SUPPLIER QUALITY REQUIREMENTS and Performance Scorecard





Rochester Gauges is the leading manufacturer in liquid level gauges. Our instruments can be found all over the world in many applications including aircraft, locomotives, off road construction equipment, recreational vehicles, and propane tanks. We have been manufacturing gauges since 1913 and during those years we have continuously improved upon design and developed new technologies.

As an industry leader, Rochester Gauges constantly strives to create and manage a highly reliable, competitive supply chain. Fundamentally, we envision this as an integrated chain wherein all members work together to eliminate unnecessary activities and align their business strategies to delight the final customer.

To compete in today's demanding marketplace, Rochester Gauges and its suppliers must be the recognized leaders in our chosen markets, providing responsive, quality solutions to improve customer's competitiveness. To measure supplier progress towards this quest, the Rochester Gauges Supplier Quality Requirements and Performance Scorecard was established to communicate measured performance.



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Supplier Quality Requirements & Supplier Scorecard

Purpose and Scope

Requirements in this manual link the quality standards of Rochester Gauges (RG) with our suppliers' quality standards. As applicable, suppliers must submit RG forms as outlined in Appendix A of this Manual. All other forms (Appendix B) are not required in exact format. The information required can be submitted – in the Supplier's format – to an RG contact for acceptance.



The purpose of the RG Supplier Scorecard is to communicate key supplier performance metrics that align with RG's business objectives. The program rewards suppliers based on data, serves as a foundation for continuous improvement, and assists with future sourcing decisions.

These requirements were compiled in conjunction with the RG Operating Procedures and Customer Quality and Reliability Standards. RG forms will be controlled per applicable RG Operating Procedures.

It is the policy of RG to help our customers compete by delivering products and services of the highest quality and reliability. A critical element to accomplish this is receiving parts / products from Suppliers on time and of the highest quality and reliability. Therefore, the Supplier is empowered to initiate action to ensure both quality and continuous improvement for every part / product using the procedures in this manual.

Jeff Matzek 9/17/20

Jeff Matzek Director of Global Supply Chain Chad Beemer 9/17/20

Chad Beemer Director of Quality

A. Certificates (CERTS)

Normally, all first article submissions will require the supplier to submit all pertinent documentation (i.e. Certificates of Conformance, Certificates of Test, PSW, PCN, quality conformance qualification and reliability demonstration, Process Flow diagrams, Control Plans, FMEA, etc.) which will provide assurance that the supplier has a viable process to meet RG part specifications. Thereafter, certifications and process documentation will be maintained by the supplier and made available to RG upon request. CERTS may be required on the specification or purchase order. The Supplier is to retain them for a minimum of ten (10) years.

B. Record Retention

Quality / Reliability records, i.e., control charts, audit logs, test results, etc., must be maintained by Supplier for a minimum of ten (10) years, unless otherwise specified on the purchase order.

C. Drawing and Specification Control

It is the Supplier's responsibility to ensure that the latest revision engineering specification, including performance and reliability, as defined on drawings or other documents from RG, is used as specified on the purchase order. It is the responsibility of the RG Purchasing Department to inform the supplier of drawing or specification updates.

D. Document Availability

All documents, related to Rochester Gauges products & production processes, will be the Supplier's responsibility to maintain and be available upon request.

E. Precedence

If conflicts arise between this Supplier Quality Requirements Manual, RG purchase order and / or engineering drawings / specifications, raw material number request, or other applicable documents, the prevailing order shall be:

- 1. Purchase Order
- 2. Engineering Drawing / Specification
- 3. Supplier Quality Requirements manual

The Supplier must also inform RG of the conflict through the appropriate purchasing contact.

Section II – Supplier Part / Product Control

A. Part Submission Warrant (PSW)

The Part Submission Warrant (PSW) (Appendix A) is generally required for all new part / product submitted to RG for qualification or change approval. An exception to this would be for off-the-shelf parts and special deviations. Specific guidance can be found in the Part Qualification Plan (PQP) provided with the FAI Purchase Order. The PSW (and any additional PPAP documents requested) must be filled out in its entirety. Incomplete documents will not be accepted, nor will the parts covered by the document be considered.

A Supplier-signed PSW indicates that the Supplier has successfully reviewed all part / product specifications, including performance and reliability, and warrants the part / product submitted. Supporting documents showing compliance to the drawing, specification, or any additional requirements on the Purchase Order must also be submitted with the PSW. For multiple-cavity molds or tools, data from parts from each cavity or tool is required. Refer to the Part Qualification Plan for specific data requirements.

If there is a need for an exception at PSW submission, the Supplier must submit either a Supplier Process Change Notice (PCN – Appendix A), a request for deviation, or a Supplier Corrective Action Report (SCAR – Appendix B).

B. Supplier Process/Product Change Notice (PCN)

RG believes engineering part / product control is essential to continued quality and reliability. Accordingly, RG requires that once a part / product is qualified for production and released, the Supplier cannot change the part / product, process, and / or location of manufacture without written approval by the appropriate purchasing contact from RG.

Suppliers can, however, submit a PCN at any time. The intent of this form is to provide a method for the Supplier to recommend improvements, document process changes, equipment changes or correct non-conformance. This form is required when changing part design, composition, processing, process location, reliability, specification description, introducing different equipment or at any time the part / product cannot meet the drawing, specification performance, reliability or any further requirements, and the Supplier requests change to same. It is the intent of RG to prevent noncompliance issues to avoid part / product deviation.

RG also expects all suppliers to actively pursue continuous improvement activities to improve quality, reliability and reduce cost on each part / product. If a PCN is submitted, it should be completed and sent to the appropriate purchasing contact along with a Part Submission Warrant (PSW) if sample parts are supplied. RG will make a pre-determination as to the scope of the requested engineering change. If the request is accepted on a preliminary basis, the PCN will be processed and an implementation plan requested. If the PCN is rejected, the PCN will be returned, along with the reason for rejection. RG may also request a Corrective Action Report as part of the rejection.

C. Supplier Corrective Action Report

It is essential that the supplier *immediately* take a corrective action when any nonconformance of Critical parts, major issues with large quantity, line stoppage issues, stock out and repeat failures is identified at RG or any of its customers. When this occurs, the appropriate purchasing contact will inform the Supplier of the non-conformance, Supplier must submit in writing the following items within **three (3) working days**:

- Description of how containment is to be initiated.
- Communication of initial root cause analysis and / or short-term activity plan

After initial containment and / or short-term activity plan completion, the Supplier must submit a final SCAR (Supplier Corrective Action Report) using the 8D process or any systematic problem-solving methodology, which includes:

- Full problem description
- Containment action
- Root cause analysis
- Permanent corrective action
- Implementation timing
- Verification with data
- Prevention activity

D. Supplier Production Control

It is the Supplier's responsibility to properly maintain all required material, parts, tools and equipment to support production of RG tools or parts / products. RG requires 100% on-time delivery for all production orders, tools and prototype part orders.

E. Supplier Quality System

It is the Supplier's responsibility to maintain a Quality System, which promotes continuous improvement by monitoring PPM, DPM, and EPM for all RG parts and products.

Section III – Part / Product Qualification

All parts / products that require special tooling and / or special requirements, as well as standard purchased items when requested by RG, must be qualified prior to production release. The RG New Product Development Team will bring its suppliers into the parts development stages whenever possible. This will allow early supplier involvement, reliability prediction, prototype testing, and analysis prior to part / product qualification.

A. Pre-production Run

A pre-production run will be required for qualification of all new parts / products. The quantities and other aspects of this run shall be specified on the purchase order. Only parts / products produced from normal production level process are to be submitted for qualification by RG. Parts / products cannot be sorted, reworked, or altered in any way and should represent normal production process variation.

B. Part / Product Submission

Using the pre-production parts, the Supplier will verify conformance to all RG requirements and submit a Part Submission Warrant (PSW). If there is a need for exception as PSW submission, the Supplier must submit either a Process Change Notice (PCN) or a Supplier Corrective Action Report (SCAR). Exceptions may exist for off-the-shelf parts or special production runs granted from the Quality team.

C. Process Flow Chart

All PSWs, submitted to meet IATF requirements, must include a Process Flow Chart (PFC). This requirement is typically documented on the Part Qualification Plan (PQP). The process flow chart must illustrate the flow of material, identifying all steps necessary to manufacture the part / product. The Supplier should use different symbols to identify material and processes. See example in Appendix B. The chart must:

- Number and name each major process step this allows reference to each process for the process FMEA and control plan.
- Identify critical processes which are those that could cause the part to be scrapped, are identified on the FMEA, affect reliability or are identified as a diamond on the print.
- Identify inspection steps to be used.
- Include rework loops and the number of rework iterations allowed.
- Include a symbol key with definitions for the flow chart.

D. Design and Process FMEA / Risk Assessment

The Failure Mode and Effects Analysis (FMEA) / Risk Assessment is an organized approach for identifying potential failure modes. This procedure will also identify key parts / products and process characteristics.

There are several formats for an FMEA, but all should involve assignment of a Risk Priority Number (RPN) which is essential to identifying and prioritizing critical characteristics of the product and / or process. A sample of RG's form and ranking system is contained in Appendix B.

E. Significant and Special Characteristics

Significant characteristics, as identified by RG, is shown on the drawing by a diamond \Diamond . That signifies an important feature that needs to be monitored and controlled. Special Characteristics have higher importance and are further defined as being Critical Safety (CC) identified with the \bigotimes symbol or Significant Function (FC) identified with the \bigotimes symbol. The following table provides guidance in their application.

#	Guide	CC	FC
1	When to apply a CC/ FC	Affects product and operator safety and/or compliance with regulatory requirements.	Affects product form, fit or function (other than safety and regulatory) or has other valid reasons to classify significant
2	Is a deviation approval possible in case out of spec.?	No	Yes, temporarily
3	Evidence for PPAP approval	Initial capability Ppk >1.67 or Poka-Yoke or 100% detection If the CC applies to material, a material Certificate or lab test is required	Init. capability Ppk >1.67 or Poka-Yoke or 100% detection (if FC applies to material, material certificate or lab test is required)
4	Evidence in serial production	Continuous capability CpK >1.67 if validation indicated by SPC (Statistical Process Control) or Poka-Yoke or 100% detection If the CC applies to material, a material certificate is required.	Continuous capability CpK >1.33 if validation indicated by SPC (Statistical Process Control) or Poka-Yoke or 100% detection (if FC applies to material, material certificate is required on request)

Appendix B contains a sample Process Control Plan (PCP). More comprehensive forms and instructions can be found through AIAG.

F. Reliability Compliance

When required by RG, suppliers must provide and maintain demonstration, qualification or accelerated life test data indicating compliance with required failure rate or Mean-Time-Between-Failures (MTBF), confidence level and environment.

Section IV – Definitions

A. Special Characteristics (SC)

There are two (2) types of Special Characteristics.

Characteristics	Definition	Symbol
Critical Safety Characteristics	Is a product characteristic for which reasonably anticipated variation could significantly affect the product's safety or its compliance with government regulations such as: flammability, occupant protection, steering control, braking, etc), emissions, noise, radio frequency interference, etc	S
Significant Function Characteristics	A product characteristic for which reasonably anticipated variation is likely to significantly affect customer satisfaction with a product such as its fits, function, mounting or appearance, or the ability to process or build the product.	

B. Process Capability

1. Process Stability

The stability of a process is key to consistent parts / products. Statistical techniques should be used to determine if the process is in control over time. Out-of-control conditions require immediate action.

2. Process Potential (Short term)

This is a short-term study to assess whether a process has the potential of being capable of meeting the specifications. It is also used for processes with non-normal or unstable data. Collecting at least 30 samples or subgroups containing at least 100 individual readings as they are running through the process can do this. Suitable intervals of time between samples should be chosen and the samples' characteristics should be measured and recorded. Mean and standard deviation (sigma) can then be calculated from the data.

USL = Upper Specification Limit LSL = Lower Specification Limit

- a. Ppk = minimum of (USL mean) / 3 sigma.
- b. Ppk > 1.67; 1.33 to 1.67 is acceptable with an improvement plan or enough inspection.
- c. Ppk < 1.33 requires immediate corrective action plan.

3. Process Performance (Long-term)

The performance study defines the producibility of the process as the process factors change over time. Readings should be from a minimum of six work orders over at least 30 days. This will result in 180 readings, representing six individual potential studies, to calculate process performance capability.

- a. CpK > 1.33 is acceptable.
- b. CpK < 1.33 requires immediate corrective action plan.

To be clear, CpK is the six-sigma range of a process's inherent variation where Sigma is estimated by R bar (Range Average) / D2 for the Sample Size. Ppk is the six-sigma range of a process's total variation where Sigma is estimated by the sample's standard deviation.

CpK is an on-going activity. Ppk is used as a "snapshot" of the process variation at any given point in time. Ppk is useful to determine if a process will be capable (CpK) if process conditions maintain stability. It is also useful for determining if a continuous improvement activity has influenced the process, when evaluating new or modified tooling, etc.

C. Gauge Reliability and Reproducibility (GR&R)

GR&R is a gauge variation study. It is important to understand how much of the allowable specification tolerance is being used up by gauge variation. GR&R is required for all gauges controlling key part / product characteristics (KPC) or key process control characteristics (KCC). RG GR&R acceptance standards are less than ten percent. Ten to thirty percent GR&R is conditional, based on the characteristic and process capability, and requires a corrective action plan. A GR&R should be completed on an annual basis or as needed if there is a change in the part / product or process. Use of the long form is strongly encouraged.

D. Quality and Continuous Improvement Indicators

- 1. PPM Parts per Million (PPM) is defined as defective parts / products found on the factory floor and customer returns expressed per million parts / product.
- 2. DPM Defects per Million (DPM) is defined as defective part / products found at RG Incoming Inspection expressed per million parts / product.
- 3. EPM Errors per Million (EPM) is defined as the number of administrative errors found expressed per million parts / product.

E. Reliability Compliance

- 1. Mean-Time-Between-Failure (MTBF) is a measure of reliability, usually in operating hours or cycles. MTBF is the reciprocal of the failure rate. It is the total number of operating hours divided by the number of failures.
- Failure Rate is the probability of failure per unit of time of the items still operating. Failure rate is expressed in percent failures per 1,000 hours (or miles, cycles, etc.) or in failures per 10⁹ Hours (FITS). For exponential distribution of failures (constant failure rate), the failure rate is the reciprocal of the MTBF.
- 3. Confidence Level is the probability that a given statement is correct or the probability the reliability is equal to or greater than the stated value. Typically, unless otherwise specified by RG, a 90% confidence value base should be used.

F. First Article Inspection (FAI)

1. A First Article Inspection (FAI) is a formal method of providing a measurement report for a given manufacturing process. The method consists of measuring the properties and geometry of an initial sample item against given specifications. Typically, the supplier's inspection data is compared to the customer's data, so that correlation of inspection methods and results can be evaluated, and discrepancies resolved. Requests for FAIs may be due to a new supplier's submission, a new part, revised drawing specifications, revised tooling, new process, new material, new artwork, new sub-contractor, part inactivity, etc. Additional information may be requested, such as: Capability Studies, Gauge R&R, Process Change details, Process Flow Diagrams, FMEAs, Control Plans, Material composition, Material mechanical properties, Specified test results. When information requested goes beyond just dimensional results, typically a PPAP will be requested.

G. Production Part Approval Process (PPAP)

- 1. The Production Part Approval Process (PPAP) is used in the automotive supply chain, though not exclusively, for establishing confidence in component suppliers and their production processes. The purpose of the Production Part Approval Process (PPAP) is:
 - a) to ensure that supplier can meet the manufacturability and quality requirements for the purchased parts.
 - b) to provide evidence that the customer engineering design record and specification requirements are clearly understood and fulfilled by the supplier.
 - c) to demonstrate that the established manufacturing process has the potential to produce the part that consistently meets all requirements during the actual production run at the quoted production rate.
- **2.** The Automotive Industry Action Group (AIAG) has developed a common PPAP standard as part of the Advanced Product Quality Planning (APQP). The Part Submission Warrant is the cover page and summarizes the content and submission level of the report. An example of this document can be found in the Appendix. For more information refer to the AIAG PPAP Manual.

H. Appearance Approval Critera

1. To maintain consistency of visual inspection we prepare golden samples of appearance criteria like GO/NOGO visual standards. These visual standards are communicated and distributed to all parties to have consistency. It is the responsibility of Quality Engineering to communicate this requirement during the APQP phase. Example: for printed dials, golden GO/NOGO samples were created with collaborative efforts. All parties must use the GO/NOGO samples that are available and are maintained by their quality departments.

Section V – Supplier Performance Scorecard (SPS)

A. Purpose

The purpose of the RG Supplier Performance Scorecard is to communicate key supplier performance metrics that align with RG's business objectives. The program rewards suppliers based on data, serves as a foundation for continuous improvement, and assists with future sourcing decisions. Data will be tracked monthly and reported quarterly. Our supplier scorecard consists of the following focus areas:

Delivery:	On-time performance compared to the confirmed date received from the supplier.	
Quality:	 As measured in Parts Per Million Defective (PPM) Disruptions (Stock Out) Number of Occurrences of Expedite Shipments (Premium) 	
	Freight)	
	4. Customer Issues, Field Failures, Returns, Warranty,	
	recalls due to supplied raw materials	

Scope:

The RG Supplier Performance Scorecard applies to a select group of RG suppliers we believe to be critical links in our supply chain. Generally, this will include the Critical suppliers listed and identified each year as determined by spend (\$).

F. Benefits

The RG Supplier Performance Scorecard will benefit both RG and our suppliers. To achieve the benefits, members in the supply chain must willingly share information by establishing open communication and fostering trust.

Supplier Benefits:

- Clearly stated performance expectations
- Improved communication
- The ability to Earn, Keep and Grow our business relationship
- Objective data to measure your performance
- Improved overall competitiveness in the market

RG Benefits:

- Clearly communicated performance expectations to our supply base
- Closer relationships with our suppliers
- Better understanding of our supply base's overall performance
- Closer alignment between our customers' needs and our suppliers' capabilities

G. Scorecard Point System

Each month, Suppliers will receive a **Monthly** and **Year-to-Date** performance score based on the six focus areas:

Delivery	(0 to 30 points)
Quality	(0 to 30 points)
Premium Freight	(0 to 5 points)
Stock-Out	(0 to 5 points)
Customer Disruptions	(0 to 10 points)
Cooperation/Support/Cust Serv/Resp	(0 to 20 points)
	Delivery Quality Premium Freight Stock-Out Customer Disruptions Cooperation/Support/Cust Serv/Resp

The maximum possible score for the Month, Quarter, or Year-to-Date is 100 points.

H. Scoring Details

1. Delivery Scoring (On Time To Promise)

OTTP is the percentage of **parts** that are delivered on time to the Promise date on the Purchase Order. A shipment received **on** the Promise date, or no more than Ten working days early, is considered to be "ON TIME".

Points	On Time To Promise Record (OTTP)
30	OTTP is 100% to 96%
25	OTTP is % to 9%
20	OTTP is 9% to 8%
10	OTTP is 84% to 80%
5	OTTP is 79 to 70%
0	OTTP is 69% or below

2. Quality Scoring (Parts Per Million)

Parts Per Million measures product quality through the number of defective parts (non-conformance) per each million units.

Points	Parts Per Million (PPM)
30	PPM is 0 to 100
25	PPM is 101 to 500
20	PPM is 501 to 1000
15	PPM is 1001 to 5000
10	PPM is 5001 to 10000
0	PPM is greater than 10000
Definition:	# of Units Rejected X 1,000,000 Total # of Units Received

3. Cooperation/Support/Customer Service/Responsiveness/Proactiveness

A subjective measurement of a supplier's interaction with Purchasing and SQA. For each quarter, it measures their perceived levels of cooperation, support, customer service, responsiveness, and proactiveness (see scoring details). Survey participants include: SQEs, SSMs, Buyers, & GSCM.

Basic subjective scoring methodology			
roactiveness			
rface personnel			
pend dollars			
global supply chain manager			
in annual at			
in requests, etc.			
important RG topics such as NPD, reliability improvements & cost reductions			
act with RG personnel and deliver favorable results			
uiries, SCARS, PO acknowledgements, etc.			
nnel informed of important information			
pints Points			
1 Below expectations 0 No positive attributes demonstrated			
al			

I. Supplier Performance Levels and Assessment

Each supplier is ranked based upon their on-going performance.

Level 1 - A supplier achieving an ongoing level of 90 *points or above* is a preferred supplier that we will be rewarded with New Product Development involvement and additional business.

Level 2 - A supplier that has achieved an ongoing level of 75 *to 89 points* is performing at an acceptable level. However, if level 2 is achieved twice in a year then the Strategic Sourcing Manager shall work with these suppliers to help them get to level 1 performance within a specified period.

Level 3 - A supplier that has achieved an ongoing level of 50 *to 74 points* has a conditional level of performance. However, if the level 3 is achieved then the Strategic Sourcing Manager communicates with the Supplier by opening a NC with the help of SQE and demand corrective actions. If level 3 is achieved twice in a row then Supplier is invited to explain to improve their metrics.

Level 4 - A supplier that has achieved an ongoing level of 49 *points or below* is a restricted supplier. If level 4 is achieved, then Strategic Sourcing Manager will open a NC with the help of SQE and demand corrective actions. If level 4 is achieved twice in a row then SSM's will avoid using these suppliers in any new designs and will seek to exit these suppliers in favor of alternate sources.

Section VI – Barcode Implementation and Usage

A. Introduction

These specifications provide guidelines for printing and applying a Shipping/Parts Identification Label. The label is designed to improve the productivity and controls for suppliers and Rochester Gauges, LLC, by allowing effective and efficient capture of data for production counts, forwarding, freight transfer control, receiving, and other inventory controls. Strict adherence to these specifications for Shipping/Parts Identification Label will reduce implementation costs and increase benefits for Rochester Gauges, LLC and its suppliers.

B. Barcode Specifications

1. Symbology Specifications

- **1.1 Barcode** All bar codes must be code 39 or 128 with a leading and trailing quiet zone of 0.25-inch minimum width. The barcode must conform to the barcode Symbology standard for Code 39, published by the Automotive Industry Action group (AIAG B-3 03.00 7/93).
- **1.2** Code Density and Dimensions For each barcode symbol, the average width of the narrow elements must be within the range of 0.013 to 0.017 inches. The ratio of the nominal width of the wide elements to the nominal width of the narrow elements must be 3:1, with an allowable range of 2.8:1 to 3.2:1.

1.2.1 Box and Master labels, the bar heights must be a minimum of 0.5 inches.

- **1.3 Reflectivity and Contrast** The printed barcode symbol must meet the reflectivity and contrast requirements, specified in section 4.1 of AIAG-B-1 at all electromagnetic wave lengths from B633 to B900 nanometers.
- **1.4** Check Digits Check Digits must not be used in the barcodes
- **1.5** Quality Assurance Requirements It is the responsibility of the supplier to provide barcode labels that meet these specifications. Waivers may be granted on a case by case basis.

2. Size and Materials

2.1 Label Sizes

- **2.1.1 Single Labels** The standard Rochester Gauges, LLC label must be 4.0 inches high and 6.5 inches in length
- **2.1.2 Master Labels** The standard Rochester Gauges, LLC label must be 4.0 inches high and 6.5 inches in length

- **2.1.3 Label Stock** The label paper must be white in color with black printing, unless approved in advance.
- **2.3** Special Circumstances If the specified label cannot be affixed to the package/container because of container size or design, special arrangements will be required. Contact the Rochester buyer.

3. Data Area Characteristics/Size – Box and Master Label Only

- **3.1 Data Areas and Titles** There are nine areas for each label: Supplier Name, Part Number, Purchase Order Number, Line Item, Supplier Number, Rev. Level, Quantity, Part Description, and Date Mfg./Shipped. Each data area must be separated by thin lines and must contain its title in the upper left-hand corner. The barcode symbol must be directly below the readable characters in all data.
 - 3.1.1 The supplier's name must be located at the top of single label and master label.

4. Placement of Labels

- **4.1 Single Use Label:** To be used on all shipments. Each box, bag, container, pallet shall have a single use label. It should be applied in a place where visible and accessible.
 - 4.1.1 One-part number per single use label. Where there are more than one box, bag, container, pallet, of the same part number, a "master label" will be used in conjunction with the single use label.

C. Sample Labels



Bar Code 128 example

Bar Code 39 Example

D. Documents

The supplier will provide the necessary paperwork needed for efficient receipt of material. This will include:

- Packing list (2 copies)
- Material Certs (as required)
- Inspection data (as required)

E. Contacts

For any further questions contact the supply chain group at Rochester Gauges, LLC.

REVISION HISTORY

 Date: 4/27/20
 Revision: 2.4
 Section: Var
 By: RG/MK

 Description: Director of Quality was Quality Manager; Director of Global Supply Chain was Global Supply Chain Manager. Records retention updated 10 years was 3 years. Updated drawing specification control. Updated document availability. Added exception to PSW and PQP information. Added clarification to PCN. Updated, added supplier corrective action. Added requirement for PFC for any IATF requirements. Added Significant and Special Characteristics section. At Reliability Compliance, added when required by RG. Added Special Characteristics definitions. Updated appendix and forms. LLC was Inc. Added waiver may be granted for barcode labels. Updated Table of Contents. Added revision history starting with this revision 2.4.

Date: 9/17/20	Revision: 3.0	Section:Score card	By:MK	
Description: Added Appe	arance Criteria section. Up	dates to scorecard to include dis	sruptions, number of occurren	ces of premium freight and
customer issues. Critical suppliers were top 10. Point system updated also to include the same. Updates to levels and Assessments				

Appendix A

(Use exact format)

<u>Title</u>	Pages
Part Submission Warrant (PSW)	20
Process Change Notice (PCN)	21
Certificate of Compliance (CoC)	22
Supplier Performance Scorecard (SPS)	23

Part Submission Warrant (PSW)



If possible, send this form and any supporting documentation in electronic format through email. Do not <i>write protect</i> this form upon return. The results of this request will be sent through an e-mail notification whenever possible		
Part Name	Cust Part Number	
Shown on Drawing No.	Org. Part Number	
Engineering Change Level		Dated
Additional Engineering Changes	-	Dated
Safety and/or Government Regulation Yes No Purchase Ord	der No.	Weight (lbs)
Checking Aid No. Checking Aid Engineering Ch	ange Level	Dated
ORGANIZATION MANUFACTURING INFORMATION	CUSTOMER SUBMITTAL INFORMATION	
Organization Name & Supplier/Vendor Code	Customer Name/Division	
Street Address	Buyer/Buyer Code	
City Region Postal Code Country	Application	
MATERIALS REPORTING		
Submitted by IMDS or other customer format:		
Are polymeric parts identified with appropriate ISO marking codes? REASON FOR SUBMISSION (Check at least one) Initial Submission Engineering Change(s) Tooling: Transfer, Replacement, Refurbishment, or additional Correction of Discrepancy Tooling Inactive > than 1 year	Yes No n/a Change to Optional Construction or Mate Supplier or Material Source Change Change in Part Processing Parts Produced at Additional Location Other - please specify below	rial
REQUESTED SUBMISSION LEVEL (Check one) Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer. Level 2 - Warrant with product samples and limited supporting data submitted to customer. Level 3 - Warrant with product samples and complete supporting data submitted to customer. Level 4 - Warrant and other requirements as defined by customer. Level 5 - Warrant with product samples and complete supporting data reviewed at organization's manufacturing location. SUBMISSION RESULTS The results for dimensional measurements: Yes No (If "NO" - Explanation Required) Mold / Cavity / Production Process		
DECLARATION I hereby affirm that the samples represented by this warrant are representative of our parts which were made by a process that meets all Production Part Approval Process Manual 4th Edition Requirements. I further affirm that these samples were produced at the production rate of / hours. I also certify that documented evidence of such compliance is on file and available for review. I have noted any deviations from the declaration below. EXPLANATION/COMMENTS:		
Is each Customer Tool properly tagged and numbered? I Yes I No I n/a		
Organization Authorized Signature		Date
Print Name Phone No.		Fax No
Title E-mail		
FOR CUSTOMER USE	ONLY (IF APPLICABLE)	
Customer Signature	Date	
Print Name Cust	omer Tracking Number (optional)	

Rev. B 3-19-2020

F14023A

Process Change Notice (PCN)



If possible, send this form and any supporting documentation in electronic format through email. Do not <i>write protect</i> this upon return. The results of this request will be sent through an e-mail notification whenever possible			
Supplier To Complete:			
PCN #	_ Date		
Supplier #	Part #		
Originator	Phone Number		
Engineering Rev Level	Dated		
Quantity of Parts	PO # / Date		
Change Type Process Design Source	Description Temporary Deviation		
Description of Current Process, Design, or Specification: Description and Reason for Change and Proposed Process, Desig	n, or Specification:		
Interchangeability Affected - Assembly Yes No Interchangeability Affected - Components Yes No Will this change affect shipping schedule? Yes No Feature is a Control Feature? Yes No	Time to implement - all machines		
Process Validation Procedure: Submit To: Supplier Quality Engineer Rochester Gauges, LLC Mobile:			
Dallas, TX 75229	Email: <u>SQEng@rochestergauges.com</u>		
FOR ROCHESTER GAU	GES INTERNAL USE ONLY		
Approval granted for subsequent changes which are same as above	Yes No		
Part Submission Warrant Required	Yes No		
Additional Testing May Be Required	Yes No Oty Read for Testing		
Engineering Change Request # in Process	Estimated Testing Time		
Effective Date	Customer Approval #		
Effective Serial #			
Routing Approval			
Supplier Quality	Date		
Design Engineering	Date		
Manufacturing Engineering	Date		
Purchasing	Date		
This approval is granted upon the understanding that it is advisory in nature and in no manner the applicable engineering specifications and/or inherent in samples as originally tested and a changes listed above; and should such changes result in less satisfactory performance than e expenses incurred to correct the deficiency.	changes the Seller's original responsibility for insuring that all characteristics, designated in pproved, are maintained. Seller accepts full responsibility for the changes or types of sperienced with the originally approved item, Seller will fully reimburse the Buyer for all		



CERTIFICATE OF COMPLIANCE

Purchase Order & Item Number: _____

Rochester Gauges Part Number: _____Quantity: _____

This is to certify that all items referenced herein are in complete conformance with all requirements of the referenced purchase order. All materials used and applicable requirements have been verified and performed.

This further certifies that records and documents verifying compliance to applicable characteristics have been prepared, reviewed, and found to meet all applicable requirements, and are on file and available for review by the purchaser. These documents will be retained for a period of not less than 10 years after the completion of the referenced purchase order.

The	following material	(s)	were used:	
	0	· ·		

Traceable lot identification used:

The above statements are true, complete, and correct.

Authorized signature

Company Name and Address:

Title

Date

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EVEL 3: A supplier that has achieved an ongoing level of 50 to 74 points has a conditional level of performance. Howeer, if the level 3 is achieved them the Strategic Sourcing Manager communicates with the Supplier by opening a NC with the help of SQE and demand corrective actions. If level 3 is achieved twice in a row then Supplier is invited to explain to improve their metrics. EVEL 4: A supplier that has achieved an ongoing level of 40 points or below is a restricted supplier. If level 4 is achieved twice in a row then Supplier is invited to explain to improve their metrics demand corrective actions. If level 4 is achieved, then Strategic Sourcing Manager will open a NC with the help of SQE and demand corrective actions. If level 4 is achieved twice in a row then SSM's will avoid using these suppliers in any new designs and will seek to exit these suppliers in favor of alternate sources. INDTES: PPM is calculated as average number of receipts for the entire time period. Indications: Indicated by average number of receipts for the entire time period. Indicated Proprietary Indicated by average number of receipts for the entire time period.	-Evel 2:	A supplier work with	r that has acl these supplic	hieved <mark>ers to</mark>	an ongo help ther	ing leví n get t	el of 75 o level	to 89 1 perfo	points manc€	is perfi Mithin	orming a <mark>a spec</mark> it	t an acc ied peri	ceptable <mark>od</mark> .	e level.	Howeve	er, if leve	I2 is a	chieved	twice ii	n a yeal	r then t	he Stra	tegic Sc	urcing M	anager	shall	
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Supplier Quality Requirements Rochester Gauges, LLC

Version 3.0 9/17/20

Appendix B

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Risk Assessment RPN Guidelines	26
Supplier Corrective Action Report (SCAR)	27
Process Control Plan (PCP)	29
Potential Study Data Sheet	30
Gauge Repeatability / Reproducibility Study (Short Method)	31
Gauge Repeatability / Reproducibility Study (Long Method)	32

Process Flow Chart Example





*NOTE: Process Number and Name Which Appears on Process Control Plan

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PFMEA

Revision B: 7/1/2019

Page 1 of 1

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Failure Mode and Effects - Risk Assessment Guidelines



stion	Likelihood of reaching customer	Rare	Very Low	Low	Infrequent	Moderate	Recurrent	Frequent	High	Very High	Extreme
Detec	Detection Probability	Detect before product release	Detectable before	production		controls by testing/	Suppose in		Detectable by customer	Detectable during service	Not detectable
erity	Process	Minor – customer would not notice	Slight Inconvenience	Rework		Cause unscheduled	damaged equipment		Disrupt next operation, major rework, or endanger	equipment	Hazardous to operator or next operator
Seve	Design	Minor – no effect on customer	Reduced	Performance	Performance	Degradation – Customer annoyed or	uncomfortable	Customer dissatisfied	Loss of Function – customer highly	uesausiieu	Safety – CatastrophicFailure
	Min C _{pk}	1.33	1.25	1.20	1.10	1.00	0.95	0.85	0.75	0.65	0.55
Occurrence	Approximate Possibility	1 in 10,000	1 in 5,000	1 in 2,000	1 in 1,000	1 in 400	1 in 200	1 in 100	1 in 50	1 in 20	1 in 10
	Frequency	Rare	Very Low	Low	Infrequent	Moderate	Recurrent	Frequent	High	Very High	Extreme
_	Rank	-	2	3	4	5	9	7	œ	6	10

Rev. 2.0

March 2020

Supplier Corrective Action Report (SCAR)



Rochester Gauges Part No Drawing Revision	umber: Level:	Origination Date: Last Updated:	
Su	upplier:	Supplier #:	
Supplier to acknowledge receipt o <u>Note</u> : The Containment Action	f this SCAR and report Containment Action is required within 3 working days of the second s	on by the following date: he origination date.	
) Establish the Team:			
RG Team Member	Title	Email Address	Phone #
]	Supplier Quality Engineer	SQEng@RochesterGauges.com	
]	Supplier Quality Engineer	SQEng@RochesterGauges.com	
Supplier	Title	Email Address	Phone #
Define the Problem (Use photos	& diagrams, as needed)		
			# of Units Inspected:
			# of Units Rejected:
			Total Suspect Units:
			PPM Defective:
Containment Action taken to p	prevent defective product from bei	ng used in product	
chester Gauges:			Implementation Date
			Results if 100% sorte
			# of Units Bad:
			# of Units Good:
			Total Units Sorted:
pplier:			Implementation Date
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Return Material	Authorization # if parts are	e to be returned to Supplier:	
		Authorized by:	



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Producti	uo		CP#	Core Team:			Customer Quality Approval				
Part Nui	nber						Other Approvals (as required	()			
Part Nar	ne/Description										
Supplier		Rochester Gauges,	, LLC. Dallas, TX								
			Characteri	stics			Methods				
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Rev. D 1/13/15

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Potential Study Data Sheet

If possible, send this form and any supporting documentation in electronic format through email. Do not write protect this form upon return.

ROCHESTER GAUGES, LLC

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Rev. A 3/19/2020



Rev. B 3/19/2020

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Rochester Gauges, LLC 11616 Harry Hines Boulevard Dallas, Texas 75229 Main 972.241.2161