This risk analysis can be used by suppliers without FMEA experience as an introduction into systematic risk analysis. It has to be sent to L’Orange along with the initial sample documentation. If any high risks can be identified beforehand, they should be discussed with L’Orange as early as possible.

Assessment of risks of individual process steps should be based on experience. Please enter a number from 1 to 5 if the process step is relevant for production.

Definition of risk ratings:

1: Lowest risk: Similar parts are being produced, processes are established and there are no complaints.

2: Low risk: Similar parts are already being produced and complaints that occurred in the past have been remedied by taking suitable action.

3: Medium risk: Parts and subcontractors are new and there is no experience available yet.

4: High risk: Process-reliable tolerances can only be achieved with difficulty. There were complaints with similar parts. Appropriate action has not yet been completely defined and implemented.

5: Highest risk: Tolerances can hardly be achieved. There is no reliable experience from similar parts or there were multiple complaints with similar parts.

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| **Primary material** | **☺ 😐 ☹**  **1,2,3,4,5** |
| 1. Has it been ensured that the correct material is made available? 2. Has it been ensured that the primary material has the correct dimensions? |  |
| **Soft machining** | **☺ 😐 ☹** |
| 1. Can the specified tolerances be achieved? 2. Are the tools, jigs, fixtures and machines suitable for the purpose? |  |
| **Heat treatment** | **☺ 😐 ☹** |
| 1. Are the heat treatment specifications known? 2. Are there similar requirements for other parts and are they met reliably in the process? |  |
| **Hard machining** | **☺ 😐 ☹** |
| 1. Are the specifications known and achievable? 2. Are there similar parts with comparable requirements? 3. Are the tools, jigs, fixtures and machines suitable for the purpose? |  |
| **Measurement, final inspection** | **☺ 😐 ☹** |
| 1. Can the specified tolerances be measured? 2. Is the measuring equipment suitable for the tolerances? 3. Are there any climatic requirements that have to be met? 4. Is there an arrangement with L’Orange about measurement methodology, if applicable? |  |
| **Cleaning, packaging, shipment** | **☺ 😐 ☹** |
| 1. Is the packaging defined, are packaging requirements known and agreed with L’Orange, if applicable? 2. Are there any special requirements for part cleanliness and can these be met and measured? |  |
| **External processes** | **☺ 😐 ☹** |
| 1. Are the subcontractors known? 2. Are similar parts with similar requirements being procured? |  |
| **Handling and transport** | **☺ 😐 ☹** |
| 1. Is it ensured that the material is protected from damage and contamination in the course of production? 2. Is it ensured that the marking and the current processing status are evident and that running-in parts do not get into the shipment? |  |
| **Sampling** | **☺ 😐 ☹** |
| 1. Are the sampling requirements known? 2. Can the required documents be made available completely? 3. Did any problems occur with non-conformities in the past? |  |