must be isolated well to increase the combustion quality. You may use maximum two elbows between chimney and flue gas box.

Installation



You must take measures against rain or water consisted as a result of condensing waste gases.

The chimneys have to be complied with national and European Standards.



Caution! Mount an air relief device onto outlet pipe of boiler hot water. Air relief device must be installed by installator company in accordance with installation to the points where air may be exist on installation except boiler.



Carrying and transportation must be done together with original packaging material of device considering the marking on the boiler. Please protect the boiler against factors that can damage to packaging material and device.



Caution! Check the slants of boiler installation connetions with a water gauge. After slants have been done, there must not been any air in the system.



Caution! As the boiler works or in case of operation of the boiler without water, water must not be pumped to the boiler directly. The boiler water must be gave at low temperature when the boiler does not operate. Otherwise system may come to harm. Cold water must not be pumped into hot boiler. **Otherwise the boiler will be out of warranty and manufacturer company is not responsible for physical and sipiritual damages.**

Location of the device must be done in accordance with CE, national standards and local regulations to ambients that air current exists.

The open expansion tank must be connected to the boiler. The closed expansion tanks are very dangerous for solid fuel boilers. **If closed expansion tank is used, the boiler will be out of warranty.** The diameter of the open expansion tank connection pipe must be same with the boiler connection pipe's. The open expansion tank connection pipes must be steel installation pipe not plastic. The usage of the plastik installation pipe on expansion tanks is very dangerous and in this case the boiler will be out of warranty.

To fill and drain water to the boiler, you must mount a valve.

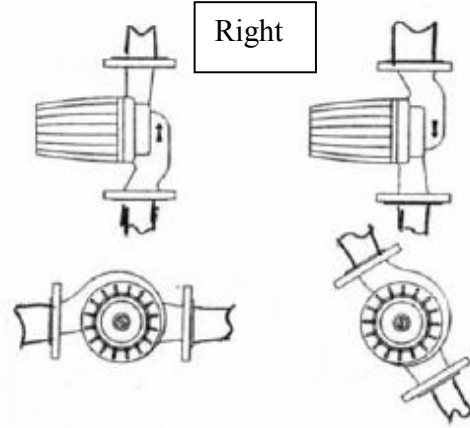
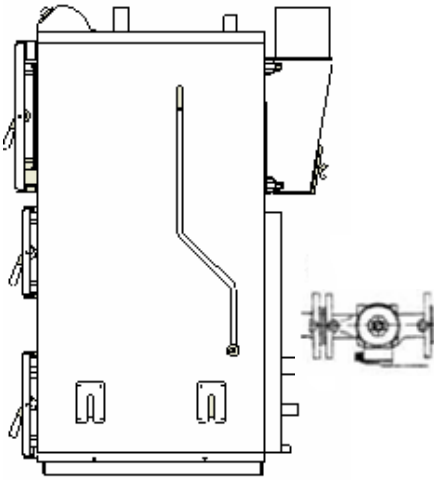
You should isolate all the installation pipes to prevent heat loss.

Make the boiler electricity connection to the grounding plug.

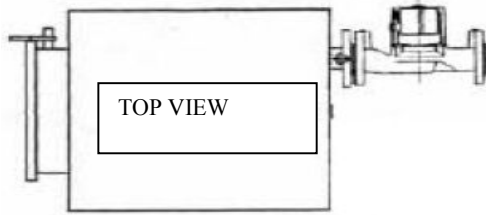
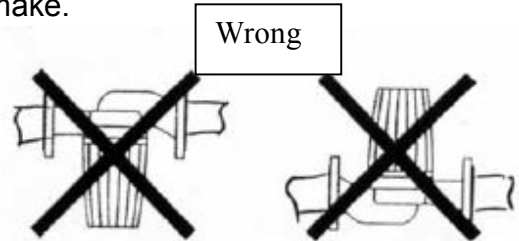
In case of power cut, never load coal to the boiler.

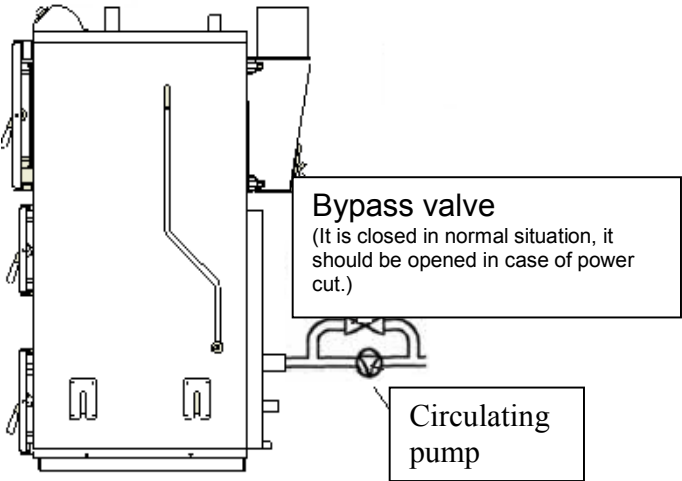
Mount the circulating pump on the inlet pipe of the boiler and connect the cable to the electrical terminal of the pump.

Mount the circulating pump as the below:



The vertical assembly of the pump shaft causes wearing of rotor bearing rapidly. So, the vertical assembly of the pump shaft mustn't make.





There must be absolutely a bypass line on the inlet pipe of the boiler. In case of the power cut, you can secure the safety of the boiler and installation.



Physical life of the boiler is 10 years according to related laws. This period contains service and providing required spare part duration for executing the functions.

The boiler was produced in accordance with EN 303-5.

Protection against corrosion



Caution! Combustion air must not contain elements that will cause to corrosion. As an example, these gases are water steams of solution and cleaning substances or gases in spray boxes.

Demands related with heating system water



To prevent the damages occurred as a result of corrosion in installation, quality of heating water must be as good as drinking water. Unsuitable waters containing chemical additive substances or causing to corrosion must not be used.



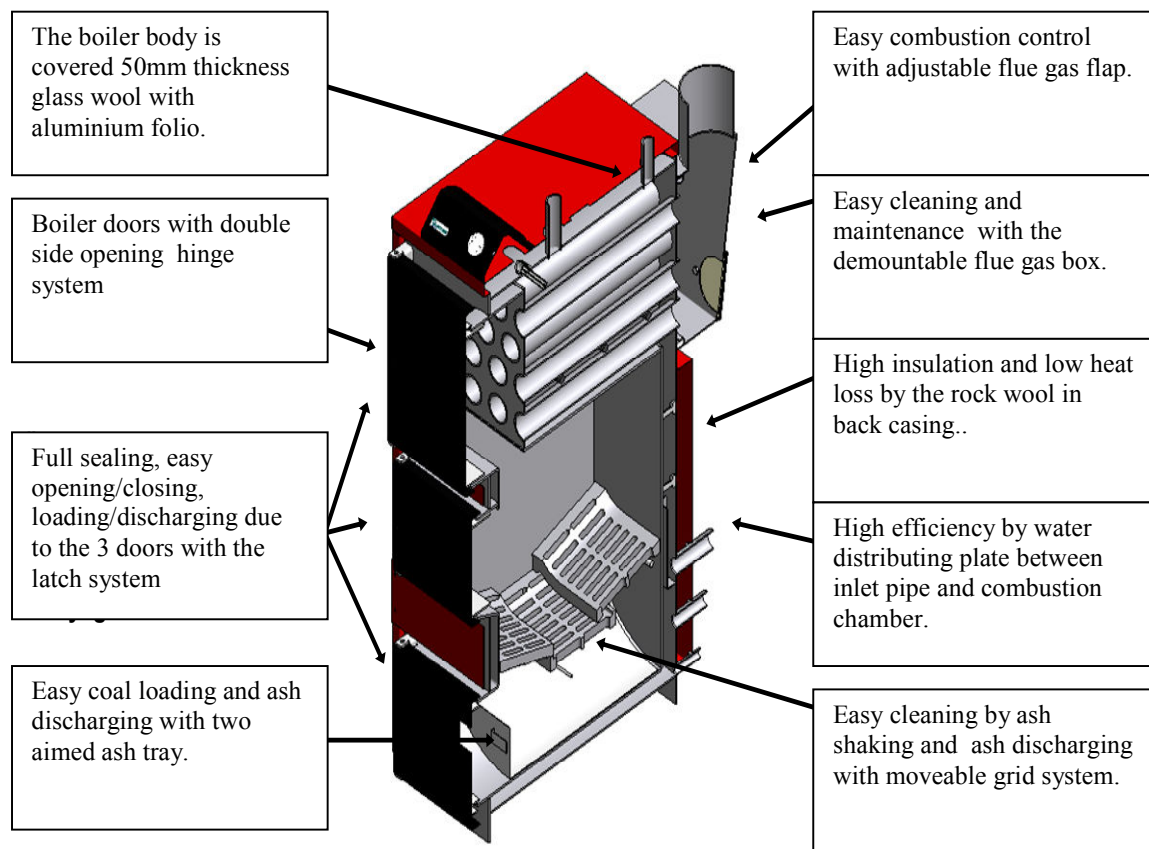
Filling water for boiler and installation should not contain residues, contaminates and unwanted solid materials. These unwanted materials are very dangerous for the boiler and installation. If you have any doubt about the water pureness, you should mount a filter on inlet of the filling valve.



The degrees of water hardness must not be bigger than 20° F'den (1° F = Calsium carbonade @ 1 lt water) . (Hard water) If the degres of water hardness is bigger than 20° F, a water softening system absolutely must be used.

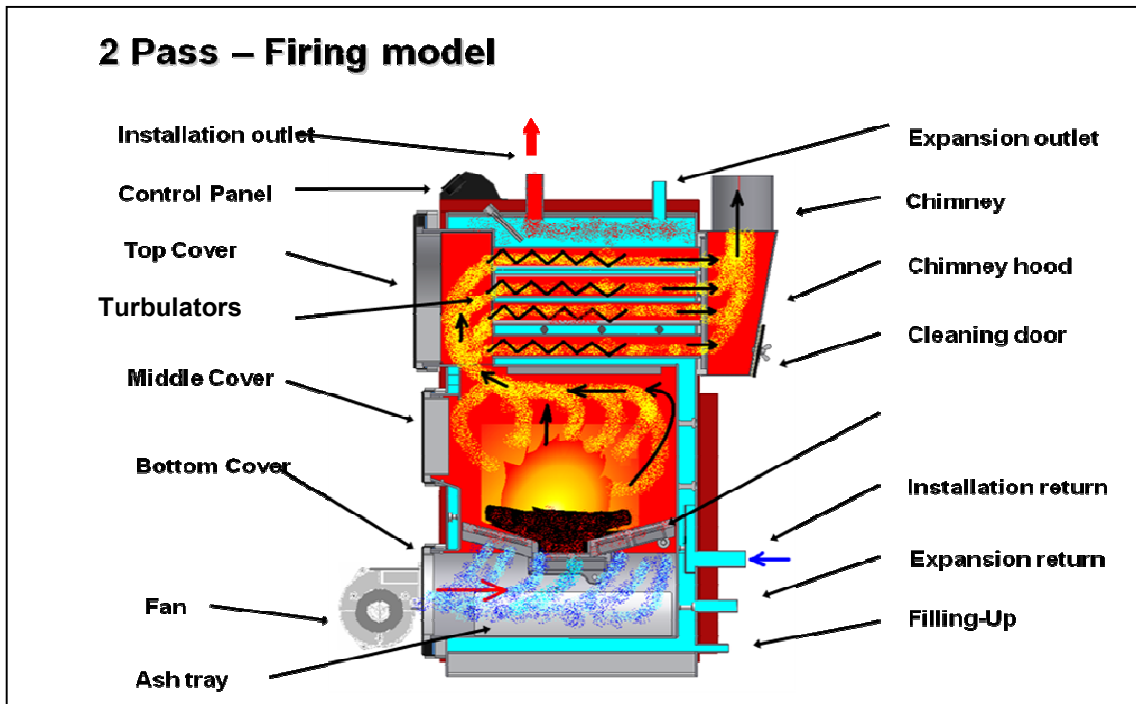
**In case of boiler failure which be caused by
calsification, using hard and unsuitable water, the
boiler will be out of warranty.**

PROPERTIES OF LİNYİTOMAT PLUS BOILER



- The fan is mounted on Linyitomat Plus boiler to make combustion easy. The fan and pump are controlled two ways: Automatic and manuel mode. At manual mode, the control of fan is made by adjusting thermostat on control panel. The fan works, until the boiler water temperature reaches the selected temperature by adjusting thermostat. When it reaches to adjusted temperature, the fan stops automatically and when the boiler water temperature decreases 5°C, the fan starts working again. When the boiler water temperature reaches the selected temperature again, the fan stops and the cycle goes like this. When you select the automatic mode, the electronic thermostat activates the fan at the start

of the working. When the temperature reaches 40°C, the pump starts working. When the boiler water temperature decreases and become 40°C, the control panel stops the pump and reaches to 30°C stops the fan.

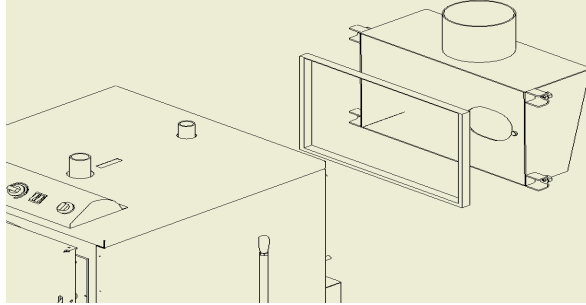
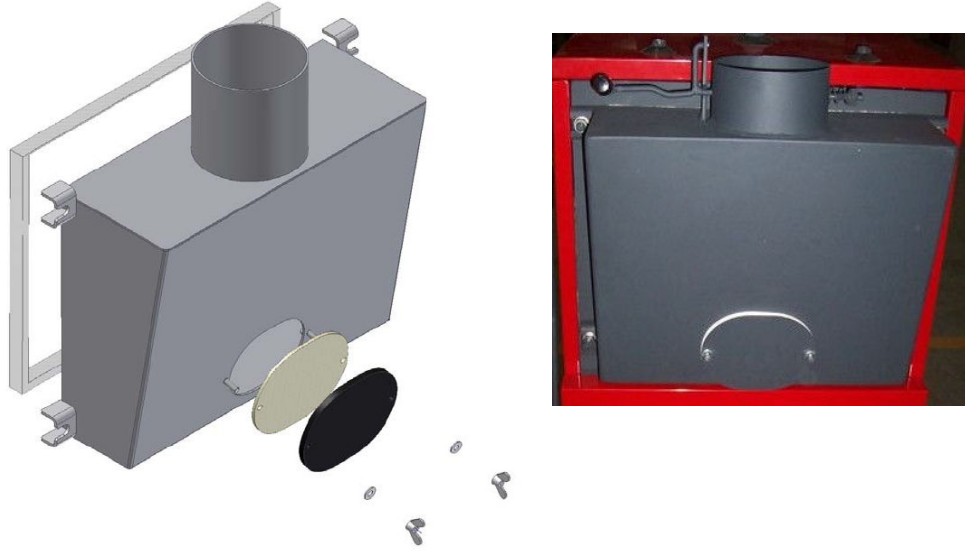


- At Linyitomat 80 plus model boilers, when you don't want to work fan, you can switch the off button on the control panel. In this case the fan doesn't work. You can have a good combustion without fan. It depends on the quality and thermal efficiency of coal.
- The fixable and adjustable flue gas flap system was designed to control combustion. Pulling the arm to yourself by the help of spring and pin, you will control the combustion. When the chimney draught is too high, you can throttle the flap to have a good combustion.



Fixable and adjustable flap

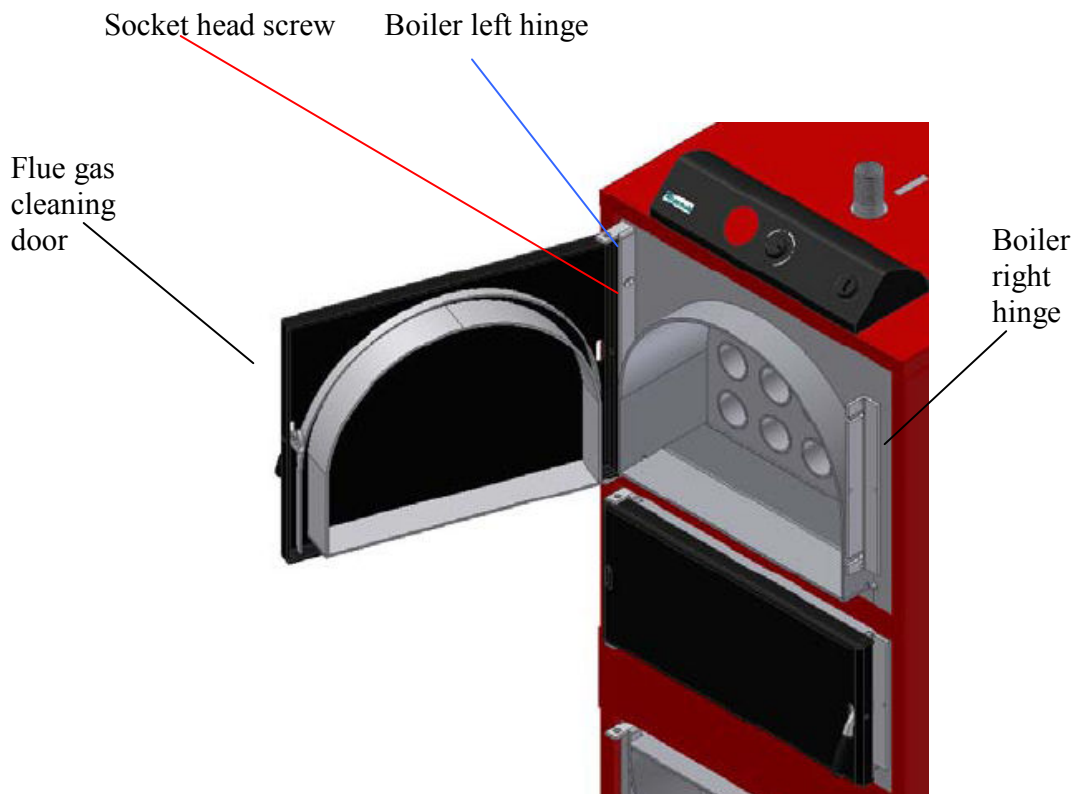
- The flue gas box is designed as demountable. The sealing of the flue gas is ensured with ceramic rope. When necessary, you can demount the flue gas box from the boiler by loosening the nuts. **This demounting operation must be done when the boiler doesn't work.** The flue gas box cleaning cover is opened by loosening the wingnuts. You can easily clean the flue dust in the flue gas box.



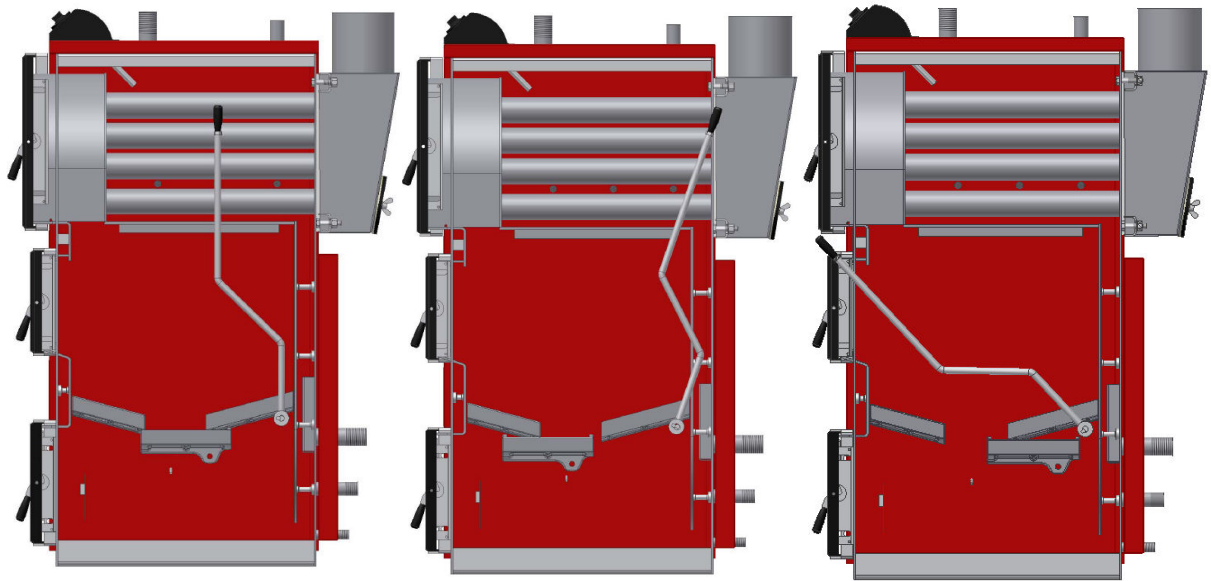
Demounted flue gas box.

The Linyimat plus boiler doors have slotted hinges and they are easily adjustable to have good sealing by loosening/tightening the socket head screws.



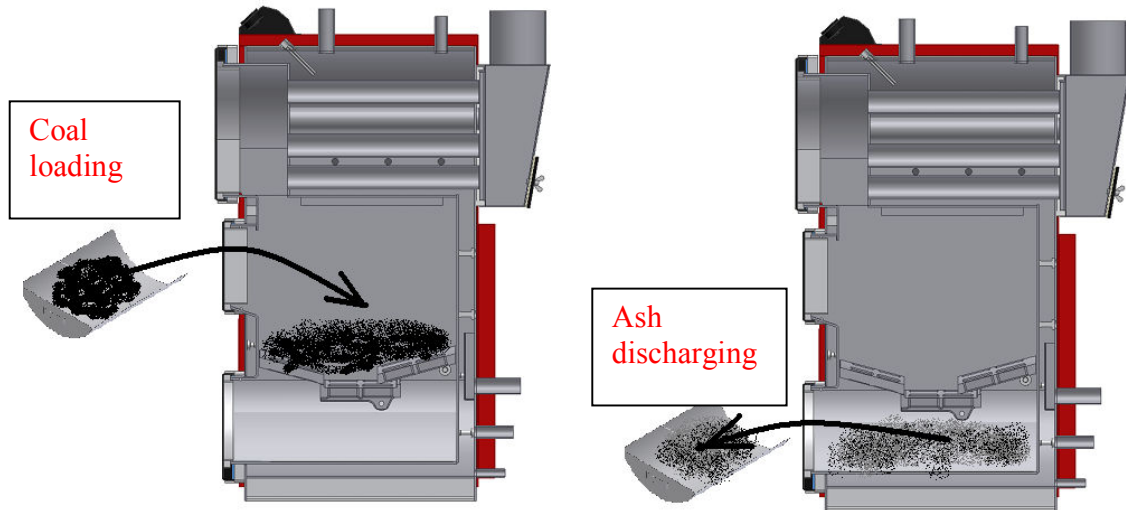


- According to the replacement of the boiler to a boiler room, you can switch the opening direction of the door with the changing process right and left hinges by loosening socket head screws. The opening direction is adjusted clockwise direction at the factory.
- You can shake the ashes on the grids by pulling and pushing ash shaking arm little by little on the right side of the boiler. By pulling the arm to yourself, you can discharge the ashes into the ash tray or combustion chamber.

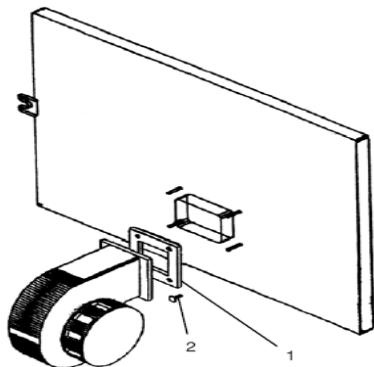


a)The arm is at normal position b)The arm is at ahead position c) The arm is at back position

- You can discharge the ash from the boiler and load the coal into the fire room with the ash tray which be put into bottom of the combustion chamber.



- The fan assembly;** you must be sure that no air leakage by fixing the gasket between fan(you will find the fan in the combustion chamber, when you unpacked the boiler.) and the door with screws. The electricity connection must be comply with the electrical scheme.

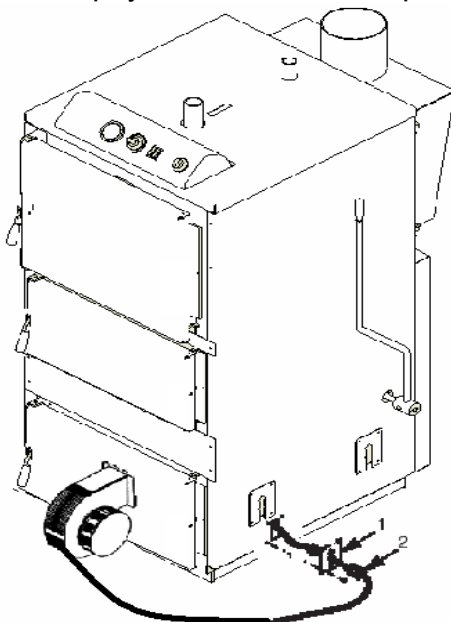


- 1)The fan connection bolts
- 2)The fan box gasket

- The fans which are given with the boilers as below:.

MODEL	FAN CAPACITY
	FLOW RATE - M3/H
LP 20	80
LP 40	155
LP 60	265
LP 80	340

For the assembly of the fan and control panel, the cable channel&plate is used. Please pay attention to door opening side when you connect the cables.

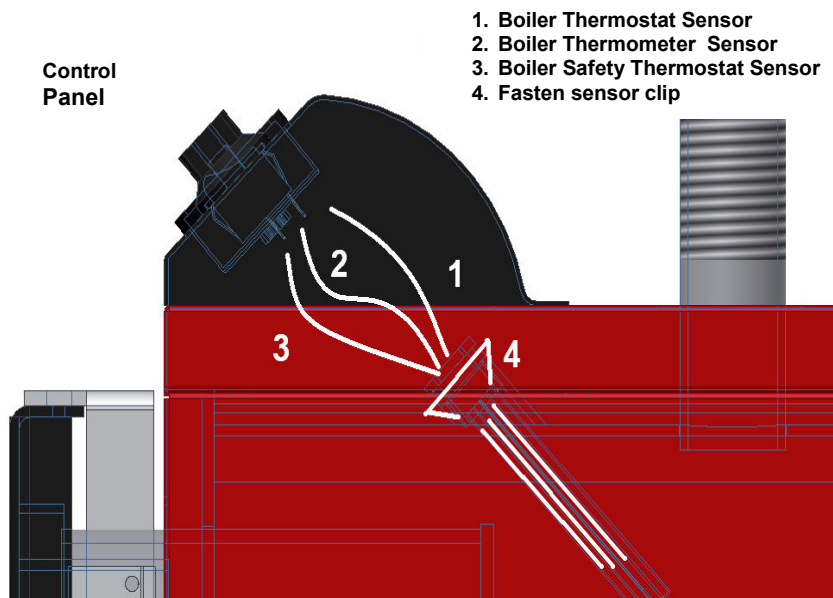


- 1)Cable pass plate
- 2)Cable gland-fan power supply connection cable

The door is opening from the left to right on picture. So, the fan connection is made from the right cable pass plate. In case of the door opening direction from right to left side, the fan connection should be made from the left side cable pass plate.

- **Control panel assembly;** All the sensors on the control panel should be mounted correctly in the sensor beehives that are located backside of the boiler.

- That is important and necessary for operating safely of the boiler
- To be sure if the sensors mounted to correct place and fixed properly.



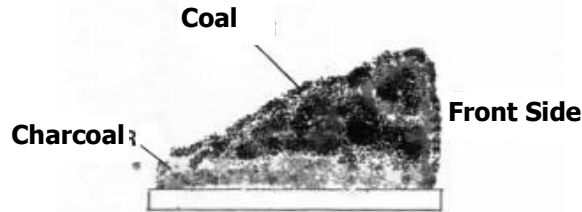
LINYITOMAT PLUS BOILER BURNING INSTRUCTION

- Burning method changes according to size of coal. Coal quality and the characteristics of the burning, affect to the burning method and efficiency of the boiler
- **Normal sized coals (Orange size)**, For first burning, fill some wood and wood part and ignite from lower side. This time the fan should be closed position and the ash cleaning door should be fully open, the other doors should be closed. After igniting, the ash cleaning door should be closed and loading door opened, 1/3 capacity of coal per excreted in the boiler (The average 5-20kg). After coal loading process, the fan can be on position. In this position even the fan off, burning can be started but it's depending to the coal quality.
- You can choose the burning methods at above, according to the coal quality and statement of combustion.
- Loaded 1/3 capacity coal start to burning and begin to charcoals, the ash cleaning door to be opened and skewered and than to be made last loading.
- For the last loading, completely fill the boiler. During the burning, open the the ash cleaning door and skewer to the coal every 2-3 hour. Also open the coal loading door and reverse sunburned coal parts using a rabble. During the coal loading process to be sure if ON/OFF switch at OFF position. If it is not, turn it OFF
- It is important that fan's electrical connections to be done right, otherwise the fan doesn't work correctly and doesn't give enough air into combustion chamber.
- Load the boiler with coal before the coal completely burn. (When the coals become completely charcoals) Operating the boiler in this way is more economic and more efficient.
- In the mornings, the ash cleaning door to be opened and skewered. After starting of the burning can be loaded coal. Before this process, the fan may be made Switch On.
- If coal loading was not enough in the previous evening or in the day coal level gets low, load some wood and after getting enough burning and load the enough coal. Otherwise if the coal loaded on the some sunburned coal, it causes to be flame turned off.
- The boiler should be cleaned at list once a week. Burning efficiency will get higher when used cleaned boiler.

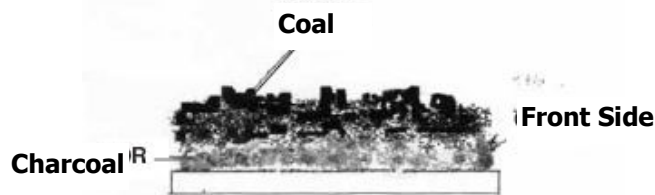
- **Don't use cokes.**

- **Powder coal, and a very small with granular coal**, For the first burning, fill to much wood and wood part and ignite them. (the ash cleaning door should be open).
- When the flame is grove enough, load 5-10 kg coal on the woods. Until coal and wood turn into charcoals, you should wait.

- Wait when woods and coal is completely turn to charcoals, spread the charcoals in the boiler at list 5 cm from back side. Rack up the coal front side more than back side like a ramp. (Amount of the coal is depending on the calorific value of the coal). Water temperature decreases 15-20° C, while this operation. When the coal begun gas free, boiler should be skewered from lover side.



- The boiler shouldn't be loaded If the coal is not turn to completely charcoal.
- Boiler back side must not be closed. Back side air flow definitely should be made. Before leaving the boiler asleep at the nights, the charcoals should be spread in the boiler and covered up on the charcoals completely. All the doors should be closed.



- To start to burn at the mornings, the coal in the boiler should be skewered at the lover side for reveal of the charcoals. If the charcoals are not enough, some wood parts to be added for to being increased charcoal amount. Then boiler to be loaded like a ramp.
- Coal loading period may not be same because of different type coals have different calorific value
- **Don't use cokes.**

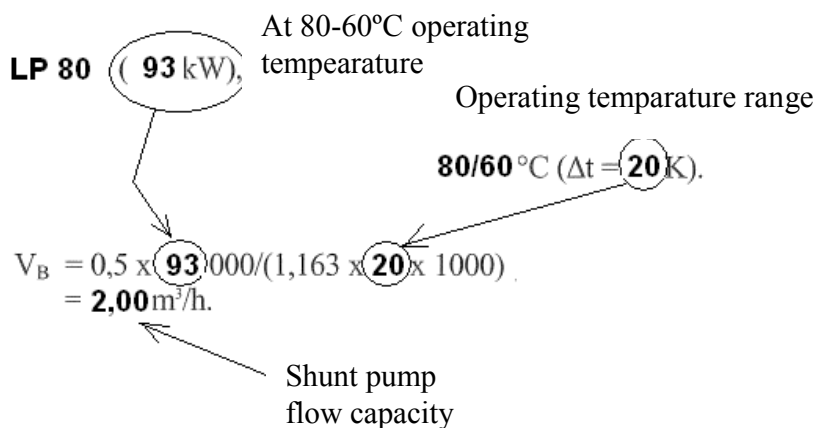
LINYITOMAT PLUS BOILER TECHNICAL INFORMATION

- Boiler flue gas temperature could be change between 180-300°C Under normal conditions. This value may be a little more at first burning. At the minimum power, it is 130-180°C according to room temperature.

	In case of lignite coal usage
Min.Boiler water inlet temperature °C	50 °C
Min. Boiler water outlet temperature °C	60 °C

- For Linyitomat PLUS LP 20- 80 boiler water temperatures was limited like shown at the table.
- It is mandatory that the boiler return and out water temperature have to be limits that are given at the table.
- If the return water temperature low than at the table, an auxiliary pump have to be used.

Calculating method of the auxiliary pump flow capacity For LP 80



- In case circulation pump doesn't run, flame situation should be checked in the boiler. Level of coal should be check if the coal level is enough for increasing of the water temperature. In that case measure must be taken.
- Fuel loading mouth measurements

	<u>A(mm)</u>	<u>B(mm)</u>
LİNYİTOMAT 20 PLUS	330	203
LİNYİTOMAT 40 PLUS	430	210
LİNYİTOMAT 60 PLUS	430	220
LİNYİTOMAT 80 PLUS	530	250

• Capacities:

Model	Kcal/h	kW																		
LP 20	20,000	18-23																		
LP 40	40,000	32-46																		
LP 60	60,000	50-69																		
LP 80	80,000	75-93																		
Power			kw	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95

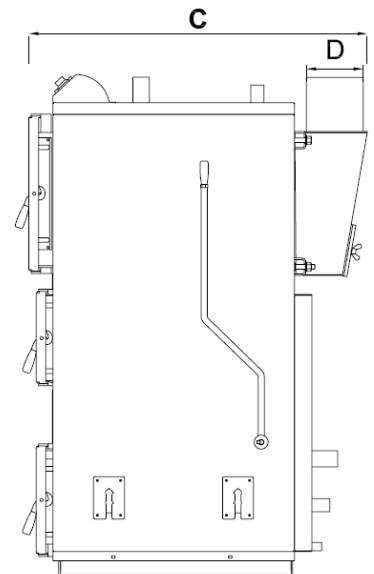
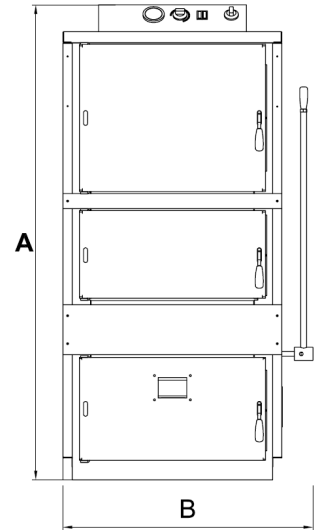
The capacities of the pumps used in Linyitomat plus boiler and the required capacity of open expansion vessels are as follows:

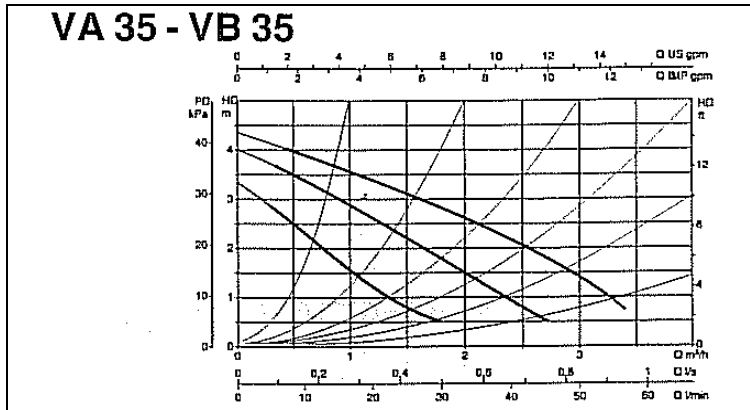
MODEL	Capacity kcal/h	DAB Circulating Pump	Open Expansion Vessel
LİNYİTOMAT PLUS 20	20.000	VA 35/130	50 LT
LİNYİTOMAT PLUS 40	40.000	VA 65/130	100 LT
LİNYİTOMAT PLUS 60	60.000	A 50/180 XM	100 LT
LİNYİTOMAT PLUS 80	80.000	A 56/180 XM	110 LT

PUMP TECHNICAL DETAILS

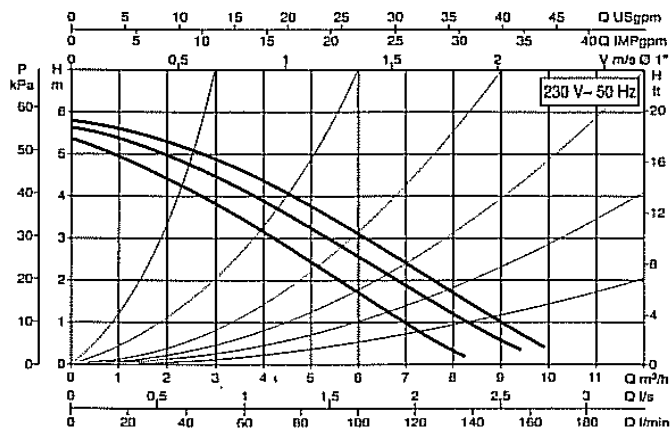
MODEL	STEP	REVOLUTIONS d/dak.	POWER W	CURRENT	CAPASITOR Mf	Installation connection	Electricity connection
VA 35/130	1	1440	44	0,2	2	1 ½" G	1x230 V 50 Hz
	2	1910	60	0,28			
	3	2370	71	0,31			
VA 65/130	1	1050	51	0,24	2,5	1 ½" G	1x230 V 50 Hz
	2	1460	78	0,35			
	3	2100	102	0,45			
A 50/180 XM	1	2297	168	0,80	4	2" G	1x230 V 50 Hz
	2	2651	189	0,92			
	3	2791	184	0,92			
A 56/180 XM	1	1394	224	1,00	-	2" G	1x230 V 50 Hz
	2	2117	294	1,32			
	3	2658	271	1,00			

Capacity kcal/h	20.000	40.000	60.000	80.000
A(Height)(mm)	1095	1295	1343	1500
B(Width)(mm)	590	690	690	790
C(Depth)(mm)	735	880	1110	1260
D Chimney Diameter(mm)	Ø130	Ø150	Ø180	Ø200
Boiler Inlet(Ø)	1"	1 1/4"	1 1/4"	1 1/2"
Boiler Outlet(Ø)	1"	1 1/4"	1 1/4"	1 1/2"
Expansion Inlet(Ø)	1"	1"	1"	1"
Expansion Outlet(Ø)	1"	1"	1"	1"
Filling and Draining(Ø)	1/2"	1/2"	1/2"	1/2"
Boiler Water Capacity (Lt)	70	107	162	200
Expansion Vessel Water Volume (Lt)	50	100	100	110
Circulating Pump(DAB)	VA 35/130	VA 65/130	A 50/180 XM	A 56/180 XM
Weight(Kg)	255	377	492	641
Max.Operating Pressure (Bar)	3	3	3	3
Test Pressure (Bar)	4,5	4,5	4,5	4,5
Necessary Draught(mbar)				
Flue Gas Temperature at nominal heat output(°C)	176,5	196,6	170	170
Flue gas mass flow at nominal heat output(kg/s)	0,02641	0,03307	0,04188	0,08433
Flue gas mass flow at minimum heat output(kg/s)				
Mean content of CO at 10 O ₂ (%)	0,585	0,642	0,734	0,764
Water side resistance(mbar)				
Nominal heat output for coal(kW)	22,5	46,15	69,22	93,11
Heat output range for coal(kW)	18-23	32-46	50-69	75-93
Boiler efficiency class	3	3	3	3
Boiler efficiency (%)	75,72	78,86	78,21	78,87
Combustion period at nominal heat output for coal(h)	4	4	4	4
Minimum water inlet/outlet temperature(°C)	50/60	50/60	50/60	50/60
Setting range for the temperature controller(°C)	60-85	60-85	60-85	60-85
Rated input power(W)	156	202	364	451
Rated voltage(V)	230	230	230	230
Rated frequency(Hz)	50	50	50	50

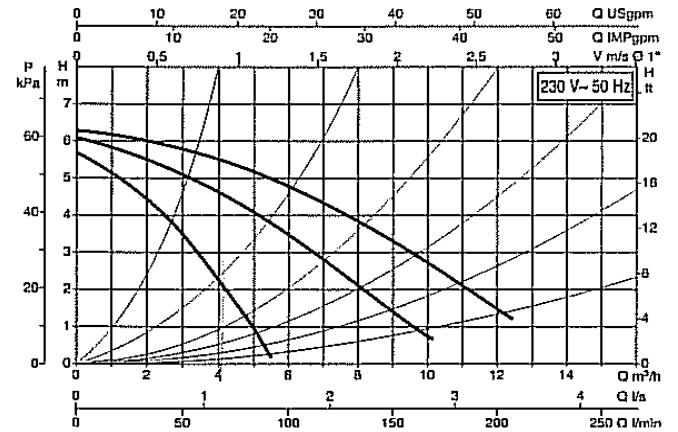




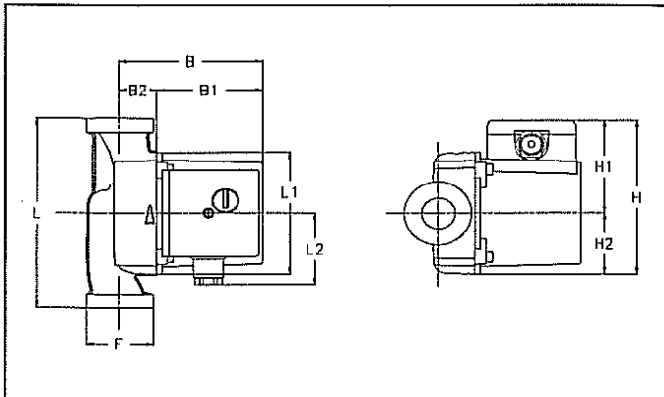
A 50/180 XM



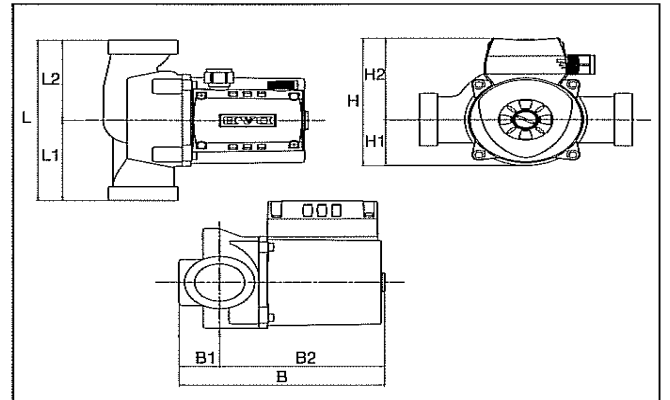
A 56/180 XM



VA 25 - 35 - 55 - 65

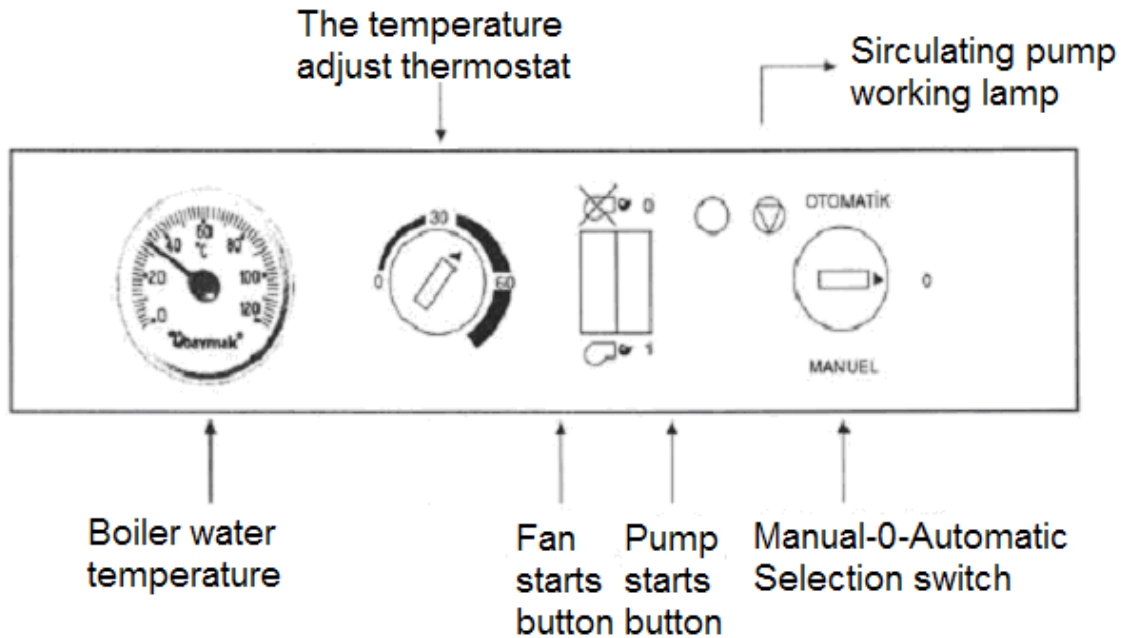


A 50-56-80/...M-T



MODEL	L	L1	L2	B	B1	B2	H	H1	H2	F	WEIGHT
VA 35/130	130	98	60	104	78	26	124	75	49	1 1/2" G	2,65KG
VA 65/130	130	98	60	104	78	26	124	75	49	1 1/2" G	2,65KG
A 50/180 XM	180	90	90	173	34	139	143	52	92	2" G	4,8
A 56/180 XM	180	90	90	173	34	139	143	52	92	2" G	4,8

FUNCTIONS OF THE CONTROL PANEL



The boiler can be operated whether automatically within electronic thermostat control or manually with user control.

1.)For automatic control;

Switch the manuel-0-Otomatik button to otomatik position.

The electronic thermostat control is enabled in this position. It controls the fan and pump according to the water temperature. At the start up, the electronic thermostat control make the fan works. When the water temperature is 40°C, the pump starts working. When the water temperature starts to decreasing, it stops the pump at 40°C and stops the fan at 30°C.

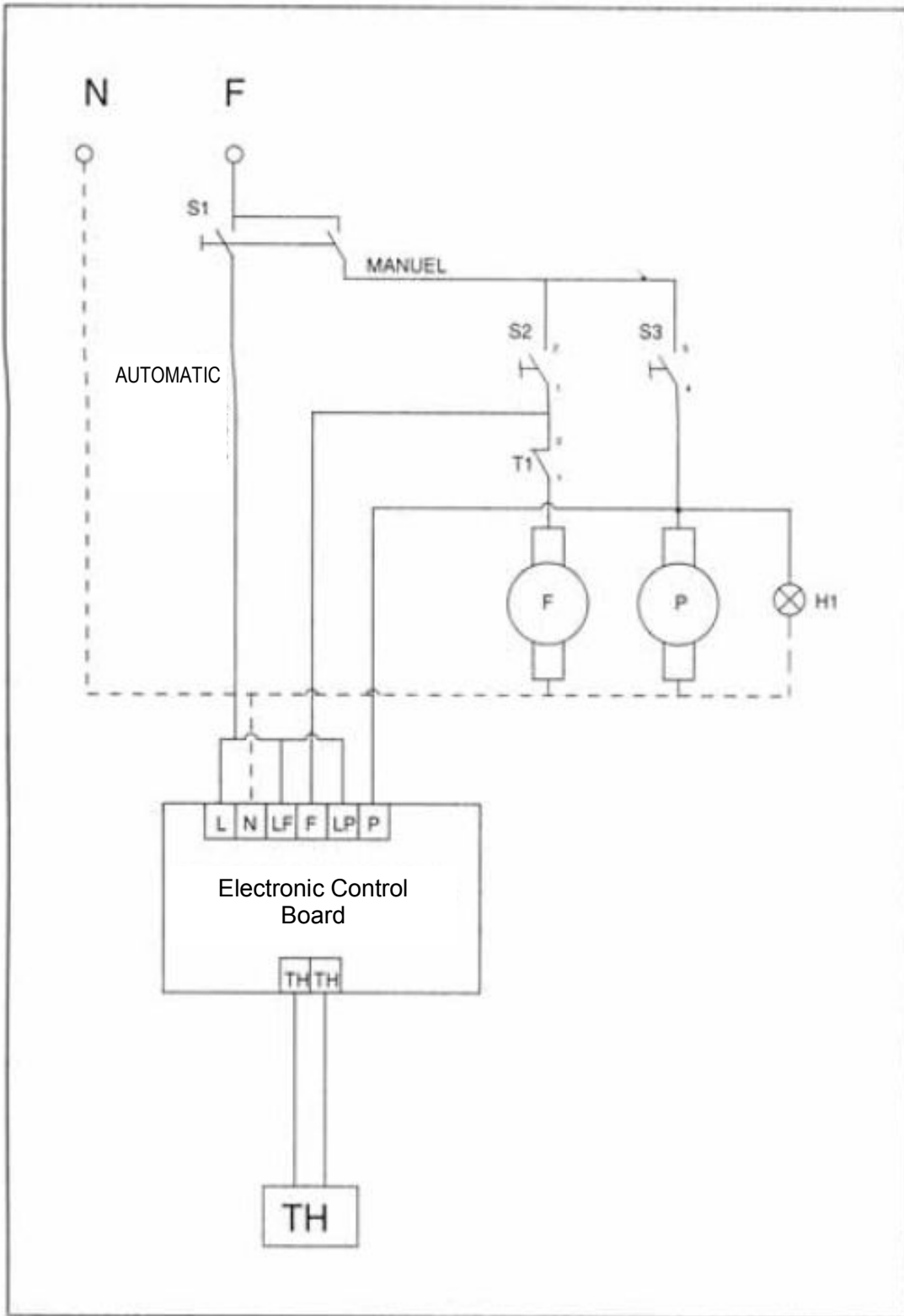


IMPORTANT: In automatic working position, minimum one of the pump button or the fan button must be closed(0) to have a good working.

2.)For working manual operating;

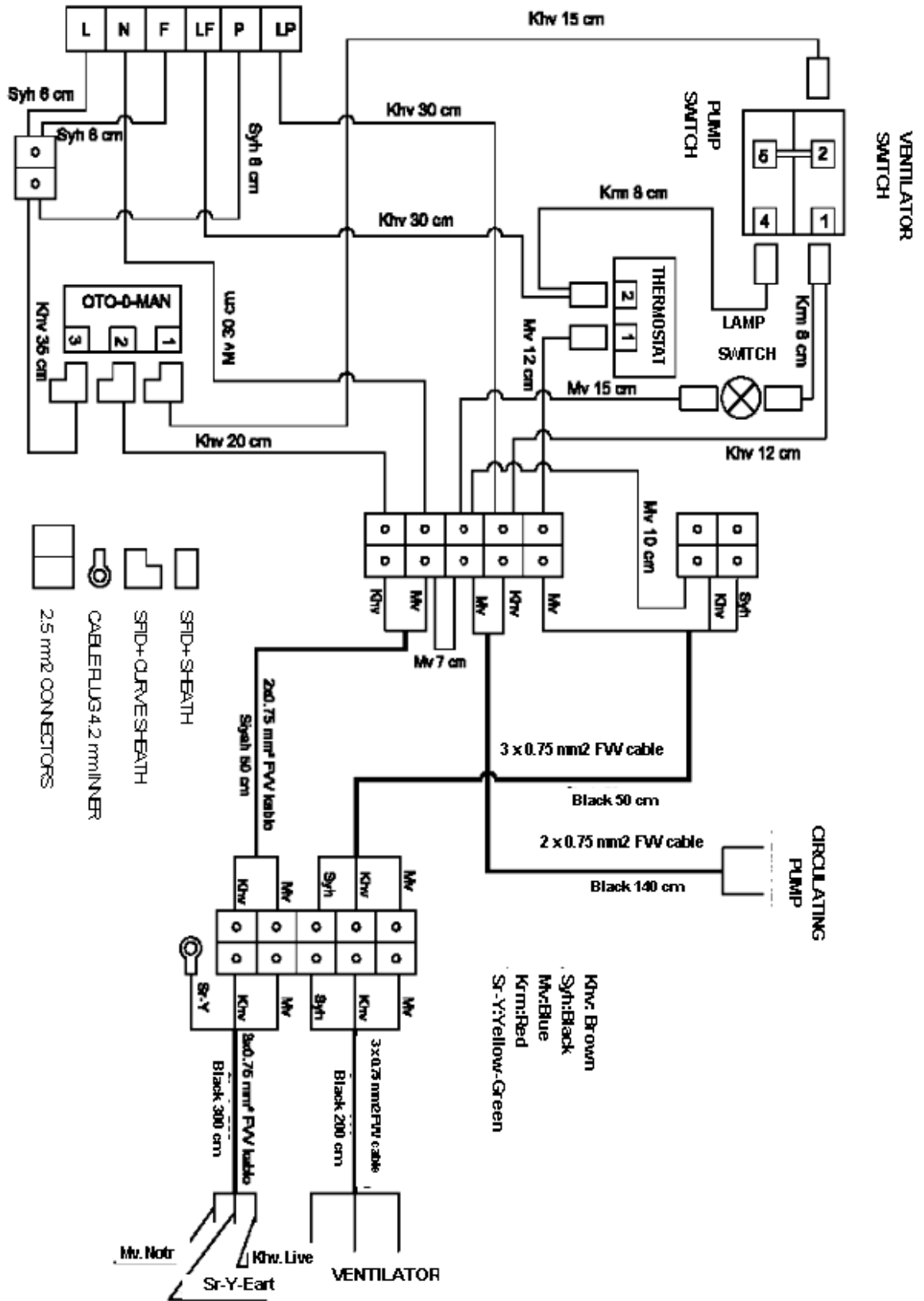
Switch the manuel-0-Otomatik button to manuel position. In this position, the fan and the pump are controlled theirselves buttons.

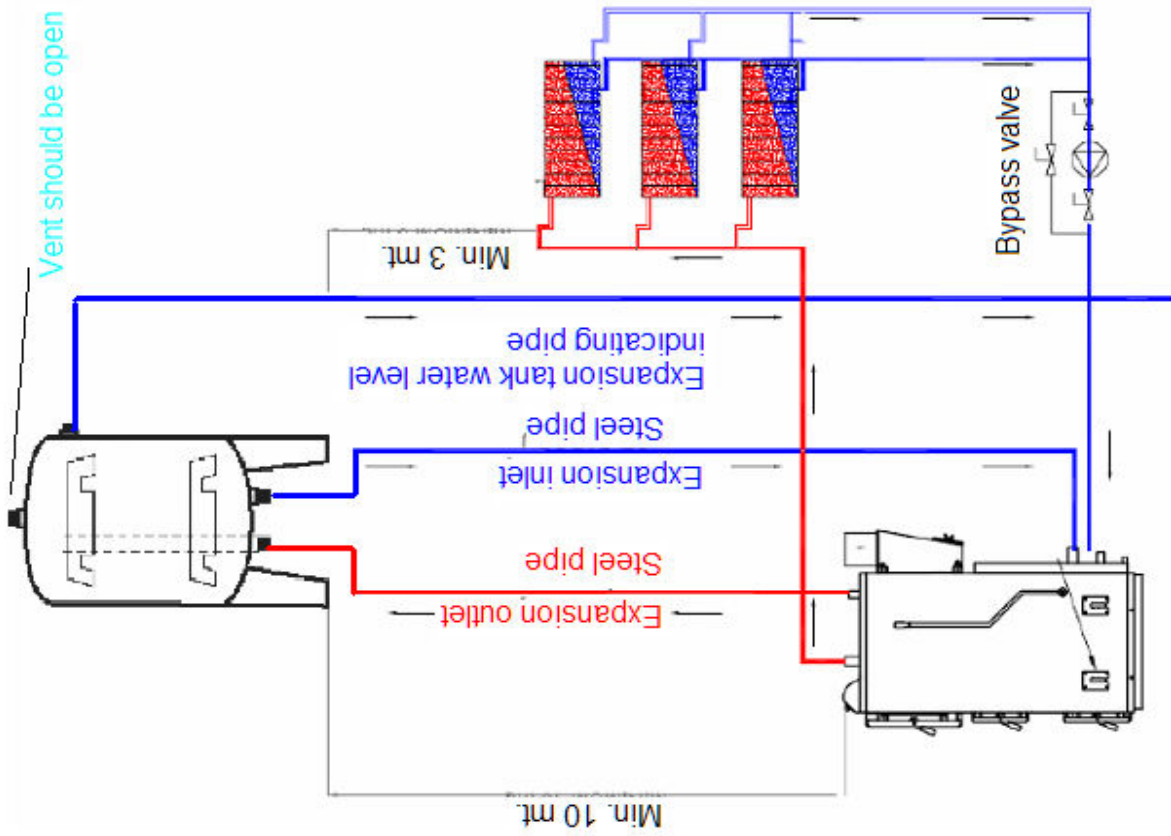
In both position(manual or automatic), the temperature adjustment is maked with the adjust thermostat. If the water temperature is over the set temperature, the adjust thermostat stops the fan.



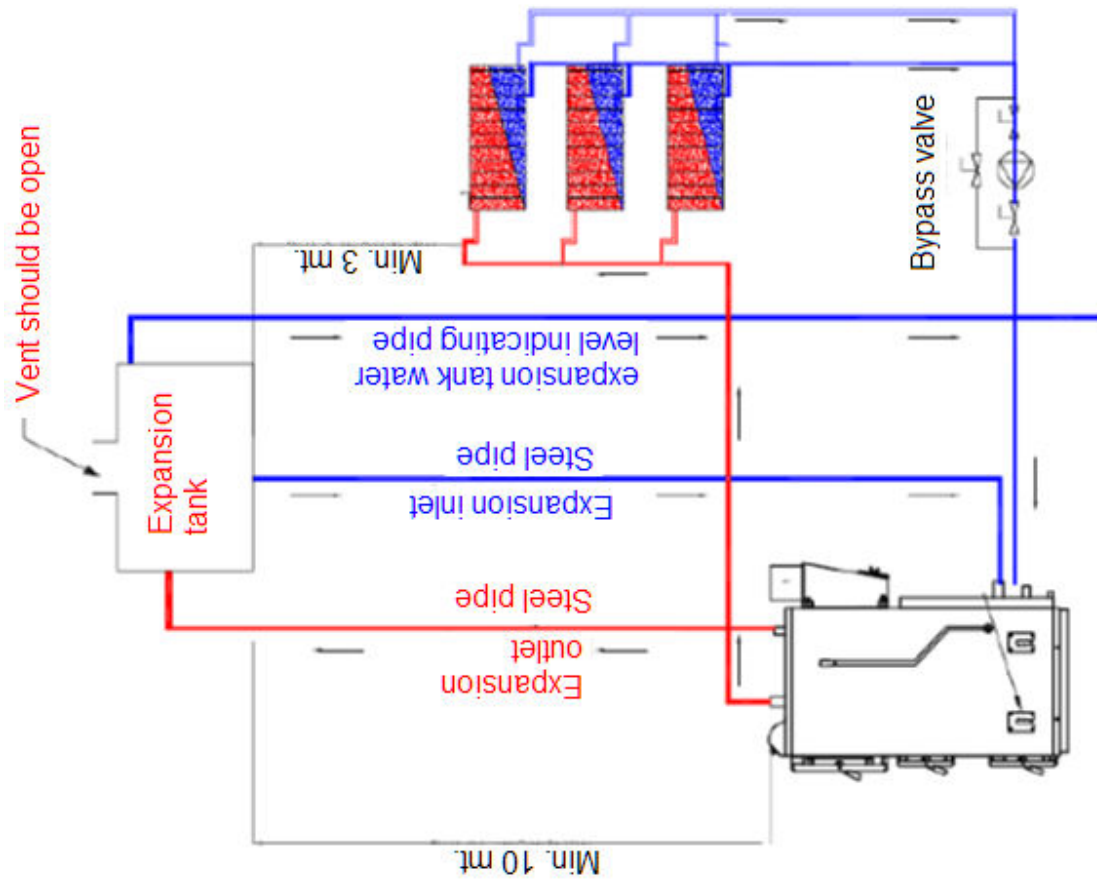
Manuel-Automatic Control

Electricity connection circuit scheme



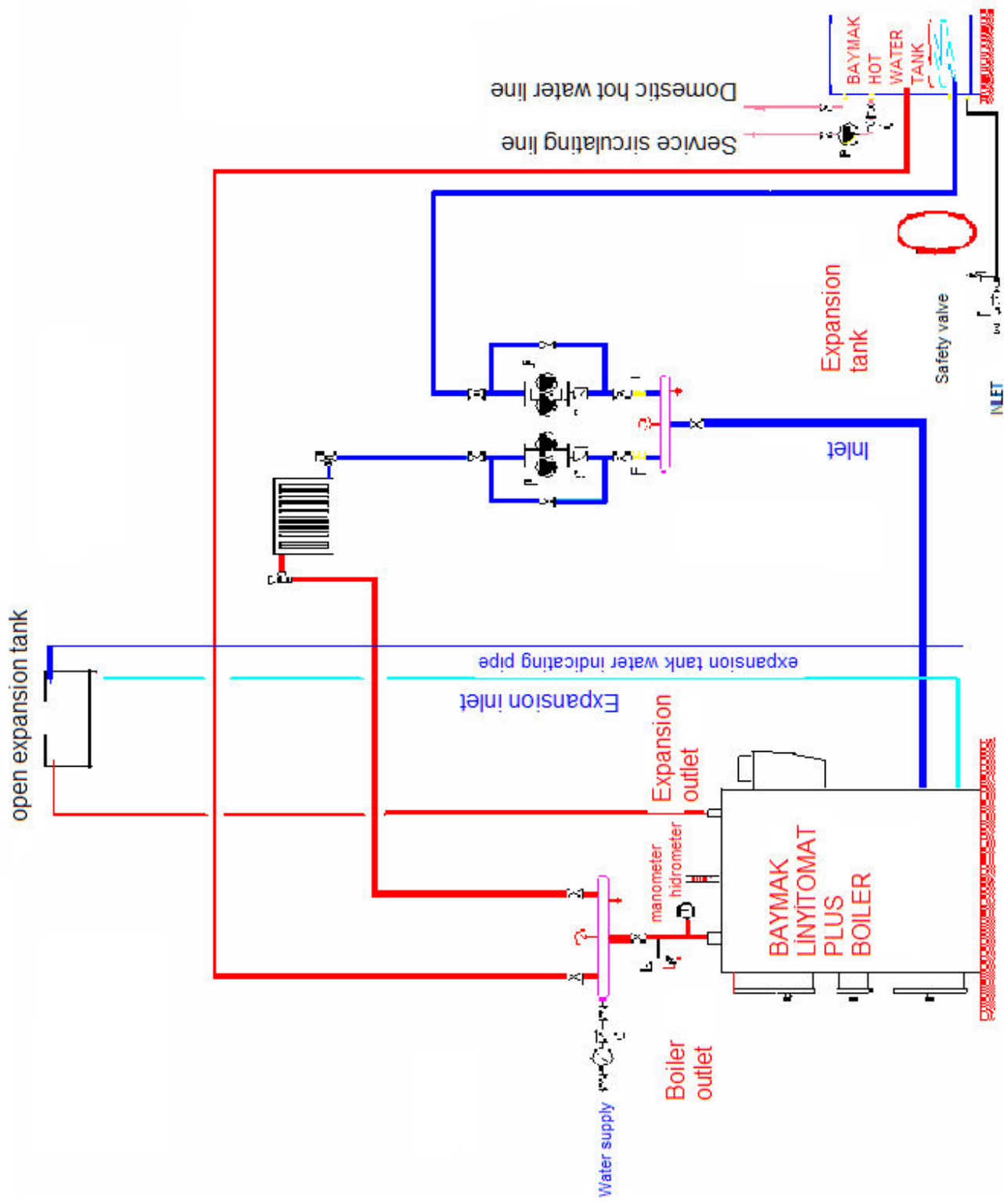


Boiler installation scheme



Boiler installation scheme

Boiler installation scheme with hot water tank



- P: Pump
- SP: Shunt Pump
- C: Check Valve
- F: Filter

- M: Manometer
- E: Safety Valve
- KV: Mixture Valve

Note: if the water supply pressure is 6,5 or over, the water pressure reducing regulator should be used.

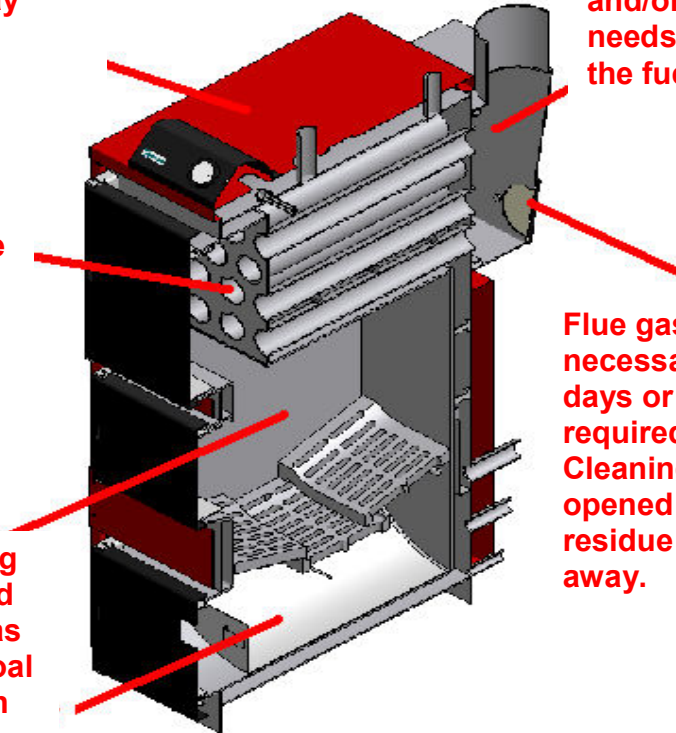
OPERATING AND MAINTENANCE INSTRUCTIONS

- Recommended that the annual equipment service should be made by Baymak official services.
- Loading coal of the boiler should be made from middle door. The ash cleaning door only should be used for skewering to coal and getting out of the try. If lover cover is open while the middle cover opened for coal loading process, unconditionally lover cover must be closed. If you want the ash cleaning door is open after loading process finishes, it may open. But, while the ash cleaning door open, ash or particles of charcoals which be occurred as a result of burning process, you must be sure if there isn't any flammable or burning things at the front side of the boiler.
- If there is any restricting at the chimney (clack), it should be certainly stayed open position at first burning, the chimney should be restricted using the clack after getting some enough flame. Otherwise, upper side of the coal will be black and won't be burnt as a result of bad combustion
- Cleaning of the boiler make your boiler efficiently operate.
- Clearing of the boiler is very easy to be done using the equipment supplied with the boiler. Clearing process of the boiler depends on fuel quality and ash rate of it. But, the cleaning of the boiler at least should be one time in a week that should be made efficiently operates it.
- Necessary air for combustion is given into the boiler with the fan. An adjustable thermostat command to the fan. If the fan is out of order, please make an application to the Baymak authorized service. Circulation pump and boiler should be serviced end of the every winter season
- There is a lot of coal type that loading of the boiler, so; next loading time could be different. But generally the next loading period (after first loading) is 4-4.5 hour for coal type flues, 2-2,5 hour for wood type fuel. Amount of the fuel ought to be changed of the calorific value of the fuels.
- To calculating amount of the coal for 1 hour, boiler input power ought to be divided to calorific value of the coal and efficiency of the boiler.

The cover and control panel cleaning to be done at every 15 day and/or and when it required was done

Smoke pipes and temperature transition surface cleaning to be done once a week or more.

Inner boiler cleaning to be done daily and when it required was done. Ashes and coal remnant to be taken away.



Fully flue gas box cleaning to be done beginning and end of the winter season and/or to be done if it needs to be, depends on the fuel type.

Flue gas box cleaning necessary once a 15 days or and when it required was done. Cleaning door has to be opened and all coal residue to be taken away.

- To cleaning of the combustion chamber in the boiler room, the smoke pipes cleaning door(top door) should be opened and the turbulators taken out holding from the tubes. After that pipes to be cleaned using brush and brush cover, the dirt, coal remand and ash should be cleaned from flue gas box side. After that all process should be repeated, cleaning lid and turbulator should be assembled and the top door should be closed.
- Use some soft cleaning material in order to not cause a damage on the boiler cover surface.
- Cleaning process of the warm surface and control panel should be made by only Baymak authorized services.

Trouble Shutting

Case

There is some water leak on the boiler

Circulation pump doesn't work.

The fan doesn't work.

Check if there is any electrical power

If Electrical power was gone

Action

Apply to a Baymak authorized service.

Check the electrical connection. Check the circulation switch. If doesn't work, please don't load the fuel and call the Baymak authorized service.

Check the electrical connection. Check the circulation switch. If it doesn't work, don't load the fuel and call the Baymak authorized service.

If there is any damaged cable shut of the electrical power. Discharge the boiler. To have made electrical connection by authorized service.

Open the by-pass valve immediately. Close all the doors and chimney clamp of the boiler.

To be sure if the return and out security lines are open, expansion tank is not empty.

If the boiler water temperature doesn't decrease despite of the opening by-pass valve, pour some sand and ash over the coal.

Don't fill cold water to the boiler while it is working.

Product Warranty Conditions related to the Consumer Attention Issues

Total product warranty was given by Baymak A.Ş. is not include if the faults and damage occur operating the boiler in abnormal conditions. According to this issue please look at following clauses.

- 1- Please to have approved to the warranty certificates by the sales office where you bought the boiler.
- 2- If the warranty certificate wasn't approved, there are some scrape, erasion on it or if original serial number was erased and destroyed, the product will be out of warranty in these conditions.
- 3- The product should be used as defined as at the user manual.
- 4- The fault was accrued due to not appropriate usage that product will be out of warranty.
- 5- The occurred damage during the transport is out of warranty, after delivering date of the product to the user.
- 6- There must not be any intervention outside of the authorized service staff maintenance and repairing or another reason.
- 7- This kind of fault is out of warranty If the fault accrued from user didn't make the necessary periodic maintenance and control.
- 8- The responsibility of delivering of the warranty certificate to user belonging to who sold the goods to user whose are seller, supplier, agency or representative.
- 9- Faulty installation, faulty pipe connections, faulty selection of capacity, more than 3 Bar installation pressure, inadequate chimney systems, low or high voltage, safety thermostat, thermometer, Faulty central heating system, outer physical and chemical agents, transport and storage conditions will be malfunction of the device, using not appropriate fuel burning make the product out of warranty.
- 10- The repair or changes are out of warranty what were not be done by Authorized service team.
- 11- If the installation pressure more than working pressure and there are some leakage of the system in that case responsibility belongs to user
- 12- Cleaning process of the coal remnant and damaged material are out of warranty that was effected from the fuel
- 13- If the boiler and installation frozen, boiler will be out of warranty.

The boiler water and/or return water temperature is low from 50C condensing may be occured and it causes failure and damage, Using over 20, °F toughness on calcareous water and it causes failure and damage. Al of them will be got the product out of warranty.