

MAE 657.1 Construction Profiles, Type i Modular System, with Open Slots on all Sides, Light, Natural Colour

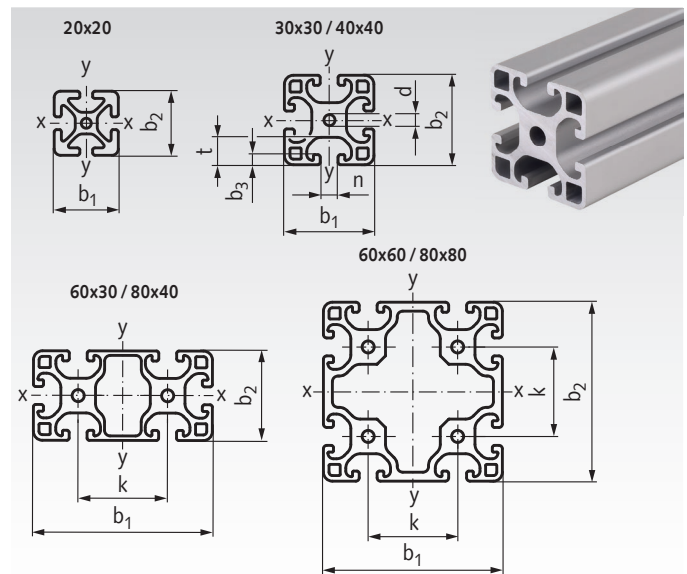
Material: Aluminium AlMgSi0,5 F25 (EN AW-6063),
Anodizing: E6EV1, coating thickness 10-15 µm, coating hardness 250-350 HV, natural color. Aluminium alloy according to EN 515, condition T66, artificially aged.

Aluminium construction profiles are manufactured by extrusion and serve as basic elements for building protective enclosures, machine frames, and other structures.

They feature a defined grid dimension that enables precise and modular assembly. The grid describes the regular spacing of slots, holes, or other fastening points. Accessories can be mounted via the lateral slots or, alternatively, through existing holes on the end faces.

A defined preload of 0.2 mm +0.1/-0.15 mm ensures secure retention of the fastening elements and reduces play within the structure.

Fixed lengths and other profile sizes can be delivered on request.



Ordering Details: e.g.: Product No. MAE 657.1-2020-1, Construction Profile, Length 1 m

Product No.	b ₁ mm	b ₂ mm	Length m	Slot mm	Pitch mm	Dimensions mm	b ₃ mm	n mm	d mm	k mm	t mm	Area mm ²	Weight kg/m
MAE 657.1-2020-1	20	20	1	5	20	20x20	1,8	5	4,3	-	6,35	181,9	0,49
MAE 657.1-3030-1	30	30	1	6	30	30x30	3	6	5	-	9,75	346,8	0,94
MAE 657.1-6030-1	60	30	1	6	30	60x30	3	6	5	30	9,75	619,6	1,68
MAE 657.1-6060-1	60	60	1	6	30	60x60	3	6	5	30	9,75	1010,6	2,74
MAE 657.1-4040-1	40	40	1	8	40	40x40	4,5	8	6,8	-	12,25	648,9	1,76
MAE 657.1-8040-1	80	40	1	8	40	80x40	4,5	8	6,8	40	12,25	1156,1	3,13
MAE 657.1-8080-1	80	80	1	8	40	80x80	4,5	8	6,8	40	12,25	1983,3	5,37
MAE 657.1-2020-2	20	20	2	5	20	20x20	1,8	5	4,3	-	6,35	181,9	0,49
MAE 657.1-3030-2	30	30	2	6	30	30x30	3	6	5	-	9,75	346,8	0,94
MAE 657.1-6030-2	60	30	2	6	30	60x30	3	6	5	30	9,75	619,6	1,68
MAE 657.1-6060-2	60	60	2	6	30	60x60	3	6	5	30	9,75	1010,6	2,74
MAE 657.1-4040-2	40	40	2	8	40	40x40	4,5	8	6,8	-	12,25	648,9	1,76
MAE 657.1-8040-2	80	40	2	8	40	80x40	4,5	8	6,8	40	12,25	1156,1	3,13
MAE 657.1-8080-2	80	80	2	8	40	80x80	4,5	8	6,8	40	12,25	1983,3	5,37
MAE 657.1-2020-3	20	20	3	5	20	20x20	1,8	5	4,3	-	6,35	181,9	0,49
MAE 657.1-3030-3	30	30	3	6	30	30x30	3	6	5	-	9,75	346,8	0,94
MAE 657.1-6030-3	60	30	3	6	30	60x30	3	6	5	30	9,75	619,6	1,68
MAE 657.1-6060-3	60	60	3	6	30	60x60	3	6	5	30	9,75	1010,6	2,74
MAE 657.1-4040-3	40	40	3	8	40	40x40	4,5	8	6,8	-	12,25	648,9	1,76
MAE 657.1-8040-3	80	40	3	8	40	80x40	4,5	8	6,8	40	12,25	1156,1	3,13
MAE 657.1-8080-3	80	80	3	8	40	80x80	4,5	8	6,8	40	12,25	1983,3	5,37
MAE 657.1-2020-6	20	20	6	5	20	20x20	1,8	5	4,3	-	6,35	181,9	0,49
MAE 657.1-3030-6	30	30	6	6	30	30x30	3	6	5	-	9,75	346,8	0,94
MAE 657.1-6030-6	60	30	6	6	30	60x30	3	6	5	30	9,75	619,6	1,68
MAE 657.1-6060-6	60	60	6	6	30	60x60	3	6	5	30	9,75	1010,6	2,74
MAE 657.1-4040-6	40	40	6	8	40	40x40	4,5	8	6,8	-	12,25	648,9	1,76
MAE 657.1-8040-6	80	40	6	8	40	80x40	4,5	8	6,8	40	12,25	1156,1	3,13
MAE 657.1-8080-6	80	80	6	8	40	80x80	4,5	8	6,8	40	12,25	1983,3	5,37

Mechanical Properties

Description	Abbreviation	Value	Unit
Yield strength	R _{p0,2}	≥ 200	N/mm ²
Tensile strength	R _m	≥ 245	N/mm ²
Elongation at break	A	≥ 8	%
Elongation at break	A50	≥ 6	%
Brinell hardness	HB	≥ 80	-
Slot dimensions slot 5	n	5,0 + 0,3	mm
Slot dimensions slot 6	n	6,2 + 0,3	mm
Slot dimensions slot 8	n	8,0 + 0,4	mm
Core bore slot 5	d	4,3 ± 0,1	mm
Core bore slot 6	d	5,0 + 0,2	mm
Core bore slot 8	d	6,8 - 0,2	mm
Modulus of elasticity	E	70.000	N/mm ²

Cross-Sectional Properties

Dimensions mm	Slot mm	Bending axis x-x I _x in cm ⁴ W _x in cm ³		Bending axis y-y I _y in cm ⁴ W _y in cm ³	
20x20	5	0,74	0,74	0,74	0,74
30x30	6	2,94	1,96	2,94	1,96
60x30	6	5,64	3,76	21,49	7,16
60x60	6	39,97	13,32	39,97	13,32
40x40	8	9,06	4,53	9,06	4,53
80x40	8	17,13	8,56	70,03	17,50
80x80	8	135,32	33,83	135,32	33,83

W_x, W_y = Section modulus.

I_x, I_y = Second moments of area moments of inertia