



FIRESTOP CENTRE

Authorised New Zealand Distributor
Ph (09) 483 4000 www.firestopcentre.co.nz

FIRESTOP Duct Wrap-38 Fire Stopping Systems

Fire Protection of all Rectangular or Circular Ducts - Internal or External Fire

Overview

FIRESTOP Duct Wrap-38 will protect rectangular or circular ducts from internal fire (grease ducts) or external fire (air ducts) for up to 120 minutes by wrapping the ducts in one or two layers of wrap. The table on page 5 sets out the requirements for particular scenarios. In all cases there are some common elements, as set out below.

The Ducts

All ducts should be constructed to NZ standard AS4254.2-2012 and be of pressure class 500 or higher.

The duct support system should comply with AS4254.2-2012 with supports 1.5m apart. Where a duct penetrates a wall or floor, the duct should not provide any structural support to the wall or floor.

Wrap Fixings:

For internal fire only, wrap on smaller ducts may be fixed with FIRESTOP Stainless Steel 12mm Straps fitted 50mm from the end of each wrap and at maximum 300mm centres along the duct. The following sizes may use straps only;

Up to 800 x 800mm horizontal orientation

Up to 300 x 300mm vertical orientation

Up to 300mm diam vertical or horizontal

For all larger ducts and all ducts subject to external fire the wrap must be fixed with FIRESTOP Welded Pins at 200mm centres around all joints and at 200mm centres elsewhere along the duct. Pins should be nominal 3mm OD needle size (or greater) and length at least 80% of the wrap thickness.



Tapes:

All joints should be taped and all cut ends of wrap must be taped (no open wrap showing). For all systems requiring an insulation rating FIRESTOP Foil Tape should be used. This tape is of the required construction (min 50µm thick with no reinforcing) and has the required adhesive rating (min 120 deg C heat resistance).

If an insulation rating is not required then any tape may be used.



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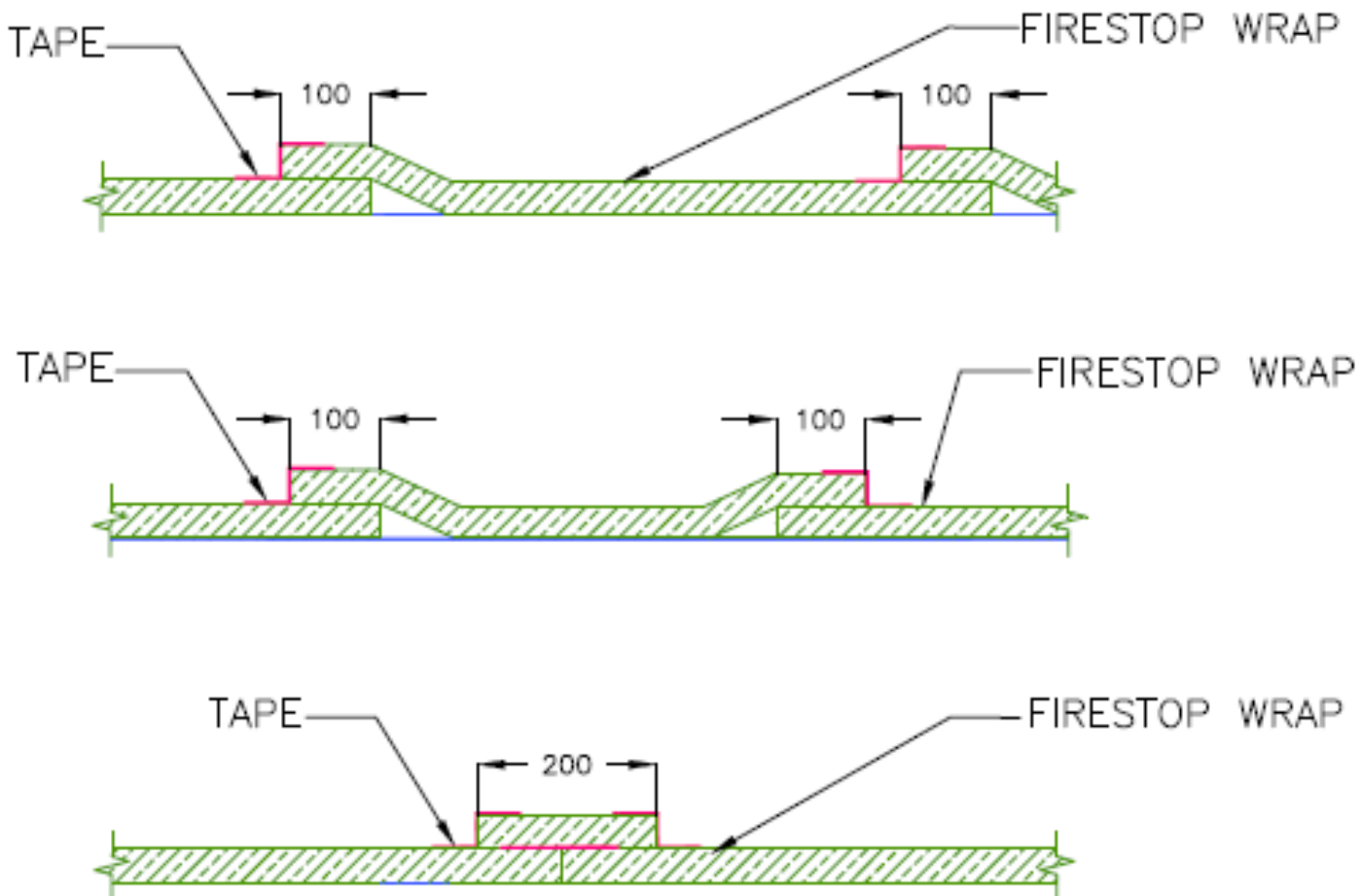
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Wrap Joints:

All wrap joints (both longitudinal and transverse) must be of one of the types shown below. Butt joints without a collar are not permitted, even under a second layer. Tape all joints. Longitudinal joints should be staggered by at least 200mm and be 200mm from the duct edge. Where a second layer is applied, the transverse joints should be staggered by at least 200mm.



Wall or Floor Penetrations:

Where a duct penetrates a non fire-rated wall or floor the duct wrapping should continue without interruption through the wall or floor.

Where a duct penetrates a fire-rated wall or floor there are special penetration details, which often require a second layer of wrap at the penetration, that must be adhered to and these are set out in detail in the [system pages](#) shown on the Firestop Centre website.



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Access Hatches:

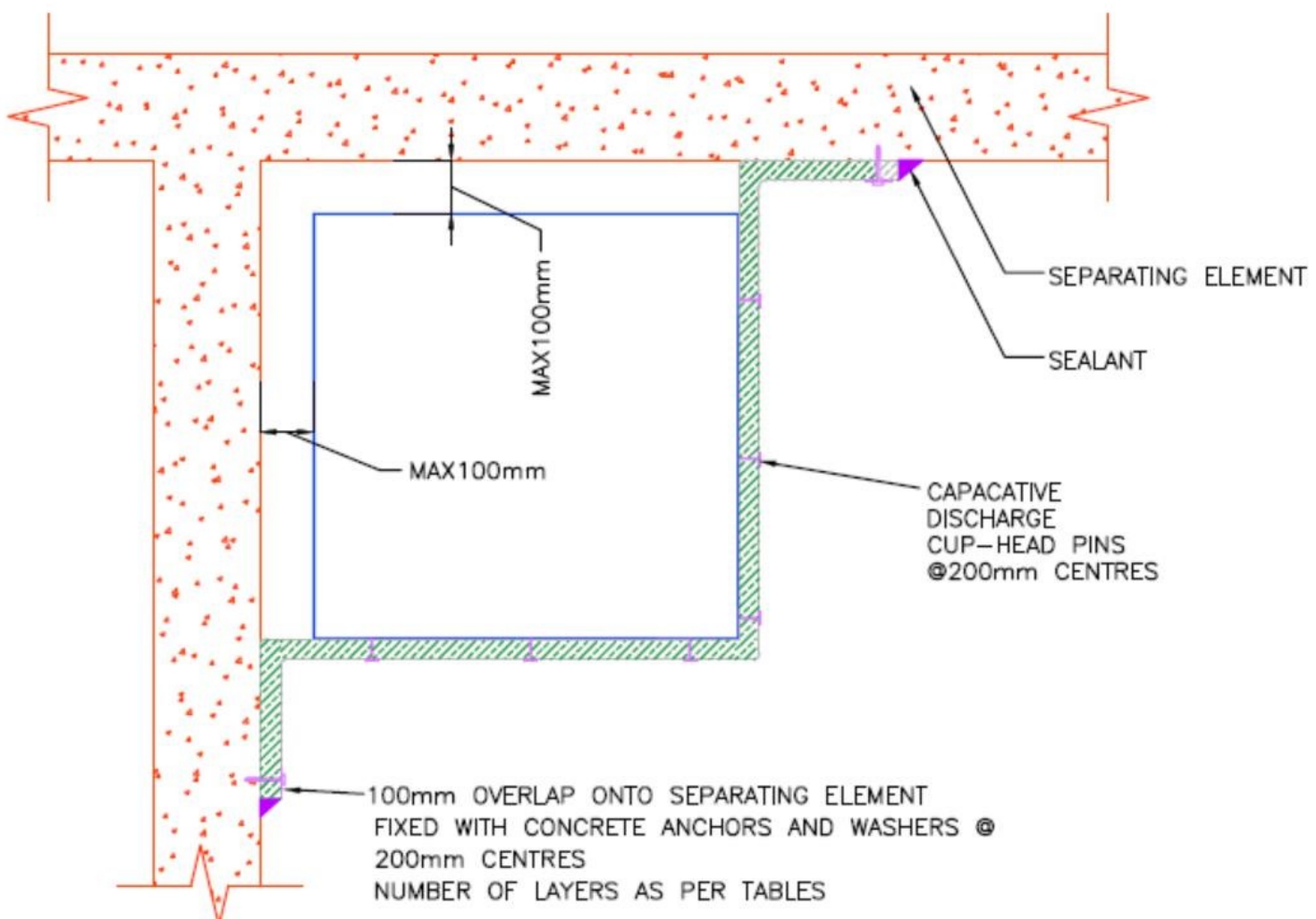
FIRESTOP Duct Hatches have been specifically designed and tested to be installed in rectangular or circular ducts protected with FIRESTOP Duct Wrap-38.

These hatches come in a variety of sizes and are simple to install. For further information go to [FIRESTOP Duct Hatches](#) on the Firestop Centre website.

Options for 2 or 3-Sided Exposures:

Ducts are sometimes installed close to walls or floors making installation of wraps difficult. Provided the wall or floor is fire-rated and the gap is no more than 100mm the following systems may be used for rectangular ducts;

2-Sided Exposure:





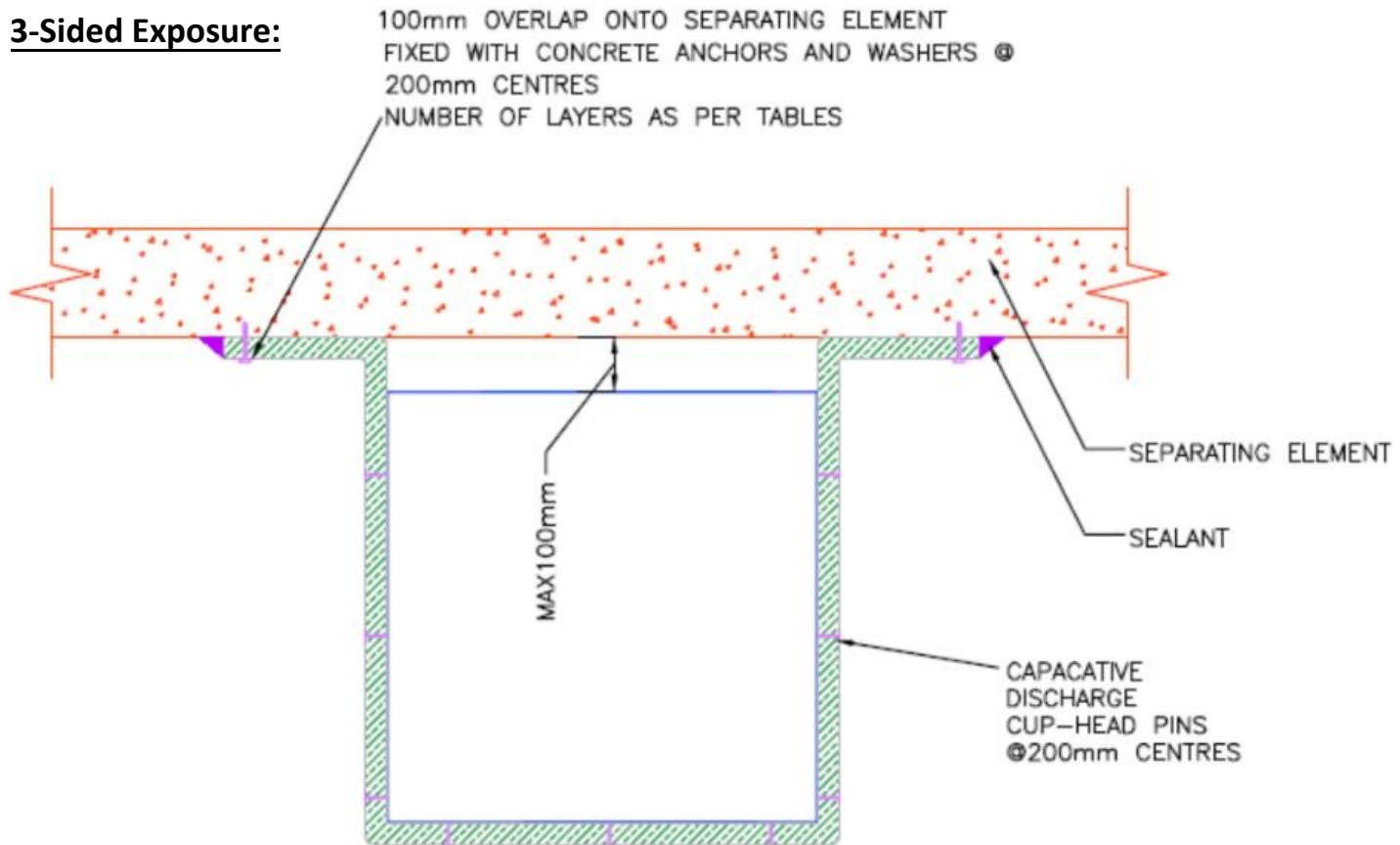
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3-Sided Exposure:



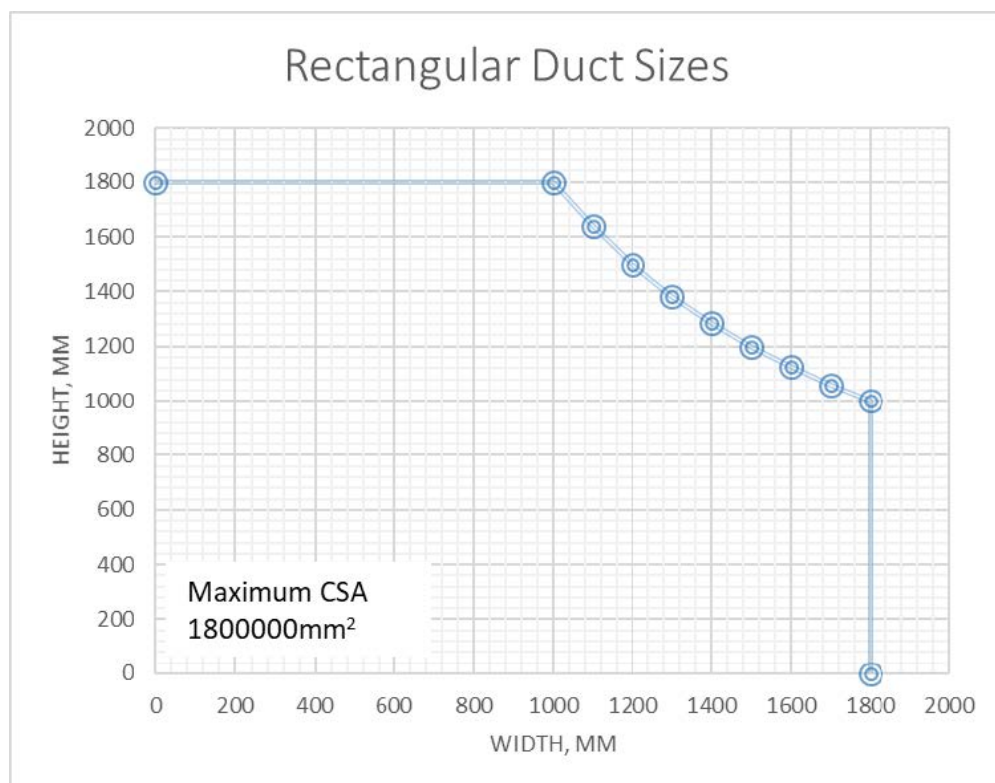
Duct Sizes:

The summary of systems on the next page applies to all ducts of the following sizes:

Circular Ducts - All ducts up to 1000mm diameter.

Rectangular Ducts - All ducts up to 1800mm x 1000mm or equivalent cross-sectional area.

See graph for maximum permitted sizes.





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Summary of Requirements for Duct Wrapping

Duct Type & Max Size (mm)	Orientation	Fire Type	Wrap Layers	Fire Rating (Minutes)	Insulation Rating (Minutes)
Any <u>rectangular</u> duct up to 1800mm x 1000mm or equivalent area	Vertical	Internal	1	120	120
	Horizontal	Internal	1	120	120
	Vertical	External	2	120	120
	Horizontal	External	2	120	120
Any <u>circular</u> duct with diameter up to 1000mm	Vertical	Internal	1	120	30
	Horizontal	Internal	1	120	120
	Vertical	External	2	120	90
	Horizontal	External	2	120	90