

tyco

Fire Protection Products

CAFE

КАФЕ

i3

Gaseous Fire Suppression Systems
with i-Flow technology



with **iFlow** technology

i3

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Environment

i3™ is non-synthetic, made exclusively of gases found in the air we breathe. Once discharged, it simply returns to the atmosphere in its natural state and because it poses no threat to the ozone layer or climate change, i3 will never be subject to future legislative restrictions.

Efficient and safe

Environmentally friendly and safe for people, i3 is a blend of two

naturally occurring gases, Nitrogen and Argon and is effective in suppressing fires involving virtually all combustible materials and flammable liquids.

i3 works by displacing a proportion of the air within the enclosure, thereby lowering the oxygen to a level that cannot sustain combustion, and at the same time ensures the oxygen remains at levels within the enclosure that are safe for humans.

- // **Exceptional life safety features**
- // **Environmentally friendly**
- // **Remote cylinder storage location**
- // **Multiple hazard protection**
- // **Low cost agent**

i3

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A Comprehensive Design Service

FIRENET is a windows based design package used by trained engineers as a means to accurately calculate system parameters.

The software calculates optimum pipe sizes as well as calculating the over pressure vent requirements for the given system.

Designed to Approved Standards

Systems are designed in accordance with EN15004, ISO 14520 or NFPA 2001 using the i3 i-Flow design calculation software.

i3 gas is stored in 80 litre and 140 litre 200/300 bar cylinders designed to meet the requirements of the TPED (Transportable Pressure Equipment Directive).

// **Telecommunications sites**

// **Data centres**

// **Museums and archives**

// **Oil and gas facilities**

// **Power generation installations**

// **Civil and military marine**

// **Mass transit**



Approvals and Listings

LPCB

VdS

CSIRO

CNBOP

GÖST

CNPP

BOMBA

VNIPO

ZÜS

GAZPROM



with **iFlow** technology

Better for People

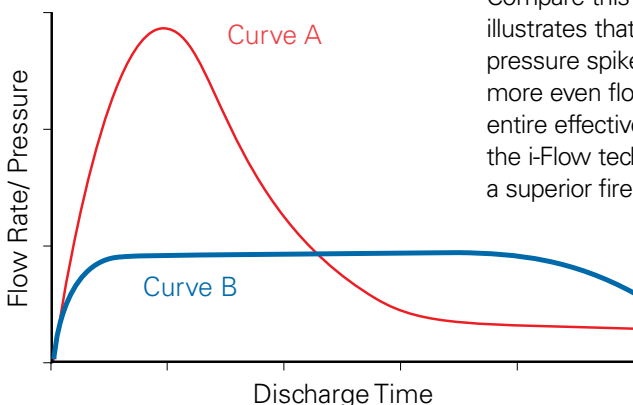
One of the most remarkable aspects of i3 is that it is safe for people. i3 is non-toxic and produces no corrosive decomposition products. Plus, because i3 will not produce a fog when discharged, escape routes remain visible. With i3, the oxygen level is reduced enough to put out the fire, yet more than enough remains to breathe.



What is i-Flow Technology

The i-Flow technology has been designed to eliminate the peak pressure spike during discharge and delivers a lower pressure into the pipework system. The specially designed valve evens out the gas flow creating a reduced flow into the protected enclosure, lowering the over pressurisation effect and venting requirements.

The graph below compares the curves for a standard discharge system and i-Flow technology. The standard system displays a distinctive pressure 'spike' on discharge, normal for regular inert gas systems. Whilst these systems meet the requirements of EN15004, ISO 14520 and NFPA 2001 our engineers recognised that a more even discharge could offer real benefits for installers and users alike.



Pipework Safety

The i-Flow valve is designed to close in the event of a blockage in the pipework, thus avoiding a hazardous build up of pressure - an important safety feature.



i-Flow Technology Explained

Curve A shows a standard high pressure inert gas system discharge, with its distinctive peak flow and pressure spike which requires larger and higher specification pipework and greater venting area.

Compare this with Curve B which illustrates that the peak flow and pressure spike has been eliminated and a more even flow achieved during the entire effective discharge period. This is the i-Flow technology, working to provide a superior fire suppression solution.

Matrix System - Innovation

The i-Flow Matrix system includes features to minimise installation time. In a system of 8 cylinders or less, this is achieved by using a patented horizontal check valve to facilitate interconnection of cylinders without the need to connect each one to a manifold.

The i-Flow Matrix system also incorporates a distinctive bracket design allowing far more flexibility during installation and quicker removal of cylinders from the bank during maintenance, when compared with traditional racking systems.



A close-up photograph of a young child with light brown hair, wearing a dark blue shirt, blowing a dandelion seed head. The child's eyes are closed, and their mouth is slightly open. The background is a bright, sunlit field of dandelions, with many seeds floating in the air, creating a bokeh effect. The overall scene is warm and natural.

**Trusted
gaseous
solutions
using
pioneering
technology**