

FIRE SHUTTERS

SIZE PARAMETERS

The shutter test relates to 2HR fire resistance.

Effectively the shutters are generally intended for protection of a range of openings in masonry / concrete, steel, steel stud or timber partitions.

The maximum clear openings are for 4000mm wide x 2500mm high, or in a partition system for 1 hour up to an area of 10sq mtrs, principally this incorporates the BRE test FG 7941N which relates to a tested fire shutter in a stud partition, the opening must be fire rated to suit and be capable of carrying the weight of the shutter. Consideration must be given to the additional weight of the shutters over 3.5m w x 3.0 h, the configuration / strength of the partition must be increased accordingly.

Where the shutters are used to protect serveries it is assumed that the counter is composed of non-combustible material and the counter is of sufficient width to ensure that the bottom rail movement under heating cannot result in the rail overhanging the counter.

Initially the intended maximum width for the **flat lath** will be 3500mm.

Shutters over 3500mm up to 5500mm will be traditional curved lath tube motor construction, based on a maximum area of 10sq mtrs.

Shutters under 4000mm clear width will have 50mm guides and shutters over this width will have the traditional 65mm guides.

The size of the endplates will be 305mm square

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STRUCTURAL RECOMMENDATIONS

The structure supporting the rolling door-set must be a fire resistant separating element (to BS 476; part 20, 21, 22; 1987), having a fire resistance greater or equal to that required of the door set itself. It must be capable of supporting the door-set for the required fire resistance period without compromising the fire performance of the door-set. In addition, consideration must be given to the loads imposed by the various door-set components, i.e end plates and barrel support brackets. It is recommended, that a critical temperature of 400 degrees C and steel sections with an H_p/A value below 230 to the power of -1, are used for designing fire resistant steel supporting sections.

Where rolling shutters are fixed to masonry supporting elements, the masonry elements must be capable of providing a fire resistance in terms of the insulation, integrity and load bearing capacity criteria of BS 476; Part 21; 1987 equal to or greater than the fire resistance rating (integrity) of the rolling shutter assembly.

Shutters fitted to a timber stud partition / steel framed partition are acceptable for up to 60 minutes fire resistance, up to a clear opening size of 2750 mm wide x 3250 mm high. The opening must be capable of carrying the weight of the shutter and be equal or greater than the fire resistance of the roller shutter assembly.