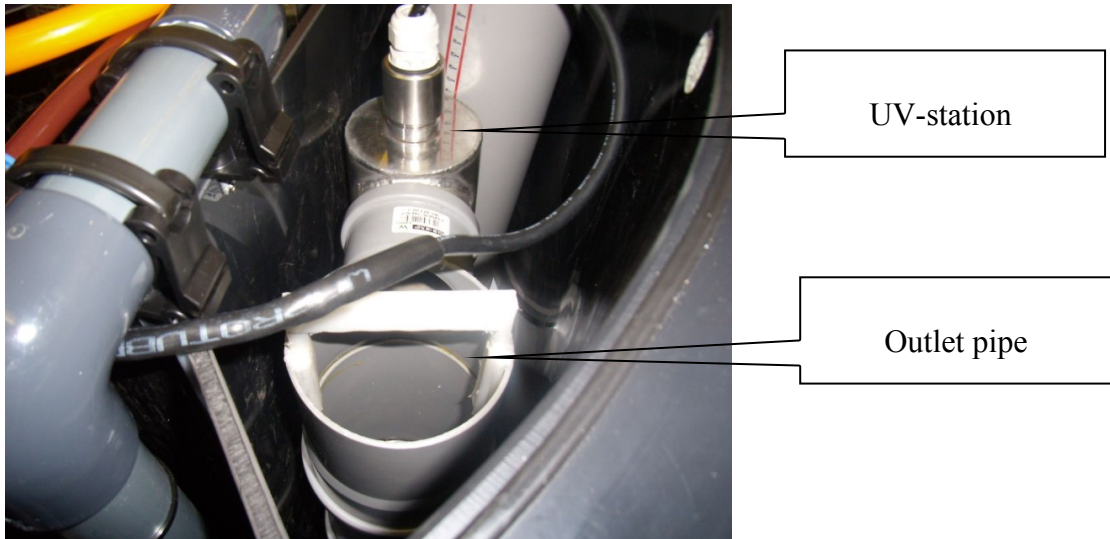


Biokube UV-station in the Mars, Venus and Pluto.



Basic informations:

Model	Ballast	Lamp	Housing	Inlet	Outlet
Pluto	Matala	25 watts Phillips	ANSI - 316	DN 80	DN80
Venus 1850	Matala	25 watts Phillips	ANSI - 316	DN 80	DN80
Venus 2200	Matala	40 watts Phillips	ANSI - 316	DN 80	DN80
Mars 3000	Matala	40 watts Phillips	ANSI - 316	DN 80	DN80

How to install UV-station in Mars, Venus and Pluto:

In Mars, Venus and Pluto the UV-lamp is placed inside the plant just before outlet. Normally the equipment is installed by Biokube, but if needed every plant can be equipped with UV treatment:

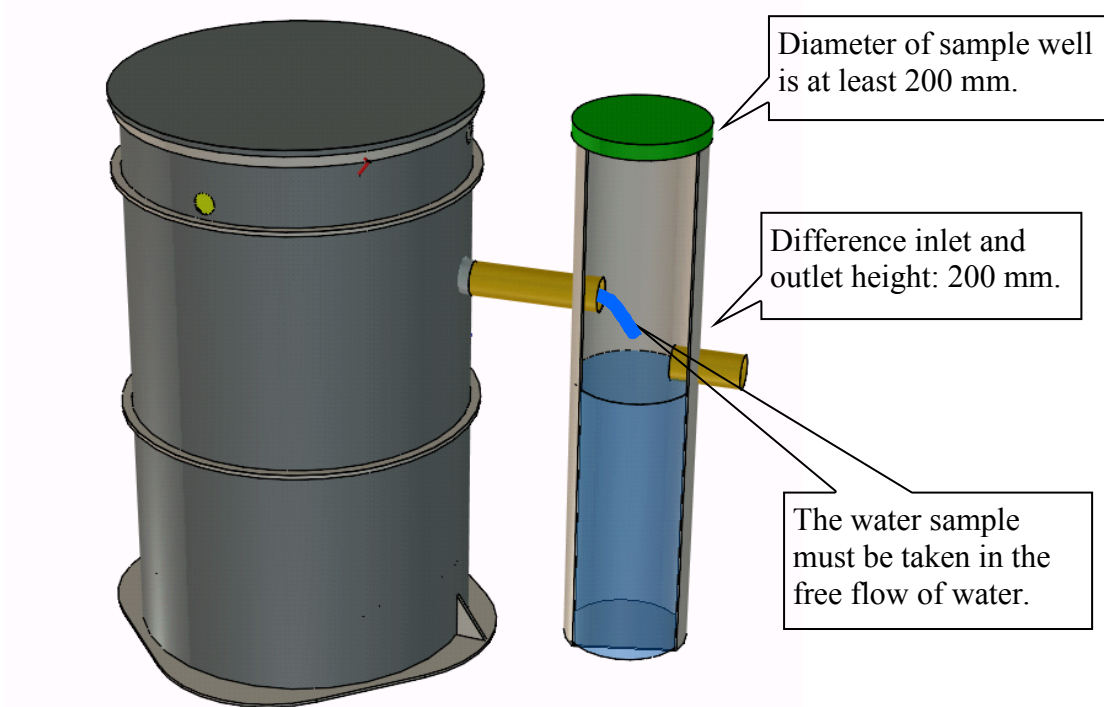
1. Adjust the height of the outlet pipe so the outlet height is the same as before.
2. Place the UV-station to the outlet pipe.
3. Place the ballast inside the technical box.
4. Connect the UV-station to the main switch of the plant so the UV-station is not in operation when the plant is not in operation.



For safety ensure to switch off the UV-station and plant on the main switch prior working with the UV-station. Use protection glasses whenever working with UV-station.

Water sample well after Mars, Venus and Pluto with UV-station

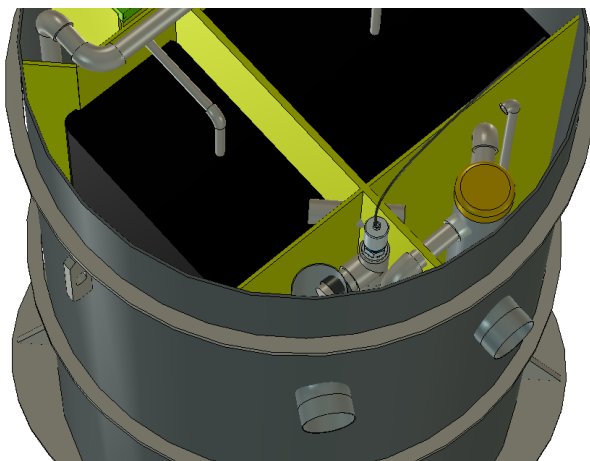
If the authorities request water samples of the UV treated water, those can not be taken inside the plant. Those are taken outside in a water sample well. Here the water sample is taken in the free falling. The water samples may not be taken in the bottom of the water sample well.



How to take and analyze water samples after UV treatment:

To ensure that the plant performs according to specification, the plant must have been in normal operation at least for 6 weeks without failure before testing. Follow Biokubes maintenance instructions for the plant and UV-system.

Water samples must be obtained as the first part of the maintenance procedure prior to functionality control. To achieve as correct a sample make sure, that sample bottles are clean and sterile. Wait until water leaves the plant and take a sample of the free falling water. Bottles with water samples have to be stored cold (refrigerator) and analyzed initially. Analyses for E.coli and other bacteria's are done in a laboratory under sterile conditions.



Maintenance of UV-station in Mars, Venus and Pluto

Please follow the instructions below min. once every 6th month:

For safety ensure to switch off the main switch prior to commencing maintenance procedures.

Replace the UV quartz sleeve inside the UV-system with an other cleaned UV quartz sleeve. Clean the outlet pipe around the UV-station and from the UV-station to the water sample well mechanically with an brush. Install the UV lamp back to the system.

Rinse and wipe the replaced quartz sleeve for reuse at next service interval with citric acid and a clean piece of cloth and dry with an other clean cloth.

Every bulb has an expected operational lifetime of 9.000 hours, i.e. approximately one year.

After replacement of bulbs or quartz sleeves, ensure that all fittings are fastened properly.

Control that all wires are intact and not affected by weathering . If in doubt replace wires.

Ensure that when handling the UV bulbs not to touch the glass part of the lamps as this will cause the lamp to malfunction and ensure using a face shield for protection in case these lamps break or burst.



Rinse and wipe the quartz sleeve whenever necessary to ensure the UV light can light throw.



Clean the pipe around the UV lamp and outlet at every service with an brush.

