

CHANNELS



Information

Steel channel is rolled from steel sheet into C or U shapes with inside radius corners. It consists of a wide "web" and two "flanges". The flanges could be parallel or tapered. It's C-shape or U-shape configuration is ideal for added strength and rigidity over steel angle when load is vertical or horizontal.

Applications

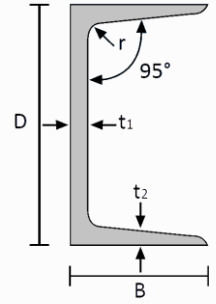
Truck and trailer frame supports, equipment and machinery frames and support, building and structural support applications, bridges, freight cars and construction.

Features

- Corrosion resistant
- Strong and very versatile
- Durable, reliable and long lasting finish
- Mild to high tensile strength
- Wide dimensional range
- Superior weldability

CHANNELS (TAPERED FLANGE)

Material Specification: EN 10025 S275JR
 EN 10025 S355JR
 ASTM A36
 JIS G3101 SS400



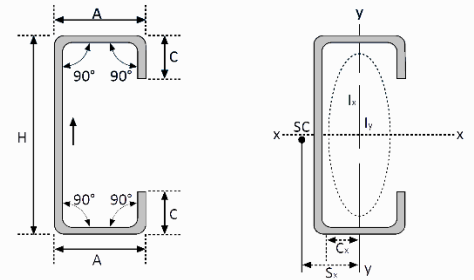
(Metric units)

Designation Size	Thickness	Unit Weight	Thickness		Root Toe		Sectional Area	Centre of Gravity	Second Moment Of Area		Radius Of Gyration		Elastic Modulus	
			Web	Flange	Radius				Ix	Iy	rx	ry	Zx	Zy
D x B	t	M	t	T	r1	r2	A	Cy	Ix	Iy	rx	ry	Zx	Zy
mm	mm	Kg/m	mm	mm	mm	mm	cm ²	cm	cm ⁴	cm ⁴	cm	cm	cm ³	cm ⁴
50 x 25	3.5	2.56	5.0	6.0	6	3	4.92	0.81	16.8	2.49	1.85	0.71	6.73	1.48
	4	2.92	-	-	-	-	-	-	-	-	-	-	-	-
75 x 40	3.8	5.30	-	-	-	-	-	-	-	-	-	-	-	-
	5	6.92	5.0	7.0	8	4	8.82	1.27	75.9	12.4	2.93	1.19	20.2	4.54
100 x 50	3.8	7.30	-	-	-	-	-	-	-	-	-	-	-	-
	5	9.36	5.0	7.5	8	4	11.9	1.55	189	26.7	3.99	1.50	37.8	7.82
	6	10.60	-	-	-	-	-	-	-	-	-	-	-	-
125 x 65	5.2	11.66	-	-	-	-	-	-	-	-	-	-	-	-
	6	13.40	6.0	8.0	8	4	17.1	1.94	425	65.5	4.99	1.96	68.0	14.4
150 x 75	5.5	14.66	-	-	-	-	-	-	-	-	-	-	-	-
	6.5	18.60	6.5	10.0	10	5	23.7	2.31	864	122	6.04	2.27	115	23.6
	9	24.00	9.0	12.5	15	7.5	30.5	2.31	1060	151	5.90	2.22	141	29.1
180 x 75	7	21.40	7.0	10.5	11	5.5	27.2	2.15	1380	137	7.12	2.24	154	25.5
180 x 90	7.5	27.10	7.5	12.5	13	6.5	34.6	-	-	-	-	-	-	-
200 x 80	7.5	24.60	7.5	11.0	12	6	31.3	2.24	1950	177	7.89	2.38	195	30.8
200 x 90	8	30.30	8.0	13.5	14	7	38.7	2.77	2490	286	8.02	2.72	249	45.9
230 x 80	8	28.40	8.0	12.0	13	7	36.1	-	-	-	-	-	-	-
230 x 90	9	33.10	8.5	13.5	15	8	42.1	-	-	-	-	-	-	-
250 x 80	8	30.20	8.0	12.5	14	7	38.5	-	-	-	-	-	-	-
250 x 90	9	34.60	9.0	13.0	14	7	44.1	2.42	4180	306	9.74	2.63	335	46.5
	11	40.20	11.0	14.5	17	9	51.2	-	-	-	-	-	-	-
280 x 100	9	38.80	9.0	13.0	14	7	49.4	-	-	-	-	-	-	-
	11.5	48.20	11.5	16.0	18	10	61.4	-	-	-	-	-	-	-
300 x 90	9	38.10	9.0	12.0	14	7	48.6	2.23	6440	325	11.5	2.59	429	48.0
	10	43.80	10.0	15.5	19	10	55.7	-	-	-	-	-	-	-
380 x 100	10.5	54.50	10.5	16.0	18	9	69.4	2.41	14500	557	14.5	2.83	762	73.3
	13.0	62.00	13.0	16.5	18	9	78.9	-	-	-	-	-	-	-

CHANNELS (LIP CHANNEL)

Material Specification: JIS G3350 SSC400

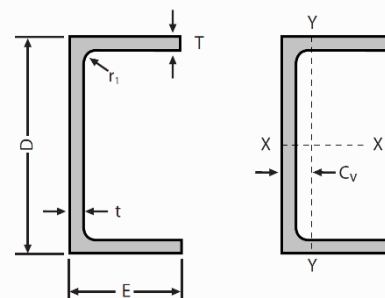
(Metric units)



Standard Sectional Dimension		Unit Weight	Sectional Area	Centre of Gravity		Second Moment Of Area		Radius Of Gyration		Elastic Modulus		Centre Of Shear	
H x A x C	t	M	A	Cx	Cy	Ix	Iy	ix	iy	Zx	Zy	Sx	Sy
mm	mm	kg/m	cm ²	cm	cm	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³	cm	cm
75 x 45 x 15	1.6	2.32	2.952	0	1.72	27.1	8.71	3.03	1.72	7.24	3.13	4.1	0
	2.3	3.25	4.137	0	1.72	37.1	11.8	3.00	1.69	9.9	4.24	4.0	0
	3.0	4.13	5.258	0	1.71	46	14.25	2.96	1.65	12.27	5.11	4.0	0
100 x 50 x 20	2.3	4.06	5.172	0	1.86	80.7	19.0	3.95	1.92	16.1	6.06	4.4	0
	3.0	5.18	6.608	0	1.86	101	23.4	3.91	1.88	20.2	7.45	4.4	0
	4.0	6.71	8.548	0	1.86	127	28.7	3.85	1.83	25.4	9.13	4.3	0
	4.5	7.43	9.469	0	1.86	139	30.9	3.82	1.81	27.7	9.82	4.3	0
125 x 50 x 20	2.3	4.51	5.747	0	1.69	137	20.6	4.88	1.89	21.9	6.22	4.1	0
	3.0	5.77	7.358	0	1.69	172	25.4	4.83	1.83	27.5	7.56	4.1	0
	4.0	7.50	9.548	0	1.68	217	31.1	4.77	1.81	34.7	9.38	4.0	0
	4.5	8.32	10.59	0	1.68	238	33.5	4.74	1.78	38.0	10.0	4.0	0
150 x 65 x 20	2.3	5.50	7.012	0	2.12	248	41.1	5.94	2.42	33.0	9.37	5.2	0
	3.0	7.07	9.008	0	2.11	314	51.1	5.90	2.38	41.9	11.7	5.1	0
	4.0	9.22	11.75	0	2.11	401	63.7	5.84	2.33	53.5	14.5	5.0	0
	4.5	10.25	13.07	0	2.10	441	69.2	5.82	2.30	58.8	15.7	5.0	0
175 x 75 x 20	2.3	6.31	8.047	0	2.35	389	61.0	6.96	2.75	44.5	11.8	5.7	0
	3.0	8.13	10.36	0	2.34	495	76.4	6.91	2.72	56.6	14.8	5.7	0
	3.2	8.63	11.01	0	2.34	524.33	80.51	6.90	2.70	59.92	15.61	5.7	0
	4.5	11.84	15.09	0	2.33	702	105	6.82	2.63	80.3	20.2	5.6	0
200 x 75 x 20	2.3	6.76	8.622	0	2.20	531	63.7	7.85	2.72	53.1	12.0	5.5	0
	3.0	8.71	11.11	0	2.19	676	79.8	7.80	2.68	67.6	15.0	5.4	0
	4.5	12.73	16.22	0	2.19	963	109	7.71	2.60	96.3	20.6	5.3	0
200 x 75 x 25	2.3	6.95	8.852	0	2.33	545	69.7	7.85	2.81	54.5	13.5	5.8	0
	3.0	8.96	11.41	0	2.33	694	87.5	7.80	2.77	69.4	16.9	5.7	0
	4.0	11.70	14.95	0	2.32	895	110	7.74	2.72	89.5	21.3	5.7	0
	4.5	13.10	16.67	0	2.32	990	121	7.71	2.69	99.0	23.3	5.6	0
250 x 75 x 20	2.3	7.67	9.772	0	1.95	897	68.1	9.58	2.64	71.8	12.3	5.0	0
	3.0	9.90	12.61	0	1.95	1145	85.3	9.53	2.60	91.6	15.4	4.9	0
	4.0	13.00	16.55	0	1.95	1480	107	9.46	2.54	118	19.3	4.9	0
	4.5	14.50	18.47	0	1.95	1639	117	9.42	2.52	131	21.0	4.8	0
250 x 75 x 25	2.3	7.85	10.00	0	2.08	921	74.8	9.60	2.73	73.7	13.8	5.3	0
	3.0	10.10	12.91	0	2.08	1177	93.8	9.55	2.70	94.1	17.3	5.2	0
	4.0	13.30	16.95	0	2.07	1522	118	9.48	2.64	122	21.8	5.1	0
	4.5	14.90	18.92	0	2.07	1690	129	9.44	2.62	135	23.8	5.1	0

CHANNELS (PARALLEL FLANGE)

Material Specification: EN 10025 S275JR
EN 10025 S355JR



(Metric units)

Designation Size	Mass Per Metre	Thickness		Root Radius	Depth Between Fillets	Area Of Section	Centre Of Gravity	Ratios For Local Buckling		Second Moment Of Area	
		Web	Flange					Flange	Web	Axis x - x	Axis x - y
D x E	M	t	T	r ₁	d	A	C _y	B/T	d/t	cm ⁴	cm ⁴
mm	kg/m	mm	mm	mm	mm	cm ²	cm				
100 x 50	10.2	5.0	8.5	9	65	13.0	1.7	5.9	13.0	208	32.3
125 x 65	14.8	5.5	9.5	12	82	18.8	2.3	6.8	14.9	483	80
150 x 75	17.9	5.5	10.0	12	106	22.8	2.6	7.5	19.3	861	131
150 x 90	23.9	6.5	12.0	12	102	30.4	3.3	7.5	15.7	1162	253
180 x 75	20.3	6.0	10.5	12	135	25.9	2.4	7.1	22.5	1370	146
180 x 90	26.1	6.5	12.5	12	131	33.2	3.2	7.2	20.2	1817	277
200 x 75	23.4	6.0	12.5	12	151	29.9	2.5	6.0	25.2	1963	170
200 x 90	29.7	7.0	14.0	12	148	37.9	3.1	6.4	21.1	2523	314
230 x 75	25.7	6.5	12.5	12	181	32.7	2.3	6.0	27.8	2748	181
230 x 90	32.2	7.5	14.0	12	178	41.0	2.9	6.4	23.7	3518	334
250 x 90	35.5	8.0	15.0	12	220	45.2	2.9	6.0	27.5	4510	364
260 x 75	27.6	7.0	12.0	12	212	35.1	2.1	6.3	30.3	3619	185
260 x 90	34.8	8.0	14.0	12	208	44.4	2.7	6.4	26.0	4728	353
300 x 90	41.4	9.0	15.5	12	245	52.7	2.6	5.8	27.2	7218	404
300 x 100	45.5	9.0	16.5	15	237	58.0	3.1	6.1	26.3	8229	568
380 x 100	54.0	9.5	17.5	15	315	68.7	2.8	5.7	33.2	15030	643
430 x 100	64.4	11.0	19.0	15	362	82.1	2.6	5.3	32.9	21940	722