

Physical and Structural Properties

	Member Physical Properties			Gross Section Properties							Effective Section Properties								Torsional Properties				
	Members	Design Thickness (in.)	Weight (plf.)	Area (in. ²)	Ix (in. ⁴)	Sx (in. ³)	Rx (in.)	Iy (in. ⁴)	Sy (in. ³)	Ry (in.)	Punched				Web in Tension (Unpunched)				J x1000 (in. ⁴)	Cw (in. ⁶)	Xo (in.)	Ro (in.)	Beta
											Ixe (in. ⁴)	Sxe (in. ³)	Max (in.-k.)	Vax (k.)	Iye (in. ⁴)	Sye (in. ³)	May (in.-k.)	Vay (k.)					
3 5/8" Members																							
3" Flange	362QF300-54 (50 ksi)	0.0566	2.16	0.634	1.43	0.79	1.50	0.86	0.50	1.17	1.28	0.65	19.48	5.767	0.80	0.45	13.55	3.37	0.677	3.742	-2.956	3.516	0.293
	362QF300-68 (50 ksi)	0.0713	2.69	0.791	1.77	0.98	1.50	1.06	0.62	1.16	1.67	0.89	26.54	7.068	1.04	0.60	18.04	4.37	1.340	4.554	-2.938	3.495	0.293
	362QF300-97 (50 ksi)	0.1017	3.76	1.105	2.42	1.34	1.48	1.44	0.84	1.14	2.40	1.31	43.35	9.502	1.44	0.84	28.98	5.94	3.810	6.038	-2.899	3.450	0.294
	362QF300-110 (50 ksi)	0.1242	4.52	1.329	2.87	1.58	1.47	1.70	0.99	1.13	2.87	1.58	53.28	11.081	1.70	0.99	34.99	7.00	6.830	6.971	-2.870	3.416	0.294
3.5" Flange	362QF350-54 (50 ksi)	0.0566	2.35	0.691	1.61	0.89	1.53	1.24	0.63	1.34	1.38	0.69	20.54	6.743	1.16	0.57	16.99	3.37	0.738	5.312	-3.449	4.004	0.258
	362QF350-68 (50 ksi)	0.0713	2.93	0.862	2.00	1.10	1.52	1.53	0.77	1.33	1.80	0.92	27.67	8.405	1.50	0.75	22.53	4.37	1.461	6.481	-3.431	3.982	0.258
	362QF350-97 (50 ksi)	0.1017	4.10	1.207	2.74	1.51	1.51	2.09	1.05	1.31	2.61	1.38	41.31	11.409	2.09	1.05	36.31	5.94	4.162	8.636	-3.392	3.937	0.258
	362QF350-110 (50 ksi)	0.1242	4.94	1.453	3.25	1.79	1.49	2.46	1.24	1.30	3.19	1.73	57.27	13.410	2.46	1.24	44.00	7.00	7.473	10.012	-3.362	3.903	0.258
4" Members																							
3" Flange	400QF300-54 (50 ksi)	0.0566	2.23	0.655	1.79	0.90	1.65	0.90	0.51	1.17	1.60	0.74	22.15	5.767	0.83	0.46	13.73	3.37	0.700	4.356	-2.883	3.528	0.332
	400QF300-68 (50 ksi)	0.0713	2.78	0.818	2.22	1.11	1.65	1.10	0.63	1.16	2.09	1.01	30.14	7.068	1.08	0.61	18.29	4.87	1.386	5.306	-2.870	3.506	0.330
	400QF300-97 (50 ksi)	0.1017	3.89	1.144	3.04	1.52	1.63	1.50	0.85	1.14	3.01	1.49	49.18	9.502	1.50	0.85	29.41	6.66	3.942	7.047	-2.831	3.461	0.331
	400QF300-110 (50 ksi)	0.1242	4.68	1.376	3.60	1.80	1.62	1.76	1.00	1.13	3.60	1.80	60.67	11.081	1.76	1.00	35.51	7.87	7.074	8.147	-2.801	3.427	0.332
3.5" Flange	400QF350-54 (50 ksi)	0.0566	2.42	0.712	2.01	1.01	1.68	1.29	0.64	1.34	1.72	0.78	23.32	6.743	1.20	0.58	17.23	3.37	0.760	6.192	-3.377	4.005	0.289
	400QF350-68 (50 ksi)	0.0713	3.02	0.889	2.49	1.25	1.67	1.59	0.78	1.34	2.25	1.05	31.36	8.405	1.56	0.76	22.87	4.87	1.507	7.560	-3.359	3.984	0.289
	400QF350-97 (50 ksi)	0.1017	4.23	1.245	3.43	1.71	1.66	2.17	1.07	1.32	3.26	1.56	46.70	11.409	2.17	1.07	36.86	6.66	4.293	10.092	-3.319	3.938	0.290
	400QF350-110 (50 ksi)	0.1242	5.10	1.500	4.07	2.03	1.65	2.56	1.26	1.31	3.99	1.95	64.84	13.410	2.56	1.26	44.68	7.87	7.713	11.716	-3.289	3.903	0.290
6" Members																							
3" Flange	600QF300-54 (50 ksi)	0.0566	2.61	0.769	4.52	1.51	2.43	1.04	0.54	1.16	4.06	1.27	37.89	5.767	0.96	0.48	14.47	2.82	0.821	8.866	-2.572	3.722	0.522
	600QF300-68 (50 ksi)	0.0713	3.27	0.960	5.61	1.87	2.42	1.28	0.66	1.15	5.32	1.71	51.18	7.068	1.25	0.64	19.27	5.35	1.628	10.837	-2.553	3.700	0.524
	600QF300-97 (50 ksi)	0.1017	4.58	1.347	7.75	2.58	2.40	1.74	0.90	1.14	7.64	2.52	83.12	9.502	1.65	0.88	31.04	10.47	4.644	14.498	-2.513	3.656	0.527
	600QF300-110 (50 ksi)	0.1242	5.52	1.624	9.24	3.08	2.38	2.06	1.06	1.13	9.24	3.08	103.75	11.081	2.06	1.06	37.56	12.53	8.351	16.860	-2.483	3.622	0.530
3.5" Flange	600QF350-54 (50 ksi)	0.0566	2.81	0.825	5.02	1.67	2.47	1.49	0.67	1.34	4.35	1.33	39.74	6.743	1.39	0.61	18.21	2.82	0.881	12.634	-3.036	4.137	0.461
	600QF350-68 (50 ksi)	0.0713	3.51	1.032	6.24	2.08	2.46	1.84	0.83	1.34	5.66	1.77	52.95	8.405	1.81	0.81	24.16	5.35	1.748	15.477	-3.017	4.115	0.462
	600QF350-97 (50 ksi)	0.1017	4.93	1.449	8.63	2.88	2.44	2.52	1.13	1.32	8.16	2.61	78.10	11.409	2.52	1.13	39.04	10.47	4.994	20.809	-2.977	4.070	0.465
	600QF350-110 (50 ksi)	0.1242	5.94	1.748	10.31	3.44	2.43	2.98	1.34	1.31	10.05	3.28	108.70	13.410	2.98	1.34	47.40	12.53	8.990	24.294	-2.946	4.035	0.467
8" Members																							
3" Flange	800QF300-54 (50 ksi)	0.0566	3.00	0.882	8.79	2.20	3.16	1.15	0.55	1.14	7.79	1.80	53.97	5.767	0.80	0.49	14.93	2.09	0.942	15.681	-2.324	4.083	0.676
	800QF300-68 (50 ksi)	0.0713	3.75	1.103	10.93	2.73	3.15	1.41	0.68	1.13	10.38	2.51	75.23	7.068	1.38	0.66	19.88	4.22	1.869	19.210	-2.305	4.062	0.678
	800QF300-97 (50 ksi)	0.1017	5.27	1.550	15.16	3.79	3.13	1.92	0.93	1.11	14.92	3.68	121.71	9.502	1.92	0.93	32.07	10.89	5.345	25.824	-2.266	4.019	0.682
	800QF300-110 (50 ksi)	0.1242	6.37	1.873	18.12	4.53	3.11	2.27	1.10	1.10	18.12	4.53	152.65	11.081	2.27	1.10	38.83	16.24	9.628	30.144	-2.236	3.986	0.685
3.5" Flange	800QF350-54 (50 ksi)	0.0566	3.19	0.938	9.68	2.42	3.21	1.65	0.69	1.32	8.24	1.86	55.64	6.743	1.53	0.63	18.84	2.09	1.002	22.352	-2.765	4.440	0.612
	800QF350-68 (50 ksi)	0.0713	3.99	1.174	12.05	3.01	3.20	2.04	0.86	1.32	10.99	2.59	77.60	8.405	2.00	0.83	25.00	4.22	1.990	27.443	-2.745	4.419	0.614
	800QF350-97 (50 ksi)	0.1017	5.62	1.652	16.74	4.19	3.18	2.79	1.17	1.30	15.81	3.80	113.80	11.409	2.79	1.17	40.43	10.89	5.696	37.069	-2.705	4.375	0.618
	800QF350-110 (50 ksi)	0.1242	6.79	2.00	20.05	5.01	3.17	3.30	1.39	1.29	19.49	4.77	158.30	13.410	3.30	1.39	49.13	16.24	10.267	43.434	-2.675	4.314	0.616

Note: Properties are based on AISI NASPEC 2001

QuickFrame Identification System (in Compliance with SSMA)

600-QF-300-54

- Member Width 6"=600 x 1/100 in.
- Style: QF = QuickFrame
- Flange Width: 3"= 3.00"=300x1/100 in.
- Material Thickness: Minimum Base
Metal Thickness: 0.054 in.=54 mils (1 mil=1/1000 in.)

A Better Way to Build Rough Openings