

AD Southwest Type 5 GP, Type 5 MD, Type 7 GP & Type 7 HD

UL Design X771 - Rectangular Tube Steel Columns

Size			Thickness, in. Required for Size and Rating Indicated				
Wall, in.	Member	A/P	1 Hr	1.5 Hr	2 Hr	3 Hr	4 Hr
3/16	4x3	0.18	1.003	1.630	2.257	3.511	NR
1/4	4x3	0.23	0.785	1.276	1.767	2.748	3.730
3/16	5x3	0.18	1.003	1.630	2.257	3.511	NR
1/4	5x3	0.23	0.785	1.276	1.767	2.748	3.730
5/16	5x3	0.29	0.623	1.012	1.401	2.179	2.958
3/8	5x3	0.34	0.531	0.863	1.195	1.859	2.523
1/2	5x3	0.44	0.410	0.667	0.923	1.436	1.950
3/16	5x4	0.18	1.003	1.630	2.257	3.511	NR
1/4	5x4	0.24	0.752	1.223	1.693	2.634	3.574
5/16	5x4	0.29	0.623	1.012	1.401	2.179	2.958
3/8	5x4	0.34	0.531	0.863	1.195	1.859	2.523
3/16	6x3	0.18	1.003	1.630	2.257	3.511	NR
1/4	6x3	0.24	0.752	1.223	1.693	2.634	3.574
5/16	6x3	0.29	0.623	1.012	1.401	2.179	2.958
3/8	6x3	0.34	0.531	0.863	1.195	1.859	2.523
1/2	6x3	0.44	0.410	0.667	0.923	1.436	1.950
3/16	6x4	0.18	1.003	1.630	2.257	3.511	NR
1/4	6x4	0.24	0.752	1.223	1.693	2.634	3.574
5/16	6x4	0.29	0.623	1.012	1.401	2.179	2.958
3/8	6x4	0.35	0.516	0.838	1.161	1.806	2.451
1/2	6x4	0.45	0.401	0.652	0.903	1.405	1.906
3/16	7x5	0.18	1.003	1.630	2.257	3.511	NR
1/4	7x5	0.24	0.752	1.223	1.693	2.634	3.574
5/16	7x5	0.3	0.602	0.978	1.354	2.107	2.859
3/8	7x5	0.35	0.516	0.838	1.161	1.806	2.451
1/2	7x5	0.48	0.376	0.611	0.847	1.317	1.787
3/16	8x3	0.18	1.003	1.630	2.257	3.511	NR
1/4	8x3	0.24	0.752	1.223	1.693	2.634	3.574
5/16	8x3	0.35	0.516	0.838	1.161	1.806	2.451
3/8	8x3	0.45	0.401	0.652	0.903	1.405	1.906
3/16	8x4	0.18	1.003	1.630	2.257	3.511	NR
1/4	8x4	0.24	0.752	1.223	1.693	2.634	3.574
5/16	8x4	0.3	0.602	0.978	1.354	2.107	2.859
3/8	8x4	0.35	0.516	0.838	1.161	1.806	2.451
1/2	8x4	0.46	0.393	0.638	0.883	1.374	1.865
3/16	8x6	0.18	1.003	1.630	2.257	3.511	NR
1/4	8x6	0.24	0.752	1.223	1.693	2.634	3.574
5/16	8x6	0.3	0.602	0.978	1.354	2.107	2.859
3/8	8x6	0.35	0.516	0.838	1.161	1.806	2.451
1/2	8x6	0.46	0.393	0.638	0.883	1.374	1.865
3/16	10x4	0.18	1.003	1.630	2.257	3.511	NR
1/4	10x4	0.24	0.752	1.223	1.693	2.634	3.574
5/16	10x4	0.3	0.602	0.978	1.354	2.107	2.859
3/8	10x4	0.35	0.516	0.838	1.161	1.806	2.451
1/2	10x4	0.46	0.393	0.638	0.883	1.374	1.865

NR - Not Rated

AD Southwest Type 5 GP, Type 5 MD, Type 7 GP & Type 7 HD

UL Design X771 - Rectangular Tube Steel Columns

Size			Thickness, in. Required for Size and Rating Indicated				
Wall, in.	Member	A/P	1 Hr	1.5 Hr	2 Hr	3 Hr	4 Hr
3/16	10x6	0.18	1.003	1.630	2.257	3.511	NR
1/4	10x6	0.24	0.752	1.223	1.693	2.634	3.574
5/16	10x6	0.3	0.602	0.978	1.354	2.107	2.859
3/8	10x6	0.35	0.516	0.838	1.161	1.806	2.451
1/2	10x6	0.46	0.393	0.638	0.883	1.374	1.865
3/16	10x8	0.18	1.003	1.630	2.257	3.511	NR
1/4	10x8	0.24	0.752	1.223	1.693	2.634	3.574
5/16	10x8	0.3	0.602	0.978	1.354	2.107	2.859
3/8	10x8	0.36	0.502	0.815	1.129	1.756	2.383
1/2	10x8	0.47	0.384	0.624	0.865	1.345	1.825
3/16	12x4	0.18	1.003	1.630	2.257	3.511	NR
1/4	12x4	0.24	0.752	1.223	1.693	2.634	3.574
5/16	12x4	0.3	0.602	0.978	1.354	2.107	2.859
3/8	12x4	0.35	0.516	0.838	1.161	1.806	2.451
1/2	12x4	0.46	0.393	0.638	0.883	1.374	1.865
3/16	12x6	0.18	1.003	1.630	2.257	3.511	NR
1/4	12x6	0.24	0.752	1.223	1.693	2.634	3.574
5/16	12x6	0.3	0.602	0.978	1.354	2.107	2.859
3/8	12x6	0.36	0.502	0.815	1.129	1.756	2.383
1/2	12x6	0.47	0.384	0.624	0.865	1.345	1.825
1/4	12x8	0.24	0.752	1.223	1.693	2.634	3.574
5/16	12x8	0.3	0.602	0.978	1.354	2.107	2.859
3/8	12x8	0.36	0.502	0.815	1.129	1.756	2.383
1/2	12x8	0.48	0.376	0.611	0.847	1.317	1.787
5/8	12x8	0.59	0.306	0.497	0.689	1.071	1.454
1/4	14x4	0.24	0.752	1.223	1.693	2.634	3.574
5/16	14x4	0.3	0.602	0.978	1.354	2.107	2.859
3/8	14x4	0.36	0.502	0.815	1.129	1.756	2.383
1/2	14x4	0.47	0.384	0.624	0.865	1.345	1.825
1/4	14x6	0.24	0.752	1.223	1.693	2.634	3.574
5/16	14x6	0.3	0.602	0.978	1.354	2.107	2.859
3/8	14x6	0.36	0.502	0.815	1.129	1.756	2.383
1/2	14x6	0.48	0.376	0.611	0.847	1.317	1.787
5/16	14x10	0.3	0.602	0.978	1.354	2.107	2.859
3/8	14x10	0.36	0.502	0.815	1.129	1.756	2.383
1/2	14x10	0.47	0.384	0.624	0.865	1.345	1.825
5/16	16x4	0.3	0.602	0.978	1.354	2.107	2.859
3/8	16x4	0.36	0.502	0.815	1.129	1.756	2.383
1/2	16x4	0.48	0.376	0.611	0.847	1.317	1.787
5/16	16x8	0.3	0.602	0.978	1.354	2.107	2.859
3/8	16x8	0.36	0.502	0.815	1.129	1.756	2.383
1/2	16x8	0.47	0.384	0.624	0.865	1.345	1.825
5/16	16x12	0.31	0.583	0.947	1.311	2.039	2.767
3/8	16x12	0.36	0.502	0.815	1.129	1.756	2.383
1/2	16x12	0.48	0.376	0.611	0.847	1.317	1.787

NR - Not Rated

AD Southwest Type 5 GP, Type 5 MD, Type 7 GP & Type 7 HD

UL Design X771 - Rectangular Tube Steel Columns

Size			Thickness, in. Required for Size and Rating Indicated				
Wall, in.	Member	A/P	1 Hr	1.5 Hr	2 Hr	3 Hr	4 Hr
5/16	18x6	0.30	0.602	0.978	1.354	2.107	2.859
3/8	18x6	0.36	0.502	0.815	1.129	1.756	2.383
1/2	18x6	0.47	0.384	0.624	0.865	1.345	1.825
5/16	20x4	0.3	0.602	0.978	1.354	2.107	2.859
3/8	20x4	0.36	0.502	0.815	1.129	1.756	2.383
1/2	20x4	0.47	0.384	0.624	0.865	1.345	1.825
5/16	20x8	0.31	0.583	0.947	1.311	2.039	2.767
3/8	20x8	0.36	0.502	0.815	1.129	1.756	2.383
1/2	20x8	0.48	0.376	0.611	0.847	1.317	1.787
5/16	20x12	0.31	0.583	0.947	1.311	2.039	2.767
3/8	20x12	0.37	0.488	0.793	1.098	1.708	2.318
1/2	20x12	0.48	0.376	0.611	0.847	1.317	1.787
5/16	20x18	0.49	0.369	0.599	0.829	1.290	1.751
3/8	20x18	0.37	0.488	0.793	1.098	1.708	2.318
1/2	20x18	0.31	0.583	0.947	1.311	2.039	2.767
5/16	22x20	0.31	0.583	0.947	1.311	2.039	2.767
3/8	22x20	0.37	0.488	0.793	1.098	1.708	2.318
1/2	22x20	0.49	0.369	0.599	0.829	1.290	1.751
5/16	24x22	0.31	0.583	0.947	1.311	2.039	2.767
3/8	24x22	0.37	0.488	0.793	1.098	1.708	2.318
1/2	24x22	0.49	0.369	0.599	0.829	1.290	1.751
5/16	26x24	0.31	0.583	0.947	1.311	2.039	2.767
3/8	26x24	0.37	0.488	0.793	1.098	1.708	2.318
1/2	26x24	0.49	0.369	0.599	0.829	1.290	1.751
5/16	28x24	0.31	0.583	0.947	1.311	2.039	2.767
3/8	28x24	0.37	0.488	0.793	1.098	1.708	2.318
1/2	28x24	0.49	0.369	0.599	0.829	1.290	1.751
5/16	30x24	0.31	0.583	0.947	1.311	2.039	2.767
3/8	30x30	0.37	0.488	0.793	1.098	1.708	2.318
1/2	30x30	0.49	0.369	0.599	0.829	1.290	1.751

These column protection thicknesses have been calculated for the convenience of users, in accordance with the proprietary equation in UL Design No. X771, as detailed in the UL FireResistance Directory - Volume 1, 2007. While we have taken care to be as accurate as possible, we will not be held responsible for errors or omissions. If any discrepancy is found between this table and the UL Design information, the UL Design information shall govern.

April 20, 2007