

Modular Balustrade System



Design - Supply - Fabricate - Install



www.swr-balustrade.co.uk



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Office Hours: **Monday - Friday, 8.30am - 5.00pm**

SERVICE THE SWR WAY

At SWR we are committed to providing high levels of customer service, whilst constantly looking at ways in which we can improve your experience in dealing with us. We have a dedicated team on hand to guide you in your selection of the most suitable balustrade system for your project.

Designing and installing your balustrade system is easier than you may think. Simply send us your sketches, photographs or technical drawings and we will help you turn your vision into a reality.

Our aim is to provide you with a premium quality, safe and reliable system. We will guide and advise you based on the industry standards and building regulations to ensure complete peace of mind in your selection.

QUALITY ASSURED

As an ISO 9001:2008 approved company, quality is at the forefront in all that we do. We have worked to ensure our balustrade systems are designed and manufactured to comply with industry standards and regulations.

Our systems have been rigorously tested by The British Standards Institute to BS 6180.

To download these test reports and for further technical information please visit us at:
www.swr-balustrade.co.uk/knowledge or contact our Sales Team.



GRADE SELECTION – AISI 304 OR AISI 316, SATIN OR MIRROR POLISHED?

Our balustrade range comprises of AISI 304 and AISI 316 stainless steel, both of which are available in a 320 grit brushed satin finish or a mirror polished finish.

AISI 304 and 316 stainless steel appear the same but perform very differently depending on the surrounding environment. This is due to the differences in the chemical composition between the two grades with AISI 316 offering more resistance to corrosion due to the molybdenum content.

In line with industry guidelines, as a general rule we recommend AISI 316 for outdoor use and AISI 304 for interior projects.

Although satin and mirror polished contain the same chemical composition, they appear very different due to the final surface finish. The mirror finish is polished down to approximately 0.2 microns, which produces a very smooth and reflective surface, making it the most suitable finish for coastal and busy industrial areas containing high emissions. Unlike the satin finish, which is polished down to approximately 0.5 microns, mirror polished provides minimal areas for corrosive elements in the air to rest, which potentially cause permanent damage to your system.

The table below can be used as a rough guide to which grade/finish is appropriate for certain environments.

	Rural		Urban		Industrial		Coastal	
	Internal	External	Internal	External	Internal	External	Internal	External
Satin 304	✓	✗	✓	✗	✗	✗	✗	✗
Satin 316	✓	✓	✓	✓	✓	✓	✓	✗
Mirror 304	✓	✓	✓	✓	✓	✓	✓	✗
Mirror 316	✓	✓	✓	✓	✓	✓	✓	✓

For more information, please visit: www.swr-balustrade.co.uk/knowledge or contact our Sales Team.

GLASS

SWR's approach to safety is paramount, which equally extends to our choice of glass as an infill solution for your balustrade system. All glass supplied by SWR is manufactured in accordance with BS EN 12600:2002 and our dedicated team work closely with you to determine the best glass option based on the load information provided.

We recognise that clients need a "one stop" solution when it comes to purchasing a glass infill balustrade and so SWR has established a partnership with a top glass processor who has been supplying safety glass since 1985 and is a leading supplier of quality architectural glass products throughout the UK.

Whether your requirement is for a domestic glass balustrade for your patio, balcony or a large commercial development, we can supply toughened or toughened & laminated glass to suit your needs.

Choosing The Right Glass

When you contact SWR with your glass enquiry, our experienced and helpful team will determine the right glass for you. We will ask some key questions about your requirements which will enable us to discuss the various options with you:

- What height of glass do you require?
- Is your system internal or external?
- Is a stainless steel handrail required?
- What loading does the glass balustrade need to achieve?
This can be provided by a structural engineer or your local building control officer.

GLASS

Once we have established this information, we can discuss the thickness of glass required and whether this will be provided as toughened, heat soaked glass or toughened & laminated glass. Toughened glass is ideally suited to most applications where safety is critical, but consideration should be taken if the glass balustrade is at a high level.

Toughened & laminated glass is constructed of two pieces of toughened glass either side of a laminate interlayer and offers the same strength under impact as toughened glass with a crucial safety difference - If the pane is damaged resulting in the glass breaking, the fragments will be retained by the laminate interlayer, enabling the system to still act as a barrier until a replacement can be installed.

Your glass balustrade system will not only need to look great, it will also be designed to be a key safety feature in your environment. As safety is paramount to SWR, we can call upon the services of an industry recognised Structural Glass Consultancy who, from the information provided to them, can determine precisely what type of glass is required to achieve the strength it is intended for. For your piece of mind, they can provide a written report detailing the calculations used to determine this.

Delivery To Your Door

SWR can arrange to have your glass delivered to the majority of locations on the UK mainland. By using a dedicated courier for your glass, we can ensure your order arrives quickly and in perfect condition.

All glass delivered to you will have polished edges and radius corners as standard unless requested otherwise. We can also supply frosted/sandblasted glass, silkscreen printed glass and etched glass.

For more information, please visit: www.swr-balustrade.co.uk/knowledge or contact our Sales Team.



MODULAR SYSTEM

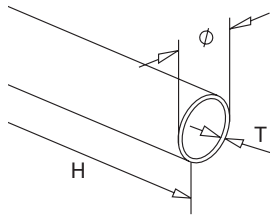
Our most popular system - strong, stunning and versatile



SATIN TUBE

SWR's stainless steel post and handrail system is designed to provide a user friendly solution for the most bespoke balustrade requirements. The stylish modular system is available in a variety of contemporary infill solutions including glass, wire or rod; giving you complete freedom of design.

Our satin product range includes both AISI 304 and AISI 316 grade stainless steel in 42.4mm and 48.3mm diameter tube. Whether you require a balustrade system for a residential or commercial project, we at SWR can offer a cost effective solution designed to meet your specific needs.

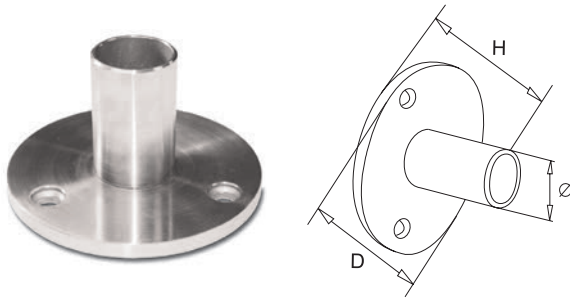


Tube

Ø	T	H	Grade	Part Code
42.4	2.0	Up to 6m	AISI 304	4220.11.910
42.4	2.0	Up to 6m	AISI 316	6220.11.910
48.3	2.0	Up to 6m	AISI 304	4826.11.910
48.3	2.0	Up to 6m	AISI 316	6826.11.910

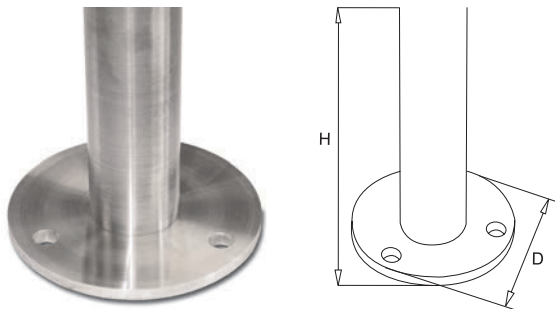


SATIN BASE & WALL FIXINGS



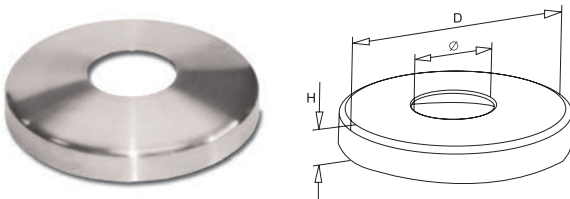
Base Plate

For Tube	H	D	Ø	Grade	Part Code
42.4	67	120	38.3	AISI 304	4220.12.010
42.4	67	120	38.3	AISI 316	6220.12.010



Base Plate & Floor Post (1050mm)

For Tube	H	D	Grade	Part Code
42.4	1050	120	AISI 304	4220.12.011
42.4	1050	120	AISI 316	6220.12.011

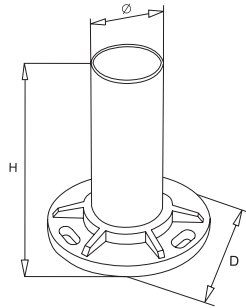


Base Plate Cover

For Tube	H	D	Ø	Grade	Part Code
42.4	18	125	42.5	AISI 304	4200.12.019
42.4	18	125	42.5	AISI 316	6200.12.019

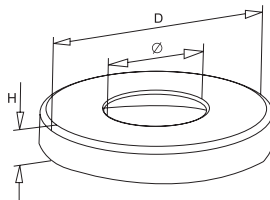
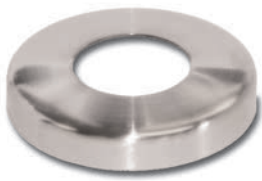


SATIN BASE & WALL FIXINGS



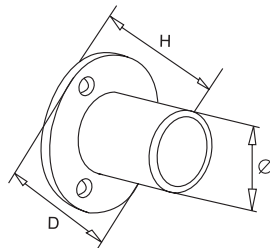
Heavy Duty Base Plate

For Tube	H	D	Ø	Grade	Part Code
42.4	100	100	38.3	AISI 304	4220.12.030
42.4	100	100	38.3	AISI 316	6220.12.030
48.3	117	100	43	AISI 304	4826.12.030
48.3	117	100	43	AISI 316	6826.12.030



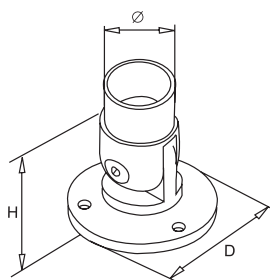
Heavy Duty Base Plate Cover

For Tube	H	D	Ø	Grade	Part Code
48.3	17	105	48.4	AISI 304	4800.12.039
48.3	17	105	48.4	AISI 316	6800.12.039



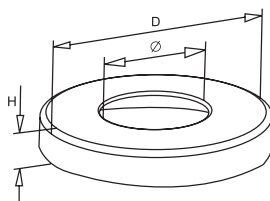
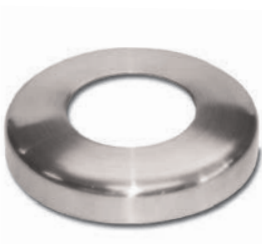
Wall Plate

For Tube	H	D	Ø	Grade	Part Code
42.4	48	79	38.3	AISI 304	4220.12.020
42.4	48	79	38.3	AISI 316	6220.12.020
48.3	68	79	43	AISI 304	4826.12.020
48.3	68	79	43	AISI 316	6826.12.020



Articulated Wall Plate

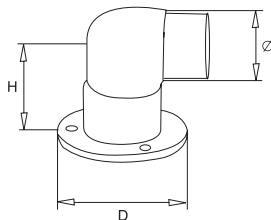
For Tube	H	D	Ø	Grade	Part Code
42.4	65	80	38.3	AISI 304	4220.12.021
42.4	65	80	38.3	AISI 316	6220.12.021



Wall Plate Cover

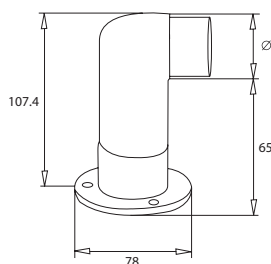
For Tube	H	D	Ø	Grade	Part Code
42.4	16	84	42.5	AISI 304	4200.12.029
42.4	16	84	42.5	AISI 316	6200.12.029

SATIN BASE & WALL FIXINGS



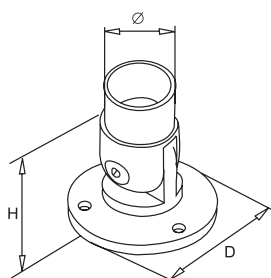
Short 90° Base Plate

For Tube	H	D	Ø	Grade	Part Code
42.4	51.2	76	42.4	AISI 304	4220.12.090
42.4	51.2	76	42.4	AISI 316	6220.12.090



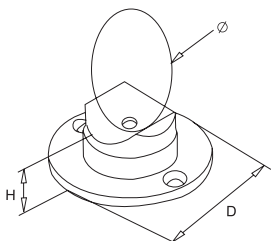
Long 90° Base Plate

For Tube	Ø	Grade	Part Code
42.4	42.4	AISI 304	4220.12.100
42.4	42.4	AISI 316	6220.12.100



Articulated Wall Plate

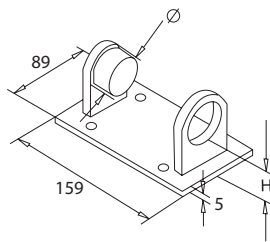
For Tube	H	D	Ø	Grade	Part Code
42.4	65	80	38.3	AISI 304	4220.12.021
42.4	65	80	38.3	AISI 316	6220.12.021



Support Flange

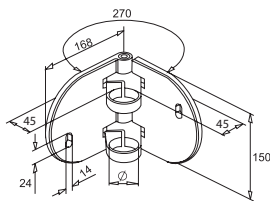
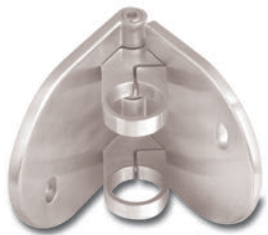
For Tube	H	D	Ø	Grade	Part Code
42.4	30	76	42.4	AISI 304	4220.12.110
42.4	30	76	42.4	AISI 316	6220.12.110

SATIN BASE & WALL FIXINGS



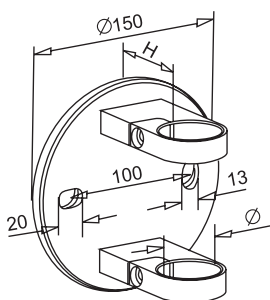
Post Holder

For Tube	H	Ø	Grade	Part Code
42.4	27	38.3	AISI 304	4220.12.101
42.4	27	38.3	AISI 316	6220.12.101
48.3	30	43	AISI 304	4826.12.101
48.3	30	43	AISI 316	6826.12.101



Hinged Post Holder

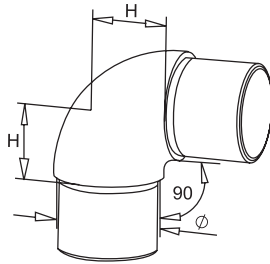
For Tube	Ø	Grade	Part Code
42.4	42.5	AISI 304	4220.12.555
42.4	42.5	AISI 316	6220.12.555
48.3	48.4	AISI 304	4826.12.555
48.3	48.4	AISI 316	6826.12.555



Round Post Holder

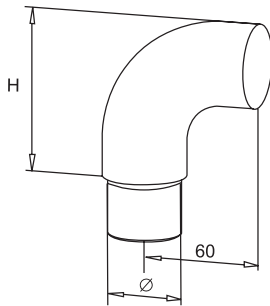
For Tube	Ø	Grade	Part Code
42.4	42.5	AISI 304	4220.12.551
42.4	42.5	AISI 316	6220.12.551
48.3	48.4	AISI 304	4826.12.551
48.3	48.4	AISI 316	6826.12.551

SATIN BENDS, ELBOWS & TEES



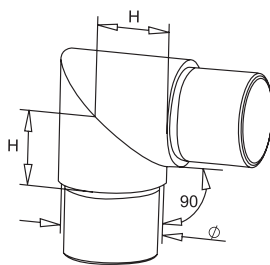
90° Curved Elbow

For Tube	H	Ø	Grade	Part Code
42.4	31.3	42.4	AISI 304	4220.15.160
42.4	31.3	42.4	AISI 316	6220.15.160
48.3	35	48.3	AISI 304	4826.15.160
48.3	35	48.3	AISI 316	6826.15.160



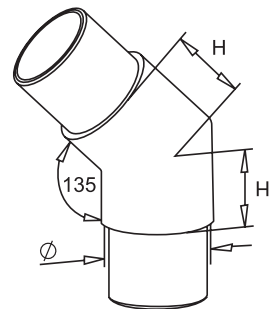
90° Curved Elbow M/F (with Cap)

For Tube	H	Ø	Grade	Part Code
42.4	83	42.4	AISI 304	4220.15.165
42.4	83	42.4	AISI 316	6220.15.165
48.3	84	48.3	AISI 304	4826.15.165
48.3	84	48.3	AISI 316	6826.15.165



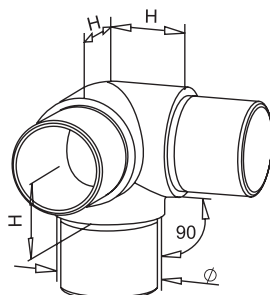
90° Sharp Elbow

For Tube	H	Ø	Grade	Part Code
42.4	30	42.4	AISI 304	4220.15.170
42.4	30	42.4	AISI 316	6220.15.170
48.3	35	48.3	AISI 304	4826.15.170
48.3	35	48.3	AISI 316	6826.15.170



45° Elbow

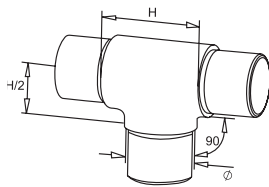
For Tube	H	Ø	Grade	Part Code
42.4	42.4	42.4	AISI 304	4220.15.175
42.4	42.4	42.4	AISI 316	6220.15.175



Three Way Elbow

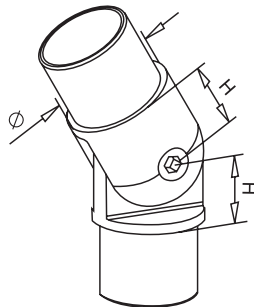
For Tube	H	Ø	Grade	Part Code
42.4	30	42.4	AISI 304	4220.15.190
42.4	30	42.4	AISI 316	6220.15.190
48.3	35	48.3	AISI 304	4826.15.190
48.3	35	48.3	AISI 316	6826.15.190

SATIN BENDS, ELBOWS & TEES



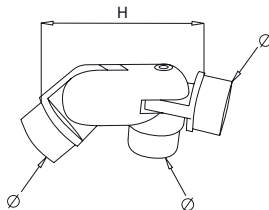
Equal Tee

For Tube	H	Ø	Grade	Part Code
42.4	60	42.4	AISI 304	4220.15.210
42.4	60	42.4	AISI 316	6220.15.210
48.3	70	48.3	AISI 304	4826.15.210
48.3	70	48.3	AISI 316	6826.15.210



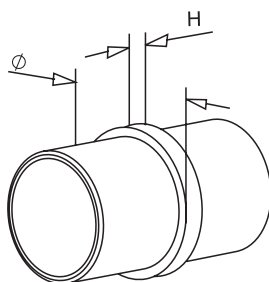
Articulated Elbow

For Tube	H	Ø	Grade	Part Code
42.4	27	42.4	AISI 304	4220.15.250
42.4	27	42.4	AISI 316	6220.15.250
48.3	30	48.3	AISI 304	4826.15.250
48.3	30	48.3	AISI 316	6826.15.250



Three Way Articulated Joint

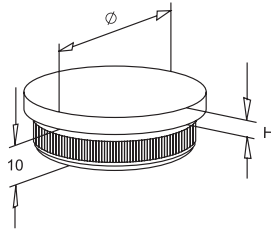
For Tube	H	Ø	Grade	Part Code
42.4	104	42.4	AISI 304	4220.15.251
42.4	104	42.4	AISI 316	6220.15.251
48.3	112	48.3	AISI 304	4826.15.251
48.3	112	48.3	AISI 316	6826.15.251



Straight Connector

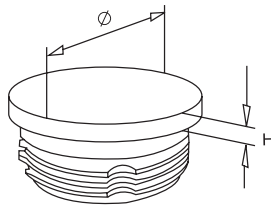
For Tube	H	Ø	Grade	Part Code
42.4	6	42.4	AISI 304	4220.15.280
42.4	6	42.4	AISI 316	6220.15.280
48.3	6	48.3	AISI 304	4826.15.280
48.3	6	48.3	AISI 316	6826.15.280

SATIN END CAPS



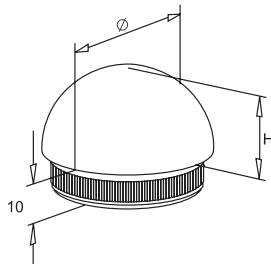
Flat Capping Plug (Stainless Steel)

For Tube	H	Ø	Grade	Part Code
42.4	2.5	42.4	AISI 304	4220.15.140
42.4	2.5	42.4	AISI 316	6220.15.140



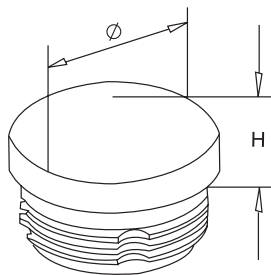
Flat Capping Plug (Plastic Sleeve)

For Tube	H	Ø	Grade	Part Code
48.3	8	48.3	AISI 304	4826.15.140
48.3	8	48.3	AISI 316	6826.15.140



Round Capping Plug (Stainless Steel)

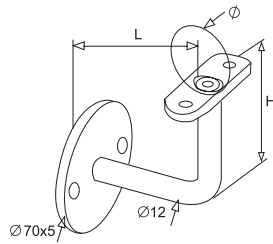
For Tube	H	Ø	Grade	Part Code
42.4	21	42.4	AISI 304	4220.15.155
42.4	21	42.4	AISI 316	6220.15.155



Round Capping Plug (Plastic Sleeve)

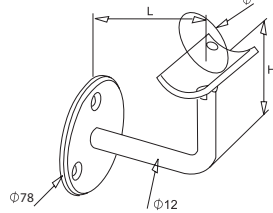
For Tube	H	Ø	Grade	Part Code
42.4	15	42.4	AISI 304	4220.15.150
42.4	15	42.4	AISI 316	6220.15.150
48.3	15	48.3	AISI 304	4826.15.150
48.3	15	48.3	AISI 316	6826.15.150

SATIN HANDRAIL BRACKETS



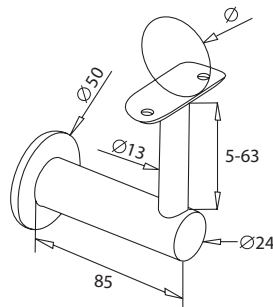
Wall Bracket

For Tube	H	L	Ø	Grade	Part Code
42.4	74	75	42.4	AISI 304	4200.13.040
42.4	74	75	42.4	AISI 316	6200.13.040



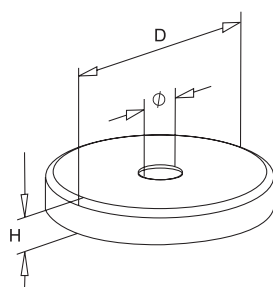
Articulated Wall Bracket

For Tube	H	L	Ø	Grade	Part Code
42.4	63	66	42.4	AISI 304	4200.13.041
42.4	63	66	42.4	AISI 316	6200.13.041
48.3	63	66	48.3	AISI 304	4800.13.041
48.3	63	66	48.3	AISI 316	6800.13.041



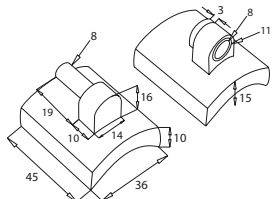
Wall Bracket

For Tube	Ø	Grade	Part Code
42.4	42.4	AISI 304	4200.43.042
42.4	42.4	AISI 316	6200.43.042



Wall Bracket Cover

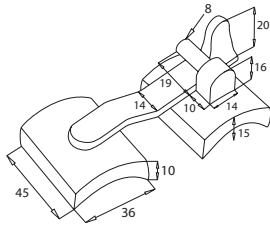
For Tube	H	D	Ø	Grade	Part Code
42.4	14	85	12	AISI 304	4200.13.049
42.4	14	85	12	AISI 316	6200.13.049



Gate Hinge

For Tube	Grade	Part Code
42.4	AISI 316	6200.21.500

SATIN HANDRAIL BRACKETS

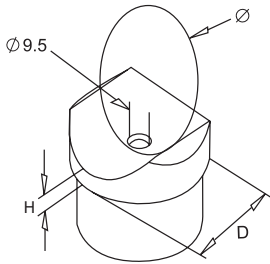


Gate Latch

For Tube	Grade	Part Code
42.4	AISI 316	6200.21.520

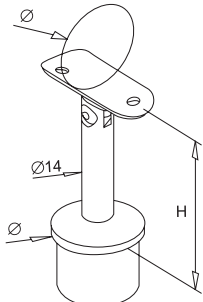
Suitable for 12-13mm glass

SATIN HANDRAIL SUPPORTS



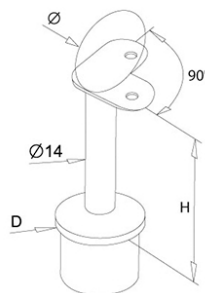
Tube Saddle

For Tube	H	D	Ø	Grade	Part Code
42.4	9	42.4	42.4	AISI 304	4220.14.230
42.4	9	42.4	42.4	AISI 316	6220.14.230
48.3	5	48.3	48.3	AISI 304	4826.14.230
48.3	5	48.3	48.3	AISI 316	6826.14.230



Stand Off Articulated Rail Support

For Tube	H	Ø	Grade	Part Code
42.4	78	42.4	AISI 304	4220.14.233
42.4	78	42.4	AISI 316	6220.14.233
48.3	79	48.3	AISI 304	4826.14.233
48.3	79	48.3	AISI 316	6826.14.233



90° Heart Shaped Saddle

For Tube	H	Ø	Grade	Part Code
42.4	79	42.4	AISI 316	6220.14.236
48.3	79	48.3	AISI 316	6826.14.236

GLASS CLAMP INFILL

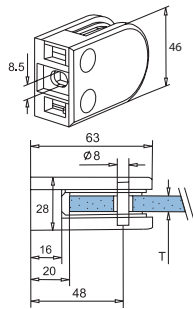
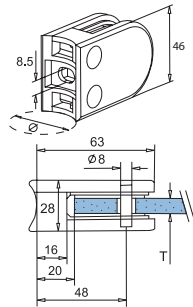
Create a contemporary look without obscuring the view.

Round Glass Bracket

For Tube	Suit Glass T	Ø	Grade	Part Code
42.4	6-8	42.4	AISI 304	4200.16.260
42.4	6-8	42.4	AISI 316	6200.16.260
42.4	8-10	42.4	AISI 304	4200.16.261
42.4	8-10	42.4	AISI 316	6200.16.261
48.3	8-10	48.3	AISI 304	4800.16.261
48.3	8-10	48.3	AISI 316	6800.16.261
48.3	11.5	48.3	AISI 316	6800.16.115

Flat Glass Bracket

Surface	Suit Glass T	Grade	Part Code
Flat	6-8	AISI 316	6F00.16.260
Flat	8-10	AISI 316	6F00.16.261



WIRE ROPE **INFILL**

A minimal finish, fitting for all applications.

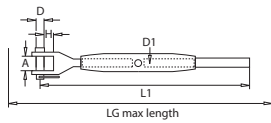


WIRE INFILL COMPONENTS



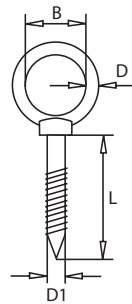
Wire Rope Tension Kit

For Tube	Length	Grade	Part Code
Universal	3 metres	AISI 316	6000.23.003
Universal	5 metres	AISI 316	6000.23.005
Universal	10 metres	AISI 316	6000.23.010



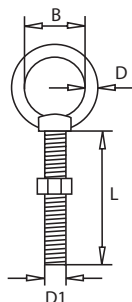
Rigging Screw (Jaw & Wire Rope Terminal MT Form Stainless Steel)

D1	Wire	L1	A	D	H	LG	Part Code
M8	4	210	11	8	11	285	SSRFS0408M
M12	6	300	14	12	20	410	SSRFS0612M



Eye Bolt (Wood Thread Stainless Steel)

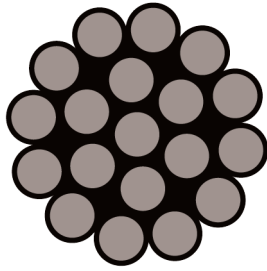
D	L	B	WLL (Tons)	WT (kg)	Part Code
5	50	11	0.05	0.017	SSLEB05050L
6	60	14	0.08	0.028	SSLEB06060L
8	80	18	0.15	0.065	SSLEB06080L
10	100	22	0.22	0.127	SSLEB10100L



Eye Bolt (Metric Thread Stainless Steel)

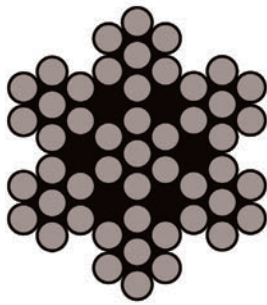
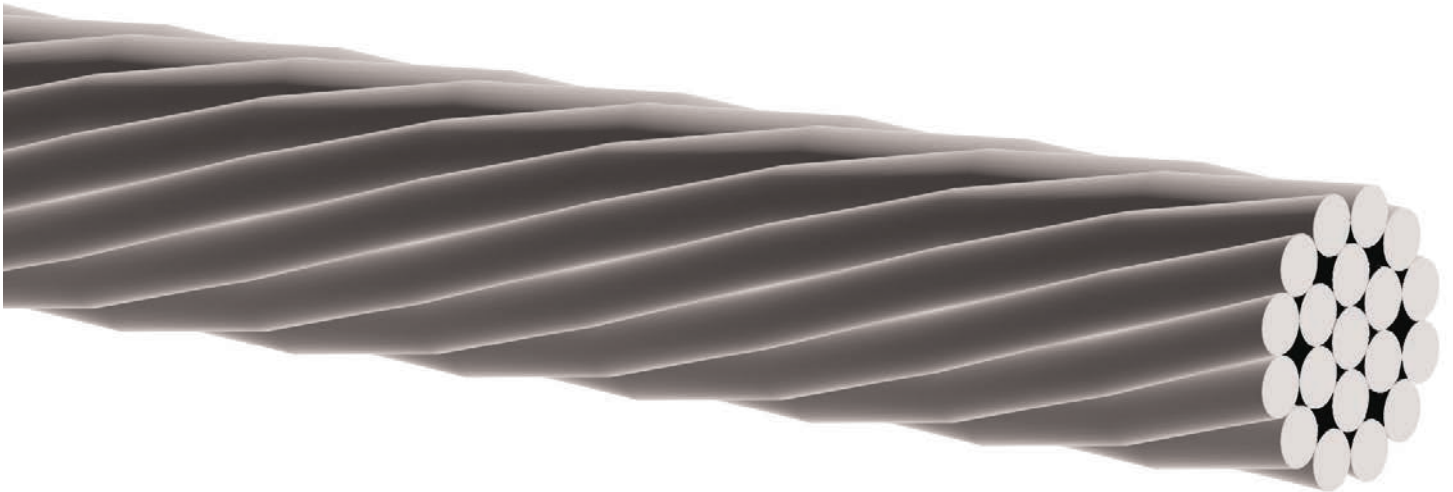
D1	L	D	B	WLL (Tons)	WT (kg)	Part Code
M6	40	5	15	0.05	0.027	SSLEB06040
M6	60	5	15	0.05	0.030	SSLEB06060
M6	80	5	15	0.05	0.035	SSLEB06080
M8	80	6	20	0.08	0.065	SSLEB08080
M8	100	6	20	0.08	0.072	SSLEB08100
M10	100	8	25	0.15	0.130	SSLEB10100
M12	120	10	30	0.22	0.230	SSLEB12120

WIRE INFILL COMPONENTS



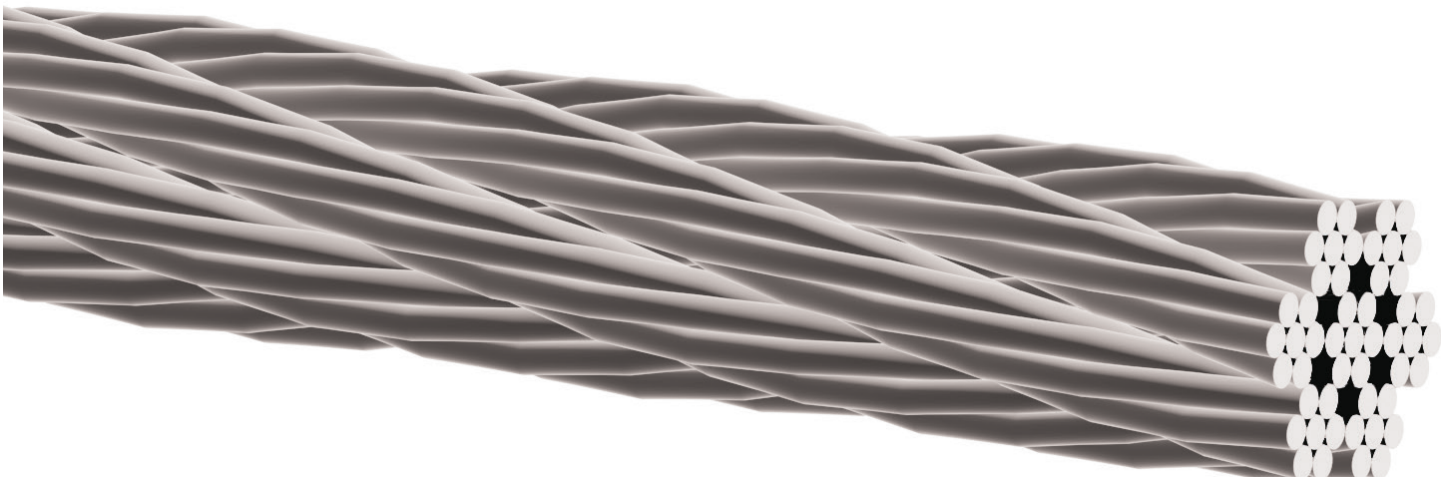
Stainless Steel Wire Rope (1x19)

Diameter	Approx. Mass	Min. Breaking Load	Part Code
4	7.81kg/100m	12.6 force kN	SS119040
6	17.6kg/100m	28.2 force kN	SS119060



Stainless Steel Wire Rope (7x7)

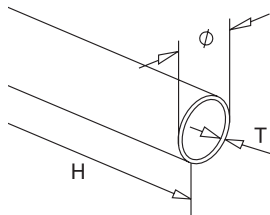
Diameter	Approx. Mass	Min. Breaking Load	Part Code
4	6.05kg/100m	9.49 force kN	SS770040
6	13.6kg/100m	21.4 force kN	SS770060



NEW MIRROR POLISHED COMPONENTS

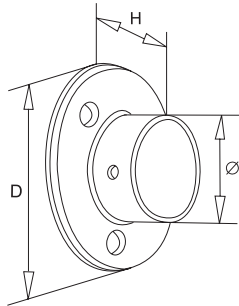
SWR are proud to launch our new range of mirror polished modular system tube and components. Our stainless steel post and handrail system is designed to provide a user friendly solution for the most bespoke balustrade requirements.

Our mirror polished product range includes both AISI 304 and AISI 316 grade stainless steel in 42.4mm and 48.3mm diameter tube. Whether you require a balustrade system for a residential or commercial project, we at SWR can offer a cost effective solution designed to meet your specific needs.



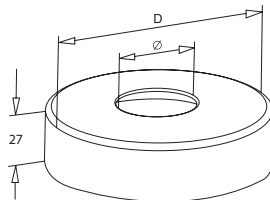
Tube

Ø	T	H	Grade	Part Code
42.4	2.0	Up to 5m	AISI 304	4220.11.910MR
42.4	2.0	Up to 5m	AISI 316	6220.11.910MR
48.3	2.6	Up to 5m	AISI 304	4826.11.910MR
48.3	2.6	Up to 5m	AISI 316	6826.11.910MR



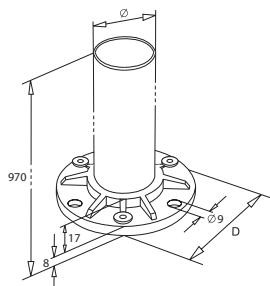
Wall Plate

For Tube	H	D	Ø	Grade	Part Code
42.4	30	95	38.3	AISI 304	4220.12.020MR
42.4	30	95	38.3	AISI 316	6220.12.020MR
48.3	35	100	43	AISI 304	4826.12.020MR
48.3	35	100	43	AISI 316	6826.12.020MR



Base Plate Cover

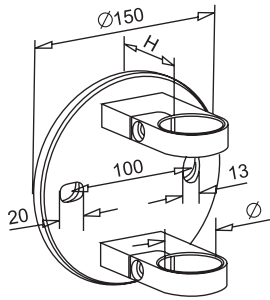
For Tube	D	Ø	Grade	Part Code
42.4	110	38.3	AISI 304	4200.12.019MR
42.4	110	38.3	AISI 316	6200.12.019MR
48.3	120	43	AISI 304	4800.12.019MR
48.3	120	43	AISI 316	6800.12.019MR



Base Plate & Welded Floor Post

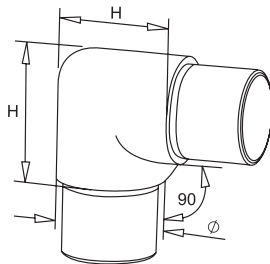
For Tube	D	Ø	Grade	Part Code
42.4	100	42.4	AISI 304	4220.12.011MR
42.4	100	42.4	AISI 316	6220.12.011MR
48.3	115	48.3	AISI 304	4826.12.011MR
48.3	115	48.3	AISI 316	6826.12.011MR

NEW MIRROR POLISHED COMPONENTS



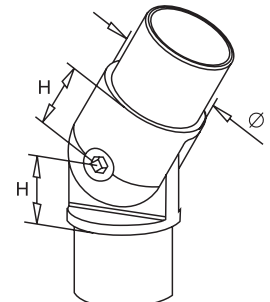
Post Holder

For Tube	Ø	Grade	Part Code
42.4	42.5	AISI 304	4220.12.551MR
42.4	42.5	AISI 316	6220.12.551MR
48.3	48.4	AISI 304	4826.12.551MR
48.3	48.4	AISI 316	6826.12.551MR



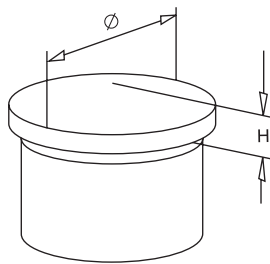
90° Curved Elbow

For Tube	H	Ø	Grade	Part Code
42.4	30	42.4	AISI 304	4220.15.160MR
42.4	30	42.4	AISI 316	6220.15.160MR
48.3	35	48.3	AISI 304	4826.15.160MR
48.3	35	48.3	AISI 316	6826.15.160MR



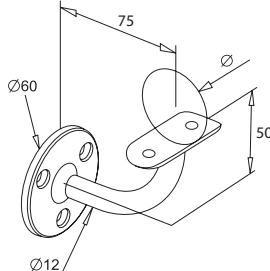
Articulated Elbow

For Tube	H	Ø	Grade	Part Code
42.4	27	42.4	AISI 304	4220.15.250MR
42.4	27	42.4	AISI 316	6220.15.250MR
48.3	30	48.3	AISI 304	4826.15.250MR
48.3	30	48.3	AISI 316	6826.15.250MR



End Cap

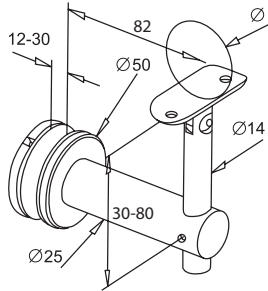
For Tube	H	Ø	Grade	Part Code
42.4	9	42.4	AISI 304	4220.15.140MR
42.4	9	42.4	AISI 316	6220.15.140MR
48.3	10	48.3	AISI 304	4826.15.140MR
48.3	10	48.3	AISI 316	6826.15.140MR



Wall Bracket

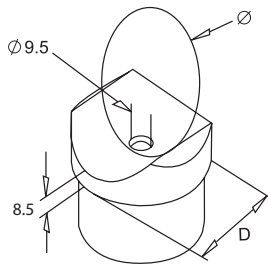
For Tube	Ø	Grade	Part Code
42.4	42.4	AISI 304	4200.13.040MR
42.4	42.4	AISI 316	6200.13.040MR
48.3	48.3	AISI 304	4826.13.040MR
48.3	48.3	AISI 316	6826.13.040MR

NEW MIRROR POLISHED COMPONENTS



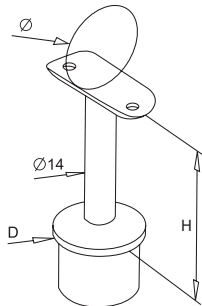
Articulated Glass Bracket Handrail Support

For Tube	Ø	Grade	Part Code
42.4	42.4	AISI 304	4200.16.045MR
42.4	42.4	AISI 316	6200.16.045MR
48.3	48.3	AISI 304	4800.16.045MR
48.3	48.3	AISI 316	6800.16.045MR



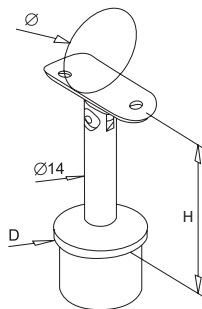
Tube Saddle

For Tube	Ø	D	Grade	Part Code
42.4	42.4	42.4	AISI 304	4220.14.230MR
42.4	42.4	42.4	AISI 316	6220.14.230MR
48.3	48.3	48.3	AISI 304	4826.14.230MR
48.3	48.3	48.3	AISI 316	6826.14.230MR



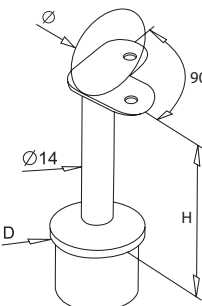
Extended Saddle

For Tube	H	Ø	D	Grade	Part Code
42.4	79	42.4	42.4	AISI 304	4220.14.231MR
42.4	79	42.4	42.4	AISI 316	6220.14.231MR
48.3	80	48.3	48.3	AISI 304	4826.14.231MR
48.3	80	48.3	48.3	AISI 316	6826.14.231MR



Articulated Extended Saddle

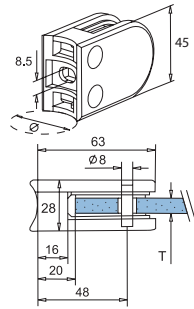
For Tube	H	Ø	D	Grade	Part Code
42.4	79	42.4	42.4	AISI 304	4220.14.233MR
42.4	79	42.4	42.4	AISI 316	6220.14.233MR
48.3	80	48.3	48.3	AISI 304	4826.14.233MR
48.3	80	48.3	48.3	AISI 316	6826.14.233MR



90° Extended Saddle

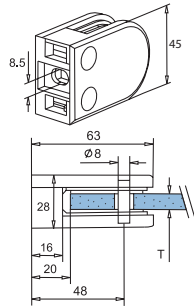
For Tube	H	Ø	D	Grade	Part Code
42.4	79	42.4	42.4	AISI 304	4220.14.236MR
42.4	79	42.4	42.4	AISI 316	6220.14.236MR
48.3	80	48.3	48.3	AISI 304	4826.14.236MR
48.3	80	48.3	48.3	AISI 316	6826.14.236MR

NEW MIRROR POLISHED COMPONENTS



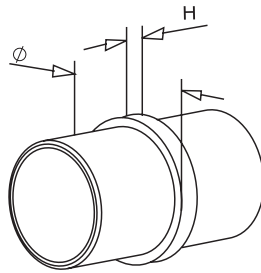
Round Glass Bracket

For Tube	Suit Glass T	Ø	Grade	Part Code
42.4	6-8	42.4	AISI 304	4200.16.260MR
42.4	6-8	42.4	AISI 316	6200.16.260MR
42.4	8-10	42.4	AISI 304	4200.16.261MR
42.4	8-10	42.4	AISI 316	6200.16.261MR
48.3	8-10	48.3	AISI 304	4800.16.261MR
48.3	8-10	48.3	AISI 316	6800.16.261MR



Flat Glass Bracket

Surface	Suit Glass T	Grade	Part Code
Flat	6-8	AISI 304	4F00.16.260MR
Flat	6-8	AISI 316	6F00.16.260MR
Flat	8-10	AISI 304	4F00.16.261MR
Flat	8-10	AISI 316	6F00.16.261MR



Tube Connector

For Tube	H	Ø	Grade	Part Code
42.4	6	42.4	AISI 304	4220.15.280MR
42.4	6	42.4	AISI 316	6220.15.280MR
48.3	6	48.3	AISI 304	4826.15.280MR
48.3	6	48.3	AISI 316	6826.15.280MR



OVERVIEW

High quality AISI 316 / A4 stainless steel fixings available from SWR

Whether you are fixing into solid concrete, brick or timber; SWR have the perfect solution.

Our dedicated team will guide you through the fixings you require for each component and will advise on the most suitable fixing methods for your project.

All of our fixings are high quality AISI 316 / A4 stainless steel and are available from stock.

For further information, please visit: www.swr-balustrade.co.uk/fixings or contact our Sales Team.



COMPONENTS



Socket Cap Screw

Size	Length	Quantity	Part Code
M8	20	Packs of 10	6000.91.250



Socket Button Screw

Size	Length	Quantity	Part Code
M5	20	Packs of 10	6000.91.140



Self Tapping Pan Head Screw

Gauge	Ø	Length	Quantity	Part Code
4	3	1¼" (30mm)	Pack of 12	6000.91.032
10	5	2" (50mm)	Pack of 12	6000.91.030



Self Tapping Countersunk Screw

Gauge	Ø	Length	Quantity	Part Code
10	5	2" (50mm)	Pack of 12	6000.91.031



Rawl Through Bolt

Size	Length	Quantity	Part Code
M8	95	Pack of 15	6000.91.260
M10	95	Pack of 15	6000.91.360
M12	100	Pack of 15	6000.91.460



Coach Screw

Size	Length	Quantity	Part Code
M8	100	Packs of 12	6000.91.210
M8	120	Packs of 12	6000.91.211
M10	100	Packs of 12	6000.91.310
M10	120	Packs of 12	6000.91.311
M12	100	Packs of 12	6000.91.410
M12	120	Packs of 12	6000.91.411



Studding

Size	Quantity	Part Code
M8	Per metre	6000.91.220
M10	Per metre	6000.91.320
M12	Per metre	6000.91.420



Round Washers

Size	Quantity	Part Code
M8	Pack of 25	6000.91.280
M10	Pack of 25	6000.91.380
M12	Pack of 25	6000.91.480



Dome Nuts

Size	Quantity	Part Code
M8	Pack of 10	6000.91.271
M10	Pack of 10	6000.91.371
M12	Pack of 10	6000.91.471



Hex Nuts

Size	Quantity	Part Code
M8	Pack of 10	6000.91.270
M10	Pack of 10	6000.91.370
M12	Pack of 10	6000.91.470



Polyester Resin

Size	Quantity	Part Code
410ml	Per bottle	0000.62.020



Mixer Nozzles

Size	Quantity	Part Code
For use with all cartridges	Pack of 10	0000.90.002



Structural Adhesive

Size	Quantity	Part Code
25ml	Per syringe	0000.61.637

COMPONENTS



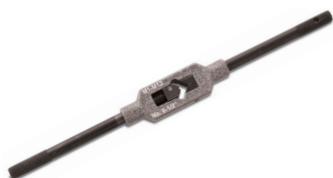
Drill Bits

Ø	Part Code
3.2	0000.90.032
4.1	0000.90.041
5.0	0000.90.050
6.5	0000.90.065
6.8	0000.90.068



Tappers

Size	Part Code
M3	0000.90.003
M4	0000.90.004
M5	0000.90.005
M6	0000.90.006
M8	0000.90.008



Tapping Wrench

Part Code
0000.90.285



Chemical Injection Tool

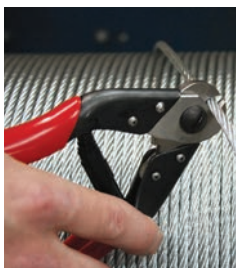
Size	Part Code
Fits 380-410ml cartridge	0000.90.090



Stainless Steel 10mm Head Spanner

Part Code
0000.90.300

Required to tighten Clamping Wedges



Wire Rope Cutters

Part Code: **SWR0060**

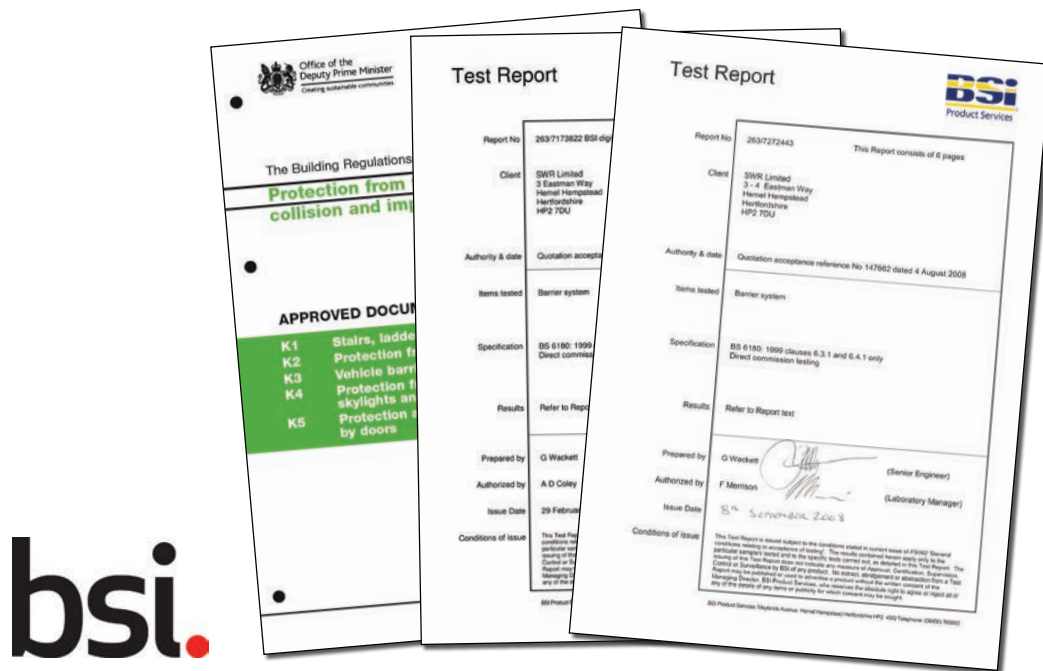
Type of Wire/Material	Max. Cutting Capacities
1770 - 1960 Grade Wire Rope	4mm

LOADING & BUILDING REGULATIONS

With any project the importance of safety has to be at the forefront of our minds when considering the most suitable balustrade system. With this mentality we work closely with our clients, providing advice on loading and dimensional specifications in line with The Building Regulations K2 Document.

Our systems have been rigorously tested to BS 6180 and have been fully approved for residential and commercial projects.

For more information, please go to: www.swr-balustrade.co.uk/regs



CUTTING, DRILLING & FINISHING SERVICE

SWR offer a full cutting, drilling and finishing service. Our CAD technicians provide our engineers with technical drawings of your system, designed to your specifications. Our highly skilled engineers then cut, drill and tap the balustrade accordingly.

During production of your system we take care to polish each tube giving it a smooth clean finish ready for on site assembly.

In line with our ISO 9001:2008 procedures we carry out rigorous checks throughout the production process to ensure ease of use and simple assembly when on site.

For your convenience on site we work to package each part so that all are marked up clearly and can be easily identified when unpacking and preparing to start the job. It's the small details that make the difference and ultimately help you to safely and efficiently install your balustrade system.



CLEANING & MAINTENANCE

An important thing to remember with stainless steel is that it is stain 'less' and not stain 'free'. Stainless steel is not completely corrosion proof and does require on-going cleaning and maintenance. As members of the British Stainless Steel Association we advise all of our customers to carry out necessary maintenance on your system to help retain the modern finish of the product.

We supply our own interior and exterior cleaning products specifically designed for stainless steel. Our cleaners give a sparkling appearance leaving a protective film to aid in future maintenance.



SWR Easy Clean

Description	Size	Part Code
Interior Cleaner	750ml	0000.60.015



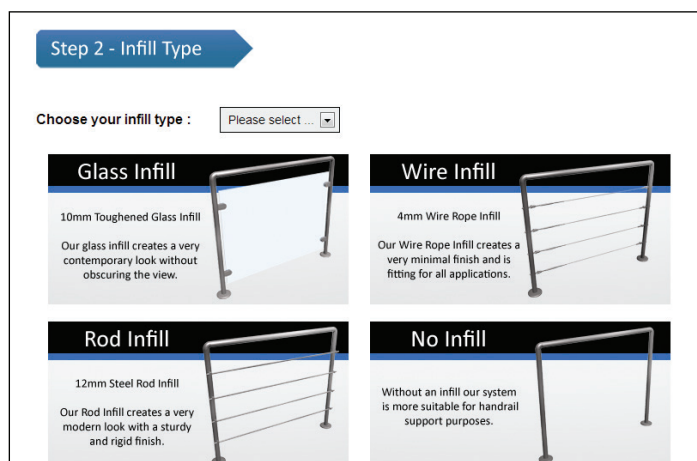
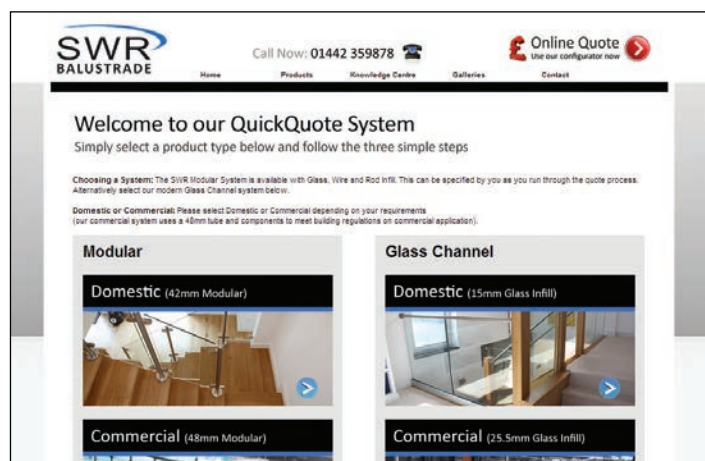
SWR Metal Shine

Description	Size	Part Code
Exterior Cleaner	750ml	0000.60.020

ONLINE QUOTE CONFIGURATOR

SWR also provide a Online Quote Configurator so that you can customise your balustrade system. Simply select the product type that you are interested in, followed by the estimated length of the system and the number of bends/corners, and we'll get back to you with a quote. This process is fast and easy to use.

Visit: www.swr-balustrade.co.uk/quote



MODULAR SYSTEM

Upright Posts

Step 1

Place your base plate down onto the surface you will be fixing to, ensuring that the full plate sits flush and there are no obstacles between the surface and the bottom of the base plate. Once in position, mark out the holes onto the surface using the pre-drilled holes in the base plate. Continue this process for each base plate you intend on fixing to the surface. **1)**



Step 2

Once you have marked out the holes for each base plate and are happy with their positions, you now need to drill them. **2)**



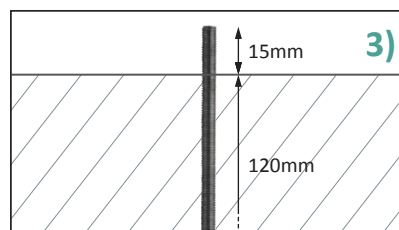
ChemFix & Studding Method

The size of the studding you have purchased will determine the size of the hole you need to drill. A hole one size up from the studding thickness is required.

i.e. If you have purchased M8 studding, you will require an M10 hole.

If you have purchased an M10 studding, you will require an M12 hole etc.

Continue to drill out the holes using the correct size drill bit. We advise customers to drill at least 100mm straight down into the surface they are fixing to. Once all holes are drilled they need to be cleaned of any excess debris that may remain inside the hole. The next step is to calculate the length of each stud you require to fit into the hole. This can be calculated by taking the distance drilled into the ground plus 15mm. **3)**



i.e. You have a hole that is 120mm into the ground: $120\text{mm} + 15\text{mm} = 135\text{mm}$.

This means each piece of your studding will need to be cut to 135mm.

You will require one piece of studding per hole drilled, cut to your calculated size. Next, take your ChemFix and slowly apply into each hole. **4)** The ChemFix sets quickly so once you have applied it to the first 9-12 holes, place down the applicator gun and begin to twist your studding into each hole you have applied ChemFix into. You may find that on twisting the studding into the hole, you have a small amount of excess leaving the hole as the studding reaches the bottom. Please be sure to remove the excess as it can become difficult to remove at a later stage once it has set. Repeat this procedure until all holes are filled with studding and then leave to set for 60 minutes. You will need to change applicator nozzles as the ChemFix will set inside fairly quickly. Once complete, place your base plates back over the exposed studding. Lastly, place your washers, followed by your nuts onto each piece of the studding. Tighten up each nut so that the base plate is securely fixed to the surface. To finish up, place your base plate covers over the base plates to cover all exposed fixings. **5)**



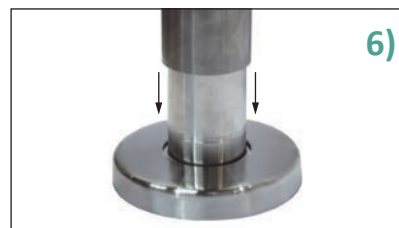
Step 3

Take your upright posts and apply the necessary amount of MMA Adhesive to the male fitting exposed from your base plate.

PLEASE NOTE: The MMA Adhesive sets very quickly.

Proceed to place all upright posts over the exposed male fittings of the base plates. **6)**

For further help fitting your Balustrade System, please contact our Sales Team.



MODULAR SYSTEM

Handrail

Step 1 - Dry Run

Once you have all upright posts firmly fixed to your surface and you are happy with the strength of each, proceed to place your handrail supports into the top of each upright. **1)** Place any elbows you may have into the ends of your handrails and down onto your fixed uprights. **2)**

PLEASE NOTE: DO NOT use any MMA Adhesive at this time.

Step 2

Tape the handrail supports to the handrail using gauze tape. Remove the handrail completely from the uprights ensuring the supports are securely taped in the exact position they were when the handrail was in place. **3)**

Step 3

Using a felt pen, mark the holes on the handrail where your handrail support is positioned. Once all holes are marked and you are happy with their positions, un-tape the handrail supports.

Step 4

Ensuring your handrail is securely positioned within a vice or similar mechanism, place a small piece of gauze tape over the marked area and using a sharp point, gently mark a pilot hole into your handrail - this will assist you in drilling your hole. Place lubricant onto your drill bit and proceed to drill the holes into your handrail. The correct size drill bit and taper is included in your order. **4)**

PLEASE NOTE: Take it slow when drilling holes into your handrail.

Once you have successfully drilled all holes into your handrail, you now need to tap them. The correct size tap is included in your order. To tap the hole, drill into it with the taper. Remove all tape once all holes are drilled and tapped.

PLEASE NOTE: SWR offer a full drilling and tapping service for upright posts, however we do not drill and tap any handrails, to allow for any adjustments to be made on site.

Step 5

Once all holes in your handrail(s) are drilled and tapped, proceed to replace your handrail supports, marrying up the holes in your handrail supports to the holes in your handrail. Place fixings through the underside of your handrail support and tighten until the handrail is securely fixed to handrail support. Repeat until all handrail supports are securely fixed to your handrail(s). **5)**

Step 6

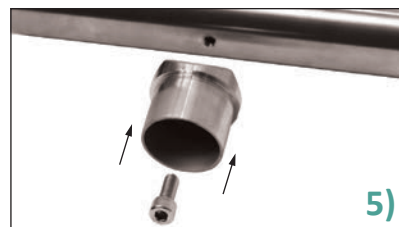
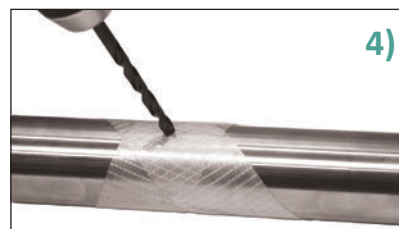
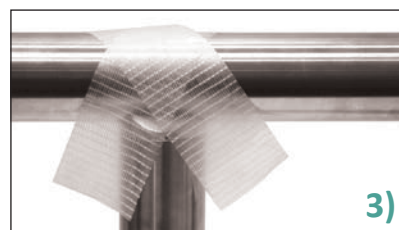
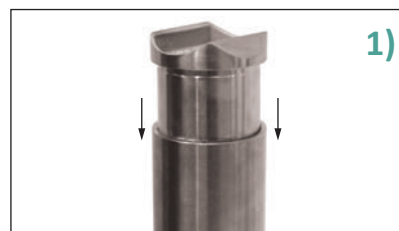
Apply MMA Adhesive onto the male fitting of your handrail supports and the male fitting of any elbows on the end of your handrails. Proceed to place the handrail supports and elbows into your uprights. **6)**

PLEASE NOTE: The MMA Adhesive sets very quickly.

Step 7

Using gauze tape, securely tape any areas that you have applied MMA Adhesive to act as extra support. Leave to set for 24 hours.

For further help fitting your Balustrade System, please contact our Sales Team.



MODULAR SYSTEM

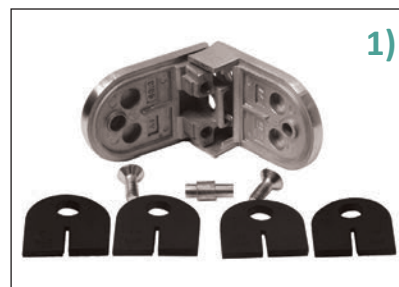
Glass

Step 1

Once you have successfully installed your steel work, the last step is to install your glass infill. Remove your glass brackets from the packaging along with the correct sized rubbers. Every glass bracket includes both rubbers to accommodate 8mm and 10mm glass, a safety pin and an M8 x 20mm socket cap screw for you to fix the bracket to your upright. **1)**

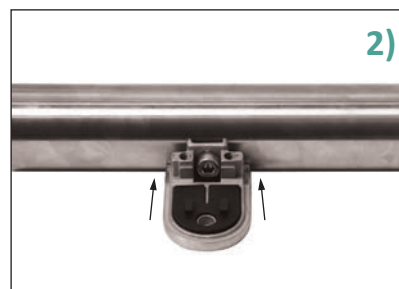
PLEASE NOTE: The safety pin is only used when suspending glass at height.

The clamping brackets and rubbers are strong enough to successfully secure your glass in place.



Step 2

Apply the correct size rubber into the inside of your bracket and fix the body of the bracket onto your upright. For your convenience, SWR pre-drill and tap these holes, however should you need to drill and tap on site, please refer to the SWR's *Handrail Fitting Instructions*. It is the customer's decision which side the brackets face. Tighten the screw through the body of the glass bracket into your upright using a 6mm allen key. **2)**



Step 3

The glass panel sizes are decided by the customer. Once all brackets are securely fixed to your uprights you will need to calculate the size of your glass. SWR recommend that to comply with current building regulations, once a glass panel is securely fixed in between the brackets, a sphere with a 100mm diameter should not be able to pass through any of the gaps. This includes the gaps between the upright posts and the glass, the handrail and the glass, and lastly, the surface you have fixed the balustrade onto and the glass.

If you have fixed your balustrade onto a level surface, your glass panels will be rectangle. To calculate the "width" of your glass, take the measurement between the area within the glass bracket where your glass will rest, up to the same area on the opposing glass bracket, then minus 10mm off the total for some "play". **3)**

i.e. Inside of glass bracket to inside of opposite glass bracket is 900mm.

(900mm - 10mm = 890mm) Glass Width: 890mm

To calculate the height of your glass, measure from the ground to the underside of your handrail and minus the size of the gap you wish to leave, ensuring that this is no more than 100mm. SWR would recommend a 70mm gap between the handrail and the glass, and the surface you have fixed to and the glass. **4)**

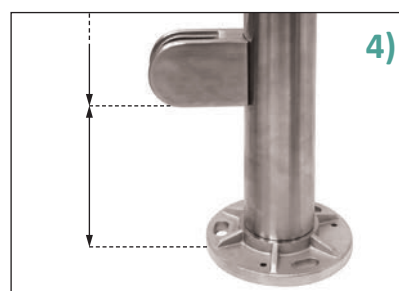
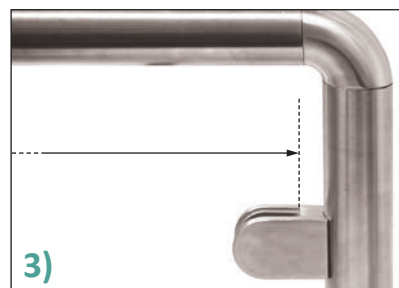
i.e. Measurement from surface area to underside of handrail is 1050mm.

(1050mm - 70mm - 70mm = 910mm) Glass Width: 910mm

If your glass panels are a "non-standard" shape, SWR advise that templates of the glass are made using a material that can be shaped into exactly how you wish your panel to look. This must be strong enough to be transported to us via courier and onto our glazier for processing. Our recommendation would be MDF wood.

PLEASE NOTE: SWR are unable to supply any materials required to template glass.

We can offer to collect the templates from the customer at the customer's expense.



Step 4

On receipt of your glass, place into the glass brackets and tighten the glass clamp, ensuring the glass is securely clamped in all areas. **5)**

Important Information – Please Read

SWR will do our very best to advise and guide on the most suitable and safest system for each individual project, however it remains the customer's responsibility to ensure the final specification complies with current building regulations. We also advise and supply the relevant fixings to enable the installer to fix to certain materials, however it remains the installers responsibility to ensure that the area in which the system is to be fixed is structurally supportive and has been approved by a structural engineer.

For further help fitting your Balustrade System, please contact our Sales Team.



TERMS & CONDITIONS

1. GENERAL

- 1.1 All sales contracts of SWR Ltd. (herein referred to as "the Seller") shall be deemed to incorporate these conditions except in so far as these conditions are varied by any special conditions agreed in writing between the parties. Any terms and conditions in the purchase order which are inconsistent with these conditions shall have no effect.

2. CATALOGUES

- 2.1 Catalogues, price lists and any advertising matter published by the Seller are intended only to give an indication of the general nature of the goods available and nothing contained in any such catalogue, list or other matter shall be or be deemed to be a representation by the Seller or a condition or warranty affecting any goods sold.

3. PRICES

- 3.1 Unless otherwise expressly stated all quotations shall be valid for a fixed period of 30 days only.
- 3.2 Unless otherwise expressly agreed in writing the price payable for all goods supplied by the Seller shall be the price ruling at the date of despatch plus value added tax thereon at the rate ruling at the date of despatch. All prices are subject to change.

4. PAYMENT

- 4.1 All goods shall be paid for in full by the Purchaser to the Seller at the time of ordering, by cash, cheque, credit card or finance.
- 4.2 Where account facilities apply, having been expressly agreed in writing by the Seller, the price shall be paid in full by the Purchaser to the Seller within 30 days of the date of the invoice.
- 4.3 For all installation products and services purchased a deposit (shown overleaf) is required. This is payable on order confirmation. The balance is payable after the products have been delivered. If the seller is responsible for installation, this balance will be payable once the installation is complete, unless a finance agreement is in place.
- 4.4 The Seller reserves the right to charge interest at a rate 5% above the Barclays Bank base rate from the date when the price falls due for payment until the date on which such payments are actually received by the Seller, and in the case of any default in payment the Purchaser shall give the Seller every assistance in the repossession of the goods in respect of which payment has not been made.

5.0 DOOR STEP SELLING - COOLING OFF PERIOD

- 5.1 For orders signed away from the sellers normal premises (i.e. orders placed at your home, place of work or other third party premises) under the doorstep selling regulations act you are entitled to a statutory 7 working days cooling off period - beginning from the date you place your order. Certain goods are exempt from this cooling off period, for example a special order or goods which are personalised or made to a personal specification
- 5.2 You must inform us in writing during the cooling off period that you are cancelling the order by sending the below notice of cancellation to SWR Ltd. See point 11 below.
- 5.3 If you have not received the goods at the time of cancellation of the contract and we have not processed the goods for delivery, we will refund to you all the monies paid by you for the goods in question in the same form of payment originally used for the purchase as soon as possible and in any event within 30 days of your cancellation being accepted.
- 5.4 If applicable any related credit agreements will automatically be cancelled if the order is cancelled within the cooling off period mentioned in point.
- 5.5 If you do not return the goods to us we shall be entitled to deduct the direct costs of recovering the goods from the amount to be refunded to you.

6. TRANSFER OF TITLE

- 6.1 Title to goods shall only pass to the Purchaser from the date of payment in full of all sums payable to the Seller under the contract by which those goods were supplied or any other contract. Until such time, goods remain the absolute property of the Seller and the Purchaser shall keep them insured to their full invoice value. Such goods shall be stored in such a way that they are readily identifiable and the Seller shall be entitled to repossess such goods at its entire discretion and at any time prior to payment in full therefore. The Purchaser hereby grants the Seller, its servants and agents a licence to enter upon the Purchaser's premises for the purpose of repossessing the same. Such repossession shall not affect in any way the continued existence of any contract between the parties.
- If goods in which title has not passed to the Purchaser are subjected to any process, addition or treatment, the property in the goods so processed, added to or treated, shall be vested in the Seller until title has passed.
- 6.2 All goods sold by the Purchaser to third parties before title has passed to the Purchaser, shall be sold as agent for the Seller and all proceeds received from such sales shall be held by the Purchaser in trust for the Seller, until payment in full of all amounts outstanding has been received by the Seller.
- 6.3 Notwithstanding that property in any goods has not passed to the Purchaser, the Seller shall be entitled to sue the Purchaser for the price of such goods if not paid on the due date.

7. DELIVERY

- 7.1 Any time for the delivery stated by the Seller will be an estimate only on the likely time required to effect delivery from the date of receipt by the Seller of full and final instructions. The Seller will make every reasonable effort to comply with such estimate but the Purchaser shall have no right to damages or to cancel any contract with the Seller by reason only of failure on the part of the Seller to meet any stated delivery time.
- 7.2 The Seller will endeavour to comply with reasonable requests by the Purchaser for postponement of any stated delivery date but shall be under no enforceable obligation to do so. In the event of any such postponement at the request of the Purchaser, the Purchaser shall pay to the Seller on demand all costs and expenses thereby incurred including a reasonable charge for storage thereby occasioned.
- 7.3 When the goods are sold "carriage paid" by the Seller, delivery shall be deemed to take place at the moment the goods are lifted from the delivery vehicle and thereafter the goods shall be at the risk of the Purchaser in all respects.

8. DAMAGE IN TRANSIT

- 8.1 No claim for goods damaged or lost in transit will be accepted by the Seller unless written notification of such damage or loss is given to the Seller by the Purchaser and the carrier within four working days of receipt of the goods by the Purchaser and all damaged goods are retained by the Purchaser pending inspection by the Seller and carrier.

9. LIABILITY

- 9.1 In placing an order with the Seller subject to these conditions the Purchaser is deemed to acknowledge that the Purchaser is not dealing as a consumer and that the provisions of these conditions restricting the liability of the Seller are (save as may be notified in writing by the Purchaser to the Seller before the time at which such order is accepted) fair and reasonable in the light of all circumstances then known to the Purchaser.
- 9.2 All goods supplied by the Seller are fit for the normal purpose for which such goods are intended. No liability is accepted if the goods are found not to be fit for any other purpose whether or not such other purpose was made known to the Seller before the contract was made. Any recommendations made by the Seller in such circumstances are made in good faith but as the conditions of use are outside the control of the Seller, it is for the Purchaser to satisfy himself as to the suitability of the goods. Save as aforesaid any conditions or warranty implied or imposed by law as to the quality fitness for the purpose or otherwise however of any goods supplied by the Seller is hereby expressly excluded and in no circumstances (except death or injury caused by the Seller's negligence) shall the Seller be liable for any loss injury or damage caused or arising whether in contract or in tort save as expressly provided and to the extent provided in this condition.
- 9.3 If any defect in workmanship or materials shall manifest itself in any goods supplied by the Seller within 12 months of the date of delivery thereof provided always that the goods shall have been found not to be to specification the Seller shall have the right at its sole discretion to replace free of cost to the Purchaser (other than the cost of carriage) any such goods or parts thereof and the Purchaser shall be obliged to accept such replacement in full satisfaction of its claim and shall also return to the Seller at the expense of the Purchaser the goods originally delivered or such defective part thereof as may have been replaced. If the Seller shall fail to replace such goods or parts thereof any amount recoverable by way of damages from the Seller by the Purchaser shall be limited to the difference between the value of the goods at the time of the delivery to the Purchaser and no claim whatever by the Purchaser shall entitle the Purchaser to withhold payment of the price of any goods or to any right of set-off against any payment due to the Seller under any contract made by the Seller and the Purchaser, nor will any claim made by the Purchaser entitle the Purchaser to reject any goods supplied and treat the contract as repudiated and any remedy of the Purchaser shall be in damages only as hereinafter provided.
- 9.4 The Seller shall be under no liability in respect of any defect arising from fair wear and tear, wilful damage, negligence, abnormal working conditions, failure to follow the Sellers instructions, whether oral or in writing, misuse or alterations of the Goods without the Seller's approval.
- 9.5 Given the multitude of legislations, we cannot accept liability for the compliance of our products to local building regulations. We therefore would like to draw your attention to the fact that it is always the customer's responsibility for observing the existing legal regulations and advice should be sort from your local planning office.

10. FORCE MAJEURE

- 10.1 In the event of any act of God, outbreak of war either general or local, riot or other civil commotion, strike lock-out or act or decree of any government or any other matter or thing beyond reasonable control of the Seller, the Seller:
- 10.2 Shall not be liable for any injury or damage of any kind thereby caused or resulting therefrom; and
- 10.3 May at the sole discretion of the Seller withdraw wholly or in part from the contract without any liability whatsoever. The construction validity and performance of this contract shall be governed by the laws of England and all disputes which may arise under out of or in connection with or in relation to this contract shall be subject to the jurisdiction of the courts of England.

Design - Supply - Fabricate - Install

www.swr-balustrade.co.uk



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