Hical
the highest reliability

Supplier Quality Manual

This manual includes ISO 9001 Quality Management System requirements and specifies additional aviation, space and defense industry requirements as shown in bold, italic text as per AS 9100 and IAQG developed 9120 standards.

The supplier must prove his compliance and/or his implementation plan of the requirements of this document.

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Table of Contents

Purpose	This Manual provides requirements to be satisfied by Suppliers of Hical for each shipment and will meet or exceed required Quality levels.
Expectations Defined	This manual shall be used by the suppliers for developing the fundamental Quality system as per Hical requirements. The manual also provides methodology followed at Hical for Supplier Approval, Parts Qualification, Supplier Agreements, Supplier Performance Monitoring , Ship to Stock approach, Corrective and Preventive action , Packaging and labelling, Change Management Controls.
Scope	All suppliers of Hical supplying raw materials which goes to finished product

Classification of the Suppliers :

Suppliers are classified into four Categories as follows,

1. Manufacturer: Also called as OEM, whose products are off shelf items.X

2. Stockist / Distributor: who supplies manufacturers' products to Hical.

3. Outsourced: Any production process which is not done in Hical and done at supplier place like Machining, Forming, Welding, Special Process etc.

4. Subcontractor: Any similar production setup for Hical product similar to Hical.

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1 Quality System Requirements

Required Quality System for Non Aviation Space & Defence Suppliers

- Hical Suppliers should be certified minimum to ISO9001 or Equivalent.
- If Suppliers is not certified to ISO 9001, the Supplier at minimum shall establish the Quality System based on ISO9001 standard.
- Key Requirements of the ISO9001 elements shall be implemented and should have plan for certification with target dates not exceeding more than 12 months or as agreed with Hical.

Required Quality System for Aviation Space & Defence Suppliers

- Supplier to Aerospace parts shall work towards AS 9100 C certification.

Supplier to Aerospace parts shall work towards the following Quality management system or as agreed with Hical,

1. Raw Material Suppliers – Raw Material suppliers shall have as quality system that conforms to relevant industry quality standards and airworthiness regulatory requirements, as required (Manufacturer).
2. Stockist/Distributor - Stockist/Distibutors shall have a quality system that conforms to AS / EN 9120.
3. Special process suppliers – Special process suppliers shall have a quality system that conforms to AS/EN 9100 or accredited to AC7004 (by PRI-Nadcap) (Out Sourced).
4. Calibration suppliers – Calibration suppliers shall have a quality system that conforms to A2LA, ISO 17025 or other country certifying body.
5. All other Suppliers – All other suppliers shall have a quality system that conforms to AS/EN 9100 (Out Sourced).

Note :

The Supplier shall be accepted if they do not have / meet Quality Management System under the following conditions for Aviation, Space & Defense .

1. Hical Director Approval.
2. Customer Approved / Referred Sources.

In such cases the Supplier should have the following minimum requirement ,

- Key Requirements of the ISO9001 elements shall be implemented and should have plan for Quality Management System with target dates not exceeding more than 12 months or as agreed with Hical.
- If Suppliers is not certified to ISO 9001, the Supplier at minimum shall establish the Quality System based on ISO9001 standard.

1.1.1 Hical Specific Requirements

Right of Access	• Suppliers shall provide access to Hical customers, second party identified by Hical and Regulatory Authorities to visit all facilities and verify the applicable records involved in the Manufacturing of the products supplied to Hical.
	• Verification by Hical or Hical Customer shall not be used by the suppler as evidence of effective control of quality. The Supplier is responsible to provide acceptable component and is responsible for rejection identified in the component supplied to Hical.
	• The supplier utilizes test reports to verify purchased products; the data in those reports shall be acceptable as per applicable specifications. The supplier shall periodically validate test reports for raw material.
	• Hical must be informed immediately (not to exceed 24 hours or the next business day) of suspect nonconforming product shipped regardless of destination.
	• Requests for deviations / process changes refer below pages.
	• When supplier delegates verification activities to the sub-supplier, the requirements for delegation shall be defined and a register of delegations maintained.
	• Suppliers shall flow-down to sub-suppliers the applicable requirements in the purchasing documents, including key characteristics where required.
Record retention	• The supplier shall maintain all the relevant records for conformity of the product for a minimum of 3 years.
Record retention for Aerospace parts	• Records Retention for Aerospace parts: For Aerospace parts the supplier shall maintain the records for : • 10 years for all parts. • For Flight Safety parts it will be for 40 years which will be communicated by Hical. • In addition any specific requirement arises from customer , regulatory bodies the same will be communicated by Hical

1.2 Control of Sub-Suppliers

Required Controls

The Supplier is responsible for the quality of materials and components provided by their Suppliers. This also includes inspection reports and other related quality documents of each shipments.

Report to Hical

Hical suppliers shall provide inspection reports/quality documents of their suppliers for the parts to Hical, if requested.

Hical Involvement

Where appropriate, Hical performs the following:

- Specifies the sub-suppliers.
- Facilitate to evaluate and certify the sub-Supplier's facilities.
- Facilitate to control the sub-supplier.

Typically, this occurs when the sub-Supplier is an essential component of the supply-chain process.

Hical involvement shall not absolve the supplier of his responsibility for product conformity and the supplier shall take full responsibility for end product and processes requirements and shall ensure that all Hical, statutory and regulatory requirements are met.

2 Supplier Approval Process

Approval Requirement

All Suppliers of Hical shall be Approved Suppliers. The Supplier Approval Process consists of the following three elements,

1. If the Component Engineering (CE) / Purchasing (Pur) team determines that a supplier potentially fits within Hical supply chain needs, the CE or Pur team shall
   - Forward a copy of Supplier Quality manual(for understanding Hical's requirements), Supplier Registration Form (SRF) & Confidentiality Agreement(NDA).
   - The supplier shall fill Supplier Quality manual acknowledgement form, SRF and NDA and forward back to Hical.
   - CE / Pur team to verify supplier capability and obtain approval from Engineering Head or Project Leader. If required the approval can be taken after discussing with CFT team.
2. An on-site assessment (Quality System and Process audit). In the event a visit cannot be made (due to location / Stockiest / Distributors / other reasons) .Hical can decide to allow the approval process by reviewing the Quality System certificate, Self Quality System Assessment or customer approval.
3. Qualification of Samples.

- For Aerospace parts supplier doing Special process shall be approved by Hical customer, if it's a customer requirement.

2.1 Document Audit

Document Audit	Head of SQA reviews the Supplier's Quality Manual and supporting documents (viz., SRF, Self Quality Assessment Form), to determine if the documented quality system meets Hical requirements.

2.2 On-Site Assessment

Components	The SQA, CE and Purchase Heads and / or any designated personnel performs an on- site assessment of the Supplier's facility. Other Hical personnel may also participate. The Supplier will be given prior notice of such assessments. These on-site assessments include the following components: • Business assessment • Technology assessment • No Child Labour • Quality System audit • Manufacturing assessment • Continuous Improvement assessment These assessments are described below. At following conditions, supplier assessment will be done 1. Evaluation of the supplier 2. Re-evaluation of the supplier as per re-evaluation criteria
Business Assessment	A Business assessment determines whether the Supplier has the needed financial resources, production capacity, Contingency plan and other business resources needed to fulfill Hical volume production needs and continuity of supply.
Technology Assessment	A Technology assessment determines whether the Supplier has the needed technical resources, including, production Equipment Capability and inspection equipment, facilities, engineering resources, RoHS capability etc.
Quality System Audit	A Quality System audit determines whether the Supplier's quality system is in place and functioning effectively.
Manufacturing assessment	The assessment determines the capability of 6M's ie Man, Machine, Material, Method, Measurement and Milieu (Environment)
Assessment Approval	If the assessment team determines that the Supplier meets all of the Hical requirements, Hical awards the Supplier with Approved status.

Assessment Approval criteria

Supplier assessment audit is done using an audit checklist HTL/FMT/QAD/336. Based on the audit findings, the rating is derived and status of the supplier is determined.

Audit score : above 75% – Approved

51% – 74% - Conditionally Approved

50% and below – Not Approved.

A detailed audit findings to be generated and action plans to be obtained from supplier for the affected area. Based on supplier feedback, re-assessment will be done to verify the effectiveness of corrective action.

Head Engineering shall approve the supplier directly if the audit findings is above 75%.(Each section Minimum score shall be > 75%).

In case of rating less than 74%

A proper justification to be provided by Component Engg, & Approved by Head of Engineering/Quality .
if the supplier is conditionally approved or less than 50% Rating. The following personnel are authorised to approve the supplier in case of conditionally approved or even the rating is below 50% based on Customer Product & Delivery requirement .

1.Managing Director

2.Executive Director

In case of Suppliers less than 50% Component Engineering , Supplier Quality Assurance ,Production and Quality team should ensure the following min requirements like

1. Supplier Product Awareness.
2. Set up approval.
3. Final Inspection
4. Product validation/ layout inspection.
5. Traceability
6. Route card for Aerospace
7. Link between all the documents
8. Any specific customer requirements if applicable.

Re-assessment

Following points to be considered on each re-assessment criteria (focusing more on to the concern area)

Quality issues

- Supplier assessment rating: 50% and below
- Chronic Quality issues for 5 consecutive lots.
- Quality rating < 60% for 3 months.

Delivery issues

- Delivery rating < 60% for 3 consecutive months
- 2-3 times customer line stoppage due to poor delivery.
- Sudden ramp-up in Quantity.

Others

- Change of Location.
- Sub-contracting of our parts.
- Procurement of parts after gap of 2 years.
- Merger / Acquisition of Company.
- Major Process / Machine change.

Periodic audit

The periodic audit plan will be made during year starting for the supplier's considering the following,

- Hical developed suppliers
- Supplier rejections
- A periodic onsite audit Once in a year

The audit will be conducted by SQA and if required by Purchase and / or any designated personnel at Supplier's facility. Other Hical personnel may also participate. The Supplier will be given prior notice of such assessments.

Note : In case of no production order from Hical periodic audit can be modified / changed considering the production orders of Hical.

Periodic audit components

- Quality System audit
- Manufacturing assessment
- Continuous Improvement assessment

Based on specific requirements if any, the following components also will be audited.

- Business assessment
- Technology assessment
- No Child Labour

3 Component Qualifications process:

Defined	The sample production is a components produced under mass production condition under Hical component Engineering guidance. The required quantity is specified in the Purchase Order. Component Qualification process is applicable only for Manufacturer developed by Hical, Subcontractors, out sourced suppliers. Not applicable for off the shelf suppliers (Manufacturers, Stockists and Distributors)
Production Environment	The components must be produced under volume-production conditions, including material, machines, tooling, processing parameters, cycle times, etc.
Exceptions	Any exceptions to the volume-production conditions must be approved in writing by Hical, and recorded in the test report submitted to Hical.
First Article Inspection (FAI)	For Aerospace parts First Article Inspection (FAI) shall be carried out for first Mass production parts (not applicable for off the shelf parts) . The requirement of FAI will be indicated by Hical. (When specified in Hical PO) More details on FAI shall be obtained from Hical or follow AS9102 standard.

3.1 Sample submission & approvals:

Raw Material Test Certificate

- For the off the shelf items (Catalogue items), the supplier should submit the raw material test report as required if any.
- In case of Stockist and Distributor the RM Test certificate from manufacturer with traceability and identification is acceptable.(In case of doubt or verification requested by Hical customer, the Stockist and Distributor shall obtain material certifications (or test reports) from their Supplier or other approved / reliable test agency/Laboratory as required by Hical)
- In case of developed manufacturer, manufacturer test certificate is acceptable. Incase of supplier does not have the facility to test, the Supplier must obtain material certifications (or test reports) from their Supplier(s) or other approved / reliable test agency/Laboratory.

Required Documentation Components

The supplier at a minimum should submit the following documents while submitting the Pilot production Lot.

1. Minimum of 5 samples or as specified by Hical for Qualification as per specification or Drawing
2. Specification / Ballooned Drawing copy if any.
3. Layout inspection (includes measurement of all characteristics specified on the Drawing, including Electrical, Visual reports as applicable) or
4. Certificate of Conformance,
5. ROHS certificate (as specified in drawing/ specifications)
6. External Lab report for material composition (when specified in PO).
7. Process capability reports for key characteristics. (when specified in PO)
8. Process flow diagram and Control Plan (if applicable)
9. Packing and labeling (as per PO)
10. FAI reports: In case of parts supplied for aviation, space and defense FAI reports (Form -1, Form -2 , Form – 3) shall be submitted for parts in line with AS9102 standard. (when specified in PO)

Hical reserves the right to decide the submission of above said documents based on its product criticality and customer requirements.

Traceability

The reports must be traceable to the Supplier's material through lot/invoice / date code / batch numbers & suppliers shall submit the same to Hical upon request.

3.2 Material Safety Data Sheets

Materials Affected	The Supplier shall furnish Material Safety Data Sheets (MSDS) for all materials shipped to Hical facilities, wherever applicable.

3.3 Inspection of Samples

Sample Selection	The Supplier must select representative sample parts from the production run for Inspection.
Inspection Process	The inspection process is as follows: a. The Supplier inspects or tests each sample for dimensions, drawing notes, material requirements, and specification requirements listed on the current revision of the Hical drawing / specification. b. The Supplier records the results on the inspection Report or equivalent. The supplier shall number the dimensions on copy of Hical drawing /specification and record the inspection results in line with Layout inspection requirements or FAI requirements. c. During Inspection process any non-conformances observed, Supplier shall investigate, correct the process and revalidate once again by conducting fresh inspection. These records shall be maintained at supplier place and should be produced for verification by Hical based on requirements.
Human resources	Supplier shall establish and maintain documented procedures for identifying the training needs and provide for training of all personnel. Personnel performing work affecting product quality shall be competent with appropriate education, training, skills and experience as required. Appropriate training records will be maintained. Note : Supplier can also maintain the skill matrix of manpower for operating equipment – machine wise and Measuring equipment respectively.

3.4 Part Qualification

Qualification Process	The Part Qualification process is as follows: 1.Hical will evaluate the samples and approve for Mass production.If the samples are not approved, Hical requests supplier for additional samples with correction. 2. If the Component fails more than 3 times, Hical can take decision not to proceed further with the approval process.

3.5 Approved Supplier List (ASL): Source list / Purchase Info Record / Quality Info Record

Qualification

Hical maintains a list of the approved Supplier(s) for each production part. Only Suppliers in Source list, PIR and QIR are allowed to ship volume production to Hical. Suppliers must successfully complete the Supplier Approval Process and pass the Part Qualification requirements.

Approved Supplier List

On successful completion of:

- Supplier Registration
- Non-Disclosure Agreement (Confidential Agreement duly signed by Both parties) wherever applicable.
- Supplier Assessment
- Sample Qualification

the supplier will be updated in the Approved Supplier List (Source list/PIR/QIR) of Hical.

Deletion of Supplier from Approved list

Hical Work closely with supplier to ensure Consistent good performance. In the event the supplier performance cannot be improved Hical takes decision to delete the supplier from the Approved list. The details of the Deletion process are explained in more details in coming pages .

Approval for Change of Manufacturing location

In the event the supplier changes the manufacturing location, Hical carries out Re-evaluation of supplier which involves :

- Get fresh SRF & Confidentiality Agreement
- Assessment / review of self assessment of new location
- Qualification of components manufactured at new location
- Submission of Customer Approvals for all customer recommended process with Suppliers where required – Special Processes mandatory.

For parts supplied for Aviation, Space and Defence

Qualification process shall be shall be submitted in case of the following as requested by Hical.

1. Initial Qualification
2. Manufacturing Location change
3. Raw material change
4. Machine change
5. Drawing revision change
6. Process change
7. Raw Material Source change
8. Interruption of manufacturing process over a certain period of time (> 18 months)

4 Manufacturing Control

4.1 Process Control

Required Control	• Suppliers of Hical are required to control all manufacturing processes in accordance with the Control Plan/Work instruction. • The Supplier shall supply only Conforming products to Hical. • In the event Hical does verification of the component at supplier location, it shall not be considered as the acceptance of the part. It will be responsibility of supplier to ensure only conforming parts are shipped. Hical on receipt of the component h a s right to reject if it is not conforming to the requirement.
	• Supplier shall ensure process flow, control plan, work-station instructions, equipment, qualified personnel, Quality management system requirements, Hical specific requirements as applicable to the product being processed are available and being implemented.
Key / Special Characteristics	Special characteristics are indicated in the drawings the supplier shall control the same. In addition, any customer specific requirement is present it will be specified accordingly Sampling for the above Special/Key characteristics shall be as per Agreement of Inspection (AOI). For GE-AJA Sub-Contractor Parts: “Supplier should carry out 100% inspection of all dimensions for 100% parts (No sampling plan/partial inspection allowed)”

Control of Special Characteristic:

- Control Plan shall be developed for Special Characteristics along with other identified characteristics based on process variations.
- Once a Special characteristic is in statistical control, a reliable measure of the process capability can be ascertained. Points used in the calculation of the current control limits must be included in the capability calculation. The Ppk (or Cpk) index is recommended to determine process capability for variable data. Defects per unit (DPU), fallout rates, or defects per million (DPM) are recommended indices for attribute data.
- Unless otherwise specified by the customer, a special characteristic or process shall be considered capable if its Ppk (or Cpk) is 1.33 or greater. Other comparable measures of process capability may be used. If the process does not meet the control and/or capability requirements take actions as stated below.
- Corrective action shall be taken when Special characteristics are not in-control and/or not capable. These corrective actions include, but are not limited to, identifying special and common causes of variation, reducing or eliminating those sources, collecting additional data for analysis, and performing variation studies.
- If the Process is not capable 100% inspection shall be carried out.

Special Process

Suppliers shall submit process validation report and revalidation criteria for every lot . Hical Identified Special processes are : Plating , Heat treatment, Powder Coating, Welding, Brazing, Material testing and Chemical Processing. Hical will indicate in case of any other processes identified through Hical Specification or drawing.

Special Process Certificate requirements are:

1.The Process Performed

2.Specification Number

3.Revision level

4.P O Number

5.Part Number

6.Lot size

7.Sample size

8.Applicable process Specifications, Controls and Standards.

9.Test Results

10.If Job is processed using NADCAP Accredited process , shall include a statement indicating the Job was processed as per their NADCAP Accreditation and shall include their Accreditation number and expiry date.

4.2 Lot Control

Defined	A lot consists of product of one part number and revision that are made at the same time, under the same processing conditions, from the same lot of raw materials.
Identification	Each consignment of material shipped to Hical must be identified with the Supplier's lot number. Inspection records must be traceable to lot numbers. The primary purpose for identifying lots is to determine the scope of actions that must be taken when problems arise during further manufacturing or with customers.
Test Report	Each Shipment must contain the following information: • Hical Part Number • Hical Purchase Order Number • Quantity • Supplier's Name • Manufacturing Facility (if Supplier has more than one facility) • Lot identification (Manufacturing Date / Shift) • Raw Material Supplier and Batch Details (Heat Number)

4.3 Traceability

Traceability	Supplier shall establish system for traceability of finished product to their end raw material. The supplier shall maintain the records of traceability and shall be made available to Hical , upon request..

4.4 Environment, Health & Safety:

EHS	Provide safe working conditions for all employees. Adhere to all applicable National, Regional, State and Local laws and regulations governing Environment, Health and Safety. Operate in a manner that minimizes the impact to the environment.

4.5 Maintenance

Maintenance Level	The Supplier shall maintain all facilities, manufacturing machines, tools, measuring devices, and other equipment in such a manner that the Supplier can support Hical production requirements, and the quality of material, parts, manufactured for Hical are not degraded in any way. Preventive maintenance of equipment should be in line with manufacturers instructions and recommendations.
Hical-supplied Equipment and Tooling	All of the above maintenance requirements apply equally to any and all Hical-supplied equipment and tooling. Hical-supplied equipment and tooling shall be maintained in such a manner as to maintain quality product throughout the expected life of the equipment or tooling. The Supplier also is required to notify Hical if any Hical-supplied equipment or tooling is expected to exceed its usable life within the following 3 months.

5 Internal & External Change Control

5.1 Drawing Change Control

Required System

The Supplier shall have a documented system for assuring that thelatest HicalSpecificaiton /drawings are in effect (as per Purchase order) at their facility. Whenever change intiated theSupliershallmaintainthemasterlist ofspecificationandDrawingsunderuse

Required Procedures

The Supplier's Quality Manual or equivalent shall contain a written procedure that includes a description of the following:

- The method used for receipt, review, distribution, and implementation of all changes to drawings and specifications.
- The method used to contain new or modified parts until approved by Hical.

In addition, there must be a procedure for addressing and eliminating obsolete drawings and specifications, coupled with defining which current drawings must be in place at each location in the Supplier's process.

5.2 Internal Process & Engineering Change Control

Required System

Suppliers must have systems in place to control changes to drawings, specifications, processes, or produced product. Systems should be capable of handling changes being requested by the customer, and also changes requested by the Supplier.

The approval process is directed at a given part number for a specified revision level produced in a specific area of the manufacturer's facility. Suppliers may not make any changes in their process, location, material, or to the product without written approval from Hical. The Supplier must formally request a process change on all Hical parts.

5.3 Supplier Process Change Requests (SPCR)

Change Request

The Supplier shall request changes to a Part, Process, Drawing or Specification.

Components

The originator of change request provides the following information:

- Drawing or part number along with part description
- Description of problem and recommended change
- Reason for change
- Proposed effective date
- Cost benefit to Hical
- Improvement in quality and delivery to Hical

Approval Process

The change approval process is as follows:

a. The Supplier submits the SPCR (E-mail) to SQA Incharge of Hical for evaluation.

b. Head of SQA reviews the change request with CFT (consists of Engineering / Component Engineering / S & OP/ Purchase / Production / In-process quality / Project manager). Approval of decision shall be provided by Head of Quality and Director R&D. If it is not acceptable supplier will be communicated. If it is acceptable Engineering Change Proposal (ECP) is raised at Hical to initiate the change.

c. The request is processed through the Hical – Change management system process for approval.

d. The S & OP or Purchase or Component Engineering notifies the Supplier the final dispositionoftheSPCRandpartsubmittalrequirementsanddates.

Approval Identification

Any parts sent to Hical that have been approved on an SPCR shall be clearly identified on the box, container.

5.4 Supplier Request for Deviation

Required Authorization	A Supplier is never permitted to knowingly ship product that deviates from the specification limits without prior written authorization from the in-charge of Hical SQA/Engg. If such a condition exists, the Supplier may request Hical with the evidence. After getting the written approval (mail, if thro' electronic media), supplier may ship the product. These deviations are acceptable only for a shipment and not as blanket permission. If any permanent changes are required, supplier shall follow the process of SPCR methodology.
Testing	If directed by the Hical, the Supplier shall send samples of all nonconforming items to Hical for evaluation. The cost of any testing required in determining the acceptability of the product will be charged to the Supplier.
Deviation Acceptance	Representatives from the SQA / Engg - Hical will determine the item's acceptability and what actions (if any) are required beyond the deviation (if required Customer , Regulatorybody approval will be obtained). The Hical SQA/Engg - head will communicate this to the Supplier through purchase. The deviation is only intended to be an interim action and is not to be considered as an engineering change. The Supplier must begin work immediately to correct the condition in question within the time frame stated on the deviation. Failure to comply with the mutually-agreed upon closure date for the deviation, may result in rejecting the items supplied.
Containment	In all cases, the Supplier must fully contain all product suspected of being nonconforming at the Supplier location. In addition, the Supplier may be required to sort any suspect product at Hical or supplier will be charged back for any and all costs for the sorting at Hical.
Approval Identification	Any parts sent to Hical that have been approved on a deviation shall be clearly identified on the box, container.

6 Packaging & Labeling

Required Packaging

Each Supplier shall adequately plan for packaging designed to eliminate transit damage. Suppliers will provide adequate packaging, where appropriate, that provides for maximum density and protection from any damage that may occur. Packaging, labeling, and shipping materials must comply with the requirements of common carriers, in a manner to secure the lowest transportation costs.

Hical encourages Supplier-initiated packaging improvements that have been validated by industry standard shipping tests (i.e., drop, vibration, crush ..)

If the PO does not contain any packaging instructions the responsibility for faultless packing of the product is located at the supplier.The supplier has to ensure that the damages and affects of the products are excluded at any time.

The package to be identified with part number and quantity (eg. Labeling, marking) on every packet, boxes, containers etc. In case of boxes containing more than one packet or container, each and every packet / container to be identified with part number and quantity.

Identification and marking shall be done for samples, trial lots, regular production etc irrespective of quantity (even in case of one number/small volume etc).

Legality/ Safety

Packaging materials must be legal and safe for standard, industry disposal and/or recycling.

Contamination

Contamination is a serious concern to Hical. Packaging must protect the components from contamination. Special care to be taken for plated parts ., Extra care to be taken, when the parts are shipped by sea.

For parts supplied for aviation, space and defense application:

Elimination of Foreign object debris(FOD) is a mandatory requirement and the supplier shall take all precautions and ensure that the packing material, method and transit will ensure that FOD will not affect / occur for these parts.

Statutory Requirement

Supplier shall follow all statuatory requirement (as per international requirment or country specific) applicable for Packaging

6.1 Shipping Containers & Pallets

Required Pallets

All material must be palletized on four-way pallets to permit handling with lift trucks when sufficient parts are shipped. One full layer of cartons on a pallet is sufficient volume to require that parts be palletized.

× Pallet overhang is not allowed.

Securing Pallets

All shipping containers must be secured to pallets. Hical requests that pallets to be strapped by at least two bands lengthwise and two bands widthwise and by stretch or shrink film where applicable. Polyester and nylon strapping are recommended.

6.2 Labeling

Required Information

Each package must contain the following information:

- Hical Part Number
- Hical Purchase Order Number
- Quantity
- Supplier's Name
- Manufacturing Facility (if Supplier has more than one facility)
- Lot identification (Manufacturing Date / Shift)

7 Corrective Action

7.1 Corrective Action

When Issued

Hical issues a Supplier Corrective Action Report (SCAR) via e-mail to the Supplier when nonconforming material, parts are found at any of the following:

- Receiving Inspection
- In production
- In test
- In audit
- By a Hical customer.

Required Response

Within 3 working days, the supplier is required to respond via e-mail/phone.

Within 14 working days the supplier has to give Corrective action plans. For the developed suppliers its required to respond by e- mail the completed SCAR back to Hical with the following:

- Initial Observation, the Containment, the Supplier "Root Cause" Investigation, and the Corrective Actions fields completed.
- Implementation dates and the Supplier contact.

SCAR will be closed based on the following requirements

- The Supplier has given the acceptance by RMA (Return Material Authorization) or replacements or agreed for the credit notes.
- Effectiveness of consecutive lot – No similar quality problems observed
- Filled SCAR receipt from supplier
- Supplier acceptance criteria

Based on the above conditions the SCAR status will be updated.

8 RoHS Requirements

- ☐ Supplier should send RoHS conformation for every batch product wise if RoHS Requirement is specified in Hical Drawing/ specification.
- ☐ Periodic Inspection for RoHS to be carried out by Supplier at regular frequency based on the Production Orders.
- ☐ RoHS conformation has to be submitted in following cases - A change in manufacturing source(s), process (es), Change in materials, Lapse in production order above 1 year , that can potentially affect RoHS requirements.

9 Supplier Monitoring

Purpose

Hical continually monitors its Suppliers to ensure they continue to meet Hical requirements, and to ensure that the Supplier continues to ship acceptable material, parts, or assemblies. This monitoring may consist of:

- A Quality System surveillance audit at the Supplier's facility.
- Supplier performance rating.
- Incoming inspection of raw material.
- Qualification of new parts.
- Process Audits
- Process Certifications

9.1 Supplier Audits

Availability

The Supplier must make their facility available for on-site process verification by Hical authorised personnel at any time, with prior notice.

Hical / Hical Customers or regulatory bodies shall be allowed to visit supplier premise and supplier's supplier premise to verify quality system & product conformation to specified requirements.

Personnel Involved

The SQA incharge conducting the verification may be supported by the representatives from other Hical departments (i.e., Quality, Purchasing, Engineering, and Manufacturing).

9.2 Quality System Audit

Purpose

Periodically, Hical may audit the Supplier's Quality System. This may be a full or abbreviated documentation and on-site audit. The purpose of this audit is to evaluate any changes that may have occurred in the Supplier's quality system, and to assess the Supplier's continuing commitment to quality improvement. Normally the quality system audit will be combined with the supplier process audit.

9.3 Supplier Performance Rating and Deletion of Supplier from ASL (SL/PIR/QIR)

Purpose

To verify the performance of supplier on a monthly basis and to draw action plans to improve the performance of affected suppliers. Supplier Performance Rating comprises of Delivery Rating, Quality Rating with weight age of 50 and 50 respectively. Supplier Performance Rating shall be carried out every month and feedback shall be given to suppliers monthly if they have supplied for the month.

Detailed method of calculation is available with Hical Purchasing ref : HTL/WIN/7.0/PUR/002

Delivery Rating

A Line item is delivered On Time In scheduled Quantity and according to the agreed freight-terms (as mentioned on the PO).

Standard Delivery Window : -5 days (early) and +0 days late.

Frieght terms:

Ex works , Supplier – Date of invoicing will be considered for calculations
FOB , Agreed port – Date of the Airway-bill at the agreed port will be considered for calculations
CIF or Ex Works (Hical) Terms – Date of receipt of Material at Hical will be considered for calculations.

Corrective action

Corrective action has to be given by the supplier

- Wherever the impacts are high such as Line stoppage at Hical or at the customer.
- Delivery performance less than 60% for consecutive 3 months.

Quality Rating

Supplier quality rating is calculated based on the performance at incoming inspection stage, Line rejection and Customer rejection related to raw materials.

Rating methodology

Following criteria has been adopted to assess the supplier quality.

Acceptance criteria	Vendor quality rating
First pass acceptance on sampling basis	100%
Parts are accepted on deviation	75%
Defect rate is less than 100 PPM	80%
Defect rate between 101 – 1000 PPM	75%
Defect rate between 1001 – 5000 PPM	60%
Defect rate between 5001 – 10000 PPM	30%
Defect rate more than 10001 PPM	0%
Lot rejected	0%

The calculation of the Quality Rating for each Supplier is as follows:

A Receiving Inspection Quality score (Based on above table & ERP data)

B No of occurrences of Line rejection

C No of occurrences of Customer rejection

Quality rating for 100 R=A-(B*5) -(C*10)

Quality rating for 50 (for SPR) QR=R/2

Deletion of supplier / part from supplier from ASL

If the supplier performance rating comes down below 60% for Quality or 60% for Delivery for three consecutive months, the supplier or problematic part shall be considered for deletion from ASL. The decision will be taken during Supplier Performance Review (SPR) meeting.

If Supplier,

a) shipping bad parts or late deliveries for 05 consecutive lots,

b) no response to complaints for 3 consecutive lots,

The first action will be working with supplier to improve his performance. If Supplier is not able to meet expectation then a meeting (Purchase, SQA, Director (R&D), Component Engineering) to be called to decide about supplier deletion

The SQA team (represented by component engineering and purchasing) will work closely with supplier to improve the performance. The Authority for Deletion of Supplier is with Director(R&D).

9.4 Incoming Inspection of Raw Material

Purpose

All the material, which are directly used in manufacturing are being inspected at incoming stage on sampling basis as per inspection plan.

Sampling Plan

Hical uses a Zero Defect Sampling Plan that rejects the lot when a single non-conforming part is found in the sample.

Refer Hical Incoming inspection sampling plan HTL/WIN/QAD/003 for sampling plan which defines Hical specific requirements clearly.

HTL/WIN/QAD/003 prepared based on based on ISO 2859 standard.

Inspection at supplier premises

In the event Hical does verification of the component at supplier location , it shall not be considered as the acceptance of the part . It will be responsibility of supplier to ensure only conformang parts are shipped . Hical on receipt of the component has right to reject if it is not conforming to the requirement.

10 Supplier Development Program

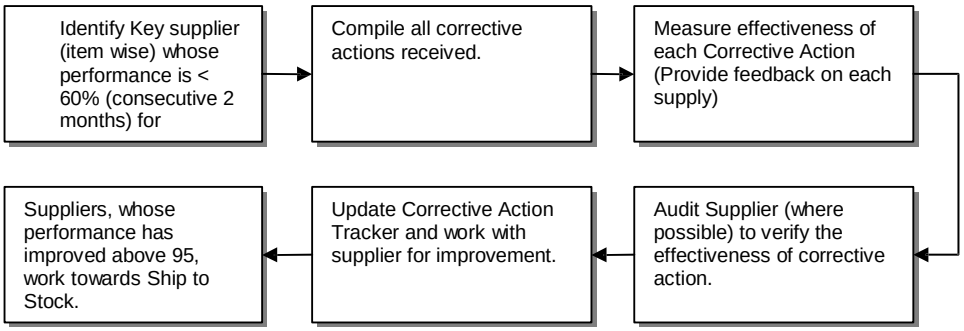
General

Hical team visits supplier to understand and improve the supplier performance.

1. Quality System development by auditing all key suppliers (Volume, critical product) once in a year.
2. Supplier Improvement program:
   a) By educating on Hical requirements, processes through visits, videos etc.
   b) Ship to Stock programs.

3. Process Audits

Guidelines



11 Ship-To-Stock

Program Purpose

Hical has instituted a Ship-to-stock program to reduce the problems associated with receiving nonconforming product from Suppliers, while minimizing Receiving Inspection and speeding up the process of moving product to production.

When Used

Hical administers the Ship-to-Stock program on a product-by-product basis.

Applicability

Ship-to-Stock applies to all material and components purchased for use in full-volume, released product at all Hical facilities.

Ship-to-Stock does not include pre-released parts, samples, prototypes, pilot fabrication runs, Initial samples from new tooling, and other low-volume applications.

11.1 Ship-To-Stock Requirements

Product Requirements

To be considered for Ship-to-Stock the product must meet the following criteria:

- The Supplier must have a performance rating of 90% for 12 consecutive months.
- Supplier should have a process capability study methodology and working towards achieving process capability of min.1.33 for identified critical parameters.
- Supplier should have a good feedback mechanism. All the corrective action should have been effectively implemented.
- Supplier should have a good traceability system.
- Supplier quality system should be in line with National/International standard. If not qualified, an approach towards the same must be properly visible.
- For parts supplied for aviation, space and defense application:

  Supplier shall be AS9100 certified for Manufacturer

  Supplier shall be AS9120 certified for Stockist & Distributor
-

Ship-to-Stock qualification steps

- Introductory session with identified suppliers on ship to stock programme.
- Production control plan (with preliminary data) to be obtained from supplier (If few data are IP of the company, supplier need not provide those data).
- Process audit to be conducted at supplier's premises.
- Supplier shall send a detailed corrective action report for the observation made during audit.
- Hical shall carryout one or more process audit (if necessary) to verify the implementation of corrective action.
- Hical shall monitor the performance of each consignment received.
- Ship to stock agreement to be signed by supplier.
- Certificate of merit will be issued by Hical on recognition.
- All the internal records will be updated.

Supplier responsibility after ship to stock

- Supplier shall provide following information with each shipment
  - Test certificate
  - Certificate of conformance
- b. Supplier shall also provide the following reports, as agreed
  - Process rejection reports weekly/monthly basis, as agreed.
  - Process capability report for the parameter, identified.
- Supplier shall communicate to Hical for all the process changes, raw material changes and manufacturing location.
- Supplier shall demonstrate satisfactory performance during the audit, which will be carried out once in every 12 months.

11.2 Ship-To-Stock Disqualification

When dis-qualified	The Supplier's Ship-to-Stock status is put on suspension when any of the following conditions occur: • If the performance of the supplier in Quality and Delivery is below the specified rating for 2 consecutive shipments, the supplier shall be disqualified from the ship to stock system and he will be brought back to normal inspection methods.. • The Supplier fails a Quality System Audit..
Process	The dis-qualification process is as follows: a. Hical notifies the Supplier that a Supplier's Ship-to-Stock status is put on suspension. b. Hical issues a SCAR to the Supplier and works with the Supplier to correct the problem. c. If the supplier needs to be re-qualified, he should be able to meet all the criteria of the ship to stock activity d. Implementation may be verified at the Supplier's facility, or by documentation sent by the Supplier, and normally includes confirmation by Receiving Inspection of acceptable lots.
Meets requirement	When the Supplier's Ship-to-Stock status is returned to required level, Hical notifies the Supplier that the Supplier has been returned to Ship-to-Stock status.
Handling of material – under ship-To-Stock	At incoming inspection the suppliers test certificate / conformance certificate shall be verified against specification. If found OK, the lot will be accepted and cleared for further processing.

12 Tooling Management

Purpose

This document defines the requirement of Tooling management, Control of material supplied by Hical and Tooling agreement.

12.1 Raw Material Control process:

RM control

The supplier shall maintain the raw material technical data sheet supplied by HICAL and are expected to conduct the inspection for the materials received from HICAL. The supplier shall maintain the traceability of the raw material received and used for the product lot wise and should be able to demonstrate the traceability from raw material to the product supplied to HICAL batch wise. A register (hard or soft) to be maintained for the lot received and used for maintaining this traceability. The register should contain the following details:

a. HICAL lot number & recd date
b. Raw material manufacturers batch no
c. Quantity received
d. Lot wise qty issued
e. Shelf life of Material

The supplier shall ensure the First-In-First-Out (FIFO) system is maintained for the raw materials supplied by HICAL. The storage area of the plastic granules / sheet metal or any other raw material shall be a dry and away from the direct sunlight. For specific storage condition supplier needs to follow the Material Data Sheet. All bags or container need to be kept in sealed condition with proper identification.

In case of any quality problem and shelf life of raw materials observed supplier needs to immediately notify HICAL with full details and ensure the materials are separated from the good lot storage.

In case the raw material is procured by the supplier all the above requirements have to be followed except point “a” and if any quality issue shall be immediately notify to HICAL with the details of actions taken.

12.2 Process Design and Process control:

Process Design

The process design shall be done to a set of tool and machine. Any change in combination of tool or machine the process conditions need to be re-designed. The process parameters for each item will be studied and set by HICAL and Supplier's engineers together for a particular machine. The process set shall be approved by Director R&D of HICAL or customer and supplier shall not change any of the parameter without written approval of HICAL. The process conditions shall be recorded shift wise and the record for the same shall be maintained.

The components processed during process settings shall be clearly identified and shall not be shipped with regular shipment. The disposition will be as specified by HICAL.

Process control

The supplier shall establish a strong process control system to ensure the product quality requirements are met. As a minimum the following systems shall be followed

a. Set up approval - machine
b. First piece approval of component cavity wise
c. Process audit by supplier's engineer to check critical product and process parameters

All records of process control lot wise shall be maintained.

Any process deviation observed shall be recorded as a non-conformance and loop shall be closed within defined period and all the actions taken shall be recorded.

12.3 Tool Management:

Tool identification

The supplier shall mark each tool with tool number. The number can be as traced by supplier. All tools used for HICAL shall be identified by fixing a name plate as given below .suitable means. A separate location with identification shall be dedicated for storing the tools.

In addition, any other requirements specified in the tool drawing shall be followed. All tools to be identified by method etching /Punching for the following details on a Brass Plate of 1.0 mm min thick and fixing it to the Tool

1.Part Name

2.Part Drawing Number

3.Month and Year of tool Manufactured

4.Manufactured By

5.Type of tool

6.Tool Identification number

7.Machine Specification for which tool is made

8.PO reference No

Tool Storage & Handling

The tool shall be stored in the dedicated and marked area. The area should be free from moisture, dust and away from direct sunlight. The supplier shall ensure no rusting of the tool during the storage. In addition, any other requirements specified by HICAL shall be followed.

The supplier shall use appropriate handling equipment and trained personnel to ensure the proper handling and movement of tools.

All safety precautions need to be followed as defined during processing to avoid any damages in tool.

12.3 Tool Management: (Contd _ .)

Tool records

The supplier shall maintain the tool records containing the following details and provide information to Hical when required.

a. Tool number, Revision number, Date.
b. Item description
c. Date of installation
d. Number of cavity
e. Number of shots and Components
f. Machine number for tool loading
g. History of tool correction
h. Breakdown details
i. Details of removal and reinstallation

The supplier shall maintain the tool inspection and component qualification

	records for each tool. The records shall be maintained for specified years and shall be legible and easily retrievable. Supplier shall inform Hical in advance in the event tool life is coming to end and new tool to be developed. Master list of Tools with revision status shall be maintained and sent to Hical when new tool added and modification to tool takes place
Tool Inspection	Tool design to be Approved by CE / Head of Engg / Project Manager once the Auto Cad design is received from Suppliers for 1.Type of Tool 2. Method of Ejection 3.Type of gate point 3.Machine to which it fits 4 .Type of operations – Semi Auto /Auto / Manual 5. Raw material used for the Tool, core and cavity . 6.Tool life calculation 7. Raw Material Specification which would be used Once after receiving approval from above personnel only tooling activity can be initiated. The tool inspection shall be carried out by supplier as per planned schedule where possible HICAL representative or Hical customer joins for inspections of tool based on the above mentioned requirements and requirements specified in our Purchase order . Any correction to be made shall be documented and formerly approved by Director R&D of Hical or Hical Customers.
Tool corrections	Any correction to the tool shall be communicated to Hical. The supplier is not authorised to make any changes to the tool without written approval from Hical.

12.4 Tool Agreement:

(Typical tooling agreement is as follows – Hical will send latest at the time of agreement)

HICAL TECHNOLOGIES TOOLING MASTER AGREEMENT

Introduction

The following terms and conditions supplement those shown on the reverse side of the Tooling Purchase Orders for the supplying of tooling by Seller M/s _ _ _ _ _ _ _ here in refereed as _ (supplier .to buyer Hical Technologies Pvt Ltd)

Ownership & Transfer

1. Ownership of all tooling shall remain with Hical Technologies.

2. Upon issuing of Purchase Order for tooling to a Supplier, the 'Tool(s) On loan To Suppliers' letter will be Signed between the Seller and the Buyer as proof that the tool (property) of Hical Technologies is now in the Supplier premises.

3. Transfer of tooling directly from one Supplier to another or from the Supplier plant A to B is not permitted unless authorized in writing by Hical Technologies.

   Supplier is not permitted to remove the tooling from the premise as indicated in the address written in this agreement unless written approval is obtain from Hical Technologies.

   If/when a transfer of tooling from one Supplier to another is authorized by Hical, 'Tool transfer Procedure' is applied. And upon completion of transfer of tooling from Supplier A to B, the 'Hical Tool Transfer' will be signed between both Suppliers and the Buyer
   Then the Supplier A will be discharged from this agreement for that particular tooling.

Accountability

These tooling are paid by Hical and are titled as Property of Hical Technologies.
Supplier shall maintain property control records for all tooling which shall be available for inspection at all reasonable times by Hical Technologies.

Acceptance

Acceptance of tooling produced under the Purchase Order will be based on acceptance of a sample approval. This sample must meet all of the specifications and prints as shown on the purchase order for parts and/or tooling.

Note: Acceptance of tooling on the basis of sample parts does not constitute acceptance of subsequent materials, as each lot of materials is subject to inspection and acceptance upon receipt.

Exclusive Rights

Upon acceptance of tooling, in accordance with the paragraph above regarding acceptance, and upon payment of Seller's invoice, all tooling produced under this purchase order becomes the property of Hical Technologies and is subject to exclusive use by Hical. Use of this tooling for any purpose other than the authorized by Buyer is strictly prohibited.

Tool Life

This tooling must be capable of producing the minimum quantity of parts, as stated in the Supplier's Tool-Life report or in the Supplier's Quotation or as per Hical Purchase Order. Tooling to be upgraded by Seller at no cost to Buyer. If the tooling breakdown occurs before meeting the minimum tool life capacity, costs for necessary repair or modification to extend tooling life accordingly after the minimum tool life capacity are to be borne by Seller.

Utilization

Supplier shall not use any items of tooling procured by Hical without receipt of a purchase order from Hical.

Disposition

If no further requirement for usage of the tools arises, Seller shall request disposition of such tooling. Disposition will be advised in writing by the Buyer. Otherwise if Seller is to return tooling to the Buyer, preparation of tools for shipment shall be the responsibility of the Seller.

If tooling as reached it guaranteed tool-life by the Supplier, the Supplier shall submit to the Buyer the 'Part & Tool Status' of that tooling to Hical Tooling Engineer's for evaluation

If Hical Tooling Engineer's confirmed that tooling is beyond economical repair, then Hical will issue the 'Tool Disposal' letter and perform the scrapping of tool at Hical. Upon completion of tool disposal, the Seller will be discharged from this agreement for that particular tooling.

Modification

Supplier shall not modify tooling without written authorization from Hical via an Engineering Change Notification.

Recall

The buyer subjects Hical tooling to recall at any time without additional expense.

Agreement

This agreement is read and understood by the parties hereto and the within terms and conditions cannot be modified or supplemented except by a writing signed by both parties.

Tooling Information

The following tooling particulars will be stated in the 'Tool(s) On Loan To Suppliers' form for a particular tool

Product Name:
Part Name:
Part Number:
Mold/Cavity Number:
Supplier Name:
Purchase Order Number:
Cost Of Tooling:
Date Of Tool Purchased:
Tool-Life In Number Of Shots:

Acceptance.

This agreement is effective as of the date of the last signature hereto between the parties listed below.

THE PARTIES

Hical Technologies Pvt Ltd. - - - - - - - - - - - - - - - - - - - ..

Date: Date:

13. Counterfeit Parts Management:

13a: Counterfeit parts Detection:

The below topics are applicable to all Electronic components, Interconnects, Electro Mechanical, Chemicals, Raw materials & Modules (like, PCB assemblies, Power supplies etc.) procured or used by Hical for Aerospace, Space, Defense & other segments.

For cases where procurements must be made from other than authorized suppliers, or there is reason to doubt a part's authenticity, additional tests and inspections should be performed, as necessary, to detect counterfeits. The following mitigation methods can be applied to reduce the risk of receiving counterfeit electronic parts. These methods may not definitively distinguish authentic parts from counterfeit parts, but when properly used will minimize the risk of counterfeit parts entering the production system. For high risk applications, it may be necessary to perform life testing and other static, dynamic and functional testing as additional tests in order to attain the requisite confidence level. Questionable test results may require performance of comprehensive failure analysis.

13b: Documentation and Packaging Inspection:

The supplier should provide an unbroken chain of documentation (certifications, packing slips, etc.) tracing the movement of the parts back to the OCM, and certification that the parts have not been salvaged, reclaimed, otherwise used, or previously rejected for any reason.

Certificates of Conformance or other documentation should be examined for originality and applicability to the delivered material, including:

- Ensure availability of the manufacturer supplied COC along with the shipment made by the authorized/independent distributor.
- Ensure that the COC contains the manufacturer name with the address, material part #, Invoice/PO number
- Ensure that COC doesn't contain poor usage of English, misspelled words, alterations, or changes in the documentation.
- Ensure the location of the manufacturer in the COC (to be verified against the PO text (or) inspection plan.
- Ensure the availability of traceability information's that include,

  Batch Code (or) Serial Numbers (or) Date code.

If there is an elevated concern for product integrity, it may be possible to verify with the OCM that date, lot codes, reel sizes, and quantities listed on the documentation are valid.

13c: Control of Scrap Product:

Parts that have been found to be nonconforming or otherwise unsuitable for use should be physically identified (e.g., tag, label, mark) & segregated.

13d: Control of Suspect or Confirmed Counterfeit Parts:

In the event that product assurance actions, in-process inspections/tests, or product failure experiences indicate that parts may be counterfeit, the following steps should be implemented:

a. Physically identify the parts as suspect/counterfeit product (e.., tag, label, mark).
b. Physically segregate the parts from acceptable non-suspect parts and place in quarantine. Quarantine should consist of physical barriers and controlled access.
c. Do not return the parts to the supplier for refund, replacement etc., Ask supplier to conduct internal investigation & submit the corrective actions.
d. Confirm the authenticity of the parts. This may include further part-level testing, communications with the part's supposed OCM, the third-party analysis etc.,
e. Upon confirmation that a part is counterfeit, identify and place on "Hold" all potential additional counterfeit parts in storage and installed in product pending disposition by appropriate authorities.

14. General Terms and Conditions:

(Hical website can be visited for details)

GENERAL TERMS AND CONDITIONS

CONTRACT INFORMATION AND MODIFICATION

These terms and conditions apply to every thing listed in this Purchase and constitute our offer to you, which we may revoke at any time before you accept it. You should accept this Offer by sending us a written acknowledgement. If provide any items listed in the Purchase order without having sent us an acknowledgement, You will be deemed to have agreed to these conditions. If your acknowledgement contains any different terms or conditions they will not be part of or Supplement this Contract or explain any term therein. It is clearly understood that, by us placing a purchase order with you, the seller is deemed :

- You have accepted our condition
- You have waived those conditions of supply/purchase, if any conflicting with that of ours

After the contract is formed, except for any related Purchase or agreement providing services for which the Purchase Order form is an attachment, these terms and conditions are the complete and exclusive statement of the terms and conditions of the contract between us. They may be modified only in writing with the modification signed by one of our specifically authorized representative and by you. No prior proposals, statements, course of dealing, or usage of the trade will be part of this contract.

As used herein, the term 'products' shall include goods, supplies, materials, packaging, services, work and data expressly or implicitly inferred herein.

COMMERCIAL TERMS

Price : Price covers the net weight of material. No charges of any kind (e.g. charges for box or cartage) will be allowed. The payment terms is Hical will pay to seller as agreed during the Contract.

Warranty : In addition to all other warranties, expressed or implied by law, Seller warrants that all products delivered hereunder shall be merchantable, free from defects in workmanship and materials and strictly conform to applicable specifications, and will be fit and sufficient for the purposes intended and if of Seller's design, will be free from design defects.

Seller further warrants that all products shall be in conformity with applicable laws and shall comply in all respects to the report and or certificate referred to by the Buyer. All warranties, including service warranties and guarantees, shall run to Buyer, its customer's and subsequent owners of the products or and products of which they are a part. In the event of a breach hereof, Buyer may require that the products be repaired or replaced by Seller or Buyer may return all or some of the products to Seller for refund or buyer may retain the product, the price of the purchase order shall be equitably reduced. In the event of the return by Buyer to Seller of such products, Buyer shall charge to Seller all shipping costs both ways plus a reasonable charge for its services in effecting such return, together with any incidental expenses incurred by Buyer in connection therewith.

Responsibility for defective products shall be borne by Seller. In the event of a breach of warranty expressed or implied, Seller agrees to indemnify Buyer and its customers for and hold each of them harmless from any liability, loss, cost and expense (including reasonable legal fees) directly or indirectly arising from any claim or action against Buyer or its customers relating to such breach. Except for latent defects, fraud and gross mistakes amounting to fraud, the term of this warranty shall be 12 months after delivery and acceptance by buyer.

Transportation : You will ship items by designated carriers only as mentioned in our purchase order and in the event of non designated carriers prior approval from the buyer shall be taken before despatch.

We will not pay premium transportation charges unless authorized by us in writing. Shipping information should be furnished to the Buyer within 12 hrs. of the shipment. All products shall be prepared for shipment and packed to prevent damage, or deterioration, and lowest transportation rates secured.

Risk of Loss / Insurance : We assume risk of loss as mutually agreed upon delivery terms during execution of this Purchase Order and according to the ICC INCOTERMS 2000.

Delivery : Time is of the essence of this Purchase Order. You will meet the delivery schedule without making excess material or production commitments. We may return at your expense items delivered early or late to us.

Title : We take title to items when they reach the destination point stated on the face of this Purchase Order.

Changes : You will notify us promptly if any such change affects price or delivery so that we can negotiate an equitable adjustment.

Set-Off : We may set off any amount, you or any affiliated company owes us against any amount we owe you under this Purchase Order.

Termination : We may terminate any part of this Purchase Order for our convenience at any time. We may also terminate any part of this Purchase Order without liability if you default in performing this Purchase Order we terminate because of your default, you will be liable for any costs and damages incurred by us, which are attributed to your default. A default occurs if (1) you fail to perform within the time period specified in this Purchase Order or (2) you we fail to make progress as to endanger performance of this Purchase Order, and in either of these two circumstances you do not cure the failure within 10 days or any period longer which we have authorized in writing after you receive our written notice of default.

Government safety and Environmental Regulations

All purchased materials used in part manufactured shall satisfy current governmental and safety standards on restricted, toxic and hazardous materials ; as well as environmental, electrical and electromagnetic considerations applicable to the country of manufacture and sale. The seller shall ensure that all the applicable laws and regulations the seller's country shall be complied with.

Cancellation : In the event that Seller may breach this contract, agreement or understanding between buyer and seller, then and in such event buyer may, at its election, terminate this purchase order and such other contracts, agreements and understandings without any liability or obligation to seller. Also in the event of any change in the business plan, buyer holds the right to cancel or defer the delivery schedule.

Country of Origin : Invoice shall contain the country of origin of items (e.g., the country in which the item was actually manufactured). You warrant that for items imported by you, the country of origin on our invoice is correct and the items are marked conspicuously, legibly, indelibly and permanently.

You will indemnify us for all costs & damages we incur which arise Out of a breach of any of the terms & conditions in this Purchase Order stated above and any loss or damage suffered by HCAL.

Quality : All Products furnished pursuant to this Purchase Order must comply with the specification submitted by Buyer to seller. If no specification is given, conform to a standard or quality understood by the trade. All products shall be subjected to a final inspection and acceptance at destination within 12 months of receipt is not withstanding any prior payments and acceptance. Final inspection shall not relieve of sellers of its obligation under its warranties. Buyer shall have the option of returning rejected products to seller at sellers risk and expense. Buyer shall charge the seller transportation both ways plus charges for Buyer's service in effecting such return, all charges buyer incur in connection therewith.

OTHER TERMS

Our Property : Everything we provide or pay for under this Purchase Order is our property. Examples of our property may include tools, dies, test equipment, material, inventories and trade secrets developed in performing work under this Purchase Order, and technical and business information. You will mark our property "Property of Hical Magnetics Pvt. Ltd." keep it in good condition, use it only to perform this order, hold it at your risk and apart from your property, insure it at your expense for replacement cost with loss payable to us, and ensure that any information we disclose to you or you develop for us is kept confidential to the extent it is not otherwise publicly available. At not request, you will prepare our property for return shipment and deliver to us promptly within no more than 7 days, in your expense in the same condition as originally received by you.

Your Information : Any information of yours or of another, which you disclose to us, will not be considered confidential or proprietary. We acquire the information as part of the consideration for the order and free from all restrictions and Hical shall not be liable for infringement of either the seller's or any third party's proprietary rights.

Audit Rights : At our request, you will allow us to inspect without charge and to copy at our expense any documents you have relating to performance of the contract.

Cost Reduction : Seller warrants that the price for the products sold to Buyer under this Purchase Order are not less favourable than those currently extended to any other customer for the same or substantially similar products in equal or lesser quantities. In the event that the price or prices shown in this Purchase Order are less favorable or in the event that Seller reduces its price to any other customer for such products during the term of this Purchase Order, Seller agrees to reduce the prices herein accordingly.

Non disclosure agreement : Drawings, Specifications, data, designs, inventions and other technical information supplied by Buyer shall remain Buyer's property and shall be held in confidence by Seller. Such information shall not be produced, used or disclosed to others by Seller without Buyer's prior written consent and shall be returned to Buyer upon completion of this Purchase Order or upon demand. All data generated or developed in the course of or under this Purchase Order shall be the sole property of Buyer and Seller shall not duplicate or disclose such data for any purposes other than the performance of the work required hereunder without the prior written consent of Buyer. The purchase price of this Purchase Order is in part consideration for any design work performed by Seller in connection with this Purchase Order and incorporated in the products to be delivered hereunder and shall not supply such products to others without Buyer's written permission. The seller shall keep all confidential information in the strict confidence and shall not, without the prior consent of Hical, or as required by the law, or as mentioned below, disclose any information to any other person or use it for any purpose other than for the purpose of completion of the purchase order.

Nothing in this Purchase Order is intended to Grant any rights under any Trade mark, logo, patent or copyright or intellectual property right to the seller or create any rights in us in Hical's confidential information, except this Limited right to review such confidential information in connection with the purpose(s) stated in the Purchase Order.

The seller shall not copy, reproduce, publish or distribute any confidential information without the prior written consent of Hical except for the purpose of giving the same to those persons who are permitted to receive this information.

The seller shall promptly redeliver to the other party all written confidential information and all material containing or reflecting any confidential information and will not retain any copies, extracts, reproductions in whole or in part of such written or other material information.

Work on Our Premises : If you work on our premises, you will be careful to avoid injuring people or damaging property in cases of loss or damage caused by the person or property of Hical or any third party you will indemnify us and for any claim which may result in any way from any act or omission of you, your agents, employees or subcontractors on such premises.

Publicity : You will not issue any press release, use of any of our products or our name in promotional activity, or otherwise publicly announce or comment on this order without our prior written consent.

General Matters : Any assignment of the order or a right to payment will be void without our written consent. Any waiver or a breach of contract must be in writing and signed by the insured party. The law of the State (Bangalore Jurisdiction) will govern any dispute between us.

Patent and Trade Marks : To the extent that the products are not manufactured pursuant to a design originated by Buyer, Seller agrees to indemnify Buyer and its customers for and hold each of them harmless from any liability, loss, cost and expense (including reasonable legal fees) directly or indirectly arising from any claim or action against Buyer for infringement or otherwise of any patent, copyright, trademark, trade secret, label, name design or brand used by Seller on the product supplied by Seller under this Purchase Order.

We reserves the right to place in the Seller's plant, at our expense, an inspector or inspectors who shall be permitted to inspect during manufacture and before shipment any Goods on the order.

Disputes : Buyer may, by written notice to Seller, terminate all or any part of the Purchase Order in the event that Seller fails to make delivery within the time specified herein or fails to make progress so as to endanger the timely performance of Seller hereunder or if Seller fails to perform any of the other provisions of this Purchase Order.

Seller warrants that in the performance of this Purchase Order, it will comply with all applicable laws and ordinances.

Buyer may deduct all or any part of the liabilities, losses, costs or expenses incurred by Buyer arising from a breach of this Purchase Order by Seller under this or any other purchase order.

SUPPLIER CORRECTIVE ACTION REPORT

Supplier:	Item Code:	Item description:	SCAR No: Date:
Invoice Number / Date:	Supplier Batch Number/Date code:	Faults Noticed in: ☑ Incoming Inspection ☑ Production Line	
Lot Number:	GRN Number:	Drawing No. & Revision:	Purchase order No:
Lot size:	Sample size:	Rej. Qty:	

Problem related to: (If problem is due to Hical, initiate corrective actions – Supplier need not be informed).

☑ Supplier ☐ Hical

SL.No.	Fault Size	Description of fault

TO BE FILLED BY SUPPLIER

	Responsibility	Target date
Containment Actions : (Enclose details)		
Root cause of fault: (Problem Solving tools like 5 Why;s, Fishbone or equivalent to be used) (Enclose details)		
Corrective action: (Mistake Proofing Process to be used where possible) (Enclose details)		

Your acknowledgement and containment actions are expected within 3 Days.
Your corrective & preventive action plan (Filled SCAR) are expected within 14 Days.

Supplier Instructions for Completing the SCAR form.

1. Containment Action:

Include the short Term actions taken to contain the suspect product at suppliers facility, and for parts in transit and Hical. Containment actions includes : Sorting at Suppliers facility , special product testing , Short term changes in inspection process, additional check points in the process etc..Supplier should also indicate what actions are being taken to ensure Customer requirements are met. Also include the Responsible Dept/ Person and date of the containment actions were implemented

2. Root Cause Of Fault:

Determine what is the cause of the fault by using the Quality tools like 5 Why analysis ,7 QC tools . Responses stating a root cause , such as operator error, generally will not be accepted. The root cause is the fundamental reason for a problem, which if corrected, would prevent recurrence. The root cause is the actual process malfunction or systemic problem that caused the defect.

3. Corrective Action:

List of all the corrective actions, either implemented or planned for implementation. Corrective actions may include process changes, tooling replacements, material changes and design changes. Also report the implementation date and responsible Dept/Person of each corrective action. All proposed corrective actions must be approved by Hical prior to implementation.

FIRST ARTICLE INSPECTION REPORT

Part No /Rev No	
Part Name	
Customer	

FIRST ARTICLE INSPECTIONCONTENT CHECK LIST

SL No	CONTENTS	INCLUDE		Number Of Sheets	Comments
		YES	NOT APPLICABLE		
1	Certificate of Conformance				
2	As 9102 Form 1				
3	AS 9102 Form 2				
4	AS 9102 Form 3				
5	Ballooned Specification				
6	Raw Material Test Certificate				
7	Route Card				
8	Process Instructions				
9	Instrument and Tooling List				
10	Certificate of Conformance-Special Process				
11	Special Proces Inspection Report				
Others					
1					
2					

Date of Submission of FAI Report

	Prepared By	Verified By
Signature		
Date		

Vendor :	Ship to :
Company name Address Contact details	Hical Technologies Pvt Ltd. Sy # 46 & 47, Electronics City, Phase II, Hosur Road, Bangalore-560 100,India.

CERTIFICATE OF CONFORMANCE / COMPLIANCE

Date :

Item code / Material Number (as per PO) :

Hical Drawing/Specification No. & Revision (as per PO) :

Final Customer Drawing/Specification No. & Rev.(if applicable) :

Item / Material description (as per PO) :

Hical Purchase Order number & Date : (as per PO) :

Hical DC number & Date (as per DC) :

Hical Batch number of input material / item (as per DC) :

Vendor Invoice Number & Date :

Quantity shipped :

Vendor Lot / Batch number / Route card (if applicable) :

Special Process & Standard (if applicable) :

Raw material details (Not Applicable if RM is supplied by Hical) :

(Applicable if RM is purchased by Vendor)

Raw material Specification/Grade & Standard :

Raw material Manufacture name & Location :

Raw material Lot/Heat/Batch no :

We hereby certify that the above material or parts have been manufactured in conformance to all specified requirements, including those stated on the Purchase documents, Drawing, and Specification.

Seal & Signature :

Name :

Designation :

E-mail address :

Date :

	SUPPLIER REQUEST FOR DEVIATION
Supplier Name:	Requested Date:
Drawing No & Rev Status:	
Change required : Permanent / Present Lot	
Purchase order No:	
Details of Deviation required:	
DRAWING REQUIREMENT :	
REQUESTED DEVIATION:	
REASON FOR DEVIATION:	
ACTION TO BE TAKEN FOR NEXT LOT(If the deviation is for present lot):	
SUPPORTING DATA FOR VALIDATING THE CHANGE: .	
Requested By:	
COMMENTS BY HICAL SQA:	
INCHARGE SIGN:	HOD SIGN:

Supplier Quality Assurance Manual

Acknowledge Format

The Supplier Quality Assurance Manual document is the Suppliers Guide to understanding the Quality requirements of Hical Technologies Pvt Ltd , and establishes the minimum requirements for the approval by Hical Technologies Pvt Ltd depending on the Suppliers Quality level.

The Supplier Conforms and Accepts the Supplier Quality Assurance Manual Requirement.

Date: Supplier Stamp & signature

Note: Supplier has to Stamp and Signature and return acknowledge copy to Hical. Stamp & Signature means that the supplier has read the Supplier Quality Assurance Manual and understood the Hical requirements

Abbreviations used in SQA Manual

ASL	Approved Suppliers List
AOI	Agreement Of Inspection
AQL	Acceptable Quality level
CFT	Cross Functional Team
CE	Component Engineering
DPU	Defects per Units
DPM	Defects per Million
ECP	Engineering Change Proposal
FOD	Foreign Object Debries
FAI	First Article Inspection
MSDS	Material Safety Data Sheets
NDA	Non Disclosure Agreement
OEM	Original Equipment Manufacturer
PO	Purchase Order
Pur	Purchase
QA	Quality Assurance
R & D	Research & Development
RoHS	Restriction on Hazardous Substances
SQA	Supplier Quality Assurance
SRF	Supplier Registration Form
SCAR	Supplier Corrective Action Report
S & OP	Sales and Order Processing

Hical	**Revision Record Sheet** **(First / Second / Third Level Documents)**

Document Name :Supplier Quality Manual Document No :HTL/WIN/QAD/001

Sl. No.	Section No.	Page No.	Brief Details of Revision	Edition No.		Rev. No		Revision approval with date
				From	To	From	To	
01	-	01 to 20	First Release	NA	NA	-	00	SSK/01.Dec.2006
02	-	01 to 20	Approving authority included	NA	NA	00	01	SS/14.06.2011
03	-	15	Labeling requirements included	NA	NA	01	02	SS/21.6.2011
04	-	24	Page 41 & 42 for sampling removed and page 24 modified with Sampling plan WIN considering all customer specific requirements Latest COC format model copy replaced in SQA manual	NA	NA	02	03	SS/11-Sep-2012
05	-	12 22	1. Source list, Purchase info record and QIR are considered for ASL 2.Supplier Performance Rating is explained in detail and Service scoring is removed.	NA	NA	03	04	Neena T / 06-05-2016
06	-	All pages	New format no. introduced for Supplier Quality manual.	NA	NA	04	05	Neena T / 06-10-2017
07	-	33 13	1.Counterfeit management points are added accordance to AS 9100 Rev D 2.GE customer requirement of 100% inspection at supplier place is added	NA	NA	05	06	Neena T / 11.04.2018
08	-	13	GE customer requirement points word changed	NA	NA	06	07	Neena T / 17.04.2018