2008® Series* - Level I 2-Day Agenda

The 2008® Series* - Level I 2-Day training course consists of an on-line e-learning preparation course and two-day in person training. The 2008 series Level I Preparation trail* e-learning course consists of four modules that must be completed before attending the two days in person training.

2008 Series Level One Preparation Trail (e-Learning) *

1. Introduction to 2008 Series Hemodialysis System
2. 2008 Series Hydraulics Assembly Introduction
3. bibag & Acid-Bicarbonate Pressure Regulation
4. Hydraulics System Flow Review

*Log-in information to the e-learning course provided after registration.

The documentation for these presentations can be found at our website https://fmcna.com/

It is highly recommended that you print and complete the two Student Guide and Workbooks before attending the in-person training.

- 2008® Series Technical Training – Student Guide and Workbook,
- bibag Student Guide and Workbook
- 2008K Level one Training Manual,
- 2008T Hydraulic Flow Diagram
- 2008T Hydraulic Flow Diagram w/bibag

Technical documentation on the Fresenius 2008 Series Hemodialysis System is also available at our website https://fmcna.com/

- bibag v2 Technician's Manual
- 2008T Technician's Manual
- 2008T Calibration Procedures
- 2008T Preventive Maintenance Procedures

Day 1 in person training

Hydraulic Calibration: The students will perform the calibrations.

- Inlet Water Pressure Regulator
- Deaeration and Loading Pressure
- Balancing Chamber Volume
- Acid (Concentrate) Pump Volume
- Bicarbonate Pump Volume
- UF Pump Volume

Sensor Calibration: The students will perform the calibrations:

- Arterial Pressure
- Venous Pressure
- Dialysate Pressure
- Temperature Sensor
- Post Temperature
- Temperature Control (Method 1)
- Blood Leak
- Dialysate Conductivity Cells
- Conductivity Confirmation Cell

Maintenance Calibration Procedures: The students will perform the Procedures:

- Set Time and Date
- Voltage Detection calibration
- Arterial Pump Rate

When all calibrations are complete, a self-test is run on the machine. Any test that fails must be repaired or recalibrated, so the machine passes all tests. The instructor using the Debug screens also checks the machine.

Bibag Hydraulic Theory and Calibration: Instructor will demonstrate calibrations.

- Regulator Pressure
- Bicarbonate Conductivity Cell

Rebuilding the Diaphragm Pumps: The students will demonstrate rebuilding pumps.

- Ultrafiltrate Pump
- Acid (Concentrate) Pump and Bicarbonate Pump Volume
- Replacing Deaeration motor brushes (instructor will demonstrate)

Day 2 in person training

Debug Screens.

Each student will have a copy of the description of the debug screens to follow as all screens are described, and how they are used for troubleshooting and in Preventive Maintenance Procedures.

Preventive Maintenance

Schedule and Checklists: The instructor will explain the schedule and checklists.

Annual (4000 Hours) Preventive Maintenance: The students will perform annual PM

- Replace Filters, O-Rings, and check Valves.
- Check Heater Element and High Voltage AC Connections
- Check Concentrate (Acid) and Bicarbonate Pumps
- Check Conductivity Calibration
- Check Temperature Calibration
- Check Volt Hi Lo Detect
- Check Blood Leak and Dimness
- Check Arterial, Venous and Transmembrane Pressure
- Check Dialysate Flow
- Check Heparin Pump
- Check Blood Pump
- Check and Calibrate Level Detector
- Check Alarm Operation and Pressure Holding Test
- Verify pH
- Check Rinse and Heat Disinfect
- Check Power Failure Alarm and replace 9-Volt Battery
- Check Blood Pressure Module
- Inspect Dialysate Lines
- Final Checks

Written Test: A test of 25 questions is given with a time limit of 1 hour. The test is marked and returned for review and question and answer period.

Certificate of completion

Certificates will be given to all students that pass and complete the class.

Students that successfully complete the class should have a thorough understanding of the hydraulic system and be able to troubleshoot minor problems, do all calibrations, and perform the preventive maintenance procedures.