

FIALab Analyzer Preventative Maintenance Plan

FIALab offers Gold and Silver Preventative Maintenance (PM) and inspection plans for on-site maintenance of our analyzers. Our PM plans are designed to

- Minimize production downtime
- Minimize the resources that the customer needs to assign to analyzer maintenance and troubleshooting
- Improve the quality and safety of the customer's operations
- Maximize the identification of major maintenance needs ahead of time, so that such maintenance can be performed in a planned fashion and prevent any downtime

Maintenance personnel

The PM visit will be performed by a Seattle-based FIALab technician or scientist.

Description of maintenance support plans

FIALab offers two levels of on-site preventative maintenance support plans: gold and silver. The features in each of these plans are as follows

Support plan feature	Gold	Silver
Duration	1 or 3 years	1 or 3 years
Scheduled preventative maintenance (PM) visits	2/yr	1/yr
Additional PM visits	Optional	Optional
PM parts	Included	Included
PM labor	Included	Included
PM qualification tests	Included	Included
Travel expenses for planned PM visits	Included	Included
Non-PM parts	Not included	Not included
Non-PM labor	Not included	Not included
On-site response time	24 h	72 h
Travel expenses for unplanned visits	Not included	Not included
Loaner instrument shipped within 24 hours	Included	\$500
Phone and email support	Unlimited	12 h/yr
Remote desktop support	Unlimited	4 h/yr

Support plan definitions

Scheduled preventative maintenance (PM) visits

The number of scheduled visits per year to perform periodic maintenance is based on the plan choice. Under the Gold level plan, FIALab would perform both the 6-month and 12-month PM services. Under the Silver plan, the customer would perform the 6-month service and FIALab would perform the 12-month service.

Additional PM visits

PM service may be required every 3 months in exceedingly high output locations. Such service can be included if it seems necessary but it is not part of the standard packages.

PM parts and labor

	6-month service	12-month service
Change valve rotor	x	x
Inspect & clean the Lab-on-valve manifold / valve stator	x	x
Change all nuts and ferrules		x
Change tubing on peristaltic pump	x	x
Change all tubing		x
Inspect all tubing	x	
Change syringe (for SIA instruments)		x
Remove valve, inspect for leaks		x
Inspect flow cells	x	x
Change flow cell seals		x
Inspect light sources and fibers	x	x
Replace bulb on tungsten-halogen light source		x
Test communication to all modules	x	x
PM test for solvent leakage (solvent push)	x	x
PM test for air leakage (solvent pull, SIA instruments only)	x	x
PM test for injection precision	x	x

PM qualification tests

These tests are made to ensure that the instrument is working in a satisfactory fashion after maintenance. They consist of fluid delivery under pressure to detect solvent leaks, and fluid suction to detect air leaks. They will also include an injection test to make sure that the injector module is performing up to standard.

Travel expenses for PM visits

Travel expenses are included.

Non-PM parts and labor

A PM inspection may reveal an immediate need to repair or replace parts that are not included in the PM replacement list. Any such parts and the related labor are billed separately. Work outside of the PM schedule is only performed once authorized by a representative of the customer.

Travel expenses for unplanned visits

Travel expenses for unplanned visits will be charged separately. They include air travel, ground transportation and lodging expenses. Upon a request for an unplanned visit, an estimate for travel expenses is provided for the customer to review.

Phone and email support

Phone and Internet support encompasses FIAlab scientists and technicians being available to provide assistance either over the phone or by email.

Remote desktop support

Remote desktop support includes assistance by TeamViewer or other remote desktop software. This allows FIAlab personnel to access the analyzers computer from the FIAlab office. Remote desktop assistance would require an Internet connection to the computer that controls the FIAlab analyzer.