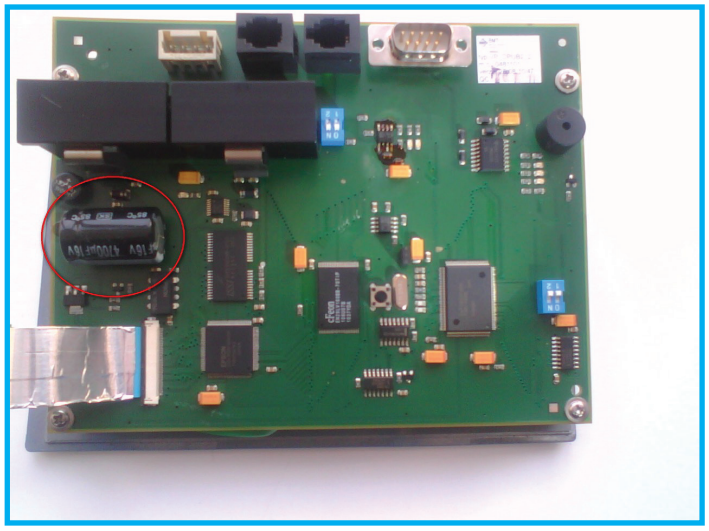
BULLETIN

Technical newsletter of BMT Medical Technology s.r.o.

Issue 04
april 2013

Faulty Condensers

There was detected poor-quality supply of condensers on electronics boards – the board KON, BACK and Slave. The problem was solved with the manufacturer and repaired as soon as in June 2012. The fault is indicated by poor display imaging, non-functionality of boards, the display blinks – it does not light up, the condensers puff. In case of condensers fault (type for 85 °C – see the figure below) it is necessary to replace them with new condensers - 4700 µF/16 V/ 105 °C (for KON, BACK and Slave), 2200 µF/16 V/105 °C (only for Slave). In case of any problems do not hesitate to contact the service department of the BMT.



New types of Sterilisation Programs

Based on new requirements of clients regarding specific course of sterilisation programs there were developed even other types of programs for the machines STERIVAP, STERIVAP HP, STERIVAP HP IL.

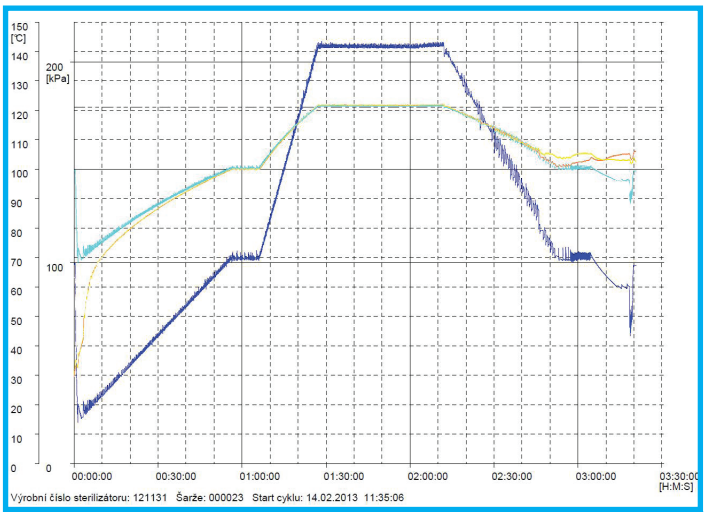
The non-standard requirements towards programs are solved by new templates within the scope of UNICONFIG3 software.

An example may be the template *.la3, allowing – as well as all the programs for laboratories – free setting of the temperature band above as well as below the nominal sterilisation temperature with required parameters and tolerances.

A program with total length exceeding 3 hours was prepared for one order. A program with defined very low speed of pressure increase after evacuation, controlled delay in the temperature of 100 °C (approximate pressure 101 kPa) and another defined pressure respectively temperature increase up to the sterilisation temperature. After sterilisation exposition of 121 °C/45 min follows a very low controlled decrease. In case of defined decrease it is necessary e.g. for the automatics to support required speed by additional steam injections even in the cooling stage.

There follows another controlled delay on the temperature of approximately 100 °C and the final sequence.

These programs will be used again in other already partially processed orders.



STERILIZATION GRAPH

Pressure Sensors Danfoss and Pumps Reich for CLIMACELL

The pressure sensor by Danfoss is used for pressure regulation in the steam generator. There were some problems with the sensors in the past and we replaced them with a different type which should have eliminated the problems according to recommendations of the supplier – the company Danfoss. The sensors were subject to an expertise in the production plant and it was stated that the membrane of the sensor split. That is

why replaced the original sensor MBS 3000 with another one, the MBS 3050, in September 2012. The new sensor is equipped with a shock absorber – see figure. In fact, the shock absorber is a very small hole which is – due to operation – gradually clogged with small impurities and that is why the pressure sensor does not work correctly and it provides the control system with incorrect data. This may cause further damage of the generator. Now we return to the original pressure sensor as it proves that the problem with the cracking membrane was not caused by hydraulic shock. We have simultaneously performed a construction adjustment of the steam developer. The sensor function can be checked as follows:

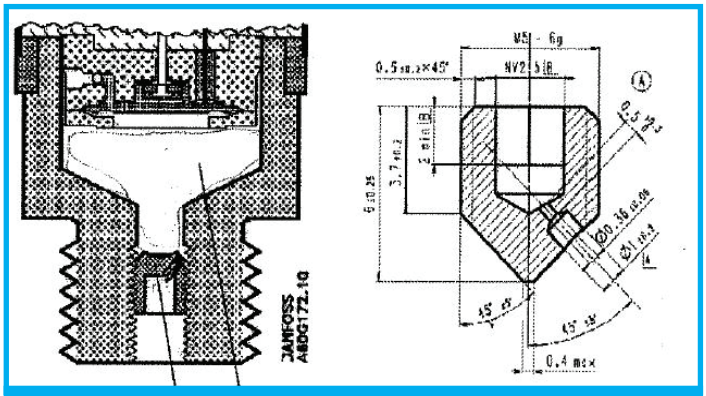
0 bar..... 4 mA

1 bar..... 20 mA

Recently, several clients encountered problems with submersible pumps Reich. Similarly to pressure sensors, they were damaged immediately after delivery to the client.

MBS 3000 / MBS3050

REICH PUMPS



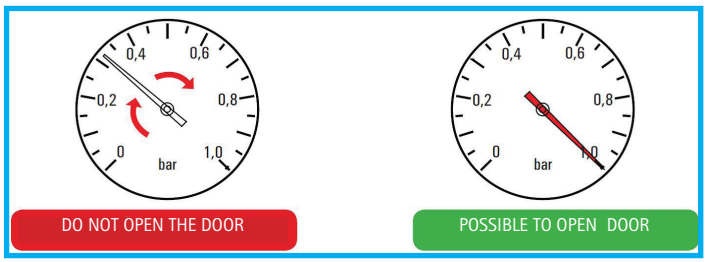
SHOCK ABSORBER

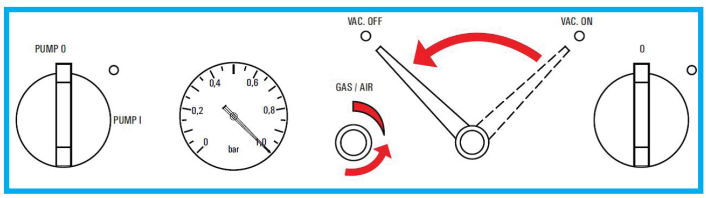
So where was the problem? What are the recommendations?

In the course of time we detected that the problem occurred mainly in winter months. That means that water residuals freeze in the pressure sensor as well as in the submersible pump. That is why I would like to draw your attention to thorough drying of both of the parts in case that the device is to be operated in period when frost is expected. In case of pressure sensor it is not sufficient to simply let the water off the generator, but it is necessary to dismantle the generator and to suck off or shake out the condensed water in the chamber. We also recommend transporting with unscrewed drain plug so as to avoid under-pressure development in the generator. The Reich pumps must also be dried and it is necessary to drain water from all the other water-containing components.

Opening the VACUCELL device Door

Last month, the safety glass in the door crashed for the first time in the 18 year history of the Vacucell device manufacture, again immediately after delivery to the client. That is why I would like to draw your attention to the fact that devices VACUCELL are evacuated at the moment of dispatching from BMT/MMM. That means that before the first opening, the vacuum must be cancelled at first by turning the needle valve in the arrow direction and by turning the lever to the position VAC OFF (in case of some options, the lever turning with switched-off device does not have to cancel the vacuum and that is why it is necessary to use the needle valve as well). Simultaneously, it is necessary to monitor the decreasing under-pressure in the manometer when the pointer gradually passes to the position of 1 bar. Then you can open the door by moving the door handrail.





Vydává odbor Servis, BMT Medical Technology s.r.o.
Cejl 157/50, Zábrdovice, 602 00 Brno
tel.: +420 545 537 370
e-mail: servis@bmt.cz
www.bmt.cz