

# Promat



## Construction of one, two or three sided PROMATECT® L500 ductwork



Promat - Supplier of Best Insulating Performance Products and Systems for Commercial Construction; High Temperature Insulation, Marine, Petro-Chemical and Industrial applications



### Sprays Protection

- CAFCO® 300
- Cafco FENDOLITE® MII
- Cafco FENDOLITE® TG
- Cafco MANDOLITE® CP2
- Cafco SPRAYFILM® WB3
- Cafco MANDOLITE® 550

### Board Systems

- PROMATECT®-H
- PROMATECT®-L
- PROMATECT®-L500
- PROMATECT® 100
- PROMATECT® 40
- PROMATECT® 50

### Penetration Seals

- PROMASTOP® Collars
- PROMASEAL® Collars
- PROMASEAL® IBS
- PROMASEAL® FlexiWrap
- PROMASEAL® AN Acrylic Sealant
- PROMASEAL® FyreStrip
- PROMASEAL® Mortar
- PROMASEAL® Pillows

### Marine Applications

- PROMAGUARD®
- PROMARINE®-450
- PROMARINE®-640
- PROMASOUND® TL

### High Temperature Insulation

- PROMASIL®
- PROMALIGHT®
- DURATEC®
- PROMAGLAF® HTK

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Suppliers in Best Insulating Performance

## **Technical Note on Construction of one, two and three sided duct enclosures using PROMATECT® L500**

Where a fire rated duct is located close to a slab or wall it is often required to construct the system using only 1, 2 or 3 sided constructions. This is permitted with PROMAT boards that have been tested in a four sided configuration.

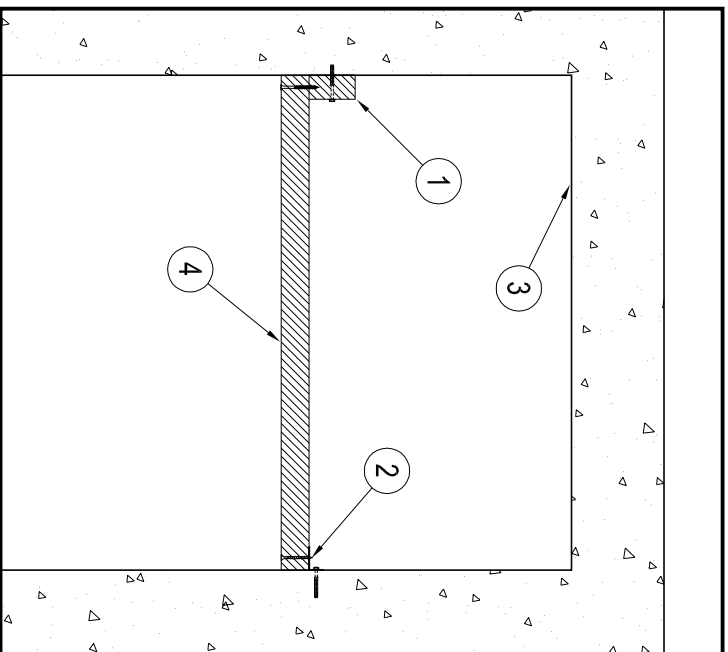
Within the Australian standard AS1530.4 there is no consideration given to the testing of ducts that are not four sided. This is because a four sided system is considered the most onerous. Where a duct consists of less than 4 sides there is less severity as the exposed area of duct is less than the originally tested specimen. Therefore it can be considered that if a duct is built using a product tested as a four sided system then it would perform as well when in a 1, 2 or 3 sided configuration.

However there are certain things that must be in place before this can occur. The concrete or masonry structural elements that the duct is attached to must achieve at least the same fire resistance as the duct. It must also be able to support the additional weight the duct imposes on it for the required time period. The steel frame or hanger supports that carry the duct must be within the stress limits set out for the required time period.

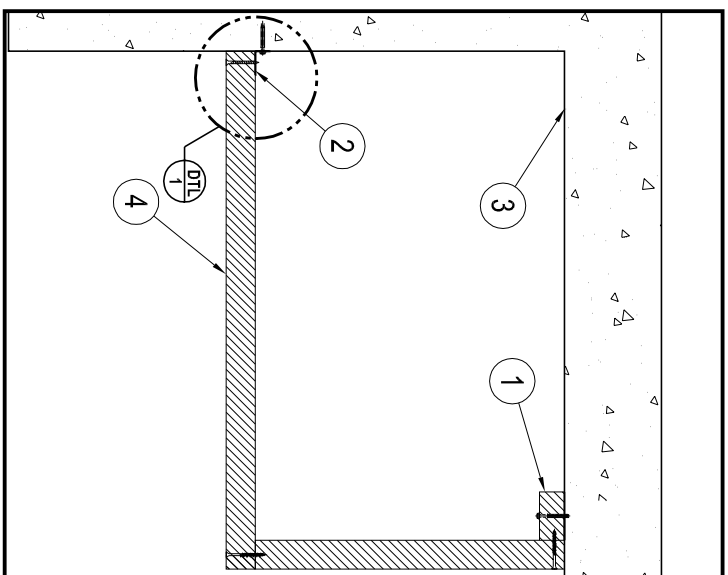
The ducts shall be constructed with the same framing system and board thickness as set out in the test report/assessment for 4 sided constructions. To fix the boards to the wall or slab a steel angle can be used. This angle should be a minimum of 50x30x1mm. - Fixed to the concrete at 500mm centres with an M8 anchor to a depth of 40mm.

As an alternative to the steel angle a 100mm wide fillet of the same board can be affixed to the slab/wall at 500mm centres using a mechanical anchor. The duct board can then be fixed to this fillet at 200mm centres with a laminating screw.

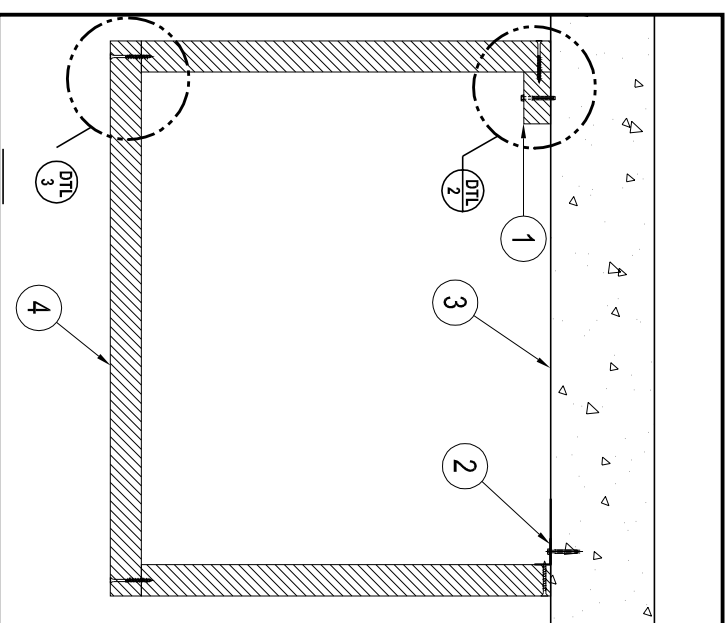
Promat have many references to these types of applications accepted by registered test laboratories



**FIG. 1** SECTION VIEW  
1 SIDED APPLICATION



**FIG. 2** SECTION VIEW  
2 SIDED APPLICATION



**FIG. 3** SECTION VIEW  
3 SIDED APPLICATION

NO.	DESCRIPTION	SIZE
1	PROMATECT® L500 Fillet	52mm thk x 100mm long
2	Steel Angle	50 x 30 x 1mm
3	Concrete Slab or Wall	
4	PROMATECT® L500	52mm thk

Drawing / Project Title :  
**PROMATECT L500 Self Supporting Ducts**  
1, 2 and 3 sided configurations

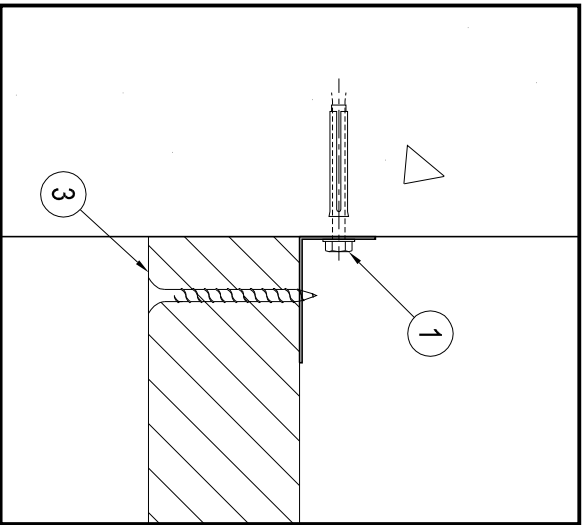
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Date : <b>20-07-12</b>	Scale : <b>N.T.S. (mm)</b>
Test Standard : <b>AS 1530: PART 4</b>	Base On Report No. : <b>N/A</b>
Drawn By : <b>PB</b>	Checked By :

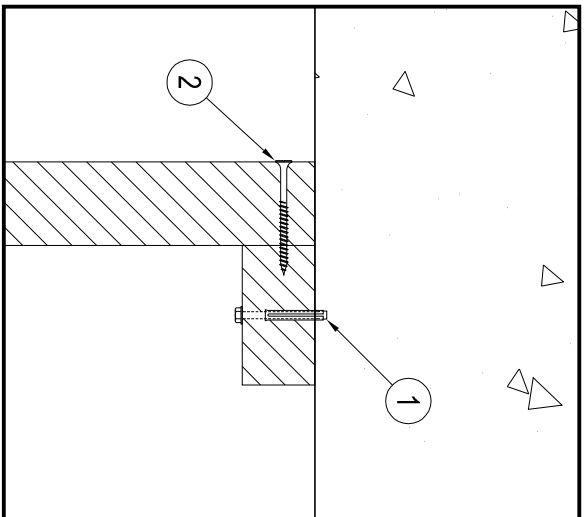
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**NOTICE :**  
This information is intended for engineering purposes only and is based on internal & third party testing which we believe to be accurate. The user must determine the suitability of the design to the application and the product to local building codes. Since the user of the product is beyond Promat's control, Promat International (Asia Pacific) Ltd.'s only responsibility shall be to refund or replace materials found to be defective as per our standard warranty.

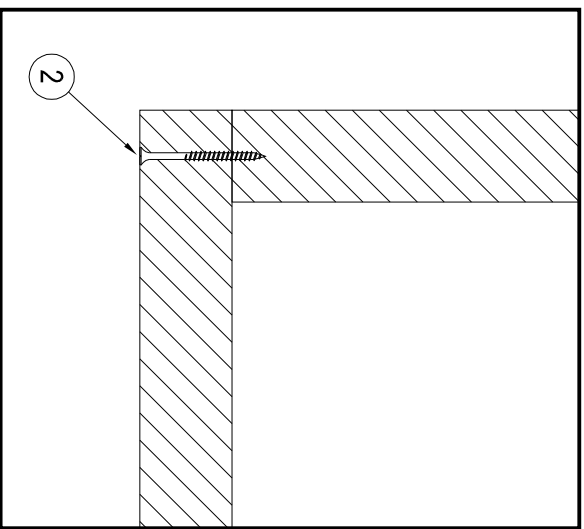
**NOTE : ALL DIMENSIONS ARE IN MM**



**DTL 1** **DETAIL VIEW**  
BOARD to CONCRETE Angle Fixing




**DTL 2** **DETAIL VIEW**  
BOARD to CONCRETE Fillet Fixing



**DTL 3** **DETAIL VIEW**  
BOARD to BOARD Screw Fixing

NO.	DESCRIPTION	SIZE
①	M8 Anchor Bolt	Min 100mm long
②	Coarse thread laminating screw	Min 100mm long
③	Self Drilling Screw	Min 75mm long

Drawing / Project Title : <b>4 HOURS FIRE RATED PROMATECT H CLADDING DUCT</b>		Date : <b>00-00-08</b>	Scale : <b>N.T.S. (mm)</b>	Revision : -	Date : -	No. : -	<b>NOTICE :</b> This information is intended for engineering purposes only and is based on internal & third party testing which we believe to be accurate. The user must determine the suitability of the design to the application and the product to local building codes. Since the user of the product is beyond Promat's control, Promat International (Asia Pacific) Ltd.'s only responsibility shall be to refund or replace materials found to be defective as per our standard warranty.
Drawing No. : <b>1001/08-P</b>	Sheet No. : <b>01</b>	Codes : <b>PH-41-24</b>	Test Standard : <b>AS 1530: PART 4</b>	Base On Report No. : <b>N/A</b>	<input checked="" type="checkbox"/> <b>STANDARD DRAWING</b> <input type="checkbox"/> <b>PROJECT DRAWING</b>		
Drawn By : -		Checked By : -		<b>NOTE : ALL DIMENSIONS ARE IN MM</b>		 <b>Promat</b> <a href="http://www.promat-ap.com">www.promat-ap.com</a> <b>PROMAT INT. (A.P) LTD.</b>	