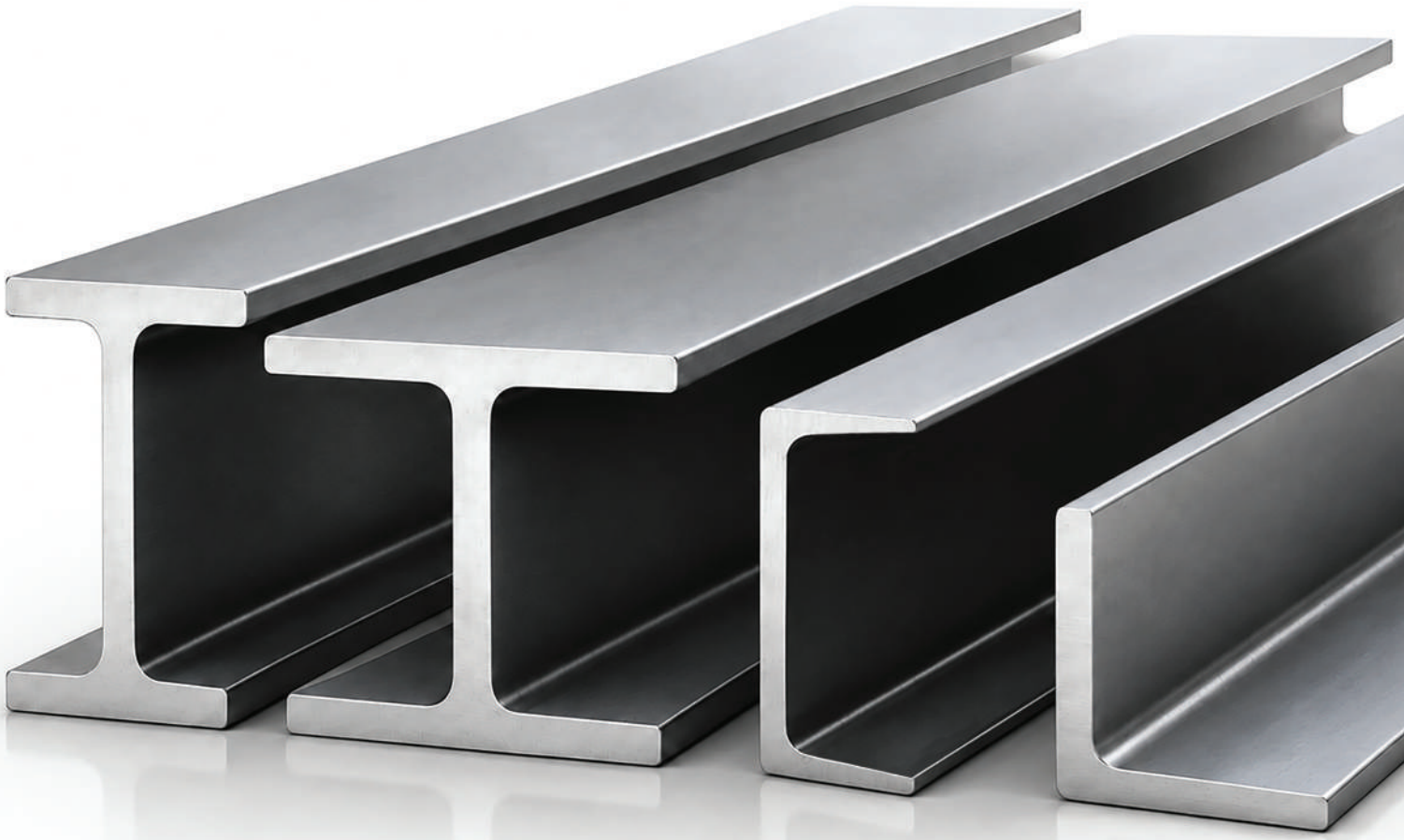


PRODUCT
CATALOGUE

About SULB



SULB is a specialised, fully integrated producer of structural steel sections. Operating an integrated steel plant in Bahrain and a light and medium section rolling mill in Saudi Arabia, **SULB** stands at the core of the region's steel industry. The company offers a comprehensive product portfolio that includes DRI, billets, blooms, and light, medium, and heavy structural steel sections. With a strong regional footprint and global reach, **SULB** serves international markets while meeting a significant share of structural steel demand across GCC countries.

As part of Foulath Holding, **SULB** benefits from strong industrial expertise and a well-established regional and international network, underpinning its operational strength and market potential. The company operates technologically advanced industrial systems, enabling efficient and high-quality production.

In addition, **SULB** enjoys access to reliable supplies of raw materials and gas-fuelled energy. Its operations are sustainable, quality-driven, safe, and dependable. It is a sister company to Bahrain Steel, a leading producer of high-quality iron ore pellets, supplying the global steel industry with sustainable solutions while driving economic growth in the Kingdom of Bahrain. Its close proximity ensures a consistent and reliable supply of premium iron ore pellets.

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What We Stand For

OUR VISION

To lead the steel industry towards sustainability, so we can build a world where people and planet can thrive.

OUR MISSION

To help build great things.

OUR VALUES

Care

- Prioritize safety and well-being
- Always thrive for sustainability
- Support the growth and development of our communities

Collaboration

- Be open-hearted and open-minded
- Invite thoughts and ideas from everyone
- Forge valuable relationships

Respect

- Treat everyone as we want to be treated

Limitless Thinking

- Aspire to always improve
- Learn and be inspired
- Find a way

Personal Empowerment

- Own the action – and the outcome
- Try new things – and accept failure
- Do more with less

DRP

DIRECT REDUCTION PLANT



PRODUCTION OF
DIRECT REDUCED IRON (DRI)

Annual Capacity
1.5 Million Tons Per Year (mtpy)

Technology Provider
Midrex

DRI is a premium **ore-based metallic (OBM)** raw material made by removing chemically-bound oxygen from iron oxide pellets without melting which makes for an energy-efficient feedstock.

DRI physical and chemical characteristics make it desirable for use in **Electric Arc Furnaces (EAF).**

The DR Plant is designed to produce both

HOT DRI (HDRI) & COLD DRI (CDRI)

in any proportion according to the Meltshop requirements

Oxide pellets are supplied by Bahrain Steel (a Foulath Holding company) located adjacent to SULB.

DRI is also manufactured for the export market. SULB manufactures and supplies high quality CDRI for export markets. CDRI is ideal for con- tinuous charging to an EAF.

CDRI can be transported from SULB in bulk by Ocean, where holds must be kept inert as per IMO guidelines, or by road, where it must be protected from rain or moisture. CDRI can be stored in silo's and bins, where it must be kept cool and dry, or stored in piles, where it must be covered with proper drainage.

CDRI can be charged either in scrap buckets or continuously fed to an EAF. When batch charged, the density of CDRI can eliminate the need for a second or third scrap charge, which results in lower energy losses, fewer interruptions in power-on time, improved tap-to-tap time, and increased productivity.

MELTSHOP

STEELMAKING AND SEMI-FINISHED PRODUCT

PRODUCTION OF BILLETS, BLOOMS & BEAM-BLANKS

Annual Capacity
1 Million Tons Per Year (mtpy)

Technology Provider
SMS Concast

The Meltshop consists of an Electric Arc Furnace (EAF) for primary steelmaking, a Ladle Furnace (LF) for steel refining (secondary steelmaking) and a Continuous Casting Machine (CCM) for producing various semi-finished products, such as Billets, Blooms and Beam Blanks which can be either hot or cold charged to the reheating furnace of the Heavy Section Mill (HSM). Semi-Finished products are also manufactured for the export market.

Electric Arc Furnace (EAF)

The EAF is a batch melting process producing batches of liquid steel known as "heats". Each unique Heat Number provides full traceability throughout the steelmaking process, continuous casting and through the hot-rolling process in the rolling mills. Charge blend comprises of DRI as well as pre-consumer and post-consumer scrap based on requirements.

Ladle Furnace (LF)

The liquid steel from the EAF is subjected to further refining at the LF in a number of processes collectively known as ladle refining or secondary steelmaking. Ladle refining of liquid steel is a proven technology to produce high quality steel. A Ladle Furnace is used to raise the temperature and adjust the chemical composition of molten metal. The LF is also used as a buffer between the EAF and CCM processes.

Continuous Casting Machine (CCM)

Continuous Casting is the process whereby molten steel is solidified into a "semi-finished" billet, bloom, or beam blanks for subsequent rolling in the section mills.

Molten steel from the Ladle Furnace is taken to the CCM where it transfers to a tundish located above the CCM mould, allowing liquid steel to feed into the mould at a regulated rate. Solidification begins in the mould. The strand of the CCM straightens and the semi-finished product is torch-cut to length and marked with the unique heat number.

Depending on the shape or grade, the cast section will either be placed in intermediate storage, hot-charged for finished rolling or sold as a semi-finished product. Prior to hot rolling, the product will enter a reheat furnace to adjust its thermal conditions to achieve optimum metallurgical properties and dimensional tolerances.







LIGHT AND MEDIUM SECTION MILL

SULB SAUDI

Light and Medium Section Mill, Saudi Arabia, produces light and medium gauge hot-rolled structural steel beams, columns, channels, angles and flat bars to a wide range of international standards.

Annual Capacity

450,000 Tons Per Year (0.45 mtpy)

Technology Provider

SMS Meer

HEAVY SECTION MILL (HSM)

SULB BAHRAIN

Heavy Section Mill (HSM), Bahrain, produces medium and heavy gauge hot-rolled structural steel beams, columns, H-Piles, channels and angles to a wide range of international standards.

Annual Capacity

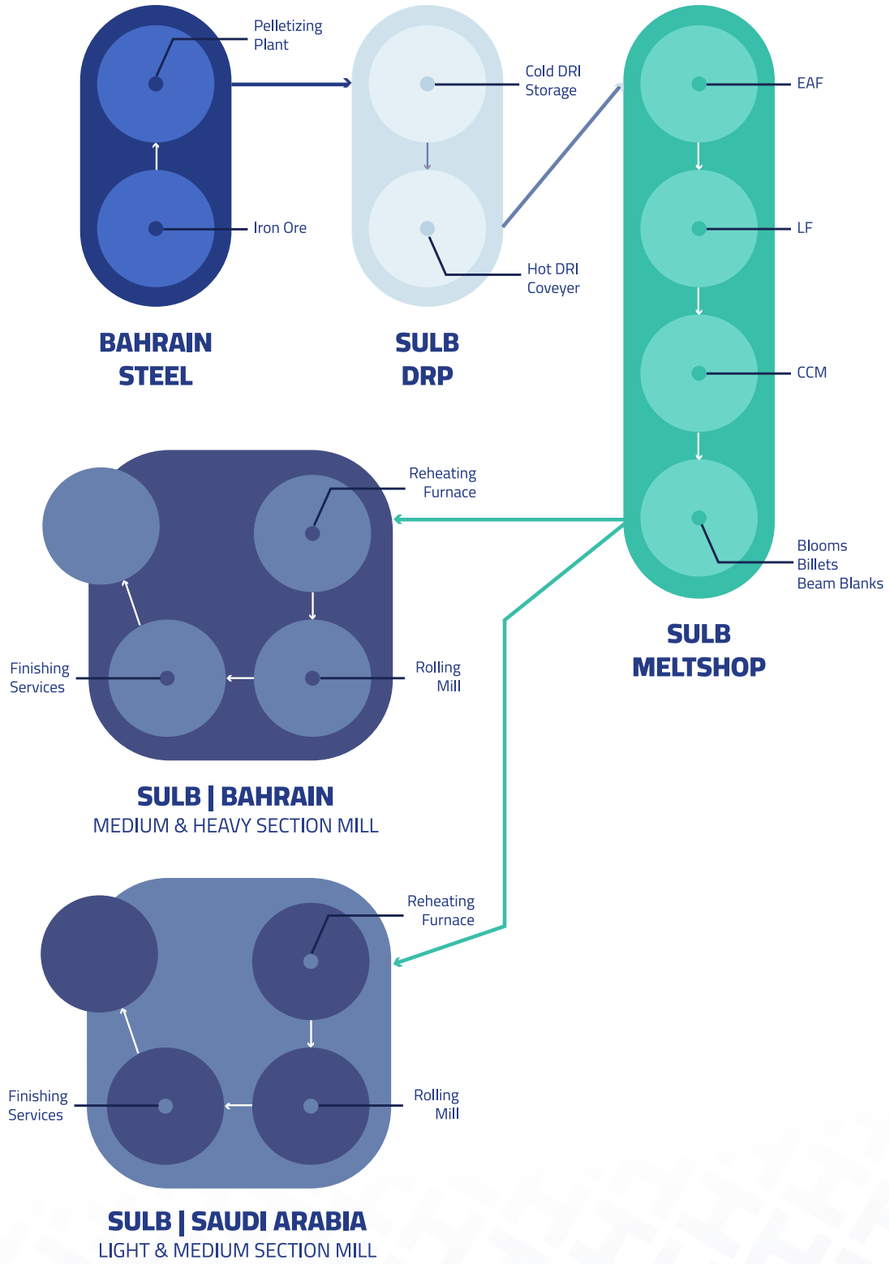
600,000 Tons Per Year (0.6 mtpy)

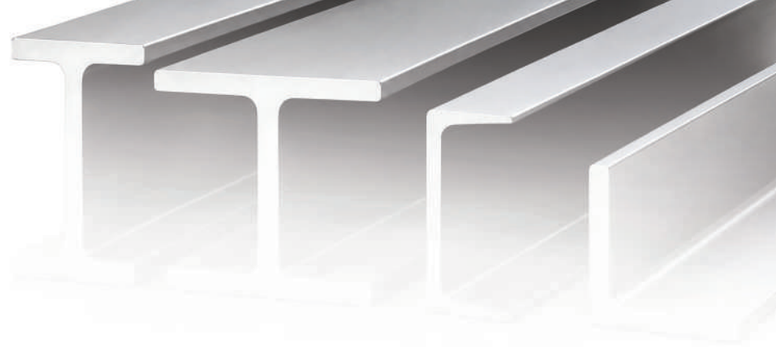
Technology Provider

SMS Meer

The HSM uses the latest rolling mill technology and comprises of a re-heating furnace, de-scaler, breakdown mill, tandem reversing mill, profile gauge, hot saws, cooling bed, straightener, cold saws and piling beds capable of producing hot-rolled sections from 6m up to 24.1m lengths.

Production Process





Steel Grades

International Standards

EN | European

EN 10025-2

S235JR	S235J0	S235J2	
S275JR	S275J0	S275J2	
S355JR	S355J0	S355J2	S355K2
S450J0			

ASTM | American

A36
GR36
A992
GR50
A572

GR50	GR55	GR60	GR65

IS | Indian

IS 2062

E250A	E250BR	E250B0	E250C
E275A	E275BR	E275B0	E275C
E300A	E300BR	E300B0	E300C
E350A	E350BR	E350B0	E350C

AS/NZS | Australia/New Zealand

AS/NZS 3679.1

300	300S0
350	350L0

JIS | Japanese

JIS G3101

SS400	SS490	SS540

JIS G3106

SM400A	SM400B	SM490A
SM490B	SM490YA	SM490YB
SM520B		

JIS G3136

SN400B	SN490B

KS | Korean

KS D3503
SS275
KS D3515
SM355A
KS F4603
SHP275W

CNS | Chinese

CNS 2947
SM400A
CNS 13812

SN400B	SN490B

CSA | Canadian

G40.20
350W

Our Markets



1

CANADA

2

UNITED KINGDOM
GERMANY
SWITZERLAND
NETHERLANDS
GREECE

3

LEBANON
JORDAN
EGYPT
MOROCCO
TUNISIA
ALGERIA

4

KENYA
TANZANIA
NIGERIA
SOUTH AFRICA

5

BAHRAIN
SAUDI ARABIA
KUWAIT
OMAN
UNITED ARAB EMIRATES
QATAR

6

INDIA
PAKISTAN
SRI LANKA

7

SOUTH KOREA
HONG KONG
TAIWAN
PHILIPPINES

8

AUSTRALIA
NEW ZEALAND

9

BRAZIL
ARGENTINA
COLUMBIA

Structural Steel Product Range

SECTIONS															
PRODUCT MILL	BEAMS & COLUMNS														
	AMERICAN	SULB	SULB		AUSTRALIAN		EUROPEAN				INDIAN		JAPANESE	KOREAN	
DESIGNATION	W*	SOLAR	UB	UC	UB	UC	UB	UC	IPE	HE	NPB	WPB	H BEAM	H BEAM	H BEAM
DIMENSIONS	ASTM A6 (A6M)	SULB	SULB		AS/NZS 3679.1		EN 10365				IS 12778		JIS G 3192	KS D 3502	KS F 4603
TOLERANCES			EN 10034				EN 10034				IS 12779				
SURFACE CONDITIONS			EN 10163-3				EN 10163-3								
BAHRAIN	6 x 15 (150 x 22.5) up to 36 x 210 (920 x 313)	-	254 x 102 up to 838 x 292	203 x 203 up to 356 x 406	150 UB up to 610 UB	150 UC up to 310 UC	203 x 133 up to 914 x 305	152 x 152 up to 356 x 406	IPEAA220 up to IPE750	HE140AA up to HE900B	220 x 110 up to 600 x 220	160 x 160 up to 900 x 300	150 x 150 up to 900 x 300	150 x 150 up to 900 x 300	200 x 200 up to 700 x 300
SAUDI	6 x 8.5 (150 x 13.0) up to 6 x 16 (150 x 24.0)	6 x 7 (150 x 10.5) up to 8 x 10 (200 x 15.0)	-	-	-	-	203 x 102	-	IPEAA80 up to IPEO200	HE100AA up to HE120B	100 x 55 up to 200 x 100	100 x 100 up to 120 x 120	100 x 50 up to 200 x 100	-	-
CUT LENGTHS	Saudi: Minimum Length 6M up to Maximum Length 13.0M | Bahrain: Minimum Length 6M up to Maximum Length 24.1M (*W-Shape length can also be offered in Feet - (Please contact us for further details of available lengths)														

SECTIONS																			
PRODUCT MILL	H-PILES			EQUAL LEG ANGLES			CHANNELS			FLAT BARS									
	AMERICAN	EUROPEAN		EUROPEAN	INDIAN	JAPANESE	EUROPEAN	SULB	JAPANESE	INDIAN	EN/SULB								
DESIGNATION	HP	HP	UBP	L	L	L	UPN	UPSL	JIS	FLAT/WIDE									
DIMENSIONS	ASTM A6 (A6M)	EN 10365		EN 10056-1	IS 808	JIS G 3192	EN 10365	SULB	JIS G 3192	IS 1730	60-200 EN 10058								
TOLERANCES		EN 10034		EN 10056-2	IS 1852		EN 10279			IS 1989	220-300 SULB								
SURFACE CONDITIONS		EN 10163-3		EN 10163-3			EN 10163-3			EN 10163-3									
BAHRAIN	14 X 73 (360 x 108) up to 14 x 117 (360 x 174)	305 x 149 up to 360 x 174	356 x 368	160 x 160 up to 250 x 250	200 x 200	175 x 175 up to 250 x 250	-	-	-	-	-								
SAUDI	-	-	-	40 x 40 up to 150 x 150	40 x 40 up to 150 x 150	40 x 40 up to 150 x 150	UPN 80 up to UPN 200	UPSL 80 up to UPSL 120	100 x 50	100 x 5 up to 300 x 30	60 x 5 up to 300 x 30								
CUT LENGTHS	Saudi: Minimum Length 6M up to Maximum Length 13.0M | Bahrain: Minimum Length 6M up to Maximum Length 24.1M (*W-Shape length can also be offered in Feet - (Please contact us for further details of available lengths)																		

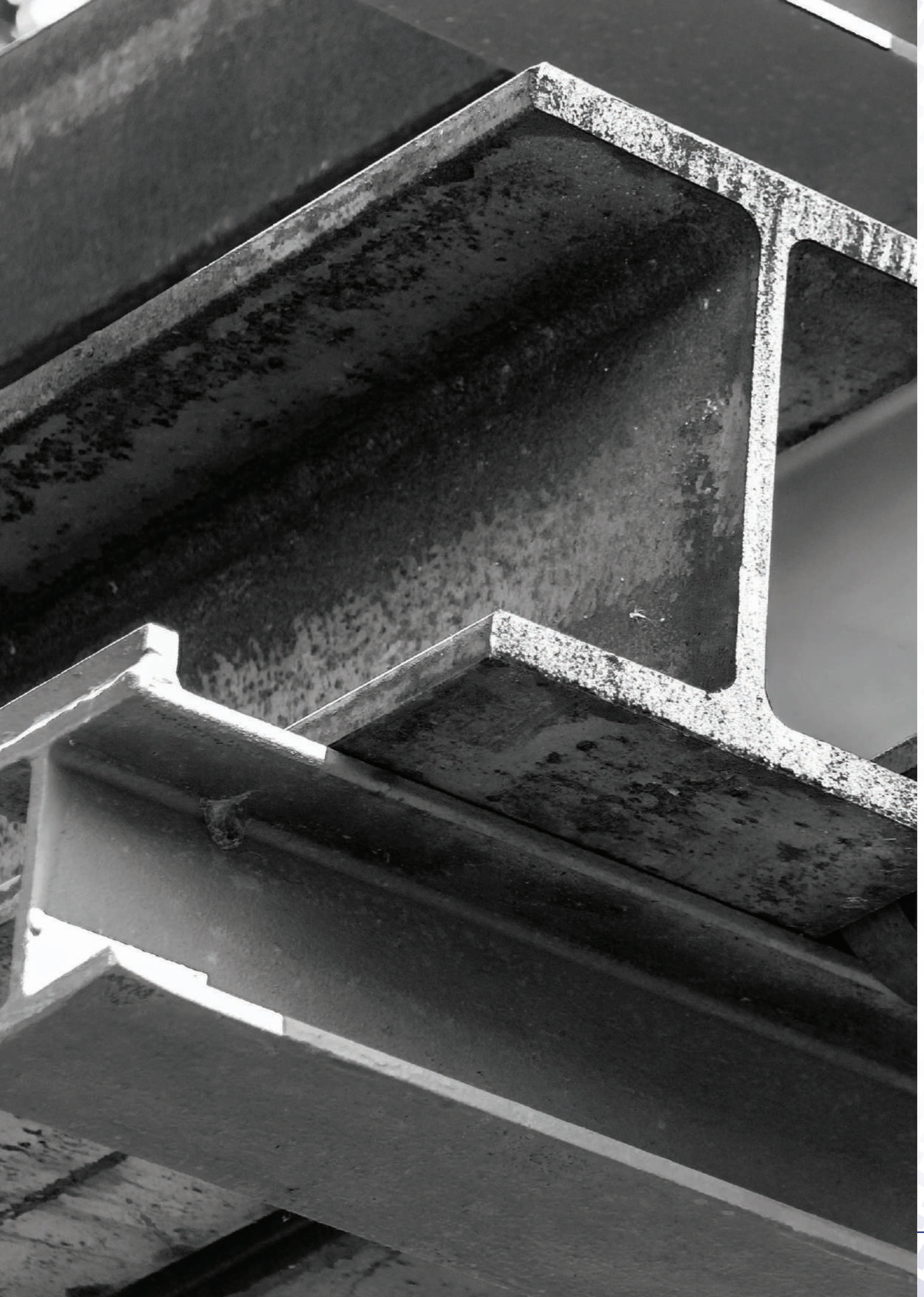
STEEL GRADES																					
ASTM (American)			AS (Australian)	CSA (Canadian)	CNS (Chinese)		EN (European)				JIS (Japanese)			KS (Korean)			IS (Indian)			
A36	A992	A572	AS/NZS 3679.1	CSA G 40.20	CNS 2947	CNS 13812	EN 10025-2				JIS G3101	JIS G3106	JIS G3136	KS D3503	KS D3515	KS F4603	IS 2062			
Grade 36	Grade 50	Grade 50 Grade 55 Grade 60 Grade 65	300 300S0 350 350L0	350W	SM400A	SN400B SN490B	S235JR S235J0 S235J2	S275JR S275J0 S275J2	S355JR S355J0 S355J2 S355K2	S450J0	SS400 SS490 SS540	SM400A SM400B SM490A SM490B SM490YA SM490YB SM520B	SN400B SN490B	SS275	SM355A	SHP275W	E250A E250BR E250B0 E250C	E275A E275BR E275B0 E275C	E300A E300BR E300B0 E300C	E350A E350BR E350B0 E350C

Section Mill Manufacturing Facilities

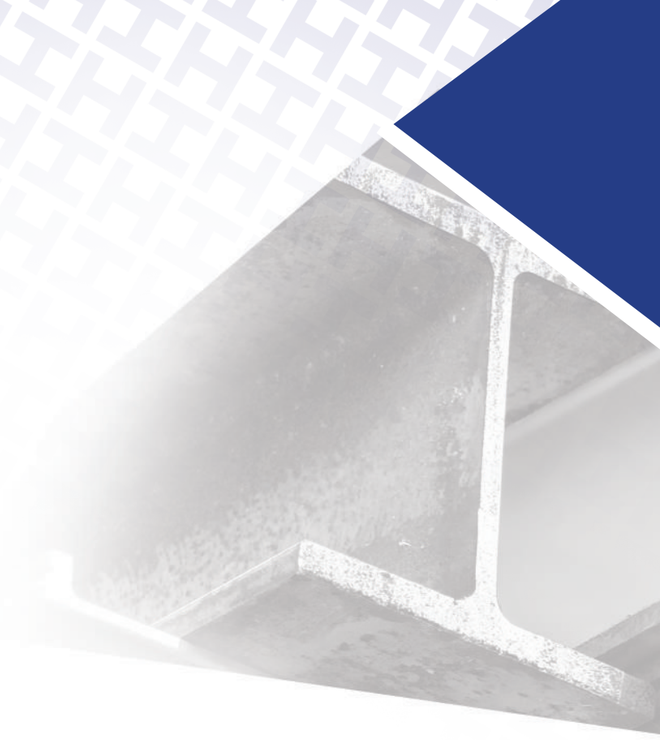
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Although every care has been taken during the production of this product catalogue, we regret that we cannot accept any liability in respect of any incorrect information it may contain or any damages which may arise through the misinterpretation of its contents.



BEAMS & COLUMNS



ASTM (AMERICAN)
- W-Shapes (W)
  - Imperial
  - Metric

SULB
- W Shapes (SOLAR)
  - Imperial
  - Metric
- Universal Beams (UB)
- Universal Columns (UC)

AS / NZS (AUSTRALIAN / NEW ZEALAND)
- Universal Beams (UB)
- Universal Columns (UC)

EN (EUROPEAN)
- Universal Beams (UB)
- Universal Columns (UC)
- Wide Flange H-Beams (HE)
- Parallel Flange I-Beams (IPE)

IS (INDIAN)
- Parallel Flange Beams (Narrow Flange) (NPB)
- Parallel Flange Beams (Wide Flange) (WPB)

JIS (JAPANESE)
- H-Beams

KS (KOREAN)
- H-Beams (KS D 3502)
- H-Beams (KS F 4603)

ASTM (AMERICAN)

W-SHAPES (W) IMPERIAL

Designation	Weight in Pounds per Linear Foot (lbs/ft)												
W 6 x 4	8.5	9	12	15									
W 6 x 6	15	20	25										
W 8 x 4	13	15											
W 8 x 5¼	18	21											
W 8 x 6½	24	28											
W 8 x 8	31	35	40	48	58	67							
W 10 x 4	12	15	17	19									
W 10 x 5¾	22	26	30										
W 10 x 8	33	39	45										
W 10 x 10	49	54	60	68	77	88	100	112					
W 12 x 4	14	16	19	22									
W 12 x 6½	26	30	35										
W 12 x 8	40	45	50										
W 12 x 10	53	58											
W 12 x 12	65	72	79	87	96	106	120	136	152	170	190	210	230
W 14 x 5	22	26											
W 14 x 6¾	30	34	38										
W 14 x 8	43	48	53										
W 14 x 10	61	68	74	82									
W 14 x 14½	90	99	109	120	132								
W 14 x 16	145	159	176	193									
W 16 x 5½	26	31											
W 16 x 7	36	40	45	50	57								
W 16 x 10¼	67	77	89	100									
W 18 x 6	35	40	46										
W 18 x 7½	50	55	60	65	71								
W 18 x 11	76	86	97	106	119	130	143	158	175	192			
W 21 x 6½	44	50	57										
W 21 x 8¼	48	55	62	68	73	83	93						
W 21 x 12½	101	111	122										
W 24 x 7	55	62											
W 24 x 9	68	76	84	94	103								
W24 x 12¾	104	117	131										
W 27 x 10	84	94	102	114	129								
W 30 x 10½	90	99	108	116	124	132	148						
W 33 x 11½	118	130	141	152	169								
W 36 x 12	135	150	160	170	182	194	210						

W-SHAPES (W) METRIC

Designation	Mass in Kilograms per Metre (kg/m)												
W 150 x 100	13	13.5	18	24									
W 150 x 150	22.5	29.8	37.1										
W 200 x 100	19.3	22.5											
W 200 x 135	26.6	31.3											
W 200 x 160	35.9	41.7											
W 200 x 200	46.1	52	59	71	86	100							
W 250 x 100	17.9	22.3	25.3	28.4									
W 250 x 145	32.7	38.5	44.8										
W 250 x 200	49.1	58	67										
W 250 x 250	73	80	89	101	115	131	149	167					
W 310 x 100	21	23.8	28.3	32.7									
W 310 x 165	38.7	44.5	52										
W 310 x 200	60	67	74										
W 310 x 250	79	86											
W 310 x 310	97	107	117	129	143	158	179	202	226	253	283	313	342
W 360 x 130	32.9	39											
W 360 x 170	44.6	51	58										
W 360 x 200	64	72	79										
W 360 x 250	91	101	110	122									
W 360 x 370	134	147	162	179	196								
W 360 x 410	216	237	262	287									
W 410 x 140	38.8	46.1											
W 410 x 180	53	60	67	75	85								
W 410 x 260	100	114	132	149									
W 460 x 150	52	60	68										
W 460 x 190	74	82	89	97	106								
W 460 x 280	113	128	144	158	177	193	213	235	260	286			
W 530 x 165	66	74	85										
W 530 x 210	72	82	92	101	109	123	138						
W 530 x 310	150	165	182										
W 610 x 180	82	92											
W 610 x 230	101	113	125	140	153								
W 610 x 324	155	174	195										
W 690 x 250	125	140	152	170	192								
W 760 x 265	134	147	161	173	185	196	220						
W 840 x 295	176	193	210	226	251								
W 920 x 310	201	223	238	253	271	289	313						

SULB

W-SHAPES (SOLAR) IMPERIAL

Designation	Weight in Pounds per Linear Foot (lbs/ft)												
W 6 x 4	7	8	11										
W 8 x 4	10												

W-SHAPES (SOLAR) METRIC

Designation	Mass in Kilograms per Metre (kg/m)												
W 150 x 100	10.5	12.2	16.5										
W 200 x 100	15												

UNIVERSAL BEAMS (UB)

Designation	Mass in Kilograms per Metre (kg/m)												
UB 254 x 102	17.9												
UB 305 x 102	21	24.0											
UB 406 x 178	85.3												
UB 457 x 191	105.8												
UB 457 x 280	113	128	144	158	177	193	213	235	260	286			
UB 533 x 165	66	74	85										
UB 533 x 210	72	139											
UB 533 x 312	150	165	181.5										
UB 610 x 178	81.5	92											
UB 610 x 229	153												
UB 610 x 324	155	174	195										
UB 686 x 254	192												
UB 762 x 267	161	185	220										
UB 838 x 292	210	251											

UNIVERSAL COLUMNS (UC)

Designation	Mass in Kilograms per Metre (kg/m)												
UC 203 x 203	99.6												
UC 254 x 254	81	101	115	149									
UC 305 x 305	107	129	143	179	202	226	253	313	342				
UC 356 x 368	134	147	162	179	196								
UC 356 x 406	216	237	262										

AS / NZS (AUSTRALIAN / NEW ZEALAND)

UNIVERSAL BEAMS (UB)

Designation	Mass in Kilograms per Metre (kg/m)												
200 UB	22.3	25.4	29.8										
250 UB	25.7	31.4	37.3										
310 UB	32.0	40.4	46.2										
360 UB	44.7	50.7	56.7										
410 UB	53.7	59.7											
460 UB	67.1	74.6	82.1										
530 UB	82.0	92.4											
610 UB	101.0	113.0	125.0										

UNIVERSAL COLUMNS (UC)

Designation	Mass in Kilograms per Metre (kg/m)												
150 UC	23.4	30.0	37.2										
200 UC	46.2	52.2	59.5										
250 UC	72.9	89.5											
310 UC	96.8	118	137	158									

EN (EUROPEAN)

UNIVERSAL BEAMS (UB)

Designation	Mass in Kilograms per Metre (kg/m)												
UB 203 x 102	23.1												
UB 203 x 133	25.1	30.0											
UB 254 x 102	22.0	25.2	28.3										
UB 254 x 146	31.1	37.0	43.0										
UB 305 x 102	24.8	28.2	32.8										
UB 305 x 127	37.0	41.9	48.1										
UB 305 x 165	40.3	46.1	54.0										
UB 356 x 127	33.1	39.1											
UB 356 x 171	45.0	51.0	57.0	67.1									
UB 406 x 140	39.0	46.0											
UB 406 x 178	54.1	60.1	67.1	74.2									
UB 457 x 152	52.3	59.8	67.2	74.2	82.1								
UB 457 x 191	67.1	74.3	82.0	89.3	98.3								

UNIVERSAL BEAMS (UB)

Designation	Mass in Kilograms per Metre (kg/m)												
UB 533 x 210	82.2	92.1	101	109	122								
UB 610 x 229	101	113	125	140									
UB 610 x 305	149	179	238										
UB 686 x 254	125	140	152	170									
UB 762 x 267	134	147	173	197									
UB 838 x 292	176	194	226										
UB 914 x 305	201	224	238	253	271	289	313						

UNIVERSAL COLUMNS (UC)

Designation	Mass in Kilograms per Metre (kg/m)												
UC 152 x 152	23	30.0	37.0										
UC 203 x 203	46.1	52.0	60.0	71.0	86.1								
UC 254 x 254	73.1	88.9	107	132	167								
UC 305 x 305	96.9	118	137	158	198	240	283						
UC 356 x 368	129	153	177	202									
UC 356 x 406	235	287	340	393*									

* = Subject to Mill Confirmation

PARALLEL FLANGE I-BEAMS (IPE)

Designation	Mass in Kilograms per Metre (kg/m)												
	IPE AA	IPE A	IPE	IPE O	IPE V								
IPE 80	4.9	5.0	6.0										
IPE 100	6.7	6.9	8.1										
IPE 120	8.4	8.7	10.4										
IPE 140	10.1	10.5	12.9										
IPE 160	12.3	12.7	15.8										
IPE 180	14.9	15.4	18.8	21.3*									
IPE 200	18.0	18.4	22.4	25.1*									
IPE 220	21.2	22.2	26.2	29.4*									
IPE 240	24.9*	26.2	30.7	34.3*									
IPE 270		30.7	36.1	42.3*									
IPE 300		36.5	42.2	49.3*									
IPE 330		43.0	49.1	57.0*									
IPE 360		50.2	57.1	66.0*									
IPE 400		57.4	66.3	75.7	84.0*								
IPE 450		67.2	77.6	92.4*	107*								
IPE 500		79.4	90.7	107	129								
IPE 550		92.1	106	123*	159*								
IPE 600		108	122	154	184*								
IPE 750						134	147	173	196				

* = Subject to Mill Confirmation

WIDE FLANGE H-BEAMS (HE)

Designation	Mass in Kilograms per Metre (kg/m)												
	HEAA	HEA	HEB	HEC	HEM								
HE 100	12.2	16.7	20.4										
HE 120	14.6	19.9	26.7										
HE 140	18.1	24.7	33.7	48.2	63.2								
HE 160	23.8	30.4	42.6	59.2	76.2								
HE 180	28.7	35.5	51.2	69.8	88.9								
HE 200	34.6	42.3	61.3	81.9	103								
HE 220	40.4	50.5	71.5	94.1	117								
HE 240	47.4	60.3	83.2	119	157								
HE 260	54.1	68.2	93.0	132	172								
HE 280	61.2	76.4	103	145	189								
HE 300	69.8	88.3	117	177	238								
HE 320	74.2	97.6	127	186	245								
HE 340	78.9	105	134		248								
HE 360	83.7	112	142		250								
HE 400	92.4	125	155		256								
HE 450	99.7	140	171		263								
HE 500	107	155	187		270								
HE 550	120	166	199		278								
HE 600	129	178	212		285								
HE 650	138	190	225		293								
HE 700	150	204	241		301								
HE 800	172	224	262		317								
HE 900	198	252	291										

IS (INDIAN)

PARALLEL FLANGE BEAMS (NARROW FLANGE) (NPB)

Designation	Mass in Kilograms per Metre (kg/m)												
NPB 100 x 55	8.10												
NPB 120 x 60	10.37												
NPB 140 x 70	12.89												
NPB 160 x 80	15.77												
NPB 180 x 90	15.37	18.80	21.27										
NPB 200 x 100	18.42	22.36	25.09										
NPB 220 x 110	22.18	26.20	29.35										
NPB 240 x 120	26.15	30.71	34.31										
NPB 270 x 135	30.73	36.07	42.26										
NPB 300 x 150	36.52	42.24	49.32										
NPB 330 x 160	42.97	49.15	57.00										
NPB 350 x 170	50.21	57.09	66.04										
NPB 400 x 180	57.38	66.30	75.66										
NPB 450 x 190	67.15	77.57	92.36										
NPB 500 x 200	79.36	90.68	107.31										
NPB 550 x 210	92.07	105.52	122.52										
NPB 600 x 220	107.56	122.45	154.46										

PARALLEL FLANGE BEAMS (WIDE FLANGE) (WPB)

Designation	Mass in Kilograms per Metre (kg/m)												
WPB 100 x 100	12.24	16.67	20.44										
WPB 120 x 120	14.56	19.89	26.69										
WPB 160 x 160	23.83	30.44	42.59	76.19									
WPB 180 x 180	28.68	35.52	51.22	88.90									
WPB 200 x 200	34.64	42.26	61.29	103.06									
WPB 220 x 220	40.40	50.51	71.47	117.31									
WPB 240 x 240	47.39	60.32	83.20	156.67									
WPB 260 x 260	54.14	68.15	92.98	172.42									
WPB 280 x 280	61.25	76.35	103.00	188.53									
WPB 300 x 300	69.79	88.33	117.03	237.92									
WPB 320 x 300	74.24	97.63	126.65	244.96									
WPB 340 x 300	78.89	104.78	134.15	247.92									
WPB 360 x 300	83.69	112.06	141.80	250.26									
WPB 400 x 300	92.39	124.80	155.26	255.74									
WPB 450 x 300	99.74	139.75	171.11	263.32									
WPB 500 x 300	107.45	155.07	187.33	270.27									
WPB 550 x 300	119.98	166.23	199.44	278.19									

PARALLEL FLANGE BEAMS (WIDE FLANGE) (WPB)

Designation	Mass in Kilograms per Metre (kg/m)												
WPB 600 x 300	128.79	177.77	211.92	285.47									
WPB 650 x 300	137.97	189.69	224.78	293.38									
WPB 700 x 300	149.89	204.48	240.51	300.67									
WPB 800 x 300	171.51	224.37	262.33	317.35									
WPB 900 x 300	198.00	251.61	291.45										

JIS (JAPANESE)

H-BEAMS

Designation	Mass in Kilograms per Metre (kg/m)												
100 x 50	9.3												
100 x 100	16.9												
150 x 150	31.1												
175 x 175	40.4												
200 x 100	17.8	20.9											
200 x 150	29.9												
200 x 200	49.9												
250 x 125	25.1	29.0											
250 x 175	43.6												
250 x 250	63.8*	71.8	81.6*										
300 x 150	32.0	36.7											
300 x 200	55.8	64.4											
300 x 300	83.4 *	93.0	105*										
350 x 175	41.2	49.4											
350 x 250	78.1												
350 x 350	135												
400 x 200	56.1	65.4											
400 x 300	105												
400 x 400	172	232	283										
450 x 200	65.1	74.9											
450 x 300	121												
500 x 200	77.9	88.2											
500 x 300	111	125											
600 x 200	92.5 *	103											
600 x 300	133	147	170*										
700 x 300	163	182											
800 x 300	188 *	207											
900 x 300	210 *	240	283										

* = Subject to Mill Confirmation

KS (KOREAN)

H-BEAMS (KS D 3502)

Designation	Mass in Kilograms per Metre (kg/m)												
150 x 150	31.5												
175 x 175	40.2*												
200 x 150	30.6												
200 x 200	49.9	56.2*	65.7*										
250 x 125	25.7	29.6											
250 x 175	44.1												
250 x 250	64.4*	66.5*	72.4	82.2*									
300 x 150	32.0*	36.7											
300 x 200	56.8	65.4											
300 x 300	84.5*	87.0*	94.0	106.0*	106.0*	130.0*	142.0*						
350 x 175	41.4*	49.6	57.8*										
350 x 250	69.2*	79.7*											
350 x 350	106.0*	115.0*	131.0*	137.0	156.0*								
400 x 200	56.6*	66.0											
400 x 300	107.0*												
400 x 400	140.0*	147.0*	168.0*	172.0	197.0*	200.0*	232.0	283.0					
450 x 200	66.2*	76.0											
450 x 300	106.0*	124.0*											
500 x 200	79.5*	89.6	103.0*										
500 x 300	114.0	128.0											
600 x 200	94.6*	106.0	120.0*	134.0*									
600 x 300	137.0	151.0	175.0										
700 x 300	166.0	185.0	215.0*										
800 x 300	191.0*	210.0	241.0*										
900 x 300	213.0*	243.0	286.0*	307.0*									

* = Subject to Mill Confirmation

H-BEAMS (KS F 4603)

Designation	Mass in Kilograms per Metre (kg/m)												
200 x 200	49.9	56.2*	65.7*										
250 x 250	64.4*	66.5*	72.4	82.2*									
300 x 200	56.8	65.4											
300 x 300	84.5*	87.0*	94.0	106.0*	106.0*	130.0*	142.0*						
350 x 350	106.0*	115.0*	131.0*	137.0	156.0*								
400 x 400	140.0*	147.0*	168.0*	172.0	197.0*	200.0*	232.0	283.0					
450 x 300	124.0*												
500 x 300	128.0*												
600 x 300	151.0*												
700 x 300	185.0*												

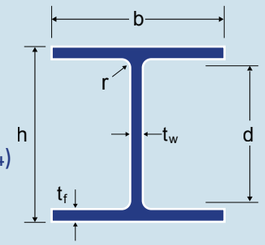
* = Subject to Mill Confirmation

American (ASTM) Wide Flange Beams (W Shapes) Imperial

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M (‡ = Camber Tolerance as per EN 10034)

Surface Condition : ASTM A6/A6M



Dimensions

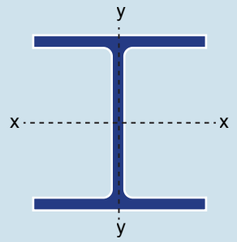
Designation	Mass Per Feet	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	lbs/ft	Inch	Inch	Inch	Inch	Inch	Inch	Inch^2		
W 6 x 4 x 8.5 ‡	8.5	5.83	3.940	0.170	0.195	0.30	4.8	2.54	▪	
W 6 x 4 x 9 ‡	9	5.90	3.940	0.170	0.215	0.30	4.9	2.70	▪	
W 6 x 4 x 12 ‡	12	6.03	4.000	0.230	0.280	0.30	4.9	3.57	▪	
W 6 x 4 x 16 ‡	16	6.28	4.030	0.260	0.405	0.30	4.9	4.76	▪	
W 6 x 6 x 15	15	5.99	5.990	0.230	0.260	0.39	4.7	4.51		▪
W 6 x 6 x 20	20	6.20	6.020	0.260	0.365	0.39	4.7	5.95		▪
W 6 x 6 x 25	25	6.38	6.080	0.320	0.455	0.39	4.7	7.42		▪
W 8 x 4 x 13 ‡	13	7.99	4.000	0.230	0.255	0.39	6.7	3.89	▪	
W 8 x 4 x 15 ‡	15	8.11	4.015	0.245	0.315	0.39	6.7	4.50	▪	
W 8 x 5¼ x 18	18	8.14	5.250	0.230	0.330	0.39	6.7	5.32		▪
W 8 x 5¼ x 21	21	8.28	5.270	0.250	0.400	0.39	6.7	6.22		▪
W 8 x 6½ x 24	24	7.93	6.495	0.245	0.400	0.47	6.2	7.13		▪
W 8 x 6½ x 28	28	8.06	6.535	0.285	0.465	0.47	6.2	8.30		▪
W 8 x 8 x 31	31	8.00	7.995	0.285	0.435	0.47	6.2	9.18		▪
W 8 x 8 x 35	35	8.12	8.020	0.310	0.495	0.47	6.2	10.34		▪
W 8 x 8 x 40	40	8.25	8.070	0.360	0.560	0.47	6.2	11.80		▪
W 8 x 8 x 48	48	8.50	8.110	0.400	0.685	0.47	6.2	14.15		▪
W 8 x 8 x 58	58	8.75	8.220	0.510	0.810	0.47	6.2	17.14		▪
W 8 x 8 x 67	67	9.00	8.280	0.570	0.935	0.47	6.2	19.74		▪
W 10 x 4 x 12	12	9.87	3.960	0.190	0.210	0.39	8.7	3.59		▪
W 10 x 4 x 15	15	9.99	4.000	0.230	0.270	0.39	8.7	4.47		▪
W 10 x 4 x 17	17	10.11	4.010	0.240	0.330	0.39	8.7	5.05		▪
W 10 x 4 x 19	19	10.24	4.020	0.250	0.395	0.39	8.7	5.67		▪
W 10 x 5¾ x 22	22	10.17	5.750	0.240	0.360	0.39	8.7	6.54		▪
W 10 x 5¾ x 26	26	10.33	5.770	0.260	0.440	0.39	8.7	7.67		▪
W 10 x 5¾ x 30	30	10.47	5.810	0.300	0.510	0.39	8.7	8.89		▪
W 10 x 8 x 33	33	9.73	7.960	0.290	0.435	0.59	7.7	9.79		▪
W 10 x 8 x 39	39	9.92	7.985	0.315	0.530	0.59	7.7	11.55		▪
W 10 x 8 x 45	45	10.10	8.020	0.350	0.620	0.59	7.7	13.35		▪
W 10 x 10 x 49	49	9.98	10.000	0.340	0.560	0.59	7.7	14.51		▪
W 10 x 10 x 54	54	10.09	10.030	0.370	0.615	0.59	7.7	15.91		▪
W 10 x 10 x 60	60	10.22	10.080	0.420	0.680	0.59	7.7	17.73		▪

American (ASTM) Wide Flange Beams (W Shapes) Imperial

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M (‡ = Camber Tolerance as per EN 10034)

Surface Condition : ASTM A6/A6M



Section Properties

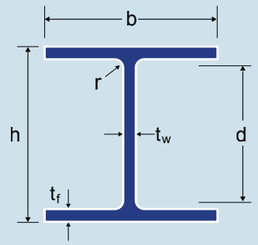
Designation	Mass Per Feet	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	lbs/ft	inch^4	inch^4	inch	inch	inch^3	inch^3	inch^3	inch^3	inch^6	inch^4
W 6 x 4 x 8.5 ‡	8.5	15.02	1.99	2.43	0.89	5.15	1.01	5.79	1.57	16	0.04
W 6 x 4 x 9 ‡	9	16.56	2.20	2.48	0.90	5.61	1.11	6.29	1.72	18	0.05
W 6 x 4 x 12 ‡	12	22.21	2.99	2.49	0.92	7.37	1.50	8.37	2.33	25	0.10
W 6 x 4 x 16 ‡	16	32.30	4.43	2.60	0.96	10.29	2.20	11.74	3.40	38	0.23
W 6 x 6 x 15	15	29.65	9.33	2.57	1.44	9.90	3.11	11.00	4.77	76	0.13
W 6 x 6 x 20	20	41.93	13.29	2.65	1.49	13.53	4.41	15.12	6.74	113	0.27
W 6 x 6 x 25	25	53.95	17.07	2.70	1.52	16.91	5.61	19.14	8.59	150	0.50
W 8 x 4 x 13 ‡	13	40.32	2.73	3.22	0.84	10.09	1.37	11.59	2.17	41	0.11
W 8 x 4 x 15 ‡	15	48.76	3.41	3.29	0.87	12.03	1.70	13.77	2.68	52	0.16
W 8 x 5¼ x 18	18	62.67	7.97	3.43	1.22	15.40	3.04	17.23	4.68	121	0.19
W 8 x 5¼ x 21	21	76.00	9.77	3.50	1.25	18.36	3.71	20.59	5.71	152	0.30
W 8 x 6½ x 24	24	83.42	18.29	3.42	1.60	21.04	5.63	23.34	8.60	259	0.36
W 8 x 6½ x 28	28	98.66	21.66	3.45	1.62	24.48	6.63	27.36	10.14	312	0.56
W 8 x 8 x 31	31	110.53	37.08	3.47	2.01	27.63	9.28	30.59	14.11	530	0.56
W 8 x 8 x 35	35	127.23	42.59	3.51	2.03	31.34	10.62	34.87	16.16	619	0.80
W 8 x 8 x 40	40	147.03	49.10	3.53	2.04	35.64	12.17	39.99	18.54	725	1.16
W 8 x 8 x 48	48	184.46	60.96	3.61	2.08	43.40	15.03	49.16	22.90	930	2.01
W 8 x 8 x 58	58	228.31	75.09	3.65	2.09	52.18	18.27	60.01	27.93	1182	3.44
W 8 x 8 x 67	67	272.42	88.60	3.71	2.12	60.54	21.40	70.34	32.74	1438	5.20
W 10 x 4 x 12	12	55.03	2.18	3.91	0.78	11.15	1.10	12.89	1.76	51	0.07
W 10 x 4 x 15	15	70.07	2.90	3.96	0.81	14.03	1.45	16.25	2.31	68	0.12
W 10 x 4 x 17	17	83.05	3.56	4.06	0.84	16.43	1.78	18.92	2.82	85	0.17
W 10 x 4 x 19	19	97.44	4.30	4.14	0.87	19.03	2.14	21.83	3.38	104	0.25
W 10 x 5¾ x 22	22	119.39	11.42	4.27	1.32	23.48	3.97	26.28	6.12	274	0.26
W 10 x 5¾ x 26	26	145.39	14.11	4.35	1.36	28.15	4.89	31.53	7.53	345	0.42
W 10 x 5¾ x 30	30	171.06	16.70	4.39	1.37	32.68	5.75	36.83	8.87	413	0.65
W 10 x 8 x 33	33	172.03	36.61	4.19	1.93	35.36	9.20	39.16	14.07	790	0.63
W 10 x 8 x 39	39	210.56	45.02	4.27	1.97	42.45	11.28	47.21	17.24	991	1.02
W 10 x 8 x 45	45	249.57	53.37	4.32	2.00	49.42	13.31	55.29	20.34	1198	1.56
W 10 x 10 x 49	49	273.99	93.39	4.35	2.54	54.91	18.68	60.71	28.38	2071	1.44
W 10 x 10 x 54	54	304.26	103.50	4.37	2.55	60.31	20.64	66.99	31.37	2321	1.88
W 10 x 10 x 60	60	342.32	116.17	4.39	2.56	66.99	23.05	74.92	35.08	2641	2.56

American (ASTM) Wide Flange Beams (W Shapes) Imperial

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Dimensions

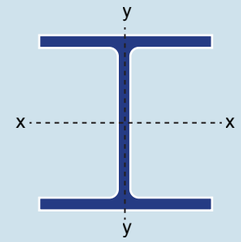
Designation	Mass Per Feet	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	lbs/ft	Inch	Inch	Inch	Inch	Inch	Inch	Inch^2		
W 10 x 10 x 68	68	10.40	10.130	0.470	0.770	0.59	7.7	20.06		▪
W 10 x 10 x 77	77	10.60	10.190	0.530	0.870	0.59	7.7	22.73		▪
W 10 x 10 x 88	88	10.84	10.265	0.605	0.990	0.59	7.7	25.98		▪
W 10 x 10 x 100	100	11.10	10.340	0.680	1.120	0.59	7.7	29.49		▪
W 10 x 10 x 112	112	11.36	10.415	0.755	1.250	0.59	7.7	33.03		▪
W 12 x 4 x 14	14	11.91	3.970	0.200	0.225	0.39	10.7	4.21		▪
W 12 x 4 x 16	16	11.99	3.990	0.220	0.265	0.39	10.7	4.77		▪
W 12 x 4 x 19	19	12.16	4.005	0.235	0.350	0.39	10.7	5.63		▪
W 12 x 4 x 22	22	12.31	4.030	0.260	0.425	0.39	10.7	6.54		▪
W 12 x 6½ x 26	26	12.22	6.490	0.230	0.380	0.47	10.5	7.76		▪
W 12 x 6½ x 30	30	12.34	6.520	0.260	0.440	0.47	10.5	8.91		▪
W 12 x 6½ x 35	35	12.50	6.560	0.300	0.520	0.47	10.5	10.45		▪
W 12 x 8 x 40	40	11.94	8.005	0.295	0.515	0.59	9.7	11.76		▪
W 12 x 8 x 45	45	12.06	8.045	0.335	0.575	0.59	9.7	13.21		▪
W 12 x 8 x 50	50	12.19	8.080	0.370	0.640	0.59	9.7	14.68		▪
W 12 x 10 x 53	53	12.06	9.995	0.345	0.575	0.59	9.7	15.56		▪
W 12 x 10 x 58	58	12.19	10.010	0.360	0.640	0.59	9.7	17.04		▪
W 12 x 12 x 65	65	12.12	12.000	0.390	0.605	0.59	9.7	19.07		▪
W 12 x 12 x 72	72	12.25	10.040	0.430	0.670	0.59	9.7	21.25		▪
W 12 x 12 x 79	79	12.38	12.080	0.470	0.735	0.59	9.7	23.18		▪
W 12 x 12 x 87	87	12.53	12.125	0.515	0.810	0.59	9.7	25.56		▪
W 12 x 12 x 96	96	12.71	12.160	0.550	0.900	0.59	9.7	28.19		▪
W 12 x 12 x 106	106	12.89	12.220	0.610	0.990	0.59	9.7	31.15		▪
W 12 x 12 x 120	120	13.12	12.320	0.710	1.105	0.59	9.7	35.27		▪
W 12 x 12 x 136	136	13.41	12.400	0.790	1.250	0.59	9.7	39.92		▪
W 12 x 12 x 152	152	13.71	12.480	0.870	1.400	0.59	9.7	44.74		▪
W 12 x 12 x 170	170	14.03	12.570	0.960	1.560	0.59	9.7	49.99		▪
W 12 x 12 x 190	190	14.38	12.670	1.060	1.735	0.59	9.7	55.83		▪
W 12 x 12 x 210	210	14.71	12.790	1.180	1.900	0.59	9.7	61.78		▪
W 12 x 12 x 230	230	15.05	12.895	1.285	2.070	0.59	9.7	67.70		▪
W 14 x 5 x 22	22	13.74	5.000	0.230	0.335	0.47	12.1	6.55		▪
W 14 x 5 x 26	26	13.91	5.025	0.255	0.420	0.47	12.1	7.75		▪

American (ASTM) Wide Flange Beams (W Shapes) Imperial

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Section Properties

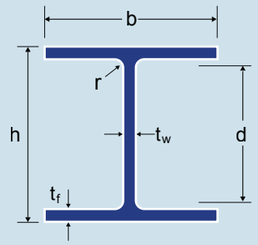
Designation	Mass Per Feet	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	lbs/ft	inch^4	inch^4	inch	inch	inch^3	inch^3	inch^3	inch^3	inch^6	inch^4
W 10 x 10 x 68	68	395.22	133.52	4.4	2.6	76.00	26.36	85.63	40.15	3093	3.67
W 10 x 10 x 77	77	457.02	153.58	4.5	2.6	86.23	30.14	97.95	45.96	3631	5.26
W 10 x 10 x 88	88	535.25	178.69	4.5	2.6	98.75	34.82	113.26	53.16	4329	7.74
W 10 x 10 x 100	100	624.09	206.66	4.6	2.6	112.45	39.97	130.21	61.10	5138	11.16
W 10 x 10 x 112	112	718.02	235.76	4.7	2.7	126.41	45.27	147.72	69.28	6014	15.47
W 12 x 4 x 14	14	90.31	2.36	4.6	0.7	15.17	1.19	17.75	1.91	80	0.09
W 12 x 4 x 16	16	104.52	2.82	4.7	0.8	17.43	1.41	20.37	2.28	96	0.12
W 12 x 4 x 19	19	131.49	3.77	4.8	0.8	21.63	1.88	25.02	3.00	131	0.20
W 12 x 4 x 22	22	157.86	4.66	4.9	0.8	25.65	2.31	29.64	3.68	164	0.31
W 12 x 6½ x 26	26	207.83	17.34	5.2	1.5	34.02	5.34	37.83	8.21	607	0.33
W 12 x 6½ x 30	30	241.89	20.35	5.2	1.5	39.20	6.24	43.75	9.61	720	0.49
W 12 x 6½ x 35	35	288.63	24.51	5.3	1.5	46.18	7.47	51.79	11.52	878	0.79
W 12 x 8 x 40	40	309.65	44.08	5.1	1.9	51.87	11.01	57.47	16.85	1437	0.94
W 12 x 8 x 45	45	350.08	49.96	5.1	1.9	58.06	12.42	64.69	19.04	1646	1.30
W 12 x 8 x 50	50	393.80	56.35	5.2	2.0	64.61	13.95	72.33	21.40	1877	1.77
W 12 x 10 x 53	53	425.18	95.76	5.2	2.5	70.51	19.16	77.87	29.17	3155	1.57
W 12 x 10 x 58	58	475.20	107.06	5.3	2.5	77.96	21.39	86.30	32.55	3568	2.08
W 12 x 12 x 65	65	532.45	174.33	5.3	3.0	87.86	29.05	96.80	44.10	5776	2.19
W 12 x 12 x 72	72	506.54	113.12	5.2	2.5	82.70	22.53	92.29	34.41	3789	2.54
W 12 x 12 x 79	79	662.16	216.08	5.3	3.1	106.97	35.77	118.97	54.38	7321	3.86
W 12 x 12 x 87	87	739.81	240.82	5.4	3.1	118.09	39.72	132.02	60.43	8264	5.13
W 12 x 12 x 96	96	832.70	269.91	5.4	3.1	131.03	44.39	147.21	67.54	9404	6.89
W 12 x 12 x 106	106	933.06	301.36	5.5	3.1	144.77	49.32	163.71	75.12	10659	9.19
W 12 x 12 x 120	120	1070.72	344.78	5.5	3.1	163.22	55.97	186.29	85.44	12429	13.03
W 12 x 12 x 136	136	1243.97	397.75	5.6	3.2	185.53	64.15	213.58	98.03	14684	18.71
W 12 x 12 x 152	152	1432.16	454.24	5.7	3.2	208.92	72.80	242.56	111.34	17182	26.09
W 12 x 12 x 170	170	1644.95	517.31	5.7	3.2	234.49	82.31	274.69	126.03	20075	35.99
W 12 x 12 x 190	190	1891.68	589.35	5.8	3.2	263.10	93.03	311.10	142.62	23510	49.45
W 12 x 12 x 210	210	2144.65	664.20	5.9	3.3	291.59	103.86	348.00	159.53	27180	65.68
W 12 x 12 x 230	230	2415.20	741.86	6.0	3.3	320.96	115.06	386.30	176.95	31158	85.19
W 14 x 5 x 22	22	201.24	7.00	5.5	1.0	29.29	2.80	33.51	4.41	314	0.23
W 14 x 5 x 26	26	247.46	8.91	5.7	1.1	35.58	3.55	40.59	5.58	404	0.38

American (ASTM) Wide Flange Beams (W Shapes) Imperial

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Dimensions

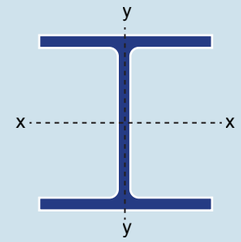
Designation	Mass Per Feet	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	lbs/ft	Inch	Inch	Inch	Inch	Inch	Inch	Inch^2		
W 14 x 6¾ x 30	30	13.84	6.730	0.270	0.385	0.47	12.1	8.90		▪
W 14 x 6¾ x 34	34	13.98	6.745	0.285	0.455	0.47	12.1	10.05		▪
W 14 x 6¾ x 38	38	14.10	6.770	0.310	0.515	0.47	12.1	11.22		▪
W 14 x 8 x 43	43	13.66	7.995	0.305	0.530	0.71	11.2	12.75		▪
W 14 x 8 x 48	48	13.79	8.030	0.340	0.595	0.71	11.2	14.27		▪
W 14 x 8 x 53	53	13.92	8.060	0.370	0.660	0.71	11.2	15.73		▪
W 14 x 10 x 61	61	13.89	9.995	0.375	0.645	0.71	11.2	18.05		▪
W 14 x 10 x 68	68	14.04	10.035	0.415	0.720	0.71	11.2	20.11		▪
W 14 x 10 x 74	74	14.17	10.070	0.450	0.785	0.71	11.2	21.91		▪
W 14 x 10 x 82	82	14.31	10.130	0.510	0.855	0.71	11.2	24.18		▪
W 14 x 14½ x 90	90	14.02	14.520	0.440	0.710	0.71	11.2	26.59		▪
W 14 x 14½ x 99	99	14.16	14.565	0.485	0.780	0.71	11.2	29.26		▪
W 14 x 14½ x 109	109	14.32	14.605	0.525	0.860	0.71	11.2	32.17		▪
W 14 x 14½ x 120	120	14.48	14.670	0.590	0.940	0.71	11.2	35.44		▪
W 14 x 14½ x 132	132	14.66	14.725	0.645	1.030	0.71	11.2	38.89		▪
W 14 x 16 x 145	145	14.78	15.500	0.680	1.090	0.71	11.2	42.79		▪
W 14 x 16 x 159	159	14.98	15.565	0.745	1.190	0.71	11.2	46.86		▪
W 14 x 16 x 176	176	15.22	15.650	0.830	1.310	0.71	11.2	51.89		▪
W 14 x 16 x 193	193	15.48	15.710	0.890	1.440	0.71	11.2	56.89		▪
W 16 x 5½ x 26	26	15.69	5.500	0.250	0.345	0.59	13.8	7.84		▪
W 16 x 5½ x 31	31	15.88	5.525	0.275	0.440	0.59	13.8	9.29		▪
W 16 x 7 x 36	36	15.86	6.985	0.295	0.430	0.59	13.8	10.73		▪
W 16 x 7 x 40	40	16.01	6.995	0.305	0.505	0.59	13.8	11.94		▪
W 16 x 7 x 45	45	16.13	7.035	0.345	0.565	0.59	13.8	13.42		▪
W 16 x 7 x 50	50	16.26	7.070	0.380	0.630	0.59	13.8	14.91		▪
W 16 x 7 x 57	57	16.43	7.120	0.430	0.715	0.59	13.8	16.93		▪
W 16 x 10¼ x 67	67	16.33	10.235	0.395	0.665	0.59	13.8	19.84		▪
W 16 x 10¼ x 77	77	16.52	10.295	0.455	0.760	0.59	13.8	22.77		▪
W 16 x 10¼ x 89	89	16.75	10.365	0.525	0.875	0.59	13.8	26.31		▪
W 16 x 10¼ x 100	100	16.97	10.425	0.585	0.985	0.59	13.8	29.61		▪
W 18 x 6 x 35	35	17.70	6.000	0.300	0.425	0.71	15.4	10.59		▪
W 18 x 6 x 40	40	17.90	6.015	0.315	0.525	0.71	15.4	12.05		▪

American (ASTM) Wide Flange Beams (W Shapes) Imperial

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M

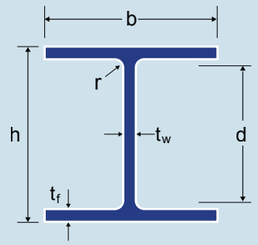


Section Properties

Designation	Mass Per Feet	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	lbs/ft	inch^4	inch^4	inch	inch	inch^3	inch^3	inch^3	inch^3	inch^6	inch^4
W 14 x 6¾ x 30	30	292.76	19.59	5.7	1.5	42.31	5.82	47.63	9.01	885	0.40
W 14 x 6¾ x 34	34	341.75	23.31	5.8	1.5	48.89	6.91	54.91	10.68	1064	0.59
W 14 x 6¾ x 38	38	387.48	26.68	5.9	1.5	54.96	7.88	61.84	12.19	1229	0.82
W 14 x 8 x 43	43	432.56	45.22	5.8	1.9	63.33	11.31	70.39	17.41	1946	1.10
W 14 x 8 x 48	48	489.16	51.44	5.9	1.9	70.94	12.81	79.19	19.74	2235	1.52
W 14 x 8 x 53	53	546.00	57.71	5.9	1.9	78.45	14.32	87.87	22.08	2532	2.01
W 14 x 10 x 61	61	644.71	107.45	6.0	2.4	92.83	21.50	102.92	32.87	4708	2.28
W 14 x 10 x 68	68	727.03	121.40	6.0	2.5	103.57	24.20	115.36	37.02	5379	3.11
W 14 x 10 x 74	74	800.21	133.77	6.0	2.5	112.94	26.57	126.32	40.68	5984	4.00
W 14 x 10 x 82	82	886.33	148.35	6.1	2.5	123.88	29.29	139.43	44.94	6704	5.25
W 14 x 14½ x 90	90	1003.65	362.41	6.1	3.7	143.17	49.92	157.33	75.68	16044	4.19
W 14 x 14½ x 99	99	1115.19	401.87	6.2	3.7	157.51	55.18	173.90	83.71	17977	5.52
W 14 x 14½ x 109	109	1243.12	446.77	6.2	3.7	173.62	61.18	192.55	92.84	20225	7.30
W 14 x 14½ x 120	120	1380.70	494.93	6.2	3.7	190.70	67.47	212.78	102.52	22670	9.62
W 14 x 14½ x 132	132	1535.29	548.48	6.3	3.8	209.45	74.50	234.97	113.27	25456	12.61
W 14 x 16 x 145	145	1716.17	676.95	6.3	4.0	232.23	87.35	260.93	132.70	31697	15.54
W 14 x 16 x 159	159	1905.97	748.46	6.4	4.0	254.47	96.17	287.64	146.22	35556	20.23
W 14 x 16 x 176	176	2143.89	837.63	6.4	4.0	281.72	107.05	320.77	162.94	40482	27.11
W 14 x 16 x 193	193	2402.13	931.45	6.5	4.0	310.35	118.58	355.59	180.57	45858	35.60
W 16 x 5½ x 26	26	310.01	9.61	6.3	1.1	39.52	3.49	45.39	5.54	563	0.32
W 16 x 5½ x 31	31	383.45	12.42	6.4	1.2	48.29	4.50	55.21	7.10	737	0.52
W 16 x 7 x 36	36	456.87	24.48	6.5	1.5	57.61	7.01	65.14	10.92	1454	0.62
W 16 x 7 x 40	40	526.80	28.87	6.6	1.6	65.81	8.25	74.13	12.82	1731	0.87
W 16 x 7 x 45	45	594.98	32.87	6.7	1.6	73.77	9.34	83.48	14.55	1986	1.21
W 16 x 7 x 50	50	667.49	37.21	6.7	1.6	82.10	10.53	93.20	16.42	2266	1.64
W 16 x 7 x 57	57	766.24	43.15	6.7	1.6	93.27	12.12	106.40	18.96	2656	2.36
W 16 x 10¼ x 67	67	962.95	118.95	7.0	2.4	117.94	23.24	131.04	35.56	7290	2.51
W 16 x 10¼ x 77	77	1116.66	138.37	7.0	2.5	135.19	26.88	151.11	41.20	8582	3.74
W 16 x 10¼ x 89	89	1307.88	162.62	7.1	2.5	156.16	31.38	175.71	48.21	10231	5.69
W 16 x 10¼ x 100	100	1494.37	186.31	7.1	2.5	176.12	35.74	199.26	55.00	11882	8.04
W 18 x 6 x 35	35	529.64	15.39	7.1	1.2	59.85	5.13	68.91	8.19	1141	0.65
W 18 x 6 x 40	40	631.86	19.14	7.2	1.3	70.60	6.36	80.79	10.10	1437	0.96

American (ASTM) Wide Flange Beams (W Shapes) Imperial

Dimensions : ASTM A6/A6M
Tolerances : ASTM A6/A6M
Surface Condition : ASTM A6/A6M

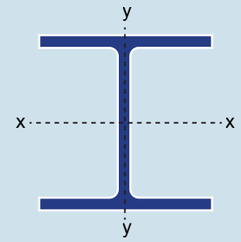


Dimensions

Designation	Mass Per Feet	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	lbs/ft	Inch	Inch	Inch	Inch	Inch	Inch	Inch^2		
W 18 x 6 x 46	46	18.06	6.060	0.360	0.605	0.71	15.4	13.83		▪
W 18 x 7½ x 50	50	17.99	7.495	0.355	0.570	0.71	15.4	14.96		▪
W 18 x 7½ x 55	55	18.11	7.530	0.390	0.630	0.71	15.4	16.49		▪
W 18 x 7½ x 60	60	18.24	7.555	0.415	0.695	0.71	15.4	17.93		▪
W 18 x 7½ x 65	65	18.35	7.590	0.450	0.750	0.71	15.4	19.40		▪
W 18 x 7½ x 71	71	18.47	7.635	0.495	0.810	0.71	15.4	21.14		▪
W 18 x 11 x 76	76	18.21	11.035	0.425	0.680	0.71	15.4	22.60		▪
W 18 x 11 x 86	86	18.39	11.090	0.480	0.770	0.71	15.4	25.60		▪
W 18 x 11 x 97	97	18.59	11.145	0.535	0.870	0.71	15.4	28.84		▪
W 18 x 11 x 106	106	18.73	11.200	0.590	0.940	0.71	15.4	31.43		▪
W 18 x 11 x 119	119	18.97	11.265	0.655	1.060	0.71	15.4	35.35		▪
W 18 x 11 x 130	130	19.25	11.160	0.670	1.200	0.71	15.4	38.50		▪
W 18 x 11 x 143	143	19.49	11.220	0.730	1.320	0.71	15.4	42.35		▪
W 18 x 11 x 158	158	19.72	11.300	0.810	1.440	0.71	15.4	46.62		▪
W 18 x 11 x 175	175	20.04	11.375	0.890	1.590	0.71	15.4	51.61		▪
W 18 x 11 x 192	192	20.35	11.455	0.960	1.750	0.71	15.4	56.70		▪
W 21 x 6½ x 44	44	20.66	6.500	0.350	0.450	0.71	18.3	13.20		▪
W 21 x 6½ x 50	50	20.83	6.530	0.380	0.535	0.71	18.3	14.93		▪
W 21 x 6½ x 57	57	21.06	6.555	0.405	0.650	0.71	18.3	16.96		▪
W 21 x 8¼ x 48	48	20.62	8.140	0.350	0.430	0.59	18.6	14.22		▪
W 21 x 8¼ x 55	55	20.80	8.220	0.375	0.522	0.59	18.6	16.29		▪
W 21 x 8¼ x 62	62	20.99	8.240	0.400	0.615	0.59	18.6	18.34		▪
W 21 x 8¼ x 68	68	21.13	8.270	0.430	0.685	0.59	18.6	20.13		▪
W 21 x 8¼ x 73	73	21.24	8.295	0.455	0.740	0.59	18.6	21.57		▪
W 21 x 8¼ x 83	83	21.43	8.355	0.515	0.835	0.59	18.6	24.43		▪
W 21 x 8¼ x 93	93	21.62	8.420	0.580	0.930	0.59	18.6	27.42		▪
W 21 x 12¼ x 101	101	21.36	12.290	0.500	0.800	0.71	18.3	29.98		▪
W 21 x 12¼ x 111	111	21.51	12.340	0.550	0.875	0.71	18.3	32.89		▪
W 21 x 12¼ x 122	122	21.68	12.390	0.600	0.960	0.71	18.3	36.08		▪
W 24 x 7 x 55	55	23.57	7.005	0.395	0.505	0.67	21.2	16.37		▪
W 24 x 7 x 62	62	23.74	7.040	0.430	0.590	0.67	21.2	18.39		▪
W 24 x 9 x 68	68	23.73	8.965	0.415	0.585	0.67	21.2	20.24		▪

American (ASTM) Wide Flange Beams (W Shapes) Imperial

Dimensions : ASTM A6/A6M
Tolerances : ASTM A6/A6M
Surface Condition : ASTM A6/A6M

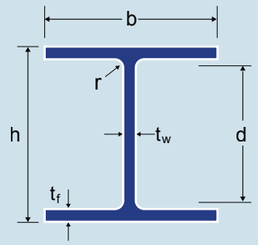


Section Properties

Designation	Mass Per Feet	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	lbs/ft	inch^4	inch^4	inch	inch	inch^3	inch^3	inch^3	inch^3	inch^6	inch^4
W 18 x 6 x 46	46	731.73	22.56	7.3	1.3	81.03	7.45	93.11	11.85	1709	1.41
W 18 x 7½ x 50	50	819.43	40.12	7.4	1.6	91.10	10.71	103.18	16.73	3034	1.42
W 18 x 7½ x 55	55	910.01	44.98	7.4	1.7	100.50	11.95	114.17	18.71	3425	1.88
W 18 x 7½ x 60	60	1003.50	50.12	7.5	1.7	110.03	13.27	125.14	20.78	3844	2.41
W 18 x 7½ x 65	65	1091.06	54.85	7.5	1.7	118.92	14.45	135.69	22.69	4233	3.02
W 18 x 7½ x 71	71	1191.86	60.33	7.5	1.7	129.06	15.80	147.91	24.88	4685	3.84
W 18 x 11 x 76	76	1352.44	152.47	7.7	2.6	148.54	27.63	165.27	42.38	11700	3.09
W 18 x 11 x 86	86	1547.25	175.27	7.8	2.6	168.27	31.61	188.10	48.56	13586	4.42
W 18 x 11 x 97	97	1766.27	201.03	7.8	2.6	190.02	36.08	213.35	55.49	15757	6.28
W 18 x 11 x 106	106	1932.21	220.49	7.8	2.6	206.32	39.37	232.74	60.69	17415	7.99
W 18 x 11 x 119	119	2207.97	253.05	7.9	2.7	232.78	44.93	263.92	69.36	20253	11.29
W 18 x 11 x 130	130	2481.37	278.52	8.0	2.7	257.80	49.91	292.85	76.95	22642	15.23
W 18 x 11 x 143	143	2769.62	311.41	8.1	2.7	284.21	55.51	324.48	85.68	25648	20.13
W 18 x 11 x 158	158	3076.12	347.19	8.1	2.7	311.98	61.45	358.44	95.08	28929	26.37
W 18 x 11 x 175	175	3470.88	391.19	8.2	2.8	346.40	68.78	400.50	106.62	33192	35.38
W 18 x 11 x 192	192	3890.03	439.83	8.3	2.8	382.31	76.79	444.57	119.14	37917	46.69
W 21 x 6½ x 44	44	863.23	20.72	8.1	1.3	83.57	6.38	97.47	10.28	2103	0.93
W 21 x 6½ x 50	50	1004.71	24.98	8.2	1.3	96.47	7.65	112.19	12.30	2557	1.31
W 21 x 6½ x 57	57	1188.89	30.69	8.4	1.3	112.91	9.36	130.69	14.98	3178	1.95
W 21 x 8¼ x 48	48	967.00	38.76	8.2	1.7	93.79	9.52	107.75	14.95	3939	0.88
W 21 x 8¼ x 55	55	1151.79	48.44	8.4	1.7	110.75	11.79	126.52	18.45	4967	1.32
W 21 x 8¼ x 62	62	1337.84	57.49	8.5	1.8	127.47	13.95	145.22	21.80	5952	1.91
W 21 x 8¼ x 68	68	1489.33	64.74	8.6	1.8	140.97	15.66	160.71	24.48	6748	2.53
W 21 x 8¼ x 73	73	1611.37	70.59	8.6	1.8	151.73	17.02	173.17	26.63	7396	3.12
W 21 x 8¼ x 83	83	1839.92	81.44	8.7	1.8	171.71	19.49	196.87	30.62	8607	4.47
W 21 x 8¼ x 93	93	2078.54	92.91	8.7	1.8	192.28	22.07	221.55	34.81	9902	6.22
W 21 x 12¼ x 101	101	2441.34	247.80	9.0	2.9	228.59	40.32	255.14	61.89	26157	5.48
W 21 x 12¼ x 111	111	2694.56	274.40	9.1	2.9	250.54	44.47	280.69	68.37	29171	7.17
W 21 x 12¼ x 122	122	2981.59	304.78	9.1	2.9	275.05	49.20	309.21	75.74	32663	9.39
W 24 x 7 x 55	55	1366.71	29.10	9.1	1.3	115.97	8.31	136.13	13.42	3848	1.34
W 24 x 7 x 62	62	1572.33	34.52	9.2	1.4	132.46	9.81	155.15	15.83	4597	1.88
W 24 x 9 x 68	68	1849.75	70.44	9.6	1.9	155.90	15.71	178.47	24.65	9408	2.03

American (ASTM) Wide Flange Beams (W Shapes) Imperial

Dimensions : ASTM A6/A6M
Tolerances : ASTM A6/A6M
Surface Condition : ASTM A6/A6M

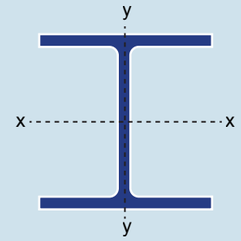


Dimensions

Designation	Mass Per Feet	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	lbs/ft	Inch	Inch	Inch	Inch	Inch	Inch	Inch^2		
W 24 x 9 x 76	76	23.92	8.990	0.440	0.680	0.67	21.2	22.54		▪
W 24 x 9 x 84	84	24.10	9.020	0.470	0.770	0.67	21.2	24.88		▪
W 24 x 9 x 94	94	24.31	9.065	0.515	0.875	0.67	21.2	27.87		▪
W 24 x 9 x 103	103	24.53	9.000	0.590	0.980	0.67	21.2	31.34		▪
W 24 x 12¾ x 104	104	24.06	12.750	0.500	0.750	0.67	21.2	30.79		▪
W 24 x 12¾ x 117	117	24.26	12.800	0.550	0.850	0.67	21.2	34.55		▪
W 24 x 12¾ x 131	131	24.48	12.885	0.605	0.960	0.67	21.2	38.77		▪
W 27 x 10 x 84	84	26.71	9.960	0.460	0.640	0.59	24.2	24.75		▪
W 27 x 10 x 94	94	26.92	9.990	0.490	0.745	0.59	24.2	27.65		▪
W 27 x 10 x 102	102	27.09	10.015	0.515	0.830	0.59	24.2	30.02		▪
W 27 x 10 x 114	114	27.29	10.070	0.570	0.930	0.59	24.2	33.52		▪
W 27 x 10 x 129	129	27.63	10.010	0.610	1.100	0.59	24.2	37.83		▪
W 30 x 10½ x 90	90	29.53	10.400	0.470	0.610	0.67	27.0	26.38		▪
W 30 x 10½ x 99	99	29.65	10.450	0.520	0.670	0.67	27.0	29.11		▪
W 30 x 10½ x 108	108	29.83	10.475	0.545	0.760	0.67	27.0	31.74		▪
W 30 x 10½ x 116	116	30.01	10.495	0.565	0.850	0.67	27.0	34.22		▪
W 30 x 10½ x 124	124	30.17	10.515	0.585	0.930	0.67	27.0	36.50		▪
W 30 x 10½ x 132	132	30.31	10.545	0.615	1.000	0.67	27.0	38.89		▪
W 30 x 10½ x 148	148	30.67	10.480	0.650	1.180	0.67	27.0	43.52		▪
W 33 x 11½ x 118	118	32.86	11.480	0.550	0.740	0.71	30.0	34.68		▪
W 33 x 11½ x 130	130	33.09	11.510	0.580	0.855	0.71	30.0	38.31		▪
W 33 x 11½ x 141	141	33.30	11.535	0.605	0.960	0.71	30.0	41.56		▪
W 33 x 11½ x 152	152	33.49	11.565	0.635	1.055	0.71	30.0	44.76		▪
W 33 x 11½ x 169	169	33.82	11.500	0.670	1.220	0.71	30.0	49.52		▪
W 36 x 12 x 135	135	35.55	11.950	0.600	0.790	0.87	32.2	39.91		▪
W 36 x 12 x 150	150	35.85	11.975	0.625	0.940	0.87	32.2	44.39		▪
W 36 x 12 x 160	160	36.01	12.000	0.650	1.020	0.87	32.2	47.20		▪
W 36 x 12 x 170	170	36.17	12.030	0.680	1.100	0.87	32.2	50.21		▪
W 36 x 12 x 182	182	36.33	12.075	0.725	1.180	0.87	32.2	53.77		▪
W 36 x 12 x 194	194	36.49	12.115	0.765	1.260	0.87	32.2	57.16		▪
W 36 x 12 x 210	210	36.69	12.180	0.830	1.360	0.87	32.2	61.97		▪

American (ASTM) Wide Flange Beams (W Shapes) Imperial

Dimensions : ASTM A6/A6M
Tolerances : ASTM A6/A6M
Surface Condition : ASTM A6/A6M



Section Properties

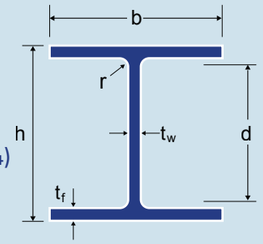
Designation	Mass Per Feet	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	lbs/ft	inch^4	inch^4	inch	inch	inch^3	inch^3	inch^3	inch^3	inch^6	inch^4
W 24 x 9 x 76	76	2119.98	82.56	9.7	1.9	177.26	18.37	202.34	28.76	11119	2.85
W 24 x 9 x 84	84	2388.19	94.44	9.8	1.9	198.19	20.94	226.12	32.78	12815	3.89
W 24 x 9 x 94	94	2719.51	108.96	9.9	2.0	223.74	24.04	255.69	37.67	14915	5.49
W 24 x 9 x 103	103	3060.18	119.54	9.9	2.0	249.50	26.56	287.13	41.90	16509	7.74
W 24 x 12¾ x 104	104	3124.88	259.39	10.1	2.9	259.76	40.69	290.80	62.57	35194	4.95
W 24 x 12¾ x 117	117	3556.48	297.48	10.1	2.9	293.20	46.48	328.96	71.56	40704	7.00
W 24 x 12¾ x 131	131	4049.80	342.77	10.2	3.0	330.87	53.21	372.19	82.00	47336	9.86
W 27 x 10 x 84	84	2844.40	105.64	10.7	2.1	212.98	21.21	244.32	33.23	17907	2.85
W 27 x 10 x 94	94	3269.16	124.09	10.9	2.1	242.88	24.84	277.79	38.85	21204	4.07
W 27 x 10 x 102	102	3620.21	139.30	11.0	2.2	267.27	27.82	305.31	43.47	23956	5.31
W 27 x 10 x 114	114	4083.57	158.73	11.0	2.2	299.27	31.52	342.78	49.40	27495	7.37
W 27 x 10 x 129	129	4760.58	184.43	11.2	2.2	344.60	36.85	394.51	57.68	32356	11.17
W 30 x 10½ x 90	90	3617.44	114.67	11.7	2.1	245.00	22.05	283.03	34.73	23912	2.94
W 30 x 10½ x 99	99	3999.23	127.83	11.7	2.1	269.76	24.47	312.48	38.68	26755	3.89
W 30 x 10½ x 108	108	4470.45	146.04	11.9	2.1	299.73	27.88	346.01	44.00	30758	5.11
W 30 x 10½ x 116	116	4937.47	164.27	12.0	2.2	329.06	31.30	378.72	49.29	34812	6.54
W 30 x 10½ x 124	124	5363.33	180.76	12.1	2.2	355.54	34.38	408.53	54.07	38517	8.09
W 30 x 10½ x 132	132	5769.49	196.06	12.2	2.2	380.70	37.19	437.68	58.53	41972	9.83
W 30 x 10½ x 148	148	6684.58	227.11	12.4	2.3	435.90	43.34	500.31	68.07	49216	14.62
W 33 x 11½ x 118	118	5903.25	187.12	13.0	2.3	359.30	32.60	414.96	51.36	48128	5.43
W 33 x 11½ x 130	130	6711.59	217.89	13.2	2.4	405.66	37.86	466.70	59.53	56446	7.48
W 33 x 11½ x 141	141	7454.38	246.25	13.4	2.4	447.71	42.70	513.75	67.01	64209	9.79
W 33 x 11½ x 152	152	8159.33	272.76	13.5	2.5	487.27	47.17	558.76	74.01	71533	12.44
W 33 x 11½ x 169	169	9287.99	310.14	13.7	2.5	549.26	53.94	629.01	84.53	82163	17.72
W 36 x 12 x 135	135	7845.85	225.47	14.0	2.4	441.40	37.74	512.06	59.84	67870	7.42
W 36 x 12 x 150	150	9084.11	269.90	14.3	2.5	506.78	45.08	584.08	71.14	81968	10.50
W 36 x 12 x 160	160	9799.76	294.73	14.4	2.5	544.28	49.12	626.61	77.48	89913	12.77
W 36 x 12 x 170	170	10543.26	320.27	14.5	2.5	582.98	53.25	671.07	84.00	98141	15.50
W 36 x 12 x 182	182	11355.40	347.55	14.5	2.5	625.13	57.56	720.80	90.99	106951	18.96
W 36 x 12 x 194	194	12157.67	374.91	14.6	2.6	666.36	61.89	769.29	97.97	115866	22.78
W 36 x 12 x 210	210	13236.20	411.45	14.6	2.6	721.52	67.56	835.49	107.29	127808	28.72

American (ASTM) Wide Flange Beams (W Shapes) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M (‡ = Camber Tolerance as per EN 10034)

Surface Condition : ASTM A6/A6M



Dimensions

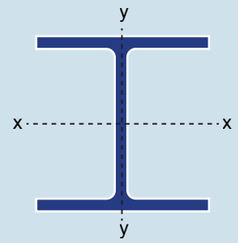
Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	mm^2		
W 150 x 100 x 13.0 ‡	13.0	148	100	4.3	4.9	7.6	123.0	1624	▪	
W 150 x 100 x 13.5 ‡	13.5	150	100	4.3	5.5	7.6	123.8	1747	▪	
W 150 x 100 x 18.0 ‡	18.0	153	102	5.8	7.1	7.6	123.6	2303	▪	
W 150 x 100 x 24.0 ‡	24.0	160	102	6.6	10.3	7.6	124.2	3071	▪	
W 150 x 150 x 22.5	22.5	152	152	5.8	6.6	10	118.8	2897		▪
W 150 x 150 x 29.8	29.8	157	153	6.6	9.3	10	118.4	3845		▪
W 150 x 150 x 37.1	37.1	162	154	8.1	11.6	10	118.8	4783		▪
W 200 x 100 x 19.3 ‡	19.3	203	102	5.8	6.5	10	170.0	2514	▪	
W 200 x 100 x 22.5 ‡	22.5	206	102	6.2	8.0	10	170.0	2896	▪	
W 200 x 135 x 26.6	26.6	207	133	5.8	8.4	10	170.2	3423		▪
W 200 x 135 x 31.3	31.3	210	134	6.4	10.2	10	169.6	4033		▪
W 200 x 160 x 35.9	35.9	201	165	6.2	10.2	12	156.6	4609		▪
W 200 x 160 x 41.7	41.7	205	166	7.2	11.8	12	157.4	5347		▪
W 200 x 200 x 46.1	46.1	203	203	7.2	11.0	12	157.0	5893		▪
W 200 x 200 x 52	52.0	206	204	7.9	12.6	12	156.8	6693		▪
W 200 x 200 x 59	59.0	210	205	9.1	14.2	12	157.6	7598		▪
W 200 x 200 x 71	71.0	216	206	10.2	17.4	12	157.2	9141		▪
W 200 x 200 x 86	86.0	222	209	13.0	20.6	12	156.8	11085		▪
W 200 x 200 x 100	100	229	210	14.5	23.7	12	157.6	12711		▪
W 250 x 100 x 17.9	17.9	251	101	4.8	5.3	10	220.4	2310		▪
W 250 x 100 x 22.3	22.3	254	102	5.8	6.9	10	220.2	2887		▪
W 250 x 100 x 25.3	25.3	257	102	6.1	8.4	10	220.2	3265		▪
W 250 x 100 x 28.4	28.4	260	102	6.4	10	10	220.0	3662		▪
W 250 x 145 x 32.7	32.7	258	146	6.1	9.1	10	219.8	4206		▪
W 250 x 145 x 38.5	38.5	262	147	6.6	11.2	10	219.6	4960		▪
W 250 x 145 x 44.8	44.8	266	148	7.6	13.0	10	220.0	5758		▪
W 250 x 200 x 49.1	49.1	247	202	7.4	11.0	15	195.0	6302		▪
W 250 x 200 x 58	58.0	252	203	8.0	13.5	15	195.0	7474		▪
W 250 x 200 x 67	67.0	257	204	8.9	15.7	15	195.6	8607		▪
W 250 x 250 x 73	73.0	253	254	8.6	14.2	15	194.6	9338		▪
W 250 x 250 x 80	80.0	256	255	9.4	15.6	15	194.8	10262		▪
W 250 x 250 x 89	89.0	260	256	10.7	17.3	15	195.4	11463		▪

American (ASTM) Wide Flange Beams (W Shapes) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M (‡ = Camber Tolerance as per EN 10034)

Surface Condition : ASTM A6/A6M



Section Properties

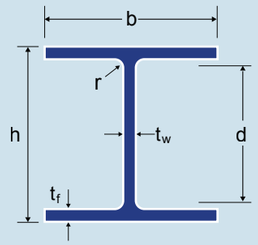
Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
W 150 x 100 x 13.0 ‡	13.0	619.0	81.84	6.17	2.24	83.65	16.37	93.99	25.34	4.00	1.58
W 150 x 100 x 13.5 ‡	13.5	693.5	91.84	6.30	2.29	92.47	18.37	103.6	28.36	5.00	1.90
W 150 x 100 x 18.0 ‡	18.0	923.4	125.9	6.33	2.34	120.7	24.69	137.0	38.36	7.00	4.10
W 150 x 100 x 24.0 ‡	24.0	1351	182.6	6.63	2.44	168.9	35.81	192.7	55.44	10.00	9.70
W 150 x 150 x 22.5	22.5	1229	386.8	6.51	3.65	161.7	50.89	179.6	77.89	20.00	5.16
W 150 x 150 x 29.8	29.8	1738	555.8	6.72	3.80	221.5	72.65	247.5	111.0	30.00	11.20
W 150 x 150 x 37.1	37.1	2244	707.1	6.85	3.84	277.0	91.83	313.5	140.5	40.00	21.00
W 200 x 100 x 19.3 ‡	19.3	1686	115.5	8.19	2.14	166.1	22.65	190.6	35.88	11.00	4.45
W 200 x 100 x 22.5 ‡	22.5	2029	142.2	8.37	2.22	197.0	27.87	225.5	43.98	14.00	6.49
W 200 x 135 x 26.6	26.6	2611	329.9	8.73	3.10	252.3	49.61	282.3	76.45	32.00	7.79
W 200 x 135 x 31.3	31.3	3168	409.7	8.86	3.19	301.7	61.16	338.6	94.15	41.00	12.67
W 200 x 160 x 35.9	35.9	3466	764.5	8.67	4.07	344.8	92.67	382.5	141.5	70.00	15.24
W 200 x 160 x 41.7	41.7	4114	900.7	8.77	4.10	401.4	108.5	448.6	166.0	84.00	23.23
W 200 x 200 x 46.1	46.1	4572	1535	8.81	5.10	450.4	151.2	498.6	230.0	141.0	23.11
W 200 x 200 x 52	52.0	5298	1784	8.90	5.16	514.4	174.9	572.5	266.1	167.0	33.52
W 200 x 200 x 59	59.0	6140	2041	8.99	5.18	584.8	199.1	655.9	303.4	195.0	48.12
W 200 x 200 x 71	71.0	7688	2538	9.17	5.27	711.9	246.4	806.5	375.3	250.0	83.89
W 200 x 200 x 86	86.0	9498	3139	9.26	5.32	855.7	300.4	984.2	459.2	318.0	143.9
W 200 x 200 x 100	100	11355	3664	9.45	5.37	991.7	349.0	1152	533.9	385.0	215.0
W 250 x 100 x 17.9	17.9	2291	91.45	9.96	1.99	182.6	18.11	211.0	28.84	14.00	2.87
W 250 x 100 x 22.3	22.3	2938	122.7	10.09	2.06	231.4	24.06	267.7	38.40	19.00	5.13
W 250 x 100 x 25.3	25.3	3472	149.3	10.31	2.14	270.2	29.27	311.1	46.48	23.00	7.29
W 250 x 100 x 28.4	28.4	4046	177.7	10.51	2.20	311.2	34.84	357.3	55.10	28.00	10.44
W 250 x 145 x 32.7	32.7	4937	472.7	10.83	3.35	382.7	64.76	428.5	99.80	73.00	10.57
W 250 x 145 x 38.5	38.5	6057	593.8	11.05	3.46	462.3	80.79	517.7	124.3	93.00	17.64
W 250 x 145 x 44.8	44.8	7158	703.6	11.15	3.50	538.2	95.08	606.3	146.6	112.0	27.21
W 250 x 200 x 49.1	49.1	7125	1513	10.63	4.90	576.9	149.8	639.1	229.2	210.0	25.85
W 250 x 200 x 58	58.0	8792	1884	10.85	5.02	697.8	185.7	775.9	283.7	268.0	42.60
W 250 x 200 x 67	67.0	10421	2224	11.00	5.08	810.9	218.1	907.2	333.3	323.0	64.39
W 250 x 250 x 73	73.0	11337	3881	11.02	6.45	896.2	305.6	990.8	464.2	553.0	59.50
W 250 x 250 x 80	80.0	12631	4314	11.09	6.48	986.8	338.4	1096	514.3	623.0	78.10
W 250 x 250 x 89	89.0	14318	4841	11.18	6.50	1101	378.2	1232	575.7	712.0	107.0

American (ASTM) Wide Flange Beams (W Shapes) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Dimensions

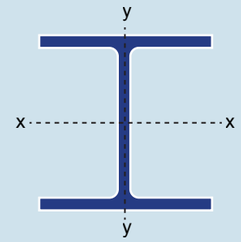
Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	mm^2		
W 250 x 250 x 101	101	264	257	11.9	19.6	15	194.8	12943		▪
W 250 x 250 x 115	115	269	259	13.5	22.1	15	194.8	14676		▪
W 250 x 250 x 131	131	275	261	15.4	25.1	15	194.8	16757		▪
W 250 x 250 x 149	149	282	263	17.3	28.4	15	195.2	19028		▪
W 250 x 250 x 167	167	289	265	19.2	31.8	15	195.4	21375		▪
W 310 x 100 x 21.0	21.0	303	101	5.1	5.7	10	271.6	2724		▪
W 310 x 100 x 23.8	23.8	305	101	5.6	6.7	10	271.6	3072		▪
W 310 x 100 x 28.3	28.3	309	102	6.0	8.9	10	271.2	3649		▪
W 310 x 100 x 32.7	32.7	313	102	6.6	10.8	10	271.4	4212		▪
W 310 x 165 x 38.7	38.7	310	165	5.8	9.7	12	266.6	5010		▪
W 310 x 165 x 44.5	44.5	313	166	6.6	11.2	12	266.6	5760		▪
W 310 x 165 x 52	52.0	317	167	7.6	13.2	12	266.6	6741		▪
W 310 x 200 x 60	60.0	303	203	7.5	13.1	15	246.8	7588		▪
W 310 x 200 x 67	67.0	306	204	8.5	14.6	15	246.8	8503		▪
W 310 x 200 x 74	74.0	310	205	9.4	16.3	15	247.4	9484		▪
W 310 x 250 x 79	79.0	306	254	8.8	14.6	15	246.8	10046		▪
W 310 x 250 x 86	86.0	310	254	9.1	16.3	15	247.4	10998		▪
W 310 x 310 x 97	97.0	308	305	9.9	15.4	15	247.2	12331		▪
W 310 x 310 x 107	107	311	306	10.9	17.0	15	247.0	13616		▪
W 310 x 310 x 117	117	314	307	11.9	18.7	15	246.6	14966		▪
W 310 x 310 x 129	129	318	308	13.1	20.6	15	246.8	16509		▪
W 310 x 310 x 143	143	323	309	14.0	22.9	15	247.2	18226		▪
W 310 x 310 x 158	158	327	310	15.5	25.1	15	246.8	20046		▪
W 310 x 310 x 179	179	333	313	18.0	28.1	15	246.8	22766		▪
W 310 x 310 x 202	202	341	315	20.1	31.8	15	247.4	25803		▪
W 310 x 310 x 226	226	348	317	22.1	35.6	15	246.8	28881		▪
W 310 x 310 x 253	253	356	319	24.4	39.6	15	246.8	32212		▪
W 310 x 310 x 283	283	365	322	26.9	44.1	15	246.8	36039		▪
W 310 x 310 x 313	313	374	325	30.0	48.3	15	247.4	39910		▪
W 310 x 310 x 342	342	382	328	32.6	52.6	15	246.8	43722		▪
W 360 x 130 x 32.9	32.9	349	127	5.8	8.5	12	308.0	4208		▪
W 360 x 130 x 39.0	39.0	353	128	6.5	10.7	12	307.6	5018		▪

American (ASTM) Wide Flange Beams (W Shapes) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Section Properties

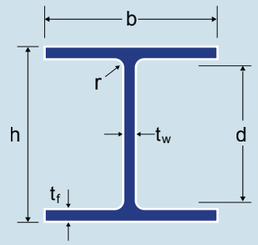
Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
W 250 x 250 x 101	101	16433	5550	11.27	6.55	1245	431.9	1403	657.8	828.0	153.1
W 250 x 250 x 115	115	19001	6406	11.38	6.61	1413	494.7	1605	754.3	975.0	219.4
W 250 x 250 x 131	131	22212	7447	11.51	6.67	1615	570.7	1853	871.3	1161	321.2
W 250 x 250 x 149	149	25996	8623	11.69	6.73	1844	655.8	2135	1002	1384	463.3
W 250 x 250 x 167	167	30078	9880	11.86	6.80	2082	745.6	2432	1141	1631	647.8
W 310 x 100 x 21.0	21.0	3775	98.40	11.77	1.90	249.2	19.50	291.9	31.40	22.00	3.61
W 310 x 100 x 23.8	23.8	4345	115.7	11.89	1.94	284.9	22.90	333.2	36.90	26.00	4.98
W 310 x 100 x 28.3	28.3	5500	158.2	12.28	2.08	356.0	31.00	411.9	49.50	35.00	8.27
W 310 x 100 x 32.7	32.7	6570	192.0	12.49	2.13	419.8	37.60	485.3	60.00	44.00	12.96
W 310 x 165 x 38.7	38.7	8657	727.1	13.14	3.81	558.5	88.10	620.7	135.4	164.0	13.82
W 310 x 165 x 44.5	44.5	10072	855.1	13.22	3.85	643.6	103.0	718.1	158.5	194.0	20.69
W 310 x 165 x 52	52.0	11985	1026	13.33	3.90	756.1	122.9	847.8	189.4	236.0	32.85
W 310 x 200 x 60	60.0	12860	1829	13.02	4.91	848.9	180.2	940.7	275.7	384.0	39.15
W 310 x 200 x 67	67.0	14511	2069	13.06	4.93	948.4	202.8	1057	310.9	439.0	54.03
W 310 x 200 x 74	74.0	16453	2344	13.17	4.97	1062	228.7	1188	350.9	505.0	74.05
W 310 x 250 x 79	79.0	17666	3990	13.26	6.30	1155	314.2	1275	478.4	846.0	65.49
W 310 x 250 x 86	86.0	19848	4455	13.43	6.36	1281	350.8	1417	533.8	960.0	86.96
W 310 x 310 x 97	97.0	22236	7286	13.43	7.69	1444	477.8	1591	725.2	1559	91.50
W 310 x 310 x 107	107	24791	8123	13.49	7.72	1594	530.9	1765	806.4	1754	122.1
W 310 x 310 x 117	117	27515	9024	13.56	7.76	1753	587.9	1949	893.5	1966	161.1
W 310 x 310 x 129	129	30771	10039	13.65	7.80	1935	651.9	2164	991.6	2218	214.5
W 310 x 310 x 143	143	34764	11269	13.81	7.86	2153	729.4	2419	1110	2535	288.3
W 310 x 310 x 158	158	38633	12474	13.88	7.89	2363	804.8	2672	1226	2840	380.3
W 310 x 310 x 179	179	44532	14378	13.99	7.95	2675	918.7	3053	1402	3338	543.7
W 310 x 310 x 202	202	51982	16588	14.19	8.02	3049	1053	3510	1609	3959	782.7
W 310 x 310 x 226	226	59565	18930	14.36	8.10	3423	1194	3975	1827	4611	1089
W 310 x 310 x 253	253	68226	21463	14.55	8.16	3833	1346	4490	2061	5362	1495
W 310 x 310 x 283	283	78681	24589	14.78	8.26	4311	1527	5098	2341	6317	2062
W 310 x 310 x 313	313	89561	27703	14.98	8.33	4789	1705	5716	2619	7329	2742
W 310 x 310 x 342	342	100510	31023	15.16	8.42	5262	1892	6334	2909	8392	3552
W 360 x 130 x 32.9	32.9	8358	291.2	14.09	2.63	479.0	45.90	547.6	72.20	84.00	9.30
W 360 x 130 x 39.0	39.0	10330	375.2	14.35	2.73	585.3	58.60	667.7	92.10	110.0	15.80

American (ASTM) Wide Flange Beams (W Shapes) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Dimensions

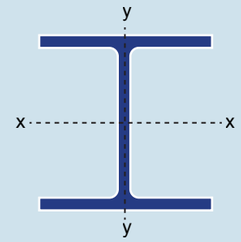
Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	mm^2		
W 360 x 170 x 44.6	44.6	352	171	6.9	9.8	12	308.4	5769		▪
W 360 x 170 x 51	51.0	355	171	7.2	11.6	12	307.8	6480		▪
W 360 x 170 x 58	58.0	358	172	7.9	13.1	12	307.8	7251		▪
W 360 x 200 x 64	64.0	347	203	7.7	13.5	18	284.0	8223		▪
W 360 x 200 x 72	72.0	350	204	8.6	15.1	18	283.8	9189		▪
W 360 x 200 x 79	79.0	354	205	9.4	16.8	18	284.4	10178		▪
W 360 x 250 x 91	91.0	353	254	9.5	16.4	18	284.2	11651		▪
W 360 x 250 x 101	101	357	255	10.5	18.3	18	284.4	12975		▪
W 360 x 250 x 110	110	360	256	11.4	19.9	18	284.2	14117		▪
W 360 x 250 x 122	122	363	257	13.0	21.7	18	283.6	15587		▪
W 360 x 370 x 134	134	356	369	11.2	18.0	18	284.0	17146		▪
W 360 x 370 x 147	147	360	370	12.3	19.8	18	284.4	18871		▪
W 360 x 370 x 162	162	364	371	13.3	21.8	18	284.4	20715		▪
W 360 x 370 x 179	179	368	373	15.0	23.9	18	284.2	22911		▪
W 360 x 370 x 196	196	372	374	16.4	26.2	18	283.6	25117		▪
W 360 x 410 x 216	216	375	394	17.3	27.7	18	283.6	27635		▪
W 360 x 410 x 237	237	380	395	18.9	30.2	18	283.6	30177		▪
W 360 x 410 x 262	262	387	398	21.1	33.3	18	284.4	33545		▪
W 360 x 410 x 287	287	393	399	22.6	36.6	18	283.8	36712		▪
W 410 x 140 x 38.8	38.8	399	140	6.4	8.8	15	351.4	5098		▪
W 410 x 140 x 46.1	46.1	403	140	7.0	11.2	15	350.6	5993		▪
W 410 x 180 x 53	53.0	403	177	7.5	10.9	15	351.2	6911		▪
W 410 x 180 x 60	60.0	407	178	7.7	12.8	15	351.4	7687		▪
W 410 x 180 x 67	67.0	410	179	8.8	14.4	15	351.2	8703		▪
W 410 x 180 x 75	75.0	413	180	9.7	16.0	15	351.0	9649		▪
W 410 x 180 x 85	85.0	417	181	10.9	18.2	15	350.6	10930		▪
W 410 x 260 x 100	100	415	260	10.0	16.9	15	351.2	12793		▪
W 410 x 260 x 114	114	420	261	11.6	19.3	15	351.4	14692		▪
W 410 x 260 x 132	132	425	263	13.3	22.2	15	350.6	16932		▪
W 410 x 260 x 149	149	431	265	14.9	25.0	15	351.0	19120		▪
W 460 x 150 x 52	52.0	450	152	7.6	10.8	18	392.4	6817		▪
W 460 x 150 x 60	60.0	455	153	8.0	13.3	18	392.4	7775		▪

American (ASTM) Wide Flange Beams (W Shapes) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Section Properties

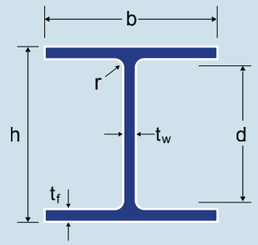
Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
W 360 x 170 x 44.6	44.6	12257	818.1	14.58	3.77	696.4	95.70	784.3	148.2	239.0	17.03
W 360 x 170 x 51	51.0	14221	968.3	14.81	3.87	801.2	113.3	899.5	174.9	285.0	24.72
W 360 x 170 x 58	58.0	16142	1113	14.92	3.92	901.8	129.4	1015	200.1	330.0	34.52
W 360 x 200 x 64	64.0	18028	1886	14.81	4.79	1039	185.8	1155	285.9	523.0	45.88
W 360 x 200 x 72	72.0	20306	2141	14.87	4.83	1160	209.9	1295	323.3	599.0	62.86
W 360 x 200 x 79	79.0	22851	2417	14.98	4.87	1291	235.8	1446	363.5	686.0	84.37
W 360 x 250 x 91	91.0	26894	4484	15.19	6.20	1524	353.1	1689	539.7	1269	94.88
W 360 x 250 x 101	101	30349	5063	15.29	6.25	1700	397.1	1894	607.5	1450	129.6
W 360 x 250 x 110	110	33293	5571	15.36	6.28	1850	435.3	2068	666.4	1609	165.4
W 360 x 250 x 122	122	36737	6148	15.35	6.28	2024	478.5	2279	734.3	1788	218.2
W 360 x 370 x 134	134	41712	15080	15.60	9.38	2343	817.3	2575	1239	4305	173.6
W 360 x 370 x 147	147	46492	16724	15.70	9.41	2583	904.0	2851	1371	4836	229.4
W 360 x 370 x 162	162	51743	18563	15.80	9.47	2843	1001	3152	1519	5432	302.2
W 360 x 370 x 179	179	57644	20685	15.86	9.50	3133	1109	3495	1685	6119	402.1
W 360 x 370 x 196	196	63835	22860	15.94	9.54	3432	1222	3851	1859	6829	527.1
W 360 x 410 x 216	216	71341	28256	16.07	10.11	3805	1434	4276	2179	8515	648.5
W 360 x 410 x 237	237	78980	31044	16.18	10.14	4157	1572	4699	2390	9489	838.9
W 360 x 410 x 262	262	89609	35021	16.34	10.22	4631	1760	5273	2679	10943	1132
W 360 x 410 x 287	287	99909	38786	16.50	10.28	5084	1944	5826	2960	12304	1484
W 410 x 140 x 38.8	38.8	13018	404.3	15.98	2.82	652.5	57.80	749.7	91.60	153.0	13.59
W 410 x 140 x 46.1	46.1	15930	514.4	16.30	2.93	790.5	73.50	903.9	116.2	197.0	21.85
W 410 x 180 x 53	53.0	18974	1010	16.57	3.82	941.6	114.1	1065	177.8	387.0	25.67
W 410 x 180 x 60	60.0	21947	1206	16.90	3.96	1079	135.5	1214	210.3	467.0	35.82
W 410 x 180 x 67	67.0	24918	1380	16.92	3.98	1216	154.2	1376	240.1	539.0	50.83
W 410 x 180 x 75	75.0	27855	1560	16.99	4.02	1349	173.3	1532	270.4	613.0	68.53
W 410 x 180 x 85	85.0	31897	1804	17.08	4.06	1530	199.4	1745	311.8	715.0	98.78
W 410 x 260 x 100	100	40133	4955	17.71	6.22	1934	381.2	2149	583.0	1961	104.5
W 410 x 260 x 114	114	46512	5726	17.79	6.24	2215	438.8	2477	672.7	2296	155.7
W 410 x 260 x 132	132	54199	6740	17.89	6.31	2551	512.6	2870	787.4	2730	235.5
W 410 x 260 x 149	149	62215	7767	18.04	6.37	2887	586.2	3267	902.0	3195	334.9
W 460 x 150 x 52	52.0	22045	635.7	17.98	3.05	979.8	83.60	1128	133.6	305.0	26.92
W 460 x 150 x 60	60.0	26327	797.8	18.40	3.20	1157	104.3	1324	165.5	387.0	39.63

American (ASTM) Wide Flange Beams (W Shapes) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Dimensions

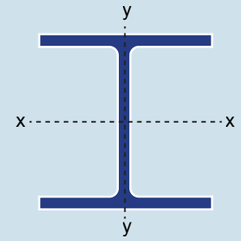
Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	mm^2		
W 460 x 150 x 68	68.0	459	154	9.1	15.4	18	392.2	8918		▪
W 460 x 190 x 74	74.0	457	190	9.0	14.5	18	392.0	9640		▪
W 460 x 190 x 82	82.0	460	191	9.9	16.0	18	392.0	10627		▪
W 460 x 190 x 89	89.0	463	192	10.5	17.7	18	391.6	11565		▪
W 460 x 190 x 97	97.0	466	193	11.4	19.0	18	392.0	12491		▪
W 460 x 190 x 106	106	469	194	12.6	20.6	18	391.8	13661		▪
W 460 x 280 x 113	113	463	280	10.8	17.3	18	392.4	14593		▪
W 460 x 280 x 128	128	467	282	12.2	19.6	18	391.8	16552		▪
W 460 x 280 x 144	144	472	283	13.6	22.1	18	391.8	18605		▪
W 460 x 280 x 158	158	476	284	15.0	23.9	18	392.2	20276		▪
W 460 x 280 x 177	177	482	286	16.6	26.9	18	392.2	22773		▪
W 460 x 280 x 193	193	489	283	17.0	30.5	18	392.0	24817		▪
W 460 x 280 x 213	213	495	285	18.5	33.5	18	392.0	27291		▪
W 460 x 280 x 235	235	501	287	20.6	36.6	18	391.8	30099		▪
W 460 x 280 x 260	260	509	289	22.6	40.4	18	392.2	33307		▪
W 460 x 280 x 286	286	517	291	24.4	44.4	18	392.2	36567		▪
W 530 x 165 x 66	66.0	525	165	8.9	11.4	18	466.2	8510		▪
W 530 x 165 x 74	74.0	529	166	9.7	13.6	18	465.8	9661		▪
W 530 x 165 x 85	85.0	535	166	10.3	16.5	18	466.0	10927		▪
W 530 x 210 x 72	72.0	524	207	9.0	10.9	15	472.2	9226		▪
W 530 x 210 x 82	82.0	528	209	9.5	13.3	15	471.4	10516		▪
W 530 x 210 x 92	92.0	533	209	10.2	15.6	15	471.8	11832		▪
W 530 x 210 x 101	101	537	210	10.9	17.4	15	472.2	12975		▪
W 530 x 210 x 109	109	539	211	11.6	18.8	15	471.4	13943		▪
W 530 x 210 x 123	123	544	212	13.1	21.2	15	471.6	15753		▪
W 530 x 210 x 138	138	549	214	14.7	23.6	15	471.8	17670		▪
W 530 x 310 x 150	150	543	312	12.7	20.3	18	466.4	19326		▪
W 530 x 310 x 165	165	546	313	14.0	22.2	18	465.6	21198		▪
W 530 x 310 x 182	182	551	315	15.2	24.4	18	466.2	23284		▪
W 610 x 180 x 82	82.0	599	178	10.0	12.8	17	539.4	10539		▪
W 610 x 180 x 92	92.0	603	179	10.9	15.0	17	539.0	11864		▪
W 610 x 230 x 101	101	603	228	10.5	14.9	17	539.2	13061		▪

American (ASTM) Wide Flange Beams (W Shapes) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Section Properties

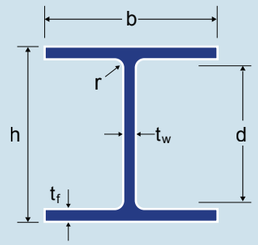
Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
W 460 x 150 x 68	68.0	30525	942.5	18.50	3.25	1330	122.4	1528	194.7	461.0	58.56
W 460 x 190 x 74	74.0	34089	1663	18.80	4.15	1492	175.0	1690	273.5	811.0	59.25
W 460 x 190 x 82	82.0	37830	1864	18.87	4.19	1645	195.2	1869	305.7	916.0	78.10
W 460 x 190 x 89	89.0	41777	2095	19.01	4.26	1805	218.2	2052	341.6	1035	100.8
W 460 x 190 x 97	97.0	45332	2285	19.05	4.28	1946	236.8	2220	371.5	1137	124.9
W 460 x 190 x 106	106	49651	2517	19.06	4.29	2117	259.5	2427	408.6	1260	160.4
W 460 x 280 x 113	113	56442	6337	19.67	6.59	2438	452.6	2713	694.2	3143	128.9
W 460 x 280 x 128	128	64539	7335	19.75	6.66	2764	520.2	3089	799.1	3666	185.3
W 460 x 280 x 144	144	73446	8361	19.87	6.70	3112	590.9	3494	909.0	4224	261.3
W 460 x 280 x 158	158	80474	9140	19.92	6.71	3381	643.7	3815	992.4	4662	333.3
W 460 x 280 x 177	177	91853	10509	20.08	6.79	3811	734.9	4321	1135	5431	468.4
W 460 x 280 x 193	193	103194	11544	20.39	6.82	4221	815.8	4795	1258	6055	633.7
W 460 x 280 x 213	213	115165	12953	20.54	6.89	4653	909.0	5312	1403	6882	835.4
W 460 x 280 x 235	235	128171	14458	20.64	6.93	5117	1008	5879	1559	7775	1100
W 460 x 280 x 260	260	144522	16301	20.83	7.00	5679	1128	6566	1749	8922	1474
W 460 x 280 x 286	286	161906	18295	21.04	7.07	6263	1257	7283	1951	10182	1939
W 530 x 165 x 66	66.0	35905	858.8	20.54	3.18	1368	104.1	1596	167.8	563.0	38.53
W 530 x 165 x 74	74.0	41901	1043	20.83	3.29	1584	125.7	1843	202.2	689.0	55.07
W 530 x 165 x 85	85.0	49386	1265	21.26	3.40	1846	152.4	2138	244.1	845.0	81.03
W 530 x 210 x 72	72.0	40390	1616	20.92	4.18	1542	156.1	1773	245.4	1061	37.25
W 530 x 210 x 82	82.0	47989	2029	21.36	4.39	1818	194.1	2076	303.7	1340	54.92
W 530 x 210 x 92	92.0	55578	2380	21.67	4.48	2086	227.7	2377	355.9	1589	79.45
W 530 x 210 x 101	101	62035	2693	21.87	4.56	2310	256.5	2634	400.9	1813	105.3
W 530 x 210 x 109	109	67063	2952	21.93	4.60	2488	279.8	2840	437.8	1991	130.6
W 530 x 210 x 123	123	76414	3378	22.02	4.63	2809	318.7	3222	500.6	2300	186.2
W 530 x 210 x 138	138	86416	3870	22.11	4.68	3148	361.7	3627	570.4	2660	258.1
W 530 x 310 x 150	150	101686	10288	22.94	7.30	3745	659.5	4181	1012	7019	227.6
W 530 x 310 x 165	165	111798	11361	22.97	7.32	4095	725.9	4589	1116	7782	297.5
W 530 x 310 x 182	182	124387	12730	23.11	7.39	4515	808.2	5075	1244	8812	391.0
W 610 x 180 x 82	82.0	56849	1210	23.23	3.39	1898	136.0	2228	219.6	1034	55.32
W 610 x 180 x 92	92.0	65498	1442	23.50	3.49	2172	161.2	2544	260.1	1239	78.23
W 610 x 230 x 101	101	77224	2951	24.32	4.75	2561	258.9	2931	405.9	2545	84.65

American (ASTM) Wide Flange Beams (W Shapes) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Dimensions

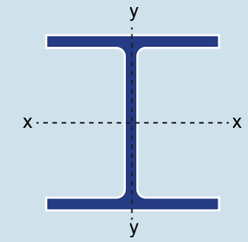
Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	mm^2		
W 610 x 230 x 113	113	608	228	11.2	17.3	17	539.4	14559		▪
W 610 x 230 x 125	125	612	229	11.9	19.6	17	538.8	16041		▪
W 610 x 230 x 140	140	617	230	13.1	22.2	17	538.6	17961		▪
W 610 x 230 x 153	153	623	229	14.0	24.9	17	539.2	19677		▪
W 610 x 324 x 155	155	611	324	12.7	19.0	17	539.0	19837		▪
W 610 x 324 x 174	174	616	325	14.0	21.6	17	538.8	22307		▪
W 610 x 324 x 195	195	622	327	15.4	24.4	17	539.2	25033		▪
W 690 x 250 x 125	125	678	253	11.7	16.3	15	615.4	15992		▪
W 690 x 250 x 140	140	684	254	12.4	18.9	15	616.2	17807		▪
W 690 x 250 x 152	152	688	254	13.1	21.1	15	615.8	19372		▪
W 690 x 250 x 170	170	693	256	14.5	23.6	15	615.8	21640		▪
W 690 x 250 x 192	192	702	254	15.5	27.9	15	616.2	24382		▪
W 760 x 265 x 134	134	750	264	11.9	15.5	17	685.0	16988		▪
W 760 x 265 x 147	147	753	265	13.2	17.0	17	685.0	18749		▪
W 760 x 265 x 161	161	758	266	13.8	19.3	17	685.4	20443		▪
W 760 x 265 x 173	173	762	267	14.4	21.6	17	684.8	22133		▪
W 760 x 265 x 185	185	766	267	14.9	23.6	17	684.8	23561		▪
W 760 x 265 x 196	196	770	268	15.6	25.4	17	685.2	25082		▪
W 760 x 265 x 220	220	779	266	16.5	30.0	17	685.0	28072		▪
W 840 x 295 x 176	176	835	292	14.0	18.8	18	761.4	22421		▪
W 840 x 295 x 193	193	840	292	14.7	21.7	18	760.6	24661		▪
W 840 x 295 x 210	210	846	293	15.4	24.4	18	761.2	26853		▪
W 840 x 295 x 226	226	851	294	16.1	26.8	18	761.4	28875		▪
W 840 x 295 x 251	251	859	292	17.0	31.0	18	761.0	31931		▪
W 920 x 310 x 201	201	903	304	15.2	20.1	22	818.8	25751		▪
W 920 x 310 x 223	223	911	304	15.9	23.9	22	819.2	28672		▪
W 920 x 310 x 238	238	915	305	16.5	25.9	22	819.2	30457		▪
W 920 x 310 x 253	253	919	306	17.3	27.9	22	819.2	32424		▪
W 920 x 310 x 271	271	923	307	18.4	30.0	22	819.0	34715		▪
W 920 x 310 x 289	289	927	308	19.4	32.0	22	819.0	36870		▪
W 920 x 310 x 313	313	932	309	21.1	34.5	22	819.0	39946		▪

American (ASTM) Wide Flange Beams (W Shapes) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Section Properties

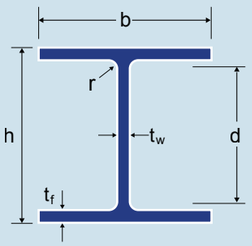
Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
W 610 x 230 x 113	113	88417	3427	24.64	4.85	2908	300.6	3321	470.7	2981	119.2
W 610 x 230 x 125	125	99405	3934	24.89	4.95	3249	343.5	3705	537.6	3442	162.0
W 610 x 230 x 140	140	112839	4515	25.06	5.01	3658	392.6	4181	615.5	3982	228.1
W 610 x 230 x 153	153	126004	5000	25.31	5.04	4045	436.7	4631	685.0	4457	306.7
W 610 x 324 x 155	155	129803	10783	25.58	7.37	4249	665.6	4757	1024	9437	204.9
W 610 x 324 x 174	174	147974	12374	25.76	7.45	4804	761.5	5391	1172	10916	291.9
W 610 x 324 x 195	195	168704	14240	25.96	7.54	5425	871.0	6103	1343	12695	411.5
W 690 x 250 x 125	125	118481	4410	27.22	5.25	3495	348.6	4009	546.0	4816	119.4
W 690 x 250 x 140	140	136066	5174	27.64	5.39	3979	407.4	4549	637.0	5709	168.4
W 690 x 250 x 152	152	150596	5777	27.88	5.46	4378	454.9	5002	711.0	6408	221.4
W 690 x 250 x 170	170	169934	6618	28.02	5.53	4904	517.0	5618	810.2	7393	306.7
W 690 x 250 x 192	192	197932	7643	28.49	5.60	5639	601.8	6457	942.2	8657	463.2
W 760 x 265 x 134	134	150395	4766	29.75	5.30	4011	361.1	4632	568.5	6411	121.8
W 760 x 265 x 147	147	166064	5289	29.76	5.31	4411	399.2	5110	631.3	7141	161.5
W 760 x 265 x 161	161	186061	6073	30.17	5.45	4909	456.6	5666	720.4	8259	211.7
W 760 x 265 x 173	173	205825	6873	30.49	5.57	5402	514.9	6218	810.8	9391	273.6
W 760 x 265 x 185	185	222957	7510	30.76	5.65	5821	562.5	6691	885.0	10316	336.7
W 760 x 265 x 196	196	240280	8175	30.95	5.71	6241	610.1	7174	960.0	11295	408.9
W 760 x 265 x 220	220	278206	9441	31.48	5.80	7143	709.9	8198	1115	13198	609.0
W 840 x 295 x 176	176	246372	7823	33.15	5.91	5901	535.8	6816	844.3	12992	226.9
W 840 x 295 x 193	193	278445	9029	33.60	6.05	6630	618.5	7627	972.3	15074	309.9
W 840 x 295 x 210	210	310716	10258	34.02	6.18	7346	700.2	8430	1099	17262	409.0
W 840 x 295 x 226	226	340072	11383	34.32	6.28	7992	774.3	9163	1215	19277	517.5
W 840 x 295 x 251	251	386489	12901	34.79	6.36	8999	883.6	10304	1385	22048	737.6
W 920 x 310 x 201	201	327112	9444	35.64	6.06	7245	621.3	8401	984.8	18341	308.8
W 920 x 310 x 223	223	378737	11228	36.34	6.26	8315	738.7	9584	1166	22017	438.5
W 920 x 310 x 238	238	408318	12288	36.61	6.35	8925	805.8	10274	1271	24204	531.3
W 920 x 310 x 253	253	439361	13369	36.81	6.42	9562	873.8	11008	1379	26449	644.8
W 920 x 310 x 271	271	473477	14521	36.93	6.47	10260	946.0	11828	1495	28842	790.7
W 920 x 310 x 289	289	506383	15645	37.06	6.51	10925	1016	12611	1608	31206	947.2
W 920 x 310 x 313	313	550142	17043	37.11	6.53	11806	1103	13674	1752	34163	1192

Sulb Solar (W-Shapes) - Imperial

Dimensions : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.

Tolerances : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.

Surface Condition : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.



Dimensions

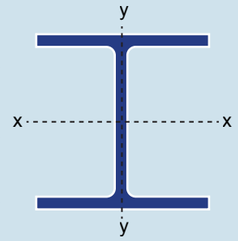
Designation	Mass Per Feet	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	lbs/ft	Inch	Inch	Inch	Inch	Inch	Inch	Inch^2		
W 6 x 4 x 7	7	5.77	3.740	0.129	0.165	0.30	5.0	2.10	▪	
W 6 x 4 x 8	8	5.83	3.940	0.157	0.185	0.30	5.0	2.37	▪	
W 6 x 4 x 11	11	5.98	4.016	0.209	0.256	0.30	5.0	3.25	▪	
W 8 x 4 x 10	10	7.89	3.940	0.170	0.205	0.39	6.7	3.00	▪	

Sulb Solar (W-Shapes) - Imperial

Dimensions : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.

Tolerances : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.

Surface Condition : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.



Section Properties

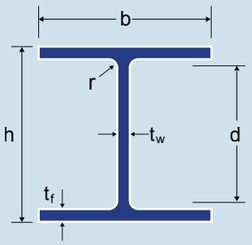
Designation	Mass Per Feet	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	lbs/ft	inch^4	inch^4	inch	inch	inch^3	inch^3	inch^3	inch^3	inch^6	inch^4
W 6 x 4 x 7	7	11.55	1.37	2.46	0.85	3.99	0.74	4.42	1.13	11	0.015
W 6 x 4 x 8	8	14.99	2.00	2.45	0.90	5.14	1.02	5.75	1.57	16	0.024
W 6 x 4 x 11	11	21.28	2.98	2.51	0.94	7.11	1.48	7.99	2.29	24	0.063
W 8 x 4 x 10	10	31.35	2.09	3.23	0.83	7.96	1.06	9.03	1.67	31	0.036

Sulb Solar (W-Shapes) - Metric

Dimensions : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.

Tolerances : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.

Surface Condition : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.



Dimensions

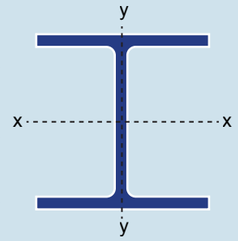
Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	mm^2		
W150x100x10.5	10.5	147	100	3.3	4.2	7.5	126	1,346	▪	
W150x100x12.2	12.2	148	100	4.0	4.7	7.5	126	1,543	▪	
W150x100x16.5	16.5	152	102	5.3	6.5	7.5	126	2,099	▪	
W200x100x15.0	15.0	200	100	4.3	5.2	10	170	1,942	▪	

Sulb Solar (W-Shapes) - Metric

Dimensions : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.

Tolerances : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.

Surface Condition : SULB Standard 'SOLAR' Technical Delivery Conditions (TDC) – available upon request.



Section Properties

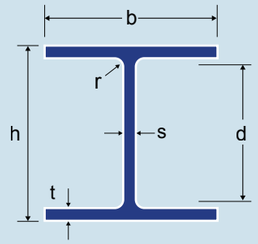
Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
W150x100x10.5	10.5	523.8	70.1	6.24	2.28	71.3	14.02	79.11	21.54	3.56	0.65
W150x100x12.2	12.2	593.7	78.5	6.20	2.26	80.23	15.70	89.85	24.23	4.02	0.98
W150x100x16.5	16.5	843.2	115.2	6.32	2.34	110.9	22.60	125.4	35.00	6.08	2.51
W200x100x15.0	15.0	1305	87.0	8.20	2.12	130.5	17.40	147.9	27.26	8.22	1.42

Sulb Universal Beams (UB)

Dimensions : SULB STANDARD

Tolerances : EN 10034

Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

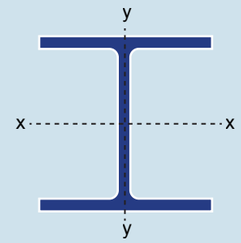
Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
UB 254 x 102 x 18	17.9	251.0	101.0	4.8	5.3	10	220.4	23.10		▪
UB 305 x 102 x 21	21.0	303.0	101.0	5.1	5.7	10	271.6	27.24		▪
UB 305 x 102 x 24	24.0	305.0	101.0	5.6	6.7	10	271.6	30.72		▪
UB 406 x 178 x 85	85.3	417.2	181.9	10.9	18.2	15	350.8	109.7		▪
UB 457 x 191 x 106	105.8	469.2	194.0	12.6	20.6	18	392.0	136.6		▪
UB 457 x 280 x 113	113.0	463.0	280.0	10.8	17.3	18	392.4	145.9		▪
UB 457 x 280 x 128	128.0	467.0	282.0	12.2	19.6	18	391.8	165.5		▪
UB 457 x 280 x 144	144.0	472.0	283.0	13.6	22.1	18	391.8	186.0		▪
UB 457 x 280 x 158	158.0	476.0	284.0	15.0	23.9	18	392.2	202.8		▪
UB 457 x 280 x 177	177.0	482.0	286.0	16.6	26.9	18	392.2	227.7		▪
UB 457 x 280 x 193	193.0	489.0	283.0	17.0	30.5	18	392.0	248.2		▪
UB 457 x 280 x 213	213.0	495.0	285.0	18.5	33.5	18	392.0	272.9		▪
UB 457 x 280 x 235	235.0	501.0	287.0	20.6	36.6	18	391.8	301.0		▪
UB 457 x 280 x 260	260.0	509.0	289.0	22.6	40.4	18	392.2	333.1		▪
UB 457 x 280 x 286	286.0	517.0	291.0	24.4	44.4	18	392.2	365.7		▪
UB 533 x 165 x 66	66.0	525.0	165.0	8.9	11.4	18	466.2	85.10		▪
UB 533 x 165 x 74	74.0	529.0	166.0	9.7	13.6	18	465.8	96.61		▪
UB 533 x 165 x 85	85.0	535.0	166.0	10.3	16.5	18	466.0	109.3		▪
UB 533 x 210 x 72	72.0	524.0	207.0	9.0	10.9	15	472.2	92.26		▪
UB 533 x 210 x 138	138.3	549.1	213.9	14.7	23.6	15	471.9	176.7		▪
UB 533 x 312 x 150	150.0	542.5	312.0	12.7	20.3	15	471.9	192.3		▪
UB 533 x 312 x 165	165.0	546.0	313.0	14.0	22.2	15	471.6	211.1		▪
UB 533 x 312 x 182	181.5	550.7	314.5	15.2	24.4	15	471.9	231.7		▪
UB 610 x 178 x 82	81.5	598.6	177.9	10.0	12.8	17	539.0	105.3		▪
UB 610 x 178 x 92	92.0	603.0	178.0	10.9	15.0	17	539.0	118.3		▪
UB 610 x 229 x 153	153.0	623.0	229.0	14.0	24.9	17	539.2	196.8		▪
UB 610 x 324 x 155	155.0	611.0	324.0	12.7	19.0	17	539.0	198.4		▪
UB 610 x 324 x 174	174.0	616.0	325.0	14.0	21.6	17	538.8	223.1		▪
UB 610 x 324 x 195	195.0	622.0	327.0	15.4	24.4	17	539.2	250.3		▪
UB 686 x 254 x 192	192.0	702.0	254.0	15.5	27.9	15	616.2	243.8		▪
UB 762 x 267 x 161	161.0	758.0	266.0	13.8	19.3	17	685.4	204.4		▪
UB 762 x 267 x 185	185.0	766.0	267.0	14.9	23.6	17	684.8	235.6		▪
UB 762 x 267 x 220	220.0	779.0	266.0	16.5	30.0	17	685.0	280.7		▪
UB 838 x 292 x 210	210.0	846.0	293.0	15.4	24.4	18	761.2	268.5		▪
UB 838 x 292 x 251	251.0	859.0	292.0	17.0	31.0	18	761.0	319.3		▪

Sulb Universal Beams (UB)

Dimensions : SULB STANDARD

Tolerances : EN 10034

Surface Condition : EN 10163-3, Class C, subclass 1

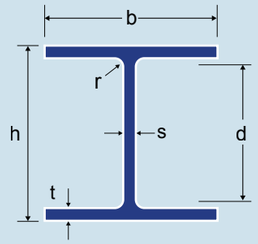


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
UB 254 x 102 x 18	17.9	2291	91.45	9.96	1.99	182.6	18.11	211.0	28.84	13.74	2.87
UB 305 x 102 x 21	21.0	3775	98.43	11.77	1.90	249.2	19.49	291.9	31.41	21.63	3.61
UB 305 x 102 x 24	24.0	4345	115.7	11.89	1.94	284.9	22.92	333.2	36.94	25.59	4.98
UB 406 x 178 x 85	85.3	32062	1831	17.10	4.09	1537	201.4	1752	314.8	726.6	99.15
UB 457 x 191 x 106	105.8	49699	2517	19.07	4.29	2118	259.5	2428	408.6	1261	160.4
UB 457 x 280 x 113	113.0	56442	6337	19.67	6.59	2438	452.6	2713	694.2	3143	128.9
UB 457 x 280 x 128	128.0	64539	7335	19.75	6.66	2764	520.2	3089	799.1	3666	185.3
UB 457 x 280 x 144	144.0	73446	8361	19.87	6.70	3112	590.9	3494	909.0	4224	261.3
UB 457 x 280 x 158	158.0	80474	9140	19.92	6.71	3381	643.7	3815	992.4	4662	333.3
UB 457 x 280 x 177	177.0	91853	10509	20.08	6.79	3811	734.9	4321	1135	5431	468.4
UB 457 x 280 x 193	193.0	103194	11544	20.39	6.82	4221	815.8	4794	1258	6055	633.7
UB 457 x 280 x 213	213.0	115165	12953	20.54	6.89	4653	909.0	5312	1403	6882	835.4
UB 457 x 280 x 235	235.0	128171	14458	20.64	6.93	5117	1007	5879	1559	7775	1100
UB 457 x 280 x 260	260.0	144522	16301	20.83	7.00	5679	1128	6566	1749	8922	1474
UB 457 x 280 x 286	286.0	161906	18295	21.04	7.07	6263	1257	7283	1951	10182	1939
UB 533 x 165 x 66	66.0	35905	858.8	20.54	3.18	1368	104.1	1596	167.8	562.9	38.53
UB 533 x 165 x 74	74.0	41901	1043	20.83	3.29	1584	125.7	1843	202.2	688.6	55.07
UB 533 x 165 x 85	85.0	49386	1265	21.26	3.40	1846	152.4	2138	244.1	845.5	81.03
UB 533 x 210 x 72	72.0	40390	1616	20.92	4.18	1542	156.1	1773	245.4	1061	37.25
UB 533 x 210 x 138	138.3	86420	3865	22.12	4.68	3148	361.4	3626	569.9	2658	258.1
UB 533 x 312 x 150	150.0	100965	10286	22.91	7.31	3722	659.4	4155	1011	7005	221.5
UB 533 x 312 x 165	165.0	111287	11359	22.96	7.34	4076	725.8	4568	1115	7782	290.3
UB 533 x 312 x 182	181.5	123554	12667	23.09	7.39	4487	805.6	5044	1239	8760	382.0
UB 610 x 178 x 82	81.5	56738	1208	23.21	3.39	1896	135.8	2225	219.4	1030	55.29
UB 610 x 178 x 92	92.0	65238	1418	23.48	3.46	2164	159.4	2535	257.5	1219	78.01
UB 610 x 229 x 153	153.0	126004	5000	25.31	5.04	4045	436.7	4631	685.0	4457	306.7
UB 610 x 324 x 155	155.0	129803	10783	25.58	7.37	4249	665.6	4757	1024	9437	204.9
UB 610 x 324 x 174	174.0	147974	12374	25.76	7.45	4804	761.5	5391	1172	10916	291.9
UB 610 x 324 x 195	195.0	168704	14240	25.96	7.54	5425	871.0	6103	1342	12695	411.5
UB 686 x 254 x 192	192.0	197932	7643	28.49	5.60	5639	601.8	6457	942.2	8657	463.2
UB 762 x 267 x 161	161.0	186061	6073	30.17	5.45	4909	456.6	5666	720.4	8259	211.7
UB 762 x 267 x 185	185.0	222957	7510	30.76	5.65	5821	562.5	6691	885.0	10316	336.7
UB 762 x 267 x 220	220.0	278206	9441	31.48	5.80	7143	709.9	8198	1115	13198	609.0
UB 838 x 292 x 210	210.0	310716	10258	34.02	6.18	7346	700.2	8430	1099	17262	409.0
UB 838 x 292 x 251	251.0	386489	12901	34.79	6.36	8999	883.6	10304	1385	22048	737.6

Sulb Universal Columns (UC)

Dimensions : SULB STANDARD
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1

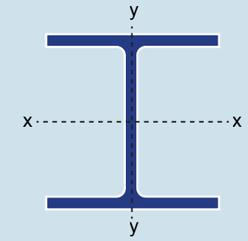


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
UC 203 x 203 x 100	99.6	228.6	210.3	14.5	23.7	12	157.2	127.2		▪
UC 254 x 254 x 81	81.0	256.0	255.0	9.4	15.6	15	194.8	102.6		▪
UC 254 x 254 x 101	101.0	264.0	257.0	11.9	19.6	15	194.8	129.4		▪
UC 254 x 254 x 115	115.0	269.0	259.0	13.5	22.1	15	194.8	146.8		▪
UC 254 x 254 x 149	149.0	282.0	263.0	17.3	28.4	15	195.2	190.3		▪
UC 305 x 305 x 107	107.0	311.0	306.0	10.9	17.0	15	247.0	136.2		▪
UC 305 x 305 x 129	129.0	318.0	308.0	13.1	20.6	15	246.8	165.1		▪
UC 305 x 305 x 143	143.0	323.0	309.0	14.0	22.9	15	247.2	182.3		▪
UC 305 x 305 x 179	179.0	333.0	313.0	18.0	28.1	15	246.8	227.7		▪
UC 305 x 305 x 202	202.0	341.0	315.0	20.1	31.8	15	247.4	258.0		▪
UC 305 x 305 x 226	226.0	348.0	317.0	22.1	35.6	15	246.8	288.8		▪
UC 305 x 305 x 253	253.0	356.0	319.0	24.4	39.6	15	246.8	322.1		▪
UC 305 x 305 x 313	313.0	374.0	325.0	30.0	48.3	15	247.4	399.1		▪
UC 305 x 305 x 342	342.0	382.0	328.0	32.6	52.6	15	246.8	437.2		▪
UC 356 x 368 x 134	134.0	356.0	369.0	11.2	18.0	18	284.0	171.5		▪
UC 356 x 368 x 147	147.0	360.0	370.0	12.3	19.8	18	284.4	188.7		▪
UC 356 x 368 x 162	162.0	364.0	371.0	13.3	21.8	18	284.4	207.2		▪
UC 356 x 368 x 179	179.0	368.0	373.0	15.0	23.9	18	284.2	229.1		▪
UC 356 x 368 x 196	196.0	372.0	374.0	16.4	26.2	18	283.6	251.2		▪
UC 356 x 406 x 216	216.0	375.0	394.0	17.3	27.7	18	283.6	276.3		▪
UC 356 x 406 x 237	237.0	380.0	395.0	18.9	30.2	18	283.6	301.8		▪
UC 356 x 406 x 262	262.0	387.0	398.0	21.1	33.3	18	284.4	335.5		▪

Sulb Universal Columns (UC)

Dimensions : SULB STANDARD
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1

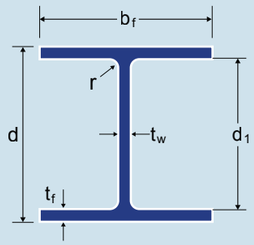


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
UC 203 x 203 x 100	99.6	11324	3680	9.44	5.38	990.7	349.9	1151	535.4	385.6	215.3
UC 254 x 254 x 81	81.0	12631	4314	11.09	6.48	986.8	338.4	1096	514.3	622.9	78.10
UC 254 x 254 x 101	101.0	16433	5550	11.27	6.55	1245	431.9	1402	657.8	828.0	153.1
UC 254 x 254 x 115	115.0	19001	6406	11.38	6.61	1413	494.7	1605	754.3	975.3	219.4
UC 254 x 254 x 149	149.0	25996	8623	11.69	6.73	1844	655.8	2135	1002	1384	463.3
UC 305 x 305 x 107	107.0	24791	8123	13.49	7.72	1594	530.9	1765	806.4	1754	122.1
UC 305 x 305 x 129	129.0	30771	10039	13.65	7.80	1935	651.9	2164	991.6	2218	214.5
UC 305 x 305 x 143	143.0	34764	11269	13.81	7.86	2153	729.4	2419	1110	2535	288.3
UC 305 x 305 x 179	179.0	44532	14378	13.99	7.95	2675	918.7	3053	1402	3338	543.7
UC 305 x 305 x 202	202.0	51982	16588	14.19	8.02	3049	1053	3510	1609	3959	782.7
UC 305 x 305 x 226	226.0	59565	18930	14.36	8.10	3423	1194	3975	1827	4611	1089
UC 305 x 305 x 253	253.0	68226	21463	14.55	8.16	3833	1346	4490	2061	5362	1495
UC 305 x 305 x 313	313.0	89561	27703	14.98	8.33	4789	1705	5716	2619	7329	2742
UC 305 x 305 x 342	342.0	100510	31023	15.16	8.42	5262	1892	6334	2909	8392	3552
UC 356 x 368 x 134	134.0	41712	15080	15.60	9.38	2343	817.3	2575	1239	4305	173.6
UC 356 x 368 x 147	147.0	46492	16724	15.70	9.41	2583	904.0	2851	1371	4836	229.4
UC 356 x 368 x 162	162.0	51743	18563	15.80	9.47	2843	1001	3152	1519	5432	302.2
UC 356 x 368 x 179	179.0	57644	20685	15.86	9.50	3133	1109	3495	1685	6119	402.1
UC 356 x 368 x 196	196.0	63835	22860	15.94	9.54	3432	1222	3851	1859	6829	527.1
UC 356 x 406 x 216	216.0	71341	28255	16.07	10.11	3805	1434	4275	2179	8515	648.5
UC 356 x 406 x 237	237.0	78980	31044	16.18	10.14	4157	1572	4699	2390	9489	838.9
UC 356 x 406 x 262	262.0	89609	35021	16.34	10.22	4631	1760	5273	2679	10943	1132

Australia/New Zealand (AS/NZS) Universal Beams (UB)

Dimensions : AS/NZS 3679.1
Tolerances : AS/NZS 3679.1
Surface Condition : AS/NZS 3679.1

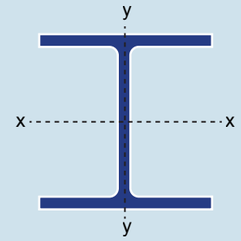


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Flanges	Area of Section	Mill	
	G	d	b_f	t_w	t_f	r	d_1	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
200 UB	22.3	201.6	133.0	5.0	7.0	10	167.6	28.86		▪
	25.4	203.2	133.0	5.8	7.8	10	167.6	32.49		▪
	29.8	207.0	134.0	6.3	9.6	10	167.8	38.42		▪
250 UB	25.7	248.0	124.0	5.0	8.0	10	212.0	32.30		▪
	31.4	251.6	146.0	6.1	8.6	10	214.4	40.27		▪
	37.3	256.2	146.0	6.4	10.9	10	214.4	47.69		▪
310 UB	32.0	298.0	149.0	5.5	8.0	10	262.0	40.21		▪
	40.4	304.0	165.0	6.1	10.2	11	261.6	52.00		▪
	46.2	307.2	166.0	6.7	11.8	11	261.6	59.22		▪
360 UB	44.7	352.0	171.0	6.9	9.7	12	308.6	57.36		▪
	50.7	355.6	171.0	7.3	11.5	12	308.6	64.85		▪
	56.7	358.6	172.0	8.0	13.0	12	308.6	72.56		▪
410 UB	53.7	402.6	178.0	7.6	10.9	15	350.8	69.68		▪
	59.7	406.4	178.0	7.8	12.8	15	350.8	77.20		▪
460 UB	67.1	453.8	190.0	8.5	12.7	18	392.4	87.46		▪
	74.6	457.4	190.0	9.1	14.5	18	392.4	96.87		▪
	82.1	460.4	191.0	9.9	16.1	18	392.2	106.7		▪
530 UB	82.0	528.2	209.0	9.6	13.2	15	471.8	105.3		▪
	92.4	533.0	209.0	10.2	15.6	15	471.8	118.3		▪
610 UB	101	602.0	228.0	10.6	14.8	17	538.4	130.6		▪
	113	607.0	228.0	11.2	17.3	17	538.4	145.5		▪
	125	611.6	229.0	11.9	19.6	17	538.4	160.4		▪

Australia/New Zealand (AS/NZS) Universal Beams (UB)

Dimensions : AS/NZS 3679.1
Tolerances : AS/NZS 3679.1
Surface Condition : AS/NZS 3679.1

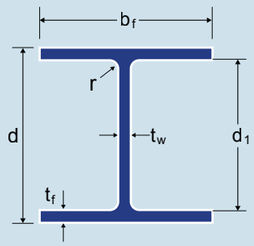


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
200 UB	22.3	2111	274.9	8.55	3.09	209.4	41.34	233.0	63.58	25.99	4.82
	25.4	2373	306.4	8.55	3.07	233.5	46.08	261.6	71.09	29.19	6.74
	29.8	2928	385.6	8.73	3.17	282.9	57.56	317.4	88.66	37.50	10.97
250 UB	25.7	3489	254.7	10.39	2.81	281.4	41.08	315.1	63.49	36.61	6.18
	31.4	4477	446.8	10.54	3.33	355.9	61.20	398.8	94.40	65.85	9.40
	37.3	5591	566.2	10.83	3.45	436.5	77.56	488.1	119.2	85.05	16.14
310 UB	32.0	6207	441.7	12.42	3.31	416.6	59.29	466.9	91.47	92.73	7.83
	40.4	8628	764.6	12.88	3.83	567.6	92.67	631.6	142.3	164.8	15.52
	46.2	10026	900.7	13.01	3.90	652.7	108.5	727.8	166.6	196.3	22.98
360 UB	44.7	12167	809.8	14.56	3.76	691.3	94.71	778.8	146.7	236.8	16.71
	50.7	14216	960.0	14.81	3.85	799.5	112.3	898.8	173.6	283.7	24.54
	56.7	16143	1105	14.92	3.90	900.4	128.4	1014	198.8	329.2	34.27
410 UB	53.7	19061	1027	16.54	3.84	946.9	115.4	1072	179.9	393.0	26.09
	59.7	21920	1206	16.85	3.95	1079	135.5	1216	210.5	466.0	36.17
460 UB	67.1	30279	1456	18.61	4.08	1334	153.3	1513	239.9	706.2	44.12
	74.6	34222	1663	18.80	4.14	1496	175.0	1696	273.7	812.9	59.83
	82.1	38070	1876	18.89	4.19	1654	196.4	1878	307.5	922.7	79.07
530 UB	82.0	47885	2014	21.33	4.37	1813	192.7	2073	301.8	1332	54.83
	92.4	55578	2380	21.67	4.48	2085	227.7	2377	355.9	1589	79.45
610 UB	101	76733	2932	24.24	4.74	2549	257.2	2920	403.5	2520	84.50
	113	88085	3427	24.61	4.85	2902	300.6	3313	470.7	2971	119.1
	125	99256	3934	24.88	4.95	3246	343.5	3702	537.6	3437	162.0

Australia/New Zealand (AS/NZS) Universal Columns (UC)

Dimensions : AS/NZS 3679.1
Tolerances : AS/NZS 3679.1
Surface Condition : AS/NZS 3679.1

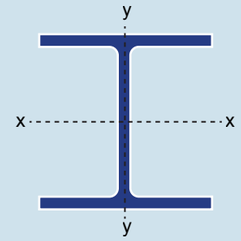


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Flanges	Area of Section	Mill	
	G	d	b_f	t_w	t_f	r	d_1	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
150 UC	23.4	152.4	152.0	6.1	6.8	10	118.8	30.00		▪
	30.0	157.6	153.0	6.6	9.4	10	118.8	38.78		▪
	37.2	161.8	154.0	8.1	11.5	10	118.8	47.52		▪
200 UC	46.2	203.4	203.0	7.3	11.0	12	157.4	59.14		▪
	52.2	206.4	204.0	8.0	12.5	12	157.4	66.75		▪
	59.5	209.8	205.0	9.3	14.2	12	157.4	76.33		▪
250 UC	72.9	253.8	254.0	8.6	14.2	15	195.4	93.45		▪
	89.5	260.0	256.0	10.5	17.3	15	195.4	114.2		▪
310 UC	96.8	308.0	305.0	9.9	15.4	15	247.2	123.3		▪
	118	314.6	307.0	11.9	18.7	15	247.2	149.7		▪
	137	320.6	309.0	13.8	21.7	15	247.2	174.3		▪
	158	327.2	311.0	15.7	25.0	15	247.2	201.0		▪

Australia/New Zealand (AS/NZS) Universal Columns (UC)

Dimensions : AS/NZS 3679.1
Tolerances : AS/NZS 3679.1
Surface Condition : AS/NZS 3679.1



Section Properties

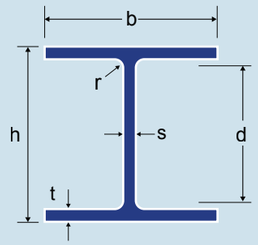
Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
150 UC	23.4	1271	398.5	6.51	3.64	166.8	52.44	185.6	80.33	21.09	5.72
	30.0	1767	561.7	6.75	3.81	224.3	73.43	250.7	112.1	30.81	11.47
	37.2	2224	701.0	6.84	3.84	274.8	91.04	311.0	139.3	39.53	20.59
200 UC	46.2	4596	1535	8.82	5.09	452.0	151.2	500.6	230.1	141.9	23.29
	52.2	5294	1770	8.91	5.15	513.0	173.5	571.1	264.1	166.2	33.11
	59.5	6137	2041	8.97	5.17	585.0	199.1	656.8	303.5	195.0	48.66
250 UC	72.9	11417	3881	11.05	6.44	899.7	305.6	994.5	464.2	556.6	59.51
	89.5	14299	4841	11.19	6.51	1100	378.2	1229	575.4	712.4	106.1
310 UC	96.8	22236	7286	13.43	7.69	1444	477.8	1591	725.2	1559	91.50
	118	27632	9024	13.58	7.76	1757	587.9	1953	893.5	1974	161.2
	137	32809	10679	13.72	7.83	2047	691.2	2295	1052	2383	250.5
	158	38724	12545	13.88	7.90	2367	806.7	2677	1229	2862	379.8

European (EN) Universal Beams (UB)

Dimensions : EN 10365

Tolerances : EN 10034

Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

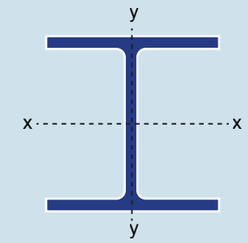
Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm²		
UB 203 x 102 x 23	23.1	203.2	101.8	5.4	9.3	10	164.6	29.76	▪	
UB 203 x 133 x 25	25.1	203.2	133.2	5.7	7.8	10	167.6	32.33		▪
UB 203 x 133 x 30	30.0	206.8	133.9	6.4	9.6	10	167.6	38.57		▪
UB 254 x 102 x 22	22.0	254.0	101.6	5.7	6.8	10	220.4	28.38		▪
UB 254 x 102 x 25	25.2	257.2	101.9	6.0	8.4	10	220.4	32.40		▪
UB 254 x 102 x 28	28.3	260.4	102.2	6.3	10.0	10	220.4	36.44		▪
UB 254 x 146 x 31	31.1	251.4	146.1	6.0	8.6	10	214.2	40.04		▪
UB 254 x 146 x 37	37.0	256.0	146.4	6.3	10.9	10	214.2	47.53		▪
UB 254 x 146 x 43	43.0	259.6	147.3	7.2	12.7	10	214.2	55.14		▪
UB 305 x 102 x 25	24.8	305.1	101.6	5.8	7.0	10	271.1	31.97		▪
UB 305 x 102 x 28	28.2	308.7	101.8	6.0	8.8	10	271.1	36.24		▪
UB 305 x 102 x 33	32.8	312.7	102.4	6.6	10.8	10	271.1	42.19		▪
UB 305 x 127 x 37	37.0	304.4	123.4	7.1	10.7	11	261.0	47.54		▪
UB 305 x 127 x 42	41.9	307.2	124.3	8.0	12.1	11	261.0	53.76		▪
UB 305 x 127 x 48	48.1	311.0	125.3	9.0	14.0	11	261.0	61.59		▪
UB 305 x 165 x 40	40.3	303.4	165.0	6.0	10.2	11	261.0	51.68		▪
UB 305 x 165 x 46	46.1	306.6	165.7	6.7	11.8	11	261.0	59.10		▪
UB 305 x 165 x 54	54.0	310.4	166.9	7.9	13.7	11	261.0	69.13		▪
UB 356 x 127 x 33	33.1	349.0	125.4	6.0	8.5	12	308.0	42.47		▪
UB 356 x 127 x 39	39.1	353.4	126.0	6.6	10.7	12	308.0	50.11		▪
UB 356 x 171 x 45	45.0	351.4	171.1	7.0	9.7	12	308.0	57.67		▪
UB 356 x 171 x 51	51.0	355.0	171.5	7.4	11.5	12	308.0	65.25		▪
UB 356 x 171 x 57	57.0	358.0	172.2	8.1	13.0	12	308.0	72.90		▪
UB 356 x 171 x 67	67.1	363.4	173.2	9.1	15.7	12	308.0	85.83		▪
UB 406 x 140 x 39	39.0	398.0	141.8	6.4	8.6	15	350.8	50.69		▪
UB 406 x 140 x 46	46.0	403.2	142.2	6.8	11.2	15	350.8	59.68		▪
UB 406 x 178 x 54	54.1	402.6	177.7	7.7	10.9	15	350.8	69.99		▪
UB 406 x 178 x 60	60.1	406.4	177.9	7.9	12.8	15	350.8	77.56		▪
UB 406 x 178 x 67	67.1	409.4	178.8	8.8	14.3	15	350.8	86.58		▪
UB 406 x 178 x 74	74.2	412.8	179.5	9.5	16.0	15	350.8	95.55		▪
UB 457 x 152 x 52	52.3	449.8	152.4	7.6	10.9	18	392.0	68.53		▪
UB 457 x 152 x 60	59.8	454.6	152.9	8.1	13.3	18	392.0	78.12		▪
UB 457 x 152 x 67	67.2	458.0	153.8	9.0	15.0	18	392.0	87.44		▪
UB 457 x 152 x 74	74.2	462.0	154.4	9.6	17.0	18	392.0	96.37		▪
UB 457 x 152 x 82	82.1	465.8	155.3	10.5	18.9	18	392.0	106.4		▪

European (EN) Universal Beams (UB)

Dimensions : EN 10365

Tolerances : EN 10034

Surface Condition : EN 10163-3, Class C, subclass 1

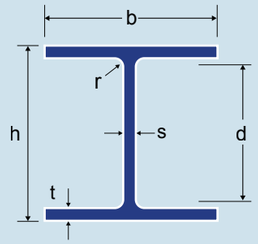


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm⁴	cm⁴	cm	cm	cm³	cm³	cm³	cm³	cm⁶	cm⁴
UB 203 x 102 x 23	23.1	2134	164.0	8.47	2.35	210.0	32.22	237.3	50.13	15.37	7.52
UB 203 x 133 x 25	25.1	2370	307.8	8.56	3.09	233.3	46.21	261.0	71.25	29.33	6.64
UB 203 x 133 x 30	30.0	2926	384.8	8.71	3.16	282.9	57.48	317.7	88.59	37.34	11.09
UB 254 x 102 x 22	22.0	2891	119.5	10.09	2.05	227.6	23.52	263.3	37.53	18.16	4.91
UB 254 x 102 x 25	25.2	3464	148.8	10.34	2.14	269.4	29.21	309.8	46.33	22.92	7.15
UB 254 x 102 x 28	28.3	4055	178.7	10.55	2.21	311.4	34.97	357.1	55.23	27.89	10.30
UB 254 x 146 x 31	31.1	4461	447.7	10.55	3.34	354.9	61.28	397.2	94.45	65.88	9.27
UB 254 x 146 x 37	37.0	5584	570.8	10.84	3.47	436.3	77.98	487.4	119.8	85.61	16.03
UB 254 x 146 x 43	43.0	6591	677.5	10.93	3.51	507.8	91.99	570.5	141.5	103.1	24.82
UB 305 x 102 x 25	24.8	4529	123.1	11.90	1.96	296.9	24.23	347.2	39.07	27.18	5.55
UB 305 x 102 x 28	28.2	5439	155.5	12.25	2.07	352.4	30.55	408.1	48.79	34.79	8.10
UB 305 x 102 x 33	32.8	6575	194.3	12.48	2.15	420.5	37.94	486.0	60.45	44.04	12.99
UB 305 x 127 x 37	37.0	7239	336.4	12.34	2.66	475.6	54.52	544.4	85.84	72.27	15.76
UB 305 x 127 x 42	41.9	8264	389.0	12.40	2.69	538.0	62.59	618.5	98.89	84.32	22.42
UB 305 x 127 x 48	48.1	9643	461.3	12.51	2.74	620.1	73.63	715.6	116.6	101.2	33.44
UB 305 x 165 x 40	40.3	8571	764.5	12.88	3.85	565.0	92.67	628.0	142.2	164.1	15.35
UB 305 x 165 x 46	46.1	9967	895.8	12.99	3.89	650.2	108.1	725.0	166.0	194.4	22.95
UB 305 x 165 x 54	54.0	11764	1063	13.05	3.92	758.0	127.4	851.0	196.2	233.6	35.91
UB 356 x 127 x 33	33.1	8340	280.4	14.01	2.57	477.9	44.72	548.5	70.68	80.97	9.59
UB 356 x 127 x 39	39.1	10262	358.0	14.31	2.67	580.8	56.83	664.1	89.54	104.7	15.86
UB 356 x 171 x 45	45.0	12156	811.3	14.52	3.75	691.9	94.83	780.2	147.0	236.4	16.95
UB 356 x 171 x 51	51.0	14226	968.5	14.77	3.85	801.5	112.9	901.6	174.7	285.2	24.85
UB 356 x 171 x 57	57.0	16129	1108	14.87	3.90	901.0	128.7	1016	199.3	329.2	34.60
UB 356 x 171 x 67	67.1	19553	1362	15.09	3.98	1076	157.3	1216	243.7	410.9	57.17
UB 406 x 140 x 39	39.0	12868	410.5	15.93	2.85	646.6	57.90	743.0	91.84	154.9	13.25
UB 406 x 140 x 46	46.0	16045	538.8	16.40	3.00	795.9	75.78	907.0	119.4	206.2	21.46
UB 406 x 178 x 54	54.1	19082	1022	16.51	3.82	947.9	115.0	1074	179.4	391.0	26.42
UB 406 x 178 x 60	60.1	21956	1204	16.83	3.94	1081	135.3	1219	210.4	465.2	36.53
UB 406 x 178 x 67	67.1	24691	1366	16.89	3.97	1206	152.8	1365	238.0	531.7	50.06
UB 406 x 178 x 74	74.2	27670	1546	17.02	4.02	1341	172.3	1520	268.5	607.1	67.33
UB 457 x 152 x 52	52.3	22195	646.6	18.00	3.07	986.9	84.86	1136	135.4	309.7	27.29
UB 457 x 152 x 60	59.8	26326	796.4	18.36	3.19	1158	104.2	1327	165.5	385.8	40.08
UB 457 x 152 x 67	67.2	29753	914.4	18.45	3.23	1299	118.9	1493	189.3	446.2	55.16
UB 457 x 152 x 74	74.2	33500	1049	18.65	3.30	1450	135.8	1666	216.0	516.3	74.32
UB 457 x 152 x 82	82.1	37415	1187	18.75	3.34	1606	152.8	1851	243.5	589.1	99.28

European (EN) Universal Beams (UB)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1

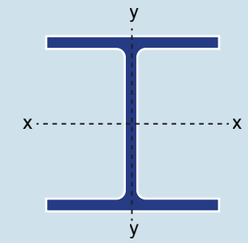


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
UB 457 x 191 x 67	67.1	453.4	189.9	8.5	12.7	18	392.0	87.40		▪
UB 457 x 191 x 74	74.3	457.0	190.4	9.0	14.5	18	392.0	96.52		▪
UB 457 x 191 x 82	82.0	460.0	191.3	9.9	16.0	18	392.0	106.4		▪
UB 457 x 191 x 89	89.3	463.4	191.9	10.5	17.7	18	392.0	115.7		▪
UB 457 x 191 x 98	98.3	467.2	192.8	11.4	19.6	18	392.0	127.2		▪
UB 533 x 210 x 82	82.2	528.3	208.8	9.6	13.2	15	471.9	105.2		▪
UB 533 x 210 x 92	92.1	533.1	209.3	10.1	15.6	15	471.9	117.9		▪
UB 533 x 210 x 101	101	536.7	210.0	10.8	17.4	15	471.9	129.2		▪
UB 533 x 210 x 109	109	539.5	210.8	11.6	18.8	15	471.9	139.4		▪
UB 533 x 210 x 122	122	544.5	211.9	12.7	21.3	15	471.9	155.9		▪
UB 610 x 229 x 101	101	602.6	227.6	10.5	14.8	17	539.0	130.0		▪
UB 610 x 229 x 113	113	607.6	228.2	11.1	17.3	17	539.0	145.0		▪
UB 610 x 229 x 125	125	612.2	229.0	11.9	19.6	17	539.0	160.4		▪
UB 610 x 229 x 140	140	617.2	230.2	13.1	22.1	17	539.0	179.3		▪
UB 610 x 305 x 149	149	612.4	304.8	11.8	19.7	17	539.0	190.2		▪
UB 610 x 305 x 179	179	620.2	307.1	14.1	23.6	17	539.0	228.2		▪
UB 610 x 305 x 238	238	635.8	311.4	18.4	31.4	17	539.0	303.5		▪
UB 686 x 254 x 125	125	677.9	253.0	11.7	16.2	15	615.5	159.4		▪
UB 686 x 254 x 140	140	683.5	253.7	12.4	19.0	15	615.5	178.4		▪
UB 686 x 254 x 152	152	687.5	254.5	13.2	21.0	15	615.5	194.0		▪
UB 686 x 254 x 170	170	692.9	255.8	14.5	23.7	15	615.5	216.8		▪
UB 762 x 267 x 134	134	750.0	264.4	12.0	15.5	17	685.0	170.7		▪
UB 762 x 267 x 147	147	754.0	265.2	12.8	17.5	17	685.0	187.3		▪
UB 762 x 267 x 173	173	762.2	266.7	14.3	21.6	17	685.0	220.5		▪
UB 762 x 267 x 197	197	769.8	268.0	15.6	25.4	17	685.0	250.8		▪
UB 838 x 292 x 176	176	834.9	291.7	14.0	18.8	18	761.3	224.1		▪
UB 838 x 292 x 194	194	840.7	292.4	14.7	21.7	18	761.3	246.9		▪
UB 838 x 292 x 226	226	850.9	293.8	16.1	26.8	18	761.3	288.6		▪
UB 914 x 305 x 201	201	903.0	303.3	15.1	20.2	22	818.6	256.9		▪
UB 914 x 305 x 224	224	910.4	304.1	15.9	23.9	22	818.6	286.7		▪
UB 914 x 305 x 238	238	915.0	305.0	16.5	25.9	22	819.2	304.6		▪
UB 914 x 305 x 253	253	918.4	305.5	17.3	27.9	22	818.6	323.9		▪
UB 914 x 305 x 271	271	923.0	307.0	18.4	30.0	22	819.0	347.1		▪
UB 914 x 305 x 289	289	926.6	307.7	19.5	32.0	22	818.6	369.3		▪
UB 914 x 305 x 313	313	932.0	309.0	21.1	34.5	22	819.0	399.5		▪

European (EN) Universal Beams (UB)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1

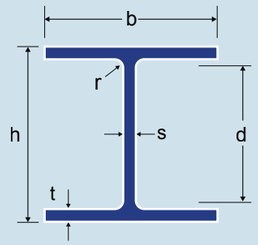


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
UB 457 x 191 x 67	67.1	30206	1454	18.59	4.08	1332	153.1	1511	239.6	703.8	44.09
UB 457 x 191 x 74	74.3	34146	1673	18.81	4.16	1494	175.7	1692	274.6	816.6	59.33
UB 457 x 191 x 82	82.0	37878	1873	18.87	4.20	1647	195.8	1871	306.6	920.1	78.18
UB 457 x 191 x 89	89.3	41841	2092	19.02	4.25	1806	218.0	2053	341.3	1035	100.7
UB 457 x 191 x 98	98.3	46553	2349	19.13	4.30	1993	243.7	2272	382.0	1173	133.2
UB 533 x 210 x 82	82.2	47871	2008	21.33	4.37	1812	192.3	2072	301.2	1328	54.80
UB 533 x 210 x 92	92.1	55559	2390	21.71	4.50	2084	228.4	2374	356.6	1596	78.82
UB 533 x 210 x 101	101	61851	2693	21.88	4.56	2305	256.4	2625	400.6	1811	104.5
UB 533 x 210 x 109	109	67154	2943	21.95	4.59	2489	279.3	2842	437.1	1989	130.5
UB 533 x 210 x 122	122	76374	3388	22.13	4.66	2805	319.8	3209	501.1	2312	183.5
UB 610 x 229 x 101	101	76649	2916	24.28	4.74	2544	256.2	2912	401.9	2512	83.56
UB 610 x 229 x 113	113	88187	3435	24.66	4.87	2903	301.1	3312	471.2	2985	118.2
UB 610 x 229 x 125	125	99479	3934	24.90	4.95	3250	343.5	3707	537.6	3444	162.0
UB 610 x 229 x 140	140	112646	4507	25.07	5.01	3650	391.6	4173	613.8	3978	226.1
UB 610 x 305 x 149	149	125990	9308	25.74	7.00	4115	610.7	4598	938.4	8165	201.3
UB 610 x 305 x 179	179	153138	11409	25.90	7.07	4938	743.0	5551	1145	10137	342.8
UB 610 x 305 x 238	238	209585	15837	26.28	7.22	6593	1017	7490	1576	14432	792.8
UB 686 x 254 x 125	125	117940	4383	27.20	5.24	3480	346.5	3992	542.8	4786	118.0
UB 686 x 254 x 140	140	136215	5183	27.63	5.39	3986	408.6	4556	638.8	5708	170.0
UB 686 x 254 x 152	152	150303	5784	27.83	5.46	4372	454.5	4999	710.9	6407	220.9
UB 686 x 254 x 170	170	170274	6630	28.03	5.53	4915	518.4	5629	812.3	7402	309.3
UB 762 x 267 x 134	134	150872	4788	29.73	5.30	4023	362.2	4649	570.5	6440	123.2
UB 762 x 267 x 147	147	168682	5456	30.01	5.40	4474	411.4	5161	648.0	7377	163.3
UB 762 x 267 x 173	173	205462	6850	30.52	5.57	5391	513.7	6203	808.6	9364	271.5
UB 762 x 267 x 197	197	240137	8175	30.94	5.71	6239	610.1	7172	960.0	11289	408.8
UB 838 x 292 x 176	176	246116	7799	33.14	5.90	5896	534.7	6810	842.6	12949	226.7
UB 838 x 292 x 194	194	279270	9067	33.63	6.06	6644	620.1	7643	974.9	15162	310.2
UB 838 x 292 x 226	226	339798	11360	34.31	6.27	7987	773.3	9157	1213	19233	517.2
UB 914 x 305 x 201	201	327097	9425	35.68	6.06	7245	621.5	8395	984.5	18301	308.2
UB 914 x 305 x 224	224	378257	11238	36.32	6.26	8310	739.1	9578	1167	22009	438.5
UB 914 x 305 x 238	238	408318	12288	36.61	6.35	8925	805.8	10274	1271	24204	531.3
UB 914 x 305 x 253	253	438148	13304	36.78	6.41	9542	871.0	10985	1374	26284	643.9
UB 914 x 305 x 271	271	473477	14521	36.93	6.47	10260	946.0	11828	1495	28842	790.7
UB 914 x 305 x 289	289	506030	15600	37.02	6.50	10922	1014	12613	1606	31087	950.7
UB 914 x 305 x 313	313	550142	17043	37.11	6.53	11806	1103	13674	1752	34163	1192

European (EN) Universal Columns (UC)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1



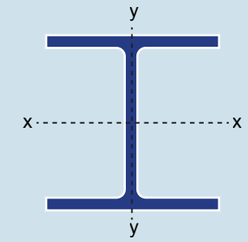
Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm²		
UC 152 x 152 x 23	23.0	152.4	152.2	5.8	6.8	10	118.8	29.61		▪
UC 152 x 152 x 30	30.0	157.6	152.9	6.5	9.4	10	118.8	38.63		▪
UC 152 x 152 x 37	37.0	161.8	154.4	8.0	11.5	10	118.8	47.47		▪
UC 203 x 203 x 46	46.1	203.2	203.6	7.2	11.0	12	157.2	59.07		▪
UC 203 x 203 x 52	52.0	206.2	204.3	7.9	12.5	12	157.2	66.63		▪
UC 203 x 203 x 60	60.0	209.6	205.8	9.4	14.2	12	157.2	76.72		▪
UC 203 x 203 x 71	71.0	215.8	206.4	10.0	17.3	12	157.2	90.77		▪
UC 203 x 203 x 86	86.1	222.2	209.1	12.7	20.5	12	157.2	110.0		▪
UC 254 x 254 x 73	73.1	254.1	254.6	8.6	14.2	15	195.7	93.65		▪
UC 254 x 254 x 89	88.9	260.3	256.3	10.3	17.3	15	195.7	113.9		▪
UC 254 x 254 x 107	107	266.7	258.8	12.8	20.5	15	195.7	136.9		▪
UC 254 x 254 x 132	132	276.3	261.3	15.3	25.3	15	195.7	168.7		▪
UC 254 x 254 x 167	167	289.1	265.2	19.2	31.7	15	195.7	213.4		▪
UC 305 x 305 x 97	96.9	307.9	305.3	9.9	15.4	15	247.1	123.4		▪
UC 305 x 305 x 118	118	314.5	307.4	12.0	18.7	15	247.1	150.2		▪
UC 305 x 305 x 137	137	320.5	309.2	13.8	21.7	15	247.1	174.4		▪
UC 305 x 305 x 158	158	327.1	311.2	15.8	25.0	15	247.1	201.3		▪
UC 305 x 305 x 198	198	339.9	314.5	19.1	31.4	15	247.1	252.4		▪
UC 305 x 305 x 240	240	352.5	318.4	23.0	37.7	15	247.1	305.7		▪
UC 305 x 305 x 283	283	365.3	322.2	26.8	44.1	15	247.1	360.4		▪
UC 356 x 368 x 129	129	355.6	368.6	10.4	17.5	18	284.6	165.1		▪
UC 356 x 368 x 153	153	362.0	370.5	12.3	20.7	18	284.6	195.6		▪
UC 356 x 368 x 177	177	368.2	372.6	14.4	23.8	18	284.6	226.3		▪
UC 356 x 368 x 202	202	374.6	374.7	16.5	27.0	18	284.6	258.0		▪
UC 356 x 406 x 235	235	381.0	394.8	18.4	30.2	18	284.6	300.2		▪
UC 356 x 406 x 287	287	393.6	399.0	22.6	36.5	18	284.6	366.5		▪
UC 356 x 406 x 340	340	406.4	403.0	26.6	42.9	18	284.6	433.8		▪
UC 356 x 406 x 393	393*	419.0	407.0	30.6	49.2	18	284.6	501.4		▪

* = subject to mill confirmation

European (EN) Universal Columns (UC)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1



Section Properties

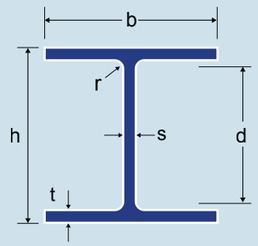
Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm⁴	cm⁴	cm	cm	cm³	cm³	cm³	cm³	cm⁶	cm⁴
UC 152 x 152 x 23	23.0	1266	400.1	6.54	3.68	166.1	52.57	184.4	80.41	21.18	5.43
UC 152 x 152 x 30	30.0	1764	560.6	6.76	3.81	223.9	73.33	250.1	111.9	30.75	11.35
UC 152 x 152 x 37	37.0	2226	706.4	6.85	3.86	275.2	91.51	311.2	140.0	39.84	20.47
UC 203 x 203 x 46	46.1	4594	1548	8.82	5.12	452.1	152.1	500.4	231.4	142.9	23.16
UC 203 x 203 x 52	52.0	5285	1778	8.91	5.17	512.6	174.0	570.4	264.8	166.6	32.93
UC 203 x 203 x 60	60.0	6150	2065	8.95	5.19	586.9	200.7	659.1	305.9	196.9	49.09
UC 203 x 203 x 71	71.0	7644	2538	9.18	5.29	708.4	245.9	801.7	374.4	249.7	82.16
UC 203 x 203 x 86	86.1	9475	3128	9.28	5.33	852.8	299.2	979.7	457.1	317.7	140.7
UC 254 x 254 x 73	73.1	11471	3908	11.07	6.46	902.9	307.0	998.0	466.4	562.0	59.64
UC 254 x 254 x 89	88.9	14332	4858	11.22	6.53	1101	379.1	1230	576.5	716.6	105.3
UC 254 x 254 x 107	107	17574	5928	11.33	6.58	1318	458.1	1490	698.4	897.5	177.8
UC 254 x 254 x 132	132	22593	7532	11.57	6.68	1635	576.5	1875	880.0	1185	327.2
UC 254 x 254 x 167	167	30062	9871	11.87	6.80	2080	744.4	2430	1139	1632	643.2
UC 305 x 305 x 97	96.9	22240	7308	13.42	7.70	1445	478.7	1591	726.6	1562	91.57
UC 305 x 305 x 118	118	27663	9059	13.57	7.77	1759	589.4	1957	896.0	1980	162.0
UC 305 x 305 x 137	137	32805	10699	13.72	7.83	2047	692.1	2296	1053	2386	250.7
UC 305 x 305 x 158	158	38738	12569	13.87	7.90	2369	807.8	2680	1231	2865	381.1
UC 305 x 305 x 198	198	50895	16299	14.20	8.04	2995	1036	3439	1582	3873	740.3
UC 305 x 305 x 240	240	64193	20314	14.49	8.15	3642	1276	4246	1952	5025	1285
UC 305 x 305 x 283	283	78862	24635	14.79	8.27	4318	1529	5105	2344	6341	2060
UC 356 x 368 x 129	129	40437	14612	15.65	9.41	2274	792.9	2492	1201	4174	156.8
UC 356 x 368 x 153	153	48780	17554	15.79	9.47	2695	947.6	2977	1437	5110	256.7
UC 356 x 368 x 177	177	57309	20531	15.91	9.52	3113	1102	3468	1673	6084	390.8
UC 356 x 368 x 202	202	66453	23690	16.05	9.58	3548	1264	3984	1922	7151	571.0
UC 356 x 406 x 235	235	79276	30995	16.25	10.16	4161	1570	4699	2386	9529	829.7
UC 356 x 406 x 287	287	100066	38680	16.52	10.27	5085	1939	5825	2953	12319	1474
UC 356 x 406 x 340	340	122734	46856	16.82	10.39	6040	2325	7011	3547	15459	2397
UC 356 x 406 x 393	393	146809	55371	17.11	10.51	7008	2721	8235	4158	18900	3630

European (EN) Wide Flange H-Beams (HE)

Dimensions : EN 10365

Tolerances : EN 10034

Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

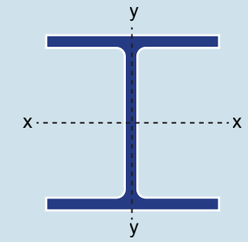
Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
HE 100 AA *	12.2	91.0	100.0	4.2	5.5	8	64	14.91	▪	
HE 100 A	16.7	96.0	100.0	5.0	8.0	8	64	20.55	▪	
HE 100 B	20.4	100.0	100.0	6.0	10.0	8	64	25.35	▪	
HE 120 AA *	14.6	109.0	120.0	4.2	5.5	12	74	18.55	▪	
HE 120 A	19.9	114.0	120.0	5.0	8.0	12	74	25.34	▪	
HE 120 B	26.7	120.0	120.0	6.5	11.0	12	74	34.01	▪	
HE 140 AA *	18.1	128.0	140.0	4.3	6.0	12	92	23.02		▪
HE 140 A	24.7	133.0	140.0	5.5	8.5	12	92	31.42		▪
HE 140 B	33.7	140.0	140.0	7.0	12.0	12	92	42.96		▪
HE 140 C	48.2	150.0	143.0	10.0	17.0	12	92	61.46		▪
HE 140 M	63.2	160.0	146.0	13.0	22.0	12	92	80.56		▪
HE 160 AA *	23.8	148.0	160.0	4.5	7.0	15	104	30.36		▪
HE 160 A	30.4	152.0	160.0	6.0	9.0	15	104	38.77		▪
HE 160 B	42.6	160.0	160.0	8.0	13.0	15	104	54.25		▪
HE 160 C *	59.2	170.0	163.0	11.0	18.0	15	104	75.35		▪
HE 160 M	76.2	180.0	166.0	14.0	23.0	15	104	97.05		▪
HE 180 AA *	28.7	167.0	180.0	5.0	7.5	15	122	36.53		▪
HE 180 A	35.5	171.0	180.0	6.0	9.5	15	122	45.25		▪
HE 180 B	51.2	180.0	180.0	8.5	14.0	15	122	65.25		▪
HE 180 C *	69.8	190.0	183.0	11.5	19.0	15	122	88.95		▪
HE 180 M	88.9	200.0	186.0	14.5	24.0	15	122	113.3		▪
HE 200 AA	34.6	186.0	200.0	5.5	8.0	18	134	44.13		▪
HE 200 A	42.3	190.0	200.0	6.5	10.0	18	134	53.83		▪
HE 200 B	61.3	200.0	200.0	9.0	15.0	18	134	78.08		▪
HE 200 C	81.9	210.0	203.0	12.0	20.0	18	134	104.4		▪
HE 200 M	103	220.0	206.0	15.0	25.0	18	134	131.3		▪
HE 220 AA	40.4	205.0	220.0	6.0	8.5	18	152	51.46		▪
HE 220 A	50.5	210.0	220.0	7.0	11.0	18	152	64.34		▪
HE 220 B	71.5	220.0	220.0	9.5	16.0	18	152	91.04		▪
HE 220 C *	94.1	230.0	223.0	12.5	21.0	18	152	119.9		▪
HE 220 M	117	240.0	226.0	15.5	26.0	18	152	149.4		▪
HE 240 AA	47.4	224.0	240.0	6.5	9.0	21	164	60.38		▪
HE 240 A	60.3	230.0	240.0	7.5	12.0	21	164	76.84		▪
HE 240 B	83.2	240.0	240.0	10.0	17.0	21	164	106.0		▪
HE 240 C *	119	255.0	244.0	14.0	24.5	21	164	152.2		▪

European (EN) Wide Flange H-Beams (HE)

Dimensions : EN 10365

Tolerances : EN 10034

Surface Condition : EN 10163-3, Class C, subclass 1

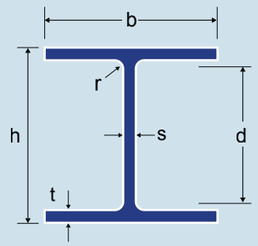


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
HE 100 AA *	12.2	227.3	91.81	3.90	2.48	49.95	18.36	55.84	28.10	1.68	1.76
HE 100 A	16.7	340.0	133.5	4.07	2.55	70.83	26.71	80.50	40.82	2.58	4.34
HE 100 B	20.4	440.3	166.9	4.17	2.57	88.06	33.39	101.7	51.09	3.38	8.07
HE 120 AA *	14.6	413.4	158.8	4.72	2.93	75.85	26.47	84.12	40.70	4.24	2.78
HE 120 A	19.9	606.2	230.9	4.89	3.02	106.3	38.48	119.5	59.04	6.47	5.99
HE 120 B	26.7	864.4	317.5	5.04	3.06	144.1	52.92	165.2	81.25	9.41	13.84
HE 140 AA *	18.1	719.5	274.8	5.59	3.45	112.4	39.26	123.8	60.04	10.21	3.54
HE 140 A	24.7	1033	389.3	5.73	3.52	155.4	55.62	173.5	85.03	15.06	8.13
HE 140 B	33.7	1509	549.7	5.93	3.58	215.6	78.52	245.4	120.1	22.48	20.06
HE 140 C	48.2	2330	830.3	6.16	3.68	310.6	116.1	363.8	178.1	36.64	55.68
HE 140 M	63.2	3291	1144	6.39	3.77	411.4	156.8	493.8	241.1	54.33	120.0
HE 160 AA *	23.8	1283	478.7	6.50	3.97	173.4	59.84	190.4	91.60	23.75	6.33
HE 160 A	30.4	1673	615.6	6.57	3.98	220.1	76.95	245.1	117.9	31.41	12.19
HE 160 B	42.6	2492	889.2	6.78	4.05	311.5	111.2	354.0	170.4	47.94	31.24
HE 160 C *	59.2	3704	1302	7.01	4.16	435.8	159.8	507.6	245.6	75.04	79.21
HE 160 M	76.2	5098	1759	7.25	4.26	566.5	211.9	674.6	326.3	108.1	162.4
HE 180 AA *	28.7	1967	730.0	7.34	4.47	235.6	81.11	258.2	123.8	46.37	8.33
HE 180 A	35.5	2510	924.6	7.45	4.52	293.6	102.7	324.9	156.8	60.21	14.80
HE 180 B	51.2	3831	1363	7.66	4.57	425.7	151.4	481.4	231.5	93.75	42.16
HE 180 C *	69.8	5543	1944	7.89	4.68	583.5	212.5	675.0	325.7	141.9	102.1
HE 180 M	88.9	7483	2580	8.13	4.77	748.3	277.4	883.4	426.1	199.3	203.3
HE 200 AA	34.6	2944	1068	8.17	4.92	316.6	106.8	347.1	163.5	84.49	12.69
HE 200 A	42.3	3692	1336	8.28	4.98	388.6	133.6	429.5	204.3	108.0	20.98
HE 200 B	61.3	5696	2003	8.54	5.07	569.6	200.3	642.5	306.6	171.1	59.28
HE 200 C	81.9	8029	2794	8.77	5.17	764.7	275.3	880.6	422.1	251.7	135.1
HE 200 M	103	10642	3651	9.00	5.27	967.4	354.5	1135	544.6	346.3	259.4
HE 220 AA	40.4	4170	1510	9.00	5.42	406.9	137.3	445.5	209.7	145.6	15.93
HE 220 A	50.5	5410	1955	9.17	5.51	515.2	177.7	568.5	271.2	193.3	28.46
HE 220 B	71.5	8091	2843	9.43	5.59	735.5	258.5	827.0	394.8	295.4	76.57
HE 220 C *	94.1	11180	3888	9.65	5.69	972.2	348.7	1114	533.5	423.9	168.2
HE 220 M	117	14605	5012	9.89	5.79	1217	443.5	1419	680.0	572.7	315.3
HE 240 AA	47.4	5835	2077	9.83	5.87	521.0	173.1	570.6	264.9	239.6	22.98
HE 240 A	60.3	7763	2769	10.05	6.00	675.1	230.7	744.6	352.5	328.5	41.55
HE 240 B	83.2	11259	3923	10.31	6.08	938.3	326.9	1053	499.7	486.9	102.7
HE 240 C *	119	17327	5942	10.67	6.25	1359	487.1	1564	745.8	787.9	288.7

European (EN) Wide Flange H-Beams (HE)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1

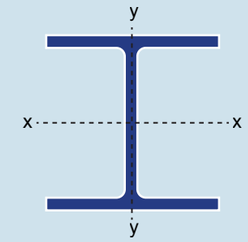


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
HE 240 M	157	270.0	248.0	18.0	32.0	21	164	199.6		▪
HE 260 AA	54.1	244.0	260.0	6.5	9.5	24	177	68.97		▪
HE 260 A	68.2	250.0	260.0	7.5	12.5	24	177	86.82		▪
HE 260 B	93.0	260.0	260.0	10.0	17.5	24	177	118.4		▪
HE 260 C *	132	275.0	264.0	14.0	25.0	24	177	168.4		▪
HE 260 M	172	290.0	268.0	18.0	32.5	24	177	219.6		▪
HE 280 AA	61.2	264.0	280.0	7.0	10.0	24	196	78.02		▪
HE 280 A	76.4	270.0	280.0	8.0	13.0	24	196	97.26		▪
HE 280 B	103	280.0	280.0	10.5	18.0	24	196	131.4		▪
HE 280 C *	145	295.0	284.0	14.5	25.5	24	196	185.2		▪
HE 280 M	189	310.0	288.0	18.5	33.0	24	196	240.2		▪
HE 300 AA	69.8	283.0	300.0	7.5	10.5	28	206	89.38		▪
HE 300 A	88.3	290.0	300.0	8.5	14.0	28	206	113.0		▪
HE 300 B	117	300.0	300.0	11.0	19.0	28	206	149.5		▪
HE 300 C *	177	320.0	305.0	16.0	29.0	28	206	225.5		▪
HE 300 M	238	340.0	310.0	21.0	39.0	28	206	303.5		▪
HE 320 AA	74.2	301.0	300.0	8.0	11.0	28	223	95.05		▪
HE 320 A	97.6	310.0	300.0	9.0	15.5	28	223	124.8		▪
HE 320 B	127	320.0	300.0	11.5	20.5	28	223	161.8		▪
HE 320 C *	186	340.0	305.0	16.0	30.5	28	223	237.4		▪
HE 320 M	245	359.0	309.0	21.0	40.0	28	223	312.5		▪
HE 340 AA	78.9	320.0	300.0	8.5	11.5	28	241	101.0		▪
HE 340 A	105	330.0	300.0	9.5	16.5	28	241	133.9		▪
HE 340 B	134	340.0	300.0	12.0	21.5	28	241	171.4		▪
HE 340 M	248	377.0	309.0	21.0	40.0	28	241	316.3		▪
HE 360 AA	83.7	339.0	300.0	9.0	12.0	28	259	107.1		▪
HE 360 A	112	350.0	300.0	10.0	17.5	28	259	143.2		▪
HE 360 B	142	360.0	300.0	12.5	22.5	28	259	181.1		▪
HE 360 M	250	395.0	308.0	21.0	40.0	28	259	319.3		▪
HE 400 AA	92.4	378.0	300.0	9.5	13.0	28	296	118.2		▪
HE 400 A	125	390.0	300.0	11.0	19.0	28	296	159.4		▪
HE 400 B	155	400.0	300.0	13.5	24.0	28	296	198.2		▪
HE 400 M	256	432.0	307.0	21.0	40.0	28	296	326.2		▪
HE 450 AA	99.7	425.0	300.0	10.0	13.5	28	342	127.5		▪
HE 450 A	140	440.0	300.0	11.5	21.0	28	342	178.5		▪

European (EN) Wide Flange H-Beams (HE)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1



Section Properties

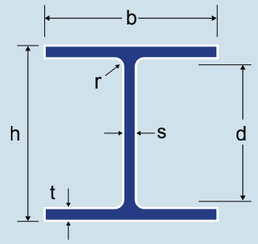
Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
HE 240 M	157	24289	8153	11.03	6.39	1799	657.5	2117	1009	1152	627.9
HE 260 AA	54.1	7981	2788	10.76	6.36	654.1	214.5	714.5	328.5	382.6	30.31
HE 260 A	68.2	10455	3668	10.97	6.50	836.4	282.1	919.8	431.4	516.4	52.37
HE 260 B	93.0	14919	5135	11.22	6.58	1148	395.0	1283	604.1	753.7	123.8
HE 260 C *	132	22591	7680	11.58	6.75	1643	581.8	1880	891.1	1198	336.4
HE 260 M	172	31307	10449	11.94	6.90	2159	779.7	2524	1196	1728	719.0
HE 280 AA	61.2	10558	3664	11.63	6.85	799.8	261.7	873.1	400.1	590.1	36.22
HE 280 A	76.4	13673	4763	11.86	7.00	1013	340.2	1112	519.4	785.4	62.10
HE 280 B	103	19270	6595	12.11	7.09	1376	471.0	1534	719.4	1130	143.7
HE 280 C *	145	28807	9750	12.47	7.26	1953	686.6	2225	1050	1768	382.5
HE 280 M	189	39547	13163	12.83	7.40	2551	914.1	2966	1400	2520	807.3
HE 300 AA	69.8	13874	4735	12.46	7.28	980.5	315.6	1071	483.9	877.2	51.82
HE 300 A	88.3	18334	6311	12.74	7.47	1264	420.7	1389	643.7	1200	87.68
HE 300 B	117	25236	8564	12.99	7.57	1682	570.9	1874	873.5	1688	188.4
HE 300 C *	177	41021	13738	13.49	7.80	2564	900.8	2932	1380	2903	604.1
HE 300 M	238	59271	19405	13.97	8.00	3487	1252	4083	1920	4386	1417
HE 320 AA	74.2	16528	4960	13.19	7.22	1098	330.7	1202	507.4	1041	58.50
HE 320 A	97.6	23009	6986	13.58	7.48	1484	465.8	1634	712.6	1512	110.6
HE 320 B	127	30904	9240	13.82	7.56	1931	616.0	2155	942.8	2069	228.6
HE 320 C *	186	48791	14448	14.34	7.80	2870	947.4	3280	1451	3454	685.0
HE 320 M	245	68215	19711	14.77	7.94	3800	1276	4441	1958	5004	1510
HE 340 AA	78.9	19644	5186	13.95	7.17	1228	345.7	1347	530.9	1231	65.87
HE 340 A	105	27785	7437	14.40	7.45	1684	495.8	1857	759.0	1824	130.0
HE 340 B	134	36748	9691	14.64	7.52	2162	646.1	2415	989.6	2454	260.9
HE 340 M	248	76463	19713	15.55	7.89	4056	1276	4724	1960	5584	1516
HE 360 AA	83.7	23141	5412	14.70	7.11	1365	360.8	1502	554.6	1444	73.96
HE 360 A	112	33194	7888	15.22	7.42	1897	525.9	2095	805.5	2177	151.8
HE 360 B	142	43297	10142	15.46	7.48	2405	676.2	2690	1037	2883	296.4
HE 360 M	250	84971	19524	16.31	7.82	4302	1268	4996	1950	6137	1517
HE 400 AA	92.4	31384	5863	16.30	7.04	1661	390.8	1832	601.5	1948	87.77
HE 400 A	125	45201	8565	16.84	7.33	2318	571.0	2570	876.3	2942	192.4
HE 400 B	155	57812	10820	17.08	7.39	2891	721.4	3240	1108	3817	360.2
HE 400 M	256	104251	19338	17.88	7.70	4826	1260	5578	1941	7410	1524
HE 450 AA	99.7	42058	6089	18.16	6.91	1979	405.9	2192	626.2	2572	98.87
HE 450 A	140	63892	9467	18.92	7.28	2904	631.1	3225	969.4	4148	247.3

European (EN) Wide Flange H-Beams (HE)

Dimensions : EN 10365

Tolerances : EN 10034

Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
HE 450 B	171	450.0	300.0	14.0	26.0	28	342	218.4		▪
HE 450 M	263	478.0	307.0	21.0	40.0	28	342	335.9		▪
HE 500 AA	107	472.0	300.0	10.5	14.0	28	388	137.3		▪
HE 500 A	155	490.0	300.0	12.0	23.0	28	388	198.0		▪
HE 500 B	187	500.0	300.0	14.5	28.0	28	388	239.1		▪
HE 500 M	270	524.0	306.0	21.0	40.0	28	388	344.8		▪
HE 550 AA	120	522.0	300.0	11.5	15.0	28	436	153.3		▪
HE 550 A	166	540.0	300.0	12.5	24.0	28	436	212.2		▪
HE 550 B	199	550.0	300.0	15.0	29.0	28	436	254.5		▪
HE 550 M	278	572.0	306.0	21.0	40.0	28	436	354.8		▪
HE 600 AA	129	571.0	300.0	12.0	15.5	28	484	164.5		▪
HE 600 A	178	590.0	300.0	13.0	25.0	28	484	226.9		▪
HE 600 B	212	600.0	300.0	15.5	30.0	28	484	270.4		▪
HE 600 M	285	620.0	305.0	21.0	40.0	28	484	364.1		▪
HE 650 AA	138	620.0	300.0	12.5	16.0	28	532	176.2		▪
HE 650 A	190	640.0	300.0	13.5	26.0	28	532	242.1		▪
HE 650 B	225	650.0	300.0	16.0	31.0	28	532	286.8		▪
HE 650 M	293	668.0	305.0	21.0	40.0	28	532	374.2		▪
HE 700 AA	150	670.0	300.0	13.0	17.0	28	580	191.4		▪
HE 700 A	204	690.0	300.0	14.5	27.0	28	580	260.9		▪
HE 700 B	241	700.0	300.0	17.0	32.0	28	580	306.8		▪
HE 700 M	301	716.0	304.0	21.0	40.0	28	580	383.5		▪
HE 800 AA	172	770.0	300.0	14.0	18.0	30	674	218.5		▪
HE 800 A	224	790.0	300.0	15.0	28.0	30	674	285.8		▪
HE 800 B	262	800.0	300.0	17.5	33.0	30	674	334.2		▪
HE 800 M	317	814.0	303.0	21.0	40.0	30	674	404.3		▪
HE 900 AA	198	870.0	300.0	15.0	20.0	30	770	252.2		▪
HE 900 A	252	890.0	300.0	16.0	30.0	30	770	320.5		▪
HE 900 B	291	900.0	300.0	18.5	35.0	30	770	371.3		▪

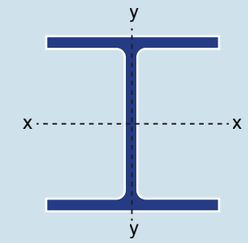
* = subject to mill confirmation

European (EN) Wide Flange H-Beams (HE)

Dimensions : EN 10365

Tolerances : EN 10034

Surface Condition : EN 10163-3, Class C, subclass 1

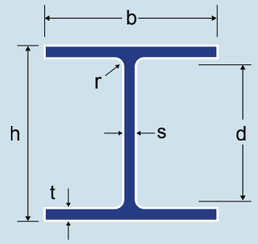


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
HE 450 B	171	80058	11723	19.14	7.33	3558	781.5	3991	1202	5258	445.2
HE 450 M	263	131655	19341	19.80	7.59	5509	1260	6340	1947	9251	1538
HE 500 AA	107	54857	6315	19.98	6.78	2324	421.0	2586	651.2	3304	111.2
HE 500 A	155	87189	10368	20.98	7.24	3559	691.2	3959	1063	5643	313.0
HE 500 B	187	107390	12625	21.19	7.27	4296	841.7	4825	1297	7018	543.4
HE 500 M	270	162143	19157	21.69	7.45	6189	1252	7104	1939	11187	1548
HE 550 AA	120	73136	6768	21.84	6.64	2802	451.2	3139	700.5	4338	137.5
HE 550 A	166	112197	10820	22.99	7.14	4155	721.4	4633	1112	7189	355.5
HE 550 B	199	136956	13078	23.20	7.17	4980	871.9	5602	1347	8856	605.6
HE 550 M	278	198249	19160	23.64	7.35	6932	1252	7944	1945	13516	1563
HE 600 AA	129	92193	6995	23.67	6.52	3229	466.3	3635	726.4	5381	153.9
HE 600 A	178	141529	11273	24.97	7.05	4798	751.5	5363	1160	8978	402.0
HE 600 B	212	171362	13532	25.17	7.07	5712	902.1	6437	1397	10965	672.8
HE 600 M	285	237769	18977	25.55	7.22	7670	1244	8784	1938	15908	1574
HE 650 AA	138	114327	7222	25.47	6.40	3688	481.5	4173	752.6	6567	171.8
HE 650 A	190	175561	11725	26.93	6.96	5486	781.7	6150	1210	11027	452.7
HE 650 B	225	210999	13986	27.12	6.98	6492	932.4	7333	1447	13363	745.1
HE 650 M	293	282051	18981	27.45	7.12	8445	1245	9670	1943	18650	1589
HE 700 AA	150	143171	7674	27.35	6.33	4274	511.6	4855	801.8	8155	199.6
HE 700 A	204	215752	12180	28.75	6.83	6254	812.0	7046	1262	13352	518.9
HE 700 B	241	257339	14443	28.96	6.86	7353	962.8	8342	1501	16064	837.5
HE 700 M	301	329728	18799	29.32	7.00	9210	1237	10554	1936	21397	1599
HE 800 AA	172	208882	8134	30.92	6.10	5426	542.2	6225	858.1	11451	256.8
HE 800 A	224	303442	12639	32.58	6.65	7682	842.6	8699	1317	18290	596.9
HE 800 B	262	359083	14904	32.78	6.68	8977	993.6	10229	1559	21840	946.0
HE 800 M	317	442598	18627	33.09	6.79	10875	1230	12488	1938	27775	1646
HE 900 AA	198	301145	9041	34.55	5.99	6923	602.8	7999	959.6	16256	334.9
HE 900 A	252	422075	13547	36.29	6.50	9485	903.2	10811	1420	24962	736.8
HE 900 B	291	494065	15816	36.48	6.53	10979	1054	12584	1665	29461	1137

European (EN) Parallel Flange I-Beams (IPE)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1

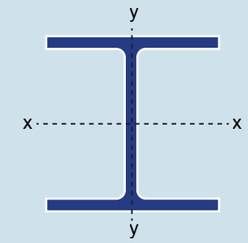


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
IPE AA 80	4.9	78.0	46.0	3.2	4.2	5	59.6	6.31	▪	
IPE A 80	5.0	78.0	46.0	3.3	4.2	5	59.6	6.38	▪	
IPE 80	6.0	80.0	46.0	3.8	5.2	5	59.6	7.64	▪	
IPE AA 100	6.7	97.6	55.0	3.6	4.5	7	74.6	8.56	▪	
IPE A 100	6.9	98.0	55.0	3.6	4.7	7	74.6	8.78	▪	
IPE 100	8.1	100.0	55.0	4.1	5.7	7	74.6	10.32	▪	
IPE AA 120	8.4	117.0	64.0	3.8	4.8	7	93.4	10.65	▪	
IPE A 120	8.7	117.6	64.0	3.8	5.1	7	93.4	11.03	▪	
IPE 120	10.4	120.0	64.0	4.4	6.3	7	93.4	13.21	▪	
IPE AA 140	10.1	136.6	73.0	3.8	5.2	9	108.2	13.08	▪	
IPE A 140	10.5	137.4	73.0	3.8	5.6	9	108.2	13.67	▪	
IPE 140	12.9	140.0	73.0	4.7	6.9	9	108.2	16.70	▪	
IPE AA 160	12.3	156.4	82.0	4.0	5.6	9	127.2	15.69	▪	
IPE A 160	12.7	157.0	82.0	4.0	5.9	9	127.2	16.18	▪	
IPE 160	15.8	160.0	82.0	5.0	7.4	9	127.2	20.09	▪	
IPE AA 180	14.9	176.4	91.0	4.3	6.2	9	146	19.03	▪	
IPE A 180	15.4	177.0	91.0	4.3	6.5	9	146	19.58	▪	
IPE 180	18.8	180.0	91.0	5.3	8.0	9	146	23.95	▪	
IPE O 180 *	21.3	182.0	92.0	6.0	9.0	9	146	27.10	▪	
IPE AA 200	18.0	196.4	100.0	4.5	6.7	10	163	22.49	▪	
IPE A 200	18.4	197.0	100.0	4.5	7.0	10	163	23.09	▪	
IPE 200	22.4	200.0	100.0	5.6	8.5	10	163	28.11	▪	
IPE O 200 *	25.1	202.0	102.0	6.2	9.5	10	163	31.58	▪	
IPE AA 220	21.2	216.4	110.0	4.7	7.4	12	177.6	26.99		▪
IPE A 220	22.2	217.0	110.0	5.0	7.7	12	177.6	28.26		▪
IPE 220	26.2	220.0	110.0	5.9	9.2	12	177.6	33.37		▪
IPE O 220 *	29.4	222.0	112.0	6.6	10.2	12	177.6	37.39		▪
IPE AA 240 *	24.9	236.4	120.0	4.8	8.0	15	190.4	31.71		▪
IPE A 240	26.2	237.0	120.0	5.2	8.3	15	190.4	33.31		▪
IPE 240	30.7	240.0	120.0	6.2	9.8	15	190.4	39.12		▪
IPE O 240 *	34.3	242.0	122.0	7.0	10.8	15	190.4	43.71		▪
IPE A 270	30.7	267.0	135.0	5.5	8.7	15	219.6	39.15		▪
IPE 270	36.1	270.0	135.0	6.6	10.2	15	219.6	45.95		▪
IPE O 270 *	42.3	274.0	136.0	7.5	12.2	15	219.6	53.84		▪
IPE A 300	36.5	297.0	150.0	6.1	9.2	15	248.6	46.53		▪

European (EN) Parallel Flange I-Beams (IPE)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1



Section Properties

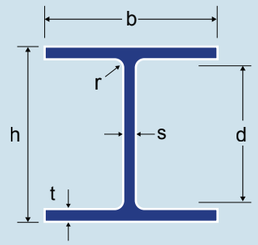
Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
IPE AA 80	4.9	64.10	6.85	3.19	1.04	16.44	2.98	18.86	4.69	0.09	0.40
IPE A 80	5.0	64.38	6.85	3.18	1.04	16.51	2.98	18.98	4.70	0.09	0.42
IPE 80	6.0	80.14	8.49	3.24	1.05	20.03	3.69	23.22	5.83	0.12	0.70
IPE AA 100	6.7	135.9	12.57	3.98	1.21	27.85	4.57	31.90	7.25	0.27	0.73
IPE A 100	6.9	141.2	13.12	4.01	1.22	28.81	4.77	32.98	7.56	0.28	0.77
IPE 100	8.1	171.0	15.92	4.07	1.24	34.20	5.79	39.41	9.18	0.35	1.20
IPE AA 120	8.4	244.2	21.08	4.79	1.41	41.74	6.59	47.62	10.38	0.66	0.95
IPE A 120	8.7	257.4	22.39	4.83	1.42	43.77	7.00	49.87	11.01	0.71	1.04
IPE 120	10.4	317.8	27.67	4.90	1.45	52.96	8.65	60.73	13.62	0.89	1.74
IPE AA 140	10.1	417.5	33.90	5.65	1.61	61.13	9.29	69.26	14.63	1.46	1.41
IPE A 140	10.5	444.9	36.49	5.71	1.63	64.76	10.00	73.26	15.71	1.58	1.57
IPE 140	12.9	551.3	45.00	5.75	1.64	78.75	12.33	90.00	19.46	1.98	2.74
IPE AA 160	12.3	659.1	51.67	6.48	1.81	84.28	12.60	95.24	19.74	2.93	1.81
IPE A 160	12.7	689.3	54.43	6.53	1.83	87.81	13.27	99.09	20.76	3.10	1.96
IPE 160	15.8	869.3	68.31	6.58	1.84	108.7	16.66	123.9	26.18	3.96	3.60
IPE AA 180	14.9	1020	78.12	7.32	2.03	115.7	17.17	130.5	26.78	5.64	2.48
IPE A 180	15.4	1063	81.89	7.37	2.05	120.1	18.00	135.3	28.04	5.93	2.70
IPE 180	18.8	1317	100.9	7.42	2.05	146.3	22.16	166.4	34.69	7.43	4.79
IPE O 180 *	21.3	1505	117.3	7.45	2.08	165.4	25.50	189.1	40.02	8.74	6.76
IPE AA 200	18.0	1504	112.0	8.18	2.23	153.2	22.40	172.4	34.91	10.05	3.39
IPE A 200	18.4	1562	117.0	8.23	2.25	158.6	23.40	178.3	36.42	10.53	3.66
IPE 200	22.4	1914	142.2	8.25	2.25	191.4	28.44	217.3	44.49	12.99	6.37
IPE O 200 *	25.1	2182	168.7	8.31	2.31	216.0	33.07	246.1	51.78	15.57	8.74
IPE AA 220	21.2	2219	164.7	9.07	2.47	205.0	29.95	230.0	46.67	17.93	5.02
IPE A 220	22.2	2317	171.4	9.05	2.46	213.5	31.17	240.2	48.65	18.71	5.69
IPE 220	26.2	2772	204.9	9.11	2.48	252.0	37.25	285.4	58.31	22.67	9.07
IPE O 220 *	29.4	3134	239.8	9.16	2.53	282.3	42.83	321.1	67.13	26.79	12.27
IPE AA 240 *	24.9	3154	231.4	9.97	2.70	266.8	38.57	298.2	60.29	30.05	7.33
IPE A 240	26.2	3290	240.1	9.94	2.68	277.7	40.02	311.6	62.70	31.26	8.35
IPE 240	30.7	3892	283.6	9.97	2.69	324.3	47.27	366.6	74.27	37.39	12.88
IPE O 240 *	34.3	4369	328.5	10.00	2.74	361.1	53.86	410.3	84.76	43.68	17.18
IPE A 270	30.7	4917	358.0	11.21	3.02	368.3	53.03	412.5	82.65	59.51	10.30
IPE 270	36.1	5790	419.9	11.23	3.02	428.9	62.20	484.0	97.30	70.58	15.94
IPE O 270 *	42.3	6947	513.5	11.36	3.09	507.1	75.51	574.6	118.2	87.64	24.90
IPE A 300	36.5	7173	519.0	12.42	3.34	483.1	69.20	541.8	107.6	107.2	13.43

European (EN) Parallel Flange I-Beams (IPE)

Dimensions : EN 10365

Tolerances : EN 10034

Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
IPE 300	42.2	300.0	150.0	7.1	10.7	15	248.6	53.81		▪
IPE O 300 *	49.3	304.0	152.0	8.0	12.7	15	248.6	62.83		▪
IPE A 330	43.0	327.0	160.0	6.5	10.0	18	271.0	54.74		▪
IPE 330	49.1	330.0	160.0	7.5	11.5	18	271.0	62.61		▪
IPE O 330 *	57.0	334.0	162.0	8.5	13.5	18	271.0	72.62		▪
IPE A 360	50.2	357.6	170.0	6.6	11.5	18	298.6	63.96		▪
IPE 360	57.1	360.0	170.0	8.0	12.7	18	298.6	72.73		▪
IPE O 360 *	66.0	364.0	172.0	9.2	14.7	18	298.6	84.13		▪
IPE A 400	57.4	397.0	180.0	7.0	12.0	18	337.0	72.09		▪
IPE 400	66.3	400.0	180.0	8.6	13.5	18	337.0	83.46		▪
IPE O 400	75.7	404.0	182.0	9.7	15.5	18	337.0	95.38		▪
IPE V 400 *	84.0	408.8	182.0	10.6	17.5	18	337.8	106.1		▪
IPE A 450	67.2	447.0	190.0	7.6	13.1	21	378.8	85.55		▪
IPE 450	77.6	450.0	190.0	9.4	14.6	21	378.8	98.82		▪
IPE O 450 *	92.4	456.0	192.0	11.0	17.6	21	378.8	117.7		▪
IPE V 450 *	107	460.0	194.0	12.4	19.6	21	378.8	132.0		▪
IPE A 500	79.4	497.0	200.0	8.4	14.5	18	432.0	100.1		▪
IPE 500	90.7	500.0	200.0	10.2	16.0	18	432.0	114.5		▪
IPE O 500	107	506.0	202.0	12.0	19.0	18	432.0	135.7		▪
IPE V 500 *	129	514.0	204.0	14.2	23.0	18	432.0	163.1		▪
IPE A 550	92.1	547.0	210.0	9.0	15.7	24	467.6	117.3		▪
IPE 550	106	550.0	210.0	11.1	17.2	24	467.6	134.4		▪
IPE O 550 *	123	556.0	212.0	12.7	20.2	24	467.6	156.1		▪
IPE V 550 *	159	566.0	216.0	17.1	25.2	24	467.6	202.0		▪
IPE A 600	108	597.0	220.0	9.8	17.5	24	514.0	137.0		▪
IPE 600	122	600.0	220.0	12.0	19.0	24	514.0	156.0		▪
IPE O 600	154	610.0	224.0	15.0	24.0	24	514.0	196.8		▪
IPE V 600 *	184	618.0	228.0	18.0	28.0	24	514.0	233.8		▪
IPE 750 x 134 *	134	750.0	264.0	12.0	15.5	24	671.0	173.1		▪
IPE 750 x 147 *	147	753.0	265.0	13.2	17.0	24	671.0	190.0		▪
IPE 750 x 173 *	173	762.0	267.0	14.4	21.6	24	670.8	223.8		▪
IPE 750 x 196 *	196	770.0	268.0	15.6	25.4	24	671.2	253.3		▪

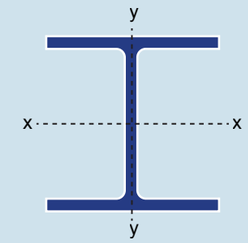
* = subject to mill confirmation

European (EN) Parallel Flange I-Beams (IPE)

Dimensions : EN 10365

Tolerances : EN 10034

Surface Condition : EN 10163-3, Class C, subclass 1

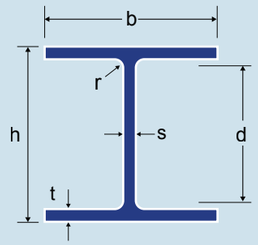


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
IPE 300	42.2	8356	603.8	12.46	3.35	557.1	80.50	628.4	125.6	125.9	20.12
IPE O 300 *	49.3	9994	745.7	12.61	3.45	657.5	98.12	743.8	153.0	157.7	31.06
IPE A 330	43.0	10231	685.2	13.67	3.54	625.7	85.64	701.9	133.8	171.5	19.57
IPE 330	49.1	11767	788.1	13.71	3.55	713.1	98.52	804.3	154.2	199.1	28.15
IPE O 330 *	57.0	13910	960.4	13.84	3.64	833.0	118.6	942.8	185.7	245.7	42.15
IPE A 360	50.2	14515	944.3	15.06	3.84	811.8	111.1	906.8	172.5	282.0	26.51
IPE 360	57.1	16266	1043	14.95	3.79	903.6	122.8	1019	191.8	313.6	37.32
IPE O 360 *	66.0	19047	1251	15.05	3.86	1047	145.5	1186	227.7	380.3	55.76
IPE A 400	57.4	19967	1169	16.64	4.03	1006	129.9	1126	201.8	432.2	31.66
IPE 400	66.3	22803	1316	16.53	3.97	1140	146.3	1289	228.6	490.0	46.94
IPE O 400	75.7	26422	1563	16.64	4.05	1308	171.7	1484	268.8	587.6	68.23
IPE V 400 *	84.0	29944	1765	16.80	4.08	1465	193.9	1667	303.9	673.1	93.47
IPE A 450	67.2	29759	1502	18.65	4.19	1331	158.1	1494	246.8	704.9	45.67
IPE 450	77.6	33743	1676	18.48	4.12	1500	176.4	1702	277.4	791.0	66.87
IPE O 450 *	92.4	40923	2085	18.65	4.21	1795	217.2	2046	342.2	997.6	109.0
IPE V 450 *	107	46201	2397	18.71	4.26	2009	247.1	2301	390.5	1156	149.8
IPE A 500	79.4	42414	1938	20.58	4.40	1707	193.8	1923	301.4	1125	58.84
IPE 500	90.7	47679	2140	20.40	4.32	1907	214.0	2171	335.5	1249	84.03
IPE O 500	107	57257	2620	20.54	4.39	2263	259.4	2590	408.2	1548	136.7
IPE V 500 *	129	70200	3269	20.75	4.48	2732	320.5	3145	506.5	1961	233.8
IPE A 550	92.1	59979	2432	22.61	4.55	2193	231.6	2475	363.2	1710	86.53
IPE 550	106	67116	2668	22.35	4.45	2441	254.1	2787	402.0	1884	123.2
IPE O 550 *	123	79157	3224	22.52	4.55	2847	304.2	3263	482.4	2302	187.5
IPE V 550 *	159	102339	4265	22.51	4.60	3616	394.9	4205	634.4	3095	380.2
IPE A 600	108	82919	3116	24.60	4.77	2778	283.3	3141	444.0	2607	118.8
IPE 600	122	92083	3387	24.30	4.66	3069	307.9	3512	487.4	2846	165.4
IPE O 600	154	118302	4521	24.52	4.79	3879	403.6	4471	642.3	3860	318.1
IPE V 600 *	184	141580	5570	24.61	4.88	4582	488.6	5324	782.9	4813	512.3
IPE 750 x 134 *	134	153768	4771	29.81	5.25	4100	361.4	4732	572.5	6411	140.5
IPE 750 x 147 *	147	169127	5295	29.84	5.28	4492	399.6	5197	635.1	7141	181.6
IPE 750 x 173 *	173	208886	6879	30.55	5.54	5483	515.3	6305	815.2	9391	296.5
IPE 750 x 196 *	196	243345	8181	31.00	5.68	6321	610.5	7261	964.9	11295	435.6

Indian (IS) Parallel Flange Beams (Wide Flange) (WPB)

Dimensions : IS 12778
Tolerances : IS 12779
Surface Condition : IS 12778

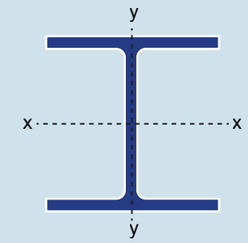


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
WPB 100 x 100	12.24	91.0	100.0	4.2	5.5	8	64.0	14.91	▪	
WPB 100 x 100	16.67	96.0	100.0	5.0	8.0	8	64.0	20.55	▪	
WPB 100 x 100	20.44	100.0	100.0	6.0	10.0	8	64.0	25.35	▪	
WPB 120 x 120	14.56	109.0	120.0	4.2	5.5	12	74.0	18.55	▪	
WPB 120 x 120	19.89	114.0	120.0	5.0	8.0	12	74.0	25.34	▪	
WPB 120 x 120	26.69	120.0	120.0	6.5	11.0	12	74.0	34.01	▪	
WPB 160 x 160	23.83	148.0	160.0	4.5	7.0	15	104.0	30.36		▪
WPB 160 x 160	30.44	152.0	160.0	6.0	9.0	15	104.0	38.77		▪
WPB 160 x 160	42.59	160.0	160.0	8.0	13.0	15	104.0	54.25		▪
WPB 160 x 160	76.19	180.0	166.0	14.0	23.0	15	104.0	97.05		▪
WPB 180 x 180	28.68	167.0	180.0	5.0	7.5	15	122.0	36.53		▪
WPB 180 x 180	35.52	171.0	180.0	6.0	9.5	15	122.0	45.25		▪
WPB 180 x 180	51.22	180.0	180.0	8.5	14.0	15	122.0	65.25		▪
WPB 180 x 180	88.90	200.0	186.0	14.5	24.0	15	122.0	113.3		▪
WPB 200 x 200	34.64	186.0	200.0	5.5	8.0	18	134.0	44.13		▪
WPB 200 x 200	42.26	190.0	200.0	6.5	10.0	18	134.0	53.83		▪
WPB 200 x 200	61.29	200.0	200.0	9.0	15.0	18	134.0	78.08		▪
WPB 200 x 200	103.06	220.0	206.0	15.0	25.0	18	134.0	131.3		▪
WPB 220 x 220	40.40	205.0	220.0	6.0	8.5	18	152.0	51.46		▪
WPB 220 x 220	50.51	210.0	220.0	7.0	11.0	18	152.0	64.34		▪
WPB 220 x 220	71.47	220.0	220.0	9.5	16.0	18	152.0	91.04		▪
WPB 220 x 220	117.31	240.0	226.0	15.5	26.0	18	152.0	149.4		▪
WPB 240 x 240	47.39	224.0	240.0	6.5	9.0	21	164.0	60.38		▪
WPB 240 x 240	60.32	230.0	240.0	7.5	12.0	21	164.0	76.84		▪
WPB 240 x 240	83.20	240.0	240.0	10.0	17.0	21	164.0	106.0		▪
WPB 240 x 240	156.67	270.0	248.0	18.0	32.0	21	164.0	199.6		▪
WPB 260 x 260	54.14	244.0	260.0	6.5	9.5	24	177.0	68.97		▪
WPB 260 x 260	68.15	250.0	260.0	7.5	12.5	24	177.0	86.82		▪
WPB 260 x 260	92.98	260.0	260.0	10.0	17.5	24	177.0	118.4		▪
WPB 260 x 260	172.42	290.0	268.0	18.0	32.5	24	177.0	219.6		▪
WPB 280 x 280	61.25	264.0	280.0	7.0	10.0	24	196.0	78.02		▪
WPB 280 x 280	76.35	270.0	280.0	8.0	13.0	24	196.0	97.26		▪
WPB 280 x 280	103.00	280.0	280.0	10.5	18.0	24	196.0	131.4		▪
WPB 280 x 280	188.53	310.0	288.0	18.5	33.0	24	196.0	240.2		▪
WPB 300 x 300	69.79	283.0	300.0	7.5	10.5	28	206.0	89.38		▪

Indian (IS) Parallel Flange Beams (Wide Flange) (WPB)

Dimensions : IS 12778
Tolerances : IS 12779
Surface Condition : IS 12778

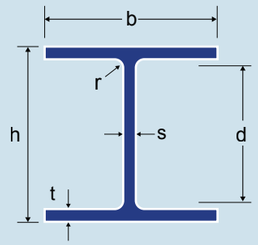


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
WPB 100 x 100	12.24	227.3	91.81	3.90	2.48	49.95	18.36	55.84	28.10	1.68	1.76
WPB 100 x 100	16.67	340.0	133.5	4.07	2.55	70.83	26.71	80.50	40.82	2.58	4.34
WPB 100 x 100	20.44	440.3	166.9	4.17	2.57	88.06	33.39	101.7	51.09	3.38	8.07
WPB 120 x 120	14.56	413.4	158.8	4.72	2.93	75.85	26.47	84.12	40.70	4.24	2.78
WPB 120 x 120	19.89	606.2	230.9	4.89	3.02	106.3	38.48	119.5	59.04	6.47	5.99
WPB 120 x 120	26.69	864.4	317.5	5.04	3.06	144.1	52.92	165.2	81.25	9.41	13.84
WPB 160 x 160	23.83	1283	478.7	6.50	3.97	173.4	59.84	190.4	91.60	23.75	6.33
WPB 160 x 160	30.44	1673	615.6	6.57	3.98	220.1	76.95	245.1	117.9	31.41	12.19
WPB 160 x 160	42.59	2492	889.2	6.78	4.05	311.5	111.2	354.0	170.4	47.94	31.24
WPB 160 x 160	76.19	5098	1759	7.25	4.26	566.5	211.9	674.6	326.3	108.1	162.4
WPB 180 x 180	28.68	1967	730.0	7.34	4.47	235.6	81.11	258.2	123.8	46.37	8.33
WPB 180 x 180	35.52	2510	924.6	7.45	4.52	293.6	102.7	324.9	156.8	60.21	14.80
WPB 180 x 180	51.22	3831	1363	7.66	4.57	425.7	151.4	481.4	231.5	93.75	42.16
WPB 180 x 180	88.90	7483	2580	8.13	4.77	748.3	277.4	883.4	426.1	199.3	203.3
WPB 200 x 200	34.64	2944	1068	8.17	4.92	316.6	106.8	347.1	163.5	84.49	12.69
WPB 200 x 200	42.26	3692	1336	8.28	4.98	388.6	133.6	429.5	204.3	108.0	20.98
WPB 200 x 200	61.29	5696	2003	8.54	5.07	569.6	200.3	642.5	306.6	171.1	59.28
WPB 200 x 200	103.06	10642	3651	9.00	5.27	967.4	354.5	1135	544.6	346.3	259.4
WPB 220 x 220	40.40	4170	1510	9.00	5.42	406.9	137.3	445.5	209.7	145.6	15.93
WPB 220 x 220	50.51	5410	1955	9.17	5.51	515.2	177.7	568.5	271.2	193.3	28.46
WPB 220 x 220	71.47	8091	2843	9.43	5.59	735.5	258.5	827.0	394.8	295.4	76.57
WPB 220 x 220	117.31	14605	5012	9.89	5.79	1217	443.5	1419	680.0	572.7	315.3
WPB 240 x 240	47.39	5835	2077	9.83	5.87	521.0	173.1	570.6	264.9	239.6	22.98
WPB 240 x 240	60.32	7763	2769	10.05	6.00	675.1	230.7	744.6	352.5	328.5	41.55
WPB 240 x 240	83.20	11259	3923	10.31	6.08	938.3	326.9	1053	499.7	486.9	102.7
WPB 240 x 240	156.67	24289	8153	11.03	6.39	1799	657.5	2117	1009	1152	627.9
WPB 260 x 260	54.14	7981	2788	10.76	6.36	654.1	214.5	714.5	328.5	382.6	30.31
WPB 260 x 260	68.15	10455	3668	10.97	6.50	836.4	282.1	919.8	431.4	516.4	52.37
WPB 260 x 260	92.98	14919	5135	11.22	6.58	1148	395.0	1283	604.1	753.7	123.8
WPB 260 x 260	172.42	31307	10449	11.94	6.90	2159	779.7	2524	1196	1728	719.0
WPB 280 x 280	61.25	10558	3664	11.63	6.85	799.8	261.7	873.1	400.1	590.1	36.22
WPB 280 x 280	76.35	13673	4763	11.86	7.00	1013	340.2	1112	519.4	785.4	62.10
WPB 280 x 280	103.00	19270	6595	12.11	7.09	1376	471.0	1534	719.4	1130	143.7
WPB 280 x 280	188.53	39547	13163	12.83	7.40	2551	914.1	2966	1400	2520	807.3
WPB 300 x 300	69.79	13874	4735	12.46	7.28	980.5	315.6	1071	483.9	877.2	51.82

Indian (IS) Parallel Flange Beams (Wide Flange) (WPB)

Dimensions : IS 12778
Tolerances : IS 12779
Surface Condition : IS 12778

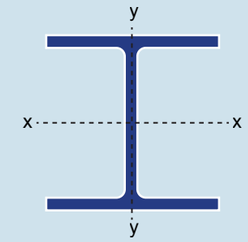


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm²		
WPB 300 x 300	88.33	290.0	300.0	8.5	14.0	28	206.0	113.0		▪
WPB 300 x 300	117.03	300.0	300.0	11.0	19.0	28	206.0	149.5		▪
WPB 300 x 300	237.92	340.0	310.0	21.0	39.0	28	206.0	303.5		▪
WPB 320 x 300	74.24	301.0	300.0	8.0	11.0	28	223.0	95.05		▪
WPB 320 x 300	97.63	310.0	300.0	9.0	15.5	28	223.0	124.8		▪
WPB 320 x 300	126.65	320.0	300.0	11.5	20.5	28	223.0	161.8		▪
WPB 320 x 300	244.96	359.0	309.0	21.0	40.0	28	223.0	312.5		▪
WPB 340 x 300	78.89	320.0	300.0	8.5	11.5	28	241.0	101.0		▪
WPB 340 x 300	104.78	330.0	300.0	9.5	16.5	28	241.0	133.9		▪
WPB 340 x 300	134.15	340.0	300.0	12.0	21.5	28	241.0	171.4		▪
WPB 340 x 300	247.92	377.0	309.0	21.0	40.0	28	241.0	316.3		▪
WPB 360 x 300	83.69	339.0	300.0	9.0	12.0	28	259.0	107.1		▪
WPB 360 x 300	112.06	350.0	300.0	10.0	17.5	28	259.0	143.2		▪
WPB 360 x 300	141.80	360.0	300.0	12.5	22.5	28	259.0	181.1		▪
WPB 360 x 300	250.26	395.0	308.0	21.0	40.0	28	259.0	319.3		▪
WPB 400 x 300	92.39	378.0	300.0	9.5	13.0	28	296.0	118.2		▪
WPB 400 x 300	124.80	390.0	300.0	11.0	19.0	28	296.0	159.4		▪
WPB 400 x 300	155.26	400.0	300.0	13.5	24.0	28	296.0	198.2		▪
WPB 400 x 300	255.74	432.0	307.0	21.0	40.0	28	296.0	326.2		▪
WPB 450 x 300	99.74	425.0	300.0	10.0	13.5	28	342.0	127.5		▪
WPB 450 x 300	139.75	440.0	300.0	11.5	21.0	28	342.0	178.5		▪
WPB 450 x 300	171.11	450.0	300.0	14.0	26.0	28	342.0	218.4		▪
WPB 450 x 300	263.32	478.0	307.0	21.0	40.0	28	342.0	335.9		▪
WPB 500 x 300	107.45	472.0	300.0	10.5	14.0	28	388.0	137.3		▪
WPB 500 x 300	155.07	490.0	300.0	12.0	23.0	28	388.0	198.0		▪
WPB 500 x 300	187.33	500.0	300.0	14.5	28.0	28	388.0	239.1		▪
WPB 500 x 300	270.27	524.0	306.0	21.0	40.0	28	388.0	344.8		▪
WPB 550 x 300	119.98	522.0	300.0	11.5	15.0	28	436.0	153.3		▪
WPB 550 x 300	166.23	540.0	300.0	12.5	24.0	28	436.0	212.2		▪
WPB 550 x 300	199.44	550.0	300.0	15.0	29.0	28	436.0	254.5		▪
WPB 550 x 300	278.19	572.0	306.0	21.0	40.0	28	436.0	354.8		▪
WPB 600 x 300	128.79	571.0	300.0	12.0	15.5	28	484.0	164.5		▪
WPB 600 x 300	177.77	590.0	300.0	13.0	25.0	28	484.0	226.9		▪
WPB 600 x 300	211.92	600.0	300.0	15.5	30.0	28	484.0	270.4		▪
WPB 600 x 300	285.47	620.0	305.0	21.0	40.0	28	484.0	364.1		▪

Indian (IS) Parallel Flange Beams (Wide Flange) (WPB)

Dimensions : IS 12778
Tolerances : IS 12779
Surface Condition : IS 12778

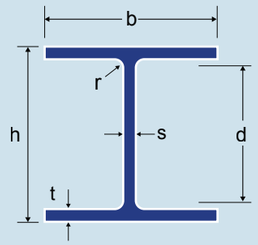


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm⁴	cm⁴	cm	cm	cm³	cm³	cm³	cm³	cm⁶	cm⁴
WPB 300 x 300	88.33	18334	6311	12.74	7.47	1264	420.7	1389	643.7	1200	87.68
WPB 300 x 300	117.03	25236	8564	12.99	7.57	1682	570.9	1874	873.5	1688	188.4
WPB 300 x 300	237.92	59271	19405	13.97	8.00	3487	1252	4083	1920	4386	1417
WPB 320 x 300	74.24	16528	4960	13.19	7.22	1098	330.7	1202	507.4	1041	58.50
WPB 320 x 300	97.63	23009	6986	13.58	7.48	1484	465.8	1634	712.6	1512	110.6
WPB 320 x 300	126.65	30904	9240	13.82	7.56	1931	616.0	2155	942.8	2069	228.6
WPB 320 x 300	244.96	68215	19711	14.77	7.94	3800	1276	4441	1958	5004	1510
WPB 340 x 300	78.89	19644	5186	13.95	7.17	1228	345.7	1347	530.9	1231	65.87
WPB 340 x 300	104.78	27785	7437	14.40	7.45	1684	495.8	1857	759.0	1824	130.0
WPB 340 x 300	134.15	36748	9691	14.64	7.52	2162	646.1	2415	989.6	2454	260.9
WPB 340 x 300	247.92	76463	19713	15.55	7.89	4056	1276	4724	1960	5584	1516
WPB 360 x 300	83.69	23141	5412	14.70	7.11	1365	360.8	1502	554.6	1444	73.96
WPB 360 x 300	112.06	33194	7888	15.22	7.42	1897	525.9	2095	805.5	2177	151.8
WPB 360 x 300	141.80	43297	10142	15.46	7.48	2405	676.2	2690	1037	2883	296.4
WPB 360 x 300	250.26	84971	19524	16.31	7.82	4302	1268	4996	1950	6137	1517
WPB 400 x 300	92.39	31384	5863	16.30	7.04	1661	390.8	1832	601.5	1948	87.77
WPB 400 x 300	124.80	45201	8565	16.84	7.33	2318	571.0	2570	876.3	2942	192.4
WPB 400 x 300	155.26	57812	10820	17.08	7.39	2891	721.4	3240	1108	3817	360.2
WPB 400 x 300	255.74	104251	19338	17.88	7.70	4826	1260	5578	1941	7410	1524
WPB 450 x 300	99.74	42058	6089	18.16	6.91	1979	405.9	2192	626.2	2572	98.87
WPB 450 x 300	139.75	63892	9467	18.92	7.28	2904	631.1	3225	969.4	4148	247.3
WPB 450 x 300	171.11	80058	11723	19.14	7.33	3558	781.5	3991	1202	5258	445.2
WPB 450 x 300	263.32	131655	19341	19.80	7.59	5509	1260	6340	1947	9251	1538
WPB 500 x 300	107.45	54857	6315	19.98	6.78	2324	421.0	2586	651.2	3304	111.2
WPB 500 x 300	155.07	87189	10368	20.98	7.24	3559	691.2	3959	1063	5643	313.0
WPB 500 x 300	187.33	107390	12625	21.19	7.27	4296	841.7	4825	1297	7018	543.4
WPB 500 x 300	270.27	162143	19157	21.69	7.45	6189	1252	7104	1939	11187	1548
WPB 550 x 300	119.98	73136	6768	21.84	6.64	2802	451.2	3139	700.5	4338	137.5
WPB 550 x 300	166.23	112197	10820	22.99	7.14	4155	721.4	4633	1112	7189	355.5
WPB 550 x 300	199.44	136956	13078	23.20	7.17	4980	871.9	5602	1347	8856	605.6
WPB 550 x 300	278.19	198249	19160	23.64	7.35	6932	1252	7944	1945	13516	1563
WPB 600 x 300	128.79	92193	6995	23.67	6.52	3229	466.3	3635	726.4	5381	153.9
WPB 600 x 300	177.77	141529	11273	24.97	7.05	4798	751.5	5363	1160	8978	402.0
WPB 600 x 300	211.92	171362	13532	25.17	7.07	5712	902.1	6437	1397	10965	672.8
WPB 600 x 300	285.47	237769	18977	25.55	7.22	7670	1244	8784	1938	15908	1574

Indian (IS) Parallel Flange Beams (Wide Flange) (WPB)

Dimensions : IS 12778
Tolerances : IS 12779
Surface Condition : IS 12778

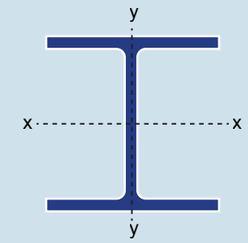


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
WPB 650 x 300	137.97	620.0	300.0	12.5	16.0	28	532.0	176.2		▪
WPB 650 x 300	189.69	640.0	300.0	13.5	26.0	28	532.0	242.1		▪
WPB 650 x 300	224.78	650.0	300.0	16.0	31.0	28	532.0	286.8		▪
WPB 650 x 300	293.38	668.0	305.0	21.0	40.0	28	532.0	374.2		▪
WPB 700 x 300	149.89	670.0	300.0	13.0	17.0	28	580.0	191.4		▪
WPB 700 x 300	204.48	690.0	300.0	14.5	27.0	28	580.0	260.9		▪
WPB 700 x 300	240.51	700.0	300.0	17.0	32.0	28	580.0	306.8		▪
WPB 700 x 300	300.67	716.0	304.0	21.0	40.0	28	580.0	383.5		▪
WPB 800 x 300	171.51	770.0	300.0	14.0	18.0	30	674.0	218.5		▪
WPB 800 x 300	224.37	790.0	300.0	15.0	28.0	30	674.0	285.8		▪
WPB 800 x 300	262.33	800.0	300.0	17.5	33.0	30	674.0	334.2		▪
WPB 800 x 300	317.35	814.0	303.0	21.0	40.0	30	674.0	404.3		▪
WPB 900 x 300	198.00	870.0	300.0	15.0	20.0	30	770.0	252.2		▪
WPB 900 x 300	251.61	890.0	300.0	16.0	30.0	30	770.0	320.5		▪
WPB 900 x 300	291.45	900.0	300.0	18.5	35.0	30	770.0	371.3		▪

Indian (IS) Parallel Flange Beams (Wide Flange) (WPB)

Dimensions : IS 12778
Tolerances : IS 12779
Surface Condition : IS 12778

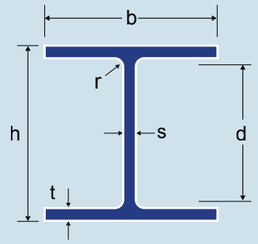


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
WPB 650 x 300	137.97	114327	7222	25.47	6.40	3688	481.5	4173	752.6	6567	171.8
WPB 650 x 300	189.69	175561	11725	26.93	6.96	5486	781.7	6150	1210	11027	452.7
WPB 650 x 300	224.78	210999	13986	27.12	6.98	6492	932.4	7333	1447	13363	745.1
WPB 650 x 300	293.38	282051	18981	27.45	7.12	8445	1245	9670	1943	18650	1589
WPB 700 x 300	149.89	143171	7674	27.35	6.33	4274	511.6	4855	801.8	8155	199.6
WPB 700 x 300	204.48	215752	12180	28.75	6.83	6254	812.0	7046	1262	13352	518.9
WPB 700 x 300	240.51	257339	14443	28.96	6.86	7353	962.8	8342	1501	16064	837.5
WPB 700 x 300	300.67	329728	18799	29.32	7.00	9210	1237	10554	1936	21397	1599
WPB 800 x 300	171.51	208882	8134	30.92	6.10	5426	542.2	6225	858.1	11451	256.8
WPB 800 x 300	224.37	303442	12639	32.58	6.65	7682	842.6	8699	1317	18290	596.9
WPB 800 x 300	262.33	359083	14904	32.78	6.68	8977	993.6	10229	1559	21840	946.0
WPB 800 x 300	317.35	442598	18627	33.09	6.79	10875	1230	12488	1938	27775	1646
WPB 900 x 300	198.00	301145	9041	34.55	5.99	6923	602.8	7999	959.6	16256	334.9
WPB 900 x 300	251.61	422075	13547	36.29	6.50	9485	903.2	10811	1420	24962	736.8
WPB 900 x 300	291.45	494065	15816	36.48	6.53	10979	1054	12584	1665	29461	1137

Indian (IS) Parallel Flange Beams (Narrow Flange) (NPB)

Dimensions : IS 12778
Tolerances : IS 12779
Surface Condition : IS 12778

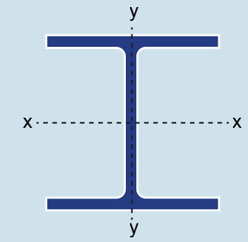


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
NPB 100 x 55	8.10	100.0	55.0	4.1	5.7	7	74.6	10.32	▪	
NPB 120 x 60	10.37	120.0	64.0	4.4	6.3	7	93.4	13.21	▪	
NPB 140 x 70	12.89	140.0	73.0	4.7	6.9	9	108.2	16.70	▪	
NPB 160 x 80	15.77	160.0	82.0	5.0	7.4	9	127.2	20.09	▪	
NPB 180 x 90	15.37	177.0	91.0	4.3	6.5	9	146.0	19.58	▪	
NPB 180 x 90	18.80	180.0	91.0	5.3	8.0	9	146.0	23.95	▪	
NPB 180 x 90	21.27	182.0	92.0	6.0	9.0	9	146.0	27.10	▪	
NPB 200 x 100	18.42	197.0	100.0	4.5	7.0	10	163.0	23.09	▪	
NPB 200 x 100	22.36	200.0	100.0	5.6	8.5	10	163.0	28.11	▪	
NPB 200 x 100	25.09	202.0	102.0	6.2	9.5	10	163.0	31.58	▪	
NPB 220 x 110	22.18	217.0	110.0	5.0	7.7	12	177.6	28.26		▪
NPB 220 x 110	26.20	220.0	110.0	5.9	9.2	12	177.6	33.37		▪
NPB 220 x 110	29.35	222.0	112.0	6.6	10.2	12	177.6	37.39		▪
NPB 240 x 120	26.15	237.0	120.0	5.2	8.3	15	190.4	33.31		▪
NPB 240 x 120	30.71	240.0	120.0	6.2	9.8	15	190.4	39.12		▪
NPB 240 x 120	34.31	242.0	122.0	7.0	10.8	15	190.4	43.71		▪
NPB 270 x 135	30.73	267.0	135.0	5.5	8.7	15	219.6	39.15		▪
NPB 270 x 135	36.07	270.0	135.0	6.6	10.2	15	219.6	45.95		▪
NPB 270 x 135	42.26	274.0	136.0	7.5	12.2	15	219.6	53.84		▪
NPB 300 x 150	36.52	297.0	150.0	6.1	9.2	15	248.6	46.53		▪
NPB 300 x 150	42.24	300.0	150.0	7.1	10.7	15	248.6	53.81		▪
NPB 300 x 150	49.32	304.0	152.0	8.0	12.7	15	248.6	62.83		▪
NPB 330 x 160	42.97	327.0	160.0	6.5	10.0	18	271.0	54.74		▪
NPB 330 x 160	49.15	330.0	160.0	7.5	11.5	18	271.0	62.61		▪
NPB 330 x 160	57.00	334.0	162.0	8.5	13.5	18	271.0	72.62		▪
NPB 350 x 170	50.21	357.6	170.0	6.6	11.5	18	298.6	63.96		▪
NPB 350 x 170	57.09	360.0	170.0	8.0	12.7	18	298.6	72.73		▪
NPB 350 x 170	66.04	364.0	172.0	9.2	14.7	18	298.6	84.13		▪
NPB 400 x 180	57.38	397.0	180.0	7.0	12.0	18	337.0	72.09		▪
NPB 400 x 180	66.30	400.0	180.0	8.6	13.5	18	337.0	83.46		▪
NPB 400 x 180	75.66	404.0	182.0	9.7	15.5	18	337.0	95.38		▪
NPB 450 x 190	67.15	447.0	190.0	7.6	13.1	21	378.8	85.55		▪
NPB 450 x 190	77.57	450.0	190.0	9.4	14.6	21	378.8	98.82		▪
NPB 450 x 190	92.36	456.0	192.0	11.0	17.6	21	378.8	117.7		▪
NPB 500 x 200	79.36	497.0	200.0	8.4	14.5	18	432.0	100.1		▪

Indian (IS) Parallel Flange Beams (Narrow Flange) (NPB)

Dimensions : IS 12778
Tolerances : IS 12779
Surface Condition : IS 12778

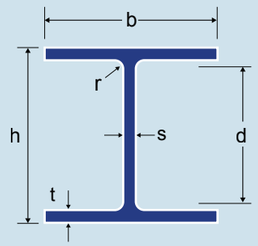


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
NPB 100 x 55	8.10	171.0	15.92	4.07	1.24	34.20	5.79	39.41	9.18	0.35	1.20
NPB 120 x 60	10.37	317.8	27.67	4.90	1.45	52.96	8.65	60.73	13.62	0.89	1.74
NPB 140 x 70	12.89	551.3	45.00	5.75	1.64	78.75	12.33	90.00	19.46	1.98	2.74
NPB 160 x 80	15.77	869.3	68.31	6.58	1.84	108.7	16.66	123.9	26.18	3.96	3.60
NPB 180 x 90	15.37	1063	81.89	7.37	2.05	120.1	18.00	135.3	28.04	5.93	2.70
NPB 180 x 90	18.80	1317	100.9	7.42	2.05	146.3	22.16	166.4	34.69	7.43	4.79
NPB 180 x 90	21.27	1505	117.3	7.45	2.08	165.4	25.50	189.1	40.02	8.74	6.76
NPB 200 x 100	18.42	1562	117.0	8.23	2.25	158.6	23.40	178.3	36.42	10.53	3.66
NPB 200 x 100	22.36	1914	142.2	8.25	2.25	191.4	28.44	217.3	44.49	12.99	6.37
NPB 200 x 100	25.09	2182	168.7	8.31	2.31	216.0	33.07	246.1	51.78	15.57	8.74
NPB 220 x 110	22.18	2317	171.4	9.05	2.46	213.5	31.17	240.2	48.65	18.71	5.69
NPB 220 x 110	26.20	2772	204.9	9.11	2.48	252.0	37.25	285.4	58.31	22.67	9.07
NPB 220 x 110	29.35	3134	239.8	9.16	2.53	282.3	42.83	321.1	67.13	26.79	12.27
NPB 240 x 120	26.15	3290	240.1	9.94	2.68	277.7	40.02	311.6	62.70	31.26	8.35
NPB 240 x 120	30.71	3892	283.6	9.97	2.69	324.3	47.27	366.6	74.27	37.39	12.88
NPB 240 x 120	34.31	4369	328.5	10.00	2.74	361.1	53.86	410.3	84.76	43.68	17.18
NPB 270 x 135	30.73	4917	358.0	11.21	3.02	368.3	53.03	412.5	82.65	59.51	10.30
NPB 270 x 135	36.07	5790	419.9	11.23	3.02	428.9	62.20	484.0	97.30	70.58	15.94
NPB 270 x 135	42.26	6947	513.5	11.36	3.09	507.1	75.51	574.6	118.2	87.64	24.90
NPB 300 x 150	36.52	7173	519.0	12.42	3.34	483.1	69.20	541.8	107.6	107.2	13.43
NPB 300 x 150	42.24	8356	603.8	12.46	3.35	557.1	80.50	628.4	125.6	125.9	20.12
NPB 300 x 150	49.32	9994	745.7	12.61	3.45	657.5	98.12	743.8	153.0	157.7	31.06
NPB 330 x 160	42.97	10231	685.2	13.67	3.54	625.7	85.64	701.9	133.8	171.5	19.57
NPB 330 x 160	49.15	11767	788.1	13.71	3.55	713.1	98.52	804.3	154.2	199.1	28.15
NPB 330 x 160	57.00	13910	960.4	13.84	3.64	833.0	118.6	942.8	185.7	245.7	42.15
NPB 350 x 170	50.21	14515	944.3	15.06	3.84	811.8	111.1	906.8	172.5	282.0	26.51
NPB 350 x 170	57.09	16266	1043	14.95	3.79	903.6	122.8	1019	191.8	313.6	37.32
NPB 350 x 170	66.04	19047	1251	15.05	3.86	1047	145.5	1186	227.7	380.3	55.76
NPB 400 x 180	57.38	19967	1169	16.64	4.03	1006	129.9	1126	201.8	432.2	31.66
NPB 400 x 180	66.30	22803	1316	16.53	3.97	1140	146.3	1289	228.6	490.0	46.94
NPB 400 x 180	75.66	26422	1563	16.64	4.05	1308	171.7	1484	268.8	587.6	68.23
NPB 450 x 190	67.15	29759	1502	18.65	4.19	1331	158.1	1494	246.8	704.9	45.67
NPB 450 x 190	77.57	33743	1676	18.48	4.12	1500	176.4	1702	277.4	791.0	66.87
NPB 450 x 190	92.36	40923	2085	18.65	4.21	1795	217.2	2046	342.2	997.6	109.0
NPB 500 x 200	79.36	42414	1938	20.58	4.40	1707	193.8	1923	301.4	1125	58.84

Indian (IS) Parallel Flange Beams (Narrow Flange) (NPB)

Dimensions : IS 12778
Tolerances : IS 12779
Surface Condition : IS 12778

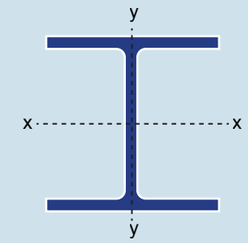


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
NPB 500 x 200	90.68	500.0	200.0	10.2	16.0	18	432.0	114.5		▪
NPB 500 x 200	107.31	506.0	202.0	12.0	19.0	18	432.0	135.7		▪
NPB 550 x 210	92.07	547.0	210.0	9.0	15.7	24	467.6	117.3		▪
NPB 550 x 210	105.52	550.0	210.0	11.1	17.2	24	467.6	134.4		▪
NPB 550 x 210	122.52	556.0	212.0	12.7	20.2	24	467.6	156.1		▪
NPB 600 x 220	107.56	597.0	220.0	9.8	17.5	24	514.0	137.0		▪
NPB 600 x 220	122.45	600.0	220.0	12.0	19.0	24	514.0	156.0		▪
NPB 600 x 220	154.46	610.0	224.0	15.0	24.0	24	514.0	196.8		▪

Indian (IS) Parallel Flange Beams (Narrow Flange) (NPB)

Dimensions : IS 12778
Tolerances : IS 12779
Surface Condition : IS 12778

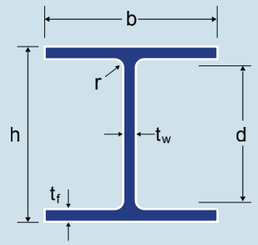


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
NPB 500 x 200	90.68	47679	2140	20.40	4.32	1907	214.0	2171	335.5	1249	84.03
NPB 500 x 200	107.31	57257	2620	20.54	4.39	2263	259.4	2590	408.2	1548	136.7
NPB 550 x 210	92.07	59979	2432	22.61	4.55	2193	231.6	2475	363.2	1710	86.53
NPB 550 x 210	105.52	67116	2668	22.35	4.45	2441	254.1	2787	402.0	1884	123.2
NPB 550 x 210	122.52	79157	3224	22.52	4.55	2847	304.2	3263	482.4	2302	187.5
NPB 600 x 220	107.56	82919	3116	24.60	4.77	2778	283.3	3141	444.0	2607	118.8
NPB 600 x 220	122.45	92083	3387	24.30	4.66	3069	307.9	3512	487.4	2846	165.4
NPB 600 x 220	154.46	118302	4521	24.52	4.79	3879	403.6	4471	642.3	3860	318.1

Japanese (JIS) H-Beams

Dimensions : JIS G3192
Tolerances : JIS G3192
Surface Condition : JIS G3192

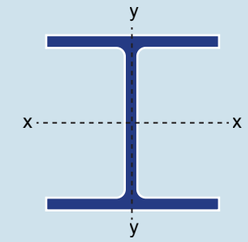


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
100 × 50	9.30	100	50	5	7	8	70	11.85	▪	
100 × 100	16.9	100	100	6	8	8	68	21.59	▪	
150 × 150	31.1	150	150	7	10	10	110	39.96		▪
175 × 175	40.4	175	175	7.5	11	13	127	51.43		▪
200 × 100	17.8	198	99	4.5	7	8	168	22.69	▪	
	20.9	200	100	5.5	8	8	168	26.67	▪	
200 × 150	29.9	194	150	6	9	11	154	38.60		▪
200 × 200	49.9	200	200	8	12	13	150	63.53		▪
250 × 125	25.1	248	124	5	8	10	212	32.30		▪
	29.0	250	125	6	9	10	212	37.28		▪
250 × 175	43.6	244	175	7	11	15	192	55.97		▪
250 × 250	63.8*	244	252	11	11	15	192	81.79		▪
	71.8	250	250	9	14	15	192	91.91		▪
	81.6*	250	255	14	14	15	192	104.4		▪
300 × 150	32.0	298	149	5.5	8	13	256	40.80		▪
	36.7	300	150	6.5	9	13	256	46.78		▪
300 × 200	55.8	294	200	8	12	16	238	71.80		▪
	64.4	298	201	9	14	16	238	82.78		▪
300 × 300	83.4*	294	302	12	12	16	238	107.1		▪
	93.0	300	300	10	15	16	238	119.2		▪
	105*	300	305	15	15	16	238	134.2		▪
350 × 175	41.2	346	174	6	9	14	300	52.68		▪
	49.4	350	175	7	11	14	300	63.14		▪
350 × 250	78.1	340	250	9	14	13	286	99.53		▪
350 × 350	135	350	350	12	19	18	276	173.2		▪
400 × 200	56.1	396	199	7	11	18	338	72.74		▪
	65.4	400	200	8	13	18	338	84.70		▪
400 × 300	105	390	300	10	16	15	328	133.7		▪
400 × 400	172	400	400	13	21	22	314	218.7		▪
	232	414	405	18	28	22	314	295.4		▪
	283	428	407	20	35	22	314	360.7		▪
450 × 200	65.1	446	199	8	12	18	386	84.30		▪
	74.9	450	200	9	14	18	386	96.76		▪
450 × 300	121	440	300	11	18	13	378	153.9		▪
500 × 200	77.9	496	199	9	14	18	432	100.6		▪

Japanese (JIS) H-Beams

Dimensions : JIS G3192
Tolerances : JIS G3192
Surface Condition : JIS G3192

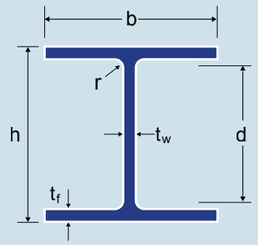


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
100 × 50	9.30	187.5	14.79	3.98	1.12	37.50	5.91	44.06	9.58	0.32	2.12
100 × 100	16.9	377.9	133.6	4.18	2.49	75.59	26.72	86.39	41.07	2.82	4.91
150 × 150	31.1	1635	563.2	6.40	3.75	217.9	75.09	245.0	114.7	27.56	13.36
175 × 175	40.4	2895	983.8	7.50	4.37	330.9	112.4	370.3	171.8	66.07	21.34
200 × 100	17.8	1543	113.4	8.25	2.24	155.9	22.92	175.4	35.53	10.32	3.32
	20.9	1806	133.7	8.23	2.24	180.6	26.74	205.1	41.71	12.29	5.17
200 × 150	29.9	2661	506.9	8.30	3.62	274.3	67.59	305.1	103.6	43.32	10.25
200 × 200	49.9	4716	1602	8.62	5.02	471.6	160.2	525.5	244.1	141.4	30.16
250 × 125	25.1	3489	254.7	10.39	2.81	281.4	41.08	315.1	63.49	36.61	6.18
	29.0	4004	293.7	10.36	2.81	320.3	46.98	361.6	72.98	42.54	9.12
250 × 175	43.6	6091	984.2	10.43	4.19	499.3	112.5	555.6	172.9	133.4	22.47
250 × 250	63.8*	8757	2938	10.35	5.99	717.8	233.2	802.2	357.7	398.2	43.07
	71.8	10803	3649	10.84	6.30	864.2	291.9	957.7	444.0	507.6	58.03
	81.6*	11454	3876	10.47	6.09	916.3	304.0	1036	468.1	538.7	85.04
300 × 150	32.0	6318	442.0	12.44	3.29	424.0	59.33	475.1	91.94	92.73	8.79
	36.7	7209	507.5	12.41	3.29	480.6	67.67	542.1	105.3	107.2	12.73
300 × 200	55.8	11241	1603	12.51	4.72	764.7	160.3	851.5	246.4	318.1	34.12
	64.4	13213	1898	12.63	4.79	886.8	188.9	992.1	290.6	382.1	51.27
300 × 300	83.4*	16767	5515	12.51	7.18	1141	365.2	1270	559.0	1095	65.05
	93.0	20313	6754	13.05	7.53	1354	450.3	1494	684.2	1371	86.23
	105*	21438	7104	12.64	7.28	1429	465.8	1606	715.3	1440	122.6
350 × 175	41.2	11094	791.5	14.51	3.88	641.3	90.98	716.2	140.5	224.4	13.74
	49.4	13559	984.3	14.65	3.95	774.8	112.5	867.9	173.9	282.3	23.04
350 × 250	78.1	21228	3649	14.60	6.05	1249	291.9	1382	445.3	968.7	58.43
350 × 350	135	40149	13585	15.22	8.86	2294	776.3	2535	1179	3719	195.4
400 × 200	56.1	20211	1448	16.67	4.46	1021	145.5	1138	225.0	535.4	28.72
	65.4	23896	1737	16.80	4.53	1195	173.7	1337	268.9	649.0	44.03
400 × 300	105	38010	7204	16.86	7.34	1949	480.3	2150	731.1	2518	102.2
400 × 400	172	66621	22413	17.45	10.12	3331	1121	3672	1702	8044	303.9
	232	92771	31027	17.72	10.25	4482	1532	5026	2333	11547	720.5
	283	119204	39362	18.18	10.45	5570	1934	6311	2944	15185	1321
450 × 200	65.1	28697	1580	18.45	4.33	1287	158.8	1450	247.1	742.2	38.61
	74.9	33451	1872	18.59	4.40	1487	187.2	1679	291.6	887.1	57.14
450 × 300	121	54731	8106	18.86	7.26	2488	540.4	2757	823.9	3606	141.9
500 × 200	77.9	41531	1844	20.32	4.28	1675	185.3	1900	289.7	1068	58.08

Japanese (JIS) H-Beams

Dimensions : JIS G3192
Tolerances : JIS G3192
Surface Condition : JIS G3192



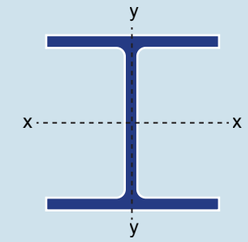
Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
500 × 200	88.2	500	200	10	16	18	432	113.6		▪
500 × 300	111	482	300	11	15	18	416	142.5		▪
	125	488	300	11	18	18	416	160.5		▪
600 × 200	92.5*	596	199	10	15	15	536	118.2		▪
	103	600	200	11	17	15	536	132.2		▪
600 × 300	133	582	300	12	17	18	512	170.5		▪
	147	588	300	12	20	18	512	188.5		▪
	170*	594	302	14	23	18	512	218.4		▪
700 × 300	163	692	300	13	20	18	616	207.5		▪
	182	700	300	13	24	18	616	231.5		▪
800 × 300	188*	792	300	14	22	18	712	239.5		▪
	207	800	300	14	26	18	712	263.5		▪
900 × 300	210*	890	299	15	23	18	808	266.9		▪
	240	900	300	16	28	18	808	305.8		▪
	283	912	302	18	34	18	808	360.1		▪

* = subject to mill confirmation

Japanese (JIS) H-Beams

Dimensions : JIS G3192
Tolerances : JIS G3192
Surface Condition : JIS G3192

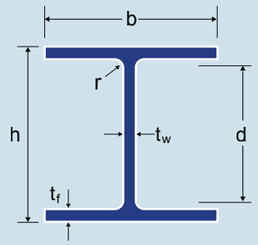


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
500 × 200	88.2	47508	2140	20.45	4.34	1900	214.0	2160	335.0	1249	82.57
500 × 300	111	58923	6758	20.33	6.89	2445	450.5	2725	691.9	3680	102.7
	125	69508	8108	20.81	7.11	2849	540.5	3162	827.3	4473	151.3
600 × 200	92.5*	67013	1976	23.81	4.09	2249	198.6	2589	313.3	1663	72.15
	103	75929	2275	23.97	4.15	2531	227.5	2917	359.4	1926	100.8
600 × 300	133	99911	7661	24.20	6.70	3433	510.7	3857	788.2	6105	147.7
	147	115311	9011	24.73	6.91	3922	600.7	4384	923.6	7259	208.6
	170*	134522	10575	24.82	6.96	4529	700.3	5092	1080	8606	317.9
700 × 300	163	168425	9015	28.49	6.59	4868	601.0	5503	931.4	10161	228.2
	182	197491	10815	29.21	6.83	5643	721.0	6338	1112	12338	342.2
800 × 300	188*	248344	9921	32.20	6.44	6271	661.4	7143	1031	14674	304.9
	207	286361	11721	32.97	6.67	7159	781.4	8098	1211	17523	439.8
900 × 300	210*	338540	10275	35.61	6.20	7608	687.3	8750	1080	19256	364.7
	240	404492	12633	36.37	6.43	8989	842.2	10290	1319	23952	581.4
	283	491011	15654	36.93	6.59	10768	1037	12337	1625	30080	980.8

Korean (KS) H-Beams

Dimensions : KS D3502
Tolerances : KS D3502
Surface Condition : KS D3502

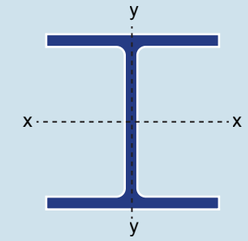


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
150 × 150	31.5	150	150	7	10	10	110	39.96		▪
175 × 175	40.2*	175	175	7.5	11	13	127	51.43		▪
200 × 150	30.6	194	150	6	9	11	154	38.60		▪
200 × 200	49.9	200	200	8	12	13	150	63.53		▪
	56.2*	200	204	12	12	13	150	71.53		▪
	65.7*	208	202	10	16	13	150	83.69		▪
250 × 125	25.7	248	124	5	8	10	212	32.30		▪
	29.6	250	125	6	9	10	212	37.28		▪
250 × 175	44.1	244	175	7	11	15	192	55.97		▪
250 × 250	64.4*	244	252	11	11	15	192	81.79		▪
	66.5*	248	249	8	13	15	192	84.43		▪
	72.4	250	250	9	14	15	192	91.91		▪
	82.2*	250	255	14	14	15	192	104.4		▪
300 × 150	32.0*	298	149	5.5	8	13	256	40.80		▪
	36.7	300	150	6.5	9	13	256	46.78		▪
300 × 200	56.8	294	200	8	12	16	238	71.80		▪
	65.4	298	201	9	14	16	238	82.78		▪
300 × 300	84.5*	294	302	12	12	16	238	107.1		▪
	87.0*	298	299	9	14	16	238	110.2		▪
	94.0	300	300	10	15	16	238	119.2		▪
	106.0*	300	305	15	15	16	238	134.2		▪
	106.0*	304	301	11	17	16	238	134.2		▪
	130.0*	310	305	15	20	16	238	164.7		▪
	142.0*	310	310	20	20	16	238	180.2		▪
350 × 175	41.4*	346	174	6	9	14	300	52.68		▪
	49.6	350	175	7	11	14	300	63.14		▪
	57.8*	354	176	8	13	14	300	73.68		▪
350 × 250	69.2*	336	249	8	12	13	286	86.17		▪
	79.7*	340	250	9	14	13	286	99.53		▪
350 × 350	106.0*	338	351	13	13	18	276	134.6		▪
	115.0*	344	348	10	16	18	276	145.3		▪
	131.0*	344	354	16	16	18	276	166.0		▪
	137.0	350	350	12	19	18	276	173.2		▪
	156.0*	350	357	19	19	18	276	197.7		▪
400 × 200	56.6*	396	199	7	11	15	344	71.89		▪
	66.0	400	200	8	13	15	344	83.85		▪

Korean (KS) H-Beams

Dimensions : KS D3502
Tolerances : KS D3502
Surface Condition : KS D3502

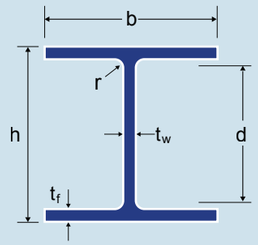


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
150 × 150	31.5	1635	563.2	6.40	3.75	217.9	75.09	245.0	114.7	27.56	13.36
175 × 175	40.2*	2895	983.8	7.50	4.37	330.9	112.4	370.3	171.8	66.07	21.34
200 × 150	30.6	2661	506.9	8.30	3.62	274.3	67.59	305.1	103.6	43.32	10.25
200 × 200	49.9	4716	1602	8.62	5.02	471.6	160.2	525.5	244.1	141.4	30.16
	56.2*	4982	1702	8.35	4.88	498.2	166.8	565.5	257.3	150.0	43.59
	65.7*	6530	2200	8.83	5.13	627.9	217.9	710.3	332.4	202.6	67.22
250 × 125	25.7	3489	254.7	10.39	2.81	281.4	41.08	315.1	63.49	36.61	6.18
	29.6	4004	293.7	10.36	2.81	320.3	46.98	361.6	72.98	42.54	9.12
250 × 175	44.1	6091	984.2	10.43	4.19	499.3	112.5	555.6	172.9	133.4	22.47
250 × 250	64.4*	8757	2938	10.35	5.99	717.8	233.2	802.2	357.7	398.2	43.07
	66.5*	9901	3347	10.83	6.30	798.4	268.8	880.1	408.5	461.8	45.77
	72.4	10803	3649	10.84	6.30	864.2	291.9	957.7	444.0	507.6	58.03
	82.2*	11454	3876	10.47	6.09	916.3	304.0	1036	468.1	538.7	85.04
300 × 150	32.0*	6318	442.0	12.44	3.29	424.0	59.33	475.1	91.94	92.73	8.79
	36.7	7209	507.5	12.41	3.29	480.6	67.67	542.1	105.3	107.2	12.73
300 × 200	56.8	11241	1603	12.51	4.72	764.7	160.3	851.5	246.4	318.1	34.12
	65.4	13213	1898	12.63	4.79	886.8	188.9	992.1	290.6	382.1	51.27
300 × 300	84.5*	16767	5515	12.51	7.18	1141	365.2	1270	559.0	1095	65.05
	87.0*	18751	6240	13.04	7.52	1258	417.4	1382	633.6	1258	69.20
	94.0	20313	6754	13.05	7.53	1354	450.3	1494	684.2	1371	86.23
	106.0*	21438	7104	12.64	7.28	1429	465.8	1606	715.3	1440	122.6
	106.0*	23283	7732	13.17	7.59	1532	513.7	1698	780.9	1591	122.2
	130.0*	28531	9468	13.16	7.58	1841	620.9	2071	948.4	1988	216.0
	142.0*	29773	9953	12.85	7.43	1921	642.1	2191	991.0	2088	284.0
350 × 175	41.4*	11094	791.5	14.51	3.88	641.3	90.98	716.2	140.5	224.4	13.74
	49.6	13559	984.3	14.65	3.95	774.8	112.5	867.9	173.9	282.3	23.04
	57.8*	16097	1184	14.78	4.01	909.4	134.5	1022	208.2	343.4	36.11
350 × 250	69.2*	18055	3090	14.48	5.99	1075	248.2	1185	378.3	810.3	38.13
	79.7*	21228	3649	14.60	6.05	1249	291.9	1382	445.3	968.7	58.43
350 × 350	106.0*	28044	9379	14.43	8.35	1659	534.4	1842	816.9	2474	96.10
	115.0*	33149	11244	15.10	8.80	1927	646.2	2112	980.0	3023	117.8
	131.0*	35184	11845	14.56	8.45	2046	669.2	2289	1026	3182	172.9
	137.0	40149	13585	15.22	8.86	2294	776.3	2535	1179	3719	195.4
	156.0*	42650	14431	14.69	8.54	2437	808.5	2750	1243	3946	284.3
400 × 200	56.6*	19931	1447	16.65	4.49	1007	145.4	1123	224.1	535.4	26.34
	66.0	23616	1736	16.78	4.55	1181	173.6	1321	267.9	649.0	41.19

Korean (KS) H-Beams

Dimensions : KS D3502
Tolerances : KS D3502
Surface Condition : KS D3502



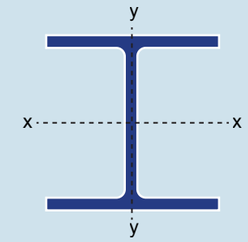
Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
400 × 300	107.0*	390	300	10	16	15	328	133.7		▪
400 × 400	140.0*	388	402	15	15	22	314	178.5		▪
	147.0*	394	398	11	18	22	314	186.8		▪
	168.0*	394	405	18	18	22	314	214.4		▪
	172.0	400	400	13	21	22	314	218.7		▪
	197.0*	400	408	21	21	22	314	250.7		▪
	200.0*	406	403	16	24	22	314	254.9		▪
	232.0	414	405	18	28	22	314	295.4		▪
	283.0	428	407	20	35	22	314	360.7		▪
450 × 200	66.2*	446	199	8	12	18	386	84.30		▪
	76.0	450	200	9	14	18	386	96.76		▪
450 × 300	106.0*	434	299	10	15	13	378	131.6		▪
	124.0*	440	300	11	18	13	378	153.9		▪
500 × 200	79.5*	496	199	9	14	18	432	100.6		▪
	89.6	500	200	10	16	18	432	113.6		▪
	103.0*	506	201	11	19	18	432	130.6		▪
500 × 300	114.0	482	300	11	15	26	400	145.5		▪
	128.0	488	300	11	18	26	400	163.5		▪
600 × 200	94.6*	596	199	10	15	22	522	120.5		▪
	106.0	600	200	11	17	22	522	134.4		▪
	120.0*	606	201	12	20	22	522	152.5		▪
	134.0*	612	202	13	23	22	522	170.7		▪
600 × 300	137.0	582	300	12	17	28	492	174.5		▪
	151.0	588	300	12	20	28	492	192.5		▪
	175.0	594	302	14	23	28	492	222.4		▪
700 × 300	166.0	692	300	13	20	28	596	211.5		▪
	185.0	700	300	13	24	28	596	235.5		▪
	215.0*	708	302	15	28	28	596	273.6		▪
800 × 300	191.0*	792	300	14	22	28	692	243.4		▪
	210.0	800	300	14	26	28	692	267.4		▪
	241.0*	808	302	16	30	28	692	307.6		▪
900 × 300	213.0*	890	299	15	23	28	788	270.9		▪
	243.0	900	300	16	28	28	788	309.8		▪
	286.0*	912	302	18	34	28	788	364.0		▪
	307.0*	918	303	19	37	28	788	391.3		▪

* = subject to mill confirmation

Korean (KS) H-Beams

Dimensions : KS D3502
Tolerances : KS D3502
Surface Condition : KS D3502

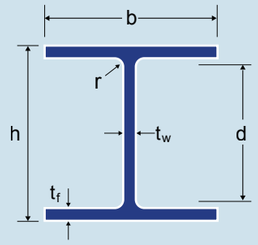


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
400 × 300	107.0*	38010	7204	16.86	7.34	1949	480.3	2150	731.1	2518	102.2
400 × 400	140.0*	48965	16258	16.56	9.54	2524	808.9	2802	1237	5649	174.3
	147.0*	56145	18923	17.34	10.06	2850	950.9	3118	1442	6685	193.4
	168.0*	59713	19955	16.69	9.65	3031	985.4	3390	1511	7044	290.0
	172.0	66621	22413	17.45	10.12	3331	1121	3672	1702	8044	303.9
	197.0*	70888	23809	16.82	9.75	3544	1167	3992	1794	8536	450.4
	200.0*	78039	26200	17.50	10.14	3844	1300	4280	1979	9551	467.0
	232.0	92771	31027	17.72	10.25	4482	1532	5026	2333	11547	720.5
	283.0	119204	39362	18.18	10.45	5570	1934	6311	2944	15185	1321
450 × 200	66.2*	28697	1580	18.45	4.33	1287	158.8	1450	247.1	742.2	38.61
	76.0	33451	1872	18.59	4.40	1487	187.2	1679	291.6	887.1	57.14
450 × 300	106.0*	45456	6687	18.59	7.13	2095	447.3	2316	682.1	2933	87.11
	124.0*	54731	8106	18.86	7.26	2488	540.4	2757	823.9	3606	141.9
500 × 200	79.5*	41531	1844	20.32	4.28	1675	185.3	1900	289.7	1068	58.08
	89.6	47508	2140	20.45	4.34	1900	214.0	2160	335.0	1249	82.57
	103.0*	56178	2580	20.74	4.44	2220	256.7	2526	401.7	1525	126.9
500 × 300	114.0	60367	6764	20.37	6.82	2505	450.9	2791	696.4	3680	122.3
	128.0	70952	8114	20.83	7.04	2908	540.9	3228	832.3	4473	170.2
600 × 200	94.6*	68716	1980	23.88	4.05	2306	199.0	2651	316.3	1663	83.29
	106.0	77632	2278	24.03	4.12	2588	227.8	2979	362.7	1926	113.6
	120.0*	90395	2721	24.35	4.22	2983	270.7	3432	430.6	2324	166.2
	134.0*	103487	3176	24.63	4.31	3382	314.5	3893	500.0	2740	234.9
600 × 300	137.0	102710	7670	24.26	6.63	3530	511.3	3963	794.7	6105	177.1
	151.0	118110	9020	24.77	6.85	4017	601.3	4489	930.7	7259	237.4
	175.0	137321	10585	24.85	6.90	4624	701.0	5197	1088	8606	354.7
700 × 300	166.0	172424	9025	28.55	6.53	4983	601.6	5629	938.5	10161	260.9
	185.0	201489	10825	29.25	6.78	5757	721.6	6464	1120	12338	375.1
	215.0*	237141	12887	29.44	6.86	6699	853.4	7559	1327	14859	579.3
800 × 300	191.0*	253639	9931	32.28	6.39	6405	662.1	7288	1038	14674	341.6
	210.0	291657	11731	33.02	6.62	7291	782.1	8243	1220	17523	477.2
	241.0*	339234	13813	33.21	6.70	8397	914.8	9534	1430	20840	716.6
900 × 300	213.0*	345314	10285	35.70	6.16	7760	688.0	8913	1088	19256	405.8
	243.0	411267	12644	36.44	6.39	9139	843.0	10454	1328	23952	628.1
	286.0*	497785	15667	36.98	6.56	10916	1038	12501	1634	30080	1040
	307.0*	542159	17221	37.22	6.63	11812	1137	13540	1791	33287	1305

Korean (KS) H-Beams

Dimensions : KS F4603
Tolerances : KS F4603
Surface Condition : KS F4603



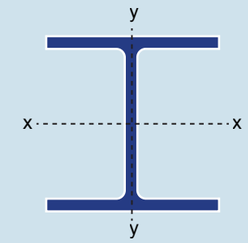
Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
200 × 200	49.9	200	200	8	12	13	150	63.53		▪
	56.2*	200	204	12	12	13	150	71.53		▪
	65.7*	208	202	10	16	13	150	83.69		▪
250 × 250	64.4*	244	252	11	11	15	192	81.79		▪
	66.5*	248	249	8	13	15	192	84.43		▪
	72.4	250	250	9	14	15	192	91.91		▪
	82.2*	250	255	14	14	15	192	104.4		▪
300 × 200	56.8	294	200	8	12	16	238	71.80		▪
	65.4	298	201	9	14	16	238	82.78		▪
300 × 300	84.5*	294	302	12	12	16	238	107.1		▪
	87.0*	298	299	9	14	16	238	110.2		▪
	94.0	300	300	10	15	16	238	119.2		▪
	106.0*	300	305	15	15	16	238	134.2		▪
	106.0*	304	301	11	17	16	238	134.2		▪
	130.0*	310	305	15	20	16	238	164.7		▪
	142.0*	310	310	20	20	16	238	180.2		▪
350 × 350	106.0*	338	351	13	13	18	276	134.6		▪
	115.0*	344	348	10	16	18	276	145.3		▪
	131.0*	344	354	16	16	18	276	166.0		▪
	137.0	350	350	12	19	18	276	173.2		▪
	156.0*	350	357	19	19	18	276	197.7		▪
400 × 400	140.0*	388	402	15	15	22	314	178.5		▪
	147.0*	394	398	11	18	22	314	186.8		▪
	168.0*	394	405	18	18	22	314	214.4		▪
	172.0	400	400	13	21	22	314	218.7		▪
	197.0*	400	408	21	21	22	314	250.7		▪
	200.0*	406	403	16	24	22	314	254.9		▪
	232.0	414	405	18	28	22	314	295.4		▪
	283.0	428	407	20	35	22	314	360.7		▪
450 × 300	124.0*	440	300	11	18	24	356	157.4		▪
500 × 300	128.0*	488	300	11	18	26	400	163.5		▪
600 × 300	151.0*	588	300	12	20	28	492	192.5		▪
700 × 300	185.0*	700	300	13	24	28	596	235.5		▪

* = subject to mill confirmation

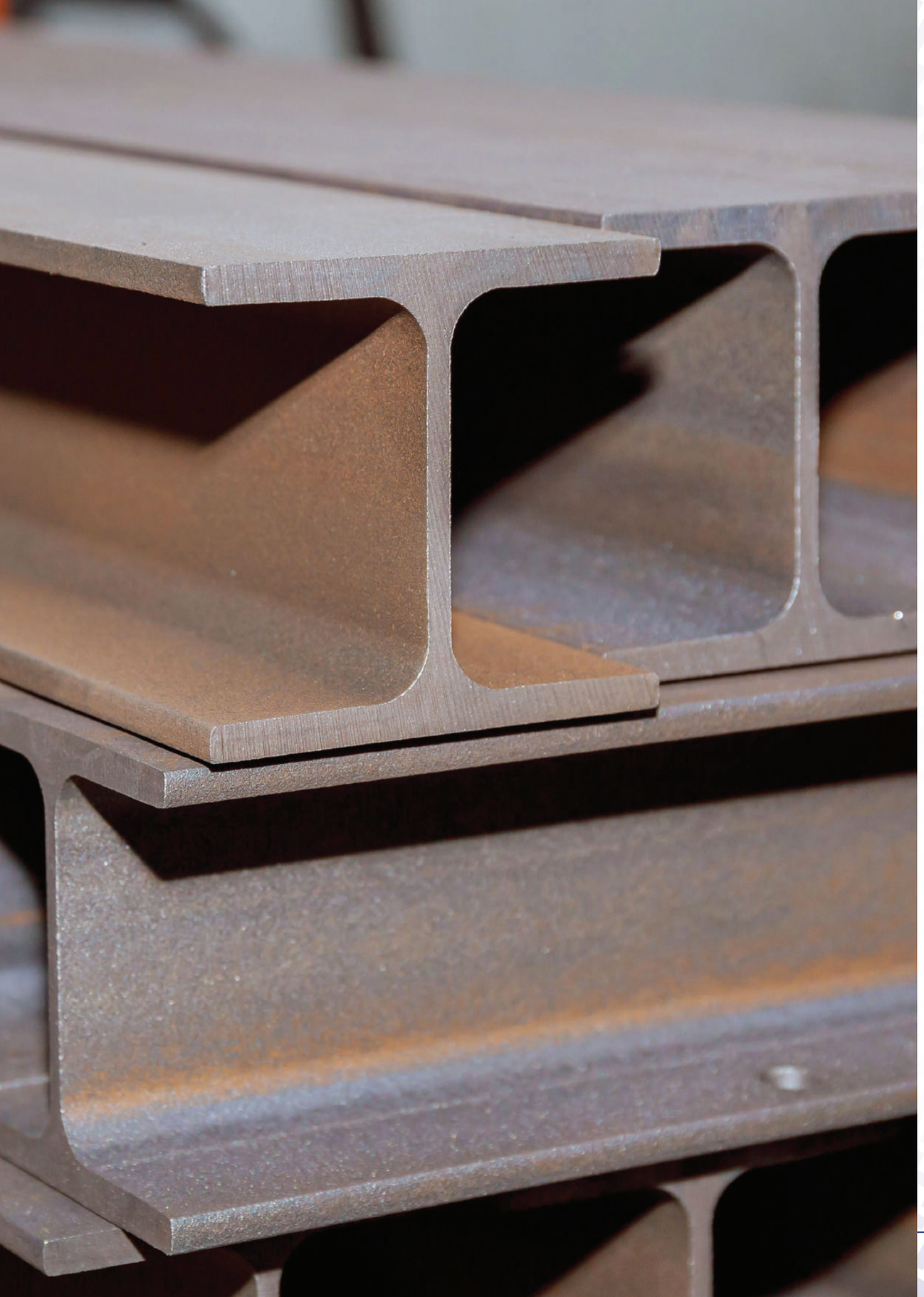
Korean (KS) H-Beams

Dimensions : KS D3502
Tolerances : KS D3502
Surface Condition : KS D3502

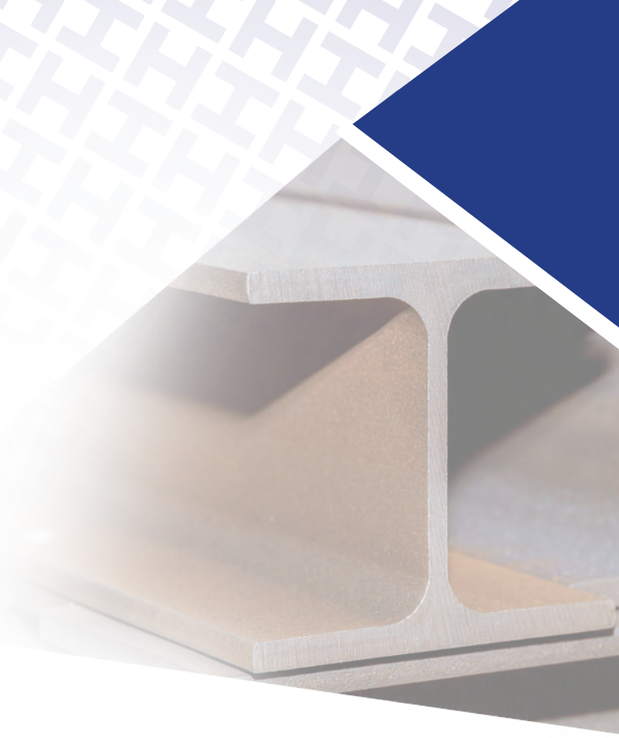


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
200 × 200	49.9	4716	1602	8.62	5.02	471.6	160.2	525.5	244.1	141.4	30.16
	56.2*	4982	1702	8.35	4.88	498.2	166.8	565.5	257.3	150.0	43.59
	65.7*	6530	2200	8.83	5.13	627.9	217.9	710.3	332.4	202.6	67.22
250 × 250	64.4*	8757	2938	10.35	5.99	717.8	233.2	802.2	357.7	398.2	43.07
	66.5*	9901	3347	10.83	6.30	798.4	268.8	880.1	408.5	461.8	45.77
	72.4	10803	3649	10.84	6.30	864.2	291.9	957.7	444.0	507.6	58.03
	82.2*	11454	3876	10.47	6.09	916.3	304.0	1036	468.1	538.7	85.04
300 × 200	56.8	11241	1603	12.51	4.72	764.7	160.3	851.5	246.4	318.1	34.12
	65.4	13213	1898	12.63	4.79	886.8	188.9	992.1	290.6	382.1	51.27
300 × 300	84.5*	16767	5515	12.51	7.18	1141	365.2	1270	559.0	1095	65.05
	87.0*	18751	6240	13.04	7.52	1258	417.4	1382	633.6	1258	69.20
	94.0	20313	6754	13.05	7.53	1354	450.3	1494	684.2	1371	86.23
	106.0*	21438	7104	12.64	7.28	1429	465.8	1606	715.3	1440	122.6
	106.0*	23283	7732	13.17	7.59	1532	513.7	1698	780.9	1591	122.2
	130.0*	28531	9468	13.16	7.58	1841	620.9	2071	948.4	1988	216.0
	142.0*	29773	9953	12.85	7.43	1921	642.1	2191	991.0	2088	284.0
350 × 350	106.0*	28044	9379	14.43	8.35	1659	534.4	1842	816.9	2474	96.10
	115.0*	33149	11244	15.10	8.80	1927	646.2	2112	980.0	3023	117.8
	131.0*	35184	11845	14.56	8.45	2046	669.2	2289	1026	3182	172.9
	137.0	40149	13585	15.22	8.86	2294	776.3	2535	1179	3719	195.4
	156.0*	42650	14431	14.69	8.54	2437	808.5	2750	1243	3946	284.3
400 × 400	140.0*	48965	16258	16.56	9.54	2524	808.9	2802	1237	5649	174.3
	147.0*	56145	18923	17.34	10.06	2850	950.9	3118	1442	6685	193.4
	168.0*	59713	19955	16.69	9.65	3031	985.4	3390	1511	7044	290.0
	172.0	66621	22413	17.45	10.12	3331	1121	3672	1702	8044	303.9
	197.0*	70888	23809	16.82	9.75	3544	1167	3992	1794	8536	450.4
	200.0*	78039	26200	17.50	10.14	3844	1300	4280	1979	9551	467.0
	232.0	92771	31027	17.72	10.25	4482	1532	5026	2333	11547	720.5
	283.0	119204	39362	18.18	10.45	5570	1934	6311	2944	15185	1321
450 × 300	124.0*	56069	8111	18.87	7.18	2549	540.8	2825	829.3	3606	162.3
500 × 300	128.0*	70952	8114	20.83	7.04	2908	540.9	3228	832.3	4473	170.2
600 × 300	151.0*	118110	9020	24.77	6.85	4017	601.3	4489	930.7	7259	237.4
700 × 300	185.0*	201489	10825	29.25	6.78	5757	721.6	6464	1120	12338	375.1



H-PILES



ASTM (AMERICAN)

- Wide Flange Bearing Piles (HP)
  - Imperial
  - Metric

EN (EUROPEAN)

- Wide Flange Bearing Piles (HP)
- Universal Bearing Piles (UBP)

ASTM (AMERICAN)

WIDE FLANGE BEARING PILES (HP) IMPERIAL

Designation	Weight in Pounds per Linear Foot (lbs/ft)												
HP 14	73	89	102	117									

WIDE FLANGE BEARING PILES (HP) METRIC

Designation	Mass in Kilograms per Metre (kg/m)												
HP 360	108	132	152	174									

EN (EUROPEAN)

WIDE FLANGE BEARING PILES (HP)

Designation	Mass in Kilograms per Metre (kg/m)												
HP 305	149	180	223										
HP 360	109	133	152	174									

UNIVERSAL BEARING PILES (UBP)

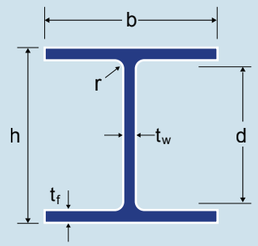
Designation	Mass in Kilograms per Metre (kg/m)												
UBP 356 x 368	109	133	152	174									

American (ASTM) Wide Flange Bearing Piles (HP) Imperial

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Dimensions

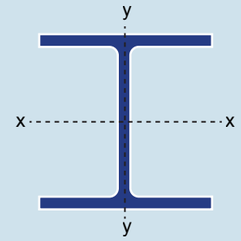
Designation	Mass Per Feet	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	lbs/ft	Inch	Inch	Inch	Inch	Inch	Inch	$Inch^2$		
HP 14x73	73	13.61	14.585	0.505	0.505	0.71	12.16	21.52		▪
HP 14x89	89	13.83	14.695	0.615	0.615	0.71	12.05	26.25		▪
HP 14x102	102	14.01	14.785	0.705	0.705	0.71	11.96	30.16		▪
HP 14x117	117	14.21	14.885	0.805	0.805	0.71	11.86	34.54		▪

American (ASTM) Wide Flange Bearing Piles (HP) Imperial

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Section Properties

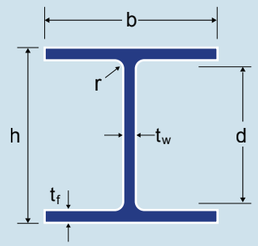
Designation	Mass Per Feet	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	lbs/ft	$inch^4$	$inch^4$	inch	inch	$inch^3$	$inch^3$	$inch^3$	$inch^3$	$inch^6$	$inch^4$
HP 14x73	73	733.2	261.3	5.84	3.48	107.7	35.84	119.2	54.69	11212	2.30
HP 14x89	89	908.5	325.6	5.88	3.52	131.4	44.32	146.5	67.79	14201	4.02
HP 14x102	102	1057	380.2	5.92	3.55	150.9	51.44	169.3	78.84	16806	5.97
HP 14x117	117	1228	443.2	5.96	3.58	172.9	59.55	195.2	91.46	19878	8.79

American (ASTM) Wide Flange Bearing Piles (HP) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M



Dimensions

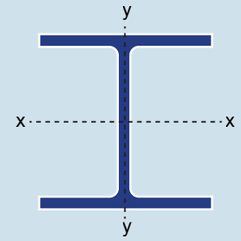
Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	t_w	t_f	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	mm^2		
HP 360x108	108	346.0	370.0	12.8	12.8	18	284.4	13851		▪
HP 360x132	132	351.0	373.0	15.6	15.6	18	283.8	16905		▪
HP 360x152	152	356.0	376.0	17.9	17.9	18	284.2	19471		▪
HP 360x174	174	361.0	378.0	20.4	20.4	18	284.2	22233		▪

American (ASTM) Wide Flange Bearing Piles (HP) Metric

Dimensions : ASTM A6/A6M

Tolerances : ASTM A6/A6M

Surface Condition : ASTM A6/A6M

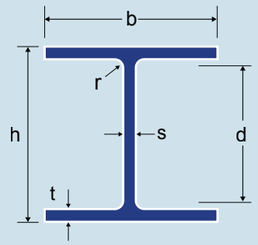


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
HP 360x108	108	30490	10815	14.84	8.84	1762	584.6	1950	892.2	2999	95.31
HP 360x132	132	37680	13507	14.93	8.94	2147	724.2	2394	1108	3795	166.70
HP 360x152	152	44079	15879	15.05	9.03	2476	844.6	2778	1295	4532	248.30
HP 360x174	174	51041	18392	15.15	9.10	2828	973.1	3193	1495	5326	363.40

European (EN) Wide Flange Bearing Piles (HP)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1

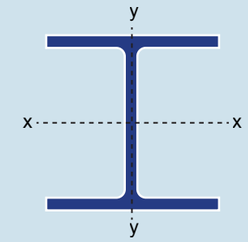


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
HP 305 x 149	149	318.5	316.0	20.6	20.7	15	247.1	189.8		▪
HP 305 x 180	180	326.7	319.7	24.8	24.8	15	247.1	229.2		▪
HP 305 x 223	223	337.9	325.7	30.3	30.4	15	247.1	283.9		▪
HP 360 x 109	109	346.4	371.0	12.8	12.9	18	284.6	139.5		▪
HP 360 x 133	133	352.0	373.8	15.6	15.7	18	284.6	170.2		▪
HP 360 x 152	152	356.4	376.0	17.8	17.9	18	284.6	194.5		▪
HP 360 x 174	174	361.4	378.5	20.3	20.4	18	284.6	222.3		▪

European (EN) Wide Flange Bearing Piles (HP)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1

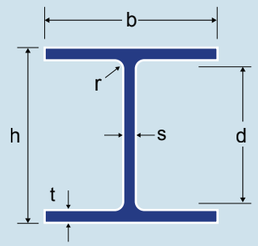


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
HP 305 x 149	149	33058	10910	13.20	7.58	2076	690.5	2370	1066	2414	313.3
HP 305 x 180	180	40964	13546	13.37	7.69	2508	847.4	2896	1313	3077	540.4
HP 305 x 223	223	52690	17577	13.62	7.87	3119	1079	3652	1680	4138	996.4
HP 360 x 109	109	30823	10988	14.86	8.87	1780	592.3	1968	903.8	3053	96.67
HP 360 x 133	133	38174	13681	14.98	8.97	2169	732.0	2418	1120	3864	168.9
HP 360 x 152	152	44163	15879	15.07	9.04	2478	844.6	2779	1294	4543	246.7
HP 360 x 174	174	51200	18465	15.18	9.11	2833	975.7	3198	1498	5360	361.7

European (EN) Universal Bearing Piles (UBP)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1

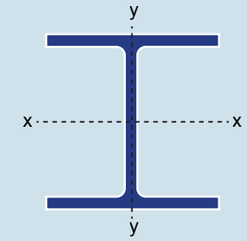


Dimensions

Designation	Mass Per Metre	Depth of Section	Width of Section	Web Thickness	Flange Thickness	Root Radius	Depth Between Fillets	Area of Section	Mill	
	G	h	b	s	t	r	d	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
UBP 356 x 368 x 109	109	346.4	371.0	12.8	12.9	18	284.6	139.5		▪
UBP 356 x 368 x 133	133	352.0	373.8	15.6	15.7	18	284.6	170.2		▪
UBP 356 x 368 x 152	152	356.4	376.0	17.8	17.9	18	284.6	194.5		▪
UBP 356 x 368 x 174	174	361.4	378.5	20.3	20.4	18	284.6	222.3		▪

European (EN) Universal Bearing Piles (UBP)

Dimensions : EN 10365
Tolerances : EN 10034
Surface Condition : EN 10163-3, Class C, subclass 1

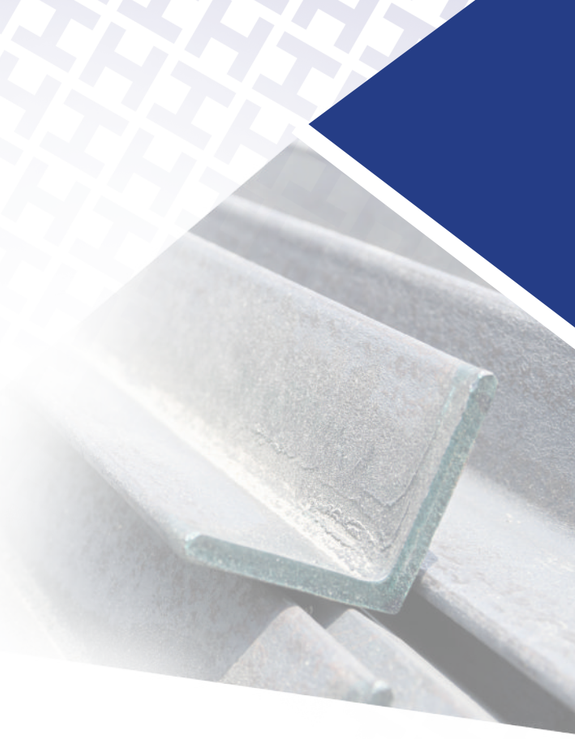


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
UBP 356 x 368 x 109	109	30823	10988	14.86	8.87	1780	592.3	1968	903.8	3053	96.67
UBP 356 x 368 x 133	133	38174	13681	14.98	8.97	2169	732.0	2418	1120	3864	168.9
UBP 356 x 368 x 152	152	44163	15879	15.07	9.04	2478	844.6	2779	1294	4543	246.7
UBP 356 x 368 x 174	174	51200	18465	15.18	9.11	2833	975.7	3198	1498	5360	361.7



EQUAL LEG ANGLES



EN (EUROPEAN)
- Equal Leg Angles (L)

IS (INDIAN)
- Equal Leg Angles (L)

JIS (JAPANESE)
- Equal Leg Angles (L)

(EN) EUROPEAN

EQUAL LEG ANGLES (L)

Designation	Leg Thickness (mm)																		
L 40 x 40	4	5	6																
L 45 x 45	4	4.5	5	6	7														
L 50 x 50	4	5	6	7	8														
L 55 x 55	4	5	6																
L 60 x 60	4	5	6	7	8	10													
L 65 x 65	4	5	6	7	8														
L 70 x 70	5	6	7	8	9	10													
L 75 x 75	5	6	7	8	9	10	12‡												
L 80 x 80	5	6	7	8	9	10													
L 90 x 90	6	7	8	9	10	11	12‡												
L 100 x 100	6	7	8	9	10	11	12	13											
L 110 x 110	6	7	8	9	10	11	12												
L 120 x 120	7	8	9	10	11	12	13	14	15										
L 130 x 130	8	9	10	11	12	13	14	15											
L 150 x 150	10	11	12	13	14	15	16	17	18	19	20								
L 160 x 160	12*	13*	14*	15*	16*	17*	18*	19*	20*										
L 180 x 180	13*	14*	15	16	17*	18*	19*	20*											
L 200 x 200	13*	14*	15	16	17*	18	19*	20	21*	22	23*	24	25	26	27*	28			
L 250 x 250	17*	18*	19*	20	21*	22	23*	24	25	26	27*	28	29*	30	31*	32	33	34*	35

‡ = denotes SULB Standard with tolerances in accordance with EN 10056-2
* = Subject to Mill Confirmation

(IS) INDIAN

EQUAL LEG ANGLES (L)

Designation	Leg Thickness (mm)																		
L 40 x 40	4	5	6																
L 45 x 45	4	5	6																
L 50 x 50	4	5	6																
L 55 x 55	5	6	8	10															
L 60 x 60	5	6	8	10															
L 65 x 65	5	6	8	10															
L 70 x 70	5	6	8	10															
L 75 x 75	5	6	8	10															
L 80 x 80	6	8	10	12															
L 90 x 90	6	8	10	12															
L 100 x 100	6	8	10	12															
L 110 x 110	8	10	12	16															
L 130 x 130	8	10	12	16															
L 150 x 150	10	12	16	20															
L 200 x 200	12	16	20	25															

JIS (JAPANESE)

EQUAL LEG ANGLES (L)

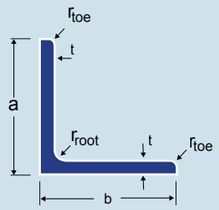
Designation	Leg Thickness (mm)																		
L 40 x 40	5																		
L 45 x 45	4	5																	
L 50 x 50	4	5	6																
L 60 x 60	4	5																	
L 65 x 65	5	6	8																
L 70 x 70	6																		
L 75 x 75	6	9	12																
L 80 x 80	6																		
L 90 x 90	6	7	10	13															
L 100 x 100	7	10	13																
L 120 x 120	8																		
L 130 x 130	9	12	15																
L 150 x 150	12	15	19																
L 175 x 175	12	15																	
L 200 x 200	15	20	25																
L 250 x 250	25	35																	

European (EN) Equal Leg Angles (L)

Dimensions : EN 10056-1

Tolerances : EN 10056-2

Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

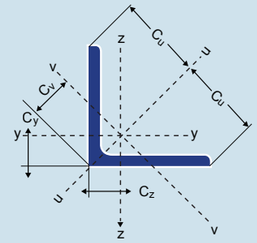
Designation	Mass Per Metre	Leg Length	Leg Thickness	Root Radius	Toe Radius	Area of Section	Mill	
	G	a=b	t	r_{root}	r_{toe}	A	SA	BH
	Kg/M	mm	mm	mm	mm	cm^2		
L 40 x 40 x 4	2.42	40	4	6	3	3.08	▪	
L 40 x 40 x 5	2.97	40	5	6	3	3.79	▪	
L 40 x 40 x 6	3.52	40	6	6	3	4.48	▪	
L 45 x 45 x 4	2.74	45	4	7	3.5	3.49	▪	
L 45 x 45 x 4.5	3.06	45	4.5	7	3.5	3.90	▪	
L 45 x 45 x 5	3.38	45	5	7	3.5	4.30	▪	
L 45 x 45 x 6	4.00	45	6	7	3.5	5.09	▪	
L 45 x 45 x 7	4.60	45	7	7	3.5	5.86	▪	
L 50 x 50 x 4	3.06	50	4	7	3.5	3.89	▪	
L 50 x 50 x 5	3.77	50	5	7	3.5	4.80	▪	
L 50 x 50 x 6	4.47	50	6	7	3.5	5.69	▪	
L 50 x 50 x 7	5.15	50	7	7	3.5	6.56	▪	
L 50 x 50 x 8	5.82	50	8	7	3.5	7.41	▪	
L 55 x 55 x 4	3.38	55	4	8	4	4.31	▪	
L 55 x 55 x 5	4.18	55	5	8	4	5.32	▪	
L 55 x 55 x 6	4.95	55	6	8	4	6.31	▪	
L 60 x 60 x 4	3.70	60	4	8	4	4.71	▪	
L 60 x 60 x 5	4.57	60	5	8	4	5.82	▪	
L 60 x 60 x 6	5.42	60	6	8	4	6.91	▪	
L 60 x 60 x 7	6.26	60	7	8	4	7.98	▪	
L 60 x 60 x 8	7.09	60	8	8	4	9.03	▪	
L 60 x 60 x 10	8.69	60	10	8	4	11.1	▪	
L 65 x 65 x 4	4.02	65	4	9	4.5	5.13	▪	
L 65 x 65 x 5	4.97	65	5	9	4.5	6.34	▪	
L 65 x 65 x 6	5.91	65	6	9	4.5	7.53	▪	
L 65 x 65 x 7	6.83	65	7	9	4.5	8.70	▪	
L 65 x 65 x 8	7.73	65	8	9	4.5	9.85	▪	
L 70 x 70 x 5	5.37	70	5	9	4.5	6.84	▪	
L 70 x 70 x 6	6.38	70	6	9	4.5	8.13	▪	
L 70 x 70 x 7	7.38	70	7	9	4.5	9.40	▪	
L 70 x 70 x 8	8.37	70	8	9	4.5	10.7	▪	
L 70 x 70 x 9	9.32	70	9	9	4.5	11.9	▪	
L 70 x 70 x 10	10.3	70	10	9	4.5	13.1	▪	
L 75 x 75 x 5	5.76	75	5	9	4.5	7.34	▪	
L 75 x 75 x 6	6.85	75	6	9	4.5	8.73	▪	
L 75 x 75 x 7	7.93	75	7	9	4.5	10.1	▪	
L 75 x 75 x 8	8.99	75	8	9	4.5	11.4	▪	

European (EN) Equal Leg Angles (L)

Dimensions : EN 10056-1

Tolerances : EN 10056-2

Surface Condition : EN 10163-3, Class C, subclass 1



Section Properties

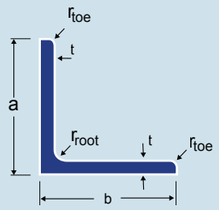
Designation	Mass Per Metre	axis y-y / axis z-z			axis u-u		axis v-v		
	G	Iy = Iz	iy = iz	Wel,y = Wel,z	Iu	iu	Iv	iv	Wel, v
	Kg/M	cm^4	cm	cm^3	cm^4	cm	cm^4	cm	cm^3
L 40 x 40 x 4	2.42	4.47	1.21	1.55	7.09	1.52	1.86	0.78	1.17
L 40 x 40 x 5	2.97	5.43	1.20	1.91	8.60	1.51	2.26	0.77	1.38
L 40 x 40 x 6	3.52	6.31	1.19	2.26	9.99	1.49	2.64	0.77	1.55
L 45 x 45 x 4	2.74	6.43	1.36	1.97	10.2	1.71	2.65	0.87	1.51
L 45 x 45 x 4.5	3.06	7.14	1.35	2.20	11.4	1.71	2.94	0.87	1.65
L 45 x 45 x 5	3.38	7.84	1.35	2.43	12.5	1.70	3.24	0.87	1.79
L 45 x 45 x 6	4.00	9.16	1.34	2.88	14.5	1.69	3.81	0.86	2.04
L 45 x 45 x 7	4.60	10.4	1.33	3.31	16.4	1.67	4.36	0.86	2.27
L 50 x 50 x 4	3.06	8.97	1.52	2.46	14.2	1.91	3.73	0.98	1.94
L 50 x 50 x 5	3.77	11.0	1.51	3.05	17.4	1.90	4.55	0.97	2.29
L 50 x 50 x 6	4.47	12.8	1.50	3.61	20.3	1.89	5.34	0.97	2.61
L 50 x 50 x 7	5.15	14.6	1.49	4.16	23.1	1.88	6.09	0.96	2.90
L 50 x 50 x 8	5.82	16.3	1.48	4.68	25.7	1.86	6.85	0.96	3.17
L 55 x 55 x 4	3.38	12.0	1.67	2.98	19.1	2.10	4.95	1.07	2.38
L 55 x 55 x 5	4.18	14.7	1.66	3.70	23.4	2.10	6.06	1.07	2.82
L 55 x 55 x 6	4.95	17.3	1.66	4.39	27.4	2.09	7.13	1.06	3.23
L 60 x 60 x 4	3.70	15.8	1.83	3.58	25.0	2.31	6.51	1.18	2.88
L 60 x 60 x 5	4.57	19.4	1.82	4.45	30.7	2.30	8.03	1.17	3.46
L 60 x 60 x 6	5.42	22.8	1.82	5.29	36.1	2.29	9.44	1.17	3.96
L 60 x 60 x 7	6.26	26.1	1.81	6.10	41.3	2.28	10.8	1.16	4.39
L 60 x 60 x 8	7.09	29.2	1.80	6.89	46.1	2.26	12.2	1.16	4.86
L 60 x 60 x 10	8.69	34.9	1.78	8.41	55.1	2.23	14.8	1.15	5.66
L 65 x 65 x 4	4.02	20.1	1.98	4.19	31.9	2.49	8.32	1.27	3.45
L 65 x 65 x 5	4.97	24.7	1.98	5.22	39.3	2.49	10.2	1.27	4.09
L 65 x 65 x 6	5.91	29.2	1.97	6.21	46.4	2.48	12.0	1.26	4.71
L 65 x 65 x 7	6.83	33.4	1.96	7.18	53.1	2.47	13.8	1.26	5.27
L 65 x 65 x 8	7.73	37.5	1.95	8.13	59.5	2.46	15.5	1.26	5.81
L 70 x 70 x 5	5.37	31.2	2.14	6.10	49.6	2.69	12.9	1.37	4.83
L 70 x 70 x 6	6.38	36.9	2.13	7.27	58.5	2.68	15.3	1.37	5.60
L 70 x 70 x 7	7.38	42.3	2.12	8.41	67.1	2.67	17.5	1.36	6.28
L 70 x 70 x 8	8.37	47.3	2.10	9.46	75.0	2.65	19.5	1.35	6.87
L 70 x 70 x 9	9.32	52.5	2.10	10.6	83.2	2.65	21.8	1.35	7.50
L 70 x 70 x 10	10.3	57.2	2.09	11.7	90.6	2.63	23.9	1.35	8.07
L 75 x 75 x 5	5.76	38.8	2.30	7.06	61.6	2.90	16.0	1.47	5.62
L 75 x 75 x 6	6.85	45.8	2.29	8.41	72.7	2.89	18.9	1.47	6.53
L 75 x 75 x 7	7.93	52.6	2.28	9.74	83.6	2.88	21.6	1.46	7.30
L 75 x 75 x 8	8.99	59.1	2.27	11.0	93.8	2.86	24.5	1.46	8.09

European (EN) Equal Leg Angles (L)

Dimensions : EN 10056-1

Tolerances : EN 10056-2

Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

Designation	Mass Per Metre	Leg Length	Leg Thickness	Root Radius	Toe Radius	Area of Section	Mill	
	G	a=b	t	r_{root}	r_{toe}	A	SA	BH
	Kg/M	mm	mm	mm	mm	cm^2		
L 75 x 75 x 9	10.0	75	9	9	4.5	12.8	▪	
L 75 x 75 x 10	11.1	75	10	9	4.5	14.1	▪	
L 75 x 75 x 12 ‡	13.1	75	12	9	4.5	16.6	▪	
L 80 x 80 x 5	6.17	80	5	10	5	7.86	▪	
L 80 x 80 x 6	7.34	80	6	10	5	9.35	▪	
L 80 x 80 x 7	8.49	80	7	10	5	10.8	▪	
L 80 x 80 x 8	9.63	80	8	10	5	12.3	▪	
L 80 x 80 x 9	10.8	80	9	10	5	13.7	▪	
L 80 x 80 x 10	11.9	80	10	10	5	15.1	▪	
L 90 x 90 x 6	8.30	90	6	11	5.5	10.6	▪	
L 90 x 90 x 7	9.61	90	7	11	5.5	12.2	▪	
L 90 x 90 x 8	10.9	90	8	11	5.5	13.9	▪	
L 90 x 90 x 9	12.2	90	9	11	5.5	15.5	▪	
L 90 x 90 x 10	13.4	90	10	11	5.5	17.1	▪	
L 90 x 90 x 11	14.7	90	11	11	5.5	18.7	▪	
L 90 x 90 x 12 ‡	16.0	90	12	11	5.5	20.3	▪	
L 100 x 100 x 6	9.26	100	6	12	6	11.8	▪	
L 100 x 100 x 7	10.7	100	7	12	6	13.7	▪	
L 100 x 100 x 8	12.2	100	8	12	6	15.5	▪	
L 100 x 100 x 9	13.6	100	9	12	6	17.3	▪	
L 100 x 100 x 10	15.0	100	10	12	6	19.2	▪	
L 100 x 100 x 11	16.4	100	11	12	6	20.9	▪	
L 100 x 100 x 12	17.8	100	12	12	6	22.7	▪	
L 100 x 100 x 13	19.2	100	13	12	6	24.5	▪	
L 110 x 110 x 6	10.2	110	6	12	6	13.0	▪	
L 110 x 110 x 7	11.8	110	7	12	6	15.1	▪	
L 110 x 110 x 8	13.4	110	8	12	6	17.1	▪	
L 110 x 110 x 9	15.0	110	9	12	6	19.1	▪	
L 110 x 110 x 10	16.6	110	10	12	6	21.2	▪	
L 110 x 110 x 11	18.2	110	11	12	6	23.2	▪	
L 110 x 110 x 12	19.7	110	12	12	6	25.1	▪	
L 120 x 120 x 7	12.9	120	7	13	6.5	16.5	▪	
L 120 x 120 x 8	14.7	120	8	13	6.5	18.7	▪	
L 120 x 120 x 9	16.5	120	9	13	6.5	21.0	▪	
L 120 x 120 x 10	18.2	120	10	13	6.5	23.2	▪	
L 120 x 120 x 11	19.9	120	11	13	6.5	25.4	▪	
L 120 x 120 x 12	21.6	120	12	13	6.5	27.5	▪	

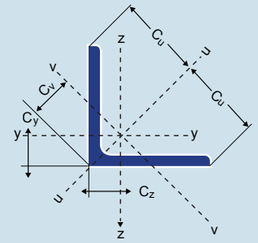
‡ = denotes SULB Standard with tolerances in accordance with EN 10056-2.

European (EN) Equal Leg Angles (L)

Dimensions : EN 10056-1

Tolerances : EN 10056-2

Surface Condition : EN 10163-3, Class C, subclass 1



Section Properties

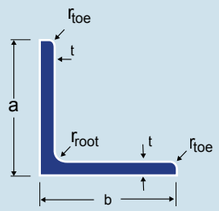
Designation	Mass Per Metre	axis y-y / axis z-z			axis u-u		axis v-v		
	G	Iy = Iz	iy = iz	Wel,y = Wel,z	Iu	iu	Iv	iv	Wel, v
	Kg/M	cm^4	cm	cm^3	cm^4	cm	cm^4	cm	cm^3
L 75 x 75 x 9	10.0	65.4	2.26	12.3	104	2.85	27.0	1.45	8.78
L 75 x 75 x 10	11.1	71.4	2.25	13.5	113	2.83	29.7	1.45	9.48
L 75 x 75 x 12 ‡	13.1	82.8	2.23	15.3	131	2.80	35.0	1.45	10.8
L 80 x 80 x 5	6.17	47.1	2.45	8.02	74.8	3.09	19.5	1.57	6.48
L 80 x 80 x 6	7.34	55.8	2.44	9.57	88.7	3.08	23.0	1.57	7.48
L 80 x 80 x 7	8.49	64.2	2.44	11.1	102	3.07	26.4	1.56	8.43
L 80 x 80 x 8	9.63	72.2	2.43	12.6	115	3.06	29.9	1.56	9.37
L 80 x 80 x 9	10.8	80.0	2.42	14.0	127	3.05	33.0	1.55	10.2
L 80 x 80 x 10	11.9	87.5	2.41	15.4	139	3.03	36.4	1.55	11.0
L 90 x 90 x 6	8.30	80.3	2.76	12.2	128	3.47	33.1	1.77	9.73
L 90 x 90 x 7	9.61	92.6	2.75	14.1	147	3.46	38.3	1.77	11.0
L 90 x 90 x 8	10.9	104	2.74	16.1	166	3.45	43.1	1.76	12.2
L 90 x 90 x 9	12.2	116	2.73	17.9	184	3.44	47.9	1.76	13.3
L 90 x 90 x 10	13.4	127	2.72	19.8	201	3.42	52.6	1.75	14.4
L 90 x 90 x 11	14.7	138	2.71	21.6	218	3.42	56.9	1.74	15.4
L 90 x 90 x 12 ‡	16.0	148	2.70	23.4	235	3.40	62.0	1.75	16.5
L 100 x 100 x 6	9.26	111	3.07	15.1	176	3.87	45.8	1.97	12.2
L 100 x 100 x 7	10.7	128	3.06	17.5	204	3.86	52.7	1.96	13.8
L 100 x 100 x 8	12.2	145	3.06	19.9	230	3.85	59.9	1.96	15.5
L 100 x 100 x 9	13.6	161	3.05	22.3	256	3.84	66.1	1.95	16.8
L 100 x 100 x 10	15.0	177	3.04	24.6	280	3.83	73.0	1.95	18.3
L 100 x 100 x 11	16.4	192	3.03	26.9	305	3.81	79.1	1.94	19.5
L 100 x 100 x 12	17.8	207	3.02	29.1	328	3.80	85.7	1.94	20.9
L 100 x 100 x 13	19.2	221	3.01	31.3	350	3.78	91.7	1.94	22.0
L 110 x 110 x 6	10.2	150	3.39	18.4	237	4.27	61.6	2.18	15.1
L 110 x 110 x 7	11.8	173	3.39	21.4	274	4.27	70.9	2.17	17.1
L 110 x 110 x 8	13.4	195	3.38	24.4	311	4.26	80.1	2.16	19.0
L 110 x 110 x 9	15.0	217	3.37	27.3	346	4.25	89.1	2.16	20.8
L 110 x 110 x 10	16.6	238	3.35	30.0	378	4.23	97.7	2.15	22.6
L 110 x 110 x 11	18.2	259	3.34	32.8	411	4.21	106	2.14	24.2
L 110 x 110 x 12	19.7	279	3.33	35.5	443	4.20	115	2.14	25.8
L 120 x 120 x 7	12.9	226	3.70	25.6	358	4.66	92.8	2.37	20.7
L 120 x 120 x 8	14.7	255	3.69	29.1	406	4.65	105	2.37	23.0
L 120 x 120 x 9	16.5	285	3.68	32.6	452	4.64	117	2.36	25.3
L 120 x 120 x 10	18.2	313	3.67	36.0	497	4.63	129	2.36	27.5
L 120 x 120 x 11	19.9	341	3.66	39.4	542	4.62	140	2.35	29.4
L 120 x 120 x 12	21.6	368	3.65	42.7	584	4.60	152	2.35	31.6

European (EN) Equal Leg Angles (L)

Dimensions : EN 10056-1

Tolerances : EN 10056-2

Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

Designation	Mass Per Metre	Leg Length	Leg Thickness	Root Radius	Toe Radius	Area of Section	Mill	
	G	a=b	t	r_{root}	r_{toe}	A	SA	BH
	Kg/M	mm	mm	mm	mm	cm^2		
L 120 x 120 x 13	23.3	120	13	13	6.5	29.7	▪	
L 120 x 120 x 14	25.0	120	14	13	6.5	31.8	▪	
L 120 x 120 x 15	26.6	120	15	13	6.5	33.9	▪	
L 130 x 130 x 8	16.0	130	8	14	7	20.4	▪	
L 130 x 130 x 9	17.9	130	9	14	7	22.8	▪	
L 130 x 130 x 10	19.8	130	10	14	7	25.2	▪	
L 130 x 130 x 11	21.7	130	11	14	7	27.6	▪	
L 130 x 130 x 12	23.6	130	12	14	7	30.0	▪	
L 130 x 130 x 13	25.4	130	13	14	7	32.3	▪	
L 130 x 130 x 14	27.2	130	14	14	7	34.7	▪	
L 130 x 130 x 15	29.0	130	15	14	7	37.0	▪	
L 150 x 150 x 10	23.0	150	10	16	8	29.3	▪	
L 150 x 150 x 11	25.2	150	11	16	8	32.1	▪	
L 150 x 150 x 12	27.3	150	12	16	8	34.8	▪	
L 150 x 150 x 13	29.5	150	13	16	8	37.6	▪	
L 150 x 150 x 14	31.6	150	14	16	8	40.3	▪	
L 150 x 150 x 15	33.8	150	15	16	8	43.0	▪	
L 150 x 150 x 16	35.9	150	16	16	8	45.7	▪	
L 150 x 150 x 17	38.0	150	17	16	8	48.4	▪	
L 150 x 150 x 18	40.1	150	18	16	8	51.0	▪	
L 150 x 150 x 19	42.1	150	19	16	8	53.7	▪	
L 150 x 150 x 20	44.2	150	20	16	8	56.3	▪	
L 160 x 160 x 12 *	29.3	160	12	17	-	37.3		▪
L 160 x 160 x 13 *	31.6	160	13	17	-	40.2		▪
L 160 x 160 x 14 *	33.9	160	14	17	-	43.2		▪
L 160 x 160 x 15 *	36.2	160	15	17	-	46.1		▪
L 160 x 160 x 16 *	38.4	160	16	17	-	49.0		▪
L 160 x 160 x 17 *	40.7	160	17	17	-	51.8		▪
L 160 x 160 x 18 *	42.9	160	18	17	-	54.7		▪
L 160 x 160 x 19 *	45.1	160	19	17	-	57.5		▪
L 160 x 160 x 20 *	47.3	160	20	17	-	60.3		▪
L 180 x 180 x 13 *	35.7	180	13	18	-	45.5		▪
L 180 x 180 x 14 *	38.3	180	14	18	-	48.8		▪
L 180 x 180 x 15	40.9	180	15	18	-	52.1		▪
L 180 x 180 x 16	43.5	180	16	18	-	55.4		▪
L 180 x 180 x 17 *	46.0	180	17	18	-	58.7		▪
L 180 x 180 x 18	48.6	180	18	18	-	61.9		▪

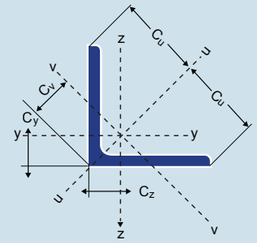
* = subject to mill confirmation

European (EN) Equal Leg Angles (L)

Dimensions : EN 10056-1

Tolerances : EN 10056-2

Surface Condition : EN 10163-3, Class C, subclass 1



Section Properties

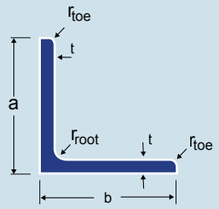
Designation	Mass Per Metre	axis y-y / axis z-z			axis u-u		axis v-v		
	G	Iy = Iz	iy = iz	Wel,y = Wel,z	Iu	iu	Iv	iv	Wel, v
	Kg/M	cm^4	cm	cm^3	cm^4	cm	cm^4	cm	cm^3
L 120 x 120 x 13	23.3	394	3.64	46.0	626	4.59	162	2.34	33.4
L 120 x 120 x 14	25.0	420	3.63	49.3	666	4.58	173	2.33	35.2
L 120 x 120 x 15	26.6	445	3.62	52.4	706	4.56	184	2.33	37.1
L 130 x 130 x 8	16.0	327	4.00	34.3	519	5.05	134	2.57	27.4
L 130 x 130 x 9	17.9	364	4.00	38.4	579	5.04	150	2.56	30.1
L 130 x 130 x 10	19.8	401	3.99	42.5	638	5.03	165	2.55	32.7
L 130 x 130 x 11	21.7	437	3.98	46.5	695	5.02	179	2.55	35.2
L 130 x 130 x 12	23.6	472	3.97	50.4	750	5.00	194	2.54	37.7
L 130 x 130 x 13	25.4	507	3.96	54.4	805	4.99	208	2.54	40.0
L 130 x 130 x 14	27.2	540	3.95	58.2	858	4.98	222	2.53	42.3
L 130 x 130 x 15	29.0	573	3.94	62.0	909	4.96	236	2.53	44.4
L 150 x 150 x 10	23.0	624	4.62	56.9	990	5.82	258	2.97	45.1
L 150 x 150 x 11	25.2	681	4.61	62.4	1,083	5.81	279	2.95	48.4
L 150 x 150 x 12	27.3	737	4.60	67.7	1,170	5.80	303	2.95	52.0
L 150 x 150 x 13	29.5	792	4.59	73.1	1,259	5.79	325	2.94	55.1
L 150 x 150 x 14	31.6	845	4.58	78.3	1,344	5.77	347	2.93	58.3
L 150 x 150 x 15	33.8	898	4.57	83.5	1,430	5.76	370	2.93	61.6
L 150 x 150 x 16	35.9	950	4.56	88.7	1,509	5.74	391	2.92	64.5
L 150 x 150 x 17	38.0	1,000	4.55	93.7	1,588	5.73	412	2.92	67.4
L 150 x 150 x 18	40.1	1,050	4.54	98.7	1,666	5.71	434	2.92	70.3
L 150 x 150 x 19	42.1	1,099	4.52	104	1,742	5.70	455	2.91	73.0
L 150 x 150 x 20	44.2	1,146	4.51	109	1,817	5.68	476	2.91	75.8
L 160 x 160 x 12 *	29.3	900	4.91	77.3	1,431	6.20	369	3.15	59.8
L 160 x 160 x 13 *	31.6	968	4.90	83.5	1,538	6.18	397	3.14	63.6
L 160 x 160 x 14 *	33.9	1,034	4.89	89.5	1,644	6.17	424	3.13	67.4
L 160 x 160 x 15 *	36.2	1,100	4.88	95.6	1,750	6.15	453	3.14	71.3
L 160 x 160 x 16 *	38.4	1,163	4.87	101	1,848	6.14	478	3.12	74.5
L 160 x 160 x 17 *	40.7	1,225	4.86	107	1,947	6.13	504	3.12	78.0
L 160 x 160 x 18 *	42.9	1,287	4.85	113	2,043	6.11	530	3.11	81.3
L 160 x 160 x 19 *	45.1	1,347	4.84	119	2,138	6.10	557	3.11	84.6
L 160 x 160 x 20 *	47.3	1,407	4.83	124	2,231	6.08	582	3.11	87.8
L 180 x 180 x 13 *	35.7	1,396	5.54	107	2,220	6.99	572	3.55	82.5
L 180 x 180 x 14 *	38.3	1,493	5.53	114	2,375	6.98	611	3.54	87.5
L 180 x 180 x 15	40.9	1,589	5.52	122	2,527	6.96	651	3.53	92.3
L 180 x 180 x 16	43.5	1,680	5.51	130	2,690	6.96	679	3.50	95.5
L 180 x 180 x 17 *	46.0	1,775	5.50	137	2,822	6.94	728	3.52	102
L 180 x 180 x 18	48.6	1,866	5.49	145	2,965	6.92	766	3.52	106

European (EN) Equal Leg Angles (L)

Dimensions : EN 10056-1

Tolerances : EN 10056-2

Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

Designation	Mass Per Metre	Leg Length	Leg Thickness	Root Radius	Toe Radius	Area of Section	Mill	
	G	a=b	t	r_{root}	r_{toe}	A	SA	BH
	Kg/M	mm	mm	mm	mm	cm^2		
L 180 x 180 x 19 *	51.1	180	19	18	-	65.1		▪
L 180 x 180 x 20 *	53.7	180	20	18	-	68.3		▪
L 200 x 200 x 13 *	39.8	200	13	18	-	50.7		▪
L 200 x 200 x 14 *	42.7	200	14	18	-	54.4		▪
L 200 x 200 x 15	45.6	200	15	18	-	58.1		▪
L 200 x 200 x 16	48.5	200	16	18	-	61.8		▪
L 200 x 200 x 17 *	51.4	200	17	18	-	65.5		▪
L 200 x 200 x 18	54.3	200	18	18	-	69.1		▪
L 200 x 200 x 19 *	57.1	200	19	18	-	72.7		▪
L 200 x 200 x 20	59.9	200	20	18	-	76.3		▪
L 200 x 200 x 21 *	62.8	200	21	18	-	79.9		▪
L 200 x 200 x 22	65.6	200	22	18	-	83.5		▪
L 200 x 200 x 23 *	68.3	200	23	18	-	87.1		▪
L 200 x 200 x 24	71.1	200	24	18	-	90.6		▪
L 200 x 200 x 25	73.9	200	25	18	-	94.1		▪
L 200 x 200 x 26	76.6	200	26	18	-	97.6		▪
L 200 x 200 x 27 *	79.3	200	27	18	-	101		▪
L 200 x 200 x 28	82.0	200	28	18	-	105		▪
L 250 x 250 x 17 *	64.4	250	17	18	-	82.1		▪
L 250 x 250 x 18 *	68.1	250	18	18	-	86.7		▪
L 250 x 250 x 19 *	71.7	250	19	18	-	91.4		▪
L 250 x 250 x 20	75.3	250	20	18	-	96.0		▪
L 250 x 250 x 21 *	78.9	250	21	18	-	101		▪
L 250 x 250 x 22	82.5	250	22	18	-	105		▪
L 250 x 250 x 23 *	86.1	250	23	18	-	110		▪
L 250 x 250 x 24	89.7	250	24	18	-	114		▪
L 250 x 250 x 25	93.2	250	25	18	-	119		▪
L 250 x 250 x 26	96.7	250	26	18	-	123		▪
L 250 x 250 x 27 *	101	250	27	18	-	128		▪
L 250 x 250 x 28	104	250	28	18	-	133		▪
L 250 x 250 x 29 *	107	250	29	18	-	137		▪
L 250 x 250 x 30	111	250	30	18	-	141		▪
L 250 x 250 x 31 *	114	250	31	18	-	145		▪
L 250 x 250 x 32	118	250	32	18	-	150		▪
L 250 x 250 x 33	121	250	33	18	-	154		▪
L 250 x 250 x 34 *	124	250	34	18	-	158		▪
L 250 x 250 x 35	128	250	35	18	-	163		▪

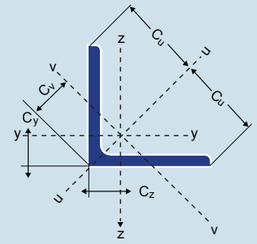
* = subject to mill confirmation. NOTE: L250 angles may have rounded outside corner of the heel and doubly rounded toes.

European (EN) Equal Leg Angles (L)

Dimensions : EN 10056-1

Tolerances : EN 10056-2

Surface Condition : EN 10163-3, Class C, subclass 1

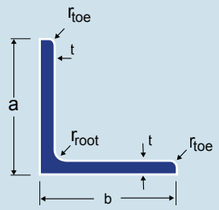


Section Properties

Designation	Mass Per Metre	axis y-y / axis z-z			axis u-u		axis v-v		
	G	Iy = Iz	iy = iz	Wel,y = Wel,z	Iu	iu	Iv	iv	Wel, v
	Kg/M	cm^4	cm	cm^3	cm^4	cm	cm^4	cm	cm^3
L 180 x 180 x 19 *	51.1	1,955	5.48	152	3,106	6.91	804	3.51	111
L 180 x 180 x 20 *	53.7	2,043	5.47	159	3,244	6.89	842	3.51	115
L 200 x 200 x 13 *	39.8	1,939	6.19	133	3,085	7.80	793	3.96	104
L 200 x 200 x 14 *	42.7	2,075	6.18	143	3,302	7.79	848	3.95	110
L 200 x 200 x 15	45.6	2,209	6.17	152	3,516	7.78	903	3.94	117
L 200 x 200 x 16	48.5	2,350	6.16	162	3,740	7.76	960	3.94	123
L 200 x 200 x 17 *	51.4	2,472	6.14	171	3,932	7.75	1,011	3.93	128
L 200 x 200 x 18	54.3	2,600	6.13	181	4,150	7.75	1,050	3.90	133
L 200 x 200 x 19 *	57.1	2,726	6.12	190	4,335	7.72	1,117	3.92	140
L 200 x 200 x 20	59.9	2,850	6.11	199	4,530	7.70	1,170	3.92	146
L 200 x 200 x 21 *	62.8	2,973	6.10	208	4,725	7.69	1,221	3.91	151
L 200 x 200 x 22	65.6	3,094	6.09	217	4,915	7.67	1,273	3.9	156
L 200 x 200 x 23 *	68.3	3,213	6.08	226	5,102	7.66	1,324	3.9	161
L 200 x 200 x 24	71.1	3,330	6.06	235	5,280	7.64	1,380	3.90	167
L 200 x 200 x 25	73.9	3,446	6.05	244	5,467	7.62	1,426	3.89	172
L 200 x 200 x 26	76.6	3,560	6.04	253	5,644	7.61	1,476	3.89	177
L 200 x 200 x 27 *	79.3	3,673	6.03	261	5,819	7.59	1,527	3.89	181
L 200 x 200 x 28	82.0	3,784	6.02	270	5,991	7.57	1,576	3.88	186
L 250 x 250 x 17 *	64.4	4,893	7.72	269	7,789	9.74	1,997	4.93	208
L 250 x 250 x 18 *	68.1	5,156	7.71	284	8,208	9.73	2,104	4.93	218
L 250 x 250 x 19 *	71.7	5,417	7.70	299	8,622	9.71	2,212	4.92	228
L 250 x 250 x 20	75.3	5,674	7.69	314	9,031	9.70	2,318	4.91	237
L 250 x 250 x 21 *	78.9	5,929	7.68	329	9,435	9.69	2,423	4.91	246
L 250 x 250 x 22	82.5	6,180	7.67	343	9,833	9.67	2,528	4.9	256
L 250 x 250 x 23 *	86.1	6,429	7.66	358	10,230	9.66	2,632	4.9	265
L 250 x 250 x 24	89.7	6,674	7.64	372	10,610	9.64	2,735	4.89	274
L 250 x 250 x 25	93.2	6,917	7.63	387	11,000	9.63	2,837	4.89	282
L 250 x 250 x 26	96.7	7,156	7.62	401	11,370	9.61	2,939	4.88	291
L 250 x 250 x 27 *	101	7,393	7.61	415	11,750	9.59	3,040	4.88	299
L 250 x 250 x 28	104	7,700	7.62	433	12,200	9.61	3,170	4.89	309
L 250 x 250 x 29 *	107	7,858	7.59	443	12,480	9.56	3,241	4.87	315
L 250 x 250 x 30	111	8,087	7.57	457	12,830	9.54	3,340	4.87	323
L 250 x 250 x 31 *	114	8,313	7.56	471	13,190	9.53	3,439	4.86	331
L 250 x 250 x 32	118	8,536	7.55	484	13,540	9.51	3,538	4.86	339
L 250 x 250 x 33	121	8,757	7.54	498	13,880	9.49	3,636	4.86	347
L 250 x 250 x 34 *	124	8,975	7.53	512	14,220	9.47	3,734	4.86	354
L 250 x 250 x 35	128	9,260	7.54	529	14,700	9.48	3,860	4.87	364

Indian (IS) Equal Leg Angles (L)

Dimensions : IS 808
Tolerances : IS 1852
Surface Condition : IS 808

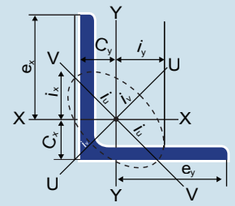


Dimensions

Designation	Mass Per Metre	Leg Length	Leg Thickness	Root Radius	Toe Radius	Area of Section	Mill	
	G	a=b	t	r_{root}	r_{toe}	A	SA	BH
	Kg/M	mm	mm	mm	mm	cm^2		
L 40 x 40 x 4	2.4	40	4	5.5	-	3.07	▪	
L 40 x 40 x 5	3.0	40	5	5.5	-	3.78	▪	
L 40 x 40 x 6	3.5	40	6	5.5	-	4.47	▪	
L 45 x 45 x 4	2.7	45	4	5.5	-	3.47	▪	
L 45 x 45 x 5	3.4	45	5	5.5	-	4.28	▪	
L 45 x 45 x 6	4.0	45	6	5.5	-	5.07	▪	
L 50 x 50 x 4	3.0	50	4	6.0	-	3.88	▪	
L 50 x 50 x 5	3.8	50	5	6.0	-	4.79	▪	
L 50 x 50 x 6	4.5	50	6	6.0	-	5.68	▪	
L 55 x 55 x 5	4.1	55	5	6.5	-	5.27	▪	
L 55 x 55 x 6	4.9	55	6	6.5	-	6.26	▪	
L 55 x 55 x 8	6.4	55	8	6.5	-	8.18	▪	
L 55 x 55 x 10	7.9	55	10	6.5	-	10.0	▪	
L 60 x 60 x 5	4.5	60	5	6.5	-	5.75	▪	
L 60 x 60 x 6	5.4	60	6	6.5	-	6.84	▪	
L 60 x 60 x 8	7.0	60	8	6.5	-	8.96	▪	
L 60 x 60 x 10	8.6	60	10	6.5	-	11.0	▪	
L 65 x 65 x 5	4.9	65	5	6.5	-	6.25	▪	
L 65 x 65 x 6	5.8	65	6	6.5	-	7.44	▪	
L 65 x 65 x 8	7.7	65	8	6.5	-	9.76	▪	
L 65 x 65 x 10	9.4	65	10	6.5	-	12.0	▪	
L 70 x 70 x 5	5.3	70	5	7.0	-	6.77	▪	
L 70 x 70 x 6	6.3	70	6	7.0	-	8.06	▪	
L 70 x 70 x 8	8.3	70	8	7.0	-	10.6	▪	
L 70 x 70 x 10	10.2	70	10	7.0	-	13.0	▪	
L 75 x 75 x 5	5.7	75	5	7.0	-	7.27	▪	
L 75 x 75 x 6	6.8	75	6	7.0	-	8.66	▪	
L 75 x 75 x 8	8.9	75	8	7.0	-	11.4	▪	
L 75 x 75 x 10	11.0	75	10	7.0	-	14.0	▪	
L 80 x 80 x 6	7.3	80	6	8.0	-	9.29	▪	
L 80 x 80 x 8	9.6	80	8	8.0	-	12.2	▪	
L 80 x 80 x 10	11.8	80	10	8.0	-	15.0	▪	
L 80 x 80 x 12	14.0	80	12	8.0	-	17.8	▪	
L 90 x 90 x 6	8.2	90	6	8.5	-	10.5	▪	
L 90 x 90 x 8	10.8	90	8	8.5	-	13.8	▪	
L 90 x 90 x 10	13.4	90	10	8.5	-	17.0	▪	
L 90 x 90 x 12	15.8	90	12	8.5	-	20.2	▪	

Indian (IS) Equal Leg Angles (L)

Dimensions : IS 808
Tolerances : IS 1852
Surface Condition : IS 808

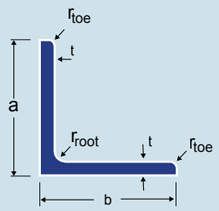


Section Properties

Designation	Mass Per Metre	Geometrical Moment of Inertia				Radius of Gyration of Area				Modulus of Section	
	G	I_x	I_y	I_u(Max)	I_v(Min)	i_x	i_y	i_u(Max)	i_v(Min)	Z_x	Z_y
	Kg/M	cm^4	cm^4	cm^4	cm^4	cm^3	cm^4	cm	cm	cm^3	cm^3
L 40 x 40 x 4	2.4	4.5	4.5	7.1	1.8	1.21	1.21	1.53	0.77	1.6	1.6
L 40 x 40 x 5	3.0	5.4	5.4	8.6	2.2	1.20	1.20	1.51	0.77	1.9	1.9
L 40 x 40 x 6	3.5	6.3	6.3	10.0	2.6	1.19	1.19	1.50	0.77	2.3	2.3
L 45 x 45 x 4	2.7	6.5	6.5	10.4	2.6	1.37	1.37	1.73	0.87	2.0	2.0
L 45 x 45 x 5	3.4	7.9	7.9	12.6	3.2	1.36	1.36	1.72	0.87	2.5	2.5
L 45 x 45 x 6	4.0	9.2	9.2	14.6	3.8	1.35	1.35	1.70	0.87	2.9	2.9
L 50 x 50 x 4	3.0	9.1	9.1	14.5	3.6	1.53	1.53	1.93	0.97	2.5	2.5
L 50 x 50 x 5	3.8	11.0	11.0	17.6	4.5	1.52	1.52	1.92	0.97	3.1	3.1
L 50 x 50 x 6	4.5	12.9	12.9	20.6	5.3	1.51	1.51	1.90	0.96	3.6	3.6
L 55 x 55 x 5	4.1	14.7	14.7	23.5	5.9	1.67	1.67	2.11	1.06	3.7	3.7
L 55 x 55 x 6	4.9	17.3	17.3	27.5	7.0	1.66	1.66	2.10	1.06	4.4	4.4
L 55 x 55 x 8	6.4	22.0	22.0	34.9	9.1	1.64	1.64	2.07	1.06	5.7	5.7
L 55 x 55 x 10	7.9	26.3	26.3	41.5	11.2	1.62	1.62	2.03	1.06	7.0	7.0
L 60 x 60 x 5	4.5	19.2	19.2	30.6	7.7	1.82	1.82	2.31	1.16	4.4	4.4
L 60 x 60 x 6	5.4	22.6	22.6	36.0	9.1	1.82	1.82	2.29	1.15	5.2	5.2
L 60 x 60 x 8	7.0	29.0	29.0	46.0	11.9	1.80	1.80	2.27	1.15	6.8	6.8
L 60 x 60 x 10	8.6	34.8	34.8	54.9	14.6	1.78	1.78	2.23	1.15	8.4	8.4
L 65 x 65 x 5	4.9	24.7	24.7	39.4	9.9	1.99	1.99	2.51	1.26	5.2	5.2
L 65 x 65 x 6	5.8	29.1	29.1	46.5	11.7	1.98	1.98	2.50	1.26	6.2	6.2
L 65 x 65 x 8	7.7	37.4	37.4	59.5	15.3	1.96	1.96	2.47	1.25	8.1	8.1
L 65 x 65 x 10	9.4	45.0	45.0	71.3	18.8	1.94	1.94	2.44	1.25	9.9	9.9
L 70 x 70 x 5	5.3	31.1	31.1	49.8	12.5	2.15	2.15	2.71	1.36	6.1	6.1
L 70 x 70 x 6	6.3	36.8	36.8	58.8	14.8	2.14	2.14	2.70	1.36	7.3	7.3
L 70 x 70 x 8	8.3	47.4	47.4	75.5	19.3	2.12	2.12	2.67	1.35	9.5	9.5
L 70 x 70 x 10	10.2	57.2	57.2	90.7	23.7	2.10	2.10	2.64	1.35	11.7	11.7
L 75 x 75 x 5	5.7	38.7	38.7	61.9	15.5	2.31	2.31	2.92	1.46	7.1	7.1
L 75 x 75 x 6	6.8	45.7	45.7	73.1	18.4	2.30	2.30	2.91	1.46	8.4	8.4
L 75 x 75 x 8	8.9	59.0	59.0	94.1	24.0	2.28	2.28	2.88	1.45	11.0	11.0
L 75 x 75 x 10	11.0	71.4	71.4	113	29.4	2.26	2.26	2.84	1.45	13.5	13.5
L 80 x 80 x 6	7.3	56.0	56.0	89.6	22.5	2.46	2.46	3.11	1.56	9.6	9.6
L 80 x 80 x 8	9.6	72.5	72.5	116	29.4	2.44	2.44	3.08	1.55	12.6	12.6
L 80 x 80 x 10	11.8	87.7	87.7	139	36.0	2.41	2.41	3.04	1.55	15.5	15.5
L 80 x 80 x 12	14.0	102	102	161	42.4	2.39	2.39	3.01	1.54	18.3	18.3
L 90 x 90 x 6	8.2	80.1	80.1	128	32.0	2.77	2.77	3.50	1.75	12.2	12.2
L 90 x 90 x 8	10.8	104	104	166	42.0	2.75	2.75	3.47	1.75	16.0	16.0
L 90 x 90 x 10	13.4	127	127	202	51.6	2.73	2.73	3.44	1.74	19.8	19.8
L 90 x 90 x 12	15.8	148	148	235	60.9	2.71	2.71	3.41	1.74	23.3	23.3

Indian (IS) Equal Leg Angles (L)

Dimensions : IS 808
Tolerances : IS 1852
Surface Condition : IS 808

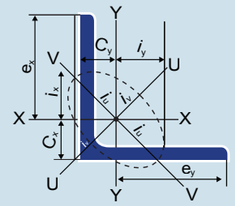


Dimensions

Designation	Mass Per Metre	Leg Length	Leg Thickness	Root Radius	Toe Radius	Area of Section	Mill	
	G	a=b	t	r_{root}	r_{toe}	A	SA	BH
	Kg/M	mm	mm	mm	mm	cm^2		
L 100 x 100 x 6	9.2	100	6	8.5	-	11.7	▪	
L 100 x 100 x 8	12.1	100	8	8.5	-	15.4	▪	
L 100 x 100 x 10	14.9	100	10	8.5	-	19.0	▪	
L 100 x 100 x 12	17.7	100	12	8.5	-	22.6	▪	
L 110 x 110 x 8	13.4	110	8	10	-	17.1	▪	
L 110 x 110 x 10	16.6	110	10	10	-	21.1	▪	
L 110 x 110 x 12	19.7	110	12	10	-	25.1	▪	
L 110 x 110 x 16	25.7	110	16	10	-	32.8	▪	
L 130 x 130 x 8	15.9	130	8	10	-	20.3	▪	
L 130 x 130 x 10	19.7	130	10	10	-	25.1	▪	
L 130 x 130 x 12	23.5	130	12	10	-	29.9	▪	
L 130 x 130 x 16	29.0	130	16	10	-	39.2	▪	
L 150 x 150 x 10	22.9	150	10	12	-	29.2	▪	
L 150 x 150 x 12	27.3	150	12	12	-	34.8	▪	
L 150 x 150 x 16	35.8	150	16	12	-	45.6	▪	
L 150 x 150 x 20	44.1	150	20	12	-	56.2	▪	
L 200 x 200 x 12	36.9	200	12	15	-	46.9		▪
L 200 x 200 x 16	48.5	200	16	15	-	61.8		▪
L 200 x 200 x 20	60.0	200	20	15	-	76.4		▪
L 200 x 200 x 25	73.9	200	25	15	-	94.1		▪

Indian (IS) Equal Leg Angles (L)

Dimensions : IS 808
Tolerances : IS 1852
Surface Condition : IS 808

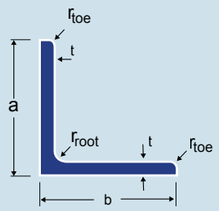


Section Properties

Designation	Mass Per Metre	Geometrical Moment of Inertia				Radius of Gyration of Area				Modulus of Section	
	G	Ix	Iy	Iu(Max)	Iv(Min)	ix	iy	iu(Max)	iv(Min)	Zx	Zy
	Kg/M	cm^4	cm^4	cm^4	cm^4	cm^3	cm^4	cm	cm	cm^3	cm^3
L 100 x 100 x 6	9.2	111	111	178	44.5	3.09	3.09	3.91	1.95	15.2	15.2
L 100 x 100 x 8	12.1	145	145	232	58.4	3.07	3.07	3.88	1.95	20.0	20.0
L 100 x 100 x 10	14.9	177	177	282	71.8	3.05	3.05	3.85	1.94	24.7	24.7
L 100 x 100 x 12	17.7	207	207	329	84.7	3.03	3.03	3.82	1.94	29.2	29.2
L 110 x 110 x 8	13.4	197	197	313	81.0	3.40	3.40	4.28	2.18	24.6	24.6
L 110 x 110 x 10	16.6	240	240	381	98.9	3.37	3.37	4.25	2.16	30.4	30.4
L 110 x 110 x 12	19.7	281	281	446	116	3.35	3.35	4.22	2.15	35.9	35.9
L 110 x 110 x 16	25.7	357	357	560	150	3.30	3.30	4.15	2.14	46.5	46.5
L 130 x 130 x 8	15.9	331	331	526	136	4.04	4.04	5.10	2.59	34.9	34.9
L 130 x 130 x 10	19.7	405	405	640	166	4.02	4.02	5.07	2.57	43.1	43.1
L 130 x 130 x 12	23.5	476	476	757	196	3.99	3.99	5.03	2.56	51.0	51.0
L 130 x 130 x 16	29.0	609	609	966	250	3.94	3.94	4.97	2.54	66.3	66.3
L 150 x 150 x 10	22.9	634	634	1,010	260	4.66	4.66	5.87	2.98	58.0	58.0
L 150 x 150 x 12	27.3	746	746	1,190	306	4.63	4.63	5.84	2.97	68.8	68.8
L 150 x 150 x 16	35.8	959	959	1,520	395	4.58	4.58	5.77	2.94	89.7	89.7
L 150 x 150 x 20	44.1	1,160	1,160	1,830	481	4.53	4.53	5.71	2.93	110	110
L 200 x 200 x 12	36.9	1,830	1,830	2,910	747	6.24	6.24	7.87	3.99	125	125
L 200 x 200 x 16	48.5	2,370	2,370	3,760	968	6.19	6.19	7.80	3.96	164	164
L 200 x 200 x 20	60.0	2,880	2,880	4,570	1,180	6.14	6.14	7.73	3.93	201	201
L 200 x 200 x 25	73.9	3,470	3,470	5,500	1,440	6.07	6.07	7.61	3.91	246	246

Japanese (JIS) Equal Leg Angles (L)

Dimensions : JIS G3192
Tolerances : JIS G3192
Surface Condition : JIS G3192

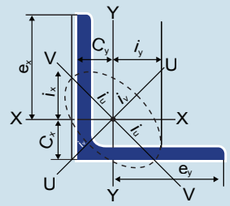


Dimensions

Designation	Mass Per Metre	Leg Length	Leg Thickness	Root Radius	Toe Radius	Area of Section	Mill	
	G	a=b	t	r_{root}	r_{toe}	A	SA	BH
	Kg/M	mm	mm	mm	mm	cm^2		
L 40 x 40 x 5	2.95	40	5	4.5	3.0	3.76	▪	
L 45 x 45 x 4	2.74	45	4	6.5	3.0	3.49	▪	
L 45 x 45 x 5	3.38	45	5	6.5	3.0	4.3	▪	
L 50 x 50 x 4	3.06	50	4	6.5	3.0	3.89	▪	
L 50 x 50 x 5	3.77	50	5	6.5	3.0	4.8	▪	
L 50 x 50 x 6	4.43	50	6	6.5	4.5	5.64	▪	
L 60 x 60 x 4	3.68	60	4	6.5	3.0	4.69	▪	
L 60 x 60 x 5	4.55	60	5	6.5	3.0	5.8	▪	
L 65 x 65 x 5	5.00	65	5	8.5	3.0	6.37	▪	
L 65 x 65 x 6	5.91	65	6	8.5	4.0	7.53	▪	
L 65 x 65 x 8	7.66	65	8	8.5	6.0	9.76	▪	
L 70 x 70 x 6	6.38	70	6	8.5	4.0	8.13	▪	
L 75 x 75 x 6	6.85	75	6	8.5	4.0	8.73	▪	
L 75 x 75 x 9	9.96	75	9	8.5	6.0	12.69	▪	
L 75 x 75 x 12	13.0	75	12	8.5	6.0	16.56	▪	
L 80 x 80 x 6	7.32	80	6	8.5	4.0	9.33	▪	
L 90 x 90 x 6	8.28	90	6	10.0	5.0	10.55	▪	
L 90 x 90 x 7	9.59	90	7	10.0	5.0	12.22	▪	
L 90 x 90 x 10	13.3	90	10	10.0	7.0	17.0	▪	
L 90 x 90 x 13	17.0	90	13	10.0	7.0	21.71	▪	
L 100 x 100 x 7	10.7	100	7	10.0	5.0	13.62	▪	
L 100 x 100 x 10	14.9	100	10	10.0	7.0	19.0	▪	
L 100 x 100 x 13	19.1	100	13	10.0	7.0	24.31	▪	
L 120 x 120 x 8	14.7	120	8	12.0	5.0	18.76	▪	
L 130 x 130 x 9	17.9	130	9	12.0	6.0	22.74	▪	
L 130 x 130 x 12	23.4	130	12	12.0	8.5	29.76	▪	
L 130 x 130 x 15	28.8	130	15	12.0	8.5	36.75	▪	
L 150 x 150 x 12	27.3	150	12	14.0	7.0	34.77	▪	
L 150 x 150 x 15	33.6	150	15	14.0	10.0	42.74	▪	
L 150 x 150 x 19	41.9	150	19	14.0	10.0	53.38	▪	
L 175 x 175 x 12	31.8	175	12	15.0	11.0	40.52		▪
L 175 x 175 x 15	39.4	175	15	15.0	11.0	50.21		▪
L 200 x 200 x 15	45.3	200	15	17.0	12.0	57.75		▪
L 200 x 200 x 20	59.7	200	20	17.0	12.0	76.0		▪
L 200 x 200 x 25	73.6	200	25	17.0	12.0	93.75		▪
L 250 x 250 x 25	93.7	250	25	24.0	12.0	119.4		▪
L 250 x 250 x 35	128.0	250	35	24.0	18.0	162.6		▪

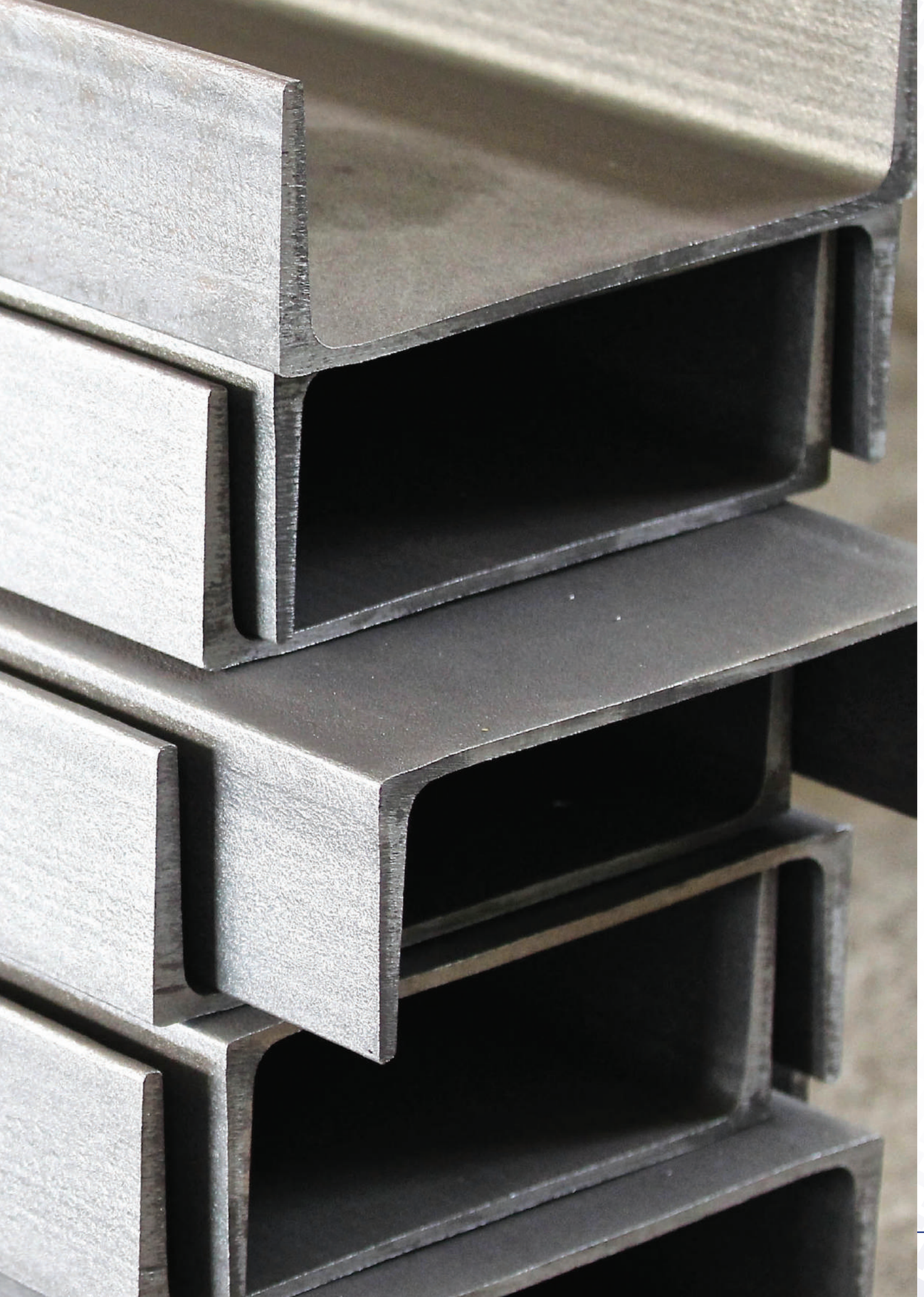
Japanese (JIS) Equal Leg Angles (L)

Dimensions : JIS G3192
Tolerances : JIS G3192
Surface Condition : JIS G3192



Section Properties

Designation	Mass Per Metre	Geometrical Moment of Inertia				Radius of Gyration of Area				Modulus of Section	
	G	I_x	I_y	I_u(Max)	I_v(Min)	i_x	i_y	i_u(Max)	i_v(Min)	Z_x	Z_y
	Kg/M	cm^4	cm^4	cm^4	cm^4	cm^3	cm^4	cm	cm	cm^3	cm^3
L 40 x 40 x 5	2.95	5.42	5.42	8.59	2.25	1.20	1.20	1.51	0.77	1.91	1.91
L 45 x 45 x 4	2.74	6.50	6.50	10.3	2.70	1.36	1.36	1.72	0.88	2.00	2.00
L 45 x 45 x 5	3.38	7.91	7.91	12.5	3.29	1.36	1.36	1.71	0.87	2.46	2.46
L 50 x 50 x 4	3.06	9.06	9.06	14.4	3.76	1.53	1.53	1.92	0.98	2.49	2.49
L 50 x 50 x 5	3.77	11.1	11.1	17.5	4.58	1.52	1.52	1.91	0.98	3.08	3.08
L 50 x 50 x 6	4.43	12.6	12.6	20.0	5.23	1.50	1.50	1.88	0.96	3.55	3.55
L 60 x 60 x 4	3.68	16.0	16.0	25.4	6.62	1.85	1.85	2.33	1.19	3.66	3.66
L 60 x 60 x 5	4.55	19.6	19.6	31.2	8.09	1.84	1.84	2.32	1.18	4.52	4.52
L 65 x 65 x 5	5.00	25.3	25.3	40.1	10.5	1.99	1.99	2.51	1.28	5.35	5.35
L 65 x 65 x 6	5.91	29.4	29.4	46.6	12.2	1.98	1.98	2.49	1.27	6.26	6.26
L 65 x 65 x 8	7.66	36.8	36.8	58.3	15.3	1.94	1.94	2.44	1.25	7.96	7.96
L 70 x 70 x 6	6.38	37.1	37.1	58.9	15.3	2.14	2.14	2.69	1.37	7.33	7.33
L 75 x 75 x 6	6.85	46.1	46.1	73.2	19.0	2.30	2.30	2.90	1.48	8.47	8.47
L 75 x 75 x 9	9.96	64.4	64.4	102	26.7	2.25	2.25	2.84	1.45	12.1	12.1
L 75 x 75 x 12	13.0	81.9	81.9	129	34.5	2.22	2.22	2.79	1.44	15.7	15.7
L 80 x 80 x 6	7.32	56.4	56.4	89.6	23.2	2.46	2.46	3.10	1.58	9.70	9.70
L 90 x 90 x 6	8.28	80.7	80.7	128	33.4	2.77	2.77	3.48	1.78	12.3	12.3
L 90 x 90 x 7	9.59	93.0	93.0	148	38.3	2.76	2.76	3.48	1.77	14.2	14.2
L 90 x 90 x 10	13.3	125	125	199	51.7	2.71	2.71	3.42	1.74	19.5	19.5
L 90 x 90 x 13	17.0	156	156	248	65.3	2.68	2.68	3.38	1.73	24.8	24.8
L 100 x 100 x 7	10.7	129	129	205	53.2	3.08	3.08	3.88	1.98	17.7	17.7
L 100 x 100 x 10	14.9	175	175	278	72.0	3.04	3.04	3.83	1.95	24.4	24.4
L 100 x 100 x 13	19.1	220	220	348	91.1	3.00	3.00	3.78	1.94	31.1	31.1
L 120 x 120 x 8	14.7	258	258	410	106	3.71	3.71	4.67	2.38	29.5	29.5
L 130 x 130 x 9	17.9	366	366	583	150	4.01	4.01	5.06	2.57	38.7	38.7
L 130 x 130 x 12	23.4	467	467	743	192	3.96	3.96	5.00	2.54	49.9	49.9
L 130 x 130 x 15	28.8	568	568	902	234	3.93	3.93	4.95	2.53	61.5	61.5
L 150 x 150 x 12	27.3	740	740	1,180	304	4.61	4.61	5.82	2.96	68.1	68.1
L 150 x 150 x 15	33.6	888	888	1,410	365	4.56	4.56	5.75	2.92	82.6	82.6
L 150 x 150 x 19	41.9	1,090	1,090	1,730	451	4.52	4.52	5.69	2.91	103	103
L 175 x 175 x 12	31.8	1,170	1,170	1,860	480	5.38	5.38	6.78	3.44	91.8	91.8
L 175 x 175 x 15	39.4	1,440	1,440	2,290	589	5.35	5.35	6.75	3.42	114	114
L 200 x 200 x 15	45.3	2,180	2,180	3,470	891	6.14	6.14	7.75	3.93	150	150
L 200 x 200 x 20	59.7	2,820	2,820	4,490	1,160	6.09	6.09	7.68	3.90	197	197
L 200 x 200 x 25	73.6	3,420	3,420	5,420	1,410	6.04	6.04	7.61	3.88	242	242
L 250 x 250 x 25	93.7	6,950	6,950	11,000	2,860	7.63	7.63	9.62	4.90	388	388
L 250 x 250 x 35	128.0	9,110	9,110	14,400	3,790	7.49	7.49	9.42	4.83	519	519



CHANNELS

EN (EUROPEAN)
- Taper Flange Channels (UPN)

SULB
- Taper Flange Channels (UPSL)

JIS (JAPANESE)
- Taper Flange Channels

(EN) EUROPEAN

TAPER FLANGE CHANNELS (UPN)

Designation	Mass in Kilograms per Metre (kg/m)												
UPN 80	8.6												
UPN 100	10.6												
UPN 120	13.4												
UPN 140	16.0												
UPN 160	18.8												
UPN 200	25.3												

SULB

TAPER FLANGE CHANNELS (UPSL)

Designation	Mass in Kilograms per Metre (kg/m)												
UPSL 80	7.1												
UPSL 100	7.7												
UPSL 120	10.4												

(JIS) JAPANESE

TAPER FLANGE CHANNELS

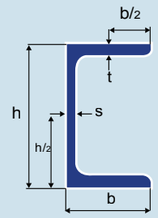
Designation	Mass in Kilograms per Metre (kg/m)												
100 x 50	9.36												

European (EN) Taper Flange Channels (UPN)

Dimensions : EN 10365

Tolerances : EN 10279

Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

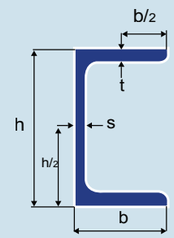
Designation	Mass Per Metre	Depth of Section	Width of Section	Thickness	Thickness	Area of Section	Mill	
	G	h	b	s	t	A	SA	BH
	Kg/M	mm	mm	mm	mm	cm^2		
UPN 80	8.6	80.0	45.0	6.0	8.0	11.0	▪	
UPN 100	10.6	100.0	50.0	6.0	8.5	13.5	▪	
UPN 120	13.4	120.0	55.0	7.0	9.0	17.0	▪	
UPN 140	16.0	140.0	60.0	7.0	10.0	20.4	▪	
UPN 160	18.8	160.0	65.0	7.5	10.5	24.0	▪	
UPN 200	25.3	200.0	75.0	8.5	11.5	32.2	▪	

European (EN) Taper Flange Channels (UPN)

Dimensions : EN 10365

Tolerances : EN 10279

Surface Condition : EN 10163-3, Class C, subclass 1

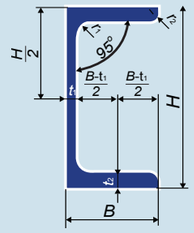


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
UPN 80	8.6	106	19.4	3.1	1.3	26.5	6.36	32.3	11.9	180	2.2
UPN 100	10.6	206	29.3	3.9	1.5	41.2	8.49	49	16.2	410	2.81
UPN 120	13.4	364	43.2	4.6	1.6	60.7	11.1	72.6	21.2	900	4.15
UPN 140	16.0	605	62.7	5.4	1.8	86.4	14.8	103	28.3	1800	5.68
UPN 160	18.8	925	85.3	6.2	1.9	116	18.3	138	35.2	3260	7.39
UPN 200	25.3	1910	148	7.7	2.1	191	27	228	51.8	9070	11.9

Japanese (JIS) Taper Flange Channels

Dimensions : JIS G3192
Tolerances : JIS G3192
Surface Condition : JIS G3192

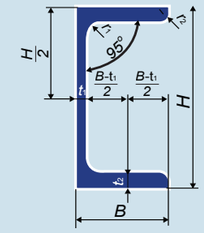


Dimensions

Designation	Mass per Metre	Depth of Section	Width of Section	Thickness	Thickness	Root Radius	Toe Radius	Area of Section	Mill	
	G	H	B	t_1	t_2	r_1	r_2	A	SA	BH
	Kg/M	mm	mm	mm	mm	mm	mm	cm^2		
100 x 50	9.36	100	50	5	7.5	8	4	11.92	▪	

Japanese (JIS) Taper Flange Channels

Dimensions : JIS G3192
Tolerances : JIS G3192
Surface Condition : JIS G3192



Section Properties

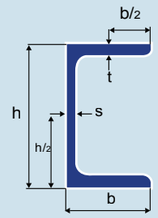
Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10⁰	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
100 x 50	9.36	189.0	26.9	3.98	1.50	37.8	7.82	44.3	14.5	439.5	1.65

Sulb Taper Flange Channels (UPSL)

Dimensions : SULB Standard

Tolerances : EN 10279

Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

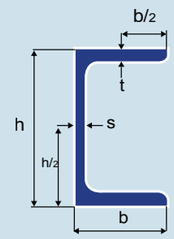
Designation	Mass Per Metre	Depth of Section	Width of Section	Thickness	Thickness	Area of Section	Mill	
	G	h	b	s	t	A	SA	BH
	Kg/M	mm	mm	mm	mm	cm^2		
UPSL 80	7.1	80.0	44.0	4.6	6.0	9.03	▪	
UPSL 100	7.7	100.0	47.0	4.1	5.7	9.72	▪	
UPSL 120	10.4	120.0	52.0	4.5	7.5	13.3	▪	

Sulb Taper Flange Channels (UPSL)

Dimensions : SULB Standard

Tolerances : EN 10279

Surface Condition : EN 10163-3, Class C, subclass 1

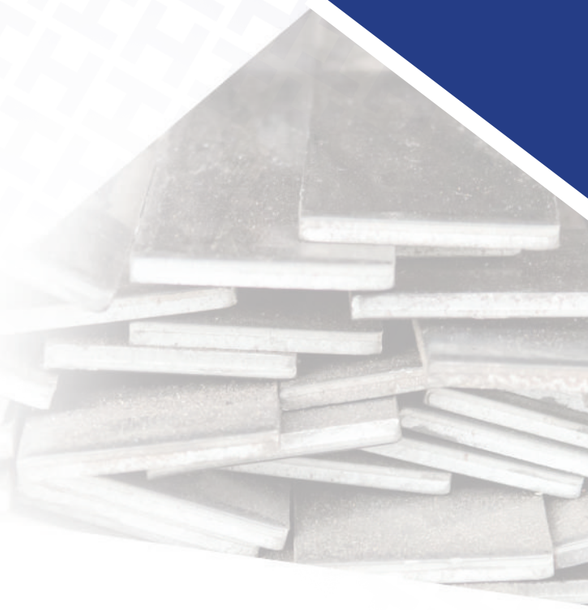


Section Properties

Designation	Mass Per Metre	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Warping Constant	Torsional Constant
	G	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	X-X	Y-Y	Hx10^0	J
	Kg/M	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3	cm^6	cm^4
UPSL 80	7.1	90.3	14.4	3.16	1.26	22.6	4.72	26.8	9.35	154.3	0.81
UPSL 100	7.7	155.1	17.6	4.00	1.34	31.0	5.23	36.3	10.5	307.4	0.75
UPSL 120	10.4	307.0	29.5	4.89	1.49	51.2	8.03	59.8	16.2	750.8	1.62



FLAT BARS



IS (INDIAN)
- Flat Bars

EN (EUROPEAN)
- Flat Bars

IS (INDIAN)

FLAT BARS

Width	Thickness (mm)																	
100	5	6	8	10	12	15	20	25	30									
120	6	8	10	12	15	20	25	30										
130	6	8	10	12	15	20	25	30										
140	6	8	10	12	15	20	25	30										
150	6	8	10	12	15	20	25	30										
160	8	10	12	15	20	25	30											
180	8	10	12	15	20	25	30											
200	10	12	15	20	25	30												
250	10	12	15	20	25	30												
300	12	15	20	25	30													

Width	Thickness (mm)																	
220*	8	10	12	14	15	16	18	20	25	30								
225*	8	10	12	14	15	16	18	20	25	30								
250*	8	10	12	14	15	16	18	20	25	30								
275*	10	12	14	15	16	18	20	25	30									
300*	10	12	14	15	16	18	20	25	30									

* = In Accordance with SULB Standard
† = Subject to mill confirmation

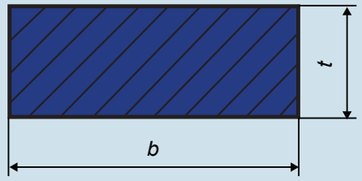
EN (EUROPEAN)

FLAT BARS

Width	Thickness (mm)																	
60†	5	6	7	8	10	12	14	15	16	18	20	25						
65*†	5	6	7	8	10	12	14	15	16	18	20	25						
70†	5	6	7	8	10	12	14	15	16	18	20	25						
75*†	5	6	7	8	10	12	14	15	16	18	20	25						
80†	5	6	7	8	10	12	14	15	16	18	20	25						
90†	5	6	7	8	10	12	14	15	16	18	20	25						
100	5	6	7	8	10	12	14	15	16	18	20	25						
110*	5	6	7	8	10	12	14	15	16	18	20	25						
120	5	6	7	8	10	12	14	15	16	18	20	25						
125*	5	6	7	8	10	12	14	15	16	18	20	25						
130	5	6	7	8	10	12	14	15	16	18	20	25						
135	5	6	7	8	10	12	14	15	16	18	20	25						
140	5	6	7	8	10	12	14	15	16	18	20	25						
150	5	6	7	8	10	12	14	15	16	18	20	25						
160	5	6	7	8	10	12	14	15	16	18	20	25						
170	5	6	7	8	10	12	14	15	16	18	20	25						
175*	5	6	7	8	10	12	14	15	16	18	20	25						
180	6	7	8	10	12	14	15	16	18	20	25							
200	6	7	8	10	12	14	15	16	18	20	25	30						

Indian (IS) Flat Bars

Dimensions : IS 1730
Tolerances : IS 1989
Surface Condition : IS 1730

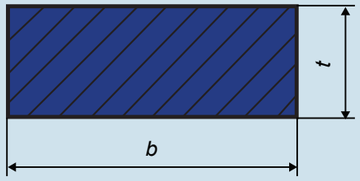


Dimensions

Width b mm	Thickness, t in mm									Mill	
	5	6	8	10	12	15	20	25	30	SA	BH
	mass in kg/m										
100	3.93	4.71	6.28	7.85	9.42	11.8	15.7	19.6	23.6	▪	
120		5.65	7.54	9.42	11.3	14.1	18.8	23.6	28.3	▪	
130		6.12	8.16	10.2	12.2	15.3	20.4	25.6	30.6	▪	
140		6.59	8.79	11.0	13.2	16.5	22.0	27.5	33.0	▪	
150		7.07	9.42	11.8	14.1	17.7	23.6	29.4	35.3	▪	
160			10.0	12.6	15.1	18.8	25.1	31.4	37.7	▪	
180			11.3	14.1	17.0	21.2	28.3	35.3	42.4	▪	
200				15.7	18.8	23.6	31.4	39.2	47.1	▪	
250				19.6	23.6	29.4	39.2	49.1	58.9	▪	
300					28.3	35.3	47.1	58.8	70.7	▪	

European (EN) Flat Bars

Dimensions : EN 10058 (* in accordance with SULB Standard)
Tolerances : EN 10058 (* in accordance with SULB Standard)
Surface Condition : EN 10163-3, Class C, subclass 1



Dimensions

	Width b mm	Thickness, t in mm													Mill	
		5 †	6	7 *	8	10	12	14*	15	16*	18 *	20	25	30	SA	BH
		mass in kg/m														
Flat Bars	60 †	2.36†	2.83	3.30*	3.77	4.71	5.65	6.59*	7.07	7.54*	8.48*	9.42	11.8		▪	
	65 *†	2.55*†	3.06*	3.57*	4.08*	5.10*	6.12*	7.14*	7.65*	8.16*	9.18*	10.2*	12.8*		▪	
	70 †	2.75†	3.30	3.85*	4.40	5.50	6.59	7.69*	8.24	8.79*	9.89*	11.0	13.7		▪	
	75 *†	2.94*†	3.53*	4.12*	4.71*	5.89*	7.07*	8.25*	8.83*	9.42*	10.6*	11.8*	14.7*		▪	
	80 †	3.14†	3.77	4.40*	5.02	6.28	7.54	8.79*	9.42	10.0*	11.3*	12.6	15.7		▪	
	90 †	3.53†	4.24	4.95*	5.65	7.07	8.48	9.89*	10.6	11.3*	12.7*	14.1	17.7		▪	
	100	3.93†	4.71	5.50*	6.28	7.85	9.42	11.0*	11.8	12.6*	14.1*	15.7	19.6		▪	
	110 *	4.32*†	5.18*	6.05*	6.91*	8.64*	10.4*	12.1*	13.0*	13.8*	15.5*	17.3*	21.6*		▪	
	120	4.71*†	5.65	6.60*	7.54	9.42	11.3	13.2*	14.1	15.1*	17.0*	18.8	23.6		▪	
	125 *	4.91*†	5.89*	6.87*	7.85*	9.81*	11.8*	13.7*	14.7*	15.7*	17.6*	19.6*	24.5*		▪	
	130	5.10*†	6.12*	7.14*	8.16	10.2	12.3	14.3*	15.3	16.3*	18.4*	20.4	25.5		▪	
	135	5.30*†	6.35*	7.42*	8.48*	10.6*	12.7*	14.8*	15.9*	17.0*	19.1*	21.2*	26.5*		▪	
	140	5.50*†	6.59*	7.69*	8.79	11.0	13.2	15.4*	16.5	17.6*	19.8*	22.0	27.5		▪	
	150	5.89*†	7.06	8.24*	9.42	11.8	14.1	16.5*	17.7	18.8*	21.2*	23.6	29.4		▪	
Wide Flats	160	6.30*†	7.57*	8.83*	10.1	12.6	15.1	17.6*	18.8	20.1*	22.6*	25.1	31.4		▪	
	170	6.68*†	8.01*	9.36*	10.7	13.3	16.0	18.7*	20.0	21.4*	24.0*	26.7	33.4		▪	
	175 *	6.87*†	8.24*	9.62*	11.0*	13.7*	16.5*	19.2*	20.6*	22.0*	24.7*	27.5*	34.3*		▪	
	180		8.48*	9.89*	11.3	14.1	17.0	19.8*	21.2	22.6*	25.4*	28.3	35.3		▪	
	200		9.42*	11.0*	12.6	15.7	18.8	22.0*	23.6	25.1*	28.3*	31.4	39.4	47.1*	▪	
	220 *				13.8*	17.3*	20.7*	24.2*	25.9*	27.6*	31.1*	34.5*	43.2*	51.8*	▪	
	225 *				14.1*	17.7*	21.2*	24.7*	26.5*	28.3*	31.8*	35.3*	44.2*	53.0*	▪	
	250 *				15.7*	19.6*	23.6*	27.5*	29.4*	31.4*	35.3*	39.3*	49.1*	58.9*	▪	
	275 *					21.6*	25.9*	30.2*	32.4*	34.5*	38.9*	43.2*	54.0*	64.8*	▪	
	300 *					23.6*	28.3*	33.0*	35.3*	37.7*	42.4*	47.1*	58.9*	70.7*	▪	

† = subject to mill confirmation





GENERAL ENQUIRIES

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