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Directives


for

Suppliers

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Signatures:			
	Date	Name	Signature
Author:	2017-12-10	A. Zylka	signed A. Zylka
Examined by:	2017-12-10	B. Fuchs	signed B. Fuchs
Examined by:	2017-12-10	H. Wilde	signed H. Wilde
Approved by:	2017-12-10	R. Seidel	signed R. Seidel
Acknowledged:			
Supplier			Signature / company seal
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A	all	Initial Issue	22 Oct. 2013	B. Fuchs
B	4, 7	Scope, surface coater	17 Dec. 2013	B. Fuchs
C	4-7,10,11	Safekeeping, Export controls, ...	12 Aug. 2015	B. Fuchs
D	1,9,11,12	Quality management, prevention of ...	12 Oct. 2017	A. Zylka

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1 Scope

The supplier regulations are binding and must be applied by all suppliers for B/E drawing parts, as well as returned to B/E with the respective signatures.

The supplier is aware of the fact that the components to be produced/manufactured are critical components for the aviation industry which basically help to bear the loads occurring at the final product and whose failure can lead to catastrophic consequences for passengers and the aircraft.


2 Reference documents

- [1] *Qualitätsmanagementsysteme* DIN EN 9100:2016 [quality management systems]
- [2] *Qualitätsmanagementsysteme* ISO 9001:2015 [quality management systems]
- [2] *B/E Qualitätsmanagement-Handbuch* [B/E quality management handbook]

3 Abbreviations

B/E	B/E Aerospace Fischer GmbH
BAFA	<i>Bundesamt für Wirtschaft und Ausfuhrkontrolle</i> [German federal office of economics and export controls]
CofC	Certificate of Conformity

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4 Information on the delivery notes

On the delivery notes, the complete article number as shown in our order is to be indicated. If components are manufactured from different material batches, the respective number of pieces and batch are to be indicated on the delivery note.

4.1 Certificate of conformity CofC

Option 1): Certificate of conformity on the delivery note

Every delivery note must contain the following certificate of conformity:

"We herewith confirm that the goods delivered comply with all requirements on which this order is based.

The production/procurement has been implemented taking into consideration the construction documents provided as well as other binding documents of the customer and under the control of the prescribed production conditions."

Option 2): Certificate of Conformity / Certificate of Compliance:

As alternative to the certificate of conformity on the delivery note, a separate document, the CofC may be issued.

Signature:

Every delivery note and/or every CofC must be signed by an authorised signatory of your company. The same applies to subcontractors (e.g. electroplating companies). If delivery documents are created automatically, this is to be indicated on the documents, e.g. "This document is an automatically created note and valid without signature."

4.2 Delivery of material certificates for side material

In order to ensure the traceability of the material batches used, the material certificate must be attached to the delivery documents in the future for the delivery of articles and assemblies which have been manufactured from B/E material with a certificate of 3.1.

5 Production documents / Safekeeping period


In the aviation industry there are existing severe regulations regarding the safekeeping period. These regulations we must pass on to our suppliers.

Please find the safekeeping periods for your quality relevant documents below.

The reason for unlimited safekeeping period is that the aircraft in which our products are built in have a lifetime of approx. 30 years or even longer (unlimited).

Quality document	Safekeeping period
Training certificates / Q-Matrix	3 years
Calibration reports and analysis	10 years
Manufacturing reports	unlimited
Test reports and records	unlimited
Inspection certificates	unlimited

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Not all documents will be applicable for your company. In these cases the safekeeping period is not applicable.

In the event of an insolvency of the company / company dissolution / planned destruction of records or similar, B/E is to be notified in advance. If applicable, B/E will take over the archived records.

Furthermore, the supplier is obliged to forward any relevant documents, such as forms, procedures etc., to their subcontractor.

6 Surface and coating

The surface of the components must be technically and visually acceptable.

Not acceptable are, among others:

- Stained / greasy surfaces
- Smears
- Scratches
- Chatter marks
- Stress marks
- Bubbles on the surface
- Dimensional deviations
- Pre-corrosion and related surface problems
- Discolouration between the right- and left-hand parts

This list must not be considered complete. Only technically and visually flawless components must be accepted. Furthermore, pickling is only permitted upon consultation with B/E. It is recommended to have right- and left-hand components be coated in pairs.

6.1 Corrosion

All components made of alloy 7449 are to be cleaned immediately after the mechanical processing and, subsequently, are to be mandatorily oiled with acid- and silicon-free oil in order to prevent pre-corrosion.

The supplier bears the sole responsibility for the corrosion-free state of the components.

B/E must not assume any liability for pre-corrosion!

Recommended oil: CIMGUARD 20

6.2 Information on the drawings


The dimensions indicated in the drawings are to be regarded as *finished part dimensions*. For the surface coating, possible allowances for tolerances are to be considered.

A close communication between the manufacturer and the coating company are required. B/E expects an independent active consultation between the manufacturer and the coating company.

The following are particularly critical dimensions:

- Fittings
- Threads
- Helicoil threads

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Fittings and threads must not be covered during the surface coating!

7 Approved surface coater

The in Annex 1 listed coating companies are approved and prescribed by B/E.

Coating companies which are not listed here are only admissible upon approval by B/E.

ATTENTION: Black coatings are only admissible at AHC Oberflächentechnik Ges.m.b.H., in Uttendorf - Austria or at Hentschel Harteloxal GmbH + Co. KG in Schorndorf – Germany !

See Annex 1, approved surface coating suppliers G9300-802 (last valid issue)

8 Delivery of assemblies

When producing assemblies, it is to be taken into consideration that these assemblies are to be produced in accordance with the current production documents (A+P, drawings,...). In this respect, the supplier has an obligation to procure the documents. In the event of material provisions by B/E, rejects are to be reported immediately.

If applicable, additionally, a template for a production protocol of B/E may be obtained which is to be filled in and signed by the supplier. The production protocol is to be included in the scope of supply of the goods.

9 Labelling of packaging

9.1 Identification

Raw material, semi-finished products, finished products, assemblies, etc. must be identifiable and traceable at all times. This is applicable from the receipt of the raw material to the storage, production process, and installation up to the shipment of the finished goods/assemblies.

9.2 Labelling


Before the components/assemblies are shipped, they are to be labelled.

It is recommended to pack small parts in batches of several pieces (approx. 20-50 pieces) in a labelled pressure lock bag. For larger components, it is recommended to attach a cable tie to the component and fix a piece of paper with the part number on it to it.

If it is a component that requires batch handling (this information can be obtained from the order text), such component is to be labelled with the respective batch (on the bag and/or piece of paper).

Labels on components are inadmissible!

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9.3 Packaging

The components are to be packed in a way that they are protected against damages, e.g. scratches, during transportation. This particularly applies to coated components.

In addition, please observe the following:

- Aluminium components without surface coating may not be packed in bubble wrap.
- For oiled raw components, we recommend blister packaging, foil bags, egg cartons, specifically manufactured wooden supports or similar.
- Do not wrap oiled raw components in paper since the paper absorbs the oil in which case these components are likely to pre-corrode which has an unfavourable effect on the coating results.
- Raw components are to be packed in a humidity-protected manner in order to avoid corrosion.
- A direct contact of the components with adhesive tape is to be avoided.

10 Material storage

Applicable for own raw material and/or for raw material provided by B/E:

- Goods are to be protected against corrosion
- Constant air temperature and humidity (temperature min. 14°C, max. 35°C / relative humidity max. 75%);
For this purpose, we recommend a hygrometer, e.g. article number 474050/608H2 by Hoffmann
- Different batches are to be stored separately.
- All material must be clearly identifiable and allocatable to the material test certificates.

When exceeding/undercutting the values, B/E is to be informed before the raw material is processed. B/E then decides whether or not the material may be used.


Additionally applicable for material by B/E stored at the supplier's premises

- The goods are to be stored in a lockable area
- In the event of a direct delivery of goods by one of the suppliers commissioned by B/E, a goods acceptance test according to the B/E-specific measurement protocol is to be implemented. The documentation is to be handed over to B/E then.

10.1 Blocked components warehouse

Non-conform components are to be labelled as "blocked" and must be stored in a blocked components warehouse which is locked and only accessible for authorised staff until the decision on their further use is made.

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11 Quality management

The supplier is obliged to ensure suitable quality management.

In which form and to which extent this is done is the supplier's decision and their responsibility. For example, we recommend following DIN EN ISO 9001:2015.

It may, however, be individually adapted to the supplier's business structure.

Generally, the supplier shall ensure the quality and safety of their products and processes.

12 Prevention of counterfeit parts

The supplier engages to take suitable measures for the prevention of counterfeit parts. It is the supplier's decision and responsibility which type of measures and to which extent these are defined and implemented (appropriately for the company and the products). It shall be guaranteed that counterfeit parts are identified and the correct handling is then ensured.

Examples for counterfeit parts:

- missing, incomplete or false supporting documentation
- false labellings, markings, type plates, lettering or packaging
- not according to the prescribed or acknowledged norms and standards
-

Examples for processes for the prevention of counterfeit parts:

- Training of the concerned staff regarding the identification and prevention of counterfeit parts
- Defining and implementing testing methods for their identification
- Blocking and reporting in case of suspected counterfeit parts

13 General

13.1 Examination of order

Within 3 workdays, B/E must receive a confirmation of order.

In the event of deviations from the order documents, B/E must be informed immediately.

13.2 Modification of production procedures / production facilities

If the production process (e.g. erode instead of milling) and/or the production location (e.g. new production location with new machines) is/are modified for one component, this is to be reported to B/E in advance. B/E must then implement an initial sampling of the components.


13.3 Notification of deviating production sites and subcontractors

Should the supplier produce certain articles of our range at other sites or if they wish to do so or if they subcontract this to other subcontractors, the supplier has to notify us immediately in writing.

This is generally not admissible and requires our written consent.

The supplier shall ensure that their subcontractors have to comply with the same quality standards and requirements as they are obliged to towards us. In addition, there must be a written confidentiality agreement. If these points are not complied with, we reserve the right to take measures that may result in the annulment of the commissioned services and even the rejection of their products.

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13.4 Determination of deviations

The supplier is obliged to report extraordinary events and deviations in material, surface and dimensions to B/E immediately.

If a component has already been delivered and deviations are determined retrospectively (e.g. incorrect material used), B/E is to be informed immediately.

13.5 Testing and measuring equipment

- The testing/measuring of B/E components is only admissible with calibrated measuring and testing equipment (ensure regular calibration and calibration verifications!)
- The condition and integrity of specific production equipment (devices etc.) must be checked regularly, and, if required, the necessary repairs must be carried out.
Based on the test documentation, it must be traceable who implemented which test steps at which point of time and which results were achieved (specified / actual dimension).

13.6 B/E tools

It is to be observed that these tools are to be labelled, verified, protected and tested. In the event of a loss of the tools B/E must be informed immediately.

A written test verification is to be sent to B/E without request on an annual basis.

13.7 Outgoing goods inspection

Every production batch must be subject to an outgoing goods inspection.

The outgoing goods inspection must be documented (who has tested what and when, and how many components).

The respective depth of the tests is to be stipulated in the quality management (e.g. 5% of the production batch for simple components / 10% of the production batch for complex components).

If "Not OK" components are identified during the outgoing goods inspection which the supplier wishes to send to B/E nonetheless, a written approval by B/E is to be obtained for this purpose. In the event of an authorised approval by B/E, the respective components are to be packed separately for shipment and labelled accordingly. The approval document is to be attached together with the reference to the order number, delivery note number and part number.

All kinds of tests are to be implemented by qualified staff and must be documented.

13.8 Modification requests

In the event of modification requests, e.g. due to errors in the drawings by B/E, which you become aware of, modification suggestions for simplifying the production etc., such request is to be forwarded in writing.

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14 Forwarding of material certificates

For the following materials, a material certificate according to EN 10204-3.1 is required as a rule:

Material number	Standard	Abbreviation EN / DIN
1.4044.6	LN 668	X22CrNi17
1.4310	EN 10088-1	X10CrNi18-8
1.4548.4		X5CrNiCuNb17-4-4
1.4571	EN 10088-3	X6CrNiMoTi17-12-2
1.6354.9		X2NiCoMo18-9-5
3.1325	EN AW 2017A	AlCu4MgSi(A) / AlCuMg1
3.1354	EN AW 2024	AlCu4Mg1 / AlCuMg2
3.1364	EN AW 2024 alclad	AlCu4Mg1 pl / AlCuMg2 pl
3.1645	EN AW 2007A	AlCu4PbMgMn / AlCuMgPb
3.4334	EN AW 7175	AlZn5,5MgCu(B) / AlZnMgCu1,5
3.4364	EN AW 7075	AlZn5,5MgCu / AlZnMgCu1,5
3.7164	-	WL Ti6Al4V / WL TiAl6V4
3.7165	-	Ti6Al4V / TiAl6V4
3.4144	EN AW 7050	AlZn6CuMgZr
-	7449	AlZnMgCuZr
3.4384	EN AW 7475	AlZn5,5MgCu(A)

This list must not be considered complete. For other material which also requires a material certificate, such requirement is reported separately in the order.

15 Tempering condition of the material

B/E herewith points out expressly that the material information on the drawings is to be adhered to bindingly!

The tempering condition is to be observed, as well!

Thus, if e.g. 7449 T7951 is indicated on the drawing, 7449 T7651 must not be used!

The different material characteristics of the different material and tempering conditions affect the tightness of the seats and thus cannot be exchanged.

If other material is to be used in individual cases, the prior written approval by B/E is to be obtained.

16 Product safety

16.1 Legal requirements

Generally, our supplier shall ensure the compliance with any and all applicable legal provisions throughout all their activities.

The supplier shall observe any and all applicable provisions and requirements regarding product safety, particularly the legal provisions regarding the safety, labelling and packaging of products as well as the use of hazardous substances and material.

16.2 Health and safety

The supplier engages that the safety of their staff is of utmost priority at any time. They shall ensure a safe work environment.

17 Military projects

B/E drawing components from the ranges of numbers indicated below (positions 1-4 of the part number) have been developed for military projects specifically.

The supplier bears sole responsibility for the compliance with the export control regulations (in this respect, information can be obtained from the *BAFA - Bundesamt für Wirtschaft und Ausfuhrkontrolle* [German federal office for economics and export controls]).

Ranges of numbers for military projects:

0215	0224	0522	0612	0626
0627	0628	0715	0805	0936
0937	1010	1115	1203	1204
1402	1414			

18 Export controls

The supplier ensures self-dependent the observance of the foreign trade order and their appendices as well as the EC Dual Use regulation.

19 Ethic conduct

B/E Aerospace Fischer GmbH expect a responsible and ethically correct conduct from their suppliers. In order to ensure that these expectations are met, at least the code of conduct detailed in annex 2 has to be complied with.

The current applicable version of this document, Annex 1 and Annex 2 is available at the following website: <https://www.fischer-seats.com/>