

AirSense News

from the people who protect

AirSense Technology Ltd

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AirSense Technology (UK) Head Office



Unparalleled technical assistance and back-up.

A selection of the many thousands of international companies and sites protected by Stratos:-

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|----------------------|-------------------------------|---------------------------|--------------------------------|
| ▪ British Telecom | ▪ Esso Research | ▪ Johannesburg airport | ▪ U.S. Airforce |
| ▪ Dutch Telecom | ▪ British Steel | ▪ Samsung Korea | ▪ Channel 4 TV |
| ▪ German Telecom | ▪ Shell Chemicals | ▪ British Gas | ▪ ICI |
| ▪ Australia Telecom | ▪ Swedish Stock Exchange | ▪ Rank Hovis | ▪ Unilever |
| ▪ Norwegian Telecom | ▪ British Museum | ▪ BBC | ▪ Fujitsu |
| ▪ Malaysia Telecom | ▪ Rover Group | ▪ Heysham 2 power station | ▪ Siemens Plessey |
| ▪ Argentina Telecom | ▪ Honeywell Computers | ▪ Canterbury Cathedral | ▪ Hinckley Point Power Station |
| ▪ Swedish Telecom | ▪ Mercury Communications | ▪ J. Sainsbury | ▪ Vodafone |
| ▪ China Telecom | ▪ NatWest Bank | ▪ House of Commons | ▪ UCI Cinemas |
| ▪ Taiwan Telecom | ▪ Australian National Gallery | ▪ Royal Bank of Scotland | ▪ Sony Malaysia |
| ▪ Texaco | ▪ IBM | ▪ National Australia Bank | ▪ LWT Television Centre |
| ▪ Rolls Royce Ltd | ▪ BP | ▪ Volvo Sweden | ▪ ABB |
| ▪ GEC Marconi | ▪ Currys Superstores | ▪ Hyundai Korea | ▪ Castrol |
| ▪ Shell Petroleum | ▪ Rolls Royce Ltd | ▪ Royal Air Force | ▪ Christian Salvesen |
| ▪ Ford Motor Company | ▪ Cadbury's | ▪ Rover Group | ▪ Chicago Board of Trade |



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ROYAL AWARD WINNER

Queen's Award for outstanding Technological Achievement

What better accolade could we expect in recognition of our pioneering achievements with high sensitivity smoke detection than to have been selected by the Queen's Award organisation for outstanding Technological Achievement?

This year AirSense Technology was one of only seventeen British companies selected in the Queen's Birthday Honours list to be awarded the Queen's Award for outstanding Technological Achievement. This accolade was given because the design and marketing of the Stratos system applied innovative thinking to a product of a type that had previously been known to cause significant problems



THE QUEEN'S AWARD
FOR TECHNOLOGICAL
ACHIEVEMENT

in some commonly found circumstances. These problems were centred upon the difficulty of setting a highly sensitive smoke detection system without inviting nuisance alarms.

The award was presented not just because we had succeeded in bringing to production a system with world-beating sensitivity and performance but because we demonstrated that the product has also been an outstanding commercial success in the world market.

Development

In early 1993 having been involved on other types of 'high sensitivity' systems, the team behind the Stratos-HSSD® system decided to try a new approach in designing a high sensitivity aspirating



Stratos-HSSD, award winning technology

smoke detector. Peter Fox, Christopher (Kit) Girling and Mark Symonds headed this design and development team.

Until that time, the setting of high sensitivity smoke detectors was based on manual decisions. This resulted in frequent cases of detectors being applied at inappropriate sensitivity. The consequences of such actions need not to be elaborated on.

Major innovation

It was realised that rather than try to set 'sensitivity', it would be more logical to base the setting of the system upon a value that

was easier to quantify. This value was; the acceptable incidence of nuisance alarms. While at first glance this might sound strange, consider a few facts... It is simple to appreciate that the more sensitive a smoke detector is set, the more likely it will be to give nuisance alarms. The basis for setting the 'sensitivity' of the Stratos-HSSD® range of products is simply to pre-programme the maximum permissible incidence of nuisance alarms, and to allow the Artificial Intelligence system contained in the detector to continually adjust sensitivity to maintain this pre-set level.

This system provides some significant advantages over earlier techniques... Firstly it makes on-site setting extremely simple. It is easy for anybody to visualise what one nuisance alarm every 25 years means. Just try considering the alternative... as an example, is it possible to 'visualise' setting alarm sensitivity to 0.08% obscuration per metre... does the installer know if this is an appropriate setting?... of course not! Another major advantage is that if a dust filter is used with any aspirating system, as the filter becomes contaminated, less smoke is able to enter the detection chamber. This can result in other detectors (with so-called 'fixed' sensitivity) becoming progressively less sensitive as their filter becomes contaminated. With the Stratos-HSSD® system, this is recognised and is fully compensated for, thereby providing a consistent degree of protection.

Innovation was also made with regard to air management. Whilst it is an advantage for any aspirating smoke detection system to maximise the volume of air drawn into it, because this will reduce system response time, it is NOT an advantage to pass the total volume of air through the filter or detection chamber. This is because it can lead to decreased life and increased service requirements. One of the key aspects of the Stratos-HSSD® system is to employ a patented 'wastegate' system that bypasses the majority of sampled air away from the filter and detection chamber. This provides a significant increase in service life.

Stratos-HSSD® makes the papers...

The Guardian



The Daily Telegraph



...Coverage was given by national newspapers, including; The Guardian, The Daily Telegraph and The Times. In an interview with The Guardian, it was explained that the system had been supplied to Fire Trade customers for the protection of many major sites. The system had proven popular with professional Risk Assessors and surveyors for a variety of reasons which some might find surprising. It is natural to imagine that the main application of a highly

sensitive smoke detection system would be in 'clean' areas. While the system is capable of unparalleled sensitivity in these areas, it is also proving highly popular in dirty, dusty and other aggressive environments. A particular stronghold for the system is the Scandinavian paper industry, where the system has successfully detected many incidents in areas where it was previously considered impossible to apply smoke detection.



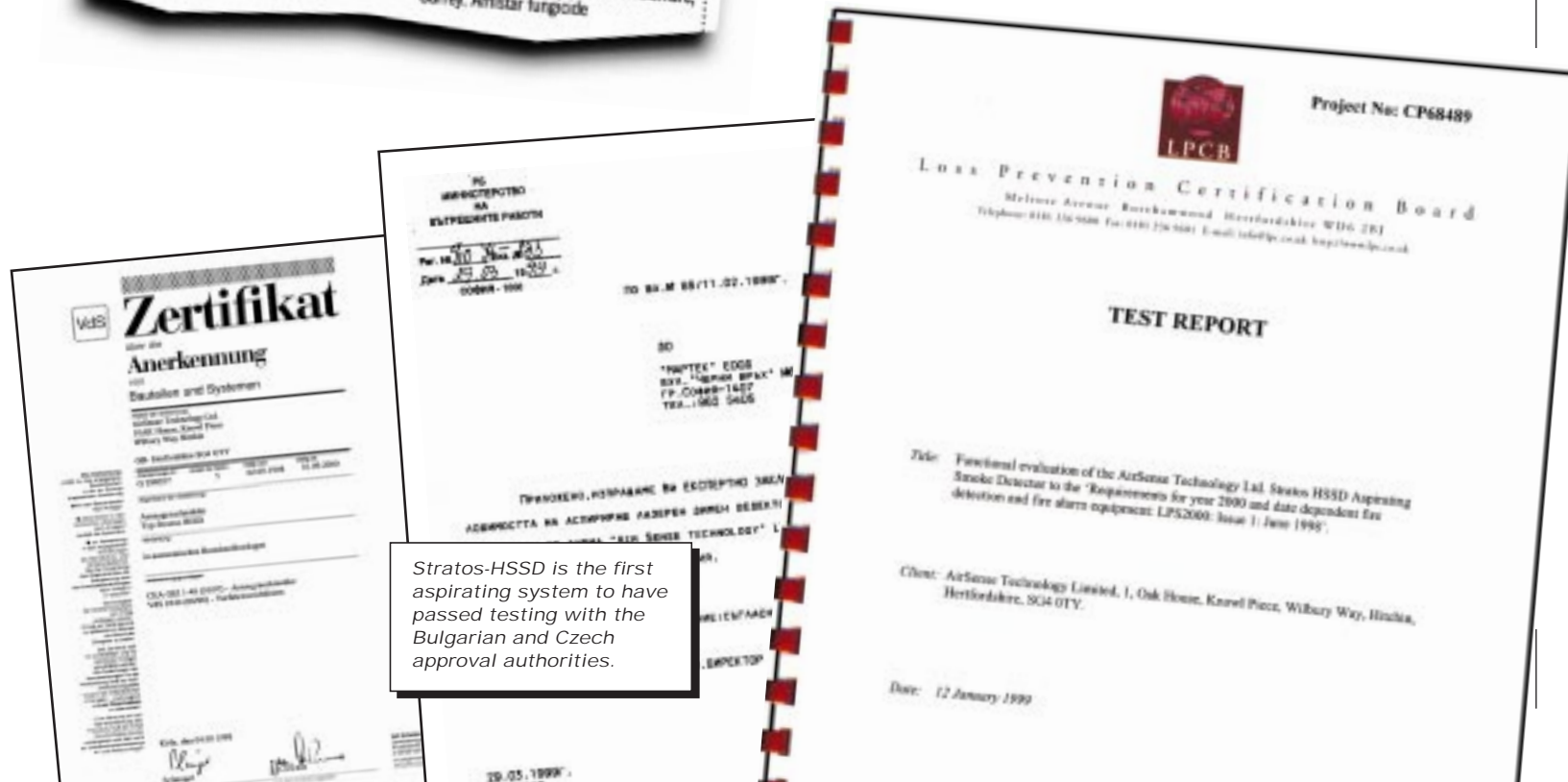
The most sensitive smoke detector

(without nuisance alarms)

Independent testing of the Stratos-HSSD® system has proven that the system is by far the most sensitive system to pre-combustion products, produced at the early stages of electrical overload. The overload of PVC insulated wire is recognised as a tough test of any smoke detector and the Stratos-HSSD® will detect this material with ease.

Market Acceptance

Stratos-HSSD® and its associated products are widely used throughout the world. The criteria for the selection board for the Queen's Award for Technological Achievement are that not only must a company demonstrate that it has developed an innovative product or process, but it must also provide evidence that the product or process has been a sales success. Since the introduction in 1993, our Stratos-HSSD® product range has qualified fully in both categories.



MAJOR APPROVALS



APPROVED
Ref. 0D8A8.AY

Factory Mutual Research Corporation of USA



404 a/01

Loss Prevention Certification Board, United Kingdom.



Quality system cert. no. 404
Assessed to ISO 9001

Quality System certified to ISO 9001



G 298057

VdS of Germany



Scientific Services Laboratory of Australia