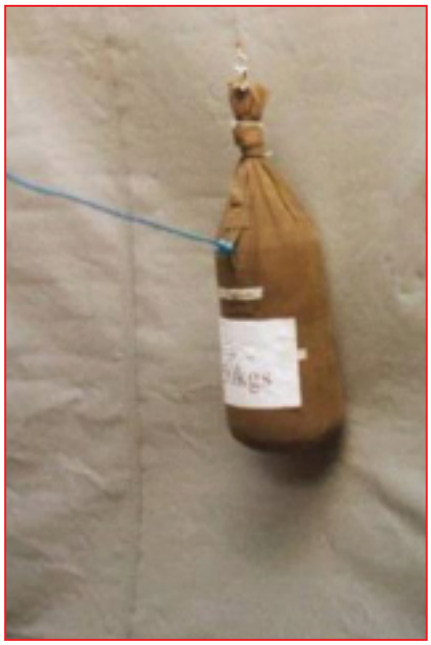
2hr & 4hr Fire Barriers Severe Impact Performance

FireMaster Fire Barriers are the latest revolution in active fire compartmentation. FireMaster fire barriers meet and exceed the strictly defined FR *(Fire Resistance)* requirements for fire shutters, but without the problems of limited sizes, large heavy constructions, columns and outdated drive and control methods.

Advanced fabric technology can now achieve a full 4hr Fire Resistance and with the unique, heavy duty *Vario*Speed, 'Gravity Fail Safe' drive system. FireMaster saves construction costs and allows more flexible, more user friendly fire safety engineering.

Housings are as small as 150mm x 150mm for units 6 metres wide x 5 metre drops. The largest span of 54 metres x 5 metres only uses a 150mm x 250mm housing. 8 metre drops are also available.

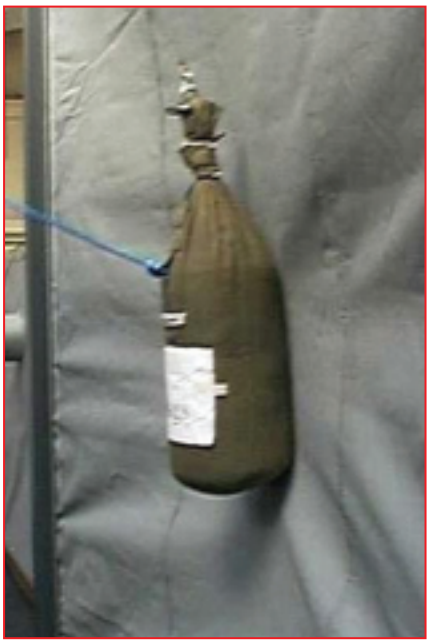
FireMaster Fire Barriers are extensively tested for all aspects of fire shutter performance and, unlike fire shutters, FireMaster Fire Barriers are also specifically tested for use as Automatic Smoke Barriers *(curtains)* BS7346 : Part 3 : 1990. The unique *Vario*Speed "Gravity Fail Safe" drive system is specifically tested to



4hr FR therefore FireMaster Fire Barriers resist fire for 4hrs against fire from either direction.

BS 5234 1992 - Large Body Impact Test - Double Severe Impact Performance

Impact testing requires that a 50kg weight impacts on the barrier within a horizontal band 1.2 m and 1.75m above the bottom of the specimen. The weight was dropped from twice the height required for a



severe duty impact test, producing an impact in excess of 200kgs. The test was repeated several times and on each occasion the barrier was seen to absorb the shock impact and return to its operational condition. After testing the complete assembly was operated up and down for several cycles including, "Gravity Fail Safe".

Why do fire barriers need to resist high impact?

For fire barriers to be comprehensively used in a wide range of applications it must be shown that not only will the system provide a high FR (4hrs) but that the system will also retain its structural integrity in the event that bodies, heavy weights etc. impact the barrier. After 4hrs fire testing a Coopers FireMaster Barrier was attacked with a heavy metal bar. Although the bar eventually managed to penetrate the cloth on the exact area of impact, the barrier retained its overall integrity. This is due to the advanced technology fabric of woven stainless steel,

encapsulated in a specially coated glass fibre. Unique tensioned side guides and a patented roller system allows absorption of the sort of impact shocks that would cause a shutter to come out of its side guides.

Horizontal Impact Testing

The Firemaster Horizontal Fire Curtain has been tested for impact. At the end of the two hour FR test for BS EN 1634/BSEN 1363-1 and BS 476 Part 22 1987, a 50kg weight was dropped from a distance of one metre into the centre of the curtain. The curtain remained intact.

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