DEFINITION OF REQUIREMENTS FOR QUALITY SUPPLIER

APPENDIX No. 1 (S04 Purchasing)

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1. List of definitions, terms and shortcuts

QMS - Quality management systém -
ppm - parts per milion -
8D report (G8D) - tool for documenting eight steps of team problem solving.
QOS - assurance and improving the quality of key characters
Product - is synonymous with the term product, there are four categories of products according to ISO 9000
Bulk material - according to PPAP manual
Proces - a set of interrelated resources activities which transforms inputs into outputs
The samples submitted for approval - means the removal of a small number of samples from major series that have been produced and prescribed production tools, processes and time standards. Parts for approval are examined for all technical parameters
Specifications - technical requirements for assessing the acceptability properties of samples
Sample - is a single component, part or final result
The level of presentation - means the amount of documentation required when submitting products
First sample - the first batch of production designed to verify that the contractor has complied with the required specifications
PPAP - the process of disbursement of the initial samples
Pareto Analysis - is an important tool for managerial decision, as it allows to set priorities in addressing quality issues so that the effective use of resources has been achieved maximum effect
Additional costs - are raising additional financial volume and the recipient is always obliged to pay
Sub-supplier - organization delivering another business component supplies for their completion, the Supplier supplying suppliers
Pre-production phase - the planning phase of product quality, which has not yet been introduced into serial production
Cover sheet PSW - when all requirements PPAP organization must fill out the submission
Drawing - design documentation products
FMEA - analysis of risks and their consequences
R&R - repeated measurements of the same dimensions of several different pieces of the same product, several workers
IMDS - international Materials Database
PDCA - process of continuous improvement
Internal complaint - is when MGL Ltd. to complain about the poor quality of the product and requests immediate correction. This mismatch was found before the next delivery to the customer (the so-called internal complaints)
External complaint - is when a customer MGL Ltd. to complain about the poor quality of the product and requests immediate correction. When MGL Ltd. find that nonconforming product is due to the Contractor dealt with further as internal complaint

Content

2. The purpose of establishing the requirements for quality suppliers

The common objective of of suppliers and MGL Ltd. is continually increasing the reliability of the quality management system. This can only be achieved through intensive common cooperation between individual processes and the implementation of quality management system.

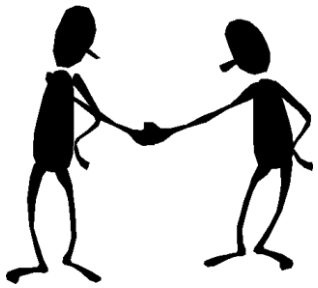
Ever closer partnership between customers and suppliers is a prerequisite for increasing the common competitiveness. MGL Ltd. therefore expects its suppliers intense cooperation aimed at preventing, planning and quality assurance at all stages, especially in the planning phase, the implementation of the development and delivery of products.

3. Area of application of Annex 1 for definition of requirements for quality suppliers

"Annex 1 to Directive 04 Purchasing" is used to define the requirements of MGL Ltd. to suppliers and also establishes procedures that are desirable to ensure the quality of purchased products within the supply for which is responsible the supplier. Requirements for suppliers MGL Ltd. should be transmitted to all suppliers and their sub-suppliers.

4. Definition of the scope.

Annex 1 of the Directive S04, valid from **5.3.2013** and is mandatory for all suppliers who were familiar with the Directive. The current version is always stored on the website of MGL Ltd.



5. The quality system supplier

The Supplier agrees to to your own responsibility to plan, organize, implement the production process and ensure the quality of supplies and to ensure all requirements for quality assurance placed on the product.

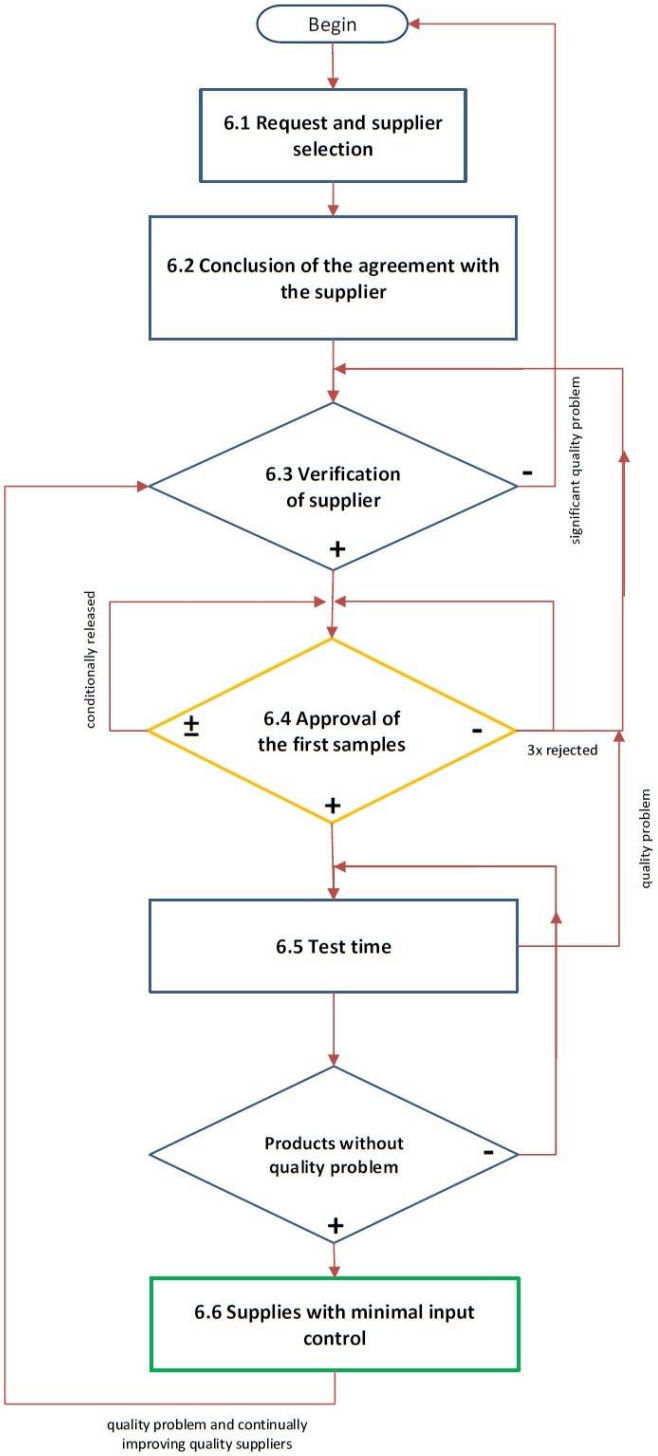
Pre-production stage must be properly planned, including controls. The Contractor shall establish objectives and these are regularly evaluated. Prerequisite for successful cooperation based on trust between MGL Ltd. and the supplier's mutual appointment of contact persons in the area of quality and logistics.

MGL Ltd. required to demonstrate certification of its quality management system according to international standards (ISO / TS 16949, QS 9000, VDA 6.1, ISO 9001 or other) and sending electronic copies of the email organization or in a printed version by post to the address of the organization.

If the supplier does not have a certified quality management system must be in place and secure a quality system certified by MGL Ltd.

MGL Ltd. and among other things, evaluate their suppliers according to documented quality management system certificate. If the supplier does not have any of the above certificates, MGL Ltd. review him as a supplier with a lower rating (see chapter 8).

6. Postup MGL s.r.o. při nakupování nového produktu



Obr. 2. Postup při nakupování nového produktu

Grafický postup pro větší přehlednost postupu při nakupování nového produktu.

6.1 Demand and a supplier selection

Selection of suppliers is governed by the directive "S04 Purchasing".

6.2 Conclusion of agreements with suppliers

In this phase, the supplier completed and approved "Agreement on quality," which includes the directive "Guidelines for establishing quality requirements for suppliers.

6.3 Verification of supplier

6.3.1 Audit

MGL Ltd. As a customer has the right to verify QMS, process capability of the supplier or the compliance of audit.

External audit at the supplier performs authorized personnel department quality MGL Ltd. The results of the audit process to provide information about the quality and logistical process capability and point to possible improvements. The supplier is expected to work out the plan of remedial measures deviations identified during the audit process. The validity period is a maximum of 10 years. The impetus for early re-audit may be an increased incidence of quality problems.

Audits carried out by organizations MGL Ltd. at the supplier, the supplier agrese:

- provide information regarding the organizational structure, management and quality assurance, logistics and security protection of the environment;
- answer all questions relating to quality assurance and logistics;
- enable employees MGL Ltd. access to areas vendor to determine information relating to the audit;
- react to disagreements and recommendations found during its audits;

The term audit of the company MGL Ltd. notified in advance (at least 10 working days). The supplier shall be sent to the audit result in the form of the audit report.

MGL Ltd. can verify the contractor on the basis of audit reports other important customers. In case MGL Ltd. and the Contractor agrees that the process must submit reports of at least two completed audits were carried out in a previous or more in a given year.

MGL Ltd. can verify the supplier by sebehonotících audits "F-100" or a combination of audit reports and self-assessment audits. Self-reported audit is done so that the supplier is sending the form asked questions to verify the quality management system vendor / engineer.

If during the verification supplier to serious qualitative problem, followed by a new procedure approval process with a new supplier selection.

6.3.2 Process audit

Verification of suppliers may be using an internal directive "S11 audits of management systems", which will be sent to the supplier upon request.

Process audit is used in this case to assess the effectiveness of the measures of quality control in a certain process such as:

- product planning;
- troubleshooting;
- input / output quality;

- training of employees;
- production;
- supply;

While examining the conformity of existing related documents, specifications and customer requirements in a broader context.

Based on current suggestions can be made and unplanned process audits. Reasons to process audits may be, inter alia:

- actual complaing, declining quality of products;
- changes in the products/ in the processes;
- irregularities in delivery, wrong delivery;
- qualification process of the approval of the first sample;
- approval of a new subsupplier;

The supplier is expected to work out the plan corrective actions and the identified weaknesses in the audit process in three months from sending messages.

The scale is the percentage classification evaluation of the supplier:

- 80% - 100% competent supplier
- 60% - 79% conditionally competent supplier

(the next verification must achieve at least 85%)

- 0% - 59 % incompetent supplier

(for serious quality problem follows a "Fig. 2nd procedure when buying a new product")

The condition for a new supplier is get ratings more than 85%

6.4 Approval ot the first samples

6.4.1 Supported the approval of the first samples

Approval of the first sample is, according to MGL Ltd. integral part of the documents required by the approval process products according to QS 9000 PPAP manual (the latest version).

The supplier always receiving prior document "F-19 PPAP requirements", which contains all the information on the submission.

Unless agreed otherwise, the supplier will supply samples simultaneously with the following documents. All documentation will be in English (or English-Czech) language, or on demand, supplier additionally supplied at the agreed time translated documentation in the language.

Požadavek		P	N	N/A
01.	Cover sheet (PSW)	**X**		
02.	Sample	**X**		
03.	Design documentation	**X**		
04.	Dimensional protocol	**X**		
05.	Certificate of material (actual results)	**X**		
06.	Material sheet (guaranteed values and tolerance)			**X**
07.	Flowchart	**X**		

08.	process FMEA		**X**	
09.	Control plan		**X**	
10.	Process capability and production equipment (SPC)	**X**		
11.	MSA - Measurement System Analysis (metoda R&R)		**X**	
12.	Packing regulations, labeling supplies	**X**		
13.	Tests of technical specification			**X**
14.	Copy of the IMDS	**X**		

P – Contractor must submit requests for approval of the first sample and copy requirements must be placed in a suitable location.
N – The supplier must impose requirements on a suitable location and to supply the customer.
N/A – Contractor must request and submit a request to create a customer and store in a convenient location.

6.4.1.1 Cover sheet PSW

Contractor shall submit to the patterning management application for approval of a sample cover sheet PSW. The total release of the first (reference) samples performed MGL Ltd. Based on the ratings of the test results of samples will be taken from one decision:

Approved:
The product released for serial deliveries.
Conditionally approved:
Deliveries released for a limited time or for a certain amount. Specifies requirements that suppliers must fulfill to obtain the status "Released". May be requested by submitting new samples.
Rejected /Unnreleased
Delivery of products is not allowed. It is necessary to re-sampling. If during the approval 3x a serious qualitative problem or to reject the first samples will follow a new procedure for the approval process of selecting a new supplier

6.4.1.2 Samples

Contractor shall submit samples produced by tools measuring products, processes, materials, service, ambience and setting processes and parameters consistent with the process of serial production.
At the same supplier samples must be properly labeled by a numbered. For more production with the same tools for each tool or. in multiple forms for each position (fingerprint).

The number of samples with MGL Ltd. always with the supplier in advance to arrange.

6.4.1.3 Design documentation

We divide:

a) Drawing owned by MGL Ltd. or customer - the Contractor receives the drawing, under which produces the desired product.
b) Drawing is not submitted if it is a bulk material.
c) Drawing is owned suppliers - drawing must be approved by MGL Ltd
   Form of approval:
   1) The supplier will deliver the product to the drawing MGL Ltd.
   2) MGL Ltd. drawing approve (or the comment).
   3) MGL Ltd. delivery of design products with the stamp drawing on drawing from a supplier puts into a drawing stamped with MGL Ltd.

Contractor shall submit design documentation, product, component or product details and send it together with a copy of the design documentation samples with opozicováním measured dimensions (marked in accordance with the dimensional protocol in the (6.4.1.4) and supporting drawings and sketches, which uses in the manufacturing process. Design documentation must contain the current material specifications (possibly referring to current standards, as amended).

6.4.1.4 Dimensional protocol

Contractor shall submit samples and complete dimensional report on the samples to be properly numbered.
Dimensional report shall include all dimensions of individual components, CS characters (critical - security) or CC characters (important for the customer), and other important parameters.
In the event that a bulk material supplier dimensional protocol does not provide

6.4.1.5 Certificate of material

Contractor shall provide proof of materials used in manufacturing the product in its entirety (the whole). Confirmation of material tests performed must fully conform to EN 10204 (in the latest edition), unless otherwise agreed.
In the case of bulk materials, the Contractor shall submit with each shipment of materials to present certificates to a minimum as the pattern, unless otherwise agreed.

6.4.1.6 Material sheet

For suppliers of bulk material:
In the event that a supply of bulk materials, the supplier must dossier, material list, which supplier guarantees that each supply supply within the tolerance limits, at which MGL Ltd. together with the supplier agreed in advance.
MGL Ltd. during the initial inspection performed experimental tests for each shipment, only compares the values to the data sheet with the value of the material certificate. If the certificate in accordance with the material sheet MGL Ltd. bulk material releases. If the values do not match, it is addressed as a mismatch by appropriate measures under Directive "S10 Control and Prevention disagreements."

For suppliers of products:
The supplier declares the results of the material according to the "F-19 PPAP - requirements" only in sampling, retraining or on-demand.

6.4.1.7 Flowchart

Contractor shall submit to the process flow diagram that clearly describes a sequence of steps of the manufacturing process and meets the needs and requirements of MGL Ltd. (starting with the input control, the expedition ended).

6.4.1.8 Process FMEA

The contractor shall submit an analysis of the risks and their consequences in the process. Unless otherwise specified, the threshold number of risk potential defects must be less than 125, in the case of reaching or exceeding the value of the contractor must propose measures to reduce the risk numbers.
After the implementation of the action team analyze whether the implementation of the planned measures correspond to measure and re-assess the risk of defects.

6.4.1.9 Control plan

MGL Ltd. calls for the development control plan (control plan), which defines and describes all the checks in its entirety process (from input control after delivery). When processing control plan must be based on the current "flow chart of the process" and must be factored into the results "PFMEA". The control plan is the basis of the planning process quality of the supplied product.
Processing control plan to be carried out by manual QS 9000 - APQP manual in the latest version.

6.4.1.10 Process capability of manufacturing equipment

The supplier shall at all agreed CS characters (critical - security) or CC characters (important for the customer), or other prearranged products and processes demonstrate eligibility process.
You need to know and use methods of statistical process control (SPC), such as (VDA 4.1 and QS-9000: SPC, or other).
Index term eligibility Cmk / Cpk is done already in the first sampling.
Index term capability Cpk is carried out continuously and must be at regular time intervals.
Process capability are very important because they provide evidence that the product was in stable production conditions which ensure regular follow prescribed quality criteria, if the process is not competent, the supplier must take steps to 100% inspection, unless otherwise agreed.

Overview of the use of capability indices:

Cmk (eligibility machine called a short selection is done within the first sampling) - taking 50 consecutive pieces, or 10 subgroups of 5 units.
Setpoint is, unless stated otherwise: **Cmk> = 1.67**

Ppk (preliminary process capability is also done within the first sampling) before the beginning of serial production - consumption 20 subgroups of 5 units, at the same inspection intervals minimal quantity of 100 pieces.
Setpoint is, unless stated otherwise: **Cpk> = 1.67**

Cpk (process capability so-called long-term selection is carried out continuously and must be evaluated on a regular basis) - the launch of series production - follow-up period of 20 working days. Subscribe least 5 subgroups of 5 units per day during the same inspection intervals of at least 500.

Setpoint is, unless stated otherwise: **Cpk> = 1.33**

In order to evaluate the process capability index Cpk by, the process must be mastered first statistically, to verify zvládnutosti statistical process control charts can be used.
In cases where the process is mastered and statistical information is not available for analysis and removal identifiable causes can use the performance index Ppk process, considering the quality, but merely characterize the actual behavior of the process and can not be used for prediction.
In addition to the evaluation of process capability indices are used based on the assumption of normal distribution of the reference character quality. If this assumption is not satisfied and calculating capability indices are used in standard relations, information can be obtained worthless.

6.4.1.11 MSA - Measurement System Analysis (method R&R)

Documentation of eligibility planned gauges and measuring devices. Eligibility supplier is obliged to prove in all gauges specified in the relevant control plan.
The minimum sample size is 10, two reviewers, and each measurement is repeated 2 times.

6.4.1.12 Packing instruction

Contractor must ensure proper handling of a permanent identification products.
Marking of supply is carried out by labels according to VDA recommendation 4902, always according to the latest version or by appointment.
Contractor shall design package including auxiliary packaging material and method of storing parts in the form of "packing regulations" before the start of deliveries and every change that might affect the packaging. Packaging prescription approves MGL Ltd.
The amount of returnable packaging (unless it is agreed that the package will refundable) for a given product will be subject to mutual agreement. Acquisition of the required volume specified type of packaging and auxiliary materials, the Supplier at its own expense. Repairs, cleaning and disposal of old containers provided by the supplier, if not agreed otherwise.
Determination of price conditions for irreversible and reversible packaging, cleaning, repair and disposal is part of the APA.

6.4.1.13 Tests technical specifications

The contractor shall submit a record of the tests the technical specifications of products specifically called for by MGL Ltd. or their customers.
Tests are carried out in all cases where the components specified features (climate, material, visual, noise, performance, reliability, etc.). Contractor performs all tests resulting from the technical documentation.
If the contractor is unable to perform the required special tests, these tests ensure the qualified external service.
In case MGL Ltd. will require the tests carried out in an accredited laboratory, the supplier must provide these tests and the results submitted with a valid certificate of accreditation of the laboratory.

6.4.1.14 The copy of the IMDS database

Contractor must be registered in the IMDS system and all documentation will be submitted to MGL Ltd. (ID # 87625) IMDS through on-line system.

All contractors who supply products for MGL Ltd. must submit documentation 15 days in advance before an appointed deadline for submission of PPAP documentation and initial samples.
Registration for the IMDS visit http://www.mdsystem.com and follow the instructions for on-line registration.

6.4.2 Expression for approval samples

Po skončení vzorkového řízení, bude dodavateli zpět zaslána vyhodnocená kopie krycího listu PSW. Uvolnění vzorkového řízení nezbavuje dodavatele odpovědnosti za kvalitu dodávaných produktů.

6.5 Test time

he objective is to verify the quality of supply. Deliveries are subject to random input control MGL Ltd. The trial period lasts for two months and is valid for at least three delivery. If during the test period for the qualitative or logistics incident, trial begins again. In case of frequent quality problems will follow „Figure 2 procedure when buying a new product. "

6.6 Deliveries with minimal input control

Statute of supplies with "*minimal input control*" can become suppliers who have successfully passed the point 10 "trial period".
Any quality problem leads to an immediate disruption with minimal input control and the re-introduction of section 6.5 "trial period".

7. Supplier activities in Claim

If the delivered products identified qualitative or logistic disagreement. MGL Ltd. will inform the contractor shall inform in writing to the complaint. Procedure for complaints procedure is based on the criticality of the identified non-conforming products as follows:

7.1 A significant number non-conforming products affecting running of production

If it was to be in serious disagreement on the mounting problems, laboratory testing, customer complaints or other forms of deviations, is the Supplier immediately by telephone and e-mail of the form "F-79 Complaint Protocol", which serves as the basis for statistical processing of claims. This information always sends the appropriate officer complaint procedure. MGL Ltd. the supplier is expected to send back the initial 8D report (see section 7.3), which includes at least information on immediate action to remedy within 24 hours.
Based on the initial telephone or e-mail information establishes the necessary measures to rapidly clarification and removal.
When the van stopped, the contractor responsible for the border state in circulation. Immediately introduce immediate measures, such as the supply of spare parts or van repaired parts. If this is not possible for timing reasons, the company will MGL Ltd. and supplier agreement on the introduction of short-term emergency measures to maintain production.

Until verification of the permanent corrective measures must be absolutely controlled all the products in terms of resulting defects. The marking is carried out according to the data contained in 8D Report.

7.2 Number of nonconforming products directly do not endanger running of production

If the disagreement was found in only a few pieces or suspended a dose that do not directly threaten the flow of production MGL Ltd., a supplier sends only "F-79 Complaints Protocol". This form sends always appropriate referent complaint department. Contractor shall complete the document and sends it back to MGL Ltd. within 20 working days.
If the supplier of the claim within the above time does not respond, the complaint shall be considered as recognized in favor of MGL Ltd. This claim is subsequently reflected in the supplier evaluation

7.3 Corrective action

Corrective measures to ensure the final elimination of the causes mismatched supply and ensure 100% quality other supplies. For developing an action plan of remedial measures are used 8D Report Form (Global 8D report).
MGL Ltd. from the vendor expects to send the initial 8D report within 24 hours and completely filled and processed 8D report within 7 days, unless otherwise agreed.
Initial 8D Report must contain at least the immediate remedial measures.
Fully completed 8D Report must contain a detailed description of the cause (eg set based on the methodology 5x why),

1) cause of nonconforming (root cause);
2) cause why the nonconforming came to MGL;
3) action of finally resolve nonconformities;
4) determination of people and deadlines for each corrective action;
5) determination of methodology and end date improvement plan including verification of the effectiveness of corrective measures.

If it is not able to immediately implement long-term corrective measures must be developed long-term action plan with deadlines and periodically as required by MGL Ltd. updated until completion.
If the supplier is required to analyze the claimed piece will be sent to him at his expense. In case of recurrence of the same defects (failure measures) or at the customer's request MGL Ltd., the MGL Ltd. require the introduction of Quality Wall, a 100% grading contractor or supplier's cost in the MGL Ltd. Exit this mode may be the procedural audit and / or incidence 0 errors for three months, unless agreed otherwise.

8. Evaluation of suppliers

MGL Ltd. evaluated once a year for ability suppliers. The method describes the evaluation of S04 Purchasing.

9. The supplier's liability, penalties

9.1 General responsibilities

Supplier shall have primary responsibility for manufacturing the products delivered to MGL Ltd. used in the final product, both for quality and for its safety. MGL Ltd. is also responsible for implementing access control.
MGL Ltd. expects from suppliers and subcontractors that create such organizational and technical prerequisites to increase the safety of its parts and to minimize the risk of product liability.

The Supplier agrees to the organization MGL Ltd. informed immediately if unsuccessfully defended, cancellation or any other change in the scope of certification. Valid for ISO 9001, ISO 14001 and ISO / TS 16949.

9.2 Requalification materials / parts

The supplier is obliged to carry out requalification material / parts every six years in the same scope as in sampling and submit without request MGL Ltd.

9.3 Qualitative defects

Contractor shall pay the organization MGL Ltd. All eligible costs incurred as a result of mismatched supply. He is also obliged to pay any costs incurred in internal sorting MGL Ltd. that it was necessary to address the immediate measures provided for in dealing with nonconforming supplies in the amount of 18 EUR / hour, unless agreed otherwise. The cost of a claim is governed by the table below.

Sorting cost:	*** demonstrable costs**
cost of non-conforming products:	*** demonstrable costs**
Cost of downtime:	*** demonstrable costs**
Transport costs:	*** demonstrable costs**
** Administrative fee	**44 EUR**

* Demonstrable costs incurred in MGL Ltd. or with a customer in connection with the investigation of the complaint.
** The estimated amount for administrative costs is valid, unless agreed otherwise.

10. Continuous improvement

The Supplier agrees that within their organization build such a quality management system that will allow achieving high levels of customer satisfaction and that this system will continuously improve.

Within the organization of the supplier must be evident enforcement philosophy of continuous improvement of standards, ie. quality, service, logistics, products and processes with business processes and support services.
For this purpose, should be performed in selected key characters regular statistical evaluation with which you can still monitor the impact of action for improvement.
The assessment should provide a statement of overall efficiency enhancement process, eg through a system of indicators.
A suitable tool for continuous improvement as a model of quality improvement according to Deming's PDCA cycle

10.1 Identification and improvement of key quality characteristics (QOS)

The supplier shall, on the basis of analysis of their business and production processes, and on the basis of information that is available, select the relevant key features for your organization.
Key features of the system parameters as:

- **The cost of scrap / rework costs**
- **Number of incorrect deliveries**
- **Number of complaints**
- **Turnover**
- **Internal and external PPM**

Key features must be regularly evaluated and analyzed in interdisciplinary teams.
If necessary, they must be put in place targeted improvement measures.
After implementation of improvement measures need to continuously monitor progress, whether the measures in place have resulted in real and lasting improvements in any case should not be a one-off performance.
Constant state of improvement (QOS-status) the supplier is evaluated by MGL Ltd. throughout the duration of the business relationship, and while the potential for improvement is observed.

11. Attachments

All the documents produced by the MGL are for our suppliers for inspection and available for further processing in the form of electronic files.

The supplier is responsible for using current on-line forms. Access data are delivered on request of the supplier.

12. List of Changes

Date	Subject of change
1.5.2013	First release
