



SERVICES FOR ASI OR EPM DILUTION INSTRUMENTATION

Dilution Probe → Standard Service:

Inspection, cleaning, testing and provide performance data of In-situ and Out of Stack Diluting Probe Aspirators.

In-situ Dilution Probe → Line Repairs:

Repair/Reinforcement of the 3 solder joint locations on the probe lines. This service is only available for units that qualify, based on evaluation and overall condition of the probe lines before and after the solder joint areas.



Dilution Probe → Extended Service:

Repair of In-situ and Out of Stack Diluting Probe Aspirators (also includes Standard Service). This service is for damaged probes that require partial disassembly for minor repairs and parts replacement and re-welding.

Dilution Probe → Repair/Refurbish Service:

Overhaul of In-situ Diluting Probe Aspirators. This service is for damaged probes that require such repairs as internal aspirator replacement (includes all new internal and external lines/tubing), or replacement of all external parts around original aspirator (includes all new internal and external lines/tubing). Call for more information or instrument evaluations.

Out of Stack Dilution System → Full Service:

Complete system service includes replacement of all gaskets & seals, bypass-pump cleaning and performance testing, Pyrex critical orifice inspection/cleaning/testing and provide performance data (also includes *Standard Service* for diluting aspirator). Extra charges are applied for replacement of defective parts (non-consumables).



Out-of-Stack Diluter Upgrade → Upgrade Service:

This service is for the EPM "-S" series out-of-stack diluting sampler. The service consists of converting the 3/4" stainless steel ferrules configuration at the diluter-tip, to a 3/4" graphite ferrule seal. This configuration facilitates easier maintenance and reduces the possibility of leakage at diluter-tip.

Out of Stack Dilution System (w/Inertial Filter) → Full Service:

Complete system service includes the cleaning of all system lines, by-pass-pump (eductor) and inertial filter. Monel® critical orifice inspection/cleaning/testing and provide performance data (also includes *Standard Service* for diluting aspirator). Extra charges are applied for replacement of defective parts (non-consumables).

Bypass Pump Service:

Inspection, cleaning, testing and provide performance data of bypass pump ("High Efficiency" or "High Air Consumption type") that are used with Out of Stack Diluting Probes.

Critical Orifice Service (Monel® Type):

Inspection, cleaning & testing of critical orifice and provide performance test data. This service is for critical orifice used with Diluter Panels, Diluter Pumps, and Inertial Filtered Out of Stack Probes.

Critical Orifice Service (Pyrex/Quartz type):

Inspection, cleaning & testing of critical orifice, includes replacement of fine filter and provide performance data. This service is for critical orifice used with In-situ and Out of Stack Probes:



Any other charges required during instrument servicing, that is not included with a specific service, would be quoted on a case by case basis. The above noted services that require aspirator disassembly/repair, or full system overhauls will be evaluated and quoted accordingly. We will typically evaluate the system at our shop and submit a formal quotation before any work is performed. There is no charge for any of our evaluations!!



Our Standard Service has become very popular with many of our customers. Many Utilities take advantage of this service during their scheduled maintenance shutdowns, as a part of their QA/QC and Periodic Maintenance practices.

Our **Standard Service** includes an overall external cleaning of the probe-tip and probe lines, visual inspection of the unit for any defects; cracks or galled threads, and leak-tight testing for the probe lines. Our lab then tests for aspirator performance to then complete the initial evaluation of the unit, and determine the appropriate means of internal cleaning. Internal flushing of the aspirator and all internal paths is done with use of special cleaning solutions as part of the service. Ultrasonic baths and diluted HCl flush cycles are performed to remove internal blockage or buildup from the aspirator if its efficiency is below factory specs. After the cleaning/acid solution has been neutralized and removed from the aspirator, it is then flushed with Ethanol & dried with purge air. As a final step to ensure that any residual moisture is removed, heated purge air is run through the aspirator. After the final testing has been completed, the test data is recorded and a Performance Certificate accompanies the serviced probe. If the diluting probe-tip (in-situ) had been sent in with the compact inline filter on the dilution air line, we will have replaced the 60u cartridge. Same with the filter cap assembly, we will have replaced the coarse inlet screen. We also apply anti-seize compound to the probe tip threads, filter cap threads and internal threads of the front mantle ... hence, it's good to send in those extra parts!



Other Services offered:

We also offer a **Mid-level Service** that covers minor repairs such as probe-tip thread repairs (in-situ type), probe tube replacements, etc., and includes the Standard Service.

For units that require overhaul/rebuild, we offer an **Extended Service**. If the unit doesn't pass leak-tight test or there is internal damage to the aspirator, this service would be used. Basically any repairs that would require disassembly of the probe-tip is considered "Extended" service. Any Extended Service will also include the Standard Service. We are always happy to evaluate the unit and submit a quotation for any additional parts or repair beyond the Standard Service before proceeding.

Critical Orifice Service includes cleaning, testing and fine-filter replacement. Keep in mind that if the piece is cracked or if there is a chip on the stem, we may be able to repair this. If there is blockage, we can usually get that taken care of with no problem. If we receive the part and ultimately determine that it is unserviceable, there is no charge for the service if you purchase a new one at that time. A Performance Certificate is also provided to you, noting the nominal flow rate versus the actual tested flow rate after the service. *Always remember to remove orifice from probe-tip before shipping!

Please give us a call if you have any questions or are preparing to send in equipment for service.