



# Certificate of Conformity

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<b>afp - 1250</b>	11-Oct-1999	Number 6	Issue date 23-Dec-2011	

## Product designation

**Ansul, PIRANHA™, pre-engineered restaurant fire suppression system**  
(Refer to the Schedule/enclosures for further specified details)

## Agent/distributor

Tyco Fire & Security  
Unit 1, 2-8 South Street, RYDALMERE, NSW, AUSTRALIA, 2116

## Registrant

Tyco Fire & Security  
Unit 1, 2-8 South Street, RYDALMERE, NSW, AUSTRALIA, 2116

### Producer

Ansul Incorporated  
One Stanton Street, MARINETTE, WI, UNITED STATES, 54143-2542

## Conformance criteria and evaluation

The Ansul, PIRANHA™, pre-engineered restaurant fire suppression system has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. SSL Appraisal Specification FAS-111, 'Wet Chemical Pre-Engineered Fixed Fire Suppression Systems for Restaurant Cooking Areas'.

## Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this certificate, are derived from qualifications from evaluation(s) for conformity and/or other related technical documentation. All details with respect to design, assembly and installation instructions and restrictions should be checked against the producer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

- i. The water supply shall be designed and installed such that a pressure of at least 228 kPa is available at the inlet of each PIRANHA™ automatic water-control valve in the system when the simultaneous flow through each valve is at least 38 litres/minute. The water supply installation shall also limit the maximum residual pressure at inlet to the automatic water-control valves to 690 kPa.

(Limitations/conditions of conformance continue)

This certification is issued within the scope of CSIRO Verification Services – Rules governing ActivFire Scheme and is valid only for the product(s) as submitted for evaluation and verification of conformity, subject to the following conditions.

- Reference to details, limitations and requirements, where documented as a schedule/enclosure with this certificate.
- The Registrant is responsible for their attestation of conformity and ensuring that on-going production complies with the conformance criteria defined in this certificate.
- This certificate will not be valid if any changes or modifications are made to the product which have not been notified and validated by CSIRO Verification Services.
- This certificate is subject to periodical re-validation upon verification that all requirements, as determined by the conformity assessment body, continue to be satisfactorily met by the Registrant.
- This certificate may only be reproduced in its published form, without modification and inclusive of all schedules/enclosures.
- Any changes, errors or omissions, must be submitted in writing and if necessary or requested, substantiated with relevant evidence.
- Any representations, such as advertising or other marketing related activities or articles shall reflect the correct contents of this certificate and conform with all relevant trade practices and consumer protection legislation and regulations.
- Any terms or conditions of use as applicable to content and documentation as published or accessed through web sites administered by the CSIRO Verification Services.

Issued by

David Whittaker  
Executive Officer – ActivFire Scheme



# Schedule to Certificate of Conformity

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## ii. Modifications to meet Australian requirements

### Cabinet:

- Remove the front cover from the cabinet assembly, remove the plug from the pressure regulator and discard.
- Assemble the adaptor P/N 82ZZJ02476 and pressure relief valve P/N 82ZZJ02579 to the pressure regulator outlet using loctite.
- Affix cartridge information label P/N 82AEK05069 onto the inside rear of the cabinet and information label P/N 82AEK 05050 and wiring diagram label P/N 82AEK05041A onto the inside face of the cabinet cover.
- Replace the front cover, repack and seal the carton and stamp "Australian Approved"

### Tank:

- Check batch certification and affix tank label P/N AEK05023 onto the agent tank.

## Producer's description

The Ansul, PIRANHA™, pre-engineered restaurant fire suppression system is a gas-cartridge expelled, water-assisted, tank-stored wet-chemical solution type fixed system which initially discharges "PRX™" Liquid Fire Suppressant solution from its nozzles, followed by an indefinite period of water discharge through the same nozzles. The system is operated automatically by mechanical and/or electrical means, and has remote manual back-up actuation by cable-pull/electrical means.

The PIRANHA™, system is designed to extinguish or suppress restaurant cooking area fires involving equipment such as deep fat fryers, tilt-skillets and braising pans, griddles, range-tops, woks, upright broilers, chain-broilers, electric and gas radiant char-broilers which use lava rock, natural charcoal, or mesquite wood, and their associated exhaust canopies, grease-filters, plenums, and duct work.

The PIRANHA™ Regulated Release Assemblies are each housed in a common-dimensioned stainless-steel cabinet, and are available with mechanical, electro-mechanical, or pneumatic type actuation provisions. The pneumatically-actuated type is intended to be slave-actuated from either of the other two actuation options, and is not available with remote manual-pull back-up actuation. The automatic mechanical actuation of the mechanical and electro-mechanical options is by means of a series-connected fusible-link and tension wire-rope cable system. The electro-mechanical type release assembly includes micro-switches for providing automatic shut-down of electricity and gas supply to the cooking equipment simultaneously with the PIRANHA™ system actuation. It also includes a pull-type electric alternating current (Vac) solenoid for actuation of the system via electrical detection or remote automatic/manual actuation provisions. Up to 5 (five) PIRANHA™ Regulated Release Assemblies can be connected in parallel to a common agent-distribution system provided that the system has a maximum of 39 nozzles. Each Regulated Release Assembly cabinet can accommodate *one only* solution tank of 5.7 litres, 8.5 litres, or 11.4 litres capacity.

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## Technical specification

The following details are a representative extract of the technical specification for the Ansul, PIRANHA™, pre-engineered restaurant fire suppression system and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

### PIRANHA™ Regulated Release Assemblies:

<b>Approximate cabinet dimensions:</b>	600 H x 520 W x 190 Deep (mm)
<b>Solution tank capacities:</b>	5.7 litres (PIRANHA-7, max. 7 nozzles)
	8.5 litres (PIRANHA-10, max. 10 nozzles)
	11.4 litres (PIRANHA-13, max. 13 nozzles)
<b>Solution tank test pressure:</b>	31.0 bar
<b>Solution tank minimum burst pressure:</b>	62.1 bar
<b>Pressure of expellant nitrogen:</b>	10.3 bar (set outlet pressure of regulator)
<b>Nitrogen relief valve setting:</b>	13.1 bar
<b>Rated voltage of pull-solenoid:</b>	120 Vac 60 Hz. (intermittent duty)
<b>Minimum water supply:</b>	38 litres/minute @ 228 kPa, at inlet to each automatic water control valve.

### Fusible link fire detectors:

Fusible link fire detectors for the PIRANHA™ system are available as follows:

Fusible link part number	Temperature rating (°C)	Use where temp. will not exceed (°C)
415739	74	38
415740	100	66
415741	138	107
415742	182	143
415743	232	182
56816	260	204

### Expellant gas cartridges:

Ansul AUTOMAN® Cartridges filled with nitrogen to 145 bar at 21°C are to be used as follows:

Solution tank model	Maximum number of nozzles per tank	Required size of Ansul nitrogen cartridge
PIRANHA-7	7	LT-20-R
PIRANHA-10	10	LT-30-R
PIRANHA-13	13	LT-30-R