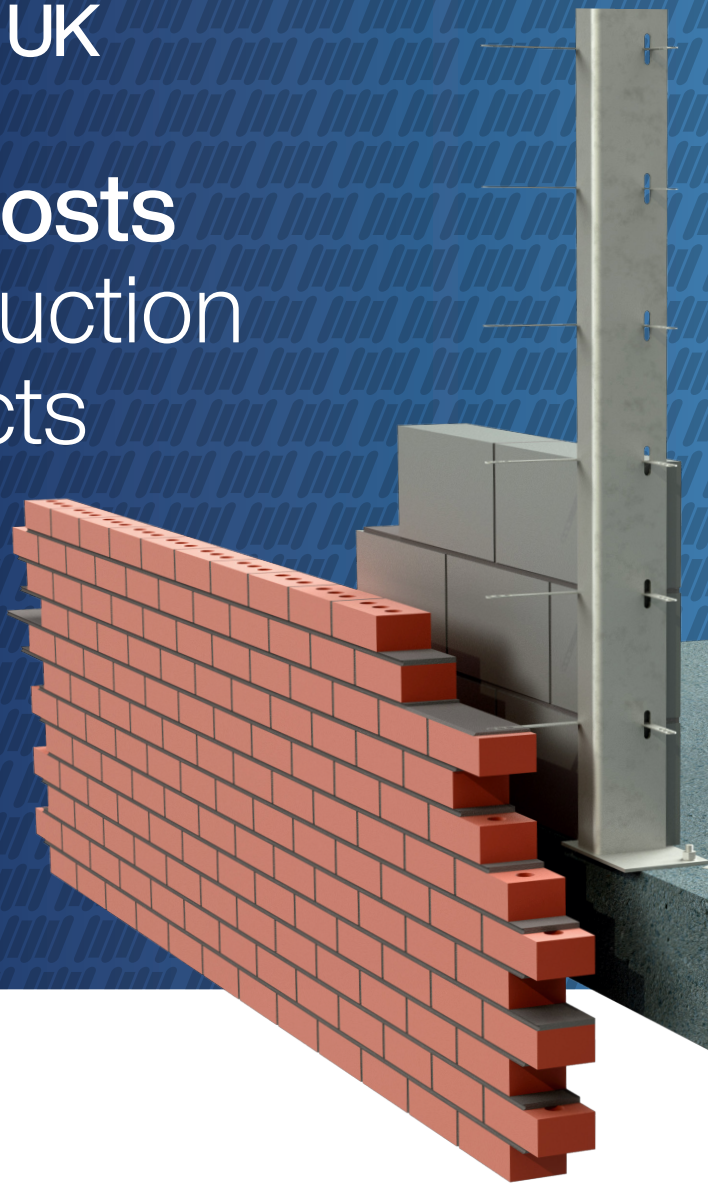


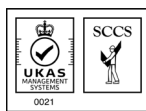
Windposts Construction Products

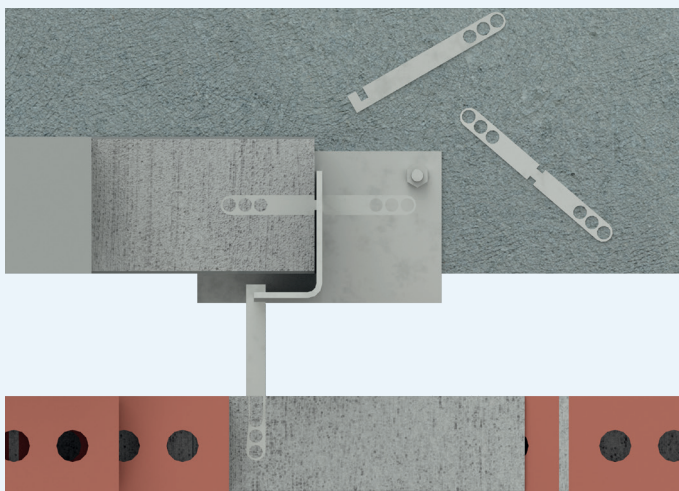


Stainless UK Windposts comply with UKCA marking requirements of BS EN 1090-1. They are designed to BS EN 1993 (Eurocode 3) and have external certification of our factory production control by an approved organization.

ST-UK Windposts are designed as simply supported beams. The maximum allowed deflection for our windposts is $\text{span}/360$. The following tables display standard loadings for different section sizes and heights. Design loads in the tables should be carefully reviewed by the engineer and compared against factored loadings. Windposts must be fully restrained at all times, and ties should be installed at 225 mm vertical centers.

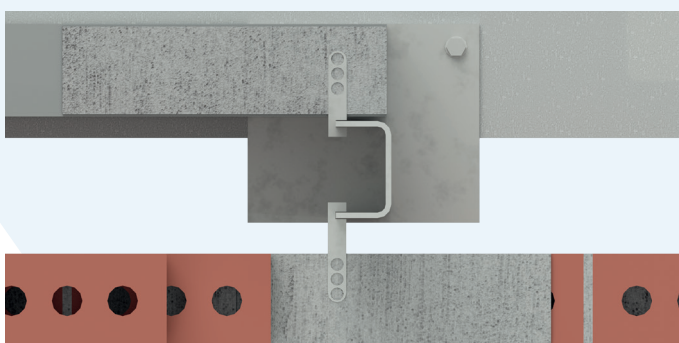
While we provide a wide range of standard sizes, windposts can also be customized using our in-house design suite, which includes the ability to design as a propped cantilever where required.





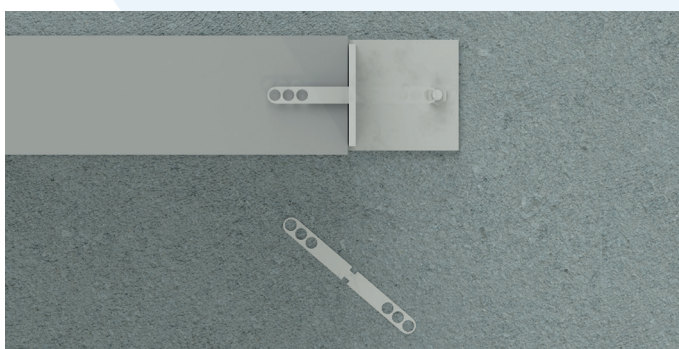
SWP-L

Stainless UK SWP-L windposts designed for small cavities or areas with high wind loads. These posts are made of an angle section, with one leg built into the blockwork and tied to the blockwork to prevent movement and cracking of finishes. The design of Stainless UK SWP-L windposts assumes that the longer leg of the post is fully restrained within the vertical masonry joint. If a vertical movement joint is required, ties with a debonding sleeve on one side can be supplied, but this will reduce the post's capacity.



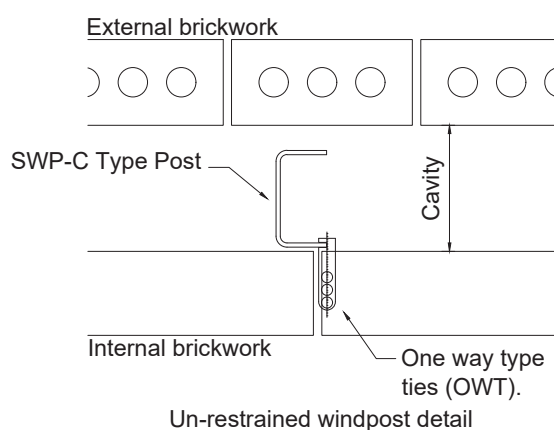
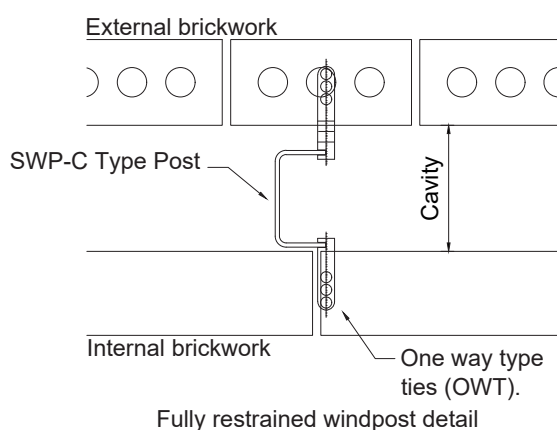
SWP-C

Stainless UK SWP-C windposts are channel section windposts that are specifically designed to be installed within the cavity, without disturbing the blockwork. The windposts come with end connections and ties that clip onto the edges of the channel in the flanges of the channel section, making for easy and convenient installation.



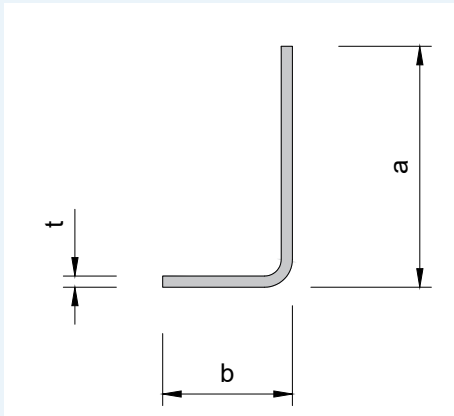
SWP-SP

SWP-SP type windposts are spine posts which are generally used within blockwork, usually an internal single skin wall where the windpost can't protrude either side of the blockwork. Usually the post will be 20mm smaller than the width of the block, limiting its size, however as per our loading table different thicknesses can be used.

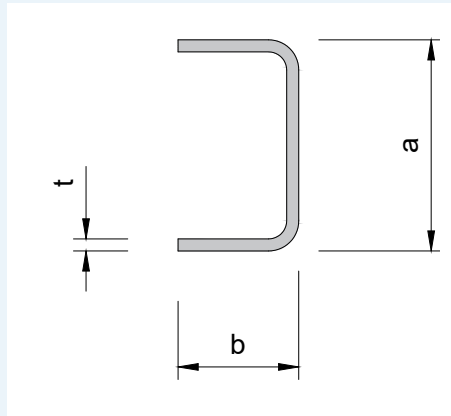


n.b. windposts can be supplied as restrained or unrestrained however this will affect the windpost performance.

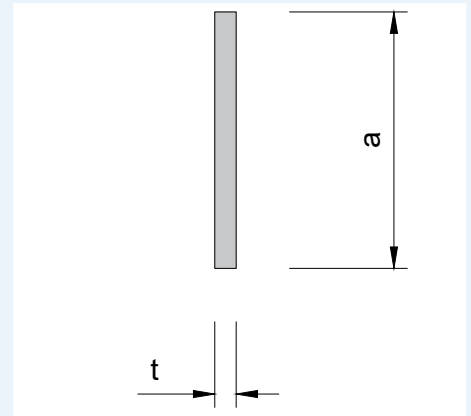
SWP-L



SWP-C



SWP-SP



Stainless UK – SWP-L

Size	Total Design (ULS) Uniform Distributed Load for different lengths (kN)							
a × b × t	2.5 m	3.0 m	3.5 m	4.0 m	4.5 m	5.0 m	5.5 m	6.0 m
125 × 70 × 4	9.6	7.92	5.96	4.62	3.67	2.98	2.47	2.08
140 × 70 × 4	11.88	9.9	8.01	6.24	4.97	4.05	3.36	2.83
150 × 70 × 4	13.52	11.27	9.55	7.47	5.98	4.87	4.04	3.41
130 × 70 × 6	15.88	13.23	10.08	7.86	6.26	5.1	4.22	3.56
170 × 70 × 4	17.1	14.25	12.21	10.33	8.31	6.8	5.66	4.77
160 × 70 × 5	19.27	16.06	13.76	11.32	9.1	7.45	6.19	5.22
150 × 70 × 6	20.82	17.35	14.59	11.45	9.19	7.5	6.23	5.25
170 × 70 × 5	21.6	18	15.43	13.22	10.66	8.74	7.28	6.15
180 × 70 × 5	24.05	20.04	17.18	15.03	12.36	10.17	8.48	7.17
150 × 80 × 8	27.13	25.7	19.7	15.47	12.42	10.15	8.43	7.11
185 × 70 × 6	27.13	25.74	22.06	19.31	15.9	13.1	10.94	9.26
170 × 80 × 8	27.13	32.03	27.04	21.42	17.3	14	11.72	9.93
180 × 80 × 8	27.13	32.03	29.96	24.03	19.62	16.25	13.63	11.57

Stainless UK - SWP-C

Size	Total Design (ULS) Uniform Distributed Load for different lengths (kN)							
a × b × t	2.5 m	3.0 m	3.5 m	4.0 m	4.5 m	5.0 m	5.5 m	6.0 m
55 × 60 × 4	3.2	2.22	–	–	–	–	–	–
55 × 60 × 5	3.91	2.72	2	–	–	–	–	–
65 × 60 × 4	4.71	3.28	2.41	–	–	–	–	–
65 × 60 × 5	5.8	4.04	2.97	2.27	–	–	–	–
75 × 60 × 4	6.55	4.57	3.36	2.58	2.04	–	–	–
75 × 60 × 5	8.1	5.65	4.16	3.19	2.52	2.04	–	–
85 × 60 × 4	8.71	6.11	4.5	3.45	2.73	2.21	–	–
85 × 60 × 5	10.81	7.58	5.59	4.28	3.39	2.74	2.27	–
95 × 60 × 5	13.93	9.81	7.25	5.56	4.4	3.57	2.97	2.48
105 × 60 × 5	16.48	12.36	9.16	7.04	5.57	4.52	3.74	3.14
115 × 60 × 5	16.48	15.2	11.33	8.72	6.91	5.6	4.64	3.9
115 × 60 × 6	16.48	17.6	13.12	10.1	8	6.49	5.37	4.51
115 × 65 × 8	16.48	19.48	17.39	13.4	10.62	8.61	7.13	5.99

Stainless UK - SWP-SP

Size	Total Design (ULS) Uniform Distributed Load for different lengths (kN)							
a × b × t	2.5 m	3.0 m	3.5 m	4.0 m	4.5 m	5.0 m	5.5 m	6.0 m
90 × 8	4.88	3.42	2.53	–	–	–	–	–
100 × 8	6.61	4.67	3.46	2.65	–	–	–	–
110 × 8	8.67	6.17	4.59	3.53	2.79	2.27	–	–
120 × 8	11.05	7.93	5.92	4.57	3.62	2.94	2.43	2.04

Peg Anchor

Peg Anchor Molabolt – a fast, weld-free solution for secure fixing in blind box sections, delivering reliable performance comparable to standard bolting.



Type	Bolt Size	Hole Diameter (mm)	Fixing Thickness		Torque (Nm)	Grade	Design Resistance (kN)
			Minimum	Maximum			
Peg Anchor	M12 × 60	12	8	40	50	A2	30.9
Peg Anchor	M12 × 75	12	8	55	50	A2	30.9

Hex Head Set Screw

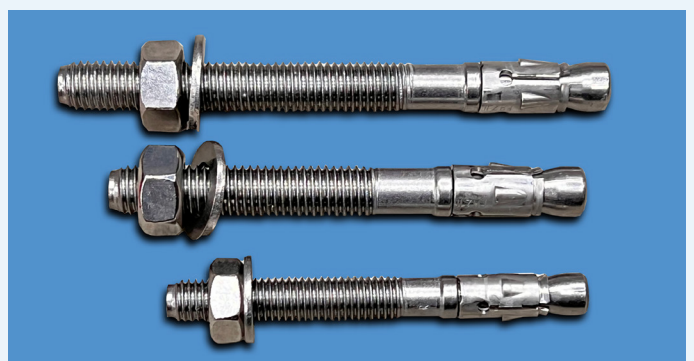
Setscrews are used when fixing masonry support systems back to steel frames. Set screws can be supplied in A2 or A4, shrink wrapped, or with nylon washer to avoid bi-metallic corrosion.



Fixing	Product Code	Drill Diameter (mm)	Design Tension (kN)	Design Shear (kN)	Bolt Torque (Nm)
M10 × 50	HXS-M10-50-A4/70	12	29.2	16.2	27
M12 × 50	HXS-M12-50-A4/70	14	42.5	23.6	48

Throughbolt

Throughbolt is a popular fixing for masonry support systems to brick and concrete. Supplied in A4 Stainless steel for a high corrosion resistance fixing.



Fixing	Product Code	Drill Diameter (mm)	Design Tension (kN)	Design Shear (kN)	Bolt Torque (Nm)
M10x95 A4	TB-M10-95-A4	10	10	15.2	40
M12x100 A4	TB-M12-100-A4	12	13.5	28.6	60

Resin Anchor

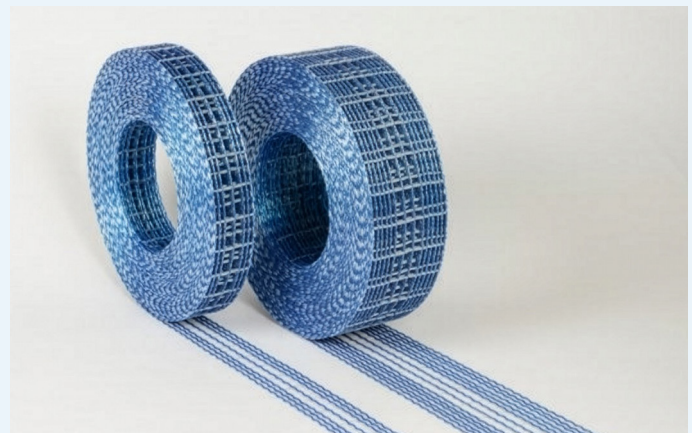
Resin anchors are suitable for a range of fixing scenarios including un-cracked concrete and masonry. As the resin is injected in to the fixing hole it is mixed in the nozzle. Once sufficient resin has been applied the metric stud is inserted and left to set providing an fixing point. Plastic resin sleeves are also available.



Fixing	Product Code	Drill Dia. (mm)	Design Tension (kN)	Design Shear (kN)	Bolt Torque (Nm)
M12 × 160	RESIN-M12-160-A4	14	22.6	13.3	40
M16 × 190	RESIN-M16-190-A4	18	42	25.2	80

Murfor – Masonry Reinforcement

Murfor® Compact masonry reinforcement tackles one of the many challenges a construction project faces. While masonry boasts high compressive strength, its tensile strength is often a limitation. This is where Murfor® Compact shines, offering superior tensile strength and revolutionizing masonry construction.

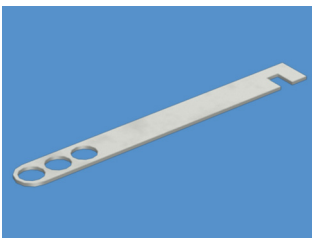


Fixing	Product Code	Drill Dia. (mm)	Design Tension (kN)	Bolt Torque (Nm)
Murfor® Compact E-35	MX2, MX3, MX4	All facing bricks	65 to 103 mm	13.3
Murfor® Compact E-70	MX2, MX3, MX4	18 All facing bricks	> 103 mm	3 to 12 mm

Windpost Ties

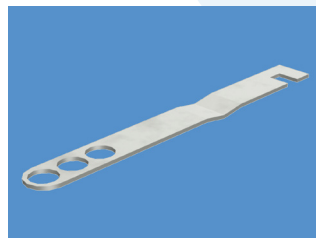
Windpost ties are specific types of fasteners used in conjunction with windposts to provide additional stability to masonry walls and

can be supplied with a debonding sleeve where there is a vertical movement joint.



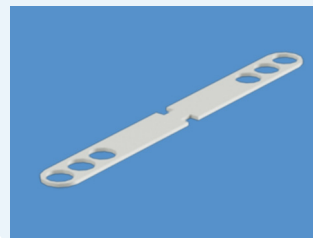
OWT

One Way Tie



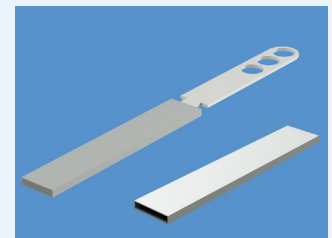
OWTD

One Way Tie with Drip



TWT

Two Way Tie



TWTDS

Two Way Tie with Debonding Sleeve

Windpost Design Considerations

Ensure a thorough structural analysis is conducted to identify the loads and forces impacting the windposts, considering wind loads, dead loads, and any other relevant loads or movements. While we provide a wide range of standard sizes, windposts can also be customized using our in-house design suite.

Windload and height of windpost play a large part in deciding which windpost to use, coupled with the structure and the correct fixings.

Slots within the post provide site tolerance and adjustment. It is the responsibility of site to double check opening heights (distance between structure) and slot positions (blockwork and brickwork setting out).

As standard ST-UK will design fixings into concrete structure to suit a concrete strength of C30/37. If this differs to the project requirement, the project structural engineer advise otherwise.

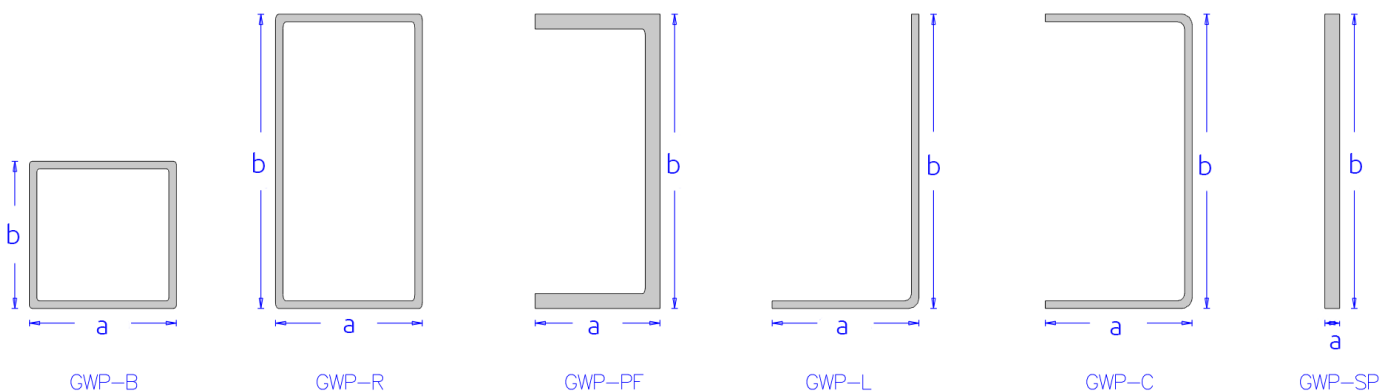
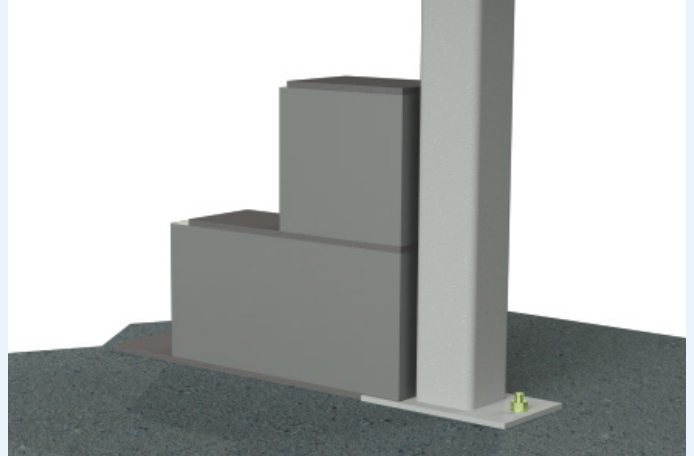
As windposts are restrained by and fixed within the brick/block wall, wall ties (OWT / TWT) should be installed vertically at 225mm centres.

Typical ST-UK Windpost Description

SWP-L 130 × 70 × 6mm windpost × 2750mm high, c/w welded baseplate, loose top cleats, M12 RAWL HPTIII expansion anchors for fixing to concrete, M12 × 40mm hexhead setscrews for fixing top cleat and wall ties.

If galvanised posts are required, the referencing is as follows:

- **GWP-B** = Galvanised square box section windpost
- **GWP-R** = Galvanised rectangular box section windpost
- **GWP-PF** = Galvanised PFC windpost
- **GWP-L** = Galvanised L Type Windpost
- **GWP-C** = Galvanised C Type Windpost
- **GWP-SP** = Galvanised Spine Windpost

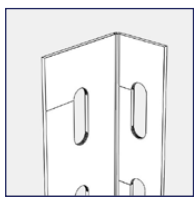
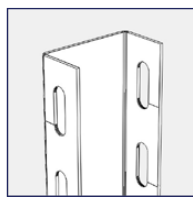
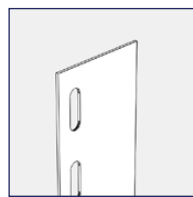


Windpost Design Sheet

Name:	
Company:	
Contact No:	
Site Address:	
Email:	

Project:	
Date Required:	
Order No.:	

1. Type of Windpost


☐

☐

☐

Do you require back to back? ☐

SWP-L

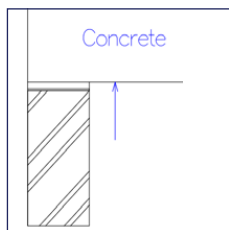
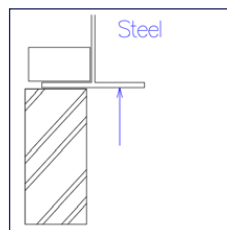
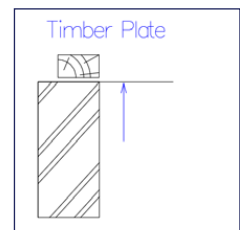
SWP-C

SWP-P

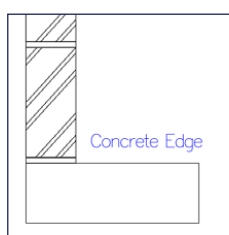
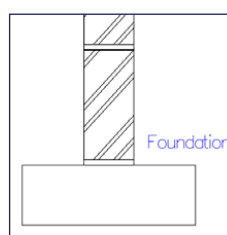
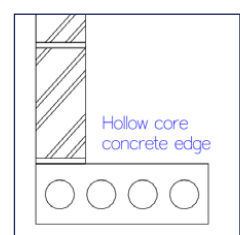
Windpost Section Size (a × b × t)	
No. of Windposts	

2. Connection Type

Top (tick one)


☐

☐

☐

Base (tick one)


☐

☐

☐

3. Wall Construction

Brick (A)	
Cavity (B)	
Block (C)	
Insulation (D)	
Length (E-F)	
Design Load/Post (kN) ULS	
Slot Dimensions	
Dimensions from Base to First Tie	

