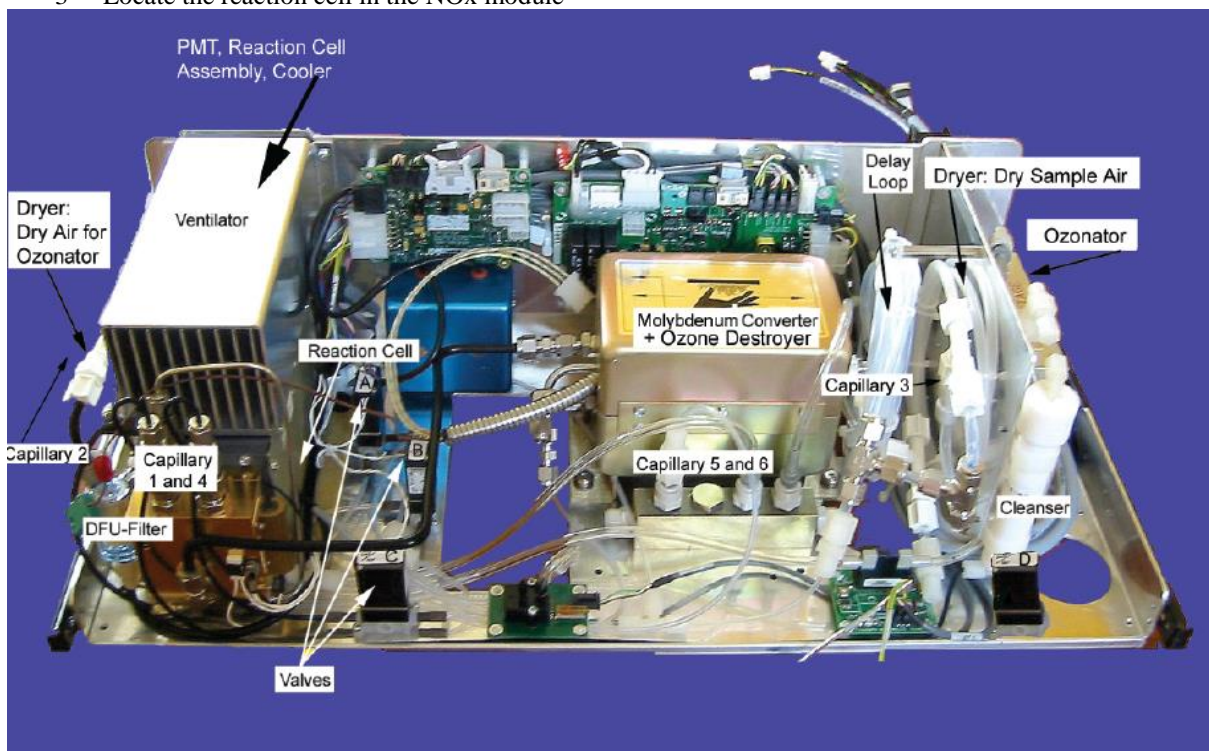


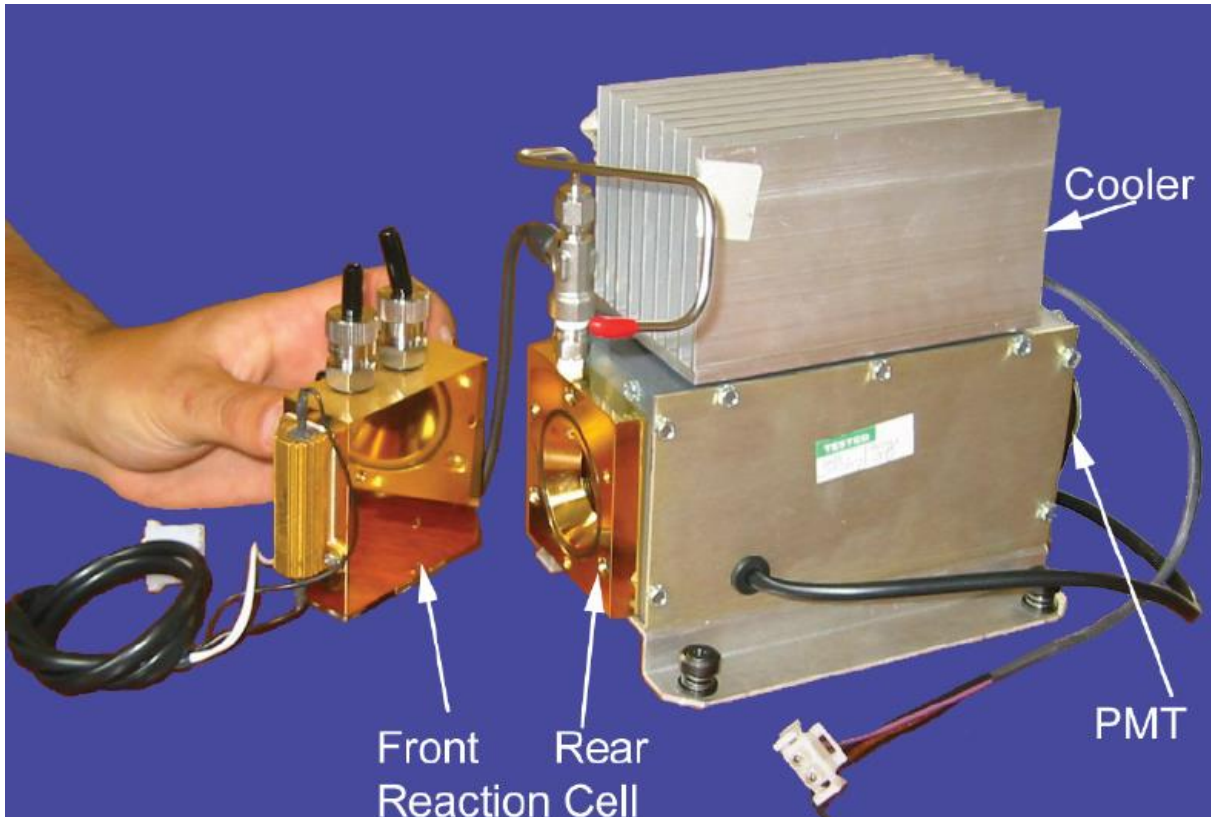
NOx module (T) – Cleaning the reaction cell

The reaction cell should be cleaned at least once a year. A dirty reaction cell will cause excessive noise, drifting zero or span values or low response. To clean the reaction cell, it is necessary to remove it from the sensor housing following the steps below.

- 1- Tools you need
 - wrenches: 5/8", 9/16", 1/2", and 7/16"
 - hexagonal key 9/64"
 - big Phillips screwdriver
 - a clean cloth and cotton buds
- 2- Turn off and unplug the airpointer. Pull the NOx module drawer out
- 3- Locate the reaction cell in the NOx module



- 4- Disconnect the black 1/4" exhaust tube (connected to the Vacuum Fitting) and the black 1/8" sample and ozone air tubes (connected to the capillaries 1 and 4) from the reaction cell. Disconnect the heater/thermistor cable
- 5- Unscrew the 1/4" fitting at the bottom right corner of the reaction cell in order to be able to open the reaction cell wide enough to clean it; in order to do so, you might need to remove the cover above the PMT cooler and to loosen the 4 screws holding the feet of the PMT housing
- 6- Remove the 3 hexagonal screws holding the two parts (front and rear) of the reaction cell together using a 9/16" hexagonal key



7- Both sides of the reaction cell should be cleaned with water and a clean tissue and air dried thereafter



Do not touch the optical filter with bare hands!



Do not use abrasive material to avoid removing the gold

8- If the reaction cell is very dirty, it may be necessary to remove the additional 3 hexagonal screws holding the rear part of the reaction cell to the PMT housing using a 9/16" hexagonal key. It could be also needed to remove all the fittings to and from the reaction cell and clean them individually



Prevent light from entering the Photomultiplier Tube (PMT)! While cleaning the reaction cell, leave the quartz window on the PMT housing if possible. If not, cover the PMT housing to keep it away from light

9- Reassemble in proper order and reconnect pneumatics connections

10- Perform a Sample Flow Check

11- Allow the system to burn-in for 24 hours, then recalibrate the module. The analyzer span response may drop 10–15% in the first 10 days due to some conditioning of the reaction cell window. This is normal but requires additional calibration