



# **HFC-227ea Fire Suppression Systems**

## **Product Selection Guide**

# Overview of Gulf Security Technology co.,Ltd (GST)

GST is a primary fire alarm & detecting system and smart home system provider in China. Founded in 1993, GST has become one of the leading brands in term of market share in local market.

GST has strong production capacity and excellent manufacture process. With more than 20 advanced production lines and sound quality control system, GST became one of the biggest and most advanced production bases for electronic products in buildings. GST has obtained various national and international certificates, including CCCF, LPCB, UL, CE, PSB, SAI and HKFSD, etc.

GST has built up a strong R&D team engaged in product development and innovation in Beijing and a Post-Doctoral Research Center in QHD.

In domestic market, GST has set up more than 140 branch offices all over China to provide in-time supports.

In the meanwhile, GST expands its territory to the Asia, Europe, Africa, South & North America, Oceania and Middle East, serves a variety of customer segments from government institutions, infrastructure, banks, hotels, commercial and residential buildings, schools, and industrial parks.

Since joined the family of UTC in the August of 2009, GST is keen on providing the most efficient one-stop solution of fire and security system, to both domestic and international customers, to improve life quality and facilitate community development of the region.



**GST Production Base**

## Overview of Fire Suppression Products

GST has dedicated to gas fire suppression products research and development more than eight years, has professional production factory, marketing team and after-sales service team.

Products include HFC-227ea fire suppression systems, IG541 fire suppression systems and cabinet HFC-227ea fire suppression equipments. There are more than 10 kinds of product models. GST has perfect quality management system and rich experience in production, to ensure providing excellent quality products. At the same time, GST has a wide range of fire products sales and service network and strives to provide first-class products and perfect service for customers.



# Certification and Approval





# HFC-227ea Fire Suppression Systems

HFC-227ea is a compound of carbon, fluorine and hydrogen ( $\text{CF}_3\text{CHFCF}_3$ ). It is colorless, odorless and electrically non-conductive. It suppresses fire by a combination of chemical and physical mechanisms with minimal affect on the available oxygen. This allows personnel to see and breathe, permitting them to leave the fire area safely. It is widely used in many countries and regions.

## Scope

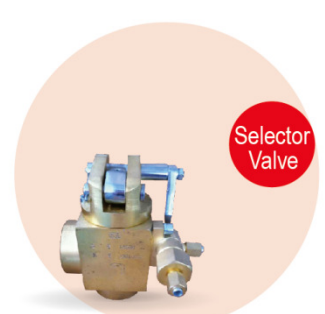
The systems are designed for the following classes of fire:

- Class A Surface Type Fire; Wood or other cellulose-type material
- Class B; Flammable liquids
- Class C; Energized electrical equipment

## Areas

The systems are intended to protect the following:

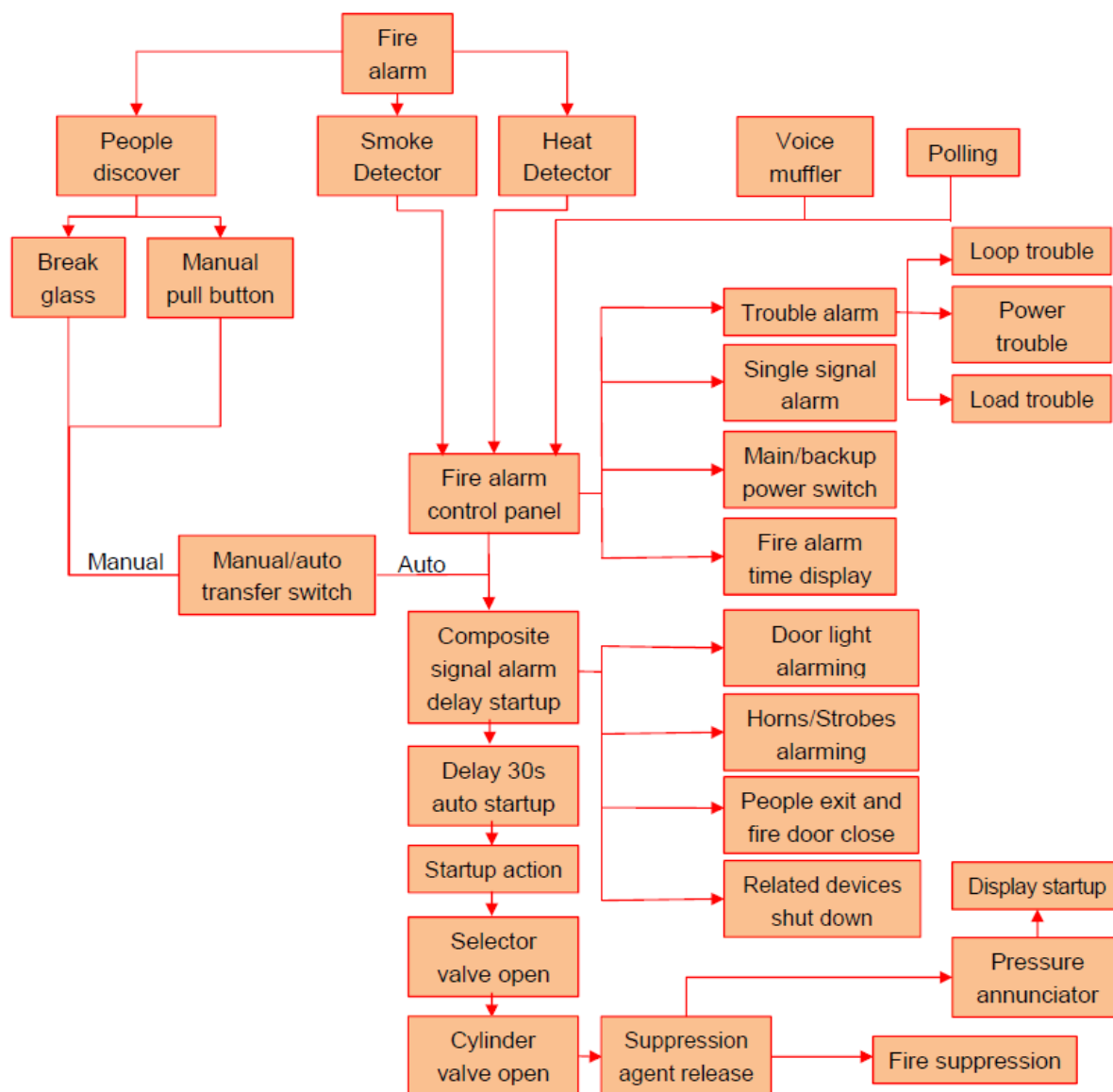
- Data processing facilities
- Telecommunications facilities
- Process control rooms
- High value medical facilities
- High value industrial equipment areas
- Libraries, museums, art galleries
- Anechoic chambers
- Flammable liquid storage areas, etc.



## Technical Parameters

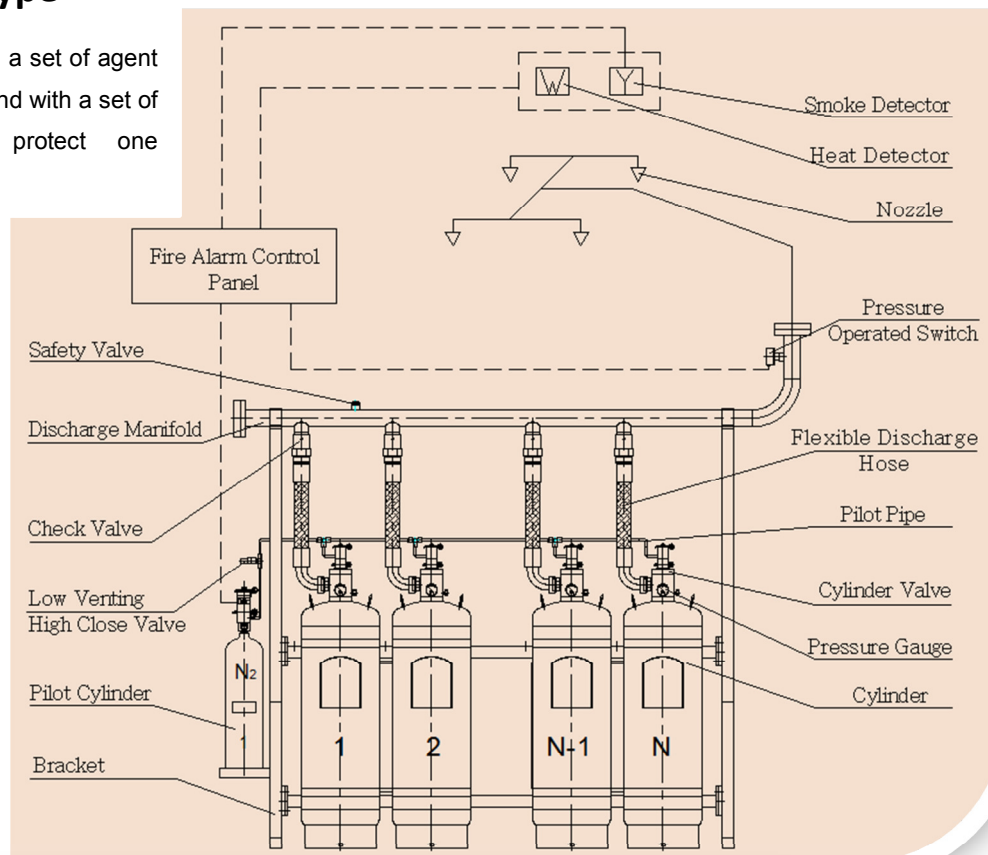
Operative Standard	GB 25972-2010 <i>Gas fire extinguishing systems and components</i>
Nominal operating pressure (20°C) (MPa)	4.2
Volume of cylinder (L)	70, 90, 120, 150, 180
Discharge time (s)	≤10
The maximum filling rate of agent (kg/m <sup>3</sup> )	950
Operating temperature (°C)	0 ~ 50
The maximum operating pressure (MPa)	5.3

## Action Principle



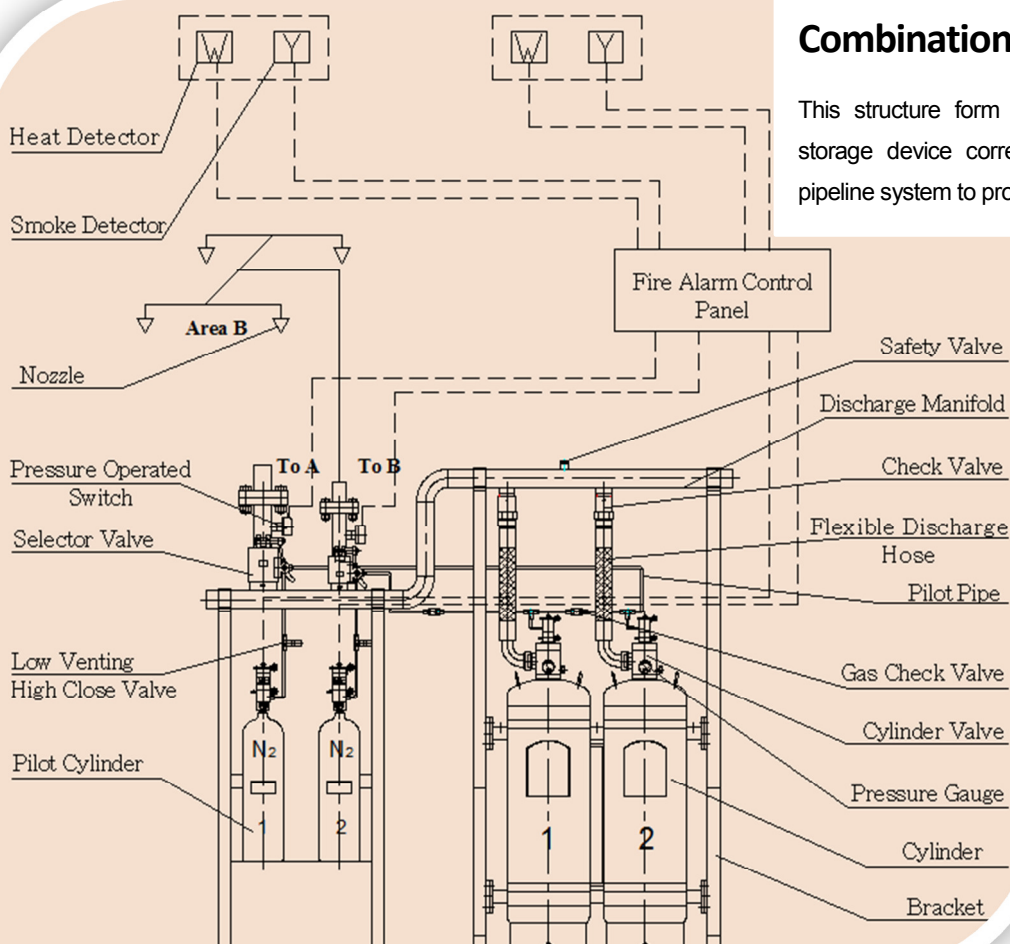
## Independent-type

This structure form uses a set of agent storage device correspond with a set of pipeline system to protect one protection area.



## Combination Distribution Type

This structure form uses a set of public agent storage device correspond with several sets of pipeline system to protect several protection areas.



## Pilot cylinder



The pilot cylinder is mainly made of nitrogen, steel pressure vessel , cylinder valve, safety valve and so on.

When the fire breaks out, fire alarm control panel outputs DC24V current, opens cylinder valve to release nitrogen first from cylinder valve outlet, by pilot pipe open its corresponding selector valve; Then pilot nitrogen flow into agent cylinder to open the cylinder valve.

Model Specification	Cylinder Volume	Filling Pressure	Maximum W.P	Working Voltage	Working Current
QP8/6.0	8L	6MPa	6.6MPa	DC24V	1.5A

## Project Performance

- The Ming Tombs Heritage Library of Beijing
- Anhui Province and Heilongjiang Province IRS
- China Unicom of Changzhou
- China Mobile of Yingtan
- Sinopec Center of Research and Production of Urumqi
- State Route Logistics Port of Zhengzhou
- Chongqing Foxconn Factory
- Luan River Power Plant in Tangshan
- Zhengzhou-Xi'an Railway Passenger Dedicated Line
- The People's Hospital of Henan
- Jining Power Plant

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**Service phone**  
**400 612 0119**

## **Gulf Security Technology Co., Ltd.**

80 Changjiang East Road, Economic & Technology Development Zone,  
Qinhuangdao, Hebei, China

Post Code: 066004

Tel: +86 (0)335-8502468

Fax: +86 (0)335-8508942

E-mail: [gst.qhd@fs.utc.com](mailto:gst.qhd@fs.utc.com)

[www.gst.com.cn](http://www.gst.com.cn)

[www.utcfireandsecurity.com](http://www.utcfireandsecurity.com)