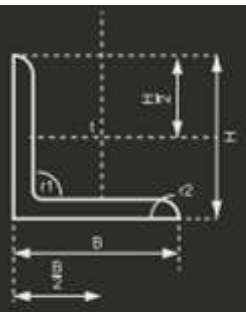
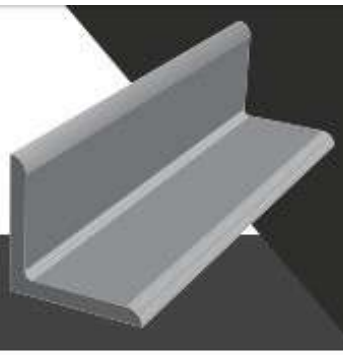


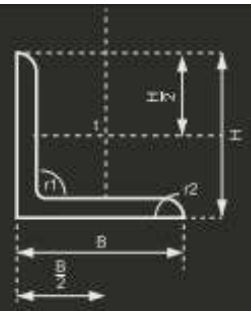
ANGLE

เหล็กฉาก

TIS1227 : 2539 (1996)

Standard Sectional Dimension (mm)				Sectional Area	Weight	Moment of Inertia				Radius of Gyration				Modulus of Section		Center of gravity	
						Ix	Iy	Iu	Iv	ix	iy	iu	iv	Zx	Zy	Cx	Cy
HxB	t	r1	r2	cm2	(kg/m)	cm4	cm4	cm4	cm4	cm	cm	cm	cm	cm3	cm3	cm	cm
25x25	3.0	4.0	2.0	1.427	1.12	0.797	0.797	1.26	0.332	0.747	0.747	0.94	0.483	0.448	0.448	0.719	0.179
	5.0	3.5	2.4	2.26	1.77	1.20	1.20	1.89	0.52	0.73	0.73	0.91	0.48	0.71	0.71	0.80	0.80
30x30	3.0	4.0	2.0	1.724	1.36	1.42	1.42	2.26	0.590	0.908	0.908	1.14	0.585	0.661	0.661	0.844	0.844
	5.0	5.0	2.4	2.78	2.18	2.16	2.16	3.41	0.92	0.88	0.88	1.11	0.57	1.04	1.04	0.92	0.92
40x40	3.0	4.5	2.0	2.336	1.83	3.53	3.53	5.6	1.46	1.23	1.23	1.55	0.790	1.21	1.21	1.09	1.09
	4.0	6.0	2.4	3.08	2.42	4.47	4.47	7.09	1.85	1.21	1.21	1.52	0.78	1.55	1.55	1.12	1.12
	5.0	4.5	2.0	3.755	2.95	5.42	5.42	8.59	2.25	1.2	1.2	1.52	0.774	1.91	1.91	1.17	1.17
	6.0	6.0	2.4	4.48	3.52	6.31	6.31	9.98	2.65	1.19	1.19	1.51	0.77	2.26	2.26	1.20	1.20
45x45	4.0	6.5	3.0	3.492	2.74	6.50	6.50	10.3	2.70	1.36	1.36	1.49	0.880	2.00	2.00	1.24	1.24
	5.0	6.5	3.0	4.302	3.38	7.91	7.91	12.5	3.29	1.36	1.36	1.72	0.874	2.46	2.46	1.28	1.28
50x50	3.0	7.0	2.4	2.96	2.33	6.86	6.86	10.8	2.38	1.52	1.52	1.71	0.99	1.86	1.86	1.31	1.31
	4.0	6.5	3.0	3.892	3.06	9.06	9.06	14.4	3.76	1.53	1.53	1.91	0.982	2.49	2.49	1.37	1.37
	5.0	6.5	3.0	4.802	3.77	11.1	11.1	17.5	4.58	1.52	1.52	1.92	0.976	3.08	3.08	1.41	1.41
	6.0	6.5	4.5	5.644	4.43	12.6	12.6	20.0	5.23	1.50	1.50	1.91	0.963	3.55	3.55	1.44	1.44
60x60	4.0	6.5	3.0	4.692	3.68	16.0	16.0	25.4	6.62	1.85	1.85	1.88	1.19	3.66	3.66	1.61	1.61
	5.0	6.5	3.0	5.802	4.55	19.6	19.6	31.2	8.09	1.84	1.84	2.33	1.18	4.52	4.52	1.66	1.66
65x65	5.0	8.5	3.0	6.367	5.00	25.3	25.3	40.1	10.5	1.99	1.99	2.32	1.28	5.35	5.35	1.77	1.77
	6.0	8.5	4.0	7.527	5.91	29.4	29.4	46.6	12.2	1.98	1.98	2.51	1.27	6.26	6.26	1.81	1.81
	8.0	8.5	6.0	9.761	7.66	36.8	36.8	58.3	15.3	1.94	1.94	2.49	1.25	7.96	7.96	1.88	1.88
70x70	6.0	8.5	4.0	8.127	6.38	37.1	37.1	58.9	15.3	2.14	2.14	2.44	1.37	7.33	7.33	1.93	1.93
75x75	6.0	8.5	4.0	8.727	6.85	46.1	46.1	73.2	19.0	2.30	2.30	2.69	1.48	8.47	8.47	2.06	2.06
	9.0	8.5	6.0	12.69	9.96	64.4	64.4	102	26.7	2.25	2.25	2.90	1.45	12.1	12.1	2.17	2.17
	12.0	8.5	6.0	16.56	13.0	81.9	81.9	129	34.5	2.22	2.22	2.84	1.44	15.7	15.7	2.29	2.29
80x80	6.0	8.5	4.0	9.327	7.32	56.4	56.4	89.6	23.2	2.46	2.46	2.79	1.58	9.70	9.70	2.18	2.18





ANGLE

เหล็กฉาก

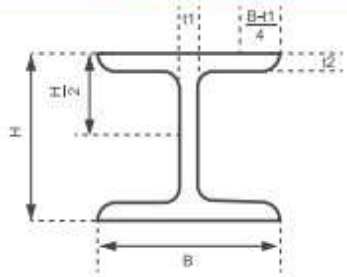
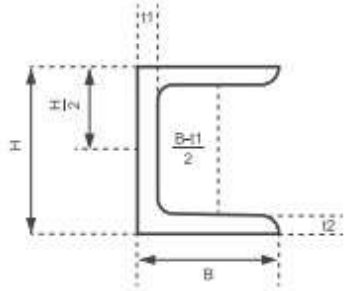
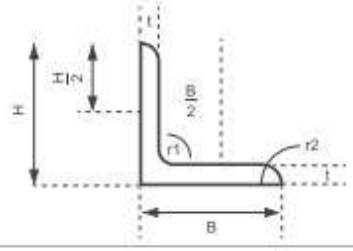
TIS1227 : 2539 (1996)

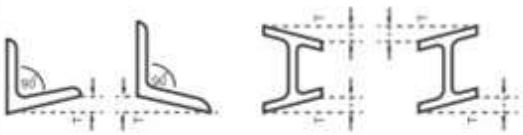
Standard Sectional Dimension (mm)				Sectional Area	Weight	Moment of Inertia				Radius of Gyration				Modulus of Section		Center of gravity	
						Ix	Iy	Iu	Iv	Ix	Iy	Iu	Iv	Zx	Zy	Cx	Cy
HxB	t	r1	r2	cm2	(kg/m)	cm4	cm4	cm4	cm4	cm	cm	cm	cm	cm3	cm3	cm	cm
90x90	6.0	10.0	5.0	10.55	8.28	80.7	80.7	128	33.4	2.77	2.77	3.10	1.78	12.3	12.3	2.42	2.42
	7.0	10.0	5.0	12.22	9.59	93.0	93.0	148	38.8	2.76	2.76	3.48	1.77	14.2	14.2	2.46	2.46
	10.0	10.0	7.0	17.00	13.3	125	125	199	51.7	2.71	2.71	3.48	1.74	19.5	19.5	2.57	2.57
	12.0	11.0	4.8	20.3	15.9	148	148	234	61.7	2.7	2.7	3.42	1.75	23.3	23.3	2.66	2.66
	13.0	10.0	7.0	21.75	17.0	156	156	243	65.3	2.68	2.68	3.4	1.73	24.8	24.8	2.69	2.69
100x100	7.0	10.0	5.0	13.62	10.7	129	129	205	53.2	3.08	3.08	3.38	1.98	17.7	17.7	2.71	2.71
	10.0	10.0	7.0	19.00	14.9	175	175	278	72.0	3.04	3.04	3.88	1.95	24.4	24.4	2.82	2.82
	12.0	12.0	4.8	22.7	17.8	207	207	328	85.7	3.02	3.02	3.83	1.94	29.1	29.1	2.90	2.90
	13.0	10.0	7.0	24.31	19.1	220	220	348	91.1	3.00	3.00	3.8	1.94	31.1	31.1	2.94	2.94
120x120	8	12	5.0	18.76	14.7	258	258	410	106	3.71	3.71	4.67	2.38	29.5	29.5	3.24	3.24
130x130	9	12	6.0	22.74	17.9	366	366	583	150	4.01	4.01	5.06	2.57	38.7	38.7	3.53	3.53
	12	12	8.5	29.76	23.4	467	467	743	192	3.96	3.96	5.00	2.54	49.9	49.9	3.64	3.64
	15	12	8.5	36.75	28.8	568	568	902	234	3.93	3.93	4.95	2.53	61.5	61.5	3.76	3.76
150x150	12	14	7.0	34.77	27.3	740	740	1,180	304	4.61	4.61	5.82	2.960	68.1	68.1	4.41	4.41
	15	14	10.0	42.74	33.6	888	888	1,410	365	4.56	4.56	5.75	2.92	82.6	82.6	4.24	4.24
	19	14	10.0	53.38	41.9	1,090	1,090	1,370	451	4.52	4.52	5.69	2.91	103.0	103.0	4.40	4.40
175x175	12	15	11.0	40.52	31.8	1,170	1,170	1,860	480	5.38	5.38	6.78	3.44	91.8	91.8	4.73	4.73
	15	15	11.0	50.21	39.4	1,440	1,440	2,260	589	5.35	5.35	6.75	3.420	114.0	114.0	4.85	4.85
200x200	15	17	12.0	57.75	45.3	2,180	2,180	3,470	891	6.14	6.14	7.75	3.92	150.0	150.0	5.46	5.46
	20	17	12.0	76.00	59.7	2,820	2,820	4,490	1,160	6.09	6.09	7.68	3.90	197.0	197.0	5.67	5.67
	25	17	12.0	93.75	73.6	3,420	3,420	5,420	1,410	6.04	6.04	7.61	3.88	242.0	242.0	5.86	5.86
250x250	25	24	12.0	119.40	39.7	6,950	6,950	11,000	2,860	7.63	7.63	9.62	4.90	388.0	388.0	7.10	7.10
	35	24	18.0	162.60	128.0	9,110	9,110	14,400	3,790	7.49	7.49	9.42	4.83	519.0	519.0	7.45	7.45

TOLERANCE

ค่าความคลาดเคลื่อน

I-Beam, CHANNEL and ANGLE

Dimension			Tolerance	Remark
Depth (H)	H < 100		± 1.5	
	100 ≤ H < 200		± 2.0	
	200 ≤ H < 400		± 3.0	
	H ≥ 400		± 4.0	
Leg Length (H or B)	B < 50		± 1.5	
	50 ≤ B < 100		± 2.0	
	100 ≤ B < 200		± 3.0	
	B ≥ 200		± 4.0	
Thickness (t, t1, t2)	H < 130	t < 6.3	± 0.6	
		6.3 ≤ t < 10	± 0.7	
		10 ≤ t < 16	± 0.8	
		t ≥16	± 1.0	
	H ≥130	t < 6.3	± 0.7	
		6.3 ≤ t < 10	± 0.8	
		10 ≤ t < 16	± 1.0	
		16 ≤ t < 25	± 1.2	
		t ≥25	± 1.5	
Length (L)	L ≤ 7 m.		+ 40	
			0	
	L > 7 m.		40+ (no. of meter of L - 7) x 5	
			0	

Squareness Out-of-square (T)	I-Beam	2.0% of width B	
	Channel, Angle	2.5% of flange B	
Bend	I-Beam Channel, Angle	0.20% of L 0.30% of L	To be applied to bend such as sweep and camber
Eccentricity, Web-off-center (S)	-	Not specified	
Mass (kg/m.)	t < 10	± 5%	1. Thicker nominal values shall be applied. 2. To be applied to one lot of the same size (1 t or over),provided that, when the number-of pieces, corresponding to 10 pieces, it shall be applied to each lot of 10 and more pieces.
	t ≥10	± 4%	

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