

# Z and C purlins Technical information

## Overview

This technical handbook contains information about the Z and C profiles and the use of them.

## General information

Coilprofil supplies the cold rolled Z and C profiles that can be used as purlins in roofs and walls of buildings (profile zincate Z si C, profilate la rece, se pot utiliza ca grinzi usoare pentru acoperisuri si pereti de cladire).

Thanks to the use of very high tensile steel S390 quality, according to EN 10326, these profiles have an excellent strength/weight ratio. S390 is about 66% stronger than normal S235 steel which is common for hot rolled profiles.

The zinc coating of 275g/m<sup>2</sup> (strat de zinc) provides a high corrosion resistance. All the profiles are produced on your command. Different punching patterns are possible (diferente gaurii de prindere). Length can vary from 2 to 13 m but for handling reasons, we recommend not to exceed 8m.

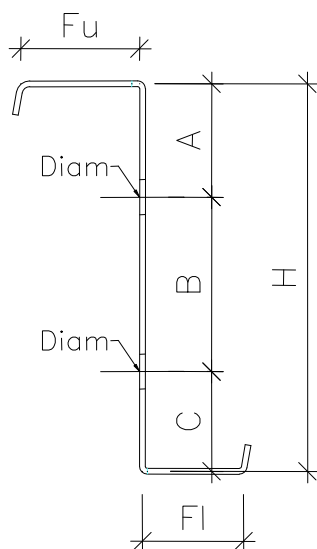
Z-profiles are normally used in the roof and walls while C-profiles are used window and door openings.



Building with hot rolled frame and cold rolled Z-purlins

## Z and C purlins Technical information

### Range of Z-profiles

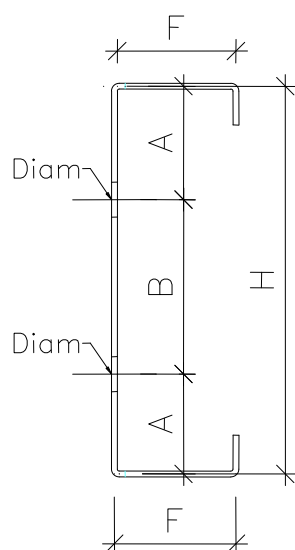


Type	H (mm)	Fu (mm)	FI (mm)	Diam (mm)	A (mm)	B (mm)	C (mm)	t (mm)	W (kg/m)	Coil (mm)	
Z120x1,5	120	50	45	13	31	60	29	1.5	2,6	225	
Z120x2,0								2	3,5	220	
Z150x1,5	150	55	50	13	41	70	39	1.5	3,1	265	
Z150x2,0								2	4,2	265	
Z180x1,25	180	55	50	18	46	90	44	1.25	2,9	300	
Z180x1,5								1.5	3,5	300	
Z180x1,75								1.75	4,1	300	
Z180x2,0								2	4,6	295	
Z180x2,5								2.5	5,7	290	
Z180x3,0								3	6,8	290	
Z200x1,25	200	60	55	18	56	90	54	1.25	3,2	325	
Z200x1,5								1.5	3,8	325	
Z200x1,75								1.75	4,4	325	
Z200x2,0								2	5,1	325	
Z200x2,5								2.5	6,4	325	
Z200x3,0								3	7,5	320	
Z220x2,0	220	60	55	18	52	120	48	2	5,4	345	
Z220x2,5								2.5	6,8	345	
Z250x1,75	250	60	55	18	52	150	48	1.75	5,3	380*	
Z250x2,0	250	60	55	18	52	150	48	2	6,0	380	
Z250x2,5	250	60	55	18	52	150	48	2.5	7,6	380*	
Z300x2,0	300	60	55	18	52	200	48	2	6,8	430*	
Z300x2,5					53			47	2.5	8,4	430*
Z300x3,0					53			47	3	10,1	430*

\* : limited stock

## Z and C purlins Technical information

### Range of C-profiles



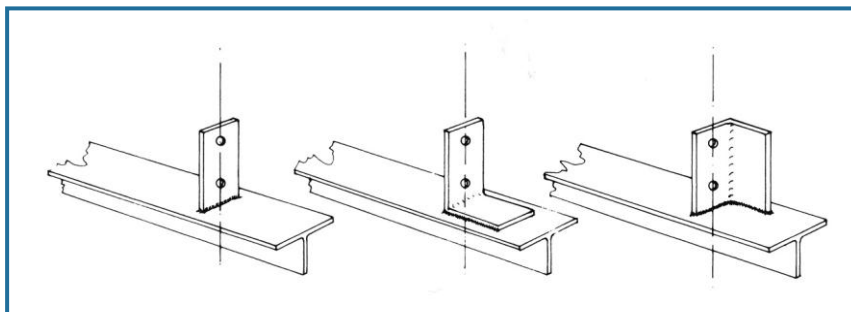
Type	H (mm)	F (mm)	Diam (mm)	A (mm)	B (mm)	t (mm)	Weight (kg/m)	Coil (mm)
C120x1,5	120	60	13	30	60	1,5	3,1	265
C120x2,0			(M12)			2	4,2	265
C150x1,25	150	60	13	40	70	1,25	2,9	300
C150x1,5			(M12)			1,5	3,5	300
C150x1,75						1,75	4,1	300
C150x2,0						2	4,6	295
C150x2,5						2,5	5,7	290
C150x3,0						3	6,8	290
C180x1,5	180	70	18	45	90	1,5	3,8	325
C180x2,0			(M16)			2	5,4	345
C180x2,5						2,5	6,8	345
C180x3,0						3	7,5	320
C200x2,0	200	70	18	55	90	2	5,4	345
C200x2,5			(M16)			2,5	6,8	345
C220x1,75	220	70	18	50	120	1,75	5,3	380*
C220x2,0			(M16)			2	6,0	380
C220x2,5						2,5	7,6	380*
C250x2,0	250	70	18	50	150	2	6,8	430*
C250x2,5			(M16)			2,5	8,4	430*
C250x3,0						3,0	10,1	430*
C300x1,5	300	70	18	50	200	1,5	5,8	490
C300x2,0			(M16)			2,0	7,7	490
C300x2,5						2,5	9,6	490
C300x3,0						3,0	11,5	490
C300x3,5						3,5	13,5	490
C300x4,0						4,0	15,2	485

\* : limited stock

## Z and C purlins Technical information

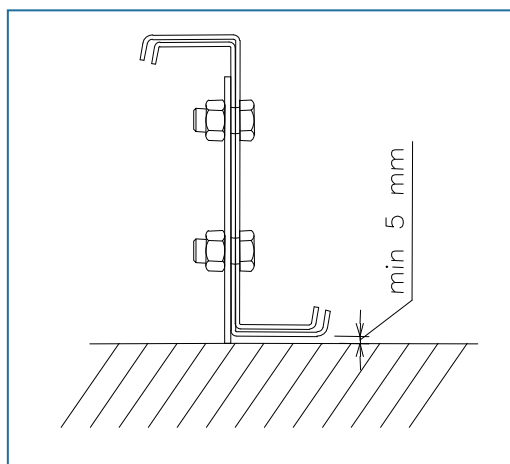
### Use of colled rolled profiles

For the fixation of Z and C profiles, you can use different types of purlin supports

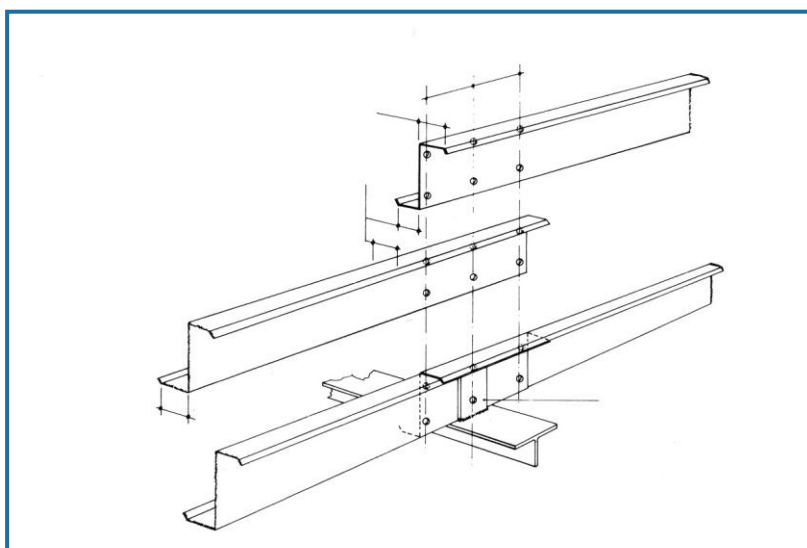


The minimum thickness should be 6 mm. The usual width for these supports is 130mm or more. The bolts that must be used are galvanised bolts M12 or M16 in quality 8.8.

Remark that the forces should only be transmitted by the bolts ! The free distance between Z/C and the structure should be 5mm to 10mm.

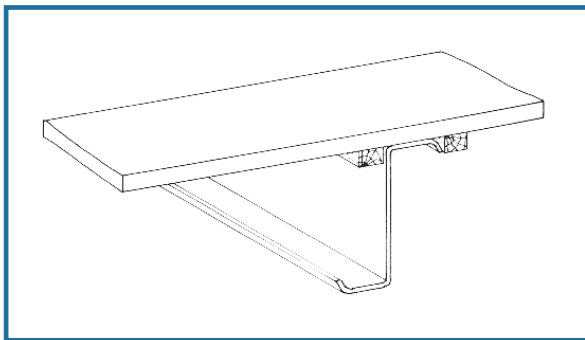
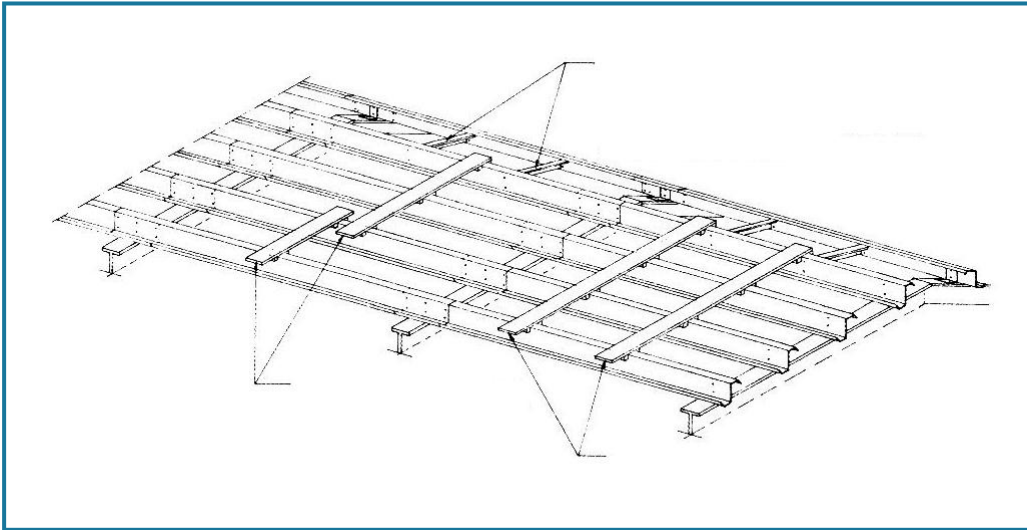


C profiles are normally used without overlap. Z-profiles can be overlapped :



## Z and C purlins Technical information

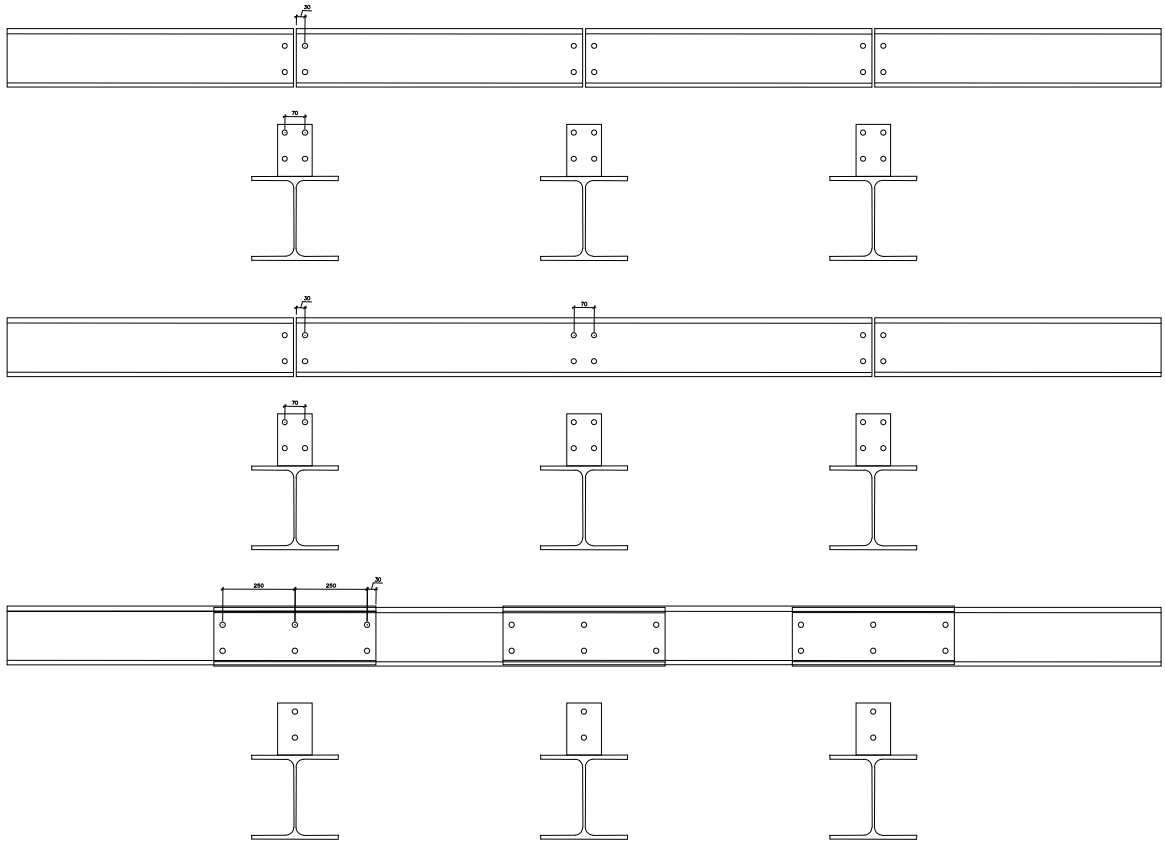
Once the sheeting is fixed on the C or Z profiles, this provides support for buckling. Although it is recommended to put temporary buckling restrictions during erection. An example is given in the figure below.



# Z and C purlins Technical information

## Punching and application (gaurii pentru prindere si montaj)

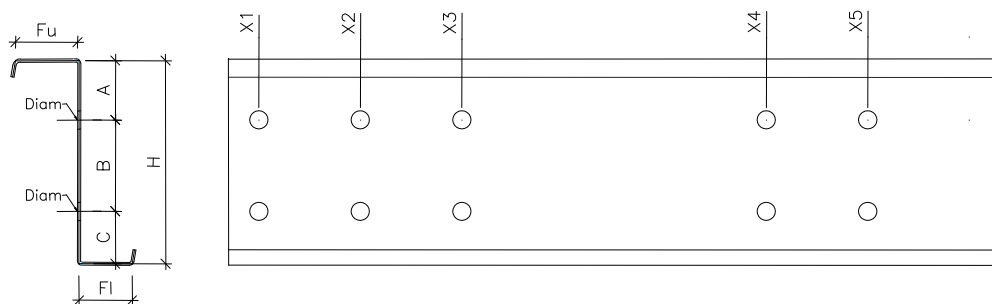
Standard punching patterns



## Z and C purlins Technical information

### Order Form

Client	
Order number	
Date	
Type (Height x Thickness)	
Code (will be printed on the profile)	
Length (mm)	
Number of pieces	



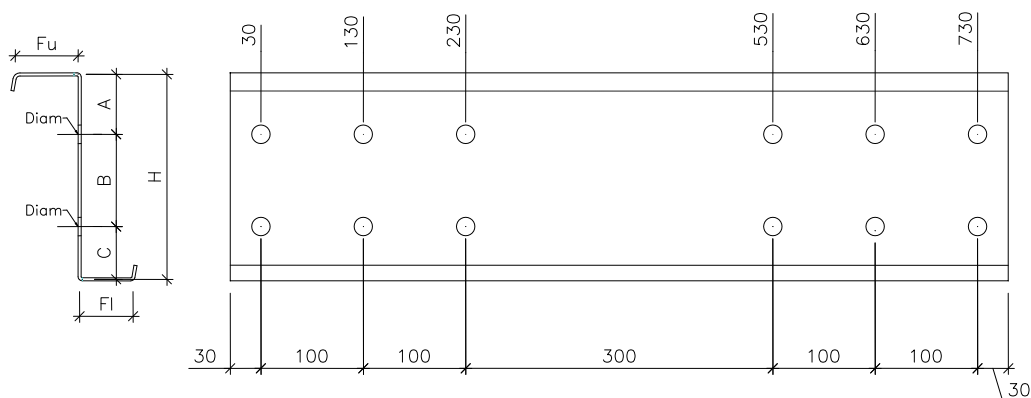
Punching pattern :

x	X oordinate (mm)
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

## Z and C purlins Technical information

### Order Form (EXAMPLE)

Client	<b>ABC Company</b>
Order number	<b>BC27/2005</b>
Date	<b>27/5/05</b>
Type (Height x Thickness)	<b>Z200x2</b>
Code (will be printed on the profile)	<b>Roof2</b>
Length (mm)	<b>760</b>
Number of pieces	<b>5</b>



Punching pattern :

	X Value (mm)
1	<b>30</b>
2	<b>130</b>
3	<b>230</b>
4	<b>530</b>
5	<b>630</b>
6	<b>730</b>
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	



## Z and C purlins Technical information

### Section characteristics Z profiles

	Aeff Cm <sup>2</sup>	Iz, brut Cm <sup>4</sup>	Wz, EC3 Cm <sup>3</sup>
Z120x1,5	2,31	76,05	11,54
Z120x2,0	3,52	100,18	15,57
Z150x1,5	2,38	136,89	15,52
Z150x2,0	3,69	180,85	22,32
Z180x1,5	2,47	214,84	19,49
Z180x2,0	3,7	278,77	27,79
Z180x2,5	5,01	338,16	35,10
Z180x3,0	6,6	402,80	42,36
Z200x1,5	2,41	285,68	21,64
Z200x2,0	3,83	378,45	32,64
Z200x2,5	5,36	469,95	43,88
Z200x3,0	6,84	549,31	51,43
Z220x2,0	3,83	475,44	36,24
Z220x2,5	5,39	589,97	48,79
Z250x2,0	4.14	668.23	44.51
Z300x2,0	4.14	1041.93	54.31
Z300x2,5	5.75	1288.21	72.86
Z300x3,0	7.53	1528.91	92.29

## Z and C purlins Technical information

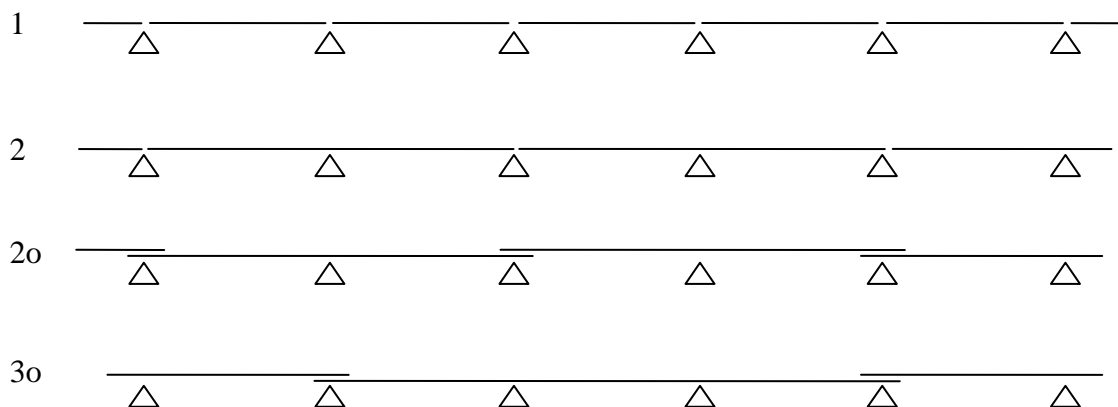
### Section characteristics C profiles

	Aeff Cm <sup>2</sup>	Iz, brut Cm <sup>4</sup>	Wz, EC3 Cm <sup>3</sup>
C120x1,5	2,66	89.52	13.29
C120x2,0	4.04	117.05	18.35
C150x1,25			
C150x1,5			
C150x1,75			
C150x2,0			
C150x2,5			
C150x3,0			
C180x1,5			
C180x2,0			
C180x2,5	6.24	424.45	44.65
C180x3,0			
C200x2,0			
C200x2,5			
C220x1,75			
C220x2,0			
C220x2,5			
C250x2,0	5.00	786.41	53.60
C250x2,5			
C250x3,0			
C300x1,5			
C300x2,0			
C300x2,5			
C300x3,0	8.84	1794.17	109.66
C300x3,5			
C300x4,0	13.18	2342.54	152.27

## Z and C purlins Technical information

### Different systems for Z purlins

- 1 single field for different snow zones
- 2 double fields for different snow zones
- 2o double fields with overlap for different snow zones
- 3o Triple fields with overlap for different snow zones



Remark :

The upper flange is expected to be supported by a steel sheet.

The buckling is supposed to be suppressed by appropriate buckling braces or tensile bars.

## Z and C purlins Technical information

### How to use the tables

**STEP 1 :** Determine the snow zone

A, B, C or D on the map of Romania

Take the tables conform with this snow load

The tables are valid for a dead load of the roof of 10kg/m<sup>2</sup>\*

The tables are valid for a horizontal roof\*\*

**STEP 2 :** Determine the maximum deflexion

In Eurocode this value is limited to L/250

**STEP 3 :** Decide which purlin system you want to use (1, 2, 2o or 3o)

**STEP 4 :** Look for the result in the table

### Example 1 : span and purlin distance is fix : which type of purlin can I use ?

e.g. In zone A the span is 5m and the distance between 2 purlins is 1,5 m

For a single span you can find in the table 1\_A that you can use a Z150x2 (max purlin distance 1,85m)

In this case you could put the purlins even on a distance of 1,85m i.s.o. 1,50m

#### Distance between 2 purlins (1 field)

#### ROMANIA – SNOW ZONE A (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	341	276	222	179	146	121	98	75	59	47
	L/200					134	97	73	56	44	35
	L/250					152	107	78	59	45	35
Z 120/2.0	L/150	482	385	306	245	199	164	128	99	78	62
	L/200					176	128	96	74	58	47
	L/250			299	200	141	103	77	59	47	37
Z 150/1.5	L/150	376	312	262	220	184	155	131	112	97	84
	L/200						140	105	81	64	51
	L/250					271	227	191	163	140	112
Z 150/2.0	L/150	568	471	392	326	271	227	174	134	105	84
	L/200							254	185	139	107
	L/250					448	362	305	259	220	187
Z 180/1.5	L/150	448	362	305	259	220	187	160	127	100	80
	L/200								127	100	80
	L/250								127	100	80

## Z and C purlins Technical information

### Example 2 : span and type of purlin is fix : what is the maximum purlin distance ?

e.g. In zone A the span is 6m and you want to use a double field Z200x2,5  
In table 2\_A you can find the maximum distance between 2 purlins is 1,97 m

#### Distance between 2 purlins (2 fields)

#### ROMANIA – SNOW ZONE A (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	226	181	147	121	100	83	70	59	51	44
	L/200										
	L/250										
Z 120/2.0	L/150	322	256	207	169	139	115	96	82	70	61
	L/200										
	L/250										
Z 150/1.5	L/150	262	205	169	142	120	102	87	75	65	56
	L/200										
	L/250										
Z 150/2.0	L/150	392	309	255	214	180	152	129	111	96	83
	L/200										
	L/250										
Z 180/1.5	L/150	328	246	198	165	140	120	103	89	77	67
	L/200										
	L/250										
Z 180/2.0	L/150	459	352	288	242	205	175	150	130	112	98
	L/200										
	L/250										
Z 180/2.5	L/150	561	437	360	304	259	221	189	163	141	123
	L/200										
	L/250										
Z 180/3.0	L/150	682	530	436	368	313	267	229	197	171	149
	L/200										
	L/250										
Z 200/1.5	L/150	328	243	194	163	139	121	105	92	80	71
	L/200										
	L/250										
Z 200/2.0	L/150	508	381	307	257	221	191	166	144	126	111
	L/200										
	L/250										
Z 200/2.5	L/150	685	517	419	353	302	261	227	197	172	151
	L/200										
	L/250										
Z 200/3.0	L/150	668	515	427	367	321	281	247	216	190	167
	L/200										
	L/250										

## Z and C purlins Technical information

### Example 3 : purlin distance and type of purlin is fix : what is the maximum span ?

e.g. In zone A the distance between 2 purlins is 1,5m and you want to use a Z150x2 in 2 fields with overlap

In table 2o\_A you can find that for a span must be somewhere between 6,5m (169m) and 7,0m (143cm)

### Distance between 2 purlins (2 fields with overlap) ROMANIA – SNOW ZONE A (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	398	322	267	222	185	156	132	109	91	76
	L/200									89	71
	L/250										
Z 120/2.0	L/150	565	457	375	309	257	215	182	150	124	104
	L/200								148	117	93
	L/250										
Z 150/1.5	L/150	461	365	305	260	222	191	164	136	114	96
	L/200										
	L/250										
Z 150/2.0	L/150	688	551	461	391	333	285	244	202	169	143
	L/200										
	L/250										
Z 180/1.5	L/150	576	439	358	302	259	224	188	156	131	112
	L/200										
	L/250										

## Z and C purlins Technical information

### Load bearing tables

System 1      single field for different snow zones

- Zone A (Timisoara, Cluj Napoca, Arad, Oradea, ...)
- Zone B (Sibiu, Brasov, Ploiesti, Piatra Neamt, Constanta, ...)
- Zone C (Bucaresti, Iasi, Craiova, Bacau, Botosani, ...)
- Zone D (Suceava, Calarasi, Slobozia, ...)

System 2      double fields for different snow zones

- Zone A (Timisoara, Cluj Napoca, Arad, Oradea, ...)
- Zone B (Sibiu, Brasov, Ploiesti, Piatra Neamt, Constanta, ...)
- Zone C (Bucaresti, Iasi, Craiova, Bacau, Botosani, ...)
- Zone D (Suceava, Calarasi, Slobozia, ...)

System 2o     double fields with overlap for different snow zones

- Zone A (Timisoara, Cluj Napoca, Arad, Oradea, ...)
- Zone B (Sibiu, Brasov, Ploiesti, Piatra Neamt, Constanta, ...)
- Zone C (Bucaresti, Iasi, Craiova, Bacau, Botosani, ...)
- Zone D (Suceava, Calarasi, Slobozia, ...)

System 3o     Triple fields with overlap for different snow zones

- Zone A (Timisoara, Cluj Napoca, Arad, Oradea, ...)
- Zone B (Sibiu, Brasov, Ploiesti, Piatra Neamt, Constanta, ...)
- Zone C (Bucaresti, Iasi, Craiova, Bacau, Botosani, ...)
- Zone D (Suceava, Calarasi, Slobozia, ...)

## Z and C purlins Technical information

Distance between 2 purlins (1 field)

ROMANIA – SNOW ZONE A (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	341	276	222	179	146	121	98	75	59	47
	L/200					134	97	73	56	44	35
	L/250					152	107	78	59	45	35
Z 120/2.0	L/150	482	385	306	245	199	164	128	99	78	62
	L/200					176	128	96	74	58	47
	L/250					299	200	141	103	77	59
Z 150/1.5	L/150	376	312	262	220	184	155	131	112	97	84
	L/200						101	80	64		
	L/250					140	105	81	64	51	
Z 150/2.0	L/150	568	471	392	326	271	227	191	163	140	112
	L/200					174	134	105	84		
	L/250					254	185	139	107	84	67
Z 180/1.5	L/150	448	362	305	259	220	187	160	138	119	104
	L/200								127	100	80
	L/250								172	149	
Z 180/2.0	L/150	644	531	449	380	321	272	232	199	162	130
	L/200							214	165	130	104
	L/250							253	218	190	
Z 180/2.5	L/150	806	674	573	486	410	347	295	250	197	158
	L/200						346	260	200	158	126
	L/250						418	356	305	263	229
Z 180/3.0	L/150	977	814	691	585	495	418	356	298	235	188
	L/200						412	310	239	188	150
	L/250						114				
Z 200/1.5	L/150	437	352	300	260	226	196	170	148	129	114
	L/200								107		
	L/250								173		
Z 200/2.0	L/150	682	554	473	408	352	304	262	227	197	173
	L/200							224	176	141	
	L/250							233	267	219	
Z 200/2.5	L/150	923	755	645	556	479	412	355	307	267	233
	L/200							278	219	175	
	L/250							274	219	175	
Z 200/3.0	L/150	926	786	694	615	541	472	411	358	312	274
	L/200							326	256	205	
	L/250							205			
Z 220/2.0	L/150	736	589	500	433	377	327	284	247	216	190
	L/200							177			
	L/250							257			
Z 220/2.5	L/150	1000	807	686	594	515	446	387	336	293	257
	L/200								275	220	
	L/250								220		





## Z and C purlins Technical information

### Distance between 2 purlins (1 field)

### ROMANIA – SNOW ZONE B (except WIND ZONES D, E)

Section	Amax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	256	207	167	135	110	91	73	56	44	35
	L/200					100	73	55	42	33	27
	L/250					114	80	58	44	34	27
Z 120/2.0	L/150	362	289	230	184	149	123	96	74	58	47
	L/200					132	96	72	56	44	35
	L/250			224	150	106	77	58	45	35	28
Z 150/1.5	L/150	282	234	197	165	138	116	99	84	73	63
	L/200								76	60	48
	L/250						105	79	61	48	38
Z 150/2.0	L/150	426	353	294	244	203	170	143	122	105	84
	L/200							130	100	79	63
	L/250					191	139	104	80	63	51
Z 180/1.5	L/150	336	272	229	194	165	140	120	103	89	78
	L/200								95	75	60
	L/250								129	112	
Z 180/2.0	L/150	483	398	337	285	241	204	174	149	122	98
	L/200							161	124	97	78
	L/250							190	164	142	
Z 180/2.5	L/150	605	506	430	364	308	260	221	188	148	118
	L/200							195	150	118	95
	L/250							229	197	172	
Z 180/3.0	L/150	733	611	518	439	371	314	267	224	176	141
	L/200								309	232	179
	L/250						85				
Z 200/1.5	L/150	327	264	225	195	170	147	128	111	97	85
	L/200										80
	L/250										130
Z 200/2.0	L/150	511	416	355	306	264	228	197	170	148	130
	L/200								168	132	106
	L/250								175	164	
Z 200/2.5	L/150	693	567	484	417	359	309	266	230	200	175
	L/200								209	164	132
	L/250								206	192	
Z 200/3.0	L/150	694	589	520	461	406	354	308	268	234	206
	L/200								244	192	154
	L/250								142		
Z 220/2.0	L/150	552	442	375	325	283	245	213	186	162	142
	L/200										133
	L/250										192
Z 220/2.5	L/150	750	605	515	446	386	335	290	252	220	192
	L/200									206	165
	L/250									165	

## Z and C purlins Technical information

### Distance between 2 purlins (1 field)

### ROMANIA – SNOW ZONE C (except WIND ZONES D, E)

Section	Amax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	205	166	133	108	88	72	59	45	35	28
	L/200					80	58	44	34	27	21
	L/250					91	64	47	35	27	21
Z 120/2.0	L/150	289	231	184	147	119	98	77	59	47	37
	L/200					106	77	58	45	35	28
	L/250			179	120	84	62	46	36	28	22
Z 150/1.5	L/150	225	187	157	132	111	93	79	67	58	50
	L/200								61	48	38
	L/250						84	63	49	38	31
Z 150/2.0	L/150	341	283	235	195	163	136	115	98	84	67
	L/200								104	80	63
	L/250						152	111	83	64	51
Z 180/1.5	L/150	269	217	183	155	132	112	96	83	71	62
	L/200								76	60	48
	L/250								60	48	38
Z 180/2.0	L/150	386	318	269	228	193	163	139	119	103	90
	L/200									97	78
	L/250							129	99	78	62
Z 180/2.5	L/150	484	405	344	291	246	208	177	152	131	114
	L/200								150	118	95
	L/250							156	120	95	76
Z 180/3.0	L/150	586	489	415	351	297	251	213	183	158	137
	L/200								179	141	113
	L/250						247	186	143	113	90
Z 200/1.5	L/150	262	211	180	156	136	118	102	89	78	68
	L/200										64
	L/250								64		
Z 200/2.0	L/150	409	333	284	245	211	182	157	136	118	104
	L/200								135	106	85
	L/250								85		
Z 200/2.5	L/150	554	453	387	334	287	247	213	184	160	140
	L/200								167	131	105
	L/250								105		
Z 200/3.0	L/150	555	471	416	369	324	283	246	215	187	164
	L/200								195	154	123
	L/250								123		
Z 220/2.0	L/150	442	354	300	260	226	196	171	148	130	114
	L/200										106
	L/250								106		
Z 220/2.5	L/150	600	484	412	356	309	268	232	201	176	154
	L/200									165	132
	L/250								132		

## Z and C purlins Technical information

### Distance between 2 purlins (1 field)

### ROMANIA – SNOW ZONE D (except WIND ZONES D, E)

Section	Amax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	171	138	111	90	73	60	49	38	30	24
	L/200					67	49	37	28	22	18
	L/250					76	53	39	29	23	18
Z 120/2.0	L/150	241	192	153	123	100	82	64	49	39	31
	L/200					88	64	48	37	29	23
	L/250			150	100	70	51	39	30	23	19
Z 150/1.5	L/150	188	156	131	110	92	78	66	56	48	42
	L/200								51	40	32
	L/250					70	53	41	32	26	
Z 150/2.0	L/150	284	236	196	163	135	113	96	81	70	56
	L/200								87	67	53
	L/250					127	93	70	54	42	34
Z 180/1.5	L/150	224	181	152	129	110	94	80	69	60	52
	L/200								64	50	40
	L/250								52	50	40
Z 180/2.0	L/150	322	265	224	190	161	136	116	99	86	75
	L/200								81	65	52
	L/250							107	83	65	52
Z 180/2.5	L/150	403	337	287	243	205	174	148	126	109	95
	L/200								125	99	79
	L/250						173	130	100	79	63
Z 180/3.0	L/150	488	407	346	293	247	209	178	152	132	114
	L/200								149	117	94
	L/250						206	155	119	94	75
Z 200/1.5	L/150	218	176	150	130	113	98	85	74	65	57
	L/200										53
	L/250								53		
Z 200/2.0	L/150	341	277	236	204	176	152	131	113	99	86
	L/200								112	88	71
	L/250								117	110	88
Z 200/2.5	L/150	462	378	323	278	240	206	177	153	133	117
	L/200								139	110	88
	L/250								137	128	102
Z 200/3.0	L/150	463	393	347	308	270	236	205	179	156	137
	L/200								163	128	102
	L/250								128	102	
Z 220/2.0	L/150	368	295	250	217	188	164	142	124	108	95
	L/200										89
	L/250								89		
Z 220/2.5	L/150	500	403	343	297	258	223	193	168	146	128
	L/200									137	110
	L/250								137	110	



## Z and C purlins Technical information

Distance between 2 purlins (2 fields)

ROMANIA – SNOW ZONE A (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	226	181	147	121	100	83	70	59	51	44
	L/200										
	L/250										
Z 120/2.0	L/150	322	256	207	169	139	115	96	82	70	61
	L/200										
	L/250										
Z 150/1.5	L/150	262	205	169	142	120	102	87	75	65	56
	L/200										
	L/250										
Z 150/2.0	L/150	392	309	255	214	180	152	129	111	96	83
	L/200										
	L/250										
Z 180/1.5	L/150	328	246	198	165	140	120	103	89	77	67
	L/200										
	L/250										
Z 180/2.0	L/150	459	352	288	242	205	175	150	130	112	98
	L/200										
	L/250										
Z 180/2.5	L/150	561	437	360	304	259	221	189	163	141	123
	L/200										
	L/250										
Z 180/3.0	L/150	682	530	436	368	313	267	229	197	171	149
	L/200										
	L/250										
Z 200/1.5	L/150	328	243	194	163	139	121	105	92	80	71
	L/200										
	L/250										
Z 200/2.0	L/150	508	381	307	257	221	191	166	144	126	111
	L/200										
	L/250										
Z 200/2.5	L/150	685	517	419	353	302	261	227	197	172	151
	L/200										
	L/250										
Z 200/3.0	L/150	668	515	427	367	321	281	247	216	190	167
	L/200										
	L/250										
Z 220/2.0	L/150	556	410	326	271	232	201	175	153	134	118
	L/200										
	L/250										
Z 220/2.5	L/150	751	557	445	372	319	276	240	209	183	161
	L/200										
	L/250										



## Z and C purlins Technical information

Distance between 2 purlins (2 fields)

ROMANIA – SNOW ZONE B (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	172	138	112	92	76	63	53	45	39	34
	L/200										
	L/250										
Z 120/2.0	L/150	245	195	158	129	106	88	73	62	53	46
	L/200										
	L/250										
Z 150/1.5	L/150	200	156	128	108	91	78	66	57	49	43
	L/200										
	L/250										
Z 150/2.0	L/150	298	235	194	163	137	116	99	84	73	63
	L/200										
	L/250										
Z 180/1.5	L/150	250	188	151	126	107	91	78	68	59	51
	L/200										
	L/250										
Z 180/2.0	L/150	350	268	219	184	156	134	115	99	86	75
	L/200										
	L/250										
Z 180/2.5	L/150	427	333	274	232	197	168	144	124	108	94
	L/200										
	L/250										
Z 180/3.0	L/150	520	404	332	280	238	203	174	150	130	113
	L/200										
	L/250										
Z 200/1.5	L/150	250	185	148	124	106	92	80	70	61	54
	L/200										
	L/250										
Z 200/2.0	L/150	387	290	234	196	168	145	126	110	96	84
	L/200										
	L/250										
Z 200/2.5	L/150	522	394	319	269	230	199	173	150	131	115
	L/200										
	L/250										
Z 200/3.0	L/150	509	392	325	280	244	214	188	165	145	128
	L/200										
	L/250										
Z 220/2.0	L/150	423	312	248	207	177	153	133	116	102	90
	L/200										
	L/250										
Z 220/2.5	L/150	572	424	339	284	243	210	183	159	140	123
	L/200										
	L/250										



## Z and C purlins Technical information

Distance between 2 purlins (2 fields)

ROMANIA – SNOW ZONE C (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	139	111	91	74	61	51	43	37	31	27
	L/200										
	L/250										
Z 120/2.0	L/150	198	158	128	104	85	71	59	50	43	37
	L/200										
	L/250										
Z 150/1.5	L/150	161	126	104	87	74	63	54	46	40	35
	L/200										
	L/250										
Z 150/2.0	L/150	241	190	157	131	111	94	80	68	59	51
	L/200										
	L/250										
Z 180/1.5	L/150	202	152	122	102	86	74	63	55	47	41
	L/200										
	L/250										
Z 180/2.0	L/150	282	217	177	149	126	108	93	80	69	60
	L/200										
	L/250										
Z 180/2.5	L/150	345	269	222	187	159	136	116	100	87	76
	L/200										
	L/250										
Z 180/3.0	L/150	420	326	268	226	192	164	141	121	105	91
	L/200										
	L/250										
Z 200/1.5	L/150	202	150	120	100	86	74	65	56	50	44
	L/200										
	L/250										
Z 200/2.0	L/150	313	234	189	158	136	117	102	89	78	68
	L/200										
	L/250										
Z 200/2.5	L/150	422	318	258	217	186	161	140	121	106	93
	L/200										
	L/250										
Z 200/3.0	L/150	411	317	263	226	197	173	152	133	117	103
	L/200										
	L/250										
Z 220/2.0	L/150	342	252	200	167	143	124	108	94	82	73
	L/200										
	L/250										
Z 220/2.5	L/150	462	343	274	229	196	170	148	129	113	99
	L/200										
	L/250										

## Z and C purlins Technical information

Distance between 2 purlins (2 fields)

ROMANIA – SNOW ZONE D (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	117	93	76	62	52	43	36	31	26	23
	L/200										
	L/250										
Z 120/2.0	L/150	166	132	107	87	72	59	50	42	36	31
	L/200										
	L/250										
Z 150/1.5	L/150	135	106	87	73	62	53	45	39	33	29
	L/200										
	L/250										
Z 150/2.0	L/150	135	106	87	73	62	53	45	39	33	29
	L/200										
	L/250										
Z 180/1.5	L/150	169	127	102	85	72	62	53	46	40	35
	L/200										
	L/250										
Z 180/2.0	L/150	237	182	148	125	106	90	78	67	58	51
	L/200										
	L/250										
Z 180/2.5	L/150	289	225	186	157	134	114	98	84	73	64
	L/200										
	L/250										
Z 180/3.0	L/150	352	273	225	190	161	138	118	102	88	77
	L/200										
	L/250										
Z 200/1.5	L/150	169	125	100	84	72	62	54	47	42	37
	L/200										
	L/250										
Z 200/2.0	L/150	262	196	158	133	114	98	85	74	65	57
	L/200										
	L/250										
Z 200/2.5	L/150	354	267	216	182	156	135	117	102	89	78
	L/200										
	L/250										
Z 200/3.0	L/150	345	266	220	190	166	145	127	112	98	86
	L/200										
	L/250										
Z 220/2.0	L/150	287	211	168	140	120	104	90	79	69	61
	L/200										
	L/250										
Z 220/2.5	L/150	388	288	230	192	164	142	124	108	95	83
	L/200										
	L/250										



## Z and C purlins Technical information

Distance between 2 purlins (2 fields with overlap)

ROMANIA – SNOW ZONE A (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	398	322	267	222	185	156	132	109	91	76
	L/200									89	71
	L/250										
Z 120/2.0	L/150	565	457	375	309	257	215	182	150	124	104
	L/200								148	117	93
	L/250										
Z 150/1.5	L/150	461	365	305	260	222	191	164	136	114	96
	L/200										
	L/250										
Z 150/2.0	L/150	688	551	461	391	333	285	244	202	169	143
	L/200										
	L/250										
Z 180/1.5	L/150	576	439	358	302	259	224	188	156	131	112
	L/200										
	L/250										
Z 180/2.0	L/150	806	628	520	443	380	328	280	232	195	166
	L/200										
	L/250										
Z 180/2.5	L/150	985	779	652	557	480	414	358	297	249	211
	L/200										
	L/250										
Z 180/3.0	L/150	1198	944	789	674	580	500	431	357	300	254
	L/200										
	L/250										
Z 200/1.5	L/150	576	433	351	298	258	226	192	162	138	118
	L/200										
	L/250										
Z 200/2.0	L/150	892	678	554	472	409	357	305	256	217	186
	L/200										
	L/250										
Z 200/2.5	L/150	1203	921	757	646	561	489	420	353	299	256
	L/200										
	L/250										
Z 200/3.0	L/150	1173	918	772	673	595	527	466	403	344	296
	L/200										
	L/250										
Z 220/2.0	L/150	976	730	589	497	430	376	318	268	228	196
	L/200										
	L/250										
Z 220/2.5	L/150	1319	993	805	682	591	516	439	369	314	269
	L/200										
	L/250										



## Z and C purlins Technical information

Distance between 2 purlins (2 fields with overlap)

ROMANIA – SNOW ZONE B (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	298	242	200	166	139	117	99	82	68	57
	L/200									66	53
	L/250										
Z 120/2.0	L/150	424	343	281	232	193	161	136	113	93	78
	L/200								111	88	70
	L/250										
Z 150/1.5	L/150	346	274	229	195	167	143	123	102	85	72
	L/200										
	L/250										
Z 150/2.0	L/150	516	413	346	293	250	214	183	152	127	107
	L/200										
	L/250										
Z 180/1.5	L/150	432	329	269	227	195	168	141	117	98	84
	L/200										
	L/250										
Z 180/2.0	L/150	604	471	390	332	285	246	210	174	146	124
	L/200										
	L/250										
Z 180/2.5	L/150	738	584	489	418	360	310	268	223	187	158
	L/200										
	L/250										
Z 180/3.0	L/150	898	708	591	505	435	375	323	268	225	191
	L/200										
	L/250										
Z 200/1.5	L/150	432	325	263	223	194	169	144	122	104	89
	L/200										
	L/250										
Z 200/2.0	L/150	669	509	416	354	307	268	229	192	163	139
	L/200										
	L/250										
Z 200/2.5	L/150	902	691	568	485	420	367	315	264	224	192
	L/200										
	L/250										
Z 200/3.0	L/150	880	688	579	505	446	395	349	302	258	222
	L/200										
	L/250										
Z 220/2.0	L/150	732	548	442	373	323	282	239	201	171	147
	L/200										
	L/250										
Z 220/2.5	L/150	989	745	604	512	443	387	329	277	235	202
	L/200										
	L/250										

## Z and C purlins Technical information

Distance between 2 purlins (2 fields with overlap)

ROMANIA – SNOW ZONE C (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	239	193	160	133	111	93	79	66	54	46
	L/200									53	43
	L/250										
Z 120/2.0	L/150	339	274	225	186	154	129	109	90	75	63
	L/200								89	70	56
	L/250										
Z 150/1.5	L/150	276	219	183	156	133	115	99	81	68	58
	L/200										
	L/250										
Z 150/2.0	L/150	413	330	277	235	200	171	147	121	101	86
	L/200										
	L/250										
Z 180/1.5	L/150	346	264	215	181	156	134	113	94	79	67
	L/200										
	L/250										
Z 180/2.0	L/150	483	377	312	266	228	197	168	139	117	99
	L/200										
	L/250										
Z 180/2.5	L/150	591	467	391	334	288	248	215	178	149	127
	L/200										
	L/250										
Z 180/3.0	L/150	719	567	473	404	348	300	259	214	180	153
	L/200										
	L/250										
Z 200/1.5	L/150	346	260	211	179	155	136	115	97	83	71
	L/200										
	L/250										
Z 200/2.0	L/150	535	407	333	283	245	214	183	154	130	112
	L/200										
	L/250										
Z 200/2.5	L/150	722	553	454	388	336	294	252	212	179	153
	L/200										
	L/250										
Z 200/3.0	L/150	704	551	463	404	357	316	279	242	207	178
	L/200										
	L/250										
Z 220/2.0	L/150	586	438	353	298	258	226	191	161	137	118
	L/200										
	L/250										
Z 220/2.5	L/150	791	596	483	409	354	310	263	222	188	161
	L/200										
	L/250										



## Z and C purlins Technical information

Distance between 2 purlins (2 fields with overlap)

ROMANIA – SNOW ZONE D (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	199	161	133	111	93	78	66	55	45	38
	L/200									44	35
	L/250										
Z 120/2.0	L/150	283	228	187	155	128	108	91	75	62	52
	L/200								74	58	47
	L/250										
Z 150/1.5	L/150	230	183	152	130	111	95	82	68	57	48
	L/200										
	L/250										
Z 150/2.0	L/150	344	275	231	196	167	142	122	101	84	71
	L/200										
	L/250										
Z 180/1.5	L/150	288	220	179	151	130	112	94	78	66	56
	L/200										
	L/250										
Z 180/2.0	L/150	403	314	260	221	190	164	140	116	98	83
	L/200										
	L/250										
Z 180/2.5	L/150	492	389	326	279	240	207	179	148	124	106
	L/200										
	L/250										
Z 180/3.0	L/150	599	472	394	337	290	250	216	179	150	127
	L/200										
	L/250										
Z 200/1.5	L/150	288	217	176	149	129	113	96	81	69	59
	L/200										
	L/250										
Z 200/2.0	L/150	446	339	277	236	204	179	153	128	109	93
	L/200										
	L/250										
Z 200/2.5	L/150	601	460	378	323	280	245	210	176	149	128
	L/200										
	L/250										
Z 200/3.0	L/150	587	459	386	337	297	263	233	201	172	148
	L/200										
	L/250										
Z 220/2.0	L/150	488	365	295	249	215	188	159	134	114	98
	L/200										
	L/250										
Z 220/2.5	L/150	660	497	403	341	295	258	219	185	157	135
	L/200										
	L/250										



## Z and C purlins Technical information

Distance between 2 purlins (3 fields with overlap)

ROMANIA – SNOW ZONE A (except WIND ZONES D, E)

Section	Δmax	Span, m														
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00					
Z 120/1.5	L/150	438	363	306	257	215	181	153	129	107	90					
	L/200									104	83					
	L/250									83	67					
Z 120/2.0	L/150	625	516	429	356	296	247	208	177	146	117					
	L/200											240	181	139	109	88
	L/250											264	192	145	111	88
Z 150/1.5	L/150	496	399	340	294	256	221	192	161	134	114					
	L/200											152	120	96		
	L/250															
Z 150/2.0	L/150	740	603	514	443	382	328	282	239	200	169					
	L/200									198	158					
	L/250									261	201	158	127			
Z 180/1.5	L/150	623	479	396	340	297	259	222	185	156	132					
	L/200															
	L/250															
Z 180/2.0	L/150	868	685	578	501	437	382	331	275	231	195					
	L/200															
	L/250															
Z 180/2.5	L/150	1063	856	731	639	559	488	423	351	295	237					
	L/200															
	L/250															
Z 180/3.0	L/150	1293	1037	884	771	674	589	509	423	352	282					
	L/200															
	L/250															
Z 200/1.5	L/150	616	467	383	330	292	260	227	192	164	140					
	L/200															
	L/250															
Z 200/2.0	L/150	951	729	603	522	461	409	360	303	257	220					
	L/200															
	L/250															
Z 200/2.5	L/150	1278	986	821	713	629	558	494	417	354	303					
	L/200															
	L/250															
Z 200/3.0	L/150	1240	983	843	754	683	619	558	477	408	351					
	L/200															
	L/250															
Z 220/2.0	L/150	1046	789	644	553	487	433	376	317	270	232					
	L/200															
	L/250															
Z 220/2.5	L/150	1411	1071	879	757	668	594	518	437	372	319					
	L/200															
	L/250															

## Z and C purlins Technical information

Distance between 2 purlins (3 fields with overlap)

ROMANIA – SNOW ZONE B (except WIND ZONES D, E)

Section	Δmax	Span, m										
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00	
Z 120/1.5	L/150	334	277	233	196	164	138	117	99	82	69	
	L/200							79	63	51		
	L/250							104	80	63	51	
Z 120/2.0	L/150	476	393	327	272	226	188	159	135	111	89	
	L/200						183	138	106	83	67	
	L/250						201	147	110	85	67	53
Z 150/1.5	L/150	378	304	259	224	195	169	146	122	102	87	
	L/200							116	91	73	51	
	L/250							152	129	102	87	73
Z 150/2.0	L/150	564	460	392	338	291	250	215	182	152	129	
	L/200							199	153	120	96	73
	L/250							151	121	96	73	51
Z 180/1.5	L/150	475	365	302	259	226	198	169	141	119	101	
	L/200							141	119	101	87	
	L/250							119	101	87	73	
Z 180/2.0	L/150	661	522	440	381	333	291	252	209	176	149	
	L/200							209	176	149	116	
	L/250							176	149	116	87	
Z 180/2.5	L/150	810	652	557	487	426	372	322	267	225	180	
	L/200							267	225	180	149	
	L/250							225	180	149	116	
Z 180/3.0	L/150	985	790	674	587	514	449	388	322	268	215	
	L/200							322	268	215	176	
	L/250							268	215	176	149	
Z 200/1.5	L/150	469	356	292	252	222	198	173	146	125	107	
	L/200							146	125	107	87	
	L/250							125	107	87	73	
Z 200/2.0	L/150	724	555	460	398	351	311	275	231	196	168	
	L/200							231	196	168	149	
	L/250							196	168	149	116	
Z 200/2.5	L/150	973	751	626	543	480	425	376	318	270	231	
	L/200							318	270	231	196	
	L/250							270	231	196	168	
Z 200/3.0	L/150	945	749	642	574	521	472	425	363	311	268	
	L/200							363	311	268	215	
	L/250							311	268	215	176	
Z 220/2.0	L/150	797	601	490	421	371	330	286	242	206	177	
	L/200							242	206	177	149	
	L/250							206	177	149	116	
Z 220/2.5	L/150	1075	816	670	577	509	452	395	333	283	243	
	L/200							333	283	243	206	
	L/250							283	243	206	177	



## Z and C purlins Technical information

Distance between 2 purlins (3 fields with overlap)

ROMANIA – SNOW ZONE C (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	270	224	188	158	132	111	94	80	66	56
	L/200									64	51
	L/250									84	65
Z 120/2.0	L/150	384	317	264	219	182	152	128	109	90	72
	L/200						148	111	86	67	54
	L/250						162	118	89	68	54
Z 150/1.5	L/150	305	246	209	181	157	136	118	99	83	70
	L/200								94	74	59
	L/250								123	104	
Z 150/2.0	L/150	455	371	317	273	235	202	174	147	122	97
	L/200							161	124	97	78
	L/250										
Z 180/1.5	L/150	383	295	244	209	182	160	137	114	96	81
	L/200										
	L/250										
Z 180/2.0	L/150	534	422	355	308	269	235	204	169	142	120
	L/200										
	L/250										
Z 180/2.5	L/150	654	527	450	393	344	301	260	216	181	146
	L/200										
	L/250										
Z 180/3.0	L/150	796	638	544	474	415	362	313	260	217	173
	L/200										
	L/250										
Z 200/1.5	L/150	379	287	236	203	180	160	140	118	101	86
	L/200										
	L/250										
Z 200/2.0	L/150	585	448	371	321	284	252	222	187	158	136
	L/200										
	L/250										
Z 200/2.5	L/150	786	607	505	439	387	343	304	257	218	186
	L/200										
	L/250										
Z 200/3.0	L/150	763	605	519	464	420	381	344	293	251	216
	L/200										
	L/250										
Z 220/2.0	L/150	644	485	396	340	300	267	231	195	166	143
	L/200										
	L/250										
Z 220/2.5	L/150	869	659	541	466	411	365	319	269	229	196
	L/200										
	L/250										

## Z and C purlins Technical information

Distance between 2 purlins (3 fields with overlap)

ROMANIA – SNOW ZONE D (except WIND ZONES D, E)

Section	Δmax	Span, m									
		2,50	3,00	3,50	4,00	4,50	5,00	5,50	6,00	6,50	7,00
Z 120/1.5	L/150	226	188	158	133	111	93	79	67	55	47
	L/200									43	34
	L/250									34	27
Z 120/2.0	L/150	322	266	222	184	153	128	108	91	75	60
	L/200						124	93	72	56	45
	L/250						136	99	75	57	45
Z 150/1.5	L/150	256	206	175	152	132	114	99	83	69	59
	L/200								79	62	49
	L/250								103	87	
Z 150/2.0	L/150	382	311	266	229	197	169	146	123	103	87
	L/200							135	104	82	65
	L/250							102	82		
Z 180/1.5	L/150	322	247	205	176	153	134	114	95	80	68
	L/200										
	L/250										
Z 180/2.0	L/150	448	354	298	258	226	197	171	142	119	101
	L/200										
	L/250										
Z 180/2.5	L/150	549	442	377	330	289	252	218	181	152	122
	L/200										
	L/250										
Z 180/3.0	L/150	668	535	456	398	348	304	263	218	182	145
	L/200										
	L/250										
Z 200/1.5	L/150	318	241	198	171	151	134	117	99	84	72
	L/200										
	L/250										
Z 200/2.0	L/150	491	376	311	269	238	211	186	156	133	114
	L/200										
	L/250										
Z 200/2.5	L/150	659	509	424	368	325	288	255	215	183	156
	L/200										
	L/250										
Z 200/3.0	L/150	640	507	435	389	353	320	288	246	210	181
	L/200										
	L/250										
Z 220/2.0	L/150	540	407	332	285	251	224	194	164	140	120
	L/200										
	L/250										
Z 220/2.5	L/150	728	553	454	391	345	307	267	226	192	165
	L/200										
	L/250										

