

The **Science** behind  
**Materials** PREPARATION and  
**Analysis**

## **ABOUT BUEHLER**

Since 1936, Buehler, a division of Illinois Tool Works Inc., has been a leading manufacturer of scientific instruments and supplies for use in materials analysis. Buehler products are used throughout the world in manufacturing facilities, quality laboratories, and universities to analyze all types of materials, including:

- Ferrous and Non-ferrous Metals
- Thermal spray coatings
- Printed Circuit Boards
- Fasteners
- Ceramics
- Composites
- Semiconductors
- Rocks
- Glasses
- Plastics

Companies use Buehler products to improve the material within their product, monitor production or incoming purchased material, conduct failure analysis, and perform basic materials research. Buehler products fall into three categories:

- Sample preparation equipment for cutting, grinding and polishing specimen material (usually cross sectioning) prior to microstructural inspection
- Metallographic consumables for the sample preparation equipment including; cutoff wheels, saw blades, mounting compounds, grinding papers, polishing cloths and polishing suspensions.
- Inspection and testing equipment including microscopes, image analyzers, video equipment, and hardness testers.

Buehler also offers training and after-sales support services for machine repair and maintenance, as well as calibration services to recognized international standards.

Revision History			
Rev	Date	Approved by	Description of change
Orig	9/15/03	T. Putnam	Rewrite to meet requirements of ISO9001-2000
A	3/22/04	T Edwards	Added <i>About Buehler</i>
B	8/30/05	S. Poulos	Revised 5.6.2 adding A2LA audits
C	3/30/07	S.Poulos	Added 1.0 Buehler's Scope with Exclusion
D	4/4/07	S.Poulos	Revised Mission Statement removing Enhance and adding "Continually Improve"
E	8/3/09	S.Poulos	Added ISO 14001 standards and Environmental Policy-Removed 610P0001 from 4.1 and added 620P0001 QA ownership
F	8/17/09	S.Poulos	Changed to Reference ISO 9001-2008 (2000)
G	3/5/10	S.Poulos	Revisions for 14001
H	11/1/10	S.Poulos	Removed Tracy Putnam and Added Michele Arnison GM
I	8/17/11	S.Poulos	Revised Sec. 5.5- adding responsibilities of, and revised Management representative responsibilities.
1.0	2/23/15	Jeff Russell	"Buehler Worldwide Mission Statement" revised to read "Quality Policy"
2.0	2/24/15	Jeff Russell	Environmental Policy reviewed and version number added
3.0	5/5/15	Jeff Russell	Clause 5.1.1 – changed Buehler LTD to Buehler, Inc per ICAR 783
4.0	5/5/15	Jeff Russell	Updated reference under 4.4.1 from to 996EF0004 to 996E0001
5.0	9/10/2015	Jim Jasinski	Revised document title from Quality Manual; to Quality and Environmental Manual. Updated About Buehler (pg 3), Index table (pg 5) & Scope (pg 8). Deleted Exclusion (pg 8). Added note below Revision History table (pg 4). Minor grammatical / format changes throughout.
6.0	4/4/16	Jeff Russell	Removed "Inc." from the Quality Policy
J	01/15/18	Meredith Platt	Major revision to accommodate ISO 9001:2015 and ISO 14001:2015

**NOTE:** A copy of this manual resides on Buehler's internet website and must be updated when it is updated on Buehler's internal document control system.


## Our Mission Statement

Buehler's mission is to be recognized as the global leader in the materials preparation and analysis industry, providing our users with innovative & robust full-lab solutions, reliable service, support & access to the knowledge that comes from serving the industry for 80+ years. We also strive to achieve our goals following the ITW business model upholding the company values of integrity, respect, trust, shared risk and simplicity at all times.

## Strong Partner, Reliable Solutions



Meredith Platt  
Vice President and General Manager



Christopher Sensmeier  
Management Representative

**Quality Policy**

Buehler provides equipment, consumable products and services to be used in the preparation and analysis of material within the material science industry. It is the commitment of management and the entire Buehler team to comply with all requirements and continually improve the effectiveness of the quality management system. Our success is driven by a commitment to our customers through rigorous problem solving and continuous improvement with open and regular communication throughout our organization to guarantee ongoing suitability and success in meeting customer expectations.

Meredith Platt  
Vice President and General Manager  
January 2018

**Environmental Policy**

Buehler is committed to complying with accepted environmental practices, including the commitment to meet or exceed applicable legal and other requirements, to strive for continual improvement in our environmental management system, and to minimize the creation of wastes and pollution. We at Buehler will, therefore, manage our processes, our materials, and our people to reduce the environmental impacts associated with our products.

Meredith Platt  
Vice President and General Manager  
January 2018

Buehler's Quality Management System and Environmental Management System policies are regularly reviewed to ensure their suitability and they are communicated throughout the organization.

## SCOPE

The design, development, manufacturing, and servicing of metallurgical equipment provided by Buehler for the preparation of material samples for microstructural analysis, including the development and distribution of associated consumable items.

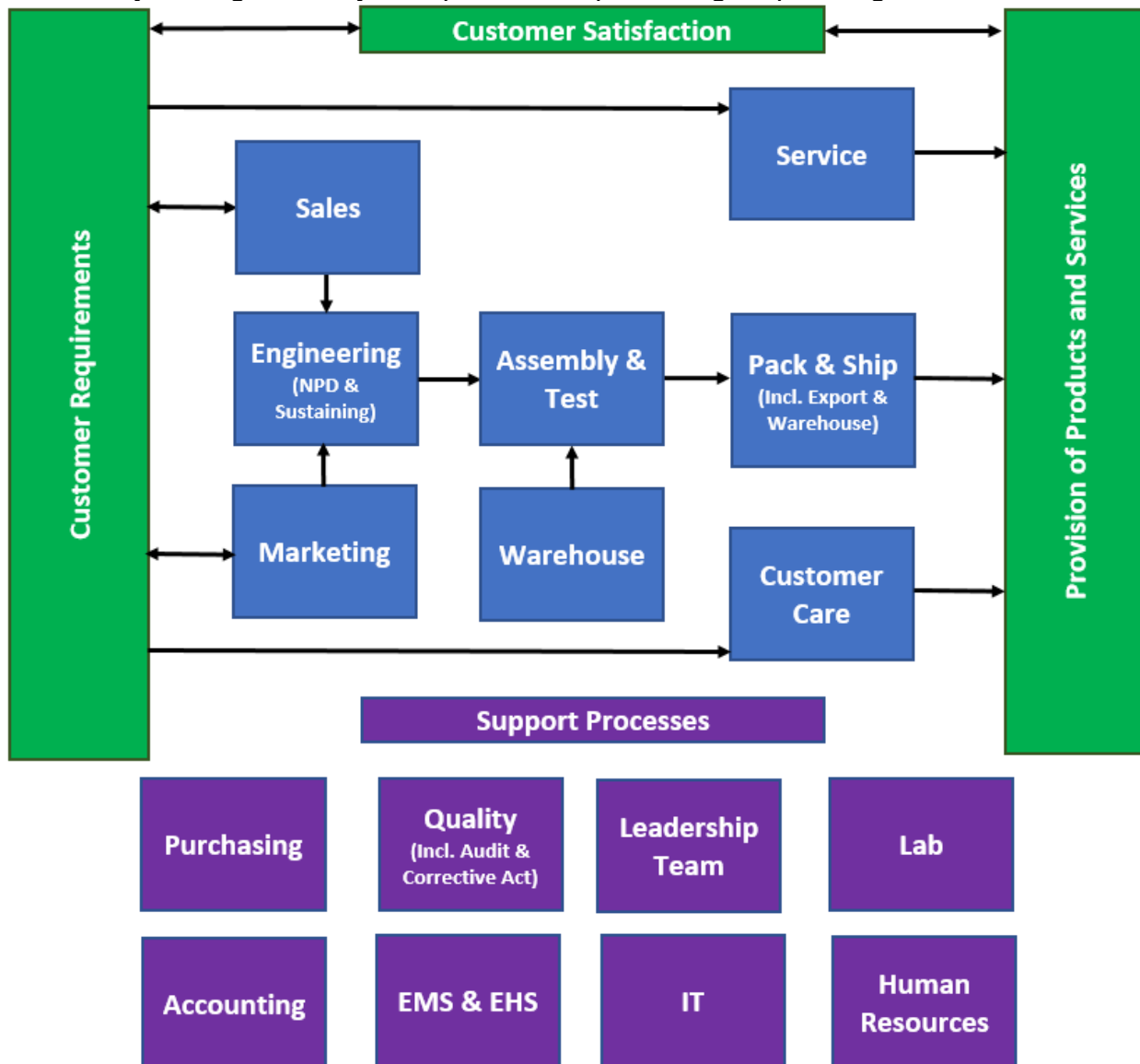
Equipment and Services include, but are not limited to the following:

- Sectioning,
- Mounting,
- Grinding and Polishing,
- Imaging and Analysis,
- Hardness Testing,
- Training,
- Equipment Repair, and
- Calibration

All sections of ISO 9001:2015 and ISO 14001:2015 are applicable to Buehler, located at 41 Waukegan Road, Lake Bluff, Illinois. There are no exclusions.

Buehler has established the Processes Areas needed to facilitate the operation of the business, the Quality Management System, and the Environmental Management System. Internal audits are conducted in a manner that verifies the compliance of individual Process Areas while interacting with related Process Areas. The document control system and repository for these documents is Buehler's SharePoint system.

Quality Management System process map showing sequencing and interaction:



## **QMS and EMS Objectives**

Buehler's Key Process Indicators and associated Objectives are set by the Leadership Team with advisement from the Management Representative and Process Area Owners.

Key Process Indicators and Objectives shall be measurable and consistent with the Quality Management System and Environmental Management System Policies. Buehler shall maintain the necessary programs to monitor the Objectives and take appropriate action if the Objectives are not being met.

Risk and Opportunity analysis is one of many tactics used to track specific Key Process Indicators and adjust their associated Objectives.

## **Management Commitment**

Buehler's Leadership Team is ultimately responsible for ensuring compliance with the ISO 9001 and ISO 14001 standards, this Quality and Environmental Manual, and all areas of Customer Satisfaction.

Buehler is organized into Process Areas that address all functions of the business. Each Process Area is managed by a Process Area Owner. The Process Area Owner ensures compliance with the ISO 9001 and ISO 14001 standards, this Quality and Environmental Manual, and all areas of Customer Satisfaction.

A Management Representative is appointed by the Leadership Team as the Process Area Owner of the Quality Assurance Process Area. The Management Representative is responsible for providing guidance and assistance to the Leadership Team to ensure overall compliance with the ISO 9001 and ISO 14001 standards, this Quality and Environmental Manual, and all areas of Customer Satisfaction.

Internal audits are conducted as required on Process Areas as they relate to, and interact with, other Process Areas. The Management Representative provides the Leadership Team with audit results to ensure ongoing compliance to the requirements of the ISO 9001 and ISO 14001 standards, this Quality and Environmental Manual, and all areas of Customer Satisfaction.



## **Context of the Organization**

Buehler shall evaluate, on a regular basis, the Context of the Organization. This context shall consider Internal and External factors (interested parties) that are necessary to successfully harmonize the organization's operation. These factors include, but are not limited to:

- Customer needs and expectations,
- Corporate needs and expectations,
- Regulatory and statutory requirements,
- Government and non-government organizations,
- Competitors and the competitive landscape,
- Appropriate global economic indicators,
- Shareholders,
- Suppliers, and
- Personnel

## **Risk Management**

On a regular basis Buehler shall evaluate risks to the organization as they pertain to the Context of the Organization.