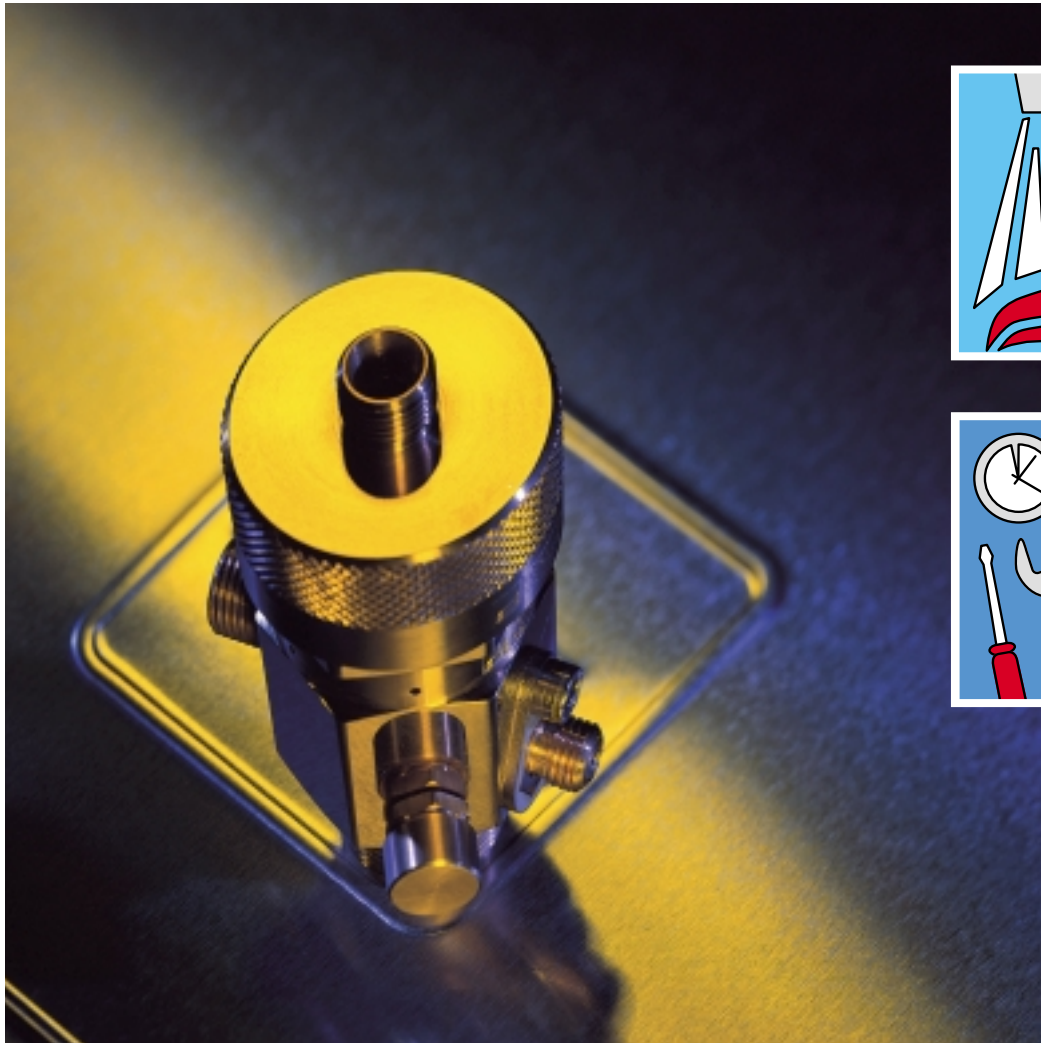


INERGEN[®] - EXTINGUISHING SYSTEMS



tyco / Fire &
Security

**TOTAL
WALTHER**

INERGEN®: THE CLEAN SOLUTION.



INERGEN® extinguishes without leaving any residues, with 100% environmental neutrality – to avoid harming nature.

As digitalization increases, concentrations of value continue to grow larger, and ever more expensive and powerful hardware is needed to meet the requirements for telecommunications, service providing and network management. The risks are growing: loss of data or business interruption would have disastrous consequences for any operator. And the damage that a fire can cause is horrific: whole rooms of technical equipment and software are destroyed by fire and extinguishing agents, not to mention the dangers for people and the environment. This is why reliable and clean fire protection solutions are the only way to prevent loss of image and market shares.

With its INERGEN® inert gas, TOTAL WALTHER offers the ideal fire protection solution on a global basis. INERGEN® extinguishing systems are the only ones to give a 100% guarantee that a fire will be put out with no residues at all, with no risk whatsoever to any people present.

The name INERGEN® refers to the individual components of the extinguishing agent, which is a mixture of INERT gases and nitroGEN.

An extinguishing agent that you can breathe

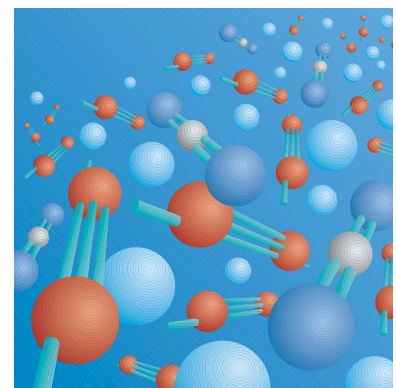
During the extinguishing process, the low CO₂ concentration that is harmless to the human organism stimulates an involuntary deepening of the breathing, ensuring that the organism is supplied with adequate oxygen. This "automatic" stimulation of deep breathing also occurs in people who are unconscious or asleep.

As well as protecting people and property, modern extinguishing concepts must offer maximum compatibility with the environment if they are to be feasible.

INERGEN® consists of 40% argon, 52% nitrogen and 8% carbon dioxide – all natural constituents of the air.

Excellent environmental protection

Unlike synthetic extinguishing gases, all the components of INERGEN® are actually taken from the air – in other words, their origins are purely natural. Once the fire has been extinguished, they return unchanged to the atmosphere without polluting the environment. This is how INERGEN® extinguishes without leaving any residues, with 100% neutrality towards the environment.



IT'S SO SIMPLE: PROTECT WHAT IS VALUABLE



INERGEN® systems offer optimal protection for EDP rooms.

INERGEN® is ideal for every type of room where there are people as well as valuable items of property. INERGEN® is a very dry gas mixture, so it has low conductivity. This aspect is especially important for applications in transformer and high-voltage rooms where non-insulated components are installed. During the extinguishing process, INERGEN® systems reduce the air humidity, minimizing the probability of sparkovers which could cause a further fire risk.

INERGEN®'s inert behaviour also makes it ideal for use as an extinguishing agent in chemical process engineering. Archives and museums benefit from the long holding times for the extinguishing concentrations, and the extremely small temperature drop when an INERGEN® flooding is carried out. Fires involving valuable documents or paintings can be reliably avoided.

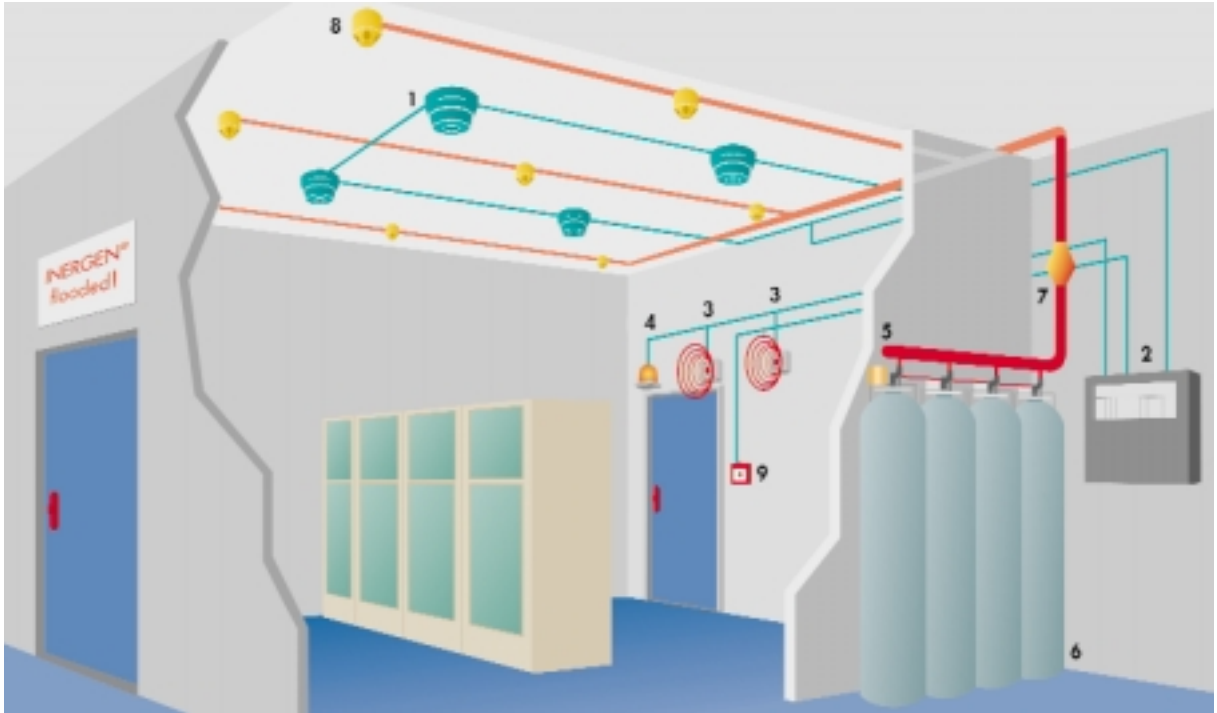
INERGEN® protection around the globe:

- Telecommunications
- Data processing rooms
- Technical rooms in radio and television studios
- Data robots
- Electrical switchgear and distribution rooms
- Medical diagnosis rooms
- Chemical process engineering
- Paint processing and storage
- Oil and alcohol stores
- Archives, museums, galleries and libraries
- Restoration workshops



INERGEN®-extinguishing systems protect irreplaceable art treasures and cultural artefacts.

NO ACCIDENTAL TRIGGERING!



Thanks to ultra-modern technology, an INERGEN® extinguishing system operates in the simplest possible way. As soon as the automatic fire detectors have registered a developing fire, the control panel triggers the acoustic warning signals (as well as visual signals, if fitted). After the pre-warning time has elapsed, the fast-opening valve on the pilot cylinder is activated by a triggering pulse.

A revolution in extinguishing control

TOTAL WALTHER is setting new standards in personal protection with the electro-mechanical Impuls 2000 system, which we have developed and patented ourselves. Impuls 2000 is a reliable, cost-effective innovation that makes it

impossible for a gas extinguishing system to be affected by spurious electronic pulses – due to high voltage, for example. Unambiguously defined pulses are required to trigger a brief, electro-mechanically controlled pre-warning time so that the extinguishing area can be evacuated; once this has been ensured, the extinguishing agent can be deployed as soon as possible.

Safety during the extinguishing process

The pressure reducing unit brings the cylinder pressure down from 200 to 60 bar. INERGEN® then flows through the extinguishing nozzles into the extinguishing section. As of the reduced pressure, the extinguishing agent is discharged

Example of a single-section system:

- 1 Fire detectors
- 2 Fire detection and control panel
- 3 Acoustic alarm signal
- 4 Visual warning signal (optional)
- 5 Impuls 2000 (stepped motor activation)
- 6 INERGEN® cylinder battery
- 7 Pressure reducing unit
- 8 Extinguishing nozzles
- 9 Manual activation button

more gently, eliminating any additional danger to valuable property. In multi-section systems, the electro-pneumatic control logic (EPSL) reliably ensures that the right amount of extinguishing agent is assigned to the right section.

An INERGEN® extinguishing system can also be activated with a manual alarm button.

GOOD REASONS FOR CHOOSING INERGEN®



A technical detail that has a tremendous effect: optimal protection for people thanks to "Impuls 2000".

Unlike comparable synthetic extinguishing agents, INERGEN® has several unbeatable advantages for people, property and the environment.

Harmless to the environment

INERGEN® does not disturb the ecological equilibrium, because it is a mixture of gases made up of natural constituents.

Harmless to people

People can leave the fire area well before the flooding. Even so, INERGEN® has the effect of stimulating breathing: this ensures that

any injured or unconscious people left behind in the room are protected from a shortage of oxygen.

Optimal protection for property

In rooms with very valuable technical equipment, INERGEN® extinguishes the fire without leaving any residues at all. What is more, there is only a minimal temperature drop as the gas enters the extinguishing section, so no condensate is formed.

Worldwide approval

INERGEN® is approved without restrictions as a natural extinguishing agent.

No shortage of resources

The natural ingredients are always available. INERGEN® is simple to manufacture, unlike comparable synthetic extinguishing agents.

Safety check with no risks

Test floodings to check whether an INERGEN® system is in good working order are allowed at any time, without polluting the environment.

No decomposition products

Unlike chemical extinguishing gases, INERGEN® does not form any highly toxic decomposition products at high temperatures.

Clear visibility in an emergency

There is no fogging of the room when the extinguishing agent is discharged from the nozzles, because INERGEN® is stored in gaseous form – so visibility is unimpaired, and (for example) escape routes are easy to see.

Constant extinguishing effect

INERGEN® is only slightly heavier than air, so the holding time for the extinguishing concentration is longer than for heavy gases.

Every extinguishing operation is successful

INERGEN® has proven its merits in applications all over the world. This is why it is recognized by the VdS and other national and international institutions. Leading insurers grant premium discounts.

A fire develops quickly – INERGEN® extinguishing systems offer reliable protection for people and property.



CAN WITHSTAND ANY PRESSURE



A space-saving INERGEN® 200bar cylinder battery

INERGEN® is not only friendly to the environment and harmless to people: the 200 bar storage technology also offers several other advantages that are sure to pay off.

Simplified installation

The connection method (patent applied for) eliminates the need for welding work in the high-pressure section of the system.

Installation work is also reduced because the components are linked on a modular basis.

Compact manifold technology

Three rows of cylinders can be connected to one manifold at the same time.

Quick replacement

Thanks to the patented cylinder fixture, cylinders can be removed or

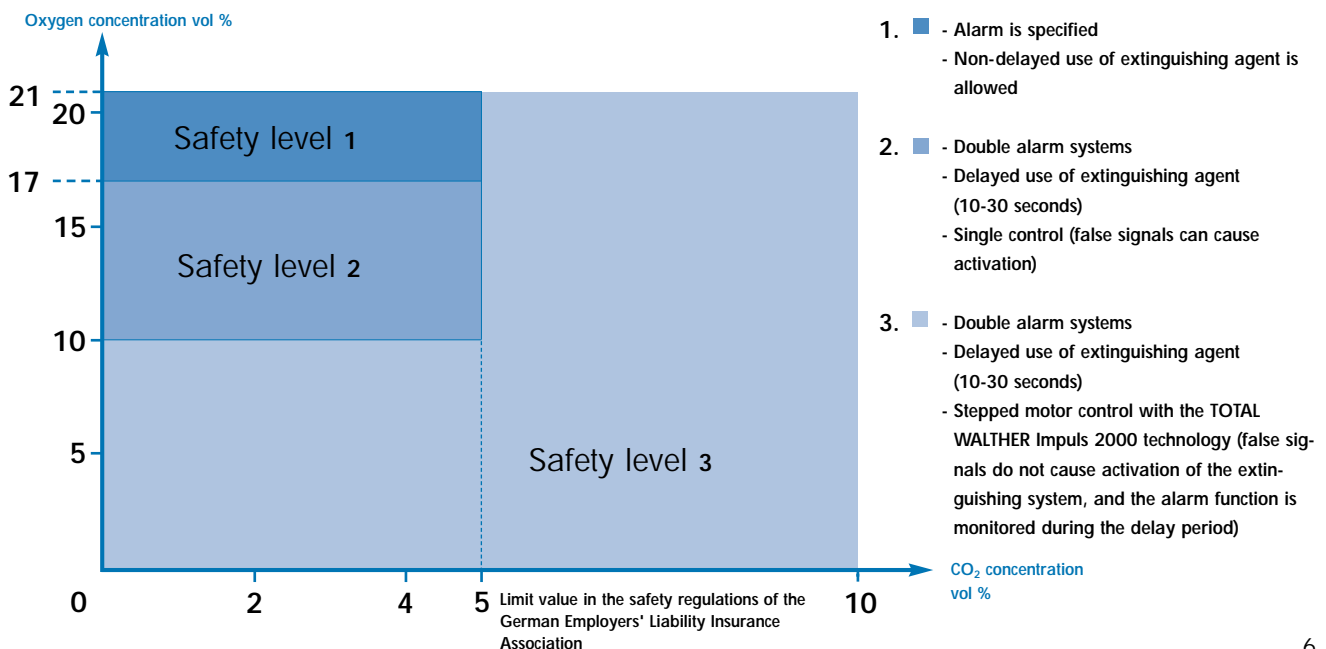
fitted quickly (e.g. after the system has been operated).

Time-saving inspection

A simple pressure measurement is sufficient to check the contents of a high-pressure cylinder.

The INERGEN® principle in a nutshell: naturally effective, and naturally cost-effective! TOTAL WALTHER GmbH's staff will be glad to advise you.

Safety levels in the operation of INERGEN® extinguishing systems



- Alarm is specified
 - Non-delayed use of extinguishing agent is allowed
- Double alarm systems
 - Delayed use of extinguishing agent (10-30 seconds)
 - Single control (false signals can cause activation)
- Double alarm systems
 - Delayed use of extinguishing agent (10-30 seconds)
 - Stepped motor control with the TOTAL WALTHER Impuls 2000 technology (false signals do not cause activation of the extinguishing system, and the alarm function is monitored during the delay period)

A SYSTEM FOR SAFETY



TOTAL WALTHER, the system house, offers you safety from one single source.

That means a high standard of quality and operating reliability, as well as perfect interaction between the individual components in fire detection and other safety systems.

When you decide on INERGEN®, you are choosing the intelligent solution: our combined systems guarantee that a fire is quickly recognized and reliably detected, and that appropriate protective and extinguishing actions will be implemented immediately.



AND OUR MAINTENANCE AND SERVICE TECHNICIANS ARE AT YOUR DISPOSAL ALL DAY, EVERY DAY



Branches all over Germany make it easy for you: our specialists and technicians are nearby ready to help you personally on site.

With its team of approximately 250 service employees TOTAL WALTHER GmbH is on hand to look after your safety and security right 24 hours a day. You can reach us on our hotline day and night and at week-ends for immediate service assistance.

Fire extinguishing and security systems have a name:
TOTAL WALTHER GmbH



tyco

*Fire &
Security*

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Walther**

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