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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 19362.2-2017

**Test conditions for bridge-type milling machines -- Testing of
the accuracy -- Part 2: Travelling bridge (gantry-type) machines
(English Translation)**

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References

Foreword

GB/T 19362 "gantry milling machine test conditions precision test" is divided into the following two parts.

- Part 1. Gantry fixed milling machine;
- Part 2. Gantry mobile milling machine.

This section GB/T 19362 Part 2.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the redrafted law to amend the use of ISO 8636-2:2007 "Machine Tool Gantry Inspection Condition Accuracy Test Part 2 Points. Gantry mobile milling machine. " this part of ISO 8636-2:2007 technical differences and the reasons are as follows.

- Chapter 6 title "brief description" to "general requirements", after the change in line with national conditions and with the current standards of similar gantry milling machine;
- In the accuracy of the test table to delete the "measured deviation" column, because "measured deviation" is usually in the machine "certificate of conformity or accuracy Single "appeared, there is no need to appear in the standard, after the change in line with national conditions and with the current standards of similar gantry milling machine unified;
- G5 ~ G7 test methods in the "for large machine" delete the words, because in the ISO 8636-1:2000 will countertop Machine tool width greater than.2000mm on a large machine test, and gantry mobile milling machine work surface width are generally 3000mm or more, it should be tested by large machine tools.
- The G15 test item "rotary milling head rotation axis parallel to the YZ plane" was changed to "rotary milling head around its axis Rotation plane YZ plane parallelism ", the original argument is unreasonable;
- Work on the accuracy of inspection M2 sketch map of the installation of the specimen has been modified, the original specimen on the stage installation location map unreasonable;
- Increase in the working accuracy test M3, that is, the outline of the processing of test pieces, as specified in international standards, "NC axis positioning accuracy and repeat positioning accuracy "test, the accuracy of a direct impact on machine positioning and contouring capabilities, and international standards of" workers for the accuracy test "but

the lack of corresponding test items, so increase the test M3;

--- Chapter 10 of the International Standard will be replaced by this part of Appendix A (informative), because the tenth chapter of the International Standard test items failed Cooked, there is no provision for test indicators, so Chapter 10 as a reference test items in Appendix A, after the change in line with national conditions and with the existing standard gantry milling machine standard unity.

This section and ISO 8636-2:2007 there are technical differences, the provisions of these differences have been passed in the margins of its outer margin the vertical single (I) is marked.

This part is proposed by China Machinery Industry Federation.

This part of the National Standardization Technical Committee metal cutting machine (SAC/TC22) centralized.

This part of the drafting unit. Beijing Beiyi Machine Tool Co., Ltd., Sichuan Changzheng Machine Tool Group Co., Ltd..

1 Scope

GB/T 19362 provisions of this part of the general purpose and general accuracy of the gantry mobile milling machine geometric accuracy, precision and axis Requirements and methods of line location accuracy inspection and corresponding tolerances.

This section applies to move the column and table fixed gantry milling machine. This section does not apply to single column and column fixed and table movement Gantry milling machine Applicable to the accuracy of machine tools. Does not apply to the operation of the machine check (such as vibration, abnormal noise, moving parts crawling, etc.) Also does not apply to the machine parameters check (such as speed, feed, etc.). These tests should be carried out before the accuracy test.

This section gives the terms of the main components of machine tools, and according to GB/T 19660-2005 named axis.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 17421.1-1998 General rules of machine tools testing - Part 1. Geometrical accuracy of machine tools under no load or finishing conditions (eqv ISO 230-1:1996) ISO 230-2-2006 General rules of machine tool inspection - Part 2. Determination of the positioning accuracy and repetitive positioning accuracy of the numerical control axis (Test

codeformachinetools-Part 2:

Determination of accuracy and repeatability of positioning numerically controlled axes ISO
230-7:2006 General rules of machine tools testing - Part 7 of the geometric axis of rotation
of the test (Test code form machine tools-Part 7: Geometric accuracy of axes of rotation)

3 Terms and definitions

The following terms and definitions apply to this document.

Milling process milling operation Milling is the use of different types of tools known as the "rotary cutter" cutting a material processing operations.

Note: The usual milling operations are plane milling and face milling. The tool is installed in the spindle taper hole or on the front face of the spindle.

Boring operation Boring refers to a cylindrical hole, tapered bore, blind hole or through-hole diameter to the required size of a processing operation.

Drilling (tapping) operations these processes include drilling and/or tapping blind or through-holes.