CARING AND MAINTENANCE INSTRUCTIONS FOR REFRACTORY BLOCKS OF INCINERATORS

LIFE OF THE REFRACTORY BLOCKS OF INCINERATORS DEPENDS ON SEVERAL FACTORS, MAINLY ON THE USE OF THE UNIT AND ON THE QUALITY OF THE SLUDGE AND SOLIDS TO BE BURNED.

PLEASE FIND BELOW SEVERAL RECOMMENDATIONS AND MAINTENANCE TASKS FOR THE CORRECT CONSERVATION OF REFRACTORY BRICKS:

- **NEVER WASH THE REFRACTORY WITH WATER.**
  THIS MIGHT PROVOKE THE FALLING APART OF THE REFRACTORY MATERIAL LEADING TO PERMANENT DAMAGE TO THE SAME.

- **AVOID FAST COOLING OF THE UNIT.**
  THIS MUST BE CARRIED OUT GRADUALLY TO AVOID THE APPEARANCE OF CRACKS. NEVER FORCE OPEN THE DOOR WHEN THERE IS STILL HIGH TEMPERATURE IN THE COMBUSTION CHAMBER. THIS MAY CREATE A THERMAL SHOCK CAUSING CRACKS TO THE REFRACTORY.

- **STROKES AND SUDDEN OR ABRUPT MOVEMENTS OF THE UNIT MAY CAUSE MISALIGNEMENTS IN THE REFRACTORY, EVEN CAUSING THE BREAKAGE OF THE THERMOCOUPLE DUE TO THE MOVEMENT OF THE REFRACTORY BLOCKS IN THE CEILING.**

- **ALWAYS DRAIN THE SLUDGE BEFORE BURNING.**
  IN ORDER TO CARE FOR THE REFRACTORY BLOCKS AND ALSO FOR ECONOMICAL REASONS.

- **PERIODICALLY CHECK BOTH GASKETS OF CHARGING AND ASH DOORS.**
  IN ORDER TO VERIFY THAT THERE IS NOT ANY LEAKAGE THROUGH THEM.

- **PERIODICALLY CHECK THE EXHAUST GAS OULET REFRACTORY PIECE, LOCATED IN THE CEILING OF THE UNIT.**
  IN ORDER TO VERIFY THAT THERE IS NOT ANY SCAB THAT MIGHT REDUCE THE OULET SECTION OF THE GASES.

- **PERIODICALLY CHECK THAT THE INLET HOLES FOR COMBUSTION AND REFRIGERATION AIR ARE FREE OF ANY SOLID THAT MIGHT BLOCK THE AIR WAY. ALSO CHECK THE AIR CHANNELS BETWEEN THE REFRACTORY BLOCKS.**

- **PERIODICALLY REMOVE THE ASHES FROM THE COMBUSTION CHAMBER.**

CHANGE OF REFRACTORY AND LOADING DOOR - INCINERATOR IRLA-30/50

DISMOUNT PROCEDURE

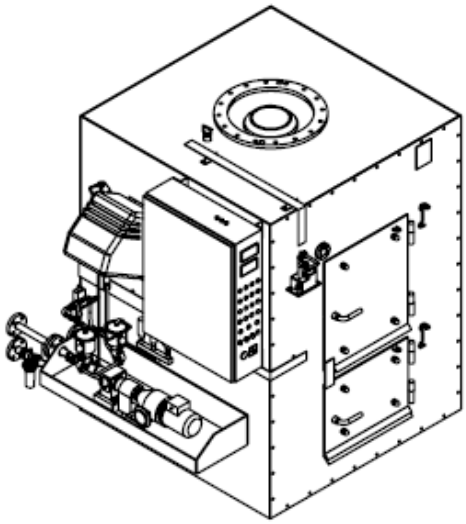
Disconnect the electric power supply to the unit and close all diesel oil, sludge etc valves.

Disconnect the electric cables and remove the combustion chamber thermocouple

Disconnect the electric cables for the vacuum group, the electric cables latch door and the door micro switch according to drawing

Remove the exhaust gas pipe

Remove the screws that fix the top shell plate

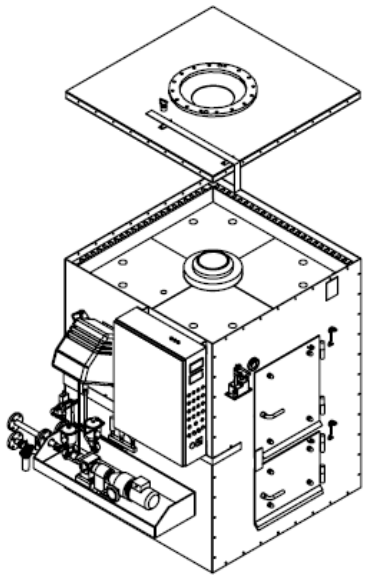


Remove the D.O. Burner

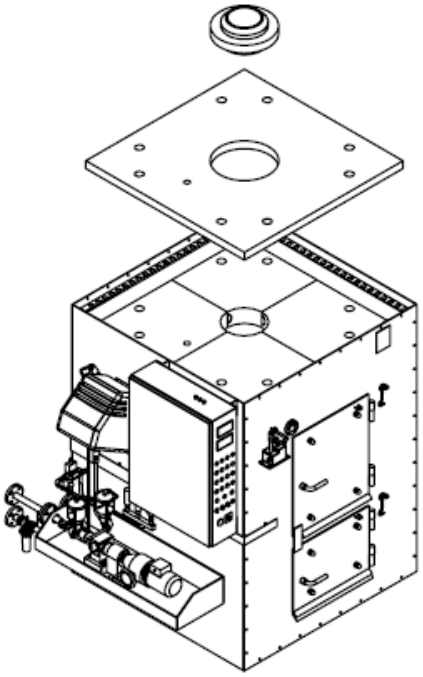
To remove the diesel oil burner pull and turn slowly the same towards yourself, once the burner is out of place, place near on a table slowly not to disconnect the electric cables and diesel oil flexible pipe.

Remove the top shell plate

In the exhaust gas flange built into the top plate, it is possible to screw two lifting devices, once screwed, with a hoist lift the shell.

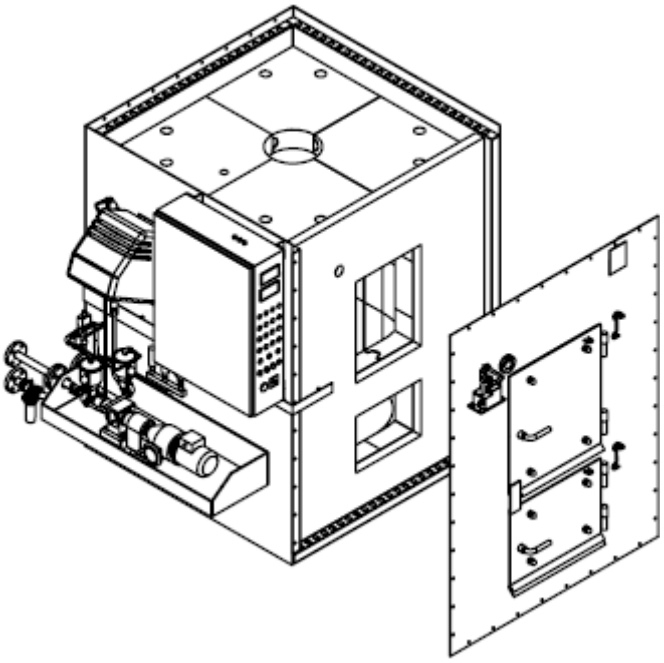


Remove the exhaust gas refractory connection pieces (two semi circle pieces) and the insulation top plates

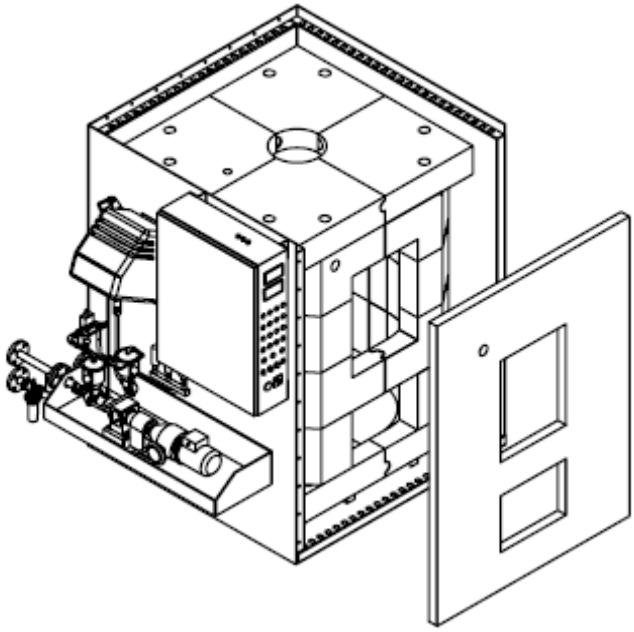


Remove the screws that fix the door shell plate,

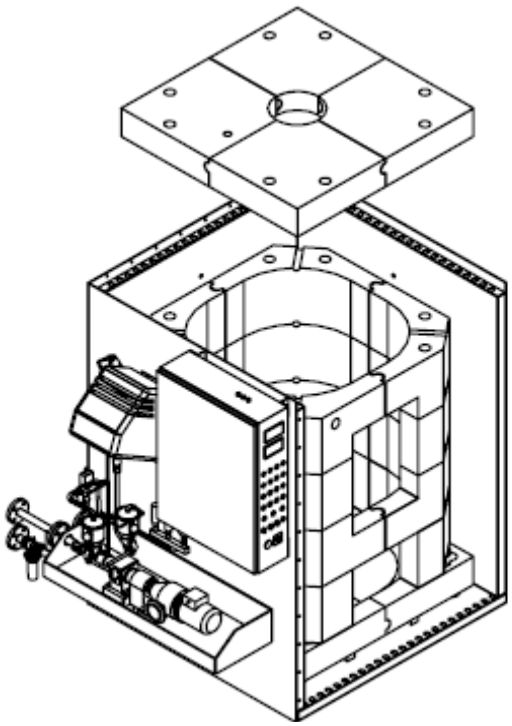
Remove the door shell plate (the hoist used to remove the top shell plate can be used to remove the door shell plate)



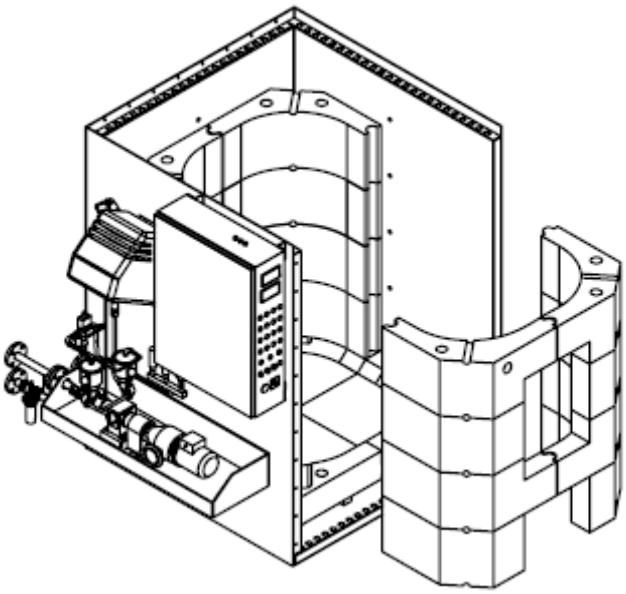
Remove the door shell insulation panels



Remove the top refractory blocks (4)



Remove the refractory pieces and insulation pieces.



MOUNT PROCEDURE

Adapt the new insulation plates to the incinerator bottom plate

In the bottom plate there is one hole in each corner (total 4 holes) each of these holes must be cut into the insulation panels

Begin to mount the refractory block from the bottom of the unit to upwards, installing between the metal shell and the refractory blocks the insulation panels. (See refractory drawing attached)

Once all the refractory blocks and insulating panels have been installed, mount the new door shell panel and its screws to fix.

Mount the top insulating plates and exhaust gas refractory pieces.

Mount the top shell panel and its screws.

Mount the exhaust gas pipe

Mount the combustion chamber thermocouple and connect the thermocouple, the vacuum group, the electric open door and the door micro switch.

Mount the D.O. Burner and the sludge burner.

Check that when the door is opened and closed it does not rub against the refractory. If this is the case, ground the refractory where it rubs with the door until this does not happen and the door can be easily opened and closed.

Check also that when the loading door is used to empty the rubbish inside the incinerator, the loading door does not rub against the refractory; if there is any slight rubbing proceed as above to remove this.