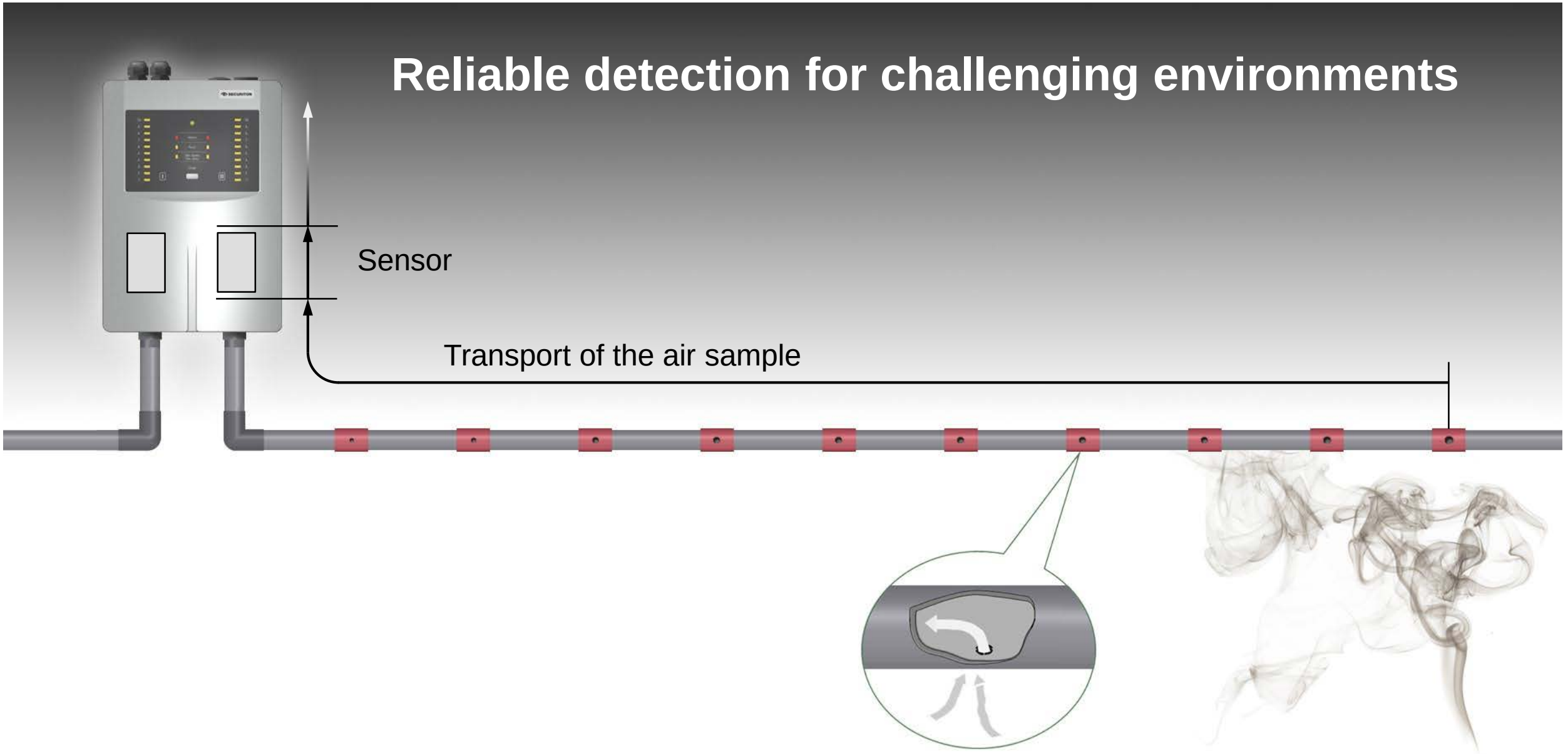
SecuriRAS ASD 535 / 533 / 532 / 531

Sales Presentation

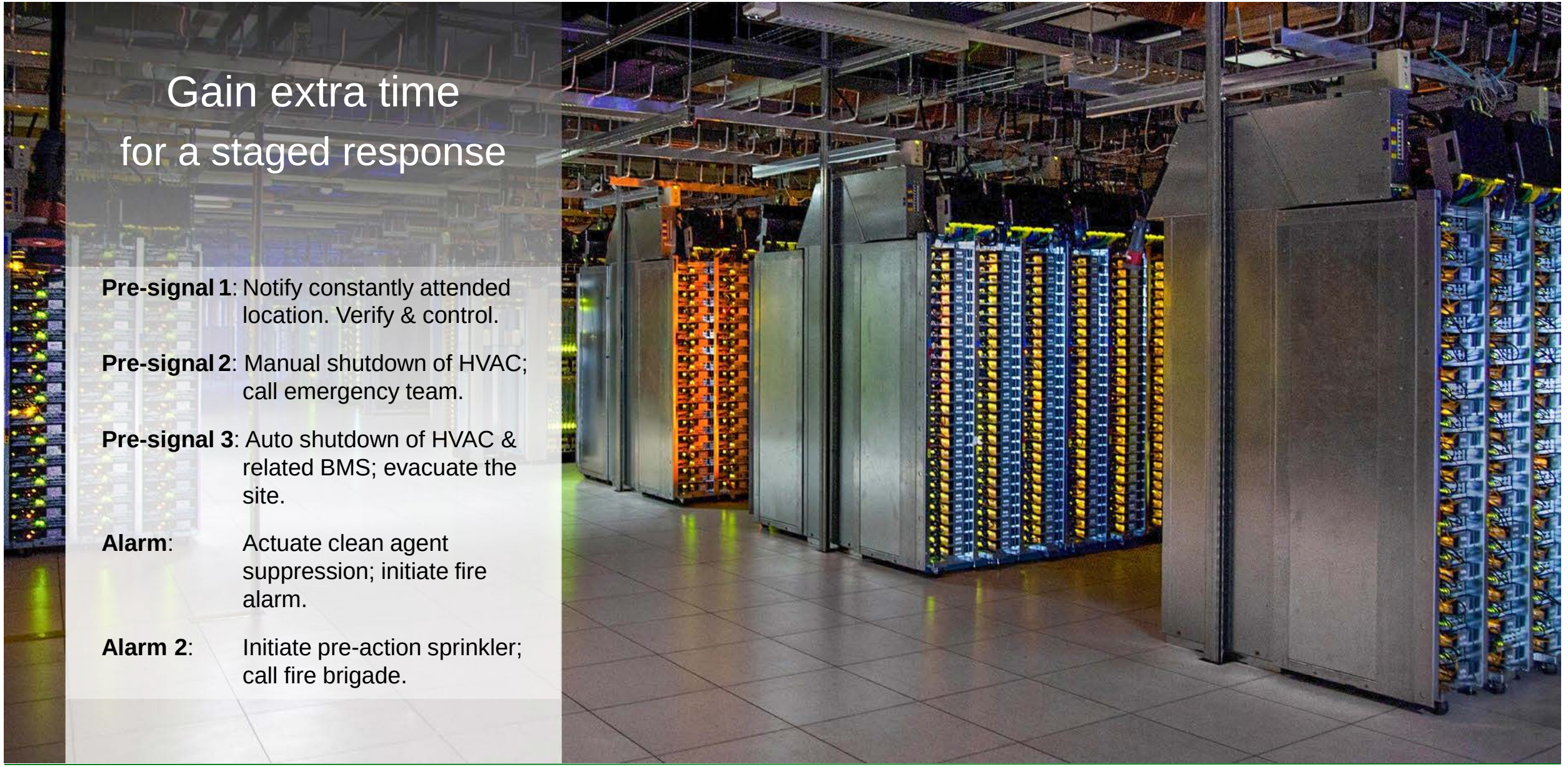
SECURITON
For your safety

Content

Reliable detection for challenging environments



APPLICATION DRIVER



Gain extra time for a staged response

Pre-signal 1: Notify constantly attended location. Verify & control.

Pre-signal 2: Manual shutdown of HVAC; call emergency team.

Pre-signal 3: Auto shutdown of HVAC & related BMS; evacuate the site.

Alarm: Actuate clean agent suppression; initiate fire alarm.

Alarm 2: Initiate pre-action sprinkler; call fire brigade.

APPLICATION DRIVER

Operating Temperature

- Most detectors do not work at temperatures of -30°C
- Condensation & Icing are severe issues at low temperature
- Networking for remote control is a must for testing

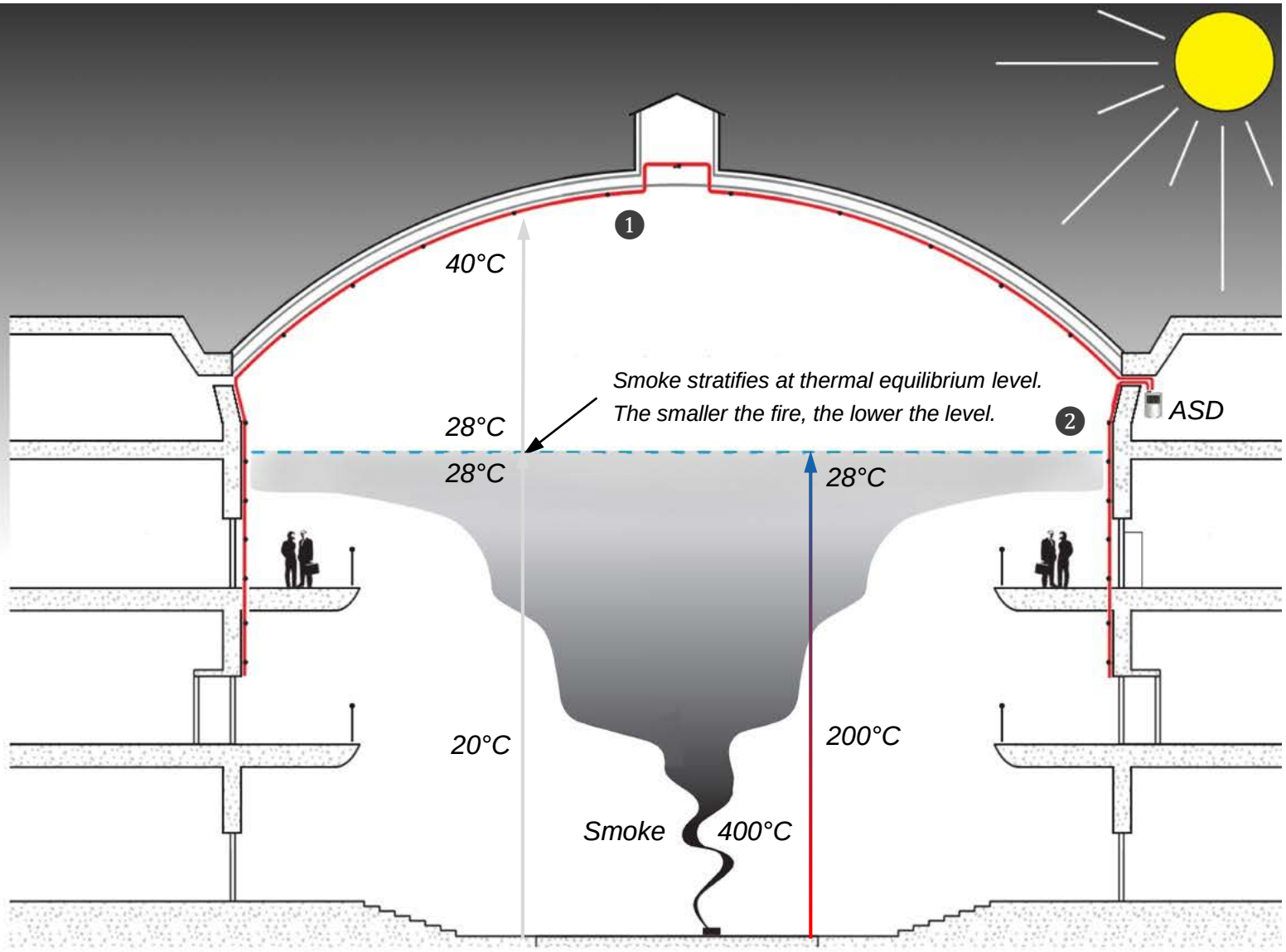
APPLICATION DRIVER

Stratification

1. *Ceiling sampling*

2. *Vertical sampling*

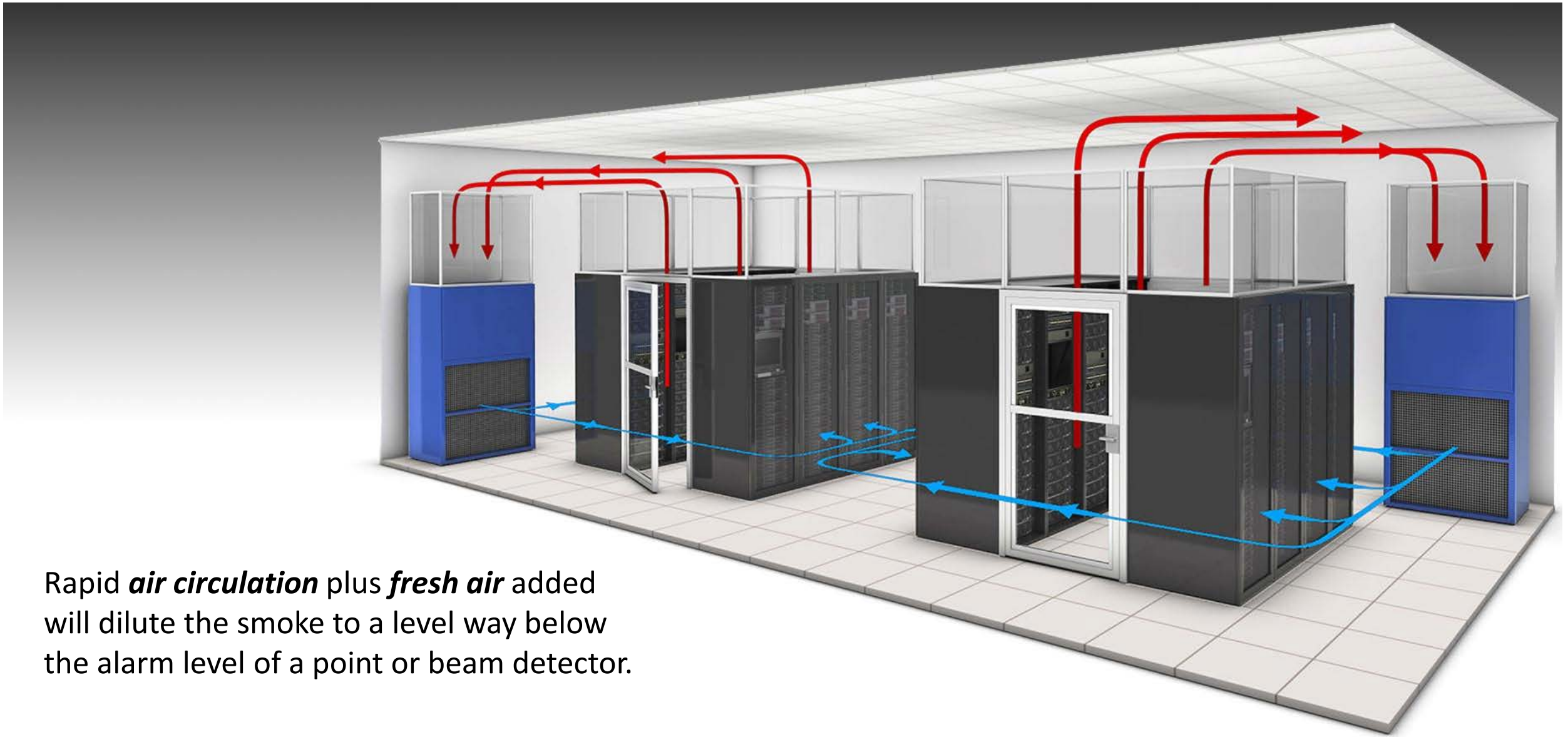
   Sampling pipe runs vertical to detect smoke at any level



SECURITON

APPLICATION DRIVER

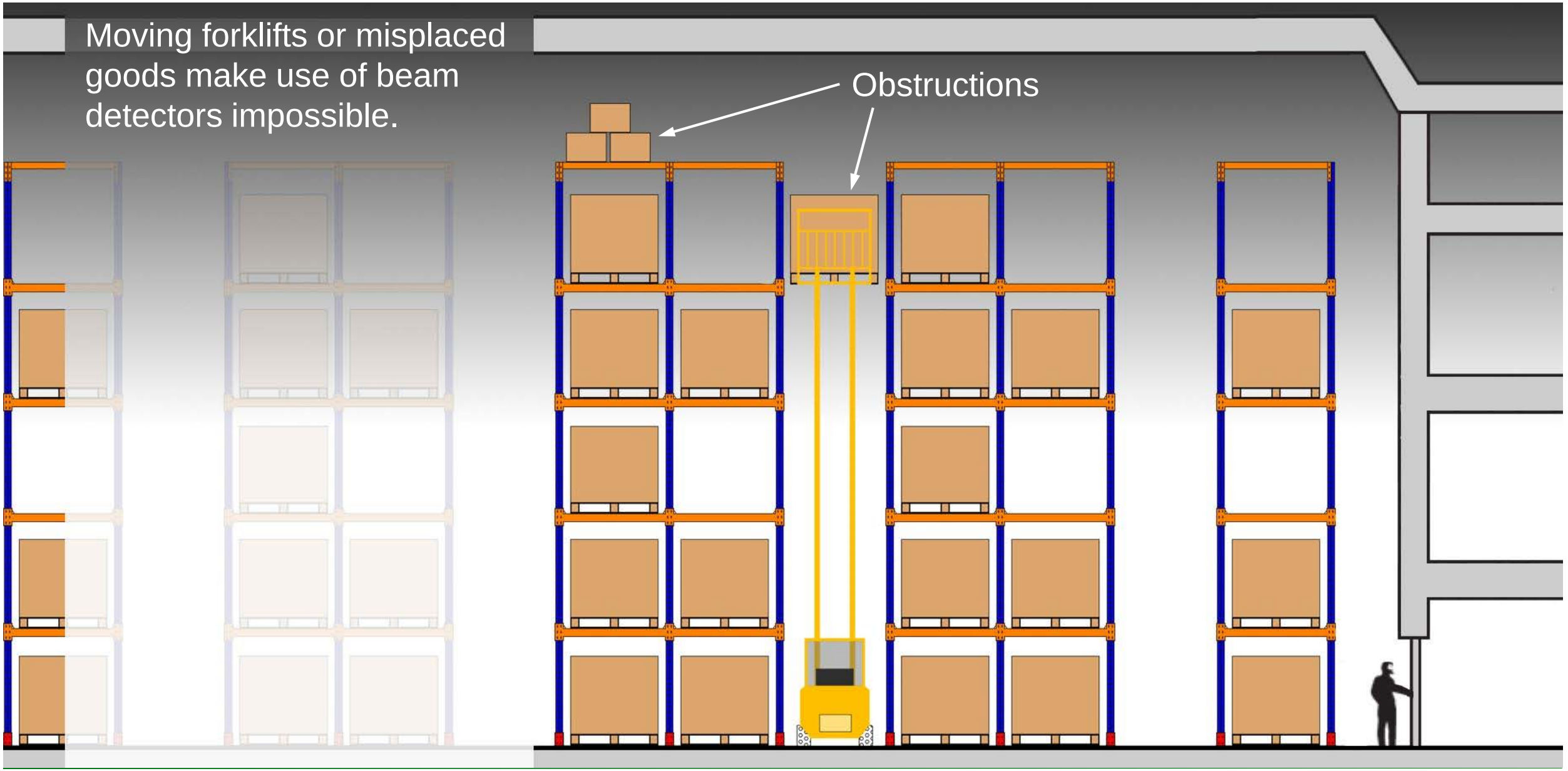
Dilution



Rapid ***air circulation*** plus ***fresh air*** added will dilute the smoke to a level way below the alarm level of a point or beam detector.

APPLICATION DRIVER

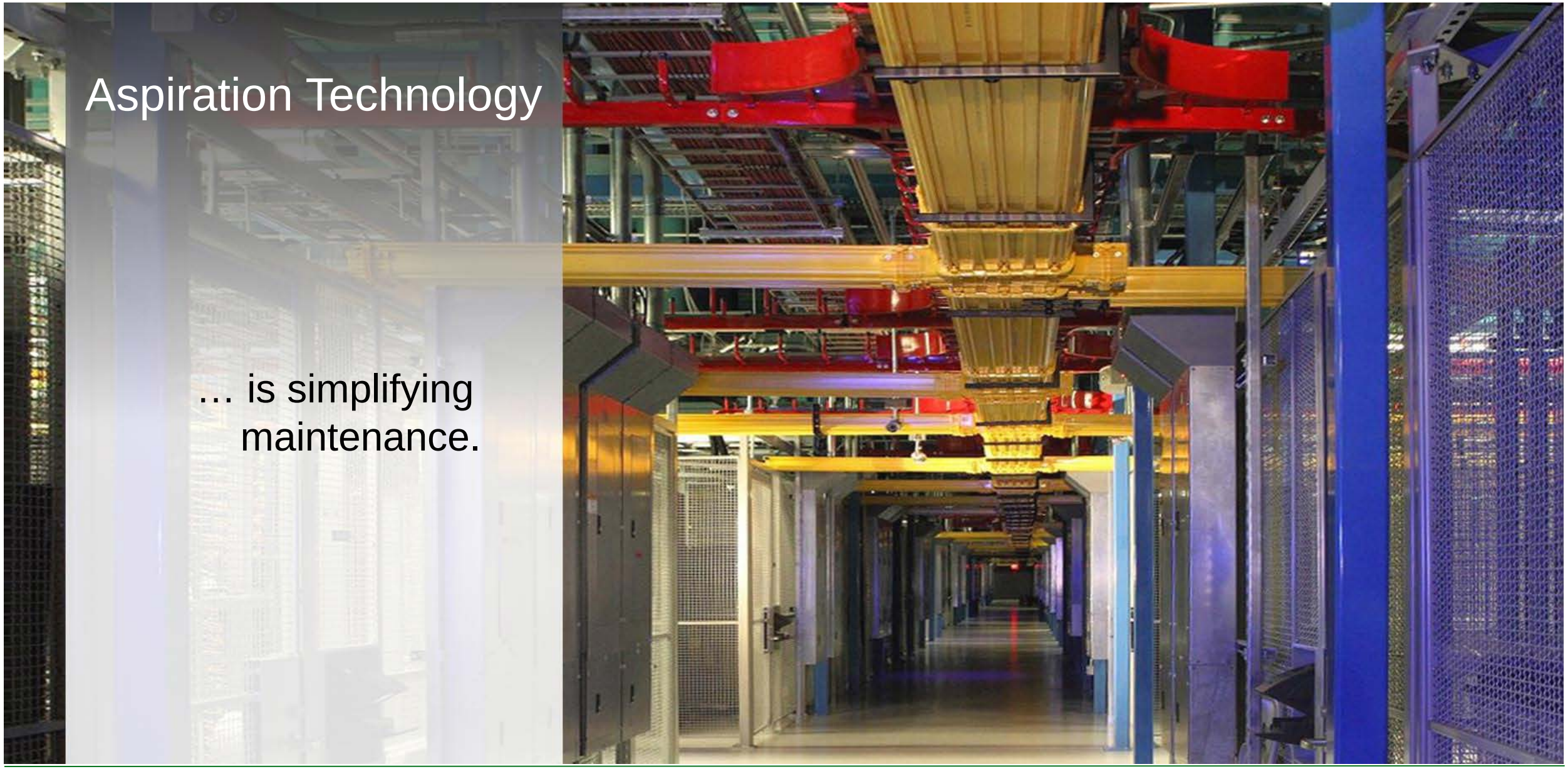
Obstruction



SECURITON

APPLICATION DRIVER

Congestion



Aspiration Technology

… is simplifying maintenance.

APPLICATION DRIVER

Access Restrictions

Aspiration Technology

… is eliminating the need to access the restricted area for maintenance.

- ☑ **Elevator Shafts**
- ☑ **High Voltage Gears**
- ☑ **Prison Cells**

APPLICATION DRIVER

Pollution

Filtered Aspiration Technology

Often the only reliable solution.

- ☑ **Recycling Plants**
- ☑ **Mills**
- ☑ **Farming**

SECURITON

APPLICATION DRIVER

Esthetics

SECURITON

PORTFOLIO

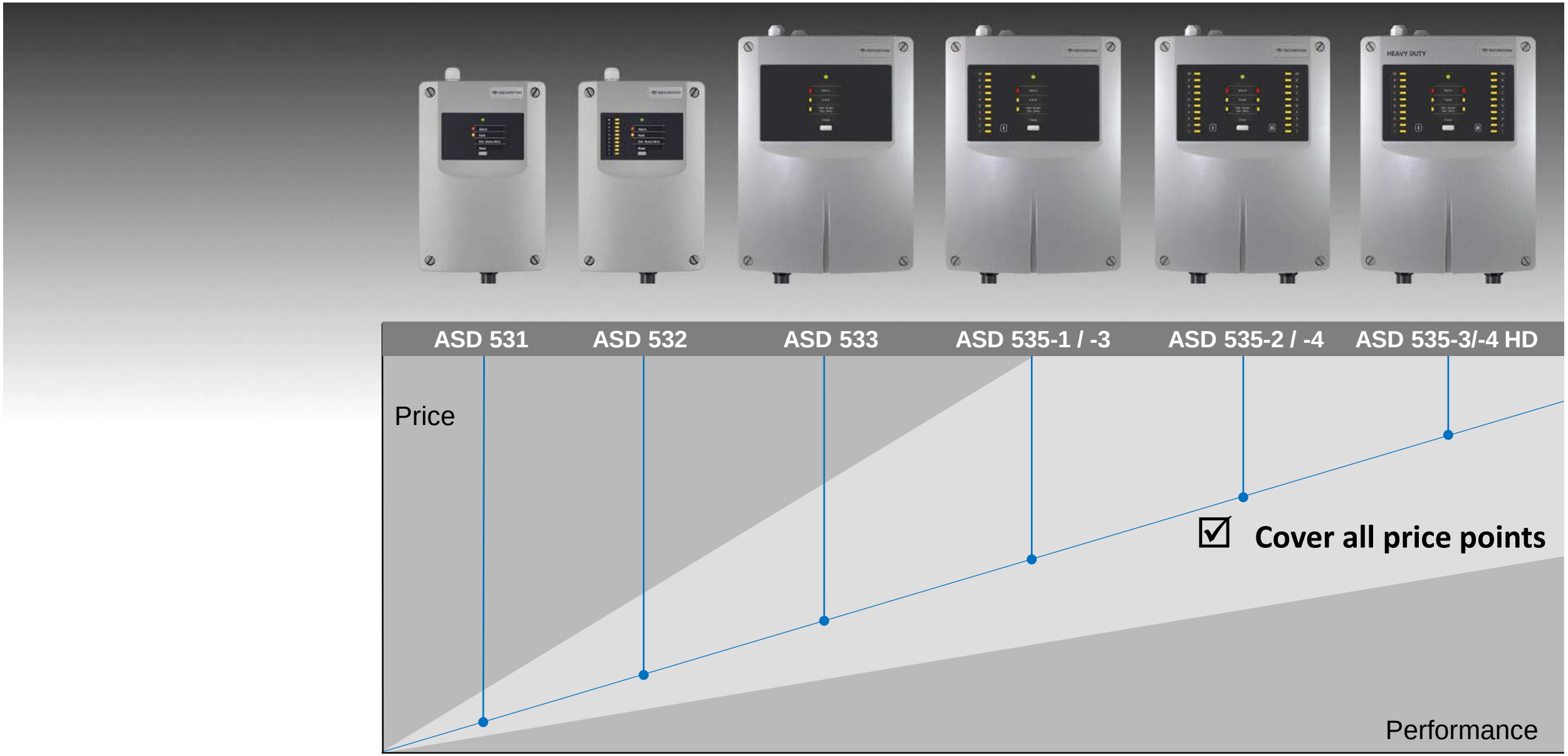
Powerful Range

		ASD 531	ASD 532	ASD 533	ASD 535-1 / -3	ASD 535-2 / -4	ASD 535-3 / -4 HD
Sensors per Unit		1	1	1	1	2	1 or 2
Sensitivity	%Obs./m	0.006	0.002	0.002	0.002	0.002	0.002
Sampling Points	Per Class A / B / C	6 / 8 / 12	8 / 12 / 16	16 / 50 / 50	18 / 56 / 120	36 / 112 / 240	36 / 112 / 240
Sampl. Pts/Branch	Per Class A / B / C	6 / 8 / 12	8 / 12 / 16	12 / 24 / 30	18 / 50 / 50	18 / 50 / 50	18 / 50 / 50
Aggr. Tube Length	m	75	120	200	300	300	300
Single Tube Length	m	40	70	80	110	110	110
Max. Area	m^2	720	1280	1920	2880	5760	5760
Oper. Temp. Range	°C	-10 … +55	-20 … +60	-20 … +60	-30 … +60	-30 … +60	-30 … +60
IP Rating		IP54	IP54	IP54	IP54	IP54	IP66
Smoke Level Display		no	yes	no	no / yes	no / yes	yes

SECURITON

PORTFOLIO

Well Positioned



SECURITON

Ultra High Sensitivity

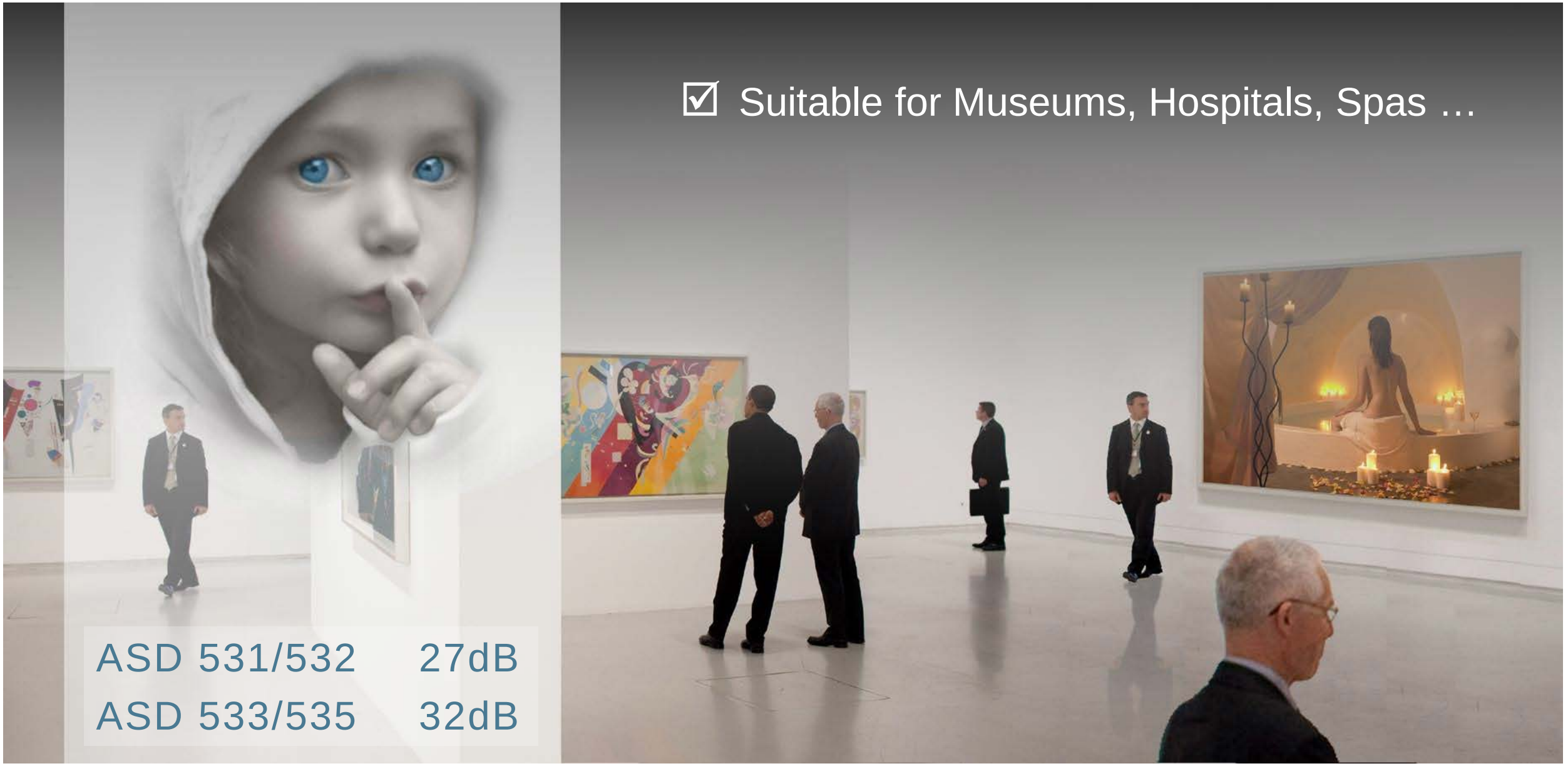
Throughout the entire product range

- ☑ **Class A** (Very Early Warning)
- ☑ **5 Racks per Unit** (Local Code of Practice)

SECURITON

STRENGTH

Extremely Silent



SECURITON

Protection Class

Standard: IP54

Heavy Duty: IP66

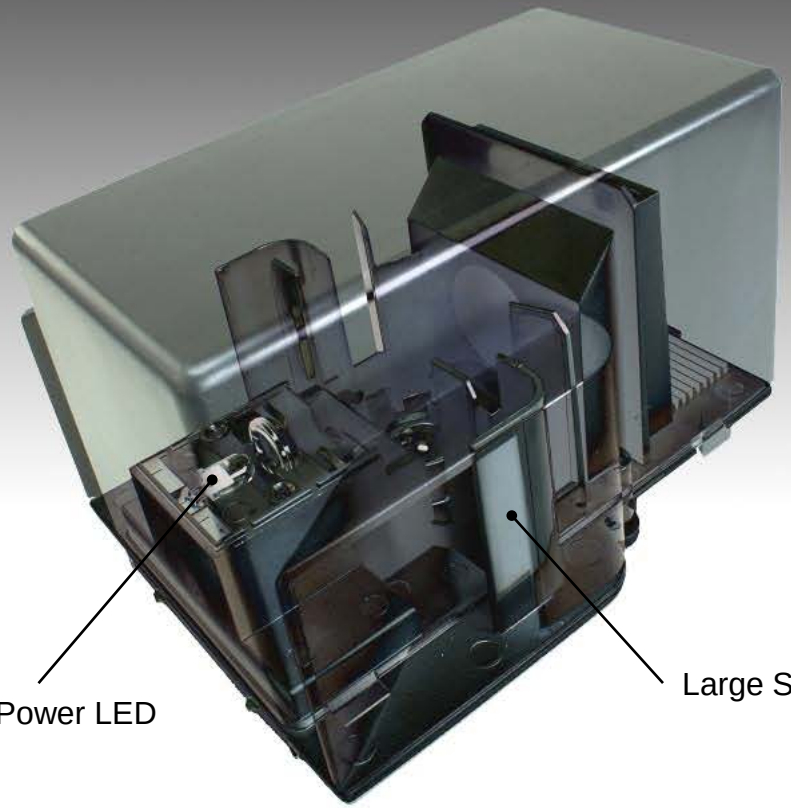
☑ **Splashes**

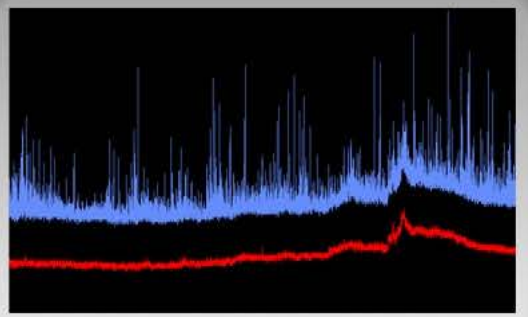
Powerful Sensors

LED: Robust & durable

Large Chamber

Dust Discrimination





☑ **Very Long Life**
Robust / Durable Technology

☑ **Very High Sensitivity**
Senses smoke in densities as low as 0.002% Obs./m

☑ **Zero Nuisance Alarms**
High Dust Immunity

STRENGTH [535]

Low Temperature Operation

Operating Temperature Range

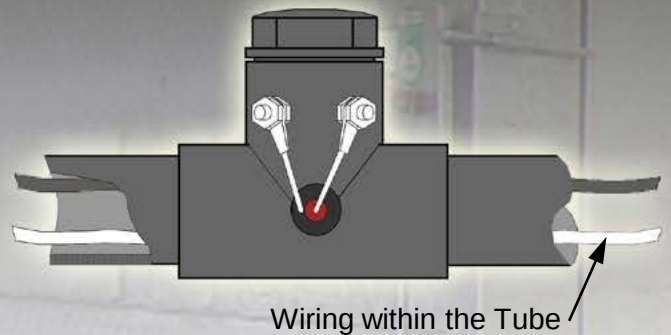
-30°C to +60°C

⬇

Can be mounted inside deepfreeze storage.

SECURITON

Heated Sampling Points



Airflow controlled

Activates the heating only if airflow decreases due to icing of the sampling points.

Powered by the ASD

No separate power supply needed.

STRENGTH [535]

High Power Aspirator

German Aspiration Engine [420Pa]

Larger Tube system

300m aggregate tube length per detector

Larger Area Coverage

2 x 2’880m^2

Excellent Lifetime

MTBF > 10Years

Chemically Resistant

- Ammonia (Farming)
- Chlorides
- Acids

☑**Shocks up to 5G**

M SET (Sydney surburban lines)

2 Sensors for twice the performance!

Sampling Points x 2

Two sensors per unit simply means 2 x the number of sampling points.

Pipe Length x 2

Two sensors per unit combined with high aspiration power simply means doubling the maximum aggregate pipe length (2 x 300m)

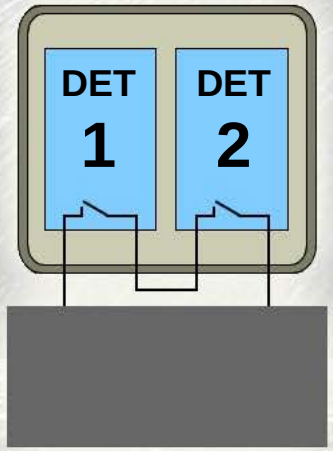
2 Sensors: Twice the detection power at

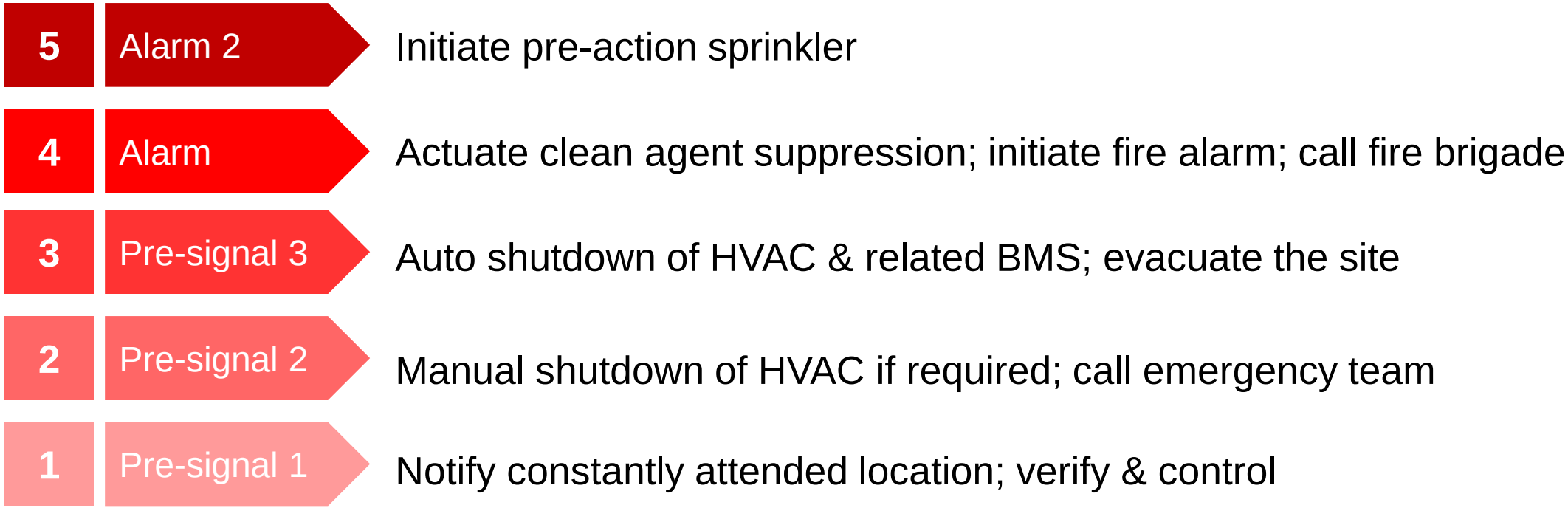
- ☑ Less cost than 2 separate units
- ☑ Less installation effort for units and cabling
- ☑ Less power consumption … less capacity required for backup

Two detector dependency

for double knock triggering of extinguishing controls.

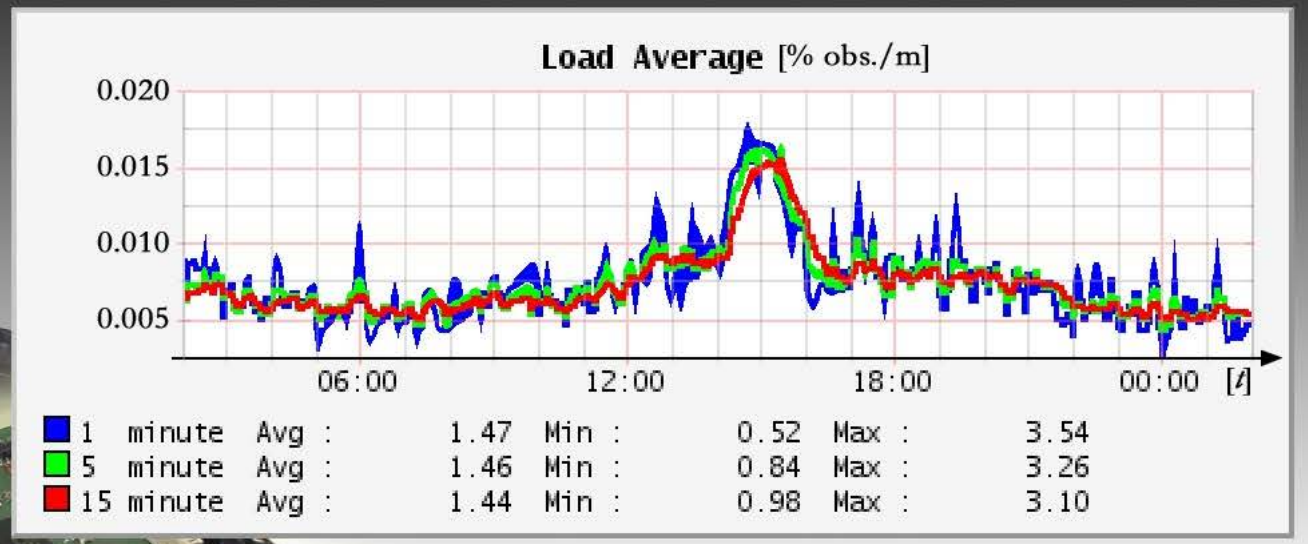
- Two sensors in 1 unit
- Reduced installation

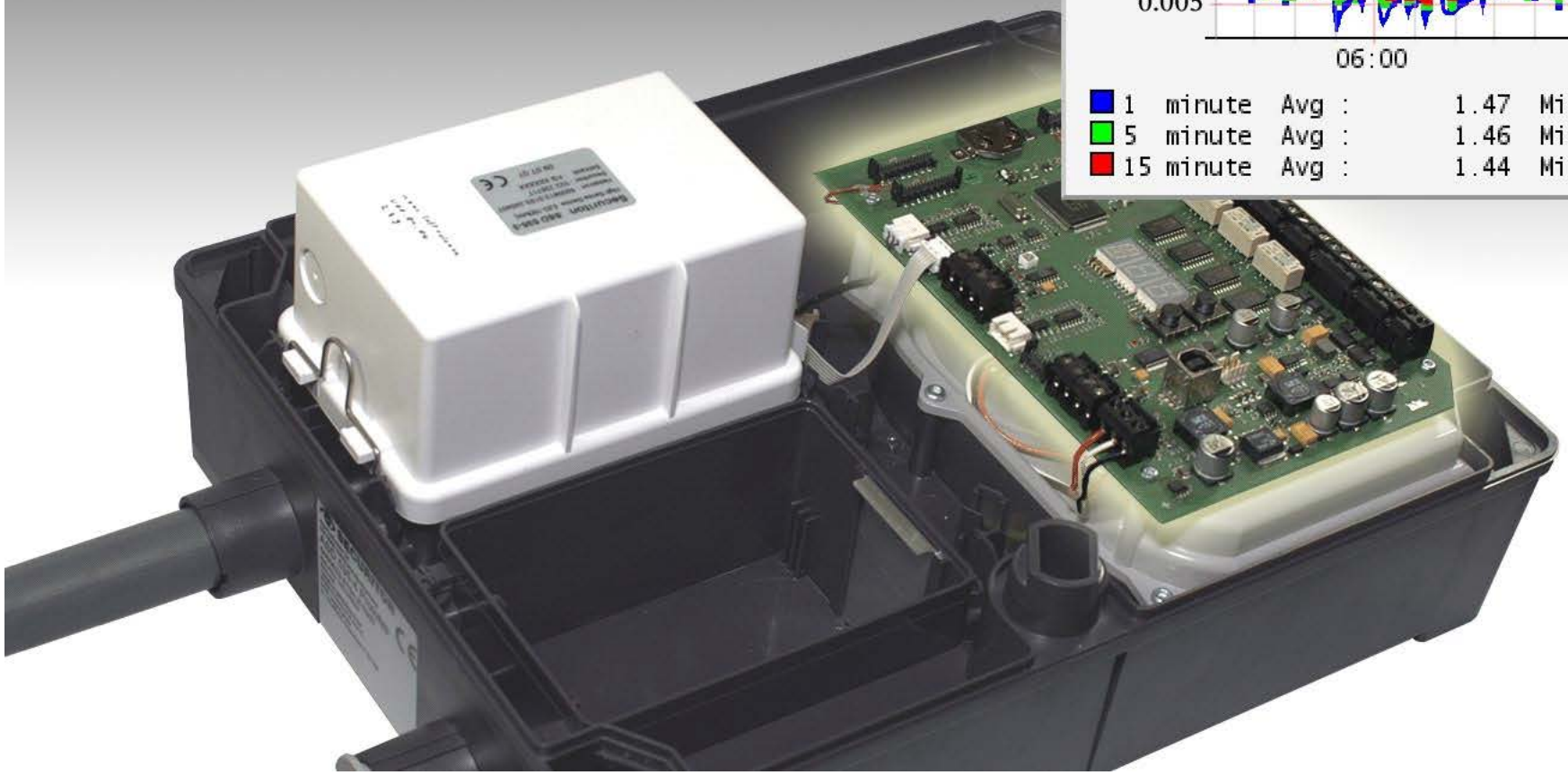



5
Alarm 2
Initiate pre-action sprinkler
4
Alarm
Actuate clean agent suppression; initiate fire alarm; call fire brigade
3
Pre-signal 3
Auto shutdown of HVAC & related BMS; evacuate the site
2
Pre-signal 2
Manual shutdown of HVAC if required; call emergency team
1
Pre-signal 1
Notify constantly attended location; verify & control

Auto Learning

Reads the background pollution load and adjusts the sensitivity to the optimum level.

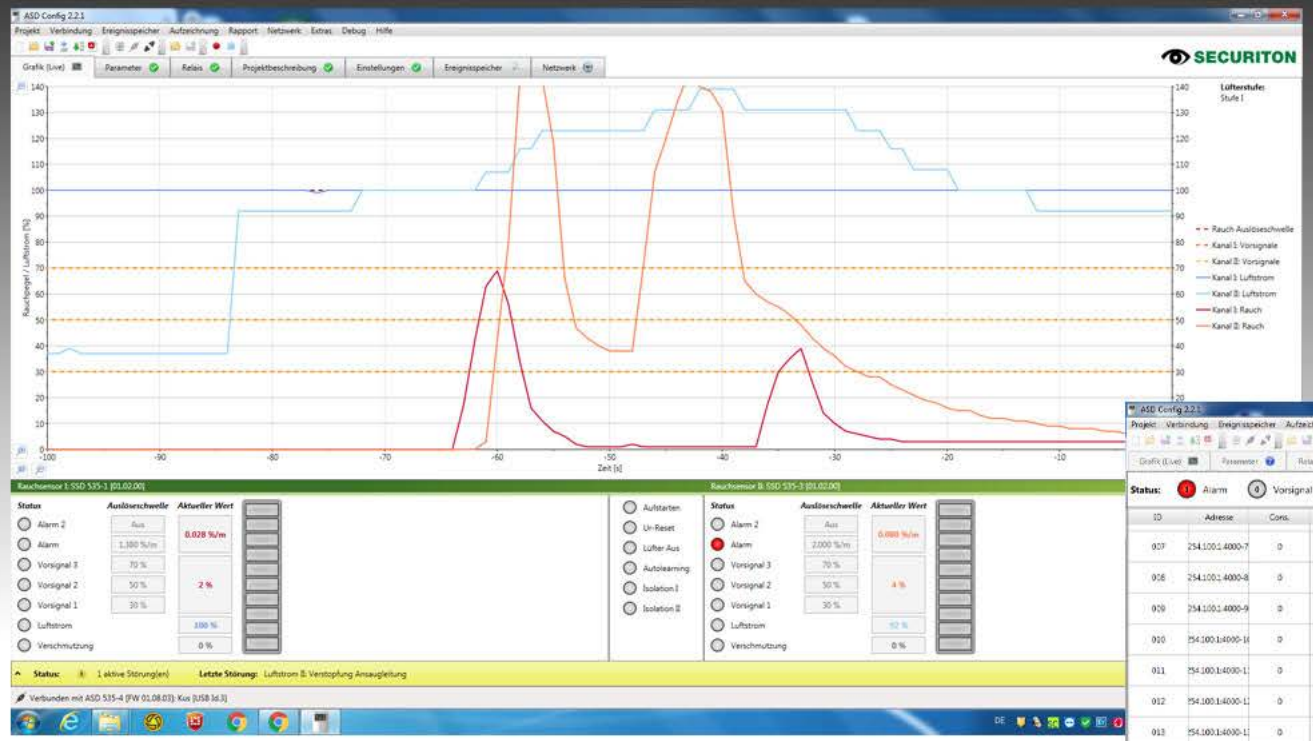




☑ Best possible sensitivity at low risk for nuisance alarms

SMART CONFIGURATION

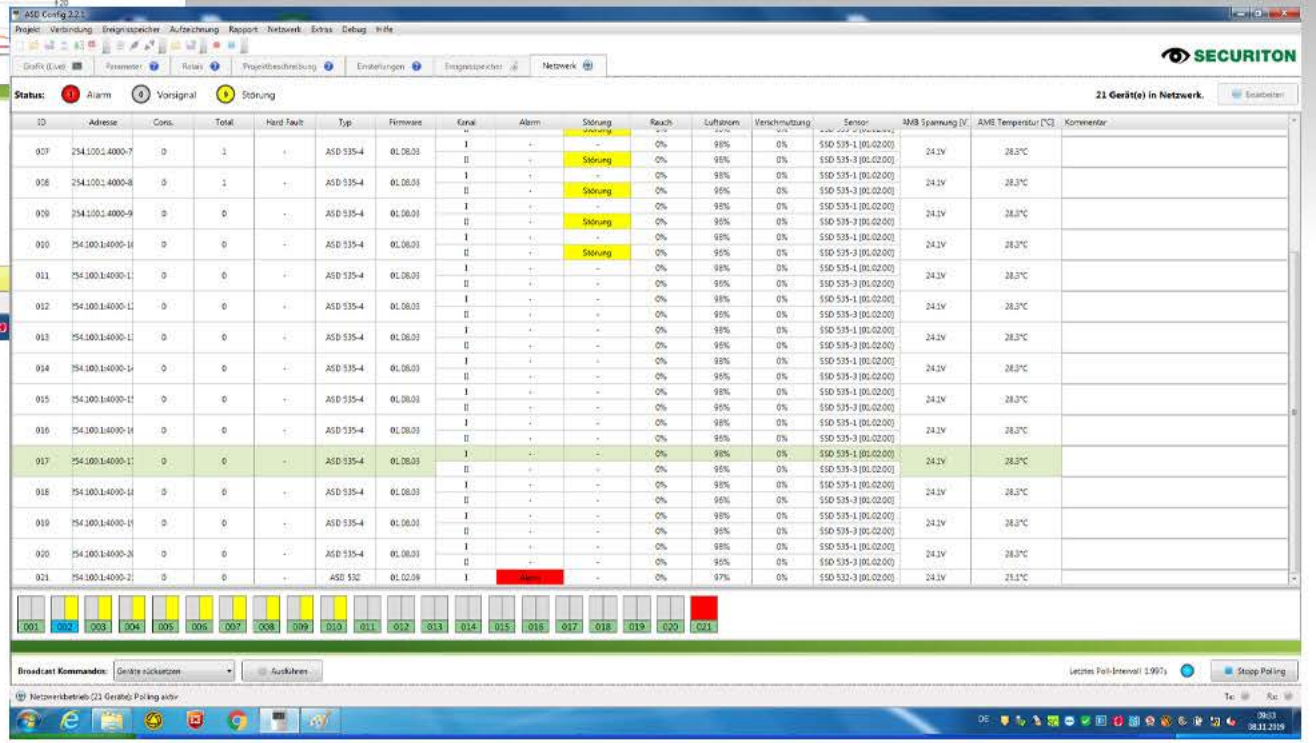
ASDconfig Software



- ☑ Setup to PipeFlow or individual parameters
- ☑ FW Update
- ☑ SD Card Download
- ☑ Charting of Smoke & Airflow

License / Dongle

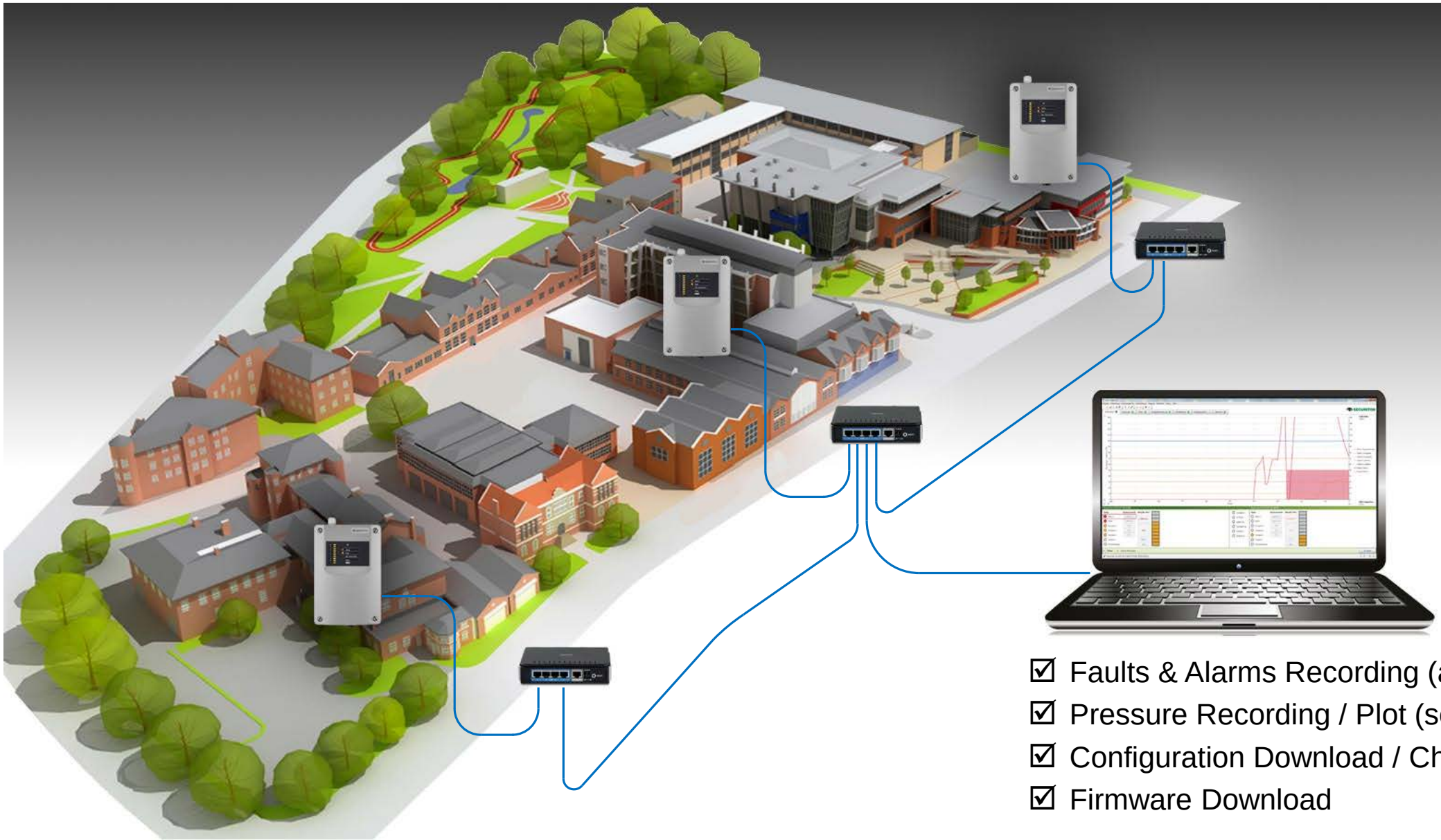
- ☑ Handling of networked units
- ☑ Control of manipulations



SECURITON

STRENGTH [532]

TCP/IP Networking



- ☑ Faults & Alarms Recording (at 125 Units/s)
- ☑ Pressure Recording / Plot (selected one)
- ☑ Configuration Download / Change
- ☑ Firmware Download

STRENGTH [532, 533, 535]

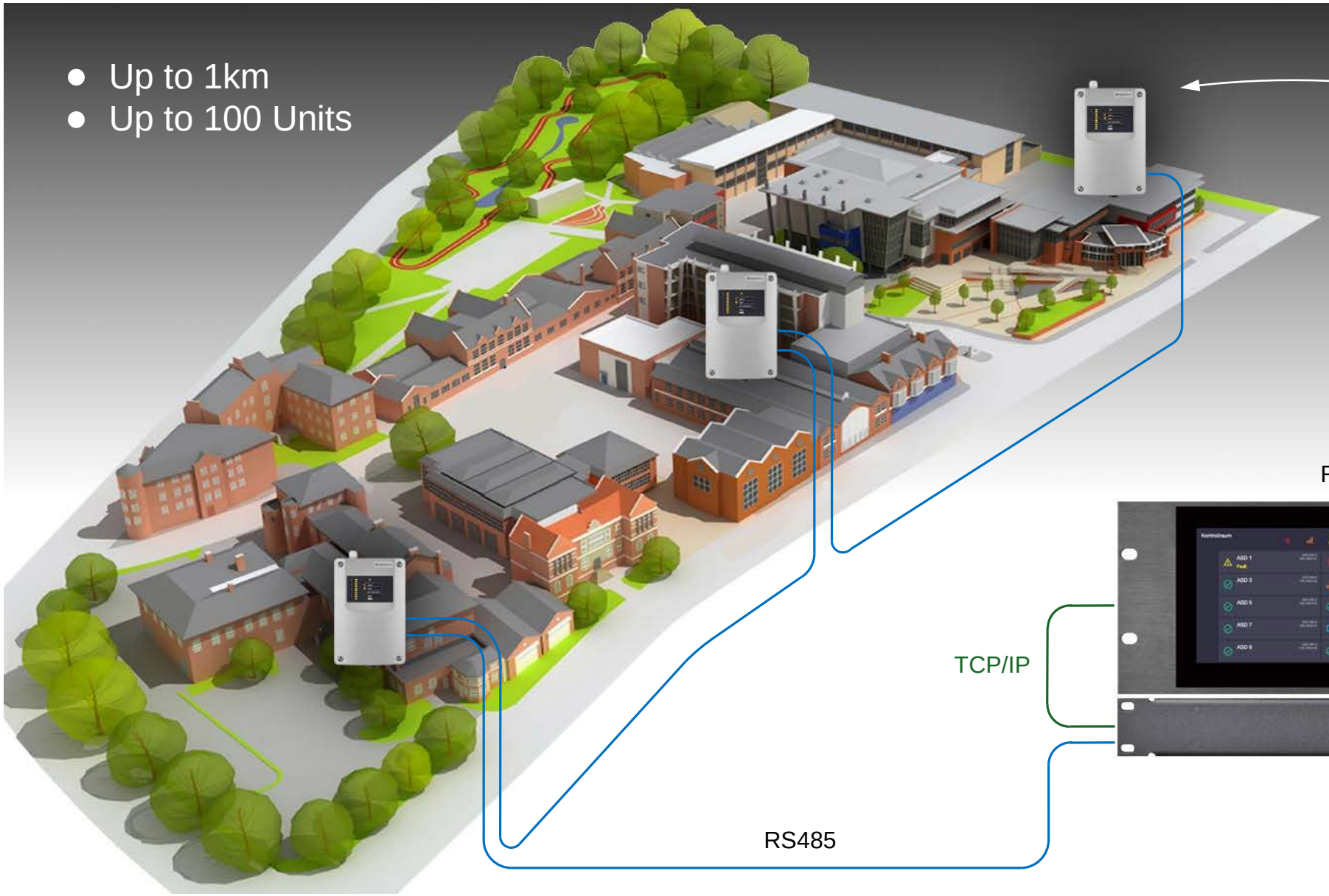
Config-over-Line

SECURITON

STRENGTH [532, 535]

RS485 Networking

- Up to 1km
- Up to 100 Units



SIM 35

☑ Factory Ready

Remote Control Unit RCU

TCP/IP

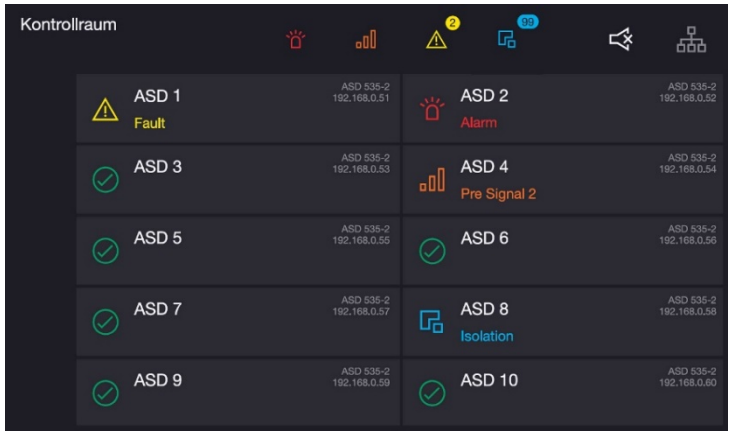
RS485

Network Control Unit NCU

SECURITON

Remote Display Unit

Benefit



Device List

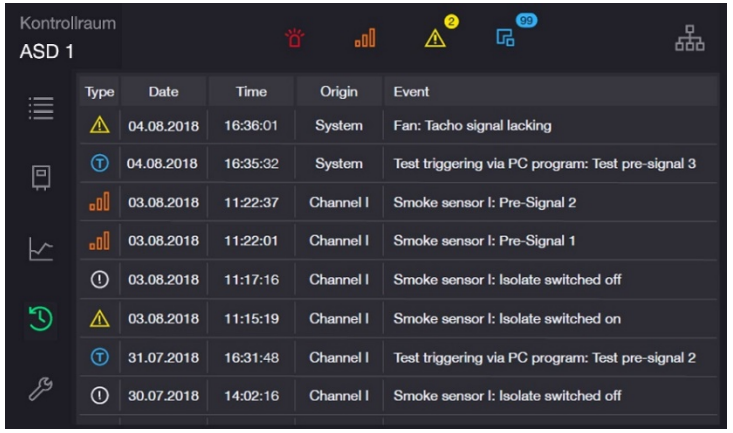
Status overview of all ASDs in the network. The ID of each unit (here “ASD 1” to “ASD 10”) can be named individually (Example: “Server Room 1 / Rack 4”)

Dashboard

Details smoke level and airflow; and offers reset and isolate function per channel / sensor

Trending of Smoke and Airflow

Realtime trace displaying the analog values of a 5 min. FIFO Buffer hosted on the NCU for each ASD connected

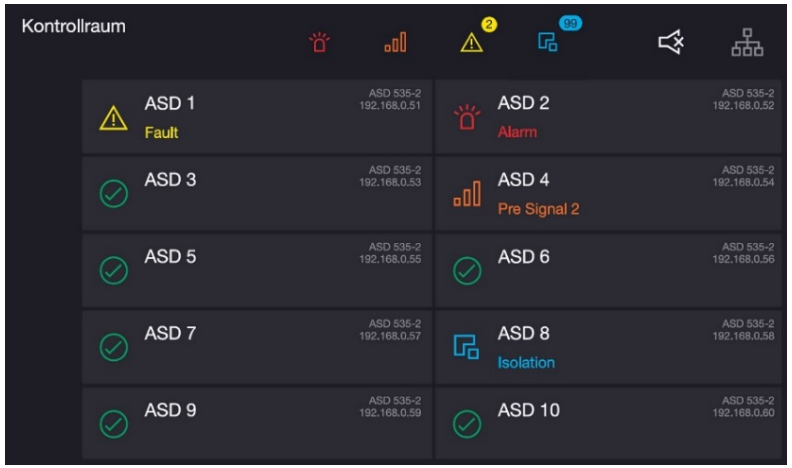


Events

The 50 most recent events of each ASD are buffered on the NCU: Alerts, Alarms, Faults, Interventions, Tests, …

Remote Display Unit

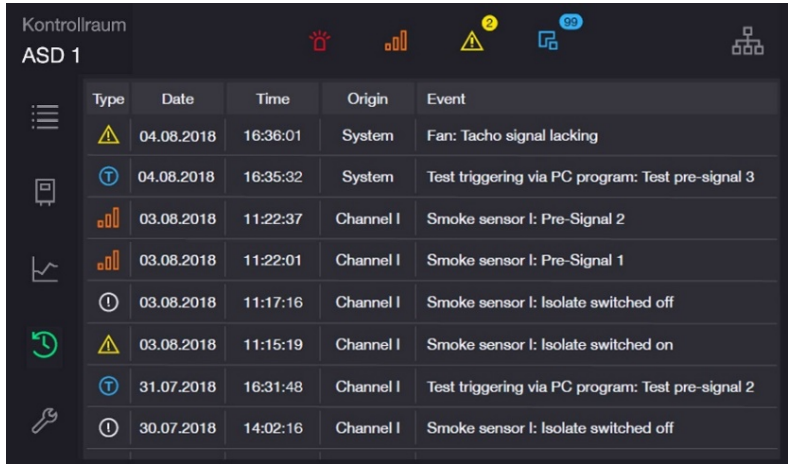
Benefit



Device List

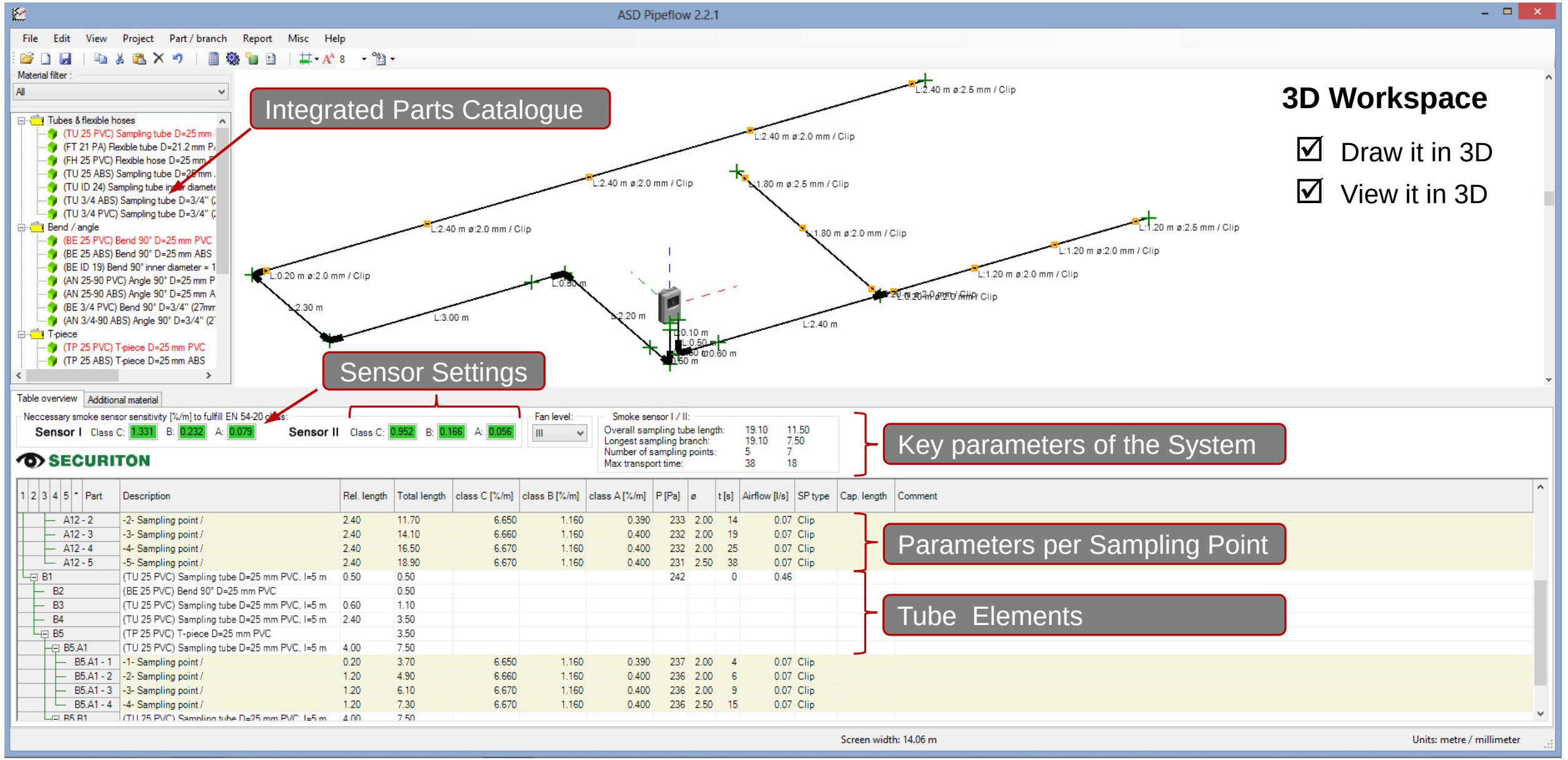
Dashboard

Trending of Smoke and Airflow



Events

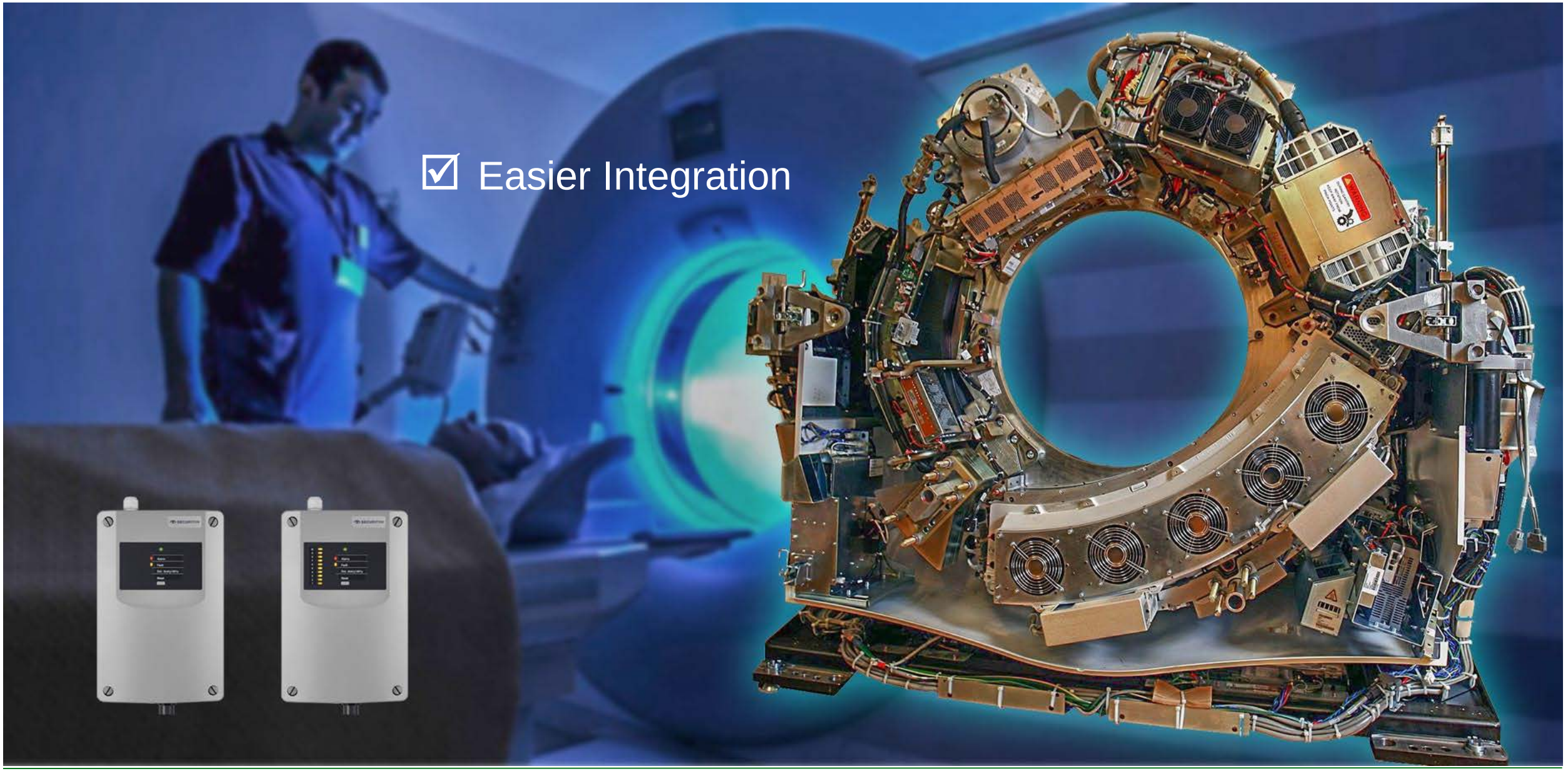
“PipeFlow” Engineering in 3D



SECURITON

STRENGTH [531, 532]

Small



SECURITON

STRENGTH [531, 532]

On-Board SD Port

83 days event recording

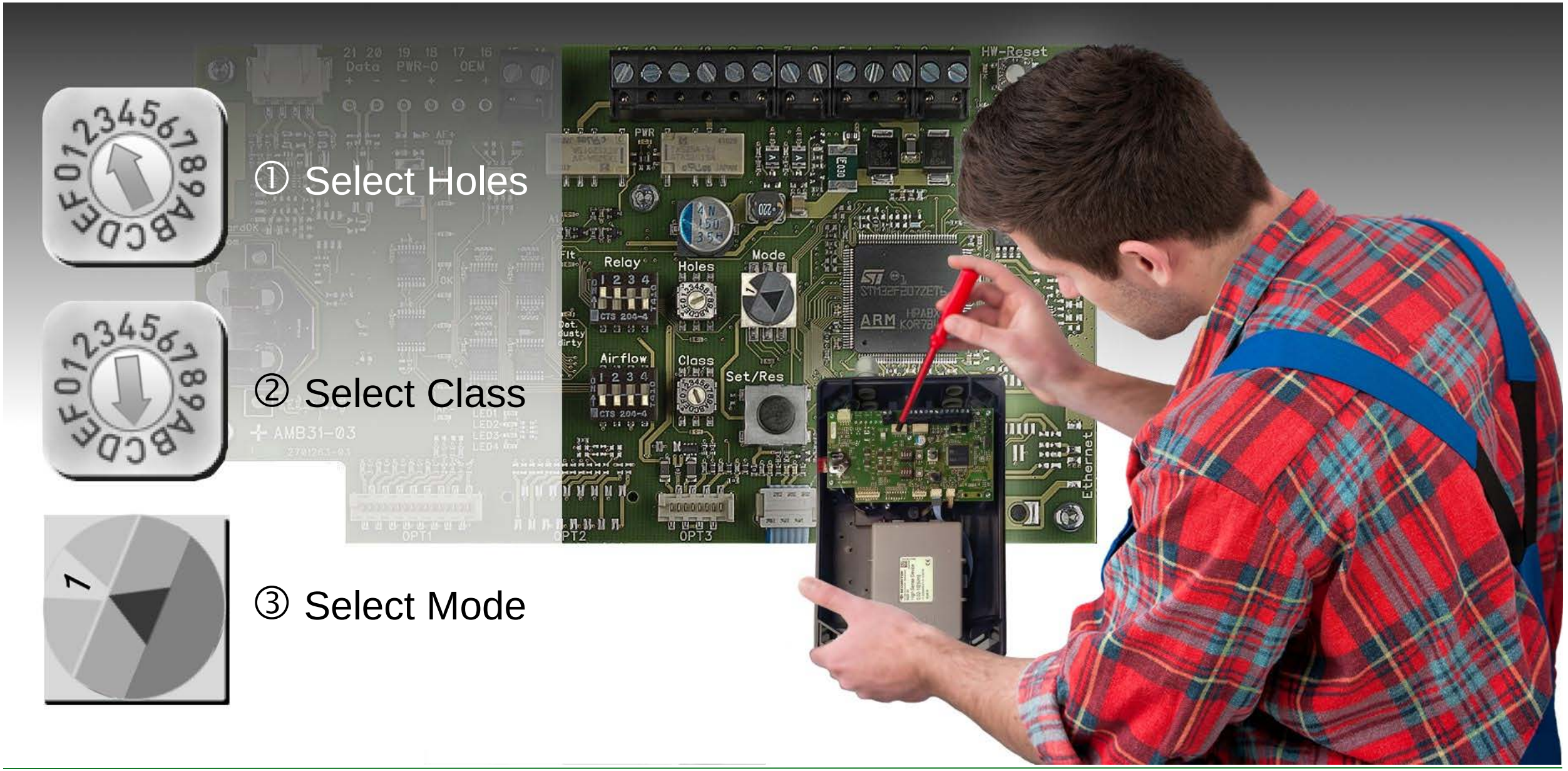
- ☑ **Smoke Level**
- ☑ **Airflow Values**
- ☑ **1 Sample per Second**

640’000 Events

- ☑ **Pre-Alarms & Alarms**
- ☑ **Faults**
  (Sensor, Airflow, Tube, Interface, SD Card, …)
- ☑ **Interventions**
  (ON, OFF, Reset, Test, Config. Changes, …)
- ☑ **Time Stamp**

STRENGTH [531]

Simple, 3 step setup



SECURITON

The sticker says it all …

Commissioning

***without* PipeFlow calculation**
(symmetric tube networks only)
1. Set number of holes (**Holes** switch)
2. Set standard/class (**Class** switch)
3. Initial reset (**Mode** switch on Pos. 0+ *confirm with **Set/Res** button)
4. Set ASD into normal operation (**Mode** switch on Pos. 1 + *confirm)
5. Function control (alarm & fault test)

Optional
6. Set airflow tolerance and delay
7. Set relay latching

***with* PipeFlow calculation**
(asymmetric tube networks also)
1. Carry out PipeFlow calculation of planned project
2. Set sensitivity acc. calculation with **Holes** and **Class** switch (see table)
3. Initial reset (**Mode** switch on Pos. 0+ *confirm with **Set/Res** button)
4. Set ASD into normal operation + *confirm
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Optional
6. Set airflow tolerance and delay
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https://www.securiton.com/en/manuals/

Control elements

Holes

Switch settings
– Set number of holes
Pos. 0 Default (no function)
Pos. 1–C Positions according no. of holes (A=10, B=11, C=12)

Class

Switch settings
– Set standard & class
Pos. 0: Default (no function)
Pos. 1: Sensitivity range 1
Pos. 2: Sensitivity range 2
Pos. 3: Sensitivity range 3
Pos. A: EN54-20 A / NFPA 75+76 v.e.w. (max. 6 holes)
Pos. B: EN54-20 B / NFPA 75+76 e.w. (max. 8 holes)
Pos. C: EN54-20 C / NFPA 72 (max. 12 holes)

Mode

Switch settings
– Set operation mode
Pos. 0: Initial reset (delivery status)
Pos. 1: Normal operation
Pos. 2: Isolate (all outputs blocked for tests)
Pos. 3: Fault test (3× Set/Res button)
Pos. 4: Presignal test (3× Set/Res button)
Pos. 5: Alarm test (3× Set/Res button)
Pos. 6: Log off extension module
Pos. 7: ASD off (fan/smoke detector)

Set/Res

Button function
– Confirmation of position/ function on mode switch
– Reset fault/alarm events

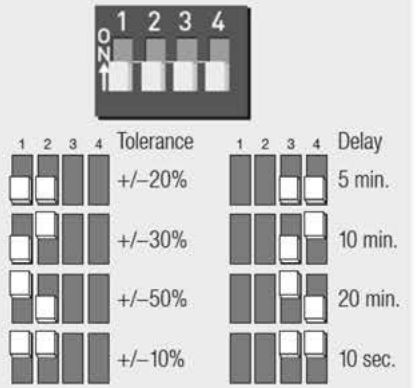
Airflow Bargraph

AF+ (fault)
Positive airflow deviation
OK 100% (initial reset)
Negative airflow deviation
AF– (fault)

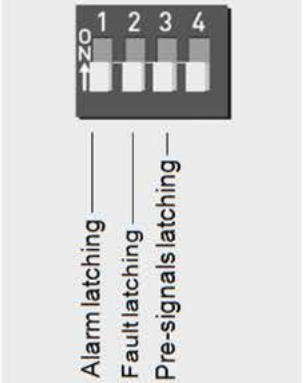
Alarm Sensitivity Table

Set sensitivity **Holes** & **Class** switch		Sensitivity range 1 (**Class** switch pos. 1)	Sensitivity range 2 (**Class** switch pos. 2)	Sensitivity range 3 (**Class** switch pos. 3)
Holes switch, Pos. 1–F	1	10.000	1.202	0.144
	2	8.683	1.044	0.125
	3	7.539	0.906	0.109
	4	6.546	0.787	0.095
	5	5.684	0.683	0.082
	6	4.935	0.593	0.071
	7	4.285	0.515	0.082
	8	3.721	0.447	0.054
	9	3.231	0.388	0.047
	A	2.805	0.337	0.041
	B	2.436	0.293	0.035
	C	2.115	0.254	0.031
	D	1.836	0.221	0.027
	E	1.594	0.192	0.023
	F	1.384	0.166	0.020

Airflow DIP switch settings



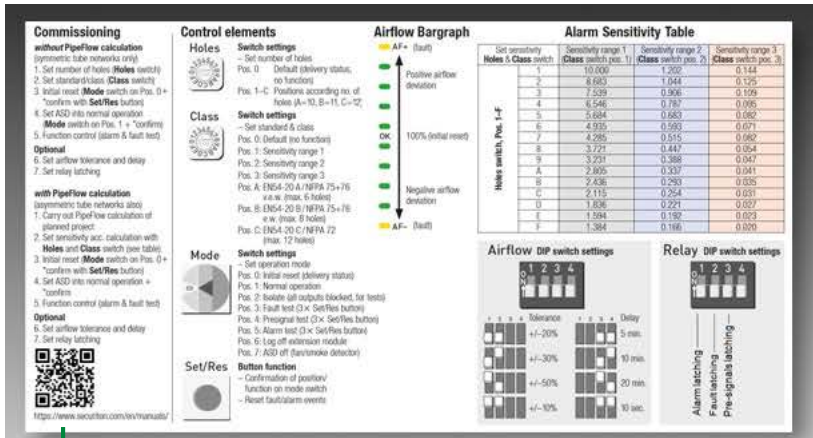
Relay DIP switch settings



SECURITON

STRENGTH [531]

Full Documentation via QR Code



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Set/Res
Button function
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OK
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	5	5.684	0.683	0.082
	6	4.935	0.593	0.071
	7	4.285	0.515	0.062
	8	3.721	0.447	0.054
	9	3.231	0.388	0.047
	A	2.805	0.337	0.041
	B	2.436	0.293	0.035
	C	2.115	0.254	0.031
	D	1.836	0.221	0.027
	E	1.594	0.192	0.023
	F	1.384	0.166	0.020

Airflow DIP switch settings

Tolerance: +/–20%, +/–30%, +/–50%, +/–10%
Delay: 5 min., 10 min., 20 min., 10 sec.

Relay DIP switch settings

Alarm latching
Fault latching
Pre-signals latching

http://www.Securiton.com/en/manuals

SECURITON

STRENGTH [531]

Out-of-the-Box Operation

☑ Simple 3-Step Setup

☑ Web Manual

☑ Ready for Distribution

☑ Cover Guide

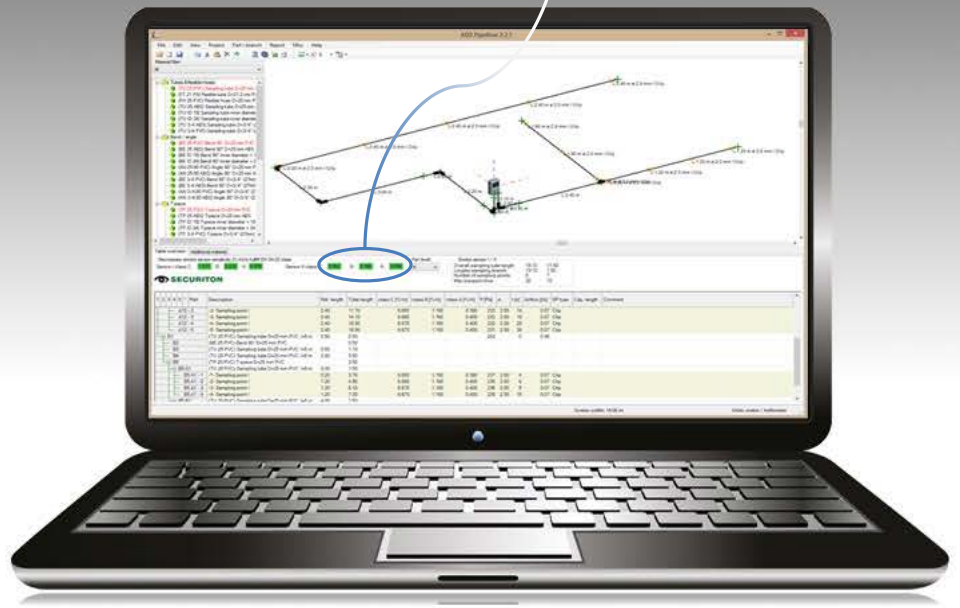
SECURITON

STRENGTH [531]

Engineering with PipeFlow

A: 0.079 B: 0.232 C: 1.331

Engineering: ASD PipeFlow



Holes switch	Class switch pos. 1	Class switch pos. 2	Class switch pos. 3
1	10.000	1.202	0.144
2	8.683	1.044	0.125
3	7.539	0.906	0.109
4	6.546	0.787	0.095
5	5.684	0.683	0.082
6	4.935	0.593	0.071
7	4.285	0.515	0.082
8	3.721	0.447	0.054
9	3.231	0.388	0.047
A	2.805	0.337	0.041
B	2.436	0.293	0.035
C	2.115	0.254	0.031
D	1.836	0.221	0.027
E	1.594	0.192	0.023
F	1.384	0.166	0.020

☑ 40% longer Tubes

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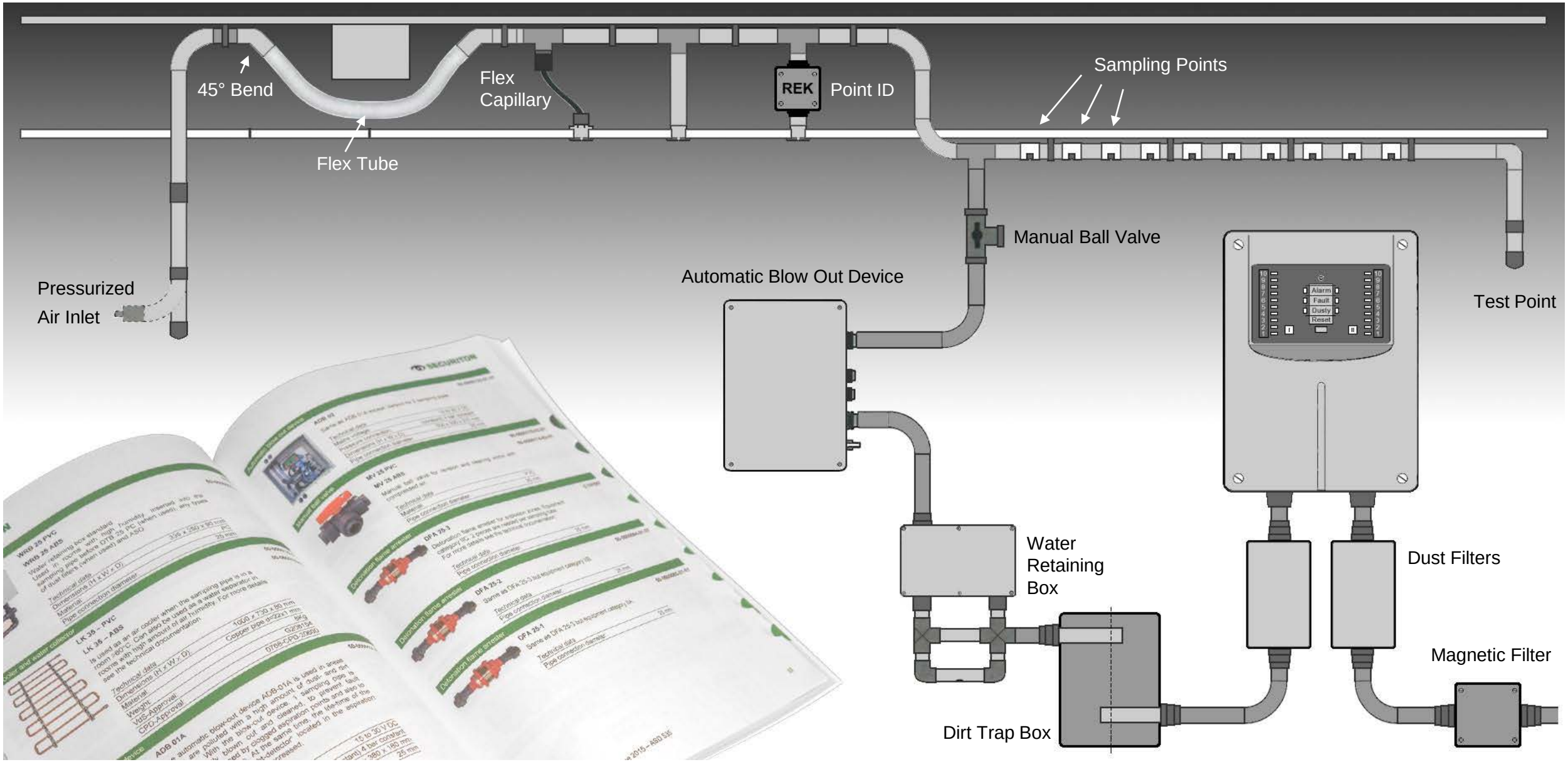
Tube Materials



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In-tube Detection

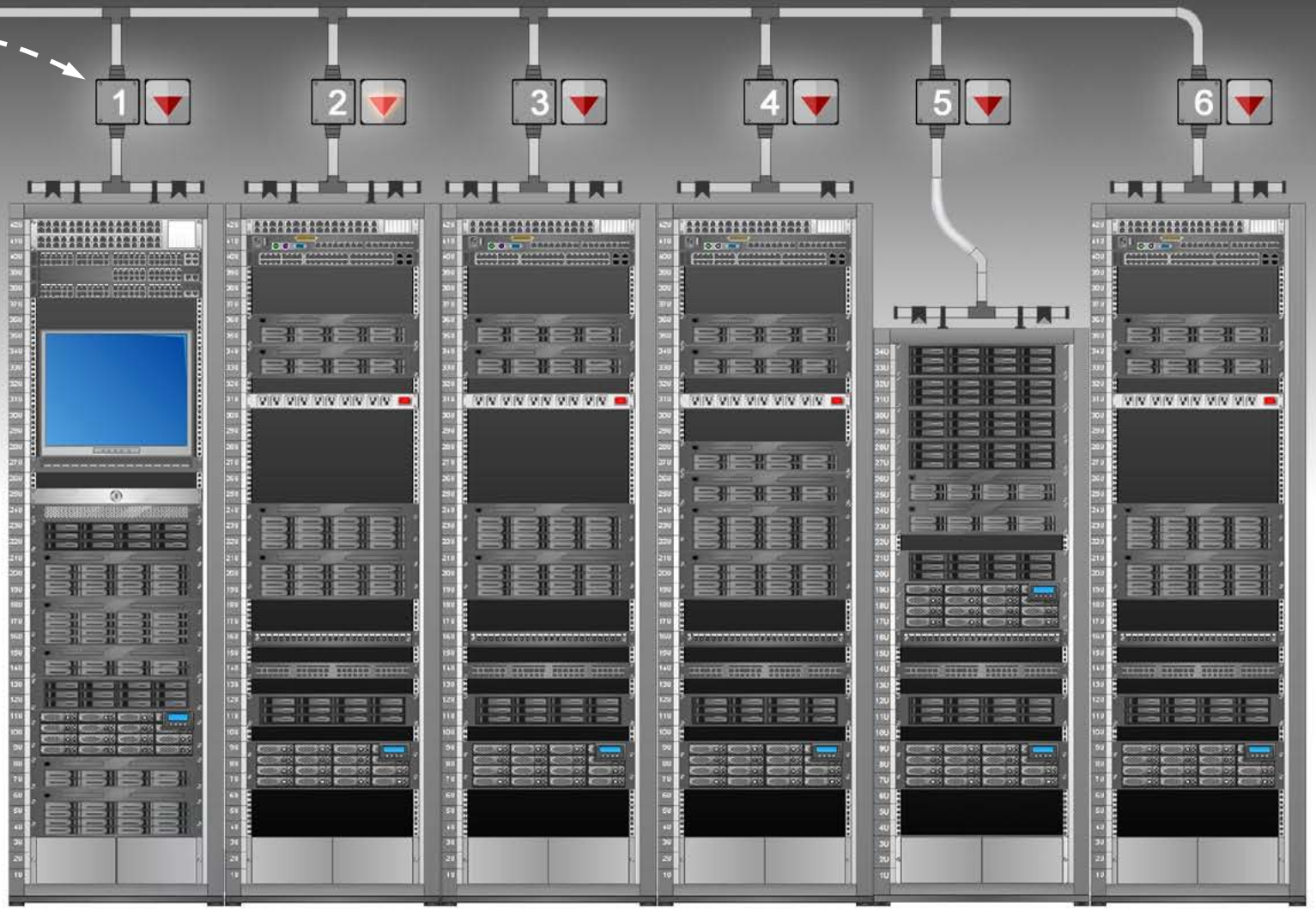
- Class A Sensitivity
- Relay Output
- Indicator

REK 511

Detector Choice

☑ SSD 515-1S 1.2%

☑ SSD 515-3S 0.3%



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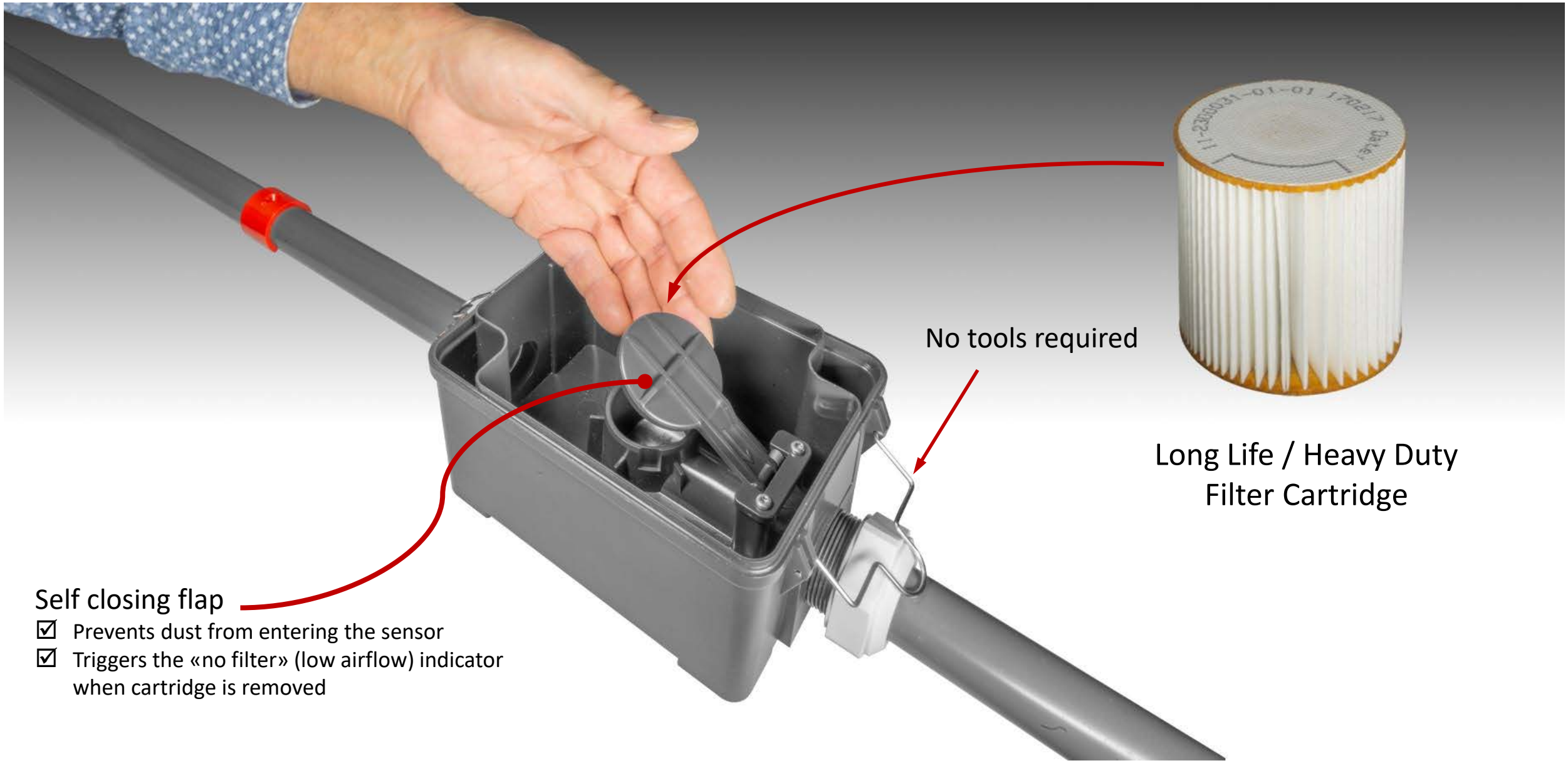
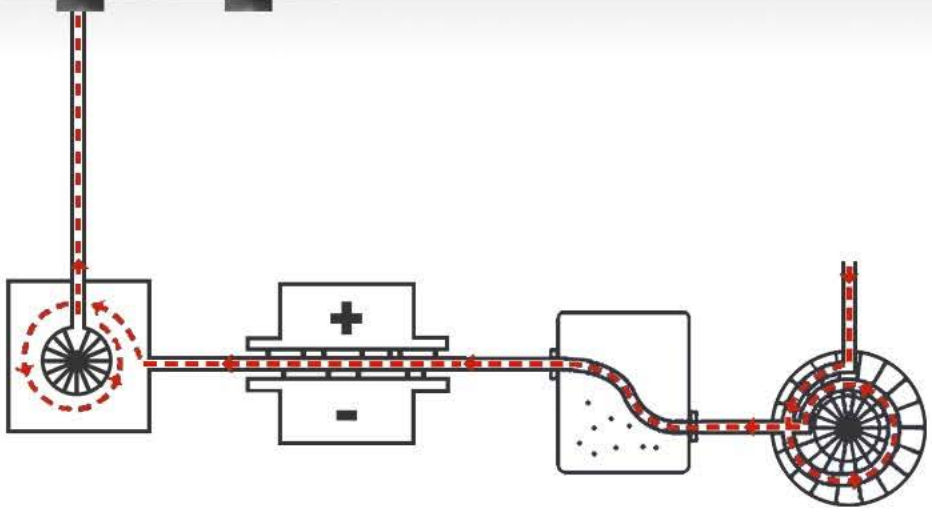
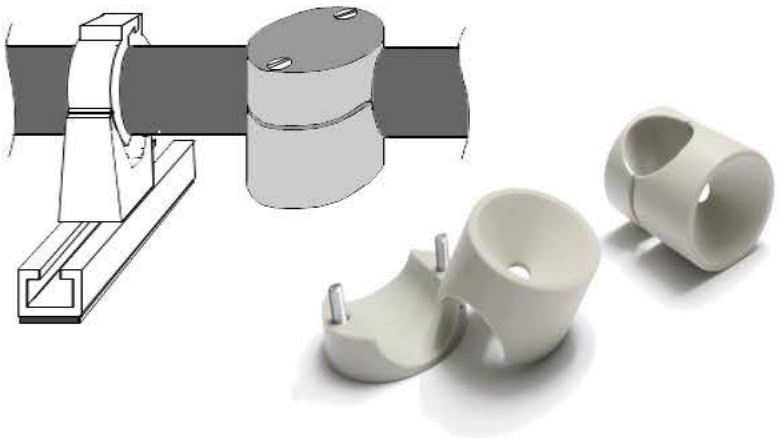
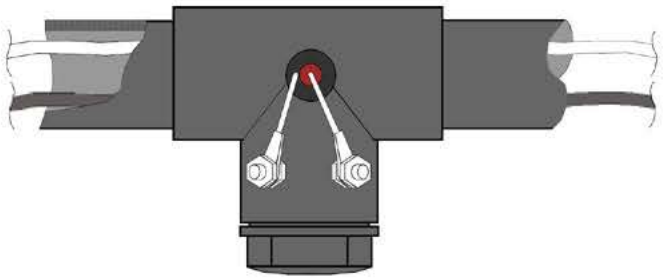

No tools required
Long Life / Heavy Duty
Filter Cartridge
Self closing flap
☑ Prevents dust from entering the sensor
☑ Triggers the «no filter» (low airflow) indicator when cartridge is removed

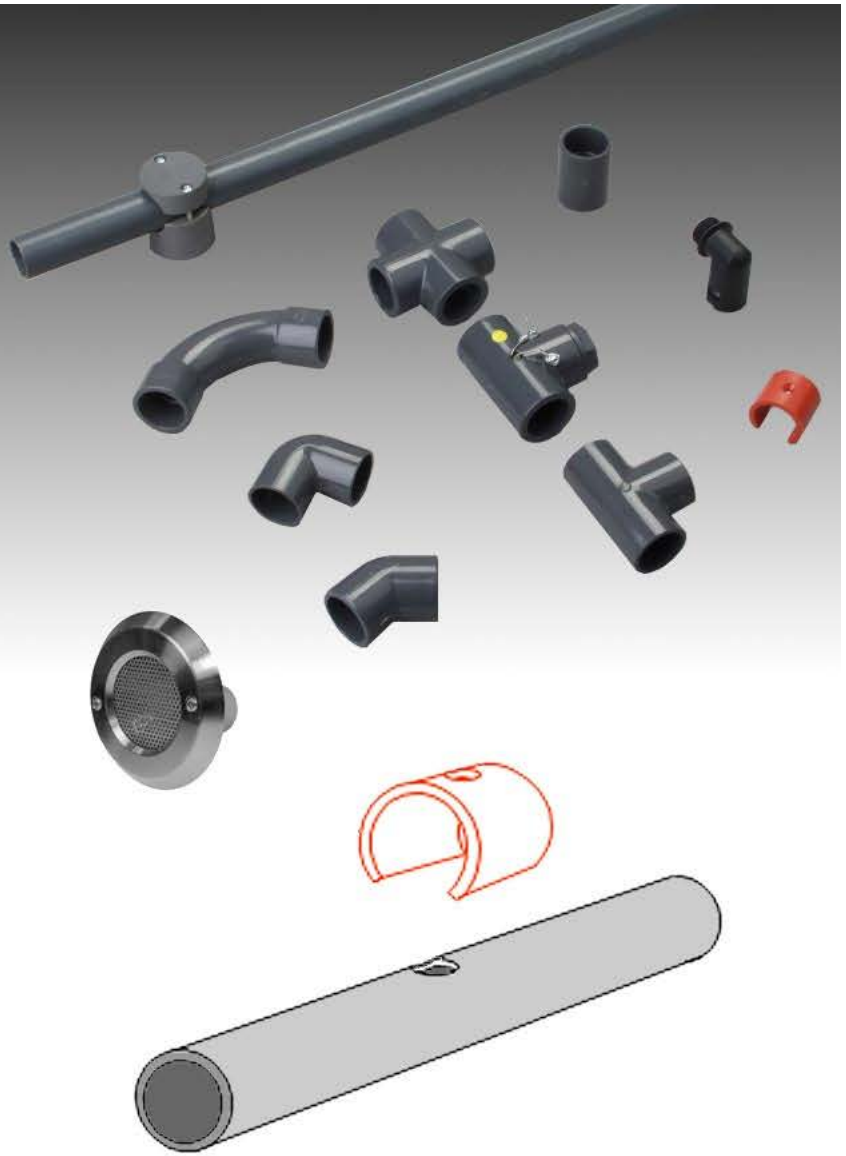
- ☑ Dirt
- ☑ Dust
- ☑ Moisture
- ☑ Sparks



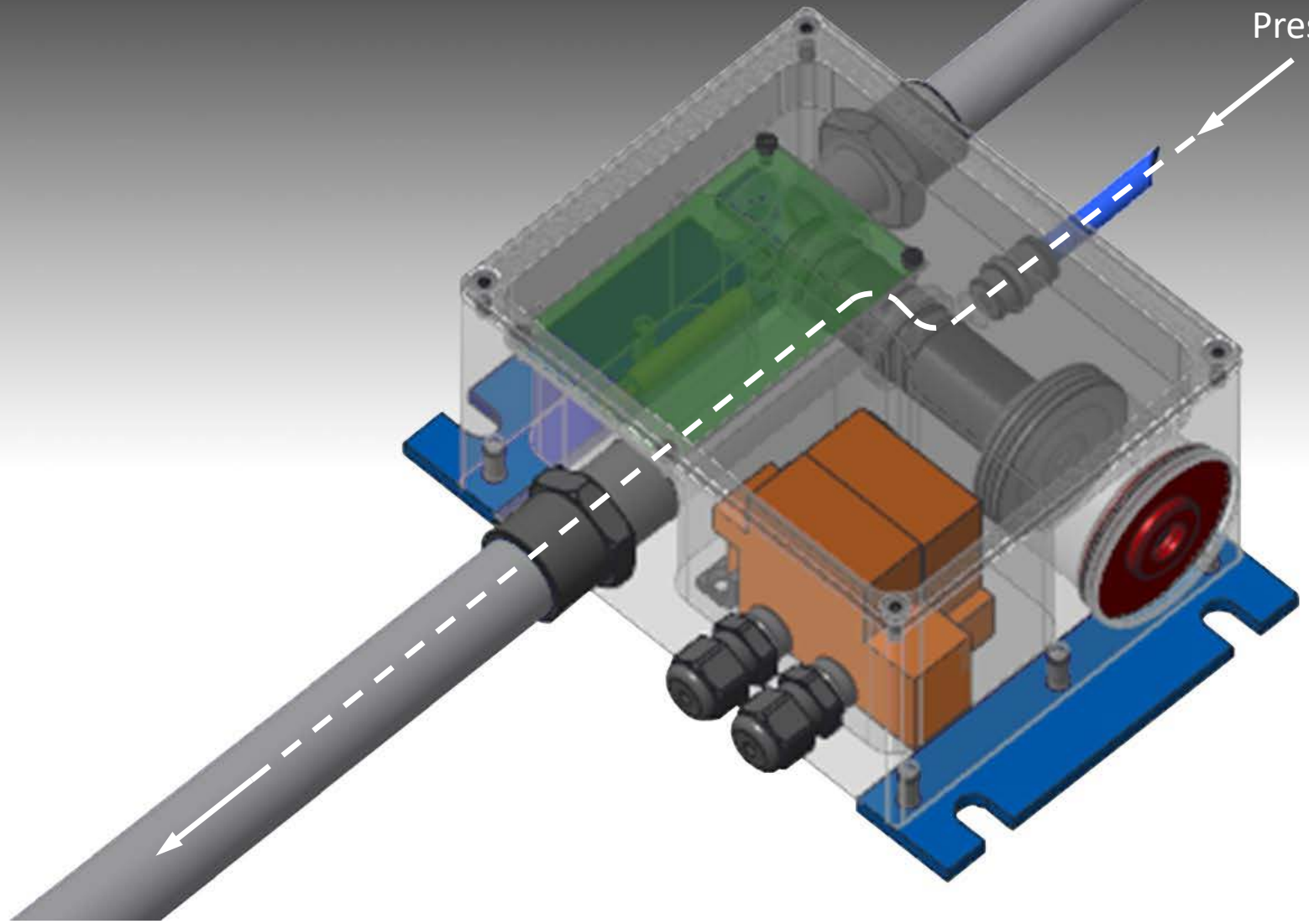
- ☑ **Optimized Performance**
- ☑ **Easy Maintenance**
- ☑ **Simplified Modification**







Automated Blow-Out Device



PORTFOLIO

Options & Expansions

		ASD 531	ASD 532	ASD 533	ASD 535-1 / -3	ASD 535-2 /-4	ASD 535-HD
Ethernet (on board)	TCP/IP	n/a	included	n/a	n/a	n/a	n/a
Serial (SLM 35)	RS 485	n/a	optional	n/a	optional	optional	optional
Loop (XLM 35)	SecuriLine	optional	optional	optional	optional	optional	optional
Relay Output (RIM 3x)	5 Relays	optional	optional	optional	optional	optional	optional
Data Logger (MCM 35)	SD I/F	included	included	optional	optional	optional	optional

Quality Assurance
On all levels

- ☑ Product
- ☑ Production
- ☑ Company

CAD, BIM & Co

It’s all there … on the Web

BIM components

- ☑ 3D: Autodesk **Revit** RFA
- ☑ 2D: Autodesk **AutoCAD** DWG

Photorealistic Rendering

SECURITON PRODUCTS SERVICES NEWS ABOUT US CONTACT

directly to » BIM and digitization in the construction industry | BIM @ Securiton | CAD @ Securiton | Advantages | Registration

BIM and digitization in the construction industry

The term Building Information Modelling (BIM) describes a method whereby the entire life cycle of a building is conducted in the digital domain. An important aspect under BIM is the creation of a digital twin of the building to be constructed. Under a BIM scenario, the physical construction process begins only when the virtual building (i.e. its digital twin) meets all the expectations and specifications. It follows that the digital twin also requires BIM equivalents of all the components used in the building. These include not only structural components such as doors and windows, but also systems such as heating and ventilation, and safety/security equipment.

BIM @ Securiton

…ers and architects in large parts of the world are making increasing use of BIM. Since 2016, the EU …ent has recommended that the EU’s 28 member states use BIM for public-sector construction …s. The issue of BIM and digitisation in the construction process is growing in importance in Switzerland, too. Securiton offers digitisation support by providing downloadable BIM components for its products: a corresponding online platform has been provided for our customers for this purpose. Our BIM components help architects, planners, system integrators, building owners and facility managers to optimise their work processes.

USER BENEFITS

Summary

Strength	Benefit	Proof
Large Area Coverage	Less units, less installations and less battery backup, less maintenance … for same achievement	**Strong Aspirator** + High Sensitivity
High Sensitivity	• Maximum number of sampling points • Earliest possible warning	**0.002%Obs./m** is top in tis industry!
Operating Temperature	• Less installation costs • No heating of sampled air and the related mains or battery power	Operates at a temperature as low as **-30°C**
Robustness	• Zero downtime • Resists moisture / splashes	• **IP 54** • Shocks of 5G • MTBF > 10 Years
Silent	No noise wherever installed	Less than 43dBA
Networking	• Easy to do maintenance • Computer based tracking	• Up to 250 units • Up to 1km
Engineering	• Less units for same achievement • Free choice of tube topology	**3D design software** using scientific formulas for airflow calculations

Al-Masjid Al-Haram (Holy Mosque), Mecca

Challenges:

Early Warning Fire Detection at highest possible level of sensitivity and false alarm immunity

Solution:

102 SecuriFire 3000
redundant / failsafe hardware

1500 ASD 535
Aspirating Smoke Detectors

… in a redundant network

REVAC Recycling, Oslo

Challenge:
Very high pollution

Solution:
12 Aspirating Systems

24 High Sensitivity Sensors

24 Extra Large Filters

Success Stories

Teatro San Carlo, Napoli

Challenge:

Stratification
(Large Open Space)

Solution:

Aspirating systems with vertical tubing

Success Stories

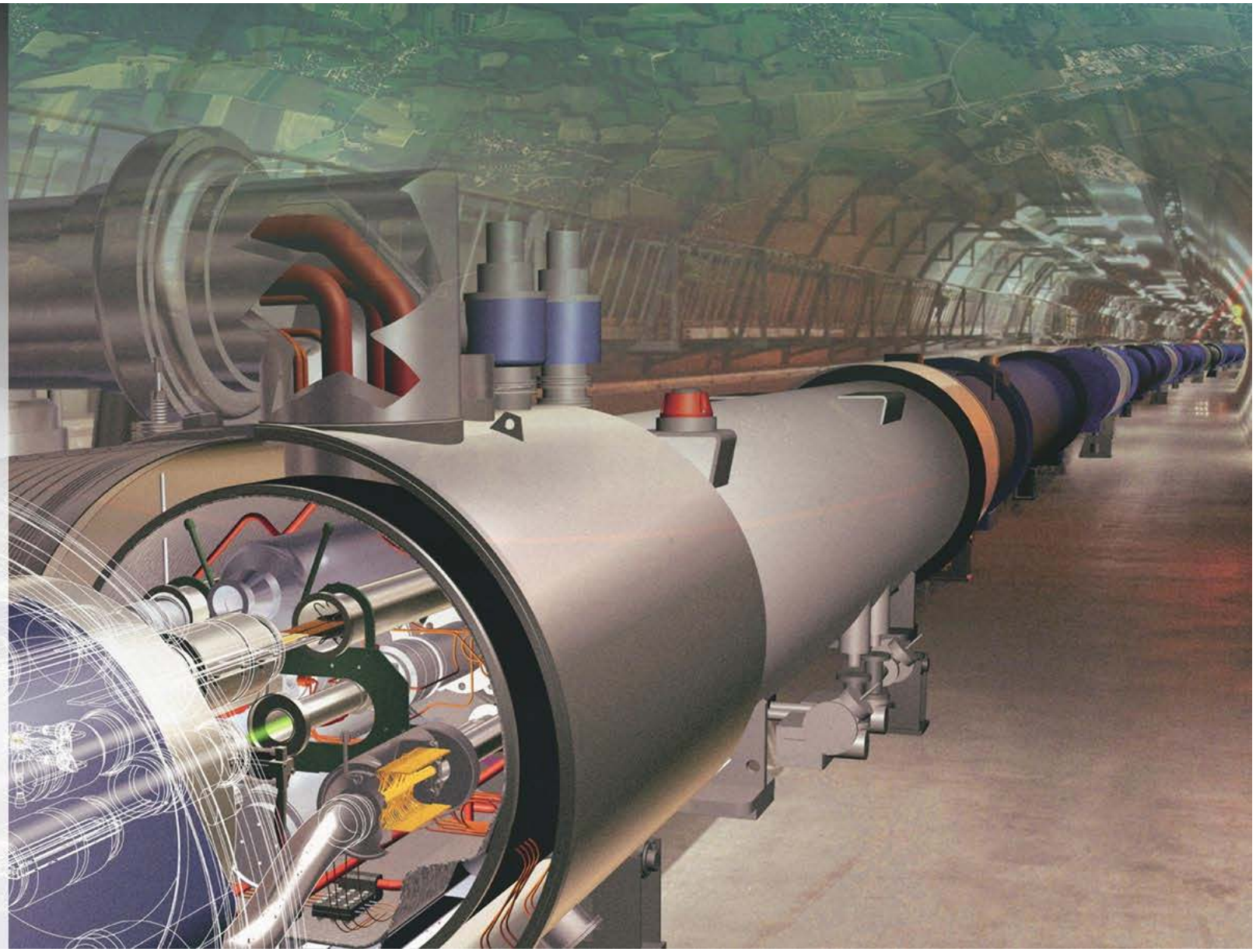
CERN, Geneva

Challenges:

Early Warning and large area (Long Tubes)

Solution:

Aspirating systems featuring high aspiration power combined with high sensitivity sensors



Macromex, Turzii, Romania

Challenges:

Low Temperature (-30°C)

Stratification (Large open space)

Solution:

Aspirating system placed within the deep-freeze zone featuring vertical tubing and de-icing (heated sampling points)

COMAC, Shanghai

Challenges:

- Stratification (Large open space)
- Early Warning
- Large Area of 50’000m²

Solution:

30 Aspirating Systems
60 High Sensitivity Sensors
Vertical Tubing
High Aspiration Power

Pig Fattening Unit, Sastamala, Finland

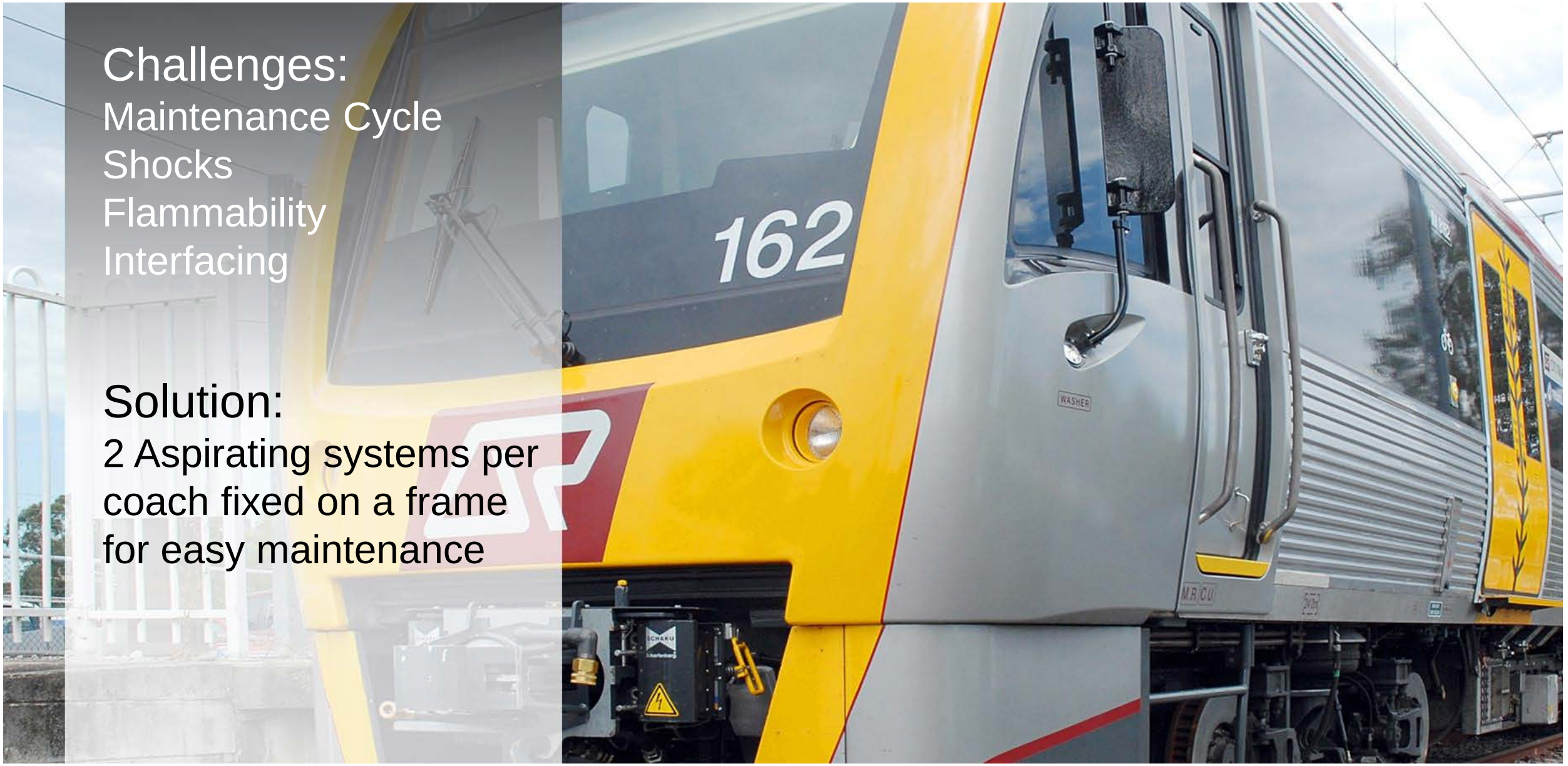
Challenges:

Aggressive Gases (Ammonia)
Polluted Air
Large Area

Solution:

Aspirating system featuring coated components, large filters and high aspiration power

Downer Rail, Sydney



Challenges:

Maintenance Cycle
Shocks
Flammability
Interfacing

Solution:

2 Aspirating systems per coach fixed on a frame for easy maintenance