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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 34380-2017

CNC laser cutting machines

数控激光切割机

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard proposed by the China Machinery Federation. This standard by the National Standardization Technical Committee forging Machinery (SAC/TC220) centralized. This standard was drafted unit.Jinan Casting Forging Machinery Research Institute Co., Ltd., Yangli Group Co., Ltd., Jiangsu Yawei Machine Tool Co., Ltd. Limited. The main drafters of this standard. Yang Xu Guang, Pan Diansheng, Cai Cheng, Ma Liqiang. CNC laser cutting machine

1 Scope

China's national standard for numerically controlled laser cutting machines. It specifies the types and basic parameters, the technical requirements, the test methods, the inspection rules and the marking, packaging, transport and storage. Laser cutting displaced the punch press and the plasma torch in sheet metal work for a simple reason: it needs no tooling. A punch press cuts what its tools allow and a new part means new tools; a laser cuts whatever the program describes, changes part in the time it takes to load a file, and leaves an edge clean enough to weld without dressing. The fibre laser then displaced the CO2 laser within this class, cutting thin steel several times faster at a fraction of the running cost. What a standard has to pin down for such a machine is where its accuracy is measured and under what conditions, because the number a buyer cares about - can it hold a tolerance across a full sheet, hour after hour - depends on the frame, the drives and the thermal behaviour rather than on the laser.

This standard specifies the type of NC laser cutting machine and the basic parameters, technical requirements, test methods, inspection rules, signs, packaging, transportation And storage. This standard applies to CNC laser cutting machine (hereinafter referred to as cutting machine).

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 191 Packaging - Pictorial signs GB 2893 safe color

GB 5226.1 Safety of machinery - Electrical machinery and electrical equipment - Part 1. General specifications

GB/T 6576 machine lubrication system

GB/T 7932 pneumatic system of general technical conditions GB/T 13306 signs

GB 17120-2012 forging machinery safety conditions

GB/T 17421.2 General rules for machine tool inspection - Part 2. Axis positioning accuracy and positioning accuracy of repeated determination

GB 18490 laser processing machinery safety requirements

GB/T 19660 Industrial automation systems and integrated machine numerical control coordinate system and motion naming Forging machinery - Measurement of sound pressure level GB/T 23281

JB/T 1829 forging machinery general technical conditions

JB/T 8356 machine tool packaging specifications

JB/T 8609 forging mechanical welding conditions

JB/T 8832 machine tool numerical control system general technical conditions

3 Type and basic parameters

3.1 type Laser cutting machine according to the type of processing object is different, generally divided into the following two types.

a) two-dimensional CNC laser cutting machine;

b) three-dimensional CNC laser cutting machine.

3.2 Basic parameters

3.2.1 effective processing range Machinable objects, the maximum nominal size, are generally divided into.2000mm x 1000mm, 2500mm x 1250mm, 3000mm x 1500mm, 4000mm x.2000mm, 6000mm x.2000mm and other specifications.