

Horizon 6 Flex Guide

Purpose

To prepare peripheral blood specimens collected in BD Vacutainer Serum Separation Tubes (SST) and Plasma Preparation Tubes (PPT) for chemistry testing.

Handling Conditions

All biological specimens are considered biohazardous. Use standard precautions and appropriate personal protective equipment. Lab coats and gloves must be worn at all times. Handle all specimens as if capable of transmitting infection and dispose of with proper precautions in accordance with federal, state, and local regulations. Unit must have proper air ventilation to prevent overheating of samples and is on a flat clear surface.

Materials and Equipment

- Peripheral blood specimens collected in BD Vacutainer Serum Separation Tubes (SST) or Plasma Preparation Tubes (PPT)
- Centrifuge Model: Horizon 6 Flex

Procedure

- Serum should be physically separated from cells as soon as possible with a maximum limit of 2 hours from the time of collection. The gel in the vacutainer SST tube forms a physical barrier between serum and blood cells during centrifugation.
- After opening the lid of the unit, place peripheral blood specimens collected in SST or PPT in centrifuge.
 - a. All specimen tubes should be inspected prior to centrifugation. Do not spin cracked or compromised tubes.***
- Ensure specimen tubes are properly balanced within the centrifuge.
- Close and lock lid by turning lid knob clockwise to secure position.
 - a. Specimens are centrifuged with the lid firmly latched to reduce the risk of infection by spattering.***
 - i. Locked indicator light will turn on to indicate that latch is closed properly.
 - ii. If lid knob is not completely latched, the locked indicator will not turn on and the centrifuge will not operate.
- Samples will be centrifuge at 1850 RCF (3600 RPM) for 6 minutes (or the closest setting to 1839 RCF) with the brake at maximum.
- Push the Start button to activate.
 - a. The running indicator light within the centrifuge will illuminate and the centrifuge will begin to spin.
 - b. Centrifuge should produce a smooth whirring sound if operating correctly.
 - c. When there is one minute remaining, the running indicator light will begin to flash.
 - d. If there is an issue during the start process, press the unlock button to stop the centrifuge.
- After the time has elapsed, the running indicator light and centrifuge will slow to a complete stop.
- The unlock indicator will illuminate, and the locking mechanism will be able to be disengaged.
- Turn the lid knob counterclockwise and open lid.

9. Remove all samples and inspect for any loose tubes or debris.
 - a. If unit relocks before samples are removed or place in unit, press the unlock button to unlock lid for 15 seconds.

Preventative Maintenance and Calibration

1. Preventative maintenance and calibration are performed every 6 months by Biomedical Engineering. Units must be returned to Outreach Logistics Department for service.

Daily Maintenance

1. Check carriers for loose caps, broken tubes, or fragments.
2. Wipe the interior and exterior with isopropyl alcohol and/or Clorox Bleach Germicidal Cleaner of 10% bleach.
 - a. Soap and water can be used to remove any residue from bleach.
 - b. Interior accessories must be dry prior to returning centrifuge.

Monthly Maintenance

1. Remove and disinfect all carriers and holders with isopropyl alcohol and/or Clorox Bleach Germicidal Cleaner of 10% bleach.

Troubleshooting

1. If there are any issues with the centrifuge or centrifugation process:
 - a. Notify a supervisor immediately.
 - b. Refer to online centrifuge user manual: <https://druckerdiagnostics.com/wp-content/uploads/2022/05/03-0-0002-0138D-HORIZON-6-Flex-6-Flex-FA-Operator-Manual.pdf>
 - c. Contact Outreach Logistics Department if servicing is required by Biomedical Engineering.

Troubleshooting Scenarios

1. If a specimen tube breaks in the centrifuge:
 - a. Immediately suspend usage and wait for the unit to stop running.
 - b. Don appropriate PPE prior to opening centrifuge.
 - c. Access the damage.
 - d. Any loose pieces should be carefully removed by using a forceps or other similar device.
 - i. If pieces are not able to be removed from unit or if unit is making excessive noise, Biomedical Engineering must be contacted for repair.
 - ii. Unit must be placed out of service until serviced.
 - iii. Place a DO NOT USE sign on centrifuge.
 - iv. Proceed to use if unit is clear.
2. If the centrifuge does not run or latch light does not come on:
 - a. Make the unit is connected to a power source and that the power source is working.
 - b. Make sure that the lid latch is fastened securely.
 - c. If a and b do not work, follow the listed troubleshooting measures above.