



BH Veranda

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I. COMPANY HISTORY

Demsaş Metal Inc. was established in 1984 with its 15.000 sqm production area and over 170 employees.

Our Company is working in the field of aluminium profile production and contributing to our country's economy with its exports to more than 30 countries we have achieved to become one of the rare fully integrated aluminium plants in its sector since its establishment.

II. SERVICES

- Hosting all the production levels such as:
 - Drawing stage
 - Extrusion mold design
 - Production of extrusion molds
 - Profile extrusion
 - Surface treatments
- A) Powder Coating
- B) Anodising (Polished or Matte)
- C) Brushed effects
- D) Heat transfer printing
- Mechanical treatment

- Professional support, consultation and adequate technical advices ensured by our experienced engineering team in profile extrusion.
- Reliable customer care processing training and technical support.
- Production of custom length profiles with high quality powder coating and anodising.

III. BASIC VALUES

● VISION

Our aim is to be a leader in the market by providing added value to our customers, shareholders, employees, business partners and society with innovative and creative solutions and to produce according to international standards with an environment- friendly approach. In addition, we aim to create high-performance human resources that are open to learning, development and sharing, adopting all corporate values, thus using all of our capabilities as our capital, creating an environment that promotes long-term relationships.

● MISSION

Demsaş has a mission of establishing direct and transparent communication with its employees, empowering them in line with their capabilities and in a way that they can demonstrate their skills in an efficient manner, take initiatives and produce innovations and create a trust-based working environment. Our company, without compromising its core values, aims to approach its employees and customers from a business ethics, honesty, quality and solution-oriented perspective and thus become the preferred business and solution partner in the market.

● **CORPORATE VALUES**

Our company's principle values:

- Being honest, confident and transparent company
- Contribute to the success of our customers
- Believe in innovative and dynamic development
- Social responsibility and environmental awareness
- Believe in teamwork
- To prioritize quality at all stages in marketing and production.

● **QUALITY POLICY**

Our quality policy consists of:

- To ensure customer satisfaction
- Maintaining quality and customer satisfaction in production, marketing, sales and after sales support stages from raw material supply until shipment
- To respect environment, our employees, our solution partners, our shareholders and our customers
- To be the most admired in the sector with managers and employees who adopt continuous improvement oriented values such as education, research and development

● **QUALITY AND ENVIRONMENTAL POLICY**

Demsaş Metal operates under the principles of 'Total Quality Management'

- All our production processes are carried out according to the principles of TSE (Turkish Standard Institution) and **ISO 9001: 2008 Quality Management System**.
- Our company exhibits a meticulous attitude to comply with international standards in our products and services.
- Improvements in processes that ensure efficiency and reduction of costs are implemented regularly and systematically.

In accordance with its environmental policy, Demsaş Metal has adopted a sensitive attitude to protect the external environment and natural resources.

Our company, employees and solution partners to raise awareness about social responsibility and environmental policy and environmental pollution prevention is adopted as a principle to take measures.

We have already started procedures to reduce our carbon print and achieve to 0% emissions by 2040.



GENERAL INFORMATION

CONCEPT / ADVANTAGES / CERTIFICATES

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BHVERANDA
SYSTEM



BHVeranda

BHVeranda is designed to meet all modern requirement in a building as far as

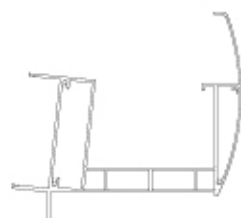
- Construction,
- Technology
- Adds charm to your property,
- Extends your living space and
- Allowing you to open up your home to the outside, while still being protected from the weather conditions.
- BHVeranda creates the perfect entertainment space.

BHVeranda can be combined with:

- Sliding,
- Opening and
- Bi-folding systems perfectly.

TECHNICAL SPECIFICATION

- Modern design
- 125 * 125 mm square legs
- 81 * 64 mm water drainage channel
- 60 mm mullions with possibility for additional aluminium or steel reinforcing
- LED lighting channels into mullions
- Accessories designed by DEMSAŞ METAL that guarantee long lasting functionality and durability
- Glass thickness 6mm - 20mm
- EPDM gaskets and
- Adequate sealing
- Economically attractive solutions
- High aesthetics and functionality
- Possibility for completely closing of area as a winter garden with:
 - Sliding,
 - Opening
 - Bi-folding or
 - Mosquito and other Screening Systems
- Safe constructions
- A capability of powder painting in any RAL colour, special woodgrain
- Patterns and other surface processing methods - such as anodizing



1

BH-001

Groove Profile



2

8466

Post Profile



3

BH-101

Transom Profile



4

BH-102

Transom Profile



5

BH-201

Wall Profile



6

BH-401

Channel Hiding Profile



7

BH-301

Cover For Transom Profile



8

BH-302

Cover For Transom Profile



11

KT-8467

Foot Profile



12

GS-501

Gasket



13

GS-511

Gasket



CAP-BH-101

LED Lighting Cap



10

CAP-BH-201

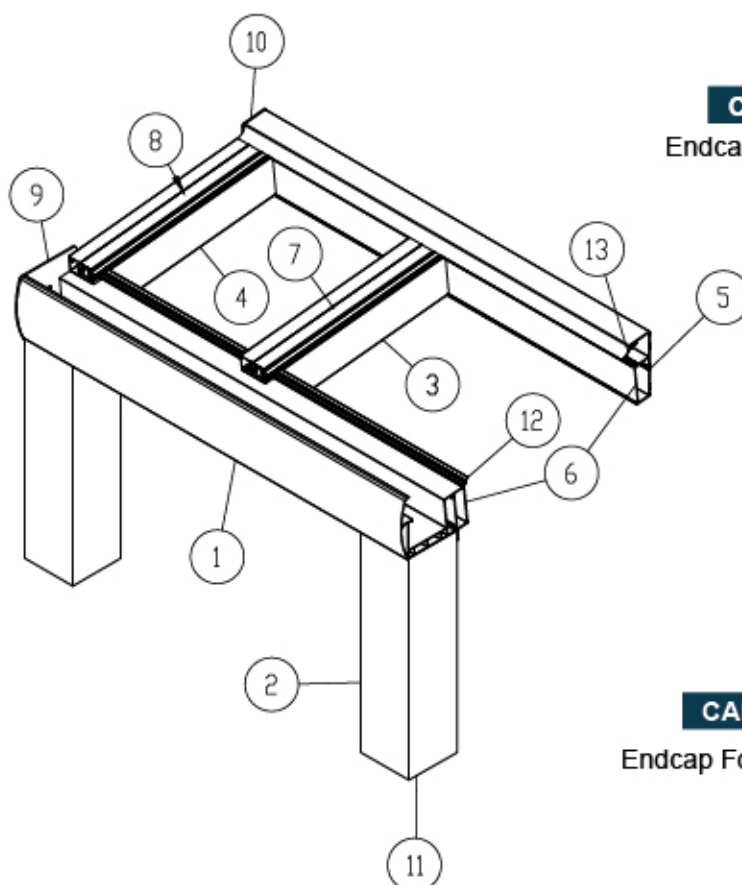
Endcap For Wall Profile



9

CAP-BH-001

Endcap For Groove Profile



COMPLIANCE WITH APPLICABLE REGULATIONS

Production management

Quality Management System is certified in accordance with EN ISO 9001:2008.

Environmental Management System is certified in accordance with EN ISO 14001:2015

Factory Production Control System is certified according to the requirements of EN 15088. All Demsaş Metal profiles are CE marked and in compliance with applicable Europe and Standards.

DEMSAŞ is authorized to use the **QUALICOAT SEASIDE** quality sign for paint, lacquer and powder coating on aluminium for architectural applications.

Occupational Health & Safety Management System is certified in accordance with OHSAS 18001.

PERFORMANCE CHARACTERISTICS OF **BHVeranda**

Characteristics	Classification / Value	Standard
Air permeability	Up to class 4	EN 1026 / EN 12207
Watertightness	Up to class 9A	EN 1027 / EN 12208
Resistance to wind load	Up to class C4	EN 12211 / EN 12210
Acoustic performance	Up to 38 dB	EN ISO 717-1

CLASSIFICATION OF CHARACTERISTICS

for windows without resistance to fire and/or smoke leakage characteristics
 accordings to EN 14351-1

Characteristic / Value / Dimension	Classification / Value											
Resistance to wind load Test pressure P1 (Pa)	npd	1 (400)	2 (800)		3 (1200)	4 (1600)	5 (2000)	Exxxx (>2000)				
Resistance to wind load Frame deflection	npd	A (≤1/150)			B (≤1/200)		C (≤1/300)					
Resistance to snow and permanent load	npd	Declared information on the infill (e.g. type and thickness of glass)										
Reaction to fire	npd	F	E	D	C	B	A2	A1				
External fire performance	npd	According to EN 13501-5										
Watertightness Non-shielded (A) Test pressure (Pa)	npd	1A (0)	2A (50)	3A (100)	4A (150)	5A (200)	6A (250)	7A (300)	8A (450)	9A (600)	Exxxx (>600)	
Watertightness Shielded (B) Test pressure (Pa)	npd	1B (0)	2B (50)	3B (100)	4B (150)	5B (200)	6B (250)	7B (300)				
Dangerous substances	npd	As required by regulations										
Impact resistance Drop height (mm)	npd	200		300		450		700		950		
Load-bearing capacity of safety devices	npd ^a	Threshold value										
Acoustic performance Sound insulation R _w (C;C _w) (dB)	npd	Declared values										
Thermal transmittance U _w (W/(m².K))	npd	Declared values										
Radiation properties Solar factor (g)	npd	Declared values										
Radiation properties Light transmittance (τ _v)	npd	Declared values										
Air permeability Max. test pressure (Pa) Reference air permeability at 100 Pa (m³/(h·m²) or m³/(h·m))	npd	1 (150) (50 or 12.50)		2 (300) (27 or 6.75)		3 (600) (9 or 2.25)		4 (600) (3 or 0.75)				
Operating forces^b	npd	1				2						
Mechanical strength	npd	1			2		3		4			
Ventilation Air flow exponent n Air flow characteristic K Air flow rates	npd	Declared values										
Bullet resistance	npd	FB1	FB2	FB3	FB4	FB5	FB6	FB7	FSG			
Explosion resistance Shock tube	npd	EPR1			EPR2		EPR3		EPR4			
Explosion resistance Range test	npd	EXR1			EXR2		EXR3		EXR4		EXR5	
Resistance to repeated opening and closing Number of cycles	npd	5000				10 000			20 000			
Behavior between different climates	npd	Under development										
Burglar resistance	npd	1	2	3	4	5	6					

NOTE 1: npd: no performance determined

NOTE 2: The figures in brackets are for information

^a Only if safety device(s) is (are) not provided

^b Manually operated windows only

[illegible]



BUILDING PHYSICS

DIMENSIONING / FORMULAS / EXAMPLES

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BHVERANDA
SYSTEM

ALUMINIUM AS MATERIAL

ALUMINIUM IS VERY YOUNG METAL, EXTRACTED FOR THE FIRST TIME IN 1854. COMMERCIALY PRODUCED AS A PRECIOUS METAL FROM 1886, ITS INDUSTRIAL PRODUCTION FOR CIVIL APPLICATIONS ONLY ACHIEVED WIDE USE IN THE 1950's.

NOW ALUMINIUM PLAYS A KEY ROLE FOR THE SUSTAINABILITY OF NEW BUILDINGS AND THE RENOVATION OF EXISTING ONES. THANKS TO ITS PERFORMANCE, SAFETY AND COMFORT OF NEW BUILDINGS.

ADVANTAGES

DESIGN FLEXIBILITY

The extrusion process offers an almost infinite range of forms and sections, allowing designers to integrate numerous functions into one profile.

LONG SERVICE LIFE

Aluminium building products are made from alloys that are weatherproof, corrosion-resistant and immune to the harmful effects of UV rays, ensuring optimal performance over a very long period of time.

HIGH STRENGTH-TO-WEIGHT RATIO

Thanks to the metal's inherent strength and stiffness, aluminium window and curtain wall frames can be very narrow. Material's light weight makes it easier to transport and handle on-site, reducing the risk of work-related injury.

HIGH-REFLECTIVITY

This characteristic feature makes aluminium a very efficient material for light management. Aluminium shading devices can be use to reduce the need for air conditioning in summer.

FIRE SAFETY

Aluminium does not burn and therefore is classified as a non-combustible construction material (European Fire Class A1). Aluminium alloys will nevertheless melt at around 6500 C, but without releasing harmful gases.

NO RELEASE OF DANGEROUS SUBSTANCES

Several studies have proved that aluminium building products do not prevent a hazard to occupants or the surrounding environment. Aluminium building products have no negative impact, either on indoor air quality or on soil, surface and groundwater.

OPTIMAL SECURITY

Where high security is required, specially designed, strengthened aluminium frames can be used. While the glass for such applications may well be heavy, the overall weight of the structure remains manageable, thanks to the light weight of the aluminium frames.

ALLOYS

Aluminium in its pure form is a very soft metal. Thanks to the addition of alloying elements such as copper, manganese, magnesium, zinc, etc. and thanks to suitable production processes, the physical and mechanical properties can be varied in a wide range to satisfy the requirements of a large number of different applications.

DEMSAŞ profiles are extruded from the following alloys:

EN AW-1050 (Al 99.5)
EN AW-6060 (Al Mg Si)
EN AW-6063 (Al Mg_{0,7} Si)
EN AW-6061 (Al Mg₁ Si Cu)
EN AW-6005 (Al Si Mg)
EN AW-6082 (Al Si₁ Mg Mn)

The most common aluminium alloy which is used by DEMSAŞ is EN AW 6063. Here are the properties of this alloy:

MATERIAL PROPERTIES

Aluminium alloy	EN AW 6063 F22
Ultimate tensile strength	$R_m = 210 \text{ N/mm}^2$
Yield strength	$R_{p0.2} = 160 \text{ N/mm}^2$
Modulus of elasticity	$E_{al} = 70\,000 \text{ N/mm}^2 = 7 \cdot 10^9 \text{ kg/m}^2$
Coefficient of thermal expansion	$\alpha = 0.023 \text{ mm/m} \cdot \text{K}$ (up to 1.2 mm/m for difference up to 50°C)

EXTRUSION PROCESS

DEMSAŞ profiles are obtained through extrusion process, which consists of pushing a hot cylindrical bullet of aluminium through a shaped die. The extrusion process offers almost infinite range of forms and sections, allowing our designers to integrate numerous functions into one single profile.

FINISHING

POWDER COATING

It is a type of paint that is applied as a dry powder. Coating is applied on DEMSAŞ profiles electrostatically and then is cured under heat to allow it to flow and form a "skin". DEMSAŞ is authorized to use the quality sign **QUALICOAT SEASIDE** for powder coatings on aluminium for architectural applications. A wide range of colours and gloss levels can be achieved. DEMSAŞ also offers timber imitations painting, in addition to all RAL colors. The technology EZY provides the following colors: Golden Oak, Acero, Betulla, Mogano, Verde Scuro, Wenge, Noce Fiammato, Noce Chiaro, Ciliegio Rosso, Acacia Scuro, Ciliegio Antico, Noce Reale, Ciliegio Reale.

ANODIZING

It is an electrochemical process whereby to reinforce the natural oxide film on the aluminium surface increasing hardness, corrosion and abrasion resistance. Anodizing gives a very decorative silver matt surface finish, and colored can also be obtained by sealing metallic dyes into the anodized layer.

MAINTENANCE

Apart from routine cleaning for aesthetic reasons, DEMSAŞ aluminium profiles do not require any maintenance which translates into a major cost and ecological advantage over lifetime of the product.

RECYCLING

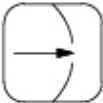
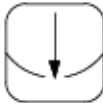




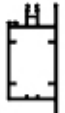





Aluminium scrap can be continuously recycled without any loss of value or properties. In many instances, aluminium is combined with other materials such as steel or plastics, which are most frequently mechanically separated from aluminium before being melted.

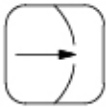
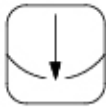



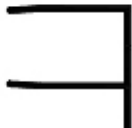







PROFILES OVERVIEW

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	PROFILES		cm ⁴		cm ⁴		kg/m
BH-001			---		---		4,672
8466			---		---		3,953
BH-101			---		---		2,131
BH-102			---		---		2,390
5501			---		---		1,253
BH-201			---		---		2,325
BH-401			---		---		0,590
BH-301			---		---		0,391
BH-302			---		---		0,501

	PROFILES	 cm ⁴	 cm ⁴	 kg/m
BH-303		---	---	0,092
5931		---	---	0,250
6192		---	---	0,282
BH-402		---	---	0,088
BH-403		---	---	0,226
BH-010		---	---	2,944
	" Profile is not available yet. Please contact before order "			
BH-304		---	---	1,058
	" Profile is not available yet. Please contact before order "			
8467		---	---	1,722
		---	---	

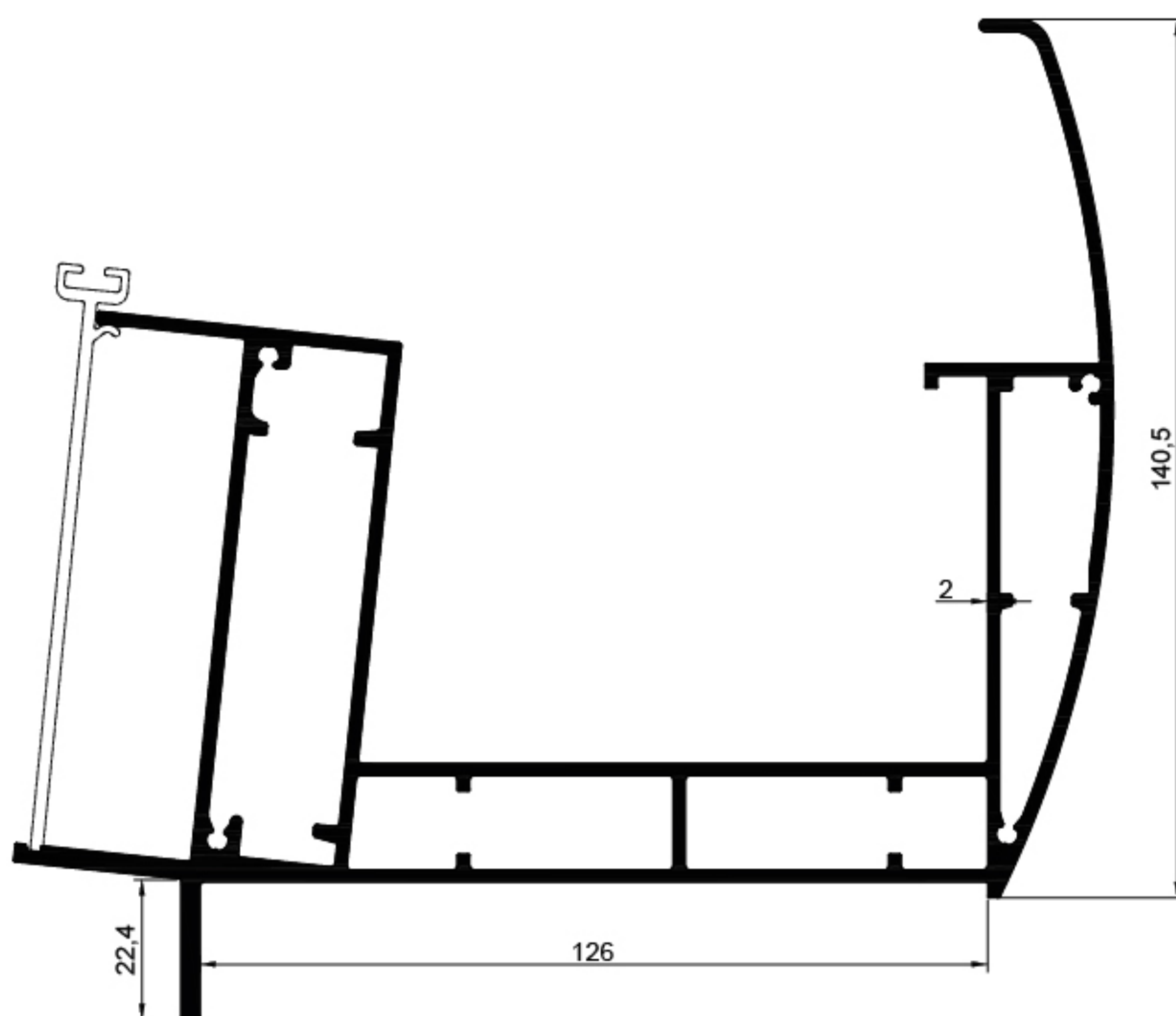
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PROFILES 1 : 1

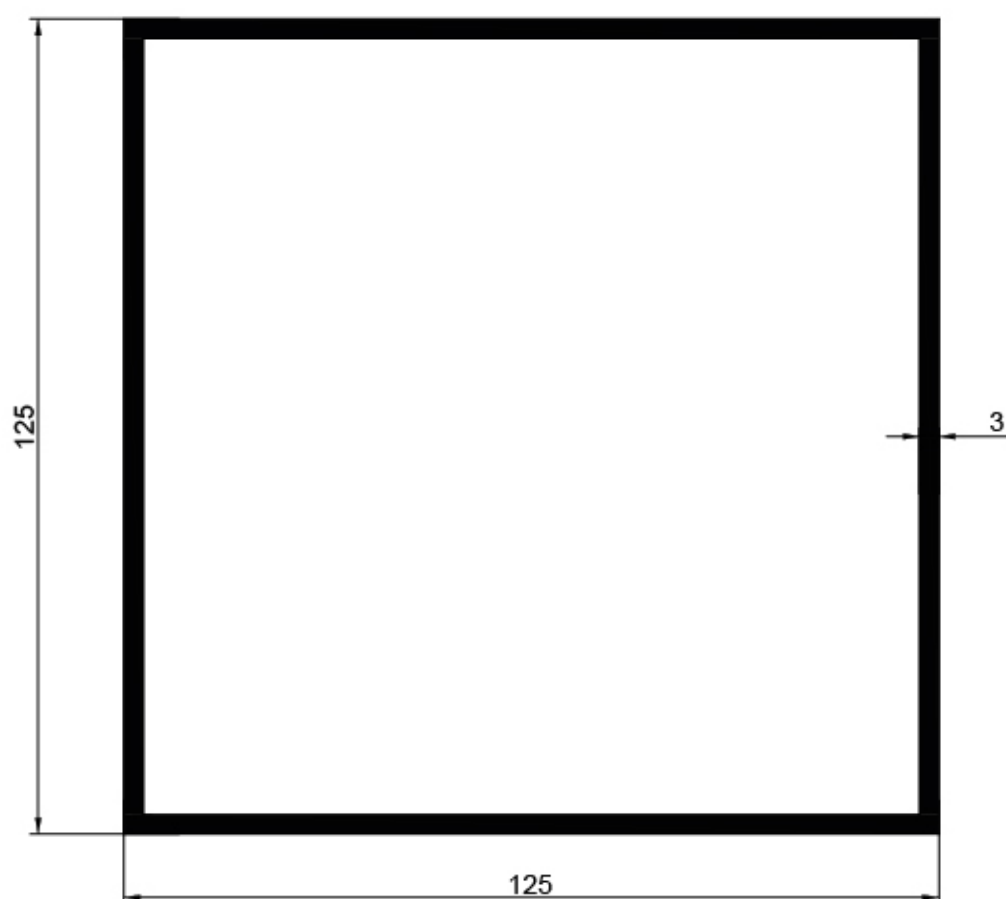
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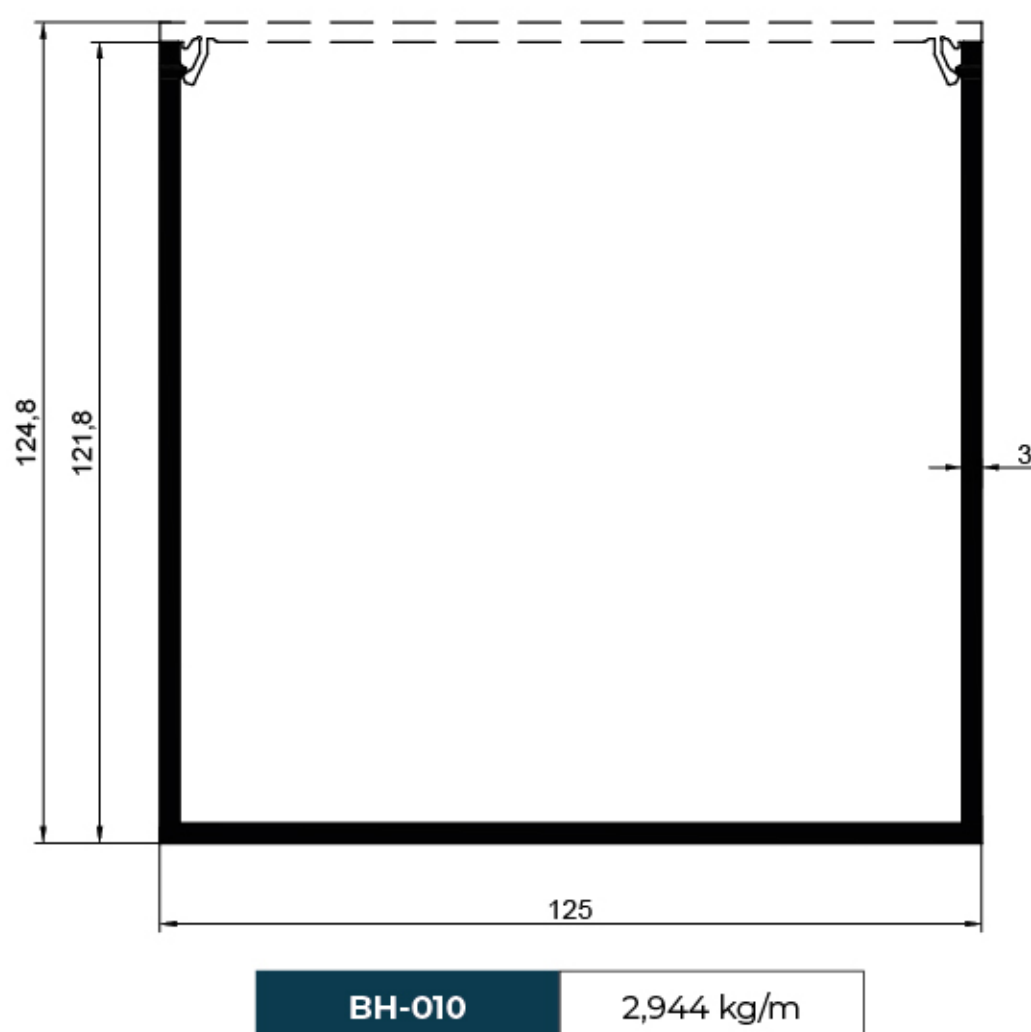
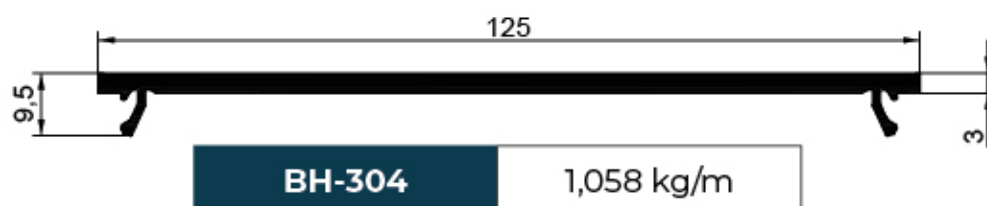
BH-001

4,672 kg/m

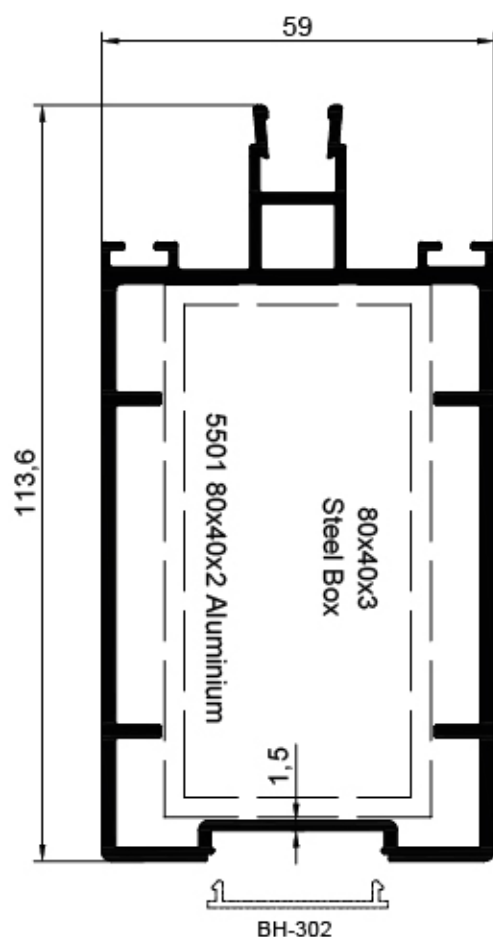


8466

3,953 kg/m

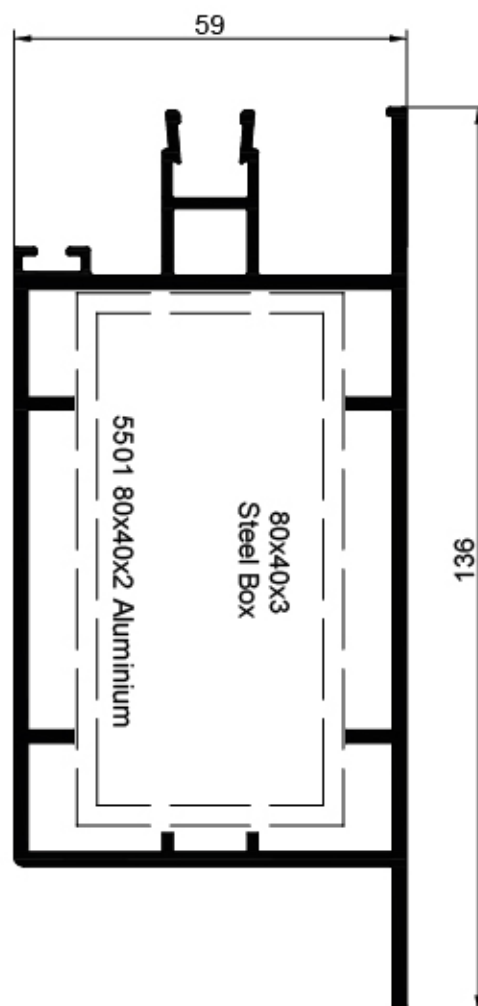


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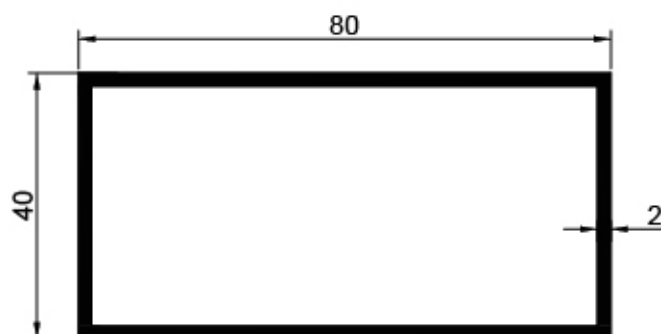
BH-101

2,131 kg/m



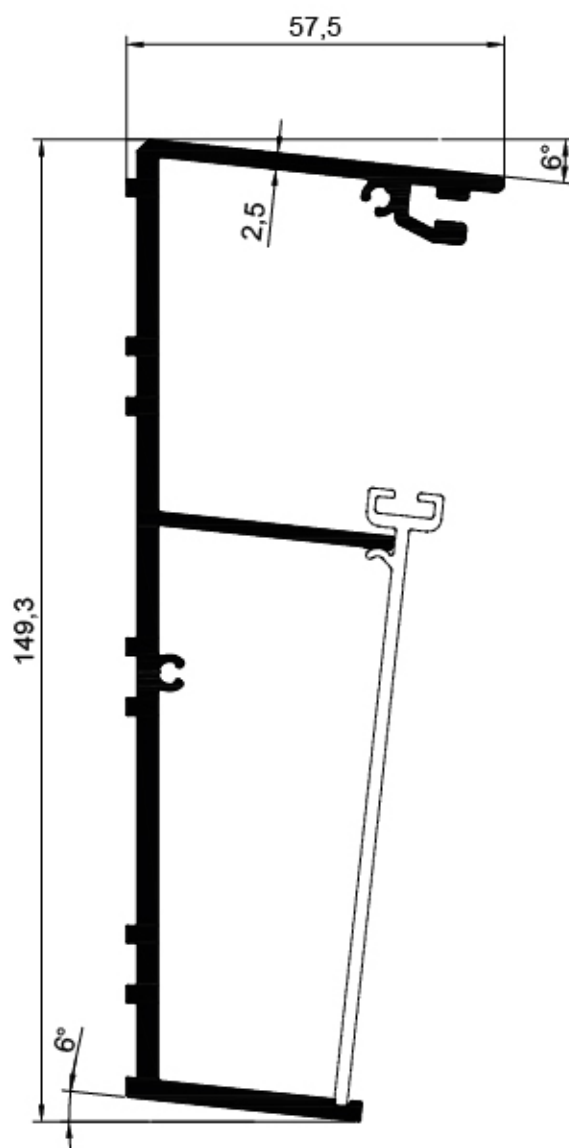
BH-102

2,390 kg/m



5501

1,253 kg/m



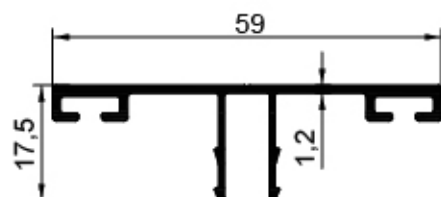
BH-201

2,325 kg/m

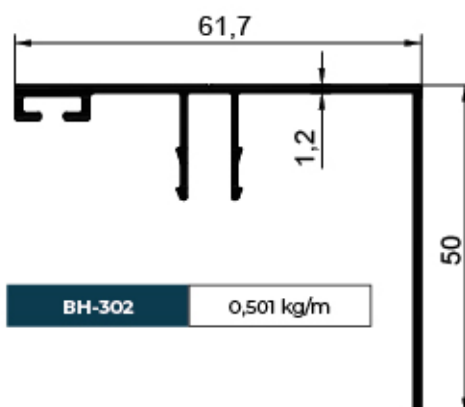


BH-401

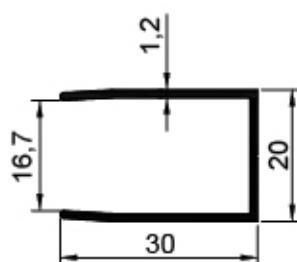
0,590 kg/m



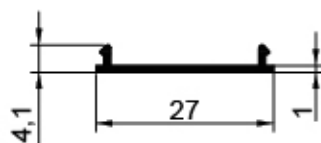
BH-301 0,391 kg/m



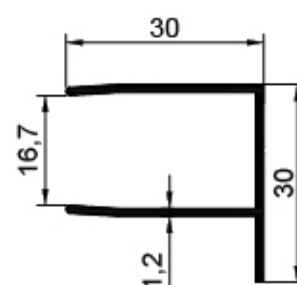
BH-302 0,501 kg/m



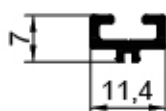
5931 0,250 kg/m



BH-303 0,092 kg/m



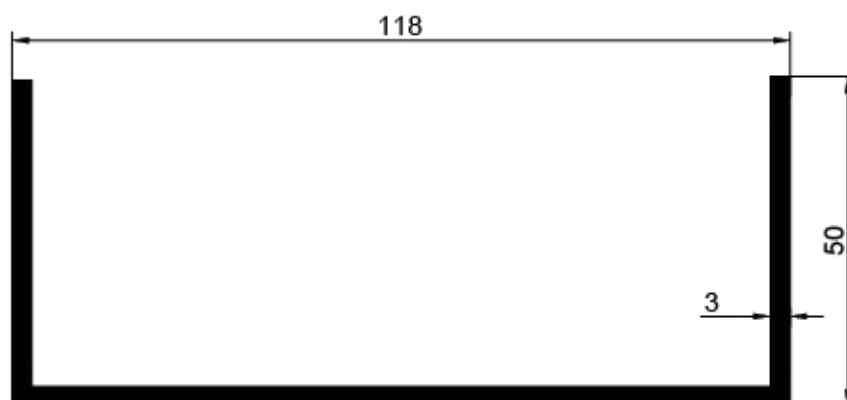
6192 0,284 kg/m



BH-402 0,088 kg/m



BH-403 0,226 kg/m



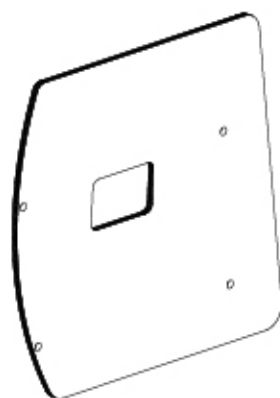
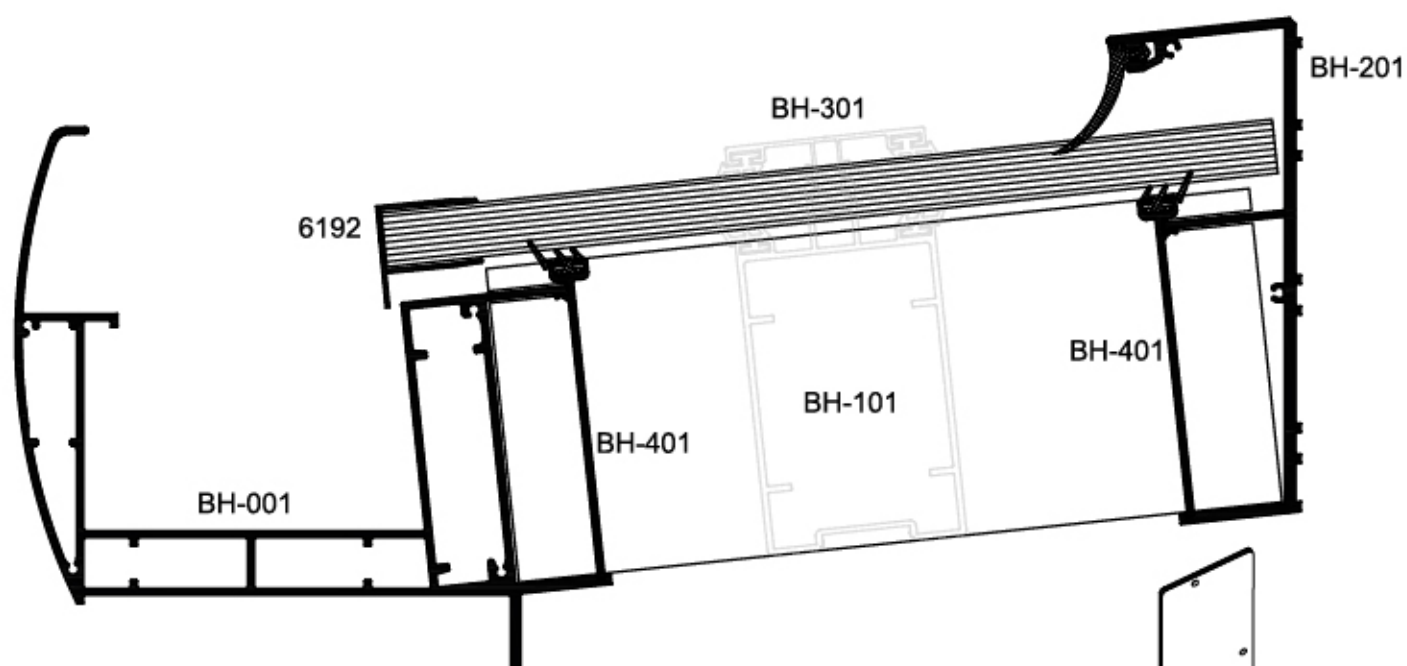
8467 1,722 kg/m



SECTIONS & GLAZING

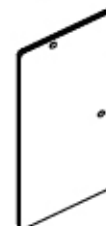
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SYSTEM



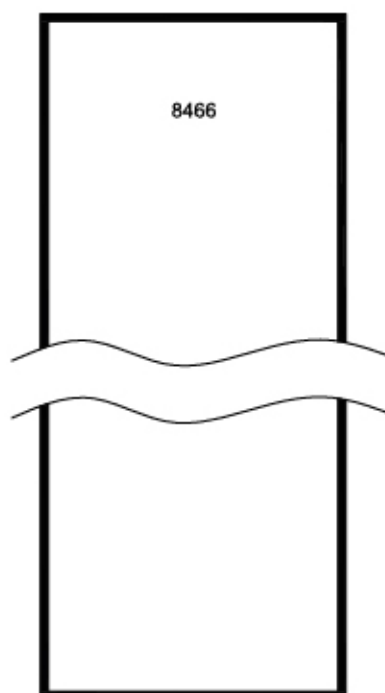
CAP-BH-001

Endcap For Groove Profile

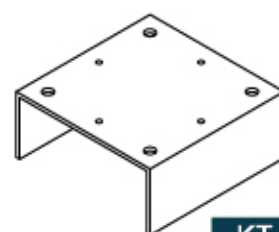


CAP-BH-201

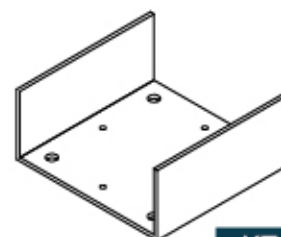
Endcap For Wall Profile



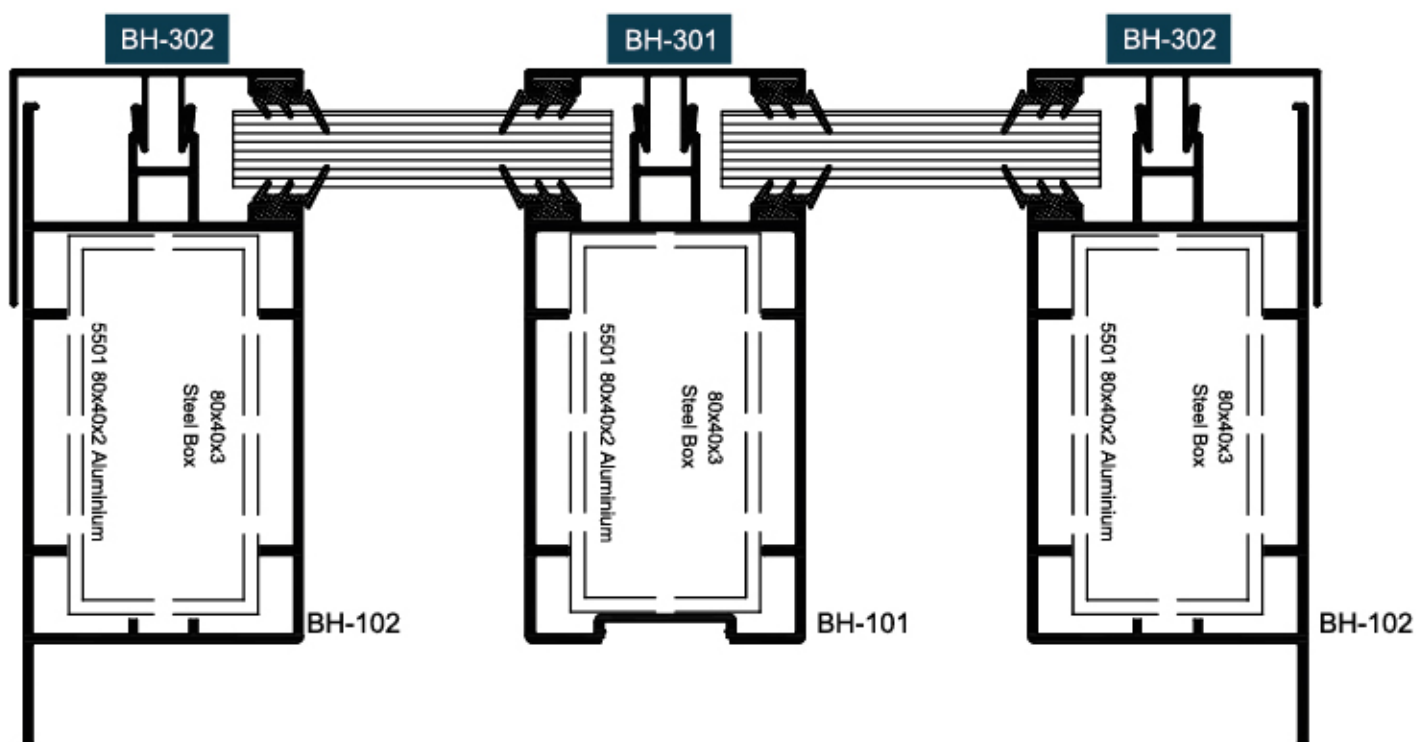
8466



KT-8467



KT-8467

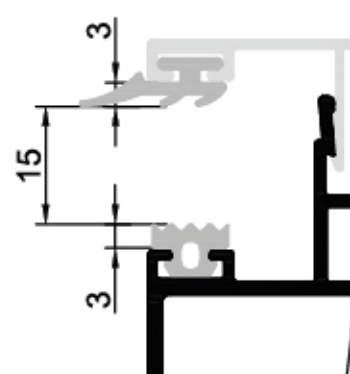
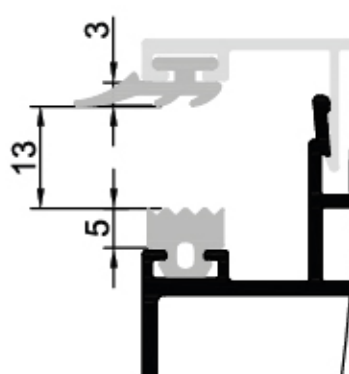
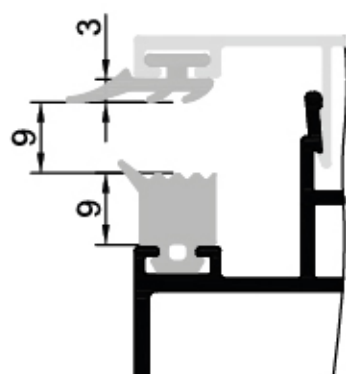
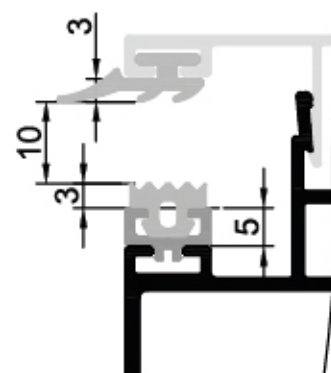
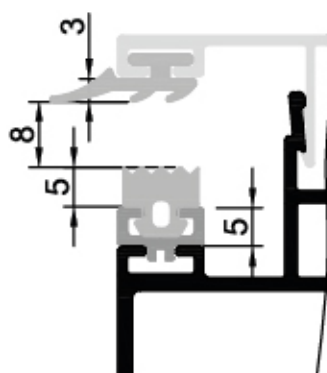
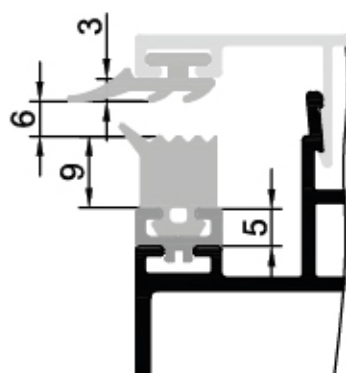
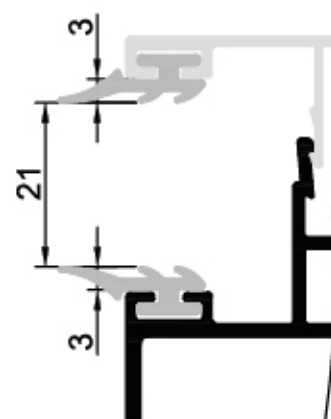
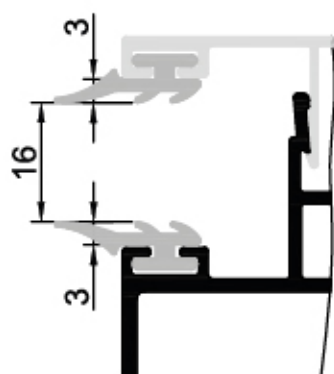


CAP-BH-101

LED Lighting Plastic Cap

BH-303

Aluminium Cap



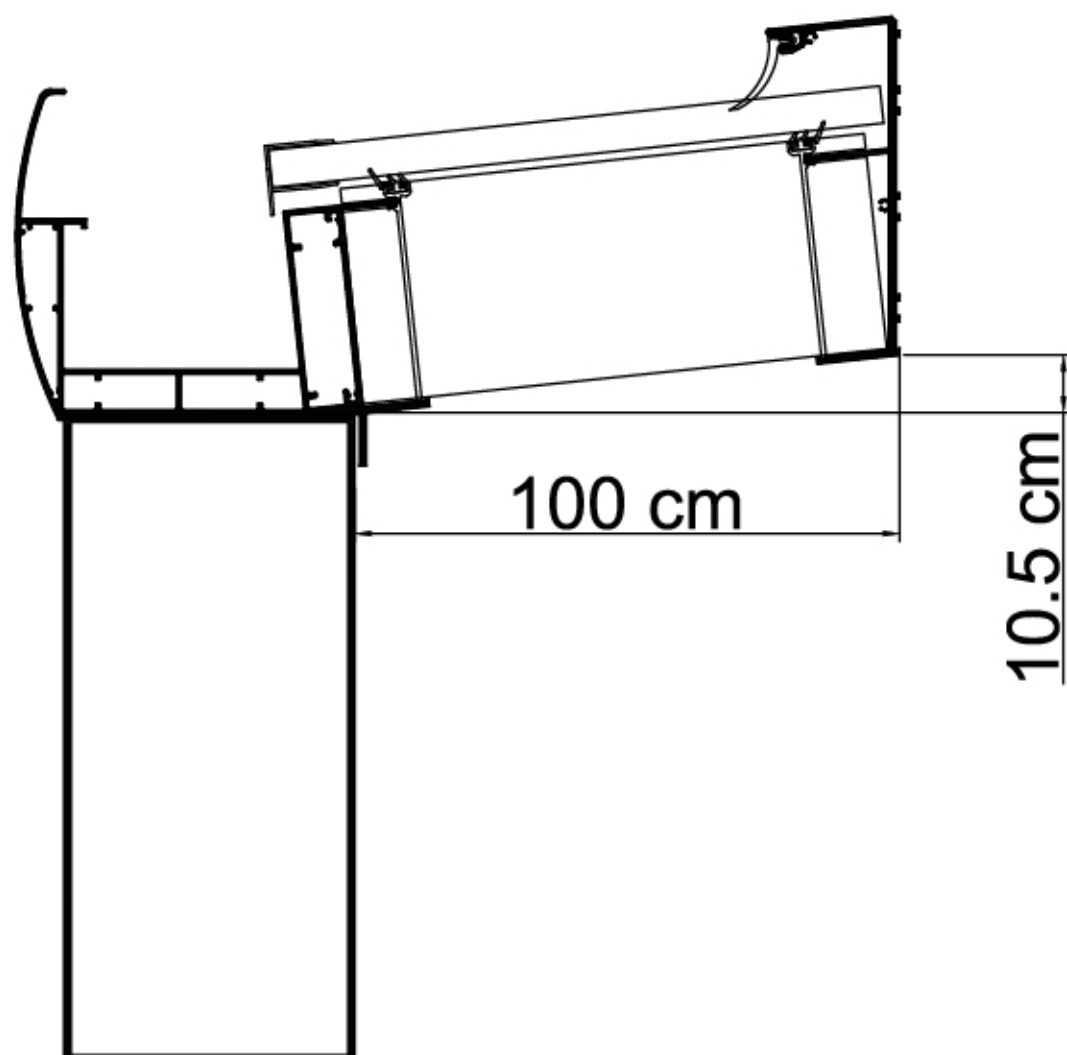
This image shows a full page of white paper with horizontal dashed lines, typical of primary-ruled notebook paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

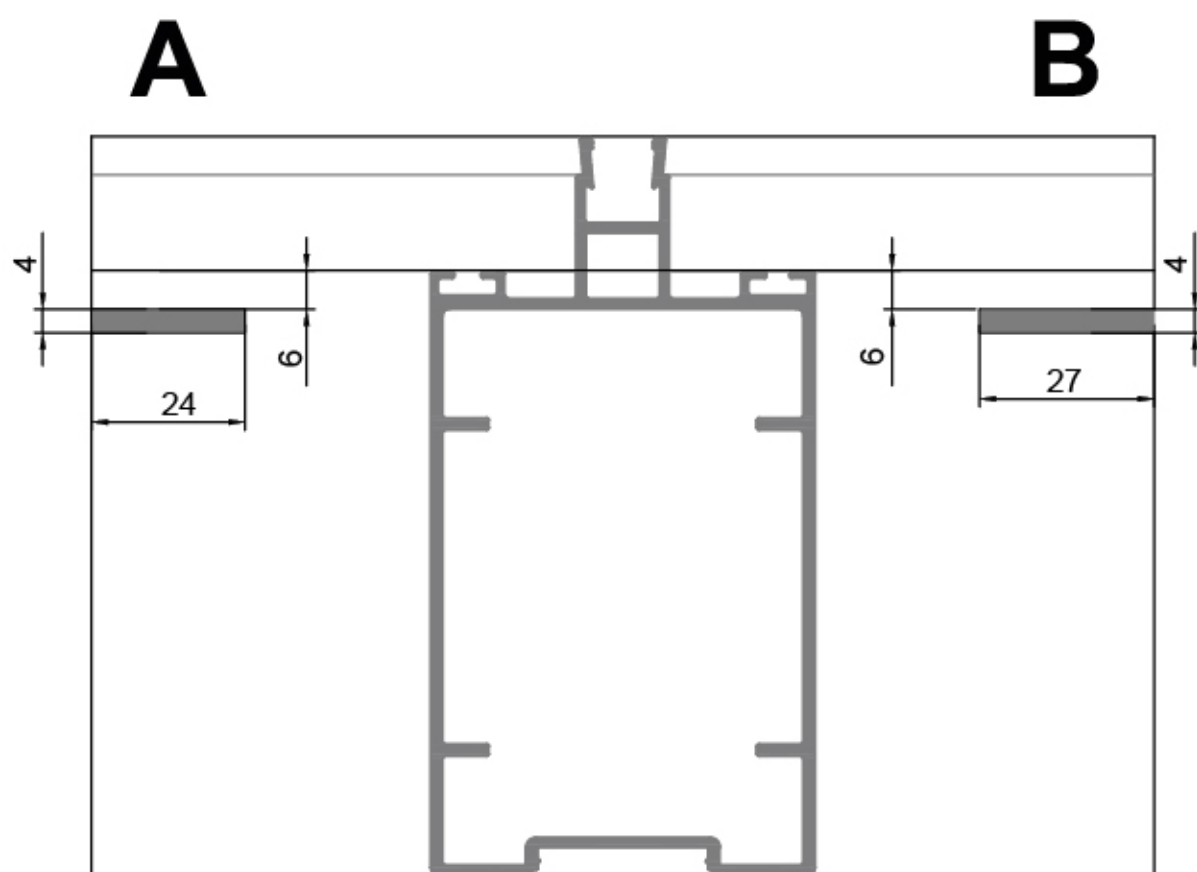
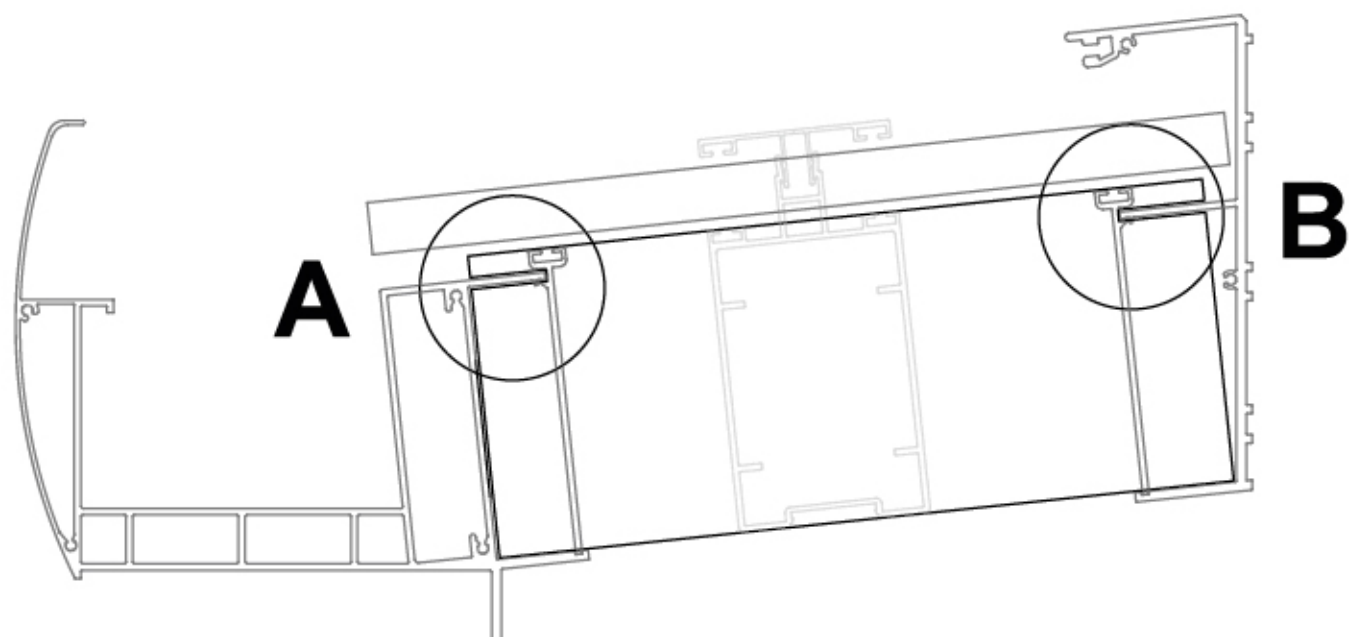


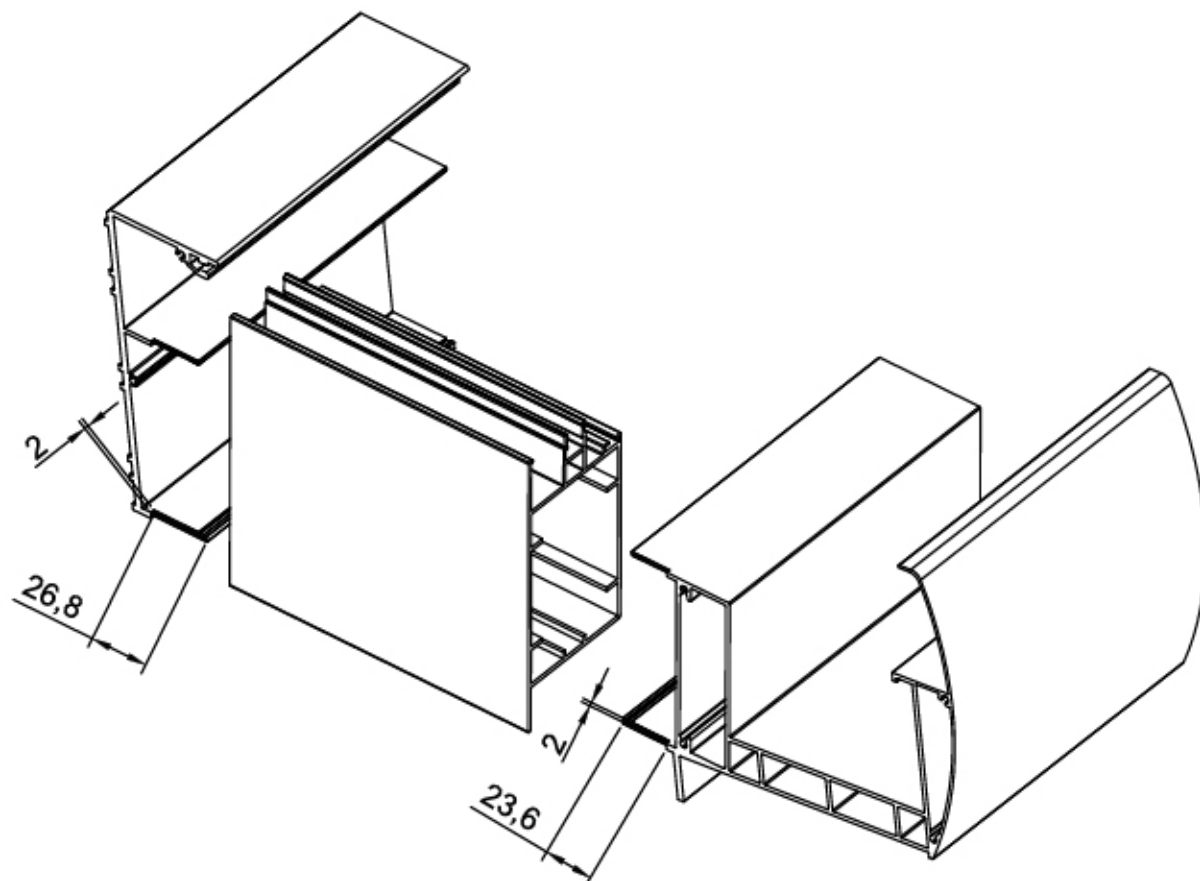
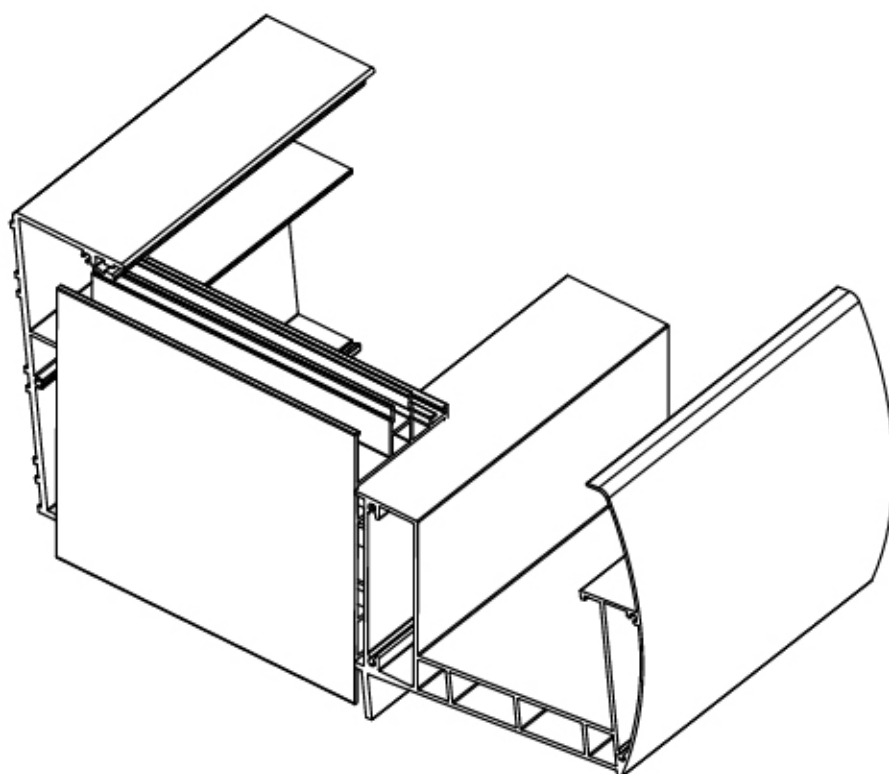
MACHINING & CUTTING LISTS

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SYSTEM







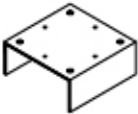








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ACCESSORIES

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	Accessor	Drawings	Accessor	Description	Accessor	Drawings	Accessor	Description
KT-8467				Foot Profile				
CAP-BH-201				Endcap For Wall Profile				
CAP-BH-001				Endcap For Groove Profile				
CAP-BH-101				LED Lighting Plastic Cap				
GS-501				Gasket				
GS-511				Gasket				
GS-523				Gasket				
GS-525				Gasket				
GS-529				Gasket				