VEER ALUMINIUM

STANDARD ENGINEERING PROFILE CATALOGUE

www.veeraluminium.com

info@veeraluminium.com

010 054 9842

Temper	Description	Applications
T1	Naturally aged after solution heat treatment	Suitable for applications necessitating moderate strength, emphasizing formability, and corrosion resistance.
T4	Solution heat-treated and naturally aged	Offers enhanced formability with superior properties compared to F or O conditions. Applied in various industries.
T6	Solution heat-treated and artificially aged	Employed in applications where the utmost mechanical properties are imperative.

The alloys 6063, 6005, and 6061 exhibit various temper conditions, each tailored to meet specific requirements in diverse applications.

Extrusion Alloy Offered and Summary:

Alloy	Temper	6063	6005	6061
Description	-	Suited for intricate sections with medium strength. Exhibits excellent formability in both "T4" and "T1" conditions. Possesses high corrosion resistance and achieves a commendable surface finish.	A medium-strength alloy characterized by good extrudability, making it suitable for intricate shapes and profiles. This alloy is well-suited for applications where a balance between strength and formability is essential.	A versatile alloy designed for general-purpose structural applications. Demonstrates good mechanical properties, corrosion resistance, and weldability.
Strength	-	Medium	Medium - High	High
Finishing Response	-	Excellent	Good	Good
Yield strength, (MPa)	T4	95	70	145
	T6	225	260	275
Tensile strength, (MPa)	T4	190	160	220
	T6	250	285	310
Elongation, A5 %	T4	24	22	20
	T6	10	8	10
Brinell Hardness, HB	T4	47	47	65
	T6	81	92	100

Alloy	Temper	6063	6005	6061
Density (kg/m^{2})	-	2 700	2 700	2 700
Young's Modulus (MPa)	-	69 000	69 000	69 000
Coefficient of expansion 20-100 °C (x10-6 / °C)	-	23	23	24
Thermal conductivity 20 °C (W/mK)	-	200	200	180
Electrical conductivity % IACS	-	52	52	46
Melting Point (°C)	-	600-655	615-655	580-650
Common Application	-	Utilized in the construction of architectural components like window frames and shop-fitting designs. Also employed in the manufacturing of irrigation tubes, demonstrating versatility for general-purpose use.	Ladders and design applications that demand properties falling between those of 6063 and 6061.	Applied in a diverse range of structural applications, including road and rail transport, mine cages, cranes, bridges, towers, roof trusses, and more.

Extrusion Alloy Offered and Summary:

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0.20 - 0.60	0.35	0.10	0.10	0.45 - 0.90	0.10	0.10	0.10
6005	0.6 0 - 0.90	0.35	0.10	0.10	0.40 - 0.60	0.10	0.10	0.10
6061	0.40 - 0.80	0.40	0.15 - 0.40	0.20 - 0.35	0.70 - 1.00	0.10	0.20	0.20

Note:

- Aluminium (Al) constitutes the remaining portion.
- All values represent maximum limits unless specified otherwise.
- The material adheres to multiple international standards.

Quality System and Accreditations:

- Veer Aluminium Extrusions operates a quality management system accredited to ISO 9001:2008, adhering to dimensional tolerances outlined in EN 755.
- This system enables comprehensive quality management, starting from the initial contract review to the final product shipment. Our laboratory facilities are equipped to support quality assurance and conduct essential metallurgical testing.
- Veer Aluminium Extrusions proudly holds the esteemed ISO 14001:2004 Environmental Management Systems accreditation, demonstrating our commitment to environmental stewardship. We actively promote the recycling of aluminium and responsibly manage other process waste, reflecting our dedication to sustainable practices.

Standard Terms:

- The minimum order quantity for any die/profile is 250 kg.
- Extrusions are typically offered in lengths ranging from 3000 mm to 8000 mm. For lengths outside this specified range, custom manufacturing is available but is subject to inquiry and surcharge.
- Standard packing methods will be applied unless otherwise stated in the order.
- Unless specified otherwise, there is a mass or piece quantity tolerance of ±10%.
- Exact quantities or tighter shipping tolerances are subject to inquiry and a price premium.
- If over-shipment is impermissible, kindly specify "Do not over-ship mass" (or "Pieces" as applicable), allowing for a 10% under-shipment tolerance.
- Clearly articulate any special requirements in your orders.
- Orders below this quantity are subject to inquiry, stock availability and a quantity surcharge may apply.
- Masses provided in this catalogue are indicative and may vary based on alloy and dimensional accuracy.

Important things to include in Order:

We take pride in offering customized extrusion profiles and follow a highly professional approach to each project. Our team works closely with clients to understand their unique requirements and generate tailored solutions that meet their needs. The process for custom extrusion profiles includes:

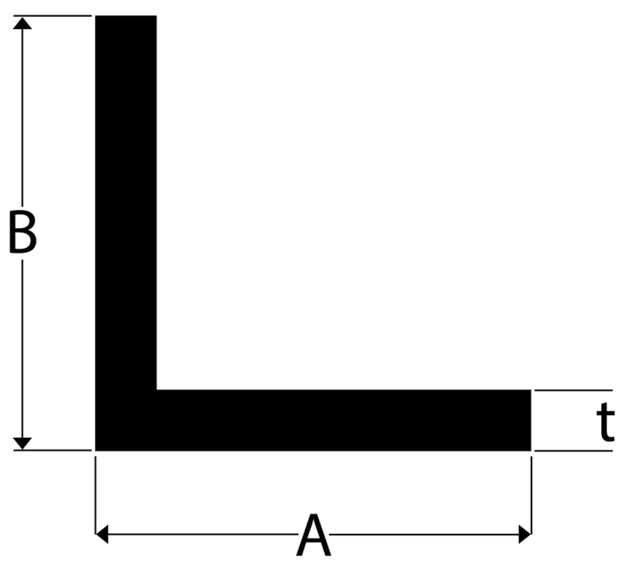
- Clients can provide a physical sample, prototype, or drawing of the profile they require. We use this to conduct a feasibility analysis and review commercial tolerances and specific product requirements.
- We provide a detailed quotation for the tooling and extrusion supply, which is subject to approval by the client.
- Following approval by the client, we manufacture the tooling based on the agreed-upon conditions between us and the client.
- After tooling manufacturing, we extrude the profiles and create samples that we present to the client for their approval.
- Prior to delivering the sample to the client, we conduct quality control tests to confirm that the product meets the agreed dimensions and standards.
- Upon approval of the test profile by the customer, we proceed with mass production of the required aluminium profiles.
- Our commitment to quality and attention to detail ensures that our customers receive high-quality customized profiles that meet their specifications and expectations.

Standards and Engineering

EQUAL AND UNEQUAL ANGLE

VEER ALUMINIUM

Profile	A	B	t	kg/m	Perimeter	CCD
V15021	100.00	50.00	3.00	1.195	298.970	112
V15022	100.00	50.00	5.00	1.964	298.970	112
V15023	100.00	50.00	6.00	2.341	298.970	112
V15026	12.00	12.00	1.50	0.091	46.970	17
V15012	12.70	12.70	3.18	0.191	49.770	18
V15027	16.00	16.00	1.50	0.123	62.970	23
V15028	19.00	19.00	1.50	0.147	74.970	27
V15001	19.05	19.05	1.60	0.157	74.912	27
V15013	21.25	19.25	2.25	0.232	80.227	29
V15037	22.00	08.00	3.20	0.232	58.455	24
V15029	25.00	25.0	1.50	0.196	98.970	35
V15014	25.00	25.0	3.0	0.381	98.043	35
V15002	25.40	25.40	1.59	0.211	100.312	36
V15003	25.40	25.40	3.18	0.408	99.952	36
V15038	25.50	12.50	3.20	0.302	75.227	29
V15040	26.50	20.00	1.60	0.194	92.227	33
V15015	30.00	30.00	3.00	0.460	118.043	42
V15004	31.75	31.75	1.60	0.267	125.712	45
V15011	35.60	28.58	2.04	0.342	126.403	45
V15041	38.00	25.00	1.60	0.266	124.970	45
V15006	38.00	38.00	2.00	0.399	150.712	54
V15044	38.00	38.00	3.00	0.593	150.712	54
V15045	38.00	38.00	5.00	0.961	150.712	54
V15039	38.10	25.40	1.40	0.249	123.446	46
V15005	38.10	38.10	1.60	0.323	151.112	54
V15024	38.10	38.10	6.35	1.202	151.370	54
V15016	50.00	20.00	3.00	0.542	138.970	54
V15032	50.00	25.00	2.00	0.394	148.970	56
V15030	50.00	50.00	1.60	0.425	198.712	71
V15008	50.00	50.00	2.00	0.528	197.940	70
V15009	50.00	50.00	3.00	0.784	198.043	71
V15007	50.80	50.80	1.59	0.429	201.912	72
V15025	51.00	25.50	1.50	0.303	151.970	57
V15017	60.00	60.00	6.00	1.853	238.970	85
V15033	76.00	38.00	2.00	0.604	226.970	85
V15010	76.00	76.00	2.00	0.809	302.712	108
V15019	76.20	76.20	4.78	1.912	303.770	108
V15046	76.60	76.60	6.35	2.526	305.112	108
V15020	80.00	20.00	2.00	0.531	198.970	83
V15031	97.00	97.00	2.00	1.036	386.712	137



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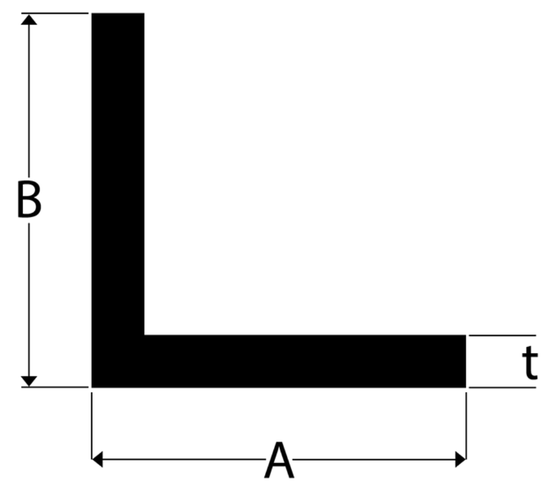
Profile	A	B	t	kg/m	Perimeter	CCD
V15047	15.00	19.00	1.60	0.123	58.970	21
V15048	25.00	25.00	1.60	0.209	98.970	35
V15049	76.00	76.00	3.00	1.211	302.712	107



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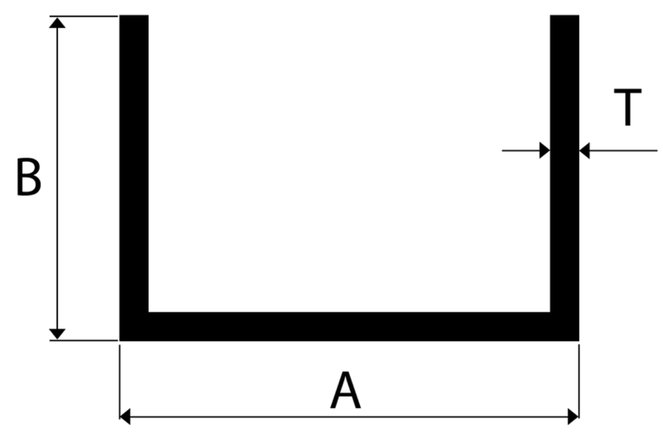
Standards and Engineering

CHANNEL

Profile	A	B	t	kg/m	Perimeter	CCD
VCH16008	101.60	50.80	6.35	3.277	390.953	114
VCH16010	104.00	42.00	2.00	0.993	370.283	112
VCH16021	12.00	12.00	1.50	0.134	67.970	17
VCH16018	15.88	15.88	1.68	0.201	90.627	23
VCH16011	32.05	25.56	2.60	0.549	158.890	41
VCH16017	38.10	38.10	3.18	0.930	220.867	54
VCH16001	46.00	30.00	3.00	0.812	204.283	55
V40064	46	30	3	0.774	197.628	100
VCH16015	47.50	19.00	1.50	0.335	166.970	51
V40129	50.00	25.00	1.50	0.394	195.970	56
VCH16013	50.00	25.00	1.50	0.394	195.970	56
VCH16014	50.00	25.00	2.00	0.520	194.970	56
VCH16005	50.80	23.82	1.60	0.529	245.202	56
VCH16002	54.50	30.00	2.00	0.598	223.283	62
VCH16009	68.00	40.00	2.50	1.036	310.287	75
VCH16003	76.00	38.00	3.00	1.186	295.802	85
VCH16006	76.20	38.10	7.92	2.742	283.891	85
VCH16007	78.60	28.00	1.30	0.463	265.793	83
VCH16004	80.00	35.00	2.00	0.788	294.283	87
V40044	40.00	40.00	40.00	0.926	232.627	87



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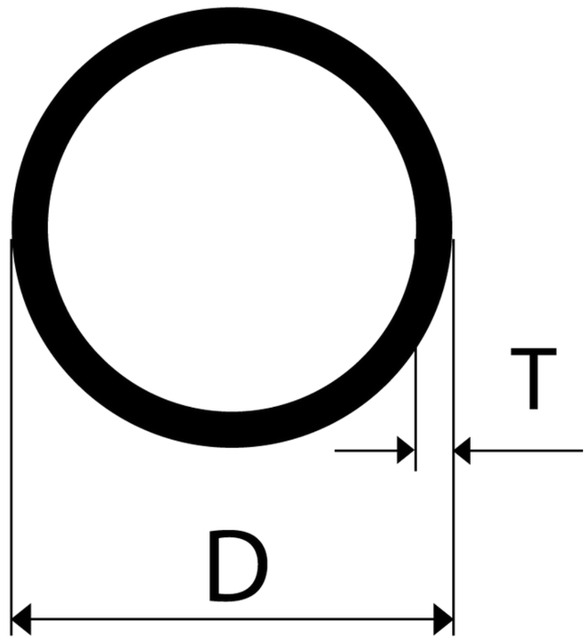
Standards and Engineering

ROUND TUBE

Profile	D	t	kg/m	Perimeter	CCD
VET00120	101.00	01.60	1.349	317.301	101
VET00131	15.80	02.60	0.235	49.637	16
VET00100	15.88	01.22	0.152	49.888	16
VET00110	16.40	01.62	0.204	51.522	17
VET00115	19.05	01.60	0.238	59.847	20
VET00117	21.60	01.40	0.241	67.858	22
VET00101	22.00	01.20	0.213	69.115	22
VET00124	22.00	01.50	0.262	69.115	22
VET00130	22.20	01.60	0.281	69.743	23
VET00123	22.22	19.78	0.217	69.806	23
VET00111	23.14	01.10	0.206	72.696	24
VET00102	25.00	01.20	0.243	78.540	25
VET00118	25.40	01.20	0.247	79.796	26
VET00116	25.40	01.62	0.328	79.796	26
VET00112	25.40	03.18	0.602	79.796	26
VH4112	30.00	02.00	0.477	94.248	30
VET00113	31.50	02.93	0.713	98.960	32
VET00136	31.75	01.60	0.411	99.746	32
VET00103	31.75	03.18	0.773	99.746	32
VH4113	32.50	02.20	0.568	102.102	33
VET00135	38.10	01.60	0.495	119.695	39
VET00133	48.00	02.00	0.783	150.796	48
VET00104	48.00	03.00	1.149	150.796	48
VET00129	50.00	01.50	0.619	157.080	50
VET00105	50.00	05.00	1.916	157.080	50
VET00132	50.80	01.50	0.630	159.593	51
VET00107	50.80	01.62	0.678	159.593	51
VET00108	50.80	03.18	1.289	159.593	51
VET00119	76.00	01.60	1.010	238.761	76
VET00106	76.20	03.18	1.977	239.389	77
VET00114	76.20	06.36	3.782	239.389	77
VET00127	19.05	3.18	0.430	59.847	20
VET00141	15.88	02.00	0.236	49.888	16
VET00137	16.00	01.00	0.128	50.265	16
VH4112	30.00	02.00	0.477	94.248	30
VET00113	31.50	02.93	0.713	98.960	32
VET00136	31.75	01.60	0.411	99.746	32
VET00103	31.75	03.18	0.773	99.746	32



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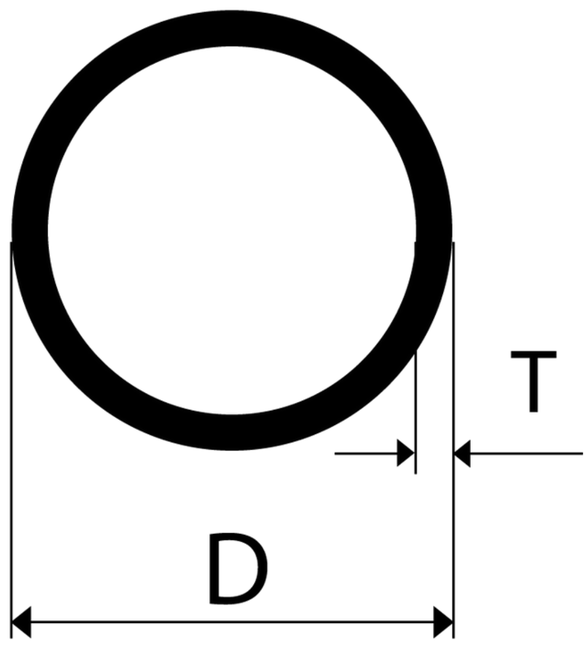
Profile	D	t	kg/m	Perimeter	CCD
VET00138	38.00	01.63	0.505	119.381	38
VET00140	50.80	02.00	0.831	159.593	51
VET00139	50.80	02.22	0.903	157.080	50



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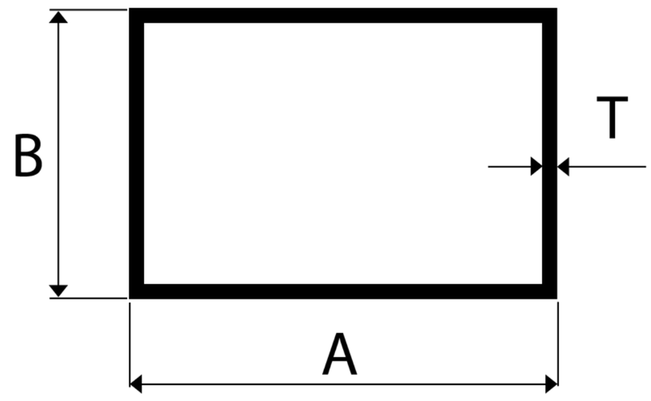
Standards and Engineering

RECTANGULAR TUBE

VEER ALUMINIUM

Profile	A	B	t	kg/m	Perimeter	CCD
VRT2021	100.00	38.00	02.00	1.453	275.142	107
VRT2014	100.00	40.00	03.00	2.179	279.313	108
VRT2017	100.00	50.00	02.00	1.583	299.142	112
VRT2010	100.00	50.00	03.00	2.341	299.313	112
VRT2022	101.00	44.00	03.00	2.260	289.142	110
VRT2001	101.60	25.40	03.25	2.123	253.142	105
VRT2023	150.00	38.00	02.00	1.995	375.142	155
VRT2020	150.00	50.00	02.00	2.125	399.146	158
VRT2015	150.00	50.00	02.25	2.376	396.566	157
VRT2018	150.00	50.00	03.00	3.154	300.142	158
VRT2016	18.00	12.00	01.20	0.180	59.485	22
VST3018	24.00	24.00	1.200	0.297	95.485	34
VRT2009	27.50	10.00	1.200	0.277	74.142	29
VRT2007	40.00	20.00	2.00	0.607	119.142	45
VRT2019	40.00	20.00	1.200	0.350	111.416	42
VRT2002	50.00	25.00	1.500	0.585	149.142	56
VRT2000	50.00	25.00	2.000	0.767	149.142	56
VRT2003	50.00	25.00	03.00	1.122	149.142	56
VRT2012	50.00	25.00	02.00	0.723	139.699	53
VRT2013	55.20	21.20	01.50	0.598	151.933	58
VRT2008	60.00	30.00	02.00	0.932	179.142	67
VRT2011	63.00	17.00	1.20	0.486	153.133	64
VRT2006	76.00	38.00	02.00	1.192	227.142	85
VRT2004	76.20	25.40	03.18	1.642	202.342	81
VRT2005	76.20	38.10	03.18	1.854	227.295	85
VRT2024	80.50	29.50	01.80	1.038	219.142	86



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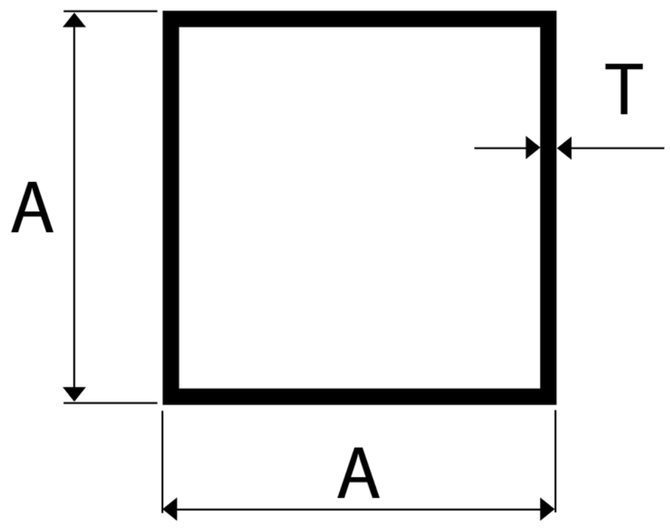
Standards and Engineering

SQUARE TUBE

Profile	A	A	t	kg/m	Perimeter	CCD
VST3022	100.00	100.00	02.00	2.125	399.142	141
VST3019	20.00	20.00	1.40	0.282	79.142	28
VST3024	25.00	25.00	01.60	0.406	99.142	35
VST3000	25.00	25.00	02.00	0.499	99.142	35
VST3003	25.00	25.00	03.00	0.713	99.142	35
VST3016	25.00	25.00	1.50	0.377	97.425	35
VST3010	25.00	25.00	2.00	0.497	99.142	35
VST3017	25.00	25.00	2.00	0.452	89.699	31
VST3020	25.40	25.40	02.00	0.507	100.742	36
VST3002	31.00	31.00	01.60	0.510	123.142	44
VST3011	38.00	38.00	2.00	0.778	151.142	54
VST3006	38.10	38.10	02.00	0.780	151.542	54
VST3009	38.10	38.10	03.18	1.204	151.542	54
VST3023	38.10	38.10	03.20	0.992	126.342	45
VST3015	38.10	38.10	2.04	0.791	150.202	53
VST3004	50.00	50.00	02.00	1.041	199.142	71
VST3005	50.00	50.00	03.00	1.528	199.142	71
VST3012	50.00	50.00	1.50	0.786	199.142	71
VST3013	76.00	76.00	2.00	1.598	303.142	108
VST3021	76.20	76.20	01.65	1.333	303.942	108
VST3014	97.00	97.00	2.00	2.052	387.142	137



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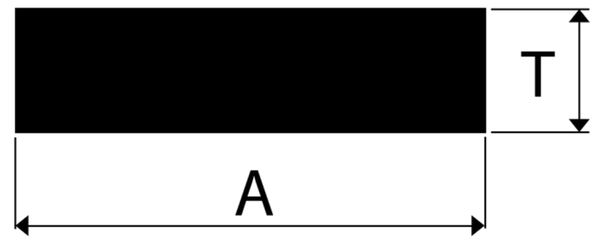
Standards and Engineering

FLATBAR

Profile	A	t	kg/m	Perimeter	CCD
VFB101014	100.00	03.00	0.812	205.142	32
VFB101015	100.00	06.00	1.625	211.142	101
VFB101001	15.88	03.18	0.136	37.262	16
VFB101021	19.00	2.40	0.123	41.942	19
VFB101019	19.00	3.00	0.154	43.485	20
VFB101025	19.00	5.00	0.257	47.142	20
VFB101020	19.06	3.18	0.164	43.622	20
VFB101022	20.00	02.00	0.108	43.313	20
VFB101016	25.00	3.00	0.202	55.142	25
VFB101005	31.75	03.18	0.272	69.208	32
VFB101011	31.90	03.18	0.300	75.302	35
VFB101004	34.92	03.18	0.300	74.895	35
VFB101002	38.00	02.00	0.205	79.142	38
VFB101003	38.00	03.00	0.308	81.142	38
VFB101012	50.00	03.00	0.406	105.142	51
VFB101013	50.00	06.00	0.812	111.142	51
VFB101024	50.00	5.00	0.677	109.142	51
VFB101032	50.80	09.52	1.310	119.610	52
VFB101023	60.00	3.00	0.487	125.142	60
VFB101006	63.50	06.35	1.092	139.013	64
VFB101007	75.00	06.50	1.315	161.695	76
VFB101008	75.00	10.30	2.093	169.913	76



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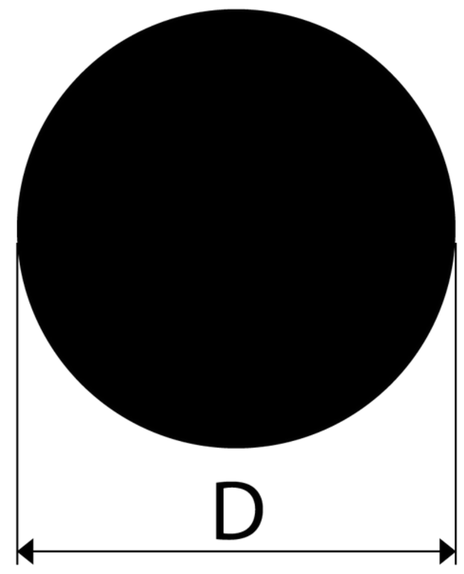
Standards and Engineering

ROUND BAR

Profile	D	kg/m	Perimeter	CCD
VER010.00	10.00	0.213	31.416	10
VER012.00	12.00	0.306	37.699	12
VER020.00	20.00	0.851	62.832	20
VER025.00	25.00	1.330	78.540	25
VER030.00	30.00	1.916	94.248	30
VER040.00	40.00	3.405	125.664	40
VER050.00	50.00	5.321	157.080	50
VER08.00	8.00	0.136	25.133	8



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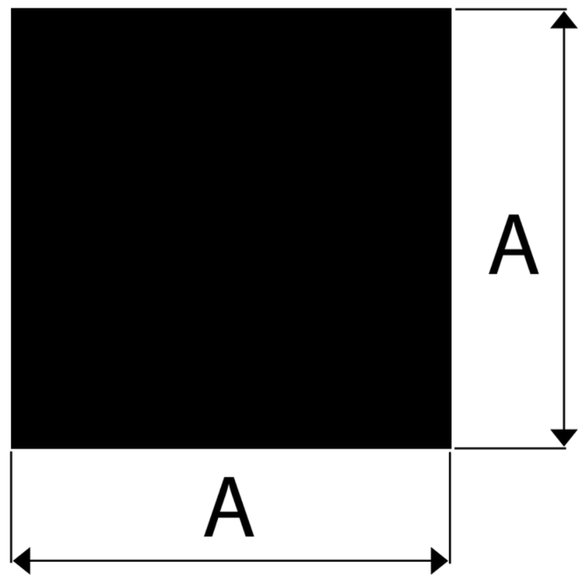
Standards and Engineering

SQUARE BAR

Profile	A	A	kg/m	Perimeter	CCD
VSB12.00	12.00	12.00	0.388	47.142	17



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