



**SUPPLIER QUALITY ASSURANCE MANUAL
OF
MTAR
GROUP OF INDUSTRIES**

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ANNEXURE I FORMATS

S.NO	Format Number	Format Name	Referred in
1	SQAM/FRM/001	Control plan	SQAM/01
2	SQAM/FRM/002	Configuration matrix	SQAM/04
3	SQAM/FRM/003	Supplier engineering change request note	SQAM/05
4	SQAM/FRM/004	Re-work and NC notification form	SQAM/06
5	SQAM/FRM/005	Corrective action report	SQAM/07

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	ABOUT THE COMPANY	

MTAR Technologies Pvt. Ltd. was established in 1970 as a small-scale industry and has grown into an important institution in the country catering to:

- Multinational companies in Aviation.
- Dept. of Space.
- Indian Defence Programme.
- Dept. of Atomic Energy.
- Energy and Oil field sectors

It has 4 major manufacturing units located within 4 Kms around the Balanagar area of Hyderabad. MTAR has also established an exclusive Surface treatment, Heat treatment and Electroplating shop catering to in house and customer needs.

Starting from critical components, sub-assemblies and assemblies, MTAR and its sister concerns have undertaken the most challenging jobs in the manufacturing, testing and supply of components to organizations of national importance like NPCIL, ISRO, DRDO, ONGC, GTRE, IGCAR etc., and thus, helping the nation to build its infrastructure.

MTAR indigenized many critical components and sub systems for Aerospace, Atomic Energy, Defense, Oil exploration in the country. Some of the prestigious jobs undertaken and delivered successfully are

- a) Fuelling Machine Columns, Bridge and Carriage assemblies, Fuelling Machine Heads and Fuel Handling Equipments for PHWR Nuclear Reactors, Grid Plate, CSRDM & DSRDM etc. for Fast Breeder Reactors.
- b) Complete manufacture of VIKAS ENGINES, CRYOGENIC ENGINES and IPCM assemblies for PSLV and GSLV space programs of ISRO.
- c) LP Engines for DRDO.
- d) MTAR-EOU unit exports Fuel cell boxes for Energy servers designed by "Bloom Energy" of USA. These Bloom boxes contain stacked fuel cells and will convert air & natural gas into reliable and affordable electricity through a clean electrochemical process.
- e) MTAR also exports precision machined engineering components for Aviation and Oil field application.

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	1.0 INTRODUCTION TO MANUAL	

At MTAR, we clearly recognize the critical role of quality and Suppliers play in our success. We are, therefore, committed to meet our Customer expectations by pursuing continuous quality and productivity improvements. We do recognize the quality of our products and services largely dependent on our Suppliers and we believe that the Supplier as our partner in providing world-class products and services to our esteemed Customers.

MTAR expects Suppliers total dedication to quality and strict adherence to MTAR Supplier Quality requirements as our Supplier.

1.1 Purpose of Supplier Quality Assurance Requirements (SQAR)

The purpose of this SQAR manual is to promote a clear understanding of MTAR expectations and requirements for Suppliers. SQAR contains a basic quality system, which lays the foundation for an effective quality assurance system from all our Suppliers.

1.2 Scope

These standards apply to Suppliers who are supplying raw materials, bought out components, process sub-contractors to MTAR in Aerospace segment. This manual is based on the requirements of AS 9100 Rev D

1.3 Concept

Suppliers are viewed as being fully responsible for the quality of their products and must, therefore, ensure that all materials are produced in conformance to the required standards with an expectation that MTAR will receive no defective product.

1.4 Supplier Involvement

MTAR Suppliers have an obligation to establish a cross-functional team to manage the product planning process. Suppliers must expect the same performance from their subcontractors. MTAR expectations regarding planning for quality are described later in this manual.

1.5 Verification of Requirements

MTAR reserves the right to audit contracted products and applicable processes/ systems associated with those products at the Suppliers premises. MTAR also reserves the right to access its sub Suppliers to be audited for the same.

MTAR also reserves the right of inspection/audit of Supplier and their sub-Suppliers premises by our Customers and Regulators of the products supplied by MTAR for Aerospace segment.

1.6 Supplier Performance Rating System

MTAR intends to establish and maintain long-term relationships with Suppliers who are committed to continuous improvement in quality, delivery, and service. This commitment is an expectation from all Suppliers who participate in the Aerospace segment.

The MTAR Supplier Performance Rating System is a means to help communicate our expectations to the supply base as well as provide feedback on performance. Suppliers are expected to use this tool to help identify opportunities for continuous improvement in the areas of quality, cost, delivery, price, development and service.

All the Suppliers under the scope of this manual will receive the Supplier Performance score once in a quarter.

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	2.0 NEW PRODUCT DEVELOPMENT	

2.1 Scope:

The requirements under this section will be applicable to special grade material Suppliers, components manufactured as per the MTAR drawings and specifications and special process service Suppliers. This section is not applicable to standard grade raw material Suppliers and standard catalogue based bought out items.

2.2 Introduction

Product quality begins at development stage. Therefore, from initial product concept through production and service, the Supplier and MTAR must understand and agree on all applicable quality standards and requirements. Agreement must be reached on all critical quality characteristics, control items, MTAR approval requirements, checking fixtures, packaging requirements, and all other quality related matters.

2.3 Traceability

Material/ process/ component/ sub-assembly traceability shall be evidenced by Supplier for all the parts/process carried out and submitted to MTAR.

2.4 Special tests

If any special tests (verification and validation tests) are performed by Supplier on the request of MTAR, following shall be fulfilled with

- a) Test plans or specifications identify the product being tested and the resources being used, define test objectives and conditions, parameters to be recorded, and relevant acceptance criteria.
- b) Test procedures describe the method of operation, the performance of the test, and the recording of the results.
- c) The correct configuration standard of the product is submitted for the test.
- d) The requirements of the test plan and the test procedures are observed.
- e) The acceptance criteria are met.

2.5 Packaging

Suppliers are required to meet agreed packaging and shipping guidelines.

2.6 Identification of Key Characteristics and control plans

All suppliers shall recognize the Key Characteristics given in MTAR/ or its Customer's drawings. If no Key Characteristics are given in the drawings, then cross functional team of Supplier can identify any Key Characteristics relating to product safety, reliability, air worthiness, and fitment, critical function of product or process parameters relating to control of these product characteristics. A control plan (SQAM-FRM-001) shall be prepared and submitted along with initial submission of samples for effective control of these Key Characters in the process and product.

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	3.0 SAMPLE APPROVALS	

3.1 Scope

The requirements under this section will be applicable to special grade material Suppliers, components manufactured as per the MTAR drawings, specifications and special process service Suppliers. This section is not applicable to standard grade raw material Suppliers and standard catalogue based bought out items.

3.2 Compliance to product requirements

Suppliers are responsible for performing the inspection, testing to lab standards and sample submission required substantiating conformance to all applicable product requirements. Suppliers are not authorized to begin production or shipment of material to MTAR prior to approval.

3.3 Submission of documents

All Suppliers who are submitting products for the first time shall submit the following documents.

- a) Process flow
- b) Sources of materials procured and material test reports
- c) Lay out inspection report
- d) Any verification and validation tests prescribed by MTAR
- e) Control plan covering all Key Characteristics
- f) Inspection methods and instruments used
- g) MTAR approved sources used for special processes

All documents shall be submitted to the Purchase and stores department of MTAR

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	4.0 CONFIGURATION MANAGEMENT SYSTEM 5.0 CHANGE CONTROL PROCESS	DATE : 30.12.2017 REV.NO.: 0 2

4.1 Scope

The requirements under this section will be applicable to special grade material Suppliers, components manufactured as per the MTAR drawings and specifications and special process service Suppliers. This section is not applicable to standard grade raw material Suppliers and standard catalogue based bought out items.

4.2 Procedure

All Suppliers shall control configuration level of products. MTAR encourages Suppliers to follow a configuration matrix (SQAM-FRM-002) to identify the current configuration level of parts, materials, special purpose jigs/ fixture, CNC programs used in process and special process validation approvals of MTAR.

5.1 Scope

The requirements under this section will be applicable to special grade material Suppliers, components manufactured as per the MTAR drawings and specifications and special process service Suppliers. This section is not applicable to standard grade raw material Suppliers and standard catalogue based bought out items.

5.2 Change notification

Suppliers shall intimate to MTAR on changes in process and product. Without prior approval of MTAR, changes shall be not implemented. If any such un-authorized changes are done by Suppliers, all such products with the un-authorized changes will be considered as Non-Conforming Products.

Supplier shall notify MTAR by submitting a Engineering Change Request (SQAM-FRM-003) under the following circumstances

- 1) Process change: Sequence, machines, process control parameters changes in special processes.
- 2) Material change: Source change, specification changes of material than approved through PPAP by MTAR.
- 3) Inspection method changes: Any inspection method, instruments used other than approved in PPAP.

As a matter of policy, Supplier cannot change product specifications, drawings, and verification and validation changes.

After examining the Change Request, MTAR will approve/disapprove such changes in writing. Changes shall not be affected until approved by MTAR.

Once changes are approved by MTAR, then initial sample submission documentation shall be updated by Supplier and re-submit along with 1st lot of products for approval.

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	6.0 HANDLING OF NON-CONFORMING PRODUCTS 7.0 COMPLAINTS HANDLING PROCESS	

6.1 Scope

The requirements under this section will be applicable to special grade material Suppliers, components manufactured as per the MTAR drawings and specifications and special process service Suppliers. This section is not applicable to standard grade raw material Suppliers and standard catalogue based bought out items.

6.2 Non - Conforming Products

Suppliers are not authorized to re-work on Non-Conforming Products. Non-Conforming Product is defined as a product that does not comply with the specifications of MTAR. Supplier shall notify MTAR for re-working or send "as it is" to MTAR of any such Non-Conforming Products to take re-work decisions. (SQAM-FRM-004)

6.3 Identification of NC product

All Non-Conforming Products shall be identified by suitable means conspicuously and segregated.

6.4 Disposition of NC product

Suppliers shall maintain a record of disposition of Non-Conforming Products Work Order / P.O wise and made available at the site for inspection of MTAR, or its Customer or the Regulatory bodies.

7.1 Procedure

Supplier shall have documented Customer complaint handling procedure. All complaints raised by MTAR, shall be recorded, investigated for cause of Non-Conformance, temporary and permanent corrective actions with due dates. Suppliers shall submit monthly status report of Customer complaints until the permanent corrective actions are effective. SQAM/FRM/005 shall be used for submission of corrective action

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	8.0 SPECIAL PROCESS APPROVALS 9.0 PROCESS AND MATERIAL TRACEABILITY 10.0 RECORDS CONTROL SYSTEM	DATE : 30.12.2017 REV.NO.: 0 2

8.1 Use of Customer specified source

All Suppliers shall use MTAR or its Customer specified special process service provider.

8.2 Responsibility: Meeting MTAR and its Customer and Regulatory requirements still lies with Suppliers even if they use MTAR/ Customer recommended sources.

8.3 Approval of special processes: All the special processes identified shall be approved by MTAR or its Customer or its Regulator prior to use.

8.4 Re-validation of special processes: Unless otherwise specified, all special processes shall be re-validated at least once in two years and records shall be submitted to MTAR for review.

9.1 All Suppliers to MTAR shall maintain traceability to the raw materials, processes and inspection of products at all stages. A documented procedure shall be in place with the Supplier on traceability.

If for any reason traceability is not feasible, then same shall be notified to MTAR and take prior approvals.

10.1 Documented procedure:

Suppliers shall maintain a documented procedure for records identification, indexing and storing.

10.2 Records to be retained:

All suppliers to MTAR shall maintain the following records for 10 year period unless otherwise specified:

- a) MTAR Purchase Orders
- b) Raw material test/inspection reports
- c) Process records
- d) Special process approval and re-approval records
- e) Inspection records of product
- f) Verification and validation test reports
- g) MTAR approvals of ECRs.

10.3 Availability of records for verification: All the above records shall be made available on request by MTAR, or it's Customer or its Regulator

10.4 All records maintained in electronic media shall have backup system to protect the records in the event of crash of computers

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	11.0 12.0 13.0 14.0 15.0 16.0 17.0	QUALITY SYSTEM REQUIREMENTS SUPPLIER AUDITS CLARIFICATION ON THIS MANUAL ETHICAL PRATICES PRODUCT SAFETY COUNTERFEIT PARTS HAZARDOUS MATERIALS	

- 11.0** All Suppliers of MTAR are expected to comply with ISO 9001:2015 system requirements. Third party certification is recommended. Suppliers shall submit either third party system certificate or internal audit report complying to ISO 9001:2015 standards or equivalent
- 12.0** All suppliers are subjected to audits by MTAR or its Customer or its Regulator from time to time. MTAR notifies the Suppliers about these audits in advance. However MTAR reserves right to audit the supplier premises without advance notification. All concerns and actions will be documented and provided to Suppliers for action. Suppliers audit reports will be considered for continuation of Suppliers at the time of re-evaluation of suppliers by MTAR.
- 13.0** Any clarifications on this manual, Suppliers are requested to contact Head (Purchase) MTAR.
- 14.0** MTAR believes in strong ethical behavior and practices from Suppliers. Influencing of any MTAR personnel for accepting their products or services is strictly prohibited. If any such demands made by any MTAR personnel, same shall be brought to the notice of MTAR Management.
- If any supplier found to be guilty of encouraging such practices, they are subjected to disapproval as Supplier without any notice
- 15.0** **Product Safety:** The supplier shall plan, implement and control their products and processes needed to assure product safety during the entire product life cycle as applicable for the supplier or product
- 16.0** **Counterfeit Parts:** The supplier shall plan, implement and control processes, appropriate for the supplier and the product, for the prevention of counterfeit or suspected counterfeit parts use and their inclusion in product (s) delivered to MTAR or its Customer
- 17.0** **HAZARDOUS MATERIALS:** The supplier shall provide MSDS for its parts / products along with supply and as and when demanded by M/S MTAR as applicable.