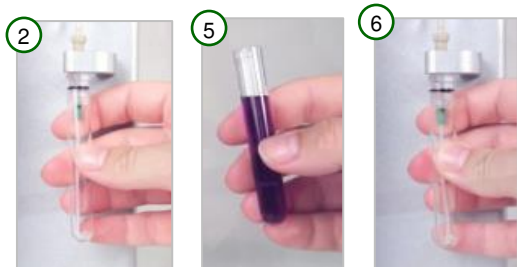
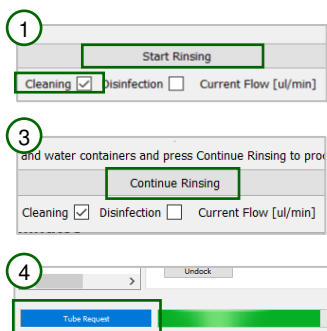




## Cleaning and Shutdown

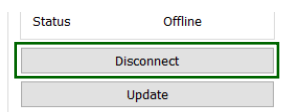
**Frequency: After every use**  
**Duration: 10 minutes**

### 1. Cleaning Protocol



- Pipette 2 ml of AmphaClean (check expiration date and make sure it is stored in the fridge) into a FACS tube and let it equilibrate to room temperature
  - Put the AmphaClean bottle or aliquot back in the fridge
  - In the AmphaSoft **Navigation** panel on the left, click on **Instrument Control** and select the **Basic** tab. Check the **Cleaning** checkbox and click **Start Rinsing** (Fig. 1)
  - An instruction appears. Place a container or empty tube under the sample holder (Fig. 2) and click **Continue Rinsing** (Fig. 3)
  - Another instruction appears. Check the waste and water bottles and click **Continue Rinsing** (Fig. 3)
  - After 1 minute a tube request notification will be shown on the bottom left part of the window (blue box, Fig. 4)
  - Place the FACS tube with AmphaClean under the sample holder (Fig. 5) and click **Continue Rinsing** (Fig. 3)
  - After about 4 minutes a second tube request notification will be shown on the bottom left part of the window (blue box, Fig. 4)
  - Remove the AmphaClean FACS tube, place a container or empty tube under the sample holder (Fig. 6) and click **Continue Rinsing** (Fig. 3)
- TIP: Ensure that the measurement chips are not exposed for prolonged periods (e.g. one hour) to AmphaClean, i.e. do not interrupt the cleaning process.*

### 2. Disconnect



- Click on **Instrument Control** in the **Navigation** panel on the left, select the **Admin** tab and click on **Disconnect**

### 3. Remove Chip



- Store the measurement chip in a dark, dry and dust free environment, e.g. the chip box

### 4. Empty Waste Bottle and Store Buffers

- Empty and clean the waste bottle to prevent growth of microorganisms
  - Put leftover buffer aliquots in the fridge for storage
- TIP: Waste bottles can be put in a laboratory dishwasher for cleaning*

### 5. Switch off Instrument

## Maintenance Recommendations

- |                          |  |
|--------------------------|--|
| ✓ Daily (after use)      | • Cleaning with AmphaClean   |
| ✓ Once a Week            | • Disinfection with 70 % ethanol and Cleaning Chip (see page 2)  |
| ✓ Quarterly              | • Exchange of external fluidics and O-rings<br><i>(materials included in standard and professional service and maintenance agreements)</i>                                 |
| ✓ Yearly                 | • Exchange of complete instrument fluidics by trained professional<br><i>(materials and work included in standard and professional service and maintenance agreements)</i> |
| ✓ Every 250 Measurements | • Chip Test (when prompted)  |



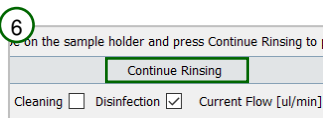
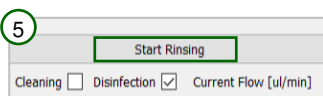
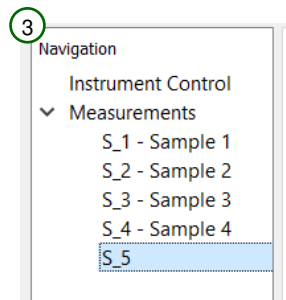
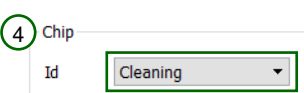
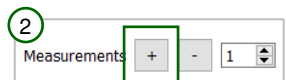
## Disinfection

**Frequency: Weekly**  
**Duration: 10 minutes**

### 1 Cleaning Chip



**Attention:** Only use the Cleaning Chip for the disinfection protocol.

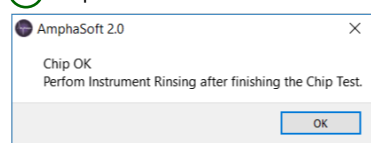


- Pipette 3 ml of 70 % ethanol into a FACS tube
- Place a container or empty tube under the sample holder
- Place the Cleaning Chip in the instrument (Fig. 1)
- In the AmphaSoft **Navigation** panel on the left click on **Measurements** and add a new measurement in the worklist (+) (Fig. 2)
- Select the new measurement from the list of measurements in the **Navigation** panel on the very left of the window (Fig. 3)
- Select **Cleaning** from the Chip dropdown menu (Fig. 4)
- In the **Navigation** panel click on **Instrument Control** and select the **Basic** tab. Check the **Disinfection** checkbox and click **Start Rinsing** (Fig. 5)
- An instruction appears. Place a container or **empty** tube under the sample holder and click **Continue Rinsing** (Fig. 6)
- Another instruction appears. Check the waste and water bottles and click **Continue Rinsing**
- After 1 minute a tube request notification will be shown on the bottom left part of the window (blue box)
- Place the FACS tube with 70 % ethanol under the sample holder and click **Continue Rinsing**
- After about 4 minutes a second tube request notification will be shown on the bottom left part of the window (blue box)
- Remove the FACS tube, place a container or empty tube under the sample holder and click **Continue Rinsing**
- After termination of the disinfection process you can shut down the instrument

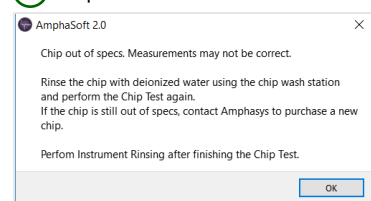
## Chip Test

**Frequency: Upon prompt (every 250 measurements)**

### 1 Chip OK



### 2 Chip Not OK



- Take the AmphaCalib solution out of the fridge and mix it thoroughly by shaking
- Pipette 3 ml of AmphaCalib into a FACS tube and let it equilibrate to room temperature
- In the AmphaSoft menu under **Tools** select **Chip Test**
- Select the appropriate chip from the dropdown menu
- **TIP:** In case the chip to be tested is not in the list, enter the chip name in the worklist and return to the Chip Test
- Carefully agitate the AmphaCalib sample (no foaming) and put it under the sample holder
- Press **Start**. The Chip Tests starts and upon completion you will be notified with a popup window
  - If the chip is OK (Fig. 1), perform an instrument rinsing in the **Basic** tab
  - If the chip is not OK (Fig. 2), remove it from the instrument, rinse it with water using the chip wash station and carefully clean the chip electrodes using a soft tissue. Perform the chip test again. If the chip test is still not OK, don't use the chip anymore for measurements. Perform an instrument rinsing in the **Basic** tab