



IMPCO SUPPLIER QUALITY MANUAL

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APPENDIX	IMPCO Form Number
A. Supplier Profile – Quality Survey	F.06.2.01-01 15,16, 17, 18

Date	Revision	Description of Change	Approved By
6/1/2010	F	Added part cleanliness requirements on pg 10, updated nonconforming material on page 9, added item 7 on page 8. Added Shelf Life requirement on page 10. Removed IMPCO Sterling Heights from Supplier Quality Manual.	Jim Mitchell
11/5/2010	G	Corrected error on Supplier Survey, was missing section C	Jim Mitchell
4/1/2011	H	Formatted and updated to match TS 16949 requirements for 1 st articles and added all affiliates	Jim Mitchell
3/3/2012	I	Added requirement for 3 month notice on page 9 item 7	Jim Mitchell
8/2/2013	J	Changed cover to remove Automotive systems and updated Environmental Policy	Jim Mitchell

Introduction

The purpose of this manual is to communicate to our suppliers the core set of tool, processes and systems that are to be used in the manufacture, design and development of parts and products supplied to IMPCO Technologies and its affiliated group of companies.

IMPCO Technologies is dedicated to being the leader in the manufacture of alternate fuel components and engine systems. We can only achieve our goals by receiving the best from our Suppliers. We ask that our Suppliers to join us in providing the best products with respect to Quality, Delivery and Price. We believe a strong Supplier base will assist us in providing World Class Product to our Customers.

To ensure that our Supplier's quality systems conform to IMPCO Technologies quality system requirements, IMPCO Technologies Representatives may visit your facility in order to review your quality system as well as manufacturing capability and capacity. The team's objective is to support the development of future mutual goals for our organizations. As an IMPCO Technologies Supplier, you will have a Purchasing Representative and Quality Representative dedicated to providing the most up to date information available in order to nurture an enduring business relationship.

IMPCO Technologies is dedicated to providing Customer satisfaction.

Quality Policy

We are committed to producing high quality, reliable, cost effective products that provide customer value, are shipped on time, and contribute to a better environment. Our Quality Management System (QMS) achieves these objectives and embraces the principles of continuous improvement.

IMPCO TECHNOLOGIES ENVIRONMENTAL POLICY

IMPCO Technologies is dedicated to a better world through cleaner air, and has committed itself to the development of technologies and applications aimed at better utilizing alternate fuel resources, and improving global environmental quality with a commitment to Prevention of Pollution.

We demonstrate this commitment through our dedicated development efforts to expand global availability of alternate fuel products, as well as traditional fuel minimization options via idle reduction and auxiliary power technologies. Our policy encompasses;

- Providing products to OEM customers for use in all combustion engine applications that exceed the customer and governmental emissions regulations.
- Working with government regulators worldwide in support of technically, and financial responsible environmental legislation, and supporting that with a vigorous pursuit of technology development to provide product solutions to those environmental requirements.
- Continually assessing the impact of our plants, products and process's on the environment, to ensure our compliance with all applicable legal requirements and with a goal for continuous improvement relating to environmental aspects with the full commitment and support of management at all levels.

Supplier Expectations

All suppliers must be compliant to a Quality System such as ISO 9001, TS16949 or AS9100. It is the responsibility of the supplier to understand and ensure complete compliance to this Manual.

New Suppliers

IMPCO's Purchasing and Quality Assurance Team evaluates all new Suppliers. All applicable new Suppliers must submit the following items 1 & 4; Purchasing may request items 2 & 3 if deemed necessary.

1. IMPCO Supplier Profile – Quality Survey (see Appendix A) supplied by IMPCO Purchasing
2. Financial Statements
3. Dunn & Bradstreet rating
4. Confidentiality Agreement (Only required for products designed by IMPCO Technologies)

After the above information has been received, IMPCO's Supplier Evaluation Team (SET) reviews the information and makes one of the following determinations:

1. Add the Supplier to the Supplier list as approved or conditionally approved
2. Schedule an on-site survey (if needed)
3. Request additional information from the Supplier (if needed)
4. Eliminate the potential Supplier from further consideration

Existing Supplier Evaluation Method

The IMPCO Technologies Supplier Evaluation Team (SET), consisting of Purchasing and Quality Representatives, gathers the appropriate data to evaluate the Suppliers. IMPCO Technologies reviews the areas listed below to determine how the Supplier is progressing:

1. Quality Systems
2. Product Quality Performance DPM (defects per million)
3. Delivery Performance
4. 1st Article Rejections
5. Corrective Actions issued
6. Request for Deviations issued
7. Partnership

The Supplier's evaluation will determine the category that they will be placed in.

- 1) Approved – These Suppliers are given priority in sourcing decisions for new business
- 2) Conditional – These Suppliers require the Purchasing Manager's approval for new sourcing decisions.
- 3) Restricted – Cannot purchase from, review long term partnership
- 4) Special – Suppliers that supply proprietary product (e.g. specialized commodity)

IMPCO Technologies encourages all Suppliers to continually improve their product and processes. However, prior to any modification to a process change being implemented on IMPCO's design controlled part, the supplier must complete all verifications and test(s) necessary including preliminary capability studies to assure proper yield and that the quality level has been maintained. The supplier must notify IMPCO Technologies prior to any shipment of parts produced from a changed process. Ref: See section (**First are required for the following**) on page 9 of this Manual.

Proprietary / Confidentiality Information

All drawings / documentation supplied to our Suppliers with regards to Purchase Orders or request for quotes are to be considered proprietary information of IMPCO Technologies. This includes but is not limited to sample parts, sketches, drawings and specifications which shall remain the property of IMPCO Technologies. Supplier shall treat the information as confidential unless otherwise agreed in writing from our Purchasing group.

Purchase Orders

The Supplier is responsible for meeting all of IMPCO Technologies Purchase Order requirements. The following items must be reviewed by the Supplier for each Purchase Order. If the Supplier cannot meet the requirements, the Supplier must notify IMPCO Technologies Purchasing.

1. The purchased item part number.
2. The latest revision level of the drawing.
3. The order quantity and accuracy of price.
4. Delivery requirements.

Once the Purchase Order has been reviewed, the supplier must acknowledge by signing and or acknowledgement by e-mail and return it to the assigned Purchasing Representative for acknowledgment via email and/or fax.

Purchase Order Changes/ Engineering Changes

When an engineering drawing or engineering specification has been revised, IMPCO Technologies Purchasing will send the Supplier an Acknowledgement Form along with the latest engineering drawing. The Supplier must review the drawing to see if the change affects their production or inventory.

The Supplier must document on the drawing transmittal form:

1. What is required to make this change? (ie. tooling modification, fixture change, material, etc.)
2. When can this change be implemented?
3. Will the following open Purchase Orders affect this change?
4. Will this change affect work in process or inventory?
5. When will we receive parts to the latest print level along with first article data/part?
6. Does this change affect current pricing of the part? If so, how much?

The Supplier is required to answer the above questions on the Acknowledgement Form and return back to IMPCO Technologies Purchasing Department within 5 working days.

IMPCO Technologies Inc. Supplied Design Format Information.

IMPCO Technologies has been in the process of moving its computer aided design capability from two dimensional drafting, to three dimensional solid modeling.

Over the years many Suppliers have requested that we provide them with solid model or two dimensional files translated into formats other than the ones we design in. It is impossible for IMPCO Technologies to meet these requests from our Suppliers, as there are an increasing number of design packages on the market, all with slightly different formats.

To support Suppliers in producing quality parts to our specifications, we are prepared to provide the solid model in the native current version Solidworks format only, along with an Adobe PDF file of the two dimensional layout (in cases where the part is only defined in a two dimensional layout we will provide the PDF file only). Viewers for both of these formats are readily available for no charge on-line at:

Solidworks (www.solidworks.com)

Adobe (www.adobe.com)

If your company uses a different format solid modeling program, your software vendor will be able to advise you in what file translators are available to convert from Solidworks. If you have any questions regarding this issue, please feel free to contact your IMPCO Purchasing Representative.

Certifications

Suppliers **are required** to submit Material, Plating or Heat Treat Certifications as applicable with **each shipment** or a Certificate of Conformance (C of C) which lists each requirement as per the drawing.

The original Certificate of Conformance for each part number should be kept in the Supplier's files for future audit purposes by IMPCO Technologies.

If no certs or C of C are received with the shipment, the shipment will be rejected and may affect Quality Rating.

Supplier Dimensional Certification Data

On certain parts, Suppliers will be required to submit inspection data with each shipment until further notification by IMPCO Technologies. Quality will identify to the supplier the required dimension that will need to be inspected. The Supplier will be notified via Purchase Order when this is required.

First Articles

IMPCO Technologies follows the *Automotive Industry Action Group* (AIAG) Production Part Approval Process (PPAP) for First Article Inspection validation of all purchased material required for production applications. Additional information on PPAP requirements may be obtained from the facility quality assurance representative. PPAP submissions are to be submitted to the facility Quality Department along with the measured part.

All PPAP Submissions will be a level 3 unless specified differently by the purchasing agent.

AIAG STANDARD FORMS	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
CATEGORY					
PART SUBMISSION WARRANT (a)	S	S	S	*	R
PART APPROVAL SAMPLES (TAGGED)		S	S	*	R
NUMBERED DRAWING (b)		S	S	*	R
DIMENSIONAL RESULTS (c)		S	S	*	R
APPEARANCE APPROVAL REPORT (d)			SUBMIT IF APPLICABLE	SUBMIT IF APPLICABLE	R
PROCESS FLOW DIAGRAM (e)			S	*	R
PROCESS FMEA (f)			S	*	R
CONTROL PLAN (g)			S	*	R
RAW MATERIAL CERTIFICATIONS (h)		S	S	*	R
PLATING CERTIFICATIONS (i)		S	S	*	R
PART FUNCTIONAL TEST RESULTS (j)			S	*	R
MEASUREMENT SYSTEM ANALYSIS STUDY (k)			S	*	R
GAGE R & R STUDY (l)			S	*	R
PASS/FAIL ATTRIBUTE DATA (m)			S	*	R
SHORT TERM CAPABILITY STUDY (n)			S	*	R
CLEANINLESS REPORT (o)			SUBMIT IF APPLICABLE	SUBMIT IF APPLICABLE	SUBMIT IF APPLICABLE
QUALIFIED LABORATORY DOCUMENTATION (p)			S	*	R
DFMEA (q)			SUBMIT IF APPLICABLE	SUBMIT IF APPLICABLE	SUBMIT IF APPLICABLE
S = The organization shall submit to the IMPCO and retain a copy of records or documentation items at appropriate locations.					
R = The organization shall retain at appropriate location and make available to IMPCO upon request.					
* = The organization shall retain at appropriate location and submit to IMPCO upon request					

Each characteristic, feature or note on the drawing must be inspected and verified for conformance, and the results recorded as follows:

All true position hole(s) callouts must be documented. Each hole with the diameter, X data and Y data and then the actual true position data must be supplied on the 1st article report. This is done for each and every hole that has a true position callout. 1st article report must also include the following;

- Part Submission Warrant (Not required for off the shelf parts)
- a ballooned print identifying the item checked which correlates with the actual measurement, feature or note
- actual measurements/results for variables data (must indicate pass or fail on the inspection report) and must include the tolerance of the dimension.



If the tooling produces multiple parts simultaneously (i.e. multiple cavity die/mold) then an inspection layout from each cavity is required. If the part has multiple engineering design levels

First Articles (con't)

(i.e. casting dimension vs. machining dimensions) then a layout is required for each stage (casting layout & machining layout) for each cavity. The inspection layout data and only the completed final parts need to be submitted.

- d. Appearance Approval Report
- e. Process Flow Diagrams
- f. Process FMEA
- g. Control Plans
- h. raw material certifications
- i. plating certifications (if plating is called out on the drawing)
- j. Part Functional Test Results
- k. Measurement Analysis Studies
- l. Gage R & R Studies
- m. pass/fail for attributes data
- n. Short Term Capability Studies
- o. Cleanliness Report
- p. Qualified Laboratory Documents
- q. Design FMEA

There are two types of key Product Characteristics:

1. This symbol  identifies Fit/Function Characteristics for Key Dimensions on components, materials or assemblies which are key to having particular quality, reliability or performance significant to the finished product. The Supplier must submit a process capability study of 1.67 cpk or greater.
2. This symbol  identifies Safety Compliance Characteristics for Key Dimensions on components, materials or assemblies that are key to having particular safety requirements significant to the finished product. Any dimension which has been identified with the Safety Compliance symbol will require the Supplier to conduct 100% testing as part of normal production process. The Supplier must submit a process capability study of 1.67 cpk or greater.

Note: all documents as stated above (a-q) as requested are to be identified and shipped to IMPCO as part of the 1st article inspection report. If the items a-q as requested are not submitted the inspection report will be rejected and returned for re-submittal.

First Articles are required for the following:

1. New part being ordered for the first time
2. Existing part ordered from new source.
3. Design change to the current part (only inspection for the change is required)
4. Part that is purchased for Engineering which will be used for production in the future
5. Part from new tool which has been ordered to replace a worn tool
6. Verification of tool repair
7. **Any process change since the original 1st article was approved including a change in facilities, materials, processes, sub supplier change, or any engineering change on sourced parts or any dimensional change. Supplier is expected to NOTIFY IMPCO Technologies Quality Department 3 Months in advance prior to any changes being implemented. Supplier is required to submit form # F14.1.02-19 IMPCO PCR and cannot make any changes until Approved by IMPCO Technologies.**

First Articles (con't)

IMPCO Technologies reviews Supplier 1st article PPAP package for completeness, accuracy and legibility, verifies randomly selected characteristics and features for accuracy, compliance and documents fit check results at assembly process, as required. **If IMPCO accepts a 1st article using the supplier supplied data and if found out later that the parts do not meet the IMPCO specification, our acceptance of the 1st article does not alleviate the supplier, the supplier is still responsible.**

Conforming First Article Reports are approved and distributed. Nonconforming First Article Reports are returned back to the Supplier so that corrections can be made. **Continuous rejections for a 1st article may prompt the Supplier to lose future business.**

Nonconforming Material

The Supplier will be notified of nonconforming material and will be asked for authorization to return to vendor, scrap or rework the material. A debit memo will be issued against the Supplier's account for all returned/scrapped material. The Supplier is responsible for freight charges associated with the return of discrepant material and all nonconformance issues will be reflected in the Supplier's quality rating. **The Supplier may be charged for all cost associated with the rejection which may include, cost of processing paperwork, cost of sorting or handling, cost of rework or line down time cost.** Any questions please contact the Purchasing Department from the facility that is rejecting the product for the associated cost.

Tooling

When a tool (die cast tool, stamping tool, molded rubber tool) has reached its estimated life and the supplier is requesting a new tool, the Supplier must submit sample part(s) to Purchasing for review along with an explanation identifying the areas where the tool needs to be replaced. Purchasing will then forward to quality for review. If the tool is used to produce castings then a casting and a machining sample will be required.

When a new tool is produced the Supplier must identify the tool by means of metal plate with permanently engraving or engraving with the following: IMPCO part number, month and year of completion, Impeco Property Tag number and Purchase Order number. Upon completion of the tool, the Supplier must submit pictures showing the required identification above along with the required 1st article.

Corrective Action Request (CAR)

IMPCO Technologies will notify the Supplier of a nonconformance with a Corrective Action Request (CAR). A CAR can be issued for a part as a result of receiving inspection rejection, defective parts in stock or found defective during our assembly process.

IMPCO Technologies requires that the CAR be returned prior to the required due date indicated on the report. The listed due date is the maximum allowable time to respond. Even the smallest problem can be very detrimental to our manufacturing operations, so your quickest response is required. The CAR response should include the corrective and preventive action and a break point for stock. Two or more CARs for a specific part or non-response to a CAR could cause IMPCO Technologies to immediately re-source to another Supplier.

Control of Inspection, Measuring and Test Equipment

The Supplier must have established and maintained documented procedures to control, calibrate and maintain inspection, measuring and test equipment and devices used to demonstrate the conformance of product to the specified requirements. Inspection, measuring and test equipment should be used in a manner that ensures that the measurement uncertainty is known and is consistent with the required measurement capability. All inspection, measuring and test equipment must be in compliance to the requirements of ISO 10012 and standards traceable to the National Institute of Standards and Technology (NIST).

Sub-contractor Control

The Supplier takes full responsibility for any sub-contracted (outsourced or alternate) process and will have final approvals or inspection in place to assure all sub-contracted components conform to all specifications dictated by the drawing (s).

Deviations from Specifications

IMPCO Technologies expects all material and/or parts supplied to meet all of IMPCO Technologies requirements.

Nonconforming parts are **NOT** to be shipped to IMPCO Technologies without prior approval in writing. The Supplier is expected to complete the Request for Deviation Form, this form can be downloaded from www.impcotechnologies.com under Our Company/Quality/Supplier Quality section and submit it to IMPCO Technologies Purchasing. If the Request for Deviation is approved, then the Request for Deviation Form will be returned back to the supplier with approved signatures. **UNDER NO CIRCUMSTANCE WILL PRIOR or FUTURE VERBAL AGREEMENTS BE ACCEPTED.**

Packaging

Suppliers are held responsible to ensure packaging is sufficient to protect material from shipping damage (nicks, dings, scratches, etc.). Supplier is to make sure that the packages do not weigh more than 35 pounds. Suppliers are encouraged to use recycled material as much as possible.

Delivery Requirements

The Supplier will adhere to formally accepted shipment dates as specified on the Purchase Order. The acceptable window for deliveries is no earlier than 3 days and no later than 2 days from the delivery date specified on the purchase orders. IMPCO Technologies reserves the right to specify preferred carriers, but not limited to. Suppliers are responsible for proper transportation in order to meet agreed delivery dates. All missed shipments must be expedited the same day at the Supplier's expense.

Part Cleanliness and Burs

Suppliers are held responsible to ensure parts are clean and free from oil, metal shavings, loose plastic, loose sand and all other types of loose foreign materials. Parts to be found oily or having any type of loose sand, loose metal shavings or loose foreign materials will be returned to the supplier at the supplier cost. Parts are to be free of burs and or sharp edges. **THERE IS NO EXCEPTION** as our products are used on engines in which having loose particles could cause an engine failure.

Shelf Life

If the product that is being supplied to IMPCO Technologies has a recommended shelf life by the manufacture, than the supplier needs to note on the outside of the packaging the recommended shelf life in years otherwise we will assume that the shelf life is Infinite. **EXAMPLE SHELF LIFE 5 YEARS** from date of shipment.

International Material Data System Requirements (IMDS)

If you are requested to submit IMDS documentation, you must 1st submit via the IMDS web site <http://www.mdssystem.com/>

The module ID number, version number and the creation date must be included on the Part Submission Warrant (PSW).

Any questions please contact the Quality Department from the requesting facility.

Chemical Substance Guidelines

Based upon the Restriction of Hazardous Substances Directive (RoHS) 2002/95/EC "RoHS Directive" all Suppliers are required to comply with the chemical substance guidelines listed below.

Restrictions Impurities:

- Lead & Lead compounds
- Mercury & Mercury compounds
- Cadmium compounds
- Hexavalent Chromium
- Bisphenol A
- Asbestos
- Polychlorinated Biphenyl (PCB) & Polychlorinated Terphenyls (PCT)

Allowable Impurities:

A maximum concentration value, up to the percentage listed below by weight and homogeneous material shall be tolerated. These substances are allowable provided they are not intentionally introduced for any function purpose such as corrosion, adhesion, etc.

- Steel (including galvanized steel) (Less than .35% Lead by weight)
- Aluminum (Less than .4% Lead by weight)
- Copper Alloy (Less than .4% Lead by weight)
- Hexavalent Chromium (Less than .1% by weight)
- Cadmium (Less than .01% by weight)

For any part that does not meet the above allowable Impurities, the supplier must notify IMPCO Technologies purchasing in writing.

Bar Code Requirements

The following instruction is to be used as a guideline when a Supplier is developing bar code shipping labels for products that will be delivered to IMPCO Technologies, Incorporated. Unless stated otherwise, **USS code 39** will be used to barcode the necessary information. For additional guidelines and references, refer to the Automotive Industry Action Group (AIAG) publication titled Trading Partner Labels Implementation Guideline # B-10 *.

1. **Part Number:** The part number as defined by IMPCO and documented on the Purchase Order, which is given to a supplier.
2. **Revision:** The Revision is the configuration of the part in IMPCO's engineering drawing. It is also noted in the item master field for the revision.
3. **Description:** The description as stated on the Purchase Order is also what is called out on the engineering drawing.
4. **Supplier Name:** The name of the party that produces, provides, or furnishes a product or service that IMPCO has placed an order with.
5. **SPIR ID:** The numeric code used to identify the supplier in IMPCO's manufacturing system. It is also noted on the Purchase Order.
6. **Quantity:** The number of parts, items or other units of measure in the container.
7. **Purchase Order Number:** A Purchase Order number is a commercial document issued by IMPCO Technologies, indicating the products, quantities and agreed prices for products or services that the Supplier will provide.
8. **Manufacturing Date:** Date of fabrication – two digits month, two digits day, and two digits year.

Part Number AB1-23-2 	Revision A 	Date 9/22/2007 
Description Throttle Body Assemble 		Quantity 100 
Supplier I.D. Z123XY 	Purchase Order No. 791234 	
Customer Impco Technologies	Supplier Name Company XYZ	

**Automotive Industry Action Group,
26200 Lahser Road
Suite 200,
Southfield, Michigan 48034*

IMPCO SUPPLIER PROFILE - QUALITY SURVEY

Type of Survey:		<input type="checkbox"/> QUALIFICATION		<input type="checkbox"/> FOLLOW-UP		<input type="checkbox"/> SELF SURVEY																																								
Supp. Code _____ Federal I.D. # for New Suppliers _____																																														
Name And Address Company Name: _____ City, State, Zip _____ Phone # _____ Fax # _____ Web Site: _____				Key Contacts: Quality: _____ Engineering: _____ Sales: _____ Total Number of Employees: _____																																										
Quality System Registration <input type="checkbox"/> ISO <input type="checkbox"/> TS 16949 <input type="checkbox"/> OTHER _____ If supplier is ISO or TS certified please submit copy of certification																																														
Facility Information: Size of Facility (Total SQ FT) _____ Current Production Capacity: _____																																														
Sales Information: Total Sales \$ _____ Key Customers _____																																														
Tooling Capabilities: Tooling designed in-house <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, What design software is used _____ Tooling built in-house <input type="checkbox"/> Yes <input type="checkbox"/> No Can prototype/production be done in-house <input type="checkbox"/> Yes <input type="checkbox"/> No				Inspection Capabilities: CMM Equipment <input type="checkbox"/> Yes <input type="checkbox"/> No Hardness Testing <input type="checkbox"/> Yes <input type="checkbox"/> No Raw Material Testing <input type="checkbox"/> Yes <input type="checkbox"/> No SPC Capabilities <input type="checkbox"/> Yes <input type="checkbox"/> No 1st Article Inspection done in-house <input type="checkbox"/> Yes <input type="checkbox"/> No																																										
Other Process Capabilities: Rough/Finish Machining <input type="checkbox"/> Yes <input type="checkbox"/> No Coating <input type="checkbox"/> Yes <input type="checkbox"/> No Welding <input type="checkbox"/> Yes <input type="checkbox"/> No Assy <input type="checkbox"/> Yes <input type="checkbox"/> No																																														
Quality/Delivery Information Previous Year Outgoing DPM/PPM _____ YTD Outgoing DPM/PPM _____ Previous Year On Time delivery _____ YTD On Time Delivery _____																																														
Survey Completed by: _____				Date (Signed) _____																																										
Do Not use this section below																																														
<table border="1"> <thead> <tr> <th rowspan="2">No.</th> <th rowspan="2">Questions about the Quality System</th> <th rowspan="2">Questions Assessed</th> <th colspan="4">Scoring</th> </tr> <tr> <th>Points Available</th> <th>Points Awarded</th> <th>Element Rating</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>A.</td> <td>Quality Programs / Management</td> <td>0</td> <td>0</td> <td>0</td> <td>----</td> <td>Not Assessed</td> </tr> <tr> <td>B.</td> <td>Process Control - Shop</td> <td>0</td> <td>0</td> <td>0</td> <td>----</td> <td>Not Assessed</td> </tr> <tr> <td>C.</td> <td>Quality / Inspection Department</td> <td>0</td> <td>0</td> <td>0</td> <td>----</td> <td>Not Assessed</td> </tr> <tr> <td colspan="2"> Impco Purchasing: _____ Date (Signed): _____ Approved: <input type="checkbox"/> Yes <input type="checkbox"/> No Impco Quality: _____ Date (Signed): _____ Approved: <input type="checkbox"/> Yes <input type="checkbox"/> No </td> <td colspan="5"> Total 0 0 #DIV/0! </td> </tr> </tbody> </table>								No.	Questions about the Quality System	Questions Assessed	Scoring				Points Available	Points Awarded	Element Rating	Status	A.	Quality Programs / Management	0	0	0	----	Not Assessed	B.	Process Control - Shop	0	0	0	----	Not Assessed	C.	Quality / Inspection Department	0	0	0	----	Not Assessed	Impco Purchasing: _____ Date (Signed): _____ Approved: <input type="checkbox"/> Yes <input type="checkbox"/> No Impco Quality: _____ Date (Signed): _____ Approved: <input type="checkbox"/> Yes <input type="checkbox"/> No		Total 0 0 #DIV/0!				
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C.	Quality / Inspection Department	0	0	0	----	Not Assessed																																								
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IMPCO SUPPLIER QUALITY SURVEY

RATING INSTRUCTION

0 - Score a 0 if you have no documented procedure, documentation in place.
 2- Score a 2 if you have a written procedure and some deployment exist. - A documented Procedure must exist.
 3- Score a 3 if documented procedures exist and are audited on a normal basis. Must have evidence of audit schedule and audit results.
NR - The question is for informational gathering purposes only. Do not score any thing in the box. You must only fill information in below the question.

A - QUALITY PROGRAMS / MANAGEMENT

Questions Assessed 0 0
 Total Points Awarded 0
 Percent 0% ↓

No.	Questions about the Quality System	Rating
1	Is the company currently Registered to ISO or QS Is yes skip question #2 If no complete question #2 If Yes, please send copy of Certification <div style="text-align: right;">Only Rate One</div>	
2	Are there any Quality Procedures in-place?	
3	Are the procedures on a audit schedule?	
4	Does the supplier have Impco orders filed and maintained properly/orderly?	
5	Are there procedures in place to review pricing, delivery, engineering change revision?	
6	Supplier has the ability to receive Impco drawings, P.O.'s standards, etc. electronically? <i>Supplier to answer below.</i> <div style="border: 1px solid black; height: 40px; width: 100%; margin-top: 5px;"></div>	NR
7	Does the supplier have a program to control internal and customer drawings?	
8	Is there a formalized documented process for release of design changes?	
9	Does the supplier have any job training programs? <i>Supplier to answer below.</i> <div style="border: 1px solid black; height: 40px; width: 100%; margin-top: 5px;"></div>	NR
10	Are there measurables in-place to review quality and delivery?	

IMPCO SUPPLIER QUALITY SURVEY

B - PROCESS CONTROL - SHOP

Questions Assessed 0 0
 Total Points Awarded 0
 Percent 0%

No.	Questions about the Quality System	Rating
1	Is there a routing system in place for all manufactured parts?	
2	Are there documented work instructions for all tasks?	
3	Is S.P.C. being used to control processes or can they be implemented for future business? <i>Supplier to answer below.</i> <div style="border: 1px solid black; height: 50px; width: 100%;"></div>	NR
4	Is there a documented preventative maintenance program for all machines?	
5	Is there a documented system in-place for first piece approval process for all set-ups?	
6	Does supplier promote good work environment practices? (cleanliness, lighting, work space)	
7	Is there a safety program in place? <i>Supplier to answer below.</i> <div style="border: 1px solid black; height: 50px; width: 100%;"></div>	NR
8	List the types of machines. <i>Supplier to answer below.</i> <div style="border: 1px solid black; height: 50px; width: 100%;"></div>	NR

SUPPLIER SURVEY QUALITY SYSTEM RATING FORM

C - QUALITY / INSPECTION DEPARTMENT

Questions Assessed 0 0
 Total Points Awarded 0
 Percent 0%

No.	Questions about the Quality System	Rating
1	Are there provisions to see that required certification documents are included in shipments?	
2	Is there a documented organized system to control dimensional inspection and product conformance to requirements?	
3	Is there a documented gage calibration system in-place traceable to NIST?	
4	Is there procedures to identify and segregate non-conforming material?	
5	Does supplier understand GD&T?	
6	Is there a documented system to review customer returns?	
7	Does the supplier have C.M.M. capabilities? (Note: For Information Only!)	NR
8	Are there correct measuring tools in-place to inspect parts to Impco's drawings?	
9	Does the supplier have hardness testing capabilities?	NR
10	Is there a corrective action system in place or a system to track corrective actions?	