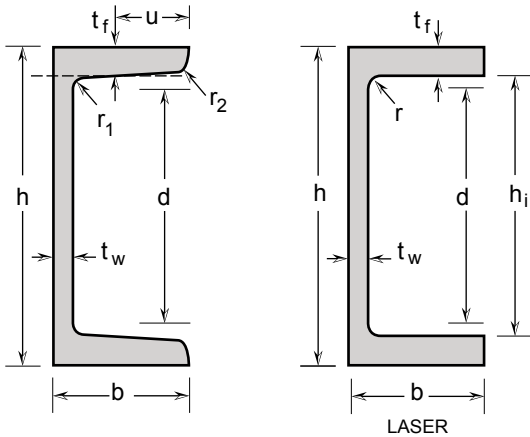


UPN



European standard channels

Dimensions: in accordance with DIN 1026-1: 2009
Tolerances: EN 10279: 2000

Europäische U-Stahl-Normalprofile

Abmessungen: gemäß DIN 1026-2: 2002-10
Toleranzen: EN 10279: 2000

Fers U normaux européens

Dimensions: conformes à la norme DIN 1026-2: 2009
Tolérances: EN 10279: 2000

General properties / Generelle Eigenschaften / Valeurs généraux

Designation Bezeichnung Désignation	G kg/m	Dimensions Abmessungen Dimensions						Dimensions for detailing Konstruktionsmaße Dimensions de construction			
		h mm	b mm	t _w mm	t _f mm	r ₁ mm	r ₂ mm	A mm ² x10 ²	d mm	h _i mm	u ± = 8%
UPN 20 x 10 x 3	0.89	20	10	3	3.5	3.5	2.5	1.11	6.28	-	5.0
UPN 30 x 15 x 4	1.78	30	15	4	4.5	4.5	2.5	2.23	12.10	-	7.5
UPN 30 x 33 x 5	4.37	30	33	5	7	7	3	5.46	0.46	-	16.5
UPN 40 x 20 x 3	1.83	40	20	3	3.3	3.3	3	2.29	25.28	-	10.0
UPN 40 x 20 x 4	2.43	40	20	4	4.5	4.5	3	3.04	21.40	-	10.0
UPN 40 x 35 x 5	4.98	40	35	5	7	7	3	6.23	10.18	-	17.5
UPN 50 x 25 x 5	3.90	50	25	5	6	5	3.5	4.87	27.10	-	12.5
UPN 50	5.60	50	38	5	7	7	3.5	7.00	19.76	-	19.0
UPN 60 x 30 x 6	5.16	60	30	6	6	6	3	6.45	34.92	-	15.0
UPN 65	7.11	65	42	5.5	7.5	7.5	4	8.88	32.46	-	21.0
UPN 80	8.68	80	45	6	8	8	4	10.85	45.30	-	22.5
UPN 80*	8.85	80	45	6	8	2	< 1	11.06	60.00	64.00	
UPN 100	10.61	100	50	6	8.5	8.5	4.5	13.26	62.72	-	25.0
UPN 100*	10.80	100	50	6	8.5	2	< 1	13.50	79.00	83.00	
UPN 120	13.40	120	55	7	9	9	4.5	16.75	80.42	-	27.5
UPN 120*	13.65	120	55	7	9	2	< 1	17.06	98.00	102.00	
UPN 140	16.08	140	60	7	10	10	5	20.10	95.95	-	30.0
UPN 140*	16.33	140	60	7	10	2	< 1	20.42	116.00	120.00	
UPN 160	18.96	160	65	7.5	10.5	10.5	5.5	23.70	113.51	-	32.5
UPN 160*	19.27	160	65	7.5	10.5	2	< 1	24.09	135.00	139.00	

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 Vollenbindung erhältlich, ohne Konizität, gleichwertig zu warm gewalzt (r = Laser Naht).
Profils sont disponibles * aussi ou + seulement soudé laser avec pénétration complète, non conique, équivalent au laminé à chaud (r = cordon laser).

Stainless steel

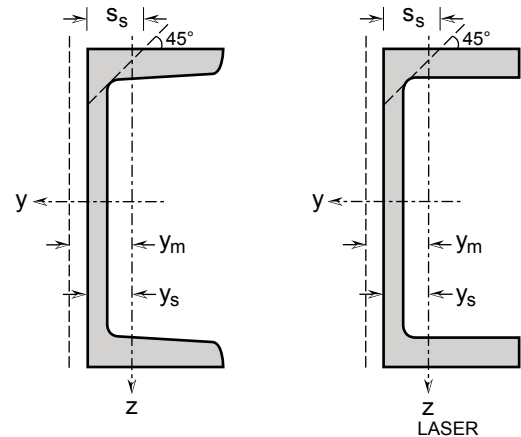
Grade according to EN 10088-3: 1D
Surface condition: blasted and pickled

Edelstahl Rostfrei

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

Acier inoxydable

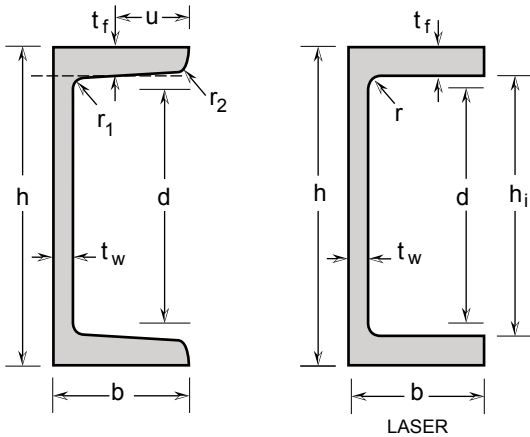
Nuance selon EN 10088-3: 1D
Etat de surface: sablé et décapé



Structural properties / Statische Kennwerte / Valeurs statiques

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								
	I_y	$W_{el,y}$	$W_{pl,y}$	i_y	A_{vz}	I_z	$W_{el,z}$	$W_{pl,z}$	i_z	S_s	I_t	I_w	y_s	y_m
	mm ⁴ x10 ⁴	mm ³ x10 ³	mm ³ x10 ³	mm x10	mm ² x10 ²	mm ⁴ x10 ⁴	mm ³ x10 ³	mm ³ x10 ³	mm x10	mm	mm ⁴ x10 ⁴	mm ⁶ x10 ⁹	mm x10	mm x10
UPN 20 x 10 x 3	0.54	0.54	0.70	0.70	0.76	0.08	0.12	0.23	0.26	8.37	0.04	0.00	0.34	0.51
UPN 30 x 15 x 4	2.53	1.69	2.16	1.07	1.46	0.36	0.36	0.64	0.40	11.04	0.13	0.00	0.49	0.77
UPN 30 x 33 x 5	6.40	4.27	5.56	1.08	2.17	4.81	2.37	4.08	0.94	16.80	1.01	0.01	1.27	2.17
UPN 40 x 20 x 3	5.13	2.56	3.15	1.50	1.30	0.64	0.44	0.76	0.53	8.88	0.08	0.00	0.53	1.10
UPN 40 x 20 x 4	6.53	3.27	4.08	1.47	1.82	0.89	0.63	1.08	0.54	11.39	0.19	0.00	0.59	1.08
UPN 40 x 35 x 5	14.10	7.05	8.81	1.50	2.66	6.25	2.79	4.62	1.00	16.94	1.07	0.01	1.26	2.29
UPN 50 x 25 x 5	16.34	6.54	8.22	1.83	2.77	2.30	1.33	2.84	0.69	14.33	0.54	0.01	0.77	1.40
UPN 50	26.24	10.50	12.83	1.94	3.01	8.37	3.36	6.78	1.09	17.15	1.17	0.03	1.31	2.48
UPN 60 x 30 x 6	30.66	10.22	12.85	2.18	3.93	4.06	1.89	4.19	0.79	16.00	0.77	0.02	0.85	1.57
UPN 65	56.78	17.47	21.15	2.53	4.12	12.79	4.50	9.38	1.20	18.59	1.62	0.08	1.36	2.65
UPN 80	104.41	26.10	31.52	3.10	5.41	17.68	5.67	11.90	1.28	19.96	2.16	0.18	1.38	2.74
UPN 80*	106.97	26.74	32.17	3.11	4.50	21.80	7.44	8.69	1.40	15.18	2.09	0.16	1.57	2.97
UPN 100	202.41	40.48	48.40	3.91	6.71	26.49	7.51	16.20	1.41	21.04	2.84	0.41	1.47	3.02
UPN 100*	207.30	41.46	49.36	3.92	5.68	33.07	9.98	11.38	1.57	15.68	2.71	0.37	1.69	3.27
UPN 120	357.25	59.54	71.81	4.62	9.10	38.85	9.77	21.20	1.52	22.98	4.03	0.90	1.52	3.15
UPN 120*	367.96	61.33	73.33	4.64	7.97	49.15	13.08	14.88	1.70	17.18	3.99	0.77	1.74	3.38
UPN 140	595.97	85.14	101.65	5.45	10.80	56.57	13.05	28.30	1.68	24.78	5.67	1.80	1.66	3.48
UPN 140*	609.41	87.06	103.40	5.46	9.32	71.05	17.36	19.48	1.87	18.18	5.46	1.52	1.91	3.76
UPN 160	909.37	113.67	135.98	6.19	13.04	76.62	16.09	35.20	1.80	26.29	7.30	3.26	1.74	3.69
UPN 160*	932.63	116.58	138.50	6.22	11.44	97.42	21.67	24.15	2.01	19.18	7.09	2.69	2.00	3.98

UPN



European standard channels

Dimensions: in accordance with DIN 1026-1: 2009
Tolerances: EN 10279: 2000

Europäische U-Stahl-Normalprofile

Abmessungen: gemäß DIN 1026-2: 2002-10
Toleranzen: EN 10279: 2000

Fers U normaux européens

Dimensions: conformes à la norme DIN 1026-2: 2009
Tolérances: EN 10279: 2000

General properties / Generelle Eigenschaften / Valeurs généraux

Designation Bezeichnung Désignation	G kg/m	Dimensions Abmessungen Dimensions						Dimensions for detailing Konstruktionsmaße Dimensions de construction			
		h mm	b mm	t _w mm	t _f mm	r ₁ mm	r ₂ mm	A mm ² x10 ²	d mm	h _i mm	u ± = 8%
UPN 180	22.09	180	70	8	11	11	5.5	27.61	131.07	-	35.0
UPN 180*	22.4457	180	70	8	11	2	< 1	28.06	154.00	158.00	
UPN 200 ⁺	25.8497	200	75	8.5	11.5	2	< 1	32.31	173.00	177.00	
UPN 220 ⁺	30.05	220	80	9	12.5	2	< 1	37.57	191.00	195.00	
UPN 240 ⁺	33.96	240	85	9.5	13	2	< 1	42.45	210.00	214.00	
UPN 260 ⁺	38.73	260	90	10	14	2	< 1	48.42	228.00	232.00	
UPN 280 ⁺	42.81	280	95	10	15	2	< 1	53.52	246.00	250.00	
UPN 300 ⁺	47.05	300	100	10	16	2	< 1	58.82	264.00	268.00	
UPN 320 ⁺	59.93	320	100	14	17.5	2	< 1	74.92	281.00	285.00	
UPN 350 ⁺	61.23	350	100	14	16	2	< 1	76.54	314.00	318.00	
UPN 380 ⁺	63.71	380	102	13.5	16	2	< 1	79.64	344.00	348.00	
UPN 400 ⁺	72.46	400	110	14	18	2	< 1	90.58	360.00	364.00	

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 Vollarbindung erhältlich, ohne Konizität, gleichwertig zu warm gewalzt (r = Laser Naht).
Profils sont disponibles * aussi ou + seulement soudé laser avec pénétration complète, non conique, équivalent au laminé à chaud (r = cordon laser).

Stainless steel

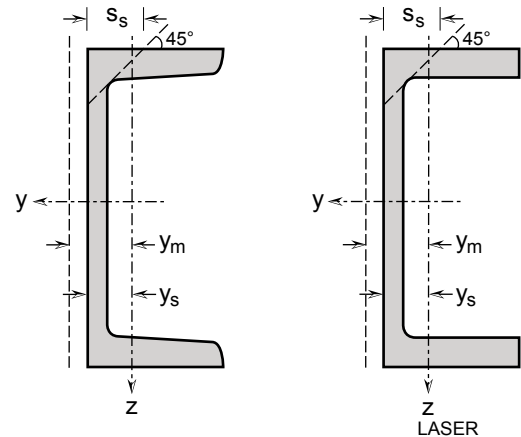
Grade according to EN 10088-3: 1D
Surface condition: blasted and pickled

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 statiques

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	Y _s mm x10	Y _m mm x10
	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						
	UPN 180	1329.45	147.72	177.07	6.94	15.51	101.80	19.65	42.90	1.92					
UPN 180*	1365.17	151.69	180.33	6.98	13.76	130.28	26.60	29.49	2.15	20.18	9.06	4.49	2.10	4.20	
UPN 200 ⁺	1928.35	192.83	229.46	7.73	16.27	170.62	32.20	35.56	2.30	21.18	11.42	7.18	2.20	4.42	
UPN 220 ⁺	2713.15	246.65	293.39	8.50	18.94	225.67	39.87	43.97	2.45	22.68	15.32	11.48	2.34	4.71	
UPN 240 ⁺	3627.90	302.32	359.97	9.24	21.84	285.51	47.12	51.81	2.59	23.68	18.78	17.14	2.441	4.93	
UPN 260 ⁺	4859.51	373.81	444.92	10.02	24.90	365.32	56.92	62.52	2.75	25.18	24.36	25.73	2.582	5.22	
UPN 280 ⁺	6313.62	450.97	534.30	10.86	26.82	457.00	67.84	73.96	2.92	26.18	29.60	37.63	2.763	5.63	
UPN 300 ⁺	8066.44	537.76	634.42	11.71	28.74	564.28	80.02	86.72	3.10	27.18	35.77	53.77	2.948	6.05	
UPN 320 ⁺	10719.93	670.00	814.15	11.96	42.72	642.94	88.18	101.49	2.93	32.68	62.98	66.72	2.709	5.23	
UPN 350 ⁺	12687.32	724.99	888.88	12.88	47.10	618.19	82.40	95.61	2.84	31.18	58.09	74.37	2.50	4.83	
UPN 380 ⁺	15565.03	819.21	1003.37	13.98	49.48	667.24	86.53	99.11	2.89	30.68	57.75	93.74	2.489	4.90	
UPN 400 ⁺	20089.49	1004.47	1220.72	14.89	53.86	921.06	112.31	126.76	3.19	33.18	77.02	145.67	2.80	5.56	