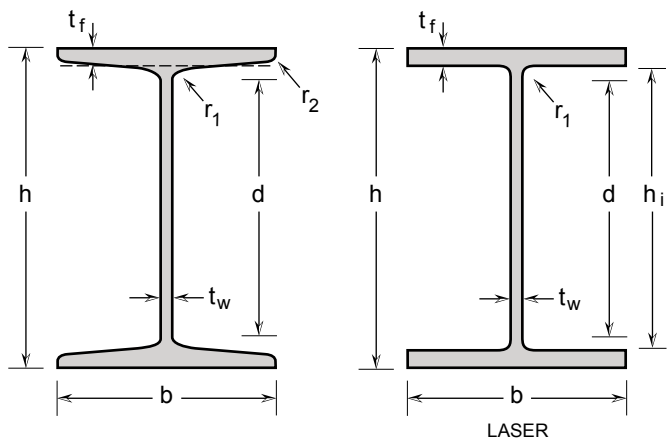


IPN



European standard beams

Dimensions: in accordance with DIN 1025
Tolerances: EN 10024: 1995

Europäische Normalträger

Abmessungen: gemäß DIN 1025
Toleranzen: EN 10024: 1995

Poutrelles normales européens

Dimensions: conformes à la norme DIN 1025
Tolérances: EN 10024: 1995

General properties / Generelle Eigenschaften / Valeurs généraux

Designation Bezeichnung Désignation		Dimensions Abmessungen Dimensions							Dimensions for detailing Konstruktionsmaße Dimensions de construction	
	G kg/m	h mm	b mm	t _w mm	t _f mm	r ₁ mm	r ₂ mm	A mm ² x10 ²	h _i mm	d mm
IPN 80	6.1	80	42	3.9	5.9	3.9	2.3	7.57	-	59.0
IPN 80*	6.1	80	42	3.9	5.9	2	< 1	7.65	68.2	64.2
IPN 100	8.48	100	50	4.5	6.8	4.5	2.7	10.60	-	75.7
IPN 100*	8.6	100	50	4.5	6.8	2	< 1	10.72	86.4	82.4
IPN 120	11.36	120	58	5.1	7.7	5.1	3.1	14.20	-	92.4
IPN 120*	11.4	120	58	5.1	7.7	2	< 1	14.30	104.6	100.6
IPN 140	14.56	140	66	5.7	8.6	5.7	3.4	18.20	-	109.1
IPN 140*	14.7	140	66	5.7	8.6	2	< 1	18.39	122.8	118.8
IPN 160	18.24	160	74	6.3	9.5	6.3	3.8	22.80	-	125.8
IPN 160*	18.4	160	74	6.3	9.5	2	< 1	22.98	141.0	137.0
IPN 180	22.32	180	82	6.9	10.4	6.9	4.1	27.90	-	142.5
IPN 180*	22.5	180	82	6.9	10.4	2	< 1	28.08	159.2	155.2
IPN 200	26.72	200	90	7.5	11.3	7.5	4.5	33.4	-	159.1
IPN 200*	26.9	200	90	7.5	11.3	2	< 1	33.68	177.4	173.4
IPN 220 ⁺	31.8	220	98	8.1	12.2	2	< 1	39.79	195.6	191.6
IPN 240 ⁺	37.1	240	106	8.7	13.1	2	< 1	46.41	213.8	209.8
IPN 260 ⁺	43.0	260	113	9.4	14.1	2	< 1	53.69	231.8	227.8
IPN 280 ⁺	49.1	280	119	10.1	15.2	2	< 1	61.42	249.6	245.6
IPN 300 ⁺	55.5	300	125	10.8	16.2	2	< 1	69.44	267.6	263.6
IPN 320 ⁺	62.5	320	131	11.5	17.3	2	< 1	78.18	285.4	281.4
IPN 340 ⁺	69.8	340	137	12.2	18.3	2	< 1	87.19	303.4	299.4
IPN 360 ⁺	78.0	360	143	13	19.5	2	< 1	97.53	321.0	317.0

Profiles are * also available or + only available as laser fused with full penetration, non tapered, equivalent to hot rolled (r = laser seam).

Profile sind * auch bzw. + nur Lasergeschweisst mit Vollarbeit erhältlich, ohne Konizität, gleichwertig zu warm gewalzt (r = Laser Naht).

Profiles sont disponibles * aussi ou + seulement soudé laser avec pénétration complète, non conique, équivalent au laminé à chaud (r = cordon laser).

Stainless steel

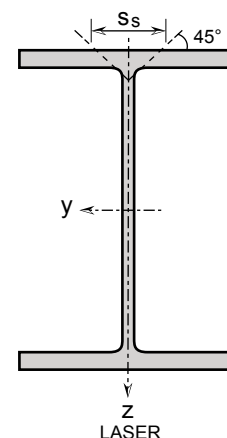
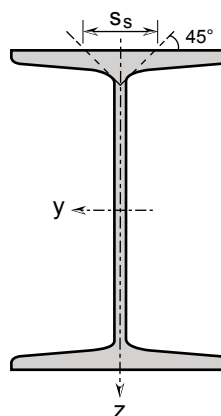
Grade according to EN 10088-3: 1D
Surface condition: blasted and pickled

Edelstahl Rostfrei

Güte nach EN 10088-3: 1D
Oberflächenbeschaffenheit: gestrahlt und gebeizt

Acier inoxydable

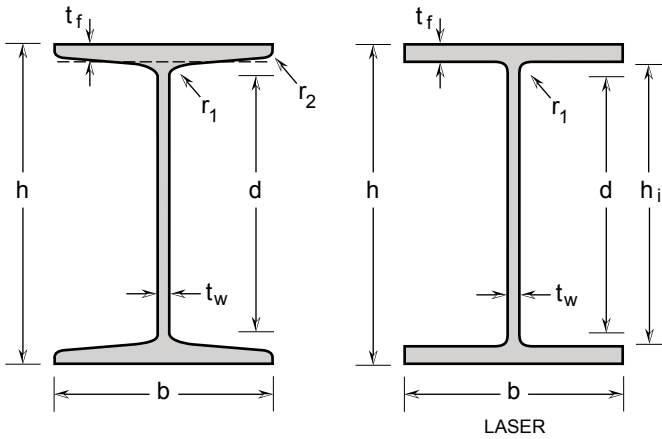
Nuance selon EN 10088-3: 1D
Etat de surface: sablé et décapé



Structural properties / Statische Kennwerte / Valeurs statique

Designation Bezeichnung Désignation	Strong axis y-y Starke Achse y-y Axe fort y-y					Weak axis z-z Schwache Achse z-z Axe faible z-z				S _s mm	I _t mm ⁴ x10 ⁴	I _w mm ⁶ x10 ⁹
	I _y mm ⁴ x10 ⁴	W _{el,y} mm ³ x10 ³	W _{pl,y} mm ³ x10 ³	i _y mm x10	A _{vz} mm ² x10 ²	I _z mm ⁴ x10 ⁴	W _{el,z} mm ³ x10 ³	W _{pl,z} mm ³ x10 ³	i _z mm x10			
	IPN 80	77.80	19.50	22.80	3.20	3.41	6.29	3.00	5.00			
IPN 80	78.87	19.72	23.01	3.21	3.16	7.32	3.49	5.47	0.98	18.04	0.73	0.1
IPN 100	171.00	34.20	39.80	4.01	4.85	12.20	4.88	8.10	1.07	25.00	1.60	0.27
IPN 100	172.74	34.55	40.23	4.01	4.50	14.23	5.69	8.95	1.15	20.44	1.34	0.31
IPN 120	328.00	54.70	63.60	4.81	6.63	21.50	7.41	12.40	1.23	28.4	2.71	0.69
IPN 120	331.61	55.27	64.28	4.82	6.07	25.16	8.68	13.64	1.33	22.84	2.26	0.79
IPN 140	573.00	81.90	95.40	5.61	8.65	35.20	10.70	17.90	1.40	31.80	4.32	1.54
IPN 140	579.94	82.85	96.28	5.62	7.87	41.40	12.55	19.74	1.50	25.24	3.59	1.78
IPN 160	935.00	117.00	136.00	6.40	10.83	54.70	14.80	24.90	1.55	35.2	6.57	3.14
IPN 160	946.07	118.26	137.35	6.42	9.90	64.46	17.42	27.42	1.67	27.64	5.44	3.63
IPN 180	1450.00	161.00	187.00	7.20	13.35	81.30	19.80	33.20	1.71	38.60	9.58	5.92
IPN 180	1462.20	162.47	188.63	7.22	12.15	96.01	23.42	36.87	1.85	30.04	7.93	6.87
IPN 200	2140.00	214.00	250.00	8.00	16.03	117.00	26.00	43.50	1.87	42.00	13.5	10.5
IPN 200	2164.42	216.44	251.22	8.02	14.64	137.92	30.65	48.27	2.02	32.44	11.18	12.22
IPN 220	3092.71	281.16	326.26	8.82	17.35	192.25	39.23	61.81	2.20	34.84	15.33	20.66
IPN 240	4290.91	357.58	414.86	9.62	20.30	261.22	49.29	77.66	2.37	37.24	20.56	33.47
IPN 260	5802.58	446.35	518.46	10.40	23.71	340.69	60.30	95.16	2.52	39.94	27.48	51.26
IPN 280	7662.64	547.33	636.71	11.17	27.39	429.06	72.11	114.01	2.64	42.84	36.3	74.84
IPN 300	9894.54	659.64	768.50	11.94	31.33	530.16	84.83	134.39	2.76	45.54	46.46	106.18
IPN 320	12628.81	789.30	920.68	12.71	35.54	651.83	99.52	157.90	2.89	48.44	59.34	148.48
IPN 340	15834.34	931.43	1087.81	13.48	40.01	788.87	115.16	183.05	3.01	51.14	73.86	202.91
IPN 360	19774.69	1098.59	1284.92	14.24	45.08	956.26	133.74	212.96	3.13	54.34	93.50	275.46

IPN



European standard beams

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Europäische Normalträger

Abmessungen: gemäß DIN 1025
Toleranzen: EN 10024: 1995

Poutrelles normales européennes

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		h mm	b mm	t _w mm	t _f mm	r ₁ mm	r ₂ mm	A mm ² x10 ²	h _i mm	d mm
IPN 380 ⁺	86.1	380	149	13.7	20.5	2	< 1	107.57	339.0	335.0
IPN 400 ⁺	94.7	400	155	14.4	21.6	2	< 1	118.37	356.8	352.8
IPN 450 ⁺	118.1	450	170	16.2	24.3	2	< 1	147.68	401.4	397.4
IPN 500 ⁺	144.2	500	185	18	27	2	< 1	180.21	446.0	442.0
IPN 550 ⁺	170.5	550	200	19	30	2	< 1	213.13	490.0	486.0
IPN 600 ⁺	204.0	600	215	21.6	32.4	2	< 1	254.96	535.2	531.2

- * Profiles are laser fused with full penetration, equivalent to hot rolled (r = laser seam).
- * Profile sind Laser geschweisst mit Vollenbindung, gleichwertig zu warm gewalzt (r = Laser Naht).
- * Profiles sont soudé laser avec pénétration complète, équivalent au laminé à chaud (r = cordon laser).

Stainless steel

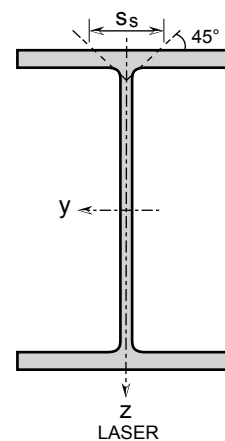
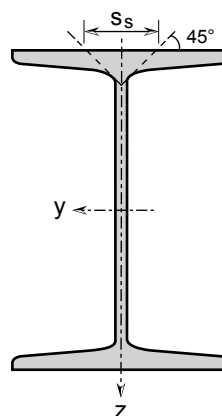
Grade according to EN 10088-3: 1D
Surface condition: blasted and pickled

Edelstahl Rostfrei

Güte nach EN 10088-3: 1D
Oberflächenbeschaffenheit: gestrahlt und gebeizt

Acier inoxydable

Nuance selon EN 10088-3: 1D
Etat de surface: sablé et décapé



Structural properties / Statische Kennwerte / Valeurs statique

Designation Bezeichnung Désignation	Strong axis y-y Starke Achse y-y Axe fort y-y					Weak axis z-z Schwache Achse z-z Axe faible z-z				S _s mm	I _t mm ⁴ x10 ⁴	I _w mm ⁶ x10 ⁹
	I _y mm ⁴ x10 ⁴	W _{el,y} mm ³ x10 ³	W _{pl,y} mm ³ x10 ³	i _y mm x10	A _{vz} mm ² x10 ²	I _z mm ⁴ x10 ⁴	W _{el,z} mm ³ x10 ³	W _{pl,z} mm ³ x10 ³	i _z mm x10			
	IPN 380	24217.16	1274.59	1492.28	15.00	50.11	1137.50	152.68	243.49			
IPN 400	29457.08	1472.85	1725.80	15.77	55.39	1349.49	174.13	277.99	3.38	59.94	138.42	479.89
IPN 450	46216.56	2054.07	2411.80	17.69	69.97	2004.01	235.77	377.50	3.68	67.14	217.25	901.47
IPN 500	69261.49	2770.46	3258.52	19.60	86.25	2870.94	310.37	498.20	3.99	74.34	325.67	1593.64
IPN 550	99858.29	3631.21	4261.31	21.65	100.03	4028.04	402.80	644.26	4.35	81.34	463.35	2704
IPN 600	139952.50	4665.08	5501.59	23.43	123.93	5411.71	503.42	811.31	4.61	88.74	658.38	4322.49