

JB

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

JB/T 6533-2005

Replacing JB/T 6533-1997

Rotary vane vacuum pumps

旋片真空泵

(English Translation)

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1 Scope

This standard specifies types and basic parameters, technical requirements, sampling and judgement method, test methods, inspection rules, marking, packaging, transportation and

storage of sliding vane rotary vacuum pump.

This standard is applicable to dual oil seal sliding vane rotary vacuum pump (hereinafter referred to as pump).

2 Normative References

The following normative documents contain provisions which, through reference in this standard, constitute provisions of this standard. For dated references, subsequent amendments (excluding corrections) to, or revisions of, any of these publications do not apply. However, all parties coming to an agreement according to this standard are encouraged to study whether the latest editions of these documents are applicable. For undated references, the latest edition of the normative documents referred to applies.

GB/T 191 Packaging-Pictorial Marking for Handling of Goods (GB/T 191-2000, eqv ISO 780: 1997)

GB/T 3163 Terminology for vacuum technology

GB/T 13306 Plates

GB/T 13384 General Specifications for Packing of Mechanical and Electrical Product

JB/T 7266 Methods of Measurement for Performance of Positive-displacement Vacuum Pumps (JB/T 7266-1994, eqv ISO 1607-1: 1980, ISO 1607-2: 1989)

JB/T 7673 Vacuum Equipment - Model Compilation Method

JB/T 8106 Methods of Measurement for Noise Emitted by Positive-displacement Vacuum Pumps

SH 0528 Mineral Vacuum Pump Oil

3 Terms and Definitions

For the purposes of this standard, the terms and definitions specified in GB/T 3163 and those listed below apply.

3.1 Volume flow rate

The ratio of gas flow through the test cover to the balance pressure measured at the designated position on the test cover when the pump is equipped with standard test cover and operates according to the required condition, hereinafter referred to as pumping speed, in L/s.

3.2 Geometric pumping speed

The product of the theoretical aspirated volume for each turn of pump and the rated speed, in L/s.

3.3 Ultimate pressure

The minimum pressure tending to be stable when the pump is equipped with standard test cover and operates according to the required condition under the normal working condition without introducing gas, in Pa.

3.4 Maximum tolerable water vapour inlet pressure

The maximum tolerable inlet pressure of water vapour in the gas pumped when the gasballast pump is operating continuously under the standard environmental condition (20°C and 101,325 Pa), in Pa.

3.5 Water vapour tolerable load

The maximum water vapour mass flow which can be pumped in unit time when the gasballast pump is operating continuously under the standard environmental condition (20°C and 101,325 Pa), in g/h.

3.6 Minimum tolerable starting temperature

The minimum ambient temperature which the pump can start under the atmospheric pressure after at least 1h of pump shutdown, in °C.

4.1 Types

The pump's structural type: the rotor is installed in the pump case eccentrically, and tangent (or intersecting) to the fixed surface of the pump case's internal surface, two or more sliding vanes are put in the rotor; when the rotor is rotating, the sliding vanes can slide repeatedly along the radial (or inclined) groove, and always contact with the pump case's inner wall, the pump cavity is divided into several variable volumes.