Hydro

Profiles in stock
Standard catalogue

You can create your own profile or you can choose from a wide selection of standard profiles.

Delivery: 1–2 weeks for standard profiles (subject to availability).

Cutting: Bespoke cutting service is available. Contact us for further information.

Weight: The specified weights are nominal.

Packaging: Profiles will normally be supplied in bundles of up to 250 kg or in accordance with customer requirements.

Prices etc: Please ask for quotation.

Anodising: Anodising of standard profiles will normally take 2–3 weeks. Some profiles are stocked in anodised finish.

Profile tolerances: Contact us or read more about tolerances in our Design Manual. You can order the book or read it at www.hydro.com

Available dies are presented in a separate catalogue.

This standard catalogue, the available dies catalogue and more information about our offer is found at our website www.hydro.com.

The information provided in this catalogue is subject to change.

Hydro Extruded Solutions is part of Hydro, which develops, manufactures and markets finished profiles, profile-based building systems and heat exchanger strip in aluminium alloys, and is the leading independent manufacturer in the world.

Hydro's business idea is based on close collaboration with our customers, who are primarily based in Europe, the Americas and Asia. The largest customer sectors are building, transport, home & office and engineering.

You can find more information at www.hydro.com.

Profiles in stock

In this catalogue you will find a large number of standard profiles. It gives you quick access to an economical range of profiles that will fully or partly meet your requirements.

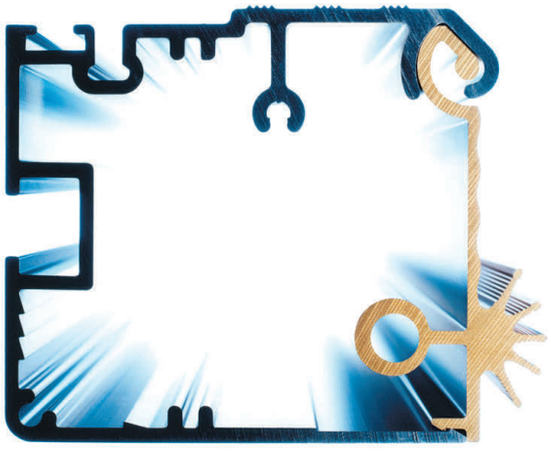
Please remember that you can also create your own ideal profile. Whether you choose a standard profile, a profile from an available die or a tailor-made solution, you get benefits such as low weight, high strength and corrosion resistance.

Aluminium can also be recycled with little additional energy input, which is an important consideration if you are aiming for sustainable development.

Ideas in stock

Extrusion technology makes it possible to integrate a vast range of different functions into your profile. Among other things this can mean reduced fabrication and easier assembly – hence lower costs. Tooling costs are also very reasonable.

Contact Hydro to discuss your requirements and possibilities.



A range of functions can be integrated in the extruded aluminium profile. For example: Screw recess, Lugs, Slots, Reduced thickness to allow spring, Screw markings, Latches, Integral tubes, Heat sink, Decorative pattern, Hinge, Grip surface, Screw recess on projection, Stop for sheet material, Slot for screw or rivet, Slot for rubber seal, “Christmas tree” for joining to wood or plastic, Slot for bolts, etc.

Square bar

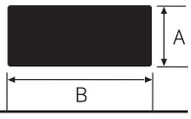
Alloy: 6082-T6 (EN-AW-6082).
Weight (kg/m) = 0.0027 x A^2 mm
Length 4 metres. Surface class = 6.

Hydro profile no.	Dimensions. mm		Weight
	B	A	kg/m
900 -0097-00		8	0.17
-0034-		10	0.27
-0086-		12	0.39
-0035-		15	0.61
-0036-		20	1.08

Hydro profile no.	Dimensions. mm		Weight
	B	A	kg/m
-F18542-		25	1.68
-0026-		30	2.43
-0657-		40	4.31
-F18570-		50	6.75
-F18576-		60	9.72

Rectangular bar

A ≤ 3 mm: Alloy: 6060 F22-T6 (EN-AW-6060 F22). Surface class = 6.
A > 3 mm: Alloy: 6082-T6 (EN-AW-6062). Surface class = 6.
Weight (kg/m) = 0.0027 x B mm x A mm
Length 5 metres.

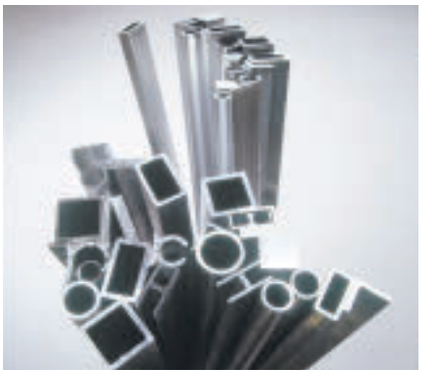


Hydro profile no.	Dimensions. mm		Weight
	B	A	kg/m
900 -0027-00	10	3	0.08
-0013-	15	3	0.12
-0084-	15	5	0.20
-0028-	20	3	0.16
-0030- *	20	5	0.27
-0467-	20	10	0.54
-0374-	25	2	0.14
-0012-	25	3	0.20
-0010-	25	5	0.34
-0214-	25	15	1,02
-0077-	30	2	0.17
-0011-	30	3	0.24
-0130-	30	4	0.32
-0083-	30	5	0.41
-0125-	30	10	0.81
-F1884-	30	15	1,24
-10001-	30	20	1,65
-0029-	40	3	0.32
-0009-	40	4	0.43
-0008-	40	5	0.54
-0210-	40	10	1.08
-F18990-	40	15	1,63
-0268-	40	20	2.16
-0274-	50	2	0.27
-0007-	50	5	0.68
-0031-	50	10	1.35
-F19085-	50	20	2.70
-F28675-	50	30	4,05

Hydro profile no.	Dimensions. mm		Weight
	B	A	kg/m
-0256-	60	5	0.81
-0284-	60	6	0.97
-0032-	60	10	1.62
-0116-	60	15	2 43
-06260-	60	20	3,24
-ALUM6040-	60	40	6,80
-ALUM7040-	72	40	7,81
-0541-	80	8	1.73
-0149-	80	15	3.24
-F19268-	80	60	12,96
-0585-	100	6	1.65
-0132-	100	10	2.70
-F19318-	100	20	5.40
-F19355-	120	10	3.24
-F19404-	150	10	4.05
Natural anodised 10 µm			
900 -0077-10	30	2	0.17
-0274-10	50	2	0.27

* Only alloy 6060 F22-T6

Why **anodizing?**



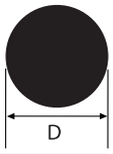
Anodizing is one of the most commonest finishing methods and has several benefits, including:

- a durable, new-looking finish.
- corrosion resistance.
- a dirt-repellent surface that meets strict hygiene standards.
- a decorative surface that has lasting colour and sheen.
- surface that is pleasant to touch.
- a practical finish, a low-friction or abrasion-resistant finish for mechanical parts, for instance.
- a surface with an electrically insulating coating.

Anodizing of stock profiles is normally carried out in 2–3 weeks. Some profiles are stocked in anodized finish.

Round bar

Alloy: 6082-T6
Length 4 metres. Surface class = 6.
Weight (kg/m) = 0.00212 x D^2 mm.

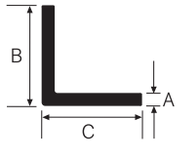


Hydro profile no.	Dimensions. mm	Weight
	D	kg/m
900 -0087-00	6	0.08
-0107-	8	0.14
-0038-	10	0.21
-0065-	12	0.31
-0039-	15	0.48
-0154-	16	0.54
-0014-	20	0.85
-0040-	25	1.32

Hydro profile no.	Dimensions. mm	Weight
	D	kg/m
900 -0041-00	30	1.91
-0196-	35	2.60
-0200-	40	3.39
-F90113-	45	4.29
-F90119-	50	5.30
-F90127-	55	6.41
-F90132-	60	7.63
-F90202-	65	8,96
-23434-	70	10,70

Equal flange L-profiles

A ≤ 3 mm. Alloy: 6060 F22-T6 (EN-AW-6060 F22). Surface class = 6.
A > 3 mm. Alloy: 6082-T6 (EN-AW-6082). Surface class = 6.
Length 5 metres.



Hydro profile no.	Dimensions. mm		Weight
	B-C	A	kg/m
900 -0047-00	12	2	0.12
-0088-	15	1.5	0.12
-0048-	15	2	0.15
-0049-	20	2	0.21
-0089-	20	3	0.31
-0166-	25	2	0.26
-0004-	25	3	0.39
-0002-	30	3	0.47
-0023-	30	5	0.75
-0001-	35	3	0.55
-F21848-	40	2	0.42
-0006-	40	4	0.84

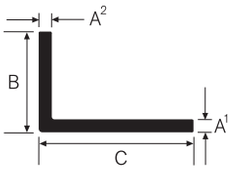
Hydro profile no.	Dimensions. mm		Weight
	B-C	A	kg/m
900 -0024-00	40	5	1.03
-0249-	50	3	0.78
-0005-	50	5	1.30
-0121-	60	6	1.86
-0167-	80	8	3.30
-F26913-	100	10	5,13
Natural anodised 10 µm			
900 -0047-10	12	2	0.12
-0048-	15	2	0.15
-0049-	20	2	0.21
-0166-	25	2	0.26
-0002-	30	3	0.47

Complex sections with **tight** tolerances

Even if you need one of the largest profiles available you can still design a complicated section and count on tight tolerances. This heat sink for a base radio station is a good example. Extruded profiles have found many applications in the telecom industry. One of the reasons is that aluminium has **excellent thermal conductivity,** and by adding flanges to the profile its effective cooling area is greatly increased.

Unequal flange L-profiles

A ≤ 3 mm. Alloy: 6060 F22-T6 (EN-AW-6060 F22). Surface class = 6.
A > 3 mm. Alloy: 6082-T6 (EN-AW-6082). Surface class = 6.
Length 5 metres.

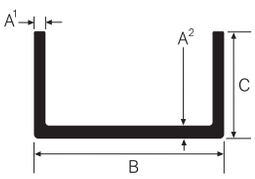


Hydro profile no.	Dimensions. mm			Weight
	B	C	A	kg/m
900 -0051-00	15	10	2	0.12
-0017-	20	10	2	0.15
-0052	20	15	2	0.18
-0003-	30	20	3	0.39
-0022	40	20	2	0.31
-0053-	40	25	3	0.51
-0293-	50	25	2	0.39
-0054-	50	30	4	0.83
-0712-	60	40	3	0.79
-0140-	60	40	5	1.30
-0247-	80	50	6	2.01

Hydro profile no.	Dimensions. mm			Weight
	B	C	A	kg/m
900 -F25095-	100	50	3	1.19
-0350-	100	50	5	1.96
-F31741-	130	65	10	5.04
Natural anodised 10 µm				
900 -0051-10	15	10	2	0.12
-0017-	20	10	2	0.15
-0052-	20	15	2	0.18
-0003-	30	20	3	0.39
-0022-	40	20	2	0.31
-0293-	50	25	2	0.39
-F25095-	100	50	3	1.19

U-profiles

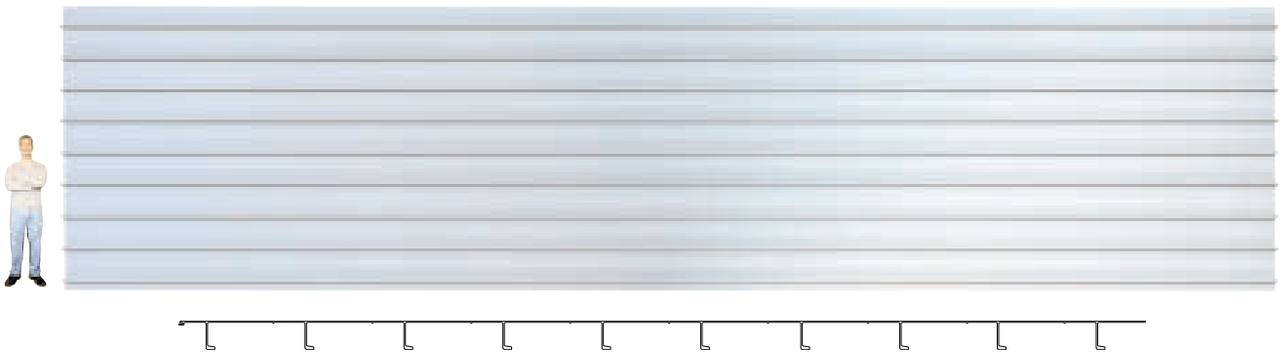
A ≤ 3 mm. Alloy: 6060 F22-T6 (EN-AW-6060 F22). Surface class = 6.
A > 3 mm. Alloy: 6082-T6 (EN-AW-6082). Surface class = 6.
A2 = A1 unless otherwise specified.
Length 5 metres.



Hydro profile no.	Dimensions. mm				Weight
	B	C	A^1	A^2	kg/m
900 -0228-00	8	8	1	1	0.06
-0137-	10	10	1.5	2	0.12
-0059-	12	12	2	2	0.18
-0060-	15	15	2	2	0.23
-0122-	18	18	2	2	0.28
-0215-	20	10	2	2	0.19
-0061-	20	20	2	2	0.31
-0062-	25	15	2	2	0.28
-0072-	25	25	3	3	0.56
-0063-	30	20	3	3	0.51
-0455-	30	30	3	3	0.69
-0064-	40	25	3	3	0.69
-0218-	50	30	4	4	1.11

Hydro profile no.	Dimensions. mm				Weight
	B	C	A^1	A^2	kg/m
900 -0123-00	60	40	5	5	1.78
-0142-	80	40	5	5	2.05
-0025-	100	50	5	5	2.57
-0479-	120	60	5	5	3.13
Natural anodised 10 µm					
900 -0228-10	8	8	1	1	0.06
-0137-	10	10	1.5	2	0.12
-0846-	12.5	11.5	2	2	0.17
382223	12,5	25	2	2	0,32
-0060-	15	15	2	2	0.23
382224	15	25	2	2	0,33
-0122-	18	18	2	2	0.28
-0215-	20	10	2	2	0.19
-0061-	20	20	2	2	0.31
-0062-	25	15	2	2	0,28

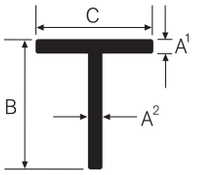
A **profile solution** measuring 3 x 18 metres



Prefabricated panels: Hydro can deliver panels up to 3 metres wide that are made by joining profiles. Lengths to suit customer specifications. We start with wide profiles and then join them using Friction Stir Welding instead of conventional fusion welding. This gives flatter, straighter panels that are also stronger. FSW welds are homogeneous and free from pores and inclusions.

T-profiles

A ≤ 3 mm. Alloy: 6060 F22-T6 (EN-AW-6060 F22). Surface class = 6.
A > 3 mm. Alloy: 6082-T6 (EN-AW-6082). Surface class = 6.
Length 5 metres.

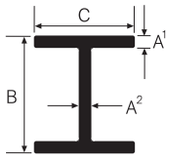


Hydro profile no.	Dimensions. mm			Weight
	B	C	A	kg/m
900 -0055-00	20	20	2	0.21
-0056-	30	30	3	0.47
-0058-	40	40	4	0.84

Hydro profile no.	Dimensions. mm			Weight
	B	C	A	kg/m
900 -0091-00	50	50	5	1.31
-0174-	60	60	6	1.88

I-profiles

A ≤ 3 mm. Alloy: 6060 F22-T6 (EN-AW-6060 F22). Surface class = 6.
A > 3 mm. Alloy: 6082-T6 (EN-AW-6082). Surface class = 6.
Length 5 metres.



Hydro profile no.	Dimensions. mm				Weight
	B	C	A^1	A^2	kg/m
900 -35449-00	8.8	20	1.2	2	0.17
900 -0325-00	100	50	5		2.62

Hydro profile no.	Dimensions. mm				Weight
	B	C	A^1	A^2	kg/m
Natural anodised 10 µm					
900 -35449-10	8.8	20	1.2	2	0.17

High-speed machining. Hydro is well equipped with a selection of CNC multi-operation machine tools. These provide considerably improved dynamic response and significantly more efficient control systems than conventional machine tools. Cutting speeds of 3,500 m/min and higher allow feed speeds to be increased, which reduces machining time and means less burr formation and extended tool life.

Welding. Aluminium is well suited to fusion welding. The commonest methods are MIG and TIG. Friction Stir Welding creates strong joints that are free from leaks. In this method the clean metal surfaces of the profiles to be joined are forced together under high pressure. At the same time heat is generated through friction produced by the mechanical action of a rotating tool. This combination of pressure and heat results in the formation of a new, homogeneous microstructure.

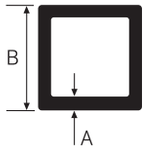
Bending. From simple to complex bending in small or large numbers. Methods include draw bending, roll bending, tensile bending and press bending.

Bonding and taping. These are also used as joining techniques.

Contact us if you would like to know more about what we can do for you. You can also find out more about surface finishing and fabrication at www.hydro.com. You will also find our Design Manual there, which contains detailed information about the surface finishing and fabrication methods we offer, along with much more.

Square tube

Alloy: 6060 F22-T6 (EN-AW-6060 F22). Surface class = 5.
Length 5 metres.

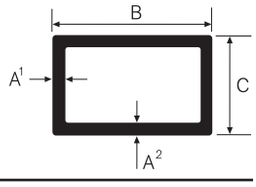


Hydro profile no.	Dimensions. mm		Weight
	B	A	kg/m
910 -2222-00	10	1	0.10
-2270-	12	1	0.12
-2417-	15	1	0.15
-2374-	15	2	0.28
-2035-	20	1.5	0.30
-2242-	20	2	0.39
-2227-	25	1.5	0.38
-2357-	25	2	0.50
-2523-	30	1.5	0.46
-2169-	30	2	0.60
-2170	35	2	0.71
-2128-	40	2	0.82
-S69108-	40	4	1.56
-2718-	45	2	0.92
-2345-	50	2.5	1.28

Hydro profile no.	Dimensions. mm		Weight
	B	A	kg/m
-F9557-	50	5	2.43
-F29873-	60	4	2.40
-2129-	70	2	1.47
-F29897-	80	5	4.11
-1001003-	100	3	3 15
Natural anodised 10 µm			
910 -2242-10	20	2	0.39
-2227-	25	1.5	0.38
-2357-	25	2	0.50
-2169-	30	2	0.60
-2128-	40	2	0.82
-2345-	50	2.5	1.28
-2129-	70	2	1.47

Rectangular tube

Alloy: 6060 F22-T6 (EN-AW-6060 F22). Surface class = 5.
A2 = A1 unless otherwise specified.
Length 5 metres.



Hydro profile no.	Dimensions. mm				Weight
	B	C	A^1	A^2	kg/m
910 -2294-00	20	10	1.5	1.5	0.22
-2013-	25	15	2	2	0.39
-2155-	30	20	2	2	0.50
-2126-	35	17	2	2	0.52
-2427-	40	20	2	2	0.61
-2205-	40	25	2	2	0.66 *
-2206-	50	30	2	2	0.82 *
-2181-	50	30	2.5	2.5	1.01
-2043-	60	40	2.5	2.5	1.28
-F25569-	60	40	4	4	1.99**
-2251-	80	40	2.5	2.5	1.55

Hydro profile no.	Dimensions. mm				Weight
	B	C	A^1	A^2	kg/m
-2041-	100	18.5	2.5	2	1.32 **
-2280-	100	35	3	2.5	1.85
-2505-	100	40	2.5	2.5	1.82
-2254-	100	50	3	3	2.33
-2266-	120	40	2.5	2.5	2.09
-2260-	150	50	3	3	3.20
Natural anodised 10 µm					*
910 -2205-10	40	25	2	2	0.66 *
-2206-	50	30	2	2	0.82
-2043-	60	40	2.5	2.5	1.28
-2254-	100	50	3	3	2.33

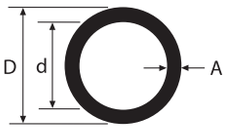
* Can be used with Hydro joint. * * Can be used as straight edge.

A **uniquely simple** design

The Sting chair made by Blå Station has a uniquely simple design that consists of just four parts: the seat profile, back profile and two pairs of legs. The seat and back are joined by a simple node. The stainless steel legs lock the design together without the need for screws or welding.

Round tube

Alloy: 6060 F22-T6 (EN-AW-6060 F22).
Surface class = 5. Length 5 metres.



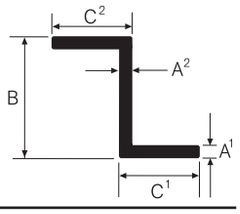
Hydro profile no.	Dimensions. mm			Weight
	D	d	A	kg/m
910 -2267-00	8	6	1	0.06
-2031-	10	8	1	0.08
-2075-	12	10	1	0.09
-2119-	16	13	1.5	0.18
-2008-	19	16	1.5	0.22
-2003-	20	17	1.5	0.24
-2078-	22	19	1.5	0.26
-2004-	25	22	1.5	0.30
-2084-	25	21	2	0.39
-2044-	28	25	1.5	0.34
-2232-	30	26	2	0.48
-ZN0998-*	30	24	3	0.69
-2037-	31	28	1.5	0.38
-2179-	35	31	2	0.56
-2101-	40	37	1.5	0.49
-2105-**	40	34	3	0.94
-2045-	45	41	2	0.73
-2696-	48	42	3	1.15

Hydro profile no.	Dimensions. mm			Weight
	D	d	A	kg/m
910 -2006-	50	46	2	0.81
-2367-	50	40	5	1.95
-2009-	54	50	2	0.88
-2063-	60	54	3	1.45
-2145-	90	80	5	3.61
-2074-	100	96	2	1.66
-2114-	100	90	5	4.04
-2098-	110	104	3	2.72
-2586-	120	110	5	4.88
Natural anodised 10 µm				
10 -2031-10	10	8	1	0.08
-2075-	12	10	1	0.09
-2119 -	16	13	1.5	0.18
-2426 -	22.5	19.5	1.5	0.27
-2004 -	25	22	1.5	0.30
-2044-	28	25	1.5	0.34

*also available in alloy 6060-T6 **also available in alloy 6060F22-T4

Z-profiles

Alloy: 6060 F22-T6 (EN-AW-6060 F22). Surface class = 6.
A2 = A1. C2 = C1 unless otherwise specified.
Length 6.6 metres.



Hydro profile no.	Dimensions. mm			Weight
	B	C^1-C^2	A^1-A^2	kg/m
086 -01041-00	7	15	1	0.10
-00887-^	23	30	3	0.62

Hydro profile no.	Dimensions. mm			Weight
	B	C^1-C^2	A^1-A^2	kg/m
086 -00509-00^	35	20	2	0.39

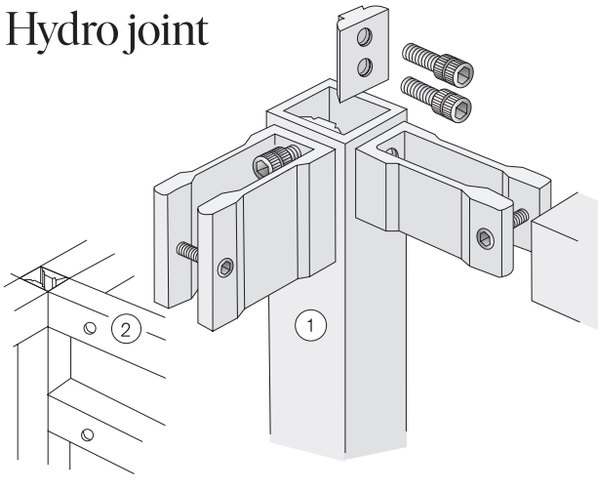
^ Part number does not match profile number.

Profile design in practice

Not all the shapes are available in our stock. Create your own design. The most important piece of general design advice we can give is to talk to Hydro's technicians about your vision. Just like Pentagon Design did.

The Alvar Aalto Collection was created by Iittala in collaboration with Pentagon Design. These objects are based on a shape created by Aalto 70 years ago. The irregular shape and changing wall thickness of the serviette ring really tested the skills of Hydro's technicians, toolmakers and production personnel. The wall thickness ranges from 1,2 to 3,5 mm.

Hydro joint



To fit the Hydro joint, drill two holes in tube 1. Slide the backing plate into the tube and then tighten the screws. Drill a hole for the expander screw in tube 2. Slide this tube on to the joint and tighten the screw. Corner joints can be made on any side, anywhere along the rectangular tube.

The Hydro joint has been designed to create a simple and rigid corner joint for rectangular tube.

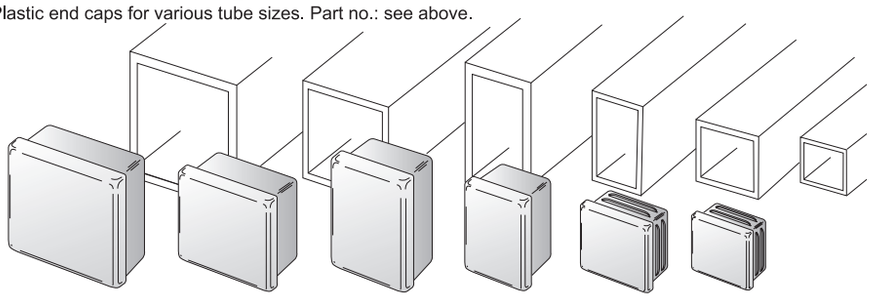
The Hydro joint permits considerable variation. Because the joint profile can be cut to any length desired, it can be used on all rectangular tube with a wall thickness of 2 mm as long as one face measures 25. 30. 40 or 45 mm.

Joints are available from stock for the following tube sizes:

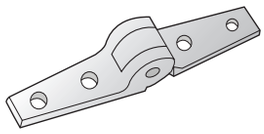
Hydro joint. part no.	Tube dimensions. mm	Plastic end plug. part no.	Colour
	20 x 20 x 2	305-20202-40	Black
300-25252-00	25 x 25 x 2	-25252-	”
-30302-	30 x 30 x 2	-30302-	”
-40252-	40 x 25 x 2	-40252-	”
-40402-	40 x 40 x 2	-40402-	”
-45452-	45 x 45 x 2	-45452-	”
-50302-	50 x 30 x 2	-50302-	”
	50 x 50 x 2	-50502-	”
	60 x 40 x 2	-60402-	”

Plastic end caps

Plastic end caps for various tube sizes. Part no.: see above.



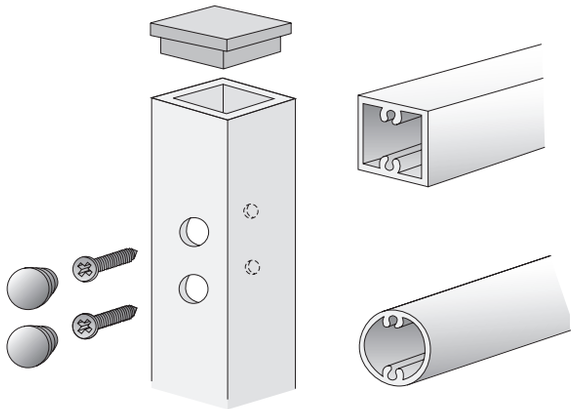
Hinge

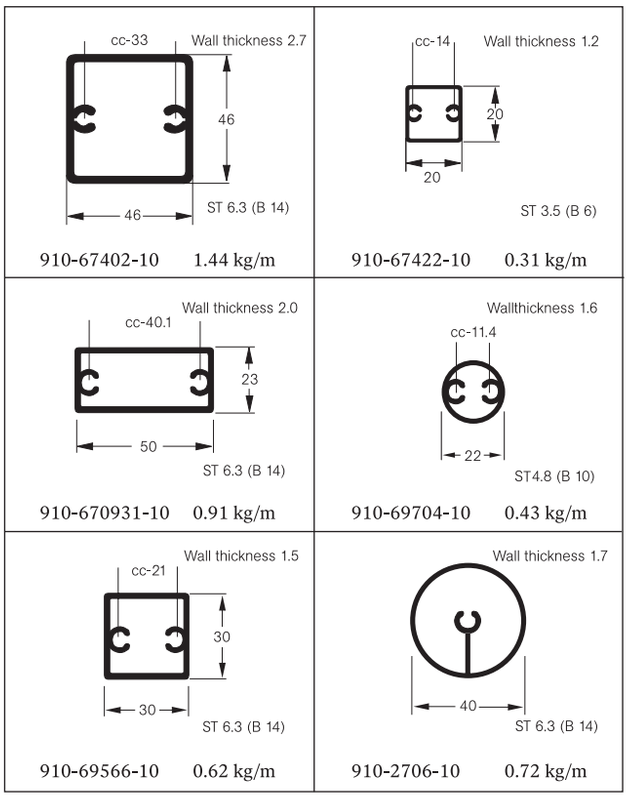


Hinge
Part no. 300-670453-10
Length: 55 + 55 mm
Width: 20 mm
Wall thickness: 5 mm

Profiles with screw ports

Alloy: 6060 F22-T6. Length: 6.1 metres for profile 910-67402-10 and 910-67422-10. rest: 5 metres. Surface class = 5. Natural anodised 10 µm.





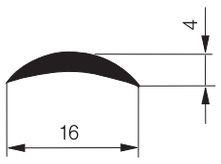
Plastic plugs

Type as shown above.
Brown -20. Grey -30. Black -40. White -50

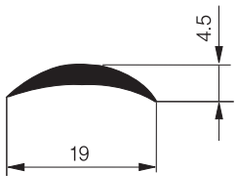
7 mm	011-12301-20/-30/-40/-50
9 mm	011-12303-20/-30/-40/-50
13 mm	011-12302-20/-30/-40/-50

Coachwork profiles

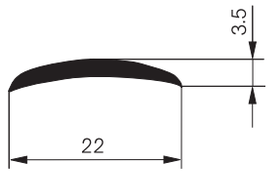
Alloy: 6060 F22-T4 (EN-AW-6060 F22).
Length 5 metres. Surface class = 5.



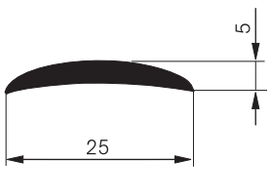
920-3195-00 0.10 kg/m



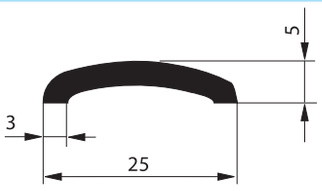
920-3161-00 0.10 kg/m



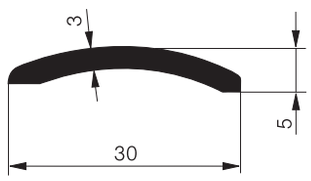
920-3254-00 0.14 kg/m



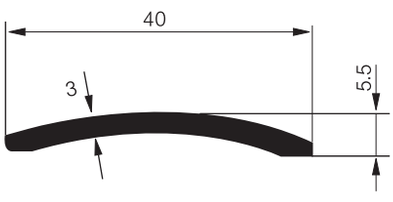
920-3185-00 0.19 kg/m



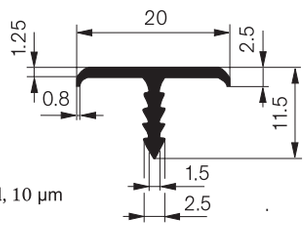
920-3115-00 0.20 kg/m



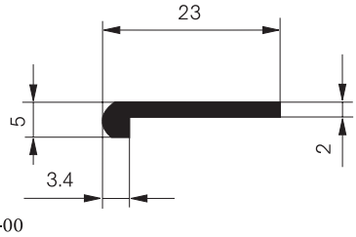
920-3325-00 0.24 kg/m



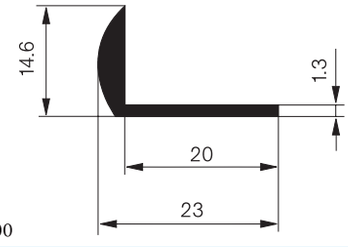
920-3324-00 0.32 kg/m



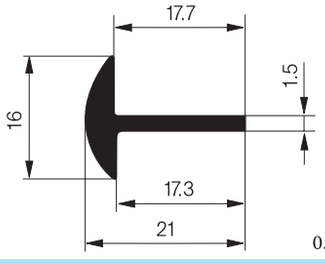
Natural anodised, 10 µm
920-35142-10 0.12 kg/m



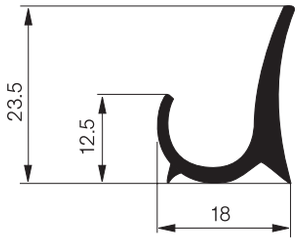
920-34353-00 0.14 kg/m



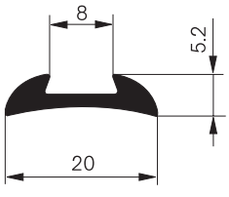
920-3353-00 0.16 kg/m



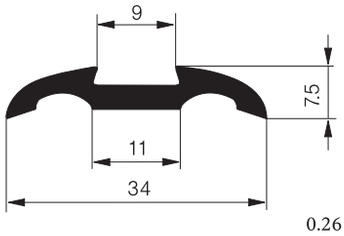
920-3354-00 0.18 kg/m



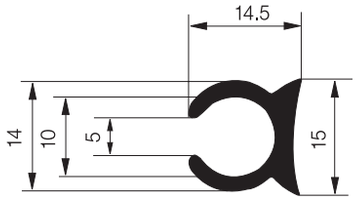
920-3086-00 0.22 kg/m



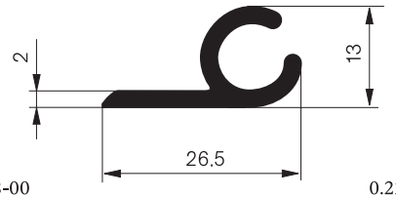
920-3154-00 0.13 kg/m



920-3300-00 0.26 kg/m



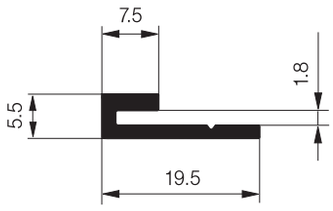
920-34537-00 0.23 kg/m



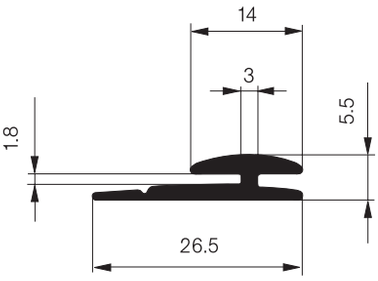
920-3298-00 0.22 kg/m

Connection profiles

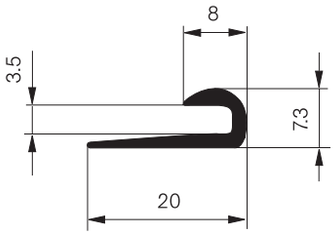
Alloy: 6060 F22-T6 (EN-AW-6060 F22).
Length 5 metres. Surface class = 5.
Natural anodised 10 µm.



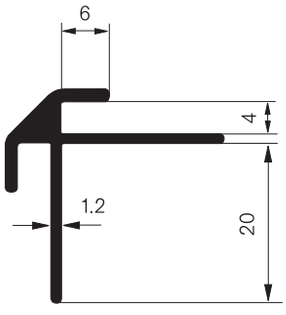
930-3885-10 0.12 kg/m



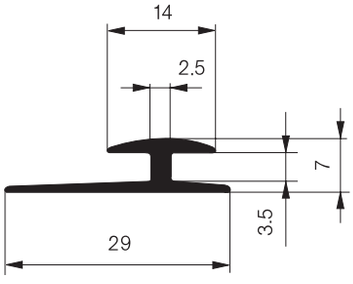
930-3886-10 0.17 kg/m



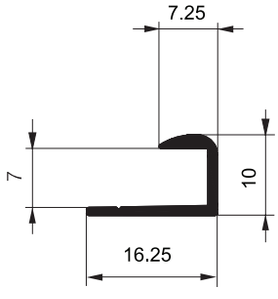
930-3321-10 0.11 kg/m



930-3544-10 0.25 kg/m



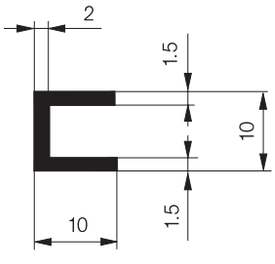
930-3257-10 0.17 kg/m



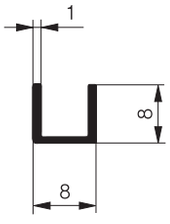
930-34407-10 0.10 kg/m

Glazing profiles

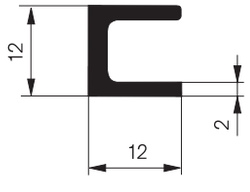
Alloy: 6060 F22-T6 (EN-AW-6060 F22).
Length 5 metres. Surface class = 5.



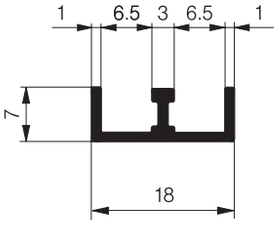
900-0137-00/10 0.12 kg/m



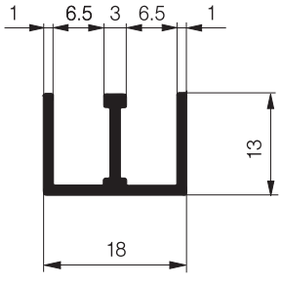
900-0228-00/10 0.06 kg/m



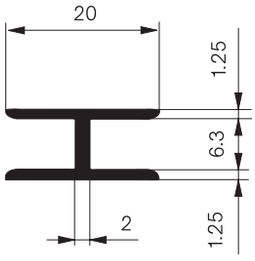
900-0059-00 0.18 kg/m



900-3726-00/10 0.12 kg/m



900-3727-00/10 0.17 kg/m



900-35449-00/10 0.17 kg/m

Profiles for cladding timber windows/doors

Wood needs protection from the effects of the wind, weather and ultraviolet light. The amount of maintenance needed for timber windows can be considerably reduce by using aluminium profiles to cover the most exposed areas, such as the sill and bottom of the frame.

Hydro has been developing solutions and products in close cooperation with the window industry for over 30 years. Today we are a leading supplier of cladding profiles for wooden windows in the Nordic market.

Alloy: 6060 F22-T6 (EN-AW-6060 F22).

Stock length: 6 metres.

Finish: All profiles are stocked in millfinished condition (part no. -00). Anodising or painting can be carried out to suit your requirements.

Machining: For a surcharge, profiles can be cut to exact lengths and pre-drilled to facilitate installation or drainage.

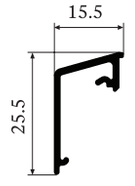
For more information, contact Hydro.

Surround profiles for the best long-term solution

To get the best possible long-term solution in terms of performance and economy we have developed a number of surround aluminium profiles. They are designed for installation between the window frame and the wall. Most cladding systems have slots in the frame profiles that will accept Hydro surround profiles. They can be supplied with the same finish and colour as the cladding profiles. Order direct from your window supplier or through us.

Glazing profiles

Single glass



940-54350- 0.162 kg/m

Rubber strips

For glazing profiles

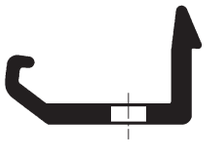
2.5-3.5 mm 340-95001-40

4.5-5.5 mm 340-95002-40

Fasteners for glazing profiles

L = 25 mm, untreated

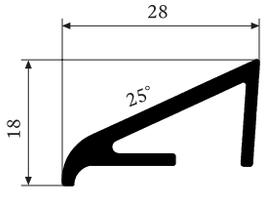
340-91802-40 (PVC), for 54350



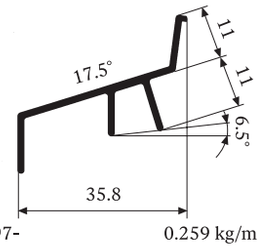
340-90602-00, for 54367

340-90601-00, for 54369

Older glazing profiles



940-34343- 0.292 kg/m

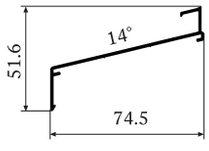


940-S63397- 0.259 kg/m

Cladding profiles

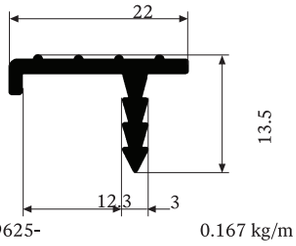
for sill, inward-opening windows

Linked, sill 115



940-54351- 0.475 kg/m

Threshold profile



940-39625- 0.167 kg/m

Hydro Floor System

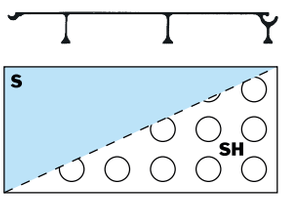
Alloy: EN-AW-6063. Surface class = 5. Stock length 6,500 mm.

For more information, contact Hydro Extrusion Baltics AS, +372 651 2991
www.**hydro**.com

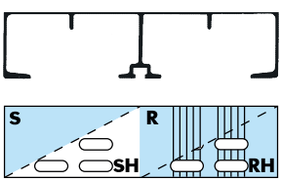
The right profile

Aluminium flooring profiles meet many of the demands made on a finished floor structure: low installation costs, long service life, low maintenance costs, good bearing capacity, low construction height and – last but not least – an attractive appearance. It is important to choose the right profile to suit the load bearing structure and loads. The list below indicates the main application areas. Aluminium profiles can be combined with other materials or built into existing structures. Each project has its own special requirements. For that reason it is difficult to give any general advice about what type of profile and beam grouping is most economic.

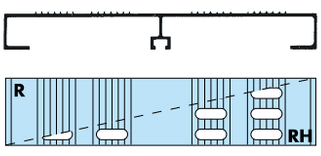
SFG 250/30
Width: 250 mm
Height: 30 mm
Plain (S) :
Ix: 10.10 x 10^4 mm^4
Wx: 4.40 x 10^3 mm^3
Perforated (SH) :
Ix: 8.58 x 10^4 mm^4
Wx: 4.03 x 10^3 mm^3



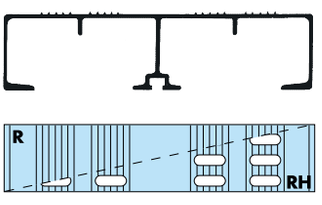
SFG 250/60
Width: 250 mm
Height: 60 mm
Plain (R):
Ix: 83.12 x 10^4 mm^4
Wx: 22.90 x 10^3 mm^3
Plain (S) :
Ix: 87.56 x 10^4 mm^4
Wx: 23.17 x 10^3 mm^3
Perforated (RH) :
Ix: 70.96 x 10^4 mm^4
Wx: 20.63 x 10^3 mm^3



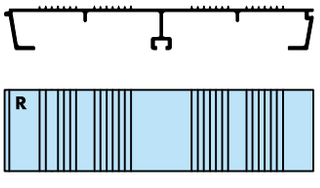
SFG 300/35
Width: 300 mm
Height: 35 mm
Plain (R) :
Ix: 20.13 x 10^4 mm^4
Wx: 8.12 x 10^3 mm^3
Perforated (RH) :
Ix: 17.11 x 10^4 mm^4
Wx: 7.21 x 10^3 mm^3



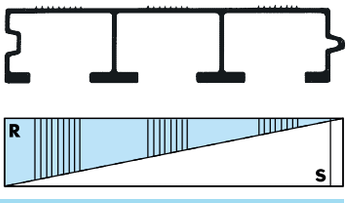
SFG 300/80
Width: 300 mm
Height: 80 mm
Plain (R) :
Ix: 243.72 x 10^4 mm^4
Wx: 52.43 x 10^3 mm^3
Perforated (RH) :
Ix: 207.16 x 10^4 mm^4
Wx: 46.97 x 10^3 mm^3



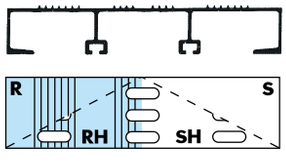
SFG 300/40
Width: 300 mm
Height: 40 mm
Plain (R) :
Ix: 27.47 x 10^4 mm^4
Wx: 9.31 x 10^3 mm^3



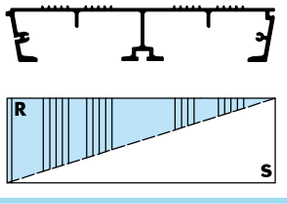
SFG 350/80
Width: 350 mm
Height: 80 mm
Plain (R) :
Ix: 482.91 x 10^4 mm^4
Wx: 118.90 x 10^3 mm^3
Alloy 6005A-T6



SFG 250/40
Width: 250 mm
Height: 40 mm
Plain (R) :
Ix: 32.25 x 10^4 mm^4
Wx: 13.50 x 10^3 mm^3
Perforated (RH) :
Ix: 27.41 x 10^4 mm^4
Wx: 12.12 x 10^3 mm^3

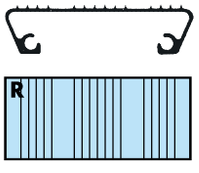


SFG 250/50
Width: 250 mm
Height: 50 mm
Plain (R) :
Ix: 54.76 x 10^4 mm^4
Wx: 16.97 x 10^3 mm^3
Plain (S) :
Ix: 52.52 x 10^4 mm^4
Wx: 16.62 x 10^3 mm^3

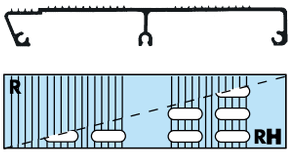


Stair profile range

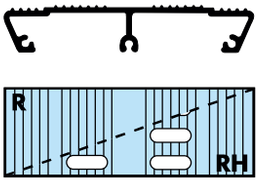
SFT 110/26
Width: 110 mm
Height: 26 mm
Plain (R) :
Ix: 4.35 x 10^4 mm^4
Wx: 2.76 x 10^3 mm^3



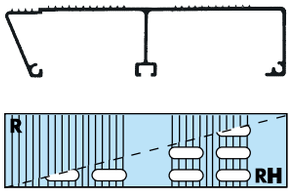
SFT 250/32
Width: 250 mm
Height: 32 mm
Plain (R) :
Ix: 11.75 x 10^4 mm^4
Wx: 5.18 x 10^3 mm^3
Perforated (RH) :
Ix: 9.99 x 10^4 mm^4
Wx: 4.67 x 10^3 mm^3



SFT 185/32
Width: 185 mm
Height: 32 mm
Plain (R) :
Ix: 10.40 x 10^4 mm^4
Wx: 4.97 x 10^3 mm^3
Perforated (RH) :
Ix: 8.83 x 10^4 mm^4
Wx: 4.40 x 10^3 mm^3



SFT 250/60
Width: 250 mm
Height: 60 mm
Plain (R) :
Ix: 61.70 x 10^4 mm^4
Wx: 15.72 x 10^3 mm^3
Perforated (RH) :
Ix: 52.44 x 10^4 mm^4
Wx: 14.21 x 10^3 mm^3



Loads and dimensions

High bearing capacity for both distributed and concentrated loads – combined with low weight! It's possible thanks to extrusion pressed aluminium profiles. Advanced production techniques enable us to design them for optimal flexibility.

Deflection of floor structure

Deflection is normally limited to 1/200 of the span. Diagram 1 shows the permitted distributed loading with this limitation. The material in the profiles is not fully utilised with regard to the span at a deflection limitation of L/200, and it can be stated that there is a large reserve bearing capacity. For detailed regulations covering aluminium load-bearing structures, see BKR.

Diagram 1
The permitted distributed load with regard to longitudinal deflection, when deflection is limited to 1/200 of the span. With holed profiles, the permitted loading is reduced by 20%.

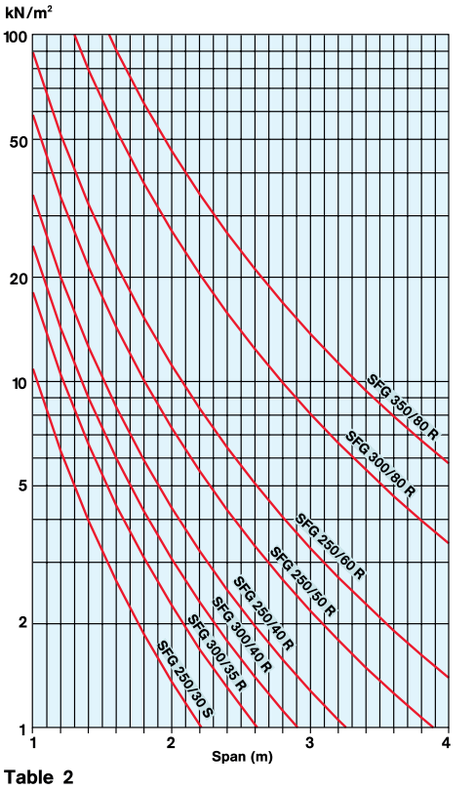
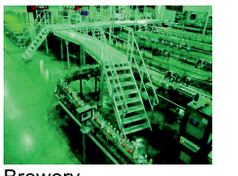


Table 2
The permitted concentrated linear load with respect to bending in longitudinal direction, when deflection is limited to 1/200 of the span. Holed profiles reduce permitted load by 20%.

Reference installations


Sawmill

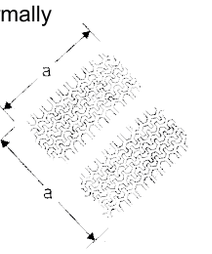

Brewery


Automobile showroom

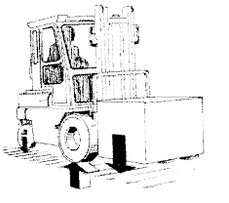

Sewage treatment works

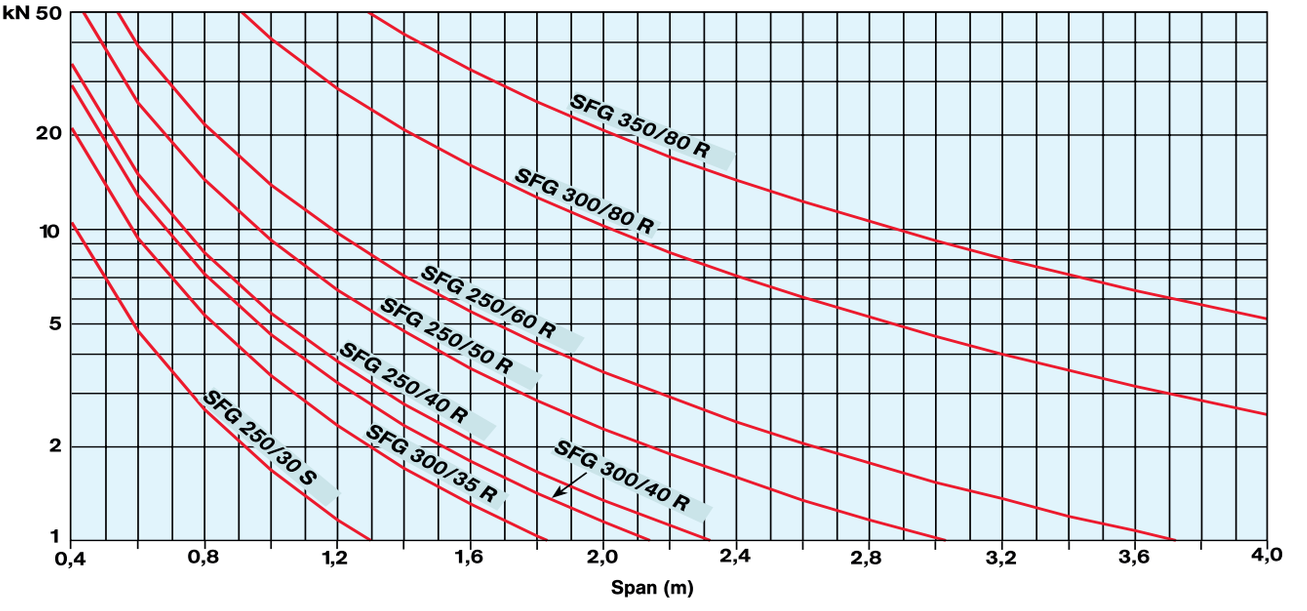
Concentrated loads

Traffic loads of various types are normally concentrated loads. Examples are vehicular traffic, loading trucks and forklift trucks. The size of the load area in this context has a dominating influence on the bearing capacity and resistance to local deformation of the surface. For hard rubber tyres, the size of the contact surface varies from approximately 0.5 dm² and upwards. For pneumatic tyres the size of the load area (A) can be calculated approximately from the air pressure. If, for example, the load (F) is 3.5 tons and the air pressure (P) is 600 kPa then the area is 5.8 dm² (35/600 = 0.058 m). The size of the contact area depends on the type of wheel and the air pressure in the pneumatic tyres. The contact area is least for all-metal wheels, approximately 100 mm². The choice of flooring profile is facilitated if it is known which type of truck – and its axle or tyre pressure – will load the floor. Certain guidance is given in catalogues of trucks and other lifting devices.



A (m²) = F (kN/P(kPa)





General construction alloys

Alloy data according to EN-755-2

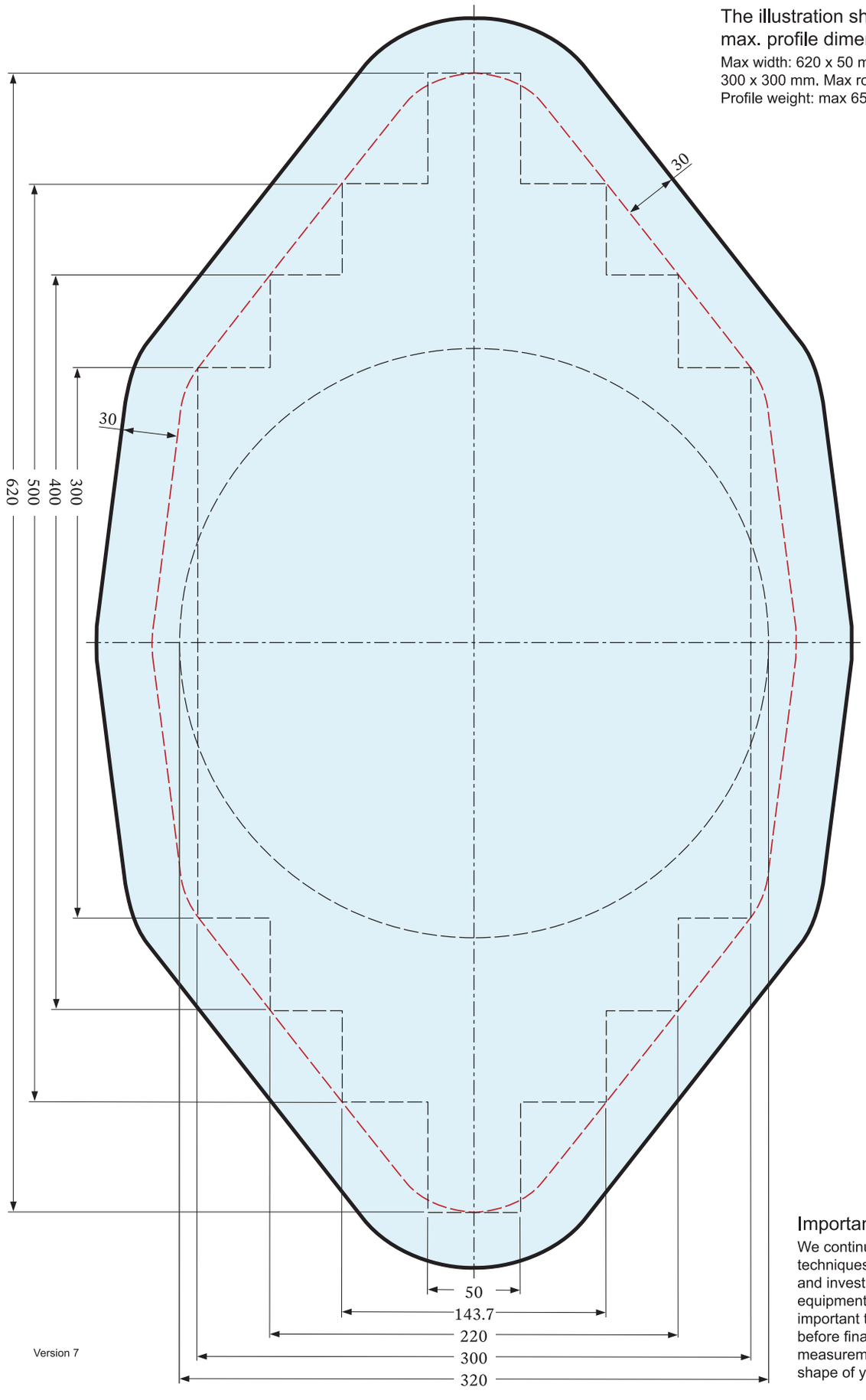
	6060		6060 F22		6082		
Corresponding designations European standards: numerical designation chemical symbols [1] USA: Aluminum Association Swedish standards:	EN-AW-6060 AlMgSi AA 6060 SS-EN-AW-6060		EN-AW-6060 F22 AlMg0,7Si AA 6060 F22 SS-EN-AW-6060 F22		EN-AW-6082 AlSi1MgMn AA 6082 SS-EN-AW-6082		
Technical data Condition	T4 [2]	T6	T4 [2]	T6	T4 [2]	T6 Solid section	T6 Hollow section
Tensile strength [3] t = wall thickness, mm Yield strength $R_{p0.2}$, MPa, min.	t ≤ 25 60	t ≤ 3 150 3 < t ≤ 25 140	t ≤ 25 65	t ≤ 10 170 10 < t ≤ 25 160	t ≤ 25 110	t ≤ 5 250 5 < t ≤ 25 260	t ≤ 5 250 5 < t ≤ 15 260
Ultimate tensile strength R_m, MPa, min.	t ≤ 25 120	t ≤ 3 190 3 < t ≤ 25 170	t ≤ 25 130	t ≤ 10 215 10 < t ≤ 25 195	t ≤ 25 205 5 < t	t ≤ 5 290 5 < t ≤ 25 310	t ≤ 5 290 ≤ 15 310
Elongation A, % min.	t ≤ 25 16	t ≤ 25 8	t ≤ 25 14	t ≤ 25 8 5	t ≤ 25 14	t ≤ 5 8 5 < t ≤ 25 10	t ≤ 5 8 5 < t ≤ 25 10
Hardness (value for information only)							
Webster B, approx.	5	10	5	12	11	15	15
Vickers, approx.	40	60	45	70	65	95	95
Thermal conductivity At 20°, W/m,°C	190	190	190	190	170	170	170
Density, kg/dm³	2.7	2.7	2.7	2.7	2.7	2.7	2.7
All alloys: Coefficient of thermal expansion: 23 x 10^{-6}/°C Modulus of elasticity: 70,000 MPa Modulus of elasticity: 27,000 MPa Poisson's ratio: 0.33	Alloys suitable for decorative anodising				High-strength building and structural components, e.g. trailer profiles for lorries and floor profiles. Unsuitable for decorative anodising.		
	For all applications where the best possible surface finish is desired and where strength is not the first priority. For example: picture frames, high-quality furniture.		All applications. This alloy combines most desirable properties. For example: furniture, decorative profiles.				

Condition symbols:

F Extruded
O Annealed
T4 Solution treated + naturally aged
T6 Solution treated + precipitation treated

Version 8

Big profiles, great possibilities



The illustration shows max. profile dimensions

Max width: 620 x 50 mm. Max square: 300 x 300 mm. Max round: 320 mm diam. Profile weight: max 65 kg/m

Important

We continuously develop techniques and processes and invest in new production equipment. It is therefore important to contact Hydro before finally deciding measurements and exact shape of your profile.

Version 7

Many great products have started off as prototypes entirely or partly created with profiles from our comprehensive stock of standard profiles. Sometimes these profiles meet the demands and serve as parts in the final product.

Often this standard catalogue is the very first step in a rewarding cooperation to create better products. More competitive, more environmental friendly, easier to manufacture, simpler to use, better looking. Just to mention some of the possibilities with Hydro and aluminium profiles.

Let us contribute with our massive bank of know-how and experience, technical resources and motivated staff.

Can smart solutions such as snap-fit joints and fastening slots be integrated in the extrusion? What about fabrication such as punching, drilling, cutting, turning, bending, milling, welding, adhesive bonding, painting? Or a turnkey solution, where Hydro accepts responsibility for the entire production chain?

Our aim is to create long-term business relations, with mutual profitability as the overall objective. This is a language understood everywhere.

Aluminium profiles do not recognise borders; neither does Hydro. Our combined production resources and expertise are available for any customer in any country.

With footprints in Europe, North and Central America and Asia we are the world's leading manufacturer of aluminium profiles and can serve customers on a worldwide basis.
(Visit www.hydro.com for a complete list of countries.)

An
in-depth
partnership
with Hydro

Hydro

We are aluminium

Get in touch with us for more information
or a detailed offer.

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Hydro is a fully integrated aluminium company with 35,000 employees in 40 countries on all continents, combining local expertise, worldwide reach an unmatched capabilities in R&D. In addition to production of primary aluminium, extruded and rolled products and recycling, Hydro also extracts bauxite, refines alumina and generates energy to be the only 360° company of the global aluminium industry. Hydro is present within all market segments for aluminium, with sales and trading activities throughout the value chain serving more than 30,000 customers. Based in Norway and rooted in more than a century of experience in renweable energy, technology and innovation, Hydro is committed to strenghtening the viability of its customers and communities, shaping a sustainable future through innovative aluminium solutions.