ON Series Cast Iron Boiler

Assembly Manual

Cast Iron Body Assembly Details
Boiler Jacket Assembly Details

REV.01 / 2011-ON

ON SERIES CAST IRON BOILERS INSTALLATION SPECIFICATIONS :

This installation manual is prepared for licensed and certified installation and service technicians in domestic and international markets and for perfect cast iron boiler installation.

It is obvious that technicians must provide safety and security conditions before and during installation process. Technicians must pay attention while they are carrying heavy cast iron boiler sections before and during assembly and installation process for preventing health injuries.

Boiler room and boiler platform must be controlled before starting to installation process.If the conditions are inconvenient do not start the installation process until all conditions are convenient.

Please read,study and understand this manual before starting the installation process.

Installation components and equipments are provided with the boilers. Assembly silicone, silicone cartridge, brush, nipple paint , blakite , gloves and dust mask is provided with assembling equipments.

Do not damage boiler body and cabins painting during and after installation process and during burner and system - chimney connection process and warn other technicians for this matter.

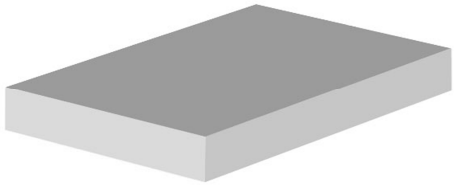
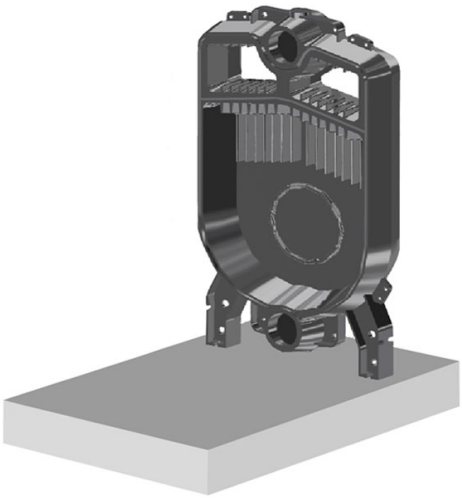
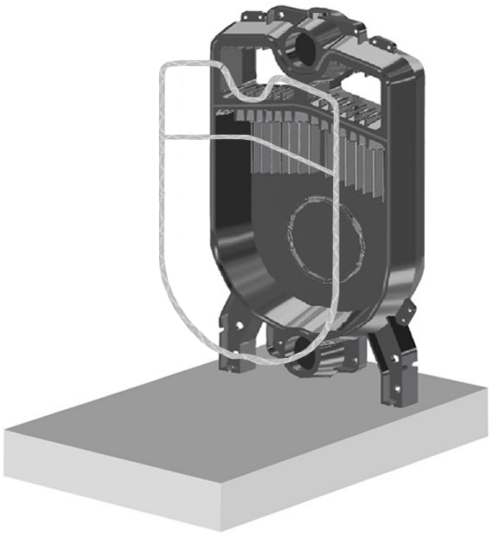
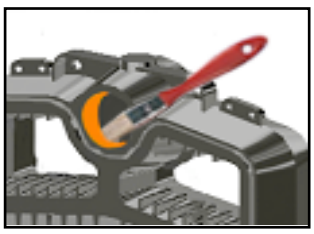
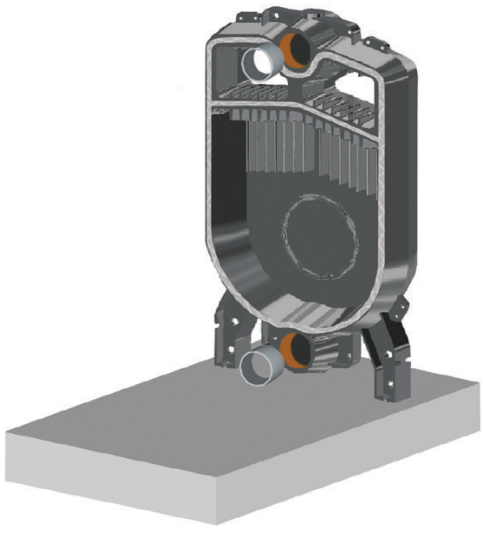
Please ask for help from producer or sales company technical departments if any questions occur in your mind during installation process.

Minimum 2 persons are required for ON series cast iron boilers installation.

Do not forget that correctly installed boiler will work properly for long time.

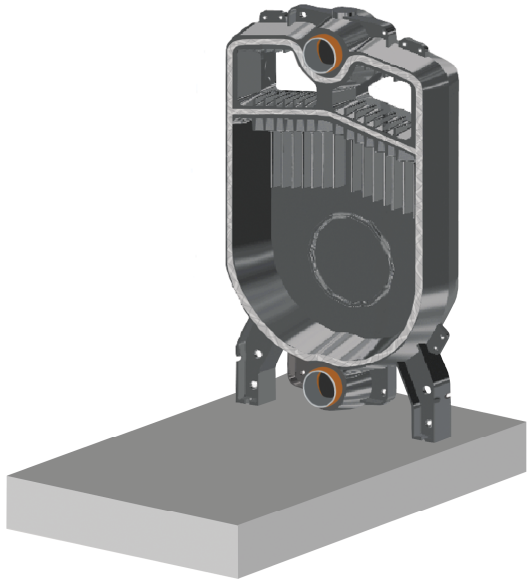
We thank you for reading these warnings and suggestions and wish you a successfull installation.

RIMA HEATING SYSTEMS

Boiler platform must be prepared according to the information in technical boiler manual .	
Back section must be installed on boiler platform.	
Back section smoke leakage proof channels must be cleared with a brush or with a piece of clothe and silicone must be filled in it afterwards. Prepared smoke leakproof isolation rope must be sticked in that channel like in the picture with the help of silicone which is already filled.	
Back section nipple holes must be cleaned and painted with the orange paint for preventing leakage. 	

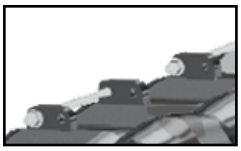
Afterwards outer surfaces of the nipples must be cleaned and installed.

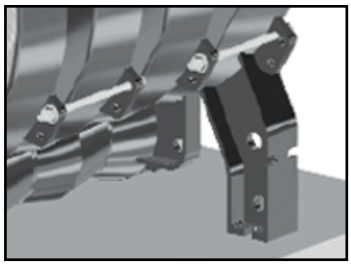
Outer surfaces of nipples must be painted with orange paint with brush.

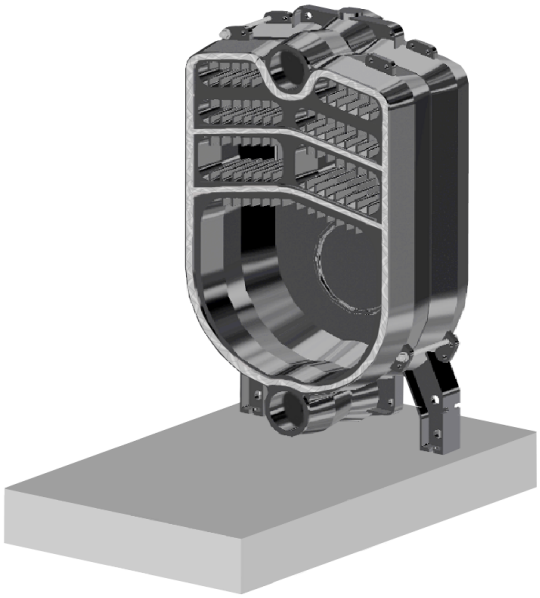


Afterwards boiler middle section nipple holes must be cleaned, and installed according to the positions of back sections nipples.

Assembling rods (M10 x 200) must be connected to the assembling sockets on back and middle sections in cross way and nuts must be screwed with M10 tool in cross way and by taking empty spaces. With this way sections get closer.



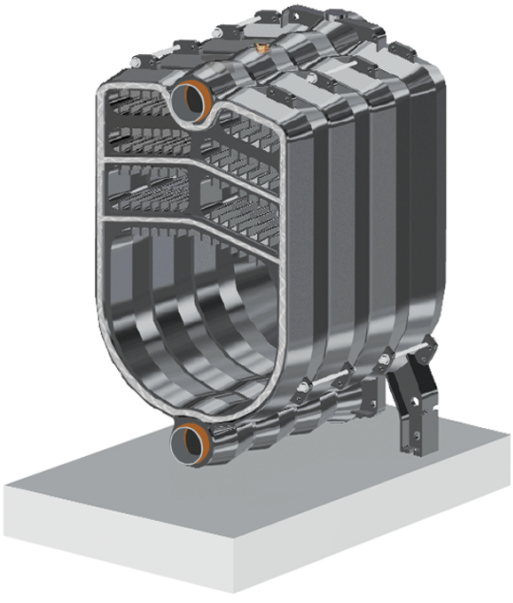




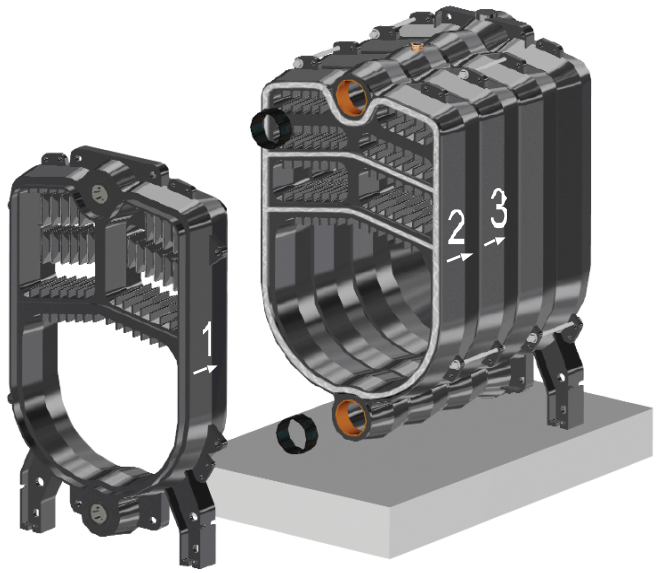
According to the boiler type (section quantity) same process must be applied for all middle sections and middle section assembly finishes.

***** The middle section which has the thermostat socket must be assemled to the 3rd raw from front side. ' 3 ' is written on this section for mentioning the row.**

' 1 ' is written on front section ' 2 ' is written on first middle section and ' 3 ' is written on second middle section for easier assembling.

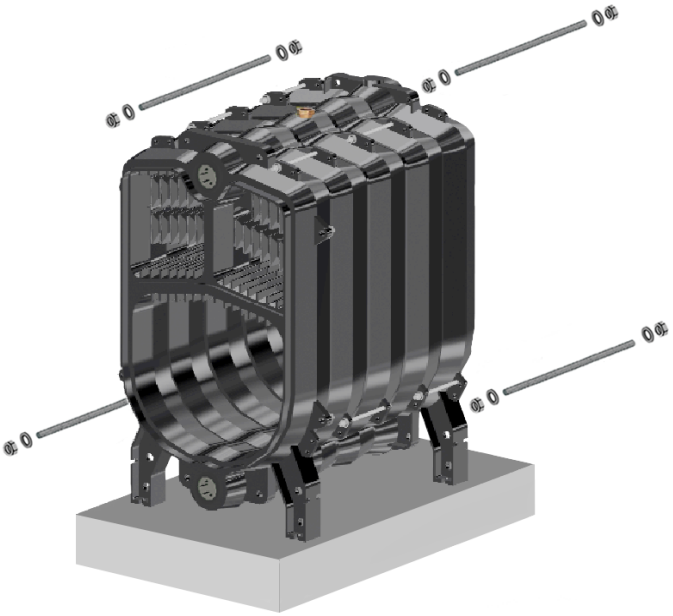


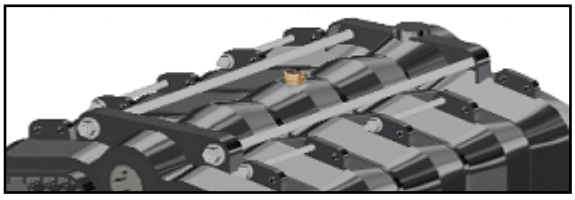
After finishing middle section assemblies front section must be assembled in the same way.

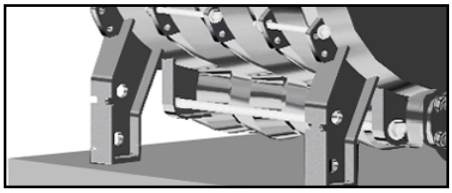


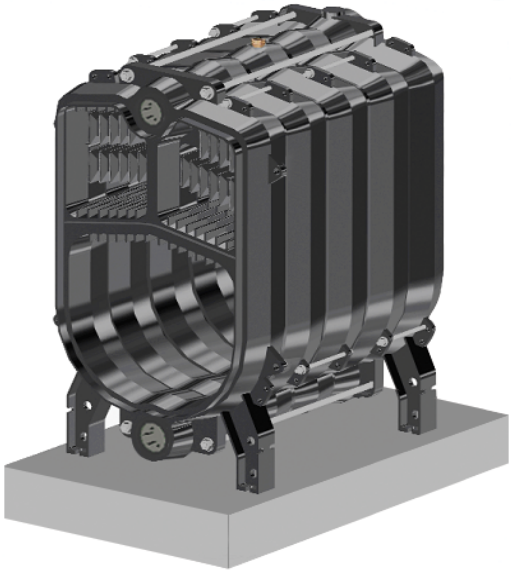
Section assembly finishes after assembling of the front section.
Boiler stabilizing rods (M16) must be installed to the sockets and nuts must be screwed in cross row until the sections get closed to each other properly.

For torque control: 7 kgm









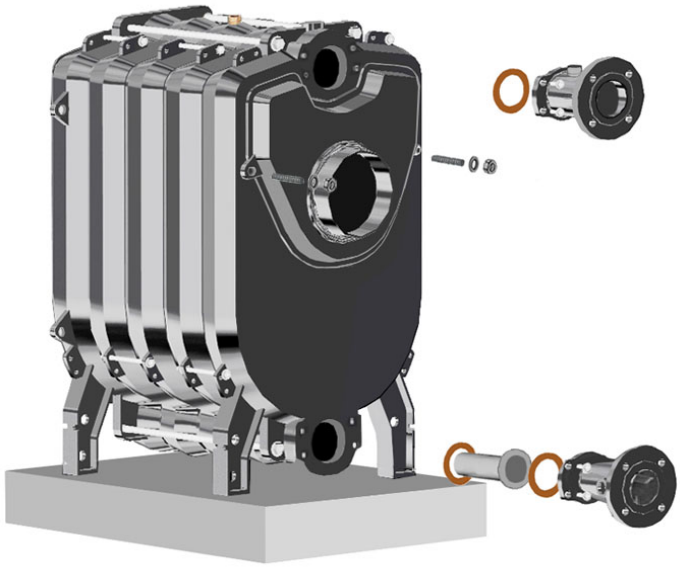
Chimney connections must be done according to the information below. 2 pieces of M10 x 50 rods, washers and nuts must be used in connection.

Boiler Type	ON - 205	ON - 206	ON - 207	ON - 208
Chimney Dimension	180	180	180	250

Boiler Type	ON - 209	ON - 210	ON - 211
Chimney Dimension	250	250	250

Assembly of the flanges :

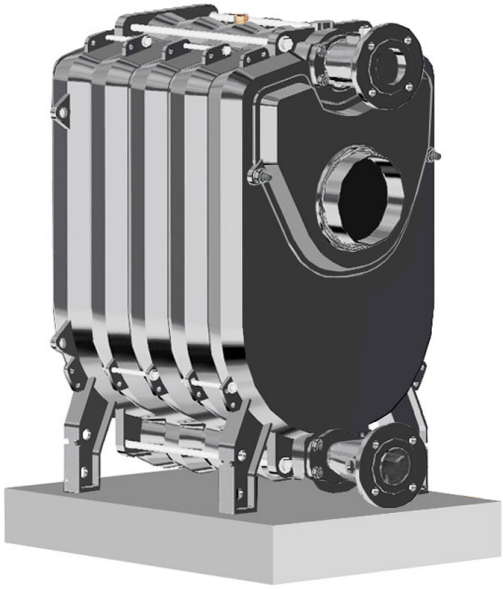
Silicon must be pasted on flange gasket of the flat flange and and it must be connected to flange connection surface of the back section. Afterwards flange assembling rods must be connected on to flat flange. With these rods flat flange must be connected to boiler output (top side) with screwing the nuts. Thermix flange must be connected to the bottom of the back section (return) as seen in the figure.



After flange assembly boiler body must be filled with water and hydrauliccaly tested for leakage with under 9 bars pressure for 10 minutes.

All section borders must be painted with blakite from outside of the boiler.

Section connection areas must be controlled for smoke leakage. This control can be made with a mobile light or floodlight projector. Boiler inside must be lighted with the light and boiler must be checked from outside and blakite must be applied if there are points that reflect the light to outside.

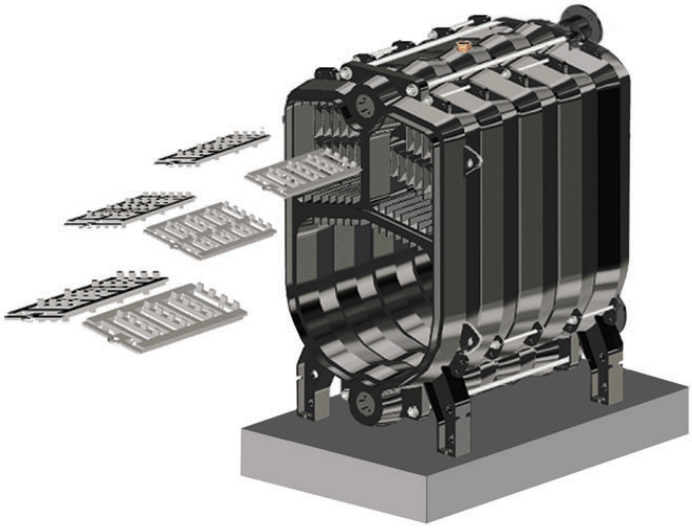


Installation of flame delayer turbulators :

BOILER TYPE		ON - 205	ON - 206	ON - 207	ON - 208
2.PASSES		2 Big	2 Big	2 Big	2 Big
3.PASSES	BOTTOM	2 Mid.	2 Mid.	2 Mid.	2 Mid.
	TOP	2 Small	2 Small	2 Small	2 Small

BOILER TYPE		ON - 210	ON - 211
2.PASSES		2 Big	2 Big
3.PASSES	BOTTOM	2 Mid.	2 Mid.
	TOP	2 Small	2 Small

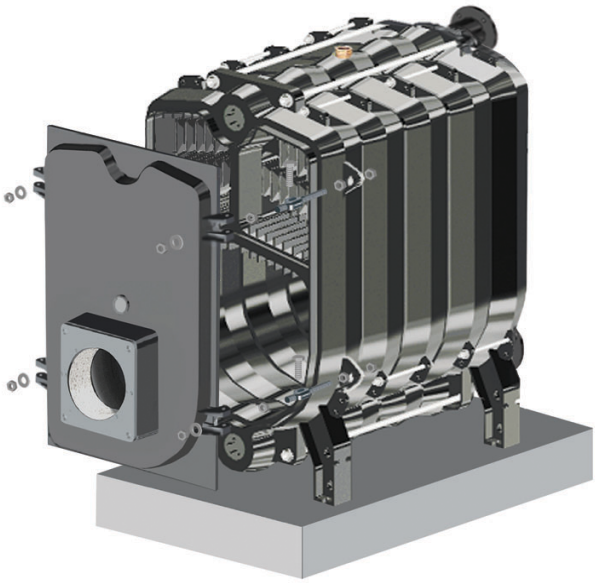
Turbulators front edges must not pass the middle point of the front section while positioning.
Turbulator quantities per boilers must be as they are mentioned in the table.



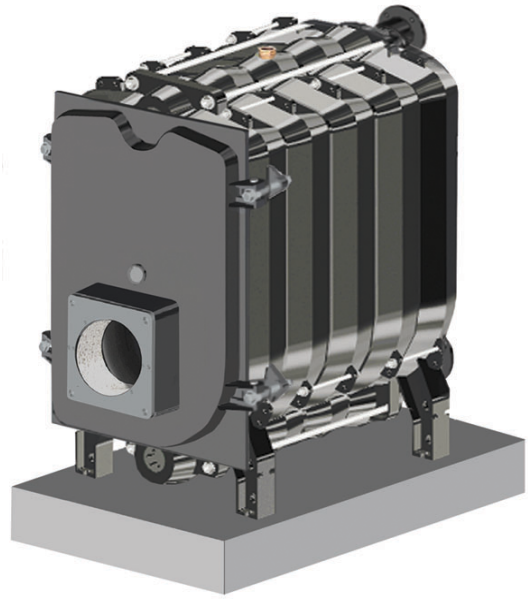
Boiler burner door must be assembled after the installation of turbulators.

First,4 pieces of burner door hinge rods must be connected to sockets on front section. Than burner door must be connected to these hinge rods.By connecting these rods and hinges with nuts and washers, burner door is installed in order until isolation rope presses on the feeders of front section.

2 pieces of M10 x 75 bolts must be connected to the top of the hinges according to desired opening side of the burner door.

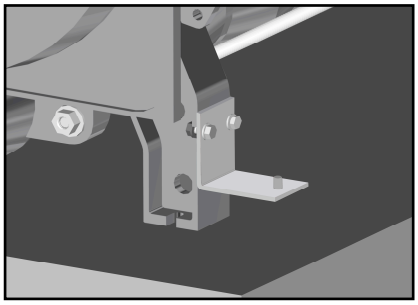


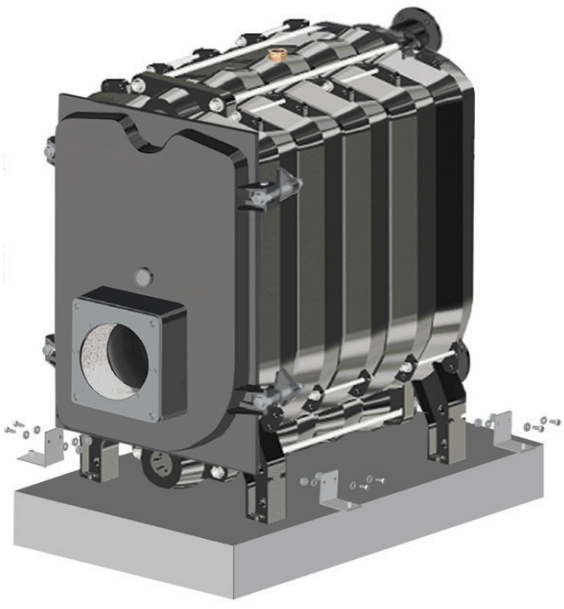
***** Burner door must be lifted lightly while opening and closing the burner door (ears of the door must be passed over the height of the hinges)**



Cabin sheets installation starts after completing the body assembly process.

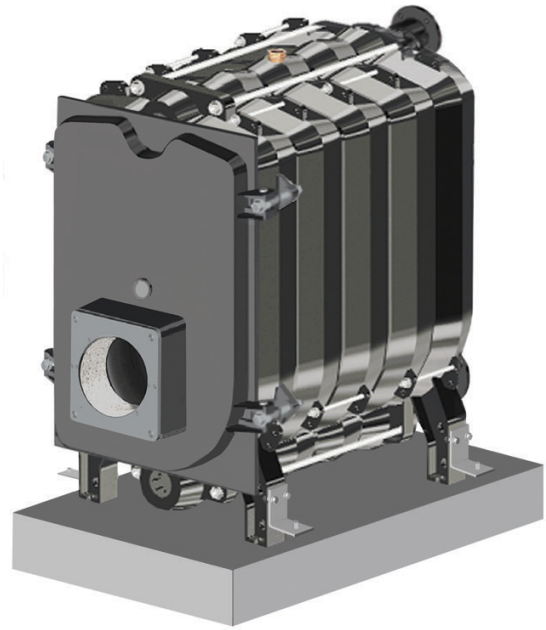
First step on cabin sheet assembly ; cabin sheet assembly legs must be connected to front and back legs of the boiler.



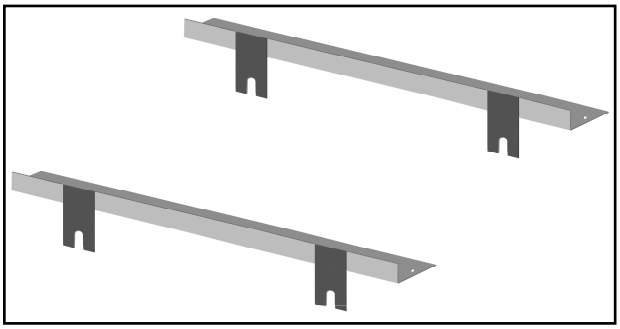


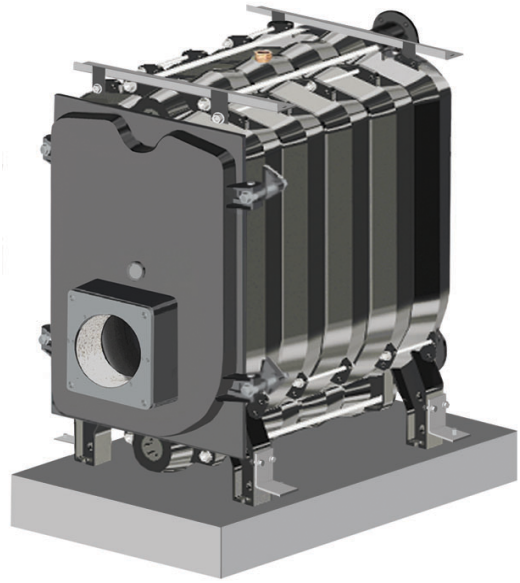
Cabin sheet assembly legs must be connected to the cabin assembly holes on the legs of the boiler with M8 x 25 bolts as shown in the picture (2 pcs for each assembly leg). Afterwards bolts must be screwed from bottom side as they are connected with nuts and washers.

After connecting 4 pcs of boiler cabin sheet legs boiler cabin top connection ears must be connected.



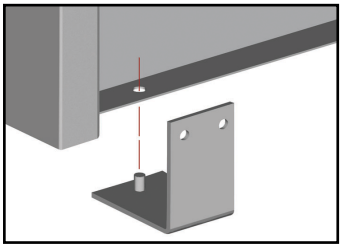
2 pcs of boiler cabin ear must be connected to the section assembly holes which are on the front and the back section as seen in the picture. Section assembly rods must be used in this process.Rods can be taken of from other sections and can be used in connection of empty ones.

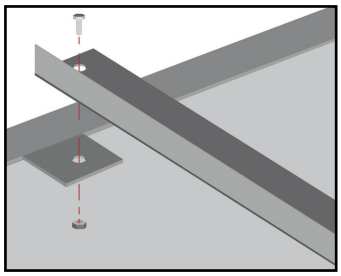




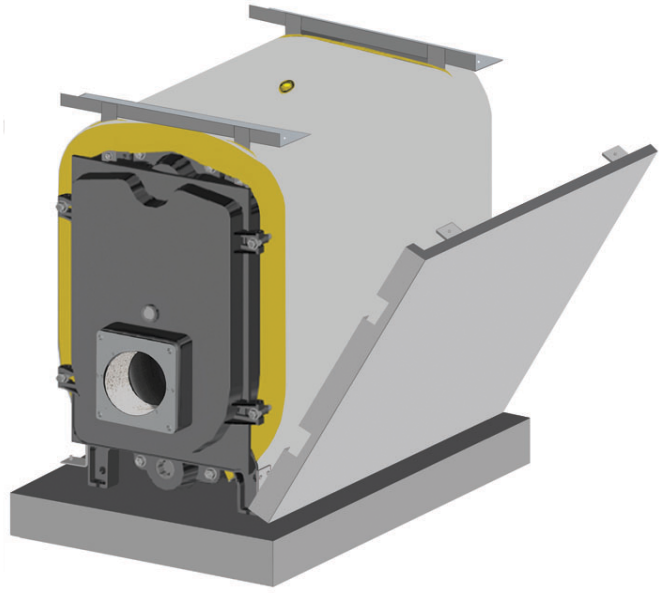
After the installation of the cabin sheet assembly legs and ears , body insulation must be installed on the cast iron body.

Body insulation must be cut for opening thermostat socket.

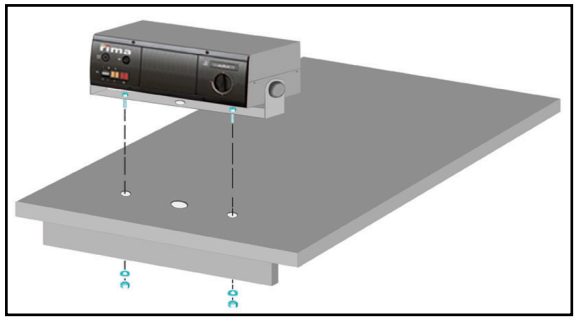


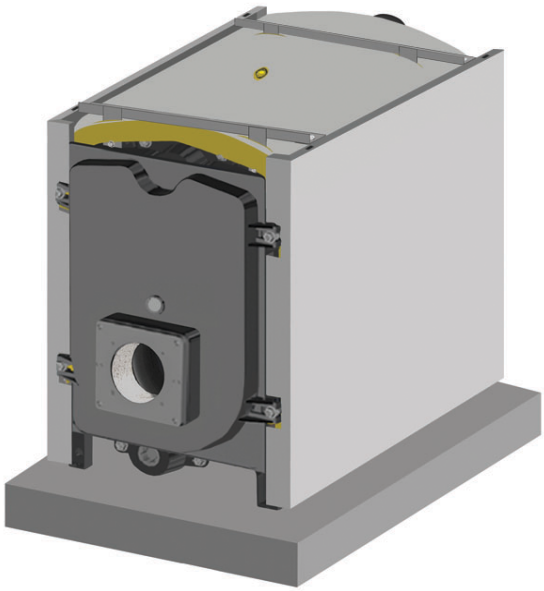


First the holes on the side cabin sheets must be connected to the pins on the assembly legs and than must be connected to cabin sheet assembly ears with M8 x 20 bolts as seen in the picture.

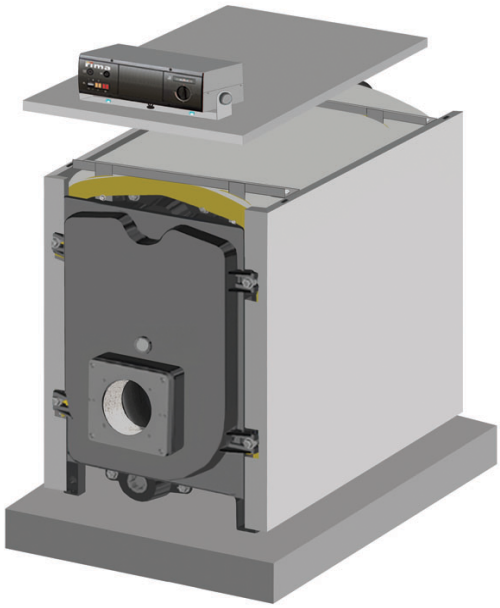


After the installation of the side cabin sheets, boiler control panel must be connected to panel feet with 2 pcs M6 x 15 bolt as shown in figure and must be passed through the holes in upper cabin sheet. Then it must be stabilized by screwing it with nuts and screws from bottom.

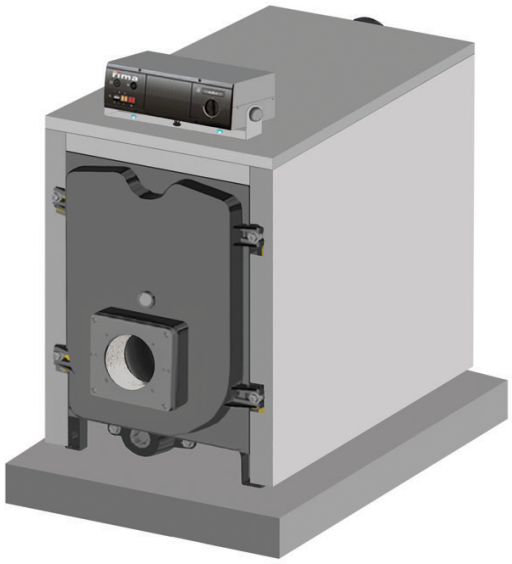




Control panel sensors must be passed through the holes on the top cabin sheet and thermostat socket must be filled with oil . Than sensors edges must be installed inside the socket . Segment must be plugged for preventing the sensor edges to move out.



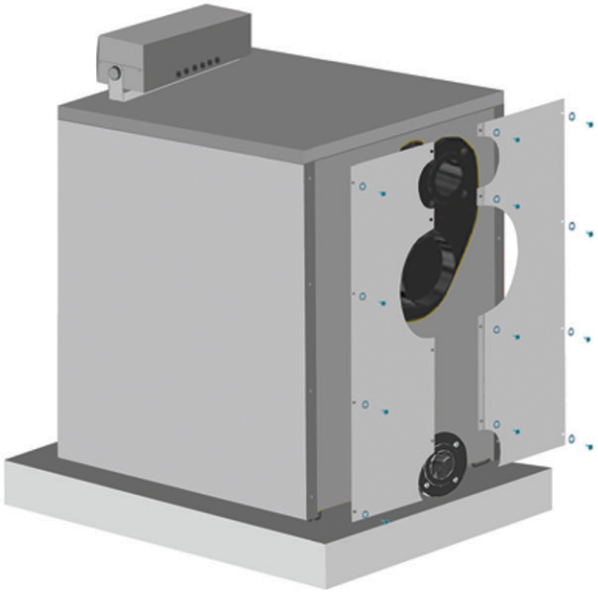
Top cover sheet must be stabilized by connecting 4 pins on the top cover to the pin sockets in side cabin sheets.



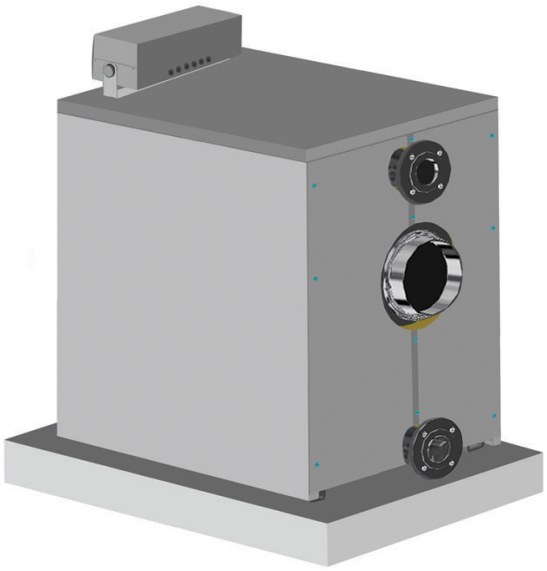
After side and top cabin sheet assembly, back cabin sheet must be installed.

First , backside isolation must be installed to the back side of the boiler.

Two piece cabin must be connected with screws to the side cabin sheets.



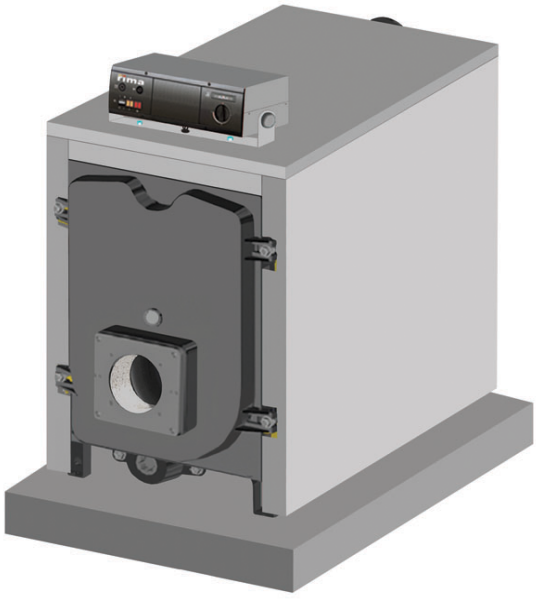
As back cabin sheet installation completes, all cabin parts installation finishes.



With all the boiler body, control panel and cabin sheets assembly , assembly process is completed.

Than the boiler is ready for burner installation, system and chimney connections.

*** **Burner installation, chimney and system connections must be done according to the standards and in attention with specifications in operation and maintenance manuals and by authorized technicians.**



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