



**Weber Motor**

## **QUALITY PLANNING FOR SUPPLIERS**

***- PERFECTION IS OUR DRIVE -***













## 4 Implementation of basic requirements

### 4.1 Quality Management System and Quality capabilities

The supplier has implemented a QM system successfully and is using it to demonstrate Quality capability.

The system fulfils the minimum requirements set out in:

DIN EN ISO 9001:2000

The supplier should demonstrate certification through an accredited 3<sup>rd</sup> party (3rd Party Audit).

Additional allowances of the automobile industry have to be known for the supplier and concerning to the delivered products to Weber Motor, they have to be fulfilled.

The additional criteria are defined in:

- VDA 6 part 1
- QS9000 series of standards

Or summarized in:

- ISO/TS 16949

A 3rd party certification to the above standards/scripts is recommended by Weber Motor. The environment protection standard DIN EN ISO 14001 has to be considered.

## 5 Further allowances

### 5.1 Production feasibility analysis

Drawings of the product which are compiled by Weber Motor development should be analyzed by the suppliers in the context of the offer. This analysis contains the economical and process capability and production feasibility (Procedure, basic materials, tolerances - This test offers the supplier the opportunity to bring in his experiences and his proposals to the mutual advantage.

For the inquiry for this production feasibility analysis, the corresponding form has to be filled out feedback has to occur not later than the submission of the quote.

### 5.2 Issue of Control Plan

Der Contol Plan stellt ein Planungsmittel zur präventiven Prozeßabsicherung dar. Die The Control Plan represents a planning tool for preventive process protection. The generation is done through a systematic analysis of production, installation and inspection processes by the team. This team should consist of personal from planning, production and quality assurance as well as from other concerned departments. The bases of the analysis are process flow charts, product and process FMEAs relevant to the quality characteristics, experiences of similar processes as well as the use of improvement methods.

The control plan should contain at least the following information:

*Control plan number with date of issue / alteration, the department responsible for this issue or alteration, part number of the component with current change index, operation number or process number (referring to operation sheet), process name and short description, machine*

Erstellt	M. Wassmer	Revisionsstand	B	Seite 7 von 12
Geprüft/Freigegeben	M. Pleikies	Ausgabedatum	17.02.2009	





5.5.3 Internal product audit (delivery audit)

An internal product audit should be carried out on a fixed number of components ready for dispatch. Those should check that customers requirements, specified by drawings, standards, packing instructions, cleanness requirements, function, outside as well as further customers' guidelines are adhered to.

All the audit results should be documented in written form.

5.6 Measurements System Stability Studies, Machines- and Process-Capability

By using statistical methods, the supplier assures that the engaged machinery, tools, measuring devices, inspection equipment as well as the processes in which they are used, are suitable and capable for the manufacture of the products delivered to Weber Motor.

The characteristics for which the proof of capability is required are coordinated between Weber Motor and the supplier.

5.6.1 Measurements System –Stability Studies

As minimum, the following demands should be fulfilled:

▪ **Process 1**

Inspection equipment capability index:  **$C_{gk} \geq 1,33$**

Here, 50 repeat measurements are done in short succession by the same inspector condition: The resolutions of the measuring tools have to be less than 10 % of the tolerance.

▪ **Process 2 (with operator influence)**

Repetition precision and comparison precision (R&R):

≤ 20% for new inspection equipment

≤ 30% for inspection equipment in use

In this process, there are normally two inspectors and ten parts with two test series per inspector.

▪ **Process 3**

Repetition precision (R):

≤ 20% for new inspection equipment

≤ 30% for inspection equipment in use

In this process, there are two measurements for every 25 parts.

5.6.2 Machine capability

Index of process capability:  **$C_{pk} \geq 1,33$**

In this case, samples will be taken and assessed for a short period.

5.6.3 Process capability

Index of process capability:  **$C_{pk} \geq 1,33$**

A smaller number of parts will be retained and assessed, distributed over a longer period. Details of the procedure are listed in VDA Section 4 part 1 as well as in the QS9000 documents.

If it is not possible to achieve the minimum demands for a short time, the 100 % tests have to be carried out as long as the capability is achieved again due to corrective actions.

Erstellt	M. Wassmer	Revisionsstand	B	Seite 9 von 12
Geprüft/Freigegeben	M. Pleikies	Ausgabedatum	17.02.2009	





