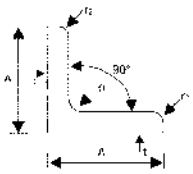
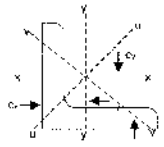
Mild Steel Channels, Flats, Angles and Square Bars

Type	Specification	Chemical Composition (Ladle Analysis)			Tensile Properties						Bend Test		
					Yield Stress (MN/m^2)		Tensile Strength (MN/m^2)	Eongation			Bending Angle	Inside radius	Test Piece
		C%	P%	S%	t<16mm	16<t<40mm		t<5mm	5<t<16mm	16<t<50mm			
								Test Pc. No. 5	Test Pc. No. 1A	Test Pc. No. 1A			
Flat Bar Angle Bar Square Bar	JIS G3101 1976, Class 2 SS 400	–	0.050 max.	0.050 max.	245 min.	235 min.	402 to 510	21% min.	17% min.		180°	1.5t*	No.1

Note: t* = Thickness of flat, angle and square bar

Equal Angles





Designation Size AxA	Thickness t	Mass Per Metre	Radius Root r_1	Radius Toe r_2	Area Of Section	Distance Centre Of Gravity C_x and C_y	Second Moment Of Area Axis x-x, y-y	Second Moment Of Area Axis u-u	Second Moment Of Area Axis v-v	Radius Of Gyration Axis x-x, y-y	Radius Of Gyration Axis u-u	Radius Of Gyration Axis v-v	Elastic Modulus Axis x-x, y-y
mm	mm	kg/m	mm	mm	cm^2	cm	cm^4	cm^4	cm^4	cm	cm	cm	cm^3
100x100	6	9.20	12	4.8	11.9	2.65	113	178	47.0	3.08	3.88	1.99	15.3
	7	10.70	12	4.8	13.7	2.70	130	206	53.9	3.08	3.87	1.98	17.8
	8	12.20	12	4.8	15.6	2.75	146	232	60.6	3.07	3.86	1.97	20.2
	10	15.00	12	4.8	19.2	2.83	178	283	73.8	3.05	3.84	1.96	24.8
	12	17.80	12	4.8	22.8	2.91	208	330	86.5	3.02	3.81	1.95	29.4
	13	19.10	12	4.8	24.5	2.95	222	352	92.8	3.01	3.79	1.95	31.5
	15	21.90	12	4.8	28.0	3.02	250	395	105	2.99	3.76	1.94	35.8
120x120	8	14.70	13	4.8	18.8	3.24	259	411	107	3.71	4.67	2.38	29.5
	10	18.20	13	4.8	23.3	3.32	316	502	130	3.69	4.64	2.37	36.4
	12	21.60	13	4.8	27.6	3.41	371	588	153	3.66	4.62	2.36	43.1
	15	26.60	13	4.8	34.0	3.52	448	710	186	3.63	4.57	2.34	52.8
125x125	8	14.90	14	4.8	19.7	3.36	294	466	122	3.87	4.87	2.49	32.2
	10	19.09	14	4.8	24.3	3.44	360	570	149	3.84	4.84	2.47	39.7
	12	22.67	14	4.8	28.9	3.53	422	669	174	3.82	4.81	2.46	47.0
130x130	8	15.90	14	4.8	20.5	3.48	332	527	138	4.03	5.07	2.59	34.9
	9	17.90	14	4.8	22.9	3.53	370	586	153	4.02	5.06	2.58	39.0
	10	19.70	14	4.8	25.3	3.57	406	645	168	4.01	5.05	2.57	43.1
	12	23.50	14	4.8	30.1	3.65	477	758	197	3.98	5.02	2.56	51.1
	15	28.80	14	4.8	37.1	3.77	578	916	240	3.95	4.97	2.54	62.6
	16	30.70	14	4.8	39.4	3.81	610	966	253	3.94	4.95	2.54	66.3
150x150	8	18.00	16	4.8	23.8	3.97	518	820	215	4.66	5.87	3.01	46.9
	10	23.00	16	4.8	29.5	4.06	635	1008	263	4.64	5.85	2.99	58.0
	12	27.30	16	4.8	35.0	4.14	748	1187	309	4.62	5.82	2.97	68.9
	15	33.80	16	4.8	43.2	4.26	909	1442	375	4.59	5.78	2.95	84.6
	16	35.70	16	4.8	45.9	4.30	960	1523	397	4.57	5.76	2.94	89.8
	18	40.10	16	4.8	51.2	4.38	1060	1680	440	4.55	5.73	2.93	99.8
	19	41.90	16	4.8	53.8	4.42	1109	1756	462	4.54	5.71	2.93	105
175x175	12	31.80	16	4.8	41.0	4.77	1208	1920	497	5.43	6.84	3.48	94.9
	15	39.40	16	4.8	50.7	4.89	1474	2342	606	5.39	6.80	3.46	117
200x200	12	36.55	18	4.8	47.2	5.38	1829	2906	753	6.23	7.85	4.00	125
	13	39.48	18	4.8	50.9	5.42	1967	3126	809	6.22	7.84	3.99	135
	15	45.30	18	4.8	58.3	5.50	2237	3555	919	6.19	7.81	3.97	154
	16	48.50	18	4.8	62.0	5.54	2360	3765	083	6.18	7.79	3.96	164
	18	54.20	18	4.8	69.4	5.62	2627	4174	1080	6.15	7.76	3.95	183
	20	59.90	18	4.8	76.6	5.70	2877	4569	1185	6.13	7.72	3.93	201
	24	71.10	18	4.8	90.8	5.85	3357	5322	1391	6.08	7.65	3.91	237
	25	73.60	18	4.8	94.3	5.89	3472	5502	1442	6.07	7.64	3.91	246
	26	76.80	18	4.8	97.8	5.93	3586	5680	1492	6.05	7.62	3.91	255
250x250	25	93.70	20	4.8	120	7.14	7030	11170	2891	7.67	9.67	4.92	394
	28	104.00	20	4.8	133	7.25	7741	12290	3195	7.63	9.61	4.90	436
	32	118.00	20	4.8	151	7.40	8650	13710	3593	7.58	9.54	4.89	491
	35	128.00	20	4.8	164	7.51	9305	14720	3887	7.54	9.49	4.88	532
300x300	35	155.00	24	18	197	8.71	16300	25900	6690	9.09	11.50	5.82	766
350x350	35	182.00	24	18	232	9.96	26600	42300	10800	10.70	13.50	6.83	1060