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Customer

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Datum

Subject: Execution of MSA

Dear Sir or Madam,

To evaluate the performance capability of your measurement systems, we carry out a standards-compliant Measurement System Analysis (MSA). To ensure reliable and meaningful results, we use a specially developed procedure that takes into account the specific characteristics of our components.

Background

Our experience shows that series-produced parts often exhibit very low natural variation. While this low variance is positive from a quality perspective, it frequently leads to insufficient part variation during the MSA, making it difficult to achieve an adequate ndc value (number of distinct categories).
In such cases, the measurement system is not evaluated correctly – not because it is unsuitable, but because the sample of parts does not provide enough variation.

Our Approach

To ensure a precise and reliable analysis of your measurement system, we proceed as follows:

1. **Production of Reference Samples**
   We manufacture dedicated reference samples specifically for the MSA, designed with a defined and sufficiently large dimensional range. These samples reliably cover the span required for the analysis.

2. **Execution of Measurement Series Using Reference Samples**
   The MSA is carried out exclusively with these reference parts. This ensures that sufficient part variation is available to accurately and meaningfully determine repeatability, reproducibility, and the ndc value.

3. **Statistical Evaluation According to Recognized Standards**
   We evaluate the results using Q-DAS software in accordance with AIAG guidelines, assess the suitability of the measurement system, and present the results transparently.

Your Benefit
By using individually manufactured reference samples, we ensure that the assessment of the measurement system is not distorted by insufficient part variation. This provides you with a valid and reliable statement about the actual performance capability of our measurement system.

If you have any questions or require further clarification, please feel free to contact us at any time.

Kind regards,

Mario Metzger

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