



GREEN MAN®

C Profile

GMC

Product Brief

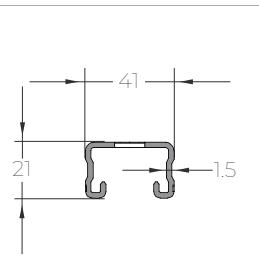
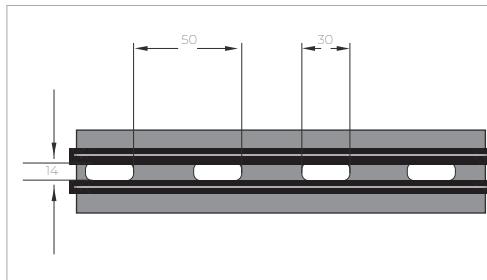
C-Channels are structural steel profiles characterized by their C-shaped cross-section, engineered to deliver strength, rigidity, and stability in a variety of load-bearing applications. Manufactured from high-quality steel and available in different sizes, thicknesses, and surface finishes (galvanized, hot-rolled, or coated), C-Channels are designed to withstand demanding environments while ensuring long service life.

Their open profile makes them lightweight yet robust, offering excellent resistance against bending and twisting under load. C-Channels are widely used as framing members, support beams, mounting rails, and reinforcements in both industrial and commercial structures.

They are ideal for supporting roofing systems, machinery frameworks, conveyor structures, and as secondary supports in bridges and heavy equipment.

Sr#	Item Code	Size	Length (mtr)	Material		Coating		
1	GMC271812	27x18x1.2	3,6	S250GD	S235 JR	pre-galvanized (Z-275)	HDG	epoxy coated
2	GMC283015	28x30x1.5	3,6	S250GD	S235 JR	pre-galvanized (Z-275)	HDG	epoxy coated
3	GMC283020	28x30x20	3,6	S250GD	S235 JR	pre-galvanized (Z-275)	HDG	epoxy coated
4	GMC384015	38x40x1.5	3,6	S250GD	S235 JR	pre-galvanized (Z-275)	HDG	epoxy coated
5	GMC384020	38x40x2.0	3,6	S250GD	S235 JR	pre-galvanized (Z-275)	HDG	epoxy coated
6	GMC402015	40x20x1.5	3,6	S250GD	S235 JR	pre-galvanized (Z-275)	HDG	epoxy coated
7	GMC402020	40x20x2.0	3,6	S250GD	S235 JR	pre-galvanized (Z-275)	HDG	epoxy coated
8	GMC753820	75x38x2.0	3,6	S250GD	S235 JR	pre-galvanized (Z-275)	HDG	epoxy coated
9	GMC753825	75x38x2.5	3,6	S250GD	S235 JR	pre-galvanized (Z-275)	HDG	epoxy coated
10	GMC1005020	100x50x2.0	3,6	S250GD	S235 JR	pre-galvanized (Z-275)	HDG	epoxy coated
11	GMC1005025	100x50x2.5	3,6	S250GD	S235 JR	pre-galvanized (Z-275)	HDG	epoxy coated

C Profile GMC271812



Specification

C-profile rail, perforated, toothed

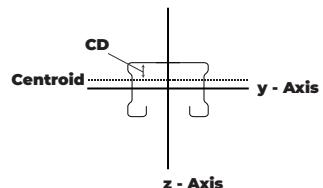
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



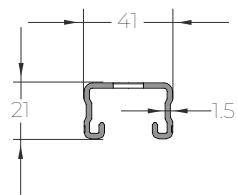
Type GMC27 18 1.2

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC271812	27x18x1.2	72.72	0.571	13.5		3170		283

Load Cases

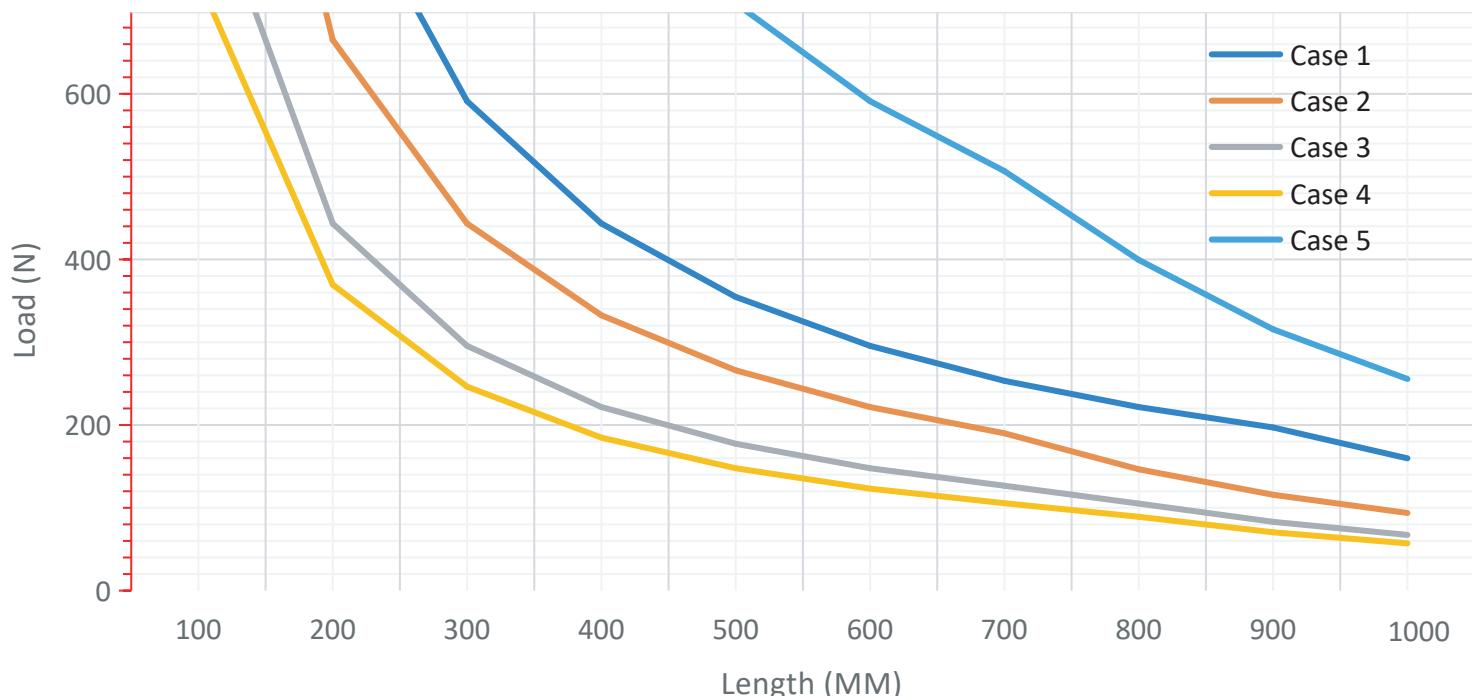
Max Recommended Load - N

F L SPAN mm	CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load					
0	-	-	-	-	-				-	
100	1773	1330	887	739	3547					
200	887	665	443	369	1773					
300	591	443	296	246	1182					
400	443	333	222	185	887					
500	355	266	177	148	709					
600	296	222	148	123	591					
700	253	190	127	106	507					
800	222	147	105	89	399					
900	197	116	83	70	316					
1000	160	94	67	57	256					
1100	132	78	56	47	211					
1200	111	65	47	40	178					
1300	95	55	40	34	151					
1400	82	48	34	29	130					
1500	71	42	30	25	114					
1600	62	37	26	22	100					
1700	55	32	23	20	88					
1800	49	29	21	18	79					
1900	44	26	19	16	71					
2000	40	23	17	14	64					
2100	36	21	15	13	58					
2200	33	19	14	12	53					
2300	30	18	13	11	48					
2400	28	16	12	10	44					
2500	26	15	11	9	41					
2600	24	14	10	8	38					
2700	22	13	9	8	35					
2800	20	12	9	7	33					
2900	19	11	8	7	30					
3000	18	10	7	6	28					



Maximum Recommended loads Graph for GMC271812

Calculation Criteria		
Safety Factor	X	= 1.5
Max. Bending Deflection	δ_{zul}	= L/200
Module of elasticity	E	= 210000 N/mm ²

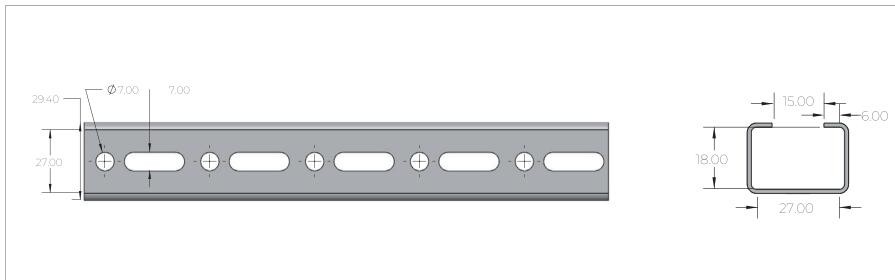
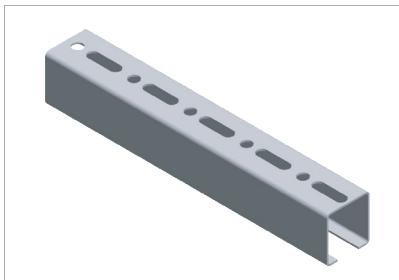


Unsupported Cantilever Load Case for GMC271812

Max Recommended Load - N

CASE 1		CASE 2	CASE 3	CASE 4	CASE 5	
F/L	Span [mm]	Cantilever with single load at end of cantilever length L	Cantilever with single load in center of cantilever length L/2	Cantilever with 2 loads, each at L/3	Cantilever with 3 loads, each at L/4	Cantilever with uniform load, cantilever length L
0	-					
250	355	160	177	118	355	
500	177	40	89	55	107	
750	118	18	46	24	47	
1000	80	10	26	14	27	
1250	51	6	16	9	17	
1500	36	4	11	6	12	
1750	26	3	8	4	9	
2000	20	2	6	3	7	

C Profile GMC283015



Specification

C-profile rail, perforated, toothed

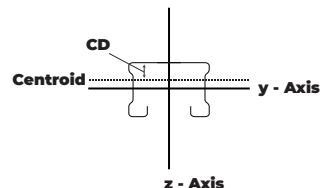
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



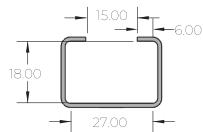
Type GMC28 30 1.5

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC283015	28x30x1.5	127.5	1.001	14		15374		886

Load Cases

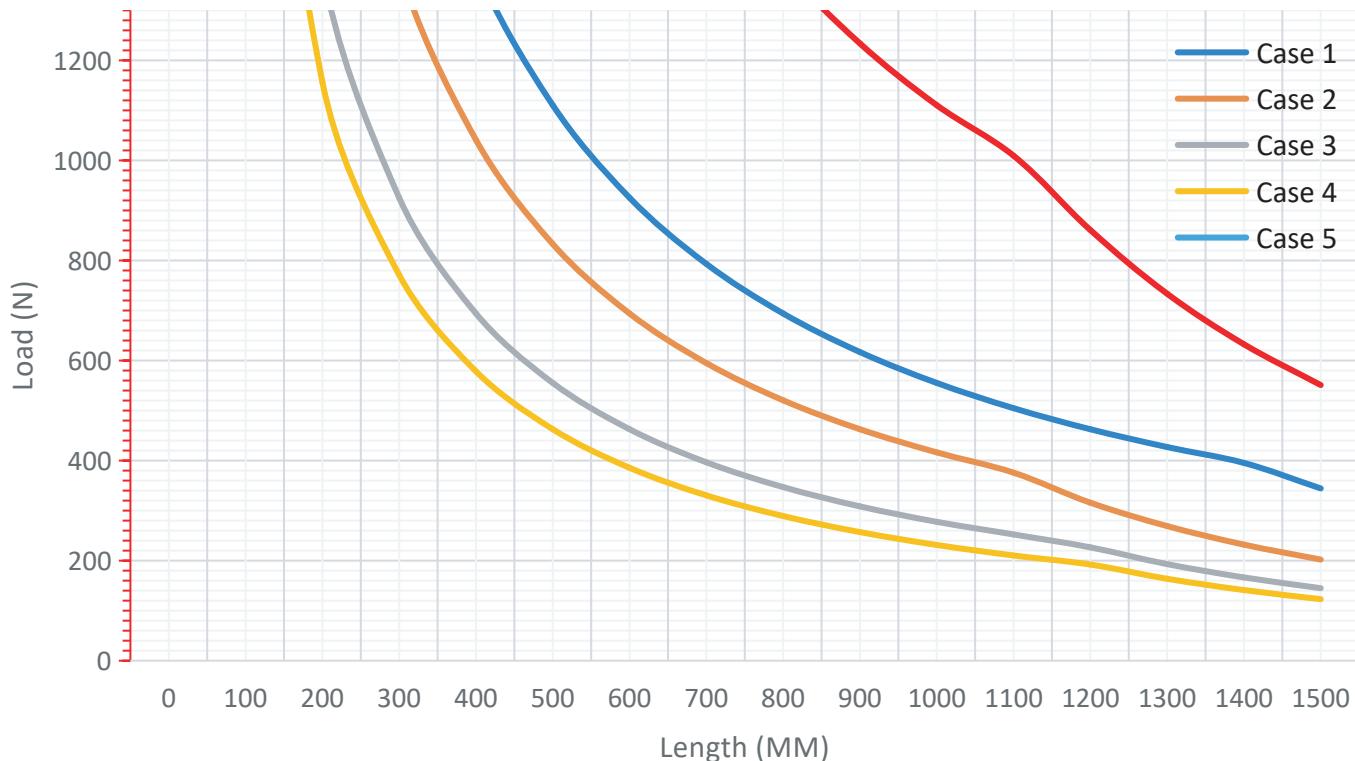
Max Recommended Load - N

F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
0	—	—	—	—	—
100	5552	4164	2776	2313	11105
200	2776	2082	1388	1157	5552
300	1851	1388	925	771	3702
400	1388	1041	694	578	2776
500	1110	833	555	463	2221
600	925	694	463	386	1851
700	793	595	397	330	1586
800	694	521	347	289	1388
900	617	463	308	257	1234
1000	555	416	278	231	1110
1100	505	376	252	210	1010
1200	463	316	227	192	861
1300	427	269	193	164	734
1400	395	232	166	141	633
1500	344	202	145	123	551
1600	303	178	127	108	484
1700	268	157	113	96	429
1800	239	140	101	85	383
1900	215	126	90	77	343
2000	194	114	82	69	310
2100	176	103	74	63	281
2200	160	94	67	57	256
2300	146	86	62	52	234
2400	135	79	57	48	215
2500	124	73	52	44	198
2600	115	67	48	41	183
2700	106	62	45	38	170
2800	99	58	42	35	158
2900	92	54	39	33	147
3000	86	51	36	31	138



Maximum Recommended loads Graph for GMC283015

Calculation Criteria		
Safety Factor	X	= 1.5
Max. Bending Deflection	δ_{zul}	= L/200
Module of elasticity	E	= 210000 N/mm ²

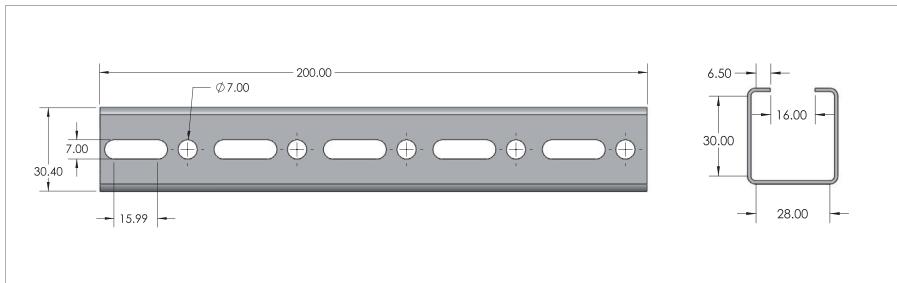
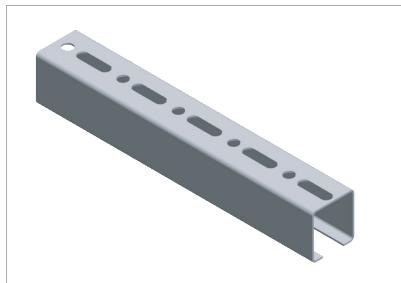


Unsupported Cantilever Load Case for GMC283015

Max Recommended Load - N

CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
F/L	Span [mm]	Cantilever with single load at end of cantilever length L	Cantilever with single load in center of cantilever length L/2	Cantilever with 2 loads, each at L/3	Cantilever with 3 loads, each at L/4	Cantilever with uniform load, cantilever length L			
0	-	-	-	-	-	-	-	-	-
250	1110	555	555	370	370	1110	1110	1110	1110
500	555	194	278	185	185	517	517	517	517
750	370	86	185	118	118	230	230	230	230
1000	278	48	125	67	67	129	129	129	129
1250	222	31	80	43	43	83	83	83	83
1500	172	22	55	30	30	57	57	57	57
1750	127	16	41	22	22	42	42	42	42
2000	97	12	31	17	17	32	32	32	32

C Profile GMC283020



Specification

C-profile rail, perforated, toothed

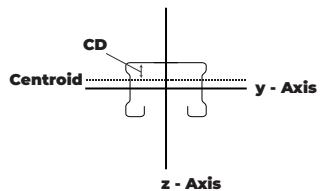
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



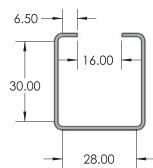
Type GMC28 30 2.0

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC283015	28x30x20	168	1.319	14		19049		1097

Load Cases

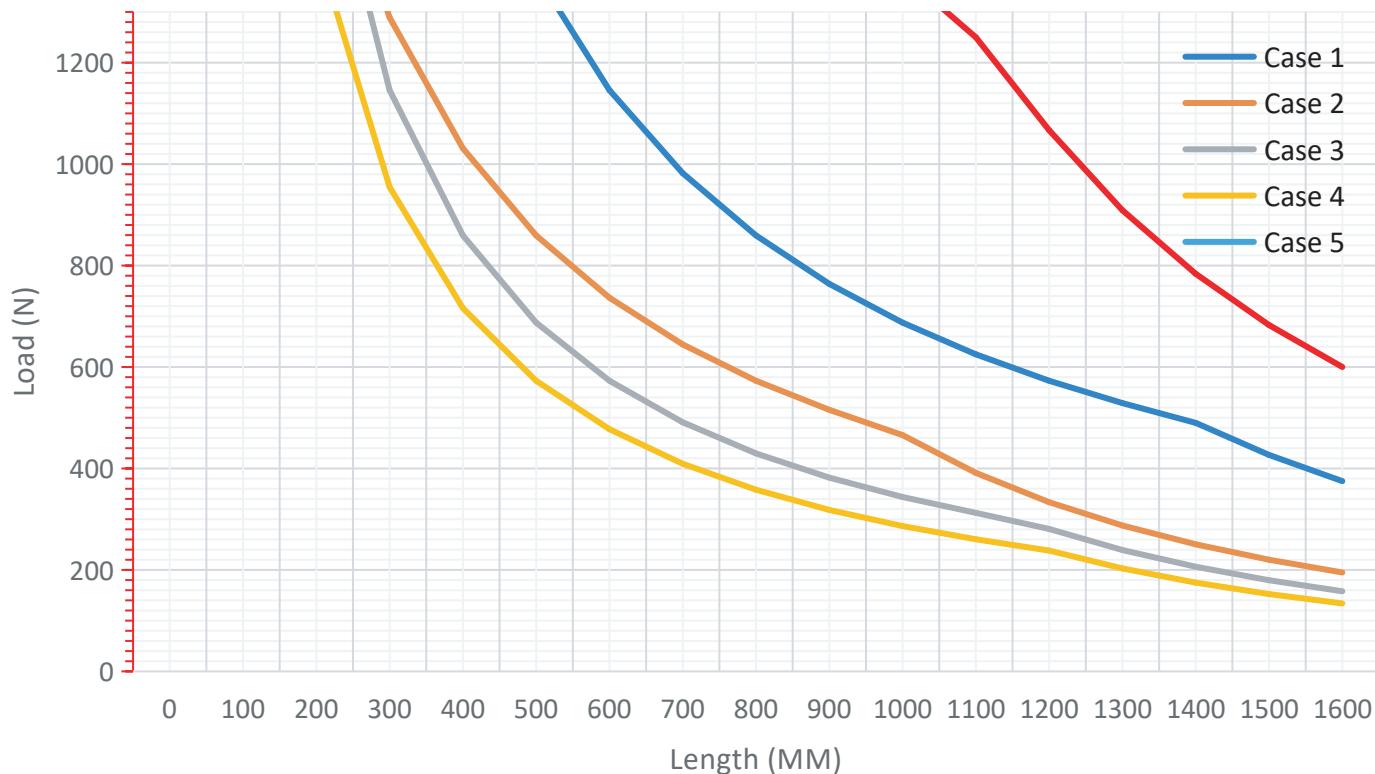
Max Recommended Load - N

F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
0	-	-	-	-	-
100	6875	5156	3437	2864	13749
200	3437	2578	1719	1432	6875
300	2292	1719	1146	955	4583
400	1719	1289	859	716	3437
500	1375	1031	687	573	2750
600	1146	859	573	477	2292
700	982	737	491	409	1964
800	859	644	430	358	1719
900	764	573	382	318	1528
1000	687	516	344	286	1375
1100	625	466	312	260	1250
1200	573	391	281	238	1067
1300	529	333	239	203	909
1400	490	288	206	175	784
1500	427	250	180	152	683
1600	375	220	158	134	600
1700	332	195	140	119	532
1800	296	174	125	106	474
1900	266	156	112	95	426
2000	240	141	101	86	384
2100	218	128	92	78	348
2200	198	116	84	71	317
2300	181	107	76	65	290
2400	167	98	70	60	267
2500	154	90	65	55	246
2600	142	83	60	51	227
2700	132	77	55	47	211
2800	122	72	52	44	196
2900	114	67	48	41	183
3000	107	63	45	38	171



Maximum Recommended loads Graph for GMC283020

Calculation Criteria		
Safety Factor	X	= 1.5
Max. Bending Deflection	δ_{zul}	= L/200
Module of elasticity	E	= 210000 N/mm ²

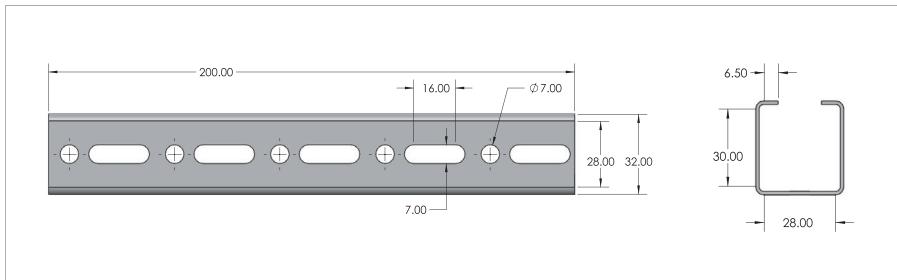
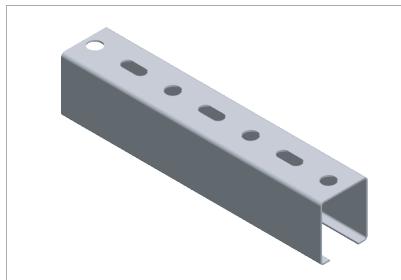


Unsupported Cantilever Load Case for GMC283020

Max Recommended Load - N

CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
F/L	Cantilever with single load at end of cantilever length L	F _{max}	Cantilever with single load in center of cantilever length L/2	F _{max}	Cantilever with 2 loads, each at L/3	F _{max}	Cantilever with 3 loads, each at L/4	F _{max}	Cantilever with uniform load, cantilever length L
Span [mm]									
0	-		-		-		-		-
250	1375		687		687		458		1375
500	687		240		344		229		640
750	458		107		229		147		284
1000	344		60		154		83		160
1250	275		38		99		53		102
1500	213		27		69		37		71
1750	157		20		50		27		52
2000	120		15		39		21		40

C Profile GMC384015



Specification

C-profile rail, perforated, toothed

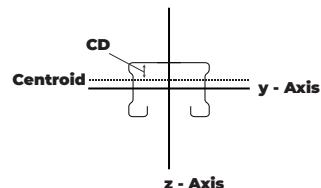
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



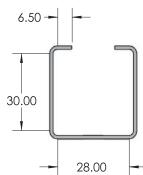
Type GMC38 40 1.5

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC384015	38x40x1.5	172.5	1.354	14		41922		1860

Load Cases

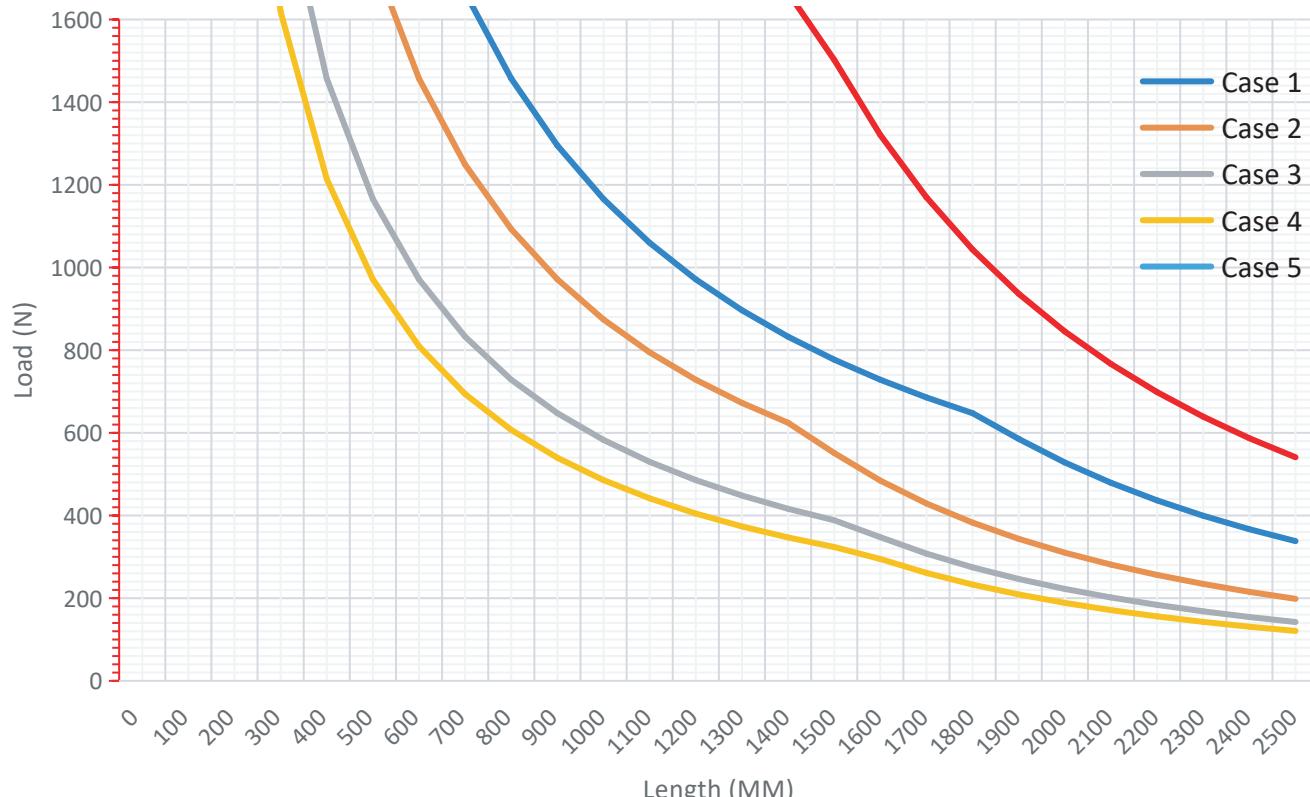
Max Recommended Load - N

F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
0	f ₀				
100	11656	8742	5828	4857	23312
200	5828	4371	2914	2428	11656
300	3885	2914	1943	1619	7771
400	2914	2186	1457	1214	5828
500	2331	1748	1166	971	4662
600	1943	1457	971	809	3885
700	1665	1249	833	694	3330
800	1457	1093	729	607	2914
900	1295	971	648	540	2590
1000	1166	874	583	486	2331
1100	1060	795	530	442	2119
1200	971	729	486	405	1943
1300	897	672	448	374	1793
1400	833	624	416	347	1665
1500	777	551	389	324	1502
1600	729	484	348	295	1321
1700	686	429	308	261	1170
1800	648	383	275	233	1043
1900	585	344	246	209	936
2000	528	310	222	189	845
2100	479	281	202	171	767
2200	437	256	184	156	698
2300	399	234	168	143	639
2400	367	215	154	131	587
2500	338	198	142	121	541
2600	313	183	132	112	500
2700	290	170	122	104	464
2800	269	158	113	96	431
2900	251	147	106	90	402
3000	235	138	99	84	376



Maximum Recommended loads Graph for GMC384015

Calculation Criteria		
Safety Factor	X	= 1.5
Max. Bending Deflection	δ_{zul}	= L/200
Module of elasticity	E	= 210000 N/mm ²

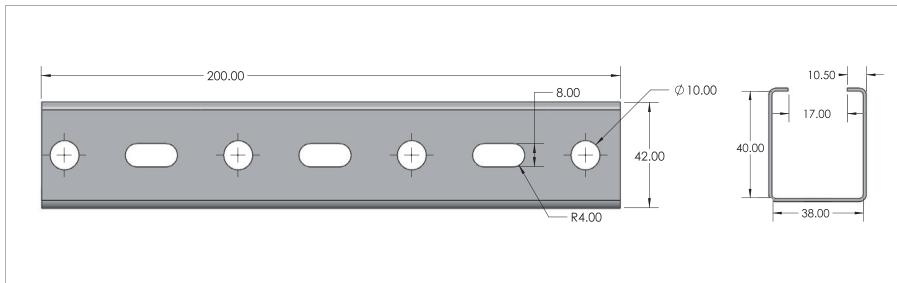
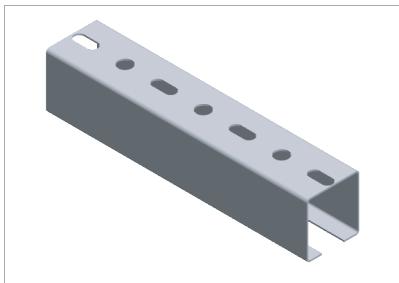


Unsupported Cantilever Load Case for GMC384015

Max Recommended Load - N

CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
F/L	Cantilever with single load at end of cantilever length L	F _{max}	Cantilever with single load in center of cantilever length L/2	F _{max}	Cantilever with 2 loads, each at L/3	F _{max}	Cantilever with 3 loads, each at L/4	F _{max}	Cantilever with uniform load, cantilever length L
Span [mm]									
0	-		-		-		-		-
250	2331		1166		1166		777		2331
500	1166		528		583		389		1166
750	777		235		389		259		626
1000	583		132		291		182		352
1250	466		85		217		116		225
1500	389		59		151		81		157
1750	333		43		111		59		115
2000	264		33		85		45		88

C Profile GMC384020



Specification

C-profile rail, perforated, toothed

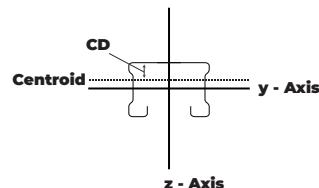
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



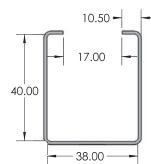
Type GMC38 40 2.0

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC384020	38x40x2.0	228	1.79	19		53125		2356

Load Cases

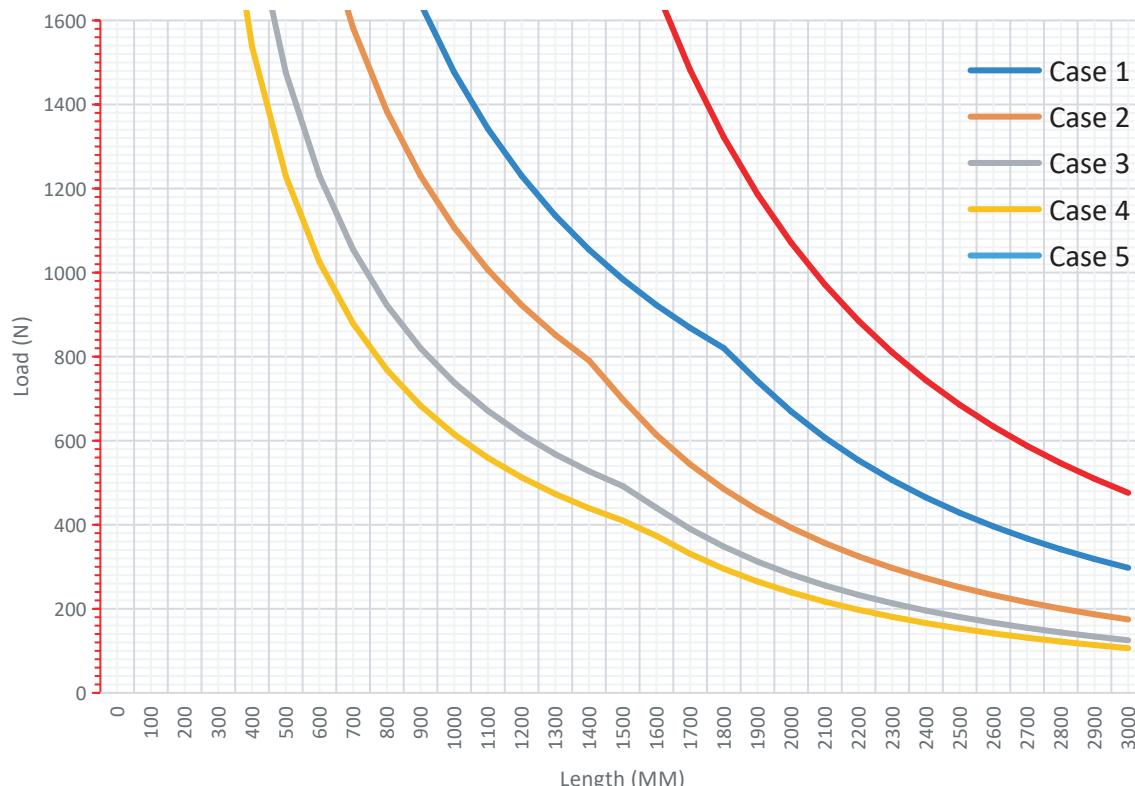
Max Recommended Load - N

F L SPAN mm	CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load					
0	-	-	-	-	-				-	
100	14764	11073	7382	6152	29529					
200	7382	5537	3691	3076	14764					
300	4921	3691	2461	2051	9843					
400	3691	2768	1846	1538	7382					
500	2953	2215	1476	1230	5906					
600	2461	1846	1230	1025	4921					
700	2109	1582	1055	879	4218					
800	1846	1384	923	769	3691					
900	1640	1230	820	684	3281					
1000	1476	1107	738	615	2953					
1100	1342	1007	671	559	2684					
1200	1230	923	615	513	2461					
1300	1136	852	568	473	2271					
1400	1055	791	527	439	2109					
1500	984	698	492	410	1904					
1600	923	614	440	374	1673					
1700	868	544	390	331	1482					
1800	820	485	348	295	1322					
1900	742	435	312	265	1187					
2000	669	393	282	239	1071					
2100	607	356	256	217	971					
2200	553	325	233	198	885					
2300	506	297	213	181	810					
2400	465	273	196	166	744					
2500	428	251	180	153	685					
2600	396	232	167	141	634					
2700	367	216	155	131	588					
2800	342	200	144	122	546					
2900	318	187	134	114	509					
3000	298	175	125	106	476					



Maximum Recommended loads Graph for GMC384020

Calculation Criteria		
Safety Factor	X	= 1.5
Max. Bending Deflection	δ_{zul}	= $L/200$
Module of elasticity	E	= 210000 N/mm ²

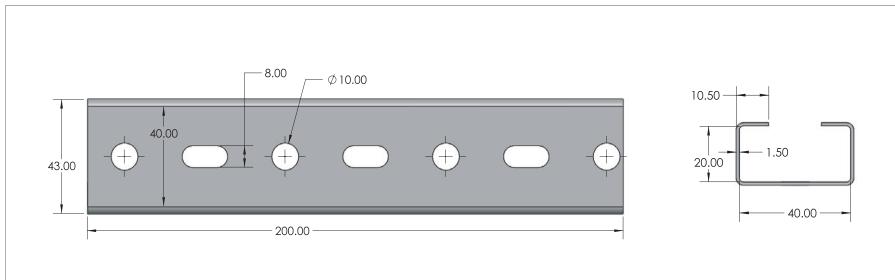
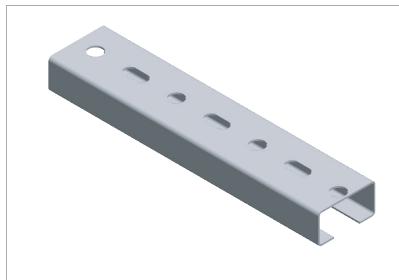


Unsupported Cantilever Load Case for GMC384020

Max Recommended Load - N

CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
F/L	Span [mm]	Cantilever with single load at end of cantilever length L	Cantilever with single load in center of cantilever length L/2	Cantilever with 2 loads, each at L/3	Cantilever with 3 loads, each at L/4	Cantilever with uniform load, cantilever length L	Cantilever with uniform load, cantilever length L	Cantilever with uniform load, cantilever length L	
0	-	-	-	-	-	-	-	-	-
250	2955	1478	1478	1478	985	2955	2955	2955	2955
500	1478	669	739	493	493	1478	1478	1478	1478
750	985	298	493	328	328	793	793	793	793
1000	739	167	369	230	230	446	446	446	446
1250	591	107	275	147	147	286	286	286	286
1500	493	74	191	102	102	198	198	198	198
1750	422	55	141	75	75	146	146	146	146
2000	335	42	108	58	58	112	112	112	112

C Profile GMC402015



Specification

C-profile rail, perforated, toothed

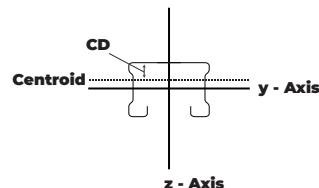
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



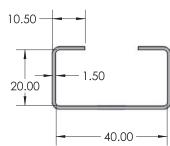
Type GMC40 20 1.5

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC402015	40x20x1.5	115.5	0.907	20		7985		669

Load Cases

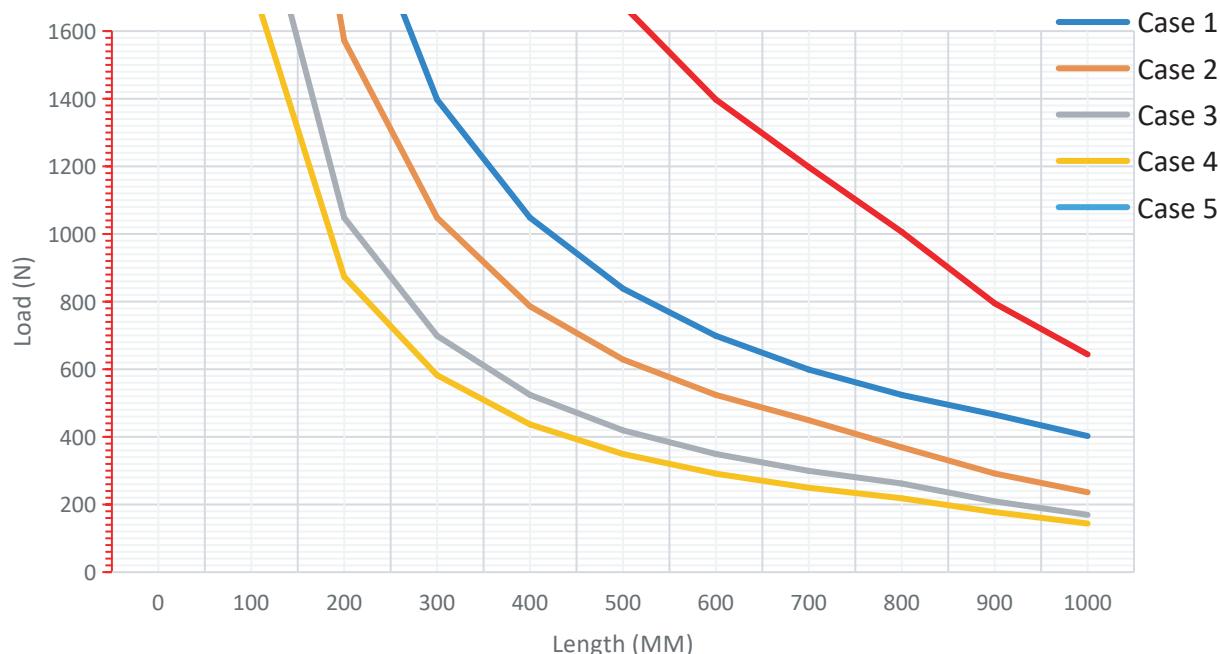
Max Recommended Load - N

F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
0	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
100					
200	4192	3144	2096	1747	8385
300	2096	1572	1048	873	4192
400	1397	1048	699	582	2795
500	1048	786	524	437	2096
600	838	629	419	349	1677
700	699	524	349	291	1397
800	599	449	299	250	1198
900	524	369	262	218	1006
1000	466	292	209	177	795
1100	402	236	169	144	644
1200	333	195	140	119	532
1300	279	164	118	100	447
1400	238	140	100	85	381
1500	205	121	86	73	329
1600	179	105	75	64	286
1700	157	92	66	56	252
1800	139	82	59	50	223
1900	124	73	52	44	199
2000	111	65	47	40	178
2100	101	59	42	36	161
2200	91	54	38	33	146
2300	83	49	35	30	133
2400	76	45	32	27	122
2500	70	41	29	25	112
2600	64	38	27	23	103
2700	60	35	25	21	95
2800	55	32	23	20	88
2900	51	30	22	18	82
3000	48	28	20	17	77
	45	26	19	16	72



Maximum Recommended loads Graph for GMC402015

Calculation Criteria		
Safety Factor	X	= 1.5
Max. Bending Deflection	δ_{zul}	= L/200
Module of elasticity	E	= 210000 N/mm ²

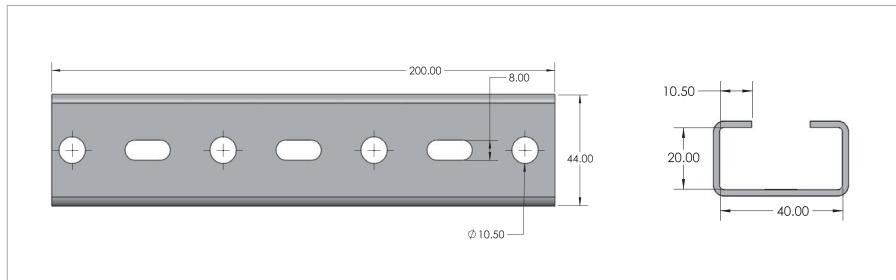
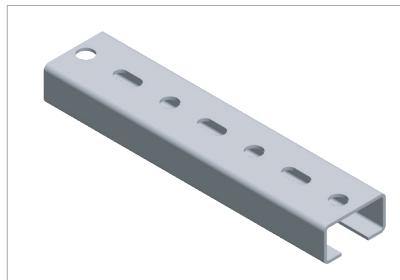


Unsupported Cantilever Load Case for GM412115

Max Recommended Load - N

CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
F/L	Span [mm]	Cantilever with single load at end of cantilever length L	Cantilever with single load in center of cantilever length L/2	Cantilever with 2 loads, each at L/3	Cantilever with 3 loads, each at L/4	Cantilever with uniform load, cantilever length L	Cantilever with uniform load, cantilever length L	Cantilever with uniform load, cantilever length L	
0	-	-	-	-	-	-	-	-	-
250	876	402	438	292	876	-	-	-	-
500	438	101	219	138	268	-	-	-	-
750	292	45	115	62	119	-	-	-	-
1000	201	25	65	35	67	-	-	-	-
1250	129	16	41	22	43	-	-	-	-
1500	89	11	29	15	30	-	-	-	-
1750	66	8	21	11	22	-	-	-	-
2000	50	6	16	9	17	-	-	-	-

C Profile GMC402020



Specification

C-profile rail, perforated, toothed

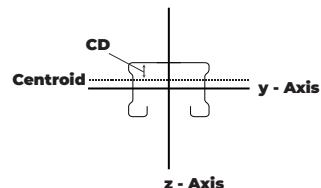
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



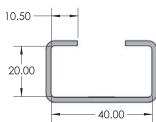
Type GMC40 20 2.0

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC402020	40x20x2.2	152	1.193	20		9763		819

Load Cases

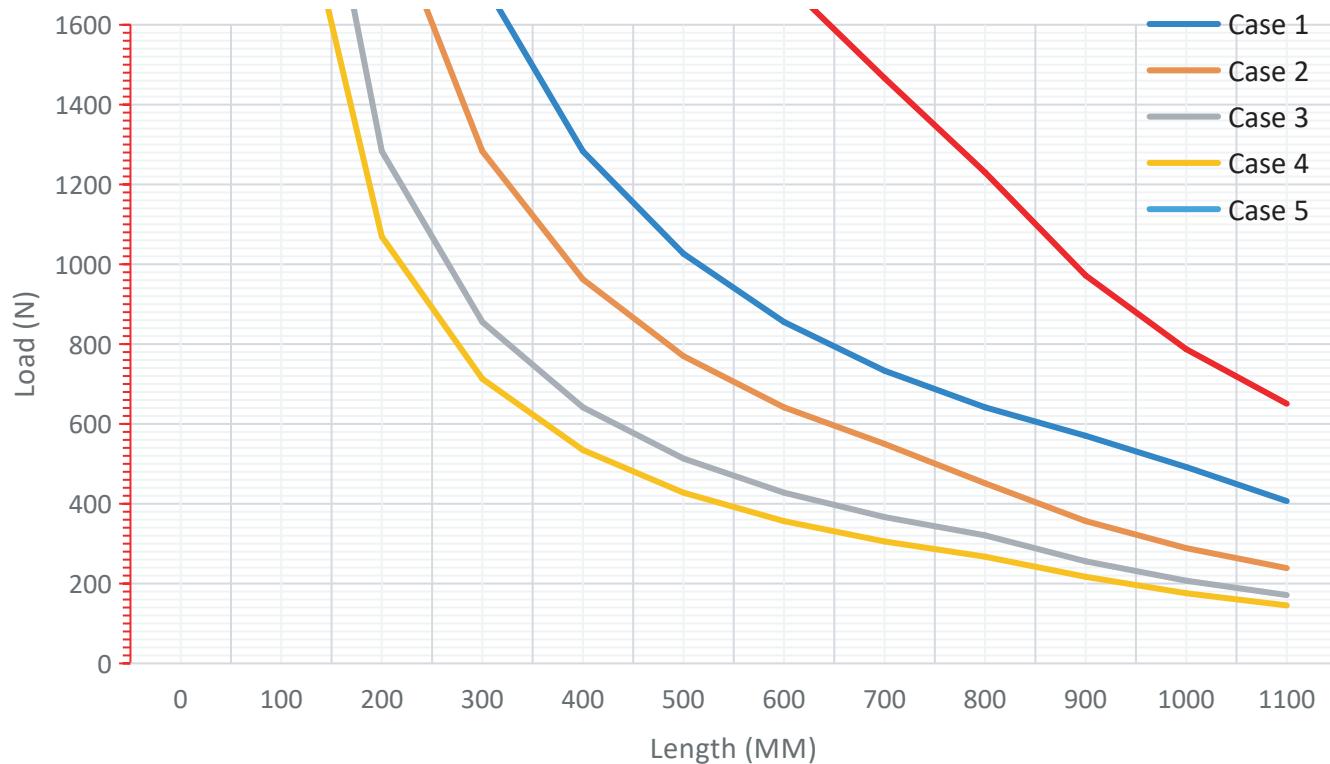
Max Recommended Load - N

F L SPAN mm	CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load					
0	-	-	-	-	-				-	
100	5132	3849	2566	2139	10265					
200	2566	1925	1283	1069	5132					
300	1711	1283	855	713	3422					
400	1283	962	642	535	2566					
500	1026	770	513	428	2053					
600	855	642	428	356	1711					
700	733	550	367	306	1466					
800	642	451	321	267	1230					
900	570	357	256	217	972					
1000	492	289	207	176	787					
1100	407	239	171	145	651					
1200	342	201	144	122	547					
1300	291	171	123	104	466					
1400	251	147	106	90	402					
1500	219	128	92	78	350					
1600	192	113	81	69	308					
1700	170	100	72	61	272					
1800	152	89	64	54	243					
1900	136	80	57	49	218					
2000	123	72	52	44	197					
2100	112	65	47	40	179					
2200	102	60	43	36	163					
2300	93	55	39	33	149					
2400	85	50	36	31	137					
2500	79	46	33	28	126					
2600	73	43	31	26	116					
2700	67	40	28	24	108					
2800	63	37	26	22	100					
2900	59	34	25	21	94					
3000	55	32	23	20	87					



Maximum Recommended loads Graph for GMC402020

Calculation Criteria		
Safety	X	= 1.5
Max. Bending	δ_{zul}	= $L/200$
Module of elasticity	E	= 210000 N/mm ²

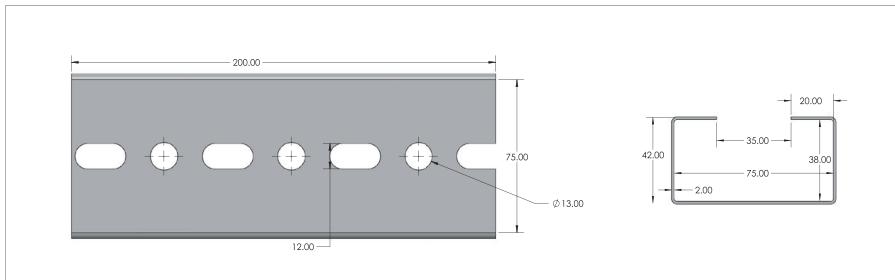
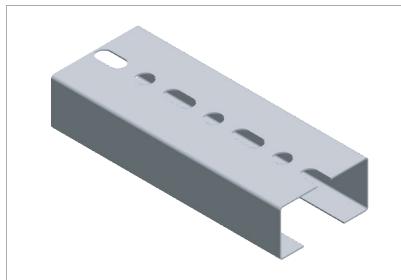


Unsupported Cantilever Load Case for GMC402020

Max Recommended Load - N

F/L	CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
	Span [mm]	Cantilever with single load at end of cantilever length L	Cantilever with single load in center of cantilever length L/2	Cantilever with 2 loads, each at L/3	Cantilever with 3 loads, each at L/4	Cantilever with uniform load, cantilever length				
0	-	-	-	-	-	-	-	-	-	-
250	1026	-	492	-	513	-	342	-	1026	-
500	513	-	123	-	257	-	169	-	328	-
750	342	-	55	-	141	-	75	-	146	-
1000	246	-	31	-	79	-	42	-	82	-
1250	157	-	20	-	51	-	27	-	52	-
1500	109	-	14	-	35	-	19	-	36	-
1750	80	-	10	-	26	-	14	-	27	-
2000	62	-	8	-	20	-	11	-	21	-

C Profile GMC753820



Specification

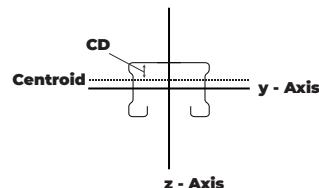
C-profile rail, perforated, toothed

Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material:	S250GD
Material type:	pre-galvanized (Z-275)
Material:	S235JR
Material type:	hot-dip galvanized epoxy coated



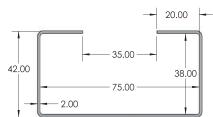
Type GM41 21 1.5

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC753820	75x38x2.0	294	2.308	37.5	302722	80133	3557	3557

Load Cases

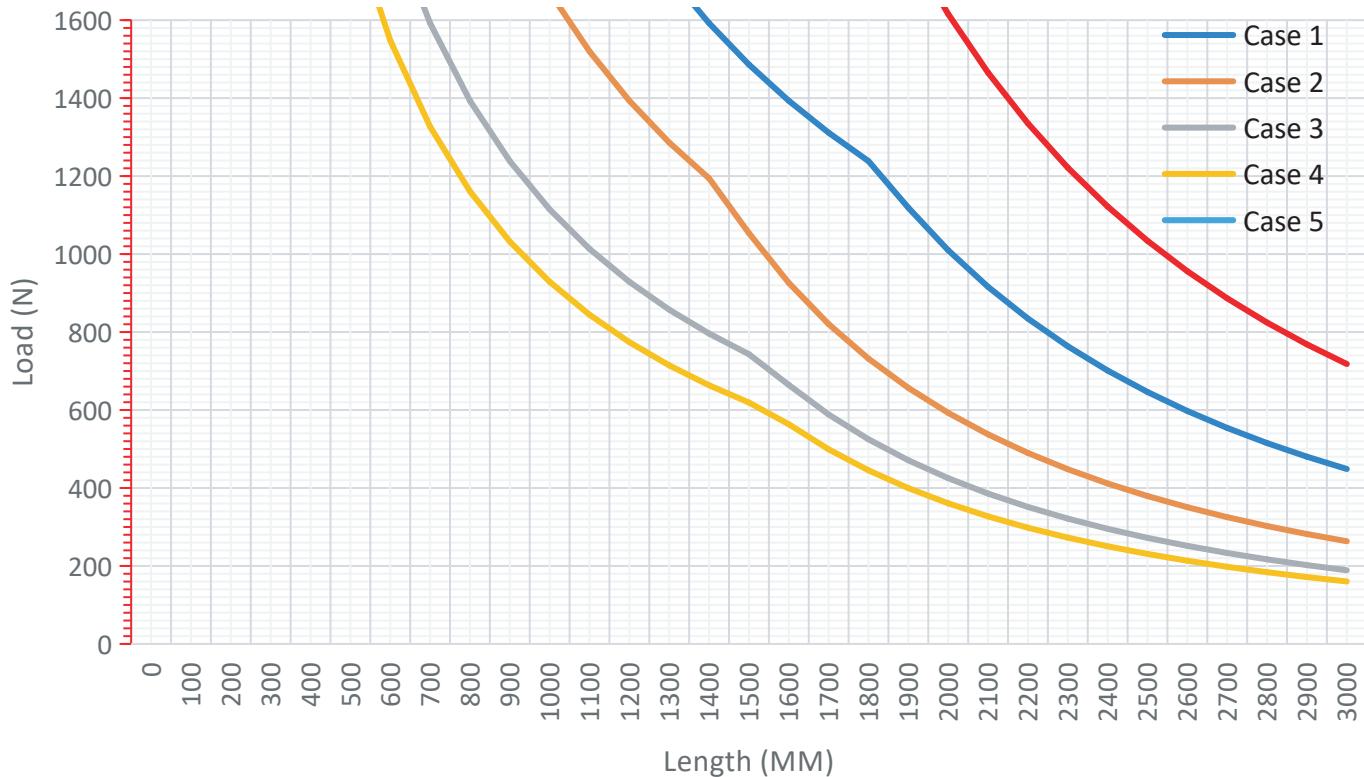
Max Recommended Load - N

F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
0					
100	22291	16718	11145	9288	44581
200	11145	8359	5573	4644	22291
300	7430	5573	3715	3096	14860
400	5573	4179	2786	2322	11145
500	4458	3344	2229	1858	8916
600	3715	2786	1858	1548	7430
700	3184	2388	1592	1327	6369
800	2786	2090	1393	1161	5573
900	2477	1858	1238	1032	4953
1000	2229	1672	1115	929	4458
1100	2026	1520	1013	844	4053
1200	1858	1393	929	774	3715
1300	1715	1286	857	714	3429
1400	1592	1194	796	663	3184
1500	1486	1054	743	619	2872
1600	1393	926	664	563	2524
1700	1311	820	588	499	2236
1800	1238	732	525	445	1994
1900	1119	657	471	400	1790
2000	1010	593	425	361	1615
2100	916	538	386	327	1465
2200	834	490	351	298	1335
2300	763	448	321	273	1222
2400	701	412	295	250	1122
2500	646	379	272	231	1034
2600	597	351	252	213	956
2700	554	325	233	198	886
2800	515	302	217	184	824
2900	480	282	202	172	768
3000	449	263	189	160	718



Maximum Recommended loads Graph for GMC753820

Calculation Criteria		
Safety	X	= 1.5
Max. Bending	δ_{zul}	= L/200
Module of elasticity	E	= 210000 N/mm ²

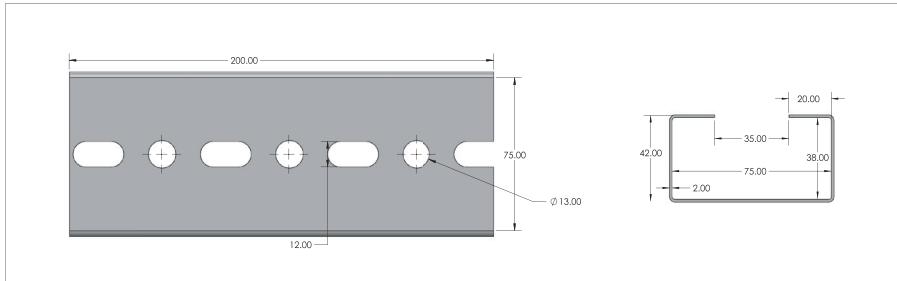
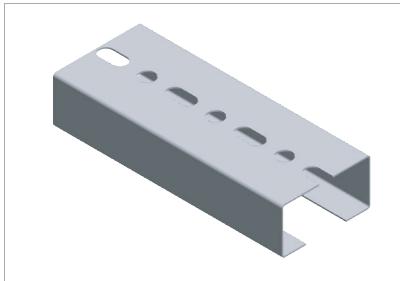


Unsupported Cantilever Load Case for GMC753820

Max Recommended Load - N

CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
F L	Cantilever with single load at end of cantilever length L	F L/2	Cantilever with single load in center of cantilever length L/2	F L/3	Cantilever with 2 loads, each at L/3	F L/4	Cantilever with 3 loads, each at L/4	F L	Cantilever with uniform load, cantilever length
Span [mm]									
0	-	-	-	-	-	-	-	-	-
250	4458	2229	2229	2229	1486	1486	1486	1486	4458
500	2229	1010	1010	1115	743	743	743	743	2229
750	1486	449	449	743	495	495	495	495	1197
1000	1115	252	252	557	347	347	347	347	673
1250	892	162	162	415	222	222	222	222	431
1500	743	112	112	288	154	154	154	154	299
1750	637	82	82	212	113	113	113	113	220
2000	505	63	63	162	87	87	87	87	168

C Profile GMC753820 - Z -Axis



Specification

C-profile rail, perforated, toothed

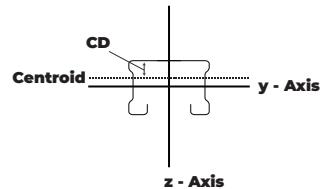
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



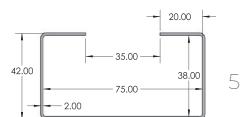
Type GMC75 38 2.0

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC753820	75x38x2.0	294	2.308	37.5	302722	80133	3557	3557

Load Cases

Max Recommended Load - N

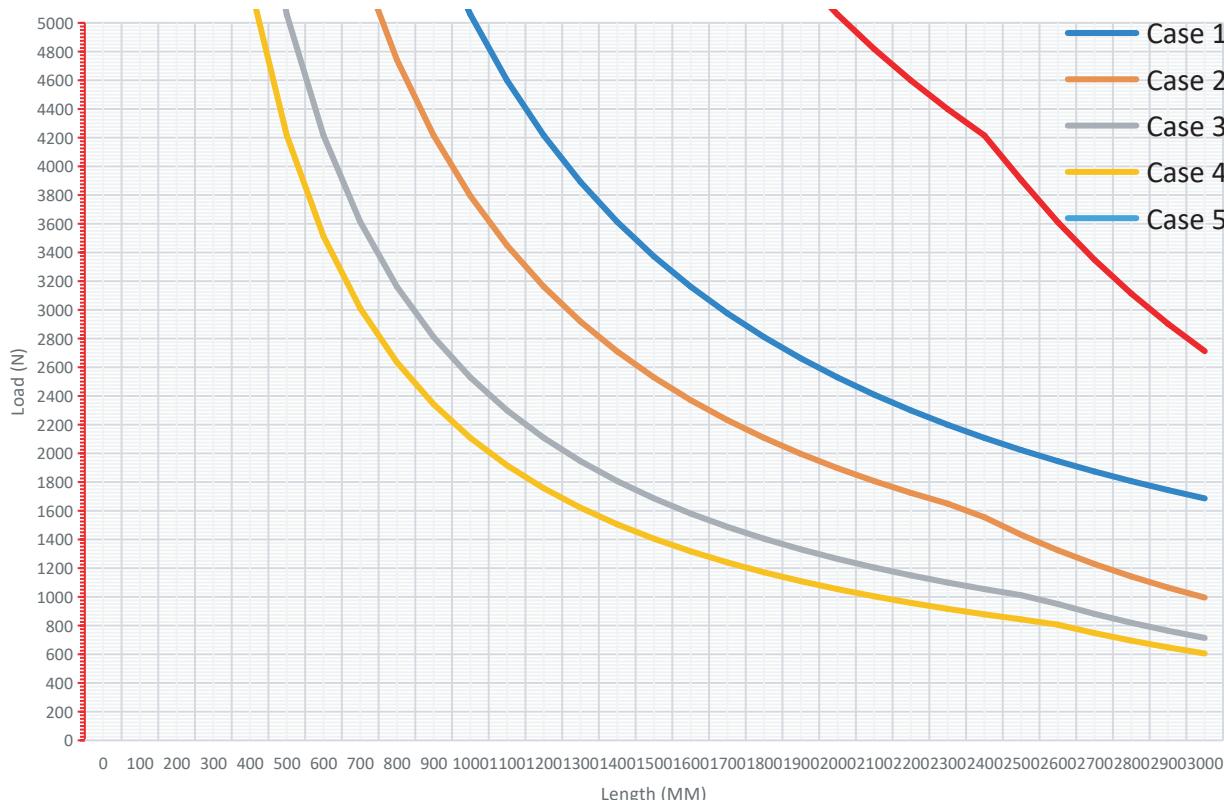
F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
0	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
100	f ₀	f ₀	f ₀	f ₀	f ₀
200	L/2	L/3 L/3 L/3	L/4 L/4 L/4 L/4	L/5 L/5 L/5 L/5	L
300	-	-	-	-	-
400	50585	37938	25292	21077	101169
500	25292	18969	12646	10538	50585
600	16862	12646	8431	7026	33723
700	12646	9485	6323	5269	25292
800	10117	7588	5058	4215	20234
900	8431	6323	4215	3513	16862
1000	7226	5420	3613	3011	14453
1100	6323	4742	3162	2635	12646
1200	5621	4215	2810	2342	11241
1300	5058	3794	2529	2108	10117
1400	4599	3449	2299	1916	9197
1500	4215	3162	2108	1756	8431
1600	3891	2918	1946	1621	7782
1700	3613	2710	1807	1505	7226
1800	3372	2529	1686	1405	6745
1900	3162	2371	1581	1317	6323
2000	2976	2232	1488	1240	5951
2100	2918	2108	1405	1171	5621
2200	2810	1997	1331	1109	5325
2300	2662	1897	1265	1054	5058
2400	2529	1807	1204	1004	4818
2500	2409	1724	1150	958	4599
2600	2299	1649	1100	916	4399
2700	2199	1555	1054	878	4215
2800	2108	1433	1012	843	3906
2900	2023	1325	950	806	3611
3000	1946	1228	881	748	3349
	1874	1142	819	695	3114
	1807	1065	764	648	2903
	1744	995	714	605	2712



Maximum Recommended loads Graph for GMC753820 - Z - Axis

Calculation Criteria

Safety	X	= 1.5
Max. Bending	δ_{zul}	= L/200
Module of elasticity	E	= 210000 N/mm ²

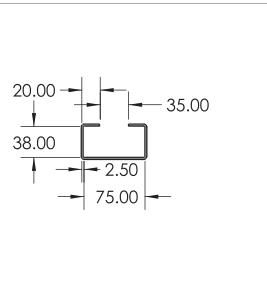
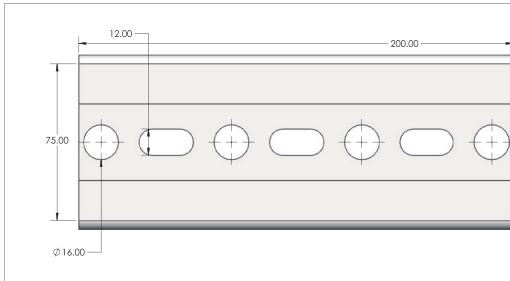
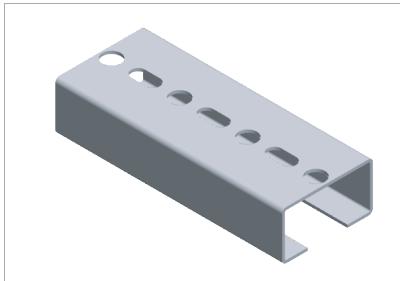


Unsupported Cantilever Load Case for GMC753820 - Z - Axis

Max Recommended Load - N

CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
F L	Cantilever with single load at end of cantilever length L	F _{max}	Cantilever with single load in center of cantilever length L/2	F _{max}	Cantilever with 2 loads, each at L/3	F _{max}	Cantilever with 3 loads, each at L/4	F _{max}	Cantilever with uniform load, cantilever length L
Span [mm]									
0	-	-	-	-	-	-	-	-	-
250	10117	5058	5058	5058	3372	3372	3372	3372	10117
500	5058	2529	2529	2529	1686	1686	1686	1686	5058
750	3372	1686	1686	1686	1124	1124	1124	1124	3372
1000	2529	954	1265	1265	843	843	843	843	2529
1250	2023	610	1012	1012	674	674	674	674	1627
1500	1686	424	843	843	562	562	562	562	1130
1750	1445	311	723	723	429	429	429	429	830
2000	1265	238	613	613	328	328	328	328	636

C Profile GMC753825



Specification

C-profile rail, perforated, toothed

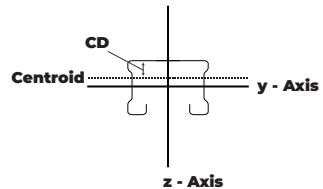
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



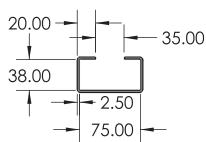
Type GMC75 38 2.5

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC753825	75x38x2.5	365	2.865	37.5	341020	95907	7594	4258

Load Cases

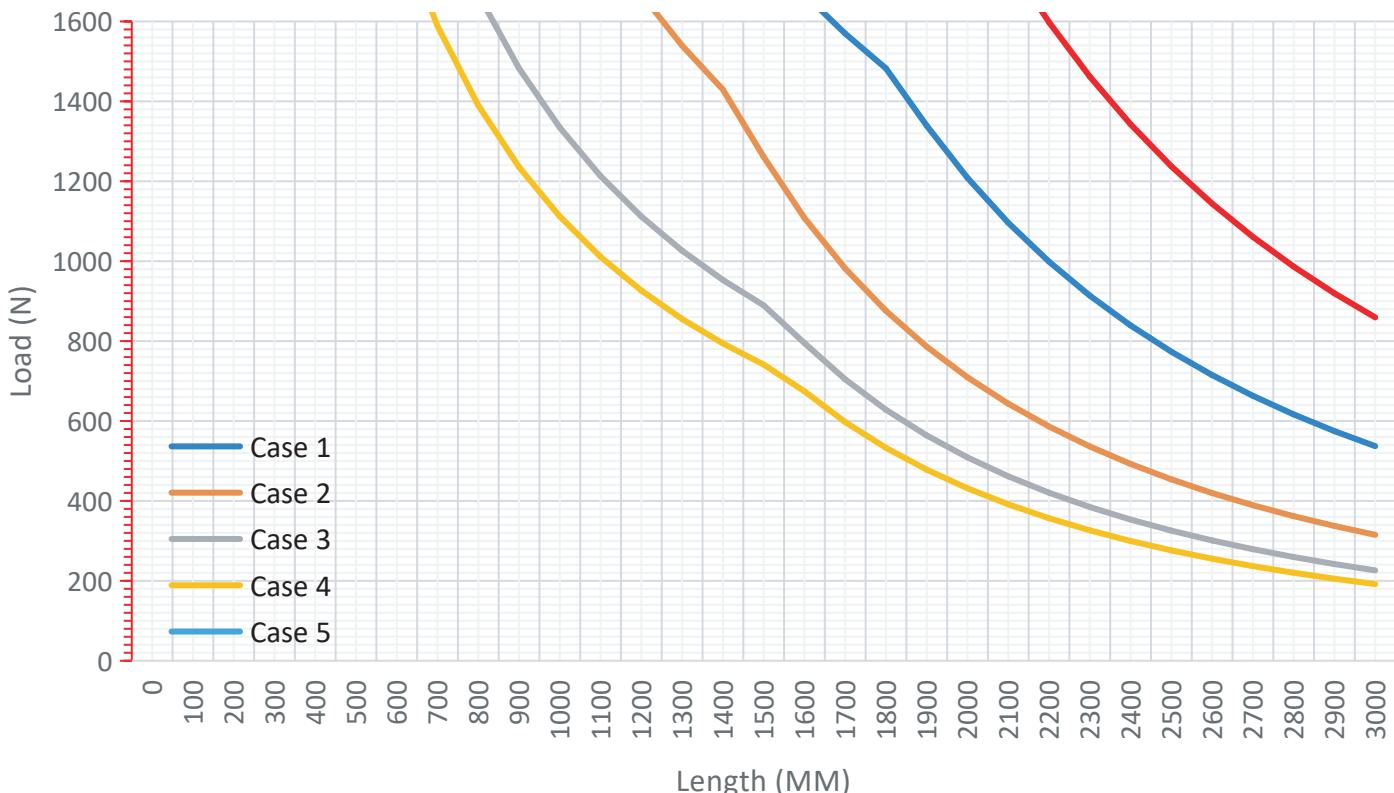
Max Recommended Load - N

F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
0	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
100	f ₀	f ₀	f ₀	f ₀	f ₀
200	L/2 L/2	L/3 L/3 L/3	L/4 L/4 L/4 L/4	L/5 L/5 L/5 L/5	L
300	—	—	—	—	—
400	26683	20013	13342	11118	53367
500	13342	10006	6671	5559	26683
600	8894	6671	4447	3706	17789
700	6671	5003	3335	2780	13342
800	5337	4003	2668	2224	10673
900	4447	3335	2224	1853	8894
1000	3812	2859	1906	1588	7624
1100	3335	2502	1668	1390	6671
1200	3053	2224	1482	1235	5930
1300	2779	2001	1334	1112	5337
1400	2426	1819	1213	1011	4852
1500	2224	1668	1112	927	4447
1600	2053	1539	1026	855	4105
1700	1906	1429	953	794	3812
1800	1779	1261	889	741	3437
1900	1668	1108	795	674	3021
2000	1559	982	704	597	2676
2100	1462	876	628	533	2387
2200	1373	786	564	478	2142
2300	1286	709	509	432	1933
2400	1208	643	461	391	1754
2500	1133	586	420	357	1598
2600	1056	536	385	326	1462
2700	979	493	353	300	1343
2800	906	454	326	276	1237
2900	839	420	301	255	1144
3000	773	389	279	237	1061
	715	362	260	220	986
	663	337	242	205	920
	617	315	226	192	859



Maximum Recommended loads Graph for GMC753825

Calculation Criteria		
Safety Factor X	= 1.5	
Max. Bending Deflection δ_{zul}	= L/200	
Module of elasticity E	= 210000 N/mm ²	

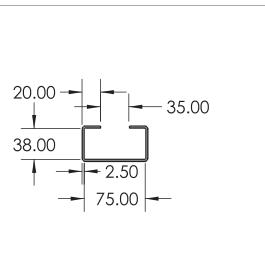
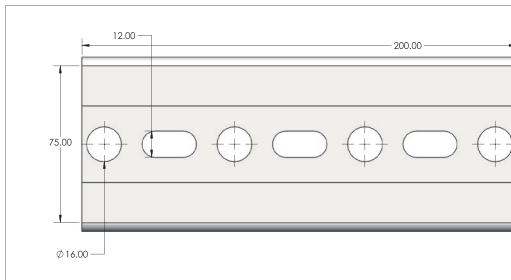
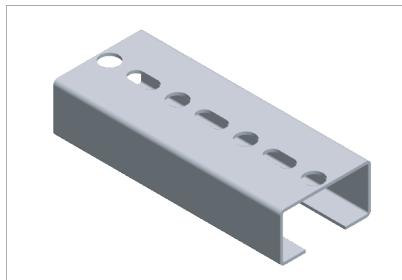


Unsupported Cantilever Load Case for GMC753825

Max Recommended Load - N

CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
F/L	Cantilever with single load at end of cantilever length L	Cantilever with single load in center of cantilever length L/2	Cantilever with 2 loads, each at L/3	Cantilever with 3 loads, each at L/4	Cantilever with uniform load, cantilever length				
Span [mm]									
0	-	-	-	-	-	-	-	-	-
250	5337	2668	2668	1779	5337				
500	2668	1208	1334	889	2668				
750	1779	537	889	593	1432				
1000	1334	302	667	416	806				
1250	1067	193	497	266	516				
1500	889	134	345	185	358				
1750	762	99	254	136	263				
2000	604	76	194	104	201				

C Profile GMC753825 - Z -Axis



Specification

C-profile rail, perforated, toothed

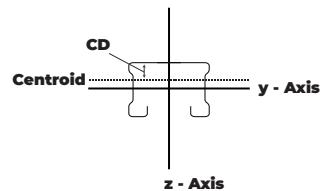
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized epoxy coated



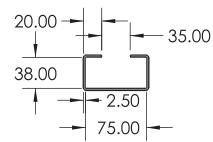
Type GMC75 38 2.5

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC753825	75x38x2.5	365	2.865	37.5	341020	95907	7594	4258

Load Cases

Max Recommended Load - N

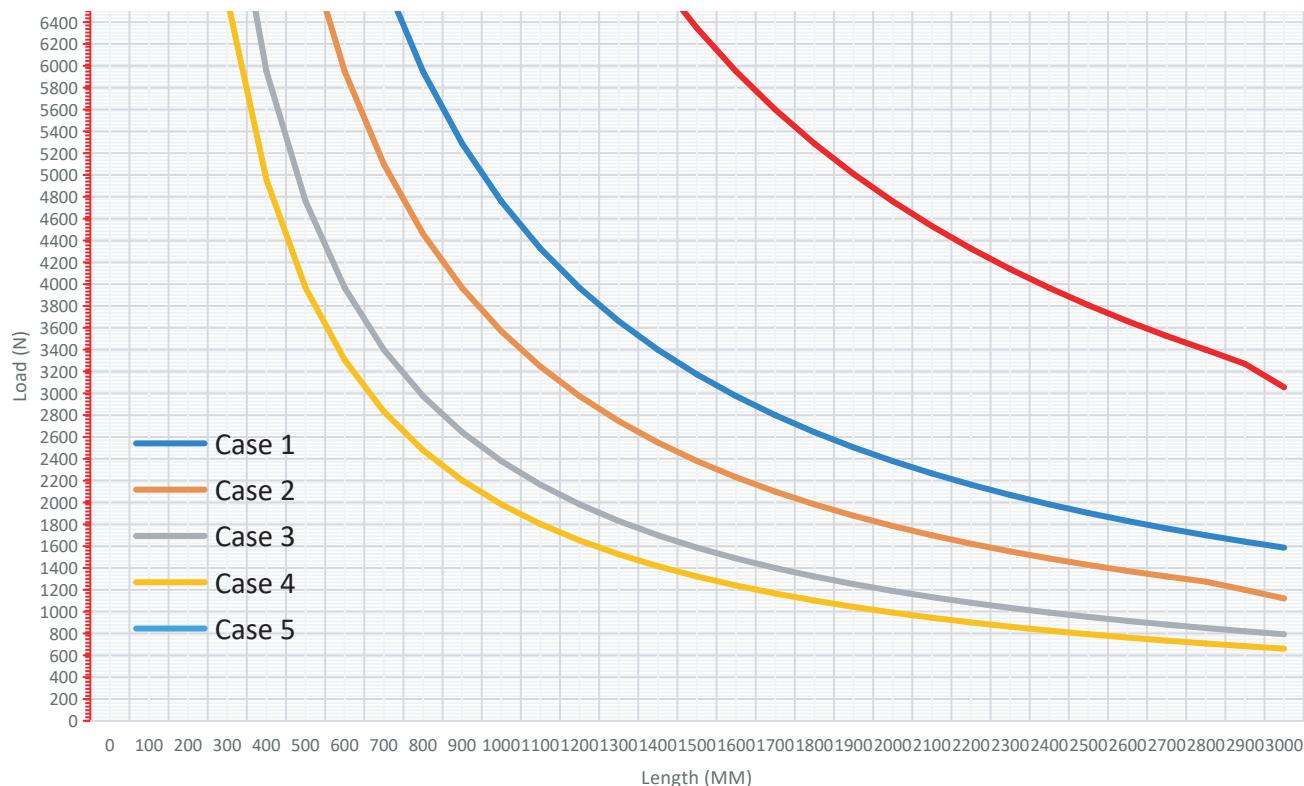
F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
0	f ₀				
100	47589	35692	23795	19829	95178
200	23795	17846	11897	9914	47589
300	15863	11897	7932	6610	31726
400	11897	8923	5949	4957	23795
500	9518	7138	4759	3966	19036
600	7932	5949	3966	3305	15863
700	6798	5099	3399	2833	13597
800	5949	4461	2974	2479	11897
900	5288	3966	2644	2203	10575
1000	4759	3569	2379	1983	9518
1100	4326	3245	2163	1803	8653
1200	3966	2974	1983	1652	7932
1300	3661	2746	1830	1525	7321
1400	3399	2549	1700	1416	6798
1500	3173	2379	1586	1322	6345
1600	2974	2231	1487	1239	5949
1700	2799	2100	1400	1166	5599
1800	2644	1983	1322	1102	5288
1900	2505	1879	1252	1044	5009
2000	2379	1785	1190	991	4759
2100	2266	1700	1133	944	4532
2200	2163	1622	1082	901	4326
2300	2069	1552	1035	862	4138
2400	1983	1487	991	826	3966
2500	1904	1428	952	793	3807
2600	1830	1373	915	763	3661
2700	1763	1322	881	734	3525
2800	1700	1275	850	708	3399
2900	1641	1200	821	684	3270
3000	1586	1121	793	661	3056



Maximum Recommended loads Graph for GMC753825 - Z -Axis

Calculation Criteria

Safety Factor $X = 1.5$
 Max. Bending Deflection $\delta_{zul} = L/200$
 Module of elasticity $E = 210000 \text{ N/mm}^2$

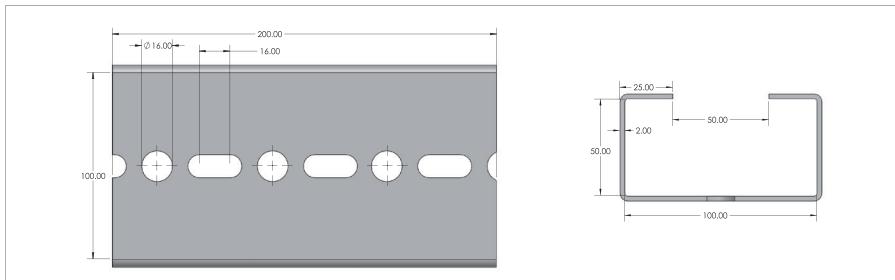
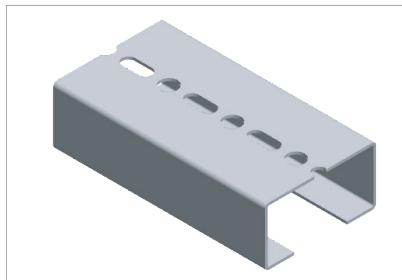


Unsupported Cantilever Load Case for GMC753825 - Z -Axis

Max Recommended Load - N

CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
F L	Cantilever with single load at end of cantilever length L	Cantilever with single load in center of cantilever length L/2	Cantilever with 2 loads, each at L/3	Cantilever with 3 loads, each at L/4	Cantilever with uniform load, cantilever length				
Span [mm]									
0	-	-	-	-	-				
250	9518	4759	4759	3173	9518				
500	4759	2379	2379	1586	4759				
750	3173	1586	1586	1058	3173				
1000	2379	1074	1190	793	2379				
1250	1904	687	952	635	1833				
1500	1586	477	793	529	1273				
1750	1360	351	680	453	935				
2000	1190	269	595	370	716				

C Profile GMC1005020



Specification

C-profile rail, perforated, toothed

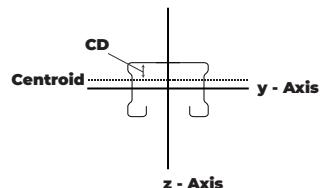
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



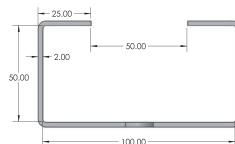
Type GMC100 50 2.0

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC1005020	100x50x2.0	392	3.077	50	733043	295647	14660	6250

Load Cases

Max Recommended Load - N

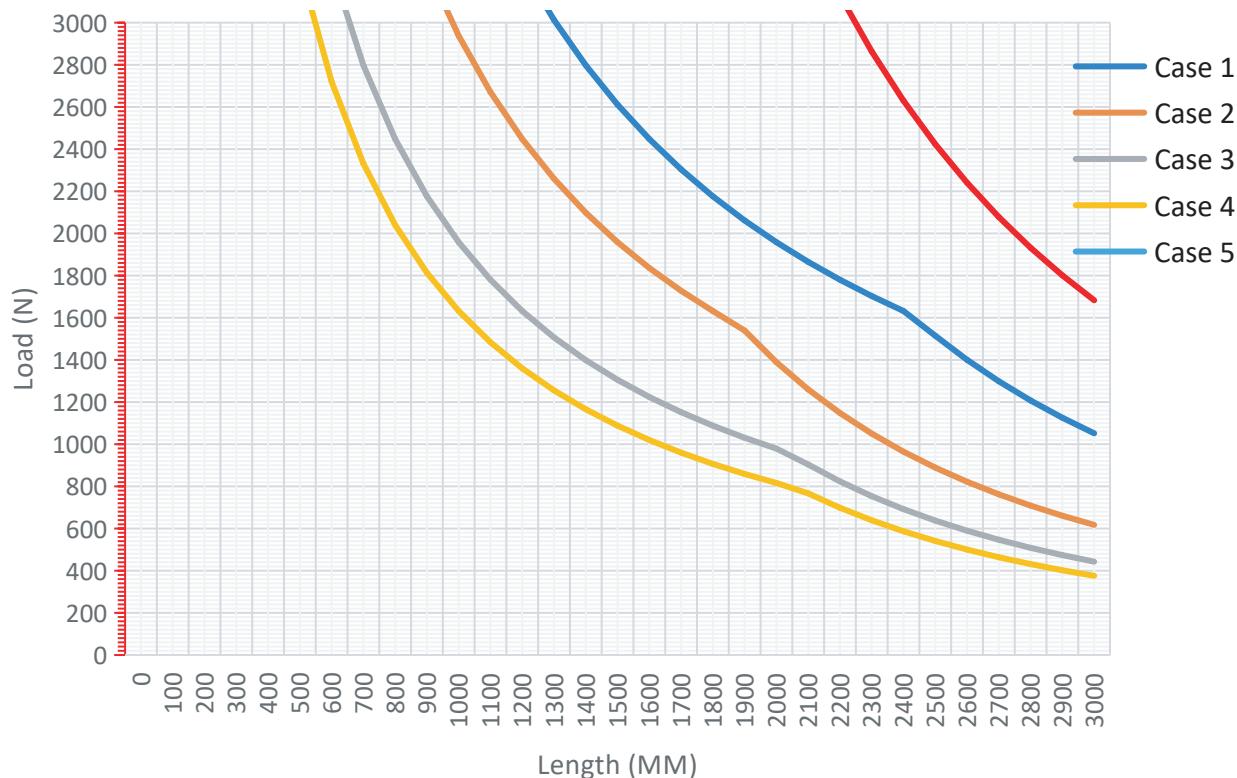
F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
0	—	—	—	—	—
100	39167	29375	19583	16319	78333
200	19583	14688	9792	8160	39167
300	13056	9792	6528	5440	26111
400	9792	7344	4896	4080	19583
500	7833	5875	3917	3264	15667
600	6528	4896	3264	2720	13056
700	5595	4196	2798	2331	11190
800	4896	3672	2448	2040	9792
900	4352	3264	2176	1813	8704
1000	3917	2938	1958	1632	7833
1100	3561	2670	1780	1484	7121
1200	3264	2448	1632	1360	6528
1300	3013	2260	1506	1255	6026
1400	2798	2098	1399	1166	5595
1500	2611	1958	1306	1088	5222
1600	2448	1836	1224	1020	4896
1700	2304	1728	1152	960	4608
1800	2176	1632	1088	907	4352
1900	2061	1539	1031	859	4123
2000	1958	1389	979	816	3787
2100	1865	1260	904	767	3435
2200	1780	1148	824	699	3129
2300	1703	1050	753	639	2863
2400	1632	965	692	587	2630
2500	1515	889	638	541	2423
2600	1400	822	590	500	2241
2700	1299	762	547	464	2078
2800	1207	709	508	431	1932
2900	1126	661	474	402	1801
3000	1052	617	443	376	1683



Maximum Recommended loads Graph for GMC1005020

Calculation Criteria

Safety Factor $X = 1.5$
 Max. Bending Deflection $\delta_{zul} = L/200$
 Module of elasticity $E = 210000 \text{ N/mm}^2$

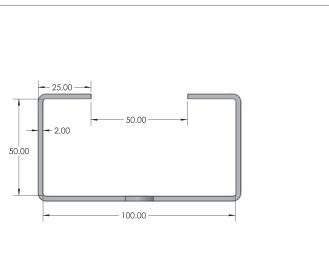
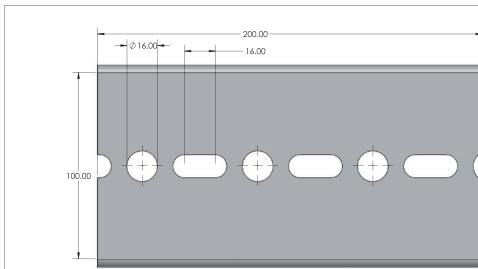
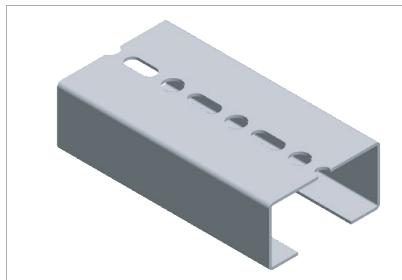


Unsupported Cantilever Load Case for GMC1005020

Max Recommended Load - N

CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
F/L	Cantilever with single load at end of cantilever length L	F_max	Cantilever with single load in center of cantilever length L/2	F_max	Cantilever with 2 loads, each at L/3	F_max	Cantilever with 3 loads, each at L/4	F_max	Cantilever with uniform load, cantilever length L
Span [mm]									
0	-		-	-	-	-	-	-	-
250	9518		4759		4759		3173		9518
500	4759		2379		2379		1586		4759
750	3173		1586		1586		1058		3173
1000	2379		1074		1190		793		2379
1250	1904		687		952		635		1833
1500	1586		477		793		529		1273
1750	1360		351		680		453		935
2000	1190		269		595		370		716

C Profile GMC1005020 - Z - Axis



Specification

C-profile rail, perforated, toothed

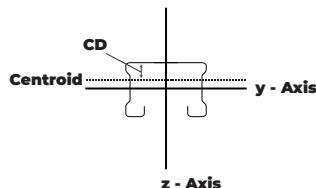
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated

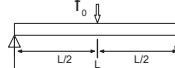
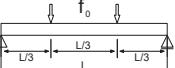
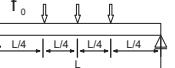
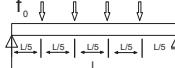
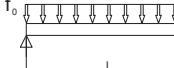


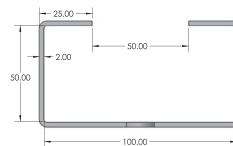
Type GMC100 50 2.0

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC1005020	100x50x2.0	392	3.077	50	733043	295647	14660	6250

Load Cases

Max Recommended Load - N

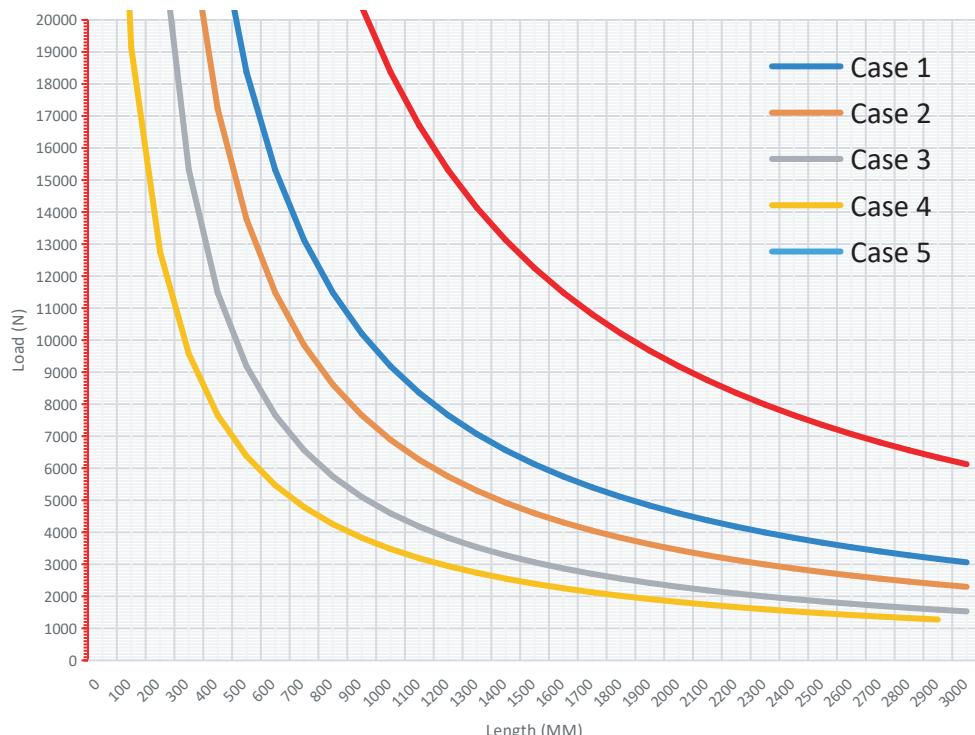
F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
0	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
100					
200	91869	68902	45935	38279	183739
300	45935	34451	22967	19139	91869
400	30623	22967	15312	12760	61246
500	22967	17226	11484	9570	45935
600	18374	13780	9187	7656	36748
700	15312	11484	7656	6380	30623
800	13124	9843	6562	5468	26248
900	11484	8613	5742	4785	22967
1000	10208	7656	5104	4253	20415
1100	9187	6890	4593	3828	18374
1200	8352	6264	4176	3480	16704
1300	7656	5742	3828	3190	15312
1400	7067	5300	3533	2945	14134
1500	6562	4922	3281	2734	13124
1600	6125	4593	3062	2552	12249
1700	5742	4306	2871	2392	11484
1800	5404	4053	2702	2252	10808
1900	5104	3828	2552	2127	10208
2000	4835	3626	2418	2015	9670
2100	4593	3445	2297	1914	9187
2200	4375	3281	2187	1823	8749
2300	4176	3132	2088	1740	8352
2400	3994	2996	1997	1664	7989
2500	3828	2871	1914	1595	7656
2600	3675	2756	1837	1531	7350
2700	3533	2650	1767	1472	7067
2800	3403	2552	1701	1418	6805
2900	3281	2461	1641	1367	6562
3000	3168	2376	1584	1320	6336
	3062	2297	1531	1276	6125



Maximum Recommended loads Graph for GMC1005020 - Z - Axis

Calculation Criteria

Safety Factor $X = 1.5$
 Max. Bending Deflection $\delta_{zul} = L/200$
 Module of elasticity $E = 210000 \text{ N/mm}^2$

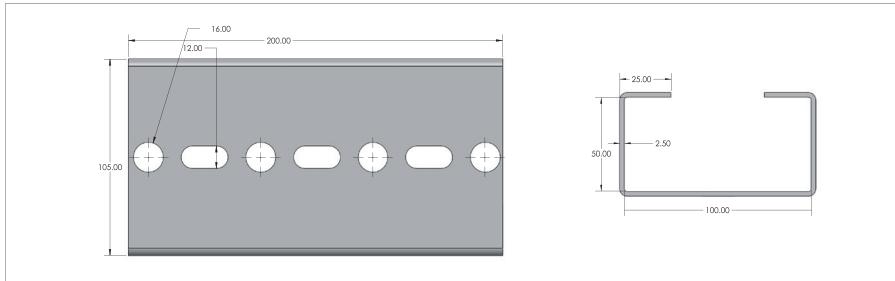
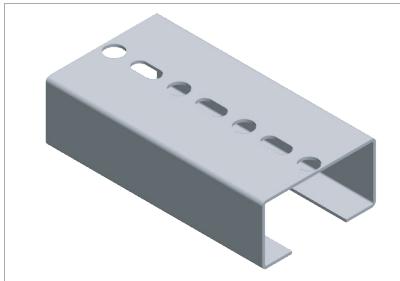


Unsupported Cantilever Load Case for GMC1005020 - Z - Axis

Max Recommended Load - N

CASE 1		CASE 2	CASE 3	CASE 4	CASE 5
F L	Cantilever with single load at end of cantilever length L	Cantilever with single load in center of cantilever length L/2	Cantilever with 2 loads, each at L/3	Cantilever with 3 loads, each at L/4	Cantilever with uniform load, cantilever length L
Span [mm]					
0	-	-	-	-	-
250	9518	4759	4759	3173	9518
500	4759	2379	2379	1586	4759
750	3173	1586	1586	1058	3173
1000	2379	1074	1190	793	2379
1250	1904	687	952	635	1833
1500	1586	477	793	529	1273
1750	1360	351	680	453	935
2000	1190	269	595	370	716

C Profile GMC1005025



Specification

C-profile rail, perforated, toothed

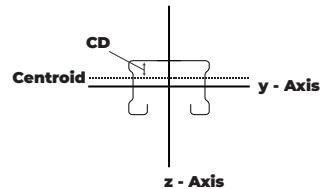
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



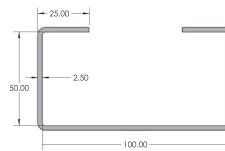
Type GMC100 50 2.5

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC1005025	100x50x2.5	487.5	3.827	50	1061500	896148	17922	17039

Load Cases

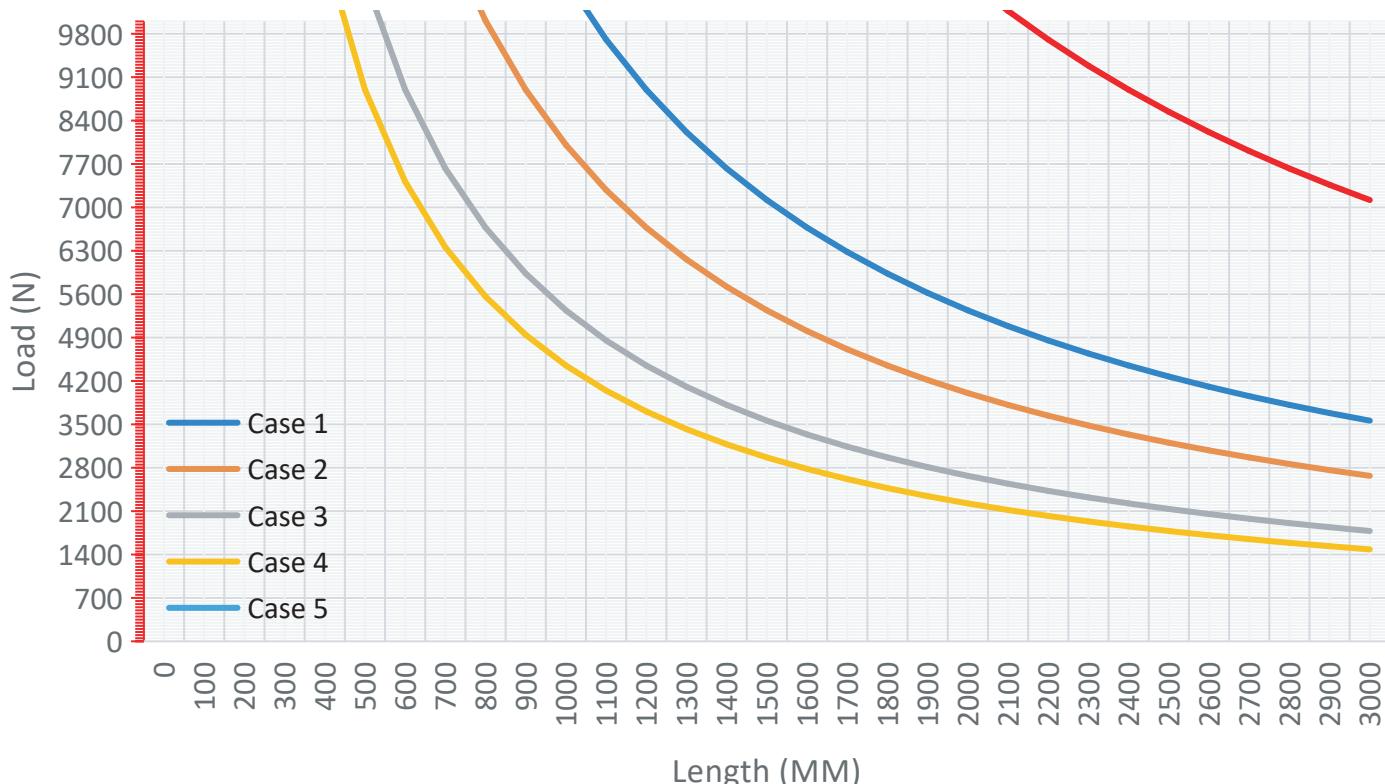
Max Recommended Load - N

F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
0	—	—	—	—	—
100	106778	80083	53389	44491	213555
200	53389	40042	26694	22245	106778
300	35593	26694	17796	14830	71185
400	26694	20021	13347	11123	53389
500	21356	16017	10678	8898	42711
600	17796	13347	8898	7415	35593
700	15254	11440	7627	6356	30508
800	13347	10010	6674	5561	26694
900	11864	8898	5932	4943	23728
1000	10678	8008	5339	4449	21356
1100	9707	7280	4854	4045	19414
1200	8898	6674	4449	3708	17796
1300	8214	6160	4107	3422	16427
1400	7627	5720	3813	3178	15254
1500	7119	5339	3559	2966	14237
1600	6674	5005	3337	2781	13347
1700	6281	4711	3141	2617	12562
1800	5932	4449	2966	2472	11864
1900	5620	4215	2810	2342	11240
2000	5339	4004	2669	2225	10678
2100	5085	3813	2542	2119	10169
2200	4854	3640	2427	2022	9707
2300	4643	3482	2321	1934	9285
2400	4449	3337	2225	1854	8898
2500	4271	3203	2136	1780	8542
2600	4107	3080	2053	1711	8214
2700	3955	2966	1977	1648	7909
2800	3813	2860	1907	1589	7627
2900	3682	2761	1841	1534	7364
3000	3559	2669	1780	1483	7119



Maximum Recommended loads Graph for GMC1005025

Calculation Criteria		
Safety Factor	X	= 1.5
Max. Bending Deflection	δ_{zul}	= L/200
Module of elasticity	E	= 210000 N/mm ²

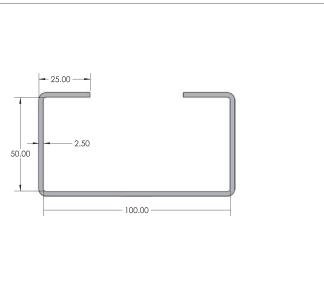
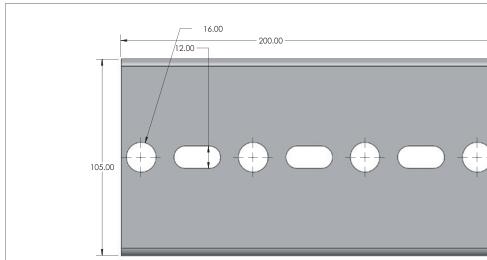
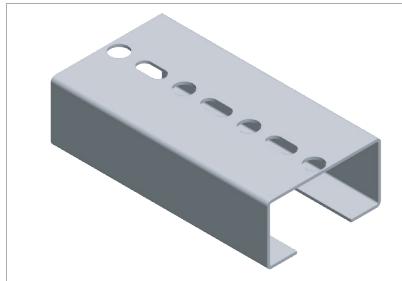


Unsupported Cantilever Load Case for GMC1005025

Max Recommended Load - N

CASE 1		CASE 2		CASE 3		CASE 4		CASE 5	
F/L	Cantilever with single load at end of cantilever length L	F _{max}	Cantilever with single load in center of cantilever length L/2	F _{max}	Cantilever with 2 loads, each at L/3	F _{max}	Cantilever with 3 loads, each at L/4	F _{max}	Cantilever with uniform load, cantilever length L
Span [mm]									
0	-		-		-		-		-
250	21356		10678		10678		7119		21356
500	10678		5339		5339		3559		10678
750	7119		3559		3559		2373		7119
1000	5339		2669		2669		1780		5339
1250	4271		2136		2136		1424		4271
1500	3559		1486		1780		1186		3559
1750	3051		1092		1525		1017		2912
2000	2669		836		1335		890		2229

C Profile GMC1005025 - Z - Axis



Specification

C-profile rail, perforated, toothed

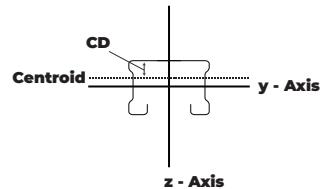
Mounting method

Form-locking connections and shear hole haunch connections

Technical data

Material: S250GD
Material type: pre-galvanized (Z-275)

Material: S235JR
Material type: hot-dip galvanized
epoxy coated



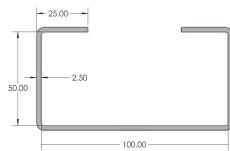
Type GMC100 50 2.5

Identification	Size [mm/mm]	Area [mm ²]	Weight [kg/mtr]	Centroid dist CD [mm]	Moment of Inertia mm ⁴ Z-AXIS	Moment of Inertia mm ⁴ Y-AXIS	Resistant Module mm Z-AXIS	Resistant Module mm ³ Y-AXIS
GMC1005025	100x50x2.5	487.5	3.827	50	1061500	896148	17922	17039

Load Cases

Max Recommended Load - N

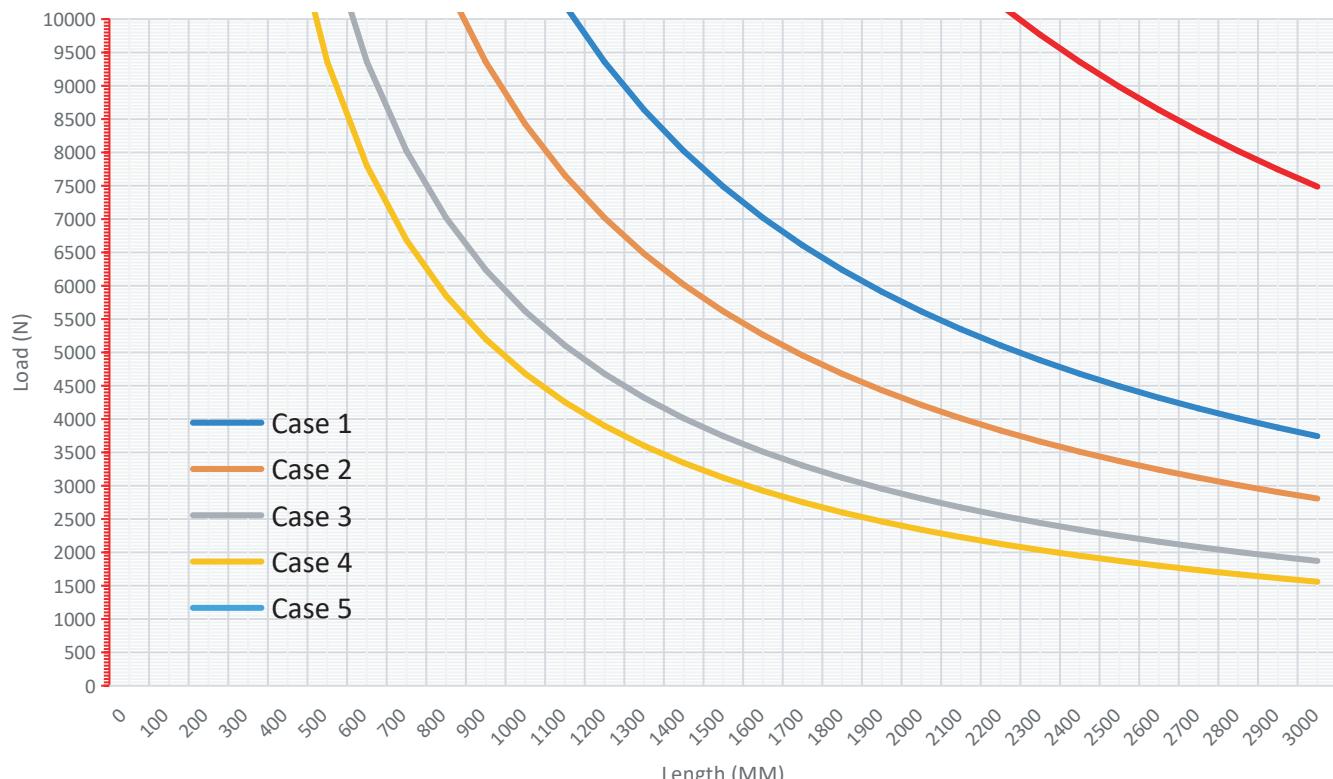
F L SPAN mm	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
	Single point load at center	2 point loads, equidistant	3 point loads, equidistant	4 point loads, equidistant	Uniformly distributed load
0					
100	112311	84233	56156	46796	224622
200	56156	42117	28078	23398	112311
300	37437	28078	18719	15599	74874
400	28078	21058	14039	11699	56156
500	22462	16847	11231	9359	44924
600	18719	14039	9359	7799	37437
700	16044	12033	8022	6685	32089
800	14039	10529	7019	5850	28078
900	12479	9359	6240	5200	24958
1000	11231	8423	5616	4680	22462
1100	10210	7658	5105	4254	20420
1200	9359	7019	4680	3900	18719
1300	8639	6479	4320	3600	17279
1400	8022	6017	4011	3343	16044
1500	7487	5616	3744	3120	14975
1600	7019	5265	3510	2925	14039
1700	6607	4955	3303	2753	13213
1800	6240	4680	3120	2600	12479
1900	5911	4433	2956	2463	11822
2000	5616	4212	2808	2340	11231
2100	5348	4011	2674	2228	10696
2200	5105	3829	2553	2127	10210
2300	4883	3662	2442	2035	9766
2400	4680	3510	2340	1950	9359
2500	4492	3369	2246	1872	8985
2600	4320	3240	2160	1800	8639
2700	4160	3120	2080	1733	8319
2800	4011	3008	2006	1671	8022
2900	3873	2905	1936	1614	7746
3000	3744	2808	1872	1560	7487



Maximum Recommended loads Graph for GMC1005025 - Z - Axis

Calculation Criteria

Safety Factor $X = 1.5$
 Max. Bending Deflection $\delta_{zul} = L/200$
 Module of elasticity $E = 210000 \text{ N/mm}^2$



Unsupported Cantilever Load Case for GMC1005025 - Z - Axis

Max Recommended Load - N

CASE 1		CASE 2	CASE 3	CASE 4	CASE 5	
F/L	Span [mm]	Cantilever with single load at end of cantilever length L	Cantilever with single load in center of cantilever length L/2	Cantilever with 2 loads, each at L/3	Cantilever with 3 loads, each at L/4	Cantilever with uniform load, cantilever length L
0	-	-	-	-	-	-
250	21356	10678	10678	7119	21356	
500	10678	5339	5339	3559	10678	
750	7119	3559	3559	2373	7119	
1000	5339	2669	2669	1780	5339	
1250	4271	2136	2136	1424	4271	
1500	3559	1486	1780	1186	3559	
1750	3051	1092	1525	1017	2912	
2000	2669	836	1335	890	2229	