



## SUPPLIER GUIDELINES

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SAKTHI AEROSPACE PVT LTD							

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## 1.0 INTRODUCTION

In order to succeed in a competitive global market it is imperative that we develop close and open relationships with our suppliers, where mutual efforts support a continual improvement environment.

Increasingly stringent and demanding economic and quality requirements from the market place compel us to understand and continually improve our supplier base.

Sakthi Aerospace's goal is to progress and expand our existing global base to become a leader among our Competitors. To ensure we achieve this target, Sakthi Aerospace has developed specific strategies that include:

- Long term relationships with suppliers.
- Close interaction among manufacturing, engineering, purchasing and quality personnel of Sakthi Aerospace and our suppliers.
- Assure compliance of market specific requirements such as AS9100 and other customer and regulatory standards.

To assist in the implementation of our objectives Sakthi Aerospace will utilize a Supplier Quality Assurance programme, which embodies all the measures specified and mutually applied, between Sakthi Aerospace and the supplier to obtain and maintain the high quality standard required.

The development of Supplier Quality Assurance requires a close collaboration between Sakthi Aerospace and the supplier and this necessarily involves an in depth knowledge of the organization and methods employed by the supplier. It equally involves the supplier being familiar with the requirements when doing business with Sakthi Aerospace

This guideline details the facilities and features of the Suppliers' Quality System that will be assessed by Sakthi Aerospace supply chain Department prior to the placing of new orders and the procedures to be followed by the supplier after orders have been placed.

It will also be used as a standard for the development of existing relationships between Sakthi Aerospace and its current approved supplier base. It is applicable to all suppliers of manufacturing, materials (e.g. raw materials, components, assemblies, Machining) or processing services (e.g. plating, heat treatment, NDT etc) and other services.

## 2.0 GENERAL REQUIREMENTS

The following are mandatory General Requirements we expect our suppliers to fulfill.

### 2.1 Right of Access

Suppliers shall provide access to their premises and facilities for Sakthi Aerospace and to our customers, regulatory authorities for co-operation on product, process and business issues.

### 2.2 Notification of Organization Changes

Changes to the supplier's organization that may affect quality and/or finance, shall be notified in advance to Sakthi Aerospace. These changes may include; Company ownership, company name, manufacturing location, quality approvals, significant changes to process or inspection techniques.

### 2.3 Applicability

- All suppliers are to fully comply with the stated requirements of this guideline.
- Individual waivers on certain elements may be granted at the discretion of Sakthi Aerospace Supply chain Department. Application for dispensation for any element of this guideline is to be made in writing and presented to Sakthi Aerospace Supply chain Department who will action the request internally with the relevant function.



**2.4 Purchase Order Requirements**

The supplier shall adhere to all Purchase order Terms and Conditions plus stated other instructions. The Purchase Order is the controlling document and will communicate any deviations to the requirements stated within this guideline authorized to the supplier.

**2.5 Protection of Sakthi Aerospace & their customers proprietary Information**

Any information that supplier receives from Sakthi Aerospace must be kept confidential and never disclosed to any third party without the prior written agreement of Sakthi Aerospace. The proprietary information can include, but is not restricted to all versions of electronic data, drawings and documentation, Tooling and materials. Under no circumstance is the supplier to make a direct approach to Sakthi Aerospace’s customers in relation to agreed business dealings.

**2.6 Code of Conduct**

This code is applicable to all Sakthi Aerospace’s supplier base and outlines the essential need for suppliers, their employees and sub-contractors to operate to the highest standards of business integrity in their relationship with Sakthi Aerospace .

Sakthi Aerospace wishes to work collaboratively with all suppliers to ensure proper understanding and compliance with this code of conduct. It is recognized that there are different legal and cultural environments in the countries that Sakthi Aerospace’s supply base operate in, however this code of conduct sets forth the minimum requirements that all suppliers should meet in doing business with Sakthi Aerospace.

- Suppliers must comply with all national and other applicable laws and regulations relating to the respective country of operation. This includes ensuring that business transactions with Sakthi Aerospace are fully reported/recorded ensuring that their employees are aware and properly trained to meet the requirements.
- Sakthi Aerospace expects its suppliers to make proper provision for the health, safety and welfare of its people, visitors, contractors, customers and those in the community who may be affected by their activities.
- Employees within the Sakthi Aerospace supply base are expected to deal with Sakthi Aerospace in a manner that avoids conflict between personal interests and those of the employer and Sakthi Aerospace. This requirement applies equally to business relationships and personal activities.

**3.0 SUPPLIER QUALITY SYSTEM REQUIREMENTS**

Sakthi Aerospace requires all suppliers to acknowledge and retain total ownership for the quality of their products and to develop Quality Assurance Systems which ensure that the requirements of the purchase order are fully met. The development of these systems should provide for continuing improvement in product quality, leading to the attainment of zero defects, whilst also providing speedy and effective corrective action in the event of defective products being delivered to Sakthi Aerospace.

It is expected that all suppliers to Sakthi Aerospace will meet the requirements of this **section A** which is numbered and based on ISO 9001 Quality System standard. It is not a requirement of Sakthi Aerospace that suppliers are to be ISO 9001 approved. Suppliers are evaluated and selected on an individual merit basis for the product/service they supply. Non ISO approved organizations will be expected to demonstrate adequate management and controls of their processes that satisfies Sakthi Aerospace’s minimum requirements.

**3.1 Quality Management System**

The supplier shall establish and maintain a clearly documented quality system that provides a means of ensuring that products conform to specified requirements. This system shall control the issue of drawings, specifications, procedures etc. Provision shall be made for the control of obsolete copies and their subsequent archiving and dispositioning.

All records pertaining to quality shall be stored and maintained in a legible form for a minimum of 3 years. Specific projects and/or regulatory bodies may require longer retention periods and this will be notified in advance to the supplier.

### 3.2 Management Responsibility

The supplier shall make known a person to Sakthi Aerospace, who will have the necessary authority to assume responsibility for product quality. It is expected that the named person will provide evidence of the supplier's commitment to the development and implementation of the quality management system and continually improving its effectiveness.

### 3.3 Resource Management

- The supplier shall determine and provide the resources needed to maintain the quality system and continually improve its effectiveness, and enhance customer satisfaction by meeting Sakthi Aerospace requirements.
- Personnel performing work affecting product quality shall be competent on the basis of appropriate education, training, skills and experience.
- The supplier shall determine, provide and maintain the infrastructure needed to achieve conformity to product requirements.

## 4.0 PRODUCT REALIZATION

### 4.1 Customer related processes (Contract review).

Orders or contracts shall be formally reviewed to ensure that the supplier has the technical and logistical capabilities to meet the requirements. Any discrepancies or queries shall be resolved before the order or contract is accepted. Amendments to orders or contracts shall be formally reviewed. Records of contract review shall be maintained.

### 4.2 Design and Development

If Design activities are undertaken for Sakthi Aerospace by the supplier then design inputs and outputs shall be adequately specified (e.g. by relevant specifications). Formal documented reviews shall be held at appropriate stages of design. Designs shall be checked by verification (theoretical check) and validation (practical check). All design changes shall be documented and approved by Sakthi Aerospace authorized personnel before implementation.

### 4.3 Purchasing

Suppliers shall not sub-contract any work awarded by Sakthi Aerospace without the prior written approval from Sakthi Aerospace.

When sub-contracting approval is granted the supplier shall ensure where applicable that in the first instance Sakthi Aerospace customer approved suppliers are utilized, and secondly if a special process is required e.g. Welding, NDT, Chemical Processing, NMSE the sub-contractor shall be NADCAP approved in that relevant discipline.

**Note:** NADCAP is for Aerospace programmes only.

The supplier should ensure that subcontractors are evaluated and selected on their ability to meet specified requirements. A list of approved subcontractors shall be maintained. Purchasing documents shall clearly describe the relevant drawings and specifications including issue status and the quality requirements to be applied.

### 4.4 Production and service provision

- Any product supplied by Sakthi Aerospace for incorporation into assemblies by the supplier, shall be suitably verified and controlled. If any customer (Sakthi Aerospace) property is lost, damaged or otherwise found to be unsuitable for use, this shall be reported to Sakthi Aerospace and records maintained.
- The status of material and product shall be clearly identified by suitable means throughout product realization.

- The supplier shall preserve the conformity of product during internal processing and delivery. This preservation shall include identification, handling, packaging, storage and protection.
- Manufacturing processes shall be defined by documented procedures. Criteria for quality shall be defined in a clear and practical manner. Where processes cannot be verified by subsequent inspection or testing, such processes shall be performed by qualified operators or have suitable process control parameters established.
- The supplier shall provide a Certificate of Conformity for all deliveries. This document indicates that the supplier has manufactured and delivered the product in accordance with Sakthi Aerospace's requirements stated on the purchase order.
- The signatory on the Certificate is therefore stating on behalf of the supplier that the product meets our requirements. This responsibility shall therefore be delegated by the supplier to suitably qualified, experienced and competent personnel within the organization. A list/matrix of approved signatories is to be forwarded to Sakthi Aerospace.

#### 4.5 Control of monitoring and measuring equipment

All measuring and test equipment used to demonstrate conformance of product shall be calibrated with reference to international or national standards. Such equipment shall be clearly marked with identification of its calibration status, including expiry date. Records of calibrated equipment shall be maintained. When equipment is found to be out of calibration, actions shall be taken to identify and rectify any affected product including product already dispatched

**The designation of ship to stock will be issued and controlled by Sakthi Aerospace.**

- **Control of Non-conforming product**

The supplier shall ensure that products, which do not conform to product requirement, are identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with non-conforming product shall be defined in a documented procedure. Nonconforming products that are received by Sakthi Aerospace will be processed by control of Non Conforming Product and the supplier will be liable for non-conformance administration costs and in the case of Ship to Stock items any costs associated with downstream manufacturing or recall. The supplier accepts the principle of such reasonable administration costs and the processing of debit notes where Nonconforming goods are identified after invoices have been paid.

- **Concession/Production Permit Application**

Suppliers may submit a concession/production permit request prior to shipping non-conforming material to Sakthi Aerospace. The request shall be for non-conforming material deemed fit for use, however does not meet the drawing and/or stated specifications. The supplier shall properly identify non-conforming material accepted by the concession. Repeated applications for the same non-conformance will not be accepted.

- **Supplier Corrective Action Request (CAR)**

Sakthi Aerospace maintains a documented system for the recording, monitoring and measurement of corrective actions. This system applies to both internal and externally generated concerns. The supplier is therefore required to complete when requested a Corrective Action Request in the event of a non-conformance. Root cause analysis shall be conducted to determine the cause of the non-conformance. Action shall be taken to eliminate the non-conformance and corrective actions established in order to prevent recurrence. The supplier shall complete the corrective action report and return to Sakthi Aerospace within 30-40 working days.

- **Preventive Action.**

The Supplier shall determine action to eliminate the causes of potential nonconformities in order to prevent their occurrence.



**5.0 SUPPLIER ASSESSMENT**

**5.1 Method of Assessment**

It is a requirement of Sakthi Aerospace that suppliers must conform to one of the following controls. Ideally these controls will be applied before orders are placed. However it is permitted to place orders without prior system Evaluation depending on the supplier’s individual merits.

**5.2 Controls**

- The supplier has completed a Sakthi Aerospace Supplier Registration/ Evaluation or an equivalent supplier generated document that captures the requirements of Sakthi Aerospace.
- The suppliers Quality System will have been assessed and approved by Sakthi Aerospace’s Supply chain department
- The supplier may be registered as a BS EN ISO 9001 and/or AS EN 9100 approved organization.

**5.3 Supplier Registration and Evaluation**

All potential new suppliers must complete the Supplier Registration/Evaluation Form. This will be forwarded by Sakthi Aerospace Supply Chain Department to Sakthi Aerospace Purchase Department. Registered Suppliers will be evaluated by Supply Chain Department with data entered in Supplier Evaluation Form.

The purpose of the evaluation is to give an initial overview of the supplier’s organization. After the completion of Evaluation by Sakthi Aerospace, a decision will be made as to the level of approval to be granted. This is based on the requirement for any further action such as assessment of the supplier’s quality system. The supplier will be expected to submit a Supplier evaluation every 2 years from the initial date of approval. The supplier will be reevaluated once in two years from the initial date of approval. In case the information provided by the supplier is not sufficient to perform the evaluation the information is collected through telephone conversation for the suppliers who are put up abroad and for the local suppliers, SCM In charge will meet the supplier premises to obtain the required information.

**5.4 Supplier Audits**

On site audits may be conducted as part of the initial introduction as a new supplier. The decision to audit a newly identified supplier depends on many aspects such as criticality of supply, approvals held, location and financial Implications

**Notification of the audit will be given well in advance.**

As part of Sakthi Aerospace’s Supplier Development programme and Supplier Control process, all Approved Suppliers may be subject to an ongoing Supplier Verification audit. Selected suppliers will be audited as necessary to verify product conformance. These audits may be made up of a cross-functional team consisting of Quality, Purchase and Engineering/Production personnel. The purpose of a cross-functional team is to substantiate the effectiveness of the supplier’s administration, manufacturing and quality system.

**5.5 Approved Supplier List**

Sakthi Aerospace operates a controlled Approved Supplier List which consists of all suppliers approved to supply products/services to Sakthi Aerospace. The supplier list includes General Suppliers and Manufacturing Suppliers Supplier provides products and/or services, which may have an effect upon Sakthi Aerospace’s quality system. Suppliers granted approved supplier status is subject to the controls established to assess, control, verify and develop the supplier. Approval is granted for a two-year period, thereafter, a review will be conducted either by audit or questionnaire and/or previous performance data analyzed to assess the applicability for continued business.

## 5.6 Definitions of Supplier Categories

### 5.6.1 Manufacturing Resource Supplier

A supplier of materials, sub – contract processes, components and tooling, typically used in the **direct** manufacture of finished goods

### 5.6.2 General Supplier

A supplier of indirect services, consumables, maintenance and other items, which typically **indirectly** support the manufacture of finished goods.

## 6.0 SUPPLIER MANAGEMENT

- Sakthi Aerospace supply chain management department monitor and measure the performance of all Manufacturing Suppliers. The process is an ongoing, comprehensive supplier monitoring and feedback procedure that allows Sakthi Aerospace to communicate with its supplier base, recognizing both high performance suppliers, as well as low performing suppliers.
- Once in a year performance reports are issued to a determined quantity of suppliers selected by: performance, criticality of supply, expenditure, newly approved suppliers.

The following indices have been established as counting measures used to measure the supplier's performance.

### (a) Quality Indices. (50% of overall score)

- Number of Rejections.
- Overdue Corrective Action responses.

### (b) Delivery Indices. (50% of overall score)

- Documentation anomalies.
- Missed timeslot deliveries.

Any supplier that does not maintain acceptable performance requirements in any of the above established measurable will be informed by Sakthi Aerospace's Supply Chain Department and Purchasing functions, an action plan stating the supplier's intentions to show significant improvement towards meeting the required measurable within a reasonable period of time. If the supplier performance is not more than 90% and performing at a score less than 90% for two consecutive supplies without any improvement then the supplier will be issued a Corrective Action Request. Even after the completion of the Corrective Action Request if the supplier performance is not improved then the supplier will be disqualified from the Approved Supplier List

Sakthi Aerospace will provide all the necessary assistance to resolve all supplier related issues. However, repeated failure to comply with Sakthi Aerospace requirements will lead to supplier disqualification.

**Based on the requirement supplier has to submit the following records.**

### 6.1 Quality Control Plan

A comprehensive documentation of product/process characteristics, process controls, tests and measurement systems that will occur during production.

The supplier shall produce a Quality Control Plan for all products to be supplied to Sakthi Aerospace. The plan will be used to obtain agreement on quality planning between Sakthi Aerospace and the supplier prior to the commencement of production.

Characteristics to be included in the Quality Control Plan are:

- Characteristics identified as significant by to Sakthi Aerospace.
- Characteristics identified by the supplier as significant based on the knowledge of the process.



- All Characteristics to which SPC may be applied.

The Quality Control Plan should be submitted to Sakthi Aerospace sufficiently in advance of the initial samples to permit review and approval. Assessment of the plan may involve the requirement of an audit conducted on the site of the supplier as a means of verification.

**6.2 Process Flow Chart**

The Process Flow Chart is a schematic representation of the process flow. It can be used to analyze sources of variations of machines, materials, methods, and manpower from the beginning to end of a manufacturing or assembly process. It is used to emphasize the impact of sources of variation on the process. The flow chart helps analyze the total process rather than individual steps in the process.

**The Process Flow Chart should be devised to be read in conjunction with the Quality Control Plan.**

**6.3 Process Failure Mode and Effects Analysis (P.F.M.E.A)**

A PFMEA should be conducted during product quality planning and before beginning production. It is a disciplined review and analysis of a new/revised process and is conducted to anticipate, resolve or monitor potential process problems for a new/revised product program. A PFMEA is a living document and needs to be reviewed and updated as new failure modes are discovered.

**6.4 First Article Inspection Report (F.A.I.R)**

The supplier shall provide a First Article Inspection Report (FAIR), this is required for the first batch produced from a new or modified drawing, or after a change of the manufacturing process or as directed by Sakthi Aerospace purchases order. A First Article Inspection is a representative sample from the batch, which shall be 100%, inspected for conformance to mechanical and/or performance requirements. The supplier has to use the First Article Inspection Report which is approved by Sakthi Aerospace.

**For Aerospace products:** AS9102 FAI paperwork format accepted.

**For Non Aerospace:** Supplier standard paperwork format accepted.

**6.5 Process Capability**

The key to Sakthi Aerospace product assurance is the use of statistical methods in establishing and maintaining control in the manufacturing process. The use of Statistical Process Control (SPC) is the most essential aspect of the defect prevention process and ongoing process capability is a long-term measure of process performance relative to specification.

Since ongoing process capability utilizes data collected over a long period of time, it includes all common causes of process variation such as raw material, personnel, machinery and environmental variations. The time period required to collect the necessary data will vary depending on the process.

Capability is determined using data from control charts. The charts must indicate stability before capability calculations can be made. When analysis shows a stable process and normal distribution, Cp and Cpk indices can be calculated.

**The following are acceptance requirements for process capability set by Sakthi Aerospace**



Suppliers that do not meet the target value of Cpk >1.67 will be required to develop improvement action plans to reduce process variation and meet required target.

Initial targets will be set for each supplier based on the individual scope of supply. This will be determined by Sakthi Aerospace's Quality and Project team.

**6.6 Project tracking**

The supplier has to submit a project tracker in the initiation of project and has to be approved by Sakthi Aerospace.

The supplier has to send a daily status of the project through mail and weekly update has to be done in project tracker and has to be sent to Sakthi Aerospace for review.

**6.7 Inspections**

**6.7.1 Raw material inspection:**

When the supplier is receiving the material for the inventory for making parts to Sakthi Aerospace has to inspected using Raw material Inspection Checklist which is approved by Sakthi Aerospace .

**6.7.2 Tool Inspection:**

When particular tool is used for the making of Sakthi Aerospace Parts they have to be inspected using Tool Inspection Checklist which is approved by Sakthi Aerospace.

**7.0 COMMUNICATION**

Supplier Focal point has to defined in the earlier stage and the communication is between supplier and Sakthi Aerospace has to be stream lined through one channel

Supplier has to respond to the Sakthi Aerospace within 24 hours of time for all kind of communication

Any incident /issue occurring that affect the product quality/ delivery should be informed to Sakthi Aerospace within 24hours of time