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| Reference | FM-MS 02 PW Rev 1 |
| Release Date | August 2006 |

METHOD STATEMENT

FireMaster Profile Wrap Systems for Aluminium Bulkheads and Decks

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1. Systems To Which This Method Statement Applies

This method statement applies to any fire protection system that is installed using the profile wrap method onto either aluminium bulkheads or decks using any one of the following two FireMaster products:

- FireMaster 607 Blanket
- FireMaster Marine Plus Blanket

2. General Design Principles Common To All Systems

2.1 Design Considerations

2.1.1 System Data Sheet

This method statement must be read in conjunction with the relevant System Data Sheet for the system being used. The System Data Sheet specifies the exact thickness and density of FireMaster Blanket required; the number of layers that should be installed and the anchor type and spacing required. It also details any other requirements such as the need to use retaining chicken mesh.

Specific information on the System Data Sheet has precedence over any general information given in this document.

2.2 Fixing Anchors

2.2.1 Anchor Types Used

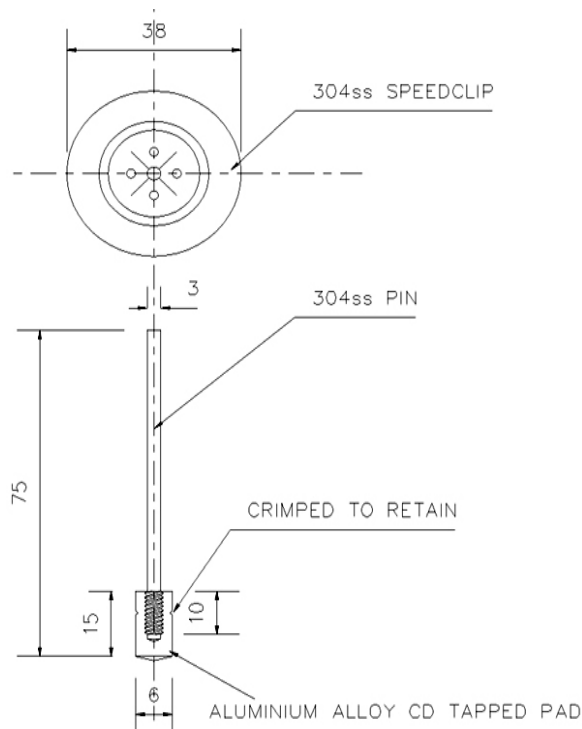
FireMaster Blanket is normally held in place using 3 mm diameter fixing pins over which the Blanket is impaled. A friction fit washer secures the blanket onto the pin.

The standard recommended fixing method for aluminium substrates is a bi-metallic anchor system. This consists of a 3 mm diameter stainless steel shaft that is screw threaded into an aluminium boss which can be CD welded to aluminium. The blanket is held in place with a 38 mm diameter stainless steel friction fit washer.

2.2.2 Recommended Anchor Lengths

The anchor length should be about 12 to 25 mm longer than the total Blanket thickness.

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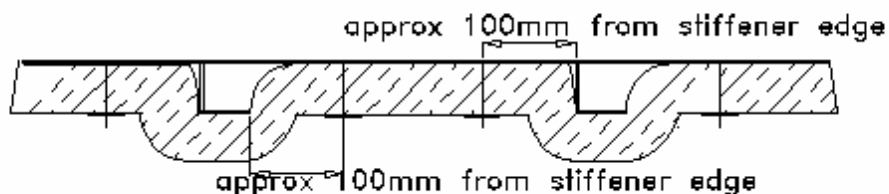
2.2.3 Number of Anchors Needed

See the individual system information sheets for the exact anchor layout for each system.

Normally three anchors are used along the width of the blanket, one at each edge near the joint and one in the middle. Along the length of the blanket the anchors are usually spaced at a maximum distance of 350 mm on bulkheads and 300mm on decks.

Anchors should not be spaced more than 75 mm from the edge of the Blanket otherwise the joint between adjacent blankets may sag and expose the steel substrate or joint in underlying Blanket layers to heat from the fire resulting in localised excessive temperature rise.

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2.3 Installation of FireMaster Blanket

2.3.1 General Principles

The Blanket is usually supplied in rolls of 610 mm width. The length of roll varies depending on the thickness of Blanket so that one standard size carton can be used for all thicknesses.

The Blanket is easily cut with a sharp insulation knife. The use of a straight edge is recommended as a guide when cutting. The Blanket carton can be used as a clean surface on which to lay the Blanket, if required, whilst cutting.

A compressed butt joint is used between adjacent Blanket widths. This is achieved by designing the anchor pattern for a theoretical blanket width of 580 mm. This allows an overlap of Blanket at the edges of each adjacent roll. This overlap is opened outwards and the edges of the Blanket are squeezed together to form a compressed butted joint. FireMaster Blanket is soft and compressible and is ideally suited to this type of installation technique.

2.3.2 Installation of FireMaster Blanket on Underside of Aluminium Decks

The Blanket is installed lengthways along the deck allowing the stiffeners to be wrapped without having to cut the Blanket. Normally an anchor is fitted either side of the stiffener (there is no need to install an anchor on the stiffener itself). The Blanket is fixed to the anchor pins at either side thus allowing the stiffener to be wrapped in a "box" profile without having to pack inside the stiffener void.

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2.3.3 Installation of FireMaster Blanket on Aluminium Bulkheads

The same techniques as the corresponding deck systems are used and the Blanket is installed in exactly the same way.

For aluminium bulkheads designed for fire risk on either side FireMaster blanket is installed on both sides of the bulkhead. See the relevant System Data Sheet for the exact details.

2.3.4 Fire protection of aluminium structural elements connected to bulkheads and decks

For systems designed for High Speed Craft structures, large beams will be integral to the deck or bulkhead. Refer to the relevant System Data Sheet for details of how these are wrapped with FireMaster Blanket. Local additional anchoring may be required where large beams are being wrapped with blanket. Anchors should be placed so that the blanket does not sag, the maximum distance between anchoring pins should be 300mm on horizontal and 350mm on vertical surfaces. If anchors are used on the underside of beam flanges then ensure the anchor length is no longer than is needed to hold the blanket and washer in place to avoid tearing of the blanket during fitting.

2.3.5 Installation of Multiple Layer Systems

Where more than one layer is required in order to make up the required thickness of FireMaster (refer to the System Data Sheet to determine if multiple layers are required) then joints between adjacent blankets in one layer should not occur in the same place in the next layer. Joints must be offset by a minimum of 150mm. The ideal joint offset is half the width of blanket as this ensures maximum economy of material. If this cannot be achieved then joints must be offset by at least 150mm.

2.3.6 Avoidance of heat bridging

Where the deck / bulkhead connects with another division of a lower fire rating then the higher rated lining should be continued for 450 mm along the length of the lower rated division.

Where penetrations pass through it is usually recommended that the Blanket is continued along the member / penetration for a distance of 450 mm.

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2.4 Installing the washers

Washers are simply pressed over the end of the anchor pin and pushed down until they come into contact with the Blanket surface. Care should be taken not to press with too much force as this may over - compress and damage the Blanket local to the washer. If required, after installing the washer, a plastic protective cap may be fitted over the end on the anchor pin to avoid the sharp point at the end causing injury.

END.