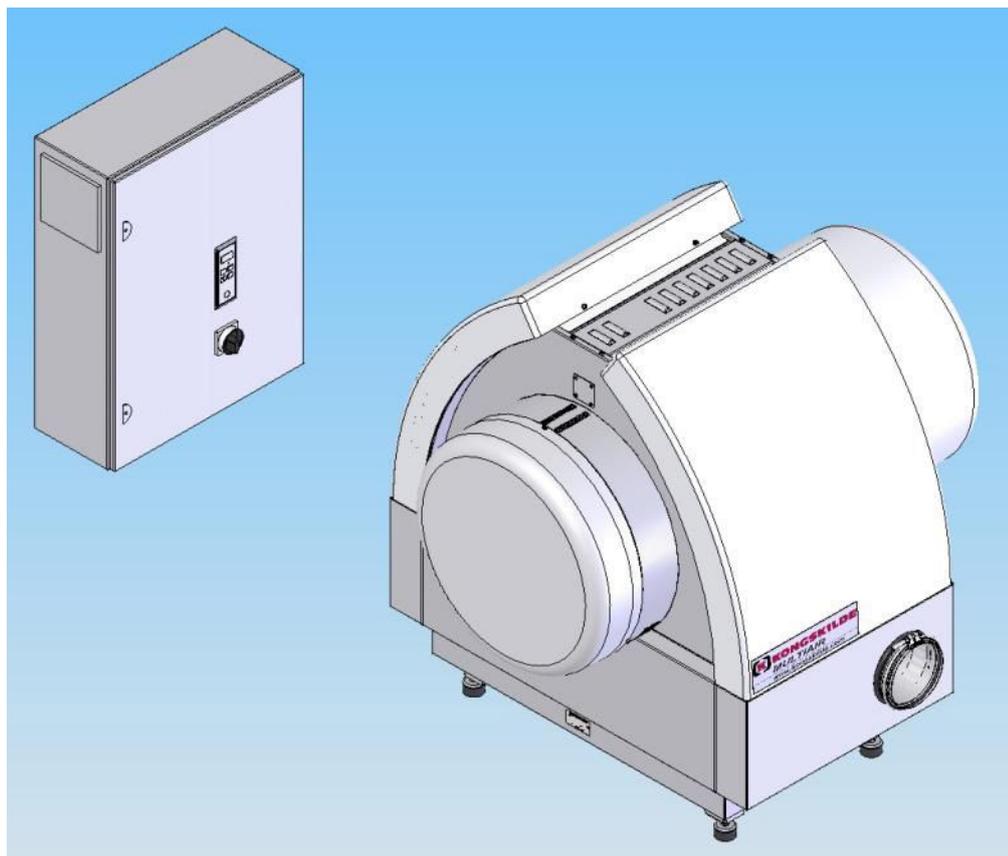


MultiAir FC 1000 series

Installation of FC to FCE replacement kit



Electrical / mechanical installation:

The control boxes are delivered for 3 x 380-480V 50/60Hz voltage range.

All local factory inspectorate regulations must be complied with. Check that the on site electricity supply is suitable for the blower. See also the separate electrical diagram for the control box, that is supplied.

The control box' main switch must be located max. 5 metres horizontally from the blower, as it functions as a safety switch. In addition, the control box must be clearly labelled with which blower it is connected to.

It is advised to remove the old defect controls from inside the blower, to ensure better cooling of the motor.

NB - At the bottom of the control cabinet there are blanks for cable glands. These can be used for control wires, differential pressure transmitter (flow or pressure/vacuum control) connections, digital inputs and outputs, signal transmitters for the different operating points of the blower, equipment for error message of the operating mode of the blower etc.

Important - the blower shall be potential equalized via the terminal to the left of the supply cable's relief (at the symbol for potential equalizing).

1 - the power to the blower is switched off and disconnected. **Ensure that power can not be restored until complete assembly of the blower.**

The screws for the covers are removed, and both covers are lifted away



2 - the lid for the PLC is removed



3 - the cable for the operators panel in the top panel is removed from the PLC



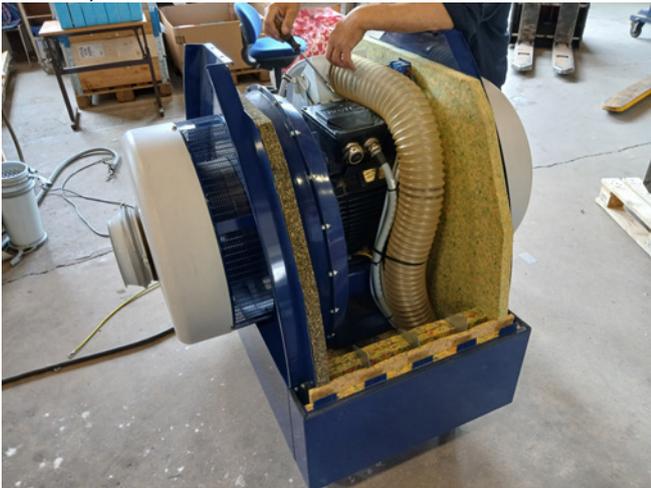
(The illustrations shown relates to a Vacon 100 frequency converter, but the FC1000 blower series could also have been equipped with Vacon NSX converters, which looks like this)



4 - the drain hoses are detached from the bottom, and the top panel screws are removed. The top panel is pressed down, released from the end gable and removed.



5 - the cooling hose is removed (not fitted on all blower models)



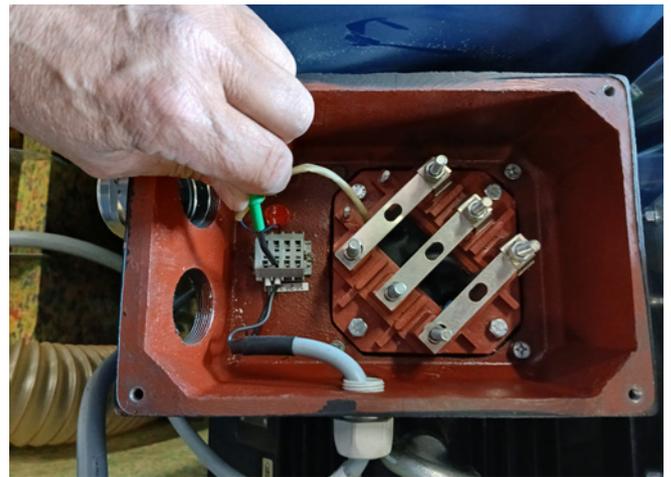
6 - the lid for the motor connection box is removed and put aside



7 - the supply cables L1, L2, L3 and earth cables are removed (if needed, note the position of L1, L2 and L3)



8 - the ptc wires are removed



9 - the cables on both sides of the main switch are removed



10 - the earth cables are also removed



13 - the supply cable is removed from the terminal block, and pulled out of the bottom frame cable relief



11 - the bottom panel's screws at the blower outlet are removed - both upper screws (should be loosened)



14 - the two M6 screws on left and right side of the frequency converter are removed



12 - and lower screws (should be removed), whereafter the panel is removed and put aside



15 - the left screw is shown here



16 - the frequency converter is hooked up in the upper holes, and lifted out of the blower. Observe that all wires are loosened!



19 - the earth cable from the motor foot is connected to the earth terminal in the blower's bottom frame



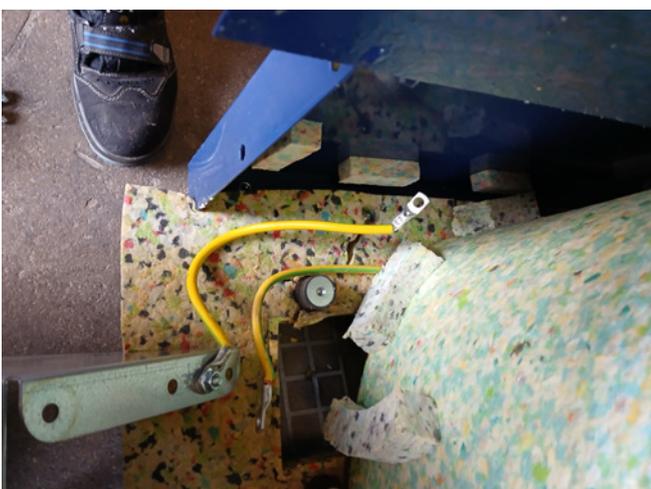
17 - the base plate for the frequency converter is loosened at the rubber dampers



20 - the first noise insulation plate is placed onto the cooling hose hole



18 - the earth cable from the base plate is removed from the blower's bottom frame, and the base plate removed.



21 - the rubber dampers for the frequency converter are removed, and the second noise insulation plate is placed onto the filter hole.



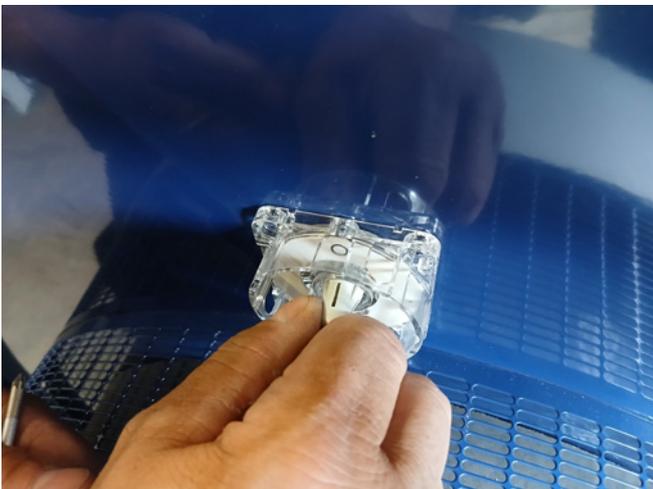
22 - alternatively, the second noise insulation plate is cut into shape to fit the filter hole



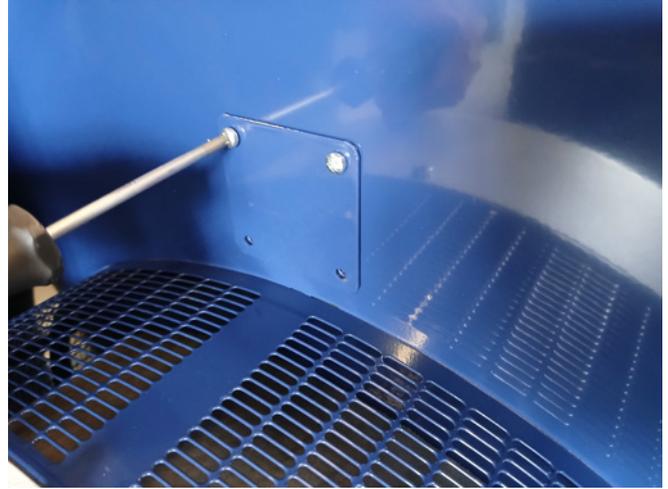
23 - the main switch handle is removed



24 - the main switch housing screws are removed, and the switch removed



25 - the blind plate is installed with the 4 included screws and nuts



26 - the supply cable from the new external control box is guided through the cable relief in the bottom frame



27 - the cable relief in the motor connection box is replaced by the supplied relief (the emc reliefs are normally non-useable), and the supply cable guided into the connection box. Ensure that the cables are not rubbing against any sharp edges



28 - the ptc sensor cable from the new external control box is guided through the supplied cable relief in the bottom frame, and the potential cable connected in the motor connection box. The lid is refitted



29 - the bottom panel is refitted



30 - the operators panel wires are hooked up with e.g. a cable binder, and the top panel reinstalled



31 - the blower covers are reinstalled. If any piping was removed, reinstall this

32 - the power supply and earth cable + the ptc wires to the control box is guided through the relief union as indicated



32 - the power supply and earth cable + the ptc wires are connected. Power supply is connected to the control box

33 - ensure that the transformer for the cooling fan is connected to correct voltage

Maintenance of control box:

The control box contains two filters; one on the cooling fan, and another on the opposite side of the cabinet. Make sure there is always an unobstructed flow of cooling air to the fan.

These filters should be cleaned when necessary, using pressurized air or water. In case water is used, the filters should be dry prior to installation. In case the filters are very dirty / clogged, they should be replaced. To gain access to the filters, do as follows:

1 - press both clips to release the plastic frame.



2 - remove the frame.



3 - remove the filter, and clean if necessary. Reinstall in reverse order.

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