

ICS 13.220.20

CCS C82



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

GB 5908-2024

Replacing GB 5908-2005

Flame arrester

阻火器

Issued on: November 28, 2024

Implemented on: December 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. This document replaces GB 5908-2005 "Flame arresters for petroleum storage tanks" and GB/T 13347-2010 "Flame arresters for petroleum gas pipelines". Based on GB 5908-2005, it integrates the contents of GB/T 13347-2010. Compared with the previous version, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) Add the terms and definitions of "tube end flame arrester", "short-term combustion", "unstable detonation" and "overdrive detonation" (see Chapter 3);
- b) The terms and definitions of "fire retardant core", "limited fire retardant speed" and "safe fire retardant speed" have been deleted (see Chapter 3 of GB 5908-2005). and Chapter 3 of GB/T 13347-2010);
- c) Changed the terms "flame arrester", "pipeline flame arrester", "deflagration flame arrester", "detonation flame arrester", "maximum test safety clearance", "stable The terms and definitions of "stable combustion", "stable detonation" and "maximum working pressure of medium" (see Chapter 3, Chapter 3 of GB 5908-2005) and Chapter 3 of GB/T 13347-2010);
- d) The classification of flame arresters has been changed (see Chapter 4, Chapter 5 of GB 5908-2005 and Chapter 5 of GB/T 13347-2010);
- e) The model number has been changed (see Chapter 5, Chapter 4 of GB 5908-2005 and Chapter 4 of GB/T 13347-2010);
- f) The requirements and corresponding test methods for the flame arrester at the pipe end for deflagration resistance have been changed (see 6.6.1, 7.7, 6.5, 7.6);
- g) Changed the requirements and corresponding test methods for the deflagration resistance and detonation resistance of pipeline flame arresters (see 6.6.2, 6.6.3, 7.8, 7.9,

7.7 of GB/T 13347-2010);

h) Added the requirements for short-time combustion resistance and the corresponding test methods (see 6.7.1, 7.10.1);

i) The requirements for pressure loss and ventilation volume and the corresponding test methods have been changed (see 6.9, 7.11, 6.8, 7.8, GB/T 13347-2010, 6.9, 7.9);

j) Added requirements for electrostatic jumper wires and corresponding test methods (see

k) Added the requirements for "flame arrester test gas" (see Appendix B). Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the National Fire and Rescue Administration. The previous versions of this document and the documents it replaces are as follows:

1 Scope

GB 5908-2024 is the Chinese national standard on flame arrester, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 28 November 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 December 2025. Classification: ICS 13.220.20, CCS C82. 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 document specifies the model compilation, classification, requirements, test methods, inspection rules, marking, packaging, transportation and storage, product compliance, etc. of flame arresters. Requirements for writing certificates and instruction manuals. This document applies to the design, manufacture and quality inspection of static flame arresters.

Note. The flame arrester specified in this document is applicable to the following working conditions. the working pressure (absolute pressure) of the medium is in the range of 0.08MPa~0.16MPa, and the medium is The operating temperature range is -20°C~150°C.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This

document.

GB/T 3836.2 Explosive atmospheres Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 It is composed of flame-blocking elements, shells and accessories, which can prevent the flame (deflagration or detonation) from passing through, but allow the medium to flow under normal working conditions. device.

3.2 Flame arrester installed between pipes.

Note. There are connecting pipes on both sides of the flame arrester.

3.3 A flame arrester that is connected to the pipe at only one end.

3.4 A flame arrester that can prevent the spread of deflagration flames.

3.5 A flame arrester that can prevent the propagation of detonation (stable detonation, unstable detonation).