Guidelines on floor spring and door closers for fire-rated doors

- The dilemma that we all have been facing over the last few months comes from the fact we are asked to conciliate a code of practice BS 8300-2001 on "Design of buildings to meet the needs of disabled people", an act of parliament called DDA (which is not prescriptive and doesn't require any design standard) and a performance standard for hardware known as BS EN 1154 that requires a closing moment of 18Nm minimum at a point between 0° and 4°.

- The latest BS 8300:2001 quotes a maximum figure of 30N opening force for all accessible entrances when measured at 0° (closed) at the leading edge and a maximum figure of 22.5N when measured between 30° and 60°. However measurements can not be taken at the leading edge, they may be taken at a point on the face of the door up to 60mm from the leading edge, in which case the opening force limits can be increased by approximately 2 N. It is also recognised that any measurements will be subject to a degree of imprecision which could give rise to variations of between 2 and 3N.

- Prevailing conditions, including air pressure differentials, hinges, door seals and stubborn latches will each affect the behaviour of door assemblies on a door by door basis.

- BS EN 1154 Annex A also states that controlled door closing devices with a power size of less than 3 are not considered suitable for use on fire door assemblies since they will be unlikely to provide the necessary torque. Therefore where fire doors are concerned, the closing force exerted becomes the overriding factor.

- Fire door assemblies can not meet BS 8300:2001 constraint with conventional closing devices and the most prevailing requirements of BS EN 1154 standard.

- Sevax floor spring and door closers are CE marked and are tested to the EN 1154 standard (test cycles, corrosion resistance, fire-rating), which is an EC directive adopted by BSI

- Where the force required to open a fire-resistant door on a circulation route exceeds the limits described above, an electrically powered hold open device (ie Sevax Lucifer) or a powered automated solution (see Forster Norm DAD assessment, Warrington 146575) should be installed