



SMOKE

SMOKE DETECTOR TESTERS



efficient
universal
integrated
safe
lightweight
30ft reach
endorsed

Why testing is required . . .

Codes and standards throughout the world define the testing and maintenance of fire detection systems including smoke detectors. Detectors are tested, not only in their own right, but are often the means through which zones or circuits are checked.

These codes and standards now require functional tests to introduce smoke or simulated smoke through the detector vents and into the sensing chamber. Testing proves the ability of a smoke detector to respond to smoke type stimuli, communicate with the panel and initiate an alarm as a result. Magnetic testing is no longer acceptable.

Testing by application of a recommended aerosol, designed to safely simulate smoke particles, is now the most widely used professional method approved by detector manufacturers throughout the world.

“ Detectors shall be tested in place to ensure smoke entry into the sensing chamber and an alarm response... ”

Source: NFPA 72 1999 Table 7 - 2 . 2 (Test Methods) 13 . g .

“ Each smoke detector shall be tested for operation by introducing smoke or simulated smoke to the detecting chamber ”

Source: CAN/ULC - S536-97 # 6 . 6 . 4 . 1 . 4

“ ...each detector should be checked for correct operation... ”

Source: BS 5839: Part 1: 1988 29.2.7 (b)

NB. Testing using an unmeasured source of smoke or other aerosol is not a test of detector sensitivity (see Trutest)

The SOLO range of test tools saves both time and money

To ensure professional testing of installed detectors, the majority of fire companies choose SOLO equipment for their service and maintenance engineers.

The manufacturer is unique as a totally independent company, manufacturing universal test tools for the fire protection service and maintenance industry. The company works closely with major detector manufacturers to develop endorsed, high quality test tools that are universal, lightweight, easy to use and, above all, professional.

Investment in SOLO tools and equipment is frequently repaid in a matter of days.

The SOLO range consists of integrated, durable tools, which offer an unparalleled cost and time saving over alternative techniques of functional testing of smoke detectors. Detectors mounted up to 30ft high can be tested, accessed, removed and replaced with ease.

With the best tools available to do the job, maintenance technicians can complete testing safely and accurately, saving considerable time.



The 330 SMOKE DISPENSER - Designed for today's maintenance engineer

Feedback from a range of customers detailing their ideal smoke dispenser has resulted in the Solo 330.

Lightweight, strong and simple to use, it has been truly *designed* for daily rigorous use.

The injection-moulded construction and swing frame of the Solo 330 make it the ideal tool for testing virtually all types and makes of modern smoke detectors at heights up to 9m.

The Solo 330 has been ergonomically designed for optimum use with the specially formulated **Solo Aerosol**. Together they offer fully controlled and efficient testing. Just a short burst of the aerosol is all that is needed to activate smoke detectors.

The Solo 330, developed using the latest 3D modelling techniques, has recently won a design award.

*Like all brilliant designs,
its apparent simplicity belies its cleverness.*

Features / benefits of the 330

- Robust – to withstand the rigours of everyday use
- Strength and durability of modern plastics optimised – to ensure long life
- Injection-moulded plastic design - minimises weight
- Spring-loaded mechanism - enables effective, but economic, aerosol delivery
- Dispenser and patented diaphragm contain particles – conserves aerosol
- Aerosol spray not directed at detector – sensor not swamped with particles
- Touch sensitive – ideal for testing detectors fitted to suspended ceilings
- Universal - suits most detectors fitted from 'normal ceiling' height up to 30ft
- Clear cup and diaphragm – allows view of the detector LED whilst testing
- Interchangeable with all other Solo tools



SOLO™ Aerosol - *The most thoroughly researched Smoke Test Aerosol.*

Testing using aerosols dispensed from pressurized canisters is now widely accepted as the most popular means of achieving the test for function of a smoke detector.

As aerosol usage increases, so do the number of providers. Users must be aware that to manufacture a product which will activate a smoke detector is not difficult. However, it is considerably more challenging to manufacture a product which is suitable for all makes and models of detector,

whilst not harming the detector, its components, the user or the environment.

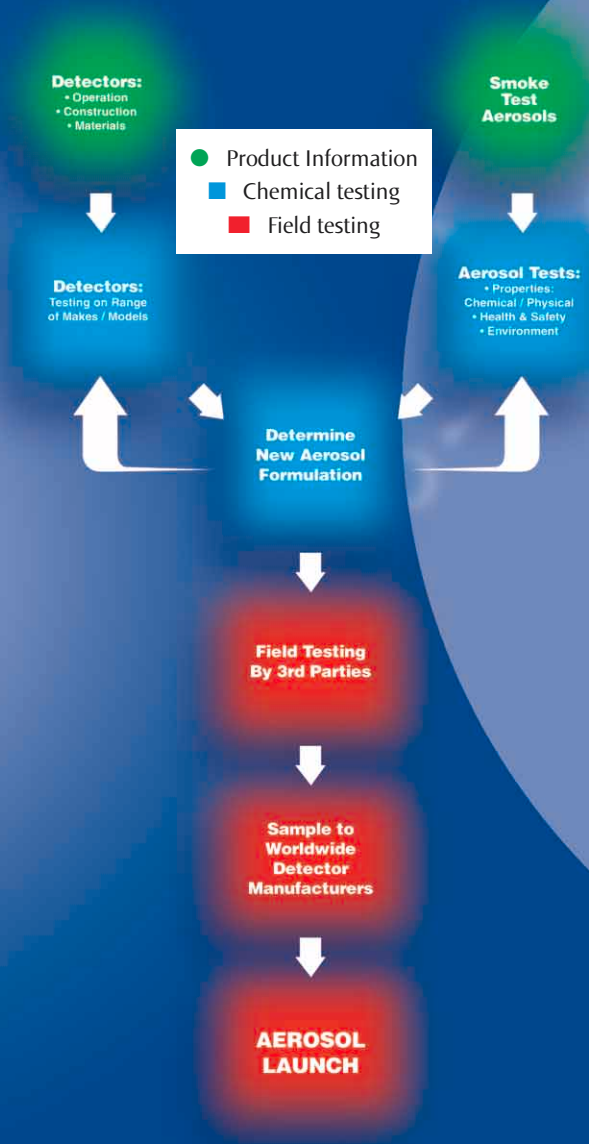
Too many test aerosols in today's fire protection market have not been fully researched and, as a result, can cause problems such as *stress-cracking* in detectors, other damage to components, harm to the environment in which the detector is installed or even respiratory or other health problems to the user. Some may even pose a fire risk!

Solo Aerosol has been subjected to the most in-depth plastic compatibility and performance research and testing in the history of this type of product

Experts recommend the use of a smoke dispenser for the release of aerosol (the design of the aerosol being optimized for this function). Particle size and dissipation is the key to efficient activation of detectors, while ensuring detectors are not soiled by excessive aerosol application.

Selection of the correct chemicals for use within these products is of paramount importance since there is a need to combine the often conflicting requirements of performance, environmental regulations, non-flammability, low cost and, most importantly, compatibility with the components from which the detectors are manufactured.

Features	Solo Aerosol
Non Flammable	✓
Endorsed by detector manufacturers	✓
Detector materials compatibility tests carried out	✓
Oil free formulation	✓
Fast activation of detectors	✓
Fast clearing time	✓
Minimal residue with correct use	✓
Suits conventional & intelligent systems	✓
Suits photoelectric and ionisation type detectors	✓
Suits most makes & models of detector	✓
Developed in conjunction with detector manufacturers	✓
Non toxic	✓
Harmless to respiratory system with correct use	✓
Overall low cost per test	✓
Compatible with Solo test equipment	✓
CFC Free	✓



The Solo Aerosol is the result of an extensive two year research programme to produce the best, most efficient and safest smoke aerosol. The project, within the UK government Teaching Company Scheme (TCS), brought together the test and service equipment skills of the manufacturer with the chemistry and particulate behaviour skills of a major London university.

An aerosol development scientist, based at the manufacturer, undertook research into aerosol products and detection devices, concentrating on:

- particle size, characteristic and behaviour
- residue
- toxicity of product
- device response / clearing times
- detector and component compatibility
- spray pattern

Chemicals used in detector test equipment need to be compatible with the plastics from which detectors are manufactured. This project included the most in-depth plastic / chemical compatibility tests ever conducted in this field and proved Solo aerosol to be chemically safe. It also uncovered worrying deficiencies in currently available alternatives.

*The result is **SOLO** Aerosol -
The Definitive Smoke Testing Aerosol*



Features / Benefits

Solo Aerosol has been proven to contain the properties vital to today's fire protection market

- Non-flammable formulation
- No damage to detector plastics / components*
- Faster response times to alarm
- Faster clearing and detector re-set times
- Minimum residue
- Designed for use with Solo 330 Smoke Dispenser
- Minimum impact to health, safety and environment
- Improved value for the customer

Long term testing, carried out on aerosols by the manufacturer, has optimized the response rate for smoke detectors, as well the clearing time, reducing the time required for testing.

*NB. Statement based on those detector plastics and components included within the development project and current at that time



Solo Access Poles

A key feature of the professional Solo range of quality products is its interchangeable tools. Each tool is developed for a particular task, but each interchanges on either a 14.7ft telescopic or a single 3.7ft extension pole. The single extension poles, in turn, can be fitted onto the telescopic pole for reaching heights as high as 30ft.

Using ladders or mobile platforms to reach detectors is obviously inefficient. Using Solo access poles, detectors are rapidly tested or removed, considerably increasing efficiency and safety with minimum inconvenience.

Both extremely strong and amazingly light, Solo access poles will provide years of reliable service. Simplicity itself to use, these superior poles are the best investment you can make - *try them and see the difference they make to the efficiency of your service operation.*

SOLO 100

The Solo 100 telescopic pole extends from 4.2ft to 14.7ft in 4 sections allowing access to detectors fitted up to 20ft.

- Made from strengthened durable fiberglass
- Lightweight and portable
- 'Totalock' system ensures telescopic sections lock easily and never twist
- Suits all Solo tools – only one access pole is required for all jobs
- Tools simply slide into top of pole and are released by pressing a button
- Drastically reduces time required
- Non conductive
- Ultimate quality – a total solution
- Designed for quick and reliable use every time

SOLO 200

The Solo 200 is a universal detector removal tool suitable for use with the majority of detectors on today's market.

Colour coded tri-grips twist into place to create different size combinations. The combinations of the tri-grips enable removal/replacement of different size detectors, ensuring that one tool is all you will need.

Solo 200 has a universal joint ensuring that the tool remains parallel with the ceiling while in use, providing easy extraction and replacement – even on detectors that cannot be accessed from directly underneath.

- Ideal for most makes and types of detectors
- Allows removal/replacement of detectors at angles
- Adjustable for different sizes of detectors





Made of the same durable materials as the Solo 100, the Solo 101 is ideal for reaching detectors mounted on ceilings just above hand height, or for extending the Solo 100 above 20ft (30ft is the maximum recommended).

- Lightweight and portable
- 3.7ft long or up to 3 can be used to extend the Solo 100 telescopic pole

Kits

Solo equipment is available in a number of conveniently arranged kits. Whether your need is for a simple starter kit, a universal smoke testing kit or an all-encompassing kit including a heat detector tester, there is one available.

Kits are supplied with a purpose designed carry-bag, which holds all the tools an engineer needs for testing - not just practical but also giving a professional image when arriving on site.

Trutest - Measurement of absolute sensitivity of smoke detectors

Smoke detector sensitivity can and does drift. To help guarantee performance of smoke detectors and reduce the number of false alarms from over sensitive detectors, sensitivity should be measured. Regular sensitivity testing is obligatory under certain codes and standards.

Trutest is a fully portable device, enabling fire alarm technicians to *measure* the real sensitivity of smoke detectors quickly and easily in one test.

Trutest is the world's most technologically advanced field service test instrument for smoke detectors. A full brochure and details are available from your nearest distributor.

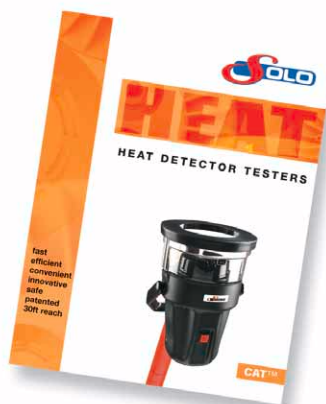


Specifications / Ordering Information

Other brochures available:



Trutest - Sensitivity Test Equipment



Heat Detector Testers

SOLO™ 100 - Telescopic Access Pole

Dimensions

From 4.2ft to 14.7ft in 4 sections allowing access up to approx 20ft

Weight

3lb 10oz

Material

Fiberglass

SOLO™ 101 - Extension Pole

Length

3.7ft

Weight

12oz

Material

Fiberglass

Use

Can be used independently OR up to 3 can be used to extend the SOLO 100 for access up to approx. 30ft

SOLO™ 200 - Detector Removal Tool

Weight

2lb 7oz

Detector sizes

From 2.6in dia to 4.3in dia

Max working angle

30 degrees

SOLO™ 330 - Smoke Dispenser

Weight

1lb 4oz

Detector sizes

Up to approx. 3.9in

(sensing chamber only needs to be sealed within the cup)

Color

Black / Red / Clear

Working angle

0°, >90° max

SOLO™ Aerosol

Non Flammable

Ozone Friendly (ODP = 0)

Not VOC (Volatile Organic Compound)

+50°F to +95°F

-14°F to +122°C

Colorless, clear

Faint pleasant smell

5 1/4(h) x 2 1/4(dia) inches



Operating temperature

Storage temperature

Colour

Odour

Size

SOLO™ 850 KIT

A universal kit for testing and removing smoke detectors fitted up to 30ft high.

Contains:

1 100 Telescopic Pole

1 101 Extension Pole

1 200 Removal Tool

1 330 Smoke Dispenser

1 610 Protective Carrying Bag

SOLO™ 851 KIT

A universal kit for testing heat and smoke detectors fitted up to 30ft high.

Contents as 850 but includes a SOLO 461 Cordless Heat Detector Tester

More kits are available – please contact your local supplier for full details.

Details of products described in the publication are subject to change without notice.

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The world's genuine leader in universal smoke and heat detector test and service devices.

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