



ACTIONAIR DAMPERS SHIELD GIANT MEDIA

CITY COMPLEX FROM SMOKE AND FIRE

Protection from the effects of smoke and fire and low leakage air control for the air conditioning and ventilation systems serving Media City in Manchester is provided by units from Actionair's comprehensive damper range.

This £500 million development by Peel Media in the old Salford docks is one of the largest and most exciting in the UK.

Publicity has concentrated on the BBC's decision to move some of its programme making departments into purpose built studios in the complex, but Media City is much more.

The 36 acre site – big enough for 18 football pitches – is also home to part of the University of Salford, a 218-bedroom hotel, 65,000m² of premium office space, 7,500 m² of retail space and 378 apartments. There's parking for 2500 cars and 300 bicycles.

And that's just Phase 1!

Six large television studios are being constructed as part of the project; one of them the largest in western Europe. Media City will accommodate BBC North West and children's programmes, to be followed in the near future by BBC Sport and Radio Five Live.

A complex like Media City requires sophisticated protection from the twin dangers of smoke and fire.

Legislation now recognises that it's the thick, heavy, all prevailing smoke frequently produced by even a localised outbreak of fire that poses the greater threat. Smoke inhalation is disabling and all too often fatal.

Ductwork is designed to distribute air efficiently. If protective measures are not engineered into the design in the form of effective fire and smoke dampers, it will be just as efficient in the distribution of smoke – quickly endangering building occupants not directly in contact with the fire zone.

New type

Actionair developed a new type of fire/smoke damper to combat this danger - the Smoke/Shield PTC damper range. The initials PTC stand for Proportional

Torque Control, which is a key feature of the specially developed control system, made exclusively for Actionair.

Actionair Smoke/Shield PTC Dampers feature stainless steel, aerodynamic, rotating blades for high strength, fire and corrosion resistance. They incorporate a unique and patented electro-thermal release for ultimate safety and are supplied with halogen-free Low Smoke and Fume cabling as standard.

The blades interlock firmly into the closed position under the high torque produced by the drive at the final stage of its operation.

A tight seal between the blades is initially ensured by a thermoplastic elastomer. When this substance disintegrates, at about 300°C, the blades will have expanded and interlocked sufficiently to maintain the desired integrity.

The latest Proportional Torque Control (PTC) Control Modes give Actionair a further significant technical lead over the competition. Both safety and practical handling characteristics are improved by dramatically faster operation - new Modes 5 and 6 will release in 20 seconds and powered reset takes just a minute!

New Fire/Shield

Stainless steel bladed Actionair Fire/Shield curtain type fire dampers have long been a standard solution for UK building services designers requiring up to 4-hour fire protection for air conditioning and ventilation systems.

The new Fire/Shield's patented, self-latching, cassette type design employs advanced polymer technology in the form of Polyphenylenesulphide (PPS) reinforced with glass (GF-PPS).

By applying the advantages of PPS to fire damper technology Actionair engineers have been able to produce a cassette design, which gives all the strength and fatigue resistance required *and yet is light enough to reset with one hand*. In addition to new build applications, the new cassette is perfect for retrofitting to existing Fire/Shield dampers.

Low closed-blade leakage

Air/Shield Oppose-Blade Dampers are suitable for air conditioning and ventilation systems requiring air control and low closed blade leakage characteristics.

Ideal for system air balancing, Actionair Aerofoil Volume Control Dampers are field-proven in a wide range of applications. The units supplied to the Liverpool ACC project were equipped with extended stainless steel shafts for the attachment of linkages for motor drives. Shafts are calibrated to give visual indication of blade position.

Building Services consultants for the Media City project were Aecom Europe and the mechanical and electrical contractor was N.G.Bailey Ltd. Ductwork contractors were WT Fabrications.