# The Pyrozone Advantage . . .

## **The Pyrozone Story**

Pyrozone's unique approach to fire protection evolved from end-user disenchantment with conventional CO<sub>2</sub> technology.

Whilst many new chemical agents have come and gone following the demise of Halons, Pyrozone Low Pressure CO<sub>2</sub> Systems



continue to provide safe, reliable and cost effective solutions.

Pyrozone's innovative modular concept was invented, patented and commercialized by Pyrozone Manufacturing Pty Ltd in Australia and now sets the benchmark for manufacturers around the world to emulate.

Integral to every Pyrozone System is a continuous self-

diagnostic capability that combined with low maintenance and ease of reinstatement after a discharge, results in the lowest cost-of-ownership profile available in today's market.

In addition to proven performance as smart fire suppression technology, Pyrozone engineers have developed a 'fail-safe' method of isolating a system allowing safe access to any risk for maintenance and other purposes.



Pyrozone Manufacturing Management Team in Brisbane. From left: Mark S. Boundy – Administration Manager, Ian R. Tronc – Production Manager, James H. Allison – Marketing & Engineering Manager, Neal R. Boundy – Director National Operations



"International trade is a cornerstone of the Queensland State economy. The third largest container port in Australia, Brisbane is also the fastest growing. A key driver of this growth is the proximity of the port to Asian and other international markets"

### **Export Focus**

"Australian based Pyrozone Group, encouraged by the early levels of acceptance of its 'smart' LP-CO<sub>2</sub> programme from the finite Australian market, has turned to overseas markets for long-term growth and viability.

Pyrozone LP-CO<sub>2</sub> gaseous systems are approved for use in most countries in Asia and The Middle East backed by experienced local Distributors [listing inside back cover] with Pyrozone China Company Limited servicing the fast growing industrial markets of The Peoples Republic of China (PRC).



"Pyrozone's International Business enjoys support from Queensland Government Trade & Investment Offices located throughout Asia and The Middle East. From left:

Man Hon Chiu - Marketing Director, Pyrozone China Company Limited; Simon Lee – Commissioner & Angela To – Deputy Commissioner – Queensland Government Office in Hong Kong with Mike J. Venes – Director of International Business, Pyrozone Manufacturing Pty Ltd"



"Pyrozone's commitment to Asia includes support for the recently established Confederation of Fire Protection Associations - Asia, an offshoot of CFPA International. The inaugural gathering of CFPA - Asia delegates in Hong Kong February 2003."





#### Key Elements of a System.

At the heart of every Pyrozone system is the innovative modular storage unit.

This unique development stores liquid carbon dioxide at around 2000kPa and -18°C.

Pyrozone Modular LP-CO<sub>2</sub> Storage Units are available in liquid  $CO_2$  capacities of 555kg, 355kg and 155kg and can be used singularly or in multiple/combinations to create a bank of agent for total flooding, local application or hand held hose fixed-systems of varying capacities.

System designers do not need to discount the stated quantity of agent available from a Pyrozone LP- $CO_2$  Modular Storage Unit when designing a system for any risk type or application.

In addition to storing and dispensing the extinguishing agent, each storage unit provides a regulated 900kPa gas pressure to drive the downstream pneumatically activated control and directional valves and associated accessories.

After manually closing the Maintenance Valve supplied with every storage unit, it is possible to pre-test downstream equipment without the risk of an inadvertent discharge or loss of agent, a feature appreciated by installation and maintenance personnel alike.

Pyrozone LP-CO<sub>2</sub> Systems can be integrated with the many intelligent fire detection and control systems available on the market whilst Pyrozone Pneumatic Control Systems add another dimension to the manual operation and safety of gaseous systems.

The Pyrozone Pneumatic Control System allows manual intervention before, during and after a discharge by means of a fail-safe Manual Lock Off Station [MLOS] that enables isolation or cessation of a discharge at any stage.

To complete the package Pyoflow LP-CO<sub>2</sub> Nozzles provide an economic, efficient means of delivering the agent in a flooding application.

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#### **Critical Downstream Equipment**

Pyrozone Control & Directional Valves are electrically/pneumatically operated full-bore ball valves available in a range of sizes from 1" to 6".



Pyrozone Pneumatic Control Systems consist of Emergency Manual Release Station [EMRS], Manual Lock Off Station [MLOS] and Main/Reserve Change Over Station [MCOS]. The pneumatic control system is driven by a regulated gas supply from the storage unit; it does not require any other medium to activate the system. This regulated supply of gas is directed via the Pneumatic Control System to open only the required Control and Directional Valves. Pyrozone can customize a pneumatic control system to suit any design, giving an operator the freedom to manually operate the system in the event of an electrical system failure or to discharge the system in an emergency. By closing all unit Maintenance Valves the discharge control valves can be operationally tested without loss of extinguishant. The MLOS provides the operator with the ability to completely lock off a risk/zone for safe entry/occupation or to halt a discharge for any reason. The MLOS is monitored by the FIP to clearly indicate that a risk is unprotected when locked off.

Discharge Pressure Switches & Pressure Relief Valves - - important parts of the equipment list.

Pyroflow LP-CO<sub>2</sub> Nozzles - - a 'snow-resistant', high flow rate, cone-free development catering for orifice codes from 2.5 to 22 for use in total-flooding applications.

Pyrozone Remote Filling Systems cater for situations where it is not possible to reach storage units directly with a CO<sub>2</sub> delivery vehicle. Separations of 100m can be accommodated!

Specific guidance on the application of these components should be sourced from Pyrozone Manufacturing Pty Ltd Engineering Department









The Pyrozone Pedigree includes internationally recognized independent accreditations from

and has been developed in accordance with the requirements of internationally recognized standards





Scientific Services Laboratory







AS 4214



