

Mettler-Toledo, LLC

Address	1900 Polaris Parkway, Columbus, OH 43240-4035
Phone	(800) METTLER (800) 638-8537
Fax	(614) 438-4900

www.mt.com

August 4, 2017

Dear Valued Customer:

Thank you for your inquiry of METTLER TOLEDO's quality system(s).

METTLER TOLEDO is a global manufacturer and marketer of precision instruments for use in laboratory, industrial and food retailing applications. METTLER TOLEDO has multiple global manufacturing facilities. All of the Company's manufacturing facilities in Europe, the United States, and China are ISO 9001 registered. In addition to a broad product offering, the Company has one of the largest global sales & service organizations among precision instrument companies. The METTLER TOLEDO Company's various organizations currently operate under their own Quality Management Systems (QMS) pertaining to their specific sub-groups or divisional business areas.

Under Mettler-Toledo, LLC, the METTLER TOLEDO North America (MT-NA) entity is responsible for operating the marketing, sales & service sub-groups of the Laboratory, Industrial, and Retail divisional business areas in the U.S. & Canada. MT-NA's Laboratory and Industrial business operations are controlled by an ISO 9001 registered QMS. These two divisional business areas are also ISO 17025 accredited by A2LA. Our field service operations use only certified weights, traceable to national standards; the National Institute of Standards and Technology (NIST) in the U.S. and Standards Council of Canada (SCC) in Canada.

MT-NA is devoted to quality and pleased that, by the very nature of your request, you have shown this same commitment. Notably, we receive many requests for information and, in response, have compiled this comprehensive **Quality Self-Assessment** packet. This packet should address the intent and/or requirements of your questionnaire, supplier survey, qualification documents, etc. If you have any concerns that are not specifically addressed by the enclosed material please contact MT-NA Quality directly, per below.

Quality Policy:

"Each of us supports a continuously improving organization that is committed to deliver defect-free work, on time, to all of our customers."

Our Goal: "Satisfy Every Customer Every Time"

Regards,

Quality Management Team
METTLER TOLEDO North America

E-mail: Quality.MTNA@mt.com
Phone: 1-800-638-8537
Fax: 1-614-438-4900

METTLER TOLEDO

Mettler-Toledo, LLC (MT-NA Marketing Organization)
QUALITY SELF-ASSESSMENT 2017

Company Name/Division:	Mettler-Toledo, LLC		
Address/City/State/Zip/Country:	1900 Polaris Parkway, Columbus, OH 43240-2020 USA		
Website:	www.us.mt.com	Primary NAICS:	333997
Phone:	1-800-638-8537 ext.104511	D&B Number:	19-464-9323
Fax:	614-438-4900	Website:	www.mt.com
Parent Company	Mettler-Toledo International Inc		
Parent Company Address	Im Langacher, CH-8606 Greifensee, Zurich, Switzerland		
Phone:	+41-44-944-2211		
Fax:	+41-44-944-2255		
Mettler Toledo, LLC (North America) Key Personnel			
General Manager	T. Alton Hill		
General Manager - Canada	Magnus Kullerstrand		
Head of Service Operations (USA)	Matthew Bendick		
National Service Manager – Lab. div.	Charles Francis		
National Service Manager – Ind. div.	Matthew Wilson		
National Service Manager – Ret. div.	Jim Kaiser		
Quality Manager	Brian Orr		
Support Office: Customer Service Sales Contracts Scheduling Invoicing etc.	servicerequests@mt.com or 1-800-METTLER (1-800-638-8537)		
Quality Contact Information			
Department:	Quality Management		
Email:	Quality.MTNA@mt.com or visit Request for Information Directory		
Business Size, Site & Personnel Information			
Location	1900 Polaris Parkway, Columbus, OH 43240-2020 USA		
# of Years in Business/Operation:	116 years (Founded 1901 as Toledo Scale Company, Inc.)		
# of Years at Current location	Since 1998, 19 years as of 2017		
Size of Facility	88,000 Square Feet		
# of Shifts	1		
# of employees – Mgmt/Office/Admin	Approx. 331 (US & Canada)		
# of employees – Field Service	Approx. 623 (US & Canada)		
Total Employees	Approx. 954 (US & Canada)		
Quality Control	3		
Union Status	Non-Union (except Canada)		
% Permanent Employees	99%		
% Contract Employees	1%		
Turnover Rate (Full-Time Personnel)	3% (as of February 2016)		
Clean room	Metrology Lab (Echelon 1 Classified) for calibration of standard weights		
Calibration Standards	NIST Traceable		
Disaster Recovery			
Daily server backups & off-site backup maintained for recovery. Visit www.us.mt.com/sustainability			

QUALITY SELF-ASSESSMENT 2017

Certifications			
Certificate	Registrar	Last on-site audit	Certificate #
ISO 9001:2008	Bureau Veritas (BVC)	October 2016	US007331-1
ISO/IEC 17025:2005	A2LA - Lab	July 2016	1788.01
ISO/IEC 17025:2005	A2LA - Industrial	March 2017	1902.01
ISO/IEC 17025:2005	A2LA - Pipettes	February 2017	1788.02
C-TPAT certified (Customs-Trade Partnership Against Terrorism)		SVI# 91918908	
Please visit our Certifications & Accreditations page to download current certificates: http://us.mt.com/us/en/home/supportive_content/specials/maw_quality_01042006_1.html			
Regulatory Information			
As a service division, Mettler-Toledo, LLC is not subject to registration, inspection, accreditation, or certification by any regulatory body or agency. We are neither FDA regulated nor a cGMP facility.			
Type of Business			
We provide Calibration Services of precision weighing instruments & analytical devices and Product Sales via catalog at Mettler-Toledo, LLC. Product specific information can be found at www.us.mt.com. No manufacturing, production, programming, or design is performed at this site. Mettler Toledo has multiple global manufacturing facilities. More information can be found at http://investor.mt.com/ and www.us.mt.com/sustainability			
Terms & Conditions			
Mettler-Toledo, LLC Standard Terms & Conditions for Service: http://us.mt.com/us/en/home/site_content/legal/commercial_terms/service_terms_us.html			
Quality Management			
- The site has a Change Notification Policy, Nonconforming Calibration Results Policy, and Corrective/Preventive Action Policy. - The site also has an employee Training program that is documented in writing and/or electronically via LMS. Job-specific training requirements are clearly defined for each position. - The Quality Management System is electronic-based and accessible via SharePoint to all direct employees. Printed documents are uncontrolled and "expire" 24 hours from the date/time printed. - The company has a written Quality Manual. Please refer to NQ0001 attached. - The site has documented instructions, standards, and manuals that are maintained, up-to-date, and are readily available to the employees. - Document Revision & Approval procedures are clearly defined. Obsolete procedures or documents are promptly removed from all controlled points of use. - Periodic review of the Quality System is performed by management. Internal Audits are also performed per ISO 9001 & ISO 17025 standard compliance of processes within scope of those accreditations.			
Non-conforming Service			
- A written procedure is in place for the handling, disposition, and documentation of nonconforming calibration services, results and/or certificates. - Non-conforming deviations are clearly identified and immediately investigated to determine impact (if any) to calibrations performed in order to contact impacted customers (if necessary). - Notification of Change Agreements can be arranged for customer notification of nonconforming services.			

Mettler-Toledo, LLC (MT-NA Marketing Organization)
QUALITY SELF-ASSESSMENT 2017

Quality Audits
• Internal audits of the entire quality system, including field service, are conducted annually at minimum.
• Internal audits are performed by personnel independent of the area audited.
• Internal audit reports are brought to management's attention. Any nonconformities are reviewed immediately.
Corrective Action/Preventive Action
• Procedures exist that require prompt and appropriate corrective/preventive action to be taken as required.
• It is applicable to all elements of the quality system.
• A documented Quality Notification/Corrective Action system is in place to address adverse quality issues or trends.
• The results of audits and corrective action results are reviewed by management for completion and effectiveness.
• Corrective/preventive action also extends to Mettler Toledo production organizations/sites.
Training
• Employees are trained on procedures and training is documented.
• Employees are qualified for the jobs they perform.
• Each employee has a resume and training records on file.
• A job description exists for each employee.
• Retraining is conducted periodically.
Record Retention
• Most Records are maintained for a minimum of three (3) years. However, retention varies depending on the type of record.
Complaints
• Procedures are in place for complaint handling and timely resolution of all complaints.
• Complaints are reviewed and analyzed for trends.

Useful METTLER TOLEDO Company site links:

We are pleased to refer you to the following web sites for more information regarding the characterization and principles of the METTLER TOLEDO group: www.mt.com | www.us.mt.com | www.ca.mt.com
GLOBAL UNITED STATES CANADA

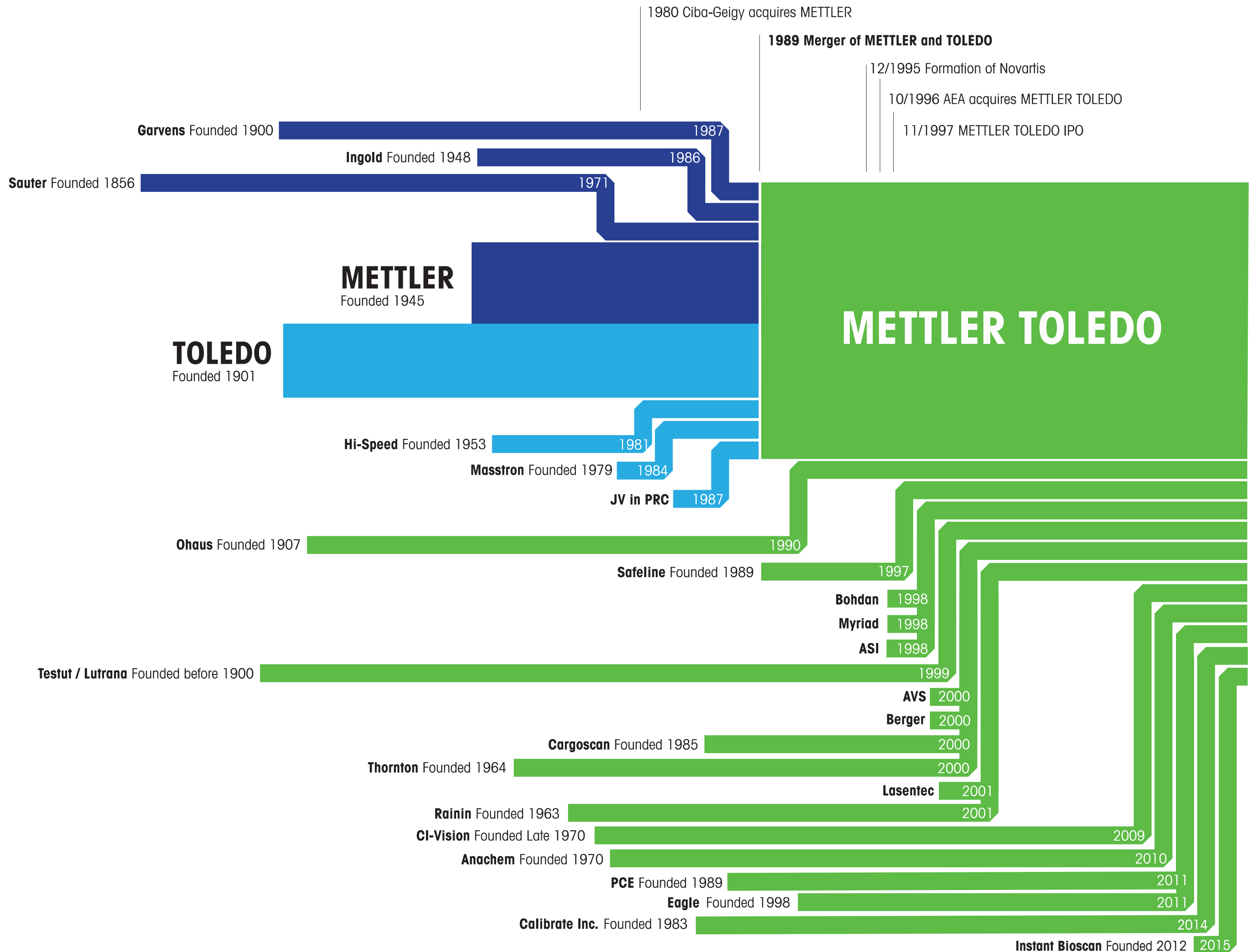
[Request for Information Directory](#)

Disclaimer:

The information provided herein is for your information only. It does not extend our liability in any way.

This information was prepared by using reasonable efforts and reflects METTLER TOLEDO's findings at the date of its creation. Without prejudice to any rights or obligations under existing written agreements, METTLER TOLEDO makes no representations, warranties, or assurances of any kind, expressed or implied, including but not limited to the accuracy, currency, completeness or reliability of the information provided. METTLER TOLEDO shall in no event be liable for any damages, including direct, consequential, incidental and special or any injury resulting from your access to or use of this report or from your reliance on any information provided.

The information contained herein is the property of and copyrighted by METTLER TOLEDO and may not be reproduced, disseminated, sold, distributed, published, circulated or commercially exploited without the express written permission of METTLER TOLEDO.



BUREAU VERITAS
Certification



METTLER TOLEDO, INC.

**HQ : 1900 POLARIS PARKWAY
COLUMBUS, OH, 43240 USA**

SEE APPENDIX FOR ADDITIONAL CERTIFIED LOCATIONS

Bureau Veritas Certification certifies that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standards

ISO 9001:2008

Scope of certification

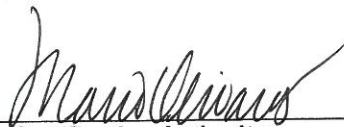
**Marketing, sales, distribution, installation and service of
balances, analytical instruments, scales, pipettes and
weighing systems for the North American industrial and
laboratory market**

Certification cycle start date: **9 November 2014**

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **8 November 2017**

Original certification date: **21 October 2005**

Certificate No. US007331-1



Certification Authority



Local office: Bureau Veritas Certification North America, Inc.
390 Benmar Drive, Houston, Texas, USA
www.us.bureauveritas.com/bvc

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization. To check this certificate validity please call **+(800) 937-9311**.

BUREAU VERITAS
Certification



METTLER TOLEDO, INC.

**HQ: 1900 POLARIS PARKWAY
COLUMBUS, OH, 43240 USA
APPENDIX TO CERTIFICATE NO. : US007331-1**

Bureau Veritas Certification certifies that the Management System of the above organization (including the locations listed below) has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standards

ISO 9001:2008

Certified Locations

Site	Address	Scope
Mettler-Toledo, Inc. Columbus, OH	1900 Polaris Parkway, Columbus, OH 43240 USA	Marketing, sales, distribution, installation and service of balances, analytical instruments, scales, pipettes and weighing systems for the North American industrial and laboratory market
Mettler-Toledo, Inc. Worthington, OH	1150 Dearborn Dr., Worthington, OH 43085 USA	Marketing, sales, distribution, installation and service of balances, analytical instruments, scales, pipettes and weighing systems for the North American industrial and laboratory market
Mettler Toledo, Inc. Mississauga, ON Canada	2915 Argentia Rd, Mississauga, ON, Canada L5N 8G6	Marketing, sales, distribution, installation and service of balances, analytical instruments, scales, pipettes and weighing systems for the North American industrial and laboratory market


Certification Authority



Local office: Bureau Veritas Certification North America, Inc.
390 Benmar Drive, Houston, Texas, USA
www.us.bureauveritas.com/bvc

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization. To check this certificate validity please call **+(800) 937-9311**.



Doc #:	NQ0001		
Title:	Quality Manual		
Revision:	07	Date:	08/4/2017
Replaces:	NT0001, Rev 06c, 05/17/2016		
Owner:	MT-NA Quality Manager		

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2.0 PREFACE

This Quality Manual serves as the basis for the Quality System for the following organizations in **METTLER TOLEDO** North American (MT-NA) Business Areas: **Industrial** and **Lab**. The Quality Manual defines the policies and references procedures required for controlling activities that affect product quality.

This Quality Manual and Quality System meets the intent of the ISO 9001-2015 standard as a model for quality assurance in production, installation, and servicing. The compliance with this standard is certified by a third party registrar. All employees at **METTLER TOLEDO** have responsibility for implementing the policies and procedures outlined or referenced in this Quality Manual.

The fundamental objective of **METTLER TOLEDO** is to supply products and services that meet our customers' requirements. This manual supports that objective.

3.0 ABBREVIATIONS

3.1 Abbreviations

Abbreviations used in the quality management system include:

MT-NA	METTLER TOLEDO North America(n)
MO	Marketing Organization
PO	Producing Organization
QA	Quality Assurance
QM	Quality Manual
QMS	Quality Management System
QN	Quality Notification
IA	Internal Audit
HR	Human Resources
EHS	Environmental Health and Safety
IND	Industrial

4.0 CONTEXT OF METTLER TOLEDO

4.1 Understanding METTLER TOLEDO and its context

METTLER TOLEDO shall determine external and internal issues that are relevant to its purpose and its strategic direction and that affect its ability to achieve the intended result(s) of its quality management system.

METTLER TOLEDO shall monitor and review information about these external and internal issues.

NOTE 1 Issues can include positive and negative factors or conditions for consideration.

NOTE 2 Understanding the external context can be facilitated by considering issues arising from legal, technological, competitive, market, cultural, social and economic environments, whether international, national, regional or local.

NOTE 3 Understanding the internal context can be facilitated by considering issues related to values, culture, knowledge and performance of **METTLER TOLEDO**.

4.1.1 METTLER TOLEDO maintains a list of both external and internal issues relevant to its purpose and its strategic direction and that affect its ability to achieve the intended result(s) of its quality management system. This list is maintained by the Quality Manager and reviewed annually with top leadership for suitability and accuracy.

4.2 Understanding the needs and expectations of interested parties

Due to their effect or potential effect on the **METTLER TOLEDO**'s ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, the **METTLER TOLEDO** shall determine:

- a) the interested parties that are relevant to the quality management system;
- b) the requirements of these interested parties that are relevant to the quality management system.

METTLER TOLEDO shall monitor and review information about these interested parties and their relevant requirements.

4.2.1 METTLER TOLEDO maintains a list of interested parties that are relevant to the QMS.

4.2.2 Interested Party: 'Anyone who can affect, be affected by, or believe that they are affected by a decision or activity' relevant to your QMS. An interested party is a person, group, or organization that has an interest or a stake in a decision or activity.

Interested Party	Needs	Responsible
End Users	To provide quality goods and/or services on-time and meet expectations	Quality / Head of Service / Business Area Managers
Channel Partners	To provide quality goods on-time and meet expectations	Quality / Business Area Managers / Channel Managers

Interested Party (cont.)	Needs	Responsible
Suppliers	To provide clear explanation of our needs	Business Area Managers / Head of Service
Employees	Provide a safe environment with tools needed to be successful	Human Resource / Safety Manager / Senior Marketing Organization Leadership
Regulatory Agencies	Compliance to guidelines and regulations related to METTLER TOLEDO - North America	Quality / Technical Managers / Product Managers / Service Managers
Senior Finance Management	Business is meeting financial expectations and key corporate initiatives	General Manager / Controller
Community	Create jobs, be successful and be socially responsible	METTLER TOLEDO - North America Staff & Human Resources

4.3 Determining the scope of the quality management system

METTLER TOLEDO shall determine the boundaries and applicability of the quality management system to establish its scope.

When determining this scope, the **METTLER TOLEDO** shall consider:

- a) the external and internal issues referred to in 4.1;
- b) the requirements of relevant interested parties referred to in 4.2;
- c) the products and services of the **METTLER TOLEDO**.

The **METTLER TOLEDO** shall apply all the requirements of this International Standard if they are applicable within the determined scope of its quality management system.

The scope of the **METTLER TOLEDO's** quality management system shall be available and be maintained as documented information. The scope shall state the types of products and services covered, and provide justification for any requirement of this International Standard that the **METTLER TOLEDO** determines is not applicable to the scope of its quality management system.

Conformity to this International Standard may only be claimed if the requirements determined as not being applicable do not affect the **METTLER TOLEDO's** ability or responsibility to ensure the conformity of its products and services and the enhancement of customer satisfaction.

4.3.1 METTLER TOLEDO North America (**MT-NA**) markets, sells, distributes, installs and services balances, analytical instruments, scales and weighing systems for the North American Industrial and Laboratory market.

Product specific information can be found at www.us.mt.com. No manufacturing, production, programming, or design is performed at this site. Mettler Toledo has multiple global manufacturing facilities. More information can be found at <http://investor.mt.com/> and www.us.mt.com/sustainability

4.4 Quality management system and its processes

4.4.1 The **METTLER TOLEDO** shall establish, implement, maintain and continually improve a quality management system, including the processes needed and their interactions, in accordance with the requirements of this International Standard.

The **METTLER TOLEDO** shall determine the processes needed for the quality management system and their application throughout the **METTLER TOLEDO**, and shall:

- a) determine the inputs required and the outputs expected from these processes;
- b) determine the sequence and interaction of these processes;
- c) determine and apply the criteria and methods (including monitoring, measurements and related performance indicators) needed to ensure the effective operation and control of these processes;
- d) determine the resources needed for these processes and ensure their availability;
- e) assign the responsibilities and authorities for these processes;
- f) address the risks and opportunities as determined in accordance with the requirements of 6.1;
- g) evaluate these processes and implement any changes needed to ensure that these processes achieve their intended results;
- h) improve the processes and the quality management system.

4.4.2 To the extent necessary, **METTLER TOLEDO** shall:

- a) maintain documented information to support the operation of its processes;
- b) retain documented information to have confidence that the processes are being carried out as planned.

4.4.2.1 Quality Manual:

a) The Quality Manual contains policies that define the quality system at **METTLER TOLEDO**. The Quality Manual is closely aligned to the ISO 9001-2015 standard and the main sections correspond to that standard.

1) The documented procedures established for the quality management system, or reference to them, and a description of the interaction between the processes of the quality management system. See diagram below.



4.4.2.2 Documented Quality System Procedures:

- a) These procedures are used to define quality standards, methods, and procedures for MT-NA.

4.4.2.3 Other Quality Documents

- a) Work instructions define work methods
- b) Forms, tags, labels or stamps are used for data collection, analysis, and distribution.

4.4.2.3 Certificates and Accreditations

- a) **METTLER TOLEDO** Certification and Accreditation documents are available for download. METTLER TOLEDO North America's Laboratory Field Service Organization and Industrial Field Service Organization are ISO 9001 registered since 1993. Additionally, all of our manufacturing facilities that provide products to our Industrial and Lab customers have been ISO 9001 registered for a minimum of five years, to include **METTLER TOLEDO** facilities in the United States, Europe, and China.

Below you will find a Certificate for our Lab Field Service Organization, a Certificate for our Industrial Field Service Organization, and a Certificate for our Manufacturing Facilities respectively. Please check back often for current Certification and Accreditation information.

https://www.mt.com/us/en/home/perm-lp/market-organizations/usa/maw_quality_01042006_1.html

5 Leadership

5.1 Leadership and commitment

5.1.1 General

Top management shall demonstrate leadership and commitment with respect to the quality management system by:

- a) taking accountability for the effectiveness of the quality management system;
- b) ensuring that the quality policy and quality objectives are established for the quality management system and are compatible with the context and strategic direction of **METTLER TOLEDO**;
- c) ensuring the integration of the quality management system requirements into **METTLER TOLEDO** 's business processes;
- d) promoting the use of the process approach and risk-based thinking;
- e) ensuring that the resources needed for the quality management system are available;
- f) communicating the importance of effective quality management and of conforming to the quality management system requirements;
- g) ensuring that the quality management system achieves its intended results;

- h) engaging, directing and supporting persons to contribute to the effectiveness of the quality management system;
- i) promoting improvement;
- j) supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

NOTE Reference to “business” in this International Standard can be interpreted broadly to mean those activities that are core to the purposes of **METTLER TOLEDO** 's existence, whether **METTLER TOLEDO** is public, private, for profit or not for profit.

5.1.2 Customer focus

Top management shall demonstrate leadership and commitment with respect to customer focus by ensuring that:

- a) customer and applicable statutory and regulatory requirements are determined, understood and consistently met;
- b) the risks and opportunities that can affect conformity of products and services and the ability to enhance customer satisfaction are determined and addressed;
- c) the focus on enhancing customer satisfaction is maintained.

5.2 Policy

5.2.1 Establishing the quality policy

Top management shall establish, implement and maintain a quality policy that:

- a) is appropriate to the purpose and context of **METTLER TOLEDO** and supports its strategic direction;
- b) provides a framework for setting quality objectives;
- c) includes a commitment to satisfy applicable requirements;
- d) includes a commitment to continual improvement of the quality management system.

5.2.1.1 MT-NA Quality Policy

Quality Policy

Each of us supports a continuously improving organization that is committed to deliver defect-free work, on time, to all of our customers.

Each of us All employees in all functions

Continuous Improvement Ongoing effort to improve products, services, and processes

Defect-free work Live up to the promise of our brand

On Time Meeting our customer's expectations

All customers End users, Channel Partners, Internal, PO's

Our Goal: Satisfy every customer, every time.



5.2.2 Communicating the quality policy

The quality policy shall:

- a) be available and be maintained as documented information;
- b) be communicated, understood and applied within **METTLER TOLEDO**;
- c) be available to relevant interested parties, as appropriate.

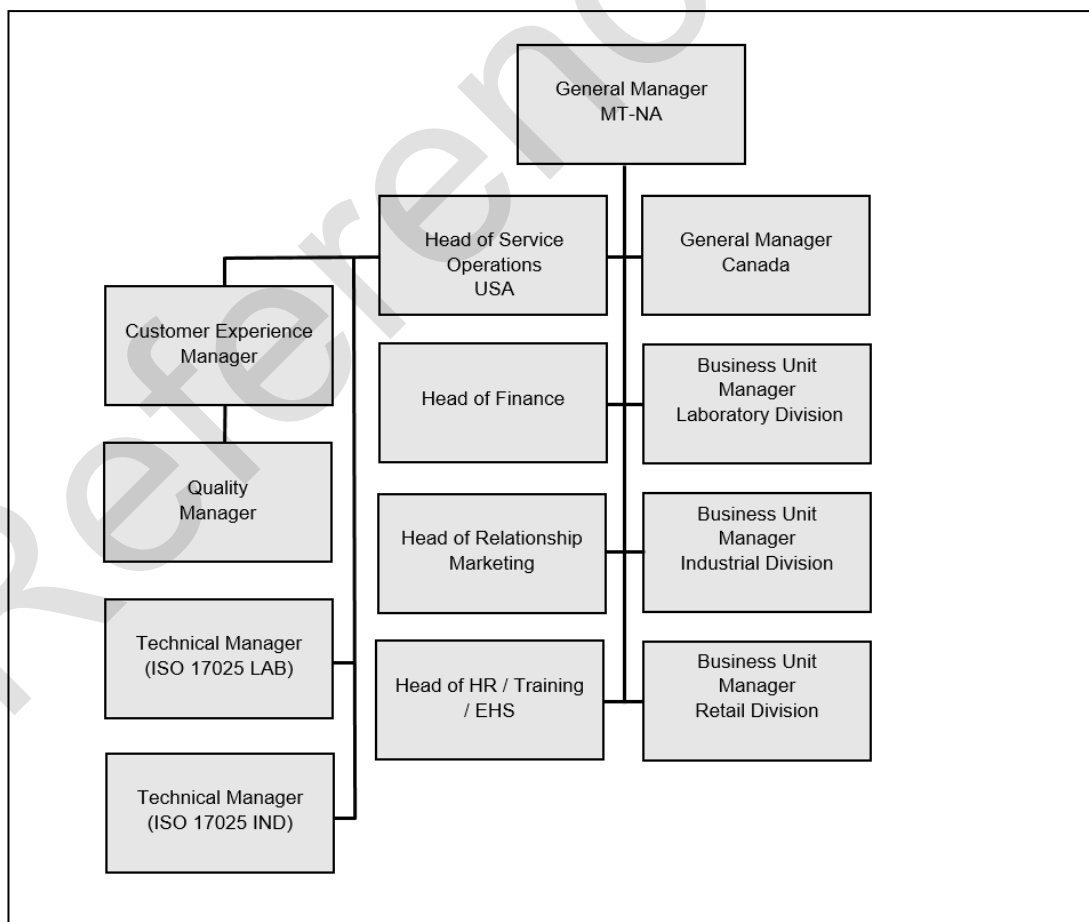
5.3 METTLER TOLEDO roles, responsibilities and authorities

Top management shall ensure that the responsibilities and authorities for relevant roles are assigned, communicated and understood within **METTLER TOLEDO**.

Top management shall assign the responsibility and authority for:

- a) ensuring that the quality management system conforms to the requirements of this International Standard;
- b) ensuring that the processes are delivering their intended outputs;
- c) reporting on the performance of the quality management system and on opportunities for improvement (see 10.1), in particular to top management;
- d) ensuring the promotion of customer focus throughout **METTLER TOLEDO**;
- e) ensuring that the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented.

5.3.1.1 METTLER TOLEDO Organizational Structure



6 Planning

6.1 Actions to address risks and opportunities

6.1.1 When planning for the quality management system **METTLER TOLEDO** shall consider the issues referred to in 4.1 and the requirements referred to in 4.2 and determine the risks and opportunities that need to be addressed to:

- a) give assurance that the quality management system can achieve its intended result(s);
- b) enhance desirable effects;
- c) prevent, or reduce, undesired effects;
- d) achieve improvement.

6.1.2 **METTLER TOLEDO** shall plan:

- a) actions to address these risks and opportunities;
- b) how to:
 - 1) integrate and implement the actions into its quality management system processes (see 4.4);
 - 2) evaluate the effectiveness of these actions.

Actions taken to address risks and opportunities shall be proportionate to the potential impact on the conformity of products and services.

NOTE 1 Options to address risks can include avoiding risk, taking risk in order to pursue an opportunity, eliminating the risk source, changing the likelihood or consequences, sharing the risk, or retaining risk by informed decision.

NOTE 2 Opportunities can lead to the adoption of new practices, launching new products, opening new markets, addressing new customers, building partnerships, using new technology and other desirable and viable possibilities to address **METTLER TOLEDO's** or its customers' needs.

6.1.2.1 **METTLER TOLEDO** maintains a list of both external and internal issues relevant to its purpose and its strategic direction and that affect its ability to achieve the intended result(s) of its quality management system.

METTLER TOLEDO additionally establishes actions to address the risks and opportunities identified. This list is maintained by the Quality Manager and reviewed annually with top leadership for suitability, accuracy, and effectiveness.

6.2 Quality objectives and planning to achieve them

6.2.1 **METTLER TOLEDO** shall establish quality objectives at relevant functions, levels and processes needed for the quality management system.

The quality objectives shall:

- a) be consistent with the quality policy;
- b) be measurable;

- c) take into account applicable requirements;
- d) be relevant to conformity of products and services and to enhancement of customer satisfaction;
- e) be monitored;
- f) be communicated;
- g) be updated as appropriate.

METTLER TOLEDO shall maintain documented information on the quality objectives.

6.2.2 When planning how to achieve its quality objectives, **METTLER TOLEDO** shall determine:

- a) what will be done;
- b) what resources will be required;
- c) who will be responsible;
- d) when it will be completed;
- e) how the results will be evaluated.

6.3 Planning of changes

When **METTLER TOLEDO** determines the need for changes to the quality management system, the changes shall be carried out in a planned manner (see 4.4).

METTLER TOLEDO shall consider:

- a) the purpose of the changes and their potential consequences;
- b) the integrity of the quality management system;
- c) the availability of resources;
- d) the allocation or reallocation of responsibilities and authorities.

7 Support

7.1 Resources

7.1.1 General

METTLER TOLEDO shall determine and provide the resources needed for the establishment, implementation, maintenance and continual improvement of the quality management system.

METTLER TOLEDO shall consider:

- a) the capabilities of, and constraints on, existing internal resources;
- b) what needs to be obtained from external providers.

7.1.2 People

METTLER TOLEDO shall determine and provide the persons necessary for the effective implementation of its quality management system and for the operation and control of

its processes.

7.1.3 Infrastructure

METTLER TOLEDO shall determine, provide and maintain the infrastructure necessary for the operation of its processes and to achieve conformity of products and services.

NOTE Infrastructure can include:

- a) buildings and associated utilities;
- b) equipment, including hardware and software;
- c) transportation resources;
- d) information and communication technology.

7.1.4 Environment for the operation of processes

METTLER TOLEDO shall determine, provide and maintain the environment necessary for the operation of its processes and to achieve conformity of products and services.

NOTE A suitable environment can be a combination of human and physical factors, such as:

- a) social (e.g. non-discriminatory, calm, non-confrontational);
- b) psychological (e.g. stress-reducing, burnout prevention, emotionally protective);
- c) physical (e.g. temperature, heat, humidity, light, airflow, hygiene, noise).

These factors can differ substantially depending on the products and services provided.

7.1.5 Monitoring and measuring resources

7.1.5.1 General

METTLER TOLEDO shall determine and provide the resources needed to ensure valid and reliable results when monitoring or measuring is used to verify the conformity of products and services to requirements.

METTLER TOLEDO shall ensure that the resources provided:

- a) are suitable for the specific type of monitoring and measurement activities being undertaken;
- b) are maintained to ensure their continuing fitness for their purpose.

METTLER TOLEDO shall retain appropriate documented information as evidence of fitness for purpose of the monitoring and measurement resources.

7.1.5.2 Measurement traceability

When measurement traceability is a requirement, or is considered by **METTLER TOLEDO** to be an essential part of providing confidence in the validity of measurement results, measuring equipment shall be:

- a) calibrated or verified, or both, at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; when no such standards exist, the basis used for calibration or verification shall be retained as documented information;

b) identified in order to determine their status;

c) safeguarded from adjustments, damage or deterioration that would invalidate the calibration status and subsequent measurement results.

METTLER TOLEDO shall determine if the validity of previous measurement results has been adversely affected when measuring equipment is found to be unfit for its intended purpose, and shall take appropriate action as necessary.

7.1.5.2.1 Relevant Corporate Procedure(s) And/or Form(s)

NP0017	Handling of Customer Feedback
VP0019IR	Care for Reference Standards and Test Weights
VP0017IR	Customer Notification of Out of Tolerance Weights
VP0030IR	Cleaning of Reference Standards
VP0045	Test and Measurement Equipment
VP0048	Weight Care and Handling
VP0038IR	Material Handling and Control
VF0014IR	Equipment on Agreement
VF0100A	Customer Service Acknowledgement
VF0017IR	Industrial Service Agreement
VF0025IR	Site Readiness Checklist
VF0026IR	METTLER TOLEDO Service Agreement Scope of Supply
VF0032IR	Master Shield Service Agreement Change Form
VF0015IR	Calibration Sticker
VF0020IR	Out of Service Tag
VF0023IR	Shop Tag (Depot Repair)
VF0033IR	Serial Number Sticker
VF0015	Serial Number Sticker
VF0021	Service Sticker
VF0022	Equipment Status
VF0032	Weight Calibration Sticker
VF0033	Weight Calibration Form
AP1711I	Test and Calibration Methods and Method Validation (Industrial)
AP1711L	Test and Calibration Methods and Method Validation (LAB)
AP1712I	Equipment (Industrial)
AP1712L	Equipment (LAB)
AP1713I	Measurement Traceability (Industrial)
AP1713L	Measurement Traceability (LAB)
AP1717I	Proficiency Testing (Industrial)
AP1717L	Proficiency Testing (LAB)
AT1701I	Organization Chart
AW1710I	Contractor (Distributor) Work Instructions
AW1708I	Testing of Calipers
AW1703I	Reporting Results
AP1701I	Organizational Responsibility & Authority
AP1702I	Internal Audits of ISO 17025 Compliant Process
AP1703I	Protecting Customer Confidentiality
AP1704I	Independence of Personnel

AP1705I	Maintaining Customer Confidence
AP1706I	Control of Quality Records
AP1707I	Subcontracting of Calibration Services
AP1708I	Service to the Customer
AP1718I	Control of Non-Conforming Test and Calibration Work
AP1719I	Review of Requests, Tenders and Contracts
AP1723I	Purchasing Services and Supplies
AB15	Procedure for Evaluating Accuracy and Precision of Rainin Pipettes
LMS-018	Pipette Service Shipment Preparation
PSWI-001	Confirming "As Found" Failures
PSWI-004	Internal Balance Test Work Instruction
PSWI-005	Cal PM Preventive Maintenance Work Instruction
PSWI-013	Basic Calibration Techniques
PSWI-014	Use of Environmental Monitoring Devices
PSWI-020	Procedure for Issuing Calibration Certificate Reprints
PSWI-024	Opening Incoming Service Orders
PSWI-032	As Found Testing
PSWI-035	Final Certification Entry
PSWI-036	Logging Out an Order
PSWI-044	DI Water Usage

7.1.6 METTLER TOLEDO knowledge

METTLER TOLEDO shall determine the knowledge necessary for the operation of its processes and to achieve conformity of products and services.

This knowledge shall be maintained and be made available to the extent necessary.

When addressing changing needs and trends, **METTLER TOLEDO** shall consider its current knowledge and determine how to acquire or access any necessary additional knowledge and required updates.

NOTE 1 Organizational knowledge is knowledge specific to **METTLER TOLEDO**; it is generally gained by experience. It is information that is used and shared to achieve **METTLER TOLEDO**'s objectives.

NOTE 2 Organizational knowledge can be based on:

- a) internal sources (e.g. intellectual property; knowledge gained from experience; lessons learned from failures and successful projects; capturing and sharing undocumented knowledge and experience; the results of improvements in processes, products and services);
- b) external sources (e.g. standards; academia; conferences; gathering knowledge from customers or external providers).

7.2 Competence

METTLER TOLEDO shall:

- a) determine the necessary competence of person(s) doing work under its control that affects the performance and effectiveness of the quality management system;

- b) ensure that these persons are competent on the basis of appropriate education, training, or experience;
 - c) where applicable, take actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken;
 - d) retain appropriate documented information as evidence of competence.
- NOTE Applicable actions can include, for example, the provision of training to, the mentoring of, or the reassignment of currently employed persons; or the hiring or contracting of competent persons.

7.2.1 Relevant Procedure(s) and/or Form(s)

NP0018	Tracking Training Process
NP0026	Process for Development of Employee Training Programs
NF0020	METTLER TOLEDO Training Evaluation Form
NF0021	90 Days Training Task Checklist
NF0022	Academy Student Evaluation Form

7.3 Awareness

METTLER TOLEDO shall ensure that persons doing work under **METTLER TOLEDO** 's control are aware of:

- a) the quality policy;
- b) relevant quality objectives;
- c) their contribution to the effectiveness of the quality management system, including the benefits of improved performance;
- d) the implications of not conforming with the quality management system requirements.

7.4 Communication

METTLER TOLEDO shall determine the internal and external communications relevant to the quality management system, including:

- a) on what it will communicate;
- b) when to communicate;
- c) with whom to communicate;
- d) how to communicate;
- e) who communicates.

7.5 Documented information

7.5.1 General

METTLER TOLEDO's quality management system shall include:

- a) documented information required by this International Standard;
- b) documented information determined by **METTLER TOLEDO** as being necessary for the effectiveness of the quality management system.

NOTE The extent of documented information for a quality management system can differ from one organization to another due to:

- the size of organization and its type of activities, processes, products and services;
- the complexity of processes and their interactions;
- the competence of persons.

7.5.2 Creating and updating

When creating and updating documented information, **METTLER TOLEDO** shall ensure appropriate:

- a) identification and description (e.g. a title, date, author, or reference number);
- b) format (e.g. language, software version, graphics) and media (e.g. paper, electronic);
- c) review and approval for suitability and adequacy.

7.5.3 Control of documented information

7.5.3.1 Documented information required by the quality management system and by this International Standard shall be controlled to ensure:

- a) it is available and suitable for use, where and when it is needed;
- b) it is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).

7.5.3.2 For the control of documented information, **METTLER TOLEDO** shall address the following activities, as applicable:

- a) distribution, access, retrieval and use;
- b) storage and preservation, including preservation of legibility;
- c) control of changes (e.g. version control);
- d) retention and disposition.

Documented information of external origin determined by **METTLER TOLEDO** to be necessary for the planning and operation of the quality management system shall be identified as appropriate, and be controlled.

Documented information retained as evidence of conformity shall be protected from unintended alterations.

NOTE Access can imply a decision regarding the permission to view the documented information only, or the permission and authority to view and change the documented information.

7.5.3.2.1 Changes to documents and data are reviewed and approved by the same functions/organizations that performed the original review and approval, unless specifically designated otherwise. The designated functions/organizations have access to pertinent background information upon which to base their review and approval. Where practical, the nature of the change is identified in the document or the appropriate attachments.

7.5.3.2.2 Relevant Corporate Procedure(s) And/or Form(s)

NP0020	Document and Data Control
NP0021	Electronic Document and Data Control
NP0025	Quality Records Procedure

7.5.3.2.3 See 4.4 for information regarding QMS document structure.

8 Operation

8.1 Operational planning and control

METTLER TOLEDO shall plan, implement and control the processes (see 4.4) needed to meet the requirements for the provision of products and services, and to implement the actions determined in Clause 6, by:

- a) determining the requirements for the products and services;
- b) establishing criteria for:
 - 1) the processes;
 - 2) the acceptance of products and services;
- c) determining the resources needed to achieve conformity to the product and service requirements;
- d) implementing control of the processes in accordance with the criteria;
- e) determining, maintaining and retaining documented information to the extent necessary:
 - 1) to have confidence that the processes have been carried out as planned;
 - 2) to demonstrate the conformity of products and services to their requirements.

The output of this planning shall be suitable for **METTLER TOLEDO**'s operations.

METTLER TOLEDO shall control planned changes and review the consequences of unintended changes, taking action to mitigate any adverse effects, as necessary.

METTLER TOLEDO shall ensure that outsourced processes are controlled (see 8.4).

8.2 Requirements for products and services

8.2.1 Customer communication

Communication with customers shall include:

- a) providing information relating to products and services;
- b) handling enquiries, contracts or orders, including changes;
- c) obtaining customer feedback relating to products and services, including customer complaints;
- d) handling or controlling customer property;
- e) establishing specific requirements for contingency actions, when relevant.

8.2.2 Determining the requirements for products and services

When determining the requirements for the products and services to be offered to customers, **METTLER TOLEDO** shall ensure that:

- a) the requirements for the products and services are defined, including:
 - 1) any applicable statutory and regulatory requirements;
 - 2) those considered necessary by **METTLER TOLEDO**;
- b) **METTLER TOLEDO** can meet the claims for the products and services it offers.

8.2.3 Review of the requirements for products and services

8.2.3.1 METTLER TOLEDO shall ensure that it has the ability to meet the requirements for products and services to be offered to customers. **METTLER TOLEDO** shall conduct a review before committing to supply products and services to a customer, to include:

- a) requirements specified by the customer, including the requirements for delivery and post-delivery activities;
- b) requirements not stated by the customer, but necessary for the specified or intended use, when known;
- c) requirements specified by **METTLER TOLEDO**;
- d) statutory and regulatory requirements applicable to the products and services;
- e) contract or order requirements differing from those previously expressed.

METTLER TOLEDO shall ensure that contract or order requirements differing from those previously defined are resolved.

The customer's requirements shall be confirmed by **METTLER TOLEDO** before acceptance, when the customer does not provide a documented statement of their requirements.

NOTE In some situations, such as internet sales, a formal review is impractical for each order. Instead, the review can cover relevant product information, such as catalogues.

8.2.3.1.1 In some situations, such as internet sales, a formal review is impractical for each order. Instead the review can cover relevant product information such as catalogues or advertising material.

8.2.3.2 METTLER TOLEDO shall retain documented information, as applicable:

- a) on the results of the review;
- b) on any new requirements for the products and services.

8.2.4 Changes to requirements for products and services

METTLER TOLEDO shall ensure that relevant documented information is amended, and that relevant persons are made aware of the changed requirements, when the requirements for products and services are changed.

8.3 Design and development of products and services

8.3.1 General

METTLER TOLEDO shall establish, implement and maintain a design and development process that is appropriate to ensure the subsequent provision of products and services.

8.3.1.1 The exclusion of Product Design has been identified and the justification is that sister **METTLER TOLEDO** facilities perform all aspects of design and provide MT-NA with product, Therefore this facility is not design responsible.

8.3.2 Design and development planning

In determining the stages and controls for design and development, **METTLER TOLEDO** shall consider:

- a) the nature, duration and complexity of the design and development activities;
- b) the required process stages, including applicable design and development reviews;
- c) the required design and development verification and validation activities;
- d) the responsibilities and authorities involved in the design and development process;
- e) the internal and external resource needs for the design and development of products and services;
- f) the need to control interfaces between persons involved in the design and development process;
- g) the need for involvement of customers and users in the design and development process;
- h) the requirements for subsequent provision of products and services;
- i) the level of control expected for the design and development process by customers and other relevant interested parties;
- j) the documented information needed to demonstrate that design and development requirements have been met.

8.3.3 Design and development inputs

METTLER TOLEDO shall determine the requirements essential for the specific types of products and services to be designed and developed. **METTLER TOLEDO** shall consider:

- a) functional and performance requirements;
- b) information derived from previous similar design and development activities;
- c) statutory and regulatory requirements;
- d) standards or codes of practice that **METTLER TOLEDO** has committed to implement;
- e) potential consequences of failure due to the nature of the products and services.

Inputs shall be adequate for design and development purposes, complete and unambiguous.

Conflicting design and development inputs shall be resolved.

METTLER TOLEDO shall retain documented information on design and development inputs.

8.3.4 Design and development controls

METTLER TOLEDO shall apply controls to the design and development process to ensure that:

- a) the results to be achieved are defined;
- b) reviews are conducted to evaluate the ability of the results of design and development to meet requirements;
- c) verification activities are conducted to ensure that the design and development outputs meet the input requirements;
- d) validation activities are conducted to ensure that the resulting products and services meet the requirements for the specified application or intended use;
- e) any necessary actions are taken on problems determined during the reviews, or verification and validation activities;
- f) documented information of these activities is retained.

NOTE Design and development reviews, verification and validation have distinct purposes. They can be conducted separately or in any combination, as is suitable for the products and services of **METTLER TOLEDO**.

8.3.5 Design and development outputs

METTLER TOLEDO shall ensure that design and development outputs:

- a) meet the input requirements;
- b) are adequate for the subsequent processes for the provision of products and services;
- c) include or reference monitoring and measuring requirements, as appropriate, and acceptance criteria;
- d) specify the characteristics of the products and services that are essential for their intended purpose and their safe and proper provision.

METTLER TOLEDO shall retain documented information on design and development outputs.

8.3.6 Design and development changes

METTLER TOLEDO shall identify, review and control changes made during, or subsequent to, the design and development of products and services, to the extent necessary to ensure that there is no adverse impact on conformity to requirements.

METTLER TOLEDO shall retain documented information on:

- a) design and development changes;
- b) the results of reviews;

- c) the authorization of the changes;
- d) the actions taken to prevent adverse impacts.

8.4 Control of externally provided processes, products and services

8.4.1 General (See note 8.4.1.1)

METTLER TOLEDO shall ensure that externally provided processes, products and services conform to requirements.

METTLER TOLEDO shall determine the controls to be applied to externally provided processes, products and services when:

- a) products and services from external providers are intended for incorporation into **METTLER TOLEDO**'s own products and services;
- b) products and services are provided directly to the customer(s) by external providers on behalf of **METTLER TOLEDO**;
- c) a process, or part of a process, is provided by an external provider as a result of a decision by **METTLER TOLEDO**.

METTLER TOLEDO shall determine and apply criteria for the evaluation, selection, monitoring of performance, and re-evaluation of external providers, based on their ability to provide processes or products and services in accordance with requirements. **METTLER TOLEDO** shall retain documented information of these activities and any necessary actions arising from the evaluations.

8.4.1.1 METTLER TOLEDO does not have any outsourced processes as of the time of this current revision of the quality manual. See 8.4.2.1 for parts / product sourcing

8.4.2 Type and extent of control

METTLER TOLEDO shall ensure that externally provided processes, products and services do not adversely affect **METTLER TOLEDO**'s ability to consistently deliver conforming products and services to its customers.

METTLER TOLEDO shall:

- a) ensure that externally provided processes remain within the control of its quality management system; (See 8.4.2.1)
- b) define both the controls that it intends to apply to an external provider and those it intends to apply to the resulting output;
- c) take into consideration:
 - 1) the potential impact of the externally provided processes, products and services on **METTLER TOLEDO**'s ability to consistently meet customer and applicable statutory and regulatory requirements;
 - 2) the effectiveness of the controls applied by the external provider;
- d) determine the verification, or other activities, necessary to ensure that the externally provided processes, products and services meet requirements.

8.4.2.1 Parts needed to support MT-NA products are primarily procured from the ISO Registered Producing Organizations (PO) of

METTLER TOLEDO. These PO's evaluate and select suppliers based on the criteria they have established. Here at MT-NA we do not evaluate and select suppliers. When products produced by the PO have become obsolete, it is the MO's responsibility to source the needed components to support the field operations. The suppliers used are the suppliers designated by the PO's.

Since this Quality system function is performed by a **METTLER TOLEDO** group outside the scope of MT-NA's registration, the requirements for quality are defined by the PO's own ISO certification.

8.4.3 Information for external providers

METTLER TOLEDO shall ensure the adequacy of requirements prior to their communication to the external provider.

METTLER TOLEDO shall communicate to external providers its requirements for:

- a) the processes, products and services to be provided;
- b) the approval of:
 - 1) products and services;
 - 2) methods, processes and equipment;
 - 3) the release of products and services;
- c) competence, including any required qualification of persons;
- d) the external providers' interactions with **METTLER TOLEDO**;
- e) control and monitoring of the external providers' performance to be applied by **METTLER TOLEDO**;
- f) verification or validation activities that **METTLER TOLEDO**, or its customer, intends to perform at the external providers' premises.

8.5 Production and service provision

8.5.1 Control of production and service provision

METTLER TOLEDO shall implement production and service provision under controlled conditions.

Controlled conditions shall include, as applicable:

- a) the availability of documented information that defines:
 - 1) the characteristics of the products to be produced, the services to be provided, or the activities to be performed;
 - 2) the results to be achieved;
- b) the availability and use of suitable monitoring and measuring resources;
- c) the implementation of monitoring and measurement activities at appropriate stages to verify that criteria for control of processes or outputs, and acceptance criteria for products and services, have been met;
- d) the use of suitable infrastructure and environment for the operation of processes;
- e) the appointment of competent persons, including any required qualification;

- f) the validation, and periodic revalidation, of the ability to achieve planned results of the processes for production and service provision, where the resulting output cannot be verified by subsequent monitoring or measurement;
- g) the implementation of actions to prevent human error;
- h) the implementation of release, delivery and post-delivery activities.

8.5.2 Identification and traceability

METTLER TOLEDO shall use suitable means to identify outputs when it is necessary to ensure the conformity of products and services.

METTLER TOLEDO shall identify the status of outputs with respect to monitoring and measurement requirements throughout production and service provision.

METTLER TOLEDO shall control the unique identification of the outputs when traceability is a requirement, and shall retain the documented information necessary to enable traceability.

8.5.3 Property belonging to customers or external providers

METTLER TOLEDO shall exercise care with property belonging to customers or external providers while it is under **METTLER TOLEDO** control or being used by **METTLER TOLEDO**.

METTLER TOLEDO shall identify, verify, protect and safeguard customers' or external providers' property provided for use or incorporation into the products and services.

When the property of a customer or external provider is lost, damaged or otherwise found to be unsuitable for use, **METTLER TOLEDO** shall report this to the customer or external provider and retain documented information on what has occurred.

NOTE A customer's or external provider's property can include materials, components, tools and equipment, premises, intellectual property and personal data.

8.5.4 Preservation

METTLER TOLEDO shall preserve the outputs during production and service provision, to the extent necessary to ensure conformity to requirements.

NOTE Preservation can include identification, handling, contamination control, packaging, storage, transmission or transportation, and protection.

8.5.5 Post-delivery activities

METTLER TOLEDO shall meet requirements for post-delivery activities associated with the products and services.

In determining the extent of post-delivery activities that are required, **METTLER TOLEDO** shall consider:

- a) statutory and regulatory requirements;
- b) the potential undesired consequences associated with its products and services;
- c) the nature, use and intended lifetime of its products and services;
- d) customer requirements;
- e) customer feedback.

NOTE Post-delivery activities can include actions under warranty provisions, contractual obligations such as maintenance services, and supplementary services such as recycling or final disposal.

8.5.6 Control of changes

METTLER TOLEDO shall review and control changes for production or service provision, to the extent necessary to ensure continuing conformity with requirements.

METTLER TOLEDO shall retain documented information describing the results of the review of changes, the person(s) authorizing the change, and any necessary actions arising from the review.

8.6 Release of products and services

METTLER TOLEDO shall implement planned arrangements, at appropriate stages, to verify that the product and service requirements have been met.

The release of products and services to the customer shall not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, as applicable, by the customer.

METTLER TOLEDO shall retain documented information on the release of products and services. The documented information shall include:

- a) evidence of conformity with the acceptance criteria;
- b) traceability to the person(s) authorizing the release.

8.7 Control of nonconforming outputs

8.7.1 METTLER TOLEDO shall ensure that outputs that do not conform to their requirements are identified and controlled to prevent their unintended use or delivery.

METTLER TOLEDO shall take appropriate action based on the nature of the nonconformity and its effect on the conformity of products and services. This shall also apply to nonconforming products and services detected after delivery of products, during or after the provision of services.

METTLER TOLEDO shall deal with nonconforming outputs in one or more of the following ways:

- a) correction;
- b) segregation, containment, return or suspension of provision of products and services;
- c) informing the customer;
- d) obtaining authorization for acceptance under concession.

Conformity to the requirements shall be verified when nonconforming outputs are corrected.

8.7.2 METTLER TOLEDO shall retain documented information that:

- a) describes the nonconformity;
- b) describes the actions taken;

- c) describes any concessions obtained;
- d) identifies the authority deciding the action in respect of the nonconformity.

9 Performance evaluation

9.1 Monitoring, measurement, analysis and evaluation

9.1.1 General

METTLER TOLEDO shall determine:

- a) what needs to be monitored and measured;
- b) the methods for monitoring, measurement, analysis and evaluation needed to ensure valid results;
- c) when the monitoring and measuring shall be performed;
- d) when the results from monitoring and measurement shall be analysed and evaluated.

METTLER TOLEDO shall evaluate the performance and the effectiveness of the quality management system.

METTLER TOLEDO shall retain appropriate documented information as evidence of the results.

9.1.2 Customer satisfaction

METTLER TOLEDO shall monitor customers' perceptions of the degree to which their needs and expectations have been fulfilled. **METTLER TOLEDO** shall determine the methods for obtaining, monitoring and reviewing this information.

NOTE Examples of monitoring customer perceptions can include customer surveys, customer feedback on delivered products and services, meetings with customers, market-share analysis, compliments, warranty claims and dealer reports.

9.1.3 Analysis and evaluation

METTLER TOLEDO shall analyse and evaluate appropriate data and information arising from monitoring and measurement.

The results of analysis shall be used to evaluate:

- a) conformity of products and services;
- b) the degree of customer satisfaction;
- c) the performance and effectiveness of the quality management system;
- d) if planning has been implemented effectively;
- e) the effectiveness of actions taken to address risks and opportunities;
- f) the performance of external providers;
- g) the need for improvements to the quality management system.

NOTE Methods to analyse data can include statistical techniques.

9.2 Internal audit

9.2.1 METTLER TOLEDO shall conduct internal audits at planned intervals to provide information on whether the quality management system:

a) conforms to:

- 1) **METTLER TOLEDO**'s own requirements for its quality management system;
- 2) the requirements of this International Standard;

b) is effectively implemented and maintained.

9.2.2 METTLER TOLEDO shall:

a) plan, establish, implement and maintain an audit programme(s) including the frequency, methods, responsibilities, planning requirements and reporting, which shall take into consideration the importance of the processes concerned, changes affecting **METTLER TOLEDO**, and the results of previous audits;

b) define the audit criteria and scope for each audit;

c) select auditors and conduct audits to ensure objectivity and the impartiality of the audit process;

d) ensure that the results of the audits are reported to relevant management;

e) take appropriate correction and corrective actions without undue delay;

f) retain documented information as evidence of the implementation of the audit programme and the audit results.

NOTE See ISO 19011 for guidance.

9.2.2.1 The MT-NA Quality Manager sets the MT-NA Internal audit schedule NT0004 for the year with the target for the MT-NA internal audit team to audit all scheduled areas prior to the annual ISO 9001:2015 external audit surveillance and/or recertification audit.

9.2.2.2 Relevant Corporate Procedure(s) And. Or Form(s)

NP0012	Training for Internal Quality Auditors
NP0013	Internal Quality Audits
NP0024	Quality Planning
NF0003	Internal Auditor Record
NT0004	Internal Audit Schedule

9.3 Management review

9.3.1 General

Top management shall review **METTLER TOLEDO**'s quality management system, at planned intervals, to ensure its continuing suitability, adequacy, effectiveness and alignment with the strategic direction of **METTLER TOLEDO**.

9.3.2 Management review inputs

The management review shall be planned and carried out taking into consideration:

a) the status of actions from previous management reviews;

b) changes in external and internal issues that are relevant to the quality management system;

c) information on the performance and effectiveness of the quality management system, including trends in:

- 1) customer satisfaction and feedback from relevant interested parties;
- 2) the extent to which quality objectives have been met;
- 3) process performance and conformity of products and services;
- 4) nonconformities and corrective actions;
- 5) monitoring and measurement results;
- 6) audit results;
- 7) the performance of external providers;

d) the adequacy of resources;

e) the effectiveness of actions taken to address risks and opportunities (see 6.1);

f) opportunities for improvement.

9.3.3 Management review outputs

The outputs of the management review shall include decisions and actions related to:

a) opportunities for improvement;

b) any need for changes to the quality management system;

c) resource needs.

METTLER TOLEDO shall retain documented information as evidence of the results of management reviews.

9.3.4 Relevant Corporate Procedure(s) And/or Form(s)

NP0008	Management Review Procedure
NP0024	Quality Planning
NF0008	Suitability and Effectiveness Matrix
NF0007	Project Quality Planning Form
AQ1701I	Management Review Process (Industrial)
AQ1701L	Management Review Process (LAB)
AQ1702I	Organizational Requirements 17025 (Industrial)
AQ1702L	Organizational Requirements 17025 (LAB)
AQ1703I	Quality Policy Under the Scope of ISO 17025 (Industrial)
AQ1703L	Quality Policy (LAB)
AQ1704I	Quality System Overview (Industrial)

10 Improvement

10.1 General

METTLER TOLEDO shall determine and select opportunities for improvement and implement any necessary actions to meet customer requirements and enhance customer satisfaction. These shall include:

a) improving products and services to meet requirements as well as to address future needs and expectations;

b) correcting, preventing or reducing undesired effects;

c) improving the performance and effectiveness of the quality management system.
NOTE Examples of improvement can include correction, corrective action, continual improvement, breakthrough change, innovation and re-organization.

10.2 Nonconformity and corrective action

10.2.1 When a nonconformity occurs, including any arising from complaints, **METTLER TOLEDO** shall:

- a) react to the nonconformity and, as applicable:
 - 1) take action to control and correct it;
 - 2) deal with the consequences;
- b) evaluate the need for action to eliminate the cause(s) of the nonconformity, in order that it does not recur or occur elsewhere, by:
 - 1) reviewing and analysing the nonconformity;
 - 2) determining the causes of the nonconformity;
 - 3) determining if similar nonconformities exist, or could potentially occur;
- c) implement any action needed;
- d) review the effectiveness of any corrective action taken;
- e) update risks and opportunities determined during planning, if necessary;
- f) make changes to the quality management system, if necessary.

Corrective actions shall be appropriate to the effects of the nonconformities encountered.

10.2.1.1 Relevant Corporate Procedure(s) And. Or Form(s)

NP0009	Quality Objectives
NP0017	Handling of Customer Feedback
QP13_01	Control of Nonconforming Product
NP0016	Corrective & Preventive Action Process

10.2.2 **METTLER TOLEDO** shall retain documented information as evidence of:

- a) the nature of the nonconformities and any subsequent actions taken;
- b) the results of any corrective action.

10.3 Continual improvement

METTLER TOLEDO shall continually improve the suitability, adequacy and effectiveness of the quality management system.

METTLER TOLEDO shall consider the results of analysis and evaluation, and the outputs from management review, to determine if there are needs or opportunities that shall be addressed as part of continual improvement.

11.0 Registrar Requirements

11.1 Control of Factored Items

Items supplied or purchased from others outside **METTLER TOLEDO**, and marketed and distributed by **METTLER TOLEDO** under the **METTLER TOLEDO** name without further processing, must be purchased from an ISO 9001 certified supplier, if possible. The supplier's registered system must be with an accredited registrar. If not possible, one or more of the following applies:

a) Appropriate steps are taken to demonstrate how the process and inspection control of these items are defined and maintained by the supplier. The requirements of the supplier's quality system are specified and verified. The minimum elements of the system to be considered are: document control, independence of test analysis function, control of nonconforming product, training, equipment calibration, product identification and traceability, inspection and testing, and quality records.

b) For simple products or products very similar to those manufactured by **METTLER TOLEDO**, the control of the supplied product may be by inspection and test by **METTLER TOLEDO** provided **METTLER TOLEDO** has access to the necessary product specification, and has the testing and inspection capability.

c) Customers are notified, prior to purchase, that the items come from outside the registered system. This includes catalogs, brochures, quotes, shipping carton, etc.

The ISO 9001 certification and the certificate awarded by BVC (NA) only applies to products and services directly under the control of **METTLER TOLEDO**, and produced according to the documented and approved quality system.

11.2 Use of Registrar Certificates and Logos

The Certificates of Approval issued by BVC (NA) may be displayed at **METTLER TOLEDO**, or used in any promotional or advertising literature. The Certificates of Approval may only be used to promote the registration of **METTLER TOLEDO**'s quality system. The Certificates of Approval may not be used in any manner that implies products are certified.

The BVC (NA) accredited certification logos issued by BVC (NA) may be displayed at **METTLER TOLEDO**, or used in any promotional or advertising literature. The BVC (NA) accredited certification logos may only be used to promote the registration of **METTLER TOLEDO**'s quality system. The BVC (NA) accredited certification logos may not be used in any manner that implies products are certified or misrepresents the registration awarded. The BVC (NA) accredited certification logo artwork must be reproduced in its entirety including all border lines and shall not be altered in any way without the written consent of the President of BVC (NA), Inc. The BVC (NA) accredited certification logo artwork may be reproduced in any reasonable size or color provided that all details are clearly legible.

The following statement is appropriate when referring to **METTLER TOLEDO**'s ISO 9001 certification in product promotional or advertising literature: "This product or service was developed, produced and tested in a **METTLER TOLEDO** facility that has been audited and registered according to international (ISO 9001) quality standards".

The Certificates of Approval issued by BVC (NA) and BVC (NA) accredited certification logos remain the property of Bureau Veritas Certification.



Accredited Laboratory

A2LA has accredited

METTLER TOLEDO, LLC.

Columbus, OH

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).



Presented this 27th day of October 2016.

A handwritten signature in black ink, appearing to read 'L. S.', written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 1788.01
Valid to July 31, 2018

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005
& ANSI/NCSL Z540-1-1994

METTLER TOLEDO, LLC
1900 Polaris Pkwy
Columbus, OH 43240
Charles Francis Phone: 614 438 4590

CALIBRATION

Valid To: July 31, 2018

Certificate Number: 1788.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory and the below listed satellite laboratory to perform the following calibrations¹:

I. Fluid

Parameter/Equipment	Range	CMC ² (±)	Comments
Mettler Toledo Auto-Titrator Burettes Only ^{3,6} – Volumetric	(0.1 to 1) mL (1 to 5) mL (5 to 10) mL (10 to 20) mL	0.51 µL 3.4 µL 2.0 µL 12 µL	Gravimetric comparison method

II. Mechanical

Parameter/Equipment	Range ⁵	CMC ^{2, 4} (±)	Comments
Balances ^{3,6}	0.1 µg to 80 kg Up to 200 lb	0.80D 0.80D	Canada OIML Class E2 weights, OIML Class F1 weights

Parameter/Equipment	Range ⁵	CMC ^{2, 4} ($\pm$)	Comments
Balances ^{3, 6} (cont)	≤ 20 mg $(> 20$ to $\leq 50)$ mg $(> 50$ to $\leq 100)$ mg $(> 100$ to $\leq 200)$ mg $(> 200$ to $\leq 500)$ mg > 500 mg to ≤ 1 g $(> 1$ to $\leq 2)$ g $(> 2$ to $\leq 5)$ g $(> 5$ to $\leq 10)$ g $(> 10$ to $\leq 20)$ g $(> 20$ to $\leq 50)$ g $(> 50$ to $\leq 100)$ g $(> 100$ to $\leq 150)$ g $(> 150$ to $\leq 200)$ g $(> 200$ to $\leq 300)$ g $(> 300$ to $\leq 400)$ g $(> 400$ to $\leq 500)$ g $(> 500$ to $\leq 700)$ g $(> 700$ to $\leq 1000)$ g $(> 1$ to $\leq 1.5)$ kg $(> 1.5$ to $\leq 2)$ kg $(> 2$ to $\leq 2.3)$ kg $(> 2.3$ to $\leq 3)$ kg $(> 3$ to $\leq 4)$ kg $(> 4$ to $\leq 5.1)$ kg $(> 5.1$ to $\leq 6)$ kg $(> 6$ to $\leq 7)$ kg $(> 7$ to $\leq 8)$ kg $(> 8$ to $\leq 10)$ kg $(> 10$ to $\leq 15)$ kg $(> 15$ to $\leq 20)$ kg $(> 20$ to $\leq 26)$ kg $(> 26$ to $\leq 30)$ kg $(> 30$ to $\leq 40)$ kg $(> 40$ to $\leq 50)$ kg $(> 50$ to $\leq 60)$ kg $(> 60$ to $\leq 64)$ kg	0.0011 mg 0.0013 mg 0.0016 mg 0.0019 mg 0.0025 mg 0.0031 mg 0.0037 mg 0.0051 mg 0.0081 mg 0.0099 mg 0.014 mg 0.021 mg 0.034 mg 0.044 mg 0.063 mg 0.087 mg 0.089 mg 0.15 mg 0.18 mg 0.26 mg 0.34 mg 0.39 mg 0.52 mg 0.67 mg 0.85 mg 3.2 mg 3.3 mg 3.4 mg 6.0 mg 9.0 mg 12 mg 15 mg 18 mg 24 mg 30 mg 36 mg 37 mg	United States Euromet cg18 OIML Class E2 Weights OIML Class F1 Weights

III. Thermodynamics

Parameter/Equipment	Range	CMC ² ($\pm$)	Comments
Mettler Toledo DSC ^{3, 6}	$(-57$ to $419.5)$ °C $(28.75$ to $151.8)$ J/g	0.05 °C 0.05 J/g	Test point based on reference material used

Parameter/Equipment	Range	CMC ² (±)	Comments
Mettler Toledo TGA ^{3,6}	(156.6 to 1550) °C	0.05 °C	Test point based on reference material used
Mettler Toledo Gravimetric Moisture Analyzers Only ^{3,6} – Halogen	(50 to 160) °C	2.2 °C	Comparison method

Satellite Laboratory
METTLER TOLEDO, LLC
1150 Dearborn Dr
Worthington, OH 43085
Charles Francis Phone: 614 438 4590

CALIBRATION

I. Mechanical

Parameter/Equipment	Range	CMC ² (±)	Comments
Mass – Fixed Points	0.001 g 0.002 g 0.003 g 0.005 g 0.01 g 0.02 g 0.03 g 0.05 g 0.1 g 0.2 g 0.3 g 0.5 g 1, 2 g 3 g 5 g 10 g 20 g 30 g	0.00046 mg 0.00046 mg 0.00083 mg 0.00046 mg 0.00046 mg 0.00046 mg 0.00086 mg 0.00046 mg 0.00046 mg 0.00046 mg 0.00086 mg 0.00058 mg 0.00081 mg 0.0015 mg 0.0013 mg 0.0021 mg 0.0032 mg 0.010 mg	NIST IR6969 ASTM Class 1 to 6, OIML Classes E2-M3, OIML Class E1 (1 mg to 1 kg), NIST Class F



Parameter/Equipment	Range	CMC ² (±)	Comments
Mass – Fixed Points (cont)	50 g	0.0062 mg	NIST IR6969 ASTM Class 1 to 6, OIML Classes E2-M3, OIML Class E1 (1 mg to 1 kg), NIST Class F
	100 g	0.0077 mg	
	200 g	0.014 mg	
	300 g	0.033 mg	
	500 g	0.029 mg	
	1000 g	0.047 mg	
	2000 g	0.096 mg	
	3000 g	1.9 mg	
	5 kg	0.24 mg	
	10 kg	0.47 mg	
	20 kg	6.0 mg	
	25 kg	7.6 mg	
	0.001 lb	0.0012 µlb (0.00053 mg)	
	0.002 lb	0.0013 µlb (0.00061 mg)	
	0.005 lb	0.0026 µlb (0.0012 mg)	
	0.01 lb	0.0051 µlb (0.0023 mg)	
	0.02 lb	0.0068 µlb (0.0031 mg)	
	0.05 lb	0.016 µlb (0.0071 mg)	
	0.1 lb	0.032 µlb (0.014 mg)	
	0.2 lb	0.044 µlb (0.020 mg)	
	0.5 lb	0.099 µlb (0.045 mg)	
	1 lb	0.17 µlb (0.074 mg)	
	2 lb	0.25 µlb (0.11 mg)	
	5 lb	1.2 µlb (0.51 mg)	
	10 lb	2.9 µlb (1.3 mg)	
	25 lb	17 µlb (7.4 mg)	
	50 lb	27 µlb (12 mg)	
	1/32 oz	0.000 000 026 oz (0.00074 mg)	NIST Handbook 145 ASTM Class 1 to 6, OIML Classes E2-M3, OIML Class E1 (1 mg to 1 kg), NIST Class F
	1/16 oz	0.000 000 036 oz (0.0010 mg)	
	1/8 oz	0.000 000 064 oz (0.0018 mg)	
	1/4 oz	0.000 000 12 oz (0.0033 mg)	
	1/2 oz	0.000 000 26 oz (0.0072 mg)	
	1 oz	0.000 000 31 oz (0.0086 mg)	
	2 oz	0.000 000 50 oz (0.014 mg)	
	4 oz	0.000 001 3 oz (0.037 mg)	
	8 oz	0.000 001 6 oz (0.045 mg)	

II. Thermodynamics

Parameter/Equipment	Range	CMC ² (±)	Comments
Rueger Bi-metal Dial Thermometer	(50 to 160) °C	1.0 °C	Mettler Toledo & Ohaus brand halogen test kits convection emersion

¹ This laboratory offers commercial calibration service at its main location and its satellite location.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

³ Field calibration service is available for this calibration and this laboratory meets A2LA R104 – General Requirements: Accreditation of Field Testing and Field Calibration Laboratories for these calibrations. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.

⁴ In the calculation of CMC, D is based upon "Readability" of balance and the CMC of reference weights.

⁵ For calibration of balances the "Range" equals the "Readability" of the balance.

⁶ This accreditation includes those field service representatives located in the United States and Canada reporting to METTLER TOLEDO (Lab Division), Columbus, Ohio



Accredited Laboratory

A2LA has accredited

METTLER TOLEDO (INDUSTRIAL)

Columbus, OH

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets the requirements of ANSI/NCSL Z540-1-1994 and R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).



Presented this 30th day of June 2017.

A handwritten signature in black ink, appearing to read 'L. L. L.', written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 1902.01
Valid to April 30, 2019

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005
& ANSI/NCSL Z540-1-1994

METTLER TOLEDO (INDUSTRIAL)
1900 Polaris Parkway
Columbus, OH 43240
Frank Gardone Phone: 412 213 2263

CALIBRATION

Valid To: April 30, 2019

Certificate No: 1902.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations^{1, 4}:

I. Mechanical

Parameter/Equipment	Range	CMC ^{2, 5} (±)	Comments
Balances and Scales, Metric ³	≤ 500 mg > 500 mg to ≤ 5 g (> 5 to ≤ 10) g (> 10 to ≤ 30) g (> 30 to ≤ 50) g (> 50 to ≤ 80) g (> 80 to ≤ 100) g (> 100 to ≤ 150) g (> 150 to ≤ 200) g (> 200 to ≤ 300) g (> 300 to ≤ 500) g	0.0087 mg 0.013 mg 0.017 mg 0.023 mg 0.036 mg 0.057 mg 0.11 mg 0.14 mg 0.17 mg 0.24 mg 0.89 mg	ASTM0 weights

Parameter/Equipment	Range	CMC ^{2,5} (±)	Comments
Balances and Scales, Metric ³ (cont)	(> 500 to ≤ 1000) g	8.7 mg	ASTM2 weights
	(> 1 to ≤ 1.5) kg	9.3 mg	
	(> 1.5 to ≤ 2) kg	10 mg	
	(> 2 to ≤ 3) kg	12 mg	
	(> 3 to ≤ 4) kg	14 mg	
	(> 4 to ≤ 5) kg	17 mg	
	(> 5 to ≤ 6) kg	19 mg	
	(> 6 to ≤ 8) kg	85 mg	
	(> 8 to ≤ 10) kg	87 mg	
	(> 10 to ≤ 15) kg	93 mg	
	(> 15 to ≤ 25) kg	410 mg	
	(> 25 to ≤ 32) kg	420 mg	
	(> 32 to ≤ 50) kg	830 mg	
	(> 50 to ≤ 80) kg	850 mg	
	(> 80 to ≤ 100) kg	870 mg	
	(> 100 to ≤ 150) kg	930 mg	
	(> 150 to ≤ 200) kg	1000 mg	
	(> 200 to ≤ 300) kg	1200 mg	
	(> 300 to ≤ 400) kg	8200 mg	
	(> 400 to ≤ 500) kg	8300 mg	
	(> 500 to ≤ 600) kg	8400 mg	
	(> 600 to ≤ 700) kg	0.088 kg	NIST F weights
	(> 700 to ≤ 800) kg	0.10 kg	
	(> 800 to ≤ 1000) kg	0.13 kg	
	(> 1000 to ≤ 1500) kg	0.19 kg	
	(> 1500 to ≤ 2000) kg	0.25 kg	
	(> 2000 to ≤ 2500) kg	0.31 kg	
	(> 2500 to ≤ 3000) kg	0.38 kg	
	(> 3000 to ≤ 4000) kg	0.50 kg	
	(> 4000 to ≤ 5000) kg	0.63 kg	
	(> 5000 to ≤ 6000) kg	1.1 kg	
	(> 6000 to ≤ 8000) kg	1.3 kg	
	(> 8000 to ≤ 10 000) kg	1.5 kg	
	(> 10 000 to ≤ 15 000) kg	2.5 kg	
	(> 15 000 to ≤ 20 000) kg	3.0 kg	
	(> 20 000 to ≤ 25 000) kg	5.1 kg	
	(> 25 000 to ≤ 30 000) kg	9.0 kg	
	(> 30 000 to ≤ 40 000) kg	9.6 kg	
	(> 40 000 to ≤ 50 000) kg	10 kg	
	(> 50 000 to ≤ 60 000) kg	11 kg	
	(> 60 000 to ≤ 80 000) kg	13 kg	
	(> 80 000 to ≤ 100 000) kg	15 kg	
	(> 100 000 to ≤ 120 000) kg	17 kg	
	(> 120 000 to ≤ 140 000) kg	19 kg	

Parameter/Equipment	Range	CMC ^{2, 5} (±)	Comments
Balances and Scales, Avoirdupois ³	≤ 0.2 lb (> 0.2 to ≤ 0.5) lb (> 0.5 to ≤ 1) lb (> 1 to ≤ 2) lb (> 2 to ≤ 3) lb (> 3 to ≤ 4) lb (> 4 to ≤ 5) lb (> 5 to ≤ 6) lb (> 6 to ≤ 7) lb (> 7 to ≤ 7.5) lb (> 7.5 to ≤ 8) lb (> 8 to ≤ 9) lb (> 9 to ≤ 10) lb (> 10 to ≤ 12) lb (> 12 to ≤ 15) lb (> 15 to ≤ 20) lb (> 20 to ≤ 25) lb (> 25 to ≤ 30) lb (> 30 to ≤ 40) lb (> 40 to ≤ 50) lb (> 50 to ≤ 60) lb (> 60 to ≤ 70) lb (> 70 to ≤ 75) lb (> 75 to ≤ 80) lb (> 80 to ≤ 100) lb (> 100 to ≤ 120) lb (> 120 to ≤ 150) lb (> 150 to ≤ 200) lb (> 200 to ≤ 250) lb (> 250 to ≤ 300) lb (> 300 to ≤ 400) lb (> 400 to ≤ 500) lb (> 500 to ≤ 700) lb (> 700 to ≤ 1000) lb (> 1000 to ≤ 1500) lb (> 1500 to ≤ 2000) lb (> 2000 to ≤ 2500) lb (> 2500 to ≤ 3000) lb (> 3000 to ≤ 4000) lb (> 4000 to ≤ 5000) lb (> 5000 to ≤ 7000) lb (> 7000 to ≤ 10 000) lb (> 10 000 to ≤ 15 000) lb (> 15 000 to ≤ 20 000) lb (> 20 000 to ≤ 25 000) lb (> 25 000 to ≤ 30 000) lb (> 30 000 to ≤ 40 000) lb (> 40 000 to ≤ 50 000) lb (> 50 000 to ≤ 60 000) lb (> 60 000 to ≤ 70 000) lb (> 70 000 to ≤ 100 000) lb (> 100 000 to ≤ 120 000) lb	0.00017 lb 0.00020 lb 0.00024 lb 0.00029 lb 0.00055 lb 0.00064 lb 0.00073 lb 0.00084 lb 0.00094 lb 0.0011 lb 0.0013 lb 0.0014 lb 0.0015 lb 0.0017 lb 0.0024 lb 0.0029 lb 0.0035 lb 0.0040 lb 0.0051 lb 0.0063 lb 0.0084 lb 0.0094 lb 0.010 lb 0.013 lb 0.015 lb 0.017 lb 0.020 lb 0.048 lb 0.051 lb 0.055 lb 0.095 lb 0.10 lb 0.12 lb 0.15 lb 0.45 lb 0.48 lb 0.51 lb 0.55 lb 0.64 lb 0.73 lb 1.2 lb 1.5 lb 4.5 lb 4.8 lb 5.1 lb 5.5 lb 6.4 lb 7.3 lb 8.4 lb 18 lb 20 lb 22 lb	NIST F weights

¹ This laboratory offers commercial calibration service and field calibration service.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

³ Field calibration service is available for this calibration and this laboratory meets A2LA R104 – *General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these calibrations. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.

⁴ This accreditation includes those field service representatives located in the United States and Canada reporting to Mettler Toledo (Industrial), Columbus, OH.

⁵ CMC components that can be reasonably attributed to the Unit Under Test have not been utilized in the calculation of the CMC value for this measurement parameter.



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005
& ANSI/NCSL Z540-1-1994

METTLER TOLEDO, LLC
2915 Argentia Road, Unit 6
Mississauga, Ontario, CANADA L6L 6W1
Charles Francis Phone: 614 428 4511

CALIBRATION

Valid To: August 31, 2017

Certificate Number: 1788.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Fluid Quantities

Parameter/Equipment	Range	CMC ² (±)	Comments
Pipettes, Fixed Points	2 µL 10 µL 20 µL 100 µL 200 µL 1000 µL 2000 µL 5000 µL 10 000 µL 20 000 µL	0.016 µL 0.022 µL 0.044 µL 0.26 µL 0.38 µL 2.2 µL 3.5 µL 7.1 µL 14 µL 23 µL	Gravimetric method

¹ This laboratory offers commercial calibration service.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.



Accredited Laboratory

A2LA has accredited

METTLER TOLEDO, LLC

Mississauga, Ontario,

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets ANSI/NCSL Z540-1-1994 and R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).



Presented this 25th day of March 2015.

A handwritten signature in black ink, appearing to read 'L. Sen', written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 1788.02
Valid to August 31, 2017
Revised July 31, 2017

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.