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<b>Issuing</b>
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Issued by	Quality (C.Tomasini)	date	2016-03-08
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Checked by	Quality WAM Industriale (P.Menini), Purchasing WAMGROUP (G.Cerruti, M.Benatti), Purchasing WAM Industriale (S.Bulgarelli)	date	2016-03-07
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<b>Document change log</b>
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Rel. 00	substitute PG01 7.4
Rel. 01	Requirements graduation according to supplier typology
Rel. 02	

<b>Content abstract</b>
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The purpose of this QS is to establish a set of procedures, practices and expectations pertaining to the quality of items purchased by WAM Group. The requirements set forth herein will ensure a consistent, quality based relationship between WAM Group and all its direct material Suppliers.

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<b>Document confidentiality</b>
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Distribution to <b>SUPPLIERS</b>	<b>ALLOWED</b>
Distribution to <b>CUSTOMERS</b>	<b>NOT ALLOWED</b>

<b>1. Scope</b>
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- 1.1. This Quality standard provides the General Quality Requirements for all WAM Group Suppliers direct materials.
- 1.2. We define "direct materials" all the purchased raw materials, semifinished and finished products, and commercial items which become part of WAM Group final products or sold together with them to WAM Group Customers.
- 1.3. This document is a support for all types of WAM Group Purchase Agreements/Contracts, simple Purchase Orders included.

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## 2. Applicability

2.1. This document is applicable to the external Suppliers of direct material.

## 3. References

### 3.1. Standards

ISO 9001:2008	7.4	Purchasing
ISO 9001:2008	7.5	Production and service provision
ISO 9001:2008	7.6	Control of monitoring and measuring equipment
ISO 9001:2008	8.2.3	Monitoring and measurement of processes
ISO 9001:2008	8.2.4	Monitoring and measurement of product
ISO 9001:2008	8.3	Control of nonconforming product
ISO 9001:2008	8.5.2	Corrective action
ISO 9001:2008	8.5.3	Preventive action
EN 10204:2004		Metallic products - Types of inspection documents

### 3.2. Hierarchy of documents

- 3.2.1. The Purchase Order is the governing document which transmits WAM Group requirements to the Supplier.
- 3.2.2. In the event of a conflict between documents, the order of precedence from highest to lowest is as follows:
- *Purchase Order*
  - *Purchase Agreement/Contract*
  - *Part Drawing*
  - *Technical Specifications*
  - *Material Specifications*
  - *Process Cycle*

## 4. Definitions

### 4.1. Entities

- 4.1.1. Supplier: unless noted otherwise, refer to the corporation , company, sole proprietorship or individual whom WAM Group places a Purchase Order with.
- 4.1.2. Supplier/commodity the combination of a company and the supplied commodity; wherever this expression is used, the logical consequence is that if one of the two parts of the expression changes, there will be a different subject (i.e. supplier "A" supplies commodities "X" and "Y" → "A/X" is not the same as "A/Y").
- 4.1.3. WAM Group for the scope of this Quality Standard, WAM Group means any company coordinated by WAMGROUP SpA.
- 4.1.4. WAMGROUP SpA for the scope of this Quality Standard, WAMGROUP SpA means the company named WAMGROUP S.p.A.
- 4.1.5. WAM Group Qualification Team a team of professionals composed by people belonging to any company of WAM Group that is aimed to coordinate and

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push the Supplier qualification activities; this team is activated and lead by WAM Group Purchasing depts.

- 4.1.6. Supplier Quality Engineer (SQE): WAM Group representative who defines the qualification and production quality requirements, and who is the key interface with the Supplier for what concerns the qualification, process improvements, non conforming material disposition, corrective actions, and surveillance auditing; the SQE function can be covered by the Plant Quality Manager in case of small organization.
- 4.1.7. Purchasing Engineer: WAM Group representative who negotiates prices and other supply terms and conditions; together with Procurement Officer, the Purchasing Engineer is also the official contact between the Supplier and WAM Group.
- 4.1.8. Procurement Officer: WAM Group representative who issues Purchase Orders for qualification and production and perform the relevant follow-up activities to make sure that the supply arrives when it is needed; together with Purchasing Engineer, the Procurement Officer is also the official contact between the Supplier and WAM Group.

#### 4.2. Other terminology

- 4.2.1. Control Plan: a written description description of the sampling plan and the measures for controlling the variations in a within the acceptable limits (an example of a Control Plan is showed in the Chapter 7).
- 4.2.2. Special Process: a process whose results cannot be fully verified through subsequent nondestructive inspection and testing of the product and where processing deficiencies may become evident only after the product is used (i.e. welding).
- 4.2.3. Critical Characteristics: Product Characteristics or production process parameters which may affect the safety, the conformity to regulations, the functions and performances of the product.
- 4.2.4. Initial Sample Inspection Report (ISIR): it is a tool for the Supplier to demonstrate that they understand and comply with Customer requirements; it is composed by 2 documents: ballooned drawing and list of controls. A ballooned drawing is a drawing in which each dimension is identified with a progressive number. The listed controls have to be performed on 3 pieces referred to the ballooned drawing.

If, for some reasons and in some special cases, the 3 pieces are not enough or they are too many, this number can be changed by the local WAM Group company (the Supplier will be informed in advance about this change).

The ISIR form is available in Chapter 7.

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## 5. Supplier requirements for products made according to WAM Group drawings/specifications

### 5.1. Minimum Quality System Requirements

Suppliers should maintain a documented system, even a simple one, in order to assure CONTROL and conformance to the requirements of WAM Group's drawings and specifications.

WAM Group gives its preference to Suppliers which demonstrate that they are oriented towards the subjects and factors listed hereinafter in Chapter 7. WAM Group, however, is committed to push its Suppliers towards these requirements, being fully convinced that Quality is a key factor.

Note that:

- a copy of a valid ISO 9001 version 2008 or 2015 certification (or similar, i.e. ISO TS 16949) is an effective way to demonstrate the Supplier's commitment to Quality.
- WAM Group SQE could perform ISO 9001:2008 quality system audit to assess the existing gap and/or the improvement which have been obtained in this area.

**5.1.1.** In Chapter 7 you can find the check list topics used by the WAM Group SQE in quality system auditing. Control of Special Process: Suppliers must have specific, documented and controlled parameters for each special process performed. Special processes include, but are not limited, to:

- 5.1.1.1. *Zinc coating*
- 5.1.1.2. *Brazing*
- 5.1.1.3. *Die casting*
- 5.1.1.4. *Forging and hot forging*
- 5.1.1.5. *Heat treatment*
- 5.1.1.6. *Nitriding / carburizing*
- 5.1.1.7. *Painting*

**5.1.2.** Welding Process Specific Approval Requirement: Suppliers performing welding classified as: EN ISO 5817 Quality level "B", certification as qualified fabricator is required. This certification may be performed by a third party.

### 5.2. Supplier approval

In order to receive a Purchase Order from a WAM Group company, a Supplier must be APPROVED by WAM Group. Criteria for approval could include, but are not limited to, the following:

- 5.2.1. non-disclosure agreement signature,
- 5.2.2. acknowledgement of compliance with WAM Group integrity guidelines,
- 5.2.3. documented quality system evidence,
- 5.2.4. technical capability (for the commodities that is implemented);
- 5.2.5. financial viability,
- 5.2.6. customer service aptitude,
- 5.2.7. strategic value.

Once the approval process has been successfully completed, a supplier code will be assigned to the Supplier.

A Supplier approval process carried out by a company belonging to WAM Group will have effects for all the companies of WAM Group.

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### 5.3. Supplier/Commodity Qualification, general requirements

Once approved, the Supplier must be qualified for specific processes or commodity families. Through the qualification process, the Supplier demonstrates ability to repeatedly provides high quality parts in accordance with requirements and expectations of the WAM Group Subsidiaries which purchasing the item. A qualification program is defined and documented by a WAM Group Qualification Team.

Once the qualification program has been completed to the satisfaction of the Qualification Team, the Supplier is Qualified to provide the specific processes or commodity families.

Qualification is required in, but not limited to, the following cases:

- 5.3.1. First supply to one of the companies belonging to WAM Group;
- 5.3.2. Supply of another commodity from the one that was qualified to provide;
- 5.3.3. Supplier has significantly changed a manufacturing process;
- 5.3.4. Supplier changed its manufacturing location/premises;
- 5.3.5. Quality issues generated by the Supplier which have been putting current qualifications in doubt;
- 5.3.6. As required at the incontestable discretion of WAM Group.

### 5.4. Tools Qualification

- 5.4.1. If a tool is manufactured without specific WAM Group tool drawings, the qualification program requires that the Supplier manufactures a sample batch with the new tool; same procedure has to be followed in case of tool changes or a major maintenance which can be considered as a sort of tool change.

The sample batch quantity should be among 5 and 30 pieces; the inspection will be recorded with the ISIR – Initial Sample Inspection Report – form (refer to the "Forms" chapter). Both the pieces and the ISIR have to be submitted to WAM Group for review and approval.

Those general rules could be amended only if expressly written into the contract between the Parties (even simply the specific purchase order).

- 5.4.2. If a tool is manufactured with specific WAM Group tool drawings, the qualification program requires the submission of the complete tool measurement report to WAM Group for review and approval.

After having received a formal approval by WAM Group, the Supplier is authorized to utilize the tool.

If the tool qualification is rejected, the Supplier must put in place action to recover the situation, communicating in advance to WAM Group the action plan and the forecasted timing.

### 5.5. Sample Batch Qualification

The qualification program requires the Supplier to manufacture a Sample Batch.

The Sample Batch quantity should be among 1 and 3 pieces (exceptions in quantities are possible and they will be communicated beforehand by the WAM Group Qualification Team); the inspection will be recorded with the ISIR – Initial Sample Inspection Report – form (refer to the "Forms" chapter). Both the pieces and the ISIR have to be submitted to the Qualification Team for review and approval.

The results of the qualification are notified to the Supplier by the Qualification Team.

If the Sample Batch qualification is rejected, the Supplier cannot supply the items. Qualification Team could decide to require the Supplier to produce another Sample Batch.

Exception to the ISIR issuing obligation must be approved both by the WAMGROUP SpA Technical dept. and WAMGROUP SpA Quality Manager.

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#### 5.6. Critical Characteristics

Supplier must demonstrate process capability (or the method, i.e. poka yoke) to maintain the Critical Characteristics under control.

NOTE: the analysis or control methods could be defined together with the Qualification Team support.

#### 5.7. Control Plan

In the case the Control Plan is set by WAM Group, the Supplier must demonstrate to be able to respect it; the Control Sheet form, developed according to the Control Plan, must be available to the Qualification Team before the regular production starts.

In the case the Control Plan is not defined by WAM Group, the Supplier will develop it and it must be approved by the Qualification Team before the regular production starts.

In both cases, however, the Supplier must properly manage the involved measurement devices by adopting a systematic approach; at any time the Qualification Team can ask to check the suitability, robustness and implementation of this system.

The **CONTROL PLAN** must include, at least, the following items:

- 5.7.1. component identification (code no. & revision level),
- 5.7.2. batch identification,
- 5.7.3. characteristics (nominal and tolerances) to be checked and relevant inspection frequency.

The Critical Characteristics must be checked with a frequency consistent with the process capability; if the Process capability is not known the control frequency must be high (i.e. 100% with poka yoke tools).

#### 5.8. Process Control

Supplier must measure and record data as for the agreed Control Plan; if the frequency control for the Critical Characteristics is defined to be consistent with the process capability, the Supplier must regularly analyze it, otherwise the control will be performed according to the Control Plan.

The data recorded by Supplier must be at disposition of the SQE or any other WAM Group's quality representatives at least for 2 years.

#### 5.9. Detailed Review of Drawing and Feasibility

Prior to items manufacturing, the Supplier may be required to participate in a detailed drawing review with WAM Group Qualification Team to ensure Supplier thorough understanding of drawing requirements and specifications during the qualification process.

In any cases, before starting to realize the first sample, the Supplier has to notify all the not clear specifications and indicate all the characteristics which are critical to be obtained.

#### 5.10. Specification Provision to Suppliers

It is a Supplier's responsibility to review, together with the sourcing representative and/or SQE, the suitable communication methods that may be specific to their business.

It is also the responsibility of the Supplier to review specification revisions with representative and/or SQE on a continuous basis in order to ensure that the correct revisions are being worked to.

When Suppliers receive a new purchase order, it is the Supplier's responsibility to verify that they have in hand the latest revision of the specifications and/or drawings.

#### 5.11. Source Inspection and Test Witness Requirement

WAM Group may decide to inspect the parts, and /or the witness subassemblies at the Supplier's facility during processing, testing, or at the final inspection. All source inspection and test witness requirements

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are to be identified and coordinated through the WAM Group SQE, Quality Assurance, Quality Representative or other designated representative.

It will be the responsibility of the Supplier to notify in advance to WAM Group when material will be ready for inspection; the timing of this advance notification must be at least 20 days (unless otherwise approved by WAM Group) prior to schedule test/inspection/witness moment.

#### 5.12. Supplier Deviation Request Procedure

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The Supplier must submit via email a request for deviation to the SQE (if not locally available: the Quality Manager), for material which is identified as non-conforming; the same kind of deviation request must be also submitted by the Supplier for:

- approval of alternative material suggestions,
- process change proposals,
- drawings supposed errors,
- drawing change proposals,
- other deviations from the order requirements.

The deviation request must include:

- 5.12.1. a complete description of the deviation,
- 5.12.2. drawing number,
- 5.12.3. identification of the affected area,
- 5.12.4. material specification,
- 5.12.5. the feature affected,
- 5.12.6. special processes involved in the repairing (if applicable).

Non-conforming material may not be accepted or repaired without a prior WAM Group approval.

The Supplier shall not presume approval of the deviation request until a Waiver copy is made available to it; only after having received the waiver, the Supplier may act accordingly, including shipping products and/or components that have been accepted by the deviation waiver (in other words, the deviation permit for existing items).

#### 5.13. Non-Conform Procedure: Material Management

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In agreement with the Supplier, WAM Group can:

- 5.13.1. repair itself (or by using a local Supplier) the non-compliant supplies; in this case, the Supplier must acknowledge and credit the relevant and certified costs to WAM Group;
- 5.13.2. in case of outsourcing (that means subcontracting, conto lavoro, ...), if the Supplier damaged the pieces, it will refund WAM Group for the cost of the pieces, unless differently written in the Purchase Agreement;
- 5.13.3. send back the non-compliant supply to the Supplier; in this case the Supplier has to organize the relevant pick-up and transportation and pay for it;
- 5.13.4. scrap the non-compliant supply; in this case the Supplier must recognize the costs of the scrapped material.

In order to avoid production stops, WAM Group has the rights to select and/or repair the minimum quantity of non-conform material needed for production; the Supplier will refund WAM Group for this job made in the place of the Supplier itself.

In any cases the Supplier must assure WAM Group that he will put in place all the necessary activities to avoid the risk of WAM Group's production stop; if it is not possible to avoid this, the Supplier must recognize the certified costs of non-production.

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#### 5.14. Non-Conform Procedure: Corrective Action

All Suppliers are required to identify cause and actions for containing, correcting and preventing any non-compliance in order to avoid possible re-occurrences.

All reports are tracked by WAM Group and response is required. Actions remaining open longer than the specified period may result in Supplier disqualification.

A corrective action response must include the following:

5.14.1. **Identified root cause/s** of the non-compliance;

5.14.2. **Short & long Term Action Plan**, as following:

5.14.2.1. Containment, all the actions to identify, locate, and contain any components or materials that have been shipped, or that are still in the production process, and which may have similar non-compliances. If such material is already on its way to WAM Group facility, or at WAM Group facility or at Customer site, SQE must be contacted immediately. These actions must be put in place within 1 working day;

5.14.2.2. Corrective actions to address the existing non-compliances. These are actions intended to minimize the impact of the non-conformances on the customer in terms of quality and on time delivery. The time-frame for these actions is maximum 3 months, unless otherwise agreed;

5.14.2.3. Preventive actions, if applicable / feasible, designed to eliminate the root cause/s and prevent future recurrence. The Supplier must provide and maintain documented evidence that the actions have been accomplished. The time-frame for these actions is maximum 3 months, unless otherwise agreed;

5.14.3. **Owner and completion dates** of the actions' implementation.

If the non-compliance is incorrectly charged to a Supplier, this should be pointed out on the corrective action request and sent to both the Procurement Officer and the SQE (or Quality Manager).

#### 5.15. Packaging and preservation

In the case these requirements have been defined, preservation and packaging must be in accordance with WAM Group Drawings and/or specifications, unless otherwise specified in the Purchase Order.

In case the packaging is not defined by WAM Group, the Supplier must submit to SQE and Procurement Officer a proposal. It is anyhow the Supplier's responsibility to assure that the supply arrives at destination undamaged and ready for the intended use. The "ready to use" requirement must include provisions for a reasonable period of storage at destination prior to use.

## 6. Supplier requirements for commercial items & raw material

### 6.1. Minimum Quality System Requirements

In case the supplied goods are subordinated to WAM Technical Specifications and/or other requirements (e.g.: certificates, traceability records, etc.) WAM Group could request – at its sole discretion – Quality System requirements as described in paragraph 5.1

### 6.2. Supplier approval

In case the supplied goods are subordinated to WAM Technical Specifications and/or other requirements (e.g.: certificates, traceability records, etc.) WAM Group could request – at its sole discretion – the Supplier approval according to some or all the criteria mentioned in paragraph 5.2



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### 6.3. Specific Item Type Qualification

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If requested, the Supplier has to provide all the documentation needed to demonstrate the conformity to WAM Group specifications and to the international norms and laws. When requested, the Supplier must perform a Qualification test by a third party laboratory.

### 6.4. Source Inspection and Test Witness Requirement

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WAM Group may decide to inspect the parts, and /or the witness subassemblies at the Supplier's facility during processing, testing, or at the final inspection. All source inspection and test witness requirements are to be identified and coordinated through the WAM Group SQE, quality assurance, quality representative or other designated representative.

It will be the responsibility of the Supplier to notify in advance to WAM Group when material will be ready for inspection; the timing of this advance notification will be at least 20 days (unless otherwise approved by WAM Group) prior to schedule test/inspection/witness moment.

### 6.5. Non-Conform Procedure: Material Management

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In agreement with the Supplier, WAM Group can:

- 6.5.1. send back the non-compliant supply to the Supplier; in this case the Supplier has to organize the relevant pick-up and transportation and pay for it;
- 6.5.2. scrap the non-compliant supply, in this case the Supplier must recognize the costs of the scrapped material.

In any cases the Supplier must assure WAM Group to put in place all the necessary activities to avoid the risk of WAM Group stopping production; if it is not possible to avoid WAM Group's production stop, the Supplier must recognize the certified costs of non-production.

### 6.6. Packaging and preservation

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It is the Supplier's responsibility to assure that the supply arrives at destination undamaged and ready for the intended use. The "ready to use" requirement must include provisions for a reasonable period of storage at destination prior to use.

### 6.7. Supply Control

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In case of raw material supply, the Supplier has to release a material Certificate 3.1 according to EN 10204:2004 for each delivery, in order to guarantee to WAM Group the supply soundness.

### 6.8. Specification Provision to Suppliers

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When Suppliers receive a new purchase order, in case the supplied goods are subordinated to WAM technical and/or managing specification, it is the Supplier's responsibility to verify that it has in hand the latest revision of the specifications.



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## 7. Forms

### 7.1. Example of a Control Plan form

CONTROL PLAN																	
<input type="checkbox"/> Prototype		<input type="checkbox"/> Pre-launch		<input type="checkbox"/> Prod.													
Control Plan #		Process name		Date (Orig.)		Data (Rev.)											
Component/Product Code (revision):		Component/Product Name (description)		Control Plan Created By:													
Part/Process Number	Process Name/Operation Description	Machine/Device/Jig/Tools for Mfg	Characteristics			Methods											
			NO.	PRODUCT	PROCESS	Special Char.	Product/Process Specification/Tolerance	Evaluation Measurement Technique	Sample Size	FREQ.	Control Method	Control Resp.	Reaction Plan				



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### 7.3. Supplier Quality System audit check list topics

<b>Section 1: Management Responsibilities</b>
<p>The Supplier's Quality Management System has been certified by a third party.</p> <p>Quality goals and responsibilities are clearly stated, widely communicated, measured and understood throughout the company.</p> <p>Management has invested in appropriate resources in order to reach and maintain a very good Quality level in company processes and products (Advanced Quality Planning, Corrective Action, Continuous Improvement, Training, Gauging, 5S, Lean, 6 Sigma, Preventative Maintenance, etc.).</p> <p>The Supplier is willing to openly show to Customer his offer cost details and discuss with him the cost calculation for offered parts, tooling and packaging.</p> <p>The Supplier's employees, who operate in the main departments that are in contact with the Customer (Sales, Design, Quality), are able to fluently communicate in English.</p> <p>The Supplier has an insurance for tools and equipment held at his facilities that are the Customer's property.</p> <p>The Supplier holds the necessary export licenses to deliver products outside his Country.</p>
<b>Section 2: Quality System</b>
<p>Prototype and Product Quality Control Plans are in use. Reference Samples are used in support of the Control Plan during production. The Control Plan has a well defined reaction Plan.</p> <p>The Quality Plans include identification of control mechanisms, processes, equipment, fixtures, resources and skills, etc.</p> <p>The Quality System includes updated documentation such as work instructions, inspection specifications and testing techniques.</p> <p>The Supplier has a system in place to approve and maintain his vendors' performance under control.</p> <p>The Supplier has a system in place to control the incoming materials.</p> <p>Quality records are kept under control and are adequate to verify compliance to specifications, conformity with operating procedures, and to provide problem-solving evidence.</p>
<b>Section 3: Purchasing</b>
<p>The Supplier has drawn up an approval procedure for his vendors.</p> <p>A formal Vendor Rating / Vendor Assessment System / Program exists for Raw Material and Critical Component vendors.</p> <p>The Supplier has drawn up a procedure for continuous monitoring his vendors' performance.</p> <p>Non-conformities are pointed out to the Supplier's vendors and are documented for them.</p> <p>The Supplier requires from his vendors raw material certification for all the supplies and controls it.</p> <p>A procedure for checking purchased materials and/or components has been drawn up.</p>



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Quality check is carried out at the acceptance/incoming materials department in accordance to a clearly defined procedure.

The results of the acceptance check are recorded and available for examination.

### Section 4: Process Control

A detailed Process Control Plan exists including well-identified process parameters, process inspection and testing control steps, reaction plans and critical parameters.

Process setup and Control parameters are documented and monitored during the production run. The results of the process checks are recorded and available for examination.

Critical tooling (dies, moulds, fixtures, etc.) are verified prior to use and maintained appropriately.

Calibrated gauging demonstrating an appropriate Precision to Tolerance (P/T) are used to control the process and verify product conformity throughout the processes.

The Supplier maintains a list of Customers' assets (e.g. jigs, fixtures, tooling or special gauges and equipments) and periodically provides his Customers with "fit to use" certificates.

Incoming, in-process and finished products are adequately identified and segregated.

If required by the Customer, the Supplier is able to guarantee traceability of his products (in terms of materials which have been used for production and the equipment utilized with relevant maintenance and calibration records).

Product Identification is adequate to clearly identify the product in the event of defective material found in the facilities.

### Section 5: Control of Test Equipment

There is a procedure to manage and accept the measuring tools.

There is a register of measuring tools that records their state of calibration/gauging. The tools are identified through a serial number.

Quality measurement and control equipment, including tools and fixtures that are used for inspection, are sufficient to assure compliance with the requirements listed in the product quality plan.

Calibration and preventative maintenance are documented and implemented in regular intervals.

There is a defined expiration date for the calibration of the tools.

Ungauged/uncalibrated tools are properly isolated and identified.

There is a suitable space dedicated to metrology, separate from the shop.

### Section 6: Checks of Incoming Materials, Finished Product and Control of Nonconforming Product

A procedure for checking the finished products has been drawn up.

A quality plan has been drawn up for the finished products (provide an example in terms of frequency of the checks, type of sampling, type of check).

Suspected non-conforming products are adequately identified to prevent further use, to be moved out from the normal process flow, possibly with the relevant records.



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Non-conforming products are subjected to be reviewed by qualified, designated persons prior to possible introduction back into the normal production process.

Formal Customer approval is required for using non-confirming products.

A documented procedure exists that defines identification, segregation and disposal of non-conforming products.

Adequate steps are taken to prevent recurrence of non-conformity.

An efficient process that identifies non-conformity is in place and widely implemented. The process allows recognizing whether the issue is due to a "consolidated" problem (and consequently a recurrent one) or due to a "random/accidental" problem (which probably will not occur again).

### Section 7: Containment, Corrective and Preventive Actions

The Supplier has drawn up a procedure for managing Customer claims.

There is a systematic and documentable "feedback" for managers regarding Customer claims.

A formal corrective and preventive action system exists to assure efficient closure and follow-up of both Customers' and internal problems and claims.

An adequate containment action process exists while the corrective and preventative action is determined.

Origin cause analysis and control plan updating is an integral part of the Supplier's corrective action. The analysis is appropriately documented.

Efficient verification control is in place to verify the origin cause(s). When preventive measures are implemented, the effect is verified and monitored to ensure that the desired goals are being fulfilled.

### Section 8: Document control

A documented procedure exists to define requirements for creation and revision of control documents.

Manufacturing process and specification documents are under revision control.

A Document Change procedure that ensures that the key users of documents are being informed of changes is defined and implemented.

Revision history (reasons for change) is maintained for controlled documents.

The document control system ensures that the most current revision of Customer specifications (drawings, tables, technical requirements), procedures and work instructions are available at, or reasonably near to, the point of use.

### Section 9: Logistics

The Supplier has described procedures for product handling, storage and packaging.

Work In Progress (WIP) product is adequately identified as to its status, readable and durably labeled and stored appropriately. Please provide a short description of the operating method in the comments.

Final packaging is adequately labeled to ensure identification and segregation by warehouses personnel and by incoming inspection at the Customer's premises.

In case of supply of raw materials (i.e. metal sheets, pipes, drawn bars and rolled products), the final packaging:



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- is carried out according to the specifications provided by the Customer or
- is a standard adopted by the company or
- varies depending on material availability at the time of packaging

In case of supply of other goods, final packaging:

- is dedicated to the specific product / Customer (or even carried out according to the specifications provided by the Customer) or
- is a standard adopted by the company or
- varies depending on material availability at the time of packaging

Barcode labeling is available.

The Supplier's entire supply chain process (sales, planning, procurement, inventory control, manufacturing) is drawn up to guarantee the agreed lead time and on-time delivery are respected.

Metrics are in place to measure on-time delivery. A process is in place to communicate to the Customer, in advance, when there is the possibility of missing a delivery. A contingency plan is part of the procedure in case Supplier misses the shipping date.

### Section 10: Production

The Supplier normally confirms purchase orders received from Customers.

The Supplier has drawn up a procedure for maintenance of production machines and established relevant schedules.

The Supplier has formalized instructions for the production process (work cycles, process parameters, ...) and has made them available at the workplace.

The tools necessary to control the specific work-in-progress phases are present at the relevant workplaces.

The workplaces are adequate in terms of cleanliness, tidiness, brightness and healthiness.

### Section 11: Operational Excellence

Product quality specifications / Range samples / Work instructions and process set-up requirements are visible in work areas.

Visual Identification of materials (Raw, WIP and Finished) is used to identify inventory, tools, processes, flow, etc.

Value Analysis (VA) methods are used to identify suitable cost-saving material or design alternatives.

Problem Solving tools are used to solve problems - Define, Measure, Analyze, Improve and Control (DMAIC) Six Sigma / Fish Bone / Design Failure Mode Effect Analysis (DFMEA or FMEA) / Plan-Do-Check-Act (PDCA) or any other Systemic Problem Solving Methodology (s) is practiced.