



شركة المصنع السعودي لأجهزة الإطفاء  
SAUDI FACTORY FOR FIRE EQUIPMENT Co.

Empowering  
a **Safer Future** for  
the Kingdom



**THERMO ACT**   
AUTOMATIC FIRE DETECTION  
& SUPPRESSION SYSTEM 

Quality Approvals for Various Products and Services

VER: 00-04/26



## The Global Standard in Fire Safety

Since 1983, SFFECO has been the trusted name and a recognized global leader in manufacturing top-tier fire-fighting equipment. We don't just offer products; we provide total fire safety solutions like fire doors, fire cabinets, fire pumps, fire extinguishing systems, etc. Our commitment to excellence is certified by multiple international standards, including ISO 9001 (Quality), ISO 14001 (Environmental), and ISO 45001 (Health & Safety). With state-of-the-art facilities in Riyadh and Dubai, we ensure every product meets rigorous international quality standards.

## One-Stop-Shop for Fire Protection

SFFECO is your single source for everything in fire protection and fire-fighting. Represented in over 100 countries through a vast network of dealers, our innovative approach and comprehensive, end-to-end product range deliver the full spectrum of solutions you need. We're dedicated to keeping you safe and updated, constantly integrating the latest fire-fighting technology into our knowledge and services. Choose SFFECO and get certified quality, global reach, and pioneering innovation—all in one place.



### Quality Services

SFFECO is deeply committed to ensuring superior performance and accuracy in every product it delivers. This dedication is maintained through continuous, close collaboration with a wide array of stakeholders, including key certification bodies, government regulatory agencies, industry partners, and leading technology associations. This concerted effort focuses on the development and delivery of truly innovative and high-quality fire-fighting solutions. The commitment to excellence is rigorously upheld through extensive product testing and evaluation, alongside a strict, ongoing process for continued product quality compliance, guaranteeing that SFFECO's equipment operates with assured reliability when it matters most.

SFFECO is dedicated to providing fire safety products of the highest quality and performance. We achieve this by working closely with certification bodies, government regulatory agencies, industry partners, and technology associations. This collaboration ensures our innovative products are backed by extensive product testing and evaluation, and maintained through continuous quality compliance.

As global leaders since 1983, SFFECO believes in manufacturing quality products and offering exceptional service standards worldwide. Our primary goal is to reward our customers by keeping their investments safe and secure. Our manufacturing plant has steadily grown and is now equipped with modern hi-tech equipment and staffed by highly skilled professionals. With optimal ISO-certified operations, we consistently roll out products that match global standards to serve the needs of the growing fire safety market.



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# Thermo-Act System

## General Description



SFFECO Thermo-Act systems are the advanced technology of automatic fire suppression systems. The systems provide a self-activating suppression system that suppresses fires in seconds. They are simple design and installation with low maintenance, highly cost effective and reliable. The electrical or pneumatic sources shall not be required to our Thermo-Act systems. The systems can be used in the presence of an increased risk of fire.

SFFECO Thermo-Act systems utilize fire flexible tube for fire detection. Thus, the fire detection and extinguishing system is not required to detect and discharge.

SFFECO Thermo-Act systems can be designed with commercial available agents like HFC227ea or FK5112.

### Applications:

- ❖ Linear detection line.
- ❖ Rapid reaction time.
- ❖ 24 hours a day ready for use.
- ❖ No external power supply.
- ❖ Flexible positioning of the flexible tube.
- ❖ Can be installed into inaccessible areas.
- ❖ Minimal environmental damages.
- ❖ No accidental discharges through a disruption of the fire detector
- ❖ Can be used in every environment (marine or industrial atmosphere)
- ❖ Governmental and insurance approvals
- ❖ Not affected by vibration or knocks
- ❖ Quick and simple installation in new or existing cabinets
- ❖ Low price - high performance relationship
- ❖ Minimum maintenance.
- ❖ Easy maintenance & checking
- ❖ Short delivery
- ❖ Easy replacement
- ❖ Different Sizes



Airports & Aviation



Electrical Panels



Marine Vehicles



Server and Computers



Road Transports



Rail Transports

# Thermo-Act System

## Type of Actuation



### Direct System



SFFECO Thermo-Act direct system for low pressure agent as shown below uses the flexible tube as both the detection device and extinguishing discharge system. In case of fire, the section of tube most exposed to heat will rupture forming a discharge nozzle. The suppressant agent is then completely released due to pressure drop in the tube.

### Indirect System



SFFECO Thermo-Act indirect system for low pressure agent as shown below uses the tube as a fire detection device only. The fire suppression agent is delivered through a special copper or stainless steel tubing system. Once the tube ruptures due to heat exposure, the drop in pressure activates the indirect valve to direct the flow of suppression agent to diffuser nozzles via a fixed tubing system. This system is usually used in large areas.

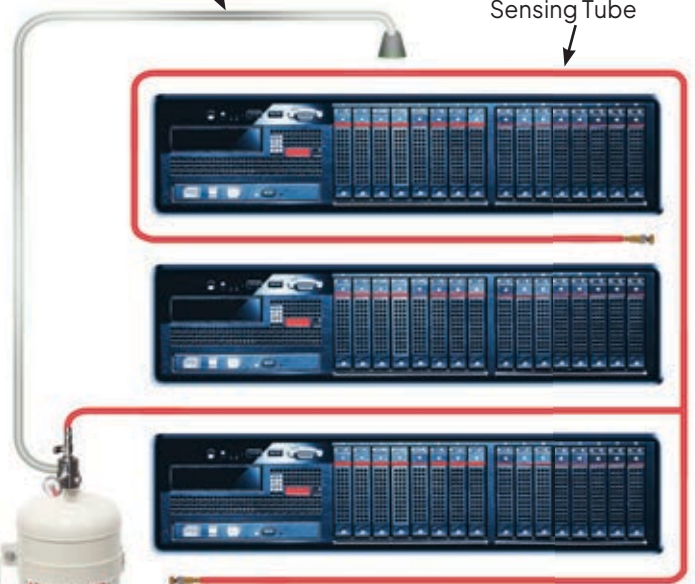
Sensing & Discharging Tube



Direct System

Discharge Pipe

Sensing Tube



Indirect System

# Thermo-Act System Parts

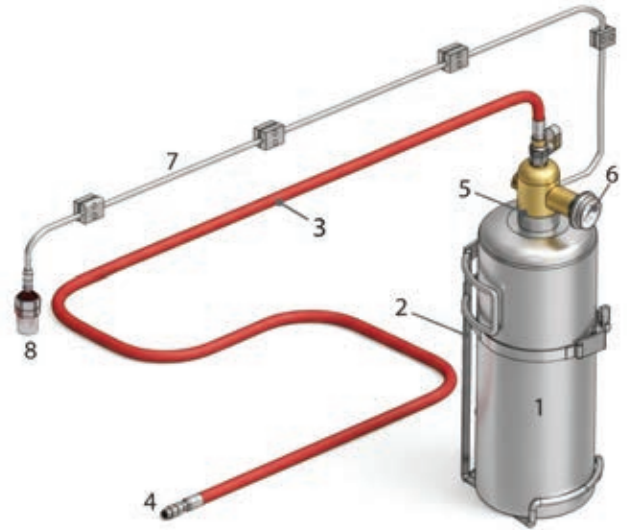


## Direct System



1. Storage cylinder
2. Cylinder bracket
3. Fire detection tube
4. End of Line adapter
5. Valve
6. Pressure gauge

## Indirect System



1. Storage Cylinder
2. Cylinder bracket
3. Fire detection tube
4. End of Line adapter
5. Valve
6. Pressure gauge
7. Discharge pipe
8. Discharge nozzle



Valve for Thermo-Act System

# Thermo-Act System Applications

- ❖ Residential Kitchenhood
- ❖ Medical / laboratory equipment.
- ❖ Electrical control panels. & Small electrical rooms
- ❖ UPS units.
- ❖ Computer / Data storage cabinets.
- ❖ Small Generator rooms.
- ❖ Small Storage areas.
- ❖ Switchgear.
- ❖ Cable duct.
- ❖ Escalator.
- ❖ Transmitters.
- ❖ Motor vehicles.
- ❖ Goods in transit.
- ❖ Display cabinets.
- ❖ EDM & CNC machining centers.
- ❖ Test / Production equipment.
- ❖ Fume hoods and cabinets for laboratories.
- ❖ Vending machines.
- ❖ Automated machinery.
- ❖ Cleaning Tanks

**Note:** Other applications that are not mentioned above may also utilize SFFECO Thermo-Act system.

Please contact our technical personal for more details.



End of Line Adapter

### Features:

- ❖ Acts as a multi-sensor
- ❖ Made of a high-tech polymer
- ❖ When bursting at the hottest spot, it ruptures as a nozzle shape opening
- ❖ Long-time resistance
- ❖ Flexibility
- ❖ Temperature sensitivity
- ❖ Different temperature rating

## Flexible Tube

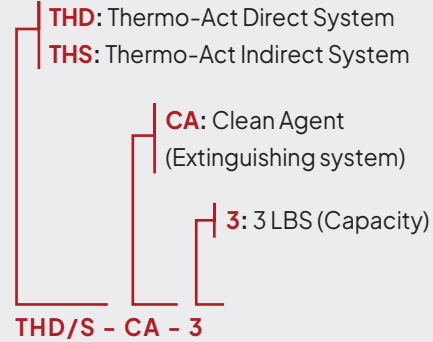


# Thermo-Act System

## Model Selection



### Model Number Code:



### Cylinder:

The cylinders are used to store the extinguishing agent

### Colour:

Available in Red / White colours

Agent & Type of System	Models	Max. Fill (LBS)	Agent Weight (KG)
Clean Agent Direct System	THD-CA-3	3	1
	THD-CA-7	7	3
	THD-CA-12	12	5
	THD-CA-15	15	6
	THD-CA-18	18	8
Clean Agent Indirect System	THS-CA-3	3	1
	THS-CA-7	7	3
	THS-CA-12	12	5
	THS-CA-15	15	6
	THS-CA-18	18	8

**Note:** Cylinders can be provided in other capacities or agents upon request;  
Please contact our technical people for further information.



Since 1983, SFFECO has been a trusted name in fire protection, known for innovation and quality worldwide.

With state-of-the-art facilities in Riyadh and Dubai, we deliver a complete range of firefighting solutions that meet international standards.

Our innovative approach and comprehensive product portfolio make SFFECO the one-stop destination for reliable fire protection products and services.

## شركة المصنع السعودي لأجهزة الإطفاء SAUDI FACTORY FOR FIRE EQUIPMENT Co.

### FACTORY & HEAD OFFICE - RIYADH

2nd Industrial Area, Al-Kharj Road, Riyadh, KSA, P.O. Box: 58469, Riyadh 11515  
Tel : +966 11 2650070, E-mail: riyadh@sffeco.com.sa

### JEDDAH BRANCH

P.O. Box: 16769, Jeddah - 21474, KSA  
Tel : +966 12 670 6009,  
E-mail: jeddah@sffeco.com.sa

### DAMMAM BRANCH

P.O. Box: 7162, Dammam - 31462, KSA  
Tel : +966 13 8351961,  
E-mail: dammam@sffeco.com.sa

### MADINAH BRANCH

Tel : 0148660959, 0148283256,  
E-mail: madinah@sffeco.com.sa

