Supplier Quality Assurance Manual

Specific Requirement of Integrated Micro-Electronics, Inc. (IMI)

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WEBSITE | www.global-imi.com

Amendmentsto the IMI **Supplier Quality Assurance Manual**

The contents of this guideline are subject to change and may be modified at any time by IMI group, without warning. When any changes are made to this manual; suppliers will be notified, and they will be required to update all hard copies and electronic copies with the new revision.

Suppliers are responsible to check the revision on IMI global web site https://www.global-imi.com/capabilities/supplier-quality-engineering to ensure they are following the most recent release.

This Supplier Quality Assurance Manual replaces all previous versions from IMI group.

Foreword

The IMI Specific Requirement is clarified or additional requirement to ISO 9001:2015 and IATF16949. Therefore, this document must be read together with ISO9001 and/or IATF 16949 if applicable. This document deals with the procedures applicable during the contract period. It also deals with the products to be delivered - from product conceptualization; submission of samples; part approval process (PAP); and IMI methodology for the evaluation of mass production deliveries. More specific requirement can be seen on drawings and product specification that will be shared to supplier during product development and mass production.

This document is intended for current and/or potential suppliers and subcontractors for IMI group. It is preferable that it is read, understood and signed before any business relationship is entered into, but may still be used as a reference during any given supplier contract period. Where possible, it is preferred that Customer-controlled suppliers (CCCS) also review and sign this document.

As a minimum, all suppliers of specific/non-standard parts on IMI's Preferred Supplier List (PSL) are required to return a signed copy of the acknowledgment of receipt form at the end of this document to demonstrate that they agree with the requirements of this IMI Specific Requirement

Suppliers of standard parts/consumables are also encouraged to do likewise and will be requested to do so on a case-by-case basis, as deemed necessary by IMI group's procurement team.

IMI goal for releasing this document is to have standard requirement throughout its supply chain.

A. Quality philosophy

A.1 Quality and reliability

IMI products are known worldwide for their long service life, safety performance and in particular, good quality. The resulting strong market position of IMI is due to Quality and Reliability. These two attributes form part of the identity of our products and are a central competitive factor.

Quality and reliability are factors of decisive importance. With respect to the market, quality management at IMI generally goes further than is required. Irrespective of the obligation of our suppliers to produce and supply products zero defect, we depend not only on our partner's readiness to cooperate with us, but also on a climate of trust in our work with our partners.

Customer satisfaction cannot be attained unless product quality is secured throughout the entire added-value chain by means of ZERO DEFECT programs. To this end, we expect our suppliers be certified to the applicable quality management system standard as proof that they can demonstrate an effective quality management system (QMS). Refer to section B of this document for details on IMI requirement regarding QMS.

ZERO DEFECT programs shall also include TQM and continuous improvement initiatives. Quality management at IMI not only qualifies and evaluates the quality and compliance with scheduled delivery time of supplied products, but also covers compliance of primary products at the supplier's premises, their production, testing and inspection procedures, their disposal programs and guarantees regarding contractual products.

IMI only buys automotive parts from approved franchised sources.

A.2 Quality basics

A.2.1 Related Document

A.2.1.1 The standard documents listed in section 1.3.1.1 below ("Related Documents") are referenced in this Manual and Supplier acknowledges and agrees that it has a copy of the Related Documents in its possession on the Effective Date. Supplier agrees to adhere to the terms and standards set out in the Related Documents (as they are updated and amended from time to time) and shall be responsible for ensuring that it is always in possession of the latest update version of the Related Documents.

The Related Documents are as follows:

(a) IPC/JEDEC J-STD-033B – Standard for handling, packing, shipping and use of moisture/reflow sensitive surface mount devices.
(b) JEDEC standard No. 46 (JESD46-B) – Guide for product/process changes.
(c) JEDEC standard No. 671 (JESD671-A) – Failure Analysis and Corrective Action.
(d) JEDEC standard No. 48 (JESD48-B) – Product discontinuance
(e) JEDEC standard No. 625 (JESD625-A) – Requirements for handling electrostatic-discharge-sensitive (ESDS) device

(f) IPC/EIA J-STD-002B – Solderability Tests for Component Leads, Terminations, Lugs, Terminals and Wires
(g) IPC/EIA J-STD-003A – Solderability Test Methods for Printed Wiring Boards
(h) IPC/JEDED J-STD-020C – Moisture/Reflow sensitivity classification for non-hermetic solid-state surface mount devices
(i) EIA-481 standard – tape and reel specification
(j) IPC/JEDEC J-STD-075 – Classification of Non-IC Electronic Components for Assembly Processes
(k) ANSI/ESD S20.20 – Protection of Electrical and Electronics Parts, Assemblies and Equipment
(l) IEC61340-5-1- Protection of electronic devices from electrostatic phenomenon – General requirements
(m) ANZI/ASQC Z1.4-2003 – Sampling Procedures and Table for Inspection by Attributes
(n) EU Directive 93/42/EEC Article 1 – the definition of a Medical Device (Europe)
(o) US FDA Medical Device Classification – the definition of Medical Device (USA)
(p) ISO 26262
(q) ISO 2859

A.2.1.2 Order of Precedence

If a conflict arises between the requirements of this document and other IMI documents, the following order of precedence shall apply:
(a) Purchase order
(b) Engineering drawings
(c) Engineering Specifications and Material Specifications
(d) IMI Group SQA Manual and IMI PCB Requirements&Specifications
(e) Other specific IMI´s requirements
(f) Referenced standards

The supplier shall guarantee adherence to the specified requirements before the acceptance of an order. All the technical data required must be made available to the supplier so that the supplier can review its capability to comply.

Ambiguity or insufficient information is to be clarified with IMI before the supplier can carry out the order. All documents, specification and other technical information should be treated with strict confidentiality.

The fundamental elements necessary to achieve ZERO DEFECTS are derived from the binding specifications and drawings (with revisions index) which are supplied when an order is placed. This includes the standards listed, such as IMI factory standards, national and international standards, technical specifications, data sheets, statutory requirements, packaging regulations, specially agreed testing and inspection regulations and resources, other regulations and codes of practice, and so on. In each case, the most recent version of these documents must be used. These documents also cover materials and parts purchased by the supplier.

For quality assurance purposes, intensive collaboration is required between IMI and its suppliers to establish a suitable evaluation procedure based on an objective appraisal of quality capability and quality performance. This may range from initial sample inspection to quality appraisal of parts from series production.

B. Quality Management Systems (QMS) - Requirements
Use this document with ISO9001: 2015 and IATF 16949: 2016

1 Scope – Clarified for IMI Suppliers

1.1 Non-automotive and non-medical part supplier
Manufacturers of non-automotive direct materials (PCB, solder wire, solder pastes, plastic enclosures, metal enclosures, product labels, connectors, electromechanical parts, active and passive components)
- Minimum requirement: Compliant to non-automotive audit check sheet of IMI
- Ultimate requirement: Certified to ISO9001:2015 quality management system

1.2 Medical part suppliers
Manufacturers of Automotive direct materials (PCB, solder wire, solder pastes, plastic enclosures, metal enclosures, product labels, connectors, electromechanical parts, active and passive components)
- Minimum requirement: Certified to ISO9001:2015 quality management systems
- Unless otherwise specified and approved by IMI, the organization is required to be compliant to or shall have a roadmap to work towards certification on ISO 13485.

1.3 Automotive part suppliers
Manufacturers of Automotive direct materials (PCB, solder wire, solder pastes, plastic enclosures, metal enclosures, product labels, connectors, electromechanical parts, active and passive components)
- Minimum requirement: Certified to ISO9001:2015 quality management systems requirements with compliance to IATF16949:2016
- Ultimate requirement: Certified to IATF16949:2016
- Unless otherwise specified and approved by IMI, the organization is required to be compliant to or shall have a roadmap to work towards compliance to ISO26262 (Functional Safety)

1.3 Unless otherwise specified and approved by IMI, the supplier of direct materials for aerospace application is required to be compliant to AS9100 or shall have a roadmap to work towards AS9100 certification.

1.4 For the non-EMS products e.g. motorcycle of IMI , the manufacturers and suppliers of direct materials/parts shall comply to the requirements of the customer and/or end customer requirement whenever applicable . Also, the customer may utilizes and apply their specific audit checklist , supplier quality agreement and other documents if this is part of the customer requirement.

1.5 If required by customer, distributors, brokers and suppliers of packaging or transport materials such as boxes, shipping labels, pallets.
- Minimum requirement: Compliant to IMI Non-automotive audit checklist.
- Ultimate requirement for those that supplies to automotive segment: Certified to ISO9001:2015 quality management systems requirements

- IMI preference for those that supplies to non-automotive segment: Certified to ISO9001:2015 quality management systems requirements

1.6 Providers of services that add no manufacturing value which include logistics, tooling and equipment.
- Minimum requirement: Pass in management and capability assessment of IMI
- IMI preference: Certified to ISO9001:2015 quality management systems requirements

All requirements in above mentioned standards, including the requirements of this document, shall be fulfilled in organization's quality management system.

2 Normative Reference
See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)
No additional requirement from IMI

3 Terms and Definitions
3.1 Terms and definitions for the automotive industry
See ISO9001: 2015 requirements and IATF 16949:2016 requirements (for all suppliers)

3.1.1 Additional terms and definitions for IMI suppliers

3.1.1.1 CCCS (Customer controlled – Customer Supplier)

Customer directed sources also known as "Directed-Buy". For IMI they can be imposed supplier or recommended supplier.

Imposed supplier means a supplier which is determined by the customer with whom IMI must cooperate - no alternative available. Imposed suppliers are managed in coordination with the customer, as required then audited by self-assessment, regular audit and validated based on IMI´s internal sourcing procedure

Recommended supplier means a supplier which is recommended by IMI´s customer, but for whom IMI is responsible for performance.
Recommended supplier for specific and standard parts are asked to follow all IMI´s procedures in terms of validation based on IMI´s internal sourcing procedure.

3.1.1.2 CoC (Certificate of compliance / conformance)

A document from supplier that indicates their conformance to IMI-specific requirement and their compliance to regulations such as ROHS and UL.

3.1.1.3 DFM (Design for Manufacturability)

Included on part approval process of IMI that consists of documents checking, visual process of designing parts to address potential problems on fit, form and function considering customer specific requirement (CSR), geometric dimensioning and tolerancing, and other factors that needs to be considered. This is done prior tool fabrication. It is expected that there will be no issues seen during first article inspection for those parts that undergoes DFM.

3.1.1.4 FAI (First Article Inspection)

Pre-production sample build using series production set-up. Included on part approval process of IMI that consists of documents checking, visual inspection, 100% measurement of dimension (layout inspection), fitting test and functional test.

3.1.1.5 KSPI (Key supplier performance indicator)

A 1-pager report that indicates the PPM trend of supplier. This is being done with suppliers that has poor quality performance

3.1.1.6 NBOH (New Business on Hold)

This means no request for quotation nor will new business be awarded to a supplier under NBOH status. Supplier can be put on NBOH status due to unsatisfactory performance data and/or audit result or due to issue on business ethics.

3.1.1.7 OIR (Outgoing inspection report)

A document from supplier that indicates data from their out-going inspection (visual, dimensional and functional). It should indicate other characteristics being inspected or measured such as but not limited to elongation, tensile, viscosity.

3.1.1.8 PPM (Part Per Million)

A quality metric used to measure magnitude of problem. It is the total quantity of parts complained by IMI divided by total quantity delivered multiplied to one million.

3.1.1.9 Approved Supplier List (ASL)

The ASL containing a list of all customer-imposed suppliers/ manufactures and locally approved suppliers shall be maintained locally though the SAP system according to supplier accreditation status, supplier approval status and customer-imposed requirements.

New or Potential Suppliers must successfully meet or exceed the minimum requirements in the evaluation process before they will be considered approved and added to the PSL.

3.1.1.10 Preferred Supplier List (PSL)

PSL is identified per commodity based on supplier evaluation data for quality, cost, delivery and service. Quality includes result of surveillance audit being done by SQE. Same data are used to evaluate during review of PSL every 6 months or according to evaluation period of commodity team. Suppliers under PSL are priority for project quotation.

Minimum requirements are:

- Signed Non-disclosure agreement (NDA), Supplier Purchasing Agreement (SPA), Conflict of Interest (COI), Supplier Quality Agreement (SQA), and Supplier code of conduct.
- Management Assessment and Capability Assessment (MA/CA) done by IMI Global Commodity Management (GCM) Engineer
- Supplier Qualification Audit done by IMI Supplier Quality Engineer

3.1.1.11 SCAR (Supplier Corrective Action Request)

A document from IMI that indicates details of rejection from IMI incoming inspection or production complaint or customer and field complaint

3.1.1.12 SPRS (Supplier Performance Rating System)

A quality metric used to measure magnitude of problem. It is the total quantity of parts complained by IMI divided by total quantity delivered multiplied to one million.

4. Context of the Organization

See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

5. Leadership

See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

5.1.2.1 Customer Focus – additional for IMI supplier

Top Management of organization shall make sure that IMI requirements are understood and complied to by all people involve within the organization, including its' suppliers and subcontractors.

5.3.2.1 Responsibility and authority for product requirements and corrective actions – additional for IMI supplier

Top Management of organization shall assign contact person of IMI pertaining to Quality-related issues.

6. Planning

6.1 Actions to address risks and opportunities

See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

6.1.2.3. Contingency Plan – clarified for IMI suppliers

All suppliers to IMI Group must have an "executable" emergency/contingency plan to protect IMI and our customers from production stoppages or other disturbances that could impair the quality or threaten the delivery date or delivery quantity. The supplier must notify IMI immediately of any potential situation that might impact our quality or delivery of product.

The supplier shall take all precautions and implement preventative measures to ensure the correct quantity of defect-free products complying with the agreed upon specifications can always be delivered on time.

Examples of precautions the supplier might include are:

- Emergency/Safety Stocks
- Alternative production possibilities (Approved and verified for capacity)
- Alternative supply sources for raw materials. (Must follow PPAP)
- Adequate back up of information and stored knowledge
- Regular risk assessments
- Regular monitoring of raw material and subcontractors for financial stability.
- Predictive and preventative maintenance methods.
- Back up energy plans.

Supplier shall submit business continuity plan (BCP) to IMI. Consider the worst-case scenario that can happen to the manufacturing and/or warehouse site.

6.2 Quality objectives and planning to achieve them
See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

6.2.2.1 Quality objectives and planning to achieve them — supplemental for IMI suppliers

- Table 1: Process Indicator Targets

	For processes in which output are intended for Automotive/ Medical/ Aerospace	For processes in which output are not intended for Automotive/ Medical/ Aerospace
Process Capability (CpK)	≥1.67	≥1.33
Process performance (PpK)	≥ 1.67	≥1.33

If process is not capable then the organization must do 100% inspection

- IMI maintains a policy of Zero-defects and in cases where the supplier has not achieved zero defect or where the agreed PPM level has not been defined, the following default targets shall be applied.

Table 2: PPM Target

	For processes in which output are intended for Automotive/ Medical/ Aerospace	For processes in which output are not intended for Automotive/ Medical/ Aerospace
Parts Per Million (PPM) Target	≤ 50	≤ 100
Parts Per Million (PPM) Stretch or ultimate Target	0	0

Note that IMI uses "C=0 Sampling Plan" which means delivery from supplier is accepted if there is zero defect upon inspection.

For top worst suppliers (identified annually) shall agree with IMI on PPM target for every quarter. (Refer to Appendix I)

These PPM targets are primarily for IMI measurement and will be calculated using formula "number of confirmed defects at divided by the total quantity of all part numbers delivered to IMI by the supplier during the measured period x 1000000". Supplier shall have lower PPM target internally.

- On-time delivery (OTD) window must be agreed upon with each IMI site procurement.

  Example for Philippine site, OTD window is +0/-3 days. This means that supplier can deliver parts 3 days earlier than required delivery date. Delayed delivery or more than 3 days earlier delivery date is violation to OTD requirement.

6.3 Planning of changes

See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

6.3.1 Consider the impact of proposed changes to the product quality, cost, delivery and service towards IMI. The evidence of risk analysis pertaining to the change shall be attached to Engineering change request or product change notification.

7. Support
7.1 Resources
See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

7.1.5.1.1 Measurement system analysis – Clarified for IMI Suppliers
Unless otherwise specified, IMI supplier shall use AIAG MSA manual as reference in doing measurement systems analysis

7.2 Competence
See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

7.3 Awareness
See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

7.4 Communication
See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

7.5 Documented information
See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

7.5.3.2.1.1 Retention of record pertaining to IMI Parts
a) For automotive – announced end of life (EOL) of part plus one calendar year or 15 years if EOL is not defined
b) For parts that are not automotive – at least 5 years

8. Operation

8.1 Operational Planning and Control
See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

8.2 Requirements for products and services
See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

8.2.1.1 Customer Communication
Additional requirement for IMI Supplier - Supplier meeting

If necessary, a meeting will be held at IMI or at the suppliers' premises to review the existing drawing documentation in order to establish a binding basis for the manufacturing ability of the parts as regards to dimensions, function, features, properties etc. Both partners undertake to point out identifiable risks with regard to manufacturing ability, process safety, further processing, environmental pollution and so on, and to suggest possible remedies for such problems.

IMI and the supplier, upon agreement, can invite external technical advisers to this meeting. This shall not affect the responsibility of the supplier with respect to IMI.

8.2.3.1.2 Customer-designated special characteristics
IMI Designated special characteristics
Supplier shall follow the indicated special characteristics and the corresponding instruction as indicated on drawings and/or other documents forwarded. In case there is nothing indicated on drawings, supplier may use asterisk (*) in their internal documents such as PFMEA and control plan.

8.3 Design and development of Products and Services
See ISO9001: 2015 requirements (for distributors)
See IATF 16949:2016 requirements (for non-automotive suppliers and automotive suppliers)

8.3.2.1 Design and development planning – supplemental for manufacturers and IMI suppliers of customized parts

a) Project Management
IMI supplier shall comply with the use AIAG's latest version of APQP manual as reference for customizing their internal system of project management.

b) Design for Manufacturability (DFM)
- Suppliers of customized mechanical parts are required to collaborate with IMI team regarding DFM. All concern must be resolved prior tool fabrication.
- As part of DFM of customized plastic parts, suppliers should have capability and competency in doing mold flow analysis using specialized software.
- Trial sample at this stage may be required for inspection, testing and correlation prior mold tool acceptance.

c) Failure Mode and Effects Analysis (FMEA)
IMI supplier shall comply with the AIAG's latest version of FMEA manual as reference and format to identify risks or critical operations within their manufacturing process.

8.3.3.3 Special characteristics
The organization shall have a process to identify critical operations within their manufacturing process.

8.3.4.1 Monitoring – supplemental for manufacturers and IMI suppliers of customized parts

Project plan which is to include the following information: starting date, procurement, production and optimization times for materials, machines, tools, equipment and inspection equipment. Furthermore, the anticipated date for first parts, initial samples with initial sample inspection report, and the implementation in series information is required.

8.3.4.4 Production Part Approval Process

8.3.4.4.1 The organization shall comply with the AIAG Production Part Approval Process (PPAP) manual in the event of:

- New parts
- New machine
- New or repaired mold tools
- Product modifications
- Machine and/ or Production relocation
- Process modifications
- Machine/line and gauges change
- Material changes
- Extended suspension of production
- New sub-suppliers
- IMI's ECN/other Requirements

Upon completion of evaluation for each change, the supplier must send a documented internal approval which can be verified by IMI. For automotive part supplier, internally approved part submission warrant shall be submitted to IMI SQE. Attach corresponding PPAP files and PSW (Refer to appendix 2 and 3). The supplier is obliged to make available their FMEA etc whenever required by IMI, so if they cannot send by email due to confidentiality reasons, it can always be consulted on-site.

It may be decided upon by mutual agreement to limit or extend changed parameters to the delivery of initial samples, or to the quantity of parts to be sampled.

8.3.4.4.2 The minimum requirements for sampling are as follows:

8.3.4.4.2.1 Trial or FAI sample size

- For PCB: Minimum of 3 panels if panelized or minimum of 3 pieces of PCB if singulated. Include coupon for cross-section measurement of plating thickness at IMI laboratory.

- For mechanical parts, packaging and other customized materials: Minimum of 5 parts.
  - Where tooling has multiple cavities per tool, samples should be at least 2 parts from each cavity, with a minimum overall sample of 5 parts.
  - Samples are labeled with cavity number and sample number.

8.3.4.4.2.2 PPAP Sample size (This is additional requirement for automotive part supplier)
Follow AIAG PPAP Manual requirement in submitting PPAP samples

8.3.4.4.2.3 IMI reserves the right to require other samples as deem necessary.

8.3.4.4.2.4 When sending samples to IMI, supplier shall

- Submit to IMI the FAI samples together with the following documents.
  - Certificate of compliance in which compliance to statutory, regulatory and customer-specific requirements are indicated.
  - Outgoing inspection report in which lay-out inspection, visual inspection and functional test result are indicated. All dimensions indicated on drawing shall be measured.
    Note that sample number on outgoing inspection report must correspond to the sample number indicated on the label of actual samples. This is to ensure activity on correlation of measurement between IMI and supplier is done at this stage.

- Put required label on shipment box or envelop that contains the sample. Refer to Appendix 4 for shipment label of samples

8.3.6.1 Design and development changes – supplemental for IMI Supplier

- All design changes, including those proposed by IMI supplier, shall have written approval by the authorized customer representative, or a waiver of such approval, prior to production implementation. See also AIAG Production Part Approval Process (PPAP) manual.

8.4 Control of Externally provided processes, products and services
See ISO9001: 2015 requirements (for non-automotive suppliers and distributors)
See IATF 16949:2016 requirements (for automotive suppliers)

8.4.1.2 Supplier Selection Process – additional requirement
IMI must be informed in writing if supplier will subcontract certain process for IMI part.

8.4.2.3 Supplier quality management system development – clarified requirement for IMI suppliers and supply chain

Refer to scope for detailed requirement on supplier's quality management certification.

8.4.2.4 Supplier monitoring

8.4.2.4.1 Second Party Audit – additional requirement

CCCS and its subcontractor may also be audited if deemed necessary. In such cases, the audit and the report would be done jointly with the customer.

8.4.2.4.1 At the conclusion of this appraisal the supplier will be informed of the results, and a follow-up action plan be established where Corrective Action Requests are raised by the auditor and, remedial and preventive actions are proposed by the supplier. When necessary, a follow-up audit will be undertaken in order to evaluate the effectiveness of the remedial actions proposed.

8.4.2.4.1 Closure of the audit findings shall be within 1 month of the committed date.

8.4.2.4.1 Audit frequency

Critical or strategic suppliers will be re-evaluated once every year to eighteen months for compliance with IMI requirements. This frequency may be increased or decreased depending on the quantity and nature of any quality incidents encountered during a given evaluation period. Audit frequency is provided by group annual audit plan.

If there have been any serious or repeated quality incidents which indicate a Quality System failure, or if there have been any major organizational changes, then a new audit shall be organized.

IMI reserves the right to request self-assessments audits based on VDA 6.3 form. The purpose of this document is not to duplicate a third-party audit but is intended to confirm that a good fit exists between IMI´s needs and the supplier´s quality system and process controls. The self-assessments may be conducted as appropriate:

1. With all new suppliers before the award of any contracts
2. Annually with selected suppliers, selection will be based on quality performance and previous results
3. As required as part of a corrective action resulting from a below-standard supplier performance rating
4. As required by IMI´s customers
5. As imposed/recommended suppliers by our customers

Typically, IMI will conduct assessments only on suppliers that supply directly to IMI. IMI reserves the right to selectively request Self-assessments on sub-tier suppliers.

IMI may conduct a supplier audit follow up. For any identified non-conformance, the supplier must take corrective and preventive actions whenever follow-up results do not comply with the specified requirements.

Audit frequency for packaging suppliers, Distribution and Broker are audited if new. Surveillance audit will be scheduled base on potential or existing problem on supply chain (example: quality and delivery issues). The audit may be requested for a variety of reasons.

8.4.2.4.1 Audit format

a) For new or potential suppliers of automotive direct materials, the VDA 6.3 potential supplier audit template shall be used, since an audit on a current IMI part number in production would not be possible. IMI reserves the right to conduct an audit for prototype suppliers based on the appropriate questionnaire.
b) For Automotive and medical part suppliers, a questionnaire based on VDA 6.3, or equivalent will be used for the audit. The result of the audit must be > 90% for the supplier's process to be qualified or > 80% conditionally qualified.
c) For non-automotive and nonmedical suppliers of direct and indirect materials, a questionnaire based on ISO9001, or equivalent will be used for the audit. The result of the audit must be > 80% for the supplier's process to be qualified or > 70% conditionally qualified.

8.4.2.5 Supplier Development

It is expected for suppliers to cooperate on supplier development programs of IMI which includes but not limited to compliance to this manual, surveillance audit and training.

8.5 Production and Service Provision

8.5.1 Control of production and service provision

See ISO9001: 2015 requirements (for packaging suppliers and distributors)
See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)
Note that even manufacturers of non-automotive parts are required to implement the following based on IATF 16949:2016

8.5.1.1 Control Plan

Additional requirement for IMI Suppliers

Launch Control Plan (LCP) measures

Suppliers are required to implement a Launch Control Plan procedure for all new part launches. Suppliers may also be required by IMI to implement LCP for significant product or process changes.

Another potential application for LCP could be after long periods of down time between production runs.
The LCP will include additional controls, inspection audits, testing and other measures required to ensure a high level of confidence in the quality of the product produced during the containment period and also to verify the effectiveness of the control plan and inspection methods to be used during production.

These measures must take into account all known quality concerns, all critical characteristics of the part, areas identified in the FMEA as potential risk items and how their part will be used at IMI. All LCP measures must be documented, recorded, analyzed and provided to IMI as requested.

Examples of additional controls:

- Increased sample size and/or frequency at receiving, in process and at final inspections audits.
- Sub-supplier and Sub-contractor audits LCPs.
- Additional verification of error proofing devices and poka-yokes.
- Additional set-up verifications
- Increased predictive and preventative maintenance
- Increased tooling and gauging inspections.
- Increased verification of label accuracy and part identification
- Increased participation and involvement by top management.
- Early production containment shall be in place commencing with the start of production, for 90 days or until exit criteria specified by IMI Group has been satisfied.

Any/all non-conformances found during this activity will be recorded, promptly corrected and all documentation will be updated accordingly.

8.5.1.2 Standardized work – operator instructions and visual standards
8.5.1.3 Verification of job set-ups
8.5.1.4 Verification after shutdown
8.5.1.5 Total productive maintenance

8.5.1.6 Management of production tooling and manufacturing, test, inspection tooling and equipment

8.5.1.6.1 IMI Requirement on tool life monitoring

Tool life should be indicated on certificate of conformance for every delivery. Follow format of reporting as indicated on table 3. Note that data and remarks are just an example.

Guaranteed tool life (# of shots)	Triger (Number of shots is 60% of Guaranteed tool life for high volume runner)	Date of production	Tool life during production of parts (# of shots)	Date of Delivery	Tool life at the date of shipment (# of shots)	Remarks
1,000,000	600,000	9/15/2017	500,000	11/20/2017	560,000	Product is high volume runner and tool shots is already at 60% of guaranteed tool life. Retool is recommended to IMI due to potential problems related to worn-out tool.

Table 3 – Tool life monitoring

8.5.1.7 Production scheduling – clarified requirement

The organization shall ensure that production is scheduled in order to meet customer orders/ demands such as pulled-in delivery. IMI encourages suppliers (including distributors) of high volume parts to be under Supplier Managed Inventory (SMI) agreement.

8.5.2 Identification and Traceability

See ISO9001: 2015 requirements (for packaging suppliers and distributors)

See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)

8.5.3 Property belonging to customers or external providers

See ISO9001: 2015 requirements (for packaging suppliers and distributors)

See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)

Tools owned by IMI or IMI's customer shall have permanent marking (identification) and supplier must ensure safety from any damage.

The supplier is responsible within his own production for the safety of the products which IMI provides him for further processing. In the event of quality or quantity deviations in the products provided, IMI must be informed without delay. This does not free the supplier of his obligation to deliver conforming parts.

8.5.4 Preservation
See ISO9001: 2015 requirements (for distributors)
See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)

Additional requirement for IMI Suppliers

8.5.4.1 Packaging Traceability and Shelf life

Unless otherwise agreed, the goods to be delivered shall be suitably packed as is customary in the trade. Packaging for electronic elements or components shall be packed according to their expected usage and purpose, meeting all concerned European directives.

The Supplier shall be liable for damage resulting from unsuitable packaging.

IMI reserves the right to re-pack or remove the original packaging if preferable internally to facilitate storage. This step will have no impact on the guarantee and warranty of the parts.

Supplier shall provide a trace code (lot-, date-, batch code) on the elementary pack which will allow trace back of all materials and process steps (including sub-tier suppliers).

If a product is usable within a time limit only, the Supplier must indicate the expiration date on the product or on the package. Special storage requirements must be indicated on the package.

If any additional special marking is required, IMI will provide the specifications prior to purchase order placement.

Material delivered to IMI shall have a minimum of 6 months remaining prior to date code expiration. Products older than 1 year as measured by date code on the date of delivery to IMI will be returned to the Supplier for replacement, unless IMI has agreed otherwise in writing.

Material shelf life for solderable components (with exception for Printed Circuit Boards - PCBs) shall not be more than 12 months. The supplier shall provide IMI with solderability testing analysis and obtain IMI acceptance if shelf life should be exceeded.

IMI´s customer requirements may dictate shorter shelf life requirements, which will be communicated to Supplier at the time of purchase order release.

8.5.5 Post Delivery Activities
See ISO9001: 2015 requirements (for packaging suppliers and distributors)
See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)

8.5.6 Control of changes
See ISO9001: 2015 requirements (for packaging suppliers and distributors)
See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)

8.5.6.1 General Requirement of IMI pertaining to Changes

No change, substitution or modification of any goods, component parts, tooling, sources of raw materials, processes, subcontractors, manufacturing sites, or shipment of alternate parts may be made without written notification to IMI.
The Supplier shall not make the change without IMI´s prior written consent.

Where changes are necessary the Supplier shall provide IMI ninety (90) days written notice prior to the change taking place and this will be confirmed to the Supplier within thirty (30) days of receipt of the Supplier´s notification.

8.5.6.2 End of life ("EOL") notification requirement.

- 6 months prior notification of Last Time Buy dates
- 12 months prior notification of Last Time Ship dates

8.5.6.3 All changes should contain at a minimum:

- Reason for the change
- Risk assessment that includes impact of change to quality, reliability, cost and delivery to IMI. Refer to Appendix 5 for template on change risk assessment.
- Full description of change
- List of all affected part numbers (including IMI´s part numbers)
- Proposed implementation date which must be minimum of 90 days,
- All data necessary to show that the change has been fully verified and validated, availability of samples for the change and identification to provide traceability.

8.5.6.4 Supplier production process change log

For traceability purposes, IMI requests its suppliers to record in a change log all changes or modifications made to their production process, in accordance with the PPAP and APQP procedure submitted to IMI at the time. These changes include anything that involves method, machine, material or "milieu".

The change log is applicable to all relevant changes and does not need to be limited uniquely to modifications that warrant PPAP resubmission. The supplier commits to providing a copy to IMI once per year for verification.

8.5.6.4 Product / part Change Notice (PCN)

Suppliers of passive and active components are required to submit a PCN for each change or modification to components currently supplied to IMI. PCN submission is also required for any modifications made to parts associated with samples, quotations and design requests for IMI during the previous 12 months for automotive projects (6 months for non-automotive projects).

8.5.6.5 Notification of Supplier Management Changes

All suppliers must notify IMI group in writing of any changes to key management staff. Key management staff would include but not be limited to; quality, materials, engineering, manufacturing, logistics and senior managers.

In addition, suppliers must notify IMI group in advance of any expiration of union contracts and of any potential work stoppage.

IMI must be notified prior to any change in man/ personnel as follows:

- If 50% of the manpower is replaced or changed
- If Quality Management Group is replaced or changed
- If contact person for Quality is replaced or changed

8.6 Release of products and services
See ISO9001: 2015 requirements (for packaging suppliers and distributors)
See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)

8.6.2 Layout inspection and functional testing (automotive parts, unless otherwise specified by customer)

Layout inspection and functional testing shall be done by supplier of customized parts every year. Result of which shall be submitted to IMI SQE for review. These activities can be done earlier if risk is high, especially if there is risk on worn out tool.

8.6.6 Acceptance criteria (for both automotive and non-automotive manufacturers)

Acceptance criteria shall be agreed upon between IMI, supplier and customer (if applicable) during development stage. Updates can be done during series production.
For attribute data sampling, the acceptance level shall be zero defects

8.7 Control of non-conforming outputs

See IATF 16949:2016 requirements for all these clauses (applicable to both automotive and non-automotive suppliers including distributors)

8.7.1.1 Customer authorization for concession

Additional requirement for IMI
Supplier shall use their own form for requesting an authorization for concession, but they need to attach the risk assessment. Refer to appendix 5.

8.7.1.2 Control of nonconforming product — IMI-specified process

IMI Controlled Shipping Level-1 and Level-2 (CSL-1; CSL-2)

Occasionally, supplier response may not be adequate to prevent recurrence or to effectively contain suspect product and safeguard IMI and our customer from potential field issues or production stoppage.

Should this occur IMI will have suppliers implement special measures such as a Controlled Level Shipping process to help reduce the risk. IMI will inform the supplier in writing to define the controls chosen and where those controls should be implemented.

In the case of repeated failures, the supplier shall provide a supplier technical representative for an on-site analysis to any manufacturing plant of IMI worldwide.

8.7.1.2 .1 Controlled Level Shipping 1 (CLS-1)

CLS-1 typically includes a problem-solving process as well as redundant inspection process. The CLS-1 is implemented at the manufacturing location and utilizes in-house staff for the process. The primary goal is to ensure that NO defects leave the production facility and that all corrective actions and controls implemented are effective. CLS-1 is normally signed-off by someone on the management team.

8.7.1.2 .2 Controlled Level Shipping 2 (CLS2)

CLS-2 includes the same processes as CLS-1 with additional inspection and auditing performed by a third party representing the customer's interests specific to the containment activity. Normally the third party is selected by the customer, approved by the customer, but paid for by the party under controlled shipping. CLS-2 can be implemented at several locations in the supply chain depending on where the action will be most effective. (Manufacturing plant, Customer Plant, off site, etc.…)

Data must be collected for either level of containment to ensure the effectiveness of the containment, batch control and traceability of all suspect or "controlled" parts and to demonstrate the permanent corrective actions are effective. In some cases, the controlled shipping task team may verify "interim actions".

8.7.1.3 Control of suspect product
See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)

8.7.1.4 Control of reworked product
See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)

8.7.1.5 Control of repaired product
See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)

8.7.1.6 Customer notification
See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)

8.7.1.7 Nonconforming product disposition
See IATF 16949:2016 requirements (for both automotive and non-automotive manufacturers)

9. Performance Evaluation
9.1 Monitoring, measurement, analysis and evaluation
9.1.1 General
See ISO9001: 2015 requirements (for distributors)

9.1.1.1 Monitoring and measurement of manufacturing processes
See IATF 16949:2016 requirements (for manufacturers)

9.1.1.2 Identification statistical tools
See IATF 16949:2016 requirements (for manufacturers)

9.1.1.3 Application of statistical concepts
See IATF 16949:2016 requirements (for manufacturers)

9.1.2 Customer satisfaction
See IATF 16949:2016 requirements (for all suppliers)

9.1.2.1 Customer satisfaction – criteria for IMI Suppliers

IMI uses a supplier performance rating system (SPRS) to ensure the optimum surveillance of the quality of the product supplied. In conjunction with preventive quality assurance measures, it is intended that the supplier evaluation system creates conditions whereby no nonconforming goods can arrive in IMI production.
Performance indicators shall be based on objective evidence and include but not be limited to the following:

a) Quality Performance (55%)

- PPM Level
- Number and type of complaints
  - C1: The defect was found by IMI's customer (deduction of 10 points for every occurrence)
    Note: This customer notifications related to quality or delivery issues, including special status
  - C2: The defect was found on IMI's production line (deduction of 2 points for every occurrence)
  - C3: The defect was found at IMI's Incoming Quality Control (deduction of 1 point for every occurrence)
- Response time (containment action, final report, other reports and actions required by IMI)
- Accuracy of Document
- Cost of Non-Quality (CNQ) shall be 100% paid by supplier

b) Delivery schedule performance (30%)

c) Service (15%)

- Five (5) points will deducted for every occurrence of:
  - Customer disruptions
    - Hold delivery at supplier side
    - IMI production stoppage

- Customer shipment stoppage

Note: This customer notifications related to delivery issues, including special status

- Premium freight, especially if due to raw material unavailability and process-related issues at supplier side

One (1) point will be deducted for every occurrence of:

- Delayed or no response to quotation or needed disposition
- Escalation from other departments due to potential customer disruption
- Non-flexibility on special cases of push-out or pull-in requirements of IMI
- Invoice errors such as but not limited to wrong PO used

9.1.2.2. Top Worst Suppliers (TWS)

A bi-annual group evaluation is made and Top Worst Suppliers (TWS) are determined, based on criteria indicated above.

TWS evaluation actions may include the following:

- Request a QIP from supplier
- Program an audit at the manufacturer's site
- De-sourcing
- Revision of PSL status – NBOH, removal etc.
- TWS meeting

IMI's target is to include at least the top 10 TWS in its action plan for the following evaluation period.

Selected quality ratings (PPM, CNQ and number and type of complaint) are monitored and updated monthly through a KSPI (key supplier performance indicator) report.

Where a TWS meeting is held with chosen suppliers, the supplier will present a Quality Improvement Plan (QIP) and will present corrective and improvement actions, through which better-quality results may be observed during the next semester.

The results of the supplier rating process are used to define the PSL and as a yardstick for continuity and expansion of business relationships with our suppliers.

9.1.3 Analysis and evaluation
See ISO9001: 2015 requirements (for distributors)
See IATF 16949:2016 requirements (for manufacturers)

9.2 Internal Audit
See ISO9001: 2015 requirements (for distributors)
See IATF 16949:2016 requirements (for manufacturers)

9.3 Management Review
See ISO9001: 2015 requirements (for distributors)

See IATF 16949:2016 requirements (for manufacturers)

10 Improvement

10.1 General
See ISO 9001:2015 requirements.

10.2 Nonconformity and corrective action
10.2.1 and 10.2.2
See ISO 9001:2015 requirements.

10.2.3 Problem Solving
See IATF 16949:2016 requirements (for both distributors and manufacturers)

Problem resolution must be conducted using a defined, structured process like the 8Discipline process, Six Sigma DMAIC (Define, Measure, Analyze, Improve, and Control), 5 Why, PDCA or any other process that includes verification of the root cause and validation of corrective action effectiveness.

10.2.4 Error-proofing
See ISO9001: 2015 requirements (for distributors)
See IATF 16949:2016 requirements (for manufacturers)

IMI Suppliers are expected to utilize error proofing or poka-yoke when developing new products and processes to reduce the risk for quality concerns and to improve the product.

The manufacturing process should be assessed for risk and error proofing used where needed to minimize the risk. Preferably, this should be achieved through preventative techniques, but detection style error proofing is acceptable if the level of confidence in the technique is sufficient to mitigate risk.

IMI Group requires suppliers to consider error proofing when corrective or improvement actions are implemented. Warranty is considered as part of the life cycle of the product; thus, error proofing must consider the environment in which the part will be used.

10.2.5 Warranty management systems
See IATF 16949:2016 requirements (for all suppliers and manufacturers)

Clarified for IMI Suppliers - **WARRANTY, LIABILITY AND SPARE PARTS**

10.2.5.1 **Warranty**

The Supplier expressly guarantees that the goods are free from defects in accordance with the agreed specifications (in accordance with drawing, data sheet, specifications or other prescribed data) and suitable for the known application. If the Supplier is unaware of the intended purpose he shall inform IMI of this and request this information. In addition, the

Supplier guarantees the conformance of his delivery or service with statutory provisions and with the state of the art technology.

The warranty agreement concluded with the Supplier shall apply. Otherwise the following provisions shall take its place:

IMI shall be entitled without restriction to all statutory rights under warranty and including claims for damages.

IMI has the right to demand a replacement delivery of fault-free goods or remedying of the defect (reworking) by the Supplier within a reasonable period set by IMI. Before returning defect goods, IMI shall give the Supplier the opportunity to out-sort the defective goods and rework them or replace them with fault-free new goods, if this is reasonable for him. If this is not acceptable for IMI or if the Supplier refuses or does not remedy the defect within the set period or is unable to do so, IMI has the right to remedy the defect himself or to have this done by a third party or to purchase a replacement. In cases where immediate action is essential, IMI shall be entitled to do this without prior notice or setting a time limit.

The Supplier shall bear all costs arising from the remedying of defects including the consequential costs of claims by third parties or shall reimburse IMI for such costs. This shall apply to the costs of removal and installation, transport, fault analysis, reimbursement of expenses, extra costs for covering purchases, material, scrapping, etc., and claims for damages by third parties.

If it is necessary during a product recall campaign (including an unreported/confidential recall) to replace a complete series of products or components into which defective products from the Supplier were installed, the Supplier shall also reimburse the accruing costs for that part of the affected series which is free from defects.

At the request of the Supplier, IMI shall return those defective goods to which IMI has access. In this context it is stated that for cost reasons defective goods shall only be returned for analysis purposes by IMI's customers based on random samples. To this extent the Supplier waives the complete return of all defective goods. The Supplier shall bear the costs of the return transport of defective goods including all related costs.

The warranty shall terminate on expiry of twenty-four (24) months after 60 days of delivery of the final products to IMI´s place, provided that longer statutory or contractual warranty periods are not designated, which will then apply in this case, if not defined differently in each commodity requirements and specifications.

Warranty rights shall not arise if the defect is the result of a breach of operating and installation instructions, unsuitable or incorrect use, defective or negligent handling and normal wear and tear, as well as damage caused by intervention in the product by IMI or a third party.

If a complaint arises that cannot be resolved within the warranty period, the supplier waives in so far, his right to plead statute of limitations.

10.2.5.2 **Liability**

Unless a different liability stipulation is agreed elsewhere, IMI has the right to reimbursement of all costs (direct or indirect) for which the Supplier is responsible because of a defective delivery or other

behavior in breach of contract. This shall include among others the costs of safeguarding against damage, precautionary measures, recall actions, etc.

In case of damage or precautionary measures to safeguard against damage, IMI shall inform the Supplier to the best of his ability, advise him of the measures to be taken and co-ordinate these within the framework of IMI's abilities.

If others and not only the Supplier are jointly responsible for the damage, the Supplier shall be liable pro rata to the amount that he, his representatives or his sub-suppliers contributed pro rata to the damage.

Regarding claims by third parties, particularly in respect of product liability or infringements of industrial property rights, the Supplier shall indemnify the buyer on first demand against all costs, including the necessary expenses for prosecution of an action as well.

Upon request from IMI, the Supplier shall join the legal action with the third party at his own expense. In all legal disputes associated with his deliveries and relating to official regulations and inspections, the Supplier shall support IMI actively at his own expense and make available all the necessary documents, witness statements, etc.

The Supplier confirms that his offer has been used for nomination for a project is stated and the Supplier is liable to produce and deliver the parts (samples and mass production) according to our initial technical specification and requirements. If the Supplier refuses to produce the part that was the subject of the project nomination then IMI reserves the right to transfer the production of the part to a third party and the Supplier will be charged by overall cost for the transfer.

10.2.5.3 **Spare parts**

The supplier undertakes to guarantee the supply of spare parts for fifteen (15) years after the cessation of full production (vehicle/final product). Deviations from this shall be valid only if they are expressly agreed.

Tools shall be kept ready for use. The Supplier bears the risk and costs for storage and readiness of the tools.

Tools, and equipment may be scrapped only with the Buyer’s express consent on expiry of this period of 15 (years).

10.2.5.4 **Counterfeit Components**

Supplier expressly warrants that all Products will be free from any counterfeit material. Counterfeit material shall mean any component, part and/or material that is made in imitation of the original device, forged, or copied or contains in whole or in a part any component, part of material that is made in imitation of the origin device, forged or copied.

Upon IMI´s request, Broker and Distribution suppliers are required to demonstrate their ability to identify counterfeit components prior to shipment to IMI, report instances of counterfeit

components and take all appropriate legal actions necessary related to them and mitigate any potential impact to IMI or IMI´s customers.

Suppliers who are found to supply counterfeit components or who do not conform to the requirements above may be immediately disqualified by IMI and may only be requalified through a full qualification process with demonstrated evidence of corrective action. In addition, the suppliers who are found to supply counterfeit materials will be held liable for any damage and associated cost that may arise from the use of these counterfeit materials.

10.2.6 Customer complaints and field failure test analysis
See IATF 16949:2016 requirements (for all suppliers and manufacturers)

10.2.6.1. Quality incidents - Clarified for all IMI suppliers

Should IMI determine that parts supplied are non-conforming, the supplier shall be informed with data on the non-conformity and the impact on IMI's ability to deliver. Where required, a Return of Materials Authorization (RMA) will be obtained from the supplier before the merchandise is returned.

This shall be accompanied by a Supplier Corrective Action Request SCAR together with the corresponding test and inspection report, where possible. The supplier shall also be informed of where the defect was found, as per the incident definitions below:

The lead-times for treatment of the quality incident, after having been informed by IMI, are as follows:

- WITHIN 24HRS
  Provide details of containment or palliative actions. This includes the verification of the supplier's stock and Work-In-Progress (WIP) for a similar defect; a recall of goods in transit to IMI, if applicable; organization of replacement stock; and agreement with IMI on sorting actions on parts already in stock or WIP at IMI.

- WITHIN 5 WORKING DAYS
  Provide root cause analysis on the defect(s) found (where applicable, analyze the defective parts returned). Present corrective and preventive actions to IMI for the treatment and the prevention of reoccurrence of the problem. Submit to IMI the Final 8D report

- WITHIN 10 WORKING DAYS
  Implement the corrective and preventive actions, and validate their effectiveness. Ensure that the same these actions are implemented throughout all other IMI part numbers which could be affected.

  Should the supplier require defective part samples to be returned for analysis, the above 5 days and 10-day rule will be applicable upon receipt of samples by the supplier. However, this should not disrupt the working process of potential root cause analysis to be made by the supplier.

IMI reserves the right to check the effectiveness of the promised corrective measures on the spot.

IMI's customer may have specific requirements for the treatment and analysis of quality incidents (ex. Valeo PDCA), in which case the supplier will be asked to complete the template required by the final customer. Otherwise, the supplier should send their standardized 8D report to IMI. If the supplier does not have or needs improvement on problem solving, it is recommended for supplier to use eight disciplines of problem solving. Refer to Appendix 6 for template on Global Eight Disciplines of problem solving.

10.2.6.2 **Cost of Non-Quality (CNQ)**

Unless agreed otherwise, the costs of all detected nonconforming units, rework, unusable WIP, exceptional transport costs, sorting at IMI or at IMI's customer, etc. arising from the quality incident will be invoiced to the supplier. Nonconforming units will include counterfeit materials and cost related to their use such as sorting or product recall from the field will be invoiced to the supplier.

All the losses due to quality/delivery/environment issues by supplier will be claimed by IMI, the detailed charged rule for sorting actions made by IMI is different according to each IMI site in different regions and will be communicated to the supplier before the sorting action commences. IMI reserves the right to charge the CNQ to the Supplier based on the "Quality claim cost" document (Appendix 7).

10.3 Continual improvement

See IATF 16949:2016 requirements (for all suppliers and manufacturers)

Zero Defects Action Plan (ZDAP)

IMI group's zero-defect policy for customers must also be driven by IMI's zero-defect suppliers. Therefore, IMI reserves the right to request that key or strategic PSL suppliers implement a ZDAP when improvement in quality performance is required.

ZDAP is a kaizen-based program which is driven by continuous improvement on a step-by-step basis in a controlled and targeted manner. The Plan-Do-Check-Act technique is applied to ensure the correct implementation and effectiveness of improvement actions, before moving on to the next action.

This measure requires top management commitment from the supplier to ensure that the necessary means and resources can be attributed to achieving the target results in the predefined lead time.

Regular meetings between IMI ZDAP SQE and the supplier shall be held to ensure that progress is being made according to the schedule.

IMI and the Supplier´s goal is to maintain a Zero-Defect Policy. Therefore, IMI reserves the right to request the Supplier to implement the ZDAP quarterly. The Supplier agrees to support IMI by adapting ZDAP and to work with IMI on a mutually agreeable process to meet the Zero-Defect Policy and targets. The ZDAP will be followed based on “Zero defect action plan request” for each quarter, monitored each month. Refer to appendix 8 for ZDAP template.

The Supplier shall be able to demonstrate continuous improvement in the performance of their manufacturing processes. This shall be done by internal monitoring, and the results should be submitted to IMI. In the absence of manufacturing processes specified by IMI, the Supplier shall define the critical processes to be monitored in order to demonstrate continuous improvement.
In the case where continuous improvement cannot be demonstrated during the quarter, the

Supplier shall submit an improvement action plan which is quantifiable and achievable within the next quarter that follows.

C. APPENDIX

1. Quality Target Contract	Appendix 1_Quality Target Contract.xlsx
2. PSW	Appendix 2_Part Submission Warrant
3. PPAP Files/ Summary	Appendix 3_PPAP Summary.xlsx
4. Shipment label of samples	Appendix 4_Shipment label of
5. Template on Risk Assessment	Appendix 5_RISK ASSESSMENT CHECK
6. Template on Global Eight Disciplines of Problem solving	Appendix 6_G8D Form.xlsx
7. Quality Claim Cost	Appendix 7_Quality Claim Cost.docx
8. ZDAP Template	Appendix 8_Zero defect action plan re

D ACKNOWLEDGMENT OF RECEIPT FORM

(BLOCK CAPITALS)

Company name: _____

Job Title: _____

Your name: _____

☐ Document read and approved

Or

☐ Document read and approved with addendum / amendment (Refer to attached file)

Signed: _____

Date: _____

The name of your SQA contact at IMI: _____

Within one month of receiving this document, please complete the above form, sign it and return a scanned copy by email or a hard copy by post to your SQE contact at IMI.

Any other comments should be sent to IMI in a separate Vendor Addendum.

GLOBAL MODIFICATION SUMMARY					
Revision Level/Date	**Originator**	**Changed**	**Page**	**Added**	**Page**
2013.7 / 22.7.2013	Fraser Clydesdale	1.1 Added requested certifications	6	1.3.1 Related Document	7
		2.1 Added requested certifications	9	1.3.2 Order of Precedence	8
		3.4 List of events modified	14	2.2.1 Audit Frequency	10
		3.4 Change Management	14	2.6.1 Imposed/ Recommended Suppliers	12
		4.8 ZDAP, appendix added	24	3.3 Supplier standard Sampling Level	13
		4.10 CNQ, added appendix	25	4.1.1 Calibration System	19
		5.4 ROHS directive added	27	4.11 Nonconforming Products	26
		2.2.2 Changed result of audit	10	6.1 Warranty	28
		1.2 PPM target added	7	6.2 Liability	29
				6.3 Spare Parts	30
				6.4 Counterfeit	30
				7 Packaging, Traceability, Shelf life	31
				5.3 Conflict Minerals added	27
2018.08.23	Cecilia D. Puertollano	All sections to fully align IMI requirements to IATF16949 requirements	8 – 35	Added requirements for motorcycle	8
				Terms and definitions (CoC, DFM, FAI, KSPI, NBOH, OIR, SCAR, SPRS)	9 – 11
		Remove ISO14001 and HSPM requirements from IMI SQA Manual and consolidate to IMI Supplier Code of Conduct	32	Minimum requirement for PSL	10
				Leadership requirement	11
				Submission of business continuity plan	12
				Inclusion of OTD requirement on quality objective	13
				Inclusion of risk analysis on request for change and for consignment	13, 22 & 23
				Inclusion of records retention requirement for automotive and non-automotive	14
				Inclusion of IMI-designated special characteristics	14
				Inclusion of requirements for sample submission	16
				Inclusion of supplier quality management system development and supplier development requirements	17-18

Revision Level/Date	Originator	Changed	Page	Added	Page
				Inclusion of tool life monitoring and tool identification	20
				Inclusion of lay-out inspection requirement	23
				Inclusion of SPRS criteria	25
				Inclusion of KSPI	26
				Added the following appendices: - PSWP - PAP Summary - Template on Risk Assessment -Template on Global 8D	34