

# Supplier Requirements

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## 1. Introduction

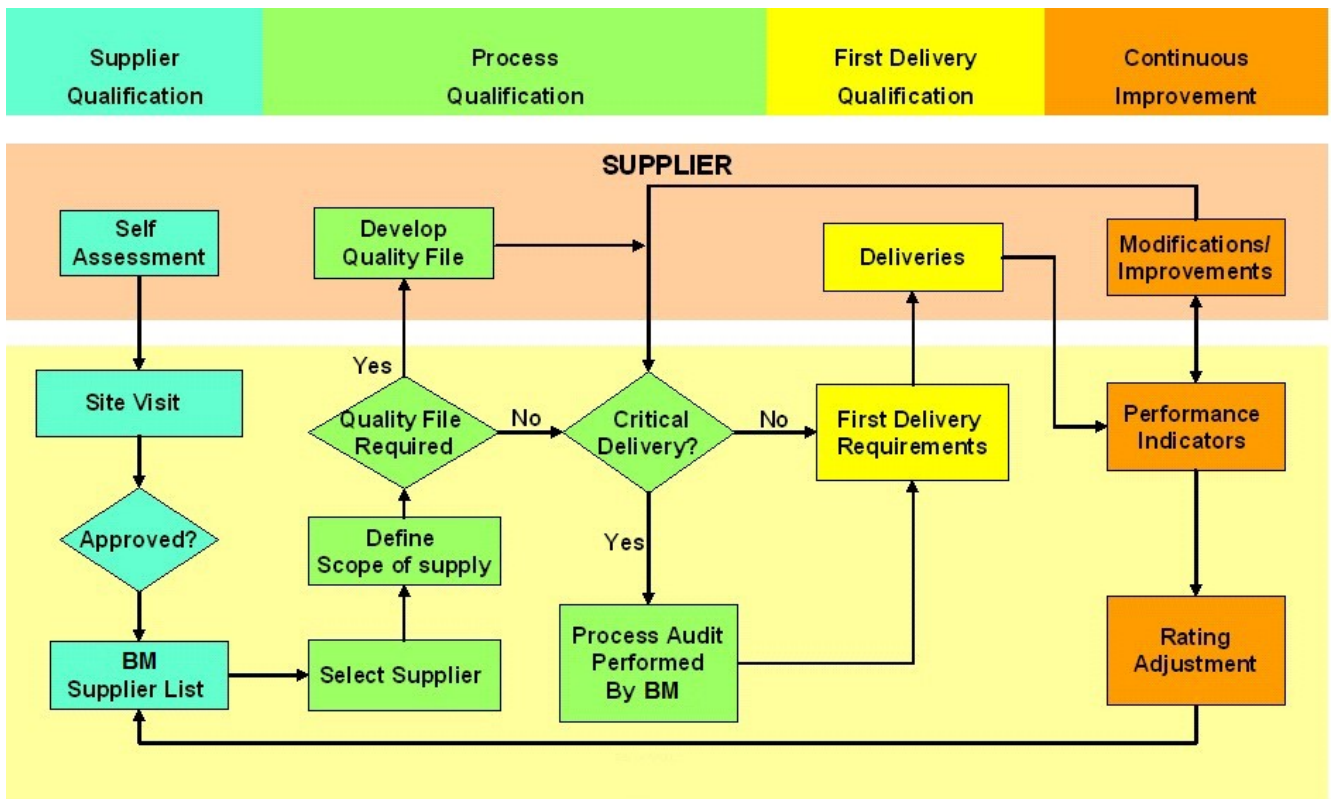
This document describes the process by which a supplier of components, products, systems, and/or services can get qualified to supply BIRR MACHINES (BM).

The process starts with the initial qualification of the supplier, which permits BIRR MACHINES to determine if a new supplier meets the minimum requirements established by BIRR MACHINES and can be added to the BIRR MACHINES Supplier List. The next step covers the qualification of the Supplier's process (manufacturing, designing, sub-contracting) which will be used to supply BIRR MACHINES with a specific component, system, or service.

The qualification of the first delivery is performed next with approval of initial samples and deliveries. Finally, the last step of this process covers the measurement and improvement of the Supplier performance.

This process is meant to be a cooperative effort between BIRR MACHINES and its supplier to ensure and maintain good quality and deliveries throughout the supply chain. This is achieved by BIRR MACHINES working with the supplier to develop and maintain a controlled process which addresses BIRR MACHINES requirements, and ensures minimal quality costs for both BIRR MACHINES and the supplier.

## 2. Supplier Qualification Process Overview



## 3. Supplier Qualification

The initial step in Supplier Qualification is based on these Supplier Requirements and the Supplier Qualification Questionnaire. All key Suppliers are required to complete the Supplier Qualification Questionnaire and return it to BIRR MACHINES. This provides us with the basic information about our Suppliers. Based on the Questionnaire responses, the Supplier may be visited by BIRR MACHINES to validate information provided in the Questionnaire. The local BIRR MACHINES unit will review the information and determine if the Supplier will be added to the Supplier List. This qualification is valid for one particular Supplier site.

## 3.1 Qualification Process Steps

### 3.1.1 Self Assessment

Suppliers must fill in the questionnaire and respond to all questions. Include:

- Documentation to support their self-assessment,
- a comment explaining a 'partial' or 'no' response,
- current actions being taken to address weak areas (enter this on the Summary Sheet)

Once completed, the questionnaire and all supporting documentation are to be sent to BIRR MACHINES.

### 3.1.2 Review and Site Visit

BIRR MACHINES will review the questionnaire, supporting documents, and action plans sent by the supplier. BIRR MACHINES will decide whether it is necessary to perform a counter-assessment at the supplier site or to directly approve the supplier based on information provided. BIRR MACHINES reserves the right to adjust the score of individual questions based on its evaluation of the information provided by the supplier.

### 3.1.3 Supplier Qualification Status

Suppliers can determine their potential qualification status by looking at the Summary Sheet of the Supplier Qualification Questionnaire. According to the qualification level achieved you can see below the actions that need to be taken.

**Rejected:** Your score is under 50%: your company is too far from BIRR MACHINES requirements. If and when you have implemented corrective actions which permit you to reach a score of more than 50%, you can get in touch with BIRR MACHINES again.

**Under Development:** Your score is between 50% and 80%: you can be part of the BIRR MACHINES Supplier List, provided your Quality, Costs and Delivery (QCD) performance is best in class and you have a plan to reach 80% within one year.

**Qualified:** Your score is above 80%: you can be part of the BIRR MACHINES Supplier List, provided your Quality, Costs and Delivery (QCD) performance is best in class. We will ask you to implement continuous improvement plans to increase your score year over year.

The decision to include a supplier on the BIRR MACHINES supplier list will be based on the combination of the score and the action plan to address weak areas.

## 4. Process Qualification

In this section we will look at the process (manufacturing, designing, sub-contracting), which will be used to supply BIRR MACHINES with a specific component, system, or service. We are interested in making sure that the process used will meet all BIRR MACHINES Requirements and that it has all the necessary elements and checkpoints to ensure it remains under control. A controlled process is the key to good quality and deliveries. Some of the key tools in this section are the "Quality File" and the "Process Control Plan".

### 4.1 Process Qualification Steps

#### 4.1.1 Select Supplier from BIRR MACHINES Supplier list

BIRR MACHINES will select a supplier from the BIRR MACHINES Supplier List, based on its technical ability to supply a specific component, system, or service, and to meet Quality, Costs and Delivery criteria.

#### 4.1.2 Define Scope of Supply

BIRR MACHINES unit determine the Scope of Supply to be sourced. Based on the risk associated with the supply, BIRR MACHINES will determine the level of control and follow-up required by BIRR MACHINES and will decide on the requirements for a Quality file and/or a Process Audit. (i.e. the Quality File is not required for Suppliers of standard, catalog items or products.)

### 4.1.3 Quality File

Suppliers will create a Quality File to maintain all the relevant information related to the scope of supply. The quality file should include:

#### 4.1.3.1 Basic Documents

Minimum required documents to be contained in the Quality File:

- Drawings and specifications (The supplier must maintain the latest revisions of the BIRR MACHINES drawings and specifications as part of the quality file)
- Purchase Order and Purchase order changes

#### 4.1.3.2 Additional Documents

The quality file may also include additional documents based on the complexity and criticality of the scope of supply to BIRR MACHINES. As these documents are created, they should be added to the Quality File. Some of these documents are described below: (*Product Design documents are only required if the Supplier has responsibility for the design of the Component Product*).

- *Products Design Development Plan*: Suppliers shall document plans that identify the responsibility for each design and development activity, as well as a precise planning, which matches BIRR MACHINES project needs. The plans shall describe or reference the design and development activities and shall be updated immediately as the design evolves.
- *Product Design Review*: Design output shall be documented and expressed in terms of requirements, calculations, and analysis. The design review shall verify that all requirements have been met by the design output.
- *Product Design Change*: Suppliers shall establish and maintain procedures for the identification, documentation, and appropriate review and approval of all changes and modifications to a design. For BIRR MACHINES specific component, systems, or services, BIRR MACHINES must approve all changes prior to implementation.
- *Approved Sub-Supplier List*: Suppliers will establish the list of sub-suppliers that have been approved using their own internal supplier qualification process.
- *Sub-Supplier Initial Sample Approval*: Suppliers will maintain approved samples of key components, products, or systems manufactured by their sub-suppliers, which will be used in the supply of the BIRR MACHINES component, system, or service in question. Initial Samples reports shall be kept by the supplier at BIRR MACHINES's disposal.
- *Process Control Plan*: Suppliers shall map out the process to be used to supply the component, system, or service to BIRR MACHINES. For each step in this process (or component used in that step), the plan should include: component/process step number, operation description, production equipment, characteristics to be controlled, methodology for measurement including tolerances, measurement equipment, size and frequency of measurement sample, corrective action procedure.
- *Gauge Capability Study*: Suppliers shall control, calibrate, and maintain inspection, measuring, and test equipment, whether owned by the Supplier, on loan, or provided by BIRR MACHINES, to demonstrate the conformance of the product to the specified requirements. Equipment shall be used in a manner, which ensures that the measurement capability is known and is consistent with the required measurement capability.
- *Process/Product Capability Study*: Suppliers will determine if they are capable of meeting the material, component, system, or service requirements as provided in the BIRR MACHINES contract and that the proposed process for creating the component, system, or service is capable of meeting all requirements.
- *Preventive Maintenance Plan*: Suppliers will keep their preventive maintenance plan for all equipment involved in the creation of the component, system, or service in question, at BIRR MACHINES's disposal.
- *Process Failure Mode Effects Analysis*: Suppliers will utilize the FMEA tool to analyse the process used to fulfil the scope of supply and determine potential failure modes. These failure modes will be reviewed for adequate controls and modifications to the Process Control Plan may be necessary as a result of the analysis.

### 4.1.4 Process Audit

For critical components, products, systems, or services, BIRR MACHINES will perform a process audit at the supplier site according to BIRR MACHINES Process Audit questionnaire. The process audit is meant to evaluate the process described in

the Process Control Plan and observe its effective implementation and capability to deliver good quality and delivery of the scope of supply.

This audit will be performed prior to initial supply. BIRR MACHINES may perform Process Audits on a regular basis to ensure there is no deviation over time. Process audits may also be performed by BIRR MACHINES in case of recurring non-conformances, or any other reason at BIRR MACHINES discretion.

Suppliers commit to give full access to their processes, documents and personnel during the Process Audits.

A process is considered as qualified for similar material, components, products or systems produced according the same process, at the same supplier site.

## 5. First Delivery Qualification

### 5.1 First Delivery Plan

Supplier will develop a plan to monitor the initial delivery of components, products, systems or services to ensure that the manufacturing/delivery process is generating the quality level expected by BIRR MACHINES. The plan may involve submittal of initial samples or demonstration of services by the supplier.

Initial samples, if required, must be manufactured with the final means and be representative of the normal production components and/or systems. They must be dispatched on time for the attention of BIRR MACHINES Supply Chain Management department. A specific label 'Initial Samples' with at least the following information: quantity, number, and index of the drawing, will be provided by the Supplier.

BIRR MACHINES will use its own means to carry out the checking of the measurements presented by the Supplier and will check of the scope of supply under practical conditions of use. BIRR MACHINES will issue the results to Suppliers.

The plan should include necessary actions to detect and contain any non-conformity. This containment plan should be submitted and approved by BIRR MACHINES.

### 5.2 Deliveries

Once approved, Supplier can deliver the scope of supply to BIRR MACHINES.

## 6. Continuous Improvement

Once deliveries of the component, system, or service have started, BIRR MACHINES will monitor the Supplier's performance to establish a trend of Continuous Improvement. Quality and On-Time Delivery are the minimum metrics which will be tracked for Supplier performance. Additional performance measures may be required by certain BIRR MACHINES units.

Resolution of non-conformances in the supply to BIRR MACHINES will be addressed in a manner that will best support BIRR MACHINES's requirements. Expenses associated with supply non-conformances will be the responsibility of the Supplier.

### 6.1 Performance Indicators

BIRR MACHINES will monitor supplier's performance and report it on a regular basis.

Supplier Performance Indicators are as follows:

- **Product Quality:** % defect free deliveries received
- **On-time delivery:** % of all shipped received complete and on time, based on agreed Incoterms

Suppliers are expected to work with BIRR MACHINES to improve performance and/or process capability where needed. BIRR MACHINES may modify the level of control exercised based on the Suppliers on-going performance. In cases of repeated poor performance or failure to improve, suppliers will be removed from the BIRR MACHINES Supplier List.

## 6.2 Containment of Non-conforming Supply

In the event a non-conforming material, component, system, or service is detected, BIRR MACHINES will determine the best method of securing conforming supply to meet our production requirements:

- BIRR MACHINES to return the entire lot of non-conforming material, component or systems to suppliers
- Suppliers to sort/rework/repair the non-conformance at BIRR MACHINES site
- BIRR MACHINES to identify an external resource (certified by BIRR MACHINES Quality Department) to perform the sort/rework/repair
- BIRR MACHINES personnel to perform sort/rework/repair

### 6.2.1 Cost Recovery

Suppliers shall assume the costs incurred by BIRR MACHINES as a result of defective supplies, services or product liability issues.

Suppliers must have liability and third party insurance policy in amounts which are agreeable to BIRR MACHINES.

## 6.3 Modification/Improvement Process

Any change to the original product or process design must be approved by BIRR MACHINES prior to implementation. A Request for Change needs to be submitted to BIRR MACHINES and approved prior to implementing the change. The supplier shall keep records of all requests and corresponding BIRR MACHINES approvals.

For all modifications/improvements submitted, BIRR MACHINES will determine whether a new First Delivery Plan is necessary.

In particular, an Initial Sample submission will be requested in the following cases:

- New product
- New tooling
- Change in supplier's manufacturing unit

## 7. Revision Control

Rev A – Initial Revision.