

Market forces

*The current strength and potential of the passive fire protection market, outlined in a 2007 survey, is examined by **David Sugden***

A MAJOR survey, published in 2007 by the Fire Industry Association (FIA), reveals the fire protection market to be a major sector of UK industry. *The Survey of the UK Active and Passive Fire Protection Market 2006 to 2009* is an in-depth look at the past, present and future performance of both the active and the built-in, or 'passive', fire protection businesses. It illustrates the importance of this industry to the economy. In 2006, the fire protection industry as a whole was worth £2,965 million, with passive fire protection accounting for around 60% (£1,825 million). This article looks at the survey's results for the passive sector.

The survey looks in detail at the value of each component of the sector, illustrating the growth in flame retardant coatings, fire doors, fire-resistant partitions, ductwork and dampers, fire-stopping and structural fire protection. It demonstrates how passive fire protection currently contributes £1.825bn to the economy in terms of sales.

One of the benefits of passive fire protection illustrated by the report is the comparatively low cost of maintenance. For example, structural fire protection in 2007 was worth £97.9 million, while the maintenance was £2.1 million. Fire doors, traditionally regarded as the costliest passive fire protection element to maintain, still only require around 11% of the value of sales. By comparison, in the active sector, maintenance costs are closer to 50% of the original price. Installation is the most expensive element of passive fire protection (although a smaller proportion than the active market), but it is a one-off expense usually incorporated into the initial building cost.

Value to building owner

Building owners and/or occupiers are the ones who invest in all these measures. They have to keep the condition of fire precautions up to the mark, as required by the Regulatory Reform (Fire Safety) Order in England and Wales. In this month's *Fire Risk Management*, there are articles on technical aspects of structural steel beams, glazing, intumescent coatings and electrical cables, all of which are among the elements of a construction that make up the fire protection system. Under the latest version of Approved Document B (ADB) to the Building Regulations in England and Wales, the details of how such things are used within the fire strategy for a building have to be given to the occupier, so that he can understand their function and position in the strategy. The new Regulation (16B) has been introduced to ensure that sufficient information is recorded to assist the eventual owner/occupier/employer to meet their statutory duties under the Fire Safety Order.

When a building is new, the designers will have planned the fire safety around such things, with an expectation of a certain level of performance, particularly if a fire engineering solution has been used for the construction in part or as a whole. For fire safety to be maintained at that level, all such elements must not be allowed to deteriorate in a manner that will downgrade the performance. Appendix G of ADB includes a definition of the 'fire safety information' that must be provided 'to assist the responsible person to operate and maintain the building or extension with reasonable safety'.

Designers must, under ADB/Building Regulations and the Fire Safety Order, ensure that this information is passed on. The manufacturers and installation contractors have a duty to provide the occupier with instructions on: what these elements of the construction do in terms of fire safety; how they fit in with the mitigation of risk that has to be considered by the responsible person in the risk assessment; and how they must be maintained.

Maintenance-free?

Electrical and mechanical equipment has an obvious need for maintenance. The figures in the FIA survey show that spending on these elements is very much higher than the items built into the structure to provide a sound base for structural stability and compartmentation. Things like the intumescent coatings to the structural steel, for example, will in most cases require no further attention throughout the life of building. Only if substantially damaged or removed for some reason will attention be needed. Similarly, fire-rated glazed elements need no direct maintenance to maintain their function in terms of fire.

Other elements such as cabling will have fire seals around any penetration of a compartment wall or floor. Should these become damaged or removed because of other work, then they need to be put back into original condition. In cases like this, the tradesman involved must have the required skill and knowledge. It is probable that in the original construction, specialist contractors carrying third-party accreditation were used to install these seals. The responsible person needs to understand that it is their duty to see that any such work is undertaken by suitably qualified staff.

The provision of fire doors makes up a very large part of the spending on passive protection, and these are certainly elements that will require attention through the life of a building, including attention to the closers, seals and other door furniture. The spending on maintenance included in the survey for passive elements is mostly on these things.

Everyone, from the designers planning fire safety strategy, to contractors, to the owners and occupiers, should satisfy themselves that all matters are in order. It also is incumbent on manufacturers of materials and equipment to provide proper instructions for the long-term use of their product.

The elements of the strategy that are built in to the structure to provide fire safety are there to form a platform for the strategic use of alarm systems, fire suppression systems and escape strategies, and the survey shows just how much we spend providing the strategy. Like all good investments, it must be used wisely and looked after if it is to give the expected return.

Health of the economy

However, there is another economic benefit which is harder to quantify but possibly even more valuable. Passive fire protection is not only valuable in terms of products sold and installed, but also in its economic benefits to business. Recent insurance figures (from business insurer MORE THAN BUSINESS in 2006) show that the average cost of a fire claim **in the UK** was £26,000. And 80% of small firms affected by fire will not be trading a year later.

When passive fire protection is in place, not only do the occupants of the building stand a better chance of surviving, so does the structure itself. Compartmentation, provided by

good passive fire protection measures, means a fire need not devastate the whole of a building – witness the Royal Marsden Hospital, which was running a limited service within two weeks of a dramatic fire in January 2008. Passive fire protection saves lives but it also saves buildings and jobs, and contributes to the health of the economy.

Legislative change

It is thought that the introduction of the Fire Safety Order in England and Wales in October 2006 will have a positive effect on the market as more companies and organisations realise their new fire safety responsibilities.

That said, as of May 2008, there are no statistics on the impact of this change in fire safety legislation, and it is questionable whether the message has got through to all those affected by it. In theory, every business and public service was notified of the change to the law. Every office, factory, nursing home, hospital, office, hotel, place of worship, pub, shop and public meeting place should have received an information leaflet from the Government outlining the changes and detailing the new requirements. How many of those leaflets went the way of most unsolicited mail? How many were seen and noted? What proportion of the millions of locations affected by the change actually implemented the new rules? A 50% success rate for a direct mail shot would, under normal circumstances, be thought of as phenomenally high, yet this information has to reach and be acted on by 100% of the recipients.

The Survey of the UK Active and Passive Fire Protection Market 2006 to 2009 provides a picture of the marketplace and shows the potential power of the fire protection industry. It underlines the need for the Government and other regulating bodies to listen to the informed opinion of the passive fire protection industry □

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The Survey of the UK Active and Passive Fire Protection Market 2006 to 2009 *can be purchased at:* www.fia.uk.com

Do you know if the survey is available from the ASFP too?