STANDARD
PROFILES

EXPERTS IN ALUMINIUM™

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Extruded alloys- tempers & mechanical properties:

Standard alloys in production include:

Alloy chemical composition as per EN 573-3											
Alloy	**Si**	**Fe**	**Cu**	**Mn**	**Mg**	**Cr**	**Zn**	**Ti**	**Other**		**Al**
									Each	Total	
6060 AlMgSi0,5 DIN3.3206	0,30-0,60	0,10-0,30	0,10	0,10	0,35-0,60	0,05	0,15	0,10	0,05	0,15	Rest
6063 AlMg0,7Si	0,20-0,60	0,35	0,10	0,10	0,45-0,90	0,10	0,10	0,10	0,05	0,15	Rest
6005A AlMgSi0,7 DIN3.3210	0,50-0,90	0,35	0,30	0,50	0,40-0,70	0,30	0,20	0,10	0,05	0,15	Rest
6082 AlSi1MgMn DIN3.2315	0,70-1,30	0,50	0,10	0,40-1,00	0,60-1,20	0,25	0,20	0,10	0,05	0,15	Rest
6061* AlMg1SiCu DIN3.3211	0,40-0,80	0,70	0,15-0,40	0,15	0,80-1,20	0,04-0,35	0,25	0,15	0,05	0,15	Rest
* Available with a prior notice of 5 weeks											

Available combinations of Alloys & Tempers				
6060	**6063**	**6005A**	**6082**	**6061**
O	O	O	O	O
T4	T4	T4	T4	T4
T5	T5	-	T5	-
T64	-	-	-	-
T6	T6	T6	T6	T6
T66	T66	-	-	-

Temper designation EN 515:2017	
F	As fabricated (no specific mechanical property limits are specified)
O	Annealed wrought alloys
T4	Solution heat treated & naturally aged.
T5	Cooled from an elevated temperature forming operation & artificially aged (precipitation hardened)
T64	Solution heat treated & artificially aged in underaged conditions to improve formability (bending temper)
T6	Solution heat treated & artificially aged (precipitation hardened). Press quenching required.
T66	Cooled from an elevated temperature forming operation & artificially aged (precipitation hardened) to a higher level of mechanical properties through special control of manufacturing processes. Press quenching required.

Bendability classes to standardised tempers (EN 15088:2005)						
Alloy	**T4**	**T5**	**T6**	**T6510**	**T64**	**T66**
EN-AW 6060	-	B3	B3	B3	B2	B3
EN-AW 6063	-	B3	B3	B3	-	B3
EN-AW 6005A	-	-	-	B3	B3	-
EN-AW 6082	B2	B3	B3	-	-	-
EN-AW 6061	B2	-	B3	B3	-	-
B2	Material is in mid strained hardened/naturally aged/partially aged hardened. Bendability for simple symmetrical sections with medium radii is possible. Thin walled or complicated sections may require special devices or bending machines.					
B3	Material is in hard/fully age hardened. For simple symmetrical sections bendability is possible only with relatively large radii. Thin walled or complicated sections may require special devices or bending machines.					

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Physical properties	Alloys EN-AW				
Alloys EN-AW	**6060**	**6063**	**6005A**	**6082**	**6061**
Melting range ^{0}C	585-650		585-650	585-650	580-640
Density g/cm^3	2,70	2,70	2,70	2,70	2,70
Electrical Conductivity MS/m	34-38		26-32	24-32	22-30
Thermal Conductivity W/(m K)	200-220		180-220	170-220	170-200
Specific Heat J /(Kg K)	898			896	
Thermal Expansion Values					
-50 to 20 ^{0}C (10 $^{-6}$/K)	21,8	23,4	23,4	23,4	23,0
20 to 100 ^{0}C (10 $^{-6}$/K)	23,4				
20 to 200 ^{0}C (10 $^{-6}$/K)	24,5				
20 to 300 ^{0}C (10 $^{-6}$/K)	25,6				
Young's Modulus MPa	69500	69500	69500	70000	70000
Shear Modulus MPa	26100	26100	26200	26400	26300

Mechanical properties as per EN 755-2:2016 (EXTRUDED PROFILES)							
Alloy	**Temper**	**Wall Thickness**	**Tensile strength**	**Yield strength**	**Elongation**		**Brinell Hardness**
		e mm*	R_m MPa min	$R_{P0,2}$ MPa min	A % min	A_{50mm} % min	HB**
EN-AW 6060	T4	e≤ 25	120	60	16	14	50
	T5	e≤ 5	160	120	8	6	60
		5<e≤25	140	100	8	6	60
	T6	e≤ 5	190	150	8	6	60
		5<e≤25	170	140	8	6	60
	T64	e≤ 15	180	120	12	10	60
	T66	e≤ 5	215	160	8	6	75
		5<e≤25	195	150	8	6	75
EN-AW 6063	T4	e≤ 25	130	65	14	12	50
	T5	e≤ 10	175	130	8	6	65
		10<e≤25	160	110	7	5	65
	T6	e≤ 10	215	170	8	6	75
		10<e≤25	195	160	8	6	75
	T66	e≤ 10	245	200	8	6	80
		10<e≤25	225	180	8	6	80
EN-AW 6005A	T4 open	e≤ 25	180	90	15	13	50
	T4 hollow	e≤10	180	90	15	13	50
	T6 open	e≤ 5	270	225	8	6	90
		5<e≤10	260	215	8	6	85
		10<e≤25	250	200	8	6	85
	T6 hollow	e≤ 5	255	215	8	6	85
		5<e≤15	250	200	8	6	85
EN-AW 6082	T4	e≤ 25	205	110	14	12	35
	T5 open	e≤ 5	270	230	8	6	90
	T5 hollow	e≤ 5	270	230	8	6	95
	T6 open	e≤ 5	290	250	8	6	95
		5<e≤25	310	260	10	8	95
	T6 hollow	e≤ 5	290	250	8	6	95
		5<e≤15	310	260	10	8	95
EN-AW 6061	T4	e≤ 25	180	110	15	13	65
	T6	e≤ 5	260	240	9	7	95
		5<e≤25	260	240	10	8	95

* For a profile having different wall thicknesses, the lowest specified values of properties shall be considered as valid for the whole profile cross section. ** The values for the HB hardness are indicative only.

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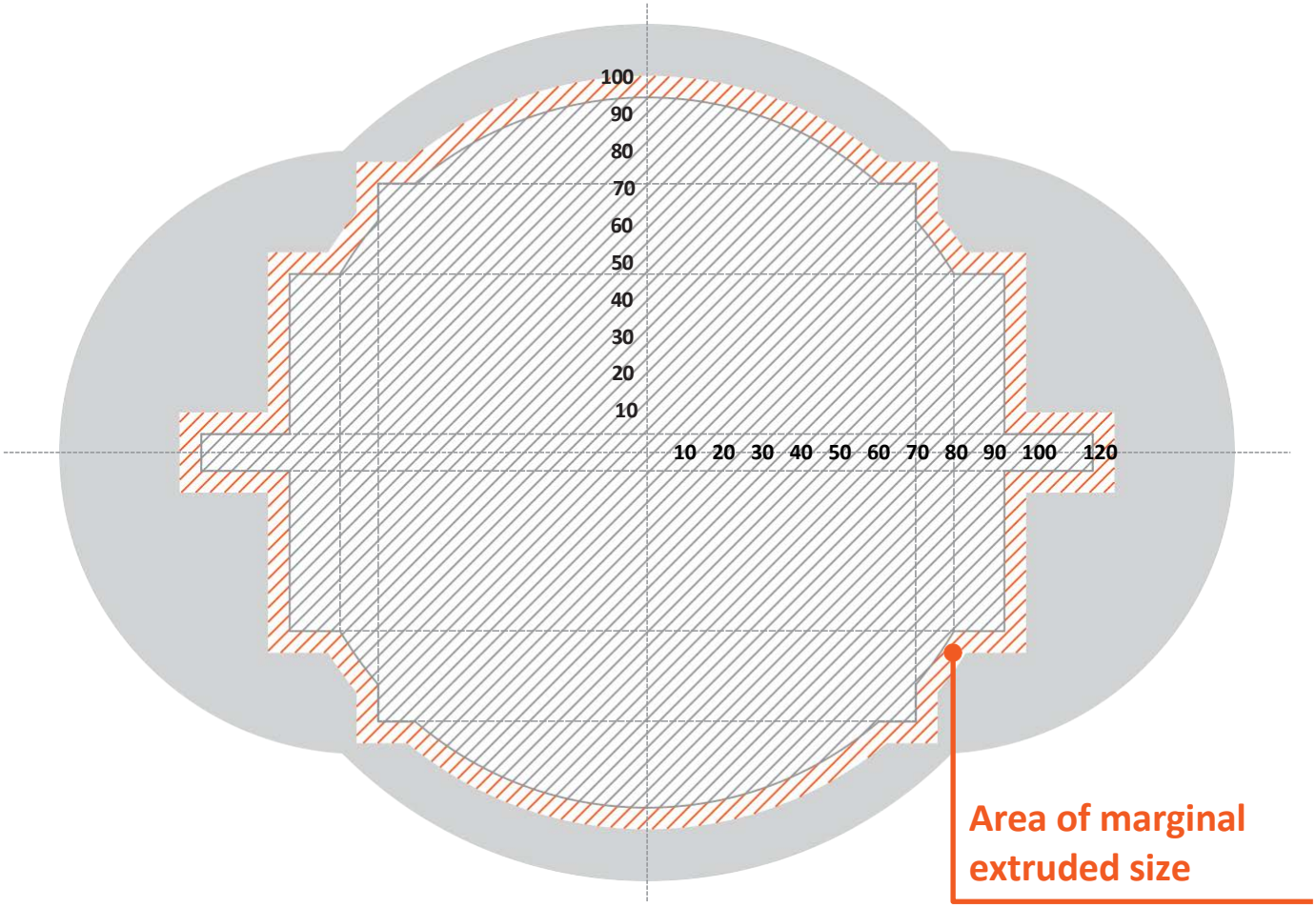
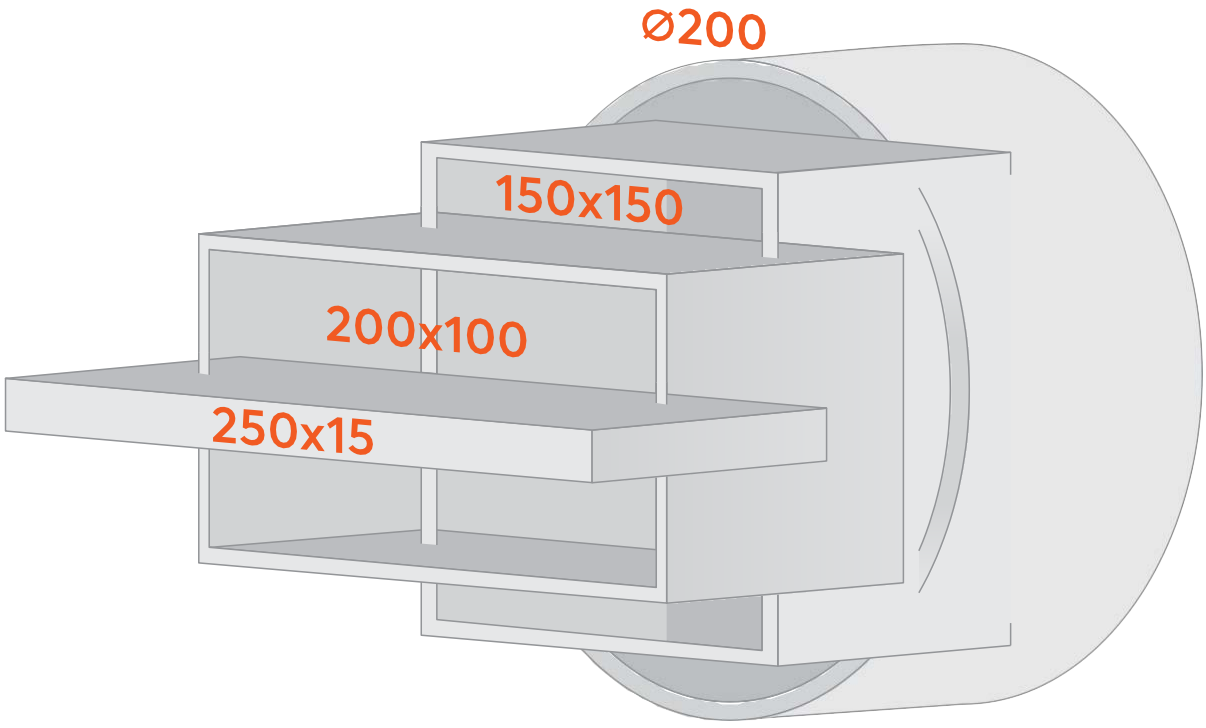
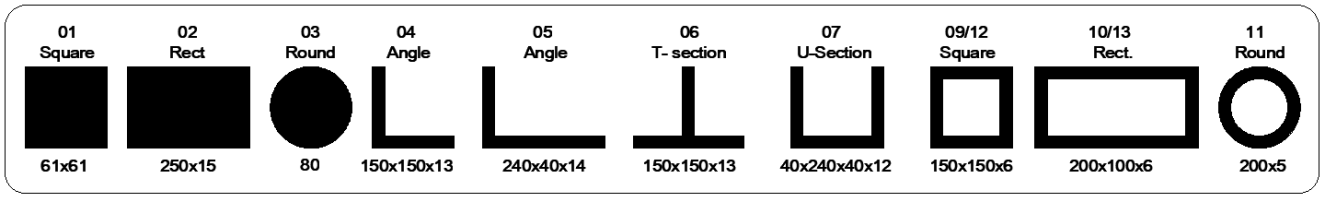
Profile size production range





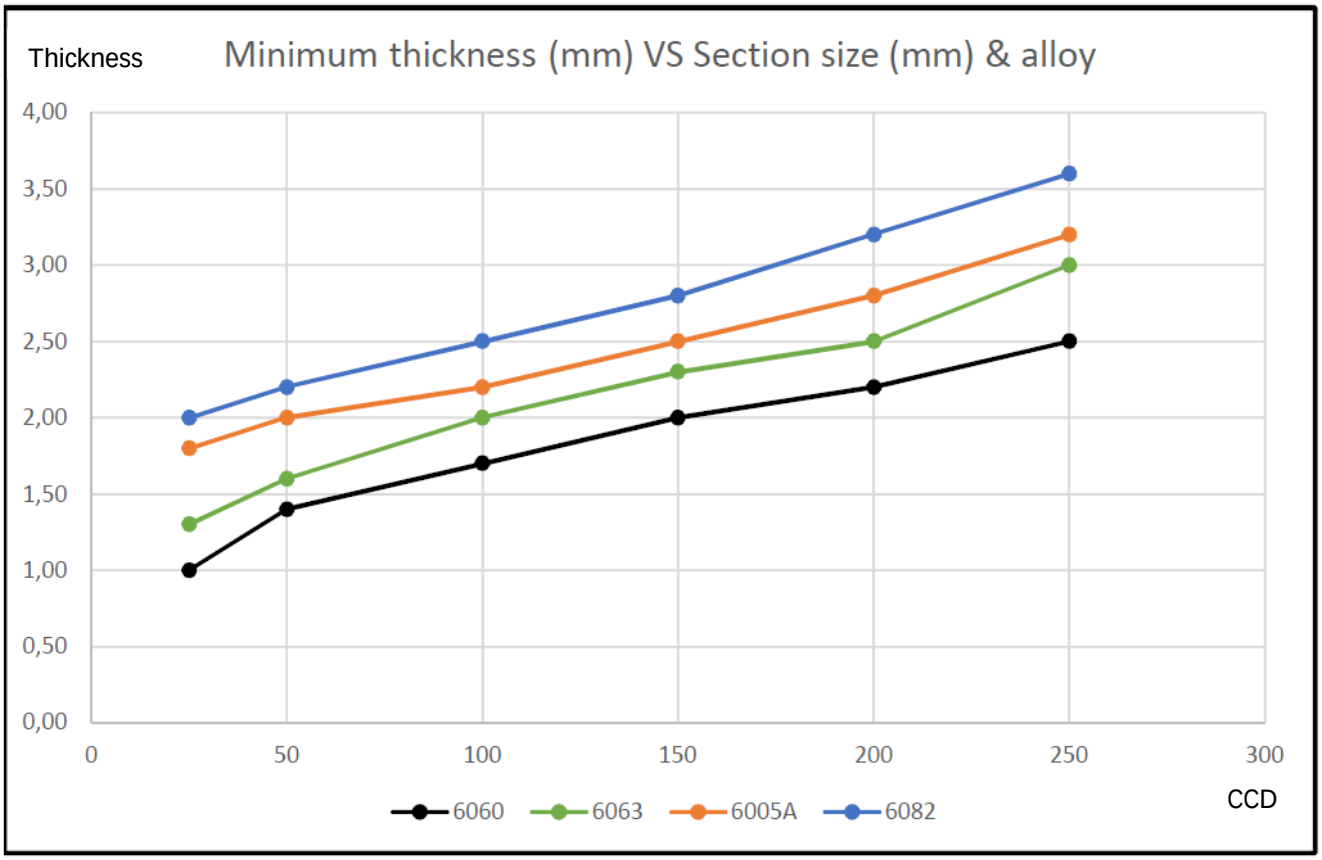
In tubes	Ø200 x 5 mm	Weight range	
In square hollow sections	150 x 150 x 6 mm		
In rectangular hollow sections	200 x 100 x 6 mm		
In equal leg angles and T sections	150 x 150 x 13 mm	Minimum	Maximum
In unequal leg angles and channels	240 x 40 x 12 mm		
In rectangular (flat) bars	250 x 15 mm	0,100 Kg/m	13,00 Kg/m
In square bars	70 x 70 mm		
In round bars	Ø80 mm		

Schematic extrusion maximums per shape



Thickness vs Alloy

Depending on the size of the section (Circumscribed Circle Diameter, horizontal axis) and the alloy to extrude, the minimum thickness should follow the trend indicated by the chart below (vertical axis):



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Product forms & Applications

Alloys	Forms	Characteristic properties	Applications
EN-AW 6060	Extruded bars Extruded tubes Extruded profiles	V.good corrosion resistance, weldability, Medium strength, Complex sections, Anodising quality.	Architectural sections, windows, doors, curtain walls, lightings, railing, ladders, furniture, fences, truck flooring, heat sinks, irrigation, cooling pipes, electronic modules.
EN-AW 6063		V.good corrosion resistance, weldability, Medium strength, Complex sections, Anodising quality.	Architectural sections, windows, doors, curtain walls, lightings, railing, ladders, furniture, fences, truck flooring, heat sinks, irrigation, cooling pipes, electronic modules, electric motor housings, office equipment, special machine elements.
EN-AW 6005A		V.good corrosion resistance, V.good weldability, ,Medium-high strength, Complex sections, Anodising quality.	Bus and railway profile structures, structural engineering, pylons, platforms, pipeline,...
EN-AW 6082		V.good corrosion resistance, V.good weldability, Medium-high strength, good machinability, formability in T4,Medium-high strength, Simple sections	Heavy duty structures in rail coaches, truck frames, ship building, offsore, bridges, boiler making, mast and beams for ship building, scaffolding, motorboats.
EN-AW 6061		V.good corrosion resistance, V.good weldability, Medium-high strength, good machinability, formability in T4,Medium-high strength, Simple sections	Heavy duty structures in rail coaches, truck frames, ship building, offsore, bridges, boiler making, mast and beams for ship building, scaffolding, motorboats

Quality control

We follow the European norms for:

EN Standard	Description
Aluminium & aluminium alloys- Extruded rod/bar, tubes and profiles	
EN 755-1	Technical conditions for inspection & delivery
EN 755-2	Mechanical properties
EN 515	Temper designation
EN 573-3	Chemical composition and form of products
EN 755-3	Round bars, tolerances on dimension & form
EN 755-4	Square bars, tolerances on dimension & form
EN 755-5	Rectangular bars, tolerances on dimension & form
EN 755-6	Hexagonal bars, tolerances on dimension & form
EN 755-8	Porthole square, rect, hex, Oct, & round tubes, tolerances on dimension & form
EN 755-9	Profiles, tolerances on dimension & form
EN- 12020-1	Technical conditions for inspection & delivery (for precision profiles only)
EN- 12020-2	Tolerances on dimension & form (for precision profiles only)
Metallic products- materials	
EN ISO 6892-1	Tensile testing- part 1: Method of test at room temperature
EN- 10204	Inspection certificates 2.3, 3.1, 3.2
	On special request
ASTM B 221M-07 (Metric)	Standard specification for Aluminium and Aluminium alloy Extruded Bars, Rods, Wire, Profiles and Tubes
ASTM B 429M- 06	Standard specification for Aluminium alloy Extruded Structural Pipe or Tube.
BS EN ISO 8493:2004	Tube- Drift- expanding test

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Certifications

Cosmos Certificates
ISO 9001
ISO 14001
ISO 50001
ISO 45001
Certificate of Conformity of Factory Production Control- 0094/CPR/MAD/1007756/A A1 ENG (*) - LRQA
LR Approved – No LR23156785WA
REACH - RoHS
EPD
UK Certificate of Conformity of Factory Production Control – 0038/CPR/PRJ11100383196-1 - LRQA

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Square bars

01

Notes:

* The weight of each profile is calculated by measuring its cross-sectional area and multiplying it by the material density. The aluminium density is considered to be 2,70 gr/cm3.

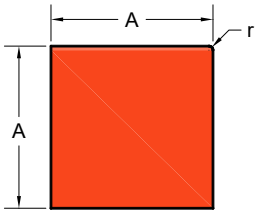
** Alloy and Length is subject to customer's request.

*** Radii less than 1mm are not stated.

A=Width

A=Height

r=Corner radius



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Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
01-0806	SQUARE BAR 1/2'' x 1/2''		0,44
01-0803	SQUARE BAR 1'' x 1''		1,74
01-0804	SQUARE BAR 1.1/2'' x 1.1/2''		3,92
01-0802	SQUARE BAR 2'' x 2''		6,97
01-0801	SQUARE BAR 2.1/4'' x 2.1/4''		8,82
01-0805	SQUARE BAR 2.1/2'' x 2.1/2''		10,89

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Rectangular bars (Flat bars)

02

Notes:

* The weight of each profile is calculated by measuring it's cross-sectional area and multiplying it by the material density. The aluminium density is considered to be 2,70 gr/cm3.

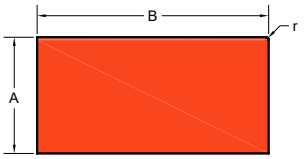
** Alloy and Length is subject to customer's request.

*** Corner Radii 0,0118 inch or 0,3 mm.

A=Height

B=Width

r=Corner radius



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Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
02-0859	FLAT BAR 5/8'' x 1/8''		0,136
02-0880	FLAT BAR 3/4''x1/16''		0,082
02-0801	FLAT BAR 3/4'' x 1/8''		0,163
02-0870	FLAT BAR 3/4'' x 3/16''		0,246
02-0832	FLAT BAR 3/4'' x 3/8''		0,489
02-0847	FLAT BAR 3/4'' x 1/2''		0,653
02-0823	FLAT BAR 1'' x 1/8''		0,218
02-0866	FLAT BAR 1'' x 3/16''		0,328
02-0807	FLAT BAR 1'' x 1/4''		0,435
02-0860	FLAT BAR 1'' x 1/2''		0,871
02-0861	FLAT BAR 1'' x 3/4''		1,306
02-0845	FLAT BAR 1'' x 1.1/4''		2,177
02-0835	FLAT BAR 1.1/4'' x 1/8''		0,272
02-0862	FLAT BAR 1.1/4'' x 1/4''		0,545
02-0848	FLAT BAR 1.1/4'' x 3/4''		1,633
02-0883	FLAT BAR 1.1/4'' x 1''		2,176
02-0844	FLAT BAR 1.1/2'' x 1/8''		0,326
02-0808	FLAT BAR 1.1/2'' x 1/4''		0,653
02-0809	FLAT BAR 1.1/2'' x 3/8''		0,98
02-0836	FLAT BAR 1.1/2'' x 1/2''		1,306
02-0877	FLAT BAR 1.1/2'' x 5/8''		1,633
02-0863	FLAT BAR 1.1/2'' x 3/4''		1,96
02-0824	FLAT BAR 1.1/2'' x 1''		2,613
02-0840	FLAT BAR 1.1/2'' x 1.1/4''		3,267
02-0846	FLAT BAR 1.3/4'' x 1/4''		0,762
02-0885	FLAT BAR 1.3/4'' x 3/4''		2,286
02-0881	FLAT BAR 1.3/4'' x 1''		3,048
02-0841	FLAT BAR 1.3/4'' x 1.1/4''		3,81

Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
02-0825	FLAT BAR 2'' x 1/8''		0,436
02-0826	FLAT BAR 2'' x 3/16''		0,653
02-0802	FLAT BAR 2'' x 1/4''		0,871
02-0810	FLAT BAR 2'' x 3/8''		1,306
02-0818	FLAT BAR 2'' x 1/2''		1,742
02-0856	FLAT BAR 2'' x 5/8''		2,177
02-0864	FLAT BAR 2'' x 3/4''		2,613
02-0811	FLAT BAR 2'' x 1''		3,483
02-0842	FLAT BAR 2'' x 1.1/4''		4,355
02-0812	FLAT BAR 2'' x 1.1/2''		5,226
02-0852	FLAT BAR 2.1/4'' x 3/4''		2,939
02-0865	FLAT BAR 2.1/4'' x 1.1/4''		4,899
02-0879	FLAT BAR 2.1/2'' x 1/8''		0,544
02-0837	FLAT BAR 2.1/2'' x 1/4''		1,088
02-0834	FLAT BAR 2.1/2'' x 3/8''		1,633
02-0831	FLAT BAR 2.1/2'' x 1/2''		2,177
02-0876	FLAT BAR 2.1/2'' x 5/8''		2,722
02-0819	FLAT BAR 2.1/2'' x 1''		4,355
02-0886	FLAT BAR 2.1/2'' x 1.1/4''		5,443
02-0822	FLAT BAR 2.1/2'' x 1.1/2''		6,532
02-0843	FLAT BAR 2.1/2'' x 2''		8,71
02-0827	FLAT BAR 3'' x 1/4''		1,306
02-0803	FLAT BAR 3'' x 3/8''		1,96
02-0828	FLAT BAR 3'' x 1/2''		2,611
02-0857	FLAT BAR 3'' x 5/8''		3,266
02-0887	FLAT BAR 3'' x 3/4''		3,919
02-0820	FLAT BAR 3'' x 1''		5,225
02-0853	FLAT BAR 3'' x 1.1/4''		6,532
02-0849	FLAT BAR 3'' x 1.1/2''		7,838
02-0838	FLAT BAR 3'' x 2''		10,451
02-0890	FLAT BAR 3.1/2" x 1/2"		3,048
02-0850	FLAT BAR 3.1/2'' x 1''		6,097
02-0854	FLAT BAR 3.1/2'' x 1.1/2''		9,145
02-0888	FLAT BAR 3.1/2'' x 2''		12,193
02-0806	FLAT BAR 4'' x 1/4''		1,742
02-0813	FLAT BAR 4'' x 3/8''		2,613
02-0804	FLAT BAR 4'' x 1/2''		3,484
02-0839	FLAT BAR 4'' x 5/8''		4,355
02-0829	FLAT BAR 4'' x 3/4''		5,225
02-0821	FLAT BAR 4'' x 1''		6,967
02-0833	FLAT BAR 4'' x 1.1/4''		8,71

Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
02-0873	FLAT BAR 4'' x 1.1/2''		10,451
02-0871	FLAT BAR 4'' x 1.3/4''		12,193
02-0872	FLAT BAR 4'' x 2''		13,935
02-0814	FLAT BAR 5'' x 1/4''		2,177
02-0858	FLAT BAR 5'' x 1/2''		4,355
02-0874	FLAT BAR 5'' x 3/4''		6,532
02-0851	FLAT BAR 5'' x 1''		8,71
02-0878	FLAT BAR 5'' x 1.1/4'		10,887
02-0805	FLAT BAR 6'' x 1/4''		2,613
02-0815	FLAT BAR 6'' x 3/8''		3,919
02-0816	FLAT BAR 6'' x 1/2''		5,226
02-0875	FLAT BAR 6'' x 3/4''		7,838
02-0817	FLAT BAR 6'' x 1''		10,452
02-0889	FLAT BAR 8'' x 1/2''		6,968

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Round bars (Rods)

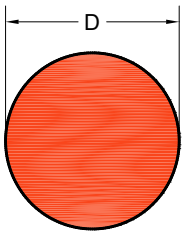
03

Notes:

* The weight of each profile is calculated by measuring it's cross-sectional area and multiplying it by the material density. The aluminium density is considered to be 2,70 gr/cm3.

** Alloy and Length is subject to customer's request.

D = Diameter



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Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
03-0805	ROUND BAR Φ1/2''		0,34
03-0807	ROUND BAR Φ5/8''		0,54
03-0806	ROUND BAR Φ3/4''		0,77
03-0808	ROUND BAR Φ7/8''		1,05
03-0801	ROUND BAR Φ1''		1,37
03-0819	ROUND BAR Φ1.1/8''		1,73
03-0804	ROUND BAR Φ1.1/4''		2,14
03-0809	ROUND BAR Φ1.3/8''		2,59
03-0810	ROUND BAR Φ1.1/2''		3,08
03-0817	ROUND BAR Φ1.5/8''		3,61
03-0802	ROUND BAR Φ1.3/4''		4,19
03-0811	ROUND BAR Φ1.7/8''		4,81
03-0803	ROUND BAR Φ2''		5,47
03-0816	ROUND BAR Φ2.1/8''		6,20
03-0815	ROUND BAR Φ2.1/4''		6,93
03-0812	ROUND BAR Φ2.3/8''		7,72
03-0813	ROUND BAR Φ2.1/2''		8,55
03-0814	ROUND BAR Φ2.3/4''		10,35
03-0818	ROUND BAR Φ3''		12,31

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Symmetrical L-Profiles (Angles)

04

Notes:

* The weight of each profile is calculated by measuring it's cross-sectional area and multiplying it by the material density. The aluminium density is considered to be 2,70 gr/cm3.

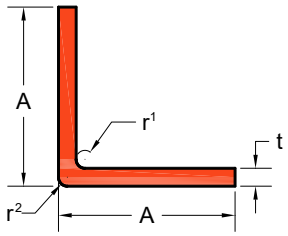
** Alloy and Length is subject to customer's request.

*** Corner Radii 0,0118 inch or 0,3 mm.

A=Width

A=Height

t=thickness



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Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
04-0822	SYM. L 3/4'' x 3/4'' x 1/8''		0,30
04-0816	SYM. L 1'' x 1'' x 1/16''		0,21
04-0801	SYM. L 1'' x 1'' x 1/8''		0,41
04-0811	SYM. L 1'' x 1'' x 3/16''		0,59
04-0819	SYM. L 1'' x 1'' x 1/4''		0,76
04-0818	SYM. L 1.1/4'' x 1.1/4'' x 1/16''		0,27
04-0807	SYM. L 1.1/4'' x 1.1/4'' x 1/8''		0,52
04-0820	SYM. L 1.1/4" x 1.1/4'' x 1/4"		0,98
04-0828	SYM. L 1.1/2'' x 1.1/2'' x 1/16''		0,32
04-0802	SYM. L 1.1/2'' x 1.1/2'' x 1/8''		0,63
04-0817	SYM. L 1.1/2'' x 1.1/2'' x 3/16''		0,92
04-0803	SYM. L 1.1/2'' x 1.1/2'' x 1/4''		1,20
04-0824	SYM. L 1.3/4'' x 1.3/4'' x 3/16''		1,08
04-0823	SYM. L 2'' x 2'' x 1/16"		0,43
04-0804	SYM. L 2'' x 2'' x 1/8''		0,84
04-0813	SYM. L 2" x 2" x 3/16"		1,24
04-0805	SYM. L 2'' x 2'' x 1/4''		1,63
04-0821	SYM. L 2'' x 2'' x 3/8''		2,37
04-0815	SYM. L 2.1/2'' x 2.1/2'' x 3/16''		1,57
04-0809	SYM. L 2.1/2'' x 2.1/2'' x 1/4''		2,07
04-0808	SYM. L 3'' x 3'' x 1/8''		1,28
04-0806	SYM. L 3'' x 3'' x 1/4''		2,50
04-0810	SYM. L 3'' x 3'' x 3/8''		3,67
04-0825	SYM. L 3.1/2'' x 3.1/2'' x 1/4''		2,94
04-0814	SYM. L 4'' x 4'' x 1/4''		3,38
04-0812	SYM. L 4'' x 4'' x 3/8''		4,98

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Asymmetrical L-Profiles (Angles)

05

Notes:

* The weight of each profile is calculated by measuring it's cross-sectional area and multiplying it by the material density. The aluminium density is considered to be 2,70 gr/cm3.

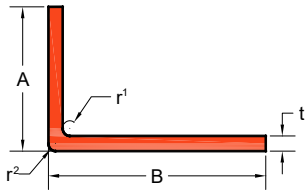
** Alloy and Length is subject to customer's request.

*** Corner Radii 0,0118 inch or 0,3 mm.

A=Height

B=Width

t=thickness



EXPERTS IN ALUMINIUM™

Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
05-0806	ASYM. L 1'' x 1/2'' x 1/16''		0,16
05-0820	ASYM. L 1'' x 5/8'' x 1/8''		0,33
05-0823	ASYM. L 1.1/2'' x 3/4'' x 1/8''		0,46
05-0822	ASYM. L 1.1/2'' x 3/4'' x 1/4''		0,87
05-0808	ASYM. L 1.1/2'' x 1'' x 1/8''		0,52
05-0801	ASYM. L 2'' x 1'' x 1/8''		0,63
05-0809	ASYM. L 2'' x 1'' x 1/4''		1,20
05-0813	ASYM. L 2'' x 1.1/2'' x 1/8"		0,73
05-0810	ASYM. L 2'' x 1.1/2'' x 1/4''		1,42
05-0821	ASYM. L 2.1/2'' x 1.1/2'' x 3/16''		1,25
05-0807	ASYM. L 3'' x 1'' x 1/8''		0,84
05-0811	ASYM. L 3'' x 1.1/2'' x 1/8''		0,95
05-0812	ASYM. L 3'' x 2'' x 1/8''		1,06
05-0805	ASYM. L 3'' x 2'' x 3/16''		1,57
05-0802	ASYM. L 3'' x 2'' x 1/4''		2,07
05-0819	ASYM. L 4'' x 1'' x 1/8''		1,07
05-0803	ASYM. L 4'' x 2'' x 1/4''		2,50
05-0804	ASYM. L 4'' x 3'' x 1/4''		2,94
05-0816	ASYM. L 5'' x 2'' x 3/8''		4,34
05-0817	ASYM. L 5'' x 3'' x 1/4''		3,39
05-0818	ASYM. L 6'' x 3'' x 1/4''		3,82
05-0815	ASYM. L 6'' x 3'' x 3/8''		5,66
05-0814	ASYM. L 7'' x 3'' x 3/8''		6,31

cosmos

T-Profiles

06

Notes:

* The weight of each profile is calculated by measuring it's cross-sectional area and multiplying it by the material density. The aluminium density is considered to be 2,70 gr/cm3.

** Alloy and Length is subject to customer's request.

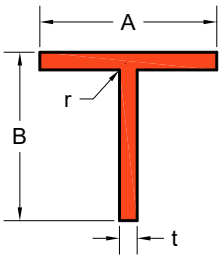
*** Corner Radii 0,0118 inch or 0,3 mm (otherwise stated).

A=Width

B=Height

t=thickness

r=Corner radius



EXPERTS IN ALUMINIUM™

Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
06-0801	T 3'' x 3'' x 1/4''		2,50

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U-Profiles (U-Channels)

07

Notes:

* The weight of each profile is calculated by measuring it's cross-sectional area and multiplying it by the material density. The aluminium density is considered to be 2,70 gr/cm3.

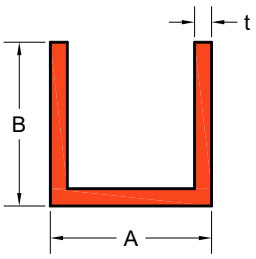
** Alloy and Length is subject to customer's request.

*** Corner Radii 0,0118 inch or 0,3 mm (otherwise stated)

A = Width

B = Height

t = thickness



EXPERTS IN ALUMINIUM™

Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
07-0801	U 1'' x 3/4'' x 1'' x 1/16''		0,37
07-0807	U 2'' x 1'' x 2'' x 1/8''		1,03
07-0813	U 1.1/4'' x 1.1/4'' x 1.1/4'' x 1/8''		0,76
07-0806	U 1'' x 2'' x 1'' x 1/8''		0,82
07-0808	U 2''x 2'' x 2'' x 1/8''		1,25
07-0804	U 5'' x 2.3/4'' x 3/16'' x 5/16''		4,49
07-0805	U 1'' x 4'' x 1'' x 1/8''		1,20
07-0802	U 2'' x 4'' x 1/4'' x 2'' x 5/16''		3,65
07-0803	U 2'' x 3/8'' x 6'' x 1/4''		4,92

cosmos

Square tubes

09

Notes:

* The weight of each profile is calculated by measuring it's cross-sectional area and multiplying it by the material density. The aluminium density is considered to be 2,70 gr/cm3.

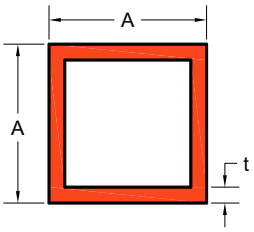
** Alloy and Length is subject to customer's request.

*** Corner Radii 0,0118 inch or 0,3 mm (otherwise stated).

A = Width

A = Height

t = Thickness



EXPERTS IN ALUMINIUM™

Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
09-0811	SQ. TUBE 1/2'' x 1/2'' x 16SWG		0,19
09-0809	SQ. TUBE 3/4'' x 3/4'' x 16SWG		0,31
09-0808	SQ. TUBE 1'' x 1'' x 16SWG		0,42
09-0802	SQ. TUBE 1'' x 1'' x 10SWG		0,78
09-0814	SQ. TUBE 1.1/4'' x 1.1/4'' x 16SWG		0,53
09-0803	SQ. TUBE 1.1/4'' x 1.1/4'' x 10SWG		1,00
09-0813	SQ. TUBE 1.1/2'' x 1.1/2'' x 16SWG		0,64
09-0810	SQ. TUBE 1.1/2'' x 1.1/2'' x 10SWG		1,22
09-0815	SQ. TUBE 1.1/2'' x 1.1/2'' x 4mm		1,49
09-0801	SQ. TUBE 2'' x 2'' x 10SWG		1,67
09-0806	SQ. TUBE 2'' x 2'' x 1/4''		3,05
09-0812	SQ. TUBE 2.1/2'' x 2.1/2'' x 10SWG		2,12
09-0804	SQ. TUBE 3'' x 3'' x 10SWG		2,56
09-0816	SQ.TUBE 3'' x 3'' x 1/4''		4,79
09-0805	SQ. TUBE 4'' x 4'' x 10SW		3,45
09-0807	SQ. TUBE 4'' x 4'' x 1/4''		6,53

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Rectangular tubes

10

Notes:

* The weight of each profile is calculated by measuring it's cross-sectional area and multiplying it by the material density. The aluminium density is considered to be 2,70 gr/cm3.

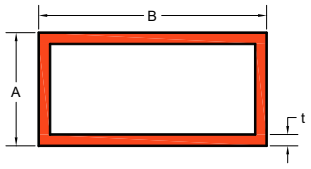
** Alloy and Length is subject to customer's request.

*** Corner Radii 0,0118 inch or 0,3 mm (otherwise stated).

A=Width

B=Height

t=thickness



EXPERTS IN ALUMINIUM™

Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
10-0813	RECT. TUBE 1'' x 1/2'' x 16SWG		0,31
10-0812	RECT. TUBE 1.1/2'' x 3/4'' x 1/16''		0,46
10-0819	RECT. TUBE 1.1/2'' x 1'' x 16SWG		0,53
10-0802	RECT. TUBE 2'' x 1'' x 10SWG		1,22
10-0801	RECT. TUBE 2'' x 1.1/2'' x 10SWG		1,45
10-0815	RECT. TUBE 2.1/2'' x 1.1/4'' x 10SWG		1,56
10-0803	RECT. TUBE 3'' x 1'' x 10SWG		1,67
10-0808	RECT. TUBE 3'' x 1.1/2'' x 10SWG		1,89
10-0814	RECT. TUBE 3'' x 1.3/4'' x 10SWG		2,00
10-0807	RECT. TUBE 3'' x 2'' x 10SWG		2,11
10-0804	RECT. TUBE 4'' x 1'' x 10SWG		2,12
10-0805	RECT. TUBE 4'' x 1.3/4'' x 10SWG		2,45
10-0806	RECT. TUBE 4'' x 2'' x 10SWG		2,56

SWG	(in)	(mm)	SWG	(in)	(mm)	SWG	(in)	(mm)
0	0.324	8.230	9	0.144	3.658	18	0.048	1.219
1	0.300	7.620	10	0.128	3.251	19	0.040	1.016
2	0.276	7.010	11	0.116	2.946	20	0.036	0.914
3	0.252	6.401	12	0.104	2.642	21	0.032	0.813
4	0.232	5.893	13	0.092	2.337	22	0.028	0.711
5	0.212	5.385	14	0.080	2.032	23	0.024	0.610
6	0.192	4.877	15	0.072	1.829	24	0.022	0.559
7	0.176	4.470	16	0.064	1.626	25	0.020	0.508
8	0.160	4.064	17	0.056	1.422			

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Round tubes

Notes:

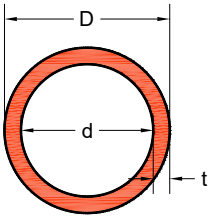
* The weight of each profile is calculated by measuring it's cross-sectional area and multiplying it by the material density. The aluminium density is considered to be 2,70 gr/cm3.

** Alloy and Length is subject to customer's request.

D=Outer Diameter

d=Inner diameter

t=thickness



EXPERTS IN ALUMINIUM™

Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
11-0825	ROUND TUBE Φ3/8" OD x 16SWG		0,11
11-9801	ROUND TUBE Φ1/2" x 10SWG		0,26
11-0821	ROUND TUBE Φ3/4'' OD x 10SWG		0,44
11-0827	ROUND TUBE Φ1'' x 16SWG		0,33
11-0802	ROUND TUBE Φ1'' x 10SWG		0,61
11-0809	ROUND TUBE Φ1.1/8'' x 10SWG		0,70
11-0817	ROUND TUBE Φ1.1/4'' x 10SWG		0,79
11-0822	ROUND TUBE Φ1.3/8'' x 10SWG		0,88
11-0815	ROUND TUBE Φ1.1/2'' x 10SWG		0,96
11-0810	ROUND TUBE Φ1.1/2'' x 1/4''		1,71
11-0811	ROUND TUBE Φ1.5/8'' x 10SWG		1,05
11-0820	ROUND TUBE Φ1.3/4'' x 10SWG		1,14
11-0814	ROUND TUBE Φ2'' x 16SWG	*	0,68
11-0806	ROUND TUBE Φ2'' x 10SWG		1,31
11-0808	ROUND TUBE Φ2'' x 3/16''		1,86
11-0818	ROUND TUBE Φ2'' x 1/4''		2,39
11-0807	ROUND TUBE Φ2.1/2'' x 10SWG		1,66
11-0812	ROUND TUBE Φ2.1/2'' x 1/4''		3,08
11-0813	ROUND TUBE Φ3'' x 16SWG	*	1,03
11-0803	ROUND TUBE Φ3'' x 10SWG		2,01
11-0805	ROUND TUBE Φ3'' x 1/4''		3,76
11-0823	ROUND TUBE Φ3.1/2'' x 10SWG		2,36
11-0824	ROUND TUBE Φ3.1/2'' x 1/4''		4,46
11-0819	ROUND TUBE Φ4'' OD x 1,5mm	*	1,27
11-0801	ROUND TUBE Φ4'' x 16SWG	*	1,38

Profile Code	Description	Additional charge	Weight *Gewicht* (Kg/m)
11-0804	ROUND TUBE Φ4'' x 10SWG	*	2,71
11-0828	ROUND TUBE Φ4'' x 1/4''		5,13
11-0826	ROUND TUBE Φ6'' x 2,5mm		3,18
11-0816	ROUND TUBE Φ6'' x 10SWG	*	4,11

SWG	(in)	(mm)	SWG	(in)	(mm)	SWG	(in)	(mm)
0	0.324	8.230	9	0.144	3.658	18	0.048	1.219
1	0.300	7.620	10	0.128	3.251	19	0.040	1.016
2	0.276	7.010	11	0.116	2.946	20	0.036	0.914
3	0.252	6.401	12	0.104	2.642	21	0.032	0.813
4	0.232	5.893	13	0.092	2.337	22	0.028	0.711
5	0.212	5.385	14	0.080	2.032	23	0.024	0.610
6	0.192	4.877	15	0.072	1.829	24	0.022	0.559
7	0.176	4.470	16	0.064	1.626	25	0.020	0.508
8	0.160	4.064	17	0.056	1.422			

CONTACT

COSMOS
ALUMINIUM

COSMOS ALUMINIUM A.E.
ALUMINIUM INDUSTRY

8th km National Road Larissa-Athens,
Nikea Intersection
Larissa, Greece
PO Box. 1379, Zip Code 41110
Tel. +30 2410 567567
Fax. +30 2410 567510

info@cosmosaluminium.gr
www.cosmosaluminium.gr