



How many extinguishers do you need?

This factsheet is meant as a guide to aid in the selection of an appropriate number of fire extinguishers. Whilst we hope this will assist in your assessment of your requirements, a full survey of your premises by an experienced professional is always preferable.

Ourselves, and many others in the industry, will provide a survey **FREE** of charge and specify extinguishers accordingly. However, it is always having an understanding of your requirements before booking such a survey as there are companies who may recommend more units than is necessary. This may be due to in-experience, lack of training and understanding or simply greed.

So how may do I need?

The short answer to the posed question is you should be referring to your risk assessment.

The hazards identified in the assessment will guide you in the provision of extinguishers for specific hazards. Whilst there is actually no legal obligation to provide fire extinguishers your insurance company and risk assessment may insist upon it.

Basic requirements are typically to provide cover for class-A fires; the guidelines for this provision are stated in BS5306-8: 2000

Calculating the A-Rated extinguishers required

According to BS5306:8-2000 you should have no less than 26A (provided by 2 extinguishers) of fire protection per floor, where the floor area exceeds 100m².

The A-Rating required for a single floor in a property can be calculated using the following formula:

$$\text{A-Rating Required} = \text{Floor Area in M}^2 \times 0.065$$

The number of extinguishers required to cover this A-Rating can then be calculated as below:

$$\text{Extinguishers per floor} = \frac{(\text{Floor Area M}^2 \times 0.065)}{\text{Extinguisher A Rating}}$$

How do I find the A-Rating of a Fire Extinguisher?

The A-Rating of a fire extinguisher is printed onto the extinguisher body, as marked in Figure 1. This will vary dependent on the size, make and type of extinguisher used.

Type	Size	A-Rating
Water	3ltr	13A
Water	6ltr	13-21A
Water	9ltr	13A
AFF Foam	3ltr	13A
AFF Foam	6ltr	21A
ABC Powder	2kg	13A
ABC Powder	4kg	21A
ABC Powder	6kg	34A
Wet Chemical	6ltr	13A

Typical examples of A-Ratings

Figure 1 locating the A-Rating





What about the other extinguishers?

Once you have allocated extinguishers to cover the A-rating, you should then consider the additional risks identified for your assessment and provide cover for them.

It's worth noting that extinguishers provided for a specific hazard may also carry an A-Rating, this may reduce the total number of units required

Example: a small, 2 storey, hotel with a floor area of 830m² requires 54A (See earlier equation) coverage per floor. The 1st floor is all bedrooms with the ground floor being a bar, kitchens and restaurant.

The first floor could therefore have the following:

- 3x6ltr Aff Foam units
- 2x6ltr Aff Foam and 1x3ltr AFF Foam

The Ground floor could therefore be covered by the following:

- 3x6ltr AFF Foam
- 2x6ltr AFF Foam and 1x 3ltr AFF Foam
- 2x6ltr Foam and 1x6ltr Wet-chemical (This examples uses the Wet-Chemical to cover the hazard of deep fat frying and also meets the A-rating)



Now I have a rough idea of how many I need, where do I put them?

We recommend placing the extinguishers on exit routes by the exit doors. This enables the user to be between an exit and the fire ensuing they do not get trapped if the fire becomes un-containable.

Extinguishers provided for specific hazards should be placed near the potential hazard, but not so close their use could become hazardous.

The extinguishers should be clearly visible, not hidden behind furniture, plants or stored in cupboards as this will waste time locating them if they are required.

No person should be more than 30 metres from their nearest fire extinguisher at any location within a building.



The example below shows a typical small office premises with the locations of the extinguishers marked. You will see 3 are on the exit routes, with a fourth in the kitchen area, signifying a specific hazard.



You also have a requirement to provide the extinguisher with a permanent location by either wall mounting them or providing a stand.

If wall mounting, the handles should be 1m from the floor for heavier units, but can be up to 1.5m for lighter ones. You are required to have ID signs provided for each of the extinguishers. These signs serve 2 purposes

- To aid in the location of extinguishers in a fire situation
- To provide instruction regarding the types of fire the extinguisher is suitable for
- To provide information regarding the types of fire not to use the extinguisher on
- In the case of Photo-luminescent rigid plastic, to aid in the location of equipment in low light

Extinguishers should not be used as door stops, if your fire doors are propped open with an extinguisher, or anything else, you are breaking the law.

If you do need to prop your fire doors open you should consider purchasing Dorgard's or similar devices.

For expert advice, you can contact us for a FREE survey where we will specify your extinguisher requirements, with a no obligation quote.