



THAI METAL IMPORT CO., LTD.



# Our Company

- One of the leading steel distributors with over 30 years of experience in sourcing and distributing various steel products.
- One-stop-shop service for all structural steel products with the most competitive prices offered in the industry.

Thai Metal Import (TMI) is proud to be one of Thailand's leading distributors of steel products. Sourcing products both domestically and internationally, we have full range of steel products to serve all needs. Our products include both Flat Products such as Hot Rolled Coil, Hot Rolled Chequered Coil, Plate, Chequered Plate and Long Products such as Wide Flange, Beams, Structural Steel Pipes, Round Bars, Deformed Bars, Channels, and Angles. After years of experience, we have gained trust and reputation from our customer across Thailand and neighboring countries. Our sales team will match your requirements and offer you the most cost effective products available. Today, we plan to serve our customers to their fullest satisfaction and become a major driving force of Steel Industry in Thailand.

## บริษัทของเรา

- เราเป็นผู้จัดจำหน่ายเหล็กชั้นนำของประเทศไทยที่มีประสบการณ์ในการจัดหาและจัดจำหน่ายหลากหลายผลิตภัณฑ์เหล็กคุณภาพมาเป็นเวลากว่า 30 ปี
- บริการครบวงจรสำหรับผลิตภัณฑ์เหล็กโครงสร้างทั้งหมด ด้วยราคาที่ดีที่สุด

ตลอดระยะเวลาการดำเนินงานของ บริษัท ไทยเมทอล อิมพอร์ต จำกัด (TMI) นั้น เราภูมิใจที่ได้เป็นหนึ่งในผู้จัดจำหน่ายผลิตภัณฑ์เหล็กระดับแนวหน้าของประเทศไทย โดยมีการนำเข้าผลิตภัณฑ์เหล็ก ทั้งจากภายในประเทศและต่างประเทศ ผลิตภัณฑ์ของเราประกอบด้วยผลิตภัณฑ์ทรงแบน เช่น เหล็กแผ่นรีดร้อนชนิดมัน, เหล็กแผ่นรีดร้อนชนิดมัน, เหล็กแผ่น, เหล็กแผ่นลาย, และ ผลิตภัณฑ์ทรงยาว เช่น Wide Flange, Beams, ท่อเหล็กโครงสร้าง, เหล็กเส้นกลม, เหล็กข้อจ้อย, เหล็กรางน้ำ, และ เหล็กฉาก ด้วยประสบการณ์ที่สั่งสมมาในการพัฒนาความรู้เกี่ยวกับผลิตภัณฑ์ การบริการลูกค้า เราจึงได้รับชื่อเสียงในฐานะผู้จัดจำหน่ายผลิตภัณฑ์หลากหลายประเภท จากลูกค้า ทั้งประเทศ และประเทศเพื่อนบ้าน เรามีทีมงานที่มีประสบการณ์ในอุตสาหกรรมเหล็กมาเป็นเวลานานทำให้สามารถตอบสนองความต้องการของคุณได้ครบถ้วนโดยเน้นคุณภาพและราคาที่ยุติธรรมเสมอมา ปัจจุบันเรามุ่งมั่นที่จะให้บริการลูกค้าอย่างเต็มที่ และเป็นแรงผลักดันสำคัญของอุตสาหกรรมเหล็กในประเทศไทย



# Company Profile

The beginning of Thai Metal Import Co., Ltd. (TMI), one of the largest and oldest steel distributors in Thailand, can be traced back over 30 years ago with the establishment of Serm Lek Thai Co., Ltd. on Bantadthong Road. With over 10 years of operation, Serm Lek Thai Co., Ltd. had gained trust and reputation from all types of customers. The management, therefore, decided to expand and moved head office to Teparak Road, Samutprakarn. With the new office at the new location, the name of the company was then changed to Thai Metal Import Co., Ltd. in 1992. Today, the company has up-to-date and systematic operation and operates as one of the major steel distributors in Thailand with great reputation in the industry and among the customers.

## ข้อมูลบริษัท

บริษัท ไทยเมทอล อิมพอร์ต จำกัด (TMI) เป็นหนึ่งในผู้จัดจำหน่ายเหล็กที่ใหญ่และเก่าแก่ที่สุดในประเทศไทย มีจุดเริ่มต้นเมื่อกว่า 30 ปีที่แล้ว โดยเริ่มจากการก่อตั้ง บริษัท เสริมเหล็กไทย จำกัด บนถนนบรรทัดทอง ซึ่งเป็นตึกแถวเพียงห้องเดียว ด้วยระยะเวลากว่า 10 ปีที่ บริษัท เสริมเหล็กไทย จำกัด ได้ดำเนินกิจการ ทางบริษัทฯ ได้ได้รับความไว้วางใจจากลูกค้ามาโดยตลอด เป็นเหตุให้ทางบริษัทได้ขยายกิจการโดยย้ายสำนักงานมาที่ถนนเทพารักษ์ และได้เปลี่ยนชื่อมาเป็น บริษัท ไทยเมทอล อิมพอร์ต จำกัดในปี พ.ศ. 2535 อย่างเช่นในปัจจุบัน นอกจากการพัฒนาในด้านธุรกิจแล้ว บริษัทฯ ยังให้ความสำคัญกับการดำเนินธุรกิจที่เป็นระบบและทันสมัยมากยิ่งขึ้น ทำให้ทางบริษัทฯ ได้รับการยอมรับและเป็นที่รู้จักกันอย่างแพร่หลายในวงการ เหล็ก และกลุ่มลูกค้าทุกประเภท

# Projects



## Vision

To become South East Asia's leading steel distributor offering complete range of steel products

### วิสัยทัศน์

หนึ่งในผู้จัดจำหน่ายเหล็กชั้นนำของเอเชียตะวันออกเฉียงใต้ เฝ้ามพร้อมด้วยผลิตภัณฑ์เหล็กคุณภาพครบวงจรที่สุด

## Mission

To offer quality products and services with the most competitive price

### พันธกิจ

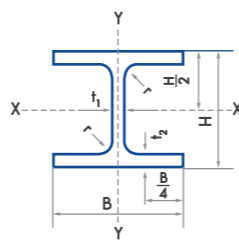
ให้บริการลูกค้าด้วยผลิตภัณฑ์เหล็กและบริการที่มีคุณภาพ ด้วยราคาที่ยุติธรรม และเหมาะสมที่สุด



# H-BEAMS

TIS 1227-2015/JIS G 3192

Grade: SM 400, SM 490, SM 520, SS 400, SS 490, SS 540



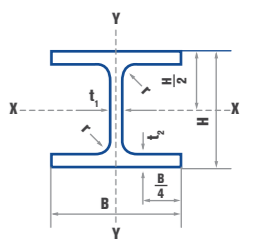
Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
		H	B	t <sub>1</sub>	t <sub>2</sub>	r		I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	Z <sub>x</sub>	Z <sub>y</sub>
mm	Kg/m	mm	mm	mm	mm	mm	cm <sup>2</sup>	cm <sup>4</sup>	cm <sup>4</sup>	cm	cm	cm <sup>3</sup>	cm <sup>3</sup>
100 x 50	9.30	100	50	5.0	7	8	11.85	187	14.8	3.98	1.12	37.5	5.91
100 x 100	17.2	100	100	6	8	10	21.90	383	134	4.2	2.47	77	27
125 x 125	23.8	125	125	6.5	9	10	30.31	847	293	5.3	3.11	136	47
150 x 75	14.0	150	75	5	7	8	17.85	666	50	6.1	1.66	89	13
150 x 100	21.1	148	100	6	9	11	26.84	1,020	151	6.2	2.37	138	30
150 x 150	31.5	150	150	7	10	11	40.14	1,640	563	6.4	3.75	219	75
175 x 175	40.2	175	175	7.5	11	12	51.21	2,880	984	7.5	4.38	330	112
200 x 100	18.2	198	99	4.5	7	11	23.18	1,580	114	8.3	2.21	160	23
	21.3	200	100	5.5	8	11	27.16	1,840	134	8.2	2.22	184	27
200 x 150	30.6	194	150	6	9	13	39.01	2,690	507	8.3	3.61	277	68
200 x 200	49.9	200	200	8	12	13	63.53	4,720	1,600	8.6	5.02	472	160
	56.2	200	204	12	12	13	71.53	4,980	1,700	8.4	4.88	498	167
	65.7	208	202	10	16	13	83.69	6,530	2,200	8.8	5.13	628	218
250 x 125	25.7	248	124	5	8	12	32.68	3,540	255	10.4	2.79	285	41
	29.6	250	125	6	9	12	37.66	4,050	294	10.4	2.79	324	47
250 x 175	44.1	244	175	7	11	16	56.24	6,120	984	10.4	4.18	502	113
250 x 250	64.4	244	252	11	11	16	82.06	8,790	2,940	10.3	5.98	720	233
	66.5	248	249	8	13	16	84.70	9,930	3,350	10.8	6.29	801	269
	72.4	250	250	9	14	16	92.18	10,800	3,650	10.8	6.29	867	292
	82.2	250	255	14	14	16	104.70	11,500	3,880	10.5	6.09	919	304
300 x 150	32.0	298	149	5.5	8	13	40.80	6,320	442	12.4	3.29	424	59
	36.7	300	150	6.5	9	13	46.78	7,210	508	12.4	3.29	481	68
300 x 200	56.8	294	200	8	12	18	72.38	11,300	1,600	12.5	4.71	771	160
	65.4	298	201	9	14	18	83.36	13,330	1,900	12.6	4.77	893	189
300 x 300	84.5	294	302	12	12	18	107.70	16,900	5,520	12.5	7.16	1,150	365
	87.0	298	299	9	14	18	110.80	18,800	6,240	13.0	7.51	1,270	417
	94.0	300	300	10	15	18	119.80	20,400	6,750	13.1	7.51	1,360	450
	106.0	300	305	15	15	18	134.80	21,500	7,100	12.6	7.26	1,440	466
	106.0	304	301	11	17	18	134.80	23,400	7,730	13.2	7.57	1,540	514
350 x 175	41.4	346	174	6	9	14	52.68	11,100	792	14.5	3.88	611	91
	49.6	350	175	7	11	14	63.14	13,600	984	14.7	3.95	775	112
	57.8	354	176	8	13	14	73.68	16,100	1,180	14.8	4.01	909	134
350 x 250	69.2	336	249	8	12	20	88.15	18,500	3,090	14.5	5.92	1,100	248
	79.7	340	250	9	14	20	101.50	21,700	3,650	14.6	6.00	1,280	292
350 x 350	106.0	338	351	13	13	20	135.30	28,200	9,380	14.4	8.33	1,670	534
	115.0	344	348	10	16	20	146.00	33,300	11,200	15.1	8.78	1,940	646
	131.0	344	354	16	16	20	166.60	35,300	11,800	14.6	8.43	2,050	669
	137.0	350	350	12	19	20	173.90	40,300	13,600	15.2	8.84	2,300	776
	156.0	350	357	19	19	20	198.40	42,800	14,400	14.7	8.53	2,450	809



# H-BEAMS

TIS 1227-2015/JIS G 3192

Grade: SM 400, SM 490, SM 520, SS 400, SS 490, SS 540



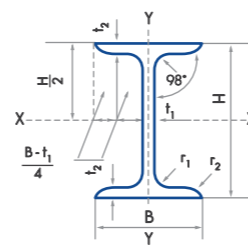
Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
		H	B	t <sub>1</sub>	t <sub>2</sub>	r		I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	Z <sub>x</sub>	Z <sub>y</sub>
mm	Kg/m	mm	mm	mm	mm	mm	cm <sup>2</sup>	cm <sup>4</sup>	cm <sup>4</sup>	cm	cm	cm <sup>3</sup>	cm <sup>3</sup>
400 x 200	56.6	396	199	7	11	16	72.16	20,000	1,450	16.7	4.48	1,010	145
	66.0	400	200	8	13	16	84.12	23,700	1,740	16.8	4.54	1,190	174
	75.5	404	201	9	15	16	96.16	27,500	2,030	16.9	4.60	1,360	202
400 x 300	94.3	386	299	9	14	22	120.10	33,700	6,240	16.7	7.21	1,740	418
	107.0	390	300	10	16	22	136.00	38,700	7,210	16.9	7.28	1,980	481
400 x 400	140.0	388	402	15	15	22	178.50	49,000	16,300	16.6	9.54	2,520	809
	147.0	394	398	11	18	22	186.80	56,100	18,900	17.3	10.10	2,850	951
	172.0	400	400	13	21	22	218.70	66,600	22,400	17.5	10.10	3,330	1,120
	197.0	400	408	21	21	22	250.70	70,900	23,800	16.8	9.75	3,540	1,170
450 x 200	232.0	414	405	18	28	22	295.40	92,800	31,000	17.7	10.20	4,480	1,530
	66.2	446	199	8	12	18	84.30	28,700	1,580	18.5	4.33	1,290	159
	76.0	450	200	9	14	18	96.76	33,500	1,870	18.6	4.40	1,490	187
450 x 300	88.9	456	201	10	17	18	113.30	40,400	2,310	18.9	4.51	1,770	230
	106.0	434	299	10	15	24	135.00	46,800	6,690	18.6	7.04	2,160	448
	124.0	440	300	11	18	24	157.40	56,100	8,110	18.9	7.18	2,550	541
500 x 200	145.0	446	302	13	21	24	184.30	66,400	9,660	19.0	7.24	2,980	639
	79.5	496	199	9	14	20	101.30	41,900	1,840	20.3	4.27	1,690	185
	89.6	500	200	10	16	20	114.20	47,800	2,140	20.5	4.33	1,910	214
500 x 300	103.0	506	201	11	19	20	131.30	56,500	2,580	20.7	4.43	2,230	257
	114.0	482	300	11	15	26	145.50	60,400	6,760	20.4	6.82	2,500	451
	128.0	488	300	11	18	26	163.50	71,000	8,110	20.8	7.04	2,910	541
600 x 200	150.0	494	302	13	21	26	191.40	83,800	9,660	20.9	7.10	3,390	640
	94.6	596	199	10	15	22	120.50	68,700	1,980	23.9	4.05	2,310	199
	106.0	600	200	11	17	22	134.40	77,600	2,280	24.0	4.12	2,590	228
600 x 300	120.0	606	201	12	20	22	152.50	90,400	2,720	24.3	4.22	2,980	271
	134.0	612	202	13	23	22	170.70	103,000	3,180	24.6	4.31	3,380	314
	137.0	582	300	12	17	28	174.50	103,000	7,670	24.3	6.63	3,530	511
700 x 300	151.0	588	300	12	20	28	192.50	118,000	9,020	24.8	6.85	4,020	601
	175.0	594	302	14	23	28	222.40	137,000	10,600	24.9	6.90	4,620	701
800 x 300	166.0	692	300	13	20	28	211.50	172,000	9,020	28.6	6.53	4,980	602
	185.0	700	300	13	24	28	235.50	201,000	10,800	29.3	6.78	5,760	722
900 x 300	191.0	792	300	14	22	28	243.40	254,000	9,930	32.3	6.39	6,410	662
	210.0	800	300	14	26	28	267.40	292,000	11,700	33.0	6.62	7,290	782
900 x 300	213.0	890	299	15.0	23	28	270.90	345,000	10,300	35.7	6.16	7,760	688
	243.0	900	300	16.0	28	28	309.80	411,000	12,600	36.4	6.39	9,140	843
	286.0	912	302	18.0	34	28	364.00	498,000	15,700	37.0	6.56	10,900	1,040



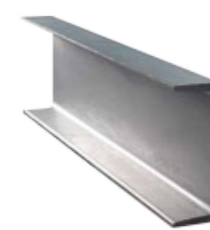
# I-BEAMS

TIS 1227-2015/JIS G 3192

Grade: SM 400, SM 490, SM 520, SS 400, SS 490, SS 540



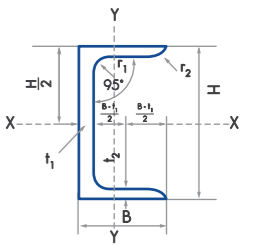
Standard Sectional Dimension (mm)					Sectional Area cm <sup>2</sup>	Weight kg/m	Moment of Inertia (cm <sup>4</sup> )		Radius of Gyration (cm)		Modulus of Section (cm <sup>3</sup> )	
H x B	t <sub>1</sub>	t <sub>2</sub>	r <sub>1</sub>	r <sub>2</sub>			I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	Z <sub>x</sub>	Z <sub>y</sub>
150 x 75	5.5	9.5	9	4.5	21.83	17.1	819	57.5	6.12	1.62	109	15.3
200 x 100	7	10	10	5	33.06	26.0	2,170	138	8.11	2.05	217	27.7
200 x 150	9	16	15	7.5	64.16	50.4	4,460	753	8.34	3.43	446	10.0
250 x 125	7.5	12.5	12	6	48.79	38.3	5,180	337	10.30	2.63	414	53.9
	10	19	21	10.5	70.73	55.5	7,310	538	10.20	2.76	585	86
300 x 150	8	13	12	6	61.58	48.3	9,480	588	12.40	3.09	632	78.4
	10	18.5	19	9.5	83.47	65.5	12,700	886	12.30	3.26	849	118
	11.5	22	23	11.5	97.88	76.8	14,700	1,080	12.20	3.32	978	143
350 x 150	9	15	13	6.5	74.58	58.5	15,200	702	14.30	3.07	870	93.5
	12	24	25	12.5	111.10	87.2	22,400	1,180	14.20	3.26	1,280	158
400 x 150	10	18	17	8.5	91.73	72.0	24,100	864	16.20	3.07	1,200	115
	12.5	25	27	13.5	122.10	95.8	31,700	1,240	16.10	3.18	1,580	165
450 x 175	11	20	19	9.5	116.80	91.7	39,200	1,510	18.30	3.60	1,740	173
	13	26	27	13.5	146.10	115.0	48,800	2,020	18.30	3.72	2,170	231
600 x 190	13	25	25	12.5	169.40	133.0	98,400	2,460	24.10	3.81	3,280	259
	16	35	38	19	224.50	176.0	130,000	3,540	24.10	3.97	4,330	373



# CHANNELS

TIS 1227-2015/JIS G 3192

Grade : SM 400, SM 490, SM 520, SS 400, SS 490, SS 540



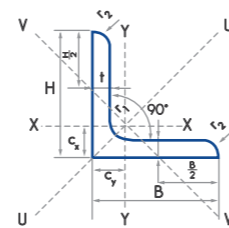
Standard Sectional Dimension (mm)					Sectional Area cm <sup>2</sup>	Weight kg/m	Moment of Inertia (cm <sup>4</sup> )		Radius of Gyration (cm)		Modulus of Section (cm <sup>3</sup> )	
H x B	t <sub>1</sub>	t <sub>2</sub>	r <sub>1</sub>	r <sub>2</sub>			I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	Z <sub>x</sub>	Z <sub>y</sub>
50 x 25	5	6	6	3	4.92	3.86	16.80	2.49	1.85	0.71	6.73	1.48
75 x 40	5	7	8	4	8.818	6.92	75.30	12.2	2.92	1.17	20.1	4.47
100 x 50	5	7.5	8	4	11.92	9.36	188.00	26	3.97	1.48	37.6	7.52
125 x 65	6	8	8	4	17.11	13.4	424.00	61.8	4.98	1.90	67.8	13.4
150 x 75	6.5	10	10	5	23.71	18.6	861.00	117	6.03	2.22	115	22.4
	9	12.5	15	7.5	30.59	24.0	1,050	147	5.86	2.19	140	28.3
180 x 75	7	10.5	11	5.5	27.20	21.4	1,380	131	7.12	2.19	153	24.3
200 x 80	7.5	11	12	6	31.33	24.6	1,950	168	7.88	2.32	195	29.1
200 x 90	8	13.5	14	7	38.65	30.3	2,490	277	8.02	2.68	249	44.2
250 x 90	9	13	14	7	44.07	34.6	4,180	294	9.74	2.58	334	44.5
	11	14.5	17	8.5	51.17	40.2	4,680	329	9.56	2.54	374	49.9
300 x 90	9	13	14	7	48.57	38.1	6,440	309	11.50	2.52	429	45.7
	10	15.5	19	9.5	55.74	43.8	7,410	360	11.50	2.54	494	54.1
	12	16	19	9.5	61.90	48.6	7,870	379	11.30	2.48	525	56.4
380 x 100	10.5	16	18	9	69.39	54.5	14,500	535	14.50	2.78	763	70.5
	13	16.5	18	9	78.96	62.0	15,600	565	14.10	2.67	823	73.6
	13	20	24	12	85.71	67.3	17,600	655	14.30	2.76	926	87.8



# ANGLES

TIS 1227-2015/JIS G 3192

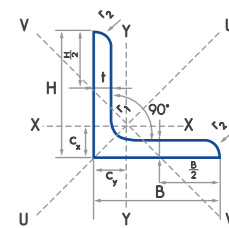
Grade : SM 400, SM 490, SM 520, SS 400, SS 490, SS 540



# ANGLES

TIS 1227-2015/JIS G 3192

Grade : SM 400, SM 490, SM 520, SS 400, SS 490, SS 540

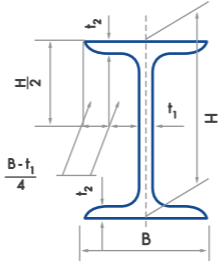
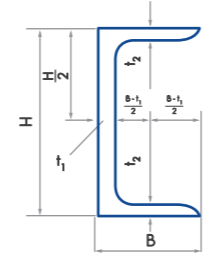
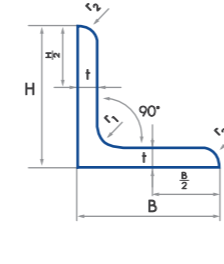
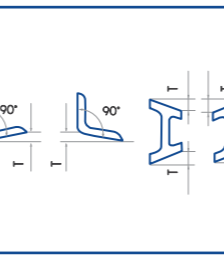
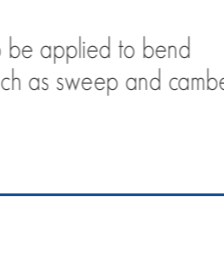


Standard Sectional Dimension (mm)				Sectional Area cm <sup>2</sup>	Weight kg/m	Moment of Inertia (cm <sup>4</sup> )				Radius of Gyration (cm)				Modulus of Section (cm <sup>3</sup> )		Distance of Center of Gravity (cm)	
H x B	t	r <sub>1</sub>	r <sub>2</sub>			I <sub>x</sub>	I <sub>y</sub>	I <sub>u</sub>	I <sub>v</sub>	i <sub>x</sub>	i <sub>y</sub>	i <sub>u</sub>	i <sub>v</sub>	Z <sub>x</sub>	Z <sub>y</sub>	C <sub>x</sub>	C <sub>y</sub>
25 x 25	3	4	2	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	0.719
	5	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
30 x 30	3	4	2	1.727	1.36	1.42	1.42	2.26	0.59	0.908	0.908	1.14	0.585	0.661	0.661	0.844	0.844
	5	5	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
40 x 40	3	4.5	2	2.336	1.83	3.53	3.53	5.60	1.46	1.23	1.23	1.55	0.79	1.21	1.21	1.09	1.09
	4	6	2.4	3.079	2.42	4.47	4.47	7.09	1.85	1.21	1.21	1.52	0.78	1.56	1.56	1.12	1.12
	5	4.5	3	3.755	2.95	5.42	5.42	8.59	2.25	1.20	1.20	1.51	0.774	1.91	1.91	1.17	1.17
	6	6	2.4	4.48	3.52	6.31	6.31	9.98	2.65	1.19	1.19	1.49	0.77	2.26	2.26	1.20	1.20
45 x 45	4	6.5	3	3.492	2.74	6.50	6.50	10.3	2.70	1.36	1.36	1.72	0.88	2.00	2.00	1.24	1.24
	5	6.5	3	4.302	3.38	7.91	7.91	12.5	3.29	1.36	1.36	1.71	0.874	2.46	2.46	1.28	1.28
50 x 50	3	7	2.4	2.96	2.33	6.86	6.86	10.8	2.88	1.52	1.52	1.91	0.99	1.86	1.86	1.31	1.31
	4	6.5	3	3.892	3.06	9.06	9.06	14.4	3.76	1.53	1.53	1.92	0.983	2.49	2.49	1.37	1.37
	5	6.5	3	4.802	3.77	11.1	11.1	17.5	4.58	1.52	1.52	1.91	0.976	3.08	3.08	1.41	1.41
	6	6.5	4.5	5.644	4.43	12.6	12.6	20.0	5.23	1.50	1.50	1.88	0.963	3.55	3.55	1.44	1.44
60 x 60	4	6.5	3	4.692	3.68	16.0	16.0	25.4	6.62	1.85	1.85	2.33	1.19	3.66	3.66	1.61	1.61
	5	6.5	3	5.802	4.55	19.6	19.6	31.2	8.09	1.84	1.84	2.32	1.18	4.52	4.52	1.66	1.66
65 x 65	5	8.5	3	6.367	5.00	25.3	25.3	40.1	10.5	1.99	1.99	2.51	1.28	5.35	5.35	1.77	1.77
	6	8.5	4	7.527	5.91	29.4	29.4	46.6	12.2	1.98	1.98	2.49	1.27	6.26	6.26	1.81	1.81
	8	8.5	6	9.761	7.66	36.8	36.8	58.3	15.3	1.94	1.94	2.44	1.25	7.96	7.96	1.88	1.88
70 x 70	6	8.5	4	8.127	6.38	37.1	37.1	58.9	15.3	2.14	2.14	2.69	1.37	7.33	7.33	1.93	1.93
75 x 75	6	8.5	4	8.727	6.85	46.1	46.1	73.2	19.0	2.30	2.30	2.90	1.48	8.47	8.47	2.06	2.06
	9	8.5	6	12.69	9.96	64.6	64.6	102	26.7	2.25	2.25	2.84	1.45	12.1	12.1	2.17	2.17
	12	8.5	6	16.56	13.0	81.9	81.9	129	34.5	2.22	2.22	2.79	1.44	15.7	15.7	2.29	2.29
80 x 80	6	8.5	4	9.327	7.32	56.4	56.4	89.6	23.2	2.46	2.46	3.10	1.58	9.70	9.70	2.18	2.18
90 x 90	6	10	5	10.55	8.28	80.7	80.7	128	33.4	2.77	2.77	3.48	1.78	12.3	12.3	2.42	2.42
	7	10	5	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	10	7	17.00	13.3	125	125	199	51.7	2.71	2.71	3.42	1.74	19.5	19.5	2.57	2.57
	12	11	4.8	20.3	15.9	148	148	234	61.7	2.70	2.70	3.40	1.75	23.3	23.3	2.66	2.66
	13	10	7	21.71	17.0	156	156	248	65.3	2.68	2.68	3.38	1.75	24.8	24.8	2.69	2.69
100 x 100	7	10	5	13.62	10.7	129	129	205	53.2	3.08	3.08	3.88	1.98	17.7	17.7	2.71	2.71
	10	10	7	19.00	14.9	175	175	278	72.0	3.04	3.04	3.83	1.95	24.4	24.4	2.82	2.82
	12	12	4.8	22.7	17.8	207	207	328	85.7	3.02	3.02	3.80	1.94	29.1	29.1	2.90	2.90
	13	10	7	24.31	19.1	220	220	348	91.1	3.00	3.00	3.78	1.94	31.1	31.1	2.94	2.94
120 x 120	8	12	5	18.76	14.7	258	258	410	106	3.71	3.71	4.67	2.38	29.5	29.5	3.24	3.24
130 x 130	9	12	6	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
150 x 150	12	14	7	34.77	27.3	740	740	1,180	304	4.61	4.61	5.82	2.96	68.1	68.1	4.14	4.14
	15	14	10	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	53.38	41.9	1,090	1,090	1,370	451	4.52	4.52	5.69	2.91	103	103	4.40	4.40

Standard Sectional Dimension (mm)				Sectional Area cm <sup>2</sup>	Weight kg/m	Moment of Inertia (cm <sup>4</sup> )				Radius of Gyration (cm)				Modulus of Section (cm <sup>3</sup> )		Distance of Center of Gravity (cm)	
H x B	t	r <sub>1</sub>	r <sub>2</sub>			I <sub>x</sub>	I <sub>y</sub>	I <sub>u</sub>	I <sub>v</sub>	i <sub>x</sub>	i <sub>y</sub>	i <sub>u</sub>	i <sub>v</sub>	Z <sub>x</sub>	Z <sub>y</sub>	C <sub>x</sub>	C <sub>y</sub>
175 x 175	12	15	11	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	50.21	39.4	1,440	1,440	2,290	589	5.35	5.35	6.75	3.42	114	114	4.85	4.85
200 x 200	15	17	12	57.75	45.3	2,180	2,180	3,470	891	6.14	6.14	7.75	3.92	150	150	5.46	5.46
	20	17	12	76.00	59.7	2,820	2,820	4,490	1,160	6.09	6.09	7.68	3.90	197	197	5.67	5.67
250 x 250	25	17	12	93.75	73.6	3,420	3,420	5,420	1,410	6.04	6.04	7.61	3.88	242	242	5.86	5.86
	25	24	12	119.40	93.7	6,950	6,950	11,000	2,860	7.63	7.63	9.62	4.90	388	388	7.10	7.10
	35	24	18	162.60	128	9,110	9,110	14,400	3,790	7.49	7.49	9.42	4.83	519	519	7.45	7.45

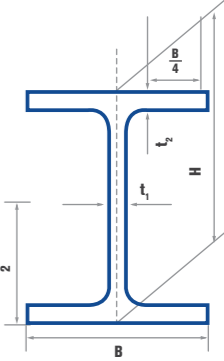

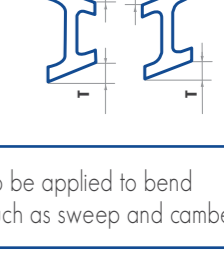
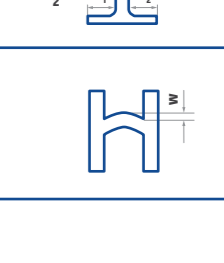
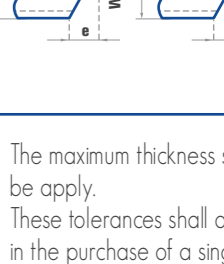
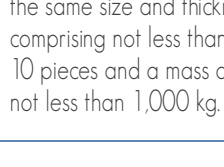
# TOLERANCES

## I-BEAMS, CHANNELS AND ANGLES

Dimension		Tolerance	Remarks	
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, t <sub>1</sub> , t <sub>2</sub> )	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	0.20% of L	To be applied to bend such as sweep and camber	
	Channel, Angle	0.30% of L		
Eccentricity, Web-off-center (S)	-	Not specified		
Mass (kg/m)	t < 10	± 5%	<ol style="list-style-type: none"> <li>Thicker nominal values shall be applied.</li> <li>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 or more pieces.</li> </ol>	
	t ≥ 10	± 4%		

# TOLERANCES

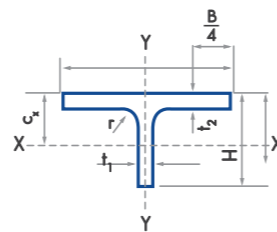
## H-BEAMS

Dimension		Tolerance	Remarks	
Depth (H)	H < 380	± 2.0		
	380 ≤ H < 580	± 3.0		
≥ 580	± 4.0			
Width (B)	B < 95	± 2.0		
	95 ≤ B < 190	± 2.5		
Thickness (t <sub>1</sub> , t <sub>2</sub> )	t <sub>1</sub>	t <sub>1</sub> < 16	± 0.7	
		16 ≤ t <sub>1</sub> < 25	± 1.0	
	25 ≤ t <sub>1</sub> < 40	± 1.5		
	t <sub>2</sub>	t <sub>2</sub> < 16	± 1.0	
16 ≤ t <sub>2</sub> < 25		± 1.5		
25 ≤ t <sub>2</sub> < 40	± 1.7			
Length (L)	L ≤ 7 m.	+ 40		
		0		
	L > 7 m.	40+ (no. of meter of L - 7) x 5		
Squareness (T)	H ≤ 300	B ≤ 150	± 1.5	
	H > 300	B > 150	± 1.0% of B	
Bend	H ≤ 300	B ≤ 125	± 1.5	
	H > 300	B > 125	± 1.2% of B	
Bend	H ≤ 300	± 0.15% of L	To be applied to bend such as sweep and camber	
H > 300	± 0.10% of L			
Eccentricity (S)	H ≤ 300, B ≤ 200	± 2.5		
H > 300, B > 200	± 3.5			
Concavity of Web (W)	H < 400	20		
400 ≤ H < 600	2.5			
H ≥ 600	30			
Squareness of cut end (e)	H ≤ 187.5	± 3.0 mm.		
B ≤ 187.5	± 3.0 mm.			
H > 187.5	± 1.6% of H			
B > 187.5	± 1.6% of B			
Mass (kg/m)	t < 10	± 5%	<ol style="list-style-type: none"> <li>The maximum thickness shall be apply.</li> <li>These tolerances shall apply in the purchase of a single set of structural steel of the same size and thickness comprising not less than 10 pieces and a mass of not less than 1,000 kg.</li> </ol>	
	t ≥ 10	± 4%		



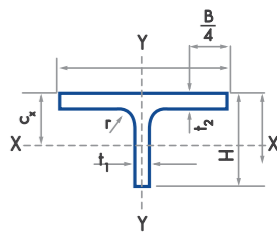
# CUT - BEAMS

Grade : SS 400



# CUT - BEAMS

Grade : SS 400



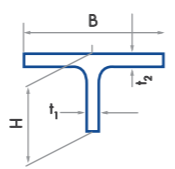
Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section		Center of Gravity
		H	B	t <sub>1</sub>	t <sub>2</sub>	r		I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	Z <sub>x</sub>	Z <sub>y</sub>	
mm	kg/m	mm	mm	mm	mm	mm	cm <sup>2</sup>	cm <sup>4</sup>	cm <sup>4</sup>	cm	cm	cm <sup>3</sup>	cm <sup>3</sup>	cm
50 x 50	4.65	50.0	50	5.0	7	8	5.93	11.8	7.4	1.41	1.12	3.17	3.0	1.28
50 x 100	8.60	50	100	6	8	10	10.95	16.1	66.9	1.21	2.47	4.03	13.4	1.00
62.5 x 125	11.90	62.5	125	6.5	9	10	15.16	35.0	147	1.52	3.11	6.91	23.5	1.19
75 x 75	7.00	75	75	5	7	8	8.925	42.6	24.7	2.18	1.66	7.46	6.6	1.79
75 x 100	10.55	75	100	6	9	11	13.42	51.7	75.3	1.96	2.37	8.84	15.1	1.55
75 x 150	15.75	75	150	7	10	11	20.07	66.4	282	1.82	3.75	10.8	37.6	1.37
87.5 x 90	9.05	87.5	90	5.0	8	9	11.5	70.5	48.5	2.47	2.06	10.35	10.83	1.93
87.5 x 175	20.10	87.5	175	7.5	11	12	25.61	115	492	2.12	4.38	15.9	56.2	1.55
100 x 100	9.10	99	99	4.5	7	11	11.59	93.8	56.8	2.84	2.21	12.1	11.5	2.14
	10.65	100	100	5.5	8	11	13.58	114	67.0	2.90	2.22	14.8	13.4	2.29
100 x 150	15.30	97	150	6	9	13	19.51	125	254	2.53	3.61	15.8	33.8	1.79
100 x 200	24.95	100	200	8	12	13	31.77	184	801	2.41	5.02	22.3	80.1	1.73
	28.10	100	204	12	12	13	35.77	256	851	2.67	4.88	32.4	83.4	2.09
	32.85	104	202	10	16	13	41.85	251	1,100	2.45	5.13	29.5	109	1.91
125 x 125	12.85	124	124	5	8	12	16.34	208	127	3.57	2.79	21.3	20.5	2.68
	14.80	125	125	6	9	12	18.83	248	147	3.63	2.79	25.6	23.5	2.78
125 x 175	22.05	122	175	7	11	16	28.12	289	492	3.20	4.18	29.1	56.3	2.27
125 x 250	32.20	122	252	11	11	16	41.03	445	1,470	3.29	5.98	45.3	117	2.39
	33.25	124	249	8	13	16	42.35	364	1,670	2.93	6.29	34.9	134	1.98
	36.20	125	250	9	14	16	46.09	412	1,820	2.99	6.29	39.5	146	2.08
	41.10	125	255	14	14	16	52.34	589	1,940	3.36	6.09	59.4	152	2.58
150 x 150	16.00	149	149	5.5	8	13	20.40	393	221	4.39	3.29	33.8	29.7	3.26
	18.35	150	150	6.5	9	13	23.39	464	254	4.45	3.29	40.0	33.8	3.41
150 x 200	28.40	147	200	8	12	18	36.19	572	802	3.97	4.71	48.2	80.2	2.83
	32.70	149	201	9	14	18	41.68	662	949	3.99	4.77	55.2	94.4	2.91
150 x 300	42.25	147	302	12	12	18	58.83	858	2,760	3.99	7.16	72.3	183	3.84
	43.50	149	299	9	14	18	55.40	715	3,120	3.59	7.51	57.0	209	2.36
	47.00	150	300	10	15	18	59.89	798	3,380	3.65	7.51	63.7	225	2.47
	53.00	150	305	15	15	18	67.39	1,110	3,550	4.05	7.26	92.5	233	2.03
	53.00	152	301	11	17	18	67.41	903	3,870	3.66	7.57	71.4	257	2.55
175 x 175	20.70	173	174	6	9	14	26.34	679	396	5.08	3.88	50.0	45.5	3.71
	24.80	175	175	7	11	14	31.57	815	492	5.08	3.95	59.3	56.2	3.75
	28.90	177	176	8	13	14	36.84	955	590	5.09	4.01	68.8	67	3.82
175 x 250	34.60	168	249	8	12	20	44.08	881	1,540	4.47	5.92	64.0	124	3.02
	39.85	170	250	9	14	20	50.76	1,020	1,830	4.48	6.00	73.1	146	3.09
175 x 350	53.00	169	351	13	13	20	67.63	1,420	4,690	4.59	8.33	104	267	3.21
	57.50	172	348	10	16	20	73.00	1,230	5,620	4.11	8.78	84.7	323	2.67
	65.50	172	354	16	16	20	83.32	1,800	5,920	4.65	8.43	131	335	3.40
	68.50	175	350	12	19	20	86.94	1,520	6,790	4.18	8.84	104	388	2.86
	78.00	175	357	19	19	20	99.19	2,200	7,220	4.71	8.53	158	404	3.59

Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section		Center of Gravity
		H	B	t <sub>1</sub>	t <sub>2</sub>	r		I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	Z <sub>x</sub>	Z <sub>y</sub>	
mm	kg/m	mm	mm	mm	mm	mm	cm <sup>2</sup>	cm <sup>4</sup>	cm <sup>4</sup>	cm	cm	cm <sup>3</sup>	cm <sup>3</sup>	cm
200 x 200	28.30	198	199	7	11	16	36.08	1,190	723	5.76	4.48	76.4	72.7	4.17
	33.00	200	200	8	13	16	42.06	1,400	868	5.76	4.54	88.6	86.8	4.23
	37.75	202	201	9	15	16	48.08	1,605	1,015	5.78	4.59	101	101	4.31
200 x 300	47.15	193	299	9	14	22	60.05	1,530	3,120	5.04	7.21	95.5	209	3.33
	53.50	195	300	10	16	22	67.98	1,730	3,600	5.05	7.28	108	240	3.41
200 x 400	70.00	194	402	15	15	22	89.23	2,480	8,130	5.27	9.54	158	404	3.70
	73.50	197	398	11	18	22	93.41	2,050	9,460	4.68	10.10	123	475	3.01
	86.00	200	400	13	21	22	109.3	2,480	11,200	4.76	10.10	147	560	3.21
	98.50	200	408	21	21	22	125.3	3,650	11,900	5.40	9.75	229	584	4.07
225 x 200	116.00	207	405	18	28	22	147.7	3,620	15,500	4.95	10.20	213	776	3.68
	33.10	223	199	8	12	18	42.15	1,880	790	6.67	4.33	109	79.4	5.10
	38.00	225	200	9	14	18	48.38	2,160	936	6.68	4.40	124	93.6	5.15
225 x 300	44.45	228	201	10	17	18	56.67	2,499	1,155	6.64	4.51	141.40	114.9	5.13
	53.00	217	299	10	15	24	67.52	2,350	3,350	5.89	7.04	133	224	4.04
	62.00	220	300	11	18	24	78.69	2,680	4,060	5.84	7.18	149	270	4.05
250 x 200	72.50	223	302	13	21	24	92.16	3,232	4,830	5.92	7.24	179	320	4.27
	39.75	248	199	9	14	20	50.64	2,840	922	7.49	4.27	150	92.6	5.90
	44.80	250	200	10	16	20	57.12	3,210	1,070	7.50	4.33	169	107	5.96
250 x 300	51.50	253	201	11	19	20	65.65	3,670	1,290	7.48	4.43	190	128	5.95
	57.00	241	300	11	15	26	72.76	3,420	3,380	6.85	6.82	178	225	4.92
	64.00	244	300	11	18	26	81.76	3,620	4,060	6.66	7.07	184	270	4.66
300 x 200	75.00	247	302	13	21	26	95.70	4,351	4,830	6.74	7.10	219.60	320	4.89
	47.30	298	199	10	15	22	60.23	5,190	989	9.29	4.05	236	99.4	7.79
	53.00	300	200	11	17	22	67.21	5,810	1,140	9.30	4.12	262	114	7.84
	60.00	303	201	12	20	22	76.24	6,570	1,360	9.28	4.22	292	135	7.79
300 x 300	67.00	306	202	13	23	22	85.33	7,340	1,590	9.27	4.31	322	157	7.79
	68.50	291	300	12	17	28	87.24	6,360	3,830	8.54	6.63	280	256	6.39
	75.50	294	300	12	20	28	96.24	6,710	4,510	8.35	6.85	288	301	6.08
	87.50	297	302	14	23	28	111.2	7,920	5,290	8.44	6.90	339	350	6.33
	83.00	346	300	13	20	28	105.7	11,300	4,510	10.30	6.53	425	301	7.99
350 x 300	92.50	350	300	13	24	28	117.7	12,000	5,410	10.10	6.78	438	361	7.55
	95.50	396	300	14	22	28	121.7	17,100	4,960	12.10	6.38	593	331	9.66
400 x 300	105.00	400	300	14	26	28	133.7	18,800	5,860	11.90	6.62	610	391	9.18
	106.50	445	229	15	23	28	135.45	26,000	5,143	13.86	6.16	793.03	344	11.59
450 x 300	121.50	450	300	16	28	28	154.90	29,240	6,322	13.74	6.39	866.37	421.5	11.25
	143	456	320	18	34	28	182	34,251	7,833	13.72	6.56	997.41	518.7	11.26



# TOLERANCES

## CUT - BEAMS

Tolerance			Remark
Depth (H)	H ≤ 150	± 50	
	150 < H ≤ 250	± 60	
	H > 250	± 70	
Other Dimensional Tolerances		Same as H Sections	



# FLAT BARS

Grade : SS 400

Standard Sectional Dimension		Sectional Area (cm)	Unit Weight (kg/m)
Thickness (mm)	Width (mm)		
4.5	25	1.125	0.88
4.5	32	1.44	1.13
4.5	38	1.71	1.34
4.5	44	1.98	1.55
4.5	50	2.25	1.77
6	25	1.50	1.18
6	32	1.92	1.51
6	38	2.28	1.79
6	44	2.64	2.07
6	50	3.00	2.36
6	65	3.90	3.06
6	75	4.50	3.53
6	90	5.40	4.24
6	100	6.00	4.71
6	125	7.50	5.89
8	25	2.00	1.57
8	32	2.56	2.01
8	38	3.04	2.39
8	44	3.52	2.76
8	50	4.00	3.14
8	65	5.20	4.08
8	75	6.00	4.71
8	90	7.20	5.65
8	100	8.00	6.28
8	125	10.00	7.85
9	25	2.25	1.77
9	32	2.88	2.26
9	38	3.42	2.68
9	44	3.96	3.11
9	50	4.50	3.53
9	65	5.85	4.59
9	75	6.75	5.30
9	90	8.10	6.36
9	100	9.00	7.06
9	125	11.25	8.83
12	25	3.00	2.36
12	32	3.84	3.01

Standard Sectional Dimension		Sectional Area (cm)	Unit Weight (kg/m)
Thickness (mm)	Width (mm)		
12	38	4.56	3.58
12	44	5.28	4.14
12	50	6.00	4.71
12	65	7.80	6.12
12	75	9.00	7.06
12	90	10.80	8.48
12	100	12.00	9.42
12	125	15.00	11.8
16	32	5.12	4.02
16	38	6.08	4.77
16	44	7.04	5.53
16	50	8.00	6.28
16	65	10.40	8.16
16	75	12.00	9.42
16	90	14.40	11.3
16	100	16.00	12.6
16	125	20.00	15.7
19	38	7.22	5.67
19	44	8.36	6.56
19	50	9.50	7.46
19	65	12.35	9.69
19	75	14.25	11.2
19	90	17.10	13.4
19	100	19.00	14.9
19	125	23.75	18.6
22	50	11.00	8.64
22	65	14.30	11.2
22	75	16.50	13.0
22	90	19.80	15.5
22	100	22.00	17.3
22	125	27.50	21.6
25	50	12.50	9.81
25	65	16.25	12.8
25	75	18.75	14.7
25	90	22.50	17.7
25	100	25.00	19.6
25	125	31.25	24.5



# PLATES

TIS 1479-2015 / JIS G 3101  
Grade : SS 400, SS 490

Thickness (mm)	Width x Length Weight of One Plate (kg)		
	4' x 8' (1219 mm x 2438 mm)	5' x 10' (1524 mm x 3048 mm)	5' x 20' (1524 mm x 6096 mm)
1.2	28	44	88
1.5	35	55	110
1.6	37	58	117
1.8	42	66	131
2	47	73	146
2.3	54	84	168
2.5	58	91	183
3	70	110	219
3.2	75	117	233
4	93	146	292
4.5	105	164	328
5	117	183	365
6	140	219	438
7	163	255	510
8	187	292	583
9	210	328	656
10	233	365	729
12	280	438	875
13	303	474	948
15	350	547	1,094
16	373	584	1,167
18	420	656	1,313
19	444	693	1,386
20	467	730	1,459
22	513	802	1,604
25	583	912	1,823
28	653	1,021	2,042
30	700	1,094	2,188
32	747	1,167	2,334
38	887	1,386	2,771
40	933	1,459	2,917
45	1,050	1,642	3,282
50	1,168	1,825	3,650



# CHEQUERED PLATES

Grade : SS 400

Thickness (mm)	Width x Length Weight of One Plate (kg)	
	4' x 8' (1219 mm x 2438 mm)	5' x 10' (1524 mm x 3048 mm)
2.3	66	89
3.2	80	125
4.5	111	173
6	146	227
9	216	337

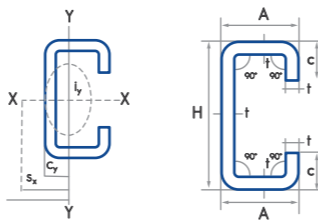


# LIP CHANNELS

TIS 1228-2006

Grade : SSC 400

19



Dimension (mm)		Sectional Area (cm <sup>2</sup> )	Weight (kg/m)	Center of Gravity (cm)		Secondary Moment of Area (cm <sup>4</sup> )		Radius of Gyration of Area (cm)		Modulus of Section (cm <sup>3</sup> )		Center of Shear (cm <sup>2</sup> )	
H x A x C	t			C <sub>x</sub>	C <sub>y</sub>	I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	Z <sub>x</sub>	Z <sub>y</sub>	S <sub>x</sub>	S <sub>y</sub>
60 x 30 x 10	1.6	2.072	1.63	0	1.06	11.6	2.56	2.37	1.11	3.88	1.32	2.5	0
	2.0	2.537	1.99	0	1.06	14.0	3.01	2.35	1.09	4.65	1.55	2.5	0
	2.3	2.872	2.25	0	1.06	15.6	3.32	2.33	1.07	5.20	1.71	2.5	0
70 x 40 x 25	1.6	3.032	2.38	0	1.80	22.0	8.00	2.69	1.62	6.29	3.64	4.4	0
75 x 35 x 15	2.3	3.677	2.89	0	1.29	31.0	6.58	2.91	1.34	8.28	2.98	3.1	0
75 x 45 x 15	1.6	2.952	2.32	0	1.72	27.1	8.71	3.03	1.72	7.24	3.13	4.1	0
	2.0	3.637	2.86	0	1.72	33.0	10.5	3.01	1.70	8.79	3.76	4.0	0
	2.3	4.137	3.25	0	1.72	37.1	11.80	3.00	1.69	9.90	4.24	4.0	0
90 x 45 x 20	1.6	3.352	2.63	0	1.73	42.6	10.5	3.56	1.77	9.46	5.80	4.2	0
	2.3	4.712	3.70	0	1.73	58.6	14.2	3.53	1.74	13.0	5.14	4.1	0
	3.2	6.367	5.00	0	1.72	76.9	18.3	3.48	1.69	17.1	6.57	4.1	0
100 x 50 x 20	1.6	3.672	2.88	0	1.87	58.4	14.0	3.99	1.95	11.7	4.47	4.5	0
100 x 50 x 20	2.0	4.537	3.56	0	1.86	71.4	16.9	3.97	1.93	14.3	5.40	4.4	0
	2.3	5.172	4.06	0	1.86	80.7	19.0	3.95	1.92	16.1	6.06	4.4	0
	2.8	6.205	4.87	0	1.88	99.8	23.2	3.96	1.91	20.0	7.44	4.3	0
	3.2	7.007	5.50	0	1.86	107	24.5	3.90	1.87	21.3	7.81	4.4	0
	4.0	8.548	6.71	0	1.86	127	28.7	3.85	1.83	25.4	9.13	4.3	0
	4.5	9.469	7.43	0	1.86	139	30.9	3.82	1.81	27.7	9.82	4.3	0
120 x 40 x 20	3.2	7.007	5.50	0	1.32	144	15.3	4.53	1.48	24.0	5.71	3.4	0
120 x 60 x 20	2.3	6.092	4.78	0	2.13	140	31.3	4.79	2.27	23.3	8.10	5.1	0
	3.2	8.287	6.51	0	2.12	186	40.9	4.74	2.22	31.0	10.5	4.9	0
120 x 60 x 25	4.5	11.72	9.20	0	2.25	252	58.0	4.63	2.22	41.9	15.50	5.3	0
125 x 50 x 20	2.3	5.747	4.51	0	1.69	137	20.6	4.88	1.89	21.9	6.22	4.1	0
	3.2	7.807	6.13	0	1.68	181	26.6	4.82	1.85	29.0	8.02	4.0	0
	4.0	9.548	7.50	0	1.68	217	33.1	4.77	1.81	34.7	9.38	4.0	0
	4.5	10.59	8.32	0	1.68	238	33.5	4.74	1.78	38.0	10.0	4.0	0

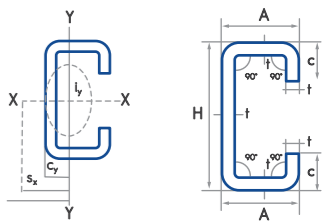


# LIP CHANNELS

TIS 1228-2006

Grade : SSC 400

20



Dimension (mm)		Sectional Area (cm <sup>2</sup> )	Weight (kg/m)	Center of Gravity (cm)		Secondary Moment of Area (cm <sup>4</sup> )		Radius of Gyration of Area (cm)		Modulus of Section (cm <sup>3</sup> )		Center of Shear (cm <sup>2</sup> )	
H x A x C	t			C <sub>x</sub>	C <sub>y</sub>	I <sub>x</sub>	I <sub>y</sub>	i <sub>x</sub>	i <sub>y</sub>	Z <sub>x</sub>	Z <sub>y</sub>	S <sub>x</sub>	S <sub>y</sub>
150 x 50 x 20	2.3	6.322	4.96	0	1.55	210	21.9	5.77	1.86	28.0	6.33	3.8	0
	3.2	8.607	6.76	0	1.54	280	28.3	5.71	1.81	37.4	8.19	3.8	0
	4.5	11.72	9.20	0	1.54	368	35.7	5.60	1.75	49.0	10.5	3.7	0
150 x 65 x 20	2.3	7.012	5.50	0	2.12	248	41.1	5.94	2.42	33.0	9.37	5.2	0
	3.2	9.567	7.51	0	2.11	332	53.8	5.89	2.37	44.3	12.2	5.1	0
150 x 75 x 20	4.0	11.75	9.22	0	2.11	401	63.7	5.84	2.33	53.5	14.5	5.0	0
	3.2	10.21	8.01	0	2.51	366	76.4	5.99	2.74	48.9	15.30	5.1	0
150 x 75 x 20	4.0	12.55	9.85	0	2.51	445	91.0	5.95	2.69	59.3	18.2	5.8	0
	4.5	13.97	11.00	0	2.50	489	99.2	5.92	2.66	65.2	19.8	6.0	0
	3.2	10.53	8.27	0	2.66	375	83.6	5.97	2.82	50.0	17.3	6.4	0
150 x 75 x 25	4.0	12.95	10.20	0	2.65	455	99.8	5.93	2.78	60.6	20.6	6.3	0
	4.5	14.42	11.30	0	2.65	501	109	5.90	2.75	66.9	22.5	6.3	0
200 x 75 x 20	3.2	11.81	9.27	0	2.19	716	84.1	7.79	2.67	71.6	15.8	5.4	0
	4.0	14.55	11.40	0	2.19	871	100	7.74	2.62	87.1	18.9	5.3	0
	4.5	16.22	12.70	0	2.19	963	109	7.71	2.60	96.3	20.6	5.3	0
200 x 75 x 25	3.2	12.13	9.52	0	2.33	736	92.3	7.70	2.76	73.6	17.8	5.7	0
	4.0	14.95	11.70	0	2.32	895	110	7.74	2.72	89.5	21.3	5.7	0
	4.5	16.67	13.10	0	2.32	990	121	7.61	2.69	99.0	23.3	5.6	0
200 x 75 x 25	4.5	18.92	14.90	0	2.07	1,690	129	9.44	2.62	135	23.8	5.1	0

## TOLERANCES

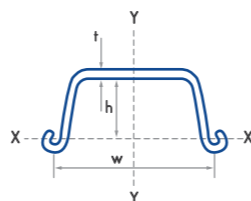
### LIP CHANNEL

Dimension	H > 150 : ±1.5 mm.	H < 150 : ±2.0 mm.	A : ±1.5 mm.	C : ±2.0 mm.
Weight	: Under 600 kgs ±10%	: 600 - 2,000 kgs ±7.5%	: Over 2,000 kgs ±5%	
Thickness	: 2.3 mm. ±0.25 mm.	: 3.2 mm. ±0.30 mm.	: 4.0, 4.5 mm. ±0.30 mm.	
Length	: +40 mm. , -0 mm.			



## STEEL SHEET PILES

TIS 1390-1996



Section	Dimensions			Sectional Area	Weight		Moment of Inertia		Section Modulus	
	w	h	t	per pile	per pile	per wall width	per pile	per wall width	per pile	per wall width
	mm in	mm in	mm in	cm <sup>2</sup> in <sup>2</sup>	kg/m lbs/ft	kg/m <sup>2</sup> lbs/ft <sup>2</sup>	cm <sup>4</sup> in <sup>4</sup>	cm <sup>4</sup> /m in <sup>4</sup> /ft	cm <sup>3</sup> in <sup>3</sup>	cm <sup>3</sup> /m in <sup>3</sup> /ft
SP-III A	400	150	13.1	74.40	58.4	146	2,790	22,800	250	1,520
	15.7	5.91	0.516	11.53	39.2	29.9	67.0	167	15.3	28.3
SP-III	400	125	13.0	76.42	60.0	150	2,220	16,800	223	1,340
	15.7	4.92	0.512	11.85	40.3	30.7	53.3	123	13.6	24.9
SP-IV	400	170	15.5	96.99	76.1	190	4,670	38,600	362	2,270
	15.7	6.69	0.610	15.03	51.1	38.9	112.0	283	22.1	42.2

## TOLERANCES

STEEL SHEET PILES

Dimension	Tolerances
Height	± 4%
Width (B)	+10 -5
Thickness	t < 10 ± 1.0 10 ≤ t < 16 ± 1.2 t ≥ 16 ± 1.5
Length (L)	+Not Specified 0
Deflection	L ≤ 10 m. Full Length (M) x 0.12% max. L > 10 m. Full Length - 10 m. x 0.10% + 12 mm max.
Camber	L ≤ 10 m. Full Length (M) x 0.25% max. L > 10 m. Full Length - 10 m. x 0.20% + 25 mm max.
Difference in Vertically Cut Sections	Within 4% of Width



## ROUND BARS

TIS 20-2016/JIS G 3112

Grade : SR24

Chemical Composition (%)					
Grade	Carbon	Silicon	Manganese	Phosphorus	Sulphur
SR24	0.280	-	-	0.058	0.058
Physical Properties					
Grade	Yield Strength not less than (kgf/mm <sup>2</sup> )	Tensile Strength not less than (kgf/mm <sup>2</sup> )	Elongation not less than (%)	Cold Bend Test	
				Bending Angle	Diameter of Mandrel
SR24	24	39	21	180°	1.5 times of diameter
Normal Sizes and Unit Weight					
Designation	Designation Diameter (mm)	Unit Weight (kg/m)	Cross Sectional Area (cm <sup>2</sup> )		
RB6	6	0.222	28.30		
RB8	8	0.395	0.503		
RB9	9	0.499	63.60		
RB10	10	0.616	0.785		
RB12	12	0.888	113.10		
RB15	15	1.387	1.767		
RB19	19	2.226	283.50		
RB22	22	2.984	380.10		
RB25	25	3.853	490.90		
RB28	28	4.834	615.80		
RB34	34	7.127	907.90		



## DEFORMED BARS

TIS 24-2016/JIS G 3112

Grade : SD 30, SD 40

Chemical Composition (%)					
Grade	Carbon	Manganese	Phosphorus	Sulphur	Carbon + Manganese 6
SD30	0.30	-	0.06	0.06	0.50
SD40	-	1.85	0.06	0.06	0.55
Physical Properties					
Grade	Yield Strength not less than (kgf/mm <sup>2</sup> )	Tensile Strength not less than (kgf/mm <sup>2</sup> )	Elongation not less than (%)	Cold Bend Test	
				Bending Angle	Diameter of Mandrel
SD30	30	49	17	180°	3.4 times of diameter
SD40	40	57	15	180°	5 times of diameter
Nominal Sizes and Unit Weight					
Designation	Designation Diameter (mm)	Unit Weight (kg/m)	Cross Sectional Area (cm <sup>2</sup> )		
DB6	6	0.222	0.28		
DB8	8	0.395	0.50		
DB10	10	0.616	0.78		
DB12	12	0.888	1.13		
DB16	16	1.578	2.01		
DB20	20	2.466	3.14		
DB22	22	2.984	3.80		
DB25	25	3.853	4.91		
DB28	28	4.834	6.16		
DB32	32	6.313	8.04		
DB36	36	7.990	10.18		
DB40	40	9.665	12.57		

# CARBON STEEL ROUND PIPES FOR PRESSURE PURPOSES

ASTM A53

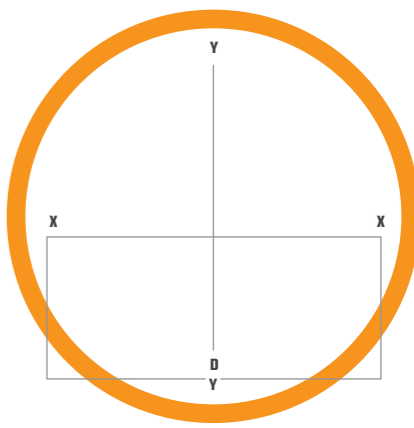
Nominal Dimension		Outside Diameter (mm)	Thickness (mm)	Weight (plain end) (kg/m)	Test Pressure (kPa)		Schedule
mm	in				Grade A	Grade B	
15	1/2"	21.30	2.77	1.27	4830	4830	40
			3.73	1.62	5860	5860	80
20	3/4"	26.70	2.87	1.69	4830	4830	40
			3.91	2.20	5860	5860	80
25	1"	33.40	3.38	2.50	4830	4830	40
			4.55	3.24	5860	5860	80
32	1 1/4"	42.20	3.56	3.39	8270	8960	40
			4.85	4.47	12410	13100	80
40	1 1/2"	48.30	3.68	4.05	8270	8960	40
			5.08	5.41	12410	13100	80
50	2"	60.30	3.91	5.44	15860	17240	40
			5.54	7.48	17240	17240	80
65	2 1/2"	73.00	5.16	8.63	17240	17240	40
			7.01	11.41	17240	17240	80
80	3"	88.90	5.49	11.29	15310	17240	40
			7.62	15.27	17240	17240	80
90	3 1/2"	101.60	5.74	13.57	14000	16340	40
			8.08	18.63	19310	19310	80
100	4"	114.30	6.02	16.07	13100	15240	40
			8.56	22.32	18620	19310	80
125	5"	141.30	6.55	21.77	11510	13440	40
			9.52	30.94	16750	19310	80
150	6"	168.30	7.11	28.26	10480	12270	40
			10.97	42.56	16200	18890	80
200	8"	219.10	6.35	33.31	7170	8410	20
			7.04	36.31	7800	9310	30
			8.18	42.55	9240	10820	40
			10.31	53.08	11720	13790	60
250	10"	273.00	12.70	64.64	14410	16750	80
			6.35	41.75	5790	6760	20
			7.80	51.01	7100	8270	30
			9.27	60.29	8410	9860	40

Material of Grade	Chemical Composition (%)					Mechanical Properties		
	C MAX	Si MAX	Mn MAX	P MAX	S MAX	Yields Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)
Grade A	0.25	-	0.95	0.050	0.045	205	330	-
Grade B	0.30	-	1.20	0.050	0.045	240	415	-

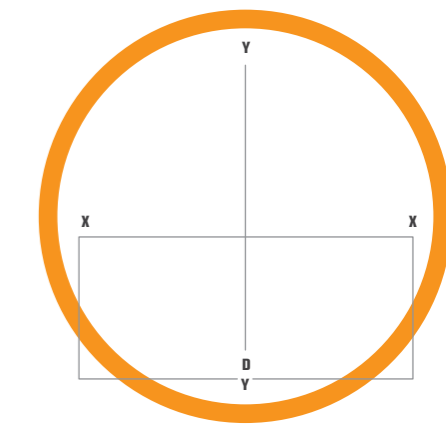
Tolerances	
Outside Diameter:	DN ≤ 1.1/2 in : +0.4 mm., -0.79 mm. DN ≥ 2 in : ±1%
Thickness:	+ Not Limit, -12.5%
Weight:	±10%

# CARBON STEEL ROUND PIPES FOR GENERAL STRUCTURAL PURPOSES

JIS G3444

Nominal Size	Outside Diameter (mm)	Thickness (mm)	Weight (plain end) (kg/m)	Remarks
15	21.70	2.00	0.98	
20	27.20	2.00	1.24	
25	34.00	2.30	1.41	
		2.30	1.80	
32	42.70	2.30	2.29	
		2.50	2.48	
40	48.60	2.30	2.63	
		2.50	2.84	
		2.80	3.16	
		3.20	3.58	
50	60.50	2.30	3.30	
		3.20	4.52	
		4.00	5.57	
65	76.30	2.80	5.08	
		3.20	5.77	
		4.00	7.13	
80	89.10	2.80	5.96	
		3.20	6.78	
90	101.60	3.20	7.76	
		4.00	9.63	
		5.00	11.90	
100	114.30	3.20	8.77	
		3.50	9.58	
		4.50	12.20	
125	139.80	3.60	12.10	
		4.00	13.40	
		4.50	15.00	
150	165.20	6.00	19.80	
		4.50	17.80	
		5.00	19.80	
175	190.70	6.00	23.60	
		7.10	27.70	
		4.50	20.70	
200	216.30	5.30	24.20	
		6.00	27.30	
		7.00	31.70	
		8.20	36.90	
		4.50	23.50	
		5.80	30.10	
		6.00	31.10	
		7.00	36.10	
8.00	41.10			
8.20	42.10			

Material of Grade	Chemical Composition (%)					Mechanical Properties		
	C MAX	Si MAX	Mn MAX	P MAX	S MAX	Yields Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)
STK 400	0.25	-	-	0.040	0.040	235	400	23
STK 490	0.18	0.55	1.50	0.040	0.040	315	490	23



### Tolerances

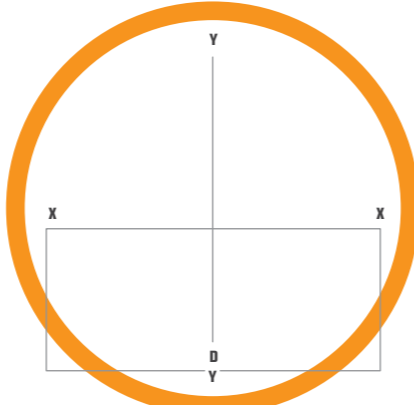
**Outside Diameter:**  
 < 50 mm. : ± 0.5 mm., ≥ 50 mm. : ± 1%  
 > 50 mm. : ± 0.25 mm., ≥ 50 mm. : ± 0.5%

**Thickness:**  
 < 4.0 mm. : + 0.6 mm., - 0.5 mm.  
 ≥ 4.0 mm. : + 15%, - 12.5%  
 < 3.0 mm. : ± 0.3 mm.  
 ≥ 3.0 mm. : ± 10%

**Weight:**  
 ± 10%

# CARBON STEEL ROUND PIPES FOR GENERAL STRUCTURAL PURPOSES

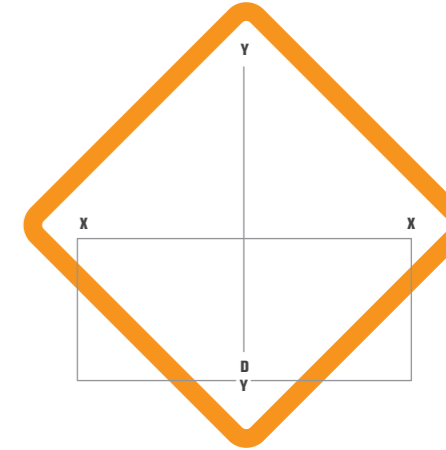
TIS 107-1990

Nominal Size		Thickness (mm)	Weight (plain end) (kg/m)	Remarks
in	mm	STD	STD	
1/2"	15	2.00	0.97	
3/4"	20	2.30	1.41	
1"	25	2.30	1.80	
1 1/4"	32	2.30	2.29	
1 1/2"	40	2.30	2.63	
		3.20	3.58	
2"	50	3.20	4.52	
		4.00	5.57	
2 1/2"	65	3.20	5.77	
		4.00	7.13	
3"	80	3.20	6.78	
		4.00	8.39	
3 1/2"	90	3.20	7.76	
		4.00	9.63	
4"	100	3.20	8.77	
		4.50	12.20	
		5.60	15.00	
5"	125	4.50	15.00	<p><b>Tolerances</b></p> <p><b>Outside Diameter:</b>  <math>\leq 50 \text{ mm. } \pm 0.5 \text{ mm.}</math>  <math>&gt; 50 \text{ mm. } \pm 1\%</math></p> <p><b>Thickness:</b>            2.0 mm. to 3.2 mm. : <math>\pm 0.3 \text{ mm.}</math>            4.0 mm. to 8.0 mm. : <math>\pm 10\%</math></p> <p><b>Weight:</b>  <math>\pm 10\%</math></p>
		6.00	19.80	
6"	150	4.50	17.80	
		6.00	23.60	
8"	200	6.00	31.10	
		8.00	41.10	

Material of Grade	Chemical Composition (%)					Mechanical Properties			Color Code
	C MAX	Si MAX	Mn MAX	P MAX	S MAX	Yields Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)	Material of Grade
HS 41	0.28	-	-	0.048	0.048	235	402	23	GREEN
HS 50	0.21	0.57	1.53	0.048	0.048	314	490	23	RED
HS 51	0.33	0.37	0.33-1.03	0.048	0.048	353	500	15	WHITE

# CARBON STEEL SQUARE PIPES FOR GENERAL STRUCTURAL PURPOSES

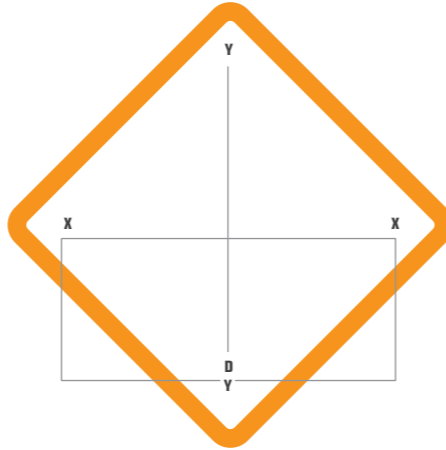
JIS G3466

Nominal Size		Thickness (mm)	Weight (plain end) (kg/m)	Remarks
A	B			
40	40	1.60	1.88	
		2.30	2.62	
50	50	1.60	2.38	
		2.30	3.34	
60	60	3.20	4.50	
		1.60	2.88	
75	75	2.30	4.06	
		3.20	5.50	
80	80	1.60	3.64	
		2.30	5.14	
90	90	3.20	7.01	
		4.50	9.55	
100	100	2.30	5.50	
		3.20	7.51	
125	125	4.50	10.30	
		2.30	6.23	
150	150	3.20	8.51	
		2.30	6.95	
175	175	3.20	9.52	
		4.00	11.70	
200	200	4.50	13.10	
		6.00	17.00	
250	250	9.00	24.10	
		3.20	12.00	
300	300	4.50	16.60	
		5.00	18.30	
350	350	6.00	21.70	
		9.00	31.10	
400	400	4.50	20.10	
		5.00	22.30	
450	450	6.00	26.40	
		9.00	38.20	
500	500	4.50	23.70	
		5.00	26.20	
550	550	6.00	31.10	
		4.50	27.20	
600	600	6.00	35.80	
		8.00	46.90	
650	650	9.00	52.30	
		12.00	67.90	
700	700	5.00	38.00	
		6.00	45.20	
750	750	8.00	59.50	
		9.00	66.50	
800	800	12.00	86.80	
		4.50	41.30	
850	850	6.00	54.70	
		9.00	80.60	
900	900	12.00	106.00	
		9.00	94.70	
950	950	9.00	94.70	
		12.00	124.00	

Material of Grade	Chemical Composition (%)					Mechanical Properties		
	C MAX	Si MAX	Mn MAX	P MAX	S MAX	Yields Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)
STKR 400	0.25	-	-	0.040	0.040	245	400	23
STKR 490	0.18	0.55	1.50	0.040	0.040	325	490	23

# CARBON STEEL SQUARE PIPES FOR GENERAL STRUCTURAL PURPOSES

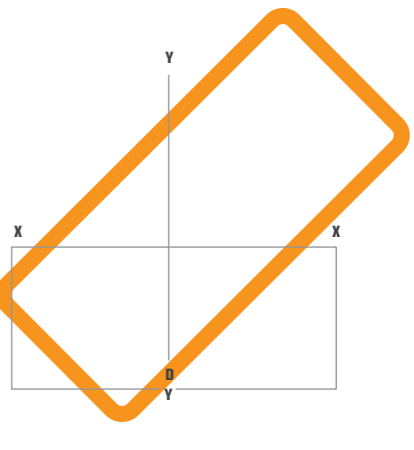
TIS 107-1990

Nominal Size		Thickness (mm)	Weight (plain end) (kg/m)	Remarks
A	B			
25	25	2.00	1.36	
		2.30	1.53	
32	32	2.30	2.04	
		3.20	2.69	
38	38	2.30	2.47	
		3.20	3.29	
50	50	2.30	3.34	
		3.20	4.50	
60	60	2.30	4.06	
		3.20	5.50	
		4.00	6.71	
75	75	3.20	7.01	
		4.00	8.59	
90	90	3.20	8.51	
		4.00	10.48	
		4.50	11.67	
100	100	3.20	9.52	
		4.00	11.70	
		4.50	13.10	
150	150	4.50	20.10	
		6.00	26.40	
175	175	4.50	23.70	
		6.00	31.10	
200	200	6.00	35.80	
		8.00	46.90	
		9.00	52.30	
250	250	6.00	45.20	<p style="text-align: center;"><b>Tolerances</b></p> <p><u>Outside Diameter:</u>            ≤ 100 mm. : ± 1.5 mm.            &gt; 100 mm. : ± 15%</p> <p><u>Thickness:</u>            2.0 mm. to 3.2 mm. : ± 0.3 mm.            4.0 mm. to 12.0 mm. : ± 10%</p> <p><u>Weight:</u>            ± 10%</p>
		8.00	59.20	
		9.00	66.50	
300	300	6.00	54.70	
		9.00	80.60	
		12.00	106.00	
350	350	9.00	94.70	
		12.00	124.00	

Material of Grade	Chemical Composition (%)					Mechanical Properties			Color Code
	C MAX	Si MAX	Mn MAX	P MAX	S MAX	Yields Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)	Material of Grade
HS 41	0.28	-	-	0.048	0.048	235	402	23	GREEN
HS 50	0.21	0.57	1.53	0.048	0.048	314	490	23	RED

# CARBON STEEL RECTANGULAR PIPES FOR GENERAL STRUCTURAL PURPOSES

JIS G3466

Nominal Size		Thickness (mm)	Weight (plain end) (kg/m)	Remarks
A	B			
60	30	1.60	2.13	
		2.30	2.98	
		3.20	3.99	
75	45	1.60	2.88	
		2.30	4.06	
100	50	3.20	5.50	
		1.60	3.64	
		2.30	5.14	
125	75	3.20	7.01	
		4.50	9.55	
		2.30	6.95	
150	75	3.20	9.52	
		4.00	11.70	
		4.50	13.10	
150	80	6.00	17.00	
		3.20	10.80	
		4.50	15.20	
150	100	5.00	16.80	
		6.00	19.80	
		3.20	12.00	
200	100	4.50	16.60	
		6.00	21.70	
		9.00	31.10	
200	150	4.50	20.10	
		6.00	26.40	
		9.00	38.20	
250	150	4.50	23.70	
		6.00	31.10	
		9.00	45.30	
300	200	6.00	35.80	
		9.00	52.30	
		12.00	67.90	
350	150	6.00	45.20	<p style="text-align: center;"><b>Tolerances</b></p> <p><u>Length of Side</u>            ≤ 100 mm. : ± 1.5 mm.            &gt; 100 mm. : ± 1.5%</p> <p><u>Thickness:</u>            &lt; 3.0 mm. : ± 0.3 mm.            ≥ 3.0 mm. : ± 10%</p>
		9.00	66.50	
		12.00	86.80	
400	200	6.00	54.70	
		9.00	80.60	
		12.00	106.00	

Material of Grade	Chemical Composition (%)					Mechanical Properties		
	C MAX	Si MAX	Mn MAX	P MAX	S MAX	Yields Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)
STKR 400	0.25	-	-	0.040	0.040	245	400	23
STKR 490	0.18	0.55	1.50	0.040	0.040	325	490	23

# CARBON STEEL RECTANGULAR PIPES FOR GENERAL STRUCTURAL PURPOSES

TIS 107-1990

Nominal Size		Thickness (mm)	Weight (plain end) (kg/m)	Remarks
A	B	STD	STD	
50	25	2.30	2.44	
		3.20	3.24	
60	30	2.30	2.98	
		3.20	3.99	
75	38	2.30	3.81	
		3.20	5.15	
75	45	2.30	4.06	
		3.20	5.50	
100	50	3.20	7.01	
		4.00	8.59	
		4.50	9.55	
125	75	3.20	9.52	
		4.00	11.70	
150	80	4.00	15.20	<b>Tolerances</b> Length of Side ≤ 100 mm. : ± 0.5 mm. > 100 mm. : ± 1.5% Thickness: 2.0 mm. to 3.2 mm. : ± 0.3 mm. 4.0 mm. to 12.0 mm. : ± 10% Weight: ± 10%
		6.00	19.81	
150	100	4.50	16.60	
		6.00	21.70	
200	100	4.50	20.10	
		6.00	26.40	

Material of Grade	Chemical Composition (%)					Mechanical Properties			Color Code
	C MAX	Si MAX	Mn MAX	P MAX	S MAX	Yields Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)	Material of Grade
HS 41	0.28	-	-	0.048	0.048	235	402	23	GREEN
HS 50	0.21	0.57	1.53	0.048	0.048	314	490	23	RED

## LOCATION

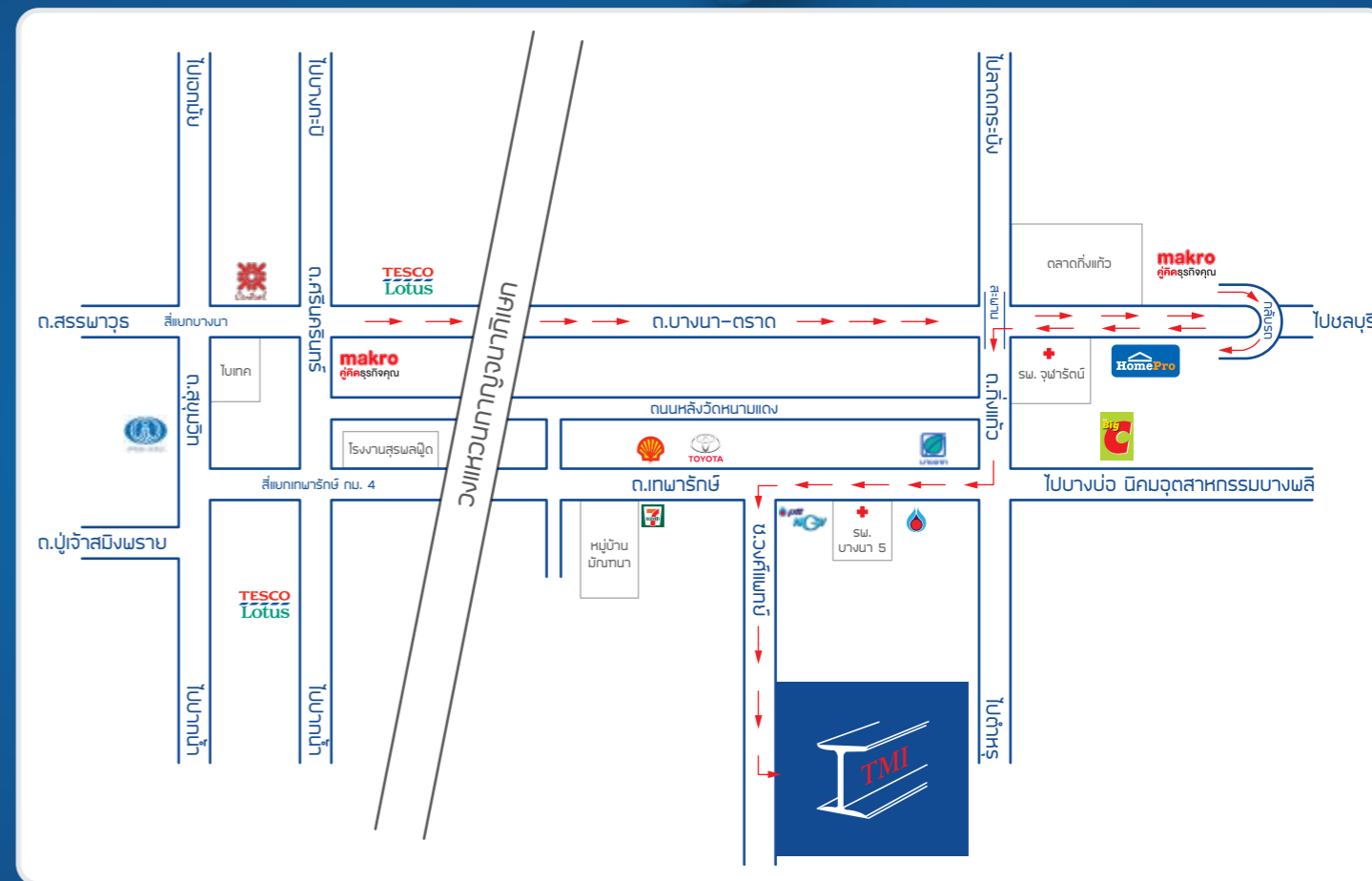
Thai Metal Import Co., Ltd.

333 Moo 3, Soi Wongpaet, Teparak Rd., Bangpleeyai, Bangplee, Samutprakarn 10540

บริษัท ไทยเมทอล อิมพอร์ต จำกัด

333 หมู่ที่ 3 ซ.วงศ์แพทย ถนนพารักย์ ต.บางพลีใหญ่ อ.บางพลี จ.สมุทรปราการ 10540

Tel. 0 2755 3478 - 85 Fax. 0 2755 3477



### How to Get Here: ( → )

The most convenient way is to take Bangna-Trad Road, heading east and make a u-turn around KM. 12. Turn left onto Route 3256, go straight around 3.5 kilometers, and turn right onto Route 3268 (Teparak Road). Go straight around 2.5 kilometers and turn left onto Wongpaet Alley. The office and warehouse of Thai Metal Import is located on the left, 750 meters away from the main road.

### เส้นทางรถโดยสาร: ( → )

เส้นทางที่สะดวกที่สุด คือวิ่งเส้นทางนา-ตราด ขวอวก กลับรถตรงสะพานบริเวณแยกตลาดกิ่งแก้ว วิ่งผ่านซอยไปรออยู่ทางซ้ายมือ เลี้ยวซ้ายข้างโรงพยาบาลจุฬารัตน์ 1 เข้าทางหลวงหมายเลข 3259 มุ่งหน้าสู่สี่แยกไฟแดงคลองขุด ระยะทางประมาณ 3.5 กิโลเมตร เลี้ยวขวาตรงไฟแดง วิ่งเส้นถนนพารักย์มาเข้า ผ่านโรงพยาบาล บางนา 5 อยู่ทางซ้ายมือ ประมาณ 2.5 กิโลเมตร จะเห็นป้ายสีฟ้า ขอบวงศ์แพทย เลี้ยวซ้ายเข้าซอย 750 เมตร โดยบริษัทเอ-โอดีง จะอยู่ทางซ้ายมือ





**THAI METAL IMPORT CO., LTD.**  
333 Moo 3, Soi Wongpaet, Teparak Rd.,  
Bangpleeyai, Bangplee, Samutprakarn 10540

บริษัท ไทยเมทอล อิมพอร์ต จำกัด  
333 หมู่ที่ 3 ซ.วงศ์แพทย ต.เทพารักษ์  
ต.บางพลีใหญ่ อ.บางพลี จ.สมุทรปราการ 10540

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