

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

Design No. X771 - Square Tube Steel Column

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
1/4	2x2	0.22	0.821	1.334	1.847	2.873	NR
5/16	2x2	0.26	0.695	1.129	1.563	2.431	3.299
1/4	2.5x2.5	0.23	0.785	1.276	1.767	2.748	3.730
5/16	2.5x2.5	0.27	0.669	1.087	1.505	2.341	3.177
3/16	3x3	0.18	1.003	1.630	2.257	3.511	NR
1/4	3x3	0.23	0.785	1.276	1.767	2.748	3.730
5/16	3x3	0.28	0.645	1.048	1.451	2.257	3.064
3/8	3x3	0.33	0.547	0.889	1.231	1.915	2.599
1/2	3x3	0.42	0.430	0.699	0.967	1.505	2.042
3/16	3.5x3.5	0.18	1.003	1.630	2.257	3.511	NR
1/4	3.5x3.5	0.23	0.785	1.276	1.767	2.748	3.730
5/16	3.5x3.5	0.28	0.645	1.048	1.451	2.257	3.064
3/16	4x4	0.18	1.003	1.630	2.257	3.511	NR
1/4	4x4	0.23	0.785	1.276	1.767	2.748	3.730
5/16	4x4	0.29	0.623	1.012	1.401	2.179	2.958
3/8	4x4	0.34	0.531	0.863	1.195	1.859	2.523
1/2	4x4	0.44	0.410	0.667	0.923	1.436	1.950
3/16	4.5x4.5	0.18	1.003	1.630	2.257	3.511	NR
1/4	4.5x4.5	0.24	0.752	1.223	1.693	2.634	3.574
5/16	4.5x4.5	0.29	0.623	1.012	1.401	2.179	2.958
3/8	4.5x4.5	0.34	0.531	0.863	1.195	1.859	2.523
3/16	5x5	0.18	1.003	1.630	2.257	3.511	NR
1/4	5x5	0.24	0.752	1.223	1.693	2.634	3.574
5/16	5x5	0.29	0.623	1.012	1.401	2.179	2.958
3/8	5x5	0.35	0.516	0.838	1.161	1.806	2.451
1/2	5x5	0.45	0.401	0.652	0.903	1.405	1.906
3/16	5.5x5.5	0.18	1.003	1.630	2.257	3.511	NR
1/4	5.5x5.5	0.24	0.752	1.223	1.693	2.634	3.574
5/16	5.5x5.5	0.29	0.623	1.012	1.401	2.179	2.958
3/8	5.5x5.5	0.35	0.516	0.838	1.161	1.806	2.451
3/16	6x6	0.18	1.003	1.630	2.257	3.511	NR
1/4	6x6	0.24	0.752	1.223	1.693	2.634	3.574
5/16	6x6	0.3	0.602	0.978	1.354	2.107	2.859
3/8	6x6	0.35	0.516	0.838	1.161	1.806	2.451
1/2	6x6	0.48	0.376	0.611	0.847	1.317	1.787
5/8	6x6	0.56	0.322	0.524	0.726	1.129	1.532
3/16	7x7	0.18	1.003	1.630	2.257	3.511	NR
1/4	7x7	0.24	0.752	1.223	1.693	2.634	3.574
5/16	7x7	0.3	0.602	0.978	1.354	2.107	2.859
3/8	7x7	0.35	0.516	0.838	1.161	1.806	2.451
1/2	7x7	0.46	0.393	0.638	0.883	1.374	1.865
5/8	7x7	0.57	0.317	0.515	0.713	1.109	1.505
3/16	8x8	0.18	1.003	1.630	2.257	3.511	NR
1/4	8x8	0.24	0.752	1.223	1.693	2.634	3.574
5/16	8x8	0.3	0.602	0.978	1.354	2.107	2.859

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

Design No. X771 - Square Tube Steel Column

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
3/8	8x8	0.35	0.516	0.838	1.161	1.806	2.451
1/2	8x8	0.46	0.393	0.638	0.883	1.374	1.865
5/8	8x8	0.58	0.311	0.506	0.701	1.090	1.479
3/16	10x10	0.18	1.003	1.630	2.257	3.511	NR
1/4	10x10	0.24	0.752	1.223	1.693	2.634	3.574
5/16	10x10	0.3	0.602	0.978	1.354	2.107	2.859
3/8	10x10	0.36	0.502	0.815	1.129	1.756	2.383
1/2	10x10	0.48	0.376	0.611	0.847	1.317	1.787
5/8	10x10	0.59	0.306	0.497	0.689	1.071	1.454
1/4	12x12	0.24	0.752	1.223	1.693	2.634	3.574
5/16	12x12	0.3	0.602	0.978	1.354	2.107	2.859
3/8	12x12	0.36	0.502	0.815	1.129	1.756	2.383
1/2	12x12	0.47	0.384	0.624	0.865	1.345	1.825
5/8	12x12	0.59	0.306	0.497	0.689	1.071	1.454
5/16	14x14	0.31	0.583	0.947	1.311	2.039	2.767
3/8	14x14	0.36	0.502	0.815	1.129	1.756	2.383
1/2	14x14	0.48	0.376	0.611	0.847	1.317	1.787
5/8	14x14	0.6	0.301	0.489	0.677	1.053	1.430
5/16	16x16	0.31	0.583	0.947	1.311	2.039	2.767
3/8	16x16	0.37	0.488	0.793	1.098	1.708	2.318
1/2	16x16	0.48	0.376	0.611	0.847	1.317	1.787
5/8	16x16	0.6	0.301	0.489	0.677	1.053	1.430
5/16	18x18	0.31	0.583	0.947	1.311	2.039	2.767
3/8	18x18	0.37	0.488	0.793	1.098	1.708	2.318
1/2	18x18	0.49	0.369	0.599	0.829	1.290	1.751
5/8	18x18	0.6	0.301	0.489	0.677	1.053	1.430
3/8	20x20	0.37	0.488	0.793	1.098	1.708	2.318
1/2	20x20	0.49	0.369	0.599	0.829	1.290	1.751
5/8	20x20	0.61	0.296	0.481	0.666	1.036	1.406
3/4	20x20	0.72	0.251	0.408	0.564	0.878	1.191
1.00	20x20	0.95	0.190	0.309	0.428	0.665	0.903
3/8	22x22	0.37	0.488	0.793	1.098	1.708	2.318
1/2	22x22	0.49	0.369	0.599	0.829	1.290	1.751
5/8	22x22	0.61	0.296	0.481	0.666	1.036	1.406
3/8	24x24	0.37	0.488	0.793	1.098	1.708	2.318
1/2	24x24	0.49	0.369	0.599	0.829	1.290	1.751
5/8	24x24	0.61	0.296	0.481	0.666	1.036	1.406
3/4	24x24	0.73	0.247	0.402	0.557	0.866	1.175
1.00	24x24	0.96	0.250	0.306	0.423	0.658	0.894
1/2	26x26	0.49	0.369	0.599	0.829	1.290	1.751
5/8	26x26	0.61	0.296	0.481	0.666	1.036	1.406
3/4	26x26	0.73	0.247	0.402	0.557	0.866	1.175
7/8	26x26	0.86	0.250	0.341	0.472	0.735	0.997
1.00	26x26	0.96	0.250	0.306	0.423	0.658	0.894
1/2	28x28	0.49	0.369	0.599	0.829	1.290	1.751

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

Design No. X771 - Square Tube Steel Column

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
5/8	28x28	0.61	0.296	0.481	0.666	1.036	1.406
3/4	28x28	0.73	0.250	0.402	0.557	0.866	1.175
7/8	28x28	0.85	0.250	0.345	0.478	0.744	1.009
1.00	28x28	0.96	0.250	0.306	0.423	0.658	0.894
1/2	30x30	0.49	0.369	0.599	0.829	1.290	1.751
5/8	30x30	0.61	0.296	0.481	0.666	1.036	1.406
3/4	30x30	0.73	0.250	0.402	0.557	0.866	1.175
7/8	30x30	0.85	0.250	0.345	0.478	0.744	1.009
1.00	30x30	0.97	0.250	0.303	0.419	0.652	0.884
1.25	30x30	1.2	0.250	0.250	0.339	0.527	0.715
1/2	32x32	0.49	0.369	0.599	0.829	1.290	1.751
3/4	32x32	0.73	0.250	0.402	0.557	0.866	1.175
7/8	32x32	0.85	0.250	0.345	0.478	0.744	1.009
1.00	32x32	0.97	0.250	0.303	0.419	0.652	0.884
1.25	32x32	1.2	0.250	0.250	0.339	0.527	0.715
1.50	32x32	1.43	0.250	0.250	0.284	0.442	0.600
1.75	32x32	1.66	0.250	0.250	0.245	0.381	0.517
2.00	32x32	1.88	0.250	0.250	0.216	0.336	0.456

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