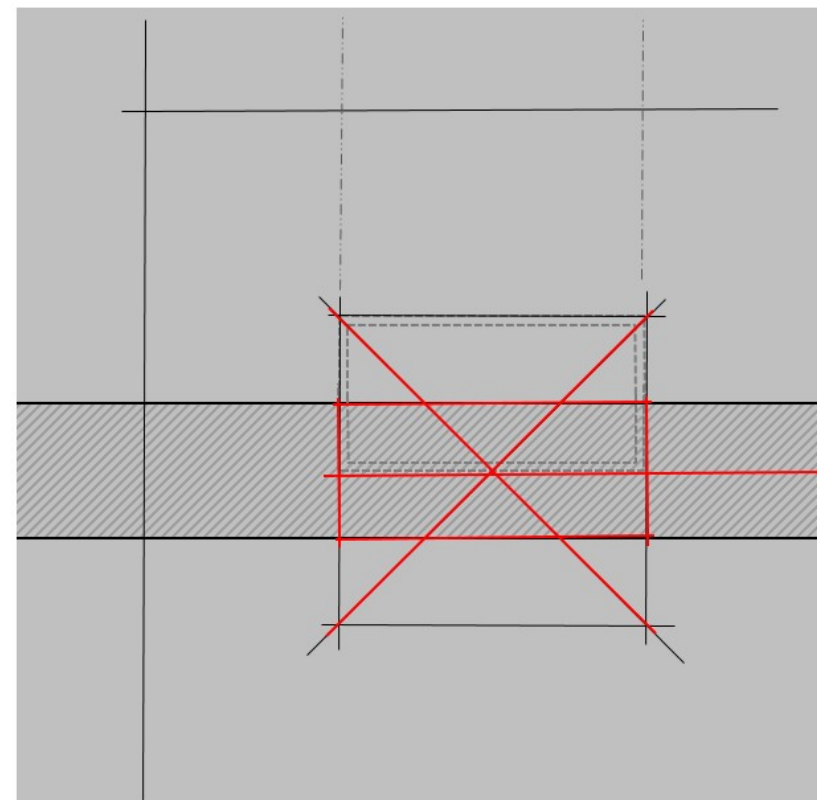


### Cutting Lines Shown in Red



Cut out Section to ease fit around the Penetration after forming Folded Cut Seam and Balancing Pleat

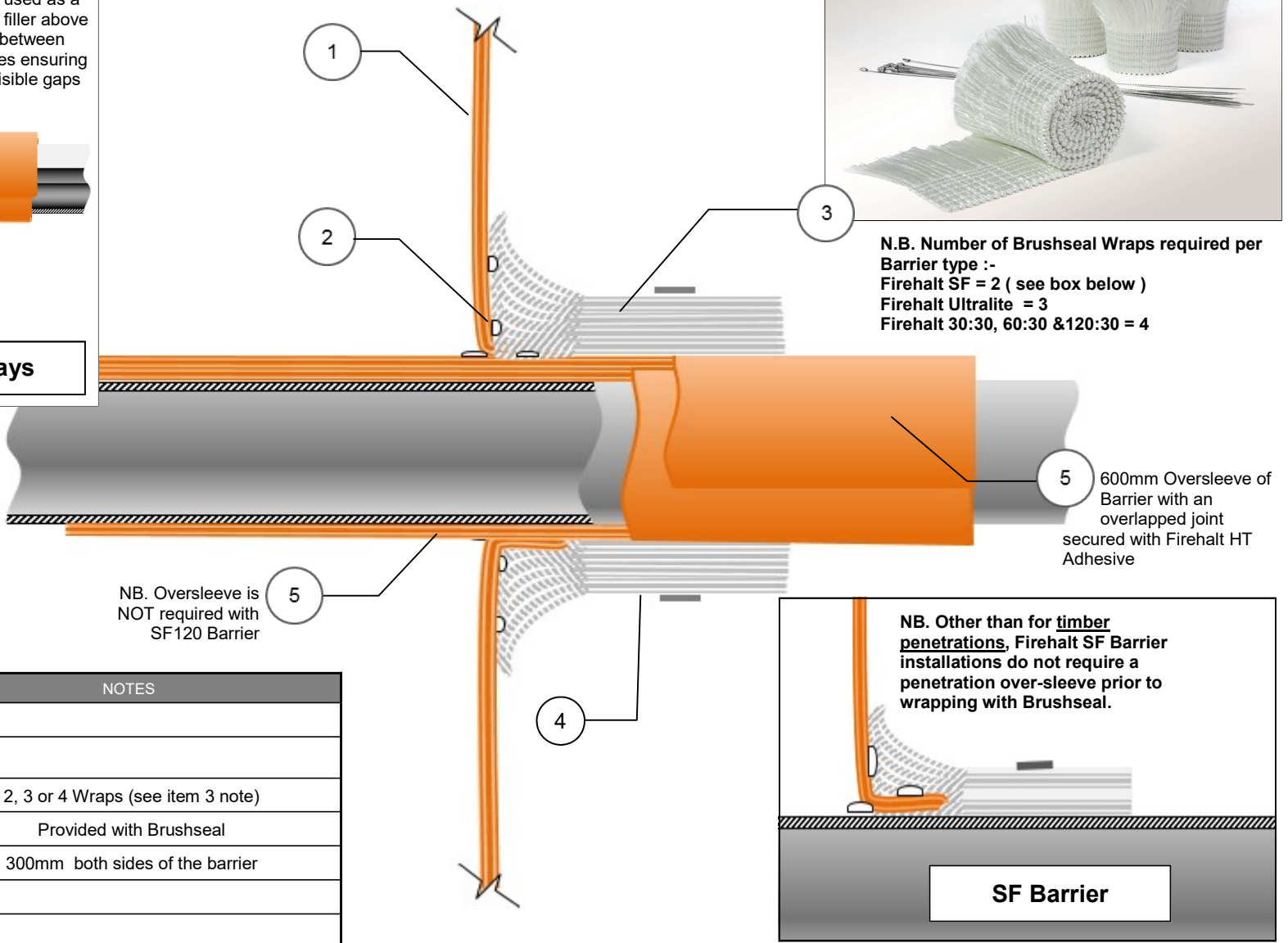
All cut edges stapled for stability

### Detail for Circular Penetrations

Position of Service Penetration relative to the Barrier

Cut out section

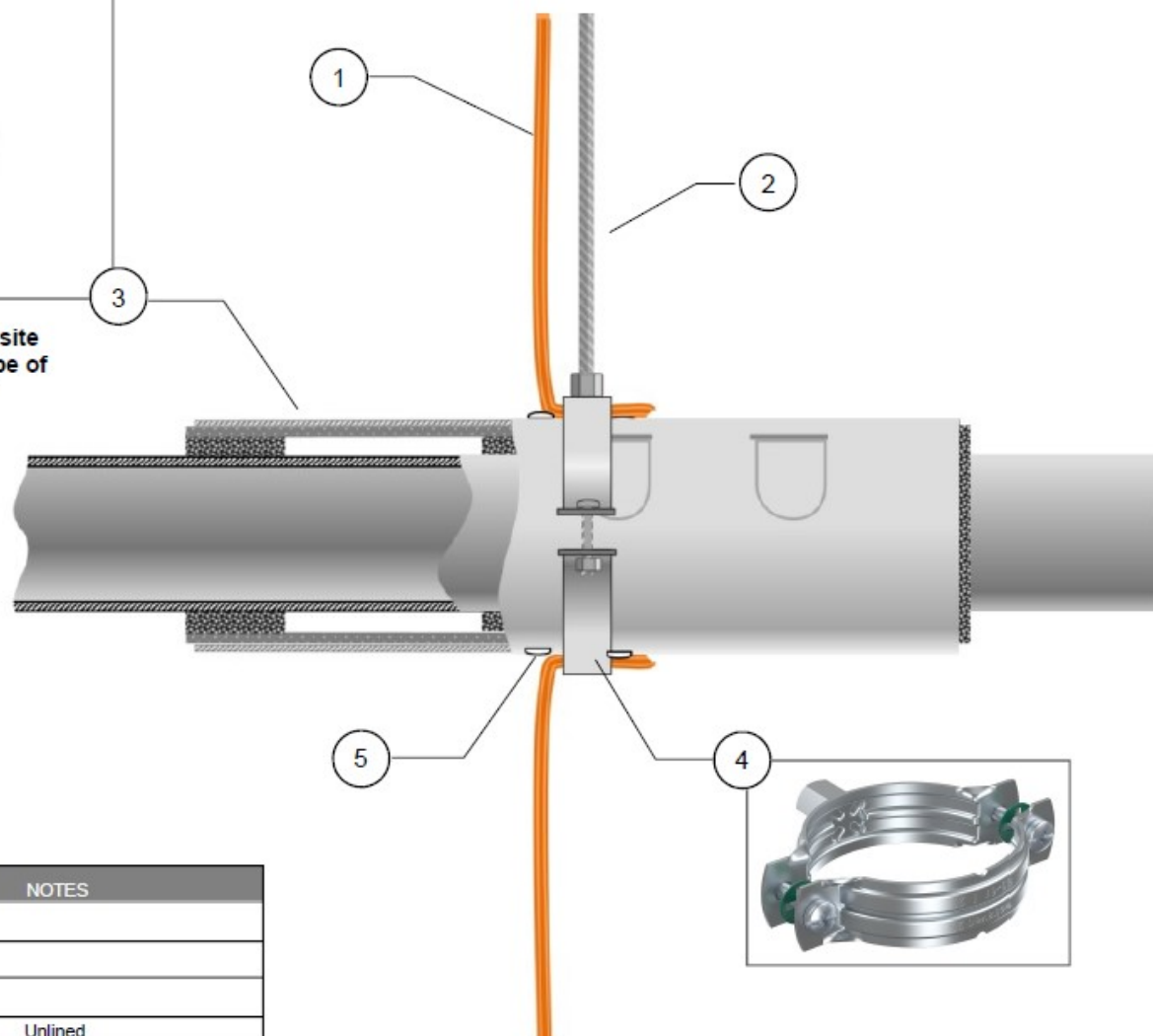
**View when Balancing Pleat & Cut seam are folded up & stapled**



#	DESCRIPTION	NOTES
1	FIREHALT BARRIER	
2	BEADS OF FIREHALT HT ADHESIVE	
3	BRUSHSEAL	2, 3 or 4 Wraps (see item 3 note)
4	S/S TIES	Provided with Brushseal
5	OVERSLEEVE OF FIREHALT	300mm both sides of the barrier
6	CABLE TRAY	
7	BRUSHSEAL FILLER PACK	

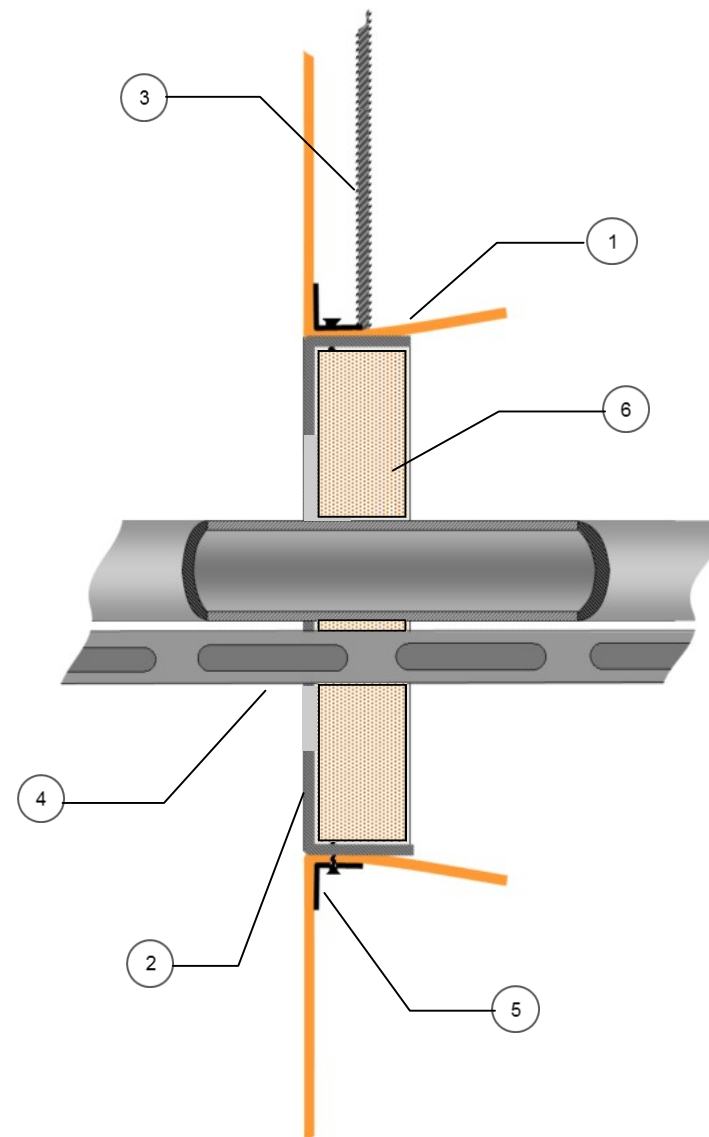


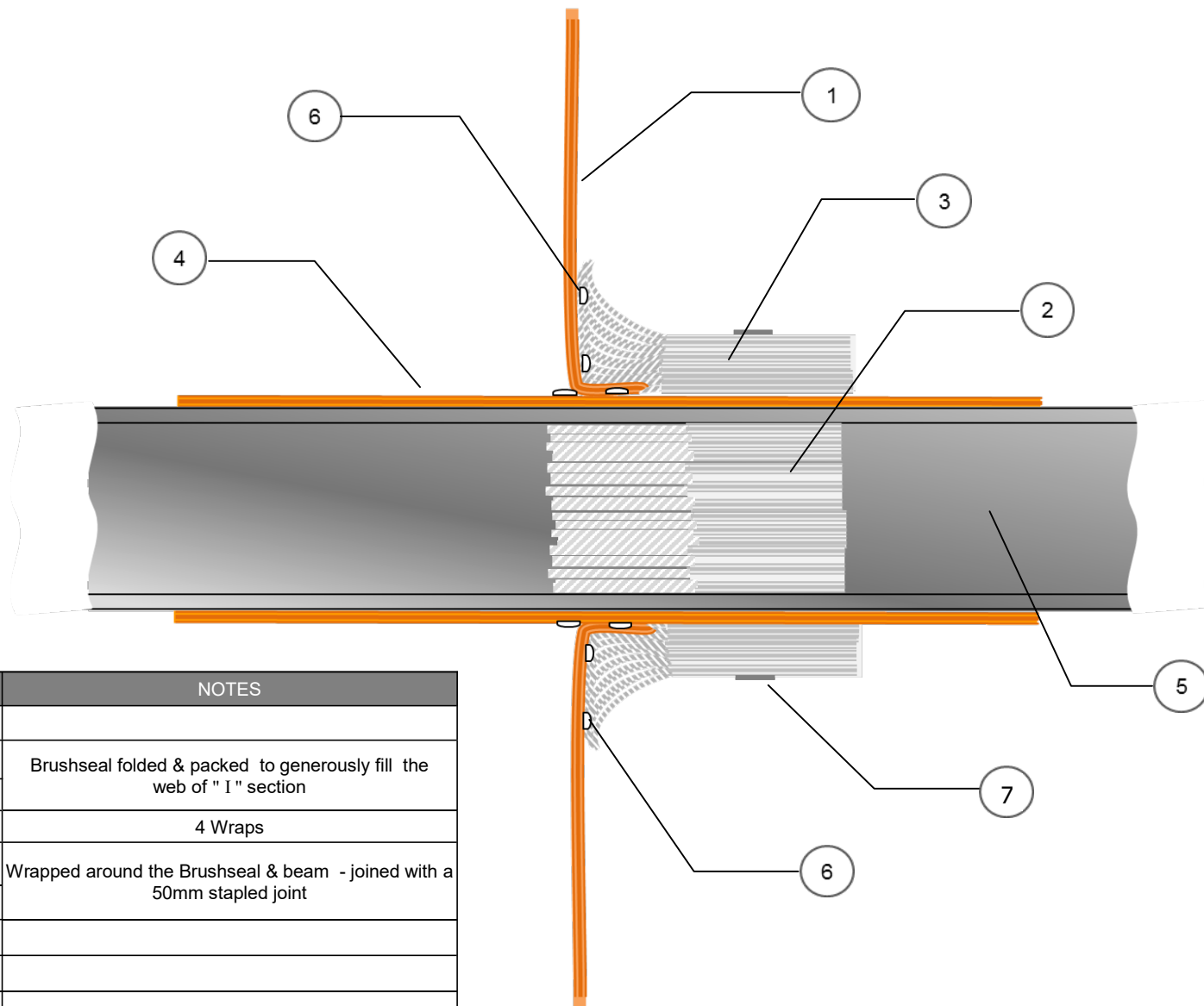
Please refer to the Walraven website to ensure the correct size and type of Pacifyre fire sleeve is used.



#	DESCRIPTION	NOTES
1	FIRE BARRIER	
2	SUPPORT ROD	
3	WALRAVEN PACIFYRE mk2	
4	WALRAVEN SUPPORT CLAMP	Unlined
5	FIREHALT HT ADHESIVE	
6		

#	DESCRIPTION	With
1	FIREHALT BARRIER	With 100mm Overlaps
2	4 SIDED FRABICATED ANGLE FRAME	Fabricated To Manufacturers Instructions
3	SUITABLE HANGER SUPPORT SYSTEM	
4	LARGER OR MULTI-SERVICE PENETRATIONS	
5	25 x 25mm GALV ANGLE CLAMP	See Standard Fixing Details
6	PROPRIETRY FIREBATT	Installed To Manufacturers Instructions





#	DESCRIPTION	NOTES
1	FIREHALT BARRIER	
2	BRUSHSEAL PACKING	Brushseal folded & packed to generously fill the web of "I" section
3	BRUSHSEAL WRAP	
4	300mm BARRIER OVER-SLEEVE	Wrapped around the Brushseal & beam - joined with a 50mm stapled joint
5	STEEL "I" SECTION BEAM/COLUMN	
6	BEADS OF FIREHALT HT ADHESIVE	
7	S/S CABLE TIE	



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 Fax : +44 (0)161 344 2486  
 Email : sales@firehalt.com  
 Web : www.firehalt.com

Fixing detail may not be  
 suitable for all applications.  
 If in doubt seek assistance  
 from our technical staff or  
 another qualified person  
 before installation

Title: Penetration Management of  
 Steel Beams and Columns

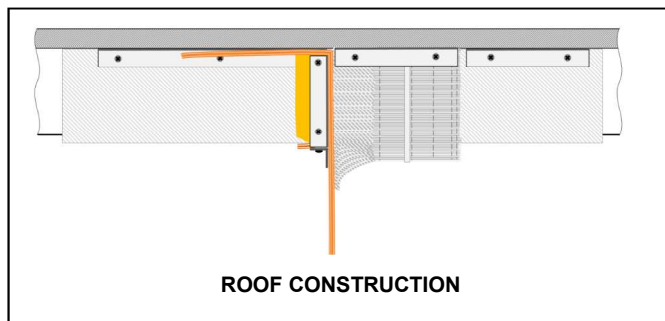
Products: Firehalt Barriers :  
 SF  
 Ultralite 60:15  
 30:30  
 60:30  
 120:30

Fix Detail # 22

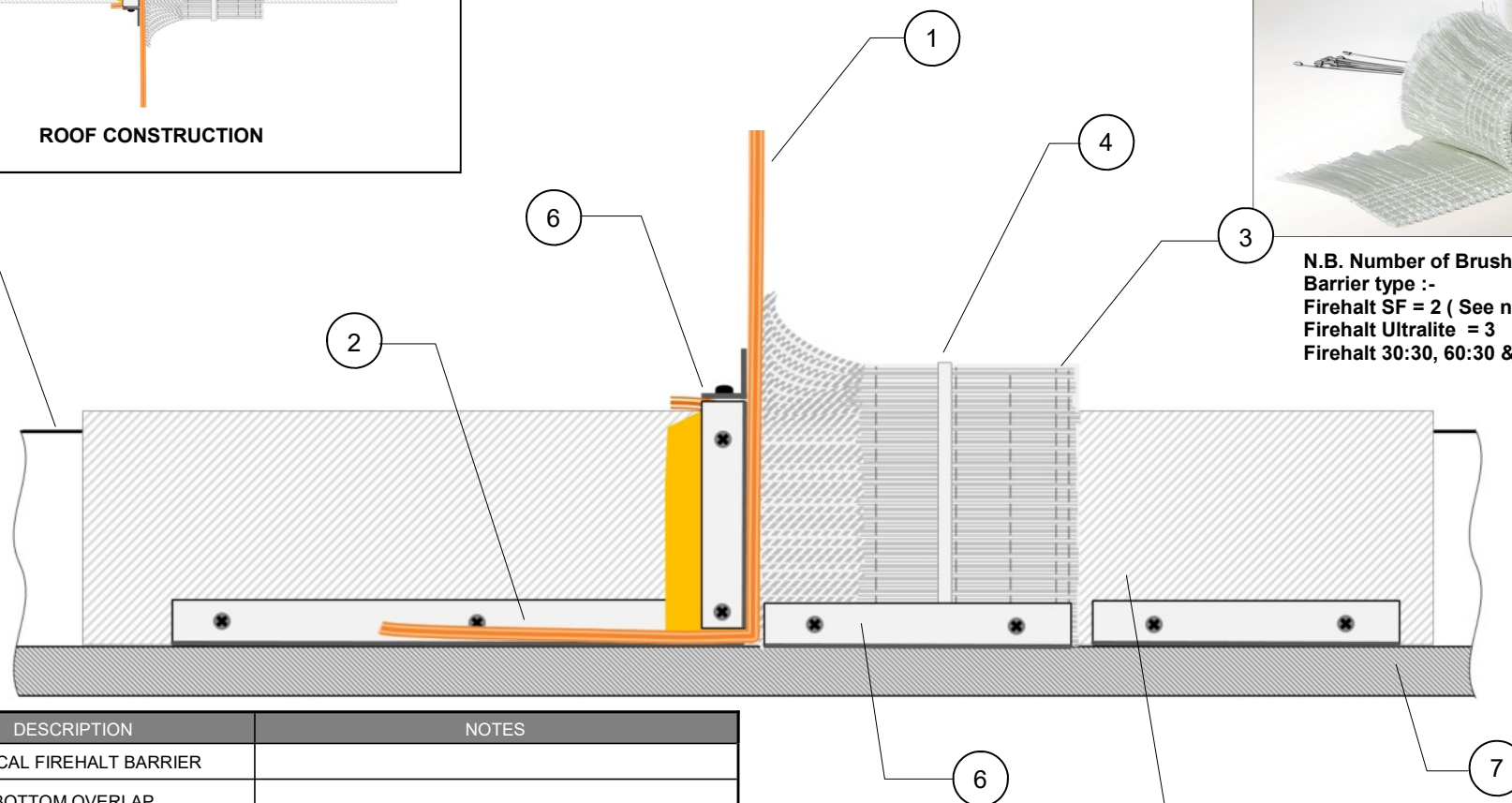
Version: 4

Date: 11/02/19





**N.B. Number of Brushseal Wraps required per Barrier type :-**  
 Firehalt SF = 2 ( See note 5 below )  
 Firehalt Ultralite = 3  
 Firehalt 30:30, 60:30 & 120:30 = 4



#	DESCRIPTION	NOTES
1	VERTICAL FIREHALT BARRIER	
2	BOTTOM OVERLAP	
3	BRUSHSEAL	2, 3 or 4 Wraps (see item 3 note)
4	S/S TIES	Provided with Brushseal
5	OVERSLEEVE OF FIREHALT	300mm both sides of the barrier
6	25 x 25mm GALV ANGLE	
7	FIXED CEILING	
8	ROOF PURLIN OR CEILING JOIST	

**5 For Firehalt SF smoke & flame barrier only:**

- Oversleeve not required on metal purlins or joists.
- Oversleeve must be used on timber purlins or joists.



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**Fixing detail may not be suitable for all applications. If in doubt seek assistance from our technical staff or another qualified person before installation**

Title: Bottom Fix Across and Between Ceiling Joists

Products: Firehalt Barriers :  
 SF  
 Ultralite 60:15  
 30:30  
 60:30  
 120:30

Fix Detail : **# 27**

Version: **3**

Date: **05/04/19**