

**VLMK Consulting Engineers**

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ACCU-ARC "C" SHAPED SECTION PROPERTIES

--- BASED ON GROSS SECTION PROPERTIES ---

20 GAGE,	t =	0.0346	in.
18 GAGE,	t =	0.0451	in.
16 GAGE,	t =	0.0566	in.
14 GAGE,	t =	0.0713	in.

	Area	Ixx	Sxx	rx	Iyy	Syy	ry
	(in ²)	(in ⁴)	(in ³)	(in)	(in ⁴)	(in ³)	(in)
H inches B inches							
20 GAGE:							
	CONNECTOR WELD = 1/8" DIA. (MIN.) SPOT WELD 2" O.C. (MAX.)						
3.5 x 1.5	0.223	0.428	0.245	1.387	0.051	0.044	0.478
3.625 x 1.5	0.227	0.464	0.256	1.430	0.051	0.044	0.476
4 x 1.5	0.240	0.583	0.292	1.559	0.053	0.045	0.469
6 x 1.5	0.309	1.525	0.508	2.222	0.058	0.047	0.435
18 GAGE:							
	CONNECTOR WELD = 3/16" X 1" (MIN.) FILLET WELD 6" O.C. (MAX.)						
6 x 1.5	0.402	1.975	0.658	2.217	0.076	0.061	0.435
8 x 1.5	0.492	4.000	1.000	2.851	0.081	0.062	0.405
16 GAGE:							
	CONNECTOR WELD = 3/16" X 1" (MIN.) FILLET WELD 6" O.C. (MAX.)						
6 x 1.5	0.503	2.462	0.821	2.212	0.096	0.076	0.436
6 x 2	0.560	2.962	0.987	2.301	0.211	0.132	0.614
8 x 1.5	0.616	4.992	1.248	2.846	0.101	0.078	0.405
8 x 2	0.673	5.885	1.471	2.958	0.226	0.136	0.580
14 GAGE:							
	CONNECTOR WELD = 3/16" X 1" (MIN.) FILLET WELD 6" O.C. (MAX.)						
6 x 1.5	0.632	3.074	1.025	2.206	0.120	0.096	0.436
6 x 2	0.703	3.700	1.233	2.295	0.266	0.166	0.615
8 x 1.5	0.774	6.244	1.561	2.840	0.128	0.099	0.406
8 x 2	0.845	7.365	1.841	2.951	0.285	0.171	0.581
10 x 2	0.988	12.720	2.544	3.588	0.299	0.174	0.550

NOTES:

- 1.) Properties listed are gross section properties.
- 2.) Welds indicated should accommodate standard distributed loads applied to member.
Engineer of Record shall verify weld requirements for applicable loading conditions.
- 3.) Cyclic loading of connector welds have not been evaluated.
- 4.) Connector welds at web to flange elements to be at top and bottom of web.
- 5.) $F_y = 33\text{ksi}$ min. for 20 GAGE, $F_y = 50\text{ksi}$ min otherwise.
- 6.) Weld based on use of E60XX weldment, min.

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