



**BHF-36 Profile**



**36/4 Attachment Pattern**

**Panel Properties**

Gage	Weight w psf	Base Metal Thickness t in	Yield Strength F <sub>y</sub> ksi	Tensile Strength F <sub>u</sub> ksi	Gross Section Properties				
					Area A <sub>g</sub> in <sup>2</sup> /ft	Moment of Inertia I <sub>g</sub> in <sup>4</sup> /ft	Distance to N.A. from Bottom y <sub>b</sub> in	Section Modulus S <sub>g</sub> in <sup>3</sup> /ft	Radius of Gyration r in
20/20	3.69	0.0359 / 0.036	50	65	1.040	0.460	0.58	0.462	0.665
20/18	4.16	0.0359 / 0.047	50	65	1.179	0.499	0.52	0.471	0.651
20/16	4.68	0.0359 / 0.059	50	65	1.330	0.535	0.48	0.479	0.634
18/20	4.35	0.0478 / 0.036	50	65	1.231	0.564	0.65	0.601	0.677
18/18	4.83	0.0478 / 0.047	50	65	1.370	0.614	0.59	0.613	0.670
18/16	5.35	0.0478 / 0.059	50	65	1.521	0.661	0.55	0.624	0.659
16/20	5.03	0.0598 / 0.036	50	65	1.423	0.661	0.70	0.736	0.682
16/18	5.51	0.0598 / 0.047	50	65	1.562	0.721	0.65	0.752	0.679
16/16	6.03	0.0598 / 0.059	50	65	1.713	0.777	0.60	0.767	0.674

Gage	Effective Section Modulus at F <sub>y</sub>					Effective Moment of Inertia for Deflection			
	Compression Area A <sub>e</sub> in <sup>2</sup> /ft	Bending				Moment of Inertia I <sub>e+</sub> in <sup>4</sup> /ft	Moment of Inertia I <sub>e-</sub> in <sup>4</sup> /ft	Uniform Load Only	
		Section Modulus S <sub>e+</sub> in <sup>3</sup> /ft	Distance to N.A. from Bottom y <sub>b</sub> in	Section Modulus S <sub>e-</sub> in <sup>3</sup> /ft	Distance to N.A. from Bottom y <sub>b</sub> in			I <sub>d</sub> = (2I <sub>e+</sub> +I <sub>e-</sub> )/3	
							I <sub>d+</sub> in <sup>4</sup> /ft	I <sub>d-</sub> in <sup>4</sup> /ft	
20/20	0.643	0.272	0.43	0.438	0.73	0.354	0.389	0.389	0.413
20/18	0.744	0.278	0.39	0.452	0.66	0.381	0.445	0.420	0.463
20/16	0.861	0.284	0.35	0.465	0.58	0.404	0.505	0.448	0.515
18/20	0.876	0.409	0.53	0.569	0.77	0.489	0.486	0.514	0.512
18/18	0.977	0.419	0.48	0.587	0.71	0.529	0.547	0.558	0.569
18/16	1.094	0.427	0.44	0.604	0.65	0.566	0.617	0.598	0.631
16/20	1.105	0.564	0.61	0.698	0.81	0.619	0.582	0.633	0.609
16/18	1.206	0.577	0.56	0.719	0.75	0.673	0.646	0.689	0.671
16/16	1.323	0.588	0.52	0.739	0.70	0.724	0.723	0.742	0.741

**Reactions at Supports (plf) Based on Web Crippling**

Gage	Condition	Bearing Length of Webs							
		Allowable (R <sub>n</sub> /Ω)				Factored (ΦR <sub>n</sub> )			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	772	874	960	1105	1180	1337	1469	1691
	Interior	1229	1366	1482	1675	1828	2032	2204	2492
20	End	1081	1220	1336	1532	1655	1866	2045	2344
	Interior	1737	1922	2078	2339	2584	2859	3091	3479
18	End	1834	2053	2239	2550	2805	3142	3425	3901
	Interior	2984	3277	3525	3940	4439	4875	5243	5860
16	End	2771	3086	3351	3796	4240	4721	5127	5809
	Interior	4555	4975	5329	5923	6776	7401	7927	8810

Web Crippling Constraints

h=1.32"

r=0.125"

θ=78.3°