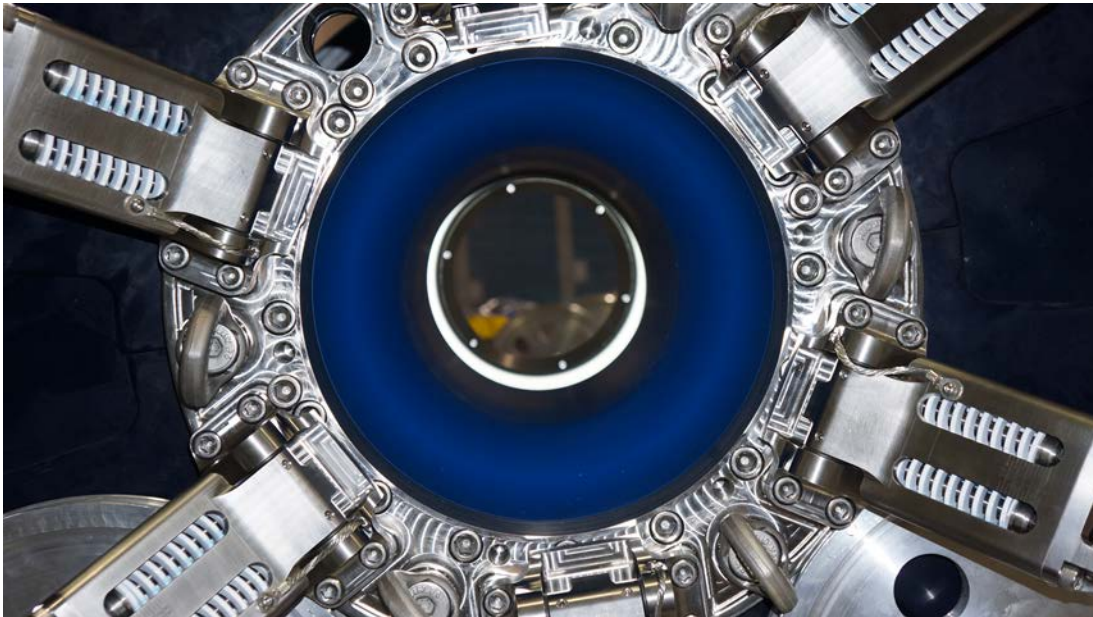


# Microline Technology Corporation

## Supplier Quality Manual



Dear Valued Supplier,

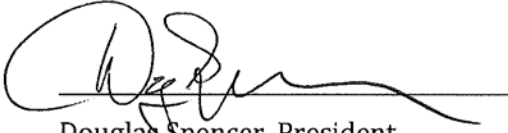
You are critical to the success of Microline Technology Corporation as we continue to expand and develop a broader customer base within the Pipeline Integrity environment. Strong relationships throughout our Supply Chain have been the foundation on which Microline Purchasing has worked at to build clear lines of communication, mutual trust and cooperation between both of us.

Our goal is to make Microline Technology Corporation, a subsidiary of Quanta Services; into an industry leader with respect to our instruments and the utilization of our diverse experience in the areas of: research, design, development and operation of various non-destructive test systems for pipelines and other oilfield tubulars.

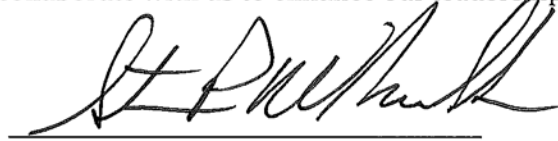
To achieve this, we will continue to work with our Supply Base to help them provide the quality, productivity and cost of ownership for purchased product that will enable us to be competitive in the markets we serve.

The purpose of the Microline Supplier Quality Manual is to communicate our expectations and requirements to you, and provide a documented process that is supported by our Quality Management System (QMS).

It is with deep appreciation that we acknowledge you, our trusted Supplier, as one of the many reasons we are successful. We hope you continue to collaborate with us to enhance our leadership position in this industry.



Douglas Spencer, President  
Microline Technology Corporation



Steven Wheelock, Purchasing Manager  
Microline Technology Corporation

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Revisions to this manual will be documented in the following table for reference.

Date of Revision	Revision No.	Description of Change
September 13, 2016	1	Original release
October 28, 2016	2	Update Sections 5.5, 5.8, 5.9, 5.13, 5.14, 6.3, 7.1, 7.2, 7.6, 7.7, 7.12, 8.1, 9.0 Definitions
November 8, 2016	3	Updated footer - set to no-markup

## 1 Management Policy Statement

Microline strives to derive competitive advantage through continuous improvement in quality, delivery, customer service, and cost from our Suppliers. Microline believes in cultivating a relationship with our Suppliers in order for them to understand our needs and expectations which are:

- Flawless performance through planning, preparing, and training of personnel on product requirements and changes introduced.
- Actively addressing concerns to contain, correct, and prevent reoccurrence of nonconformance.
- Proactive steps to improve the quality and the value of the supplied material, product and service provided.

## 2 Microline Quality Policy

**“Microline Technology Corporation is dedicated to satisfying our clients with high quality/high value solutions through our commitment to continuous improvement, customer focus, safety and teamwork.”**

## 3 Purpose

The Supplier Quality Manual a.k.a. SQM, is to help develop a Supplier’s understanding of the expectation that Microline has regarding its Quality Management System (QMS), and the terms within our purchasing agreement, engineering drawings, specifications, and packaging requirements. These requirements extend from:

- Supplier Qualification
- New Product Development
- Current Production
- Service, Repair, and Refurbishment

Microline encourages communication between you, the Supplier, Microline Purchasing and Support Staff. This serves to foster a better working relationship in which both the Supplier and Microline are successful. Requirements noted within the SQM reflect those of Microline and are to be considered “Customer-specific” for the purposes of Quality Management System conformance and audit purposes.

Suppliers shall utilize the latest revision of the SQM located on the Microline website and seek clarification from their purchasing point of contact when necessary for items not identified or apparent. Microline will continually improve and update the contents based on feedback.

## 4 Scope

This manual applies to all external Suppliers of direct material, product, or services to which a Microline Purchase Order has been issued.

This manual applies to all external Suppliers of indirect material, product or services when it is required through a Microline Purchase Order.

The English language version of this document shall be the official version. Any translations of this document are for reference only.

## 5 General Expectations

### 5.1 Business Partners

We are very grateful to you for the services you provide and realize that it is in partnership with you, that customer satisfaction is delivered. It is our belief that building quality relationships with other companies gives Microline a competitive advantage. We recognize the key role Suppliers play in building a successful business relationship, one in which both can succeed. It is through your dedication, hard work, attention to detail and personal commitment that we are able to offer the oil and gas service industry truly exceptional products that are the forefront of technology. As an extension of our own operations, we rely on our Suppliers to provide materials, products and services which meet all of the requirements of Microline's purchase agreement, standards and engineering drawings.

### 5.2 Business Partner Information

We will protect business partner information that is sensitive, privileged or confidential just as carefully as our own. Only those who have a need to know would have access to confidential information. In addition, we will take the steps necessary to ensure that our business partners protect the Microline confidential information provided to them by signing a Non-Disclosure Agreement (NDA).

### 5.3 Purchasing Practices

Microline will make purchasing decisions based solely on the best interest of Microline. Suppliers win Microline business based on product or service suitability, quality, delivery, and price. Purchasing Agreements shall be documented and clearly identify the material, product or service to be provided, the basis for earning payment and the applicable rate or fee. The amount of payments must be proportionate to the material, product or service provided.

### 5.4 Control of Sub-Tier Suppliers

Control of Sub-tier Suppliers is important and it may be necessary for processing material, product or service. Microline and the Supplier both have the same obligation and responsibility to ensure the Sub-tier Supplier meets the issued designed print requirement for material, product, or service.

### 5.5 Distribution

The Microline Purchasing Department will distribute the SQM initially to Suppliers. Suppliers are responsible to check the Microline website for the latest version of the SQM, which will be updated yearly. Click on Suppliers for a pulldown menu. <https://www.microlinetc.com/>

### 5.6 Code of Ethics and Business Conduct

Microline is committed to Code of Ethics and Business Conduct tenet as outlined in the Quanta Services Code of Ethics and Business Conduct. Microline expects its Suppliers to be aware of this commitment. It can be found at: [http://investors.quantaservices.com/code\\_of\\_ethics](http://investors.quantaservices.com/code_of_ethics) Code of Ethics and Business Conduct in .pdf format.

### 5.7 Corporate Social Responsibility (CSR)

In addition, Microline is subject to SEC reporting requirements in connection with the Dodd-Frank Act enacted in 2010. As part of our CSR we request our Suppliers certify that their products are free from these restricted materials and/or that all metals utilized in our products are not sourced from conflict mines per the Electronic Industry Citizenship Coalition (EICC) conflict minerals reporting template.

### 5.8 E-Business Capabilities

Microline's expectation is Suppliers have access to email (preferred), a PDF reader, the Internet, an Internet browser, and fax as a minimum for e-Business capability. Purchase agreements, contracts, delivery schedules, notification of nonconformance and request for corrective action may be transmitted to Suppliers electronically.

## 5.9 Delivery and Shipping

Microline Purchasing in a written purchase agreement with the Supplier, will establish delivery and shipping requirements for material, product and service purchased.

Supplier is to notify Microline Purchasing with as much advance notice possible of any anticipated delays to original agreed upon delivery and shipping date published in the purchasing agreement.

## 5.10 Quality Management System

Microline is registered to ISO 9001:2008 for its Quality Management System (QMS). We recognize that it is important to have a documented QMS and encourage our Suppliers to adopt and/or register to ISO 9001 or an equivalent QMS Standard.

In all cases, a registered QMS may not be practical for all Suppliers, but it is our requirement that Suppliers participate with Microline to maintain our QMS. This may include participation in; corrective and preventive actions, control of nonconforming product, Supplier OTD, documented inspection of material, product or service, Supplier Audit and design reviews.

Microline and our customers may find it necessary to:

- 1) Perform verification of material, product or service at the Supplier's work place.
- 2) Evaluate the Supplier's adherence to a QMS.
- 3) Perform a Supplier Audit, this can be off-site or on-site at the Supplier's workplace.

All interaction by Microline with a Supplier will be coordinated and communicated with Microline Purchasing.

## 5.11 Supplier Evaluations

Microline Purchasing, Quality and Engineering perform Supplier Evaluations on a yearly basis. Suppliers are evaluated on their; QMS, capability, product quality, pricing and on-time delivery OTD yearly. Microline Purchasing may provide feedback to the Supplier as required, records are held by Microline Quality Department.

## 5.12 Industry and Government Regulatory

Microline's Supplier Quality Manual shall not supersede accepted and practiced Industry and Government Regulatory requirements for purchased material, product and service.

## 5.13 Interaction with Governments outside the United States

If the scope of your work involves interaction with government officials outside the United States and in the course of fulfilling business requirement for Microline, such as customs officials, foreign ministries, or state controlled entities (such as a state owned oil company), there is an additional due diligence screening that is required under Quanta Services and Microline's Anti-Corruption Compliance Policy. This process normally takes 1-2 weeks and the Supplier will be assisted by Microline. Contact Microline Purchasing should this apply to your company.

## 5.14 International Traffic in Arms Regulations (ITAR) / Export Compliance

Microline complies with applicable Code of Federal Regulations export requirements, including the International Traffic in Arms Regulations (ITAR). As a Supplier to Microline, if you are involved with a material, product or service that falls under Federal export control requirements, Microline will work with you to assure proper handling under the law. It may be necessary to perform an on-site audit at the Supplier in order to ensure export compliance requirements are being met. Microline Purchasing Department will communicate this to you including ECCN classification, etc. prior to entering a purchase agreement.

When sending items to Microline, it is the Supplier's responsibility to communicate those items' ECCN / ITAR classifications, as well as any other export compliance information.

## 6 Planning

### 6.1 Supplier Selection

Supplier Selection is shared by Microline Purchasing, Engineering and/or Quality staff members. Suppliers will be selected based on Supplier capability and the current needs of Microline. Selection criteria include Supplier's current and past track record of the following: ability to meet the communicated requirements, on-time delivery, product and/or service quality and quality control practices (e.g. QMS), competitive pricing, and assessment of other risk factors (adequate capacity, technical competency, location, etc.).

Microline Purchasing will initiate a Supplier Qualification form, and an approved Supplier receives a Supplier Code for use within the accounting, purchase requisition, and BOM system of Microline.

### 6.2 Manufacturing Feasibility

Suppliers are encouraged to have a documented Manufacturing Feasibility Review process for material, product or service requested by Microline.

### 6.3 Drawing Review

Drawing Reviews between Microline and the Supplier are important to help to assure engineering drawing and support documents can be met and are clarified. Should clarification be required, the Supplier should ask Microline Purchasing and Design Engineering to set-up a Drawing Review. All product shall be made per the engineering drawing, written purchase agreement and referenced industry and/or governmental requirements.

### 6.4 Point of Contact

Suppliers are asked to provide Point of Contact information and notification of any changes to Microline Purchasing. Point of Contact for Microline are listed below:

<b>Point of Contact for Microline</b>	<b>Communicate to Microline</b>
Design or Manufacturing	Purchasing / cc: Development Engineer
Capacity, Delivery, Cost Proposal and Pricing	Purchasing
Quality Concerns	Purchasing / cc: Engineering or Quality

## 7 Product Realization

### 7.1 Design Control

Microline documents are proprietary to Microline. Documents shared between Microline and the Supplier shall be considered as Confidential Information to each party. As such, each party shall maintain the confidentiality of any Confidential Information, in whole or in part, to any person other than its Representatives who need to know such Confidential Information in connection with the receiving's party evaluation and determination of a business agreement. In the event that the Supplier will use a third party, the Supplier is required to have "**express written consent from Microline**" before the Supplier shall share confidential information with the third party source.

### 7.2 Production Control

The Supplier is responsible for production control of all manufacturing activities and influences to insure having product, material and services are made/provided on time, of acceptable quality, and at reasonable cost.

### 7.3 Document Control

The Supplier is responsible for a document control process to ensure that quality system documents, engineering drawing and specifications related to the quality management system are available, suitable for use and protected. Documents furnished will be in hard copy, electronic or other media. The Supplier is responsible for the controlling and maintaining such documents to preclude improper use, loss, damage, alteration, deterioration and/or destruction when work is done.

#### 7.4 Record Control

The Supplier is responsible for a record control process to ensure necessary records remain legible and retrievable upon request. Quality records for Microline are to be retained for a minimum of three years and identify the Microline part name, part number, revision level, purchase agreement and corresponding material traceability.

#### 7.5 Shelf Life Control

The Supplier is responsible for a system to maintain items having a limited or specified shelf life that are used for a purchase agreement with Microline.

#### 7.6 End of Life (EOL) Notification

The Supplier shall provide notice of a part status change to EOL. Microline recommends allowing a minimum of 6 months from the notice to place final orders, and 12 months from the notice for final shipments.

#### 7.7 Verification of Material, Product and Service

The Supplier shall meet all engineering drawing requirements and tolerances including; material composition, product dimensional values, referenced specifications and provided services as stated in the written and agreed upon purchase agreement.

7.7.1 Microline Purchasing, will use a Verification Code (see Table 1) on purchase agreements to identify to the Supplier, what supporting data is required as evidence to be delivered with purchased material, product and services.

7.7.2 Supplier to provide certifications for material, testing or services as evidence when requested on the purchase agreement.

7.7.3 Minimum requirements to appear on CoC: P/N, Rev., PO#, lot# (if applicable), description, statement of conformance, Supplier name.

Verification Code	Supplier Supporting Data includes:
<b>CoC</b> (Certificate of Conformance)	Supplier to supply a Certificate of Conformance that the raw materials, processes (ex. plating, welding, etc.) and the final product which are supplied to Microline meet all requirements indicated on the drawing, purchase order and/or product specification.
<b>TKF</b> (To Key Features)	Supplier to supply a Certificate of Conformance as well as a supporting dimensional report which contains, at a minimum, the actual measured results for all Key Features indicated on the drawing.
<b>FAI</b> (First Article Inspection)	Supplier to supply a Certificate of Conformance as well as a supporting dimensional report which includes results of all print dimensions and tolerances (including GD&T).

**Table 1 - Supplier Supporting Data Verification Codes**

#### 7.8 Inspection and Testing

The Supplier is responsible to have a process to verify and properly document inspection and testing of in-process and finished product as evidence that it meets the defined engineering drawing.

#### 7.9 Control of Nonconforming Material

The Supplier shall not knowingly ship material, product or provide service that deviates from the engineering drawing, specification limits, or design intent without written authorization from Microline Purchasing. If such a condition exists, the Supplier may petition the Microline Purchaser, in writing, to allow shipment under a written Deviation Waiver Request.



## 7.10 Deviation Waiver Request

The Supplier shall request a Deviation (before the fact) or Waiver (after the fact) for material, product or service that does not meet engineering drawing requirement. The Supplier shall use Microline Supplier Deviation Waiver Request form, SDWR 001 unless otherwise directed. The SDWR 001 form can be obtained from your Microline Purchasing Department contact. The Supplier shall complete the Header and Section 1, and return SDWR form to Microline for processing. Microline will review said request and respond to Supplier accepted or rejected. The SWDR is to accompany all applicable shipments.

## 7.11 Identification and Traceability

The Supplier is responsible to provide goods that are properly identified and traceable according to the engineering drawing or other supporting documents as per the purchase agreement.

## 7.12 Material and Traceability

This requirement applies to both Microline and the Supplier; that all material supplied or procured be traceable back to the manufacturer, material type, heat, lot, batch, etc. from which it came.

When more than one lot of material is supplied or procured to fulfill a purchase agreement, the material must be kept separated and all incoming product or material must be identified as to what lot it came from.

Traceability includes: reference to the original, purchase agreement received under, manufacturer material type and heat/lot/batch/etc. number. This is information must be recorded and provided with the incoming delivery paperwork.

Microline provided material can be returned or inventoried at the Supplier, but must be marked for traceability. Excess raw material that a Supplier holds, can be used to complete another order, must be stated on the purchase agreement.

## 7.13 Mill Test Reports and Material Certifications

The Supplier is required to provide mill test reports, material certifications with heat lot traceability for each lot, run, or batch of material produced for or used that is purchased by Supplier according to the purchase agreement.

## 7.14 Corrective and Preventive Action (CAPA)

The Supplier is responsible to participate and perform Corrective and Preventative Action, CAPA for a process, material, product or service that is found nonconforming. The Supplier may ask Microline to provide support for this action.

## 7.15 Calibration of Measuring Equipment

The Supplier is responsible to have a calibration program for measuring equipment that is used to verify dimensional information purchased by Microline. It is recommended that the Supplier have calibration equipment registered or shall inform Microline Purchasing when this is not possible.

## 7.16 Training

The Supplier is encouraged to have a documented Training process and ensure that employees who perform work for Microline purchase agreements are properly trained in the position or function that they are performing.

## 7.17 Tooling, Gauge Inventory

The Supplier would be responsible for Microline-supplied tooling and gauges: equipment storage, protection, damage, repair, replacement and return. Tooling or gauge paid for by Microline by means of a Non-Recurring Engineering NRE or Tool-charge shall become the property of Microline. Disposal of Microline-owned tooling or gauges by the Supplier is not permitted and a penalty could be incurred without approval from Microline Purchasing.

## 8 Measurement and Improvement

### 8.1 Supplier On-time Delivery - OTD Performance

Supplier OTD Performance is an indicator that is monitored and reported monthly by Microline Quality from information gathered through Incoming Inspection.

Microline Quality reports Supplier OTD with a Target of 95% and a Goal of 100%. The equation used is:

**Total first-time quality acceptance to the engineering drawing / Total deliveries per month made by suppliers**

Suppliers who do not meet this performance measure will be contacted by Microline Purchasing and Quality for Supplier Development and assisted to improve performance.

## 9 Terms and Definitions

**CoC, Certificate of Conformance:** a document certified by a competent authority that the supplied good or service meets the required specifications.

**Deviation** (before the fact): the amount by which a single measurement differs from print tolerance applied to feature.

**Feature:** a characteristic having a nominal value and +/-plus and -/minus tolerance or called-out specifically.

**FAI, First Article Inspection:** is a formal method of providing a reported measurement for a given manufacturing process. The method consists of measuring the properties and geometry of an initial sample item against given specifications, for example an engineering drawing.

**Key Feature:** A key feature is a distinctive characteristic of a good or service that sets it apart from similar items. Control of the feature is essential to form, fit or function.

**Material, product or service:** Goods, Parts or Information.

**Supplier On-Time Delivery (OTD):** a method of reporting “Total deliveries per month made by suppliers / Total first-time quality acceptance to the engineering drawing”

**TKF, To Key Features:** a document certified by a competent authority that the supplied good or service is measured for Key Features identified on an engineering drawing and it is reported.

**Waiver** (after the fact): the amount by which a single measurement differs from the print tolerance applied to feature.

## 10 Forms

Supplier Deviation Waiver Request form, SDWR 001 – is available thru Microline Purchasing Department