



1282 Alma Court, San Jose, CA 95112

800-910-4356

Quality Processes & Procedures Manual

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1 REVISIONS AND CHANGES

DATE	APPROVAL	ORIGINATOR	CHANGE
8/12/2015	KFM	K.Mahoney	Initial compilation of specs and procedures
10/16/2018	KFM	K.Mahoney	Update company vehicle operations section
1/23/2019	KFM	K.Mahoney	Update Sec 10.5, Stocking requirements
4/22/2019	KFM	K.Mahoney	Separate Quality from Health & Safety. H&S is not part of the M4 H&S Ethics & Protocols Manual
5/23/2019	KFM	K.Mahoney	Add Warranty info, new Section 5, add Service Quality, new Section 4

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3 QUALITY

3.1 EXPECTATIONS & PURPOSE

All employees are part of our Quality Assurance Process. As part of our commitment to exemplary customer service, our process begins with qualified vendors who provide quality supplies and parts and continues through receiving inspection with technician verification prior to installing parts or using supplies for leak detector repairs and maintenance.

Mass 4 Service, Inc. warrants all our work, including parts and supplies that are used in our customers' leak detectors.

3.2 VENDORS

Vendors for replacement parts are selected for their ability to provide superior replacement parts. We work with them to provide consistent quality on every order.

Filaments are manufactured or re-manufactured by the same vendor as the OEM for each model.

Our NIST certified lab maintains a Primary Helium Leak Standard for use with the NIST Recertification process.

Suppliers are required to provide evidence of quality specified on demand.

Manufactured parts are specified to be superior or equivalent to OEM specifications for each leak detector model.

3.3 MSDS

All materials used in parts and supplies must have an MSDS on file in our digital library.

3.4 RELEVANT STANDARDS, CONFORMANCE AND COMPLIANCE

At this time Mass 4 Service, Inc. is not ANSI/ISO/ASQ certified. However, many of our processes reflect the standards laid out in the quality management systems.

ANS/ISO/IEC 17025:2005 & ISO/IEC 17025:2017 Competence of Laboratories Transition Set: specifies the general requirements for the competence to carry out tests and/or calibrations, including sampling. It covers testing and calibration performed using standard methods, non-standard methods, and laboratory-developed methods.

3.4.1 NIST Calibration & Re-certification

The [National Institute for Standards and Technology \(NIST\)](#), U.S. Department of Commerce, recommends recalibration of standard leaks annually. Our partner lab uses NIST test 281901-12 to re-certify our helium leak standards. As part of our annual service agreements, NIST calibrated helium leaks are exchanged with like scale leaks at the time of service to minimize your down-time.

All leaks are labeled with serial number, leak rate, calibration date, name of the calibration lab, and provided with a written certificate of compliance. A secondary label/tag is placed on the outside cover of the leak detector indicating Value (tested leak rate), S/N (serial number of the leak), and Due (date leak is due to be re-calibrated).

3.5 RECEIVING QUALITY MANAGEMENT – PARTS

Due to the specific, often unique nature of the parts and supplies we use, all parts are examined to determine if they are qualified to be installed. We do not use Lot Inspection, we use 100% inspection, twice.

Filaments must be individually packaged, with no voids visible in the Yttria coating, welds must be clean, windings must be uniform, and each filament assembly must be packaged to secure the filament assembly in place, and keep the assembly clean from environmental contaminants.	visual inspection, with x5 magnifying lens	Vendor is OEM Vendor
Seals must be clean and free of release wax, dust, debris, and flash.	visual inspection	Parker Distributor
Metal seals must be free of bends, creases, cracks, stretched areas and debris. They must be packaged so that they are not bent in normal handling.	visual inspection, with x5 magnifying lens	OEM Parts
Other replacement parts, including but not limited to PCB Assemblies, valves, coils, gauges, and hard manifold components must be equivalent to OEM parts or supplied by the OEM.	visual inspection, test on in-house unit if appropriate	OEM, or qualified vendor
Pumps are rebuilt in house, or by the OEM.	rebuild, test, and burn-in per OEM specifications	OEM, OEM supplier
All electrical equipment must be tested in-house prior to being delivered to the customer.	visual inspection, test on in-house unit if appropriate	

3.6 RECEIVING QUALITY MANAGEMENT – SUPPLIES

Supplies used in repairing and maintaining leak detectors are ordered and received according to their specific use. Content is verified from suppliers and MSDS filed in the Mass 4 Service digital library.

Petroleum based oils and solvents are stored per Cal OSHA recommendations.

3.7 RECEIVING QUALITY MANAGEMENT – EQUIPMENT

Equipment to be repaired in our facility will receive a Service Report/Tracking number in the 104xxxx series, printed on green paper to be used as a Tracking Sheet. This “Green Sheet” will stay with the unit throughout repair, rebuild and testing processes. A copy is available to the customer upon completion of the job, the original is kept on file in the Mass 4 Service digital files.

Customer equipment to be repaired in our San Jose, CA facility must be accompanied by a Health & Safety Certificate confirming that this equipment has not been exposed to hazardous materials that are not covered by our CA Environmental Health Permit OR have been decontaminated per CA OSHA requirements. Mass 4 Service Inc is identified as facility # FA0273911, Permit # PT0482196.

New equipment received in our facility for test and/or configuration prior to delivery to a customer site will also receive a tracking "Green Sheet".

3.8 STOCKING

After Inspection, acceptable parts will be labeled with Mass 4 Service Part number and stored in the Stock Area.

Assemblies made with parts picked from Stockroom supplies will be bagged and labeled with Mass 4 Service Part number, then stored in the Stock Area.

Repaired and/or Rebuilt Pumps and PCB Assemblies (from customer trade in or salvage) must be labeled with a manila tag indicating the item number, source, test completion date, Tech initials, and Green Sheet number. This tag is for internal use only and should be removed prior to installation in any equipment.

Supplies will be stored appropriately in the Supplies area of the Stock Area. Supplies are not labeled with Mass 4 Service Part numbers and are not tracked after Receiving Inspection.

3.9 VERIFICATION

Each Technician is responsible to visually check and verify that the parts they are installing are clean and correctly built prior to installation in customer leak detectors.

A Service Report will be created for each leak detector or pump that is serviced, in-house and on-site. A new Service Report will be created each time a customer facility is visited, one for each leak detector serviced.

In the event that a part is unacceptable for installation, an Exception Report will be filled out and the part returned to Receiving for handling.

3.10 REMEDY

For parts that do not meet specified requirements, or the OEM specifications, an Exception Report will be completed, with appropriate action taken: either the part will be cleaned/repaired, or returned to the vendor for replacement.

3.11 PROCESS GUIDELINES

When handling components that will be installed in high vacuum systems, all technicians must to use protective gloves and appropriate cleaning solutions and lubricants.

Powder-free gloves will be worn during all leak detector valve block and spectrometer tube maintenance and repairs. After cleaning vacuum parts, gloves must be changed prior to re-installing parts into the leak detector.

Powder-free gloves will be worn during cleaning of any component parts intended for use in leak detector valve blocks and spectrometer tubes.

Acceptable cleaning solutions for leak detector parts are semi-grade alcohol (98% minimum). Parts cleaned with 409, Simple Green, Acetone or other cleaners must be re-wiped with semi-grade alcohol to remove any remaining film and reduce out-gassing.

Technicians on-site will respect the Quality and Process programs of the site. Upon request, Technicians will provide digital versions of MSDS for solvents and lubricants being used during service.

Information shared with Mass 4 Service, Inc. employees by a customer in the course of the work being performed for that customer is to be held in confidence by that employee. This includes all materials (documents, manuals, memoranda, notes, records, drawings, or computer files) that may be furnished to the employee to facilitate the services we provide to our customer.

As a Channel Partner with Agilent Technologies, Mass 4 Service, Inc is compliant with the Agilent Technologies Standards of Business Conduct Agreement. This includes, but is not limited to, compliance with the US Foreign Corrupt Practices Act of 1977, as amended.

4 SERVICE QUALITY POLICY

All Field Service Technicians participate in ongoing training provided by senior Mass 4 Service Technician(s) and/or OEM manufacturers training. Mass 4 Service, Inc. employs an ongoing apprenticeship training format, which encourages Technicians to constantly learn and train each other in a teamwork-based exchange of information.

Field Service Technicians will comply with all safety training and safety requirements per customer

Service on customer equipment completed in-house or at the customer jobsite will generate a Service Report for each leak detector evaluated, repaired or serviced. This Service Report will be filed with the Business Office and shared with the customer within 48 hours of completion of the service.

All service by Mass 4 Service, Inc. is covered under our Limited Warranty (see Section 5 of this document).

5 LIMITED WARRANTY TERMS & CONDITIONS

5.1 PARTS & SUPPLIES

Unless otherwise specified, parts and products are warranted for 180 days from date of installation. This Limited Warranty does not cover problems or damage caused by improper maintenance, negligence, intentional damage, exposure to hazardous materials, damage resulting from natural disasters, theft or loss.

During the Warranty period, Mass 4 Service, Inc. will repair or replace, at no charge, products or parts of a product that prove defective because of improper material or workmanship, under normal use and maintenance. Replacement parts may be new or refurbished.

Products or pumps requiring repairs must be returned in original packing (if applicable), with an RA (Return Authorization). All returned vacuum pumps must be accompanied by a signed Health and Safety Certificate.

This warranty is in lieu of any other warranty, express or implied.

5.2 SERVICES

This Limited Warranty covers work and services performed by Mass 4 Service, Inc. Technicians for customer owned equipment and is in force for 180 days from date of service as noted on the Service Report provided.

All work is warranted to comply with and reasonably conform to manufacturers specifications. All supplies and parts used or installed by Technicians are covered under this Warranty for material and workmanship only. Customers are required to contact Mass 4 Service, Inc. as soon as possible to arrange for evaluation and remediation, repairs or replacement based on the evaluation of our Field Technician.

This Limited Warranty does not cover problems or damage caused by improper maintenance, negligence, intentional damage, exposure to hazardous materials, damage resulting from natural disasters, theft or loss.

This warranty is in lieu of any other warranty, express or implied.

6 EXPORTS & IMPORTS

Mass 4 Service, Inc. complies with all export requirements per NAFTA and US Regulations. Freight forwarding and any taxes or Duties due are the responsibility of the Customer.

Imported Conflict Minerals used in filaments (tungsten) by our vendors are covered by the appropriate Conflict Minerals GeSI forms. Current forms are on file.

7 ASSIGNMENT & SUBCONTRACTING

Unless otherwise specified, all work for Customer Purchase Orders will be performed by Mass 4 Service, Inc. Technicians or Employees. Any repairs to be subcontracted will be clearly stated on the Quote and Service Report (Green Sheet). Mass 4 Service, Inc. will assume liability for customer equipment at subcontractor work sites.

Certain services may be performed by vendors of Mass 4 Service, Inc. These services are covered under the Mass 4 Service, Inc. Limited Warranty policy contained in this document.

8 APPENDIX A - EXCEPTION REPORT

Exception Report Form – Example



Mass 4 Service, Inc.

Our team is committed to maintaining the reliability of your leak detection equipment.

Exception Report

*Mass 4 Service, Inc.
1282 Alma Court
San Jose, Ca 95112*

*Phone 800-910-4356
Fax 877-584-9273
Service@Mass4.com*

Vendor	PO/Invoice	Date Received	Date	Tech


Line	Item #	Description	Qty	Issue Noted
1				
2				
3				
4				

Instructions or Problem:			
Solution: <input type="checkbox"/> Health & Safety Certificate Attached			Additional Information:
RETURN	RMA:	Date:	Contact:

Accepted by: _____
Date: _____

9 APPENDIX B – GREEN SHEET

In-house Service Report/Tracking Green/Return Authorization Sheet example:



In-House Traveler/Service Report & Receiver

Phone 800-910-4356 Mass 4 Service, Inc.
 Service@Mass4.com 1282 Alma Court
 San Jose, CA 95112

Our team is committed to maintaining the reliability of your leak detection equipment.

Equipment	Disposition:	Machine Model	SR/JO #
<input type="checkbox"/> leak detector <input type="checkbox"/> pictures on file	<input type="checkbox"/> For Customer <input type="checkbox"/> Stock		10405XX
<input type="checkbox"/> pump <input type="checkbox"/> Health & Safety Cert	<input type="checkbox"/> Evaluation <input type="checkbox"/> Salvage	Serial Number	Tech
<input type="checkbox"/> other _____			
Customer Contact	PO or Quote	Received Date	Released Date
Phone & email	Leak SN	Leak Rate	Leak Date Pump Model(s)
Customer & Site Address	Customer Bill to Address	Shipping	
	(same)	<input type="checkbox"/> Expedite Express <input type="checkbox"/> Javelin Logistics <input type="checkbox"/> customer transport <input type="checkbox"/> customer account info:	
Instructions or Evaluation Results:	Eval Results or Instructions:		
<input type="checkbox"/> evaluation required <input type="checkbox"/> evaluation complete _____			

Line	Item #	Description	Qty	Unit Price
1				
2				
3				
4				

Note: This is a statement of work performed. This is not an invoice.

Warranty: 90 days replaced parts and labor.
 NIST traceable re-calibrated leaks certified for one calendar year from date on leak label.

Shipping Information <input type="checkbox"/> wrapped <input type="checkbox"/> box <input type="checkbox"/> crate <input type="checkbox"/> pallet Size: _____ Wide x _____ Deep x _____ Tall Weight _____ Carrier: <input type="checkbox"/> Exp Expr <input type="checkbox"/> Javelin <input type="checkbox"/> FedEx <input type="checkbox"/> UPS <input type="checkbox"/> Other	Packing Slip/Pick up Info: Accepted by: _____ Date: _____
--	--

**Solution/
Work
completed:**


Additional Information/Notes:

Line	Item #	Description	Qty	Unit Price

Burn In: Model:				Rebuild Tech:			
Date	Start/Check/Stop Time	Temp	Tech	Date	Start/Check/Stop Time	Temp	Tech

10 APPENDIX C -HEALTH & SAFETY CERTIFICATION

Health & Safety Certification form for receiving equipment into the Mass 4 Service shop example.



Health and Safety Certification

Service Request/Return Authorization

>>Mass 4 Service, Inc. only accepts Non-Contaminated Items for Repair or Rebuild<<

<i>Customer Site Address</i>	<i>Bill to Address</i>	<i>Service Order/RA#:</i>	
		<i>Date:</i>	
<i>Equipment Condition:</i>			
<input type="radio"/> <i>New</i> <input type="radio"/> <i>Used, not contaminated</i> <input type="radio"/> <i>Used, de-contaminated</i> <input type="radio"/> <i>Attachments-see below</i>			
<i>Customer Contact</i>	<i>Phone</i>	<i>email</i>	<i>FOB</i>

Model #	Serial No.	Reason for Return/Repair	Delivery Date

Tradename	Chemical Name/Symbol	Risks & Precautions	MSDS/ decon cert attached?

- ✓ Mass 4 Service, Inc. requires this form to be completed by authorized customer staff prior to shipping or acceptance for repairs or return to our facility.
- ✓ Facilities in California using or processing any substance listed under California Code of Regulations, Title 22, Div. 4.5 Chapter 11 or California Health & Safety Code §25100, must have in place a decontamination procedure for equipment used and a storage procedure for hazardous waste. If a REACH Certificate or RoHS Compliance document is available, it must be attached to this document.
- ✓ If any equipment is received at Mass 4 Service, Inc. in a contaminated condition, the customer will be held responsible for all costs incurred to ensure the safe handling of the equipment and is liable for any harm or injury to Mass 4 Service, Inc. employees occurring as a result of exposure to toxic or hazardous materials present in equipment.

Declaration: I hereby declare that the information on this form is accurate and complete enough to determine any contamination level. I also declare that this form has been completed and signed by authorized and qualified staff.

Print name: _____ Sign: _____ Date: _____

Attachments: decontamination process
 decontamination certification
 REACH or RoHS doc

Return this form with equipment to be serviced, returned, or repaired to: Mass 4 Service, Inc. 1282 Alma Ct., San Jose, CA 95112

Form M4-1086 Rev 3/2019 service@mass4.com 800-910-4356