



Document code	BP74_001
Type of document	Procedure
Issue date	14.04.2021
Revision	10
Page	1/14

SUPPLIER QUALITY REQUIREMENTS

SCOPE

BP74_001 - defines the quality requirements for purchasing materials, parts and services that may affect product quality of Airborne items.

BP74_001 does not include requirements for design and development services.

Replaces: Not applicable.

APPROVED BY

Henk Vincke
Supply Chain Manager

AUTHORIZED BY

Peter Praet
Quality Assurance Manager

Document code	BP74_001
Type of document	Procedure
Issue date	14.04.2021
Revision	10
Page	2/14

SUPPLIER QUALITY REQUIREMENTS

CONTENT:

0	REVISION HISTORY	3
1	REFERENCE	4
2	DEFINITIONS AND ABBREVIATIONS.....	4
3	RESPONSIBILITIES	4
4	SUPPLIER QUALITY REQUIREMENTS.....	5
4.1	GENERAL	5
4.2	QUALITY MANAGEMENT SYSTEM	5
4.3	QUALITY MANAGEMENT SYSTEM (ISO9001).....	5
4.4	QUALITY MANAGEMENT SYSTEM (EN9100)	5
4.5	GENERAL REQUIREMENTS FOR THE COMPETENCE OF TESTING AND CALIBRATION LABORATORIES (ISO/IEC 17025).....	6
4.6	SUBCONTRACTING SPECIAL PROCESSES	6
4.7	INDEPENDENT LAB CERTIFICATION FOR TESTING.....	6
4.8	RAW MATERIAL, PROCESS AND TEST CERTIFICATION.....	6
4.9	INDUSTRY SPECIFICATIONS AND STANDARDS	6
4.10	NOTIFICATION.....	6
4.11	CALIBRATION SYSTEM REQUIREMENTS (ISO9001)	6
4.12	CALIBRATION SYSTEM REQUIREMENTS (ISO 10012).....	6
4.13	CALIBRATION SYSTEM REQUIREMENTS (ISO/IEC 17025).....	7
4.14	CALIBRATION SERVICES.....	7
4.15	FROZEN PROCESSES.....	7
4.16	NO CHANGE POLICY	7
4.17	INSPECTION SYSTEM	7
4.18	TRAVELLER	8
4.19	FAI AND PARTIAL FAI IN ACCORDANCE WITH AS9102.....	8
4.20	ACCEPTANCE OF PARTS / SERVICES.....	8
4.21	RESPONSIBILITY FOR CONFORMANCE	8
4.22	NOTIFICATION OF NONCONFORMING PRODUCT	8
4.23	SUPPLIER CONTROL.....	9
4.24	ALERT.....	9
4.25	CORRECTIVE ACTION	9
4.26	RECORDS AND RECORD RETENTION TIME.....	9
4.27	TRACEABILITY.....	10
4.28	CERTIFICATE OF CONFORMANCE	10
4.29	HANDLING AND PACKAGING.....	10
4.30	CUSTOMER PROPERTY	10
4.31	RIGHT OF ACCESS.....	11
4.32	HUMAN RESOURCES	11
4.33	HEALTH, SAFETY, ENVIRONMENT.....	11
4.34	ADDITIONAL CUSTOMER REQUIREMENTS	12
4.35	CONSUMABLE GOODS	12
4.36	OBSOLESCENCE MANAGEMENT.....	12
4.37	INFORMATION EXCHANGE	13
4.38	COUNTERFEIT PARTS PREVENTION	13
4.39	APQP.....	13
4.40	CONFLICT MINERALS	13
5	ANNEXES	14
5.1	OVERVIEW APPLICABLE QUALITY REQUIREMENT CHAPTERS VERSUS TYPE OF SUPPLIER	14

Document code	BP74_001
Type of document	Procedure
Issue date	14.04.2021
Revision	10
Page	3/14

SUPPLIER QUALITY REQUIREMENTS

0 REVISION HISTORY

REVISION	DATE	DESCRIPTION
8	21.08.2017	<p>Chpt 2 added: CoC, standard catalogue parts, built to print parts</p> <p>§4.17 added: Suppliers are encouraged to use SPC ... for reference)</p> <p>§4.19 added: The supplier may be requested ...shipping the parts. In all cases, ... must be referenced on the CoC.</p> <p>§4.20 reviewed completely</p> <p>§4.22 added: ... his own concession form (EN 9131 can be used for guidance). The approved notification must be added to the shipment documentation.</p> <p>§4.27 added: In case material and / or serialised parts ... and on paper/system</p> <p>§4.28 added: The certificate shall indicate the BMTA PartNr and BMTA Rev, process specification and/or drawing number</p> <p>§4.29 added: The package includes the CoC ... concessions. Purchase orders and manufacturing lots ...</p> <p>§4.33 added: The supplier shall bear full responsibility ... the weight percentage present.</p> <p>§4.34 added: Boeing: when D14426 is referenced ...</p> <p>§4.38 added: Specific requirements may be ... (typically with an original test report)</p> <p>§5.1 added: consumables for 31, 32, 33</p>
9	10.07.2018	<p>§4.1 added: considerations on product safety, ethic behavior</p> <p>§4.28 added: QR codes</p> <p>§4.37 added: drawings status production</p>
10	14.04.2021	<p>§2 added: powder for AM, blasting products, process chemicals</p> <p>§4.28 added "Where possible ...warehouse.be@bmtaerospace.com..."</p> <p>§4.33 added ISO14001</p> <p>§4.34 update</p> <p>§4.39 added APQP requirements</p> <p>§4.40 added Conflict minerals</p> <p>§5.1 updated</p>

Document code	BP74_001
Type of document	Procedure
Issue date	14.04.2021
Revision	10
Page	4/14

SUPPLIER QUALITY REQUIREMENTS

1 REFERENCE

- EN 9100
- EASA Part 21, subpart G


2 DEFINITIONS AND ABBREVIATIONS

- **CoC:** Certificate of conformity
- **Consumables:** paint, sealant, adhesives, blasting products, process chemicals, standard catalogue parts...
- **FOD :** Foreign Object Damage
- **Materials:** raw materials, forgings & castings, powder for AM, built to print parts.
- **Prime customer:** BMT Aerospace International's customer.
- **Services:** calibration, testing and subcontracting activities.

3 RESPONSIBILITIES

Supplier:

- Is responsible to respect the supplier quality requirements corresponding to his activities, explained within this document. If clarification is required, BMT Aerospace International's Quality Assurance Department shall be contacted without delay. When a supplier accepts a contract or purchase order, the supplier also accepts the applicable quality requirements.
- Is responsible to always use the latest update of this document which can be found on the website from BMT Aerospace International (see www.bmtaerospace.com). The supplier shall comply with the latest revision in affect at the time the purchase order is issued.

	Document code	BP74_001
	Type of document	Procedure
	Issue date	14.04.2021
	Revision	10
	Page	5/14
SUPPLIER QUALITY REQUIREMENTS		

4 SUPPLIER QUALITY REQUIREMENTS

4.1 General

- (1) All supplied documents must be in English language.
- (2) The matrix in annex shows which paragraphs are applicable as general requirements for the different types of suppliers or subcontractors.
- (3) In some particular cases, a separate quality plan can be submitted to a supplier or subcontractor in order to define the supplier quality requirements. This plan can be based on the paragraphs below and can be read in conjunction with this document. However, in case of contradictions between quality plan and this document, the quality plan will overrule it, even if the Purchase Order is making reference to this document.
- (4) Besides the general supplier quality requirements referred to in this document, the particular requirements such as drawings and specifications, descriptions or any other particular requirements, not mentioned in this document but stipulated on the purchase order, must be respected.
- (5) As the products and services provided to BMT Aerospace International are used in applications where supplier product conformity can have an impact on the safety and well-being of people, suppliers shall have an internal program to address product safety and make employees aware of their contribution to product safety and product or service conformity.
- (6) Suppliers shall have an internal program to make employees aware of the importance of ethical behaviour.

4.2 Quality Management System


The supplier's Quality Management System shall be documented and maintained in order to reflect minimum compliance with the requirements of this document.

4.3 Quality Management System (ISO9001)

The supplier's Quality Management System shall be documented and maintained in order to reflect minimum compliance with the requirements of ISO9001 and with the requirements of this document. The supplier shall have a valid ISO 9001 certificate.

4.4 Quality Management System (EN9100)

The supplier's Quality Management System shall be documented and maintained in order to reflect minimum compliance with the requirements of EN9100 (or the equivalent AS or JISQ9100) and with the requirements of this document. The supplier shall have a valid EN9100 certificate (or equivalent AS or JISQ9100) or a valid recognition by NADCAP PRI according to AC7004.

	Document code	BP74_001
	Type of document	Procedure
	Issue date	14.04.2021
	Revision	10
	Page	6/14
SUPPLIER QUALITY REQUIREMENTS		

4.5 General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025)

The supplier shall be accredited in accordance with the ISO/IEC 17025 standard and shall apply the requirements of this document. Suppliers not accredited for ISO 17025 must be approved by BMT Aerospace International for specific calibration tasks.

4.6 Subcontracting Special Processes

The supplier certifying conformance for Special Processes, shall be NADCAP accredited or approved by the sub-tier or prime customer based on NADCAP compliance.

4.7 Independent Lab Certification for Testing

Where applicable, the supplier certifying conformance for testing, shall be NADCAP accredited or approved by the customer based on NADCAP compliance.

4.8 Raw Material, Process and Test Certification

Certifications are required according to appropriate material specifications / process specifications as specified on the purchase order. They must be legible and reproducible. The certificate shall always make reference to the applicable specification number and revision, purchase order number and shall contain the signature and title of an authorized representative.

Raw material not directly ordered by BMT Aerospace International must be procured at approved sources, any change in material sources is subject to FAI.

4.9 Industry Specifications and Standards

In all cases, for all industry specifications and standards, the supplier shall comply with the latest revision in affect at the time the parts are processed unless otherwise specified on the purchase order.

4.10 Notification


The supplier shall notify BMT Aerospace International's Quality Assurance Manager of any change in ownership, location of manufacturing facilities, significant changes to production capacity or methods and changes in the organisation structure (especially those parts of the organisation in charge of quality).

4.11 Calibration system requirements (ISO9001)

The supplier shall maintain a system of calibration in accordance with ISO 9001.

4.12 Calibration system requirements (ISO 10012)

The supplier shall maintain a system of calibration in accordance with ISO 10012.

	Document code	BP74_001
	Type of document	Procedure
	Issue date	14.04.2021
	Revision	10
	Page	7/14
SUPPLIER QUALITY REQUIREMENTS		

4.13 Calibration system requirements (ISO/IEC 17025)

The supplier shall maintain a system of calibration in accordance with ISO/IEC 17025.

4.14 Calibration Services

- (1) Where applicable, and unless otherwise stated in the contract or on the purchase order, the calibration method for the equipment is to be to the original manufacturers recommendations.
- (2) Calibration traceability and compliance is to be to recognized national or international calibration standards.
- (3) The supplier is to supply BMT Aerospace International with a calibration certificate. The date of calibration, the identification number of the instrument being calibrated, calibration traceability and compliance to recognized national or international calibration standards, the environmental conditions of the laboratory, the references of the standards used, deviations and correction factors, the measurement uncertainty, the procedure used and the name of the calibration technician, supplier quality organisation approval, shall be shown on the certificate.
- (4) The supplier shall also report the "as received" and "as returned" condition of the equipment being calibrated on the calibration certificate.

4.15 Frozen processes

If applicable, a specific manufacturing process can be frozen and cannot be changed without the written approval from BMT Aerospace International.


4.16 No change policy

Process, manufacturing and inspection procedures and suppliers documents submitted to BMT Aerospace International for approval, shall remain at the level of configuration in effect at the time of the approval by BMT Aerospace International. The supplier shall not change process, manufacturing and/or inspection procedures or work instructions during the purchase order activity unless written approval is received from BMT Aerospace International.

4.17 Inspection system

The supplier shall develop inspection procedures and maintain records of inspection. Records shall include evidence of inspection for all attributes of products / processes supplied to BMT Aerospace International. The inspection system shall evaluate products / processes to insure that only parts and services that conform to purchase order requirements are supplied to BMT Aerospace International. Suppliers are encouraged to use SPC for product acceptance (AS9103 and ANS/ASQ Z1.4 can be used for reference).

The means for measurement shall be suitable for the purpose and shall have an accuracy of 10% of the tolerance of the characteristic to be measured.

	Document code	BP74_001
	Type of document	Procedure
	Issue date	14.04.2021
	Revision	10
	Page	8/14
SUPPLIER QUALITY REQUIREMENTS		

4.18 Traveller

The supplier shall maintain a traveller or equivalent control mechanism that directs procedures appropriate for the control of quality and configuration through all stages of production. History of changes on the traveller must be traceable.

4.19 FAI and partial FAI in accordance with AS9102

At least two weeks prior to shipment, the subcontractor or supplier shall submit in writing, an invitation for review of the parts submitted to FAI at his premises. The supplier may be requested to send an advanced copy of the FAI file for review before shipping the parts.

Partial FAI can be sent directly with the parts without advance notice.

In all cases, the FAI documentation must be added to the shipment documentation and the FAI number must be referenced on the CoC.

4.20 Acceptance of parts / services

In all cases, parts / services are subject to acceptance at BMT Aerospace International after receiving. There is no time constraint between the shipping/receiving of parts and the inspection activities performed at BMT or its customer.

If (small) sample check by BMT Aerospace International proves that measurement results are incorrect, BMT Aerospace International is entitled to return all goods immediately.. In this case the complete delivery is considered non-conforming and past due date. Already paid invoices are credited. Transport and other costs are also borne by the supplier. In this case, an action plan is requested that analyzes root cause and avoids similar issues for future deliveries.

4.21 Responsibility for Conformance

Acceptance of product shall not be used as evidence of effective control of quality by the supplier and shall not absolve the supplier of responsibility for acceptable products or preclude subsequent rejection by BMT Aerospace International, his customers or regulatory authorities.


4.22 Notification of nonconforming product

Nonconforming parts under dispositions of "Use as is" or "Repair" shall require written authorization from BMT Aerospace International, prior to shipment. The supplier shall therefore use his own concession form (EN 9131 can be used for guidance).

When approved, parts under concession must be tagged with discrepancy and with concession identification number identified prior to shipment to BMT Aerospace International.

Supplier's certification documentation must reflect the supplier's concession identification number. The approved notification must be added to the shipment documentation.

Each submittal of concession shall include the supplier's documented analysis to determine the root cause and positive corrective action implemented to prevent recurrence.

	Document code	BP74_001
	Type of document	Procedure
	Issue date	14.04.2021
	Revision	10
	Page	9/14
SUPPLIER QUALITY REQUIREMENTS		

4.23 Supplier control

Where applicable, the supplier, including dealers and distributors, are responsible for insuring that the applicable requirements of the purchase order, including this document, are imposed on lower tier procurements for raw material, components or process services being used in the manufacture of products or services being provided.

4.24 Alert

Where applicable, when the supplier becomes aware, through any way (assessment, investigation, tests...), of a failure which would have any potential impact on the quality and/or airworthiness on already delivered parts / services, the supplier shall notify BMT Aerospace International without delay by issuing an Alert notice.

The alert notice shall take the form of a letter, fax or an e-mail and contain at least the following details:

- Name, address and references of the contact person of the supplier
- A description of the failure
- A description of the potential impacts on BMT Aerospace International already supplied parts / services
- Complete reference of the concerned services / parts (Partnumber, CoC number, delivery notes, batches, delivery dates, quantities, ...)
- Any immediate corrective actions requested (including root cause analysis)


4.25 Corrective action

Corrective action may be requested from a supplier when nonconforming products or services are delivered to BMT Aerospace International. The supplier must in this case complete the Supplier Complaint Report and return it to the Purchase Department. The root cause of the nonconformity must be determined and corrective action must be implemented. Corrective action must identify the changes to processes, work instructions, procedures, specifications, drawings, inspections, tests, tools, equipment, facilities, resources, materials or training to prevent recurrence of the non-conformance. Corrective action shall also include the implementation date. Corrective action responses such as "cautioned the operator" or "changed the tool" are not acceptable. Supplier's failure to response in the allotted time frame will be taken into consideration during the annual evaluation of supplier's performance, which can finally lead to cancellation as approved supplier.

4.26 Records and Record Retention Time

The supplier shall retain verifiable objective evidence of inspection and tests performed. Quality records must be legible and reproducible and shall be made available for evaluation by representatives from BMT Aerospace International, their customer and regulatory authorities. Records shall be maintained for a contractually agreed upon period. Unless otherwise specified, this period will be 20 years.

When applicable, test samples shall be sent to BMT Aerospace International.

	Document code	BP74_001
	Type of document	Procedure
	Issue date	14.04.2021
	Revision	10
	Page	10/14
SUPPLIER QUALITY REQUIREMENTS		

4.27 Traceability

Materials, products, standards and parts shall be traceable through the whole manufacturing process and storage operations up to delivery. Identification and separate storage shall be maintained throughout the manufacturing cycle. All bar stock material shall remain identified at one end during the complete storage time.

In case material and/or serialised parts are supplied by BMT Aerospace, the traceability to the material batch and serial numbers has to be maintained by the supplier both as physical identification and on paper/system.

When the process of final marking is subcontracted, the supplier shall guarantee that the items have not been mixed during the subcontracting.

4.28 Certificate of Conformance

A Certificate of Conformance (CoC) is required. This document must be legible and reproducible. With the shipment of parts or services against this purchase order, the supplier shall assure in this writing, with each lot that the purchase order requirements have been met and that inspection documentation has been completed.

Where possible, the CoC and test report shall be sent per e-mail to Warehouse.be@bmtaerospace.com, before or at the latest at the moment of delivery of the goods. When mutually agreed, supplier portals can be used for CoC and test reports exchange.

The certificate shall indicate the BMTA PartNr and BMTA Rev, process specification and/or drawing number and revision, nomenclature, purchase order number, quantity, batch and serial numbers, reference to FAI (if applicable), reference to non-conform reports and shall contain the signature and title of an authorized representative. The use of a QR Code that includes this data might be requested by BMT Aerospace.

4.29 Handling and Packaging

During fabrication and processing, special carts, boxes, containers and transportation vehicles shall be used as necessary to prevent damage due to handling. Prior to shipment to BMT Aerospace International, all products shall be cleaned so as to be free of all foreign substances or residue from processing or handling. Supplier shall have a FOD prevention program in place.

Product shall be protected from deterioration by using a corrosion preventive compound according to MIL-PRF-16173 (unless otherwise specified).


Product shall be packaged and protected for shipment in a way that will prevent damage. All parts shall be checked for damage prior to shipment to BMT Aerospace International. The package includes the CoC and, if applicable, FAI files and approved concessions.

Parts from different purchase orders and manufacturing lots shall be packed separately.

Parts delivered to supplier in specific packaging boxes shall return in the same packaging box.

4.30 Customer Property

Where applicable, the supplier assumes responsibility for all parts, raw material, tools and equipment, furnished by BMT Aerospace International. Parts, raw material, tools and equipment shall be adequately protected to prevent deterioration and must be returned to BMT Aerospace International at the completion of order or contract unless otherwise specified on the Purchase Order.

	Document code	BP74_001
	Type of document	Procedure
	Issue date	14.04.2021
	Revision	10
	Page	11/14
SUPPLIER QUALITY REQUIREMENTS		

4.31 Right of access

Quality Audit Surveys might be conducted at the Supplier's facilities by Purchaser's QA Auditors on the basis of the requirements specified in the present document. Such verification by BMT Aerospace International representatives, their customer or regulatory authorities shall not be used by the supplier as effective control of quality. Verification by BMT Aerospace International representatives, their customer or regulatory authorities shall not absolve the supplier of the responsibility to provide acceptable product, nor shall it preclude subsequent rejection by BMT Aerospace International.

4.32 Human resources

The supplier shall ensure that human resources carried out for the order are enough skilled and are appropriate. Personnel needed for Special Processes shall be identified and qualified.

Supplier's focal point shall be able to communicate in English language. Technical documents written exclusively in English shall be understandable, including by concerned employees in the workshop if any. These kind of documents may be entirely or partially translated under the own responsibility of the suppliers and shall in no case supersede the original document.

4.33 Health, Safety, Environment


The supplier and his upstream suppliers shall at all times comply with the latest version of the European Regulation (EC n° 1907/2006) concerning Registration, Evaluation, Authorisation and Restriction of Chemicals ("REACH").

- The supplier shall bear full responsibility of continuous monitoring of the publication and updates of the European Chemicals Agency list of Substances of Very High Concern ("SVHC") and immediately notify BMT Aerospace if the delivered Goods contain SVHCs > 0,1% by weight or substances restricted under Annex XVII of REACH. The notification that Goods contain SVHCs shall include the name and weight of the substance(s) and the weight percentage present.
- The latest issue of the Material Safety Data Sheets (MSDS) of the ordered goods are to be sent to the customer on the receipt of the order and strictly before delivery (MSDS needs to be provided as a minimum in the mother language of the user which is Dutch).
- MSDS will be in compliance with REACH directive annex II and will mention all identified uses that are included in the registration of the product.

In the event that the application of any environmental applicable laws and regulations could prevent the delivery of the product and/or the performance of the service, the supplier shall immediately inform BMT Aerospace International and shall propose an alternative solution to ensure the continuity of supply of the product/service in compliance with REACH and any other contractual terms agreed.

If applicable, the ordered goods will be in compliance with CLP regulation (EC n° 1272/2008) concerning the Classification, Labeling and Packaging of the product.

Suppliers are encouraged to maintain an ISO14001 or equivalent Environmental Management System.

	Document code	BP74_001
	Type of document	Procedure
	Issue date	14.04.2021
	Revision	10
	Page	12/14
SUPPLIER QUALITY REQUIREMENTS		

4.34 Additional customer requirements

Additional prime customer requirements can be applicable when specified in contract or purchase order. Examples of prime customers with specific requirements:

- Airbus: where applicable, suppliers shall be listed on the approved suppliers list (QSPL-QTML)
- Moog: Moog supplier quality requirements (SQR-1) and specific quality clauses (S-clauses) are available on www.moog.com/suppliers. The supplier shall comply with the latest revision in affect at the time the parts are processed unless otherwise specified on the purchase order.

Suppliers working for Moog need to conform to Moog Approved Raw Material sources and Moog Approves Special Process sources when the source selection is part of their responsibility.

- Boeing: when D1-4426 is referenced on the purchase order, approved sources for special processing, designated fasteners, and metallic raw material can be found on <http://active.boeing.com/doingbiz/d14426/index.cfm>


4.35 Consumable goods

Items and goods subject to shelf life control shall have not more than 25% of their shelf life expired at the date of receipt at BMT Aerospace.

The colour of the product(s) must match the colour(s) specified on the purchase order (if applicable).

4.36 Obsolescence management

The supplier shall implement a process for preventing (design, component/tools selection, processes), predicting and resolving (contingency plan) obsolescence.

	Document code	BP74_001
	Type of document	Procedure
	Issue date	14.04.2021
	Revision	10
	Page	13/14
SUPPLIER QUALITY REQUIREMENTS		

4.37 Information exchange

Where applicable, information exchange (drawings, 3D-models,...) will be performed via the supplier portal of BMTA.

The supplier can be granted access to this environment after filling in the 'Secure Portal Company Registration Form' and agreeing with the 'Secure Portal Acceptable Usage Policy'.

Only drawings in status "production" may be used for manufacturing and certification of parts.

4.38 Counterfeit parts prevention

The supplier shall have a program in place to prevent the delivery of counterfeit parts and materials.

Specific requirements may be specified on the purchase order and can include:

- Limitations for approved original/authorized manufacturers, distributors or other approved sources
- Requirements for assuring traceability to the original authorized manufacturer (typically with an original test reports)

4.39 APQP

The supplier shall comply with APQP requirements per AS9145 and reference documents as specified in the applicable RFQ or purchaser order. APQP Readiness Assessments can be used as a tool to judge on Supplier's readiness for compliance.

4.40 Conflict Minerals

The use of "conflict minerals" (tin, tantalum, tungsten and gold) coming from certain countries is forbidden. If the use of these minerals is needed to supply the products, the country of origin shall be communicated before delivering the goods.



Document code	BP74_001
Type of document	Procedure
Issue date	14.04.2021
Revision	10
Page	14/14

SUPPLIER QUALITY REQUIREMENTS

5 ANNEXES

5.1 Overview Applicable Quality Requirement Chapters versus type of Supplier

§4.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17 18	19	20	21	22	23	24	25	26	27 29	28	30	31 32 33	34	35	36	37	38	39	40	
1 Materials			X	X			X	X	X			X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2 Calibration				X				X	X			X	X					X	X		X	X	X	X		X	X	X								
3 Testing		X				X		X	X	X								X	X		X	X	X			X	X	X								
4 a Subcontracting pre-machining	X								X	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X			X					
4 b Subcontracting final machining processes		X						X	X		X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X		X			
5 Subcontracting special processes			X		X			X	X		X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X			X		
6 Tools (Hobs, fixtures, etc ... made acc. to drawing or gear data)	X						X	X	X	X						X		X	X	X	X				X	X	X			X						
7 Consumables	X						X	X											X						X	X		X	X			X				