

Argotec  
with argon or nitrogen

*Cool down.  
Fire Protection by*

**MINIMAX**

# NATURAL

**without any damage to the atmosphere**

## The extinguishing gases

Argon and nitrogen extinguish a fire by oxygen displacement. When heat falls below the specific limit required for combustion, the fire suddenly goes out.

Both extinguishing gases are natural, gaseous components of ambient air and thus do not have adverse effects on the atmosphere. There is no other gas used as an extinguishant that has such an excellent environmental track record. Argon and nitrogen are non-toxic and non-conductive.

## Unbeatable arguments

Fire extinguishing systems with argon and nitrogen as extinguishants are particularly suitable for a number of specific risk areas; in case of a fire, they need to ensure the following:

### The top priority: maintaining availability

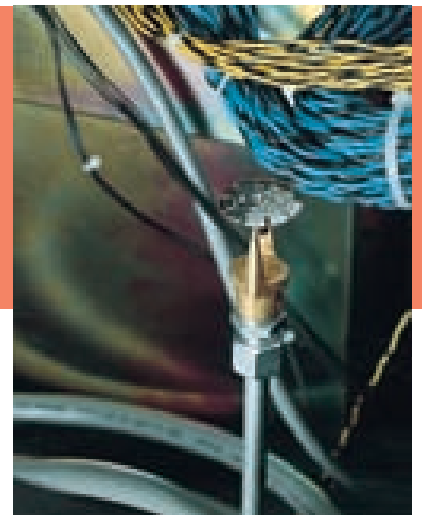
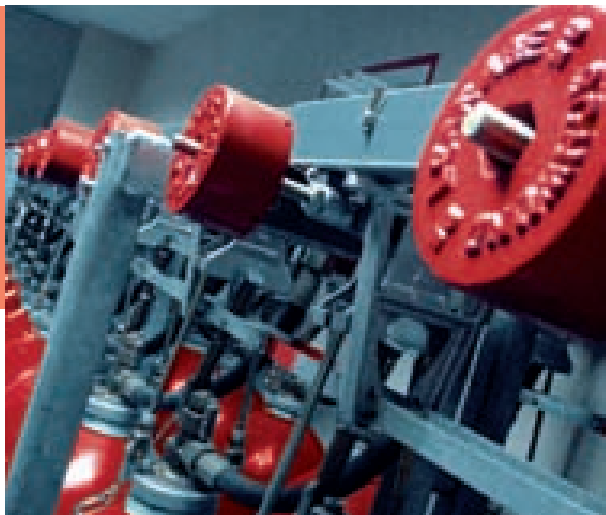
Maintain availability and functionality of the objects to be protected and optimise downtime for, e.g. IT installations and systems, control rooms for telecommunication systems, data archives, switch and control centres, medical facilities, control rooms.

## Extinguishing under extreme conditions

Take into account chemical and physical processes as well as environmental conditions during extinguishing, e.g. areas with flammable liquids and other substances with similar fire behaviour used for the production and processing of paints and varnishes, hazardous goods warehouses, varnishing and powder coating cubicles, magnesium processing and the protection of objects.

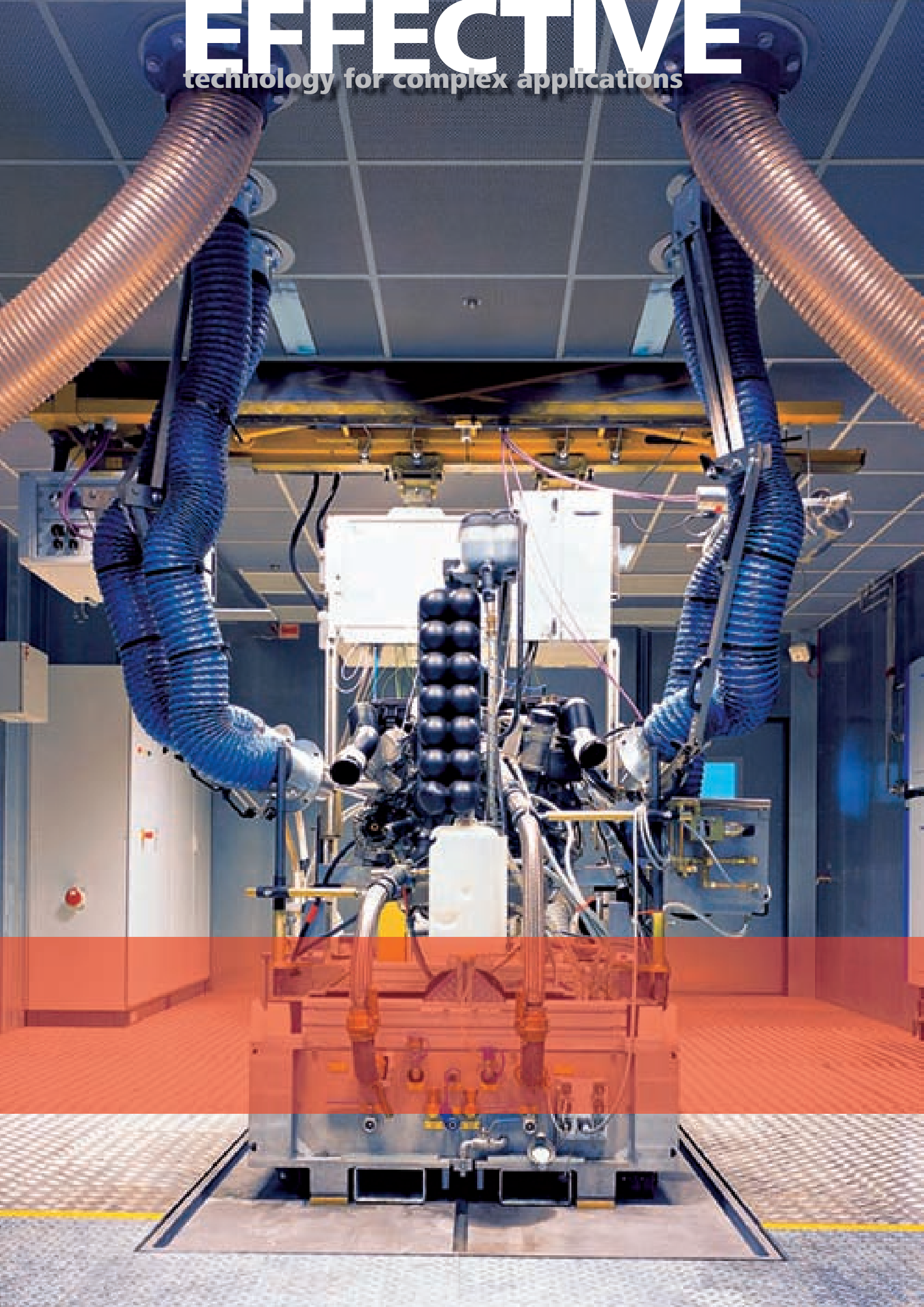
## Effective despite more severe requirements

Effective extinguishing of shielded objects or difficult-to-reach areas such as toolmaking machines, hydraulic facilities, silos and dust filters, printing machines, turbines, transformers, textile machines, engine test beds, engine rooms on ships.



# EFFECTIVE

technology for complex applications



# EXAMPLE

solution

## for a computing centre with separate data archive

Once the fire is detected by the fire detection system, the extinguishing process is initiated and controlled.

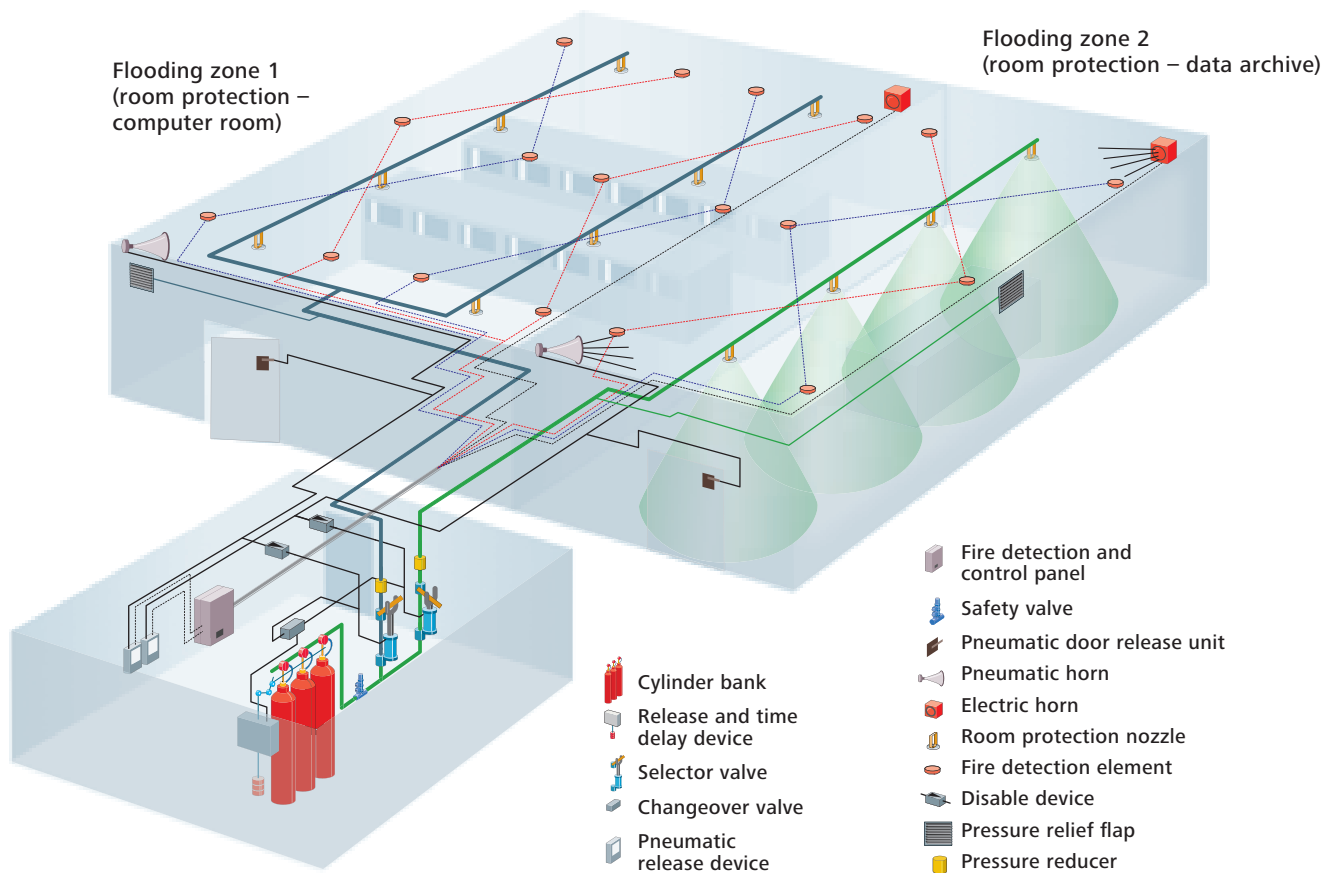
An acoustic alarm is activated prior to discharge. Once the pre-warning period has elapsed, the actual extinguishing starts. The extinguishing gas is fed into the discharge area by means of a pipe system; it is sprayed through nozzles and displaces oxygen from the base of the fire.

The volume of extinguishant required is determined on an individual basis; it depends on the volume of the enclosed area, its surface and quality (gas-tightness) as well as the combustible material to be protected. The size of the pipe system and the positioning of the spray nozzles depend on the risk to be prevented.

In the case of enclosure protection, extinguishing nozzles are spread evenly over the entire extinguishing area; in enclosed areas with high ceilings, the system may even consist of multiple levels.

In cases where several extinguishing areas are connected to one extinguishing system, extinguishing gas is released through range valves.

The extinguishant is stored in high-pressure cylinders which are lined up in racks that ensure compact and expandable storage. The weight of each cylinder is monitored, displayed and collated by a central control room, ensuring permanent control of the extinguishing volume available.



# FUNCTION

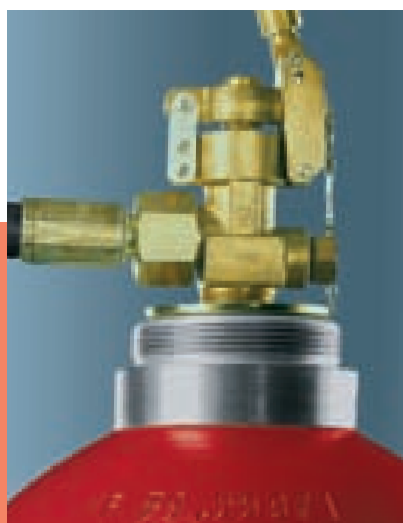
**individually definable**

## **The compact extinguishing system for localised applications**

In compact extinguishing systems, all function-relevant components are combined with various functions in a single unit and located in a protective casing, where they are protected from dust, moisture and mechanical damage.

A compact extinguishing system consists of a frame with freely suspended extinguishing gas cylinders, which are connected via pressure-proof hoses with the manifold, including weighing units with electronically monitored leakage indicators and an electromagnetic extinguishant release. A fire detection control panel integrated into the front door is connected with the detectors, which react to heat or smoke, and activates the extinguishing unit in the event of a fire.

The Minimax compact extinguishing system can be placed in the immediate vicinity of the object to be protected and can quickly be connected with the cable and pipe network via standard connections. The high degree of prefabrication and the simple and fast installation make the Minimax compact extinguishing system an appealing and cost-effective alternative to conventional systems for the protection of many different objects, such as machine tools, switching cabinets or server cabinets.



# ADVANTAGES

without limits

## Argotec extinguishing systems with argon and nitrogen offer a number of benefits:

- ▶ They extinguish fires without leaving residues or having adverse effects on the objects to be protected.
- ▶ They are also suitable for enclosed areas where people work.
- ▶ Harmful reaction compounds generated during extinguishing can be avoided.
- ▶ Optimum efficacy as a result of homogeneous distribution of the extinguishant and rapid concentration build-up.
- ▶ During discharge, visibility is still ensured as there is no condensation.
- ▶ Extinguishing is possible without interrupting operations.
- ▶ Saving of disposal costs when extinguishing gases are used.
- ▶ Effective extinguishing can be ensured even at low ambient temperatures.
- ▶ The Argotec System with its modular and multi-purpose architecture can be re-engineered or extended to suit any operational change.
- ▶ Quick and cost-efficient restoration of availability as the gases argon and nitrogen are available almost everywhere.
- ▶ Licensing by recognised certification authorities and design in line with international standards increase acceptance by insurance agencies and for permit procedures.
- ▶ Protects against fires and interruption of operations due to fire award discount on premiums upon installation of a gas extinguishing system.
- ▶ Compared with liquefied inert gas systems, the Argotec 300 bar system requires 30% less space for storage of extinguishants given the same extinguishing efficacy, which saves space and money.

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