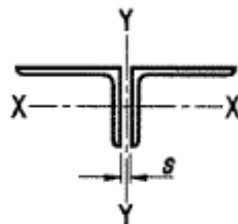


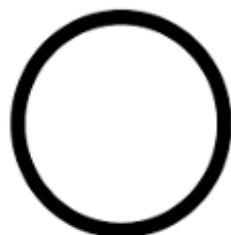
LLBB

Table 1-15
Double Angles
Properties



SLBB

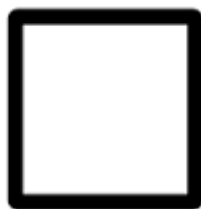
Shape	Area	Axis Y-Y						LLBB			SLBB		
		Radius of Gyration						Q_s		r_x	Q_s		r_x
		LLBB			SLBB			Angles in Contact	Angles Sepa- rated		Angles in Contact	Angles Sepa- rated	
		Separation, s , in.			Separation, s , in.								
	in. ²	0	3/8	3/4	0	3/8	3/4			in.			in.



HSS20-HSS10

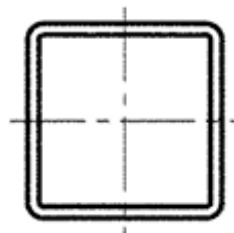
Table 1-13
Round HSS
Dimensions and Properties

Shape	Design Wall Thick- ness, t	Nom- inal Wt.	Area, A	D/t	I	S	r	Z	Torsion	
									J	C
	in.	lb/ft	in. ²		in. ⁴	in. ³	in.	in. ³	in. ⁴	in. ³



HSS16-HSS8

Table 1-12
Square HSS
Dimensions and Properties



Shape	Design Wall Thick- ness, <i>t</i>	Nom- inal Wt.	Area, <i>A</i>	<i>b/t</i>	<i>h/t</i>	<i>I</i>	<i>S</i>	<i>r</i>	<i>Z</i>	Work- able Flat	Torsion		Sur- face Area
											<i>J</i>	<i>C</i>	
	in.	lb/ft	in. ²			in. ⁴	in. ³	in.	in. ³		in. ⁴	in. ³	

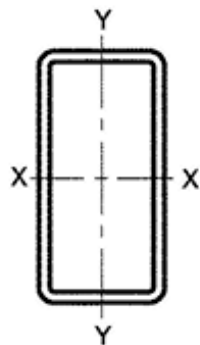


Table 1-11
Rectangular HSS
Dimensions and Properties

Shape	Design Wall Thick- ness, t	Nominal Wt.	Area, A	b/t	h/t	Axis X-X			
						I	S	r	Z
						in.^4	in.^3	in.	in.^3

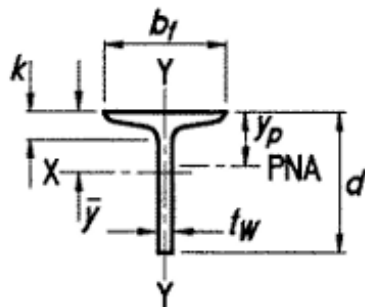


Table 1-10
ST-Shapes
Dimensions

Shape	Area, A	Depth, d	Stem			Flange		Distance	
			Thickness, t_w	$\frac{t_w}{2}$	Area	Width, b_f	Thickness, t_f	k	Workable Gage
	in. ²	in.	in.	in.	in. ²	in.	in.	in.	in.

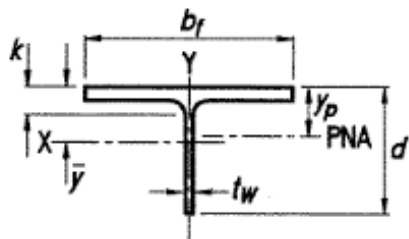


Table 1-9
MT-Shapes
Dimensions

Shape	Area, A	Depth, d	Stem			Flange		Distance	
			Thickness, t_w	$\frac{t_w}{2}$	Area	Width, b_f	Thickness, t_f	k	Work- able Gage
	in. ²	in.	in.	in.	in. ²	in.	in.	in.	in.

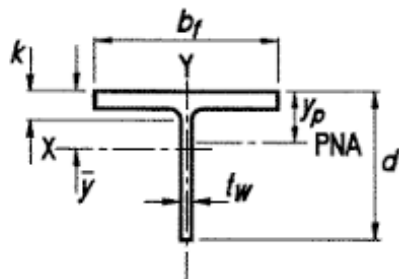


Table 1-8
WT-Shapes
Dimensions

Shape	Area, A	Depth, d	Stem			Flange		Distance		
			Thickness, t_w	$\frac{t_w}{2}$	Area	Width, b_f	Thickness, t_f	k		Work- able Gage
								k_{des}	k_{det}	
	in. ²	in.	in.	in.	in. ²	in.	in.	in.	in.	in.

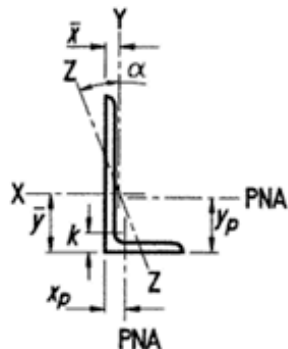


Table 1-7
Angles
Properties

Shape	k	Wt.	Area, A	Axis X-X						Flexural-Torsional Properties		
				I	S	r	\bar{y}	Z	y_p	J	C_w	\bar{r}_o
				in. ⁴	in. ³	in.	in.	in. ³	in.	in. ⁴	in. ⁶	in.

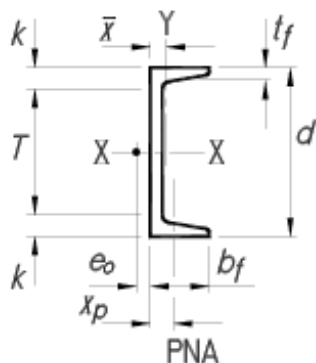


Table 1-6
MC-Shapes
Dimensions

[illegible]

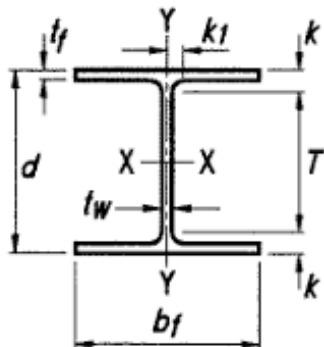


Table 1-4
HP-Shapes
Dimensions

[illegible]

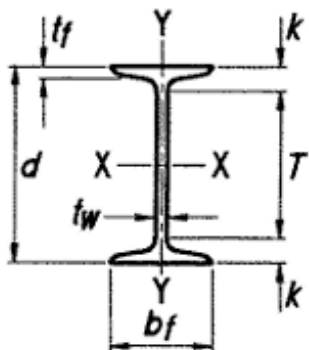


Table 1-3
S-Shapes
Dimensions

[illegible]



Table 1-1
W-Shapes
Dimensions

Shape	Area, A	Depth, d	Web		Flange		Distance				
			Thickness, t_w	$\frac{t_w}{2}$	Width, b_f	Thickness, t_f	k		k_1	T	Work- able Gage
							k_{des}	k_{det}			
	in. ²	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Rectangular	$b \cdot d$	d	t_w	$\frac{t_w}{2}$	b_f	t_f	$k = \frac{b_f - t_w}{2}$	$k_{det} = \frac{b_f - t_w}{2}$	$k_1 = \frac{b_f - t_w}{2}$	$T = d$	$\frac{b_f - t_w}{2}$
Round	$\frac{\pi d^2}{4}$	d	t_w	$\frac{t_w}{2}$	b_f	t_f	$k = \frac{b_f - t_w}{2}$	$k_{det} = \frac{b_f - t_w}{2}$	$k_1 = \frac{b_f - t_w}{2}$	$T = d$	$\frac{b_f - t_w}{2}$
Round with square corner	$\frac{\pi d^2}{4} - 4r^2$	d	t_w	$\frac{t_w}{2}$	b_f	t_f	$k = \frac{b_f - t_w}{2}$	$k_{det} = \frac{b_f - t_w}{2}$	$k_1 = \frac{b_f - t_w}{2}$	$T = d$	$\frac{b_f - t_w}{2}$