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

GB/T 36227-2018

Super-scale air separation plants

特大型空气分离设备

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard was proposed by the China Machinery Industry Federation. This standard is under the jurisdiction of the National Gas Separation and Liquefaction Equipment Standardization Technical Committee (SAC/TC504). This standard was drafted. Hangzhou Hangyang Co., Ltd., Kaifeng Air Separation Group Co., Ltd., Sichuan Air Separation Equipment (Group) Limited Liability the company. The main drafters of this standard. Zhou Zhiyong, Wang Zhongjian, Gao Yun, Han Yisong, Peng Xudong, Ma Guohong, Zhao Wenyin, Huang Ke, Mao Yangping, Zhou Fenfang, Zhou Kuanzhang, Xu Xing, Wang Qingbo, Jiang Rong, Ma Henggao, Li Jinan, Sun Jian, Zheng Dahai, Shou Huiqing. Extra large air separation equipment

1 Scope

China's national standard for super-scale air separation plants. It specifies the basic process and models, the design, the factory inspection, the marking, packaging, transport and storage, the installation and the field performance test. An air separation plant liquefies air and distils it into oxygen, nitrogen and argon, and the super-scale designation refers to units producing on the order of a hundred thousand cubic metres of oxygen an hour - the size built alongside a steelworks, a coal gasification plant or a large chemical complex, where the plant exists to feed one customer and its output is piped over the fence. At that scale the machine is essentially a building: a cold box tens of metres high containing a distillation column, fed by compressors of tens of megawatts, and its power consumption is a substantial fraction of the site's. Which is why the standard runs from design through to a field performance test - the guarantee that matters is the specific power per unit of oxygen, and it can only be demonstrated on site.

This standard stipulates the basic process and model, design, factory inspection, logo, and extra large air separation equipment (hereinafter referred to as air separation equipment). Packaging, transportation and storage, installation, on-site performance inspection. This standard is applicable to the separation of air by low temperature method and the oxygen production is not less than 60,000 m³/h [the oxygen and nitrogen production in this standard are standard] The amount of gas at [0 ° C, 101.325 kPa (A)]; the pressure unit plus (A) is absolute pressure, and the unspecified is gauge pressure.], oxygen purity (volume fraction) No less than 99.6% of air separation equipment.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 150 (all parts) pressure vessel GB/T 151 heat exchanger

GB/T 156 standard voltage

GB/T 2624 (all parts) Measuring full pipe fluid flow with a differential pressure device installed in a circular cross-section pipe

GB/T 2888 fan and Roots blower noise measurement method

GB/T 3863 Industrial Oxygen

GB 4053.2 Fixed steel ladders and platforms - Safety requirements - Part 2

GB 4053.3 Fixed steel ladders and platforms - Safety requirements - Part 3. Industrial protective railings and steel platforms

GB/T 5831 Determination of Trace Oxygen in Gases

GB/T 12325 power quality supply voltage deviation

GB 12348 Environmental noise emission standards for industrial enterprises

GB/T 13306 signage General technical conditions for

GB/T 13384 mechanical and electrical product packaging

GB/T 15945 power quality power system frequency deviation