



MG C AND MG Z PURLINS

CONSTRUCTION SECTOR:
STRUCTURAL PROFILES

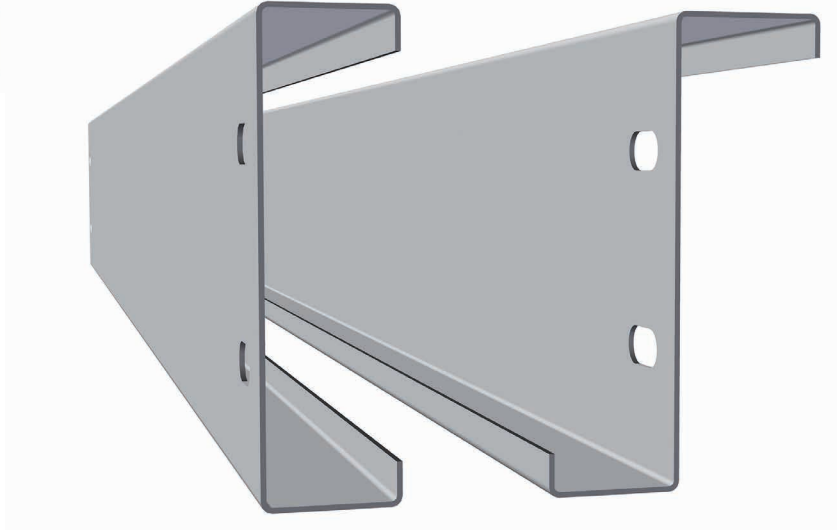
MG Z AND MG C PURLINS



www.magon.es

MG C and **MG Z** purlins are an ideal solution as a supporting structure for roof and wall cladding panels. They represent a solution that is lighter than concrete, is more manageable and reduces the loads on the primary structure of the building. They offer high mechanical performance with minimal weight, and are easy to install, as they are supplied cut to size and punched according to customer specifications.

CE certified product according to the UNE-EN 1090: 2019 standard.



MG C AND MG Z PURLINS

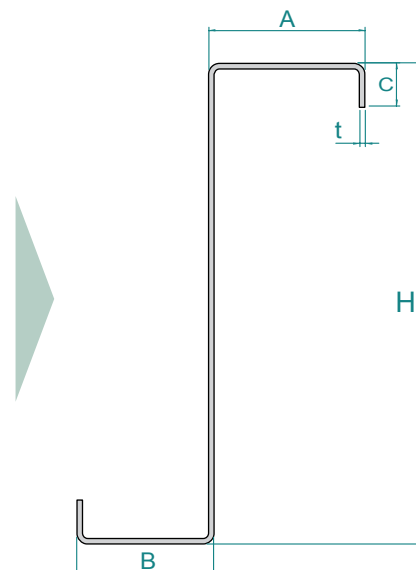


MG C

Profile	H (mm)	A (mm)	B (mm)	C (mm)	t (mm)
C-125	125	50	50	16	2 / 2.5 / 3
C-150	150	50	50	16	“ “
C-175	175	50	50	16	“ “
C-200	200	70	70	20	“ “
C-225	225	70	70	20	“ “
C-250	250	70	70	20	“ “
C-275	275	70	70	20	“ “
C-300	300	70	70	20	“ “

MG Z

Profile	H (mm)	A (mm)	B (mm)	C (mm)	t (mm)
Z-125	125	57	50	16	2 / 2.5 / 3
Z-150	150	57	50	16	“ “
Z-175	175	57	50	16	“ “
Z-200	200	80	70	20	“ “
Z-225	225	80	70	20	“ “
Z-250	250	80	70	20	“ “
Z-275	275	80	70	20	“ “
Z-300	300	80	70	20	“ “



FINISHES

- The MG C and MG Z range are cold-formed galvanized structural steel purlins .
- Type of steel:
 - Standard: structural steel from S220GD to S320GD and galvanized from Z140 to Z275.
 - Special: Other types of steel on request.
- They are manufactured with different punching options to facilitate the assembly and the screw jointing of these elements on site.
- As well as these profiles, we offer a complete system by also supplying all accessories needed for on-site installation.

TECHNICAL FEATURES

- We offer a wide range of sizes, in various configurations, from 125 mm to 300 mm high and 2, 2.5 and 3 mm thick. Manufacturing lengths go up to 14 m.
- Suitable for supporting metal cladding or insulating panels in industrial and commercial buildings, structures for solar installations and light structures.
- They are lighter than concrete, which means lower total loads on the primary structure.
- They have an optimal mechanical resistance at the lowest weight.
- Their installation is simple, as their length can be adjusted to each project's needs. They facilitate the assembly of the structure and avoid unnecessary handling and cutting.
- The purlins can be punched, thus facilitating their installation and optimizing the assembly time. Typically, "slotted" type holes are used to absorb the movements of the structure due to expansion.

APPLICABLE REGULATIONS:

- It is a CE certified product under the new regulations.

UNE-EN 1090-1 + A1	Execution of steel and aluminum structures Part 1: Requirements for conformity assessment of structural components.
UNE-EN 1090-2 + A1 of steel structures.	Execution of steel and aluminum structures Part 2: Technical requirements for steel structures.
UNE-EN 1090-4: 2019	Execution of steel and aluminum structures. Part 4: Technical requirements for cold-formed structural elements and cold formed steel structures for roof, roof, ceiling and wall applications.



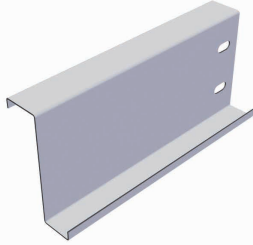
PUNCHED HOLES AND ACCESSORIES:

MG C AND MG Z
PURLINS

- Together with the MG C and MG Z profiles, we provide you with the necessary accessories for their correct installation and operation, adapting to the specific needs of each client.

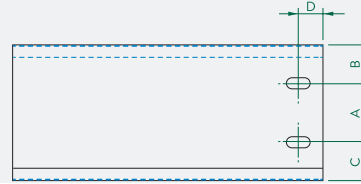
SINGLE PUNCHED HOLES

MOD. 1

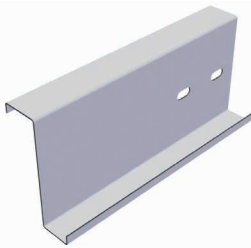


SLOTTED HOLE

30 x 15 mm.
30 x 18 mm.

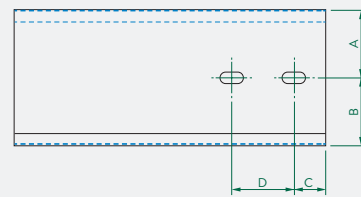


MOD. 2

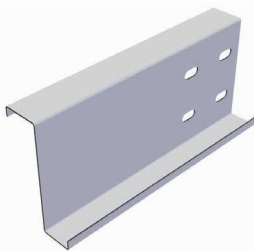


SLOTTED HOLE

30 x 15 mm.
30 x 18 mm.

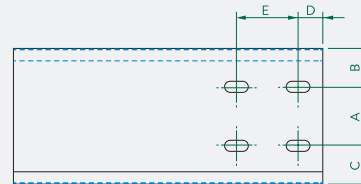


DOUBLE PUNCHED HOLES

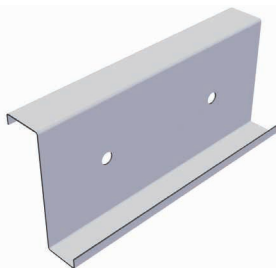


SLOTTED HOLE

30 x 15 mm.
30 x 18 mm.

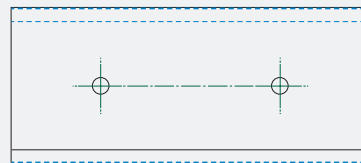


TIGHTENING HOLES



ROUND

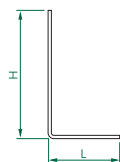
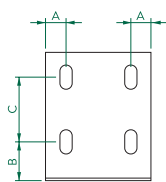
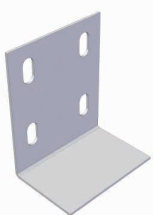
Ø 9 mm.
Ø 18 mm.



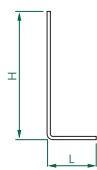
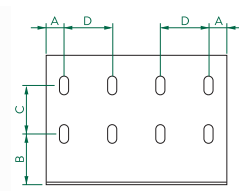
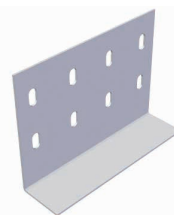
CLEATS

Joining element between the purlin and the primary structure.

Single



Double



Thickness up to 3 mm. SLOTTED HOLE 30 x 15 mm.
30 x 18 mm.

TABLE OF PROPERTIES PROFILE C

t=2mm.	h/a-c(mm)	C-125/50-16	C-150/50-16	C-175/50-16	C-200/70-20	C-225/70-20	C-250/70-20	C-275/70-20	C-300/70-20
	Area:(A/cm ²)	4.88	5.38	5.88	7.34	7.84	8.34	8.84	9.34
	Perimeter	49.17	54.17	59.17	73.77	78.77	83.77	88.77	93.77
	Weight: :P(Kg/m)	3.75	4.15	4.54	5.57	5.97	6.36	6.75	7.14
	C.D.G.:Xg(cm)	X:1.58	X:1.45	X:1.33	X:2.02	X:1.89	X:1.79	X:1.69	X:1.61
	M. Inertia: Ixx (cm ⁴)	X: 117.32	X: 180.14	X: 259.77	X: 446.93	X: 589.43	X: 756.42	X: 949.46	X: 1170.12
	M. Inertia: Iyy (cm ⁴)	Y: 16.63	Y: 17.63	Y: 18.46	Y: 47.72	Y: 49.44	Y: 50.96	Y: 52.30	Y: 53.50
	M.Resist: Wxx (cm ³)	X: 18.77	X: 24.02	X: 29.69	X: 44.69	X: 52.39	X: 60.51	X: 69.05	X: 78.01
	M.Resist: Wyy (cm ³)	Y: 4.86	Y: 4.97	Y: 5.03	Y: 9.58	Y: 9.68	Y: 9.78	Y: 9.85	Y: 9.93
	Turn Radius: ix (cm)	X: 4.90	X: 5.79	X: 6.65	X: 7.80	X: 8.67	X: 9.53	X: 10.37	X: 11.19
	Turn Radius iy (cm)	Y: 1.85	Y: 1.81	Y: 1.77	Y: 2.55	Y: 2.51	Y: 2.47	Y: 2.43	Y: 2.39

t=2.5mm.	h/a-c(mm)	C-125/50-16	C-150/50-16	C-175/50-16	C-200/70-20	C-225/70-20	C-250/70-20	C-275/70-20	C-300/70-20
	Area:(A/cm ²)	6.01	6.64	7.26	9.09	9.71	10.34	10.96	11.59
	Perimeter	48.61	53.61	58.61	73.21	75.21	83.21	88.21	93.21
	Weight: :P(Kg/m)	4.69	5.18	5.67	6.97	7.46	7.95	8.44	8.93
	C.D.G.:Xg(cm)	X:1.58	X:1.44	X:1.33	X:2.01	X:1.89	X:1.79	X:1.69	X:1.61
	M. Inertia: Ixx (cm ⁴)	X: 142.85	X: 219.85	X: 317.59	X: 549.00	X: 724.76	X: 930.87	X: 1169.29	X: 1441.98
	M. Inertia: Iyy (cm ⁴)	Y: 19.92 Y: 21.12	Y: 22.12	Y: 57.85	Y: 59.94	Y: 61.78	Y: 63.41	Y: 64.86	
	M.Resist: Wxx (cm ³)	X: 22.86 X: 29.31	X: 36.30	X: 54.90	X: 64.42	X: 74.47	X: 85.04	X: 96.13	
	M.Resist: Wyy (cm ³)	Y: 5.82 Y: 5.93	Y: 6.03	Y: 11.59	Y: 11.73	Y: 11.86	Y: 11.94	Y: 12.03	
	Turn Radius: ix (cm)	X: 4.87	X: 5.75	X: 6.61	X: 7.77	X: 8.64	X: 9.49	X: 10.33	X: 11.15
	Turn Radius iy (cm)	Y: 1.82	Y: 1.78	Y: 1.75	Y: 2.52	Y: 2.48	Y: 2.44	Y: 2.41	Y: 2.37

t=3mm.	h/a-c(mm)	C-125/50-16	C-150/50-16	C-175/50-16	C-200/70-20	C-225/70-20	C-250/70-20	C-275/70-20	C-300/70-20
	Area: (A / cm ²)	7.12	7.87	8.62	10.81	11.56	12.31	13.06	13.81
	Perimeter	48.05	53.05	58.05	72.65	77.65	82.65	87.65	92.65
	Weight: P (Kg / m)	5.63	6.22	6.81	8.36	8.95	9.54	10.13	10.72
	CDG: Xg (cm)	X: 1.59	X: 1.44	X: 1.33	X: 2.01	X: 1.89	X: 1.79	X: 1.69	X: 1.61
	M. Inertia: Ixx (cm ⁴)	X: 166.91	X: 257.47	X: 372.62	X: 647.28	X: 855.36	X: 1099.55	X: 1382.21	X: 1705.68
	M. Inertia: Iyy (cm ⁴)	Y: 22.88	Y: 24.28	Y: 25.43	Y: 67.29	Y: 69.73	Y: 71.87	Y: 73.77	Y: 75.46
	M.Resist: Wxx (cm ³)	X: 26.71	X: 34.33	X: 42.59	X: 64.73	X: 76.03	X: 87.96	X: 100.52	X: 113.71
	M.Resist: Wyy (cm ³)	Y: 6.69	Y: 6.82	Y: 6.93	Y: 13.48	Y: 13.65	Y: 13.79	Y: 13.89	Y: 14.00
	Turn Radius: ix (cm)	X: 4.84	X: 5.72	X: 6.58	X: 7.74	X: 8.60	X: 9.45	X: 10.29	X: 11.11
	Turn radius: iy (cm)	Y: 1.79	Y: 1.76	Y: 1.71	Y: 2.50	Y: 2.46	Y: 2.42	Y: 2.38	Y: 2.34

C-PROFILE LOAD CHART

- Permissible loadings kg / m². Calculated for a Service Limit State of deformation L / 200 (maximum admissible deflection). Loads not factored.
- The data shown in the tables is for guidance purposes only, with the designer being responsible for carrying out the structural calculations in accordance with the applicable regulations in each country. MAGON ACEROS will not be responsible for the inappropriate use of these tables.

Distance between purlins (mm)	SEPARATION BETWEEN STRUCTURAL FRAMES (m)																				
	4.00			5.00			6.00			7.00			8.00			9.00					
	1.25	1.50	1.75	1.25	1.50	1.75	1.25	1.50	1.75	2.00	1.25	1.50	1.75	2.00	1.50	1.75	2, 00	1.50	1.75	2.00	
C-125 x 2 mm	112	93	80	70	59																
C-125 x 2.5 mm	137	114	98	86	72	62	59														
C-125 x 3 mm	160	145	115	101	84	72	69	57													
C-150 x 2 mm	144	120	103	91	76	65	62	52													
C-150 x 2.5 mm	177	147	126	112	93	80	76	64	54												
C-150 x 3 mm	208	173	148	131	109	94	90	75	64												
C-175 x 2 mm	179	149	128	113	94	81	76	65	55												
C-175 x 2.5 mm	220	183	157	139	116	99	95	79	68	60	69										
C-175 x 3 mm	259	216	175	164	137	117	112	94	80	70	81	67	57								
C-200 x 2 mm	286	239	205	183	153	131	127	106	91	78	94	78	65	57							
C-200 x 2.5 mm	352	293	251	225	188	161	156	130	112	96	115	96	80	70	70	60					
C-200 x 3 mm	415	346	297	266	222	190	185	154	132	114	136	113	95	83	83	71	62				
C-225 x 2 mm	332	277	237	213	177	152	148	123	105	92	109	90	76	67	67	58	50				
C-225 x 2.5 mm	409	341	292	262	218	187	182	151	130	114	134	111	94	82	83	71	62	64			
C-225 x 3 mm	483	402	345	309	258	221	215	179	153	135	158	131	112	98	98	84	74	76	65		
C-250 x 2 mm	381	317	272	244	203	174	169	141	121	107	124	104	88	77	78	67	59	61	52		
C-250 x 2.5 mm	469	391	335	300	250	214	208	174	149	132	153	218	109	96	96	83	72	75	64	56	
C-250 x 3 mm	554	462	396	355	296	253	246	205	165	156	181	151	129	113	114	98	86	89	76	67	
C-275 x 2 mm	432	360	308	276	230	197	192	160	137	122	141	117	101	89	90	77	67	71	61	53	
C-275 x 2.5 mm	532	443	380	341	284	243	236	197	169	151	145	145	124	110	111	95	83	88	75	64	
C-275 x 3 mm	629	525	450	403	336	288	280	233	200	179	206	171	147	130	131	112	98	104	89	77	
C-300 x 2 mm	485	404	347	311	259	222	216	180	154	138	158	132	115	100	101	87	76	79	65	59	
C-300 x 2.5 mm		499	427	383	319	274	266	222	190	170	195	163	142	124	125	107	94	98	84	73	
C-300 x 3 mm			506	453	378	324	315	262	225	202	231	193	168	147	148	127	111	116	99	87	

Z PROFILE PROPERTIES TABLE

MG C AND MG Z
PURLINS

	h/a-c(mm)	Z-125/57/50-16	Z-150/57/50-16	Z-175/57/50-16	Z-200/80/70-20	Z-225/80/70-20	Z-250/80/70-20	Z-275/80/70-20	Z-300/80/70-20
t=2mm.	Area:(A/cm ²)	5.02	5.52	6.02	7.54	8.04	8.54	9.04	9.54
	Perimeter	50.57	55.57	60.57	75.77	80.77	85.77	90.77	95.77
	Weight: :P(Kg/m)	3.75	4.14	4.54	5.73	6.17	6.52	6.91	7.30
	C.D.G.:Xg(cm)	X:5.08	X:5.07	X:5.05	X:7.14	X:7.13	X:7.11	X:7.10	X:7.09
	M. Inertia: Ixx (cm ⁴)	X: 122.47	X: 187.62	X: 270.00	X: 466.01	X: 613.68	X: 786.45	X: 985.90	X: 1213.59
	M. Inertia: Iyy (cm ⁴)	Y: 32.91	Y: 32.93	Y: 32.94	Y: 90.09	Y: 90.12	Y: 90.15	Y: 90.17	Y: 90.19
	M.Resist: Wxx (cm ³)	X: 19.07	X: 24.40	X: 30.17	X: 45.41	X: 53.24	X: 61.49	X: 70.16	X: 79.26
	M.Resist: Wyy (cm ³)	Y: 6.07	Y: 6.06	Y: 6.05	Y: 11.76	Y: 11.74	Y: 11.73	Y: 11.71	Y: 11.70
	Turn Radius: ix (cm)	X: 4.94	X: 5.83	X: 6.70	X: 7.86	X: 8.74	X: 9.60	X: 10.44	X: 11.28
	Turn Radius iy (cm)	Y: 2.56	Y: 2.44	Y: 2.34	Y: 3.46	Y: 3.35	Y: 3.25	Y: 3.16	Y: 3.08

	h/a-c(mm)	Z-125/57/50-16	Z-150/57/50-16	Z-175/57/50-16	Z-200/80/70-20	Z-225/80/70-20	Z-250/80/70-20	Z-275/80/70-20	Z-300/80/70-20
t=2.5mm.	Area:(A/cm ²)	6.19	6.81	7.44	9.34	9.96	10.59	11.21	11.84
	Perimeter	50.01	55.01	60.01	75.21	80.21	85.21	90.21	95.21
	Weight: :P(Kg/m)	4.69	5.18	5.67	7.16	7.71	8.14	8.64	9.13
	C.D.G.:Xg(cm)	X:5.06	X:5.04	X:5.03	X:7.11	X:7.10	X:7.09	X:7.07	X:7.06
	M. Inertia: Ixx (cm ⁴)	X: 149.23	X: 229.12	X: 330.30	X: 572.73	X: 754.92	X: 968.25	X: 1214.67	X: 1496.13
	M. Inertia: Iyy (cm ⁴)	Y: 39.38	Y: 39.40	Y: 39.42	Y: 109.14	Y: 109.18	Y: 109.21	Y: 109.24	Y: 109.27
	M.Resist: Wxx (cm ³)	X: 23.24	X: 29.79	X: 36.89	X: 55.80	X: 65.47	X: 75.70	X: 86.43	X: 97.70
	M.Resist: Wyy (cm ³)	Y: 7.30	Y: 7.15	Y: 7.27	Y: 14.29	Y: 14.27	Y: 14.25	Y: 14.23	Y: 14.22
	Turn Radius: ix (cm)	X: 4.91	X: 5.80	X: 6.66	X: 7.83	X: 8.70	X: 9.56	X: 10.41	X: 11.24
	Turn Radius iy (cm)	Y: 2.52	Y: 2.40	Y: 2.30	Y: 3.42	Y: 3.31	Y: 3.21	Y: 3.12	Y: 3.04

	h/a-c(mm)	Z-125/57/50-16	Z-150/57/50-16	Z-175/57/50-16	Z-200/80/70-20	Z-225/80/70-20	Z-250/80/70-20	Z-275/80/70-20	Z-300/80/70-20
t=3mm.	Area:(A/cm ²)	7.33	8.08	8.83	11.11	11.86	12.61	13.36	14.11
	Perimeter	49.45	54.45	59.45	74.65	79.65	84.65	89.65	94.65
	Weight: :P(Kg/m)	5.63	6.22	6.81	8.60	9.26	9.77	10.36	10.95
	C.D.G.:Xg(cm)	X:5.03	X:5.01	X:5.00	X:7.09	X:7.07	X:7.06	X:7.05	X:7.04
	M. Inertia: Ixx (cm ⁴)	X: 174.50	X: 268.52	X: 387.79	X: 675.60	X: 891.39	X: 1144.22	X: 1436.46	X: 1770.43
	M. Inertia: Iyy (cm ⁴)	Y: 45.21	Y: 45.23	Y: 45.26	Y: 126.88	Y: 126.92	Y: 126.96	Y: 126.99	Y: 127.03
	M.Resist: Wxx (cm ³)	X: 27.16	X: 34.92	X: 43.33	X: 65.78	X: 77.31	X: 89.43	X: 102.20	X: 115.56
	M.Resist: Wyy (cm ³)	Y: 8.39	Y: 8.40	Y: 8.38	Y: 16.67	Y: 16.64	Y: 16.62	Y: 16.60	Y: 16.67
	Turn Radius: ix (cm)	X: 4.88	X: 5.77	X: 6.63	X: 7.80	X: 8.67	X: 9.53	X: 10.37	X: 11.20
	Turn Radius iy (cm)	Y: 2.48	Y: 2.37	Y: 2.26	Y: 3.38	Y: 3.27	Y: 3.17	Y: 3.08	Y: 3.00

Z PROFILE LOAD CHART

- Permissible loadings kg / m². Calculated for a Service Limit State of deformation L / 200 (maximum admissible deflection). Loads not factored
- The data shown in the tables is for guidance purposes only, with the designer being responsible for carrying out the structural calculations in accordance with the applicable regulations in each country. MAGON ACEROS will not be responsible for the inappropriate use of these tables.

Distance between purlins (mm)	SEPARATION BETWEEN STRUCTURAL FRAMES (m)																				
	4.00			5.00			6.00			7.00			8.00			9.00					
	1.25	1.50	1.75	1.25	1.50	1.75	1.25	1.50	1.75	2.00	1.25	1.50	1.75	2.00	1.50	1.75	2.00	1.50	1.75	2.00	
Z-125 x 2 mm	107	89	76	67	56																
Z-125 x 2.5 mm	131	109	93	82	69	59	56														
Z-125 x 3 mm	153	128	109	96	80	69	66	55													
Z-150 x 2 mm	138	115	99	87	73	62	60	50													
Z-150 x 2.5 mm	169	141	121	107	89	76	73	61	52												
Z-150 x 3 mm	199	166	142	126	105	90	86	71	61												
Z-175 x 2 mm	172	144	123	109	91	78	75	62	53												
Z-175 x 2.5 mm	212	176	151	134	111	96	92	76	65												
Z-175 x 3 mm	249	208	178	158	131	113	108	90	77												
Z-200 x 2 mm	276	230	197	177	147	126	123	102	88	75	90	75									
Z-200 x 2.5 mm	339	283	242	217	181	155	151	126	108	93	111	92	79	67							
Z-200 x 3 mm	400	334	286	256	213	183	178	148	127	110	131	109	93	80							
Z-225 x 2 mm	320	267	229	205	171	146	142	119	102	89	105	87	75	64							
Z-225 x 2.5 mm	394	328	281	252	210	180	175	146	125	110	129	107	92	79	82						
Z-225 x 3 mm	465	388	332	298	248	213	207	172	148	130	152	127	108	94	95	81					
Z-250 x 2 mm	367	306	262	235	196	168	163	136	117	105	120	102	87	77	77	66	58	60			
Z-250 x 2.5 mm	452	377	323	289	241	207	201	167	143	130	148	126	108	94	95	82	71	74	63		
Z-250 x 3 mm	534	445	381	342	285	244	237	198	170	154	174	149	128	112	113	97	85	88	75	66	
Z-275 x 2 mm	417	347	298	267	222	190	185	154	132	121	136	113	97	88	87	74	67	69	59	49	
Z-275 x 2.5 mm	513	428	367	328	274	235	228	190	163	149	168	140	120	109	107	92	82	84	72	62	
Z-275 x 3 mm	607	506	433	388	324	277	270	225	193	177	198	165	142	129	126	108	98	100	86	76	
Z-300 x 2 mm	468	390	335	300	250	214	208	174	149	137	153	127	109	99	98	84	75	77	66	59	
Z-300 x 2.5 mm		481	412	370	308	264	257	214	183	169	189	157	135	123	120	103	93	95	81	73	
Z-300 x 3 mm			488	437	364	312	304	253	217	201	223	186	159	146	142	122	110	112	96	86	



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