



# Supplier Quality Manual

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# Table of Contents

	<b>Page</b>
<b>Pace Industries' Business Philosophy</b>	<b>2</b>
<b>Section 1 – Pace Industries' Quality Objectives</b>	<b>3</b>
<b>Section 2 – Scope</b>	<b>4</b>
<b>Section 3 - Supplier Code of Conduct</b>	<b>6</b>
<b>Section 4 - Supplier Access / Responsibilities</b>	<b>8</b>
<b>Section 5 - Commercial Expectations</b>	<b>9</b>
<b>Section 6 - Tooling and Gauging Policy</b>	<b>11</b>
<b>Section 7 - Supplier Quality Requirements</b>	<b>13</b>
<b>Section 8 - Change Management</b>	<b>24</b>
<b>Section 9 - Materials / Delivery Expectations</b>	<b>25</b>
<b>Section 10 - Supplier Performance</b>	<b>27</b>
<b>Section 11 - Record Retention</b>	<b>30</b>

# Pace Industries Business Philosophy

## Vision

### OUR VISION:

To be the premier die casting manufacturing and engineering solutions supplier serving customers within multiple sectors worldwide.

CUSTOMER	CAPABILITIES	COST
Growth Through Customer Satisfaction	Both People & Process	Lowest Cost Structure
		

## Our Values

EXEM P LARY  
ETHIC A L  
AC C OUNTABLE  
E QUITABLE  
COMPASS I ONATE  
INCLU S IVE

## Section 1 – Pace Industries’ Quality Objective

Pace’s Quality Policy is expressed by the first Vision statement presented in the Pace Industries Business Philosophy.

### Quality Policy

To provide Unparalleled Customer Satisfaction through World Class Quality, Delivery and Value

In addition, Pace has adopted Phillip Crosby’s Four Absolutes of Quality as the philosophy required to achieve our goal for quality as expressed in our Quality Policy.

### Pace Quality Philosophy

#### *The 4 Absolutes of Quality\**

**Absolute 1: Quality is defined as conformance to requirements, *not* “goodness”**

**Absolute 2: The system for causing quality is prevention, *not* appraisal**

**Absolute 3: The performance standard must be zero defects, *not* “that’s close enough”**

**Absolute 4: The measurement of quality is the Cost of Quality, *not* indexes**

\* Quality Improvement through Defect Prevention, The Individual’s Role. Phillip Crosby Associates. Pub 1985.

Suppliers are encouraged to read and adopt the principles presented by Phillip Crosby in his book *Quality Improvement through Defect Prevention*.

Pace Industries seeks to partner with suppliers who are aligned with the principles stated in our Business Philosophy, who have similar Quality Objectives and who can provide best-in-class quality for both products and services.

## Section 2 - Scope

The purpose of this Supplier Quality Manual is to detail Pace's Commercial, Quality, Delivery, Technology and Business expectations of suppliers.

The requirements stated in this Supplier Quality Manual apply to all purchased products that are directly incorporated into the products Pace will ship to our customer and to services that directly impact Pace's ability to produce and deliver products to meet our customer's requirements.

Suppliers of tools, maintenance supplies and capital equipment, which are necessary to produce the products Pace Industries supplies our customers, shall not be required to comply with requirements specific to piece part production as specified in section 7.0 – 7.8 of this manual. ISO / IATF certification is highly desired, but not necessary to be considered an approved supplier of tools, maintenance supplies and capital equipment.

The goal of this Supplier Quality Manual is to:

- Communicate to suppliers Pace's expectations, goals and minimum requirements to assure quality products and services are supplied.
- Encourage open communication of ideas, information and notification of problems between suppliers, Pace, and Pace's customers, in a spirit of teamwork and cooperation.
- Develop an overall plan to ensure smooth production start-up and continuation, both at Pace and the supplier, through effective Advanced Product Quality Planning ("APQP").
- Define the quality assurance procedures and documents which suppliers must follow to assure application of an effective quality system based on ISO 9001-2015 as minimum, or equivalent accreditation for other industries (i.e., medical, aerospace, etc.) with the goal to be IATF 16949 standards compliant for Pace Sites that are IATF accredited.

## Pace Industries' Expectations of Suppliers

Pace operates in an environment focused on continuous improvement and a zero-defect philosophy. Suppliers are expected to:

- Have a documented Quality system that conforms to Pace and Pace's customer requirements.
- Be compliant with, and/or registered to, ISO 9001-2015\*, or equivalent accreditation for other industries (i.e., medical, aerospace, etc.)
- If supplying a Pace facility certified to IATF 16949, a supplier must be IATF 16949 certified, or have an active plan to achieve IATF 16949 registration\*
- Protect the environment. ISO 14001 registration is desirable.
- Have operating philosophies compatible with Pace's business philosophy.
- Champion a continual improvement program that actively engages their company and associates to improve processes, quality, cost, delivery, working environment and safety.
- Ensure safe and environmentally sound working conditions in their facilities.
- React to Pace's changing needs with the highest level of professionalism, support, and commitment.
- Provide defect-free components eliminating the need for receiving inspection by Pace.
- Provide 100% conforming products and services.
- Meet 100% on time delivery goal.
- Ensure that purchased products, processes, and services conform to the current applicable statutory and regulatory requirements in the country of receipt, the country of shipment, and the customer-identified country of destination, if provided.

## Responsibilities

All production material, component and service suppliers must maintain a comprehensive quality system to ensure compliance with this Supplier Quality Manual, and with the requirements of any purchase order, supply agreement and associated documents. This Supplier Quality Manual provides Pace's minimum expectations as well as the process which Pace follows to assess the capability and performance of each supplier.

**\*ISO 9001-2015 certification by a third-party certification body bearing the accreditation mark of IAF MLA (International Accreditation Forum Multilateral Recognition Arrangement) is required of suppliers providing raw material, components, and services for production of finished product delivered to Pace automotive customers by Pace divisions certified to IATF 16949, unless waived by the applicable Pace automotive customer.**

## Section 3 - Supplier Code of Conduct

**The following Supplier Code of Conduct summarizes the standards of business conduct which Pace expects from its suppliers in a business relationship. Compliance with these standards is mandatory.**

### Respect for Each Other

Pace operates in a climate of respect, courtesy, and impartiality. Pace expects open, honest, and timely communication. Pace's suppliers should encourage a positive and diverse workplace by not tolerating harassment or discrimination based on race, religion, gender, age, or disability.

### Power of Collaboration

Successful business relationships are the result of collaboration for mutual benefit. Pace views every supplier relationship as a shared opportunity to extend the enterprise and grow the businesses of both the supplier and Pace.

### Passion for Excellence

Pace expects its suppliers to relentlessly improve their own performance and to bring urgency to every business challenge and opportunity.

### Personal Integrity

Pace demands uncompromising ethical standards in all we do and say and expects its suppliers to demand the same. Pace prohibits the acceptance of gifts, to include products, services, or anything of such value, with the intent to influence, or that the good judgment of the recipient might be influenced, or that a third party might reasonably perceive as influencing that judgment. Payments of money, property, or services for obtaining business or special consideration is prohibited. If a Pace associate solicits a gift or entertainment opportunity from a supplier for their personal use, such request is to be declined.

### Responsibility to Our Communities

Pace is committed to good corporate citizenship and expects its suppliers to abide by all applicable employment, environmental, health and safety laws and regulations.

### Sustainability

Pace is committed to environmental responsibility that leads to sustainability – a practice or process that meets today's needs without compromising the ability of future generations to meet their own needs. Pace believes that this focus will benefit society, future generations, and each of its associates, as well as contribute to a competitive advantage in the global marketplace. Pace expects its suppliers to share these beliefs.

## **Working Environment**

Pace expects all suppliers to comply with applicable laws associated with working conditions, child labor, forced labor, association, compensation, working hours, and equal employment.

## **Health and Safety**

Suppliers are expected to promote safe and healthy work environments for their associates.

## **Improper Payments**

Suppliers must comply with all anti-bribery and anti-corruption laws and regulations applicable to its business, at all governmental levels worldwide.

## **Adherence**

Pace expects cooperation in ensuring adherence to this Supplier Code of Conduct. **If anyone in your company, believes that a Pace Associate or an associate of a Pace supplier has violated the Supplier Code of Conduct, please contact Pace Industries', Vice President of Purchasing - +1-248-785-3576**

**No listing of ethical guidelines can be considered complete. It is incumbent upon those affected by this policy to avoid the misconception that if it is legal, it must be ethical. Appropriate conduct must reflect good judgment, fairness, and high standards.**

## Section 4 – Supplier Access / Responsibilities

### Pace Responsibility

- Provide suppliers access to the latest released version of the Pace Supplier Quality Manual
- Update the Supplier Quality Manual as required and upload to the Pace website.
- Provide feedback to suppliers in the form of a scorecard, at least annually.

### Supplier Responsibility

Ensure adherence to the current released version of the Pace Industries Supplier Quality Manual. Access to this manual is available on the Pace Industries website (<https://paceind.com/>).

Notify appropriate associates of the location of the controlled version of the Pace Industries Supplier Quality Manual

Ensure that Pace has the correct supplier contact information, providing immediate notification of any changes.

### Revisions

Suppliers are responsible for regularly reviewing the Pace Supplier Quality Manual to ensure they comply to any recent revisions.

**NOTE: Printed Copies of the Supplier Quality Manual are considered uncontrolled copies.** Suppliers should never use an uncontrolled version of the Pace Industries Supplier Quality Manual. They should always reference the controlled copy via the web link provided above.

## Section 5 - Commercial Expectations

### Supplier Agreement

Unless otherwise directed, suppliers who perform under a purchase order from Pace for products and services, agree to abide by the requirements set forth in this Supplier Quality Manual.

### Purchasing Authorizations

Only Pace corporate purchasing and commodity managers are authorized to initiate a purchasing commitment with a supplier. This commitment must be in the form of an authorized PO. This applies to all direct, indirect, service and prototype purchases as well as tooling, equipment, design development, etc. Refer to the Pace Industries' PO terms and conditions, available on the Pace Industries' website ([P.O. Terms | Pace Industries](#)).

For tooling, the appropriate purchasing representatives of Pace responsible for the tooling purchase orders will communicate the specific requirements of tooling purchase orders.

### Supplier Selection Criteria

The following criteria guides the award of new business:

- Supplier's demonstrated performance, if a current supplier.
- Risk Assessment - A minimum score of 3 (suppliers with scores between 2-3 may be accepted with an improvement plan) for the Pace Supplier Audit. Refer to section **7.2 Supplier Assessments** for details.
- Supplier's total cost competitiveness and commitment to continuous improvement.
- Supplier's technical capabilities, ability to provide engineering support for Pace programs, and defined program management of new product launches.
- Supplier's acknowledgement and acceptance of Pace Industries' purchase order ("PO") terms and conditions.
- Other – Pace customer-directed requirements, regional availability, etc.

### Continuous Improvement

Continuous Improvement to achieve cost reduction is an essential element of long-term business success for Pace and its suppliers. To remain competitive, Pace and its suppliers must recognize the requirement to find effective ways to eliminate waste and reduce the cost of their products and services.

Suppliers are expected to constantly examine and optimize the entire cost structure of their business and the products and services supplied to Pace. This includes process improvements, cycle-time reduction, scrap reduction, die/tooling set-up reduction, design improvements, and reductions in sales, general and administration ("SG&A") expenses, fixed and variable overhead

expenses reduction, transportation expenses, etc. To ensure proper review and validation of suppliers' design and process improvement ideas, suppliers must strictly comply with Pace Industries' change management requirements for all design and process change proposals by submitting a [Supplier Request for Product Process Change \(SRPPC\)](#) to the responsible Pace purchasing representative. The Pace purchasing representative will forward the SRPPC to the appropriate Pace associate(s) for approval. Suppliers must request SRPPC forms from the Pace purchasing representative.

## **Contingency Plans**

Suppliers shall prepare contingency plans to satisfy Pace's requirements in the event of an emergency such as utility interruptions, labor shortages, key equipment failure and field returns. Supplier contingency plans must be available upon request.

## Section 6 - Tooling and Gauging Policy

### Pace-Owned Tooling

Pace-Owned Tooling means:

- Tooling specifically fabricated for a Pace product with little or no other application.
- Tooling transferred to supplier by Pace.
- Tooling fabricated by supplier and paid for by Pace.
- Tooling whose life and value is limited to the commercial production and service life production of the products which it produces or measures.
- Tooling which directly affects the part it measures or produces including part specific gauges, dies, fixtures, gear cutters, broaches, molds, jigs, etc.
- Tooling which can readily be relocated.
- Those items which may be found between “bolster plates” of a machine or pieces of equipment (including dies, welding fixtures, sub plates, or automation handling devices) and are not part of the general equipment.
- Unique computer software required to operate the tooling

### Supplier's Responsibilities – Pace-Owned Tooling

Supplier is responsible for the cost of routine maintenance, repair, refurbishment, and keeping Pace-owned Tooling in production condition in accordance with industry standards. Pace shall be responsible for the cost of major refurbishments. Quotations must be submitted in advance for Pace review and approval.

Supplier is responsible for disposing of Pace-owned Tooling when directed in writing by Pace.

Supplier will keep detailed maintenance records for Pace-owned Tooling. Supplier will make these records available to Pace on request.

Supplier will monitor tooling performance to ensure that repair, replacement and maintenance are identified and addressed prior to the time that product quality or production capacity are affected. This will include regular dimensional reviews on specific part characteristics. Supplier agrees to make this data available to Pace on request.

Supplier will monitor tool life and provide the Pace's Purchasing representative notice of the need for replacement.

Supplier will ensure that sufficient quantities of components will be in supplier's inventory and available to support Pace's production prior to, and during, the period that Pace-owned Tooling is being refurbished or replaced.

Suppliers must receive written authorization from Pace before:

- Moving or destroying Pace-owned Tooling.
- Altering tooling capacity.
- Disposing of dedicated gauges.

## Measurement Systems Devices/Gauges

Pace expectations:

- All measurement devices must be validated in accordance with the current edition of the Automotive Industry Action Group (“AIAG”) Measurement Systems Analysis guidelines.
- All gauging systems must provide readings in the same unit of measure as the blueprint unless otherwise designated by Pace.
- Gauge tolerances must be defined by SAE/DIN/ISO standards.
  - SAE – Society of Automotive Engineers
  - DIN – Deutsches Institut für Normung – German Institute for Standardization
  - ISO – International Standards Organization
- Supplier is expected to maintain the integrity of the measurement system and provide gauge repeatability & reproducibility (“GR&R”) at PPAP submittal.

## Section 7 - Supplier Quality Requirements

All suppliers must comply with the Pace Industries' quality expectations as defined in this Supplier Quality Manual.

### 7.1 General

#### Quality Management System

Suppliers are fully responsible for the quality of their products and services. To ensure zero defects, an effective Quality Management System must be in place at supplier. Suppliers shall perform inspections compatible with their system and compliant with appropriate measurement methodologies. Non-conforming material shall be isolated from the production stream, identified as to process and status, and shall be reviewed for correction or rejection in a timely manner per the supplier's documented quality management system.

ISO 9001-2015 certification by a third-party certification body bearing the accreditation mark of IAF MLA (International Accreditation Forum Multilateral Recognition Arrangement) is required of suppliers providing raw material, components, and services for production of finished product delivered to Pace automotive customers by Pace divisions certified to IATF 16949, unless waived by the applicable Pace automotive customer. Additionally, these suppliers must either be registered to, or have a documented plan to achieve, IATF 16949 compliance. Reference Section 2 – Responsibilities. Suppliers may also be required to meet additional IATF requirements if specified by the Pace customer. These requirements may include AIAG's Continuous Quality Improvement ("CQI") system assessments and customer specific requirements which are considered supplements to the IATF requirements

Copies of valid certification certificates must be on file with Pace. These requirements are mandatory unless otherwise agreed to in writing by Pace or its customer. In some cases, Pace may provide 2nd party certification through the supplier audit process. In this case, Pace reserves the right to charge the supplier for this certification. Suppliers are also responsible for assuring that their subcontractor's PPAPs are approved and are under a controlled system of evaluation and review. These records must be made available for Pace examination upon request.

#### Approved Supplier Status

All suppliers currently supplying direct or indirect material to Pace are approved suppliers. Approved supplier lists are maintained by the purchasing function at Corporate Headquarters.

## 7.2 Supplier Assessments

### New Suppliers

A Pace representative will provide each potential new supplier access to the Pace Supplier Quality Manual. Supplier is required to review and confirm that they will meet all requirements as set forth in this Manual. Each potential new supplier must complete a Pace Supplier Self-Audit to determine the risks Pace would realize by purchasing from a potential supplier. Follow this link to access the Pace Supplier Audit workbook:

[Pace Supplier Audit](#)

### Second-party Audits

A second-party on-site audit, using the automotive process approach, of the potential supplier's QMS will be conducted by a Pace Industries' representative prior to award of business to a new supplier based on the following criteria:

1. If the potential supplier is not certified to ISO 9001-2015. **Scope:** determine compliance to ISO 9000-2015 requirements.
2. Elevated risk determined by a score of less than 70% on the Pace Supplier Audit. **Scope:** confirm the audit ratings with focus on plans to address are as determined to be of high risk.
3. The process or service to be provided by the supplier is complex and has not been provided to any similar customer previously. **Scope:** review the proposed design of the process and or service to include the related controls and FMEA.

### Existing Suppliers

All existing suppliers are required to complete the Pace Industries' Supplier Audit to establish the risks Pace could realize by continuing to purchase products and services current approved suppliers. A copy of the completed audit must be on file. Follow this link to access the Pace Supplier Audit:

[Pace Supplier Audit](#)

Pace may request that a supplier complete additional audits if necessary to comply with ISO/IATF certification requirements or customer requests.

### Second-party Audits

A second-party on-site audit, using the automotive process approach, of a supplier's QMS will be conducted by a Pace Industries' representative based on the following criteria:

1. Elevated risk determined by a score of less than 3 on the Pace Supplier Self-Audit. **Scope:** confirm the Self-Audit ratings with focus on plans to address areas determined to be of high risk.
2. Loss of ISO/IATF certification. **Scope:** Determine the cause of loss of certification and confirm plans to regain certification.
3. Request by Pace customer. **Scope:** address customer specific concerns.
4. Supplier QMS development. **Scope:** QMS audit of suppliers to Pace IATF certified divisions to confirm progress toward IATF certification, if progress status report is not provided by supplier upon request.
5. Poor supplier performance. If a supplier does not provide an acceptable 8D that identifies the causes of poor performance and establishes proper corrective actions to resolve the causes and return to acceptable performance. **Scope:** Review the suppliers' process to confirm true root cause identification and acceptable corrective action.

## Audit Records

Records of all audits and On-Site second-party audits will be retained by the Commodity Manager or Purchasing Manager. Records of audits of aluminum suppliers will be maintained by the Pace Corporate Metal Sourcing team.

## 7.3 Advance Product Quality Planning (“APQP”)

### General

Pace requires all suppliers to take ownership of the APQP process, as defined by the latest edition of the AIAG APQP manual. Suppliers have an obligation to establish a cross-functional team to manage the APQP process. Pace will provide suppliers with PPAP, production requirements and key delivery dates. Suppliers will be responsible for keeping their APQP timelines up to date.

Suppliers shall require that their sub-contractors follow the APQP process and have their records available for review by Pace.

### APQP Review Meetings

Upon being awarded business, an appropriate representative of Pace may establish with supplier a plan for visiting their production facilities to allow Pace, and possibly Pace's customer, to review and assess supplier's APQP process and launch readiness.

## 7.4 Production Part Approval Process (“PPAP”)

### PPAP Submission Requirements

Suppliers must comply with the latest edition of the AIAG PPAP manual. The default level for submission is 3, unless written direction is received from a Pace quality representative specifying another submission level.

Unless specifically waived in writing by Pace, all supplier PPAP submissions must include a completed PPAP Check Sheet, which validates that all PPAP documents are complete. Follow this link to access the PPAP Check Sheet:

[PPAP Check Sheet](#)

Prior to a supplier submitting a PPAP to Pace, all sub-Supplier PPAP’s must have been approved by supplier.

The number of pieces required for PPAP approval will be agreed upon between Pace and supplier.

### Submission Disposition and Notification

There are three possible outcomes of supplier PPAP Submission:

- **Full Approval**—Product is fully approved for series production. Pace will specify proper delivery and release requirements.
- **Interim Approval**— Product is conditionally approved for a limited time or limited quantity. Pace will specify proper delivery and release requirements.
- **Rejected**— Product is not approved for series production and tooling purchase orders cannot be paid.

### Re-Qualification

On an annual basis, unless otherwise specified by Pace, supplier must submit an updated PPAP for each active part confirming that all approved PPAP conditions and dimensions have not deteriorated.

### PPAP Sample Shipping and Labeling Instructions

Unless otherwise directed by the appropriate Pace representative, supplier must affix a label stating “PPAP SAMPLE PARTS” below the shipping label.

### Supplier Charge Back

Supplier accepts financial responsibility for the consequences of rejected PPAP submissions including, but not limited to, costs incurred associated with containment, sorting, premium freight, rework, replacement of non-conforming product, overtime, travel, associate time, line downtime/productivity loss, etc. incurred by Pace or its customer. Supplier will be responsible for a \$50 per hour per associate charge for any hour, or portion of an hour of a Pace associate’s time. The method of charge back will be thru invoice deductions.

## 7.5 Early Production Containment (“EPC”)/Safe Launch

### Definition and Purpose

The purpose of EPC/Safe Launch is:

- To reduce the risk of non-conforming product reaching Pace and Pace’s customer, by employing increased detection.
- To document supplier efforts to gain control of its processes during start-up and launch so that any quality issues that arise are quickly identified and corrected at the supplier location.

### Procedure

To manage the risk of non-conforming products being shipped by the supplier to a Pace Site, unless otherwise directed, this EPC/Safe Launch procedure is to be applied when:

- A PPAP is submitted for product supplied to Pace
- A significant risk to Pace exists e.g., shutdown, model year change, escape of non-conforming product, etc.

### Supplier Responsibility EPC/Safe Launch

Supplier shall establish a containment process that has the following elements:

- A person responsible for the containment process.
- An EPC/Safe Launch Control Plan, consisting of additional controls, inspection audits and factors in the production process (set-up, machinery, fixture, tooling, operator, material/components, preventive maintenance, climate). Additional controls could include:
  - Off-line validation that the product or service meets all critical quality criteria. This validation must be separated from the normal production process. Auditors must be properly trained, with GR&R performed to validate competency.
  - Increased frequency/sample size of receiving, process audits, and/or inspections.
  - Defined/coordinated sub-supplier containment and/or sub-supplier support/audits as required.
  - Increased verification of label accuracy.
  - Increased error proofing validation.
  - Increased involvement and visibility by top management, including increased Management Internal Audits “(MIA)”.
  - Other items as specified by Pace or its customer.

**The above items should be outlined in the EPC/Safe Launch Control Plan.**

### ***EPC / SAFE LAUNCH Exit Criteria:***

Unless otherwise specified, EPC/Safe Launch activities shall be enforced until supplier provides defect free product for a period of thirty (30) consecutive calendar days or three (3) production lots (whichever is greater in quantity) after initial production deliveries have started. If a non-conforming product is found in the EPC/Safe Launch inspection process, the time-period / production lot requirements will restart.

## 7.6 Process Control and Monitoring

### Control of the Manufacturing Process

Supplier shall establish and maintain control plans, as part of the PPAP process, which specify controls for critical part and process parameters.

#### Defined Part/Process Characteristics

In addition to customer specific requirements, certain characteristics can be deemed as important, and will require increased monitoring to ensure the quality of the products produced. Those characteristics may be designated as special, significant, high impact, major, or other, based on specific Pace location requirements.

The appropriate Pace representative will identify these specific requirements, and/or characteristics either by direct communication, specification, or product drawing.

#### Control of Above Defined Part/Process Characteristics

Supplier is expected to use statistical techniques to maintain a state of control and to improve the process capability on defined part/process characteristics.

Unless otherwise specified by Pace, a minimum 1.67 Cpk index is required for designated characteristics at initial PPAP submission. For on-going series production, a minimum 1.33 Ppk index is required.

Supplier must maintain the statistical data for all designated characteristics and must make the data available to Pace upon request. Supplier may also be required to submit this data periodically to Pace when requested.

Unless otherwise specified by Pace, if the process does not meet the required capability target, Supplier must submit a containment plan consisting of a 100% inspection method that prevents out of specification product from being shipped to Pace. A continual improvement plan must be in place to bring the process capability to acceptable levels, and the PPAP submission can only be approved in an interim basis. For current production, if the capability target is not met, then a Corrective Action Plan ("CAR") for capability improvement must be approved by Pace.

Pace may designate additional requirements to ensure that product meets specification.

Lot traceability shall be maintained by supplier, unless otherwise specified by Pace.

#### First/Last Piece Verification

**First Piece** – At the initiation of a production run, a special inspection ("First Piece") and/or test shall be performed by the supplier to verify that the product meets all specifications and requirements. The first piece must be retained until the end of the production run.

**Last Piece** – When a production run is completed, or an interruption of the production run for an extended period occurs, the last piece produced will be checked by gauge or other inspection method to verify that the part meets all requirements. The last piece must be retained until start of the next production run for use as an inspection sample. If the last piece fails the inspection, immediate containment of the product produced must be implemented.

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## Continuous Quality Improvement (CQI) and Customer Specific Requirements

Pace may require compliance to specific AIAG CQI standards and/or customer specific requirements that are applicable to the products and services purchased from supplier. These standards and requirements can be obtained on-line through AIAG.

Pace may complete an on-site assessment at supplier to confirm compliance.

## 7.7 Non-Conforming Purchased Material

### General

It is the responsibility of supplier to ensure the continuous supply of conforming product. Supplier shall not be absolved, or otherwise released, from fulfilling established delivery schedules due to identification of non-conforming product. In the event circumstances arise that may result in an inability to fulfill established delivery schedules, supplier must immediately contact the appropriate Pace purchasing representative and submit a written recovery plan signed by a supplier representative, or authorized manager, for approval by the Pace purchasing representative.

Pace will immediately notify supplier if non-conforming material is found at a Pace location. Evidence of the non-conformance, such as digital photos, will be provided when possible. A sample of the non-conformance may be sent to supplier upon request.

### Containment Actions

Upon receiving notification from Pace, supplier is required to immediately contain all defective product as follows:

- At the Pace location(s)
- In transit
- In warehouses
- At supplier's production facility, etc.
- At the Pace customer – The appropriate Pace quality representative will assist the supplier with containment actions.

### Production Disruptions

Supplier must ensure that Pace is supplied with enough certified stock to assure no disruptions to production.

## Disposition of Non-Conforming Product

Supplier has the following options for disposition of non-conforming product shipped to Pace:

- **Return of defective product** – Supplier must arrange return of product for sorting at supplier's facility. Pace will contact supplier for authorization to return the material at supplier's expense.
- **Sorting at a Pace facility** - If approved by a Pace quality representative, sort on site at the Pace location of the affected product would be acceptable. Supplier can use its own people or contract with a third party. Pace will not manage supplier sorting using a third party. If the sort will be completed at a location other than at Pace facilities, supplier must make arrangements to move parts between Pace and the outside sorting location. Supplier will also be responsible for inspecting and monitoring the quality of sorted products. Supplier's personnel must wear appropriate personal protective equipment ("PPE"). Supplier must verify PPE requirements with the Pace contact if sorting is to occur at a Pace location. Supplier is responsible for reporting accurate sorting results. If Pace must sort defective material to support production requirements, the supplier will be responsible for all associated costs.
- **Sorting at a Pace customer location** - When non-conforming product is identified at a Pace customer facility, and sorting is required to avoid production stoppage at the customer, the Supplier will be responsible for all related costs.

## Identification of conforming sorted material

A witness mark (as permitted by the part) must be applied to each part that passes inspection to indicate that material was inspected. Each container must be labeled as certified for the specific non-conformance for the next three shipments, unless otherwise directed by Pace. The witness mark and shipping label must be approved by a Pace quality representative.

## Controlled Shipping ("CS")

Pace may determine that special measures are required to ensure adequate quality and delivery performance. The costs related to these measures, including but not limited to Controlled Shipping, will be at supplier's expense.

Controlled Shipping requires the addition of a redundant inspection process for a specific non-conformance while implementing a root cause problem-solving process. The redundant inspection is in addition to normal controls and should be completed in a controlled area. Submission of an Incident Reporting Chart (iChart), showing daily inspection results, is required. The data obtained from the redundant inspection process is critical to provide a measure of the effectiveness of the secondary inspection process and of the corrective actions taken to eliminate the initial non-conformance.

Pace will notify supplier in writing when they have been placed on Controlled Shipping. Two levels of Controlled Shipping exist:

- **Level 1 ("CS1")** - includes a problem-solving process as well as a redundant inspection process. Supplier's employees, at supplier's location, enact the inspection process to isolate Pace from receipt of non-conforming product.

**Level 2 (CS 2")** - includes the same processes as CS1, with an added inspection process by a third party representing Pace, and Pace's customer's interests specific to the containment activity. The third party will be selected by supplier, approved by Pace, or its customer, and paid for by supplier. Supplier may select the third party from an approved listing maintained by Pace or Pace's customer. If the circumstances associated with the implementation of CS2 indicate a major failure of the supplier's quality system, Pace may report the concern to the supplier's registrar and request a special audit by the registrar to evaluate the situation.

A witness mark (as permitted by the part) must be applied, at point of inspection, to each part that passes CS1 and CS2 inspection to indicate that material was inspected. Each container must be labeled as certified for the specific non-conformance for the next three shipments, unless otherwise directed by Pace. The witness mark and shipping label must be approved by a Pace quality representative.

Other measures may be required if CS2 controls are not effective.

### **Criteria for Application of Controlled Shipping Level CS1 & CS2:**

Pace will make the determination whether supplier can effectively correct the non-conforming material situation, through the 8D process (See Section 7.8), to isolate Pace or its customer from the problem. The following issues may be cause for implementation of Controlled Shipping:

- Repeat non-conforming material issues.
- Supplier's current controls are not sufficient to ensure conformance to requirements.
- Duration, quantity, and/or severity of the problem.
- Internal/external supplier data.
- Controlled Shipping – Level CS1 failures.
- Major disruptions.
- Quality problem in the field.

Based on consideration of the above, Pace will determine whether Level CS1 or CS2 would be appropriate.

A 3rd party, or a Pace representative, may perform audits of the CS1 and CS2 process. The data obtained from the redundant inspection processes, as well as any audits, are critical as both a measure of the effectiveness of the secondary inspection process and the corrective actions taken to eliminate the initial non-conformance.

In special cases, the Controlled Shipping – Level CS2 inspection may be required to be performed outside the supplier's facilities at a facility deemed appropriate by Pace.

## Exit Criteria Controlled Shipping – Level CS1 & Level CS2

The default exit criteria will be used when no other exit criteria are defined. The default exit criteria are listed below and must be provided to the Pace representative when requesting removal from Controlled Shipping:

- Twenty (20) working days of data, from the containment activity, which verifies that the corrective actions implemented have eliminated the potential for a reoccurrence of the issue which initiated the Controlled Shipping activity. The time begins accumulating from the date of implementation of permanent corrective action.
- Documentation showing that the root cause was identified and verified.
- Documentation indicating that corrective action was implemented and validated.
- Documentation indicating that every effort was taken to implement error proofing.
- Copies of all documentation revised as required (control plan, FMEAs, process flow diagram, operator's instructions, training records, etc.).
- Statistical analysis where appropriate.
- Other information requested by Pace.

### Additional exit criteria for CS2 Only:

- Copy of completed action plans.
- Supplier's third-party registrar's statement of approval (or plan) for all activities undertaken by supplier related to the controlled shipping issue(s), if requested by Pace or its customer.

## 7.8 Corrective Action Reports (8-D Reports)

### General

Supplier will respond to corrective action requests by using the 8-D Problem Solving format. The 8-D documentation will be submitted in response to each request for corrective action, unless otherwise agreed to by the appropriate Pace quality representative. E-mail is the preferred method of response.

### Expectations from Suppliers

Corrective actions will follow the 8D discipline and be captured on Pace supplied 8D form ([PACE-QUALITY-201F](#)).

Initial response to CAR notification and containment of product must be sent to issuing Plant within 24hrs.

Root cause analysis due within 1 week of supplier receiving CAR or within 1 week of supplier receiving representative samples of condition (whichever is longer).

Root Cause analysis shall be accomplished using quality tools (Brainstorming, 3 Legged 5 Whys, fishbone diagrams, red X, affinity diagrams, Pareto, Thought Map or agreed upon methodology).

At minimum, 5 Whys is mandatory for analysis.

Supplier must submit final corrective actions within 30 days.

Preventive actions shall be taken whenever possible to prevent future occurrences.

Error-proofing (Poka-Yoke).

Read across on other product lines for potential similarities.

Updating documentation (PFMEA, work instructions, control plans, and other documentation).

**All corrective and preventative actions must be approved by issuer to close CAR**

## **Supplier Charge Back**

Supplier accepts financial responsibility for the consequences of non-conforming product including, but not limited to, costs incurred associated with containment, sorting, premium freight, rework, replacement of non-conforming product, overtime, travel, associate time, line downtime/productivity loss, etc. incurred by Pace or its customer. The supplier will be responsible for:

- One time charge of \$350 USD when a CAR/CI is initiated. Please note that is the supplier ships the same item to multiple Pace Sites and they proactively reach out to each facility, then they will incur only one time fee. Otherwise, Pace reserves to issue a one-time fee for each location
- 30-day period to effectively close the CAR/CI. After this period, then a \$300.00 USD per week will be applied
- 25% disruption cost will be added to each CAR/CI of the total associated cost for the Supplier Charge Back issued

The method of charge back will be thru invoice deductions.

## Section 8 - Change Management

### General

Recognizing that managing change is of critical importance, Pace requires that suppliers have a Change Management System (“CMS”), designed to ensure that changes to product and process are properly reviewed and approved both internally, and by Pace and Pace’s customer, before implementation. Suppliers are expected to take a proactive approach when proposing deviations or changes affecting product design, performance, materials, or processes. Suppliers should never ship product before obtaining written Pace approval through one of the methods outlined below. In cases where supplier has implemented an unauthorized change, and Pace, or its customer, has been negatively impacted, supplier will be responsible for compensating Pace, or its customer, for all associated costs. Supplier will be placed on CS1 for thirty days after reverting the process to supply acceptable product (see section 7.7)

### Design Process Change Control

During the manufacturing process, **FOR ANY CHANGE**, whether because of a design change, material, component, equipment, die, tool, mold, jig, etc., supplier must submit a new Level 3 PPAP per the latest AIAG PPAP manual, or to the level specified in writing by the Pace quality representative, prior to shipment.

### Engineering Change

Supplier shall use an Supplier Engineering Change Request form to propose an engineering change and shall have written approval from the appropriate Pace quality representative prior to shipment. Supplier must complete and submit a [Supplier Request for Product Process Change \(SRPPC\)](#) to the appropriate Purchasing Manager or Commodity Manager representative for review.

### Temporary Changes - *Deviations*

When seeking permission to temporarily ship product that is out of specification, or product that is produced with a temporary process change not reflected in supplier’s current process control plan, supplier is responsible for obtaining approval prior to shipping. Such situations might include but not limited to dimensional errors or a change in a processing operation caused due to equipment downtime. Any changes to supplier-specified product characteristics also fall under this requirement, even if they are not shown on the specifications, drawings or instructions provided by Pace. Supplier must complete and submit a Supplier Engineering Change Request to the appropriate Purchasing Manager or Commodity Manager representative for review.

Supplier must obtain written permission prior to shipping product that is out of specification. All deviations shall be effective for no more than 30 days or a defined quantity approved by Pace, unless otherwise specified and approved by the appropriate Pace representative.

## Section 9 – Materials / Delivery Expectations

### Requirements

All goods, or their containers, must be marked with the appropriate country of origin. Supplier is also responsible for supplying Pace with a certification of origin for each product. Prompt notification to Pace is required if there will be a change in origin. Products shipped in bulk to support aftermarket operations must include country of origin marking on **each individual product**.

### Program-Specific Requirements

Pace will specify requirements for products or services associated with a unique program on purchase orders, part drawings and other forms of communication. These requirements will include at least:

- Labeling
- Delivery terms
- Product identification
- Hazardous material restrictions (including but not limited to International Material Data System (“IMDS”), Material Safety Data Sheets (“MSDS”), European Union (“EU”) Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (“REACH”), EU Restriction of Hazardous Substances Directive (“ROHS”), Global Automotive Declarable Substance List (“GADSL”), Dodd-Frank Wall Street Reform and Consumer Protection Act (“Conflict Minerals” requirements)
- Preservation of product

**Contamination** – Reasonable care must be taken to ensure products are contamination free upon receipt at the Pace location. Additionally, part specific contamination standards may be required as noted on the product print.

**Radioactivity** – Metal and metal alloy components shall be certified that the level of radioactivity inherent in any individual unit has been confirmed to be below 7.5 uSv/hr (micro-Sieverts) by the supplier. If an individual unit exceeds a radioactivity reading of 7.5 uSv/hr, the entire shipment is subject to immediate return to the supplier

**On Time Shipments** - Supplier is expected to ship 100% on time to Pace per the terms and conditions in the Pace PO. Any costs associated with delays in shipments will be at supplier's expense.

## **International Material Data System (IMDS)**

To comply with domestic and foreign restricted/prohibited substance legislation, Original Equipment Manufacturers (“OEM’s”) of passenger automobiles are requiring all suppliers in the supply chain to report parts data for every supplied component and assembly. The data being requested includes material composition, weight, recycled content, and applicable subcomponents. Pace is required to enter and send this data to its customers via the IMDS. For Pace to meet its IMDS reporting requirements, supplier must submit parts data for all components and or sub-components via IMDS. All future PPAP submissions will require proof of IMDS parts data submission and acceptance prior to approval. Supplier must coordinate with the Pace location they are working with, to ensure they have the location IMDS number and associated information to properly submit IMDS data.

## **Overseas Suppliers/Shipments**

All suppliers whose products require ocean transportation are encouraged to maintain appropriate inventory buffers near the Pace location they service to ensure that extended transportation lead-time will not affect on time delivery of their products. It is supplier’s responsibility to monitor and maintain this buffer. Any expenses incurred by a Pace location due to failure to deliver product on time will become the responsibility of supplier.

## **Packaging/Containerization**

Supplier will plan for the timely provision of containers and/or packaging media to support Pace’s requirements. Packaging is to be part of supplier’s quotation and is the responsibility of supplier. Pace must approve all packaging design during APQP, prior to PPAP. Packaging must meet all government and environmental regulations.

## **Labeling & Identification**

Supplier must conform to the labeling and identification requirements as specified by each Pace location.

## **Transportation Routing Per Purchase Order**

Supplier is required to ship product to Pace per instructions on the Pace PO. Pace has contracts with preferred carriers which are specified on the Pace PO to minimize freight expense. For instances when freight is paid by supplier, supplier is encouraged to consider the utilization of Pace’s preferred transportation carriers to reduce transportation costs and improve logistics.

## **Prevention of Quality Deterioration During Storage**

Supplier shall prevent deterioration of product during any period of storage prior to delivery.

# Section 10 - Supplier Performance

## Metrics / Requirements

### General

This Supplier Performance Rating System presents the general criteria that will be used by Pace to rate suppliers of product and services.

Our suppliers will be scored against each of these elements on a monthly basis. If the expectations on all criteria are met, you receive an “A” rating. If only some criteria are met, you will earn a “B” rating. All other suppliers will be rated “C”.

- “A” Suppliers (>3.0): You are meeting our expectations for quality, payment terms, and service performance. Continue to excel in service, delivery, cost and innovation to grow with Pace.
- “B” Suppliers (2.9 – 2.0): You are expected to work with our Commodity agents and Supplier Development engineers to identify action plans to meet the requirements necessary to improve expected performance.
- “C” Suppliers (<1.9): You are expected to submit and update a formal Corrective Action Plan to ensure all issues are fully controlled and effectively prevented from re-occurrence. Depending on severity of issues, failure to improve within a reasonable period may eliminate your opportunity to participate in new programs or ongoing business with Pace.

### Supplier Performance Reporting

#### OTD – On Time Delivery

**Definition:**

Supplier’s ability to deliver products to a specified site by the Delivery Date communicated.

**Calculation Method:**

On time performance includes everything received on or before the Promise Date.

#### DPO – Days Payable Outstanding

**Definition:**

Days payable outstanding (DPO) is a financial ratio that indicates the average time (in days) that Pace will pay suppliers based on YTD average.

**Calculation Method:**

Number of days on average to pay a Supplier YTD

#### ALT – Average Lead Time

**Definition:**

Communicated Lead Time from Supplier.

**Calculation Method:**

Average Lead Time of Supplier compared to Average Lead Time for Commodity

## Cost Savings

### Definition:

Cost Savings associated for each Supplier

### Calculation Method:

$(\text{Cost Savings}/\text{Actual Spend}) * 100\%$

## Consignment

### Definition:

Consignment is a business arrangement in which a business, agrees to pay for merchandise after material is consumed.

### Calculation Method:

If supplier has a Consignment Program there is an addition to the overall Score

## Enterprise Integration

### Definition:

Suppliers with Spend at multiple locations

### Calculation Method:

$(\text{Number of sites with Spend}/\text{Total number of Sites}) * 100\%$

## CAR / Customer Interruption

### Definition:

- CAR: Reports from a known defect/escape investigation
- Customer interruption: Interruptions caused by supplier's non-conforming material that causes an impact to our customer

### Calculation Method:

Supplier Rating deduction until the CAR or CI has been closed

## PPM - Parts Per Million

### Definition:

Measurement to identify quality performance defects from a supplier. One PPM means one (non-conformance or event) in one million.

### Calculation Method:

$(\text{Non-Conforming Material Quantity}/\text{Total Quantity}) * 1,000,000$

## COPQ – Cost of Poor Quality (Show Charge Back Amount)

### Definition:

Costs associated with providing poor quality products or services.

### Calculation Method:

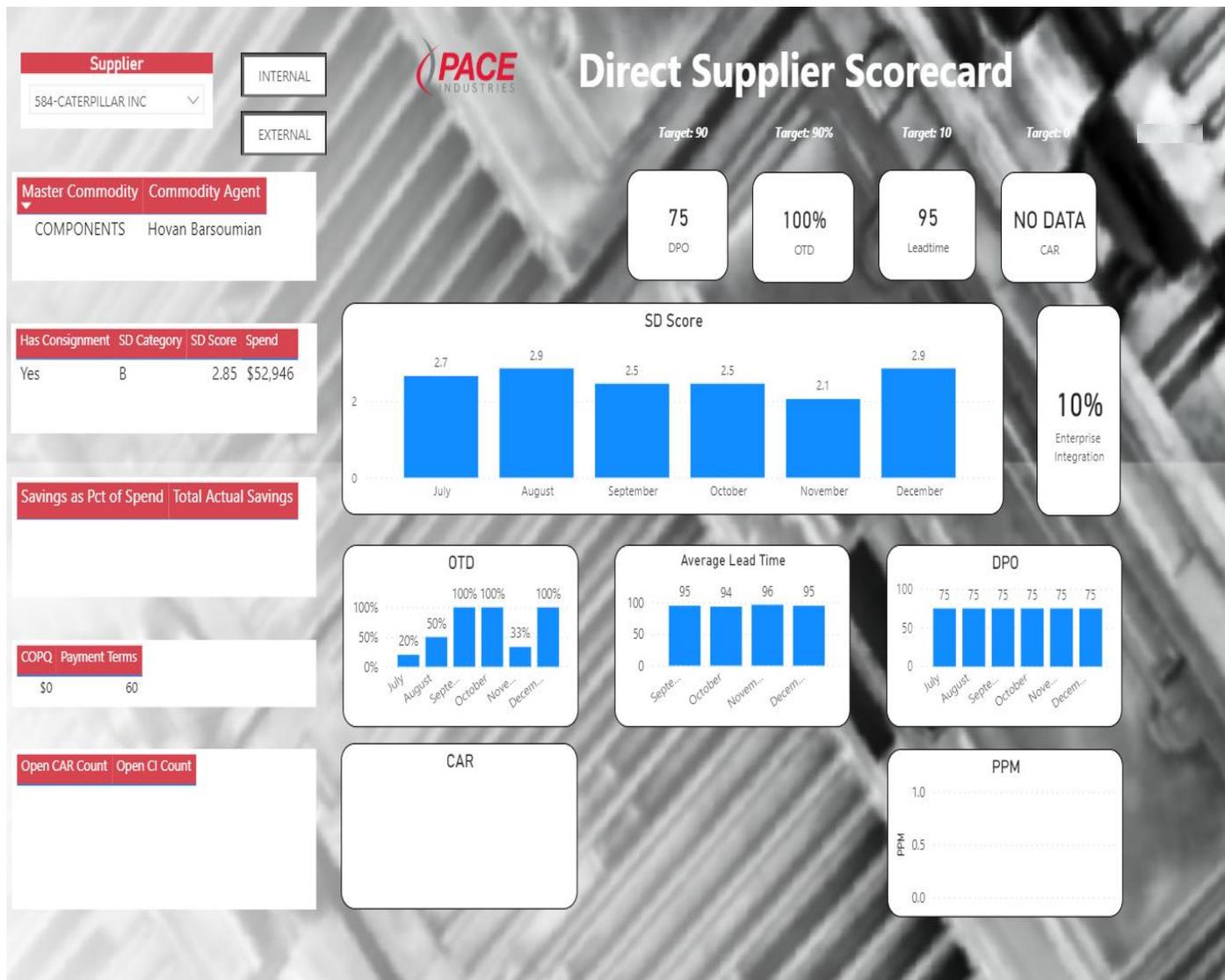
Total Dollars from CAR/CI:

- Product Scrap
- Expedited Freight
- Administrative Fees
- Customer Penalties
- Pace Rework
- Third Party Sorting

Revision date: January 2022

- Pace Investment (i.e. Travel cost, etc.)
- 25% Inconvenience Fee

## SAMPLE REPORT CARD



## Section 11 - Record Retention

The control of records must satisfy all regulatory requirements, as well as those of Pace, and its customer. These records must be made available for review by Pace upon request and retained for periods of time specified by Pace. Customer criteria will take precedence for length of record retention. It is the supplier's responsibility to confirm the record retention period with the appropriate Pace purchasing representative on, or before, acceptance of the initial PO for a product.

### Supplier Quality Manual Revision History

Issue	Description of Change	Date
Rev – 1: First Release		8/10/17
Rev – 2	Supplier self-audit link revised	8/25/17
Rev – 3	Updated web links	8/29/17
Rev – 4	Removed waive of ISO req.	9/6/17
Rev – 5	Revised hyperlinks to Pace website	1/11/18
Rev – 6	Revised supplier score card and 2 <sup>nd</sup> party audit requirements to meet IATF requirements	2/20/18
Rev – 7	Added reference to IAF MLA sections 2 and 7. Clause 8.4.2.3 of IATF 16949 requires suppliers to IATF certified facilities to be registered by a third party to ISO9001 by a third-party certification body bearing the accreditation mark of IAF MLA.	10/5/18
Rev – 8	Revised section 2 Pace Industries' Expectations of Suppliers to include compliance with statutory and regulatory requirements per section 8.4.2.2 of the IATF standard	4/15/19
Rev – 9	Updated the revision date	4/15/19
Rev – 10	Revised Section 2 Scope to specify that suppliers of tools, supplies and cap equip do not have to meet piece part requirements of this manual	4/30/19
Rev – 11	Revised to update based on Purchasing Shared Services and Supplier Development Creation	12/03/2021
Rev – 12	Section 5 – Continuous improvement – SRPPC. Section 7.8 Corrective Action, Section 8 Change Management / Engineering Change and Section 10 Supplier Performance	01/28/2022

Revision date: January 2022