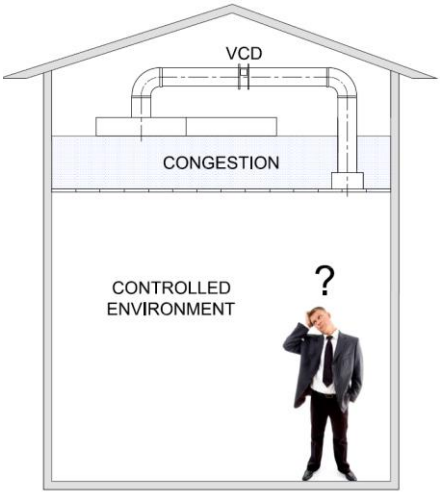
Volume Control Damper Motorisation

Problem:

Many existing facilities, and the constraints of some new build projects, require ductwork Volume Control Dampers be installed within ceiling voids, which present project-owned commissioning challenges, and present longer-term risks in routine maintenance operations.
Working at height, working through ceiling grid systems, and void congestion can present significant safety risks to resources assigned commissioning tasks.

Solution:

Motorisation of dampers in unavoidably inaccessible locations is an alternative option that significantly reduces commissioning and maintenance safety risks, successfully installed as a retrofitted solution in this case.



Key points and benefits:

Maintenance-free VCD actuators wired back to an accessible control panel, this removed the need for void access, providing extended benefits including:

- Complete removal of working at height risks
- No need to break the room envelope – reduced cleaning operations
- Quicker commissioning and annual re-commissioning tasks
- Reduced longer term maintenance costs and de-risked shutdown scheduling

3-point control actuators with 150 second drive time used, providing the following benefits:

- Very high flowrate setting accuracy
- Simplified pressure cascade achievement
- Actuator mechanical resistance reduces damper shift commonly created through duct velocities and pressures – volumes and pressures remained within specification for longer
- Electrically isolated when commissioning complete – no running costs.
- Overall lifetime cost analysis should prove positive.

For Further Information Contact Ian Bielderman - Bouygues E & S Contracting