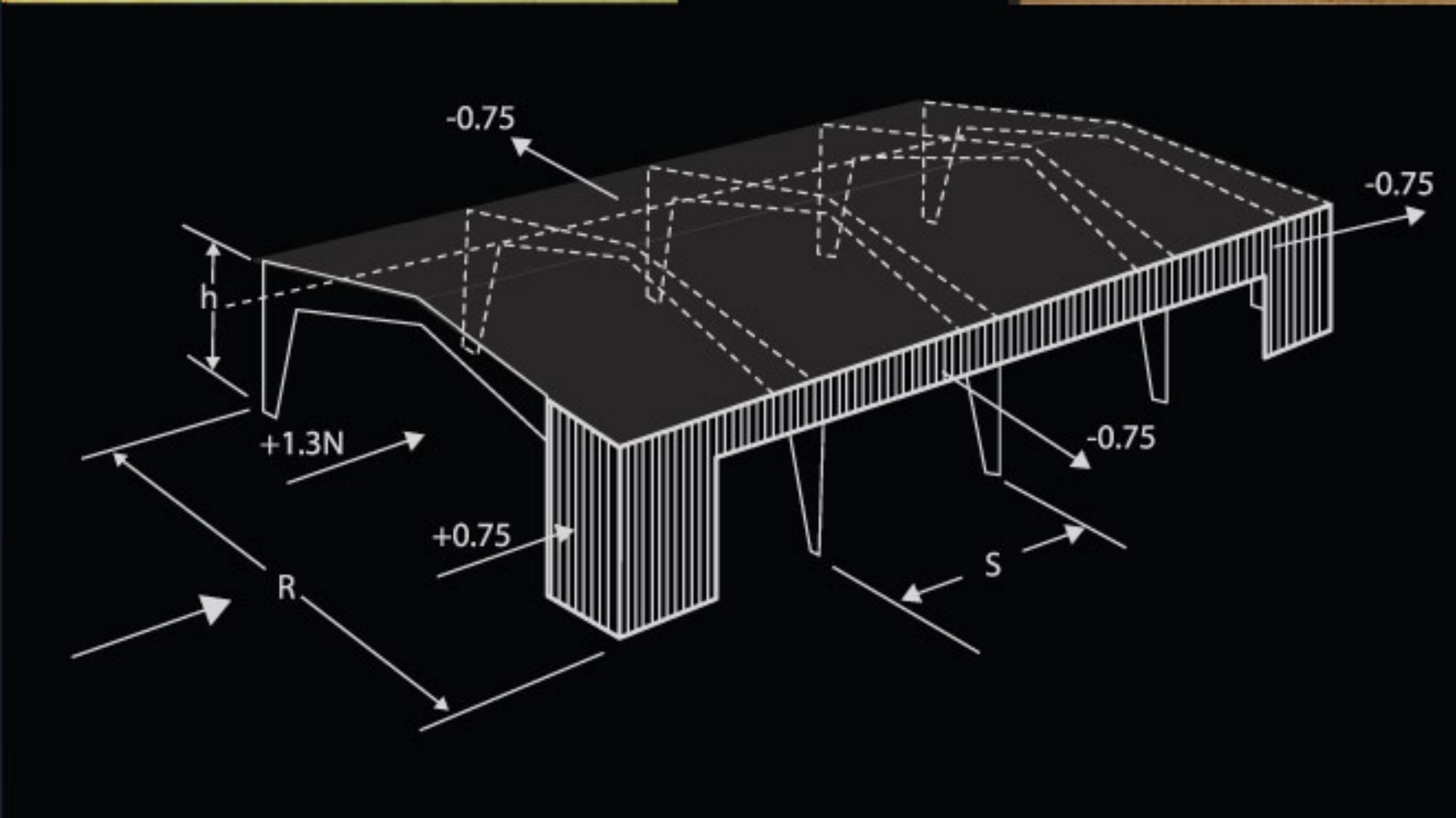


METAL BUILDING SYSTEMS MANUAL



MBMA[®]
METAL BUILDING MANUFACTURERS ASSOCIATION



2006
EDITION



2006

***Metal Building
Systems Manual***

50th Anniversary Edition



METAL BUILDING MANUFACTURERS ASSOCIATION
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Cleveland, Ohio 44115

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Section 9—Fabrication Tolerances

9.1 Cold-Formed Structural Members

The fabrication tolerances indicated in Figure 9.1 for cold-formed structural members are defined in Table 9.1.

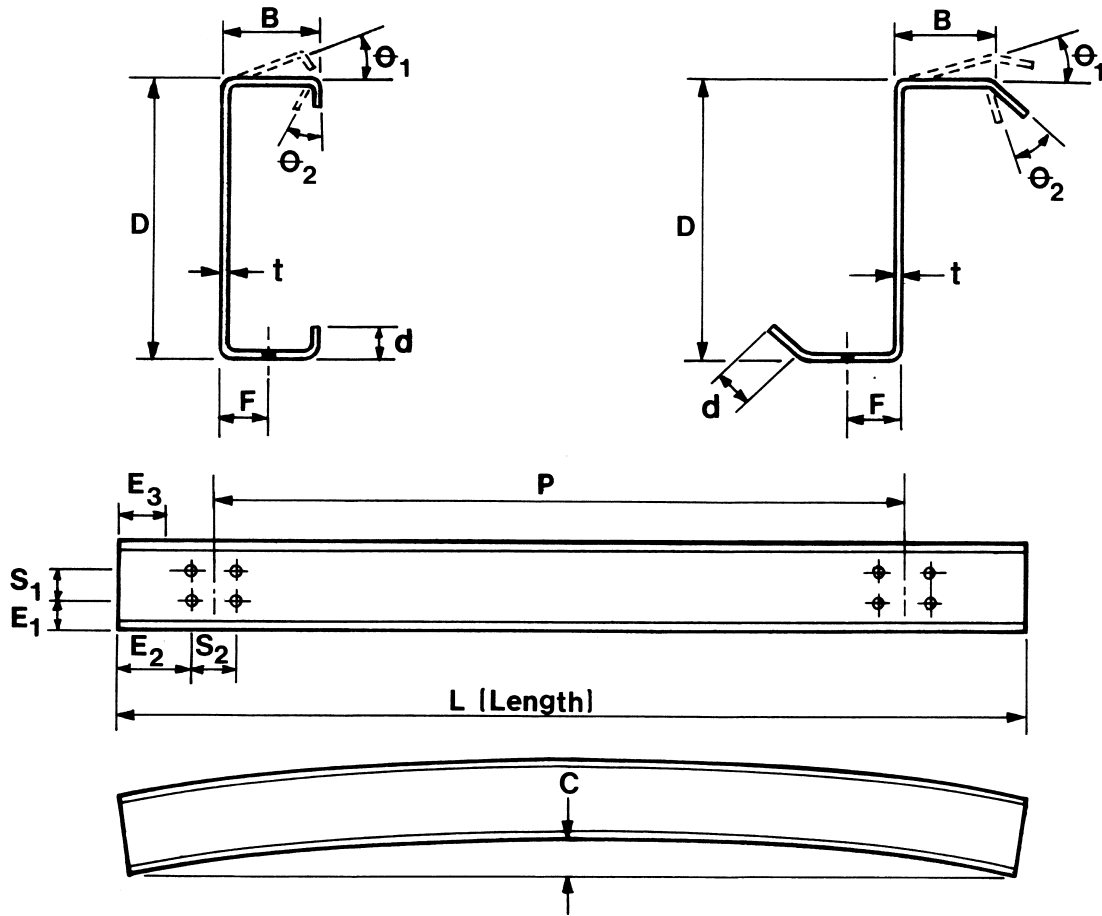


Figure 9.1
Cold-Formed Structural Members

Table 9.1
Cold-Formed Structural Members

Formed Structural Members			
	Dimension	Tolerances	
		+	-
Geometry	D	3/16"	3/16"
	B	3/16"	3/16"
	d	3/8"	1/8"
	θ_1	3°	3°
	θ_2	5°	5°
Hole Location	E ₁	1/8"	1/8"
	E ₂	1/8"	1/8"
	E ₃	1/8"	1/8"
	S ₁	1/16"	1/16"
	S ₂	1/16"	1/16"
	F	1/8"	1/8"
	P	1/8"	1/8"
Length (L)		1/8"	1/8"
Camber (C)		1/4" x L (ft)/ 10	
Minimum Thickness (t)		0.95 (Design t)	

9.2 Built-Up Structural Members

The fabrication tolerances indicated in Figure 9.2(a) and 9.2(b) for built-up structural members are defined in Table 9.2.

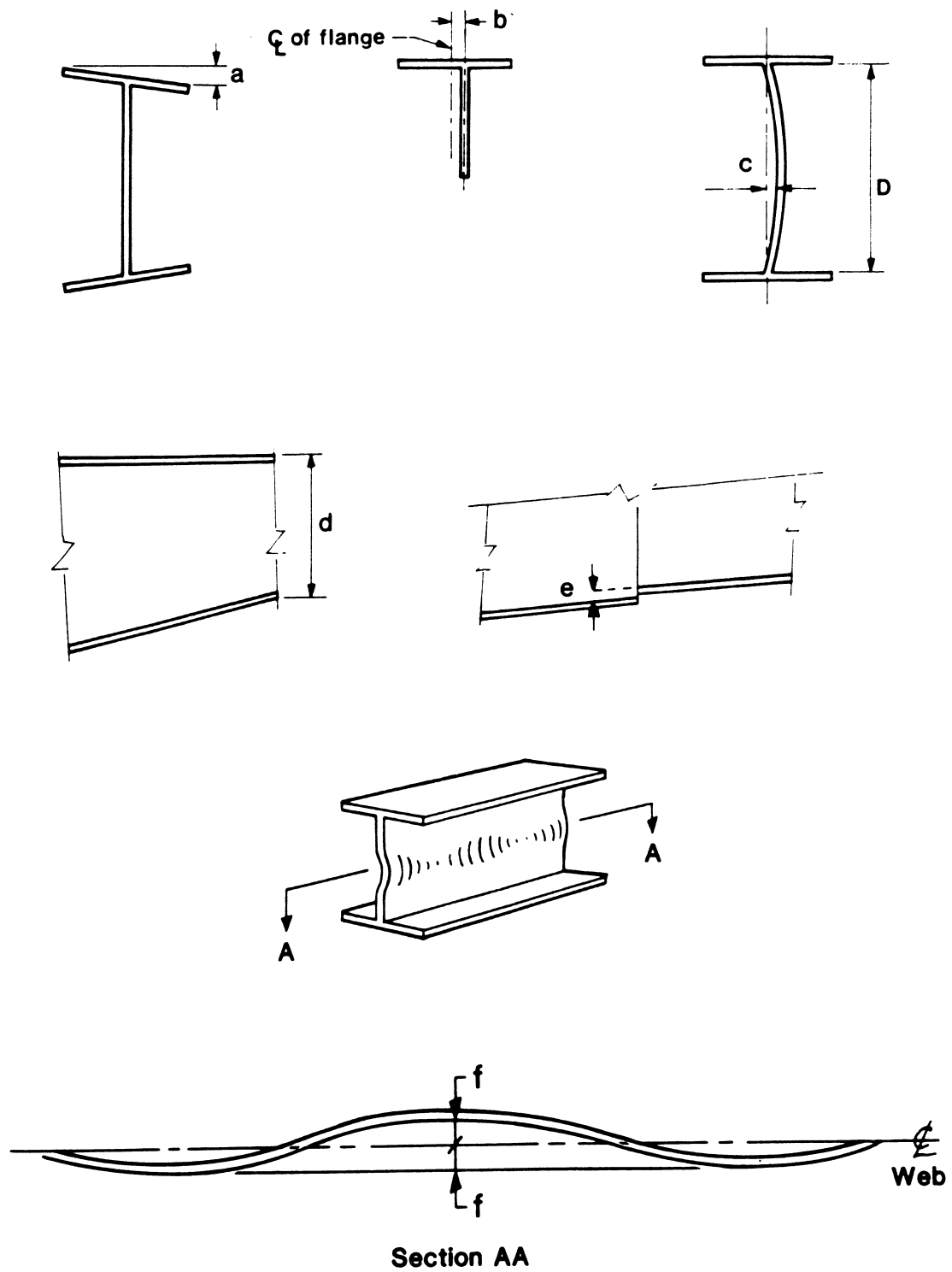


Figure 9.2(a)
Built-Up Structural Member

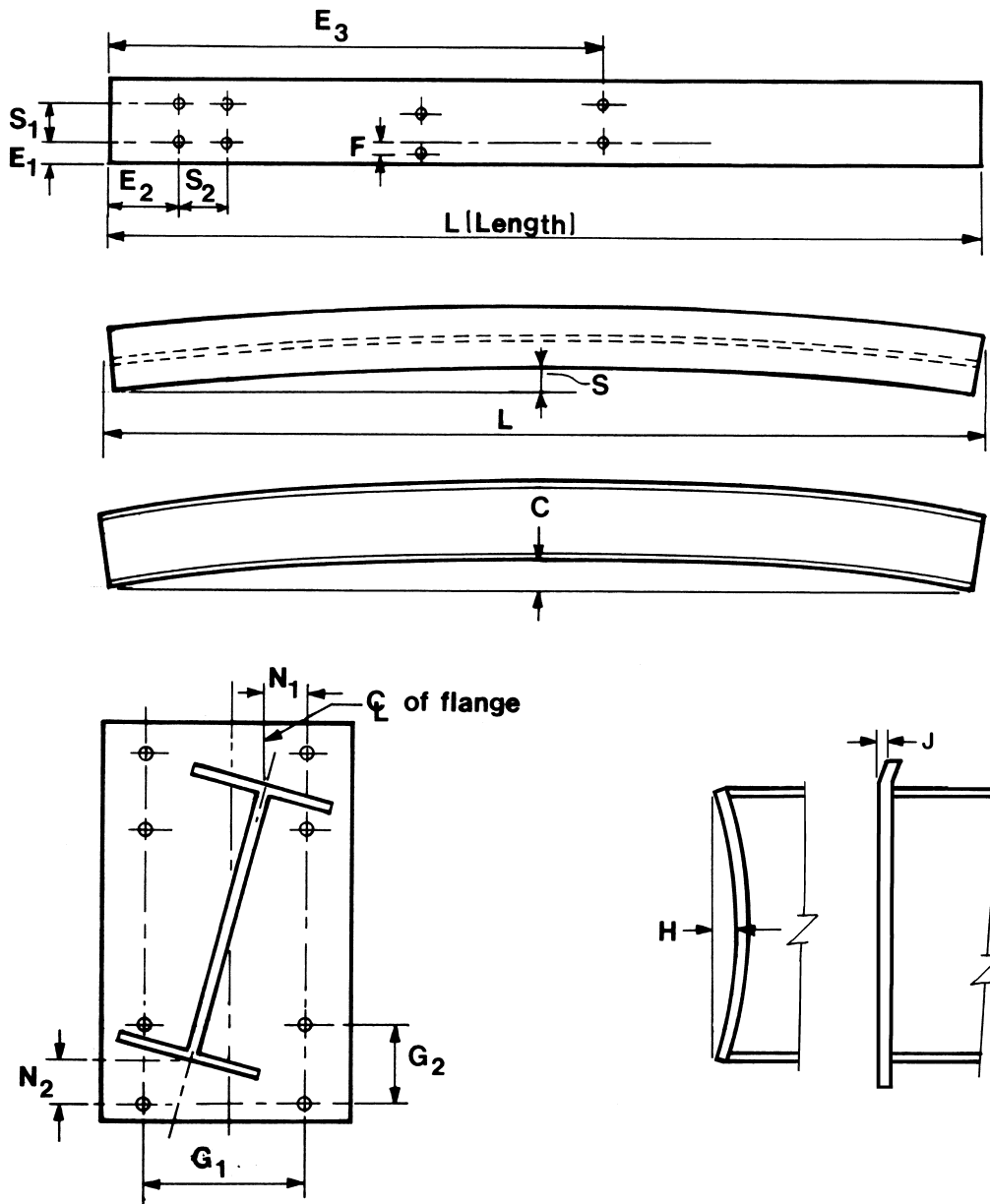


Figure 9.2(b)
Built-Up Structural Member

Table 9.2
Built-Up Structural Members

Built-up Structural Members					
	Dimension		Tolerances		
			+	-	
Geometry	a		3°- 1/4" Max	3°- 1/4" Max	
	b		1/4"	1/4"	
	d		3/16"	3/16"	
	e		1/8"	1/8"	
	c		D/72"		
	f		D/72"		
Hole Location	E1		1/8"	1/8"	
	E2		1/8"	1/8"	
	E3		1/8"	1/8"	
	S1		1/16"	1/16"	
	S2		1/16"	1/16"	
	F		1/8"	1/8"	
Length (L)			1/4"	1/4"	
Sweep (S)			Runway Beams 1/8" x L(ft)/ 10		
			All Other members 1/4" x L(ft)/ 10		
Camber (C)			1/4" x L(ft)/ 10		
Splice Plates	N ₁		1/8"	1/8"	
	N ₂		3/16"	3/16"	
	G ₁		1/16"	1/16"	
	G ₂		1/16"	1/16"	
	H	Up to 24"		1/8"	1/8"
		24" to 48"		3/16"	3/16"
		Over 48"		1/4"	1/4"
	J		1/4"	1/4"	