



SIEX^{CFT}
55

FIXED EXTINGUISHING SYSTEM

with ARGON and NITROGEN
extinguishing agents

CONSTANT
FLOW
TECHNOLOGY

FIRE
PROTECTION

CONSTANT SECURITY



The fire protection used in the INERT-SIEX™ CFT-55 (Constant Flow Technology) system is a powerful tool in fighting any kind of fire.

Using IG-55, with superb firefighting capability of proven effectiveness, in combination with the RGS-MAM-RD valve, which provides a constant flow during discharge, constitutes an extraordinary breakthrough resulting from a major research and development effort by SIEX.

Companies, institutions and even individuals need to protect their assets and people against the destructiveness of fire in the most effective manner. Rapid extinguishing is essential if what is protected has great value, preventing damage that could seriously affect the activity carried out, temporarily or indefi-

nitely disrupting productivity, and even saving lives. To meet this need, we have developed the INERT-SIEX™ CFT-55 (Constant Flow Technology) system. It combines the use of CFT technology developed by SIEX, which delivers a constant pressure discharge, with the use of an inert, clean, safe and environmentally friendly agent, enabling full and effective protection.

They adapt perfectly to the required design of each project while being completely environmentally friendly and pollution-free.

We are committed to ensuring this effectiveness, which is why we rely on the most advanced and complete system.

THE MOST REVOLUTIONARY SAFETY

The IG-55 is a perfect combination of 50% nitrogen and 50% argon gases. It allows combining the use of RGS-MAM-RD valve cutting-edge technology with effective action against fire, design flexibility for any functional need and hazard configuration, protecting staff at all times.

It is VERSATILE, since it allows protecting a great variety of hazards, thanks to its the most advanced technology and its component gases which cover the entire volume of an enclosure. Nitrogen tends to settle in the middle and top of a room, while argon settles towards the bottom as it spreads out to fully cover the protected area, occupying any gap. The INERT-SIEX™ technology also improves structural

protection, since it avoids the higher initial pressures that occur with conventional systems.

Since the agent used is extracted from the atmosphere, it is 100% ENVIRONMENTALLY FRIENDLY: it does not deplete the ozone layer (ODP) and has zero global-warming potential (GWP). It is CLEAN: it dissipates quickly with simple ventilation and does not generate residue. It is recommended for protecting sensitive objects.



IT HAS THE MOST PRESTIGIOUS
INTERNATIONAL CERTIFICATIONS,
VDS IN EUROPE AND UL AND
FM IN THE UNITED STATES,
DEMONSTRATING OUR
COMMITMENT TO PRODUCT
SAFETY AND QUALITY.

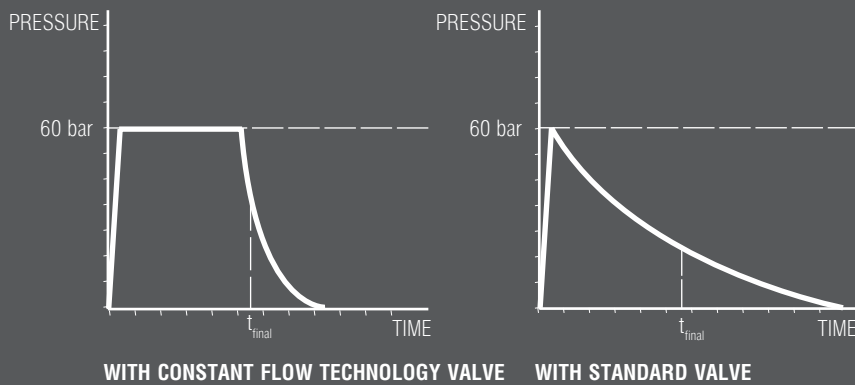


Conventional inert gas systems have proven expertise in full use throughout its history, so the use of this innovative technology developed by SIEX implies a further improvement of these systems which can only bring benefits.

The discharge pressure, unlike conventional equipment which use a calibrated restrictor, is regulated directly by the RGS-MAM-RD valve itself, which ensures a constant release of the agent. Adjustable in a wide range of pressures, it may be adjusted depending on the requirements of the installation, discharging the agent uniformly. Through an innovative pneumatic mechanism, it's possible to regulate the falling pressure inside the cylinder.

The main advantage of this pneumatic mechanism, compared with spring-based mechanical mechanisms, is that its operation reduces failures caused by mechanical properties such as fatigue and stiffness.

HIGH RELIABILITY OF THE INERT-SIEX™ CFT-55 TECHNOLOGY



WITH CONSTANT FLOW TECHNOLOGY VALVE WITH STANDARD VALVE

USE ONLY THE AMOUNT OF AGENT NEEDED

The extinguishing agent storage design can be optimized, thanks to a wide range of storage volumes available, coupled with the use of the widest range of pressures.

INERT-SIEX™ CFT-55 (Constant Flow Technology) offers modular 26.8, 40, 67, 80 and 140 litre units operating at a maximum pressure of 150 bar for the protection of small hazards. It also has modular systems and cylinder banks that can store IG-55 agent at 200 and 300 bar pressure, allowing the storage of large amounts of extinguishing gas to protect large enclosures far removed from the cylinder storage area.

**INERT-SIEX™ CFT-55
(Constant Flow Technology)**
features the full range of pressures accepted by current regulations for various volumes. It can thus ensure the design concentration required for each hazard using only the necessary amount of agent and assure its proper distribution.

200 BAR

Cylinders of 26.8, 40, 67, 80 and 140 litres.

Filled with 5.32 m³, 7.94 m³, 13.20 m³, 15.90 m³ and 27.80 m³ of agent, respectively.

300 BAR

Cylinders of 26.8, 40, 80 and 140 litres.

Filled with 7.48 m³, 11.17 m³, 22.30 m³ and 39.10 m³ of agent, respectively.

INERT-SIEX™ CFT-55: MAXIMUM PROTECTION FOR GOODS AND PEOPLE

Fixed firefighting systems must not only be effective in their mission of fire extinguishing, but their operation must also be safe for property and the protected enclosure, and especially for the people who may be present at the time of activation.

For this protection, which is absolutely essential, SIEX has developed the widest range of components to guarantee protection:

PNEUMATIC RETARDERS

Pneumatically and totally safely delay extinguishing agent discharge, either directly, acting through a modular or master cylinder in a cylinder bank or indirectly, through a pilot cylinder. This lag time is 30 or 60 seconds, enough for staff to evacuate safely once the alarm is triggered. This device allows overriding the delay manually, if necessary.

The operation is completely self-contained, and its fail-proof pneumatic operation prevents any delay that could prove dangerous, thus ensuring safety at all times.

PNEUMATIC SIREN

It makes a long, sharp sound, sufficiently intense to alert all personnel at risk in the range of the firefighting system discharge. It works pneumatically, ensuring reliability even in a power failure affecting the detection network. Facilitates evacuation of the enclosure in the case of imminent discharge, thus improving the security of the system.

LOCK-OUT VALVE

It makes a long, sharp sound, sufficiently intense to alert all personnel at risk in the range of the firefighting system discharge. It works pneumatically, ensuring reliability even in a power failure affecting the detection network. Facilitates evacuation of the enclosure in the case of imminent discharge, thus improving the security of the system.

PRESSURE DAMPERS

Most spaces in any building are designed to withstand overpressures of 1 to 10 mbar. Despite being minimized in the INERT-SIEX™ CFT-55 (Constant Flow Technology) system, these pressures can be overcome by any extinguishing system, compromising the integrity of the enclosure. To avoid this problem, SIEX has pressure relief dampers which, thanks to its high free area ratio, combined with the use of CFT technology, helps reduce the space required, thus minimizing installation costs.

Its fully automatic operation allows releasing the overpressure generated by the discharge of IG-55 through self-opening their louvres, so they close when the pressure drops below the security threshold, ensuring the air-tightness of the enclosure during the hold time.

PNEUMATIC ACTUATOR

The purpose of these elements is to close doors, dampers, ducts, windows, etc. The activation of this actuator is pneumatic, through a pilot cylinder, or manually through a ring or knob.

ODORIZER

The IG-55 gas is colourless and odourless, and is therefore difficult to detect. By using an odorizer to add a smell to the agent, anyone within range of this agent can avoid possible risks. Located in the discharge manifold or piping system, the agent discharge itself mixes the odour, so that from the first moment the presence of the extinguishing agent is detectable in the enclosure.



GAS SHUT-OFF VALVES

Sometimes proper extinguishing is not enough if the flow of fluid fuel (if any) into the protected hazard is not stopped. To avoid this, SIEX offers gas shut-off valves. When the agent is discharge, these shut off the inlet of any fuel that may pose a risk once the fire has been extinguished.

IG-55 IS ENVIRONMENTALLY FRIENDLY AND EFFECTIVE

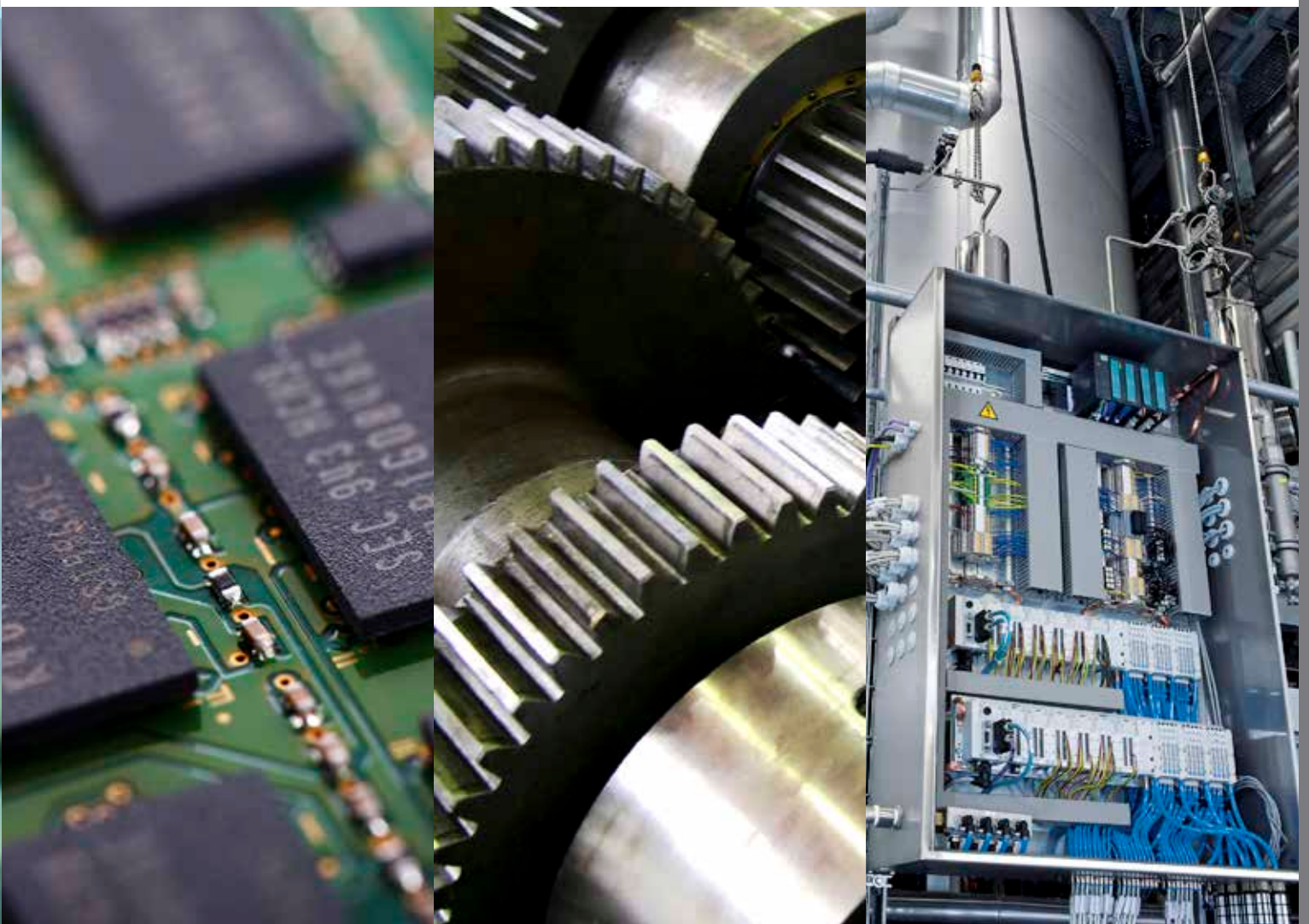
The IG-55 agent is a mixture of 50% nitrogen and 50% argon, both gases obtained from air. They are stable and do not react, thus completely avoiding the formation of dangerous compounds either by temperature, pressure, humidity or the presence of any other chemical compound.

The use of this agent covers numerous applications: solid, flammable liquid, electrical and electronic fuels. These systems can be adapted for the protection of enclosures of any construction, size and configuration.



APPLICATIONS

- *MUSEUMS AND ART GALLERIES*
- *TELECOMMUNICATION SYSTEMS*
- *COMPUTER ROOMS*
- *HOSPITALS*
- *PETROCHEMICAL FACILITIES*
- *LABORATORIES AND CLEAN ROOMS*
- *ELECTRICAL CABINETS AND SUBSTATIONS*
- *ARCHIVES AND LIBRARIES*
- *DPCS*
- *OTHERS*



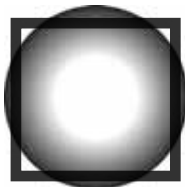
BENEFITS OF USING INERT-SIEX™ CFT-55

The IG-55 agent used in the INERT-SIEX™ CFT-55 (Constant Flow Technology) system has unique properties that optimize its action: stratification of agent at various levels (argon, more dense than air, in the middle and lower parts, and lighter nitrogen above) provides comprehensive protection throughout the enclosure, minimizing possible leaks. Besides the improvement in its application, thanks to its innovative technology developed by SIEX, its distribution is improved by using smaller pipe diameters and achieving greater security for the integrity of the enclosure.

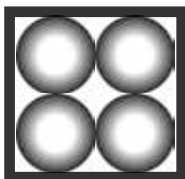
STRATIFICATION IMPROVES PROTECTION THROUGHOUT THE ENCLOSURE.

Applying a pressurized gas over an object influences the efficiency of extinguishing very favourably: gases are highly miscible with each other, so IG-55 agent concentration will be homogeneous. Besides, the pressure pushes and displaces the ambient air from any corner of the room, ensuring a three-dimensional action, regardless of obstacles and shields.

**LESS
OVERPRESSURE
IN THE ENCLOSURE**



OTHER SYSTEMS



*CONSTANT FLOW
TECHNOLOGY*

**MUCH SMALLER
PIPE DIAMETER**



CONSTANT FLOW TECHNOLOGY

**SPECIFIC HYDRAULIC
CALCULATION SOFTWARE**



QUIMICAL AGENTS

INERT AGENTS

- ***SAFE, ROBUST VALVES WHICH CAN BE MANIPULATED WITH FULL CYLINDERS.***

- ***IMPROVED STRUCTURAL PROTECTION IN THE ENCLOSURE.***

- ***GREATER PROTECTION FOR SENSITIVE EQUIPMENT SUCH AS ELECTRONIC DEVICES.***

- ***TOTAL, SAFE PROTECTION IN CASE OF FIRE.***

- ***QUICK AND EASY INSTALLATION.***

- ***ALLOWS FOR LONG AND COMPLEX PIPE RUNS WITH SMALLER PIPE DIAMETERS.***

- ***FAST AND SIMPLE MAINTENANCE. EASY CHECKING CORRECT SYSTEM STATUS.***

- ***SAFE EVACUATION, MAINTAINING AN APPROPRIATE LEVEL OF OXYGEN: SUITABLE FOR OCCUPIED AREAS.***

- ***IMMEDIATE RETURN TO BUSINESS, MINIMAL DAMAGE.***

- ***MINIMAL USE OF STORAGE SPACE.***

- ***ZERO OZONE DEPLETION POTENTIAL (ODP)***

- ***NO GLOBAL WARMING POTENTIAL (GWP).***

- ***DOES NOT POLLUTE OR PRODUCE RESIDUES.***

SIEX

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