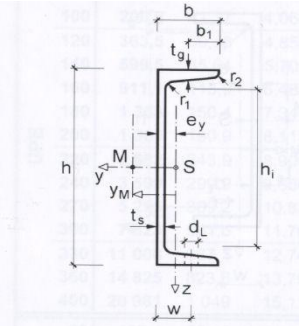

h ≤ 300: Flanschneigung = 8 %, $b_1 = b / 2$
h > 300: Flanschneigung = 5 %, $b_1 = (b - t_s) / 2$

bauforumstahl
Deutscher Stahlbau. Gut berat

U Profile nach DIN 1026-1

	Abmessungen						Flächen	Mantel	Gewicht	Biegung um die y-Achse			Biegung um die z-Achse			Löc
Profil	h	b	ts	tg	r_1	r_2	A	U	G	Iy	iy	Wy	Iz	iz	Wz	dL
U	mm	mm	mm	mm	mm	mm	cm²	m²/m	kg/m	cm^4	mm	cm³	cm^4	mm	cm³	mm
30x15	30.00	15.00	4.00	4.50	4.50	2.00	2.21	0.10	1.73	2.53	10.70	1.69	0.38	4.20	0.39	-
30	30.00	33.00	5.00	7.00	7.00	3.50	5.44	0.17	4.27	6.39	10.80	4.26	5.33	9.90	2.68	-
40	40.00	35.00	5.00	7.00	7.00	3.50	6.21	0.20	4.87	14.10	15.00	7.05	6.68	10.40	3.08	-
40x20	40.00	20.00	5.00	5.50	5.00	2.50	3.66	0.14	2.87	7.58	14.40	3.79	1.14	5.60	0.86	-
50	50.00	38.00	5.00	7.00	7.00	3.50	7.12	0.23	5.59	26.40	19.20	10.56	9.12	11.30	3.75	-
50x25	50.00	25.00	5.00	6.00	6.00	3.00	4.92	0.18	3.86	16.80	18.50	6.72	2.49	7.10	1.47	-
60	60.00	30.00	6.00	6.00	6.00	3.00	6.46	0.22	5.07	31.60	22.10	10.53	4.51	8.40	2.16	-
65	65.00	42.00	5.50	7.50	7.50	4.00	9.03	0.27	7.09	57.50	25.20	17.69	14.10	12.50	5.07	-
80	80.00	45.00	6.00	8.00	8.00	4.00	11.00	0.31	8.64	106.00	31.00	26.50	19.40	13.30	6.36	-
100	100.00	50.00	6.00	8.50	8.50	4.50	13.50	0.37	10.60	206.00	39.10	41.20	29.30	14.70	8.49	11.00
120	120.00	55.00	7.00	9.00	9.00	4.50	17.00	0.43	13.35	364.00	46.20	60.67	43.20	15.90	11.08	13.00
140	140.00	60.00	7.00	10.00	10.00	5.00	20.40	0.49	16.01	605.00	54.50	86.43	62.70	17.50	14.75	13.00
160	160.00	65.00	7.50	10.50	10.50	5.50	24.00	0.55	18.84	925.00	62.10	115.63	85.30	18.90	18.30	17.00
180	180.00	70.00	8.00	11.00	11.00	5.50	28.00	0.61	21.98	1350.00	69.50	150.00	114.00	20.20	22.44	21.00
200	200.00	75.00	8.50	11.50	11.50	6.00	32.20	0.66	25.28	1910.00	77.00	191.00	148.00	21.40	26.96	21.00
220	220.00	80.00	9.00	12.50	12.50	6.50	37.40	0.72	29.36	2690.00	84.80	244.55	197.00	23.00	33.62	21.00
240	240.00	85.00	9.50	13.00	13.00	6.50	42.30	0.77	33.21	3600.00	92.20	300.00	248.00	24.20	39.55	25.00
260	260.00	90.00	10.00	14.00	14.00	7.00	48.30	0.83	37.92	4820.00	99.90	370.77	317.00	25.60	47.74	25.00
280	280.00	95.00	10.00	15.00	15.00	7.50	53.30	0.89	41.84	6280.00	109.00	448.57	399.00	27.40	57.25	28.00
300	300.00	100.00	10.00	16.00	16.00	8.00	58.80	0.95	46.16	8030.00	117.00	535.33	495.00	29.00	67.81	28.00
320	320.00	100.00	14.00	17.50	17.50	8.80	75.80	0.98	59.50	10870.00	121.00	679.38	597.00	28.10	80.68	25.00
350	350.00	100.00	14.00	16.00	16.00	8.00	77.30	1.05	60.68	12840.00	129.00	733.71	570.00	27.20	75.00	28.00
380	380.00	102.00	13.50	16.00	16.00	8.00	80.40	1.11	63.11	15760.00	140.00	829.47	615.00	27.70	78.64	28.00
400	400.00	110.00	14.00	18.00	18.00	9.00	91.50	1.18	71.83	20350.00	149.00	1017.50	846.00	30.40	101.32	28.00

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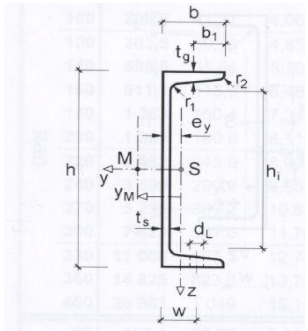

h ≤ 300: Flanschneigung = 8 %, $b_1 = b / 2$
h > 300: Flanschneigung = 5 %, $b_1 = (b - t_s) / 2$

U Profile nach DIN 1026-1

	Flächen					Querschnittsgewicht		S- und M-Lage			Torsion	Wölbtorsion					
Profil	Ay	Az	Av,y	Av,z	AG	V	Am/V	ey	YM	YM,FEM	It	I_ω	W_ω	ω_{max}	$S_{\omega,max}$	$W_{pl,\omega}$	$\alpha_{pl,\omega}$
U	cm²	cm²	cm²	cm²	cm²	cm³/m	1/m	mm	mm	mm	cm^4	cm^6	cm^4	cm²	cm^4	cm^4	
30x15	0.78	0.90	1.69	1.24	0.84	221.00	466.06	5.20	-7.40	-6.90	0.17	0.4080	0.39	1.05	0.19	0.70	1.81
30	3.45	0.84	5.22	1.66	0.80	544.00	319.85	13.10	-22.20	-20.20	0.91	4.36	2.17	2.01	1.21	4.20	1.94
40	3.43	1.29	5.50	2.15	1.30	621.00	320.45	13.30	-23.20	-21.70	1.00	11.90	3.91	3.04	1.93	7.40	1.89
40x20	1.26	1.52	2.73	2.04	1.45	366.00	387.98	6.70	-10.10	-9.40	0.36	2.12	1.11	1.90	0.55	2.20	1.98
50	3.53	1.75	5.92	2.64	1.80	712.00	325.84	13.70	-24.70	-23.50	1.12	27.80	6.41	4.34	3.02	12.00	1.87
50x25	1.68	1.94	3.55	2.58	1.90	492.00	367.89	8.10	-13.40	-12.70	0.88	8.25	2.71	3.04	1.22	5.00	1.84
60	2.04	2.82	4.32	3.58	2.88	646.00	332.82	9.10	-15.00	-14.40	0.94	21.90	4.80	4.56	2.22	9.30	1.94
65	3.89	2.67	7.02	3.71	2.75	903.00	302.33	14.20	-26.00	-25.10	1.61	77.30	11.88	6.51	5.43	22.20	1.87
80	4.18	3.73	8.04	4.92	3.84	1100.00	283.64	14.50	-26.70	-25.90	2.16	168.00	18.89	8.89	8.59	35.60	1.88
100	4.58	4.87	9.37	6.23	4.98	1350.00	275.56	15.50	-29.30	-28.60	2.81	414.00	32.57	12.71	14.66	61.30	1.88
120	5.14	6.94	11.02	8.54	7.14	1700.00	255.29	16.00	-30.30	-29.60	4.15	900.00	51.95	17.32	23.59	99.40	1.91
140	5.89	8.26	13.19	10.10	8.40	2040.00	239.71	17.50	-33.70	-33.00	5.68	1800.00	81.20	22.17	36.68	155.00	1.91
160	6.48	10.23	15.00	12.24	10.40	2400.00	227.50	18.40	-35.60	-34.90	7.39	3260.00	116.86	27.90	52.90	224.00	1.92
180	7.13	12.38	16.92	14.69	12.60	2800.00	218.21	19.20	-37.50	-36.90	9.55	5570.00	162.41	34.30	73.88	312.00	1.92
200	1.81	14.72	18.95	17.25	15.00	3220.00	205.28	20.10	-39.40	-38.80	11.90	9070.00	219.60	41.30	100.20	424.00	1.93
220	8.82	17.23	21.94	20.09	17.60	3740.00	191.98	21.40	-42.00	-41.40	16.00	14600.00	300.48	48.59	136.87	580.00	1.93
240	9.61	19.93	24.24	23.13	20.30	4230.00	183.22	22.30	-43.90	-43.30	19.70	22100.00	388.65	56.86	177.84	752.00	1.94
260	10.73	22.81	27.60	26.46	23.20	4830.00	172.67	23.60	-46.60	-45.90	25.50	33300.00	509.86	65.31	233.09	987.00	1.94
280	11.83	24.66	31.00	28.55	25.00	5330.00	166.98	25.30	-50.20	-49.60	31.00	48500.00	655.51	73.99	298.19	1260.00	1.92
300	12.99	26.49	34.60	30.96	26.80	5880.00	161.57	27.00	-54.10	-53.30	37.40	69100.00	830.86	83.17	375.76	1590.00	1.91
320	14.63	39.15	39.41	46.31	39.90	7580.00	129.55	26.00	-48.20	-48.10	66.70	96100.00	1034.29	92.91	469.93	2040.00	1.97
350	12.91	43.36	36.20	50.10	44.50	7730.00	135.45	24.00	-44.50	-44.60	61.20	114000.00	1080.55	105.50	496.06	2130.00	1.97
380	12.50	45.77	36.62	52.48	47.00	8040.00	138.06	23.80	-45.80	-45.20	59.10	146000.00	1235.21	118.20	570.43	2440.00	1.98
400	15.00	49.94	44.08	57.66	51.00	9150.00	129.18	26.50	-51.10	-51.20	81.60	221000.00	1676.04	131.86	766.41	3310.00	1.98

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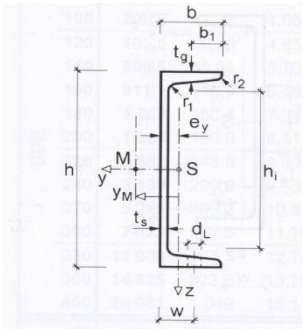

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U Profile nach DIN 1026-1

	Biegung												Hilfswerte		Grenzschnittgrößen für fy,d = 2	
Profil	Sy,max	Wpl,y,max	Wpl,y,voll	apl,y,max	apl,y,voll	Sz,max	Wpl,z	apl,z	Wz,min	Wz,max	ip	ip,M	rz,Kindem	rM,y	Npl,d	Vpl,z,d
U	cm³	cm³	cm³			cm³	cm³		cm³	cm³	mm	mm	mm	mm	kN	kN
30x15	1.08	2.20	2.04	1.30	1.21	0.20	0.75	1.92	-0.73	0.39	11.50	13.70	12.80	27.60	48.27	12.85
30	2.08	5.59	5.45	1.31	1.28	1.15	4.56	1.70	-4.07	2.68	14.70	26.60	6.70	51.10	118.70	14.49
40	4.44	8.88	8.56	1.26	1.21	1.41	5.55	1.80	-5.02	3.08	18.30	29.50	10.40	56.80	135.50	20.78
40x20	2.41	4.88	4.51	1.29	1.19	0.43	1.63	1.90	-1.70	0.86	15.50	18.50	17.60	37.80	79.78	21.73
50	6.49	12.99	12.40	1.23	1.17	1.76	6.89	1.84	-6.66	3.75	22.30	33.30	15.30	64.70	155.30	27.08
50x25	4.18	8.41	7.78	1.25	1.16	0.75	2.79	1.89	-3.07	1.47	19.80	23.90	22.90	49.70	107.30	27.71
60	6.55	13.10	11.91	1.24	1.13	1.14	4.13	1.91	-4.96	2.16	23.60	28.00	30.30	60.30	141.00	40.81
65	10.71	21.42	20.21	1.21	1.14	2.45	9.48	1.87	-9.93	5.07	28.10	38.30	32.50	84.50	197.10	39.84
80	15.90	31.91	29.77	1.20	1.12	3.17	12.08	1.90	-13.38	6.36	33.70	43.00	34.30	87.70	240.50	54.42
100	24.50	48.98	45.42	1.19	1.10	4.28	16.20	1.91	-18.90	8.49	41.80	51.00	46.20	104.80	293.50	69.16
120	36.30	72.73	66.51	1.20	1.10	5.78	21.26	1.92	-27.00	11.08	48.90	57.50	64.80	125.40	370.60	97.88
140	51.40	102.82	94.20	1.19	1.09	7.68	28.31	1.92	-35.83	14.75	57.20	66.40	77.80	145.20	444.40	114.60
160	68.80	137.59	125.25	1.19	1.08	9.68	35.15	1.92	-46.36	18.30	64.90	74.00	93.70	164.90	523.90	141.20
180	89.60	179.19	162.22	1.20	1.08	12.00	43.05	1.92	-59.38	22.44	72.40	81.50	110.70	185.70	610.20	170.30
200	114.00	227.84	205.26	1.19	1.08	14.62	51.87	19.2	-73.63	26.96	79.90	89.10	129.50	208.30	702.20	201.80
220	146.00	291.60	262.59	1.19	1.07	18.16	64.35	1.91	-92.06	33.62	87.90	97.40	143.20	227.20	817.00	235.20
240	179.00	357.81	320.97	1.19	1.07	21.59	75.93	1.92	-111.21	39.55	95.30	104.90	162.30	250.10	923.10	271.60
260	221.00	442.58	397.01	1.19	1.07	26.02	91.88	1.92	-134.32	47.74	103.10	113.20	177.20	270.40	1053.00	309.90
280	266.00	532.18	479.21	1.19	1.07	30.76	109.77	1.92	-157.71	57.25	112.40	123.10	192.60	293.00	1166.00	333.80
300	316.00	632.63	571.69	1.18	1.07	35.98	129.86	1.92	-183.33	67.81	120.50	132.10	205.00	313.20	1282.00	357.70
320	413.00	825.71	729.71	1.22	1.07	44.41	151.91	1.88	-229.62	80.68	124.20	133.20	243.10	339.50	1653.00	533.50
350	459.00	899.67	780.62	1.23	1.06	42.92	142.48	1.90	-237.50	75.00	131.80	139.10	298.30	387.30	1686.00	589.00
380	507.00	1015.24	877.85	1.22	1.06	45.31	149.07	1.90	-258.40	78.64	142.70	149.90	243.00	334.60	1753.00	619.00
400	618.00	1236.55	1080.43	1.22	1.06	57.70	192.57	1.90	-319.25	101.32	152.10	160.40	342.90	445.10	1996.00	673.70

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