## Requirements first samples

For initial deliveries, drawing revisions, tool modifications etc.



1. General:					
Item- No.:	Item designation:	Supplier- No.	Supplier:		

**Important!!!** The basis of a first sample is the supplier's review for technical feasibility. If the supplier has any reservations, regarding the design documents (technical drawing, standards, etc.) he must clarify these reservations in consultation with the Global Sourcing department before producing the first sample.

First sample processes are initiated by the following actions:

- Planned series part delivery of components of a new supplier
- Planned series part delivery of new components of an existing supplier
- Suspension of production of more than 24 month
- For complaints PERI reserves the right to order a first sample
- Functional changes in design of a series part
- Changes in the production process (manufacturing process, changes of tools, etc.)

The first sample **must** be produced under **series conditions**.

The supplier itself <u>must</u> produce the first sample. Subcontracting e.g. galvanizing must be communicated to PERI beforehand.

Before the first series delivery to PERI can take place, both the **<u>supplier</u>** and PERI carry out a **<u>first</u> <u>sample inspection.</u>** 

The first sample acceptance basis are the produced first samples as well as the supplier's first sample report.

The documents and standards mentioned in this document are to be applied in the respective currently valid version.

A first sample is always evaluated on the latest basis of the technical drawing as well as part lists, LAV and PN. If first samples are already at PERI and a new revision of the technical drawing is available in the meantime, this has no negative effect on the existing initial samples. However, PERI reserves the right to request new first samples after the evaluation of the existing first samples in order to verify the feasibility of the changes to the new revision of the technical drawing.

The preparation of the first sample report must be in accordance to VDA 2 and the following table for requirements

Requirements	Action	
Test results (dimensional tests, material tests,	For submission at PERI	
welding approvals,)		
Material certificates	For submission at PERI	
First sample parts	For submission at PERI	
Table of used measurement equipment	For submission at PERI	
Production process- and product approval sub-	For submission at PERI	
supplier		

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Optional (will be required by PERI if necessary)			
Process flow chart	For submission at PERI		
Production control plan	For submission at PERI		
Process capability evidence	For submission at PERI		

All required documents **must** be created or filled out by computer.

If a software-supported documentation system is used, the forms automatically created by the system are accepted as evidence.

The number of first samples ordered shall be provided and clearly declared as first samples.

In case of coated first samples, a certain amount of first samples must be provided in uncoated condition. This amount is agreed individually between the supplier and the Global Sourcing and Quality Assurance departments of PERI **in advance**.

If welded assemblies are coated, they are to be delivered in both coated and uncoated condition. This number is also agreed individually between the supplier and PERI **in advance**.

The first sample inspection report as well as the required documents are either to be delivered to PERI together with the first samples or in advance digitally.

If the documents are sent digitally the e-mail must contain following information in the subject line:

First sample Item-no. xxxxxx / Supplier-no. xxxxxx

Only "... and is attached to the first sample documents" is used in the requirements catalogue below. This applies to both the analog and the digital dispatch of the documents.

In principle, no request for design deviation is possible for first samples nor the first series delivery.

Series delivery together with initial samples is generally not accepted. In exceptional cases, however, PERI can approve it. This must be clarified in advance with the Global Sourcing department. Should the approval be granted to deliver the series delivery together with initial samples, the series delivery remains blocked until the initial sample has been released. If the initial sample is rejected, the series delivery is also rejected.

Below is a catalogue of requirements to be completed by the supplier by ticking the respective line and returned to PERI with the required documents.

Failure to meet any of the requirements listed below will result in rejection of the initial sample without further evaluation.

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### 2. Documents-, certificate- and qualification inspection:

The drawings and thus associated standards, delivery and execution regulations (LAV) and PERI standards (PN) were checked by the supplier in advance for feasibility.

All documents and certificated needed for production of the first samples are available. Examples are DIN EN ISO 9001, DIN EN ISO 3834, welder examinations, welding certificates acc. to DIN EN 1090, etc.

**Remark:** PERI reserves the right to request the required certifications, qualifications, procedure tests or other relevant evidences as required.

#### 3. Measurement equipment:

Only calibrated measurement equipment was used to measure the first samples.

All measuring and test equipment used for the initial samples, including the date of the last calibration, are listed separately in a measuring and test equipment list. A template of this list is attached at the very end of this document.

Remark: PERI can request the calibration records if required.

### 4. <u>Dimensional inspection:</u>

<u>All</u> dimensions including radii, form- and position tolerances as well as surface quality are tested, recorded and <u>within</u> the specified tolerance.

On threaded components, the entire thread profile must be measured as required by the corresponding PERI standard. Excepted from this are standard components with metric thread with the code letter M. The verification is attached to the first sample test report.

### 5. Material testing and surface- and heat treatment:

<u>Solely</u> the specified materials and semi-finished product are used. **Company-specific** material designations are not accepted by PERI.

The material certificates (works test certificate 2.2 or acceptance test certificate 3.1, etc.) for the specified and used materials required in the design documents are available as **originals** or legible copies of the steel manufacturer in accordance with DIN EN 10204. These are attached to the first sample documents.

The material certificate must contain the information required in the respective product standards under the item "Test certificate" in accordance with DIN EN 10168 and meet the basic requirements of the corresponding quality standards.

If a material certificate or a specified material is not available, a material certificate must be prepared in accordance with LAV313, provided that the article is approved for the specified LAV.

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The material certificate must be legible and in German. If a version in German is not available, the certificate shall in any case be provided bilingually in the national language and English.			
The required protocols are available for surface- and heat treatments and attached to the first sample documents.			
The thickness protocols at coated parts are available and attached to the first sample documents.			
In addition, the essential requirements in LAV095 for powder-coated components or PN115 for galvanized components were observed and implemented.			
5.1 Plastics parts:			
The material data sheet of the used plastics for plastics parts is available and attached to the first sample documents.			
5.2 <u>Casting parts:</u>			
The supplier must verify the mechanical and chemical properties of the cast material in accordance with DIN EN 10204. This certificate is attached to the first sample documents.			
The mechanical values were verified by a round test specimen Ø12mm according to DIN EN 50125.			
Proof of the correct used material is done by microstructure probes and their analysis respectively evaluation in written form. This report is attached to the first sample documents.			
5.3 Forging parts:			
For forged materials, material certificates according to drawing specifications are available in accordance with the specifications of point 5 and are attached to the initial sample documents.			
5.4 Slit strip:			
For slit strip, a material certificate according to DIN EN 10204 is available in accordance with the specifications in point 5 and is attached to the initial sample documents.			
6. Welded assemblies:			
<u>All</u> welds on welded assemblies were measured and documented individually. This includes the measurement of the a-dimension as well as the visual evaluation according to DIN EN ISO 5817 for steel and DIN EN ISO 10042 for aluminum-welded assemblies, taking into account the qualification level according to DIN EN ISO 9712.			
Note: In principle, macrosections are necessary on welds due to design class EXC2. Exception this are welds with the express designation EXC1N.			

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It was clarified in advance with the Global Sourcing department from which specific welds macrosections are to be made.		
The weld specimens for the preparation of the macrosections shall be made from the specified materials in the appropriate plate thickness.		
Macrosections must comply with ISO 17639 and ISO/TR 16060. The tests are performed on specimens taken perpendicular to the weld axis. The macrosections must be prepared, measured and documented in such a way that the weld penetration and the weld metal can be clearly identified. The geometric measurement of the weld seam is part of the macrosection.		
The quality requirements for the weld and the weld penetration shall correspond to the design class as shown in the drawing. The surface preparation, the etching process as well as the etching duration can be taken from ISO/TR 16060. Thus, an evaluation at PERI must be possible without further treatment of the macrosections.		
Furthermore, the macrosections must be preserved in advance that rust formation is prevented over a longer period of time or through transport by sea freight. The preservation must nevertheless make it possible to evaluate the macrosection. One option for preservation is clear varnish. In addition, the macrosections must be protected from transport damage. Macrosections must be delivered physically to PERI.		
Evidence of the ability to weld the required welds is provided by an early production weld test in accordance with DIN EN ISO 15613 or a welding procedure qualification test in accordance with DIN EN ISO 15614.		
Note: PERI reserves the right to request these aforementioned documents if necessary.		
7. First sample decisions:		
<b>Approval:</b> An approval takes place if <b>no deviations</b> are identified on the initial samples themselves or the associated documents.		
Approved with condition: Approved with leads to a re-sampling. The deviations must be corrand documented in a new initial sample inspection report. This must be brought to PERI for resubmission together with the same number of corrected components as delivered during the original initial sampling.	rected	
<b>Rejection:</b> If one of the points applicable to the respective initial sample above has not been complied with, this will lead to rejection of the initial sample.		
It will be decided by PERI whether new initial samples will be requested or whether the order will be withdrawn.		

Signature

Place, date

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