

Wire Balustrade Construction

Wire Balustrade Construction – Required Wire Tension (T) & Maximum Permissible Deflection (D)																	
Support (post or rail)		Stainless Steel Wire												Galvanised Steel Wire			
		Wire Diameter (mm) and Lay															
Spacing (mm)		2.5	2.5			3.0			3.0	4.0	4.0			4.0	3.25		
		7x7	1x19			1x19			7x7	7x7	7x19			1x19	1x6		
		Wire Spacing (mm)															
		60	60	80	100	60	80	100	60	60	60	80	100	60	60	80	100
600	T	6	35	420	1140	85	325	1090	81	29	155	394	1038	6	45	240	1060
	D	20	20	9	2	19	8	2	19	18	18	8	3	18	30	10	3
800	T	198	218	630	1565	183	555	1500	242	213	290	654	1412	127	140	537	1540
	D	13	13	7	2	16	6	2	16	14	14	7	3	14	23	7	3
900	T	294	310	735	N/A	261	670	1705	323	242	358	785	1598	242	188	685	1780
	D	11	11	5	N/A	13	6	2	13	12	12	6	3	12	20	6	3
1000	T	390	402	840	N/A	340	785	1910	404	329	425	915	1785	358	235	853	N/A
	D	10	10	5	N/A	11	6	2	11	10	10	5	3	10	17	6	N/A
1200	T	583	585	1050	N/A	520	1015	N/A	525	519	599	1143	2165	525	435	1190	N/A
	D	9	9	5	N/A	8	6	N/A	8	8	8	4	2	8	10	N/A	N/A
1500	T	860	810	1400	N/A	790	1330	N/A	681	785	860	1485	2745	785	735	N/A	N/A
	D	8	8	5	N/A	7	5	N/A	7	8	8	4	2	8	10	N/A	N/A
1800	T	1100	1125	1750	N/A	1025	1725	N/A	980	1050	1080	1860	N/A	1000	1150	N/A	N/A
	D	8	8	N/A	N/A	7	5	N/A	7	7	8	4	N/A	8	10	N/A	N/A
2000	T	1229	1325	N/A	N/A	1180	1980	N/A	1171	1188	1285	2105	N/A	1090	N/A	N/A	N/A
	D	8	8	N/A	N/A	7	5	N/A	7	7	7	4	N/A	7	N/A	N/A	N/A
2500	T	1581	N/A	N/A	N/A	N/A	N/A	N/A	1483	1719	1540	2615	N/A	1488	N/A	N/A	N/A
	D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7	7	4	N/A	7	N/A	N/A	N/A

Notes

Tension (T) = when measured with a strain indicator the minimum required tension of the wire balustrades in Newtons (N)

Deflection (D) = maximum permissible deflection in (mm) of the wire balustrades when a 2kg mass is suspended mid-span between the posts.

Lay = number of strands by the number of individual wires in each strand. For example 7x19=7 strands, each with 19 individual wires in each strand.

Galvanised Steel Wire is only to be used in straight run applications.

Where a change of direction is made in the run of a wire, the tensioning device is to be placed at the end of the longest span.

N/A = wire balustrades not allowed in this situation.