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

GB/T 22380.3-2019

Replacing GB 22380.3-2010

**Explosion protected safety technique of the petrol filling station
- Part 3: Safety requirements for construction and performance
of shear valves**

燃油加油站防爆安全技术 第3部分：剪切阀结构和性能的安全要求

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Foreword

GB/T 22380 "Explosion-proof safety technology for fuel gas stations" is divided into several parts.

- Part 1. Technical requirements for explosion-proof safety of fuel dispensers;
- Part 2. Safety requirements for the structure and performance of safety pull-off valves for tankers;
- Part 3. Safety requirements for shear valve structure and performance; This part is the third part of GB/T 22380. This section is drafted in accordance with the rules given in GB/T 1.1-2009. This part replaces GB 22380.3-2010 "Explosion-proof safety technology for fuel gas stations. Part 3. Safety of shear valve structure and performance Requirements, compared with GB 22380.3-2010, the main technical changes are as follows:
 - Increased the applicable temperature range, non-applicable equipment and fuel categories not considered in this section (see Chapter 1);
 - Increased the requirements for the EPL level of the shear valve (see 4.2);
 - Increased inlet and outlet thread types (see 5.4). This section is proposed by China Electrical Equipment Industry Association. This section is under the jurisdiction of the National Explosion-proof Electrical Equipment Standardization Technical Committee (SAC/TC9). This section was drafted. Nanyang Explosion-proof Electric Research Institute Co., Ltd., Beijing Sanying United Petroleum Technology Co., Ltd., Token Hengshan Technology (Guangzhou) Co., Ltd., Zhengzhou Yongbang Measurement and Control Technology Co., Ltd., National Explosion-proof Electrical Product Quality Supervision and Inspection Center, Jiangyin Furen Hi-Tech Co., Ltd., Zhengxing Technology Co., Ltd.,

Zhejiang Chunhui Intelligent Control Co., Ltd., Ubitus Petroleum Equipment (Suzhou) Co., Ltd. the company. The main drafters of this section. Zhang Gang, Wang Jun, Ji Peng, Zhang Xinghui, Zhang Cai, Xu Dongcheng, Liang Baisong, Yao Kaili, Zhu Jianguo, and Wang Qiaoli. The previous versions of the standard replaced by this section.

--- GB 22380.3-2010. Fuel gas station explosion-proof safety technology Part 3. Safety requirements for shear valve structure and performance

1 Scope

GB/T 22380.3-2019 is the Chinese national standard on explosion protected safety technique of the petrol filling station - part 3: safety requirements for construction and performance of shear valves, in the field of electrical engineering. 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 10 December 2019 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2020. Classification: ICS 29.260.20, CCS K35. 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 part of GB/T 22380 stipulates that it is installed in gas stations to provide vehicles, ships, and light aircraft with a flow rate of not more than 200L/min. Explosion-proof measures, structure, and physics of shear valves for fuel tankers (hereinafter referred to as "fuel dispensers") that are filled with liquid fuel or mobile tank containers Performance, usage requirements, testing and usage information. This section applies to the installation of gas stations to vehicles, ships, light aircraft or mobile tanks at a flow rate of not more than 200L/min. Shear valves for fuel dispensers that add liquid fuel to the dispenser. This section applies to shear valves used at ambient temperature -20 °C ~ 40 °C.

Note. When the ambient temperature range is outside -20 °C ~ 40 °C, other measures need to be taken, and it should be negotiated between the manufacturer, user and inspection agency. This section pays special attention to mechanical and hydraulic performance. This section does not apply to equipment for liquefied petroleum gas (LPG) or liquefied natural gas (LNG) or compressed natural gas (CNG). This section does not consider fuels other than Class IIA.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article Pieces. For undated references, the

latest version (including all amendments) applies to this document.

GB 3836.1 Explosive atmospheres Part 1. General requirements for equipment

GB/T 5464 Test method for non-combustibility of building materials

GB/T 7306.1 55 ° sealed pipe threads. Part 1. Internal cylindrical and tapered external threads

GB/T 12716 60 ° sealed pipe thread GB 17930 Motor gasoline

GB 18351 ethanol gasoline for vehicles (E10)

GB/T 22380.1-2017 Fuel gas station explosion-proof safety technology Part 1. Technical requirements for explosion-proof safety of fuel dispenser

GB 25285.1 Explosion prevention and protection in explosive environment Part 1. Basic principles and methods

GB 25286.1-2010 Non-electrical equipment for explosive atmospheres-Part 1. Basic methods and requirements

3 Terms and definitions

The terms and definitions defined in GB/T 22380.1-2017 and the following apply to this document.

3.1 Shear valve A normally open valve closes when subjected to shock or heat, prevents fluid flow from a pressure source, and continues to hold after action shut down.

3.2 Main valve (liquid) The normally open valve on the inlet side is closed when the shear valve is activated.