CASE STUDY:

Discovery Financial Services extends operation excellence to data centre fire protection

Picture credit: Boogertman & Partners Architects, South Africa

Customer:
SFP Fire & Security Integrators (Pty) Ltd

Region:
South Africa

Project Name:
Discovery Data Centre

Product Solutions:
iFLOW Fire Suppression System with Acoustic Solution

Profile and Background

Discovery is a South African financial services group. It is seen not just as a leader in the financial services sector but a pioneering employer within South Africa.

The business is moving to a purpose-built $230m head office in the Sandton suburb of Johannesburg. While meeting world-class environmental standards, Discovery is also aiming for operational excellence throughout; it wanted the very best fire suppression system for its new 700 sq.m data centre.

The Solution

The data centre project required two innovative solutions; the Johnson Controls iFLOW fire suppression system used in conjunction with the Johnson Controls Acoustic Nozzle Solution – a first for the South African market.

This Acoustic Solution uses an innovative acoustic nozzle and an acoustic calculation tool to estimate the sound pressure level at a hard disc drive (HDD) location.

It simplifies the calculation by containing drop down menus for the suppression system parameters, as well as selection of room materials and the equipment within the data centre. This enables SFP's Technical Services team to perform calculations tailored to each customer installation.

"Vibrations from the discharge of an inert fire suppression system could damage the HDDs and destroy data. Discovery understood that this was an issue. Johnson Controls' Acoustic Solution was perfect as it's one of the main methods in reducing noise levels to an acceptable level,"

Dan Lurie, Contracts Manager at SFP, the South African systems integrator leading the implementation.

Johnson Controls

Flexibility through various technologies working in harmony

iFLOW System

Benefit at a Glance

- Diminishes risk of hard disc drive damage during inert fire suppression discharge.

SFP installed the Acoustic Nozzle in the locations required based on the data returned from the Acoustic Calculation software.

The iFLOW valve delivers a constant regulated outlet pressure of 60 bar and has the ability to discharge 95% of the contents from the 80 or 140 litre containers (both available in 200 or 300 bar variants) in just 60 or 120 seconds.

iFLOW Technology

- Regulated and effective discharge of proven inert gas clean agent.
- Flexibility in design to adapt to architectural needs

Acoustic Nozzle

- Acoustic Nozzle engineered for noise reduction
- Tested and optimised sound

Performance

- Designed for iFLOW Technology

Acoustic Modelling

- Room Acoustic Modelling based on Acoustic Nozzle sound output, Hard Disk Drive (HDD) distance from Acoustic Nozzle, Use of construction and sound absorption materials
- Understand the Sound Pressure impact on your HDDs

Picture credit: Boogertman & Partners Architects, South Africa

Johnson Controls is a global diversified technology and multi industrial leader serving a wide range of customers in more than 150 countries. Our 117,000 employees create intelligent buildings, efficient energy solutions, integrated infrastructure and next generation transportation systems that work seamlessly together to deliver on the promise of smart cities and communities.

Our commitment to sustainability dates back to our roots in 1885, with the invention of the first electric room thermostat. We are committed to helping our customers win and creating greater value for all of our stakeholders through strategic focus on our buildings and energy growth platforms.

For additional information, please visit www.johnsoncontrols.com or follow us @johnsoncontrols on Twitter.

Johnson Controls