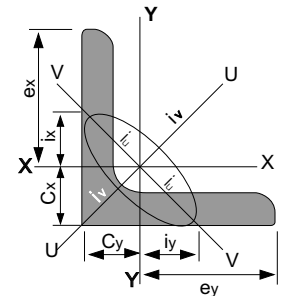
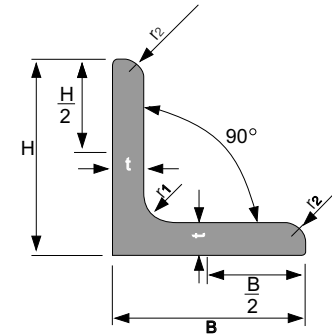




METRIC SIZE

STANDARD SECTIONAL DIMENSIONS				SECTION AREA A	UNIT WEIGHT kg/m	INFORMATIVE REFERENCE							
H x B	t	r ₁	r ₂			CENTER OF GRAVITY C _x = C _y	GEOMETRICAL MOMENT OF INERTIA			RADIUS OF GYRATION OF AREA			MODULUS OF SECTION Z _x = Z _y
mm x mm	mm	mm	mm	cm ²	cm	I _x = I _y	Max I _u	Min I _v	i _x = i _y	Max i _u	Min i _v	cm ³	
25 x 25	3	4	2	1.427	1.12	0.719	0.797	1.26	0.332	0.747	0.94	0.448	
30 x 30	3	4	2	1.727	1.36	0.844	1.420	2.26	0.590	0.908	1.14	0.661	
40 x 40	3	4.5	2	2.336	1.83	1.090	3.530	5.60	1.460	1.230	1.55	1.210	
40 x 40	4	4.5	2	2.336	1.83	1.090	3.530	5.60	1.460	1.230	1.55	1.210	
40 x 40	5	4.5	3	3.755	2.95	1.170	5.420	8.59	2.250	1.200	1.51	1.910	
45 x 45	5	6.5	3	4.302	3.38	1.280	7.910	12.50	3.290	1.360	1.71	2.460	
45 x 45	4	6.5	3	3.492	2.74	1.240	6.500	10.30	2.700	1.360	1.72	2.000	
50 x 50	4	6.5	3	3.892	3.06	1.370	9.060	14.40	3.760	1.530	1.92	2.490	
50 x 50	5	6.5	3	4.802	3.77	1.410	11.100	17.50	4.580	1.520	1.91	3.080	
50 x 50	6	6.5	4.5	5.644	4.43	1.440	12.600	20.00	5.230	1.500	1.88	3.550	
60 x 60	4	6.5	3	4.692	3.68	1.610	16.000	25.40	6.620	1.850	2.33	3.660	
60 x 60	5	6.5	3	5.802	4.55	1.660	19.600	31.20	8.090	1.840	2.32	4.520	
60 x 60	6	8	4	6.910	5.40	1.700	22.790	36.16	9.420	1.820	2.29	5.280	
65 x 65	5	8.5	3	6.367	5.00	1.770	25.300	40.10	10.500	1.990	2.51	5.350	
65 x 65	6	8.5	4	7.527	5.91	1.810	29.400	46.60	12.200	1.980	2.49	6.260	
65 x 65	8	8.5	6	9.761	7.66	1.880	36.800	58.30	15.300	1.940	2.44	7.960	
70 x 70	6	8.5	4	8.127	6.38	1.930	37.100	58.90	15.300	2.140	2.69	7.330	
75 x 75	6	8.5	4	8.727	6.85	2.060	46.100	73.20	19.000	2.300	2.90	8.470	
75 x 75	9	8.5	6	12.690	9.96	2.170	64.400	102.00	26.700	2.250	2.84	21.100	
75 x 75	12	8.5	6	16.560	13.00	2.290	81.900	129.00	34.500	2.220	2.79	15.700	
80 x 80	6	8.5	4	9.230	7.32	2.180	56.400	89.60	23.200	2.460	3.10	9.700	
90 x 90	6	10	5	10.550	8.28	2.420	80.700	128.00	33.400	2.770	3.48	12.300	
90 x 90	7	10	5	12.220	9.59	2.460	93.000	148.00	38.300	2.760	3.48	14.200	
90 x 90	10	10	7	17.000	13.30	2.570	125.000	199.00	51.700	2.710	3.42	19.500	
● 90 x 90	13	10	7	21.710	17.00	2.690	156.000	248.00	65.300	2.680	3.38	24.800	
100 x 100	7	10	5	13.620	10.70	2.710	129.000	205.00	53.200	3.080	3.88	17.700	
100 x 100	13	10	7	24.310	19.10	2.940	220.000	348.00	91.100	3.000	3.78	31.100	
● 100 x 100	10	10	7	19.000	14.90	2.820	175.000	278.00	72.000	3.040	3.83	24.400	
120 x 120	8	12	5	18.760	14.70	3.240	258.000	410.00	106.000	3.710	4.67	29.500	
● 120 x 120	11	13	6.5	25.370	19.90	3.300	340.000	541.00	140.000	3.660	4.62	39.360	
● 120 x 120	12	13	6.5	27.540	21.60	3.400	367.000	583.00	151.000	3.650	4.60	42.680	
● 130 x 130	9	12	6	22.740	17.90	3.530	366.000	583.00	150.000	4.010	5.06	38.700	
130 x 130	15	12	8.5	36.750	28.80	3.760	568.000	902.00	234.000	3.930	4.95	41.600	
● 130 x 130	12	12	8.5	29.760	23.40	3.640	467.000	743.00	192.000	3.960	5.00	49.900	
● 150 x 150	12	14	7	34.770	27.30	4.140	740.000	1,180.00	304.000	4.610	5.82	68.100	
● 150 x 150	15	14	10	42.740	33.60	4.240	888.000	1,410.00	365.000	4.560	5.75	82.600	
150 x 150	19	14	10	53.380	41.90	4.400	1,090.000	1,730.00	451.000	4.520	5.69	103.000	
175 x 175	12	15	11	40.520	31.80	4.730	1,170.000	1,860.00	480.000	5.380	6.78	91.800	
● 175 x 175	15	15	11	50.210	39.40	4.850	1,440.000	2,290.00	589.000	5.350	6.75	114.000	
● 200 x 200	15	17	12	57.750	45.30	5.460	2,180.000	3,470.00	891.000	6.140	7.75	150.000	
● 200 x 200	20	17	12	76.000	59.70	5.670	2,820.000	4,490.00	1,160.000	6.090	7.68	197.000	
200 x 200	25	17	12	93.750	73.60	5.860	3,420.000	5,420.00	1,410.000	6.040	7.61	242.000	
250 x 250	35	24	18	162.600	128.00	7.450	9,110.000	14,400.00	3,790.000	7.490	9.42	4.83	519.000
● 250 x 250	25	24	12	119.400	93.70	7.100	6,950.000	11,000.00	2,860.000	7.630	9.62	4.89	388.000



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NOTE : ● Can be supplied by our mill

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DIMENSIONAL TOLERANCE

JIS G3192/TIS 1227-194

METRIC SIZE

CHEMICAL COMPOSITION

ACCORDING JIS G 3101, G 3106

DIMENSION		TOLERANCE	REMARK	
Leg length (A or B)	Under 50 in depth	± 1.5		
	50 or over to and excl. 100	± 2.0		
	100 or over to and excl. 200	± 3.0		
	200 or over	± 4.0		
Dept (H)	Under 100	± 1.5		
	100 or over to and excl. 200	± 2.0		
	200 or over to and excl. 400	± 3.0		
	400 or over	± 4.0		
Thickness t, t_1, t_2	For leg length A (B for T Section) or under 130 in depth	Under 6.3		± 0.6
		6.3 or over to and excl. 10		± 0.7
		10 or over to and excl. 16	± 0.8	
		16 or over	± 1.0	
		For leg length A (B for T Section) : 130 or over in depth	Under 6.3	+ 0.7
	6.3 or over to and excl. 10	± 0.8		
	10 or over to and excl. 16	± 1.0		
	16 or over to and excl. 25	± 1.2		
	25 or order	± 1.5		
	Length	7 m or under	± 40 0	
over 7 m		Add 5 mm to the plus side tolerance given in the above column for every 1 m. Increase in length or its fraction.		
Out of Square (T)	I Section	2.0% or under of width B		
	Sections excluding I and T sections	2.5% or under of width of flange B (or leg length)		
Bend	I and T sections	0.20% or under of length	To be applied to bend such as sweep and camber.	
	Sections excluding I and T sections	0.30% or under of length		
Web-off-center (S)	300 or under in width B T Section	± 3.0	$s = \frac{b_1 - b_2}{2}$	

SYMBOL OF GRADE	CHEMICAL COMPOSITION (%)					
	C	Si	Mn	P	S	
SS 400, 490	—	—	—	0.050 max	0.050 max	
SS 540	0.3 max	—	1.60 max	0.040 max	0.040 max	
SM 400 A	50 mm or under in thickness over 50 mm, up to and incl. 200 mm in thickness	0.23 max 0.25 max	—	2.5 x c min (1)	0.035 max	0.035 max
SM 400 B	50 mm or under in thickness over 50 mm, up to and incl. 200 mm in thickness	0.20 max 0.22 max	0.35 max	0.60 - 1.40	0.035 max	0.035 max
SM 400 C	100 mm or under in thickness	0.18 max	0.35 max	1.40 max	0.035 max	0.035 max
SM 490 A	50 mm or under in thickness over 50 mm, up to and incl. 200 mm in thickness	0.20 max 0.22 max	0.55 max	1.60 max	0.035 max	0.035 max
SM 490 B	50 mm or under in thickness over 50 mm, up to and incl. 200 mm in thickness	0.18 max 0.20 max	0.55 max	1.60 max	0.035 max	0.035 max
SM 490 C	100 mm or under in thickness	0.18 max	0.55 max	1.60 max	0.035 max	0.035 max
SM 490 YA SM 490 YB	100 mm or under in thickness	0.20 max	0.55 max	1.60 max	0.035 max	0.035 max
SM 520 B SM 520 C	100 mm or under in thickness	0.20 max	0.55 max	1.60 max	0.035 max	0.035 max
SM 570	100 mm or under in thickness	0.18 max	0.55 max	1.60 max	0.035 max	0.035 max

Note: (1) The value of carbon here in is the actual cast analysis value

MECHANICAL PROPERTIES

METRIC SIZE

Classification	Yield Point N/mm ²		Tensile Strength N/mm ²	Elongation, % min		
	Thickness (mm)			Thickness (mm)		
	16 or under	over 16	5 or under	5 to 16	over 16	
JIS G3101 SS400	245	235	400-510	21	17	21
JIS G3101 SS540	400	390	min. 540	16	13	17
JIS G3101 SS490	285	275	490-610	19	15	19
JIS G3106 SM400, A,B,C	245	235	400-510	23	18	22
JIS G3106 SM490 A,B,C	325	315	490-610	22	17	21
JIS G3106 SM490 YA, YB	365	355	490-610	19	15	19
JIS G3106 SM520 B,C	365	355	520-640	19	15	19
JIS G3106 SM 570	460	450	570-720	19	19	26