

Simbologia

G	Peso do perfil em kg/m
h	Altura
B	Largura
t_w	Espessura da alma
t_f	Espessura do banzo
r	Raio de concordância
A	Área da secção transversal
h_i	Distância livre entre banzos
d	Altura da alma, com espessura constante
∅	Diâmetro máximo dos parafusos
p_{min}	Distância mínima entre parafusos
p_{max}	Distância máxima entre parafusos
e_{min}	Distância mínima ao bordo
e_{max}	Distância máxima ao bordo
A_{net}	Área da secção transversal, com dedução das aberturas dos parafusos
A_L	Superfície de pintura em m ² /m
A_G	Superfície de pintura em m ² /ton
I	Momento de inércia
W_{el}	Módulo de flexão elástico
W_{pl}	Módulo de flexão plástico
i	Raio de giração
A_v	Área de corte
s_s	Largura de apoio rígido
I_t	Momento de inércia à torção
I_∅	Constante de empenamento (torção não uniforme)

Simbologia

Classe 1 – Secções transversais com capacidade de atingir a sua resistência plástica sem risco de enfunamento local e com capacidade de rotação necessária para a formação de uma rótula plástica

Classe 2 - Secções transversais com capacidade de atingir a sua resistência plástica sem risco de enfunamento local, mas com capacidade de rotação limitada.

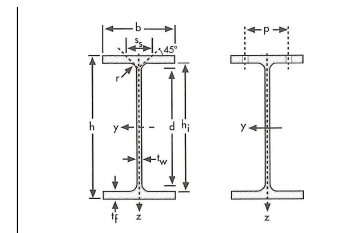
Classe 3 - Secções transversais com capacidade de atingir a sua resistência elástica numa das fibras extremas, mas não a sua resistência plástica, com riscos de enfunamento localizado.

Classe 4 - Secções transversais sem capacidade de atingir a sua resistência elástica, com riscos de enfunamento localizado.

IPE

Norma Dimensional **EURONORMA 19-57**

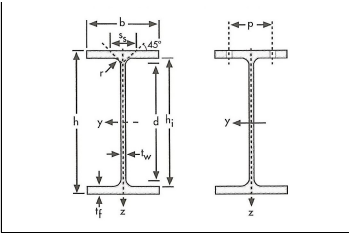
Norma Tolerâncias **NP EN 10034 : 1998**



Perfil	Gkg/m	Dimensões					A cm ²	Dimensões de Construção					A _L m ² /m	A _G m ² /t	I _y cm ⁴	W _{el,y} cm ³	W _{pl,y} cm ³	i _y cm	A _{vz} cm ²	I _z cm ⁴	W _{el,z} cm ³	W _{pl,z} cm ³	i _z cm	s _s mm	I _t cm ⁴	I _w x 10 ⁻³ cm ⁶	Classificação					
		h mm	b mm	t _w mm	t _f mm	r mm		h ₁ mm	d mm	Ø	p _{min} mm	p _{max} mm															Flexão pura Segundo yy			Compressão Pura		
																											235	275	355	235	275	355
IPE 80	6.0	80	46	3.8	5.2	5	7.64	69.6	59.6	-	-	-	0.328	54.69	80.1	20.0	23.22	3.24	3.57	8.49	3.69	5.82	1.05	20.06	0.698	0.12	1	1	1	1	1	1
IPE 100	8.1	100	55	4.1	5.7	7	10.32	88.6	74.6	-	-	-	0.400	49.33	171.0	34.2	39.41	4.07	5.08	15.92	5.79	9.15	1.24	23.70	1.20	0.35	1	1	1	1	1	1
IPE 120	10.4	120	64	4.4	6.3	7	13.21	107.4	93.4	-	-	-	0.475	45.82	317.8	53.0	60.73	4.90	6.31	27.67	8.65	13.58	1.45	25.20	1.74	0.89	1	1	1	1	1	1
IPE 140	12.9	140	73	4.7	6.9	7	16.43	126.2	112.2	-	-	-	0.551	42.70	541.2	77.3	88.34	5.74	7.64	44.92	12.31	19.25	1.65	26.70	2.45	1.98	1	1	1	1	1	1
IPE 160	15.8	160	82	5.0	7.4	9	20.09	145.2	127.2	-	-	-	0.623	39.47	869.3	108.7	123.90	6.58	9.66	68.31	16.66	26.10	1.84	30.34	3.60	3.96	1	1	1	1	1	1
IPE 180	18.8	180	91	5.3	8.0	9	23.95	164.0	146.0	M10	48	48	0.698	37.13	1,317.0	146.3	166.40	7.42	11.25	100.90	22.16	34.60	2.05	31.84	4.79	7.43	1	1	1	1	1	2
IPE 200	22.4	200	100	5.6	8.5	12	28.48	183.0	159.0	M10	54	58	0.768	34.36	1,943.0	194.3	220.60	8.26	14.00	142.40	28.47	44.61	2.24	36.66	6.98	12.99	1	1	1	1	1	2
IPE 220	26.2	220	110	5.9	9.2	12	33.37	201.6	177.6	M12	60	62	0.848	32.36	2,772.0	252.0	285.40	9.11	15.88	204.90	37.25	58.11	2.48	38.36	9.07	22.67	1	1	1	1	1	2
IPE 240	30.7	240	120	6.2	9.8	15	39.12	220.4	190.4	M12	66	68	0.922	30.02	3,892.0	324.3	366.60	9.97	19.14	283.60	47.27	73.92	2.69	43.37	12.88	37.39	1	1	1	1	2	2
IPE 270	36.1	270	135	6.6	10.2	15	45.95	249.6	219.6	M16	72	72	1.041	28.86	5,790.0	428.9	484.00	11.23	22.14	419.90	62.20	96.95	3.02	44.57	15.94	70.58	1	1	1	2	2	3
IPE 300	42.2	300	150	7.1	10.7	15	53.81	278.6	248.6	M16	72	86	1.160	27.46	8,356.0	557.1	628.40	12.46	25.68	603.80	80.50	125.20	3.35	46.07	20.12	125.90	1	1	1	2	3	4
IPE 330	49.1	330	160	7.5	11.5	18	62.61	307.0	271.0	M16	78	96	1.254	25.52	11,770.0	713.1	804.30	13.71	30.81	788.10	98.52	153.70	3.55	51.59	28.15	199.10	1	1	1	2	3	4
IPE 360	57.1	360	170	8.0	12.7	18	72.73	334.6	298.6	M22	88	88	1.353	23.70	16,270.0	903.6	1,019.00	14.95	35.14	1,043.00	122.8	191.1	3.79	54.49	37.32	313.6	1	1	1	2	3	4
IPE 400	66.3	400	180	8.6	13.5	21	84.46	373.0	331.0	M22	96	98	1.467	22.12	23,130.0	1,156.0	1,307.00	16.55	42.69	1,318.00	146.4	229.0	3.95	60.20	51.08	490.0	1	1	1	3	3	4
IPE 450	77.6	450	190	9.4	14.6	21	98.82	420.8	378.8	M24	100	102	1.605	20.69	33,740.0	1,500.0	1,702.00	18.48	50.85	1,676.00	176.4	276.4	4.12	63.20	66.87	791.0	1	1	1	3	4	4
IPE 500	90.7	500	200	10.2	16.0	21	115.50	468.0	426.0	M24	102	112	1.744	19.23	48,200.0	1,928.0	2,194.00	20.43	59.87	2,142.00	214.2	335.9	4.31	66.80	89.29	1249	1	1	1	3	4	4
IPE 550	106.0	550	210	11.1	17.2	24	134.40	515.6	467.6	M24	110	122	1.877	17.78	67,120.0	2,441.0	2,787.00	22.35	72.34	2,668.00	254.1	400.5	4.45	73.62	123.2	1884	1	1	1	4	4	4
IPE 600	122.0	600	220	12.0	19.0	24	156.00	562.0	514.0	M27	116	118	2.015	16.45	92,080.0	3,069.0	3,512.00	24.30	83.78	3,387.00	307.9	485.6	4.66	78.12	165.4	2846	1	1	1	4	4	4

HEA

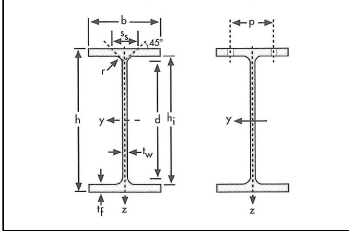
Norma Dimensional **EURONORMA 53-62**
Norma Tolerâncias **NP EN 10034 : 1998**



Perfil	Gkg/m	Dimensões					A cm ²	Dimensões de Construção					A _L m ² /m	A _G m ² /t	I _y cm ⁴	W _{el,y} cm ³	W _{pl,y} cm ³	i _y cm	A _{vz} cm ²	I _z cm ⁴	W _{el,z} cm ³	W _{pl,z} cm ³	i _z cm	S _s mm	I _t cm ⁴	I _w ×10 ⁻³ cm ⁶	Classificação					
		h mm	b mm	t _w mm	t _f mm	r mm		h ₁ mm	d mm	Ø	p _{min} mm	p _{max} mm															Flexão pura			Compressão Pura		
		h mm	b mm	t _w mm	t _f mm	r mm		h ₁ mm	d mm	Ø	p _{min} mm	p _{max} mm															235	275	355	235	275	355
HE 100 A	16.7	96	100	5.0	8.0	12	21.24	80	56	M10	54	58	0.561	33.680	349.2	72.76	83.01	4.06	7.56	133.8	26.76	41.14	2.51	35.06	5.24	2.58	1	1	1	1	1	1
HE 120 A	19.9	114	120	5.0	8.0	12	25.34	98	74	M12	58	68	0.677	34.060	606.2	106.3	119.5	4.89	8.46	230.9	38.48	58.85	3.02	35.06	5.99	6.47	1	1	1	1	1	1
HE 140 A	24.7	133	140	5.5	8.5	12	31.42	116	92	M16	64	76	0.794	32.210	1033.0	155.4	173.5	5.73	10.12	389.3	55.62	84.85	3.52	36.56	8.13	15.06	1	1	1	1	1	1
HE 160 A	30.4	152	160	6.0	9.0	15	38.77	134	104	M20	78	84	0.906	29.780	1673.0	220.1	245.1	6.57	13.21	615.6	76.95	117.6	3.98	41.57	12.19	31.41	1	1	1	1	1	1
HE 180 A	35.5	171	180	6.0	9.5	15	45.25	152	122	M24	86	92	1.024	28.830	2510.0	293.6	324.9	7.45	14.47	924.6	102.7	156.5	4.52	42.57	14.80	60.21	1	1	2	1	1	2
HE 200 A	42.3	190	200	6.5	10.0	18	53.83	170	134	M27	98	100	1.136	26.890	3692.0	388.6	429.5	8.28	18.08	1336.0	133.6	203.8	4.98	47.59	20.98	108.0	1	1	2	1	1	2
HE 220 A	50.5	210	220	7.0	11.0	18	64.34	188	152	M27	98	118	1.255	24.850	5410.0	515.2	568.5	9.17	20.67	1955	177.7	270.6	5.51	50.09	28.46	193.3	1	1	2	1	1	2
HE 240 A	60.3	230	240	7.5	12.0	21	76.84	206	164	M27	104	138	1.369	22.700	7763.0	675.1	744.6	10.05	25.18	2769	230.7	351.7	6.00	56.10	41.55	328.5	1	1	2	1	1	2
HE 260 A	68.2	250	260	7.5	12.5	24	86.82	225	177	M27	110	158	1.484	21.770	10450.0	836.4	919.8	10.97	28.76	3668	282.1	430.2	6.50	60.62	52.37	516.4	1	1	3	1	1	3
HE 280 A	76.4	270	280	8.0	13.0	24	97.26	244	196	M27	112	178	1.603	20.990	13670.0	1013.0	1112	11.86	31.74	4763	340.2	518.1	7.00	62.12	62.10	785.4	1	2	3	1	2	3
HE 300 A	88	290	300	8.5	14.0	27	112.50	262	208	M27	118	198	1.717	19.430	18260.0	1260	1383	12.74	37.28	6310	420.6	641.2	7.49	68.13	85.17	1200	1	2	3	1	2	3
HE 320 A	97.6	310	300	9.0	15.5	27	124.40	279	225	M27	118	198	1.756	17.980	22930.0	1479.0	1628	13.58	41.13	6985	465.7	709.7	7.49	71.63	108.00	1512	1	1	2	1	1	2
HE 340 A	105.0	330	300	9.5	16.5	27	133.50	297	243	M27	118	198	1.795	17.130	27690.0	1678	1850	14.40	44.95	7436	495.7	755.9	7.46	74.13	127.20	1824	1	1	1	1	1	1
HE 360 A	112.0	350	300	10.0	17.5	27	142.80	315	261	M27	120	198	1.834	16.360	33090.0	1891	2088	15.22	48.96	7887	525.8	802.3	7.43	76.63	148.80	2177	1	1	1	1	1	1
HE 400 A	125	390	300	11.0	19.0	27	159.00	352	298	M27	120	198	1.912	15.320	45070.0	2311	2562	16.84	57.33	8564	570.9	872.9	7.34	80.63	189.00	2942	1	1	1	1	1	2
HE 450 A	140.0	440	300	11.5	21.0	27	178.00	398	344	M27	122	198	2.011	14.390	63720.0	2896	3216	18.92	65.78	9465	631.0	965.5	7.29	85.13	243.80	4148	1	1	1	1	1	2
HE 500 A	155	490	300	12.0	23.0	27	197.50	444	390	M27	122	198	2.110	13.600	86970.0	3550	3949	20.98	74.72	10370	691.1	1059.0	7.24	89.63	309.30	5643	1	1	1	1	2	3
HE 550 A	166	540	300	12.5	24.0	27	211.80	492	438	M27	122	198	2.209	13.290	111900.0	4146	4622	22.99	83.72	10820	721.3	1107.0	7.15	92.13	351.50	7189	1	1	1	2	3	4
HE 600 A	178	590	300	13.0	25.0	27	226.50	540	486	M27	122	198	2.308	12.980	141200.0	4787	5350	24.97	93.21	11270	751.4	1156.0	7.05	94.63	397.80	8978	1	1	1	2	3	4
HE 650 A	190	640	300	13.5	26.0	27	241.60	588	534	M27	124	198	2.407	12.690	175200.0	5474	6136	26.93	103.20	11720	781.6	1205.0	6.97	97.13	448.30	11030	1	1	1	3	4	4
HE 700 A	204	690	300	14.5	27.0	27	260.50	636	582	M27	124	198	2.505	12.250	215300.0	6241	7032	28.75	117.00	12180	811.9	1257.0	6.84	100.10	513.90	13350	1	1	1	3	4	4
HE 800 A	224	790	300	15.0	28.0	30	285.80	734	674	M27	130	198	2.698	12.030	303400.0	7682	8699	32.58	138.80	12640	842.6	1312.0	6.65	106.10	596.90	18290	1	1	1	4	4	4
HE 900 A	252	890	300	16.0	30.0	30	320.50	830	770	M27	132	198	2.896	11.510	422100.0	9485	10810	36.29	163.30	13550	903.2	1414.0	6.50	111.10	736.80	24960	1	1	1	4	4	4
HE 1000 A	272	990	300	16.5	31.0	30	346.80	928	868	M27	132	198	3.095	11.370	553800.0	11190	12820	39.96	184.60	14000	933.6	1470.0	6.35	113.60	822.40	32070	1	1	1	4	4	4

HEB

Norma Dimensional **EURONORMA 53-62**
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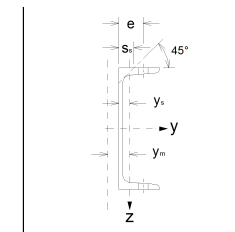
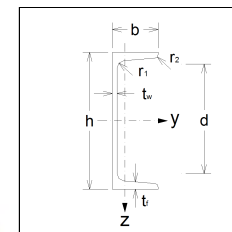


Perfil	Gkg/m	Dimensões					A cm ²	Dimensões de Construção					A _L m ² /m	A _G m ² /t	I _y cm ⁴	W _{el,y} cm ³	W _{pl,y} cm ³	i _y cm	A _{vz} cm ²	I _z cm ⁴	W _{el,z} cm ³	W _{pl,z} cm ³	i _z cm	s _s mm	I _t cm ⁴	I _w x 10 ⁻³ cm ⁶	Classificação					
		h mm	b mm	t _w mm	t _f mm	r mm		h _l mm	d mm	Ø	p _{min} mm	p _{max} mm															Flexão pura Segundo yy			Compressão Pura		
																											235	275	355	235	275	355
HE 100 B	20.4	100	100	6.0	10.0	12	26.04	80	56	M10	56	58	0.567	27.760	449.5	89.91	104.20	4.16	9.04	167.3	33.45	51.42	2.53	40.06	9.25	3.38	1	1	1	1	1	1
HE 120 B	26.7	120	120	6.5	11.0	12	34.01	98	74	M12	60	68	0.686	25.710	864.4	144.1	165.2	5.04	10.96	317.5	52.92	80.97	3.06	42.56	13.84	9.41	1	1	1	1	1	1
HE 140 B	33.7	140	140	7.0	12.0	12	42.96	116	92	M16	66	76	0.805	23.880	1509.0	215.6	245.4	5.93	13.08	549.7	78.52	119.80	3.58	45.06	20.06	22.48	1	1	1	1	1	1
HE 160 B	42.6	160	160	8.0	13.0	15	54.25	134	104	M20	80	84	0.918	21.560	2492.0	311.5	354.0	6.78	17.59	889.2	111.20	170.0	4.05	51.57	31.24	47.94	1	1	1	1	1	1
HE 180 B	51.2	180	180	8.5	14.0	15	65.25	152	122	M24	88	92	1.037	20.250	3831.0	425.7	481.4	7.66	20.24	1363.0	151.4	231.0	4.57	54.07	42.16	93.75	1	1	1	1	1	1
HE 200 B	61.3	200	200	9.0	15.0	18	78.08	170	134	M27	100	100	1.151	18.780	5696.0	569.6	642.5	8.54	24.83	2003.0	200.3	305.8	5.07	60.09	59.28	171.1	1	1	1	1	1	1
HE 220 B	71.5	220	220	9.5	16.0	18	91.04	188	152	M27	100	118	1.270	17.770	8091.0	735.5	827.0	9.43	27.92	2843	258.5	393.9	5.59	62.59	76.57	295.4	1	1	1	1	1	1
HE 240 B	83.2	240	240	10.0	17.0	21	106.00	206	164	M27	108	138	1.384	16.630	11260.0	938.3	1053.0	10.31	33.23	3923	326.9	498.4	6.08	68.60	102.70	486.9	1	1	1	1	1	1
HE 260 B	93.0	260	260	10.0	17.5	24	118.40	225	177	M27	114	158	1.499	16.120	14920.0	1148.0	1283.0	11.22	37.59	5135	395.0	602.2	6.58	73.12	123.80	753.7	1	1	1	1	1	1
HE 280 B	103.0	280	280	10.5	18.0	24	131.40	244	196	M27	114	178	1.618	15.690	19270.0	1376.0	1534	12.11	41.09	6595	471.0	717.6	7.09	74.62	143.70	1130.0	1	1	1	1	1	1
HE 300 B	117	300	300	11.0	19.0	27	149.10	262	208	M27	120	198	1.732	14.800	25170.0	1678	1869	12.99	47.43	8563	570.9	870.1	7.58	80.63	185.00	1688	1	1	1	1	1	1
HE 320 B	127.0	320	300	11.5	20.5	27	161.30	279	225	M27	122	198	1.771	13.980	30820.0	1926.0	2149	13.82	51.77	9239	615.9	939.1	7.57	84.13	225.10	2069	1	1	1	1	1	1
HE 340 B	134.0	340	300	12.0	21.5	27	170.90	297	243	M27	122	198	1.810	13.490	36660.0	2156	2408	14.65	56.09	9690	646.0	985.7	7.53	86.63	257.20	2454	1	1	1	1	1	1
HE 360 B	142.0	360	300	12.5	22.5	27	180.60	315	261	M27	122	198	1.849	13.040	43190.0	2400	2683	15.46	60.60	10140	676.1	1032.0	7.49	89.13	292.50	2883	1	1	1	1	1	1
HE 400 B	155	400	300	13.5	24.0	27	197.80	352	298	M27	124	198	1.927	12.410	57680.0	2884	3232	17.08	69.98	10820	721.3	1104.0	7.40	93.13	355.70	3817	1	1	1	1	1	1
HE 450 B	171.0	450	300	14.0	26.0	27	218.00	398	344	M27	124	198	2.026	11.840	79890.0	3551	3982	19.14	79.66	11720	781.4	1198.0	7.33	97.63	440.50	5258	1	1	1	1	1	1
HE 500 B	187	500	300	14.5	28.0	27	238.60	444	390	M27	124	198	2.125	11.340	107200.0	4287	4815	21.19	89.82	12620	841.6	1292.0	7.27	102.10	538.40	7018	1	1	1	1	1	2
HE 550 B	199	550	300	15.0	29.0	27	254.10	492	438	M27	124	198	2.224	11.150	136700.0	4971	5591	23.20	100.10	13080	871.8	1341.0	7.17	104.60	600.30	8856	1	1	1	1	1	2
HE 600 B	212	600	300	15.5	30.0	27	270.00	540	486	M27	126	198	2.323	10.960	171000.0	5701	6425	25.17	110.80	13530	902.0	1391.0	7.08	107.10	667.20	10970	1	1	1	1	2	3
HE 650 B	225	650	300	16.0	31.0	27	286.30	588	534	M27	126	198	2.422	10.770	210600.0	6480	7320	27.12	122.00	13980	932.3	1441.0	6.99	109.60	739.20	13360	1	1	1	2	2	3
HE 700 B	241	700	300	17.0	32.0	27	306.40	636	582	M27	126	198	2.520	10.480	256900.0	7340	8327	28.96	137.10	14440	962.7	1495.0	6.87	112.60	830.90	16060	1	1	1	2	2	4
HE 800 B	262	800	300	17.5	33.0	30	334.20	734	674	M27	134	198	2.713	10.340	359100.0	8977	10230	32.78	161.80	14900	993.6	1553.0	6.68	118.60	946.00	21840	1	1	1	3	3	4
HE 900 B	291	900	300	18.5	35.0	30	371.30	830	770	M27	134	198	2.911	9.990	494100.0	10980	12580	36.48	188.80	15820	1054.0	1658.0	6.53	123.60	1137.00	29460	1	1	1	3	4	4
HE 1000 B	314	1000	300	19.0	36.0	30	400.00	928	868	M27	134	198	3.110	9.905	644700.0	12890	14860	40.15	212.50	16280	1085.0	1716.0	6.38	126.10	1254.00	37640	1	1	1	4	4	4

UPN

Norma Dimensional **DIN 1026-1 : 2000**

Norma Tolerâncias **NP EN 10279 : 2002**



Perfil	Gkg/m	Dimensões						A cm ²	Dimensões de Construção				A _t m ² /m	A _G m ² /t	I _y cm ⁴	W _{ely} cm ³	W _{ply} cm ³	i _y cm	A _{oz} cm ²	I _z cm ⁴	W _{elz} cm ³	W _{plz} cm ³	i _z cm	s _s mm	I _t cm ⁴	I _w × 10 ⁻³ cm ⁶	y _s cm	Y _m cm	Classificação					
		h mm	b mm	t _w mm	t _f mm	r ₁ mm	r ₂ mm		d mm	Ø	e _{min} mm	e _{max} mm																	Flexão pura Segundo yy			Compressão Pura		
																													235	275	355	235	275	355
UPN 80	8.64	80	45	6	8	8	4	11	46	-	-	-	0.312	36.1	106	26.5	29.4	3.1	5.08	19.4	6.36	12.1	1.33	18.69			1.45	2.67	1	1	1	1	1	1
UPN 100	10.6	100	50	6	8.5	8.5	4.5	13.5	64	-	-	-	0.372	35.1	206	41.2	49	3.91	6.46	29.3	8.49	16.2	1.47	20.3	2.81	0.41	1.55	2.93	1	1	1	1	1	1
UPN 120	13.4	120	55	7	9	9	4.5	17.0	82	-	-	-	0.434	32.52	364	60.7	72.6	4.62	8.8	43.2	11.1	21.2	1.59	22.2	4.15	0.9	1.6	3.03	1	1	1	1	1	1
UPN 140	16.0	140	60	7	10	10	5	20.4	98	M12	33	37	0.489	30.54	605	86.4	103	5.45	10.41	62.7	14.8	28.3	1.75	23.9	5.68	1.8	1.75	3.37	1	1	1	1	1	1
UPN 160	18.8	160	65	7.5	10.5	10.5	5.5	24.0	115	M12	34	42	0.546	28.98	925	116	138	6.21	12.6	85.3	18.3	35.2	1.89	25.3	7.39	3.26	1.84	3.56	1	1	1	1	1	1
UPN 180	22.0	180	70	8	11	11	5.5	28.0	133	M16	38	41	0.611	27.8	1350	150	179	6.95	15.09	114	22.4	42.9	2.02	26.7	9.55	5.57	1.92	3.75	1	1	1	1	1	1
UPN 200	25.3	200	75	8.5	11.5	11.5	6	32.2	151	M16	39	46	0.661	26.15	1910	191	228	7.7	17.71	148	27	51.8	2.14	28.1	11.9	9.07	2.01	3.94	1	1	1	1	1	1
UPN 220	29.4	220	80	9	12.5	12.5	6.5	37.4	167	M16	40	51	0.718	24.46	2690	245	292	8.48	20.62	197	33.6	64.1	2.3	30.3	16	14.6	2.14	4.2	1	1	1	1	1	1
UPN 240	33.2	240	85	9.5	13	13	6.5	42.3	184	M20	46	50	0.775	23.34	3600	300	358	9.22	23.71	248	39.6	75.7	2.42	31.7	19.7	22.1	2.23	4.39	1	1	1	1	1	1
UPN 260	37.9	260	90	10	14	14	7	48.3	200	M22	50	52	0.834	22	4820	371	442	9.99	27.12	317	47.7	91.6	2.56	33.9	25.5	33.3	2.36	4.66	1	1	1	1	1	1
UPN 280	41.8	280	95	10	15	15	7.5	53.3	216	M22	52	57	0.89	21.27	6280	448	532	10.9	29.28	399	57.2	109	2.74	35.6	31	48.5	2.53	5.02	1	1	1	1	1	1
UPN 300	46.2	300	100	10	16	16	8	58.8	232	M24	55	59	0.95	20.58	8030	535	632	11.7	31.77	495	67.8	130	2.9	37.3	37.4	69.1	2.7	5.41	1	1	1	1	1	1
UPN 320	59.5	320	100	14	17.5	17.5	8.75	75.8	246	M22	58	62	0.982	16.5	10870	679	826	12.1	47.11	597	80.6	152	2.81	43	66.7	96.1	2.6	4.82	1	1	1	1	1	1
UPN 350	60.6	350	100	14	16	16	8	77.3	282	M22	56	62	1.047	17.25	12840	734	918	12.9	50.84	570	75	143	2.72	40.7	61.2	114	2.4	4.45	1	1	1	1	1	1
UPN 400	71.8	400	110	14	18	18	9	91.5	324	M27	61	62	1.182	16.46	20350	1020	1240	14.9	58.55	846	102	190	3.04	44	81.6	221	2.65	5.11	1	1	1	1	1	1