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**BSI Standards Publication**

# **Hot rolled steel channels, I and H sections — Dimensions and masses**

**National foreword**

This British Standard is the UK implementation of EN 10365:2017. It supersedes BS 4-1:2005 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ISE/103, Structural Steels Other Than Reinforcements.

A list of organizations represented on this committee can be obtained on request to its secretary.

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## Hot rolled steel channels, I and H sections - Dimensions and masses

Profils en U en aciers laminés à chaud, poutrelles I et  
H - Dimensions et massesWarmgewalzter U-Profilstahl, I- und H-Träger - Maße  
und Masse

This European Standard was approved by CEN on 14 November 2016.

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## European foreword

This document (EN 10365:2017) has been prepared by Technical Committee ECISS/TC 103 “Structural steels other than reinforcements”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2017, and conflicting national standards shall be withdrawn at the latest by July 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This project was submitted to the Enquiry under reference prEN 16828.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European standard specifies the nominal dimensions and masses of the hot rolled steel channels, I and H sections.

The following shapes are covered by this standard:

Sections:

- Parallel flange I sections IPE;
- Wide flange beams HE;
- Extra wide flange beams HL and HLZ;
- Wide flange columns HD;
- Wide flange bearing piles HP and UBP;
- Universal beams UB;
- Universal columns UC;
- Taper flange I sections IPN and J.

Channels:

- Parallel flange channels UPE and PFC;
- Taper flange channels UPN, U and CH.

These requirements do not apply to hot rolled steel channels, I and H sections from stainless steel.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10024, *Hot rolled taper flange I sections - Tolerances on shape and dimensions*

EN 10025-1, *Hot rolled products of structural steels - Part 1: General technical delivery conditions*

EN 10025-2, *Hot rolled products of structural steels - Part 2: Technical delivery conditions for non-alloy structural steels*

EN 10025-3, *Hot rolled products of structural steels - Part 3: Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels*

EN 10025-4, *Hot rolled products of structural steels - Part 4: Technical delivery conditions for thermomechanical rolled weldable fine grain structural steels*

EN 10025-5, *Hot rolled products of structural steels - Part 5: Technical delivery conditions for structural steels with improved atmospheric corrosion resistance*

EN 10034, *Structural steel I and H sections - Tolerances on shape and dimensions*

EN 10079, *Definition of steel products*

EN 10279, *Hot rolled steel channels - Tolerances on shape, dimensions and mass*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 10079 apply.

### 4 Designation

A section shall be designated according to Tables 1 to 15.

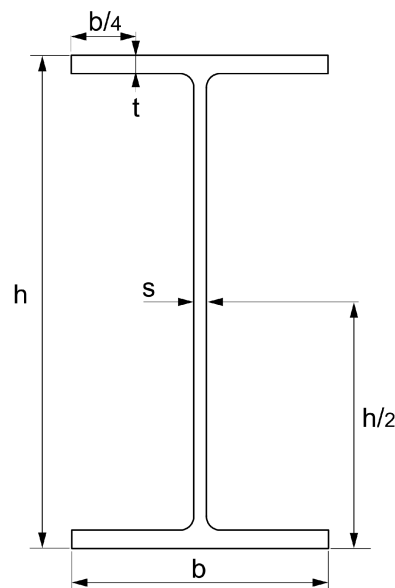
This form of designation shall be used in any enquiry and order.

### 5 Dimensions and masses

Hot rolled steel channels, I and H sections complying with this European Standard shall be manufactured with the specified dimensions given in the Table 1 to 15 and according to Figures 1 to 4 below.

Radii of fillets and toes of shape profiles vary with individual manufacturers and therefore are not specified.

The masses per unit length specified in Tables 1 to 15 were calculated on the basis of a density of  $7850 \text{ kg/m}^3$ .



**Figure 1 — IPE, HE, HL, HD, HP, UBP, UB and UC parallel flange sections**

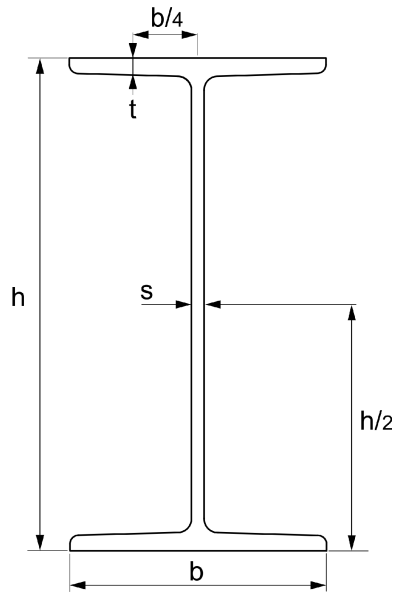


Figure 2 — Taper flange I sections IPN, J and extra wide flange beams HLZ

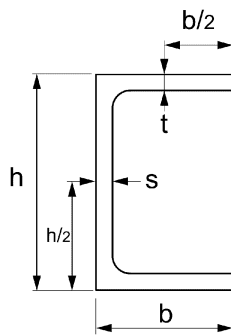


Figure 3 — Parallel flange channels UPE and PFC

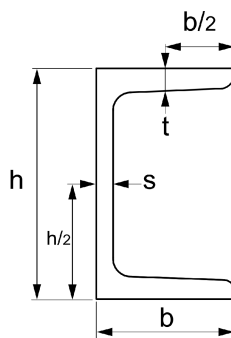


Figure 4 — Taper flange channels UPN, U and CH



## **6 Tolerances on dimensions, shape and mass**

Tolerances on dimensions, shape and mass shall be as given in EN 10034 for I (parallel flanges) and H sections.

Tolerances on dimensions, shape and mass shall be as given in EN 10024 for taper flange I sections.

Tolerances on dimensions, shape and mass shall be as given in EN 10279 for channels.

Tolerances for shapes not included in the mentioned standards shall be as agreed upon between the manufacturer and the purchaser.

## **7 Material**

Sections and channels shall preferably be made from steel of a grade as specified in EN 10025-1, EN 10025-2, EN 10025-3, EN 10025-4 and EN 10025-5. Other steel grades as specified in EN 10225, EN 10028-2 and EN 10273 may also be used for specific applications.

The desired steel grade shall be specified at the time of ordering.

**Table 1 — Parallel flange I sections IPE**

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
IPE AA 80	4,9	78,0	46,0	3,2	4,2	6,3
IPE A 80	5,0	78,0	46,0	3,3	4,2	6,4
IPE 80	6,0	80,0	46,0	3,8	5,2	7,6
IPE AA 100	6,7	97,6	55,0	3,6	4,5	8,6
IPE A 100	6,9	98,0	55,0	3,6	4,7	8,8
IPE 100	8,1	100,0	55,0	4,1	5,7	10,3
IPE AA 120	8,4	117,0	64,0	3,8	4,8	10,7
IPE A 120	8,7	117,6	64,0	3,8	5,1	11,0
IPE 120	10,4	120,0	64,0	4,4	6,3	13,2
IPE AA 140	10,1	136,6	73,0	3,8	5,2	12,8
IPE A 140	10,5	137,4	73,0	3,8	5,6	13,4
IPE 140	12,9	140,0	73,0	4,7	6,9	16,4
IPE AA 160	12,3	156,4	82,0	4,0	5,6	15,7
IPE A 160	12,7	157,0	82,0	4,0	5,9	16,2
IPE 160	15,8	160,0	82,0	5,0	7,4	20,1
IPE AA 180	14,9	176,4	91,0	4,3	6,2	19,0
IPE A 180	15,4	177,0	91,0	4,3	6,5	19,6
IPE 180	18,8	180,0	91,0	5,3	8,0	23,9
IPE O 180	21,3	182,0	92,0	6,0	9,0	27,1
IPE AA 200	18,0	196,4	100,0	4,5	6,7	22,9
IPE A 200	18,4	197,0	100,0	4,5	7,0	23,5
IPE 200	22,4	200,0	100,0	5,6	8,5	28,5
IPE O 200	25,1	202,0	102,0	6,2	9,5	32,0
IPE AA 220	21,2	216,4	110,0	4,7	7,4	27,0
IPE A 220	22,2	217,0	110,0	5,0	7,7	28,3
IPE 220	26,2	220,0	110,0	5,9	9,2	33,4
IPE O 220	29,4	222,0	112,0	6,6	10,2	37,4
IPE AA 240	24,9	236,4	120,0	4,8	8,0	31,7
IPE A 240	26,2	237,0	120,0	5,2	8,3	33,3
IPE 240	30,7	240,0	120,0	6,2	9,8	39,1
IPE O 240	34,3	242,0	122,0	7,0	10,8	43,7

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
IPE A 270	30,7	267,0	135,0	5,5	8,7	39,2
IPE 270	36,1	270,0	135,0	6,6	10,2	45,9
IPE O 270	42,3	274,0	136,0	7,5	12,2	53,8
IPE A 300	36,5	297,0	150,0	6,1	9,2	46,5
IPE 300	42,2	300,0	150,0	7,1	10,7	53,8
IPE O 300	49,3	304,0	152,0	8,0	12,7	62,8
IPE A 330	43,0	327,0	160,0	6,5	10,0	54,7
IPE 330	49,1	330,0	160,0	7,5	11,5	62,6
IPE O 330	57,0	334,0	162,0	8,5	13,5	72,6
IPE A 360	50,2	357,6	170,0	6,6	11,5	64,0
IPE 360	57,1	360,0	170,0	8,0	12,7	72,7
IPE O 360	66,0	364,0	172,0	9,2	14,7	84,1
IPE A 400	57,4	397,0	180,0	7,0	12,0	73,1
IPE 400	66,3	400,0	180,0	8,6	13,5	84,5
IPE O 400	75,7	404,0	182,0	9,7	15,5	96,4
IPE V 400	84,0	408,0	182,0	10,6	17,5	107,0
IPE A 450	67,2	447,0	190,0	7,6	13,1	85,6
IPE 450	77,6	450,0	190,0	9,4	14,6	98,8
IPE O 450	92,4	456,0	192,0	11,0	17,6	117,7
IPE V 450	107	460,0	194,0	12,4	19,6	132,0
IPE A 500	79,4	497,0	200,0	8,4	14,5	101,1
IPE 500	90,7	500,0	200,0	10,2	16,0	115,5
IPE O 500	107	506,0	202,0	12,0	19,0	136,7
IPE V 500	129	514,0	204,0	14,2	23,0	164,1
IPE A 550	92,1	547,0	210,0	9,0	15,7	117,3
IPE 550	106	550,0	210,0	11,1	17,2	134,4
IPE O 550	123	556,0	212,0	12,7	20,2	156,1
IPE V 550	159	566,0	216,0	17,1	25,2	202,0
IPE A 600	108	597,0	220,0	9,8	17,5	137,0
IPE 600	122	600,0	220,0	12,0	19,0	156,0
IPE O 600	154	610,0	224,0	15,0	24,0	196,8
IPE V 600	184	618,0	228,0	18,0	28,0	233,8

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
IPE 750 × 134	134	750,0	264,0	12,0	15,5	170,6
IPE 750 × 147	147	753,0	265,0	13,2	17,0	187,5
IPE 750 × 173	173	762,0	267,0	14,4	21,6	221,3
IPE 750 × 196	196	770,0	268,0	15,6	25,4	250,8

Table 2 — Wide flange beams HE

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
HE 100 AA	12,2	91,0	100,0	4,2	5,5	15,6
HE 100 A	16,7	96,0	100,0	5,0	8,0	21,2
HE 100 B	20,4	100,0	100,0	6,0	10,0	26,0
HE 100 C	30,9	110,0	103,0	9,0	15,0	39,3
HE 100 M	41,8	120,0	106,0	12,0	20,0	53,2
HE 120 AA	14,6	109,0	120,0	4,2	5,5	18,6
HE 120 A	19,9	114,0	120,0	5,0	8,0	25,3
HE 120 B	26,7	120,0	120,0	6,5	11,0	34,0
HE 120 C	39,2	130,0	123,0	9,5	16,0	49,9
HE 120 M	52,1	140,0	126,0	12,5	21,0	66,4
HE 140 AA	18,1	128,0	140,0	4,3	6,0	23,0
HE 140 A	24,7	133,0	140,0	5,5	8,5	31,4
HE 140 B	33,7	140,0	140,0	7,0	12,0	43,0
HE 140 C	48,2	150,0	143,0	10,0	17,0	61,5
HE 140 M	63,2	160,0	146,0	13,0	22,0	80,6
HE 160 AA	23,8	148,0	160,0	4,5	7,0	30,4
HE 160 A	30,4	152,0	160,0	6,0	9,0	38,8
HE 160 B	42,6	160,0	160,0	8,0	13,0	54,3
HE 160 C	59,2	170,0	163,0	11,0	18,0	75,4
HE 160 M	76,2	180,0	166,0	14,0	23,0	97,1
HE 180 AA	28,7	167,0	180,0	5,0	7,5	36,5
HE 180 A	35,5	171,0	180,0	6,0	9,5	45,3
HE 180 B	51,2	180,0	180,0	8,5	14,0	65,3
HE 180 C	69,8	190,0	183,0	11,5	19,0	89,0
HE 180 M	88,9	200,0	186,0	14,5	24,0	113,3
HE 200 AA	34,6	186,0	200,0	5,5	8,0	44,1
HE 200 A	42,3	190,0	200,0	6,5	10,0	53,8
HE 200 B	61,3	200,0	200,0	9,0	15,0	78,1
HE 200 C	81,9	210,0	203,0	12,0	20,0	104,4
HE 200 M	103	220,0	206,0	15,0	25,0	131,3
HE 220 AA	40,4	205,0	220,0	6,0	8,5	51,5

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
HE 220 A	50,5	210,0	220,0	7,0	11,0	64,3
HE 220 B	71,5	220,0	220,0	9,5	16,0	91,0
HE 220 C	94,1	230,0	223,0	12,5	21,0	119,9
HE 220 M	117	240,0	226,0	15,5	26,0	149,4

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
HE 240 AA	47,4	224,0	240,0	6,5	9,0	60,4
HE 240 A	60,3	230,0	240,0	7,5	12,0	76,8
HE 240 B	83,2	240,0	240,0	10,0	17,0	106,0
HE 240 C	119	255,0	244,0	14,0	24,5	152,2
HE 240 M	157	270,0	248,0	18,0	32,0	199,6
HE 260 AA	54,1	244,0	260,0	6,5	9,5	69,0
HE 260 A	68,2	250,0	260,0	7,5	12,5	86,8
HE 260 B	93,0	260,0	260,0	10,0	17,5	118,4
HE 260 C	132	275,0	264,0	14,0	25,0	168,4
HE 260 M	172	290,0	268,0	18,0	32,5	219,6
HE 280 AA	61,2	264,0	280,0	7,0	10,0	78,0
HE 280 A	76,4	270,0	280,0	8,0	13,0	97,3
HE 280 B	103	280,0	280,0	10,5	18,0	131,4
HE 280 C	145	295,0	284,0	14,5	25,5	185,2
HE 280 M	189	310,0	288,0	18,5	33,0	240,2
HE 300 AA	69,8	283,0	300,0	7,5	10,5	88,9
HE 300 A	88,3	290,0	300,0	8,5	14,0	112,5
HE 300 B	117	300,0	300,0	11,0	19,0	149,1
HE 300 C	177	320,0	305,0	16,0	29,0	225,1
HE 300 M	238	340,0	310,0	21,0	39,0	303,1
HE 320 AA	74,2	301,0	300,0	8,0	11,0	94,6
HE 320 A	97,6	310,0	300,0	9,0	15,5	124,4
HE 320 B	127	320,0	300,0	11,5	20,5	161,3
HE 320 C	186	340,0	305,0	16,0	30,5	236,9
HE 320 M	245	359,0	309,0	21,0	40,0	312,0
HE 340 AA	78,9	320,0	300,0	8,5	11,5	100,5
HE 340 A	105	330,0	300,0	9,5	16,5	133,5
HE 340 B	134	340,0	300,0	12,0	21,5	170,9
HE 340 M	248	377,0	309,0	21,0	40,0	315,8
HE 360 AA	83,7	339,0	300,0	9,0	12,0	106,6
HE 360 A	112	350,0	300,0	10,0	17,5	142,8
HE 360 B	142	360,0	300,0	12,5	22,5	180,6
HE 360 M	250	395,0	308,0	21,0	40,0	318,8

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
HE 400 AA	92,4	378,0	300,0	9,5	13,0	117,7
HE 400 A	125	390,0	300,0	11,0	19,0	159,0
HE 400 B	155	400,0	300,0	13,5	24,0	197,8
HE 400 M	256	432,0	307,0	21,0	40,0	325,8
HE 450 AA	99,7	425,0	300,0	10,0	13,5	127,1
HE 450 A	140	440,0	300,0	11,5	21,0	178,0
HE 450 B	171	450,0	300,0	14,0	26,0	218,0
HE 450 M	263	478,0	307,0	21,0	40,0	335,4
HE 500 AA	107	472,0	300,0	10,5	14,0	136,9
HE 500 A	155	490,0	300,0	12,0	23,0	197,5
HE 500 B	187	500,0	300,0	14,5	28,0	238,6
HE 500 M	270	524,0	306,0	21,0	40,0	344,3
HE 550 AA	120	522,0	300,0	11,5	15,0	152,8
HE 550 A	166	540,0	300,0	12,5	24,0	211,8
HE 550 B	199	550,0	300,0	15,0	29,0	254,1
HE 550 M	278	572,0	306,0	21,0	40,0	354,4
HE 600 AA	129	571,0	300,0	12,0	15,5	164,1
HE 600 A	178	590,0	300,0	13,0	25,0	226,5
HE 600 B	212	600,0	300,0	15,5	30,0	270,0
HE 600 M	285	620,0	305,0	21,0	40,0	363,7
HE 600 × 337	337	632,0	310,0	25,5	46,0	429,2
HE 600 × 399	399	648,0	315,0	30,0	54,0	508,5
HE 650 AA	138	620,0	300,0	12,5	16,0	175,8
HE 650 A	190	640,0	300,0	13,5	26,0	241,6
HE 650 B	225	650,0	300,0	16,0	31,0	286,3
HE 650 M	293	668,0	305,0	21,0	40,0	373,7
HE 650 × 343	343	680,0	309,0	25,0	46,0	437,5
HE 650 × 407	407	696,0	314,0	29,5	54,0	518,8
HE 700 AA	150	670,0	300,0	13,0	17,0	190,9
HE 700 A	204	690,0	300,0	14,5	27,0	260,5
HE 700 B	241	700,0	300,0	17,0	32,0	306,4
HE 700 M	301	716,0	304,0	21,0	40,0	383,0
HE 700 × 352	352	728,0	308,0	25,0	46,0	448,6



Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
HE 700 × 418	418	744,0	313,0	29,5	54,0	531,9
HE 800 AA	172	770,0	300,0	14,0	18,0	218,5
HE 800 A	224	790,0	300,0	15,0	28,0	285,8
HE 800 B	262	800,0	300,0	17,5	33,0	334,2
HE 800 M	317	814,0	303,0	21,0	40,0	404,3
HE 800 × 373	373	826,0	308,0	25,0	46,0	474,6
HE 800 × 444	444	842,0	313,0	30,0	54,0	566,0
HE 900 AA	198	870,0	300,0	15,0	20,0	252,2
HE 900 A	252	890,0	300,0	16,0	30,0	320,5
HE 900 B	291	900,0	300,0	18,5	35,0	371,3
HE 900 M	333	910,0	302,0	21,0	40,0	423,6
HE 900 × 391	391	922,0	307,0	25,0	46,0	497,7
HE 900 × 466	466	938,0	312,0	30,0	54,0	593,7
HE 1000 AA	222	970,0	300,0	16,0	21,0	282,2
HE 1000 × 249	249	980,0	300,0	16,5	26,0	316,8
HE 1000 A	272	990,0	300,0	16,5	31,0	346,8
HE 1000 B	314	1000,0	300,0	19,0	36,0	400,0
HE 1000 M	349	1008,0	302,0	21,0	40,0	444,2
HE 1000 × 393	393	1016,0	303,0	24,4	43,9	500,2
HE 1000 × 415	415	1020,0	304,0	26,0	46,0	528,7
HE 1000 × 438	438	1026,0	305,0	26,9	49,0	556,0
HE 1000 × 494	494	1036,0	309,0	31,0	54,0	629,1
HE 1000 × 584	584	1056,0	314,0	36,0	64,0	743,7

Table 3 — Extra wide flange beams HL and HLZ

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
HL 920 × 344	344	927,0	418,0	19,3	32,0	437,2
HL 920 × 368	368	931,0	419,0	20,3	34,3	465,6
HL 920 × 390	390	936,0	420,0	21,3	36,6	494,3
HL 920 × 420	420	943,0	422,0	22,5	39,9	534,1
HL 920 × 449	449	948,0	423,0	24,0	42,7	571,4
HL 920 × 491	491	957,0	422,0	25,9	47,0	623,3
HL 920 × 537	537	965,0	425,0	28,4	51,1	682,5
HL 920 × 588	588	975,0	427,0	31,0	55,9	748,1
HL 920 × 656	656	987,0	431,0	34,5	62,0	835,3
HL 920 × 725	725	999,0	434,0	38,1	68,1	922,9
HL 920 × 787	787	1011,0	437,0	40,9	73,9	1002,0
HL 920 × 970	970	1043,0	446,0	50,0	89,9	1236,6
HL 920 × 1077	1077	1061,0	451,0	55,0	99,1	1371,5
HL 920 × 1194	1194	1081,0	457,0	60,5	109,0	1521,5
HL 920 × 1269	1269	1093,0	461,0	64,0	115,1	1616,5
HL 920 × 1377	1377	1093,0	473,0	76,7	115,1	1753,7
HL 1000 AA	296	982,0	400,0	16,5	27,1	377,6
HL 1000 A	321	990,0	400,0	16,5	31,0	408,8
HL 1000 B	371	1000,0	400,0	19,0	36,1	472,8
HL 1000 M	412	1008,0	402,0	21,1	40,0	525,1
HL 1000 × 443	443	1012,0	402,0	23,6	41,9	563,7
HL 1000 × 483	483	1020,0	404,0	25,4	46,0	615,1
HL 1000 × 539	539	1030,0	407,0	28,4	51,1	687,2
HL 1000 × 554	554	1032,0	408,0	29,5	52,0	705,8
HL 1000 × 591	591	1040,0	409,0	31,0	55,9	752,7
HL 1000 × 642	642	1048,0	412,0	34,0	60,0	817,6
HL 1000 × 748	748	1068,0	417,0	39,0	70,0	953,4
HL 1000 × 883	883	1092,0	424,0	45,5	82,0	1125,3
HL 1000 × 976	976	1108,0	428,0	50,0	89,9	1241,4
HL 1100 A	343	1090,0	400,0	18,0	31,0	436,5
HL 1100 B	390	1100,0	400,0	20,0	36,0	497,0
HL 1100 M	433	1108,0	402,0	22,0	40,0	551,2
HL 1100 R	499	1118,0	405,0	26,0	45,0	635,2

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
HL 1100 × 548	548	1128,0	407,0	28,0	50,0	698,3
HL 1100 × 607	607	1138,0	410,0	31,0	55,0	773,1
HLZ 1100 A	393	1075,4	458,0	20,0	31,0	500,8
HLZ 1100 B	408	1079,4	458,0	20,0	33,0	519,1
HLZ 1100 C	430	1083,4	459,0	21,0	35,0	548,3
HLZ 1100 D	453	1087,4	460,0	22,0	37,0	577,5

Table 4 — Wide flange columns HD

Designation	G kg/m	Dimensions				A cm <sup>2</sup>
		h mm	b mm	s mm	t mm	
HD 260 × 54,1	54,1	244,0	260,0	6,5	9,5	69,0
HD 260 × 68,2	68,2	250,0	260,0	7,5	12,5	86,8
HD 260 × 93,0	93,0	260,0	260,0	10,0	17,5	118,4
HD 260 × 114	114	268,0	262,0	12,5	21,5	145,7
HD 260 × 142	142	278,0	265,0	15,5	26,5	180,3
HD 260 × 172	172	290,0	268,0	18,0	32,5	219,6
HD 260 × 225	225	309,0	271,0	24,0	42,0	286,6
HD 260 × 299	299	335,0	278,0	31,0	55,0	380,5
HD 320 × 74,2	74,2	301,0	300,0	8,0	11,0	94,6
HD 320 × 97,6	97,6	310,0	300,0	9,0	15,5	124,4
HD 320 × 127	127	320,0	300,0	11,5	20,5	161,3
HD 320 × 158	158	330,0	303,0	14,5	25,5	201,2
HD 320 × 198	198	343,0	306,0	18,0	32,0	252,3
HD 320 × 245	245	359,0	309,0	21,0	40,0	312,0
HD 320 × 300	300	375,0	313,0	27,0	48,0	382,1
HD 360 × 134	134	356,0	369,0	11,2	18,0	170,6
HD 360 × 147	147	360,0	370,0	12,3	19,8	187,9
HD 360 × 162	162	364,0	371,0	13,3	21,8	206,3
HD 360 × 179	179	368,0	373,0	15,0	23,9	228,3
HD 360 × 196	196	372,0	374,0	16,4	26,2	250,3
HD 400 × 187	187	368,0	391,0	15,0	24,0	237,6
HD 400 × 216	216	375,0	394,0	17,3	27,7	275,5
HD 400 × 237	237	380,0	395,0	18,9	30,2	300,9
HD 400 × 262	262	387,0	398,0	21,1	33,3	334,6
HD 400 × 287	287	393,0	399,0	22,6	36,6	366,3
HD 400 × 314	314	399,0	401,0	24,9	39,6	399,2
HD 400 × 347	347	407,0	404,0	27,2	43,7	442,0
HD 400 × 382	382	416,0	406,0	29,8	48,0	487,1
HD 400 × 421	421	425,0	409,0	32,8	52,6	537,1
HD 400 × 463	463	435,0	412,0	35,8	57,4	589,5
HD 400 × 509	509	446,0	416,0	39,1	62,7	649,0
HD 400 × 551	551	455,0	418,0	42,0	67,6	701,4
HD 400 × 592	592	465,0	421,0	45,0	72,3	754,9
HD 400 × 634	634	474,0	424,0	47,6	77,1	808,0
HD 400 × 677	677	483,0	428,0	51,2	81,5	863,4
HD 400 × 744	744	498,0	432,0	55,6	88,9	948,1

HD 400 × 818	818	514,0	437,0	60,5	97,0	1043,3
HD 400 × 900	900	531,0	442,0	65,9	106,0	1149,2
HD 400 × 990	990	550,0	448,0	71,9	115,0	1262,4
HD 400 × 1086	1086	569,0	454,0	78,0	125,0	1385,8
HD 400 × 1202	1202	580,0	471,0	95,0	130,0	1530,5
HD 400 × 1299	1299	600,0	476,0	100,0	140,0	1654,7

**Table 5 — Wide flange bearing piles HP**

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
HP 200 × 43	42,5	200,0	205,0	9,0	9,0	54,1
HP 200 × 53	53,5	204,0	207,0	11,3	11,3	68,4
HP 220 × 57	57,2	210,0	224,5	11,0	11,0	72,9
HP 260 × 75	75,0	249,0	265,0	12,0	12,0	95,5
HP 260 × 87	87,3	253,0	267,0	14,0	14,0	111,0
HP 305 × 79	78,9	299,3	306,4	11,0	11,1	100,5
HP 305 × 88	88,5	301,7	307,8	12,4	12,3	112,1
HP 305 × 95	94,9	303,7	308,7	13,3	13,3	121,0
HP 305 × 110	110	307,9	310,7	15,3	15,4	140,1
HP 305 × 126	126	312,3	312,9	17,5	17,6	160,6
HP 305 × 149	149	318,5	316,0	20,6	20,7	189,9
HP 305 × 180	180	326,7	319,7	24,8	24,8	229,3
HP 305 × 186	186	328,3	320,9	25,5	25,6	236,9
HP 305 × 223	223	337,9	325,7	30,3	30,4	284,0
HP 320 × 88	88,5	303,0	304,0	12,0	12,0	112,7
HP 320 × 103	103	307,0	306,0	14,0	14,0	131,0
HP 320 × 117	117	311,0	308,0	16,0	16,0	149,5
HP 320 × 147	147	319,0	312,0	20,0	20,0	186,9
HP 320 × 184	184	329,0	317,0	25,0	25,0	234,5
HP 360 × 109	109	346,4	371,0	12,8	12,9	138,7
HP 360 × 133	133	352,0	373,8	15,6	15,7	169,4
HP 360 × 152	152	356,4	376,0	17,8	17,9	193,7
HP 360 × 174	174	361,4	378,5	20,3	20,4	221,5
HP 360 × 180	180	362,9	378,8	21,1	21,1	229,5
HP 400 × 122	122	348,0	390,0	14,0	14,0	155,9

HP 400 × 140	140	352,0	392,0	16,0	16,0	178,6
HP 400 × 158	158	356,0	394,0	18,0	18,0	201,4
HP 400 × 176	176	360,0	396,0	20,0	20,0	224,3
HP 400 × 194	194	364,0	398,0	22,0	22,0	247,5
HP 400 × 213	213	368,0	400,0	24,0	24,0	270,7
HP 400 × 231	231	372,0	402,0	26,0	26,0	294,2

**Table 6 — Wide flange bearing piles UBP**

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
UBP 203 × 203 × 45	44,9	200,2	205,9	9,5	9,5	57,2
UBP 203 × 203 × 54	53,9	204,0	207,7	11,3	11,4	68,7
UBP 254 × 254 × 63	63,0	247,1	256,6	10,6	10,7	80,2
UBP 254 × 254 × 71	71,0	249,7	258,0	12,0	12,0	90,4
UBP 254 × 254 × 85	85,1	254,3	260,4	14,4	14,3	108,4
UBP 305 × 305 × 79	78,9	299,3	306,4	11,0	11,1	100,5
UBP 305 × 305 × 88	88,0	301,7	307,8	12,4	12,3	112,1
UBP 305 × 305 × 95	94,9	303,7	308,7	13,3	13,3	120,9
UBP 305 × 305 × 110	110	307,9	310,7	15,3	15,4	140,1
UBP 305 × 305 × 126	126	312,3	312,9	17,5	17,6	160,6
UBP 305 × 305 × 149	149	318,5	316,0	20,6	20,7	189,9
UBP 305 × 305 × 186	186	328,3	320,9	25,5	25,6	236,9
UBP 305 × 305 × 223	223	337,9	325,7	30,3	30,4	284,0
UBP 356 × 368 × 109	109	346,4	371,0	12,8	12,9	138,7
UBP 356 × 368 × 133	133	352,0	373,8	15,6	15,7	169,4
UBP 356 × 368 × 152	152	356,4	376,0	17,8	17,9	193,7
UBP 356 × 368 × 174	174	361,4	378,5	20,3	20,4	221,5

Table 7 — Universal beams UB

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
UB 127 × 76 × 13	13,0	127,0	76,0	4,0	7,6	16,5
UB 152 × 89 × 16	16,0	152,4	88,7	4,5	7,7	20,3
UB 178 × 102 × 19	19,0	177,8	101,2	4,8	7,9	24,3
UB 203 × 102 × 23	23,1	203,2	101,8	5,4	9,3	29,4
UB 203 × 133 × 25	25,1	203,2	133,2	5,7	7,8	32,0
UB 203 × 133 × 30	30,0	206,8	133,9	6,4	9,6	38,2
UB 254 × 102 × 22	22,0	254,0	101,6	5,7	6,8	28,0
UB 254 × 102 × 25	25,2	257,2	101,9	6,0	8,4	32,0
UB 254 × 102 × 28	28,3	260,4	102,2	6,3	10,0	36,1
UB 254 × 146 × 31	31,1	251,4	146,1	6,0	8,6	39,7
UB 254 × 146 × 37	37,0	256,0	146,4	6,3	10,9	47,2
UB 254 × 146 × 43	43,0	259,6	147,3	7,2	12,7	54,8
UB 305 × 102 × 25	24,8	305,1	101,6	5,8	7,0	31,6
UB 305 × 102 × 28	28,2	308,7	101,8	6,0	8,8	35,9
UB 305 × 102 × 33	32,8	312,7	102,4	6,6	10,8	41,8
UB 305 × 127 × 37	37,0	304,4	123,4	7,1	10,7	47,2
UB 305 × 127 × 42	41,9	307,2	124,3	8,0	12,1	53,4
UB 305 × 127 × 48	48,1	311,0	125,3	9,0	14,0	61,2
UB 305 × 165 × 40	40,3	303,4	165,0	6,0	10,2	51,3
UB 305 × 165 × 46	46,1	306,6	165,7	6,7	11,8	58,7
UB 305 × 165 × 54	54,0	310,4	166,9	7,9	13,7	68,8
UB 356 × 127 × 33	33,1	349,0	125,4	6,0	8,5	42,1
UB 356 × 127 × 39	39,1	353,4	126,0	6,6	10,7	49,8
UB 356 × 171 × 45	45,0	351,4	171,1	7,0	9,7	57,3
UB 356 × 171 × 51	51,0	355,0	171,5	7,4	11,5	64,9
UB 356 × 171 × 57	57,0	358,0	172,2	8,1	13,0	72,6
UB 356 × 171 × 67	67,1	363,4	173,2	9,1	15,7	85,5
UB 406 × 140 × 39	39,0	398,0	141,8	6,4	8,6	49,7
UB 406 × 140 × 46	46,0	403,2	142,2	6,8	11,2	58,6
UB 406 × 178 × 54	54,1	402,6	177,7	7,7	10,9	69,0
UB 406 × 178 × 60	60,1	406,4	177,9	7,9	12,8	76,5



Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
UB 406 × 178 × 67	67,1	409,4	178,8	8,8	14,3	85,5
UB 406 × 178 × 74	74,2	412,8	179,5	9,5	16,0	94,5
UB 457 × 152 × 52	52,3	449,8	152,4	7,6	10,9	66,6
UB 457 × 152 × 60	59,8	454,6	152,9	8,1	13,3	76,2
UB 457 × 152 × 67	67,2	458,0	153,8	9,0	15,0	85,6
UB 457 × 152 × 74	74,2	462,0	154,4	9,6	17,0	94,5
UB 457 × 152 × 82	82,1	465,8	155,3	10,5	18,9	104,5
UB 457 × 191 × 67	67,1	453,4	189,9	8,5	12,7	85,5
UB 457 × 191 × 74	74,3	457,0	190,4	9,0	14,5	94,6
UB 457 × 191 × 82	82,0	460,0	191,3	9,9	16,0	104,5
UB 457 × 191 × 89	89,3	463,4	191,9	10,5	17,7	113,8
UB 457 × 191 × 98	98,3	467,2	192,8	11,4	19,6	125,3
UB 533 × 210 × 82	82,2	528,3	208,8	9,6	13,2	104,7
UB 533 × 210 × 92	92,1	533,1	209,3	10,1	15,6	117,4
UB 533 × 210 × 101	101	536,7	210,0	10,8	17,4	128,7
UB 533 × 210 × 109	109	539,5	210,8	11,6	18,8	138,9
UB 533 × 210 × 122	122	544,5	211,9	12,7	21,3	155,4
UB 610 × 229 × 101	101	602,6	227,6	10,5	14,8	128,9
UB 610 × 229 × 113	113	607,6	228,2	11,1	17,3	143,9
UB 610 × 229 × 125	125	612,2	229,0	11,9	19,6	159,3
UB 610 × 229 × 140	140	617,2	230,2	13,1	22,1	178,2
UB 610 × 305 × 149	149	612,4	304,8	11,8	19,7	190,0
UB 610 × 305 × 179	179	620,2	307,1	14,1	23,6	228,1
UB 610 × 305 × 238	238	635,8	311,4	18,4	31,4	303,3
UB 686 × 254 × 125	125	677,9	253,0	11,7	16,2	159,5
UB 686 × 254 × 140	140	683,5	253,7	12,4	19,0	178,4
UB 686 × 254 × 152	152	687,5	254,5	13,2	21,0	194,1
UB 686 × 254 × 170	170	692,9	255,8	14,5	23,7	216,8
UB 762 × 267 × 134	134	750,0	264,4	12,0	15,5	170,6
UB 762 × 267 × 147	147	754,0	265,2	12,8	17,5	187,2
UB 762 × 267 × 173	173	762,2	266,7	14,3	21,6	220,4
UB 762 × 267 × 197	197	769,8	268,0	15,6	25,4	250,6
UB 838 × 292 × 176	176	834,9	291,7	14,0	18,8	224,0

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
UB 838 × 292 × 194	194	840,7	292,4	14,7	21,7	246,8
UB 838 × 292 × 226	226	850,9	293,8	16,1	26,8	288,6
UB 914 × 305 × 201	201	903,0	303,3	15,1	20,2	255,9
UB 914 × 305 × 224	224	910,4	304,1	15,9	23,9	285,6
UB 914 × 305 × 238	238	915,0	305,0	16,5	25,9	303,5
UB 914 × 305 × 253	253	918,4	305,5	17,3	27,9	322,8
UB 914 × 305 × 271	271	923,0	307,0	18,4	30,0	346,1
UB 914 × 305 × 289	289	926,6	307,7	19,5	32,0	368,3
UB 914 × 305 × 313	313	932,0	309,0	21,1	34,5	398,4
UB 914 × 305 × 345	345	943,0	308,0	22,1	39,9	439,7
UB 914 × 305 × 381	381	951,0	310,0	24,4	43,9	485,9
UB 914 × 305 × 425	425	961,0	313,0	26,9	49,0	542,0
UB 914 × 305 × 474	474	971,0	316,0	30,0	54,1	603,9
UB 914 × 305 × 521	521	981,0	319,0	33,0	58,9	663,7
UB 914 × 305 × 576	576	993,0	322,0	36,1	65,0	733,2
UB 914 × 419 × 343	343	911,8	418,5	19,4	32,0	437,3
UB 914 × 419 × 388	388	921,0	420,5	21,4	36,6	494,2
UB 1016 × 305 × 222	222	970,0	300,0	16,0	21,1	282,8
UB 1016 × 305 × 249	249	980,0	300,0	16,5	26,0	316,8
UB 1016 × 305 × 272	272	990,0	300,0	16,5	31,0	346,8
UB 1016 × 305 × 314	314	1000,0	300,0	19,1	35,9	400,4
UB 1016 × 305 × 350	350	1008,0	302,0	21,1	40,0	445,1
UB 1016 × 305 × 393	393	1016,0	303,0	24,4	43,9	500,2
UB 1016 × 305 × 415	415	1020,0	304,0	26,0	46,0	528,7
UB 1016 × 305 × 438	438	1026,0	305,0	26,9	49,0	556,3
UB 1016 × 305 × 494	494	1036,0	309,0	31,0	54,0	629,1
UB 1016 × 305 × 584	584	1056,0	314,0	36,0	64,0	743,7

Table 8 — Universal columns UC

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
UC 152 × 152 × 23	23,0	152,4	152,2	5,8	6,8	29,2
UC 152 × 152 × 30	30,0	157,6	152,9	6,5	9,4	38,3
UC 152 × 152 × 37	37,0	161,8	154,4	8,0	11,5	47,1
UC 203 × 203 × 46	46,1	203,2	203,6	7,2	11,0	58,7
UC 203 × 203 × 52	52,0	206,2	204,3	7,9	12,5	66,3
UC 203 × 203 × 60	60,0	209,6	205,8	9,4	14,2	76,4
UC 203 × 203 × 71	71,0	215,8	206,4	10,0	17,3	90,4
UC 203 × 203 × 86	86,1	222,2	209,1	12,7	20,5	109,6
UC 254 × 254 × 73	73,1	254,1	254,6	8,6	14,2	93,1
UC 254 × 254 × 89	88,9	260,3	256,3	10,3	17,3	113,3
UC 254 × 254 × 107	107	266,7	258,8	12,8	20,5	136,4
UC 254 × 254 × 132	132	276,3	261,3	15,3	25,3	168,1
UC 254 × 254 × 167	167	289,1	265,2	19,2	31,7	212,9
UC 305 × 305 × 97	96,9	307,9	305,3	9,9	15,4	123,4
UC 305 × 305 × 118	118	314,5	307,4	12,0	18,7	150,2
UC 305 × 305 × 137	137	320,5	309,2	13,8	21,7	174,4
UC 305 × 305 × 158	158	327,1	311,2	15,8	25,0	201,4
UC 305 × 305 × 198	198	339,9	314,5	19,1	31,4	252,4
UC 305 × 305 × 240	240	352,5	318,4	23,0	37,7	305,8
UC 305 × 305 × 283	283	365,3	322,2	26,8	44,1	360,4
UC 356 × 368 × 129	129	355,6	368,6	10,4	17,5	164,3
UC 356 × 368 × 153	153	362,0	370,5	12,3	20,7	194,8
UC 356 × 368 × 177	177	368,2	372,6	14,4	23,8	225,5
UC 356 × 368 × 202	202	374,6	374,7	16,5	27,0	257,2
UC 356 × 406 × 235	235	381,0	394,8	18,4	30,2	299,0
UC 356 × 406 × 287	287	393,6	399,0	22,6	36,5	365,7
UC 356 × 406 × 340	340	406,4	403,0	26,6	42,9	433,0
UC 356 × 406 × 393	393	419,0	407,0	30,6	49,2	500,6
UC 356 × 406 × 467	467	436,6	412,2	35,8	58,0	594,9
UC 356 × 406 × 509	509	446,0	416,0	39,1	62,7	649,0
UC 356 × 406 × 551	551	455,6	418,5	42,1	67,5	701,9
UC 356 × 406 × 592	592	465,0	421,0	45,0	72,3	754,9
UC 356 × 406 × 634	634	474,6	424,0	47,6	77,0	807,5
UC 356 × 406 × 677	677	483,0	428,0	51,2	81,5	863,4
UC 356 × 406 × 744	744	498,0	432,0	55,6	88,9	948,1
UC 356 × 406 × 818	818	514,0	437,0	60,5	97,0	1043,3

UC 356 × 406 × 900	900	531,0	442,0	65,9	106,0	1149,2
UC 356 × 406 × 990	990	550,0	448,0	71,9	115,0	1262,4
UC 356 × 406 × 1086	1086	569,0	454,0	78,0	125,0	1385,8
UC 356 × 406 × 1202	1202	580,0	471,0	95,0	130,0	1530,6
UC 356 × 406 × 1299	1299	600,0	476,0	100,0	140,0	1654,8

**Table 9 — Taper flange I sections IPN**

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
IPN 80	5,9	80,0	42,0	3,9	5,9	7,6
IPN 100	8,3	100,0	50,0	4,5	6,8	10,6
IPN 120	11,1	120,0	58,0	5,1	7,7	14,2
IPN 140	14,3	140,0	66,0	5,7	8,6	18,2
IPN 160	17,9	160,0	74,0	6,3	9,5	22,8
IPN 180	21,9	180,0	82,0	6,9	10,4	27,9
IPN 200	26,2	200,0	90,0	7,5	11,3	33,4
IPN 220	31,1	220,0	98,0	8,1	12,2	39,5
IPN 240	36,2	240,0	106,0	8,7	13,1	46,1
IPN 260	41,9	260,0	113,0	9,4	14,1	53,3
IPN 280	47,9	280,0	119,0	10,1	15,2	61,0
IPN 300	54,2	300,0	125,0	10,8	16,2	69,0
IPN 320	61,0	320,0	131,0	11,5	17,3	77,7
IPN 340	68,0	340,0	137,0	12,2	18,3	86,7
IPN 360	76,1	360,0	143,0	13,0	19,5	97,0
IPN 380	84,0	380,0	149,0	13,7	20,5	107,0
IPN 400	92,4	400,0	155,0	14,4	21,6	117,7
IPN 450	115	450,0	170,0	16,2	24,3	146,9
IPN 500	141	500,0	185,0	18,0	27,0	179,4
IPN 550	166	550,0	200,0	19,0	30,0	212,0
IPN 600	199	600,0	215,0	21,6	32,4	253,7

Table 10 — Taper flange I sections J

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
J 76 × 76 × 13	12,8	76,2	76,2	5,1	8,4	16,1
J 76 × 76 × 15	15,0	76,2	80,0	8,9	8,4	18,8
J 89 × 89 × 19	19,5	88,9	88,9	9,5	9,9	24,4
J 102 × 44 × 7	7,5	101,6	44,5	4,3	6,1	9,4
J 102 × 102 × 23	23,0	101,6	101,6	9,5	10,3	28,8
J 114 × 114 × 27	26,9	114,3	114,3	9,5	10,7	33,9
J 127 × 76 × 16	16,5	127,0	76,2	5,6	9,6	20,9
J 127 × 114 × 27	26,9	127,0	114,3	7,4	11,4	33,8
J 127 × 114 × 29	29,3	127,0	114,3	10,2	11,5	36,8
J 152 × 127 × 37	37,3	152,4	127,0	10,4	13,2	46,9
J 203 × 152 × 52	52,3	203,2	152,4	8,9	16,5	65,9
J 254 × 114 × 37	37,2	254,0	114,3	7,6	12,8	46,9
J 254 × 203 × 82	82,0	254,0	203,2	10,2	19,9	103,9

Table 11 — Parallel flange channels UPE

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
UPE 80	7,9	80,0	50,0	4,0	7,0	10,1
UPE 100	9,8	100,0	55,0	4,5	7,5	12,5
UPE 120	12,1	120,0	60,0	5,0	8,0	15,4
UPE 140	14,5	140,0	65,0	5,0	9,0	18,4
UPE 160	17,0	160,0	70,0	5,5	9,5	21,7
UPE 180	19,7	180,0	75,0	5,5	10,5	25,1
UPE 200	22,8	200,0	80,0	6,0	11,0	29,0
UPE 220	26,6	220,0	85,0	6,5	12,0	33,9
UPE 240	30,2	240,0	90,0	7,0	12,5	38,5
UPE 270	35,2	270,0	95,0	7,5	13,5	44,8
UPE 300	44,4	300,0	100,0	9,5	15,0	56,6
UPE 330	53,2	330,0	105,0	11,0	16,0	67,8
UPE 360	61,2	360,0	110,0	12,0	17,0	77,9
UPE 400	72,2	400,0	115,0	13,5	18,0	91,9

Table 12 — Parallel flange channels PFC

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
PFC 100 × 50 × 10	10,2	100,0	50,0	5,0	8,5	13,0
PFC 125 × 65 × 15	14,8	125,0	65,0	5,5	9,5	18,8
PFC 150 × 75 × 18	17,9	150,0	75,0	5,5	10,0	22,8
PFC 150 × 90 × 24	23,9	150,0	90,0	6,5	12,0	30,4
PFC 180 × 75 × 20	20,3	180,0	75,0	6,0	10,5	25,9
PFC 180 × 90 × 26	26,1	180,0	90,0	6,5	12,5	33,2
PFC 200 × 75 × 23	23,4	200,0	75,0	6,0	12,5	29,9
PFC 200 × 90 × 30	29,7	200,0	90,0	7,0	14,0	37,9
PFC 230 × 75 × 26	25,7	230,0	75,0	6,5	12,5	32,7
PFC 230 × 90 × 32	32,2	230,0	90,0	7,5	14,0	41,0
PFC 260 × 75 × 28	27,6	260,0	75,0	7,0	12,0	35,1
PFC 260 × 90 × 35	34,8	260,0	90,0	8,0	14,0	44,4
PFC 300 × 90 × 41	41,4	300,0	90,0	9,0	15,5	52,7
PFC 300 × 100 × 46	45,5	300,0	100,0	9,0	16,5	58,0
PFC 380 × 100 × 54	54,0	380,0	100,0	9,5	17,5	68,7
PFC 430 × 100 × 64	64,4	430,0	100,0	11,0	19,0	82,1

**Table 13 — Taper flange channels UPN**

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
UPN 50	5,6	50,0	38,0	5,0	7,0	7,1
UPN 65	7,1	65,0	42,0	5,5	7,5	9,0
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 180	22,0	180,0	70,0	8,0	11,0	28,0
UPN 200	25,3	200,0	75,0	8,5	11,5	32,2
UPN 220	29,4	220,0	80,0	9,0	12,5	37,4
UPN 240	33,2	240,0	85,0	9,5	13,0	42,3
UPN 260	37,9	260,0	90,0	10,0	14,0	48,3
UPN 280	41,8	280,0	95,0	10,0	15,0	53,3
UPN 300	46,2	300,0	100,0	10,0	16,0	58,8
UPN 320	59,5	320,0	100,0	14,0	17,5	75,8
UPN 350	60,6	350,0	100,0	14,0	16,0	77,3
UPN 380	63,1	380,0	102,0	13,5	16,0	80,4
UPN 400	71,8	400,0	110,0	14,0	18,0	91,5



Table 14 — Taper flange channels U

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
U 40 × 20 × 4	2,6	40,0	20,0	4,0	5,5	3,4
U 40 × 20 × 5	2,9	40,0	20,0	5,0	5,5	3,7
U 50 × 25 × 5	3,9	50,0	25,0	5,0	6,0	4,9
U 60 × 30 × 6	5,1	60,0	30,0	6,0	6,0	6,5
U 65 × 42 × 5,5	7,1	65,0	42,0	5,5	7,5	9,0

Table 15 — Taper flange channels CH

Designation	<i>G</i> kg/m	Dimensions				<i>A</i> cm <sup>2</sup>
		<i>h</i> mm	<i>b</i> mm	<i>s</i> mm	<i>t</i> mm	
CH 76 × 38 × 7	6,7	76,2	38,1	5,1	6,8	8,6
CH 102 × 51 × 10	10,4	101,6	50,8	6,1	7,6	13,1
CH 127 × 64 × 15	14,9	127,0	63,5	6,4	9,2	18,8
CH 152 × 76 × 18	17,9	152,4	76,2	6,4	9,0	22,5
CH 152 × 89 × 24	23,9	152,4	88,9	7,1	11,6	30,0
CH 178 × 76 × 21	20,8	177,8	76,2	6,6	10,3	26,4
CH 178 × 89 × 27	26,8	177,8	88,9	7,6	12,3	33,8
CH 203 × 76 × 24	23,9	203,2	76,2	7,1	11,2	30,3
CH 203 × 89 × 30	29,8	203,2	88,9	8,1	12,9	37,6
CH 229 × 76 × 26	26,1	228,6	76,2	7,6	11,2	33,1
CH 229 × 89 × 33	32,7	228,6	88,9	8,6	13,3	41,4
CH 254 × 76 × 28	28,2	254,0	76,2	8,1	10,9	35,9
CH 254 × 89 × 36	35,7	254,0	88,9	9,1	13,6	45,3
CH 305 × 89 × 42	41,8	304,8	88,9	10,2	13,7	53,0
CH 305 × 102 × 46	46,2	304,8	101,6	10,2	14,8	58,1
CH 381 × 102 × 55	55,0	381,0	101,6	10,4	16,3	69,6
CH 432 × 102 × 65	65,5	431,8	101,6	12,2	16,8	82,4

**Annex A**  
(informative)

**Comparison of symbols used in this document with those in EN 1993-1-1**

The symbols used in this standard are in accordance with the tolerance standards EN 10024, EN 10034 and EN 10279. The comparison with the relevant symbols used in the Eurocode 3 standard EN 1993-1-1 are indicated in Table A.1.

**Table A.1 — Comparison with the symbols used in EN 1993-1-1**

	EN 10365 EN 10024 EN 10034 EN 10279	EN 1993-1-1
Depth	$h$	$h$
Flange width	$b$	$b$
Web thickness	$s$	$t_w$
Flange thickness	$t$	$t_f$

## Bibliography

EN 1993-1-1, *Eurocode 3: Design of steel structures - Part 1-1: General rules and rules for buildings*

EN 10225, *Weldable structural steels for fixed offshore structures - Technical delivery conditions*

EN 10028-2, *Flat products made of steels for pressure purposes - Part 2: Non-alloy and alloy steels with specified elevated temperature properties*

EN 10273, *Hot rolled weldable steel bars for pressure purposes with specified elevated temperature properties*





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