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GB/Z 24636.3-2009

Geometrical product specifications(GPS) - Statistical tolerance - Part 3: Statistical quality indices of a component lot (process)

产品几何技术规范（GPS） 统计公差 第3部分：零件批(过程)的统计质量指标

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Table of Contents

Foreword

GB /Z24636 "Product Geometrical Specifications (GPS) Statistical Tolerance" is divided into the following five parts.

--- Part 1. Terms, definitions and basic concepts;

--- Part 2. statistical tolerance values and their designations;

--- Part 3. Part Lot (process) of the statistical quality indicators;

--- Part 4. statistical tolerance design based on a given level of confidence;

--- Part 5. Assembly batch (hole, shaft with) the statistical quality indicators. This section GB /Z24636 Part 3. This part of Appendix A, Appendix B, Appendix C and Appendix D are informative appendix. This part of the National Product Size and Geometry Technical Standardization Technical Committee proposed and centralized. This section is drafted. Shandong University of Technology, China Machine Productivity Promotion Center, Zhengzhou University, Zhejiang Asia Pacific Electromechanical Co., Ltd. Former Institute of Technology. The main drafters of this section. Zhang Yu, Xiong Xi, Zhang Linna, Huang Guoxing, Zhao Zexiang. Geometrical product specifications (GPS) statistical tolerances Part 3. part lot (process) Statistical quality indicators

1 Scope

GB/Z 24636.3-2009 is the Chinese national standard on geometrical product specifications(gps) - statistical tolerance - part 3: statistical quality indices of a component lot (process), in the field of metrology and measurement. The /Z suffix marks it as a guiding technical document: it does not prescribe requirements that can be certified against, but sets out the technique, the method or the state of the art that the standards bodies recommend following. It was issued on 15 November 2009 by the State Administration for Market Regulation; Standardization Administration of China. As a guiding technical document it carries no separate date of entry into force: it applies from publication. Classification: ICS 17.040.10, CCS J04. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

GB /Z24636 provisions of this part of the manufacturing process of parts quality characteristics of the statistical quality indicators and tolerances in the design and quality The amount of improvement in the application. This section applies to the linear size of the application of statistical process control, especially with a higher tolerance level with the size; also applies to Bilateral specification limits and the application of statistical process control metrology quality characteristics.

2 Normative references

The following documents contain provisions which, through reference in this part of GB /Z24636, become the provisions of this section. Any reference to the date of the citation All subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to be reached under this section The parties to the agreement examine whether the latest versions of these documents are available. For undated references, the latest version applies to this book section.

GB/T 321 priority number and priority number (GB/T 321-2005,

ISO 3. 1973, IDT) GB /Z20308 Geometrical product specifications (GPS) master plan (GB /Z20308-2006, ISO /T R14638..1995, MOD)

3 Basic concepts

A batch of parts with a specific drawing, a specific production lot number (or order), and specific quality requirements. Part batches should have the same material, workmanship Art conditions, time characteristics and processing of the main. This part of the manufacturing process refers to the formation of the relevant quality characteristics of the process, referred to as the process. The process of direct quality indicators, including process failure rate Pd, the process of superiority rate (or process area rate) Pc and the average quality of the process loss PQL and so on. Indirect quality evaluation of the process indicators for the process capability index Cpk and Cpm.

4 Quality indicators of the expression

When the process applies statistical process control and is under control, the process quality metrics can be calculated using the formulas in Tables 1 and 2.

4.1 direct quality indicator expression Table 1 gives the expression of process quality index as a function of Cp and .