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

GB/T 11164-2011

Replacing GB/T 11164-1999

Vacuum coating plant generic specification

真空镀膜设备通用技术条件

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 11164-1999 "vacuum coating equipment general technical conditions", compared with the GB/T 11164-1999 major change Of the following.

--- For ease of use increases the directory;

--- Revised GB/T 11164-1999 in the pressure range of vacuum coating equipment by 10-4Pa ~ 10-3Pa modify 10-5Pa ~ 10-3Pa;

--- Revised GB/T 11164-1999 Table 1 coating chamber size binned increased 300,400,450,1100,1350,2200, 2400,2500,2600,3200 size in ten stages, and with an "*" preferred size has been adjusted;

--- Revised GB/T 11164-1999 Table 1 binning coating equipment, coating equipment increases the C file, and add or modify various Extreme pressure gear coating equipment, pumping time and boosting rate index;

--- Due to GB/T 11164-1999 part of the normative references have been revised, so the standard reference existing standards;

--- Revised GB/T 11164-1999 in 4.4.6, using tabular form provides equipment for electrical installations in various electrical circuits The insulation resistance value;

--- Revised GB/T 11164-1999 in

4.5.4 and 4.5.12, increasing the safety content. The standard proposed by China Machinery Industry Federation. The vacuum technology standard by the National Standardization Technical Committee (SAC/TC18) centralized. This standard is drafted by: Beijing North instrument innovative vacuum technology limited liability company. Participated in the drafting of this standard. Shanghai Shuguang Machinery Works Co., Ltd., Lanzhou vacuum equipment limited liability company, Chengdu South-ray machines Limited, China Aerospace Science and Technology Group, 510 Fifth Academy of Sciences, Shanghai

Huifeng Petrochemical Co., Ltd., Shenyang Vacuum Technology Institute The study. The main drafters of this standard. Chen month by Xie Jun Rong Fan Liquan, Sun Kai, Wen Falan, Jin Yi, Qiang, Hui Jinde, ROCKETS. This standard replaces the standards previously issued as follows:

--- GB/T 11164-1989, GB/T 11164-1999. Vacuum coating equipment General technical conditions

1 Scope

GB/T 11164-2011 is the Chinese national standard on vacuum coating plant generic specification, in the field of fluid systems and general-purpose components. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 21 November 2011 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 March 2012. Classification: ICS 23.160, CCS J78. 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.

This standard specifies the technical requirements for vacuum coating equipment, test methods, inspection rules and signs, packaging, transportation and storage requirements. This standard applies to the pressure in the vacuum evaporation 10⁻⁵Pa ~ class 10⁻³Pa range, type sputtering, ion plating class vacuum coating equipment (hereinafter Acronym equipment).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the edition are not applicable to the present file. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 191-2008 Packaging - Pictorial signs

GB/T 3163-2007 term vacuum technology

GB 5226.1-2008 Safety of machinery - Electrical machinery and electrical equipment - Part 1. General requirements

GB/T 6070-2007 technical vacuum flange size GB/T 13306-2011 signage

GB/T 13384-2008 mechanical and electrical products packaging General technical conditions

GB/T 15945-2008 power quality power system frequency deviation

GB 18209.1-2010 Electrical safety of machinery - Indication, marking and actuation - Part

1. Requirements for visual, auditory and tactile signals Claim

JB/T 7673 model designation of vacuum equipment

3 Terms and Definitions

GB/T 3163-2007 and defined the following terms and definitions apply to this document.

3.1 Extreme pressure ultimate pressure Pump in operation, no-load dry vacuum vessel approaching, reaching and maintaining a stable minimum pressure.

Note. Units Pa (Pa).

3.2 Recovery time vacuum suction pump-downtime When the vacuum system is working properly, the load time of drying the coating chamber evacuated from a predetermined atmospheric pressure (105Pa) operating pressure required.

Note. in minutes (min).

3.3 Boosting rate rate of pressure rise The drying of the coating chamber load continuous pumping to a stable minimum pressure, stop pumping, the interior coating or internal leakage due deflated by Boost caused per unit time.

Note. Units Pa per hour (Pa/h).