

Ryobi Die Casting (USA), Inc.

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Supplier Quality Manual

Striving to Maximize Customer Satisfaction Thru
Mutually Beneficial Relationships



Ryobi Die Casting (USA). Inc.
(EXE) Supplier Quality Manual

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Revision: 05/20/2020

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1.0 Overview

Outsourcing is a necessary means of remaining competitive in the global economy. Organization's can significantly reduce costs by partnering with suppliers capable of generating products and services from locations that have lower labor, material, infrastructure and maintenance costs and by shortening time to volume.

Outsourcing also gives organizations access to an abundance of human resources, localized skills and knowledge, unique patented supplies and supply chain efficiencies when products are shipped directly to customers.

To deliver on its full potential, outsourcing requires careful planning and execution. Without due diligence and appropriate controls, outsourcing could end up being costlier than in-house manufacturing or service, resulting in high defect rates, late deliveries, poor service and customer dissatisfaction.



1.1 Statement of Purpose and Intent

A total commitment to customer satisfaction and continuous quality improvement must be shared by Ryobi Die Casting (USA), Inc. and all our suppliers. As part of the supply chain, together we must maintain effective quality management systems if we are to remain competitive in the marketplace. Ryobi Die Casting (USA), Inc. quality is complemented by the combined efforts of our suppliers.

It is the intent of Ryobi Die Casting (USA), Inc. to purchase from suppliers who consistently meet our expectations for quality, delivery, value and service. This manual is a tool to inform suppliers of Ryobi Die Casting (USA), Inc. expectations and how they will be measured against these requirements. *The requirements set forth in this manual shall apply to raw material, components, and outside processing suppliers that provide direct product or services that are supplied to Ryobi Customers.*

1.2 Application

The requirements stated in this manual do not replace or supersede any of the purchase order, engineering drawing or specification requirements. They do not relieve the supplier from the responsibility of ensuring that all materials and services supplied meet all of the requirements specified by Ryobi Die Casting (USA), Inc.

1.3 Validation of Supplier Quality Systems

As a supplier to the automotive industry, Ryobi Die Casting (USA), Inc. adheres to the requirements of ISO/TS 16949:2002 as the fundamental quality management system standards. Ryobi Die Casting (USA), Inc. requires suppliers to be third party certified to ISO 9001:2000 or ISO/TS 16949:2002 depending on end customer specific requirements. Some programs may require adherence, at minimum, or certification to the sector specific application (ISO/TS 16949:2002).

Ryobi Die Casting (USA), Inc. recognizes American Association for Laboratory Accreditation (A2LA) or ISO 17025 in lieu of the above referenced standards for laboratory and calibration services.

The Quality System Requirements of ISO 9001:2000 and ISO/TS 16949:2002 can be obtained from the Automotive Industry Action

Group (AIAG) located at 26200 Lahser Road, Suite 200, Southfield Michigan 48034.

To assure Ryobi Die Casting (USA), Inc. expectations are met, on site-surveys, self-surveys and supplier profile information may be requested from potential or current suppliers. Other disciplines subject to evaluation via on-site surveys may include, but are not limited to, management structure, cost, delivery, technology, and the supplier's expertise in Lean/Synchronous production techniques.

2.0 Supply Base Management

2.1 Organizational Responsibility

All raw material, components and services are managed thru Ryobi Die Casting (USA), Inc. purchasing structure. Under this structure, each raw material or component is assigned an internal Ryobi part number, to ensure consistent sourcing considerations across all suppliers providing said part number. The Purchasing Department is responsible for establishing a list of suppliers approved to submit quotes, awarding new business, and establishing commercial terms and conditions.

2.2 New Suppliers

A new supplier is a company that has never done business with Ryobi Die Casting (USA), Inc. or a past supplier who has not supplied product within the last two years. All new suppliers must be qualified prior to the awarding of new business. The complete list of current / approved suppliers resides in Epicor ERP System. This list is maintained by the Purchasing department. Vendor Master ERP data is updated when a supplier's information changes.

3.0 Quality Planning

3.1 Advanced Product Quality Planning

Product quality planning is a structured method of defining and establishing the steps necessary to assure that a product satisfies the customer.

Suppliers are encouraged to become involved early in the product development process. Suppliers are responsible to understand the user of their material and its impact on the quality of the finished product. All aspects of material performance and expectation should be clearly understood by the supplier. Suppliers shall implement project planning techniques to ensure timely delivery of material or components and achievement of program cost and timing goals.

In matters dealing with quality planning such as sample submissions for new or revised tooling and processes the associated AIAG “Core Tool” reference / supplements are to be followed: PPAP, APQP; PFMEA supplements.

3.2 Prototype Parts

Prototype parts or sample material may be required for functional testing and plant trial run purposes. Facility personnel will coordinate requirements with suppliers.

3.3 PPAP

Ryobi Die Casting (USA), Inc. follows the AIAG Production Part Approval Process (PPAP) for validation of all purchased material required for production applications. The PPAP manual is necessary to understand and comply with submission requirements. 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.

Customer specific requirements are in addition to any Ryobi Die Casting (USA), Inc. or AIAG requirements and take precedence. Suppliers are responsible to keep up to date with any and all end customer specific requirements.

3.4 Submission Requirements

The default submission level will be to AIAG PPAP manual level – 3 requirements. The facility has the option to change the submission level requirements. Ryobi Die Casting (USA), Inc. requires that all PPAP documentation be completed and available for review, regardless of the submission level requested.

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Once the PPAP submission has been approved by Ryobi Die Casting (USA), Inc. product shall be functionally tested and validated. Final approval results in the part / process considered production ready and ongoing supplier performance measurement and maintenance is in accordance with the performance measurement section of this document.

3.5 Process Flow Diagram; PFMEA and Control Plan(s)

The supplier shall author a Process Flow Diagram, Process Failure Mode and Effects Analysis and Control Plan for each material / component it provides Ryobi Die Casting (USA), Inc. in accordance to guidelines and requirements specified in the AIAG core tool manuals and any customer specific requirements.

The Process Flow Diagram shall describe the production process steps and sequence, as appropriate. For bulk materials, an equivalent to a Process Flow Diagram is a Process Flow Description.

The supplier shall author a Process Failure Mode and Effects Analysis to determine potential failure modes / points within the manufacturing flow processes in order to control / limit associated risk.

A Control Plan shall be authored by the supplier as countermeasure to the identified potential failure modes associated with the manufacturing process.

4.0 Ongoing Quality Requirements

4.1 Material Certifications and Certificates of Compliance

Approved suppliers may be required to submit certificates of compliance or material certifications with each shipment of material. These certificates should state actual test results or measurements for each characteristic listed on the purchasing specification or blueprint or Ryobi provided inspection criteria. The material certification is to identify the purchase order, lot or batch and specific quantity of material covered by the certification.

The Material Certification is to be provided to Ryobi Purchasing before or at the time of material arrival. When not required to send material certifications, the supplier will maintain records of material compliance at the supplier facility the records shall be made available upon request by Ryobi Die Casting (USA), Inc.

4.2 SPC and Process Capability

Statistical Process Control information may be required to be submitted to Ryobi Die Casting (USA), Inc. on a regular basis as supporting verification of material quality.

Significant Characteristics identified by specifications or component prints or other Quality Acceptance Criteria shall be recorded and monitored with out-of-control conditions noted and acted upon. Suppliers shall ensure that out-of-control material is verified as compliant to specifications before release for shipment to Ryobi Die Casting (USA), Inc. Special causes of variation should be investigated, identified and eliminated.

Where applicable, Cpk shall be calculated and monitored to ensure long-term process capability of material supplied. Suppliers shall target a minimum Cpk of 1.67 to ensure production with minimal variation. Other measures of long-term capability and stability of material will be considered on a case-by-case basis depending on the type of process and risk level of the material(s) provided.

4.3 Nonconforming Material

Suppliers are obligated to inform Ryobi Die Casting (USA), Inc. of nonconforming or suspect material that may be in transit or already delivered. Product approved by means of measurement found to be out of calibration status constitutes “suspect” condition and should be treated as such. Such action is appreciated by Ryobi Die Casting (USA), Inc. and will reduce the severity of the quality incident. Communication should be to Ryobi Die Casting (USA), Inc. Quality Manager/Engineering or Purchasing Department Manager.

4.4 Containment of Nonconforming Material at Supplier Facility

Nonconforming material shall be immediately contained by the supplier and be re-inspected. If the defect root cause is not

immediately evident, the supplier is obligated to implement a 100% inspection of subsequent material shipments to Ryobi Die Casting (USA), Inc. Recurrence of the defect in subsequent shipments will require containment and 100% inspection of all material until such time it has been determined that the defect is permanently corrected, and corrective actions have been accepted by Ryobi Die Casting (USA), Inc. The supplier is to propose a method, and to obtain agreement on, identification of inspected material (certified shipments) with Ryobi Die Casting (USA), Inc. Quality Department personnel.

4.5 Delivered Nonconforming Material

Suppliers are expected to react immediately and authoritatively to contain the nonconforming material and ensure the impact on Ryobi Die Casting (USA), Inc. production is minimal. Ryobi Die Casting (USA), Inc. has the option to request assistance from the supplier for on-site inspection of non-conforming material at either, or both, Ryobi Die Casting (USA), Inc. and the end user facility.

Nonconforming material will count against the supplier's quality performance score and PPM rating. Quality performance will be communicated to the supplier through the Supplier Performance Report provided by the Purchasing Department.

4.6 Disposition of Nonconforming Material

Ryobi Die Casting (USA), Inc. utilizes a structured system to identify, contain, and disposition supplier nonconforming / suspect material. A multi-discipline team convenes as necessary to evaluate the risks of using the nonconforming material and consider the impact on the production schedule and customer delivery.

4.7 Chargeback

If shipment of nonconforming product results in Ryobi Die Casting (USA), Inc. being required to implement containment and inspection actions, the supplier is held responsible for the cost of labor, material handling and rejections.

If such containment action is required, the supplier will be contacted for approval to:

1. Sort parts in house (use of Ryobi personnel will not alleviate supplier cost)
2. Use a third party sorting source at supplier's expense
3. Scrap parts in house
4. Return product to supplier at suppliers expense via method and carrier of supplier choice

4.8 Supplier Corrective Action Requests

Ryobi Die Casting (USA), Inc. will issue a request for corrective action when a delivery or quality issue occurs. Issued supplier corrective actions impact the suppliers' performance rating. Issues requiring a response from the supplier will be communicated to the supplier in a timely manner. Suppliers are expected to use a structured problem-solving technique to generate a timely response with corrective actions that permanently eliminate the root cause of the defect. Structure responses are expected in common electronic format and should be submitted via e-mail to the appropriate Ryobi Die Casting (USA), Inc. personnel.

4.9 Structured Problem Solving

Structured problem solving is a given standard within the automotive industry and suppliers to Ryobi Die Casting (USA), Inc. are expected to implement and support a system of structured problem solving. Suppliers are welcome to use their systems or the Ryobi Die Casting (USA), Inc. system as long as a cross-functional team is able to identify the root cause of a problem and implement permanent corrective actions. The root cause definition should include the "process" root cause (How did the nonconformance occur) and the "non-detect" root cause (How did the nonconformance get shipped from the supplier facility). Suppliers should evaluate the effectiveness of the corrective actions for long-term system support within their organization.

4.10 Material / Process / Equipment Changes

Ryobi Die Casting (USA), Inc. expects our suppliers to demonstrate an effective change management process to ensure changes do not adversely affect material quality of operational process efficiency / effectiveness. All potential changes should be requested in writing and must have the approval of appropriate Ryobi Die Casting (USA), Inc. personnel. Best approach is “When in doubt, seek guidance out”. Ryobi Die Casting (USA), Inc. may require test samples for plant trial run requirements prior to implementation. Failure to seek approval for changes negatively impacting material could result in “chargeback” actions taken (see section 4.8). Upon review of the request for changes, the supplier will be notified of PPAP submission requirements of approval with waiver.

4.11 Packaging / Labeling

Labeling requirements are developed as output of Advanced Product Quality Planning activities and are agreed upon prior to delivery of material. Ryobi Die Casting (USA), Inc. Purchasing department personnel will work with the supplier to develop packaging specifications, quantities and label identification requirements for material safety, accuracy in performance reporting, quality issue containment practices and logistics information requirements. Suppliers should suggest to Ryobi Purchasing department personnel label content requirements to minimize impact on supplier containment activities/quantities while maximize traceability effectiveness.

5 Supplier Performance

5.1 Purpose

The purpose of providing supplier performance feedback is to communicate to suppliers Ryobi Die Casting (USA), Inc. assessment of their performance so that appropriate improvements can be implemented. Feedback also provides an internal measurement system in order to better evaluate and manage our supply base along with assisting in determining new business awards.

5.2 Ongoing Quality Registration

Suppliers are responsible for maintaining current ISO 9001-2000 or ISO/TS 16949:2002 registration if they supply items affecting product quality. Evidence of current registration must be presented prior to the supplier being approved and entered into the approved supplier list. Suppliers are responsible to provide evidence of current registration to ensure that a lapse does not occur. This evidence must be supplied to Ryobi Die Casting (USA), Inc. Purchasing department annually.

5.3 Frequency of On-Site Assessments

Supplier performance feedback will be provided to current suppliers on a quarterly / annual basis, where applicable. Overall performance of suppliers assists in determining assessment visitation requirements. Suppliers demonstrating and maintaining an “Excellent” rating will be scheduled for management system assessments as needed. “Marginal” ratings may require more frequent partnership cooperation in successfully minimizing risk to Ryobi Die Casting (USA), Inc.

5.4 Performance Rating

Suppliers are rated with respect to their quality and delivery performance. Ryobi Die Casting (USA), Inc. utilizes statistical data to provide an objective performance rating for critical suppliers and identify action requirements for unacceptable levels of performance. Quality and delivery performance will be based on total accepted / delivered items divided by total received and multiplying by 100. A PPM (Parts per million delivered) level will be based on total number of parts rejected divided by the total number of parts shipped and multiplied by 100. This number is reflected as a percentage in the supplier performance report. The overall critical supplier performance rating is obtained by combining the Quality/Delivery and PPM performance percentage ratings. *Alternate rating methods may be used based on the product/service provided by the supplier.*

5.5 Certified Supplier

Ryobi Die Casting (USA), Inc. wishes to certify suppliers, where appropriate, so as to minimize continual verification of incoming purchased product. Certain supplier incoming quality will be monitored on an ongoing basis until such time as Ryobi Die Casting

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(USA), Inc. incoming quality inspection requirements validate the direct release of products supplied.

Suppliers placed on “Certified” status by Ryobi Die Casting (USA), Inc. may be asked to provide Material Certifications and/or Certificates of Compliance (see section 4.1).

Critical suppliers can obtain “Certified” status by delivering consecutive shipments with no quality or delivery issues. Suppliers may become disqualified from “Certification” status for any rejection of product at customer plant operations, any discrepancies identified during a performance reporting period, any missed shipments during a performance reporting period and any end customer complaint.

5.6 Unsatisfactory Levels of Performance

A supplier with an “Unsatisfactory” level of performance will be notified in writing of the necessary corrective action requirement from Ryobi Die Casting (USA), Inc. Purchasing department. Consecutive “Unsatisfactory” levels of performance will require a formal corrective action plan with a specific timetable to improve the performance rating. In the event a critical supplier is responsible for a quality spill involving end customer disruptions and/or field return, a formal Corrective Action Request will be issued with report out on identification of causal factors and countermeasure implementation performed at the customer location.

In the event the formal corrective action plan is not acceptable, or the rating does not improve within the agreed time frame, the supplier may be prohibited from receiving new purchase orders until there is resolution.

Suppliers who demonstrate unwillingness to achieve mutual agreeable, satisfactory and effective corrective action countermeasures, or continue to maintain an “Unsatisfactory” level of performance, may be removed from the approved supplier listing.

5.7 Supplier Awards/Recognition

Ryobi Die Casting (USA), Inc. will recognize suppliers with outstanding quality and delivery performance through additional program awards and incremental volume.

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