



Premium Structural Steel



SIAM YAMATO STEEL

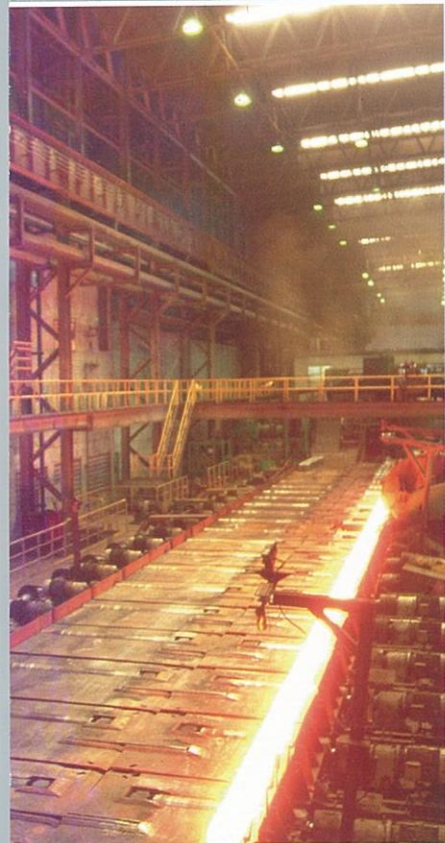
Introduction



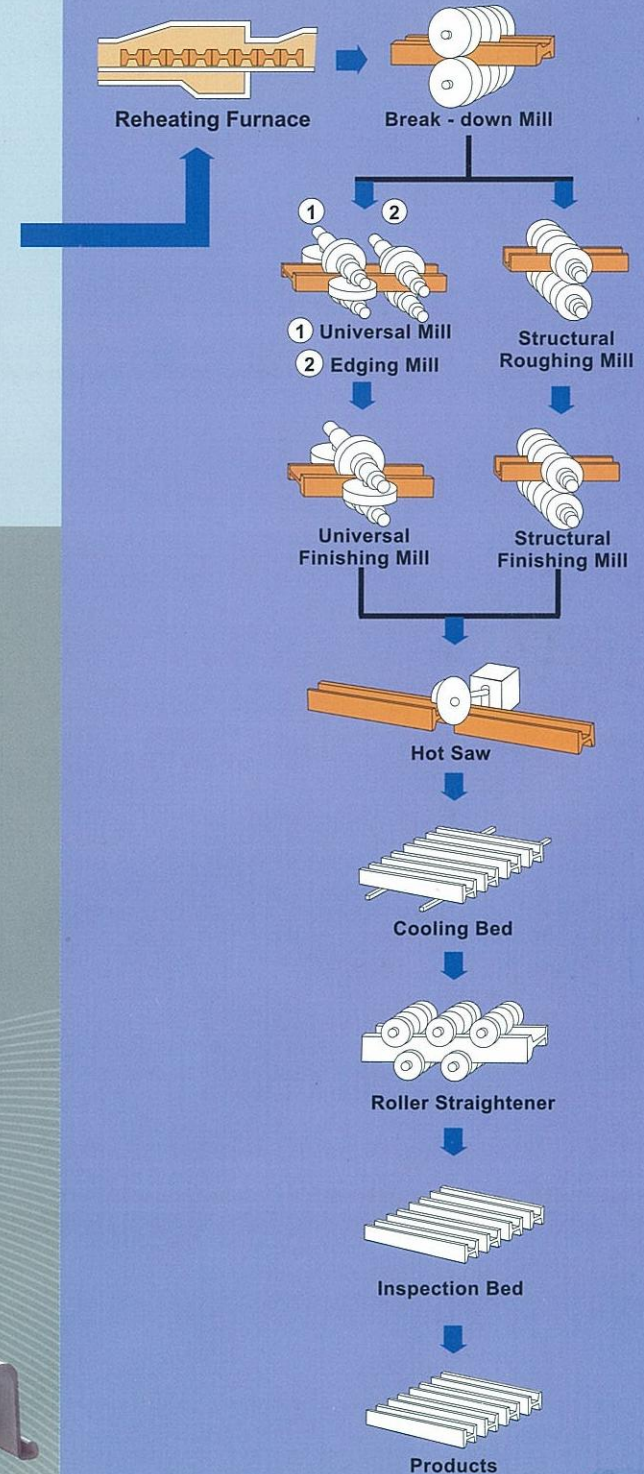
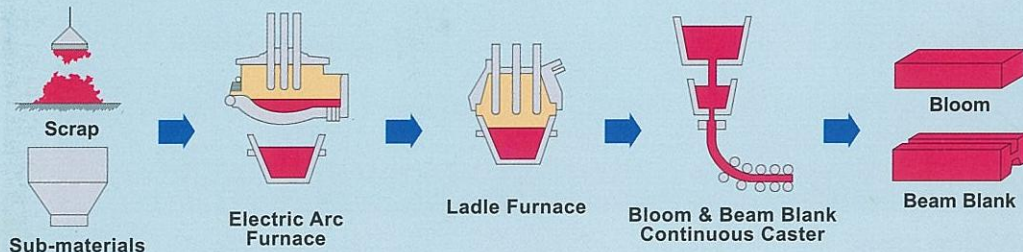
Siam Yamato Steel

Premium Structural Steel

บริษัท เหล็กสยามยามาโตะ จำกัด ผู้ผลิตเหล็กโครงสร้างรูปพรรณรีดร้อนและเชื่อมพีดเหล็กกล้ารีดร้อนคุณภาพเยี่ยม โดยใช้เครื่องจักรและเทคโนโลยีที่ทันสมัยและมีความพร้อมในการผลิตสินค้าตามมาตรฐานสากลต่างๆ เช่น TIS, JIS, BS, ASTM, EURONORM และ AS/NZS เป็นต้น เพื่อจำหน่ายทั้งในประเทศและต่างประเทศ โดยบริษัทฯ ได้รับการรับรองคุณภาพ ISO 9001, ISO/IEC 17025, ISO 14001, TIS, JIS, TÜV, JAS-ANZ และ ABS Certificates ซึ่งเป็นการยืนยันได้ว่า ลูกค้าจะได้รับสินค้าที่มีคุณภาพและบริการที่เป็นเลิศ นอกจากนี้โรงงานเหล็กสยามยามาโตะตั้งอยู่ในนิคมอุตสาหกรรมมาบตาพุด จังหวัดระยอง ติดกับท่าเรือขนาดใหญ่ ทำให้การขนส่งสินค้าโดยเฉพาะการส่งออกเป็นไปด้วยความสะดวกและรวดเร็ว อีกทั้งบริษัทฯ ยังมีคลังสินค้าขนาดใหญ่อยู่ที่อำเภอศรีราชา จังหวัดชลบุรี เพื่ออำนวยความสะดวกในการรับสินค้าให้กับลูกค้าในประเทศอีกด้วย



Manufacturing Process



ISO 9001
QMS 031 73/777



JIS



TIS



ABS
Certificate



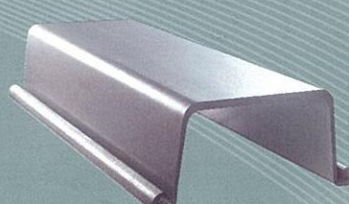
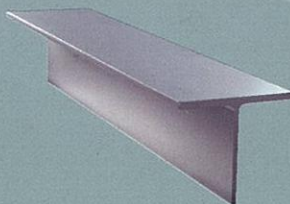
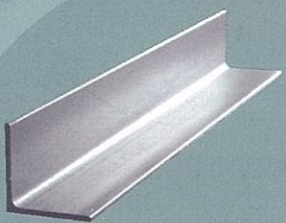
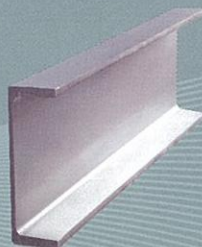
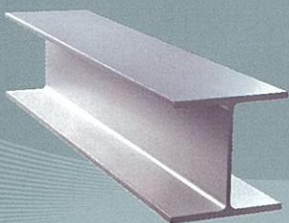
ISO/IEC 17025



ISO 14001
EMS 04025/1671



TÜV





PRODUCT SPECIFICATIONS

(Structural Steel and Sheet Pile)

SPECIFICATIONS

Type of Product	Classifications		Mechanical Properties						
			Yield Point (min.) N/mm ² (ksc)		Tensile Strength N/mm ² (ksc)	Elongation % (min.)			Impact J (min.)
						Thickness			Thickness
			t ≤ 16	16 ≤ t ≤ 40		t ≤ 5	5<t≤16	t > 16	t > 12
Structural Steel	TIS 1227-1996	SM400	245 (2,498)	235 (2,396)	400-510 (4,079-5,200)	23	18	22	27
		SM490	325 (3,314)	315 (3,212)	490-610 (4,996-6,220)	22	17	21	27
		SM520	365 (3,722)	355 (3,620)	520-640 (5,302-6,526)	19	15	19	27
		SS400	245 (2,498)	235 (2,396)	400-510 (4,079-5,200)	21	17	21	-
		SS490	285 (2,906)	275 (2,804)	490-610 (4,996-6,220)	19	15	19	-
		SS540	400 (4,079)	390 (3,977)	540 (5,506) min	16	13	17	-
Sheet Pile	TIS 1390-1996	SY295	295 (3,008)		490 (4,996) min	17			-
		SY390	390 (3,977)		540 (5,506) min	15			-

Remark

- Bend test on material grades SS400, SS490, SS540.
- Impact test on material grades SM400, SM490, SM520 with thickness > 12 mm. at 0°C.



PRODUCT SPECIFICATIONS

(Structural Steel and Sheet Pile)

SPECIFICATIONS

Type of Product	Classifications		Chemical Compositions (ladle analysis), %					
			C (max.)	Si (max.)	Mn (max.)	P (max.)	S (max.)	Cu (min.)
Structural Steel	TIS 1227-1996	SM400	0.20	0.35	0.60-1.40	0.035	0.035	-
		SM490	0.18	0.55	1.60	0.035	0.035	-
		SM520	0.20	0.55	1.60	0.035	0.035	-
		SS400	-	-	-	0.050	0.050	-
		SS490	-	-	-	0.050	0.050	-
		SS540	0.30	-	1.60	0.040	0.040	-
Sheet Pile	TIS 1390-1996	SY295	-	-	-	0.040	0.040	0.25
		SY390	-	-	-	0.040	0.040	0.25



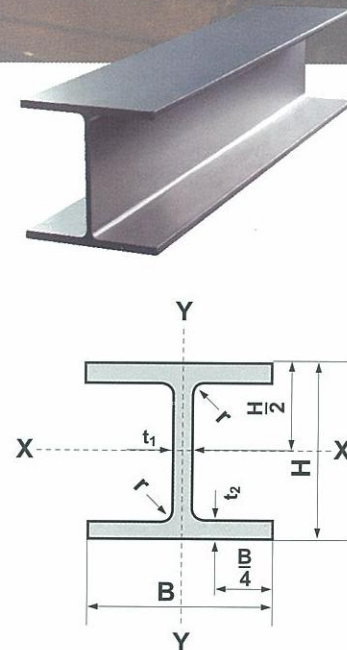
Nominal Size	Weight	Sectional Dimension					Sectional Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
		H	B	t ₁	t ₂	r		I _x	I _y	i _x	i _y	Z _x	Z _y
mm	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
100x100	17.2	100	100	6.0	8	10	21.90	383	134	4.2	2.47	77	27
125x125	23.8	125	125	6.5	9	10	30.31	847	293	5.3	3.11	136	47
150x75	14.0	150	75	5.0	7	8	17.85	666	50	6.1	1.66	89	13
150x100	21.1	148	100	6.0	9	11	26.84	1,020	151	6.2	2.37	138	30
150x150	31.5	150	150	7.0	10	11	40.14	1,640	563	6.4	3.75	219	75
175x175	40.2	175	175	7.5	11	12	51.21	2,880	984	7.5	4.38	330	112
200x100	* 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
200x150	30.6	194	150	6.0	9	13	39.01	2,690	507	8.3	3.61	277	68
200x200	49.9	200	200	8.0	12	13	63.53	4,720	1,600	8.6	5.02	472	160
	* 56.2	200	204	12.0	12	13	71.53	4,980	1,700	8.4	4.88	498	167
	* 65.7	208	202	10.0	16	13	83.69	6,530	2,200	8.8	5.13	628	218
250x125	* 25.7	248	124	5.0	8	12	32.68	3,540	255	10.4	2.79	285	41
	29.6	250	125	6.0	9	12	37.66	4,050	294	10.4	2.79	324	47
250x175	44.1	244	175	7.0	11	16	56.24	6,120	984	10.4	4.18	502	113
250x250	* 64.4	244	252	11.0	11	16	82.06	8,790	2,940	10.3	5.98	720	233
	* 66.5	248	249	8.0	13	16	84.70	9,930	3,350	10.8	6.29	801	269
	72.4	250	250	9.0	14	16	92.18	10,800	3,650	10.8	6.29	867	292
	* 82.2	250	255	14.0	14	16	104.70	11,500	3,880	10.5	6.09	919	304
300x150	* 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
300x200	56.8	294	200	8.0	12	18	72.38	11,300	1,600	12.5	4.71	771	160
	* 65.4	298	201	9.0	14	18	83.36	13,300	1,900	12.6	4.77	893	189
300x300	* 84.5	294	302	12.0	12	18	107.70	16,900	5,520	12.5	7.16	1,150	365
	* 87.0	298	299	9.0	14	18	110.80	18,800	6,240	13.0	7.51	1,270	417
	* 94.0	300	300	10.0	15	18	119.80	20,400	6,750	13.1	7.51	1,360	450
	* 106.0	300	305	15.0	15	18	134.80	21,500	7,100	12.6	7.26	1,440	466
	* 106.0	304	301	11.0	17	18	134.80	23,400	7,730	13.2	7.57	1,540	514
350x175	* 41.4	346	174	6.0	9	14	52.68	11,100	792	14.5	3.88	641	91
	49.6	350	175	7.0	11	14	63.14	13,600	984	14.7	3.95	775	112
	* 57.8	354	176	8.0	13	14	73.68	16,100	1,180	14.8	4.01	909	134
350x250	* 69.2	336	249	8.0	12	20	88.15	18,500	3,090	14.5	5.92	1,100	248
	79.7	340	250	9.0	14	20	101.50	21,700	3,650	14.6	6.00	1,280	292
350x350	* 106.0	338	351	13.0	13	20	135.30	28,200	9,380	14.4	8.33	1,670	534
	* 115.0	344	348	10.0	16	20	146.00	33,300	11,200	15.1	8.78	1,940	646
	* 131.0	344	354	16.0	16	20	166.60	35,300	11,800	14.6	8.43	2,050	669
	137.0	350	350	12.0	19	20	173.90	40,300	13,600	15.2	8.84	2,300	776
	156.0	350	357	19.0	19	20	198.40	42,800	14,400	14.7	8.53	2,450	809

Note * Please contact us in advance for these items

★ These sizes can also be used for H-Piles.

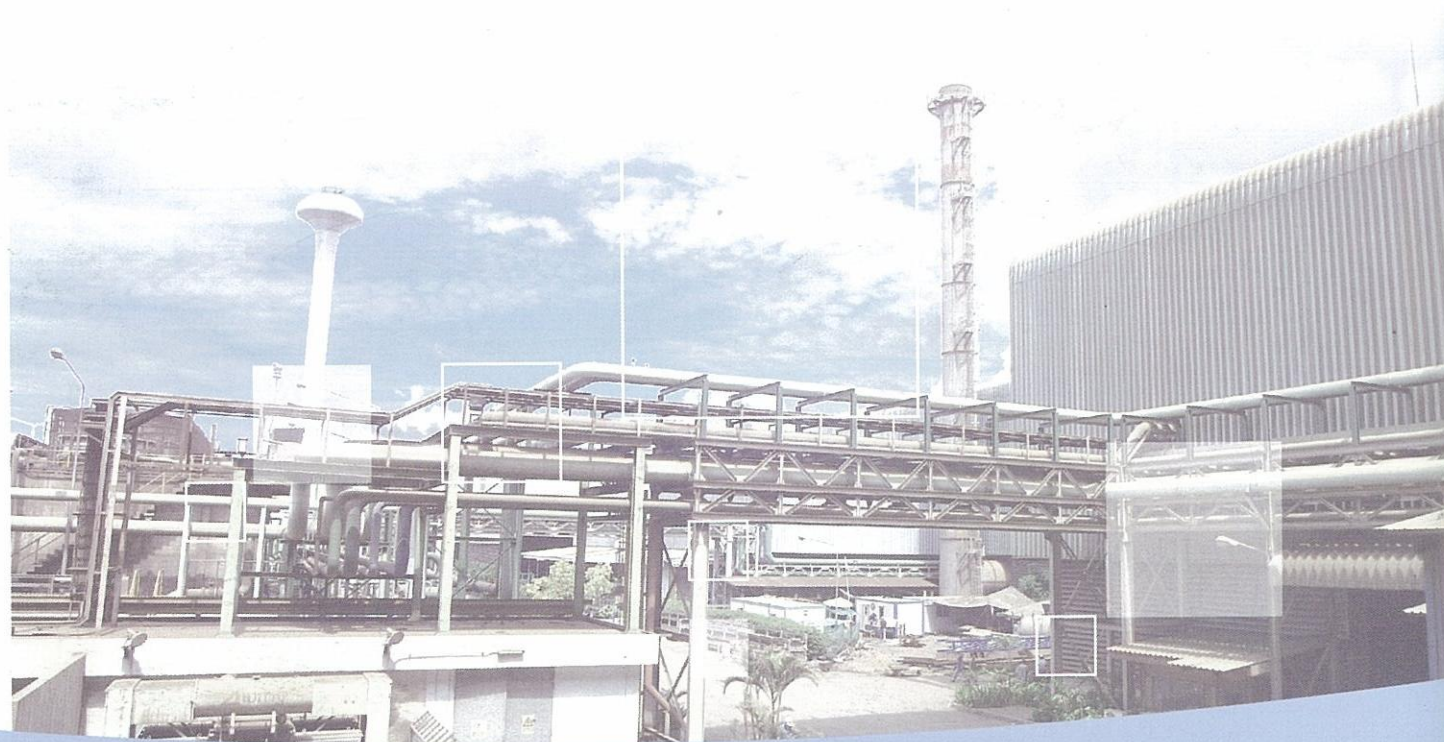
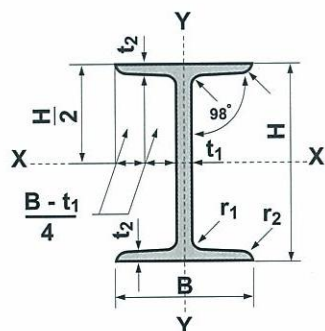
Nominal Size mm	Weight kg/m	Sectional Dimension					Sectional Area cm ²	Moment of Inertia		Radius of Gyration		Modulus of Section	
		H	B	t ₁	t ₂	r		I _x	I _y	i _x	i _y	Z _x	Z _y
		mm	mm	mm	mm	mm		cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
400X200	* 56.6	396	199	7.0	11	16	72.16	20,000	1,450	16.7	4.48	1,010	145
	66.0	400	200	8.0	13	16	84.12	23,700	1,740	16.8	4.54	1,190	174
	* 75.5	404	201	9.0	15	16	96.16	27,500	2,030	16.9	4.60	1,360	202
400x300	* 94.3	386	299	9.0	14	22	120.10	33,700	6,240	16.7	7.21	1,740	418
	107.0	390	300	10.0	16	22	136.00	38,700	7,210	16.9	7.28	1,980	481
400x400	* 140.0 ⚙	388	402	15.0	15	22	178.50	49,000	16,300	16.6	9.54	2,520	809
	* 147.0	394	398	11.0	18	22	186.80	56,100	18,900	17.3	10.10	2,850	951
	172.0 ⚙	400	400	13.0	21	22	218.70	66,600	22,400	17.5	10.10	3,330	1,120
	* 197.0 ⚙	400	408	21.0	21	22	250.70	70,900	23,800	16.8	9.75	3,540	1,170
	* 232.0 ⚙	414	405	18.0	28	22	295.40	92,800	31,000	17.7	10.20	4,480	1,530
450x200	* 66.2	446	199	8.0	12	18	84.30	28,700	1,580	18.5	4.33	1,290	159
	76.0	450	200	9.0	14	18	96.76	33,500	1,870	18.6	4.40	1,490	187
	* 88.9	456	201	10.0	17	18	113.30	40,400	2,310	18.9	4.51	1,770	230
450x300	* 106.0	434	299	10.0	15	24	135.00	46,800	6,690	18.6	7.04	2,160	448
	124.0	440	300	11.0	18	24	157.40	56,100	8,110	18.9	7.18	2,550	541
	* 145.0	446	302	13.0	21	24	184.30	66,400	9,660	19.0	7.24	2,980	639
500x200	* 79.5	496	199	9.0	14	20	101.30	41,900	1,840	20.3	4.27	1,690	185
	89.6	500	200	10.0	16	20	114.20	47,800	2,140	20.5	4.33	1,910	214
	* 103.0	506	201	11.0	19	20	131.30	56,500	2,580	20.7	4.43	2,230	257
500x300	* 114.0	482	300	11.0	15	26	145.50	60,400	6,760	20.4	6.82	2,500	451
	128.0	488	300	11.0	18	26	163.50	71,000	8,110	20.8	7.04	2,910	541
	* 150.0	494	302	13.0	21	26	191.40	83,800	9,660	20.9	7.10	3,390	640
600x200	* 94.6	596	199	10.0	15	22	120.50	68,700	1,980	23.9	4.05	2,310	199
	106.0	600	200	11.0	17	22	134.40	77,600	2,280	24.0	4.12	2,590	228
	* 120.0	606	201	12.0	20	22	152.50	90,400	2,720	24.3	4.22	2,980	271
	* 134.0	612	202	13.0	23	22	170.70	103,000	3,180	24.6	4.31	3,380	314
600x300	* 137.0	582	300	12.0	17	28	174.50	103,000	7,670	24.3	6.63	3,530	511
	151.0	588	300	12.0	20	28	192.50	118,000	9,020	24.8	6.85	4,020	601
	* 175.0	594	302	14.0	23	28	222.40	137,000	10,600	24.9	6.90	4,620	701
700x300	* 166.0	692	300	13.0	20	28	211.50	172,000	9,020	28.6	6.53	4,980	602
	185.0	700	300	13.0	24	28	235.50	201,000	10,800	29.3	6.78	5,760	722
800x300	* 191.0	792	300	14.0	22	28	243.40	254,000	9,930	32.3	6.39	6,410	662
	210.0	800	300	14.0	26	28	267.40	292,000	11,700	33.0	6.62	7,290	782

Note * Please contact us in advance for these items
⚙ These sizes can also be used for H-Piles.



Standard Sectional Dimension (mm)					Sectional Area	Weight	Moment of Inertia (cm ⁴)		Radius of Gyration (cm)		Modulus of Section (cm ³)	
H x B	t ₁	t ₂	r ₁	r ₂	cm ²	kg/m	I _x	I _y	i _x	i _y	Z _x	Z _y
150x75	5.5	9.5	9	4.5	21.83	17.1	819	57.5	6.12	1.62	109	15.3
200x100	7.0	10.0	10	5.0	33.06	26.0	2,170	138	8.11	2.05	217	27.7
200x150	9.0	16.0	15	7.5	64.16	50.4	4,460	753	8.34	3.43	446	100.0
250x125	7.5	12.5	12	6.0	48.79	38.3	5,180	337	10.30	2.63	414	53.9
	10.0	19.0	21	10.5	70.73	55.5	7,310	538	10.20	2.76	585	86.0
300x150	8.0	13.0	12	6.0	61.58	48.3	9,480	588	12.40	3.09	632	78.4
	10.0	18.5	19	9.5	83.47	65.5	12,700	886	12.30	3.26	849	118.0
	11.5	22.0	23	11.5	97.88	76.8	14,700	1,080	12.20	3.32	978	143.0
350x150	9.0	15.0	13	6.5	74.58	58.5	15,200	702	14.30	3.07	870	93.5
	12.0	24.0	25	12.5	111.10	87.2	22,400	1,180	14.20	3.26	1,280	158.0
400x150	10.0	18.0	17	8.5	91.73	72.0	24,100	864	16.20	3.07	1,200	115.0
	12.5	25.0	27	13.5	122.10	95.8	31,700	1,240	16.10	3.18	1,580	165.0
450x175	11.0	20.0	19	9.5	116.80	91.7	39,200	1,510	18.30	3.60	1,740	173.0
	13.0	26.0	27	13.5	146.10	115.0	48,800	2,020	18.30	3.72	2,170	231.0
600x190	13.0	25.0	25	12.5	169.40	133.0	98,400	2,460	24.10	3.81	3,280	259.0
	16.0	35.0	38	19.0	224.50	176.0	130,000	3,540	24.10	3.97	4,330	373.0

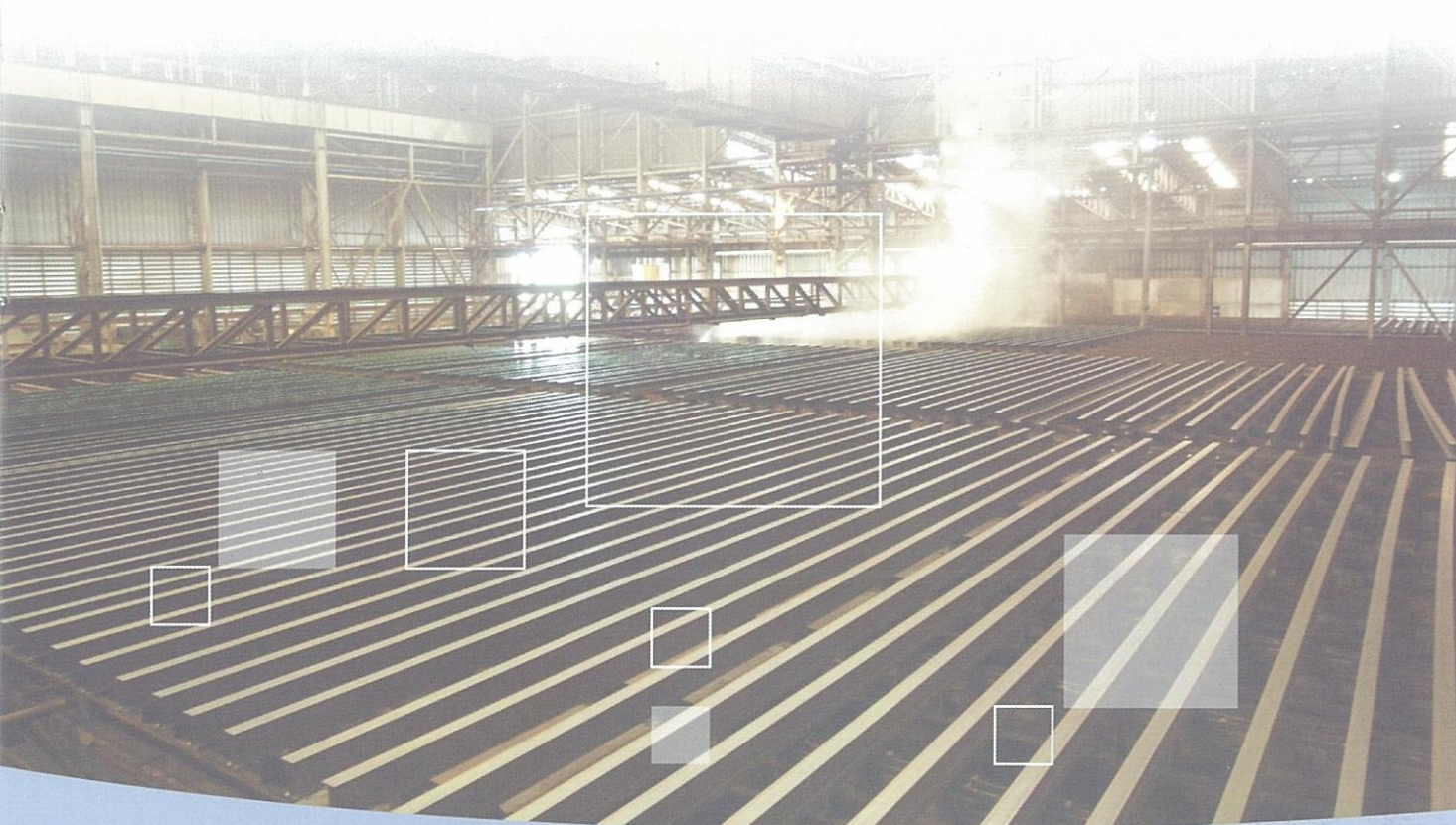
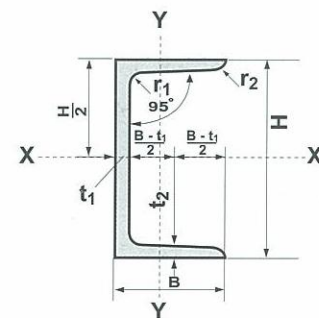
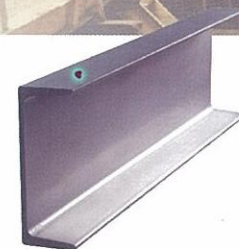
Note - The Hot-rolled sections listed in this table are rolled at specific intervals determined by Siam Yamato Steel.
- Contact us for product availability, rolling frequency and other pertinent information.



Standard Sectional Dimension (mm)					Sectional Area	Weight	Moment of Inertia (cm ⁴)		Radius of Gyration (cm)		Modulus of Section (cm ³)	
H x B	t ₁	t ₂	r ₁	r ₂	cm ²	kg/m	I _x	I _y	i _x	i _y	Z _x	Z _y
180x75	*7.0	10.5	11	5.5	27.20	21.4	1,380	131	7.12	2.19	153	24.3
200x80	7.5	11.0	12	6.0	31.33	24.6	1,950	168	7.88	2.32	195	29.1
200x90	8.0	13.5	14	7.0	38.65	30.3	2,490	277	8.02	2.68	249	44.2
250x90	9.0	13.0	14	7.0	44.07	34.6	4,180	294	9.74	2.58	334	44.5
	11.0	14.5	17	8.5	51.17	40.2	4,680	329	9.56	2.54	374	49.9
300x90	9.0	13.0	14	7.0	48.57	38.1	6,440	309	11.50	2.52	429	45.7
	10.0	15.5	19	9.5	55.74	43.8	7,410	360	11.50	2.54	494	54.1
	12.0	16.0	19	9.5	61.90	48.6	7,870	379	11.30	2.48	525	56.4
380x100	10.5	16.0	18	9.0	69.39	54.5	14,500	535	14.50	2.78	763	70.5
	*13.0	16.5	18	9.0	78.96	62.0	15,600	565	14.10	2.67	823	73.6
	13.0	20.0	24	12.0	85.71	67.3	17,600	655	14.30	2.76	926	87.8

Note * Please contact us in advance for these items.

- The Hot-rolled sections listed in this table are rolled at specific intervals determined by Siam Yamato Steel.
- Contact us for product availability, rolling frequency and other pertinent information.



Standard Sectional Dimension (mm)				Sectional Area	Weight	Moment of Inertia (cm ⁴)				Radius of Gyration (cm)				Modulus of Section (cm ³)		Distance of center of gravity (cm)	
H x B	t	r ₁	r ₂	(cm ²)	(kg/m)	I _x	I _y	I _u	I _v	i _x	i _y	i _u	i _v	Z _x	Z _y	C _x	C _y
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	2.96	68.1	68.1	4.14	4.14
	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	3.42	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	93.7	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

Note - The Hot-rolled sections listed in this table are rolled at specific intervals determined by Siam Yamato Steel.
 - Contact us for product availability, rolling frequency and other pertinent information.



STEEL SHEET PILES

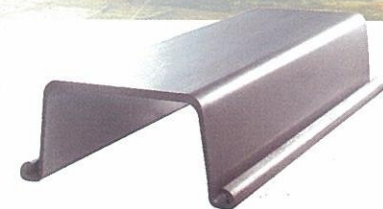
(Grade SY295 or SY390)

TIS 1390 - 1996

TIS STANDARD

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	mm	mm	cm ²	kg/m	kg/m ²	cm ⁴	cm ⁴ /m	cm ³	cm ³ /m
	in	in	in	in ²	lbs/ft	lbs/ft ²	in ⁴	in ⁴ /ft	in ³	in ³ /ft
SP-III A	400	150	13.1	74.40	58.4	146	2,790.0	22,800	250.0	1,520.0
	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	150.0	2,220.0	16,800	223.0	1,340.0
	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	190.0	4,670.0	38,600	362.0	2,270.0
	15.7	6.69	0.610	15.03	51.1	38.9	112.0	283	22.1	42.2

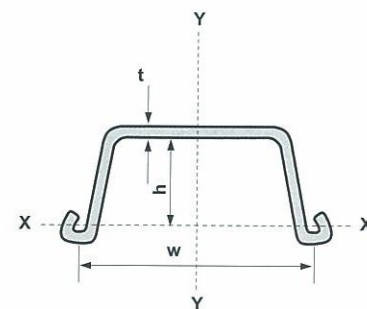
- Note** - Weight per linear length of wall is rounded off using the JIS Z 8401-specified formula: $\frac{\text{Weight per section}}{w \text{ (effective width)}} \times 1,000$
- The inch sizes printed in dotted area are converted from metric sizes for your reference.
 - The Hot-rolled sections listed in this table are rolled at specific intervals determined by Siam Yamato Steel.
 - Contact us for product availability, rolling frequency and other pertinent information.



TOLERANCES

TIS 1390 - 1996		
(HOT ROLLED STEEL SHEET PILE "U" SHAPE)		
Dimension		Tolerance
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

- Note** - The deflection shall be in the direction parallel to the sheet pile wall and the camber shall be in the direction vertical to the sheet pile wall.



CUT BEAMS

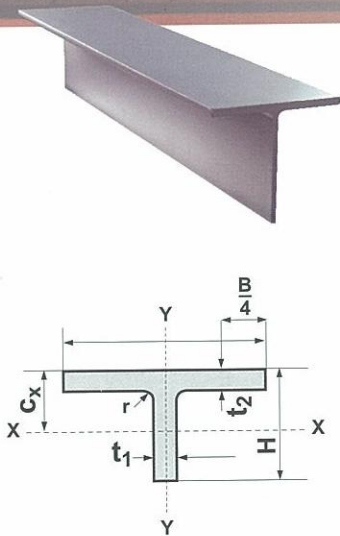
(Cutting service is available upon request)

CUT BEAM

DIMENSION

Nominal Size mm	Weight kg/m	Sectional Dimension					Sectional Area cm ²	Moment of Inertia		Radius of Gyration		Modulus of Section		Center of Gravity C _x cm
		H mm	B mm	t ₁ mm	t ₂ mm	r mm		I _x cm ⁴	I _y cm ⁴	i _x cm	i _y cm	Z _x cm ³	Z _y cm ³	
50x100	8.60	50.0	100	6.0	8	10	10.95	16.1	66.9	1.21	2.47	4.03	13.4	1.00
62.5x125	11.90	62.5	125	6.5	9	10	15.16	35.0	147.0	1.52	3.11	6.91	23.5	1.19
75x75	7.00	75.0	75	5.0	7	8	8.925	42.6	24.7	2.18	1.66	7.46	6.6	1.79
75x100	10.55	74.0	100	6.0	9	11	13.42	51.7	75.3	1.96	2.37	8.84	15.1	1.55
75x150	15.75	75.0	150	7.0	10	11	20.07	66.4	282.0	1.82	3.75	10.80	37.6	1.37
87.5x175	20.10	87.5	175	7.5	11	12	25.61	115.0	492.0	2.12	4.38	15.90	56.2	1.55
100x100	* 9.10	99.0	99	4.5	7	11	11.59	93.8	56.8	2.84	2.21	12.10	11.5	2.14
	10.65	100.0	100	5.5	8	11	13.58	114.0	67.0	2.90	2.22	14.80	13.4	2.29
100x150	15.30	97.0	150	6.0	9	13	19.51	125.0	254.0	2.53	3.61	15.80	33.8	1.79
100x200	24.95	100.0	200	8.0	12	13	31.77	184.0	801.0	2.41	5.02	22.30	80.1	1.73
	* 28.10	100.0	204	12.0	12	13	35.77	256.0	851.0	2.67	4.88	32.40	83.4	2.09
	* 32.85	104.0	202	10.0	16	13	41.85	251.0	1,100.0	2.45	5.13	29.50	109.0	1.91
125x125	* 12.85	124.0	124	5.0	8	12	16.34	208.0	127.0	3.57	2.79	21.30	20.5	2.68
	14.80	125.0	125	6.0	9	12	18.83	248.0	147.0	3.63	2.79	25.60	23.5	2.78
125x175	22.05	122.0	175	7.0	11	16	28.12	289.0	492.0	3.20	4.18	29.10	56.3	2.27
125x250	* 32.20	122.0	252	11.0	11	16	41.03	445.0	1,470.0	3.29	5.98	45.30	117.0	2.39
	* 33.25	124.0	249	8.0	13	16	42.35	364.0	1,670.0	2.93	6.29	34.90	134.0	1.98
	36.20	125.0	250	9.0	14	16	46.09	412.0	1,820.0	2.99	6.29	39.50	146.0	2.08
	* 41.10	125.0	255	14.0	14	16	52.34	589.0	1,940.0	3.36	6.09	59.40	152.0	2.58
150x150	* 16.00	149.0	149	5.5	8	13	20.40	393.0	221.0	4.39	3.29	33.80	29.7	3.26
	18.35	150.0	150	6.5	9	13	23.39	464.0	254.0	4.45	3.29	40.00	33.8	3.41
150x200	28.40	147.0	200	8.0	12	18	36.19	572.0	802.0	3.97	4.71	48.20	80.2	2.83
	* 32.70	149.0	201	9.0	14	18	41.68	662.0	949.0	3.99	4.77	55.20	94.4	2.91
150x300	* 42.25	147.0	302	12.0	12	18	53.83	858.0	2,760.0	3.99	7.16	72.30	183.0	3.84
	* 43.50	149.0	299	9.0	14	18	55.40	715.0	3,120.0	3.59	7.51	57.00	209.0	2.36
	47.00	150.0	300	10.0	15	18	59.89	798.0	3,380.0	3.65	7.51	63.70	225.0	2.47
	* 53.00	150.0	305	15.0	15	18	67.39	1,110.0	3,550.0	4.05	7.26	92.50	233.0	2.03
	* 53.00	152.0	301	11.0	17	18	67.41	903.0	3,870.0	3.66	7.57	71.40	257.0	2.55
175x175	* 20.70	173.0	174	6.0	9	14	26.34	679.0	396.0	5.08	3.88	50.00	45.5	3.71
	24.80	175.0	175	7.0	11	14	31.57	815.0	492.0	5.08	3.95	59.30	56.2	3.75
	* 28.90	177.0	176	8.0	13	14	36.84	955.0	590.0	5.09	4.01	68.80	67.0	3.82
175x250	* 34.60	168.0	249	8.0	12	20	44.08	881.0	1,540.0	4.47	5.92	64.00	124.0	3.02
	39.85	170.0	250	9.0	14	20	50.76	1,020.0	1,830.0	4.48	6.00	73.10	146.0	3.09
175x350	* 53.00	169.0	351	13.0	13	20	67.63	1,420	4,690.0	4.59	8.33	104.00	267.0	3.21
	* 57.50	172.0	348	10.0	16	20	73.00	1,230	5,620.0	4.11	8.78	84.70	323.0	2.67
	* 65.50	172.0	354	16.0	16	20	83.32	1,800	5,920.0	4.65	8.43	131.00	335.0	3.40
	68.50	175.0	350	12.0	19	20	86.94	1,520	6,790.0	4.18	8.84	104.00	388.0	2.86
	* 78.00	175.0	357	19.0	19	20	99.19	2,200	7,220.0	4.71	8.53	158.00	404.0	3.59
200x200	* 28.30	198.0	199	7.0	11	16	36.08	1,190	723.0	5.76	4.48	76.40	72.7	4.17
	33.00	200.0	200	8.0	13	16	42.06	1,400	868.0	5.76	4.54	88.60	86.8	4.23
	* 37.75	202.0	201	9.0	15	16	48.08	1,605.0	1,015.0	5.78	4.59	101.00	101.0	4.31
200x300	* 47.15	193.0	299	9.0	14	22	60.05	1,530.0	3,120.0	5.04	7.21	95.50	209.0	3.33
	53.50	195.0	300	10.0	16	22	67.98	1,730.0	3,600.0	5.05	7.28	108.00	240.0	3.41

Note * Please contact us in advance for these items.



CUT BEAMS

[Cutting service is available upon request]

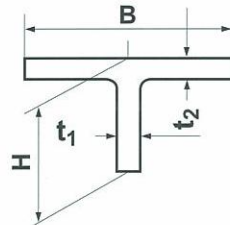
CUT BEAM

DIMENSION

Nominal Size mm	Weight kg/m	Sectional Dimension					Sectional Area cm ²	Moment of Inertia		Radius of Gyration		Modulus of Section		Center of Gravity C _x cm
		H mm	B mm	t ₁ mm	t ₂ mm	r mm		I _x cm ⁴	I _y cm ⁴	i _x cm	i _y cm	Z _x cm ³	Z _y cm ³	
200x400	* 70.00	194.0	402	15.0	15	22	89.23	2,480.0	8,130.0	5.27	9.54	158.00	404.0	3.70
	* 73.50	197.0	398	11.0	18	22	93.41	2,050.0	9,460.0	4.68	10.10	123.00	475.0	3.01
	86.00	200.0	400	13.0	21	22	109.30	2,480.0	11,200.0	4.76	10.10	147.00	560.0	3.21
	* 98.50	200.0	408	21.0	21	22	125.30	3,650.0	11,900.0	5.40	9.75	229.00	584.0	4.07
	* 116.00	207.0	405	18.0	28	22	147.70	3,620.0	15,500.0	4.95	10.20	213.00	776.0	3.68
225x200	* 33.10	223.0	199	8.0	12	18	42.15	1,880.0	790.0	6.67	4.33	109.00	79.4	5.10
	38.00	225.0	200	9.0	14	18	48.38	2,160.0	936.0	6.68	4.40	124.00	93.6	5.15
	* 44.45	228.0	201	10.0	17	18	56.67	2,499.0	1,155.0	6.64	4.51	141.40	114.9	5.13
225x300	* 53.00	217.0	299	10.0	15	24	67.52	2,350.0	3,350.0	5.89	7.04	133.00	224.0	4.04
	62.00	220.0	300	11.0	18	24	78.69	2,680.0	4,060.0	5.84	7.18	149.00	270.0	4.05
	* 72.50	223.0	302	13.0	21	24	92.16	3,232.0	4,830.0	5.92	7.24	179.00	320.0	4.27
250x200	* 39.75	248.0	199	9.0	14	20	50.64	2,840.0	922.0	7.49	4.27	150.00	92.6	5.90
	44.80	250.0	200	10.0	16	20	57.12	3,210.0	1,070.0	7.50	4.33	169.00	107.0	5.96
	* 51.50	253.0	201	11.0	19	20	65.65	3,670.0	1,290.0	7.48	4.43	190.00	128.0	5.95
250x300	* 57.00	241.0	300	11.0	15	26	72.76	3,420.0	3,380.0	6.85	6.82	178.00	225.0	4.92
	64.00	244.0	300	11.0	18	26	81.76	3,620.0	4,060.0	6.66	7.07	184.00	270.0	4.66
	* 75.00	247.0	302	13.0	21	26	95.70	4,351.0	4,830.0	6.74	7.10	219.60	320.0	4.89
300x200	* 47.30	298.0	199	10.0	15	22	60.23	5,190.0	989.0	9.29	4.05	236.00	99.4	7.79
	53.00	300.0	200	11.0	17	22	67.21	5,810.0	1,140.0	9.30	4.12	262.00	114.0	7.84
	* 60.00	303.0	201	12.0	20	22	76.24	6,570.0	1,360.0	9.28	4.22	292.00	135.0	7.79
	* 67.00	306.0	202	13.0	23	22	85.33	7,340.0	1,590.0	9.27	4.31	322.00	157.0	7.79
300x300	* 68.50	291.0	300	12.0	17	28	87.24	6,360.0	3,830.0	8.54	6.63	280.00	256.0	6.39
	75.50	294.0	300	12.0	20	28	96.24	6,710.0	4,510.0	8.35	6.85	288.00	301.0	6.08
	* 87.50	297.0	302	14.0	23	28	111.20	7,920.0	5,290.0	8.44	6.90	339.00	350.0	6.33
350x300	* 83.00	346.0	300	13.0	20	28	105.70	11,300.0	4,510.0	10.30	6.53	425.00	301.0	7.99
	* 92.50	350.0	300	13.0	24	28	117.70	12,000.0	5,410.0	10.10	6.78	438.00	361.0	7.55
400x300	* 95.50	396.0	300	14.0	22	28	121.70	17,100.0	4,960.0	12.10	6.38	593.00	331.0	9.66
	* 105.00	400.0	300	14.0	26	28	133.70	18,800.0	5,860.0	11.90	6.62	610.00	391.0	9.18

Note * Please contact us in advance for these items.

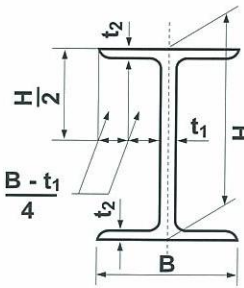
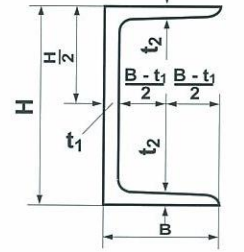
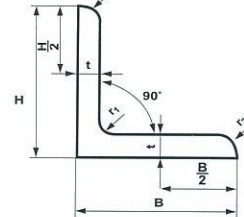
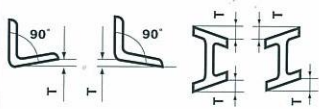
TOLERANCES

Tolerance			Remark
Depth (H)	$H \leq 150$ $150 < H \leq 250$ $H > 250$	± 5.0 ± 6.0 ± 7.0	
Other Dimensional Tolerances		Same as H Sections	

TIS 1227 - 1996				
H-BEAMS				
Dimension			Tolerance	Remark
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	
	≥ 190		± 3.0	
Thickness (t ₁ , t ₂)	t ₁	t ₁ < 16	± 0.7	
		16 ≤ t ₁ < 25	± 1.0	
		25 ≤ t ₁ < 40	± 1.5	
	t ₂	t ₂ < 16	± 1.0	
		16 ≤ t ₂ < 25	± 1.5	
		25 ≤ t ₂ < 40	± 1.7	
Length (L)	L ≤ 7 m.		+ 40	
			0	
	L > 7 m.		40+(no. of meter of L - 7) x 5	
			0	
Squareness (T)	H ≤ 300	B ≤ 150	≤ 1.5	
		B > 150	≤ 1.0% of B	
	H > 300	B ≤ 125	≤ 1.5	
		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		2.0	
	400 ≤ H < 600		2.5	
	H ≥ 600		3.0	
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%	1. The maximum thickness shall be apply. 2. 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.
	t ≥ 10		± 4%	

TIS 1227 - 1996

I-BEAMS, CHANNELS AND ANGLES

Dimension		Tolerance	Remark
Depth (H)	$H < 100$	± 1.5	
	$100 \leq H < 200$	± 2.0	
	$200 \leq H < 400$	± 3.0	
	$H \geq 400$	± 4.0	
Leg Length (H or B)	$B < 50$	± 1.5	
	$50 \leq B < 100$	± 2.0	
	$100 \leq B < 200$	± 3.0	
	$B \geq 200$	± 4.0	
Thickness (t, t1, t2)	$H < 130$	$t < 6.3$	± 0.6
		$6.3 \leq t < 10$	± 0.7
		$10 \leq t < 16$	± 0.8
		$t \geq 16$	± 1.0
	$H \geq 130$	$t < 6.3$	± 0.7
		$6.3 \leq t < 10$	± 0.8
		$10 \leq t < 16$	± 1.0
		$16 \leq t < 25$	± 1.2
Length (L)	$L \leq 7 \text{ m.}$	$+ 40$	
		0	
	$L > 7 \text{ m.}$	$40 + (\text{no. of meter of } L - 7) \times 5$	
		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.)	$t < 10$	$\pm 5\%$	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 or more pieces.
	$t \geq 10$	$\pm 4\%$	

Applications





SIAM YAMATO STEEL CO., LTD.

1 Siam Cement Road, Bangsue, Bangkok 10800, Thailand.

Tel : 0-2586-5329 , 0-2586-2368 Fax : 0-2586-2687

E-mail : yamato@cementhai.co.th

Website : www.siamyamato.com

Effective : April 2006