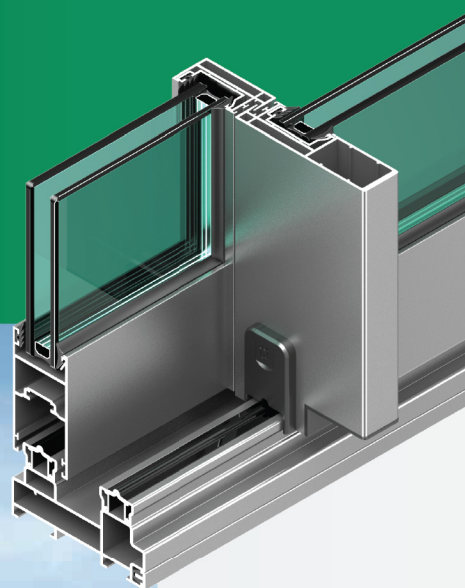




Machines & Aluminium Center
مركز ماكينات ومستلزمات الألومنيوم

TENDU SLIM PLUS

Sliding System Catalogue



2026

Ver.06

MACHINES AND ALUMINUM CENTER

Machines and Aluminum Center is an Egyptian based company established in the year 1981 and started its activity with aluminium applications in architectural and construction field.

They represent and cooperate with several leading European firms in field of aluminium business including aluminium fabrication machinery, accessories and hardware for architectural applications and different aluminium systems varying from windows and doors, up to facades and solar protection.

Our goal is to supply our clients with whatever is needed to apply our aluminium systems in the building construction. We are specialized in supplying all required machinery, equipments, dies, punches, hardware and fittings for our aluminium systems.

We offer a wide range of products to local market and neighbor countries. Our product range includes windows and doors, partition systems, different façade solutions and the related integrated accessories.

We partner with our customers with value added services which means that with the help of our specialized team of engineers, we provide our clients with technical support to assist them in improving their product's quality.

We are committed to innovative and creative product design to fulfill all architectural requirements. Our products can meet the most exacting engineering and technical standards while overcoming sophisticated design challenges.



Machines & Aluminium Center
مركز ماكينات ومستلزمات الألومنيوم

The profiles shown in this catalogue are patented.

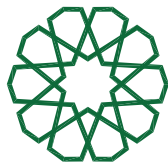
The items shown are the exclusive property of **MACHINES & ALUMINIUM CENTER** and may not be even partially reproduced without **MACHINES & ALUMINIUM CENTER** authorization.

The manufacturer reserves the right to modify the items in this catalog without advanced notice.

TABLE OF CONTENTS

TECHNICAL SPECIFICATIONS.....	4
TECHNICAL CHARACTERISTICS.....	11
SYSTEM CERTIFICATE.....	12
WIND LOAD CHARTS.....	13
PROFILES INDEX.....	24
ACCESSORIES.....	32
PROFILES SECTIONS 1:1.....	40
DETAILED SECTIONS.....	57





Materials

Aluminium Profiles:

All aluminium profiles are made of EN AW 6063 alloy in accordance with EN 755-1 or EN 12020-1, condition T5, T6. The alloy is resistant to corrosion and permits the production of high precision profiles according to EN 755-9.

Gaskets:

All rubber gaskets profiles are produced from ethylene-propylene rubber (EPDM) are used to seal infill units, window middle part in a hardness that suit its applications, ensuring condensate removal and frame-sash connection.

Accessories:

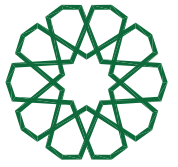
All systems are designed to use most of standard hardware. The hardware should be selected according to the minimum requirements mentioned in the system catalog.

Fixing elements:

All the connectors and fasteners used for profiles, accessories and hardware connection should be made from galvanized steel or stainless steel.

Surface treatment:

All exposed surfaces of the aluminium profiles is treated either by anodizing treatment (QUALANOD certified anodizing) or by electrostatic powder coating to meet international standards (QUALICOAT certified powder coating).



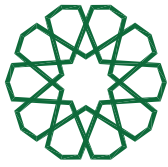
Technical Features

- In all systems there are varieties available in types and dimensions.
- Tolerances in weights & dimensions are according to standard EN 755-9, EN 12020-2 or ANSI H35.2-5.
- The profiles provide a large range of infill types and measures, due to the availability of different profile types and a wide range of gaskets sizes.
- Glazing gaskets inside and outside of E.P.D.M. all-around, gasket profiles visually are in the same level inside and outside to enhance the gasket visibility.
- General compatibility of profiles, accessories and gaskets to hence fewer system accessories and reduced warehouse inventory.
- Charts are available for each system and its profiles indicate allowable panel /sash sizes and the right profile regarding the effective moment of inertia, wind load and window's type to guarantee resistance avoiding any deformation greater than allowable deflection 1/200 of window span according to European Standard hEN 14351-1

under load 500 Pascal up to 1000 Pascal, and up to 2000 Pascal for curtain wall according to EN 13830, charts are available also if requested with deflection (1/175 max 19mm.) of window/façade span according to American Standard) AAMA/WDMA/CSA 101/I.S.2.

- Water resistance is confirmed to International standards, water tightness performance varies according to window type and system design with no water penetration under pressure up to 600 Pascal for sliding types, and not less than 900 Pascal for hinged window types and façade types.

- Air permeability performance varies according to window type and system design, air permeability at pressure 100 Pascal is not greater than 2.25 cubic meter per hour per meter length of opening joint for sliding systems, and not greater than 0.75 cubic meter per hour of opening joint for hinged window types and not greater than 1.5 cubic meter per hour for each square meter of façade types.



Powder Coating

ALWAN is one of the largest facilities in Egypt, in the field of electrostatic application of pure-polyester powder coatings as surface treatment, specifically designed to meet stringent requirements of the construction industry for architectural and industrial aluminum profiles.

We guarantee complete customer satisfaction on all our delivered products. Every production line has a fully equipped laboratory in order to meet all international quality specifications and standards as set by the QUALICOAT organization. The certifications of QUALICOAT  Quality Management ISO 9001 and Environmental Management ISO 14001, provide complete quality assurance. We ensure a full control over all the critical parameters concerning chemical

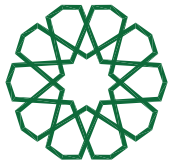
pretreatment and the use of enhanced chemical pretreatment process, with high etching degree, in accordance to QUALICOAT specifications, as well as a full control on the painting processes and polymerization during the whole surface treatment procedure. Therefore, through a unique blending system, stringent quality assurance and compliance to measures, consistent quality during the production process is guaranteed.

The application of the above-mentioned steps will assist along the line with the overall excellent properties and the longevity of the color, providing an attractive finish to the projects and building components by ensuring gloss retention, color stability and corrosion protection.

Available Colors

In regards to the colors, they are available in RAL Gloss & RAL matt. The gloss affects how the eye perceives color so some slight variations in the finish may occur. In addition to that,

the coating provides a wide range of custom-made colors that gives a variety of effects, including metallic effects.



Most of the colors are available in standard durable and some are available in super durable, which complies with advanced levels of weather resistance, gloss and color retention, and corrosion resistance, when compared to the standard durable specification.

Color customization to our standard products may be available on a request basis, with unlimited options of powder coating. In this respect, Non-standard designs and applications can be reviewed to determine the feasibility on a project-specific basis.

Warranty

The warranty is subject to terms and conditions based on the geographical location & when used on an architectural aluminum substrate.

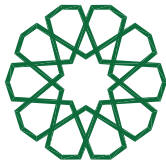
Standard Durable Class 1: Up to 10 years

Super Durable Class 2: Up to 25 years

Notes:

- As the products are very often used under conditions beyond supplier's control, we cannot guarantee anything but the quality of the product itself.
- It is expected that any fading and/or chalking and/or change in gloss retention, either uniform or non-uniform that a color will experience in the field will result in the falling within acceptable range as specified in the Qualicoat specification standards.

*QUALICOAT is a quality label organization committed to maintaining and promoting the quality of lacquering, painting and coating on aluminum and its alloys, for architectural applications.







Interpon
POWDER COATINGS



Interpon D Approved Applicator



Series D1000

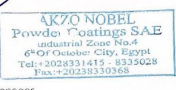
MACHINES AND ALUMINIUM CENTER (Alwan)

213, 2nd industrial Zone, 6th of October City, Giza
Egypt

Has fulfilled AkzoNobel's tests and inspection regarding the pre-treatment, application, quality management standards and procedures, and complies with the requirements of the Architectural Range Approved Applicator schedule.

This certificate is effective from
12th October 2022 to 11th October 2023

Approved for Aluminium Alloys: AA6060
Approved for Pre-treatment Type: Chrome



 Wael Mahmoud
Sales and Marketing Manager
North Africa & Levant

 12/10/2022
AkzoNobel Industrial Paints



Interpon
POWDER COATINGS



Interpon D Approved Applicator



Series D2000

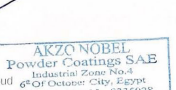
MACHINES AND ALUMINIUM CENTER (Alwan)

213, 2nd industrial Zone, 6th of October City, Giza
Egypt

Has fulfilled AkzoNobel's tests and inspection regarding the pre-treatment, application, quality management standards and procedures, and complies with the requirements of the Architectural Range Approved Applicator schedule.

This certificate is effective from
12th October 2022 to 11th October 2023

Approved for Aluminium Alloys: AA6060
Approved for Pre-treatment Type: Chrome



 Wael Mahmoud
Sales and Marketing Manager
North Africa & Levant

 12/10/2022
AkzoNobel Industrial Paints



Certificate of Approval

Machines & Aluminium Center (ALWAN)

is certified as an Approved Applicator to coat
Jotun SuperDurable
a product from Jotun Powder Coatings

This Company fulfils the requirements set by Jotun Powder Coatings for pre-treatment and application of powder coatings. These include having the necessary equipment, process controls and technical knowledge to comply with Jotun Powder Coatings' standards.

December 31, 2025
(Certificate valid until above date)


 Authorised Signatory
Jotun Powder Coatings UAE (LLC)



Certificate of Approval

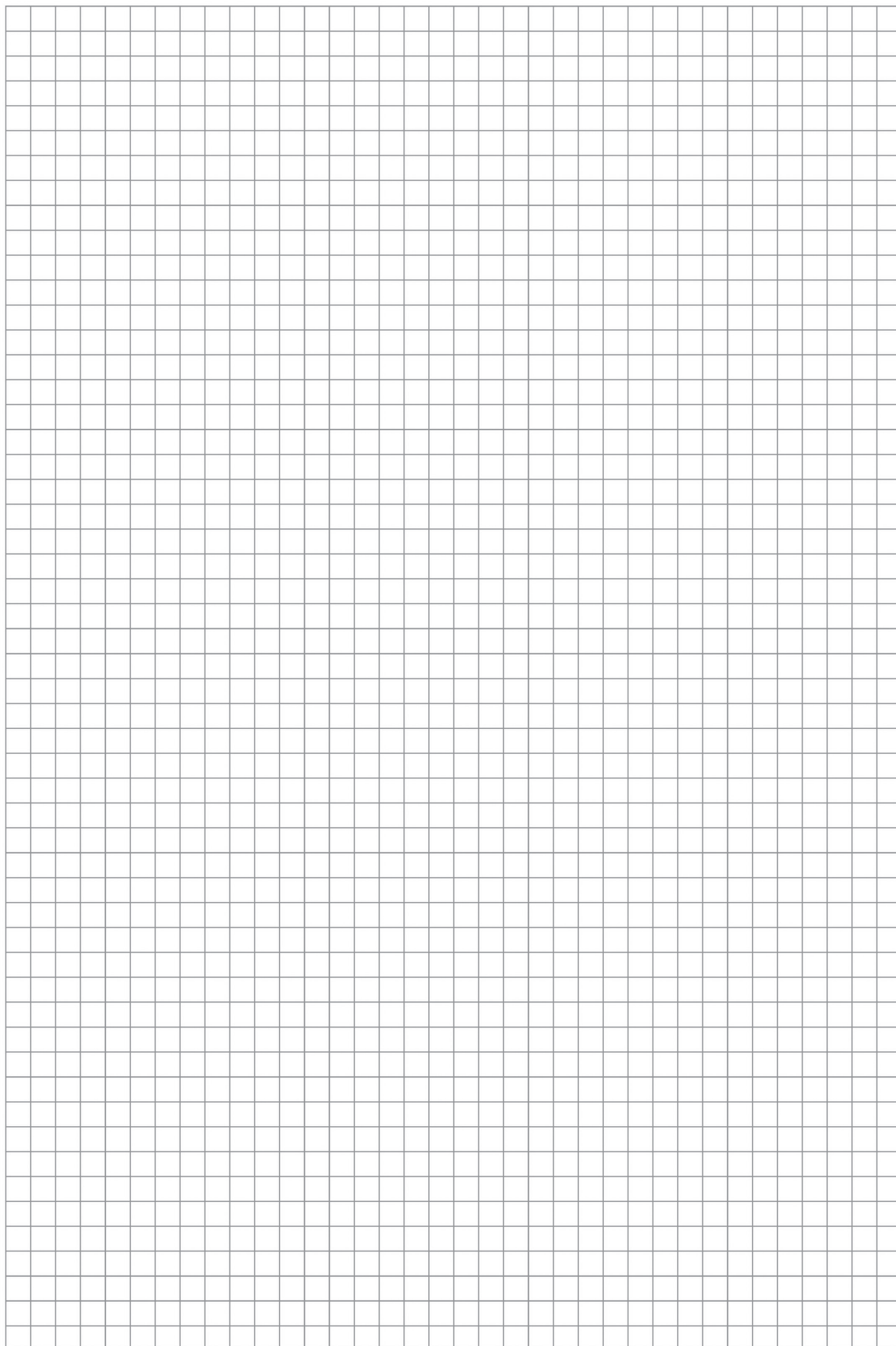
Machines & Aluminium Center (ALWAN)

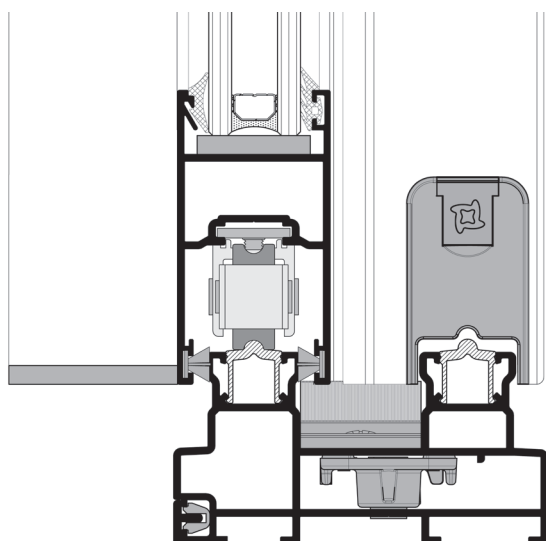
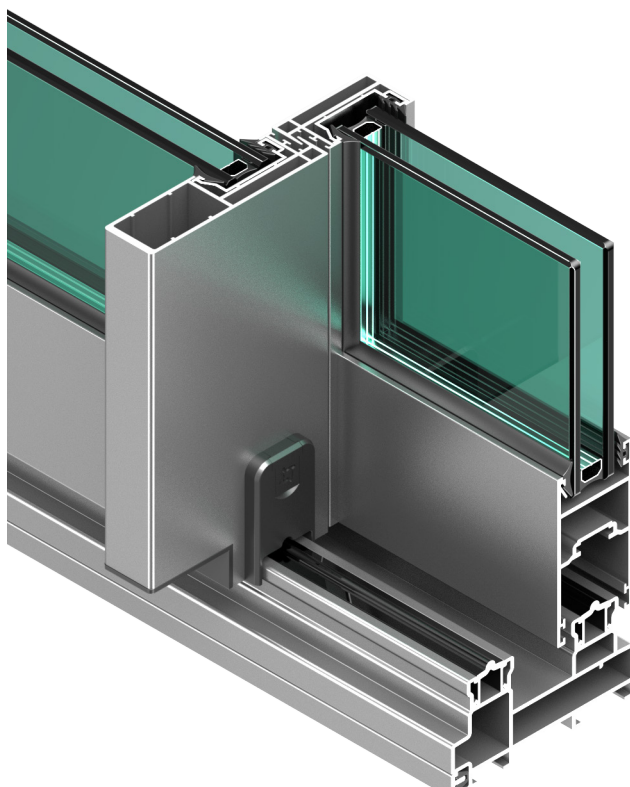
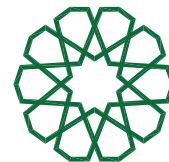
is certified as an Approved Applicator to coat
Jotun Durasol
a product from Jotun Powder Coatings

This Company fulfils the requirements set by Jotun Powder Coatings for pre-treatment and application of powder coatings. These include having the necessary equipment, process controls and technical knowledge to comply with Jotun Powder Coatings' standards.

December 31, 2025
(Certificate valid until above date)


 Authorised Signatory
Jotun Powder Coatings UAE (LLC)





**Complies with European norm
hEN 1435-1**

Air Permeability	(Class 3) up to 600 pa.
Water Tightness	(Class 6A) up to 250 pa.
Resistance to wind load	(Class B3) up to 1200 pa.

- Offers integrated sliding door solution with facade systems adding an aesthetic value to the glass facades (optional).
- Offers an extensive range of accessories including integrated lift & slide accessories.
- Obtains excellent technical performance and air permeability classifications, using gasket instead of pile weather-strip (optional).
- Used for doors and windows with heavy large sash to obtain a wide view.

Technical Characteristics

Frame Depth

98 mm. to 134 mm.

Frame Height

52 mm.

Sash Depth

40 mm.

Sash Height

86 mm.

Max Glass Thickness

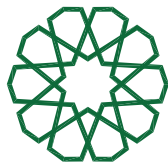
Up to 27 mm.

Max Sash Weight

Up to 250 kg.

Sealing Type

Perimetrical, with two rows of high-density brushes EPDM gaskets for tilt and slide



EUROPEAN CERTIFYING ORGANIZATION S.P.A.
NOTIFIED TESTING LABORATORY N. 0714
FOR REGULATION (EU) No 305/2011
CLASSIFICATION ASSESSMENT
N. 0714-CPR-1290 DATED AUGUST, 05 2015

In compliance with Regulation (EU) No. 305/2011 of the European Parliament and of the Council of 9 March 2011, that replaces Council Directive 89/106/EEC and lays down conditions for the placing or making available on the market of construction products by establishing harmonised rules on how to express their performance in relation to their essential characteristics and taking account of the horizontal legal framework for the marketing of products in the internal market, established by Regulation (EC) No. 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products, as well as by Decision No. 768/2008/EC of the European Parliament and of the Council of 9 July 2008 on a common framework for the marketing of products, and in compliance with hEN 14351-1:2006 - A1:2010 Windows and doors - Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics, which is currently in force, European Certifying Organization S.p.A., notified laboratory NB 0714, carried out the following:

type-testing

for the determination of the essential characteristics

Air Permeability – Water tightness – Resistance to Wind Load

on the below mentioned external pedestrian doorset without resistance to fire and/or smoke leakage characteristics
In compliance with EN 12207:1999, EN 12208:1999, EN 12210:1999 – Classification,
EN 1026:2000, EN 1027:2000, EN 12211:2000 – Tests and calculations
System of assessment and verification of constancy of performance 3

The specimen, as provided by the Manufacturer, was identified as follows:

DESCRIPTION OF THE PRODUCT

Type: Sliding French door, 2 sliding sashes.
Model: TENDU 120
Width= 2,200 mm, Height = 2,200 mm, Thickness = 108 mm
Fabrication number: -
Date of fabrication: 2015

PRODUCED IN THE FACTORY

Name: MACHINES & ALUMINIUM CENTER
Address: 122, MOHIY AL-DIN ABU AL-EZZ ST., DOKKI - GIZA - EGYPT

PLACED ON THE MARKET BY

Name: MACHINES & ALUMINIUM CENTER
Address: 122, MOHIY AL-DIN ABU AL-EZZ ST., DOKKI - GIZA - EGYPT

Taking into account the documentation submitted by the Manufacturer and on the basis of the results of the type-testing carried out, as described in the laboratory report ECO CP0025/3, dated August, 05 2015, in accordance with Annex ZA of hEN 14351-1:2006 - A1:2010 and with the EN 12207:1999, EN 12208:1999 and EN 12210:1999 classification, to the specimen, as previously identified,

THE FOLLOWING CLASSIFICATION IS AWARDED

AIR PERMEABILITY:	CLASS 3
WATERTIGHTNESS:	CLASS 6A
RESISTANCE TO WIND LOAD:	CLASS B3

The results refer only to the specimen that has been provided by the Manufacturer and submitted to type-testing listed above.
This classification assessment consists of 1 page and its reproduction is permitted in full only.

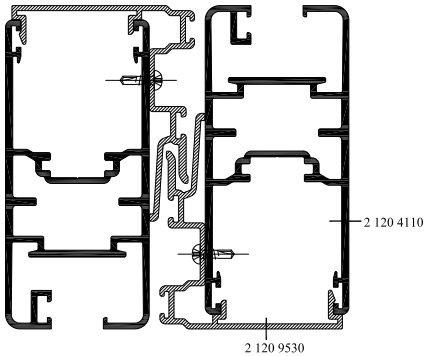
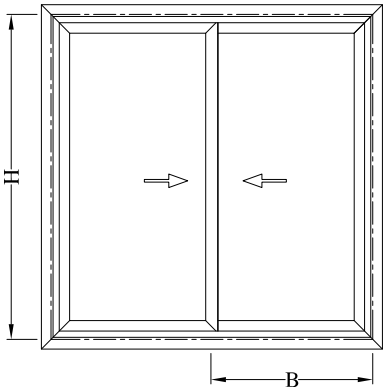
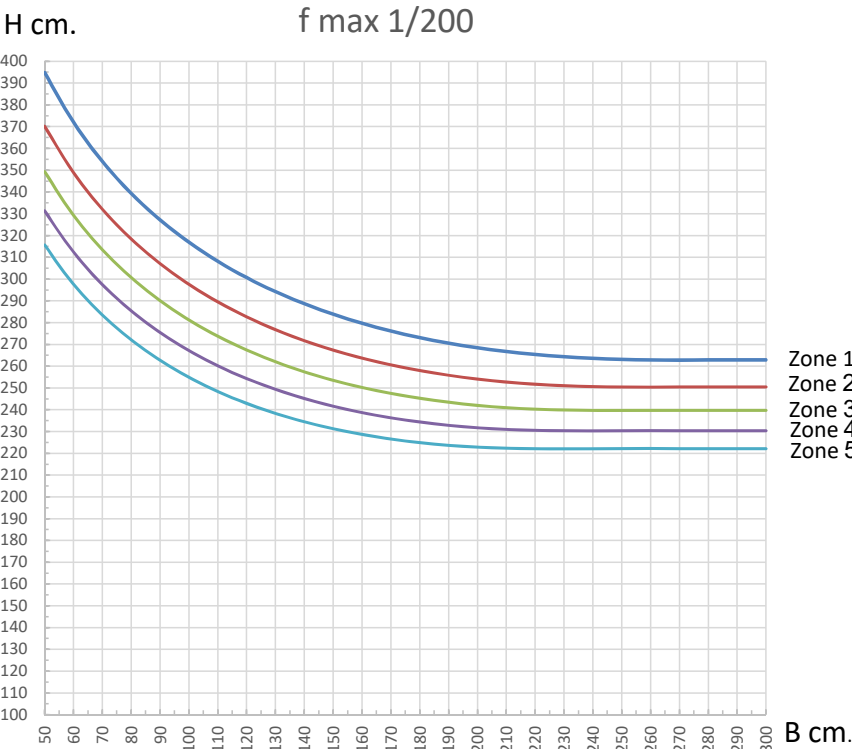
Faenza, August, 05, 2015

The undersigned ECO Certificazioni S.p.A. Scheme Manager CPR

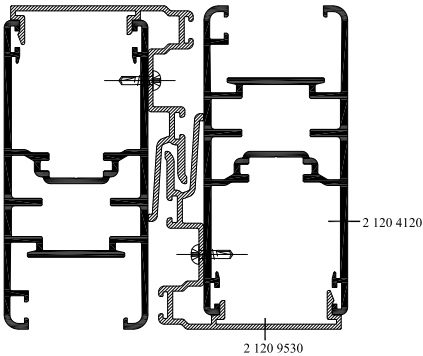
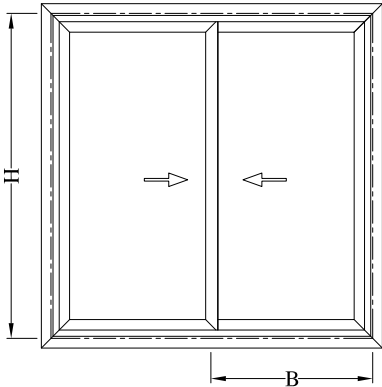
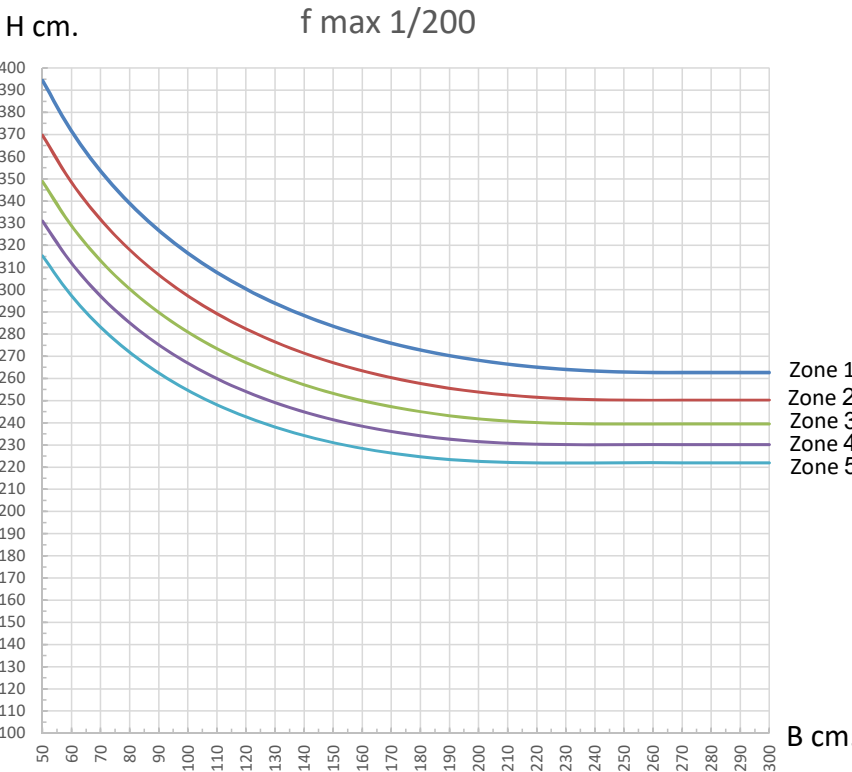
Eng. Gianluca Camporesi



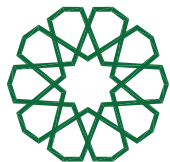
ECO Certificazioni S.p.A. • Via Mengolina, 33
48018 Faenza (RA) - ITALY
Tel. +39 0546 624911 • Fax +39 0546 624922
E-mail: info@eco-cert.it • www.ecocertificazioni.eu



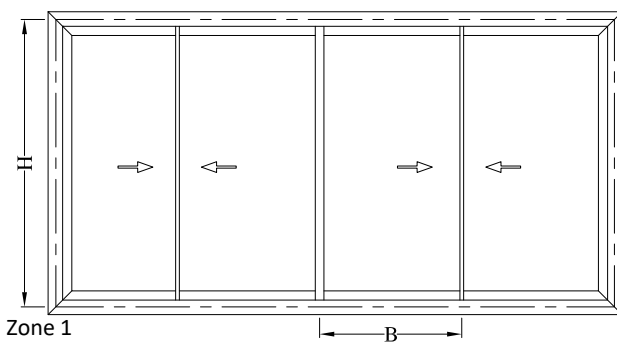
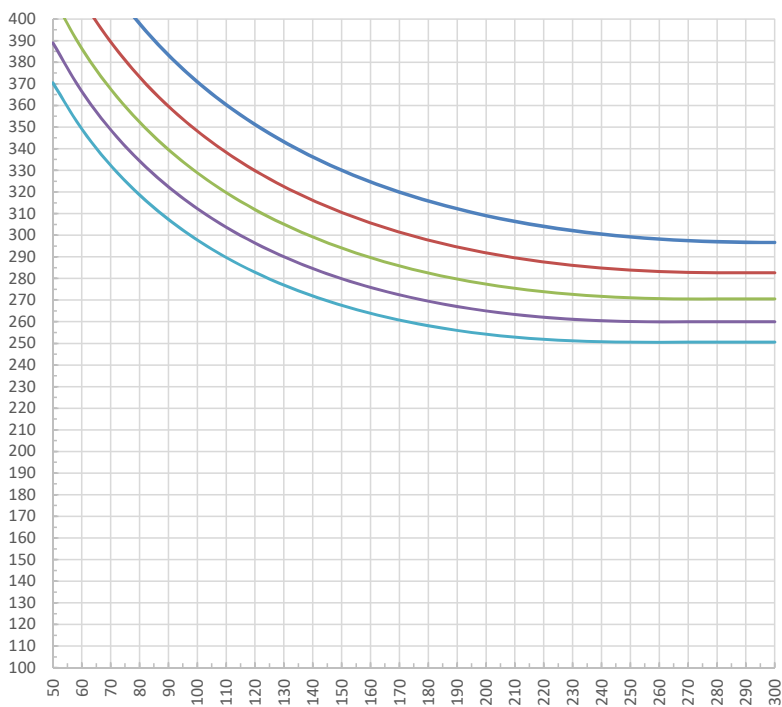
$I_x = 50.96 \text{ cm}^4$



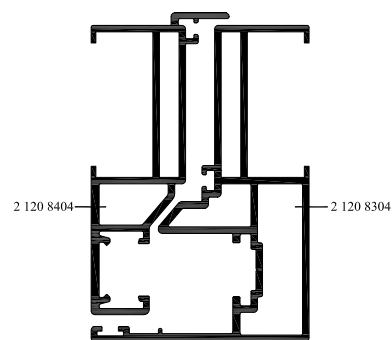
$I_x = 50.76 \text{ cm}^4$



H cm. f max 1/200

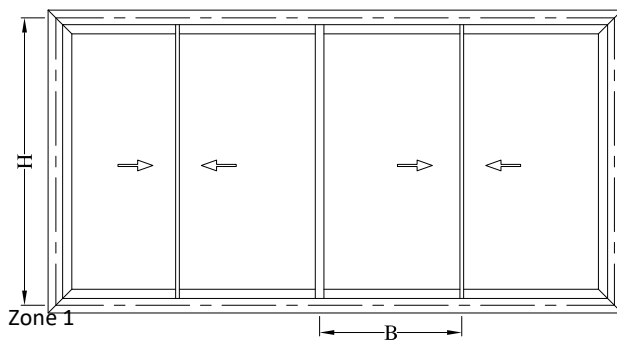
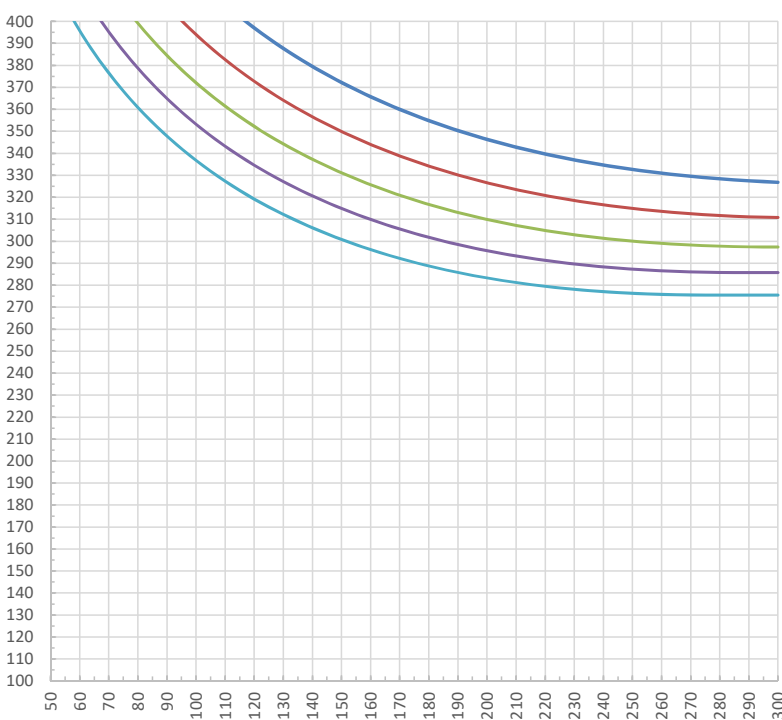


Zone 1
Zone 2
Zone 3
Zone 4
Zone 5

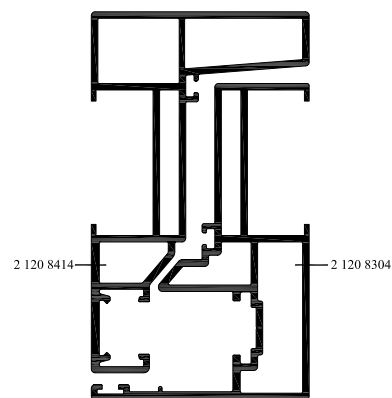


$$I_x = 82.61 \text{ cm}^4$$

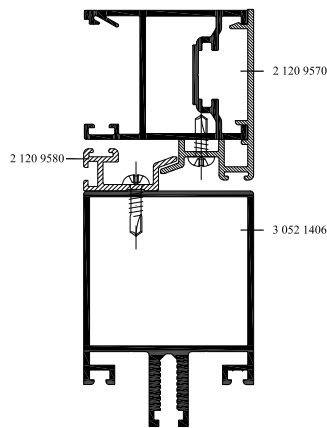
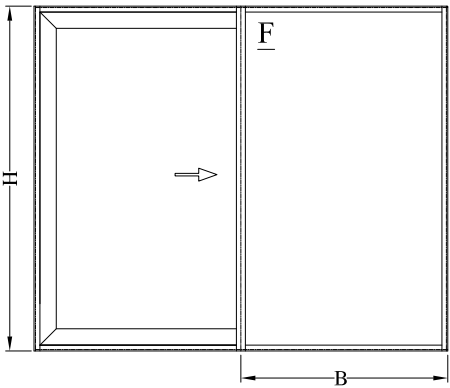
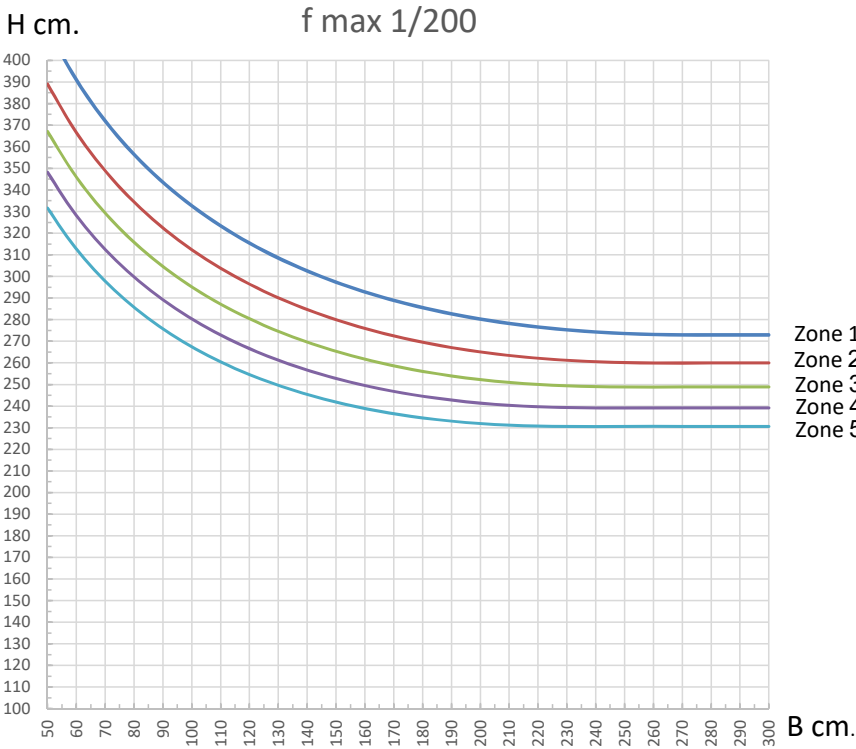
H cm. f max 1/200



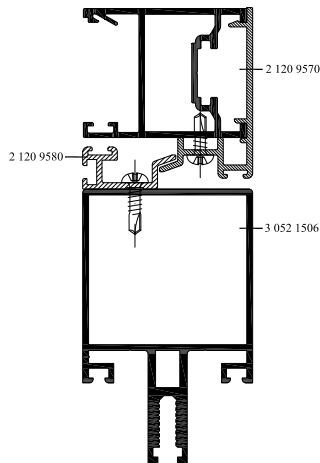
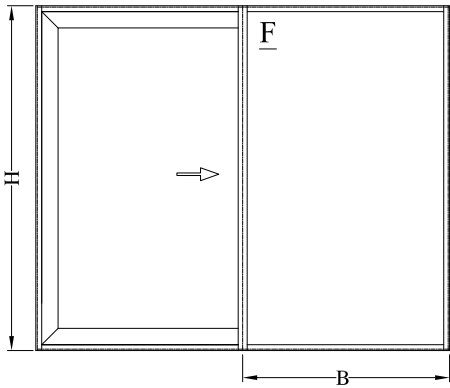
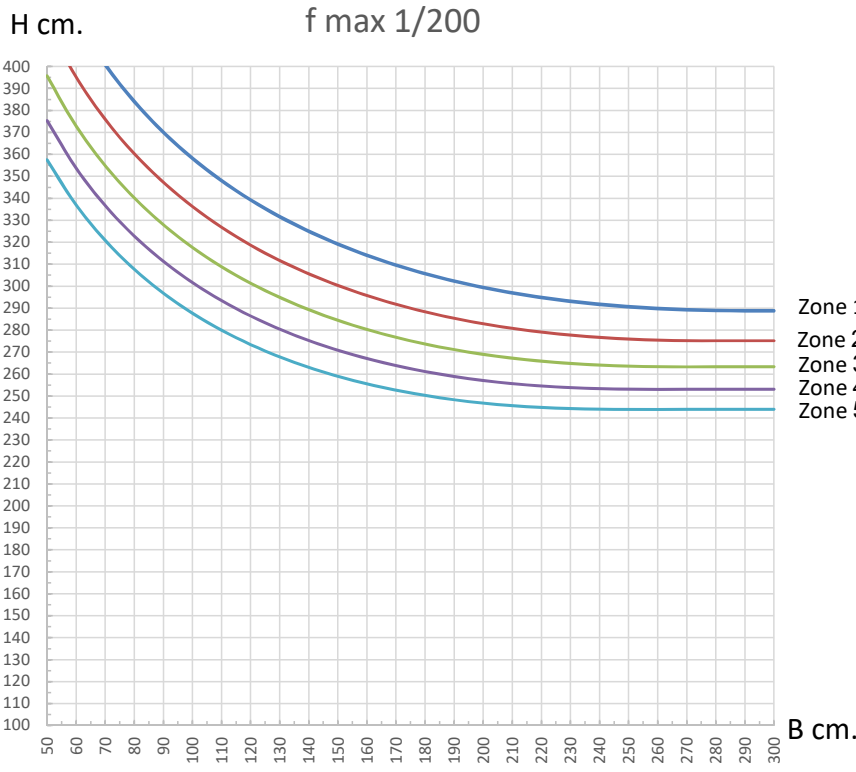
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5



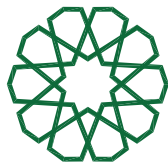
$$I_x = 120.64 \text{ cm}^4$$



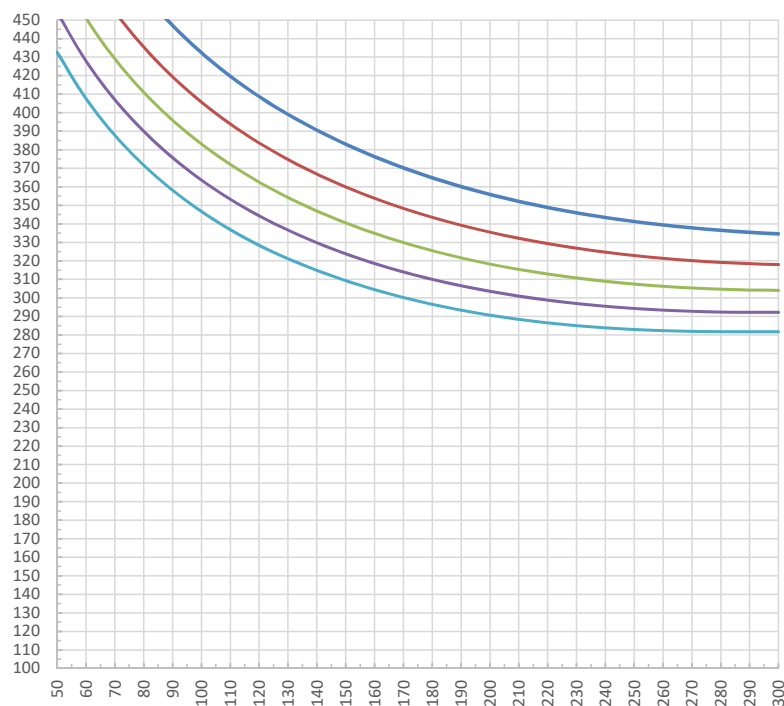
$I_x = 59.18 \text{ cm}^4$



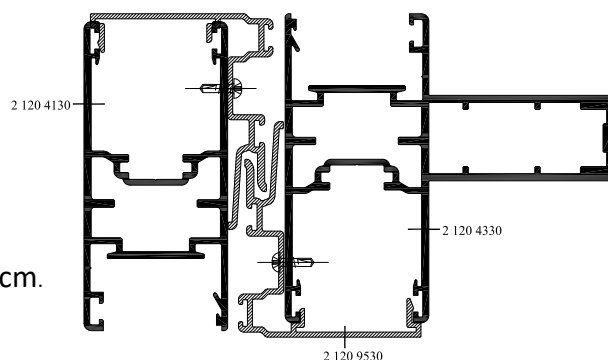
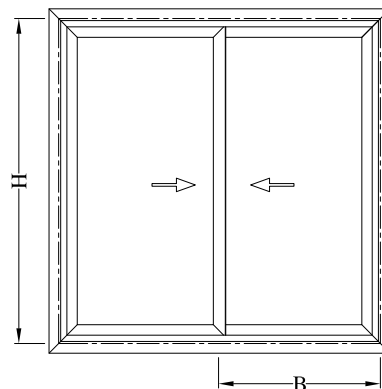
$I_x = 74.21 \text{ cm}^4$



H cm. f max 1/200

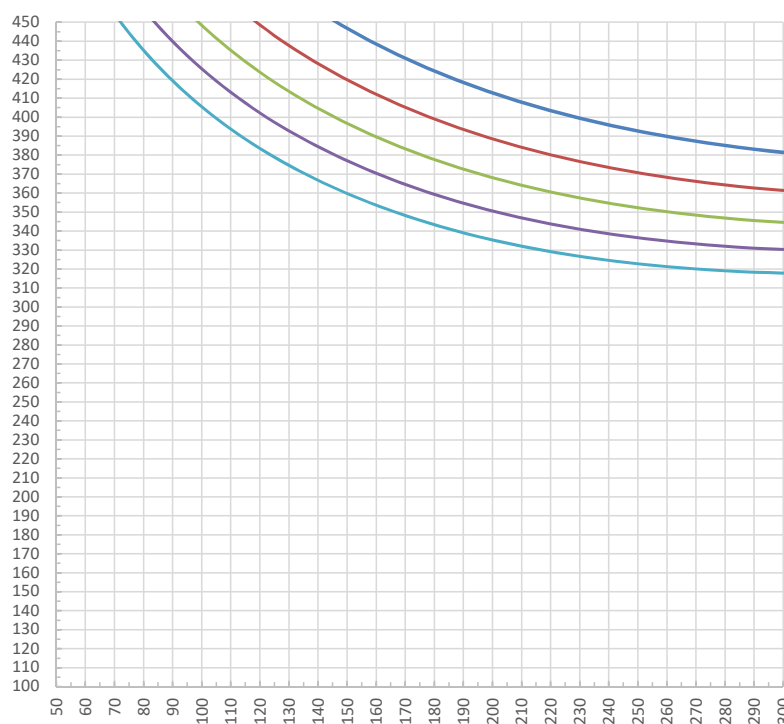


Zone 1
Zone 2
Zone 3
Zone 4
Zone 5

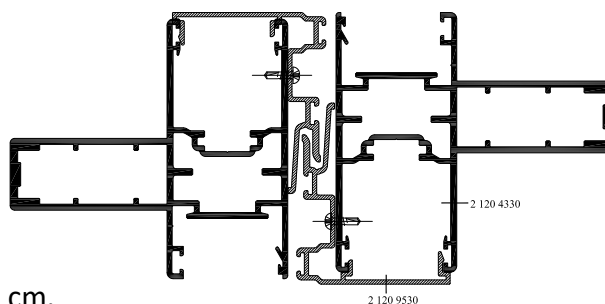
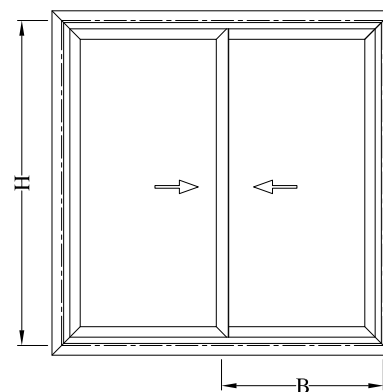


$$I_x = 131.87 \text{ cm}^4$$

H cm. f max 1/200



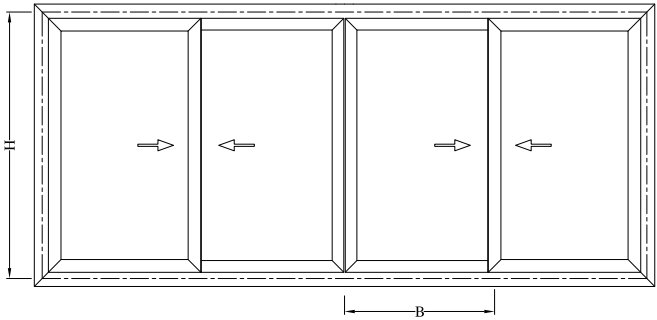
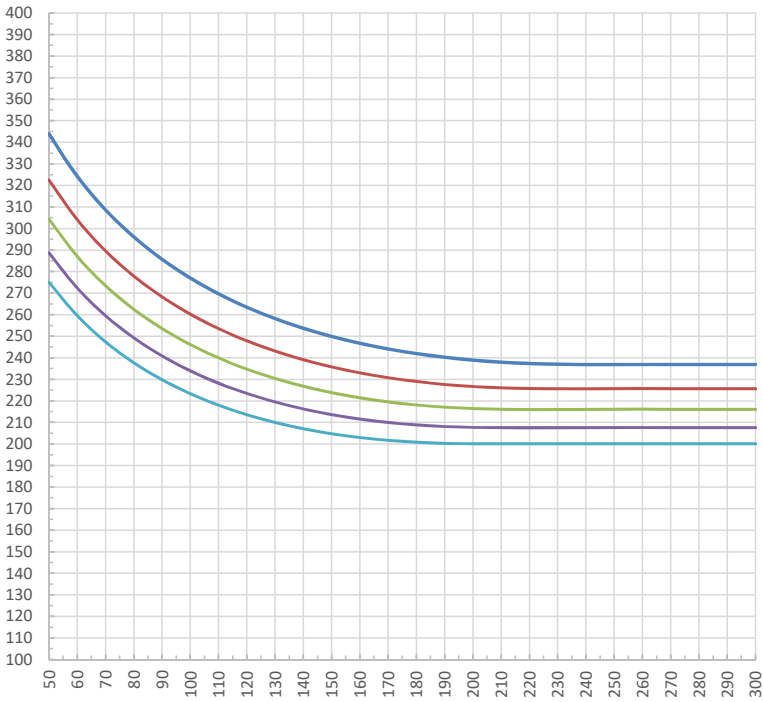
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5



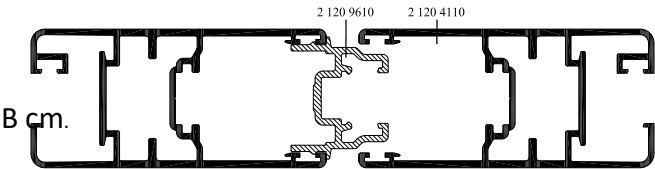
$$I_x = 212.98 \text{ cm}^4$$



H cm. f max 1/200

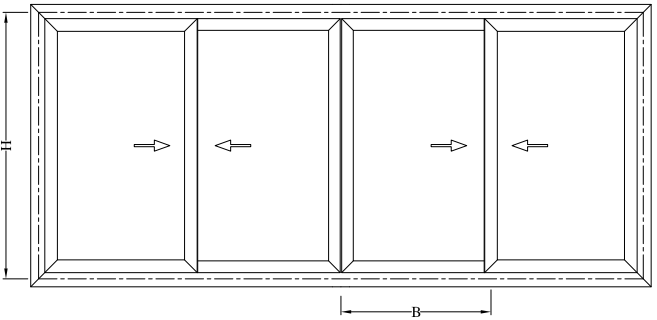
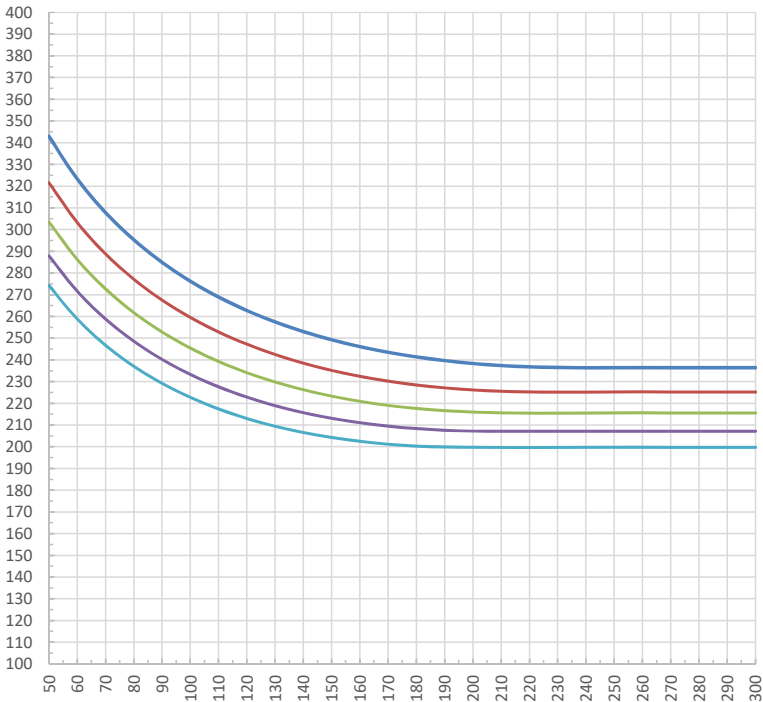


Zone 1
Zone 2
Zone 3
Zone 4
Zone 5

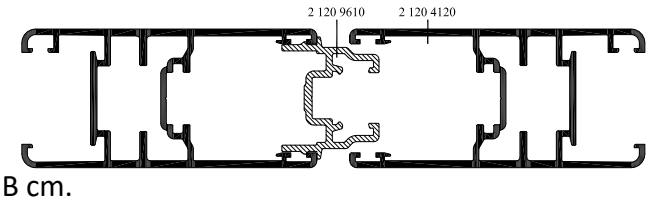


$I_x = 33.61 \text{ cm}^4$

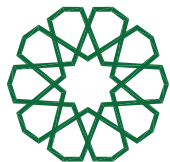
H cm. f max 1/200



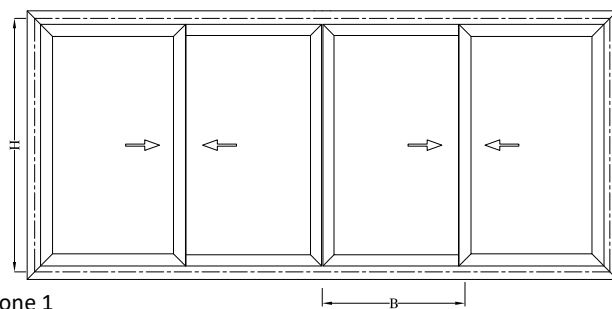
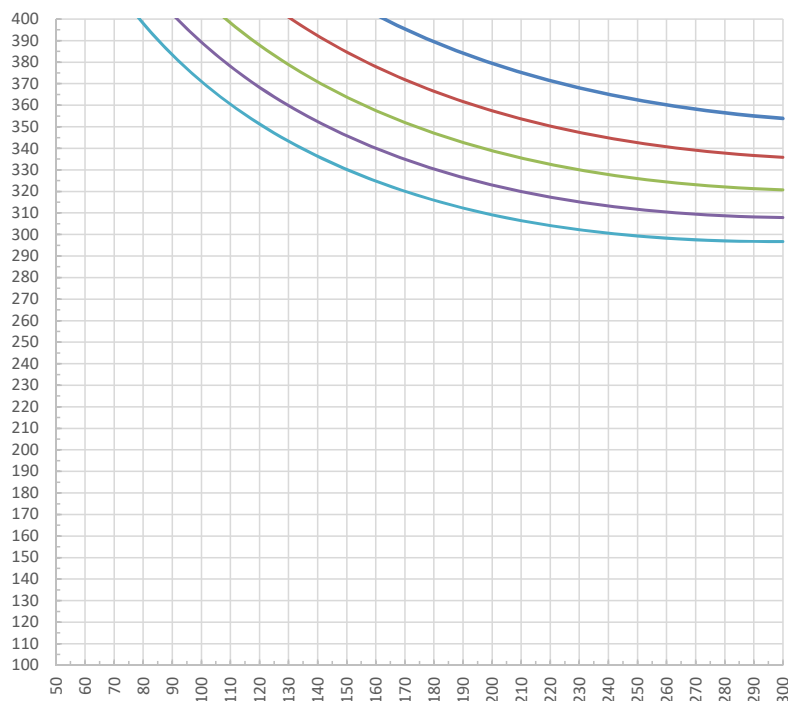
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5



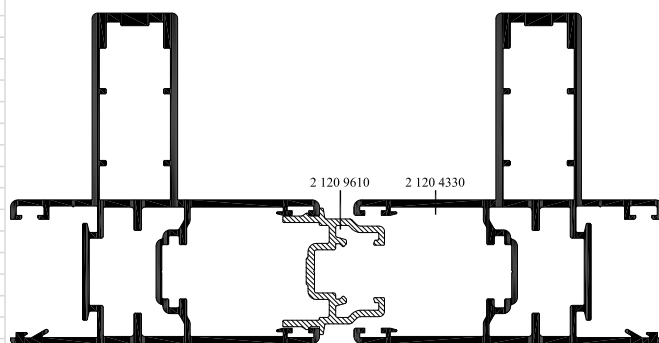
$I_x = 33.34 \text{ cm}^4$



H cm. $f \max 1/200$



Zone 1
Zone 2
Zone 3
Zone 4
Zone 5

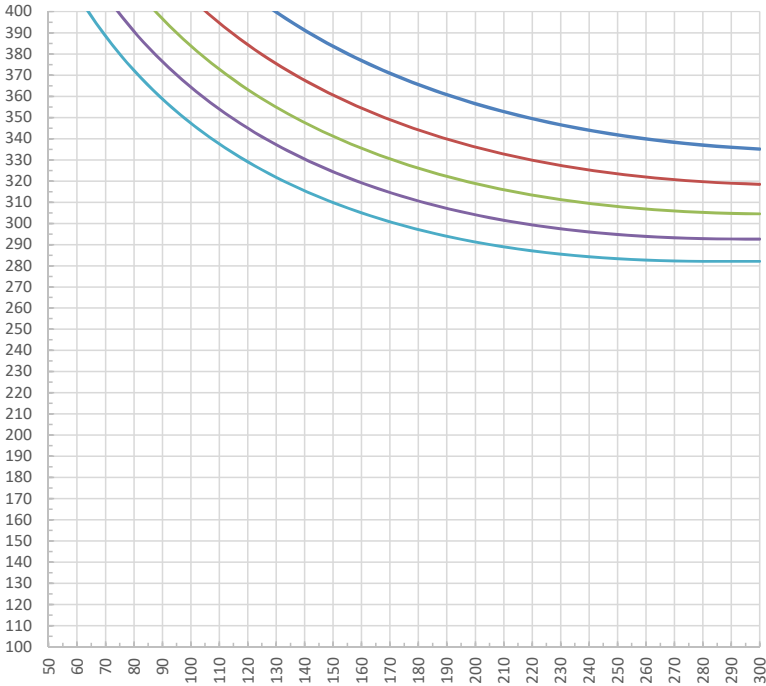


B cm.

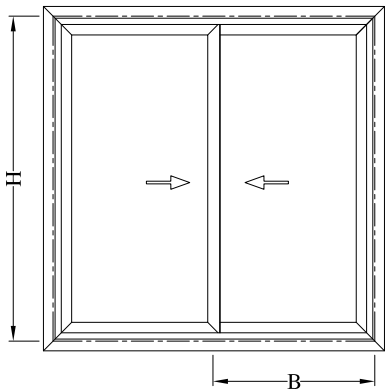
$I_x = 162.44 \text{ cm}^4$



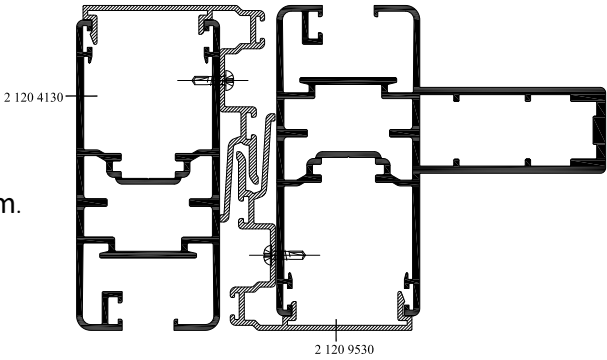
H cm. f max 1/200



Zone 1
Zone 2
Zone 3
Zone 4
Zone 5

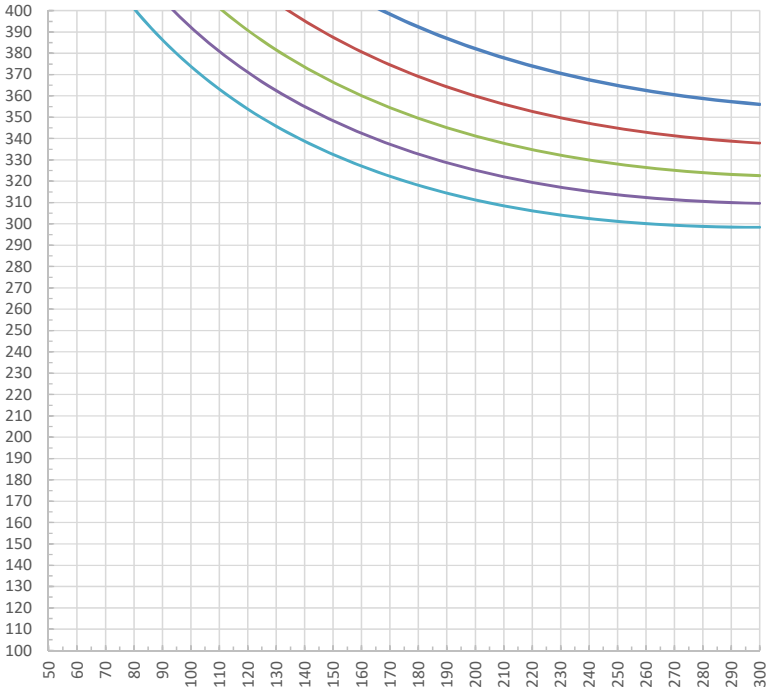


B cm.

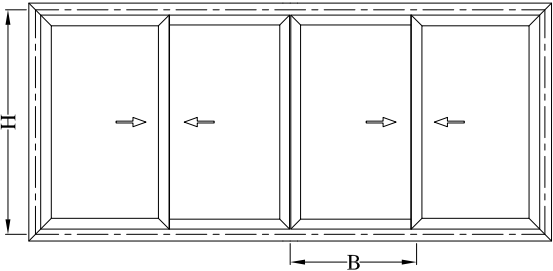


$I_x = 132.63 \text{ cm}^4$

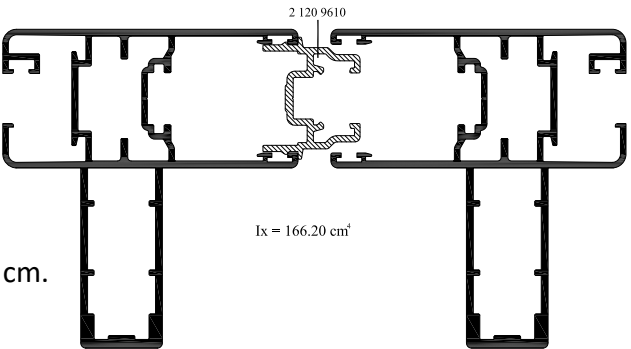
H cm. f max 1/200



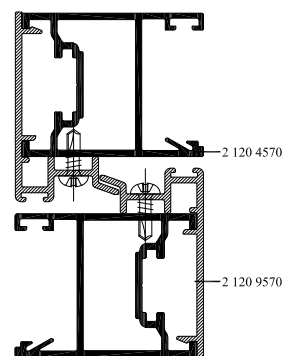
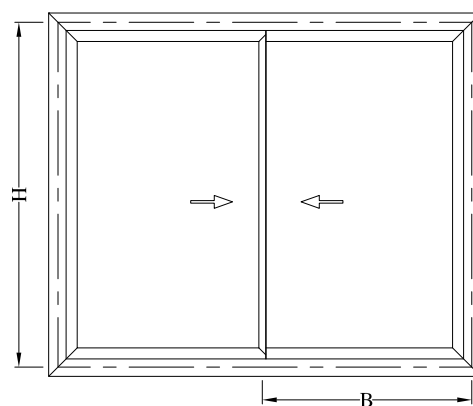
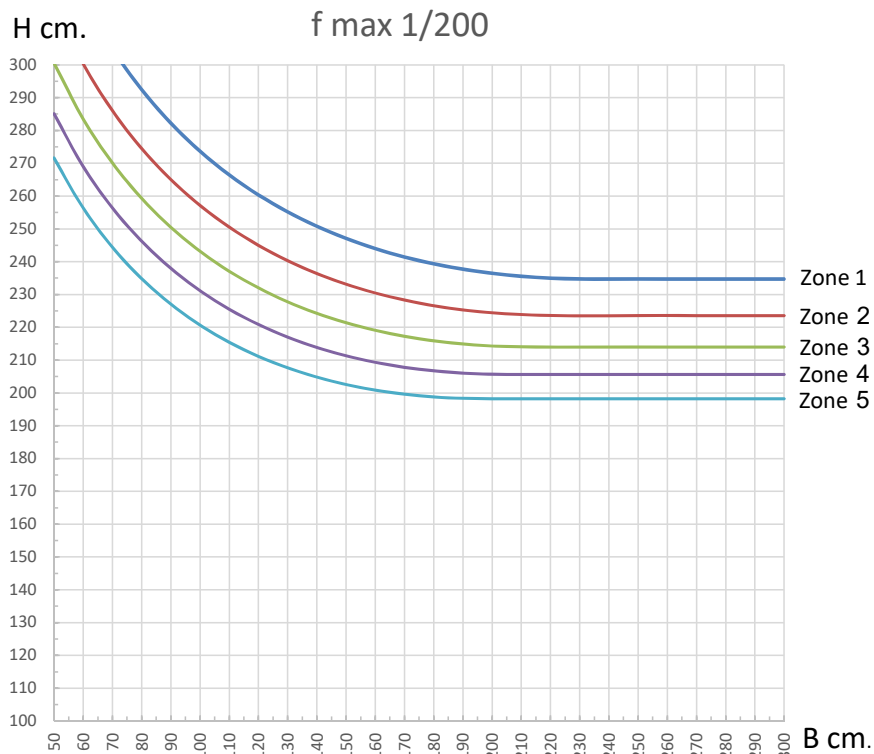
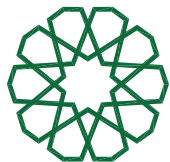
Zone 1
Zone 2
Zone 3
Zone 4
Zone 5



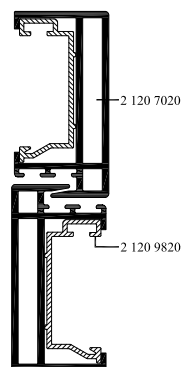
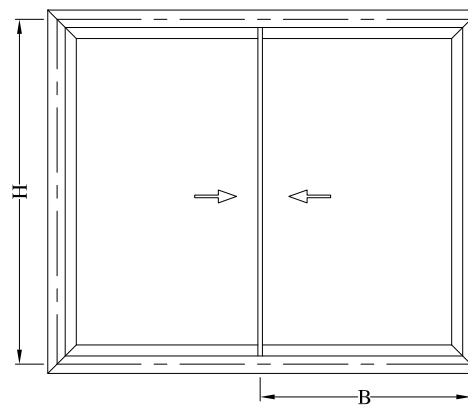
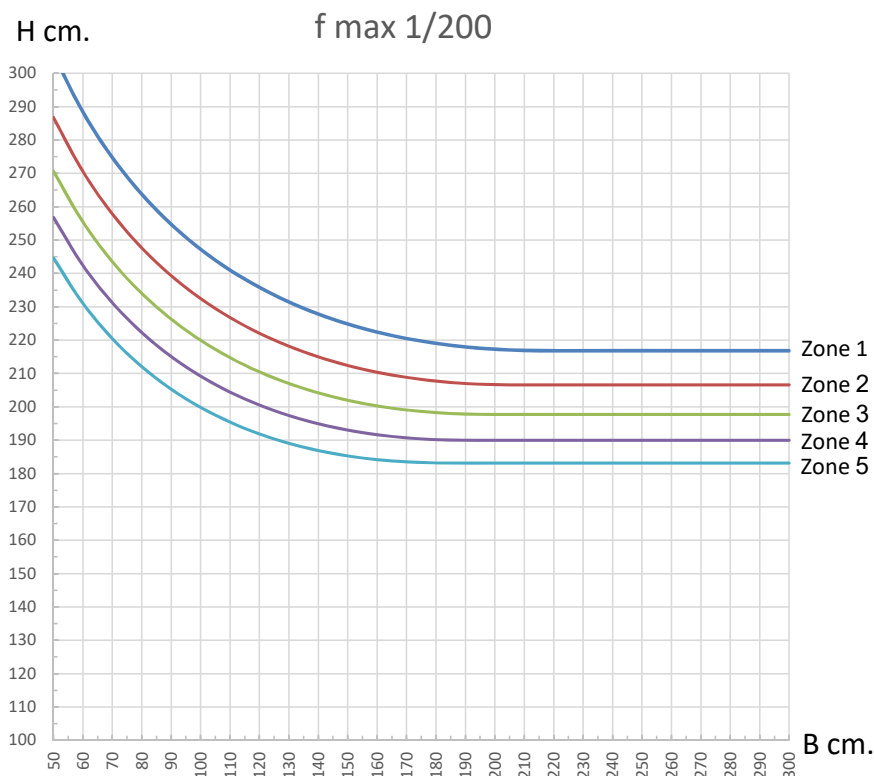
B cm.



$I_x = 166.20 \text{ cm}^4$



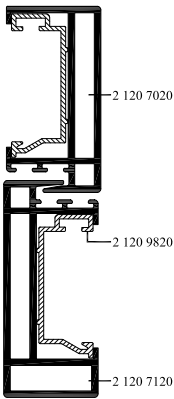
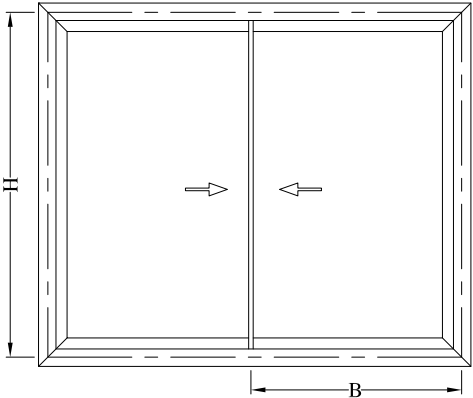
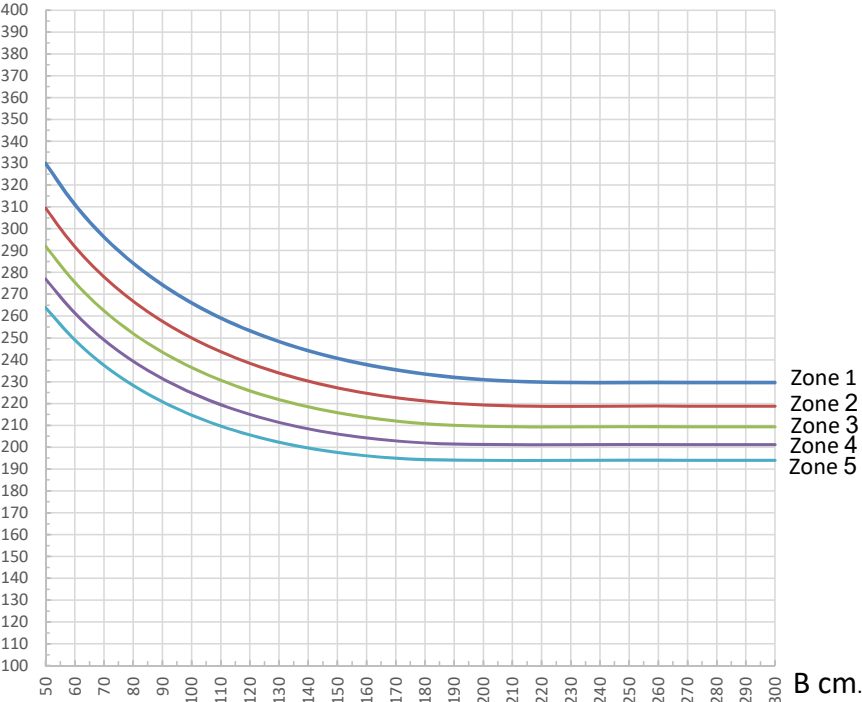
$$I_x = 32.36 \text{ cm}^4$$



$$I_x = 23.57 \text{ cm}^4$$

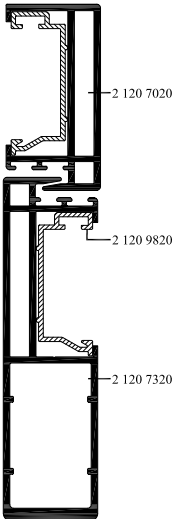
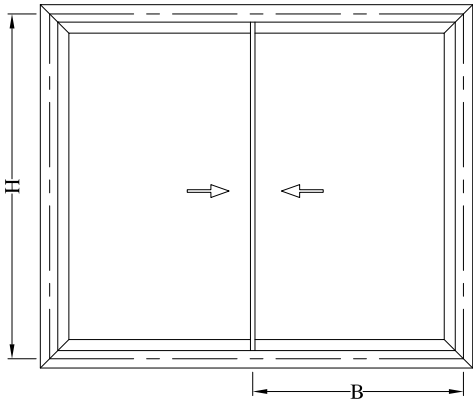
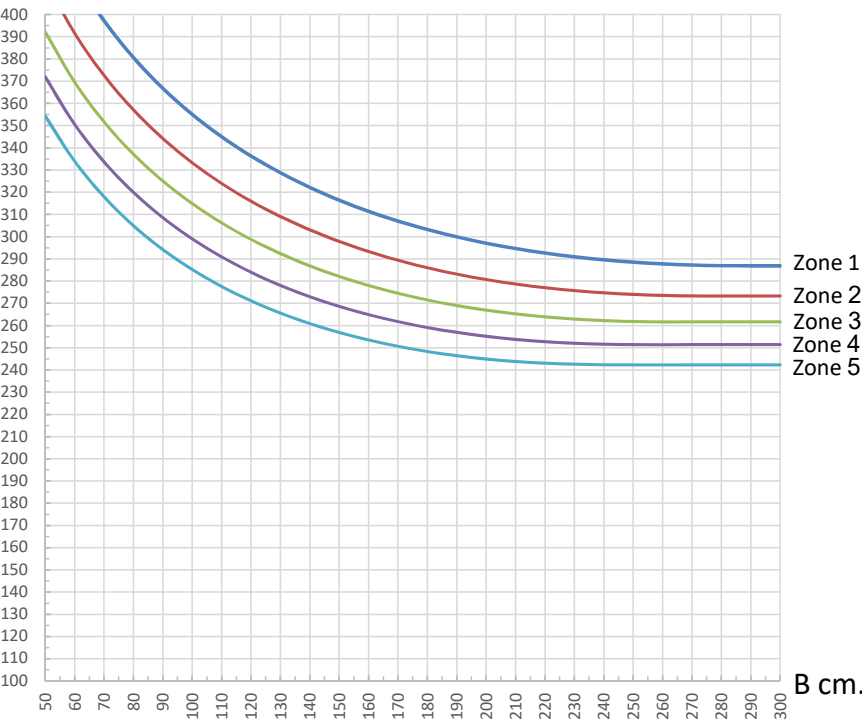


H cm. f max 1/200

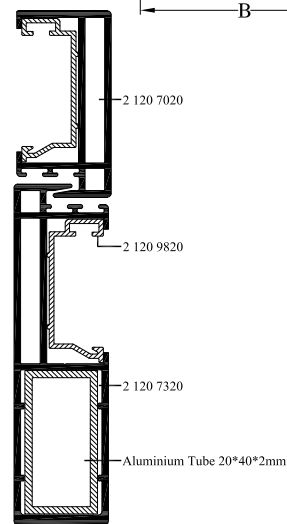
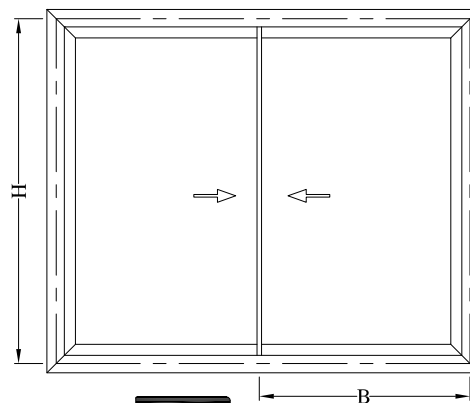
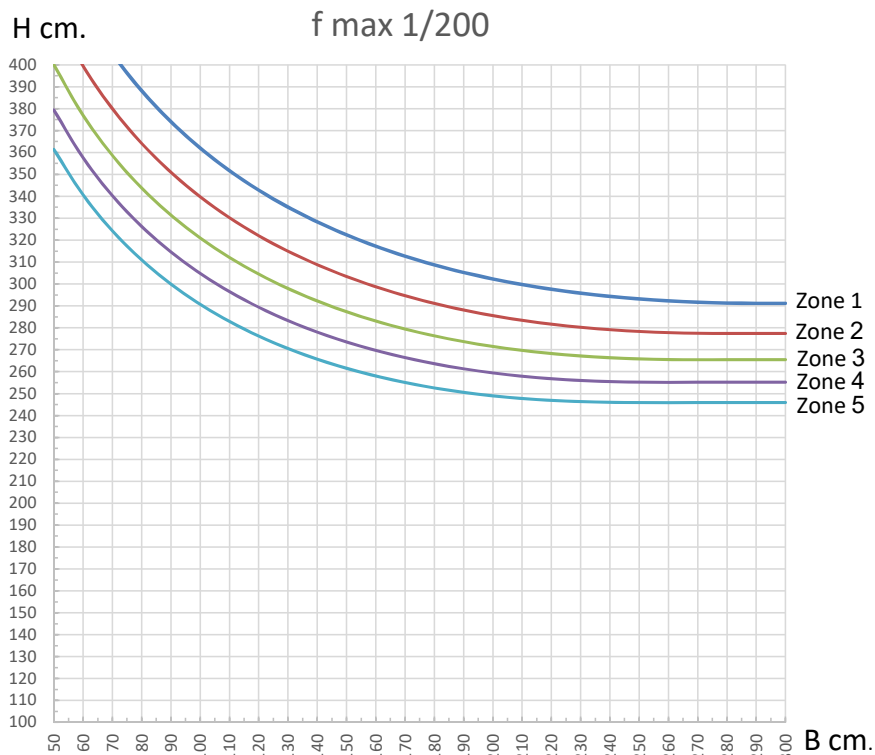
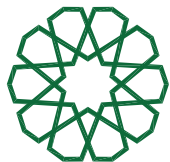


$I_x = 29.64 \text{ cm}^4$

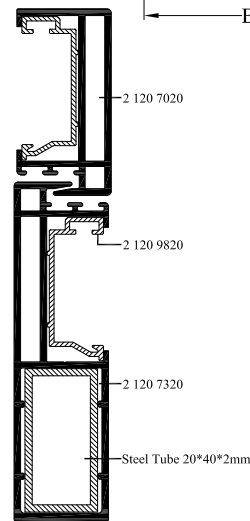
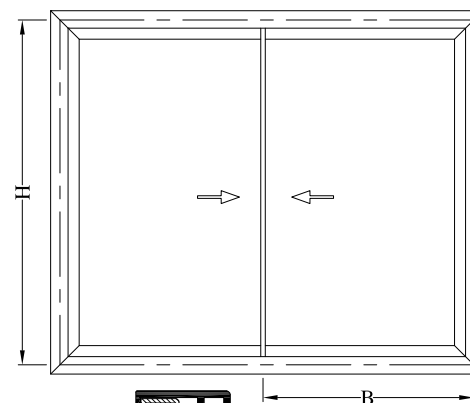
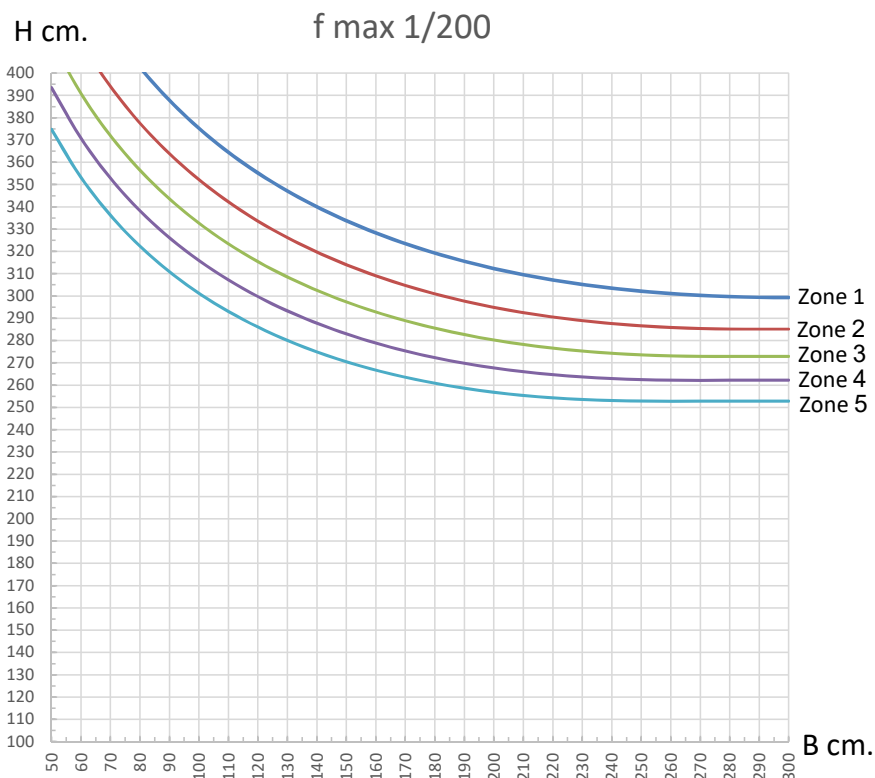
H cm. f max 1/200



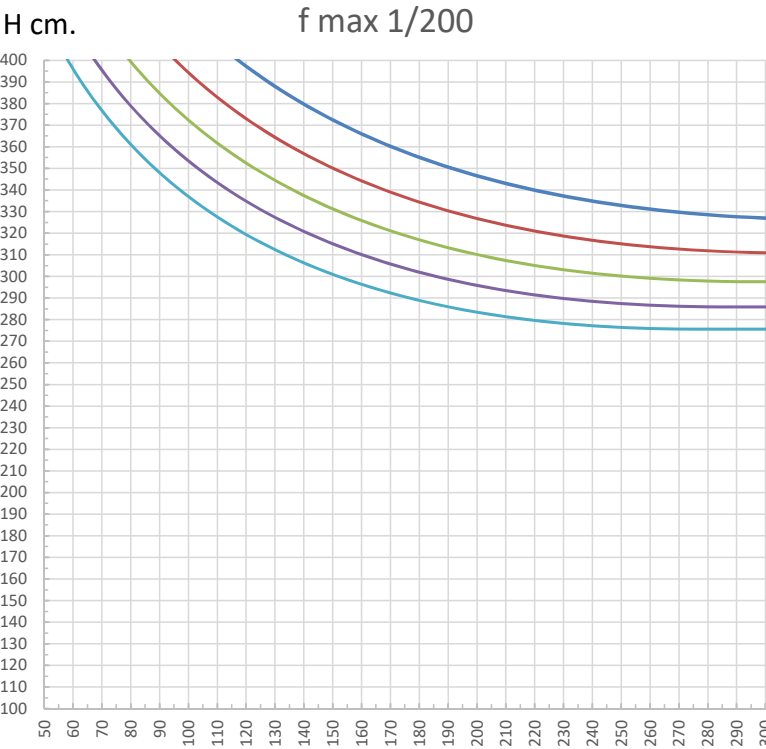
$I_x = 72.23 \text{ cm}^4$



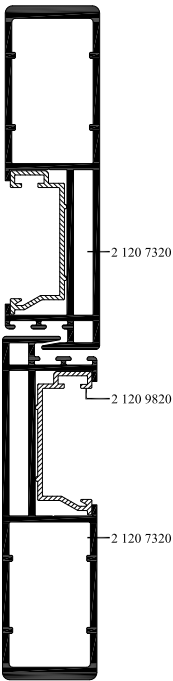
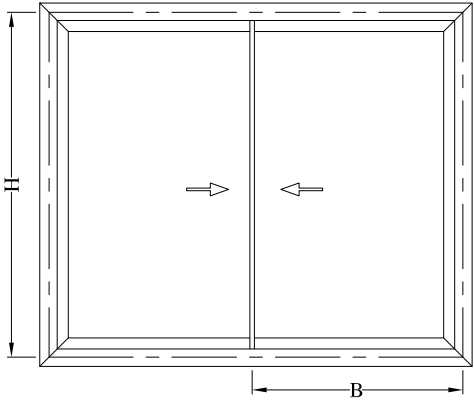
$I_x = 76.68 \text{ cm}^4$



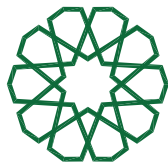
$I_x = 85.57 \text{ cm}^4$

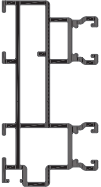
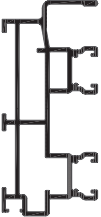
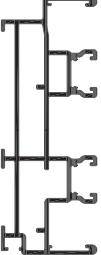


Zone 1
Zone 2
Zone 3
Zone 4
Zone 5

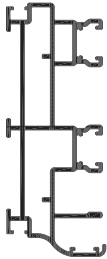
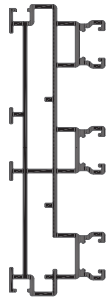
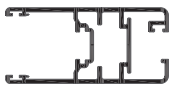
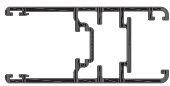
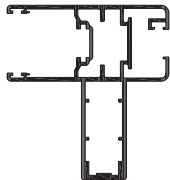
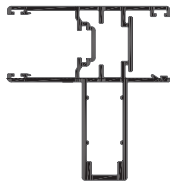


$I_x = 120.89 \text{ cm}^4$

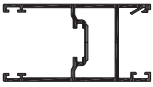
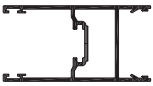
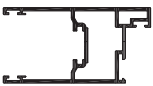
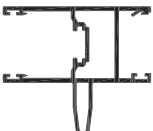
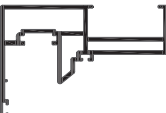


Section	Profile no.	Description	Weight kg/m	Perimeter mm	Inertia		Page No.
					I _x	I _y	
	21202010	Frame Profile	2.098	526	73.38	16.51	40
	21202110	Frame Profile	2.562	598	114.42	19.43	40
	21202200	Frame Profile	2.480	610	136.19	18.64	41
	21202210	Frame Profile	2.548	630	139.93	19.26	41
	21202300	Frame Profile	2.272	593	95.21	17.98	42
	21202410	Frame Profile	2.673	713	159.87	20.39	42

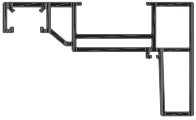
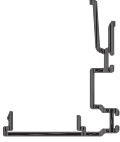


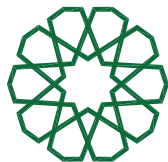
Section	Profile no.	Description	Weight kg/m	Perimeter mm	Inertia		Page No.
					I _x	I _y	
	21202520	Frame Profile	2.730	726	171.62	21.35	43
	21202620	Frame Profile	3.192	770	263.75	24.32	43
	21204110	Leaf Profile	1.615	519	15.48	33.07	44
	21204120	Leaf Profile	1.550	480	15.34	28.75	44
	21204130	Leaf Profile	1.520	475	15.31	28.25	44
	21204230	Leaf Profile	1.504	464	15.21	27.49	44
	21204310	Leaf Profile	2.443	622	79.26	36.40	45
	21204330	Leaf Profile	2.347	577	77.38	31.88	45
	21204510	Leaf Profile	1.378	489	13.15	24.53	47

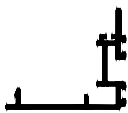
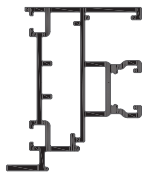


Section	Profile no.	Description	Weight kg/m	Perimeter mm	Inertia		Page No.
					I _x	I _y	
	21204520	Leaf Profile	1.260	436	12.90	20.71	47
	21204530	Leaf Profile	1.236	409	12.56	19.26	47
	21204540	Leaf Profile	1.289	391	11.94	20.95	48
	21204560	Leaf Profile	1.097	352	9.41	9.07	52
	21204570	Leaf Profile	0.978	296	9.00	6.86	47
	21204580	Leaf Profile	0.954	272	8.81	6.31	47
	21204721	Leaf Profile	1.485	484	21.94	20.41	48
	21206240	Leaf Profile	0.188	104	0.15	0.30	48
	21207020	Leaf Profile	0.805	233	9.60	1.57	48
	21207120	Leaf Profile	1.000	252	15.85	2.33	48
	21207320	Leaf Profile	1.452	320	54.82	4.56	48
	21208304	Leaf Profile	1.759	426	50.98	11.70	49

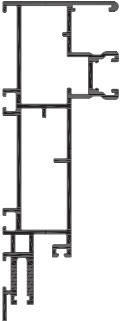


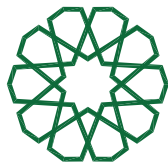
Section	Profile no.	Description	Weight kg/m	Perimeter mm	Inertia		Page No.
					I _x	I _y	
	21208404	Leaf Profile	1.246	354	31.64	4.29	49
	21208414	Leaf Profile	1.848	426	69.66	17.93	49
	21209210	Insert Profile	0.196	84	0.17	0.15	46
	21209220	Insert Profile	0.150	79	0.16	0.10	46
	21209240	Insert Profile	0.189	94	0.18	0.09	46
	21209250	Insert Profile	0.077	40	0.01	0.02	46
	21209310	Insert Profile	0.456	164	1.22	1.18	49
	21209320	Insert Profile	0.203	98	0.15	0.68	49
	21209410	Insert Profile	0.599	256	5.82	2.97	50
	21209510	Insert Profile	0.560	239	0.26	5.98	46
	21209520	Insert Profile	0.240	132	2.26	0.03	46
	21209530	Insert Profile	0.664	337	5.20	8.59	46



Section	Profile no.	Description	Weight kg/m	Perimeter mm	Inertia		Page No.
					I _x	I _y	
	21209560	Insert Profile	0.651	289	5.88	4.36	50
	21209570	Insert Profile	0.500	221	4.71	1.20	50
	21209580	Insert Profile	0.278	129	0.18	0.71	50
	21209610	Insert Profile	0.562	229	2.66	1.08	46
	21209820	Insert Profile	0.247	153	1.93	0.26	50
	21209830	Insert Profile	0.309	190	1.85	0.45	50
	21222200	Frame Profile	1.216	347	20.22	3.81	52
	21222400	Frame Profile	1.666	446	30.80	14.17	52
	21223300	Frame Profile	2.736	757	220.78	22.30	51



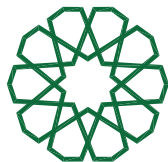
Section	Profile no.	Description	Weight kg/m	Perimeter mm	Inertia		Page No.
					I _x	I _y	
	21223500	Frame Profile	3.097	797	302.50	32.95	51
	21229310	Insert Profile	0.173	64	0.09	0.17	52
	21229320	Insert Profile	0.544	187	3.68	0.63	52
	21229330	Additional Profile	0.434	214	7.24	0.38	52
	5 025 2060	Frame Profile	0.941	285	15.62	5.16	53
	5 025 2110	Fly Screen Frame Profile	0.590	203	3.52	3.28	53
	5 025 4100	Fly Screen Leaf Profile	0.419	233	2.47	0.85	53
	5 025 4140	Fly Screen Leaf Profile	0.567	268	4.96	1.17	53
	5 025 4210	Fly Screen Leaf Profile	0.535	272	4.25	1.05	53
	5 025 4230	Fly Screen Leaf Profile	0.728	328	12.53	1.18	54

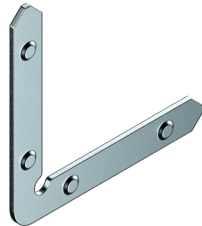
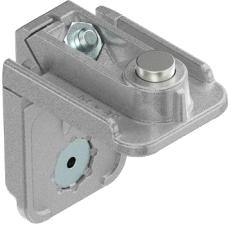


Section	Profile no.	Description	Weight kg/m	Perimeter mm	Inertia		Page No.
					I _x	I _y	
	5 025 4231	Fly Screen Leaf Profile	0.728	270	1.18	12.54	54
	5 025 4240	Fly Screen Leaf Profile	0.594	265	5.15	1.23	53
	5 027 4240	Fly Screen Leaf Profile	0.760	343	2.09	11.75	54
	5 027 4241	Fly Screen Leaf Profile	0.752	368	1.94	11.77	54
	5 027 4270	Fly Screen Leaf Profile	0.760	343	2.09	11.75	54
	5 027 4271	Fly Screen Leaf Profile	0.752	368	1.94	11.77	54
	5 027 7420	Fly Screen Leaf Profile	0.788	331	3.61	7.60	53
	5 027 7421	Fly Screen Leaf Profile	0.373	151	1.29	0.75	53
	5 027 9410	Insert Profile	0.297	123	1.24	0.10	53
	5 900 9100	Additional Profile	0.100	53	0.01	0.08	53
	9 001 1100	Gasket Cover	0.092	42	0.01	0.01	55
	9 001 1300	Gasket Cover	0.240	116	1.66	0.03	55
	9 001 1302	Gasket Cover	0.308	154	2.05	0.24	55

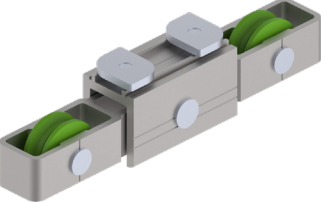
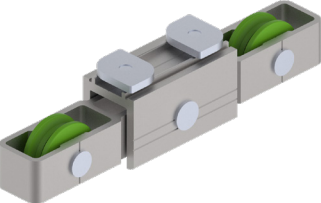
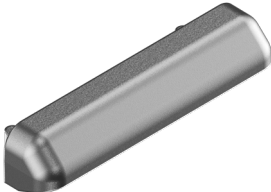
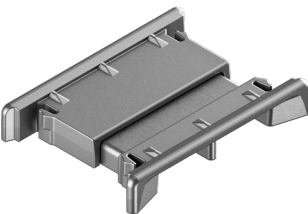


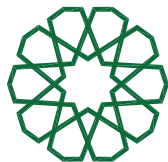
Section	Profile no.	Description	Weight kg/m	Perimeter mm	Inertia		Page No.
					Ix	Iy	
	9 001 1303	Gasket Cover	0.285	156	1.95	0.17	55
	9 001 1304	Gasket Cover	0.259	131	1.81	0.05	55
	9 001 1305	Gasket Cover	0.275	139	1.76	0.05	55
	9 001 1308	Gasket Cover	0.291	140	1.89	0.27	55
	9 001 1500	Gasket Cover	0.348	183	6.10	0.03	56
	9 001 1502	Gasket Cover	0.424	204	6.64	0.38	56
	9 001 1503	Gasket Cover	0.402	219	7.49	0.32	56
	9 001 1504	Gasket Cover	0.370	191	6.73	0.07	56
	9 001 1505	Gasket Cover	0.383	194	6.40	0.07	56
	9 001 1507	Gasket Cover	0.383	186	6.30	0.04	56
	9 001 1700	Gasket Cover	0.418	215	11.29	0.04	56
	9 001 1702	Gasket Cover	0.473	233	11.31	0.43	56
	9 002 1200	Gasket Cover	0.181	81	0.01	0.11	55

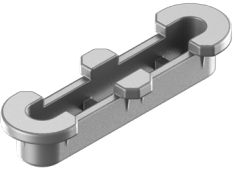


 01 3019 0	Corner Joint Material: Aluminium Finish: Raw	 01 7710 0	Alignment Angle Material: Steel Finish: Galvanized
 01 4105 0	Corner Joint Material: Aluminium Finish: Raw	 01 8700 0	Alignment Angel Material: Polyamide Finish: Black
 01 4160 0	Corner Joint Material: Aluminium Finish: Raw	 01 8756 0	Alignment Angle Material: Polyamide Finish: Black
 01 4163 0	Corner Joint Material: Aluminium Finish: Raw	 01 8770 0	Alignment Angle Material: Polyamide Finish: Black
 01 4270 0	Corner Joint Material: Aluminium Finish: Raw	 20 2620 0	Single Roller Material: Polyamide Finish: Black
 01 4275 0	Corner Joint Material: Aluminium Finish: Raw	 20 2622 0	Single Roller Material: Polyamide Finish: Black



 20 2830 0	Single Roller Material: Polyamide Finish: Black	 24 1450 0	Cover Cap Material: Polyamide Finish: Black
 20 240 0	Single Roller Material: Polyamide Finish: Black	 26 1420 0	Shock Absorber Material: Polyamide Finish: Black
 20 3850 0	Double Roller Material: Aluminium Finish: Raw	 26 3410 0	Shock Absorber and Guide Material: Polyamide Finish: Black
 20 3880 0	Double Roller Material: Aluminium Finish: Raw	 28 1100 0	Drainage Cover Material: Polyamide Finish: Black
 22 1950 0	Anti-dust Cap Material: Aluminium Finish: Raw, Anodized, RAL	 28 1220 0	Drainage Cover Material: Polyamide Finish: Black
 24 1400 0	Cover Cap Material: Polyamide Finish: Black	 28 2200 0	Drainage Cover Material: Polyamide Finish: Black



 28 2300 0	Drainage Cover Material: Polyamide Finish: Black	 *42 2230 0	TABA Lateral Handle Material: Aluminium Finish:Raw, Anodized, RAL
 30 1200 0	OMEGA Cremone Handle Material: Aluminium Finish: Raw, Ral	 *42 2420 0	MENA Lateral Handle Material: Aluminium Finish:Raw, Anodized, RAL
 30 1750 1	GAMA Cremone Handle Material: Aluminium Finish: Raw, Ral	 *42 3400 0	SIWA Lateral Handle Material: Aluminium Finish:Raw, Anodized, RAL
 30 1875 1	GAMA Cremone Handle Material: Aluminium Finish: Raw, Ral	 *42 3440 0	NUBIA Lateral Handle Material: Aluminium Finish:Raw, Anodized, RAL
 *42 1170 0	ATLAS Lateral Handle Material: Aluminium Finish:Raw, Anodized, RAL	 *42 3460 0	RASHEED Lateral Handle Material: Aluminium Finish:Raw, Anodized, RAL
 *42 1460 0	ABIDOS Lateral Handle Material: Aluminium Finish:Raw, Anodized, RAL	 *42 4100 0	GALALA Lateral Handle Material: Aluminium Finish:Raw, RAL

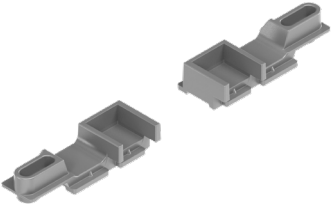
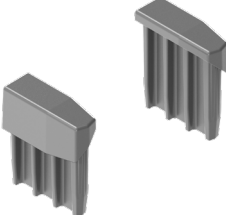
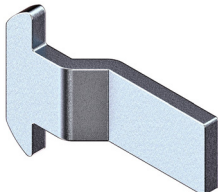
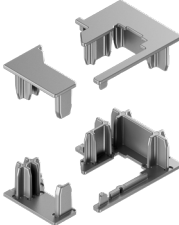
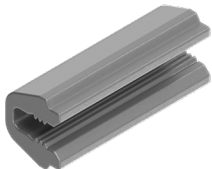
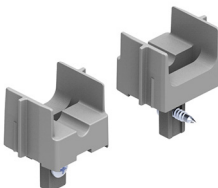
*Available in Both Automatic and Stainless Steel Models



 *42 4120 0	GALALA Lateral Handle Material: Aluminium Finish:Raw, RAL	 46 2560 0	ESNA Pull Handle Material: Aluminium Finish: Raw, Ral
 *42 5460 0	SAFAGA Lateral Handle Material: Aluminium Finish:Raw, Anodized, RAL	 46 2570 0	SETRA Pull Handle Material: Aluminium Finish: Raw, Ral
 42 9100 0	GALALA Lateral Handle Material: Aluminium Finish:Raw, RAL	 48 2100 0	ISIS Intermediate Handle (10 cm) Material: Aluminium Finish:Raw, Anodized, RAL
 46 1530 0	TOSHA Pull Handle Material: Aluminium Finish:Raw, Anodized, RAL	 48 2160 0	ISIS Intermediate Handle (16 cm) Material: Aluminium Finish:Raw, Anodized, RAL
 46 1540 0	NOVA Pull Handle Material: Aluminium Finish:Raw, Anodized, RAL	 48 1100 0	ISIS Intermediate Handle (10 cm) Material: Aluminium Finish:Raw, Anodized, RAL
 46 1580 0	EVA Pull Handle Material: Aluminium Finish:Raw, Anodized, RAL	 48 1160 0	ISIS Intermediate Handle (16 cm) Material: Aluminium Finish:Raw, Anodized, RAL

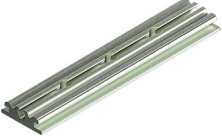
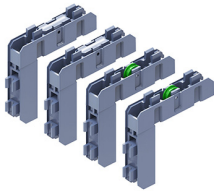
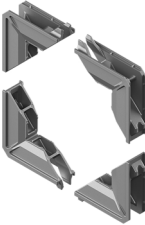
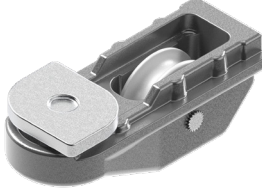
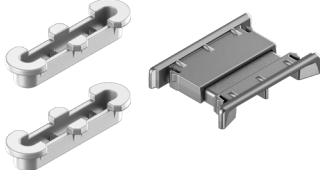
*Available in Both Automatic and Stainless Steel Models

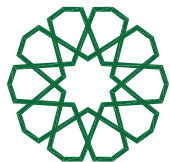


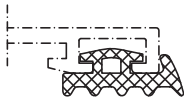
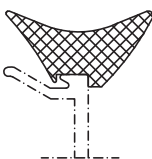
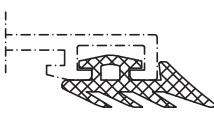
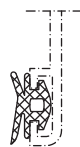
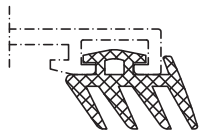
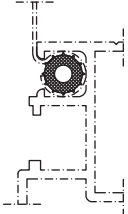
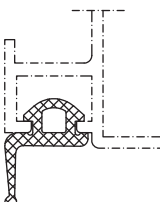
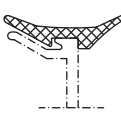
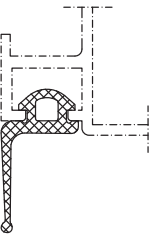
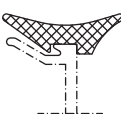
 50 0515 0	Connection Point Material: Polyamide Finish: Black	 64 2062 0	Stiffner Plug Material: Polyamide Finish: Black
 55 1920 0	Locking Point Material: Zama Finish: Galvanized	 64 2120 0	Stiffner Plug Material: Polyamide Finish: Black
 *57 2910 0	Bended Nib (5 mm) Material: Steel Finish: Galvanized	 64 2121 0	Stiffner Plug Material: Polyamide Finish: Black
 58 2060 0	Striker Material: Zama Finish: Galvanized	 64 2125 0	Stiffner Plug Material: Polyamide Finish: Black
 60 0500 0	Clip Material: Polyamide Finish: Black	 64 2126 0	Stiffner Plug Material: Polyamide Finish: Black
 64 1120 0	Central Plug Material: Polyamide Finish: Black	 64 2127 0	Stiffner Plug Material: Polyamide Finish: Black

*Available in Both Automatic and Stainless Steel Models

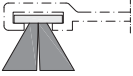
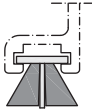
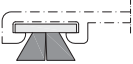
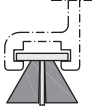
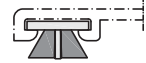


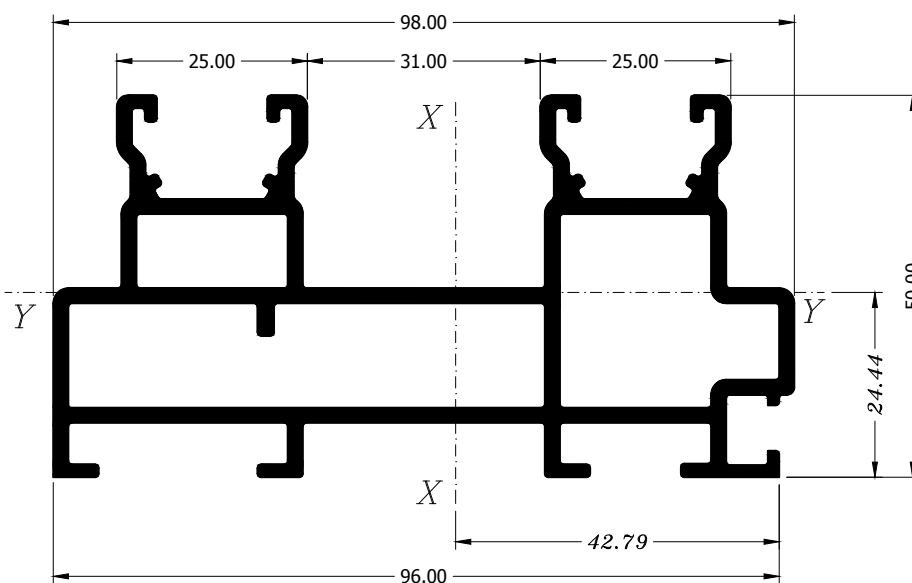
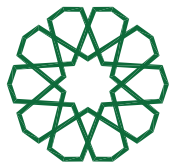
 64 6110 0	Connecting Plug Material: Aluminium Finish: Raw	 72 1330 0	Shock Absorber and Guide Material: Polyamide Finish: Black
 72 1010 0	Multi Function Flyscreen Angle Material: Aluminium Finish: Raw	 72 1451 0	Flyscreen Handle Material: Polyamide Finish: Black
 72 1012 0	Connecting Angle Material: Polyamide Finish: Black	 72 1551 0	Flyscreen Handle (10 cm) Material: Aluminium Finish: Raw, Anodized, RAL
 72 1110 0	Multi Function Flyscreen Angle Material: Polyamide Finish: Black	 72 1556 0	Flyscreen Handle (16 cm) Material: Aluminium Finish: Raw, Anodized, RAL
 72 1120 0	Multi Function Flyscreen Angle Material: Polyamide Finish: Black	 KIT 10109	Locking Point Kit Material: Zama Finish: Galvanized
 72 1202 0	Flyscreen Roller Material: Polyamide Finish: Black	 KIT 28011	Drainage Cover Kit Material: Polyamide Finish: Black



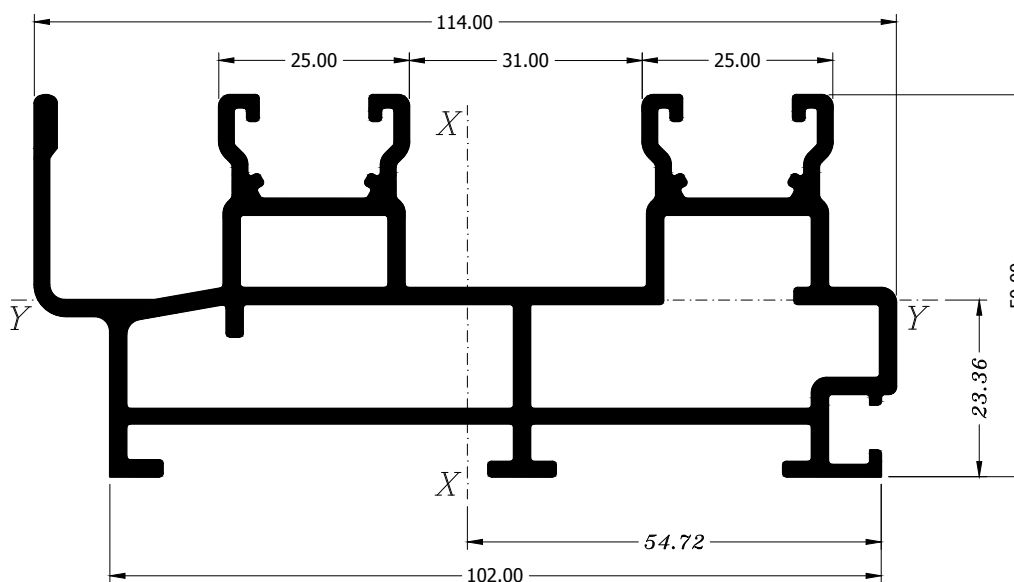
 GT 1110	Glazing Gasket 1:5 : 2.5 mm. Material: E.P.D.M Finish: Black	 GT 1126	Glazing Gasket 6:7 mm. Material: E.P.D.M Finish: Black
 GT 1111	Glazing Gasket 2:4 mm. Material: E.P.D.M Finish: Black	 GT 1152	Frame Gasket Material: E.P.D.M Finish: Black
 GT 1112	Glazing Gasket 4:6 mm. Material: E.P.D.M Finish: Black	 GT 1181	FlyScreen Gasket Material: E.P.D.M Finish: Black
 GT 1121	Glazing Gasket 1:2 mm. Material: E.P.D.M Finish: Black	 GT 1200	Frame Gasket Material: E.P.D.M Finish: Black
 GT 1122	Glazing Gasket 2:3 mm. Material: E.P.D.M Finish: Black	 GT 1201	Frame Gasket Material: E.P.D.M Finish: Black
 GT 1124	Glazing Gasket 4:5 mm. Material: E.P.D.M Finish: Black	 WS 0507	Weather Strip 5x7 Material: Finish: Black



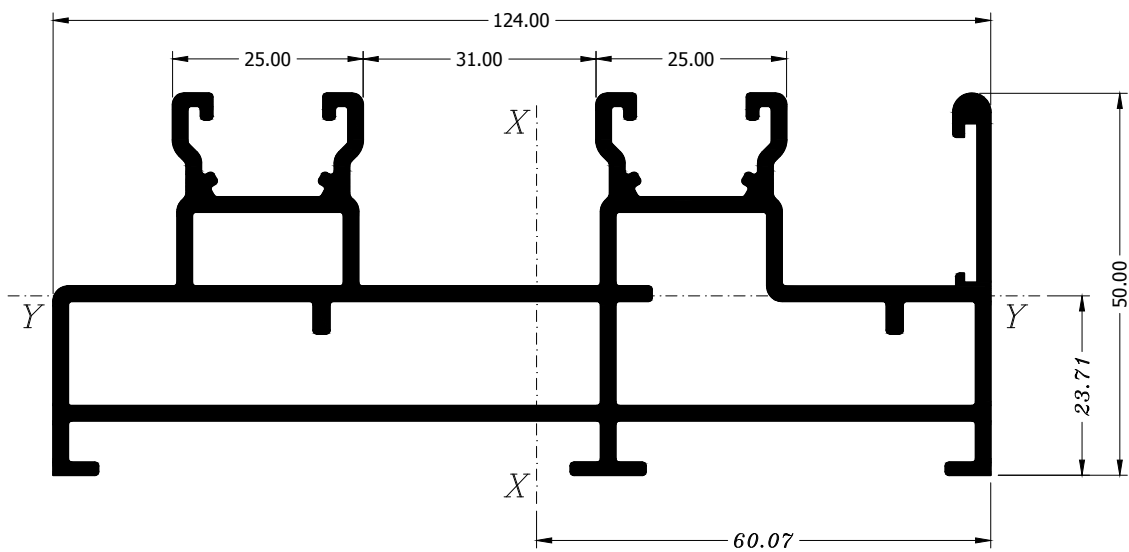
 WS 0510	Weather Strip 5x10 Material: Finish: Black	 WS 0710	Weather Strip 7x7 Material: Finish: Black
 WS 0707	Weather Strip 7x7 Material: Finish: Black	 WS 0710 F	Weather Strip 7x7 Material: Finish: Black
 WS 0707 F	Weather Strip 7x7 Material: Finish: Black		



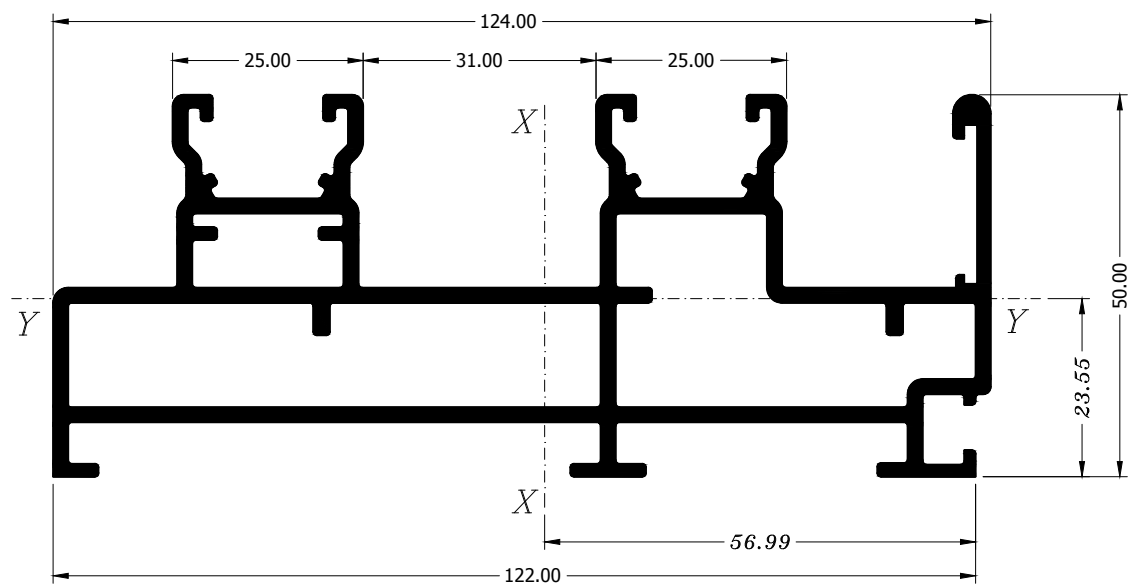
2 120 2010
2.098 Kg./ml.



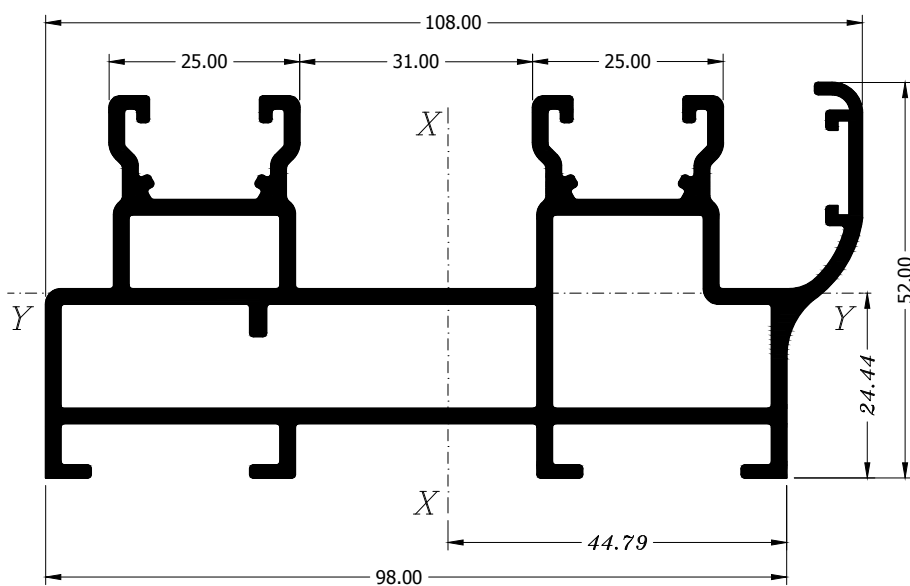
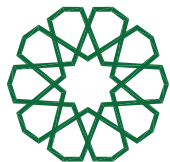
2 120 2110
2.562 Kg./ml.



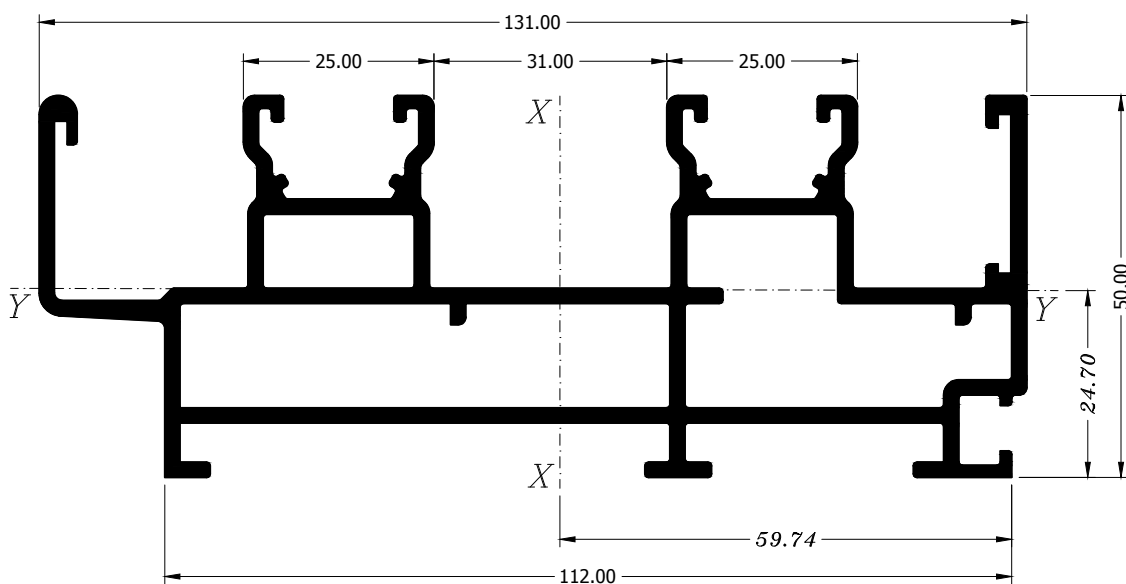
2 120 2200
2.480 Kg./ml.



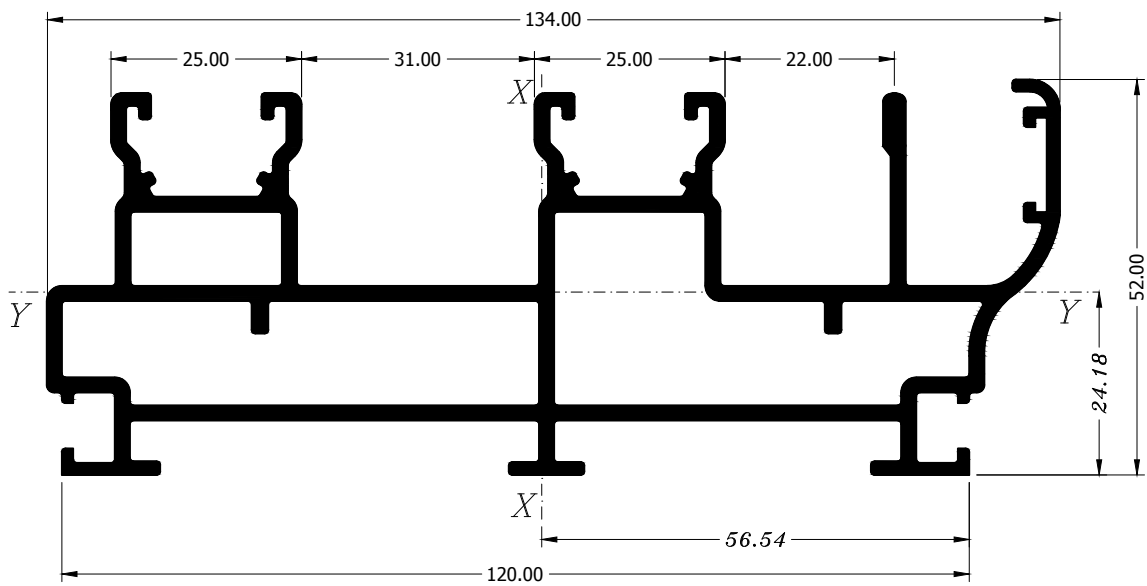
2 120 2210
2.548 Kg./ml.



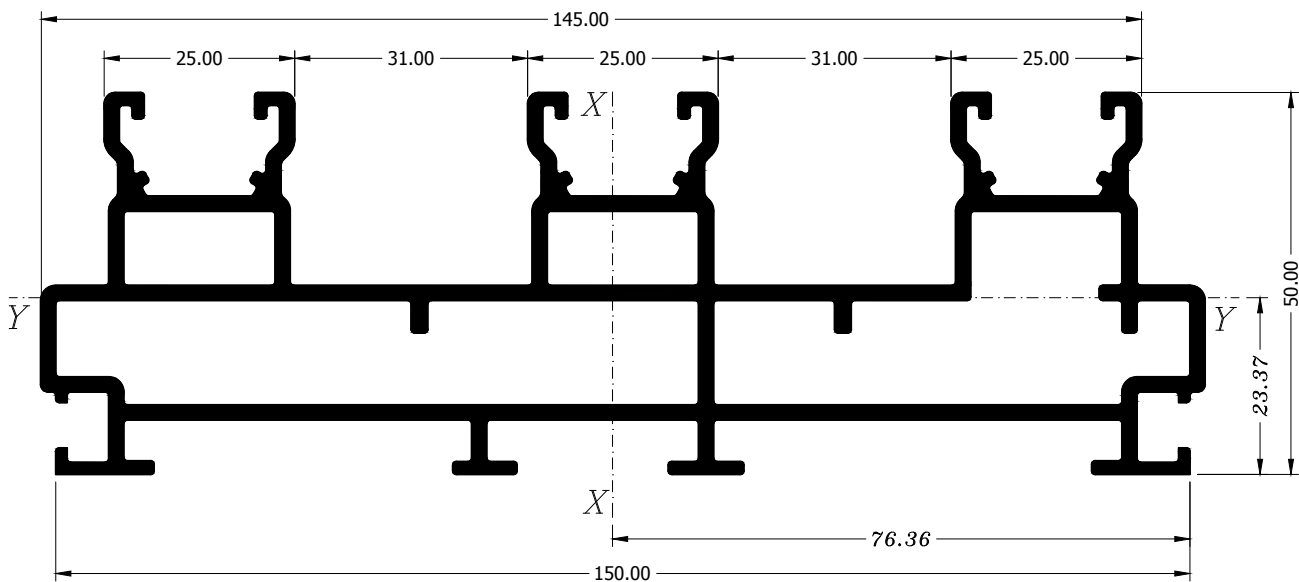
2 120 2300
2.272 Kg./ml.



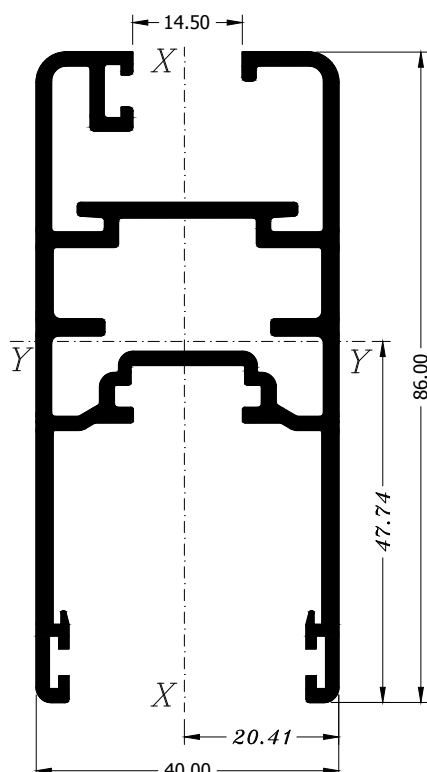
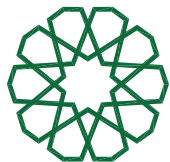
2 120 2410
2.673 Kg./ml.



2 120 2520
2.730 Kg./ml.

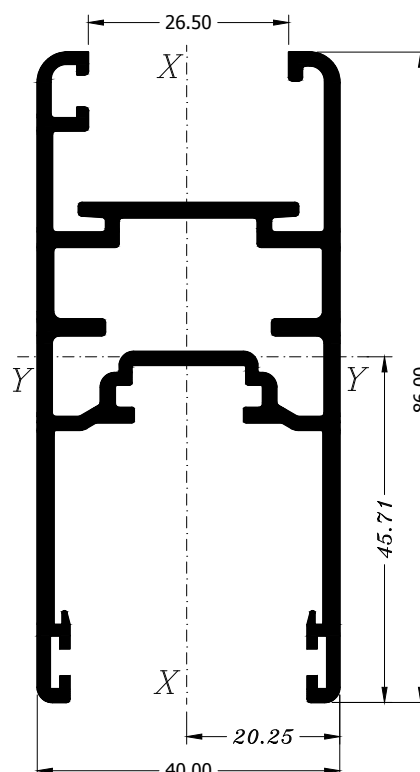


2 120 2620
3.192 Kg./ml.



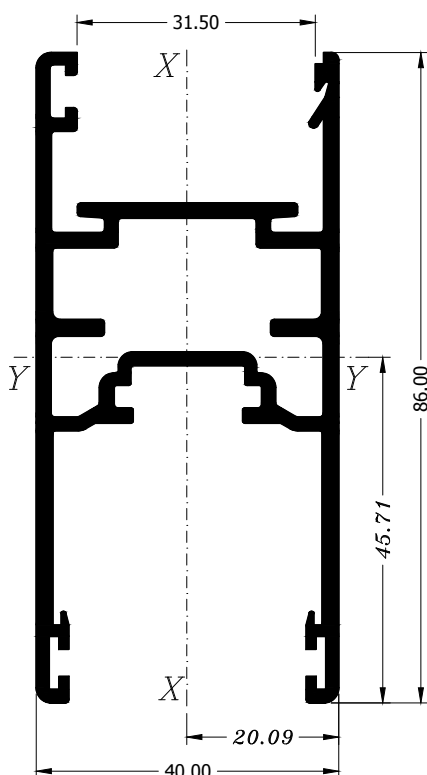
2 120 4110

1.615 Kg./ml.



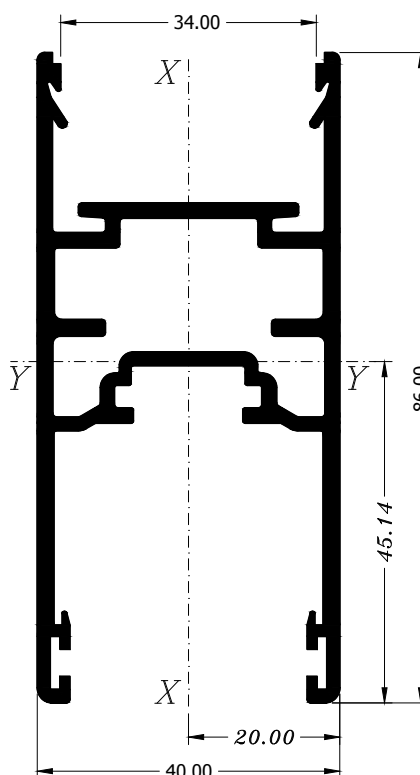
2 120 4120

1.550 Kg./ml.



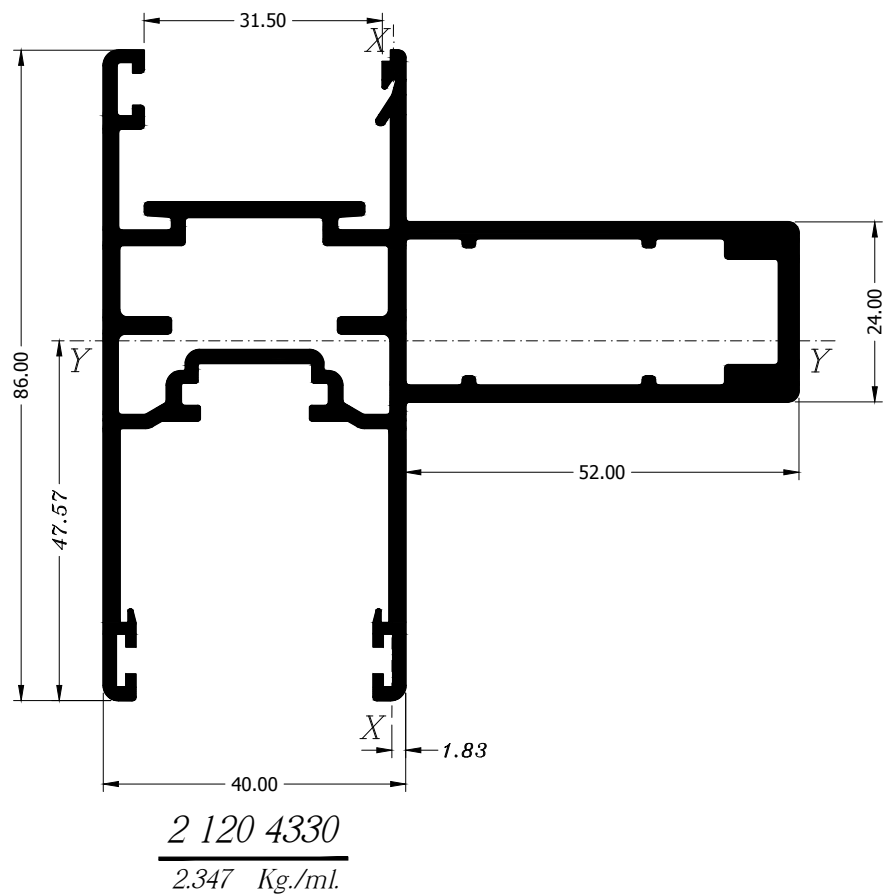
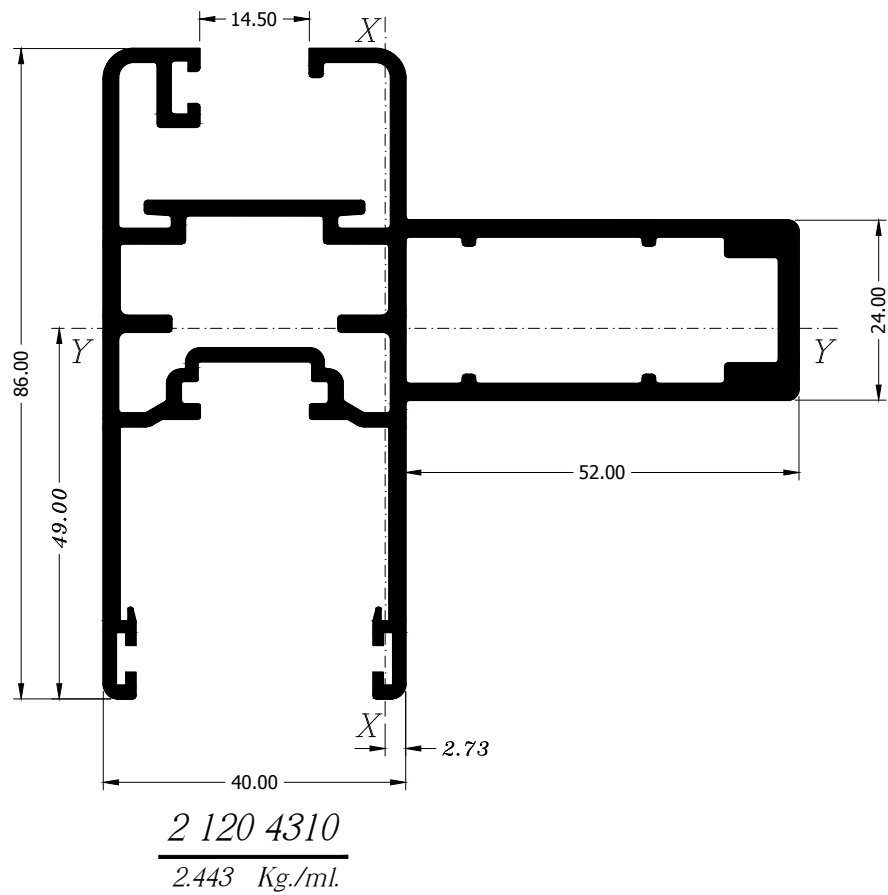
2 120 4130

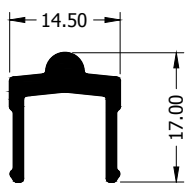
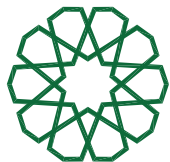
1.520 Kg./ml.



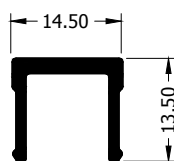
2 120 4230

1.504 Kg./ml.

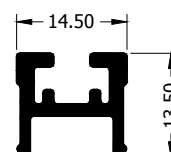




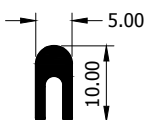
2 120 9210
0.196 Kg./ml.



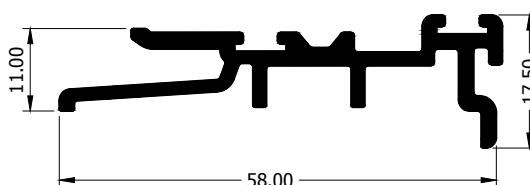
2 120 9220
0.150 Kg./ml.



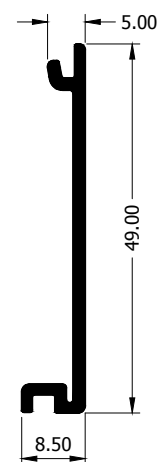
2 120 9240
0.189 Kg./ml.



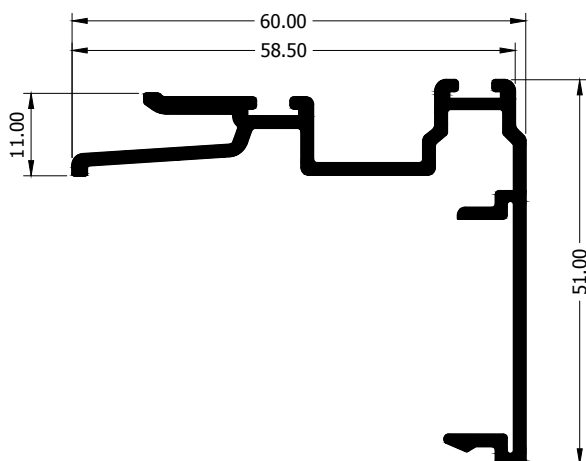
2 120 9250
0.077 Kg./ml.



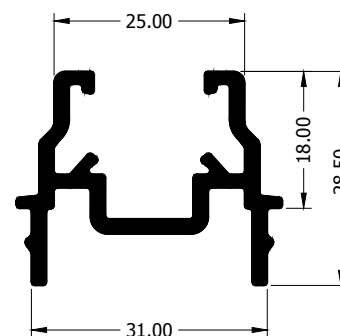
2 120 9510
0.560 Kg./ml.



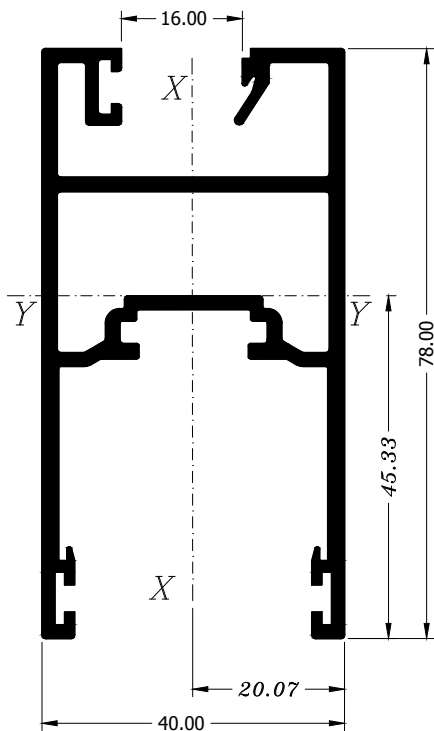
2 120 9520
0.240 Kg./ml.



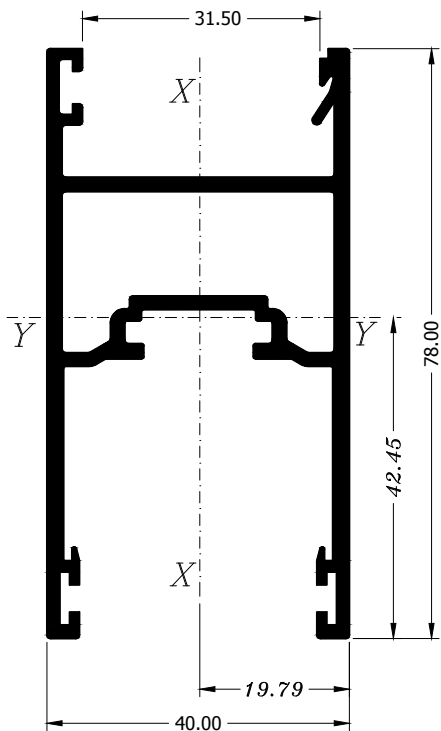
2 120 9530
0.664 Kg./ml.



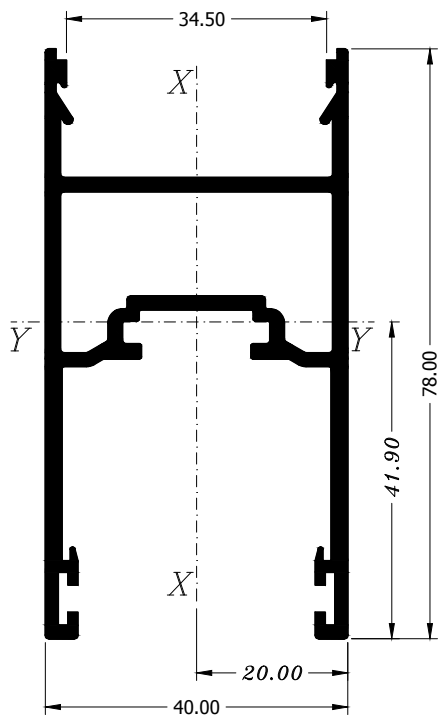
2 120 9610
0.562 Kg./ml.



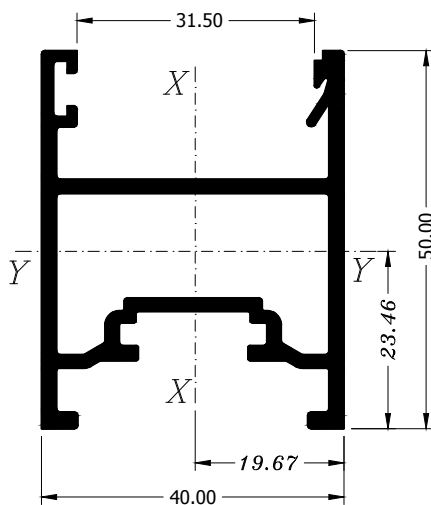
2 120 4510
1.378 Kg./ml.



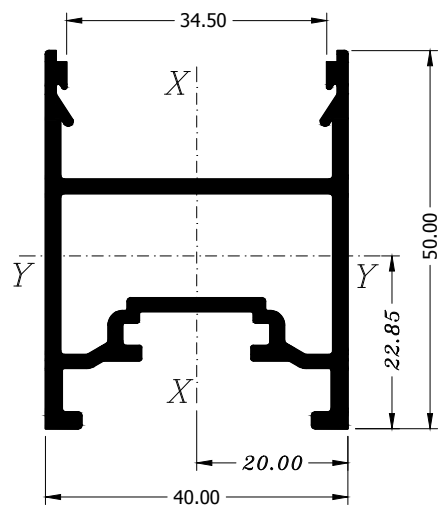
2 120 4520
1.260 Kg./ml.



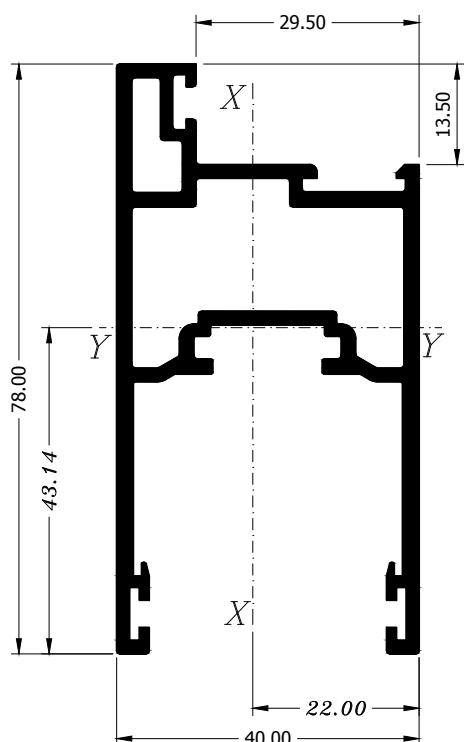
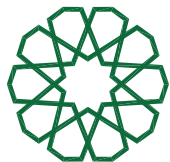
2 120 4530
1.236 Kg./ml.



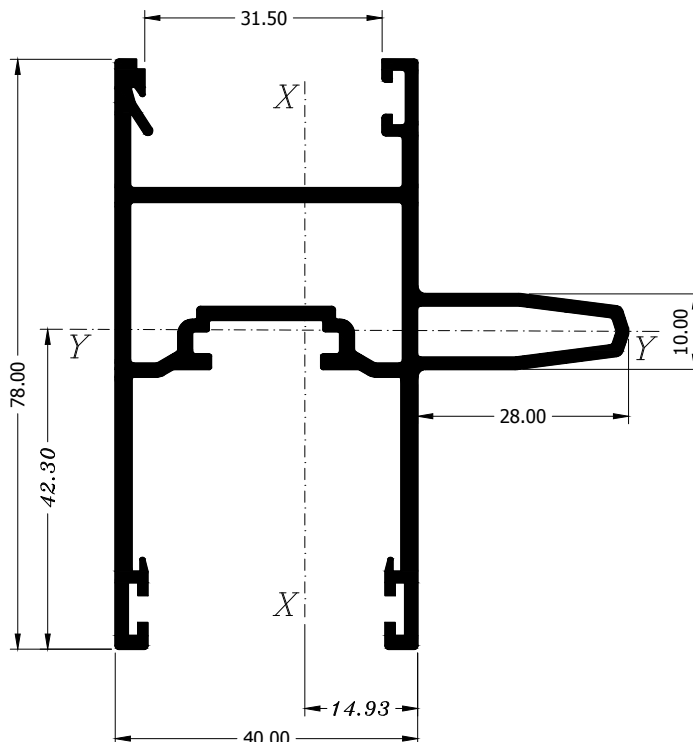
2 120 4570
0.978 Kg./ml.



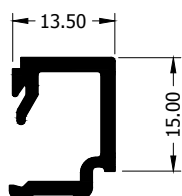
2 120 4580
0.954 Kg./ml.



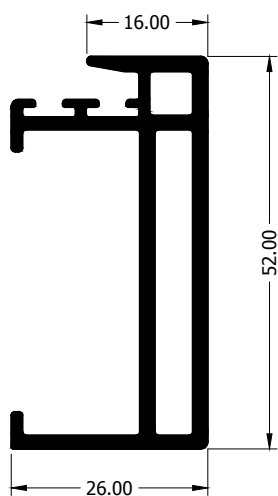
2 120 4540
1.289 Kg./ml.



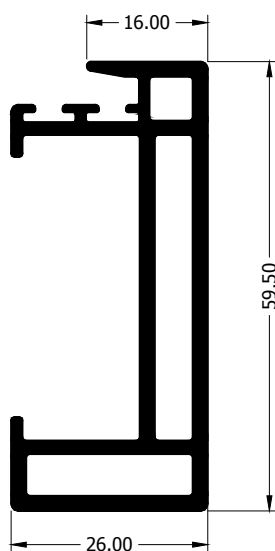
2 120 4721
1.485 Kg./ml.



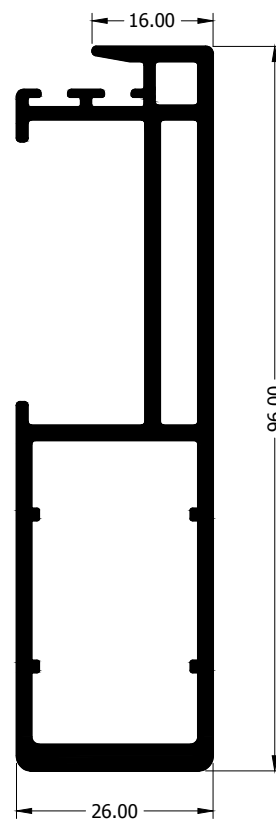
2 120 6240
0.188 Kg./ml.



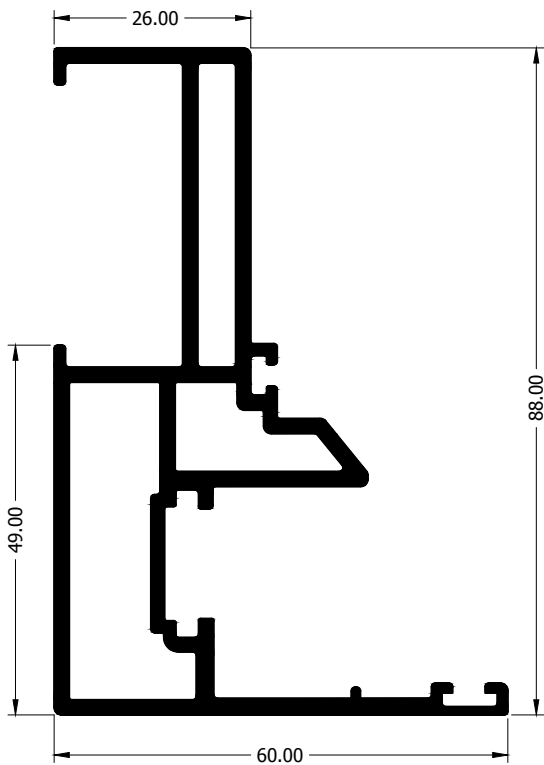
2 120 7020
0.805 Kg./ml.



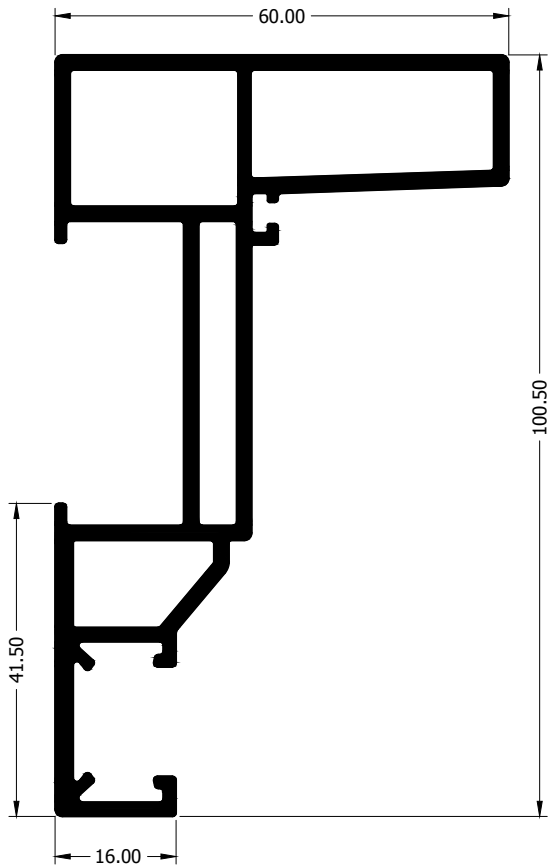
2 120 7120
1.000 Kg./ml.



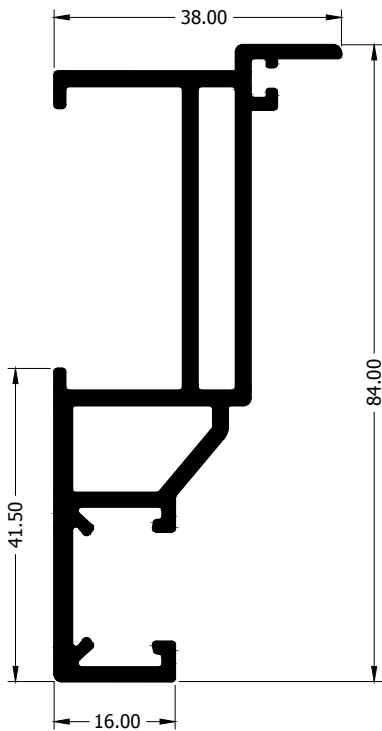
2 120 7320
1.452 Kg./ml.



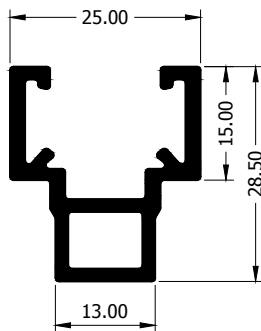
2 120 8304
1.759 Kg./ml.



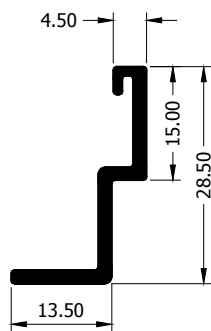
2 120 8414
1.848 Kg./ml.



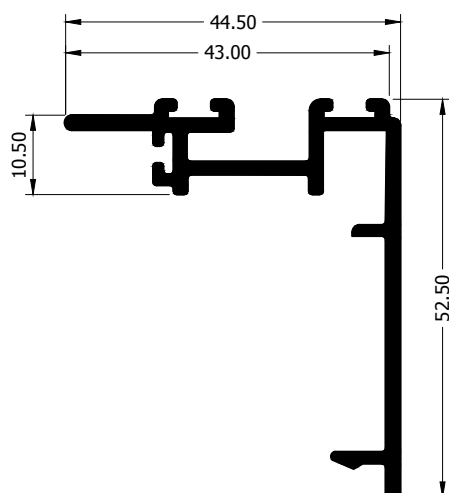
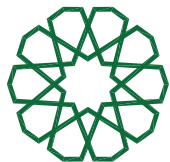
2 120 8404
1.246 Kg./ml.



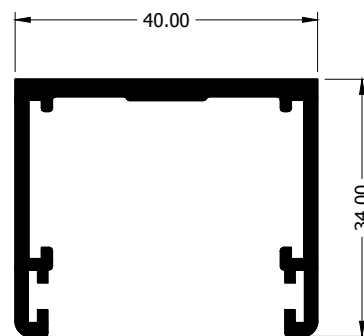
2 120 9310
0.456 Kg./ml.



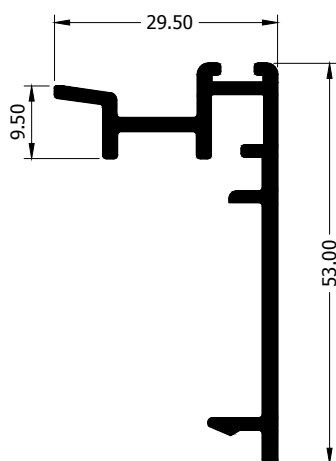
2 120 9320
0.203 Kg./ml.



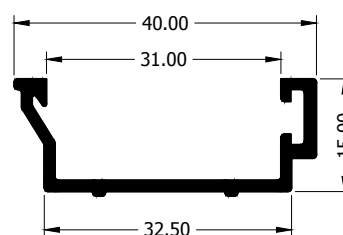
2 120 9560
0.651 Kg./ml.



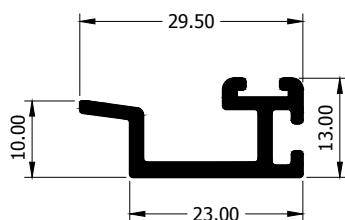
2 120 9410
0.599 Kg./ml.



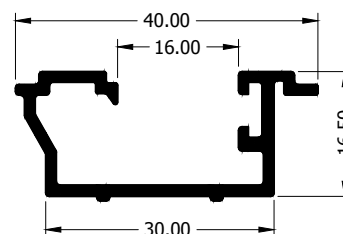
2 120 9570
0.500 Kg./ml.



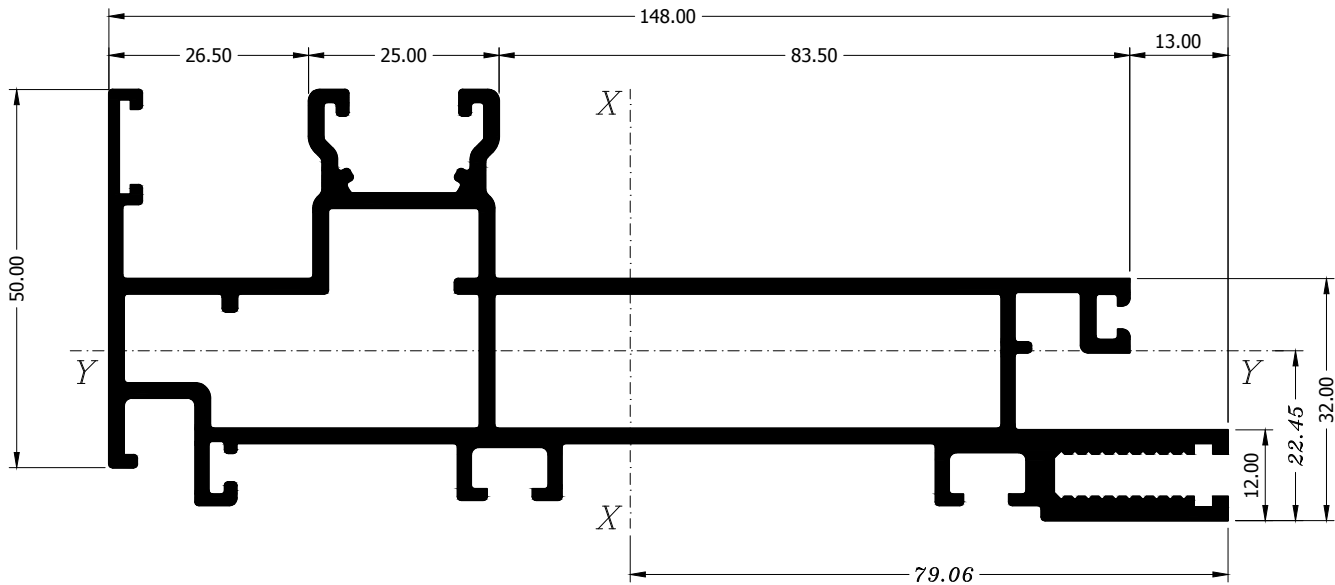
2 120 9820
0.247 Kg./ml.



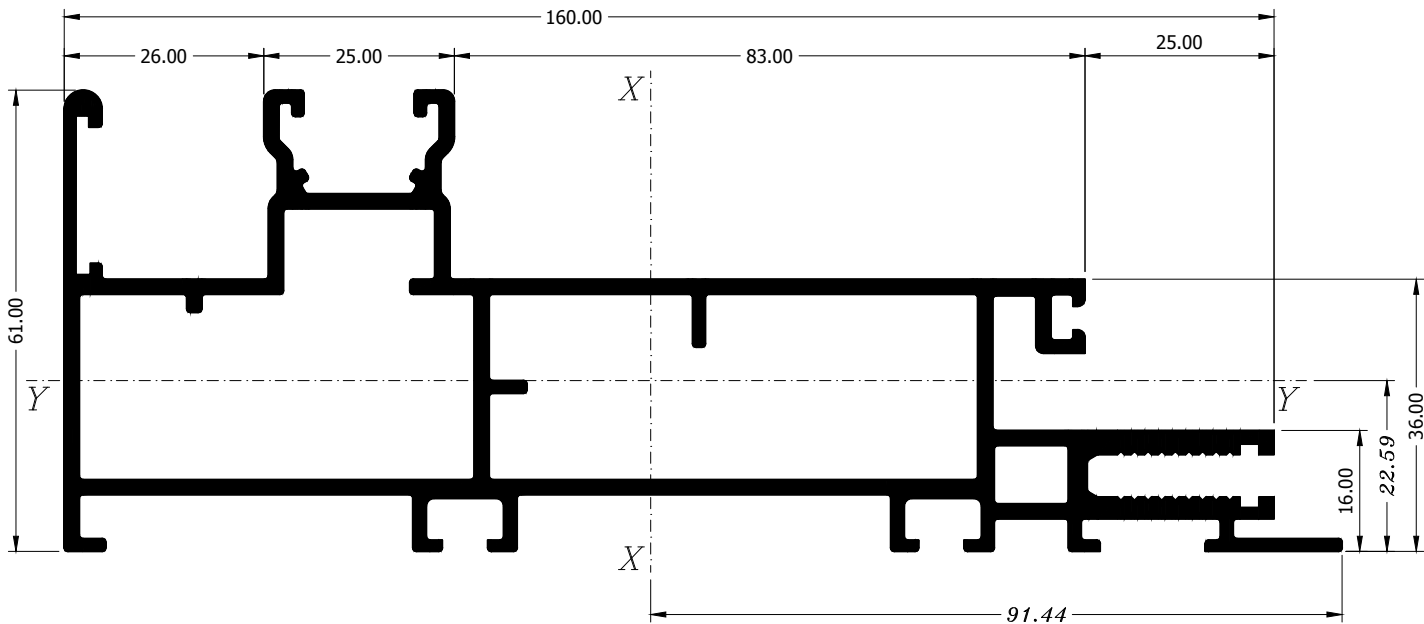
2 120 9580
0.278 Kg./ml.



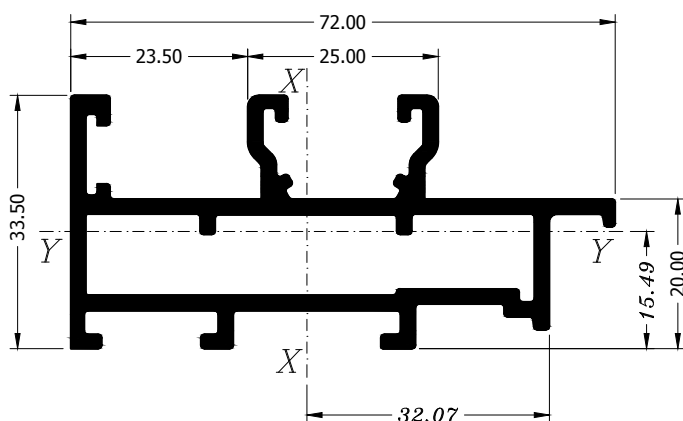
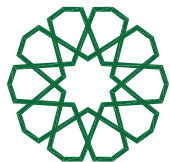
2 120 9830
0.309 Kg./ml.



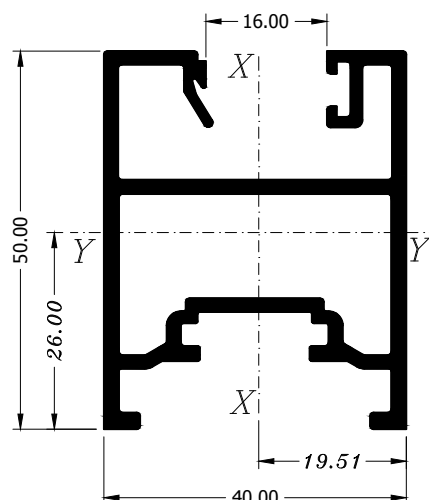
2 122 3300
2.736 Kg./ml.



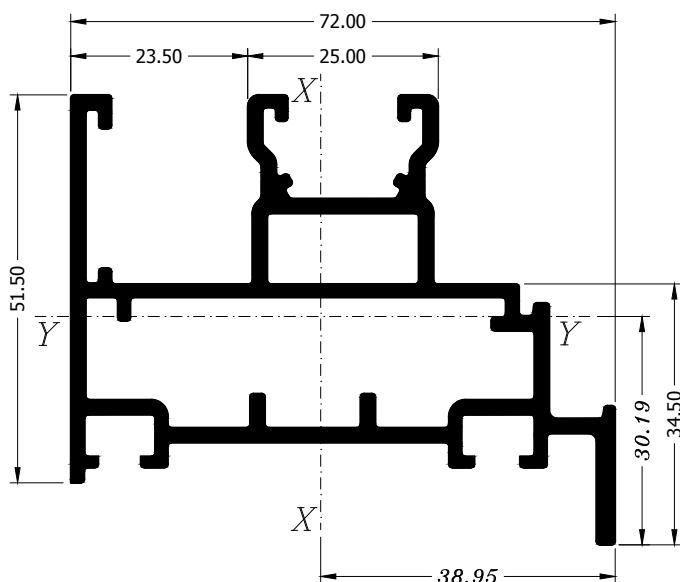
2 122 3500
3.097 Kg./ml.



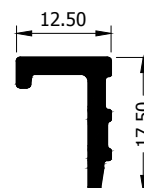
2 122 2200
1.216 Kg./ml.



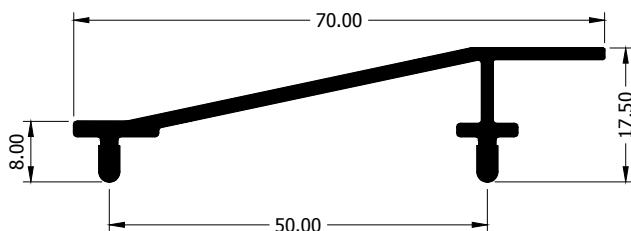
2 120 4560
1.216 Kg./ml.



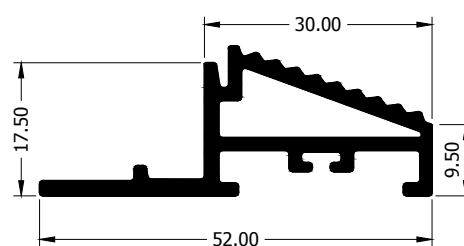
2 122 2400
1.666 Kg./ml.



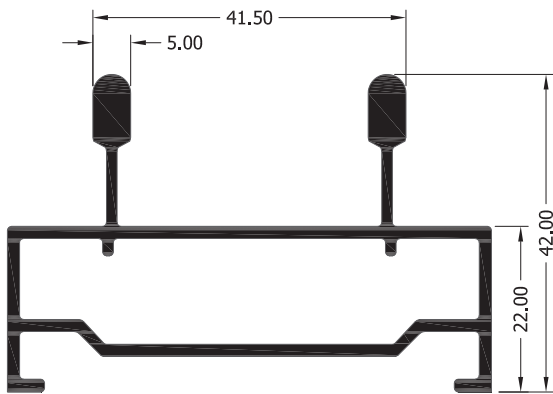
2 122 9310
0.173 Kg./ml.



2 122 9330
0.434 Kg./ml.

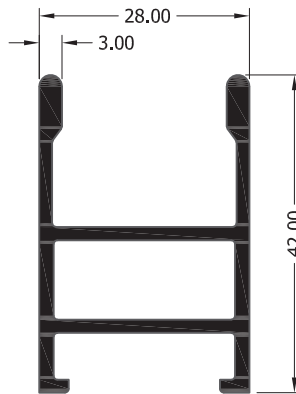


2 122 9320
0.544 Kg./ml.



5 025 2060

0.941 Kg./ml.



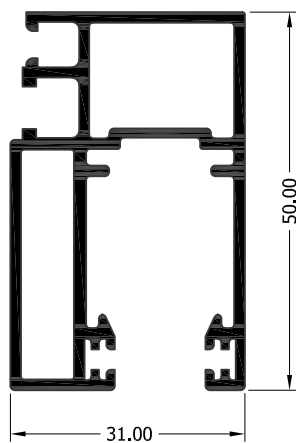
5 025 2110

0.590 Kg./ml.



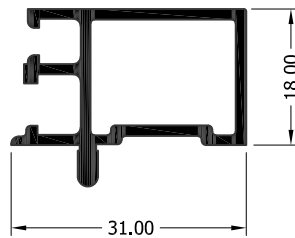
5 900 9100

0.100 Kg./ml.



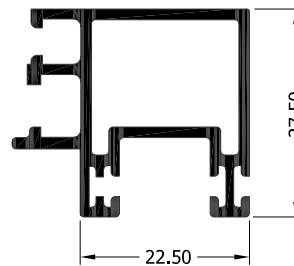
5 027 7420

0.788 Kg./ml.



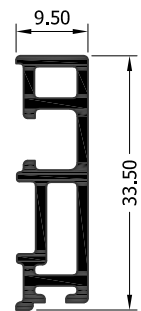
5 027 7421

0.373 Kg./ml.



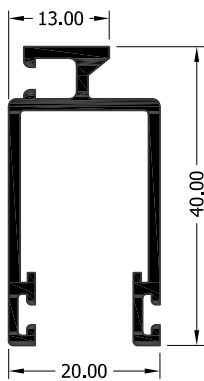
5 027 7541

0.478 Kg./ml.



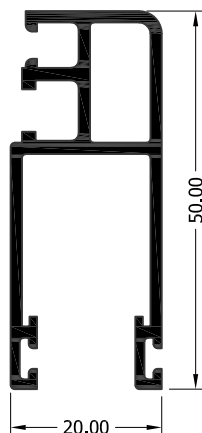
5 027 9410

0.297 Kg./ml.



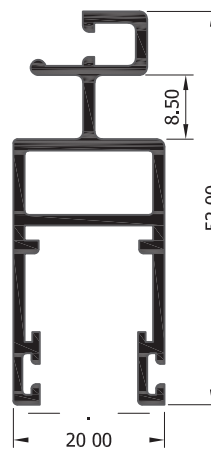
5 025 4100

0.419 Kg./ml.



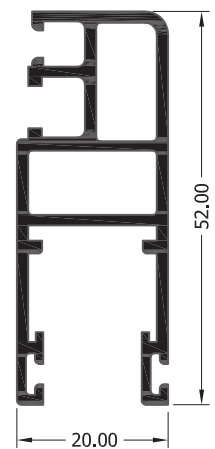
5 025 4140

0.567 Kg./ml.



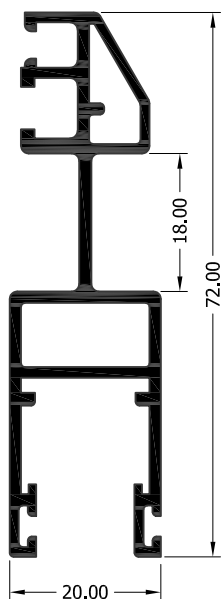
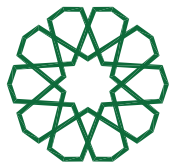
5 025 4210

0.535 Kg./ml.

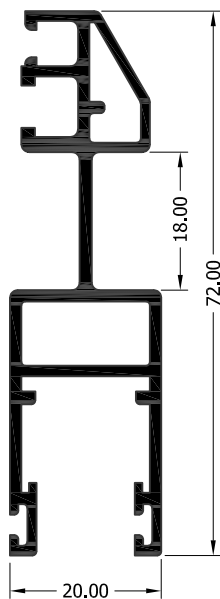


5 025 4240

0.594 Kg./ml.



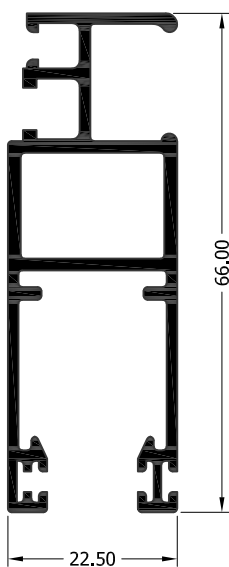
5 025 4230
0.728 Kg./ml.



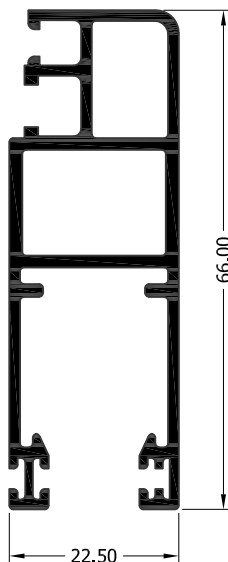
5 025 4231
0.728 Kg./ml.



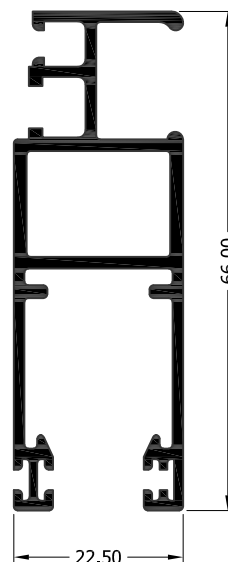
5 027 4240
0.760 Kg./ml.



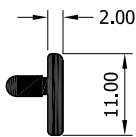
5 027 4241
0.752 Kg./ml.



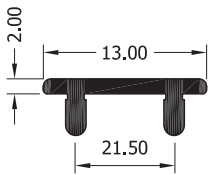
5 027 4270
0.760 Kg./ml.



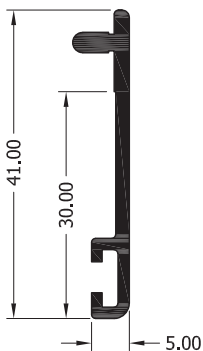
5 027 4271
0.752 Kg./ml.



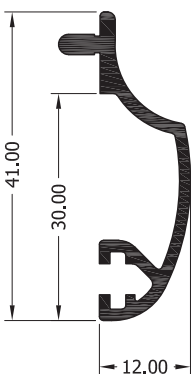
9 001 1100
0.092 Kg./ml.



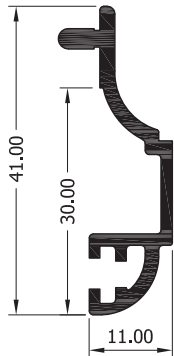
9 002 1200
0.181 Kg./ml.



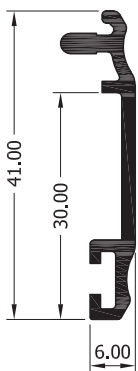
9 001 1300
0.240 Kg./ml.



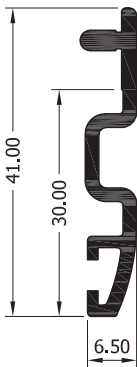
9 001 1302
0.311 Kg./ml.



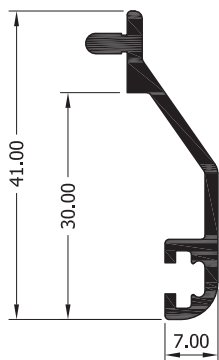
9 001 1303
0.284 Kg./ml.



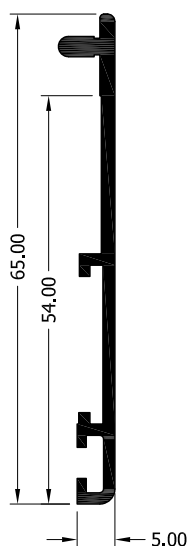
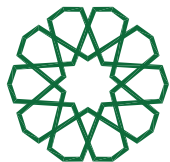
9 001 1304
0.259 Kg./ml.



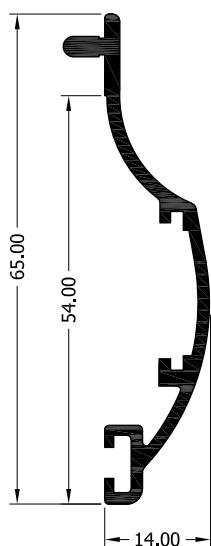
9 001 1305
0.275 Kg./ml.



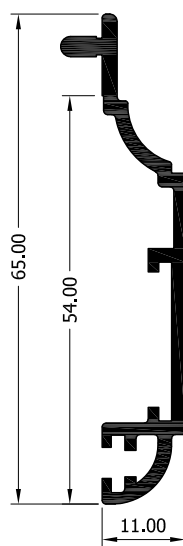
9 001 1308
0.291 Kg./ml.



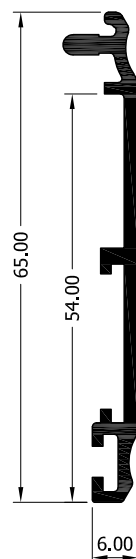
9 001 1500
0.348 Kg./ml.



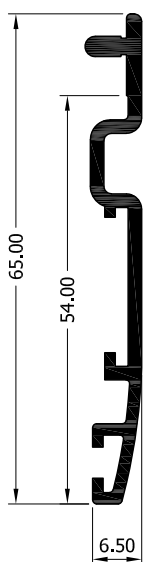
9 001 1502
0.424 Kg./ml.



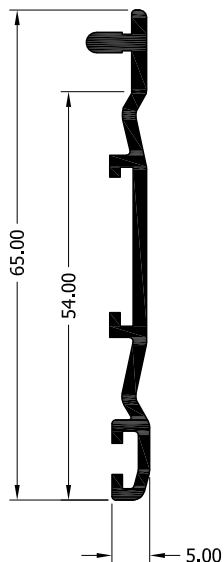
9 001 1503
0.402 Kg./ml.



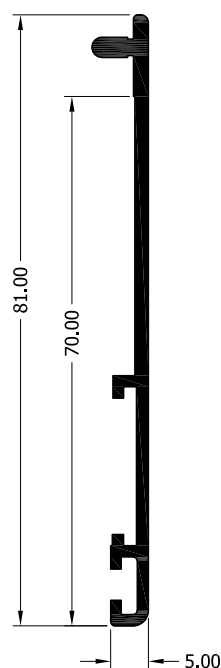
9 001 1504
0.370 Kg./ml.



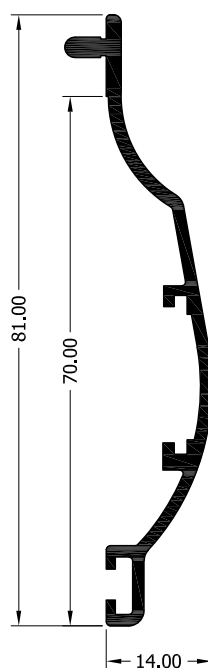
9 001 1505
0.383 Kg./ml.



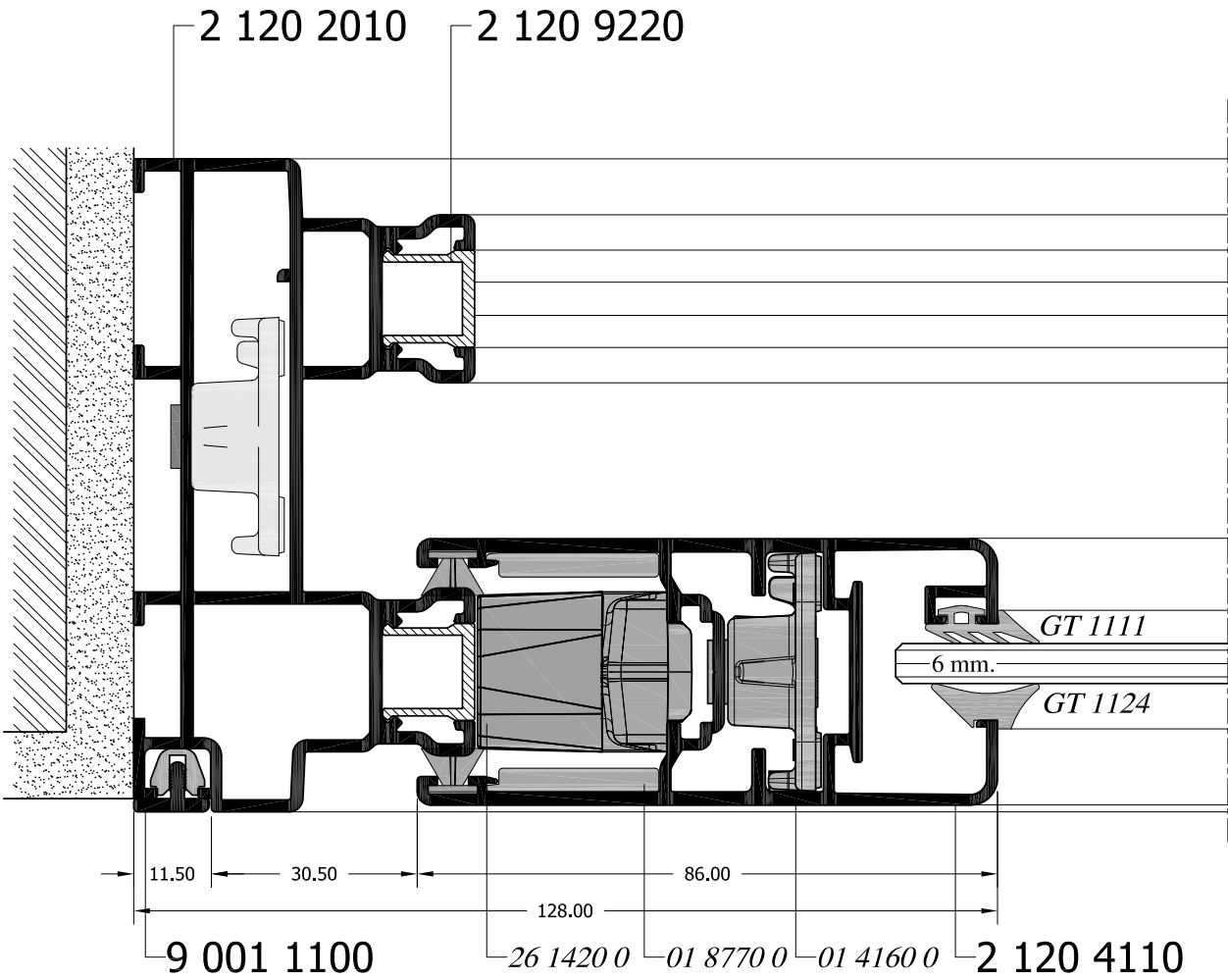
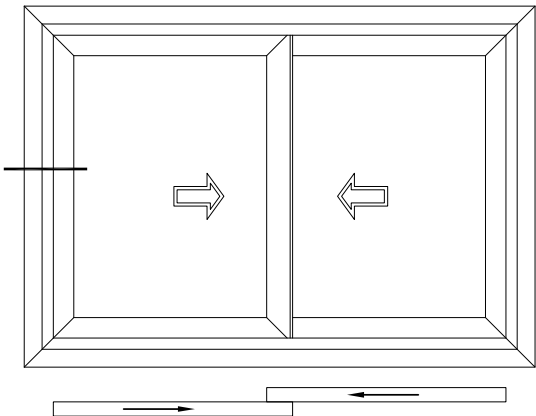
9 001 1507
0.383 Kg./ml.

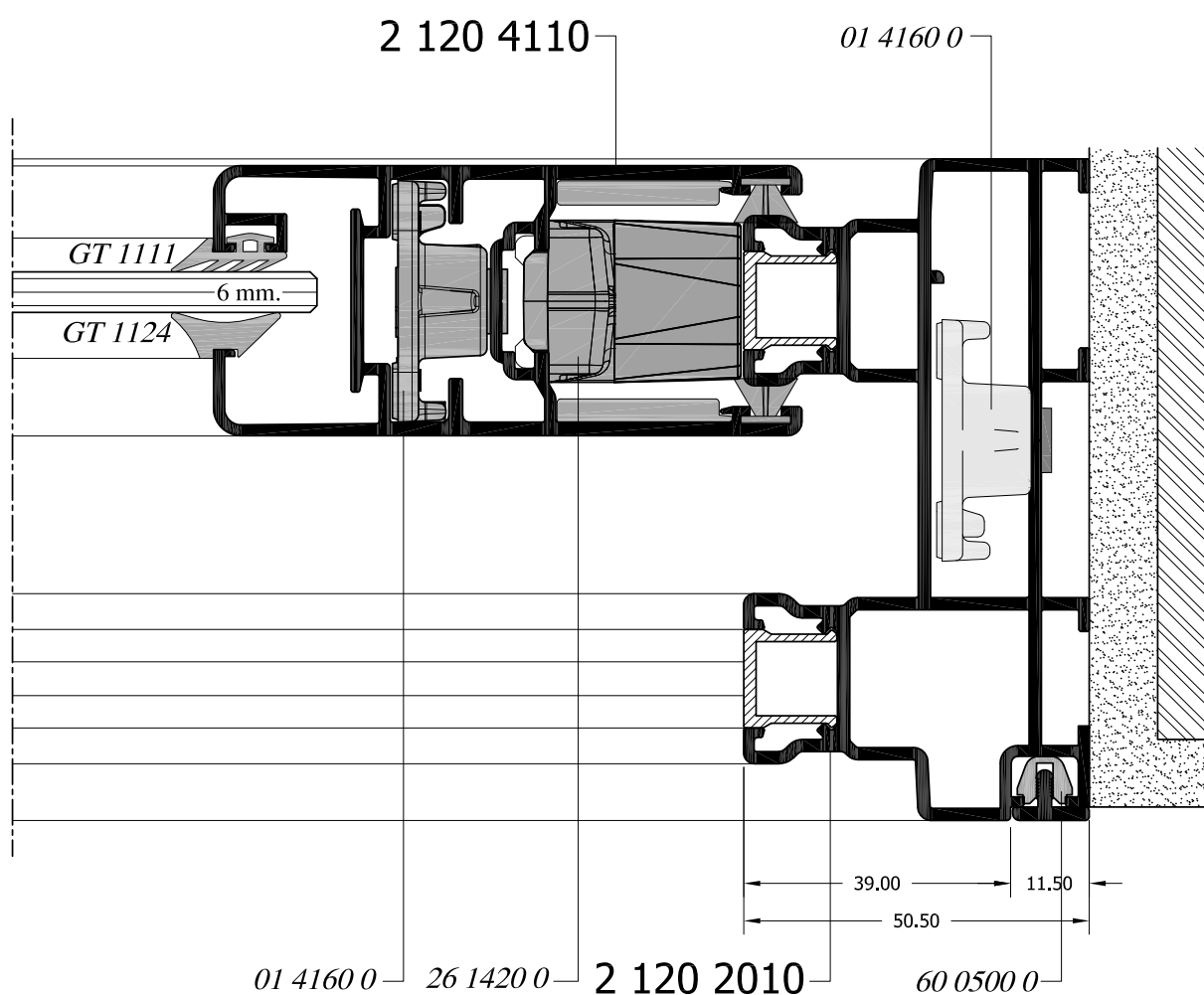
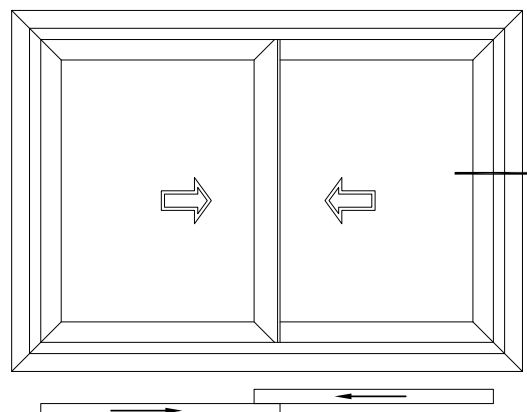
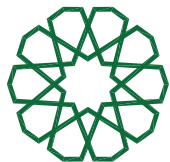


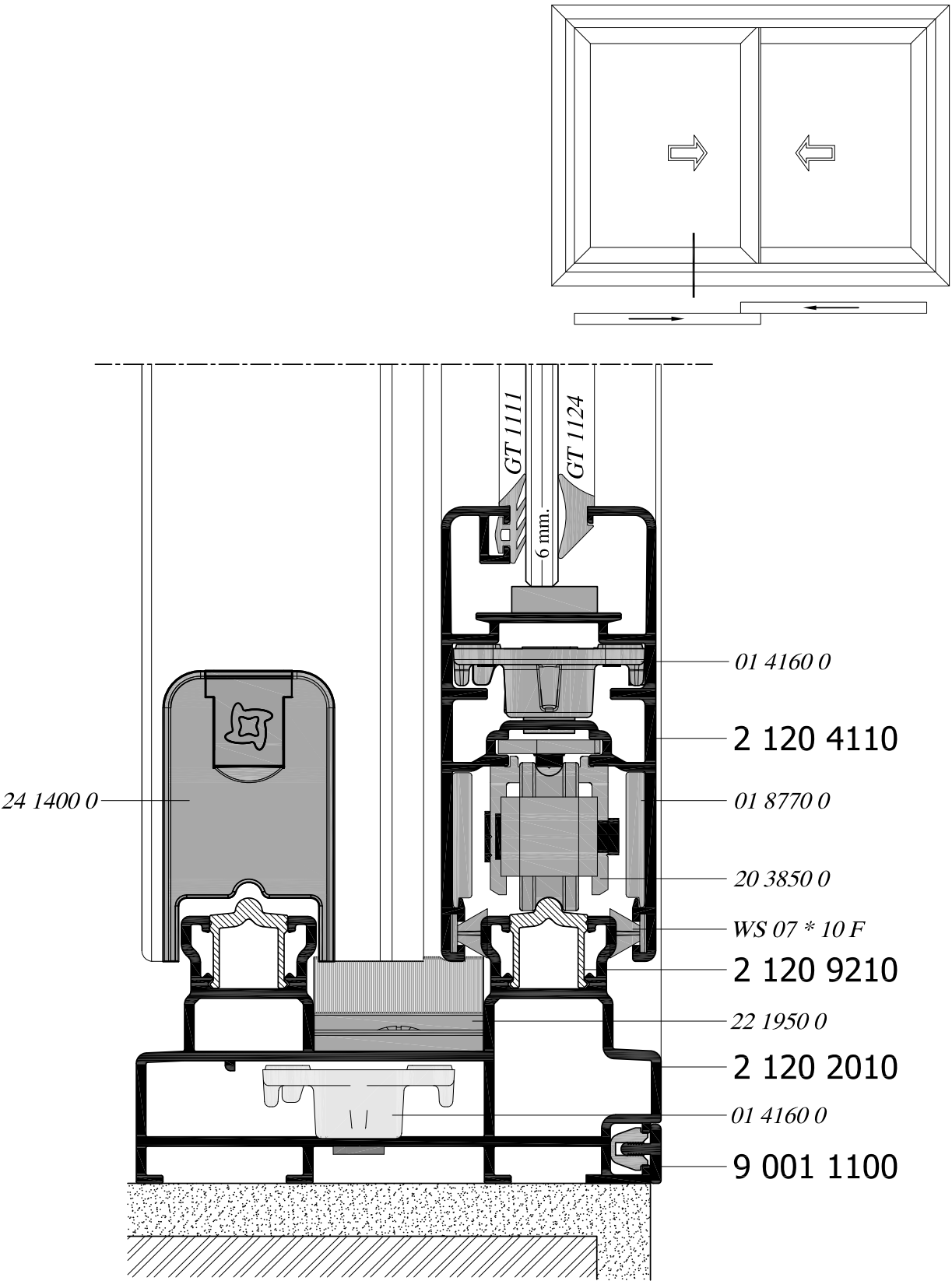
9 001 1700
0.418 Kg./ml.

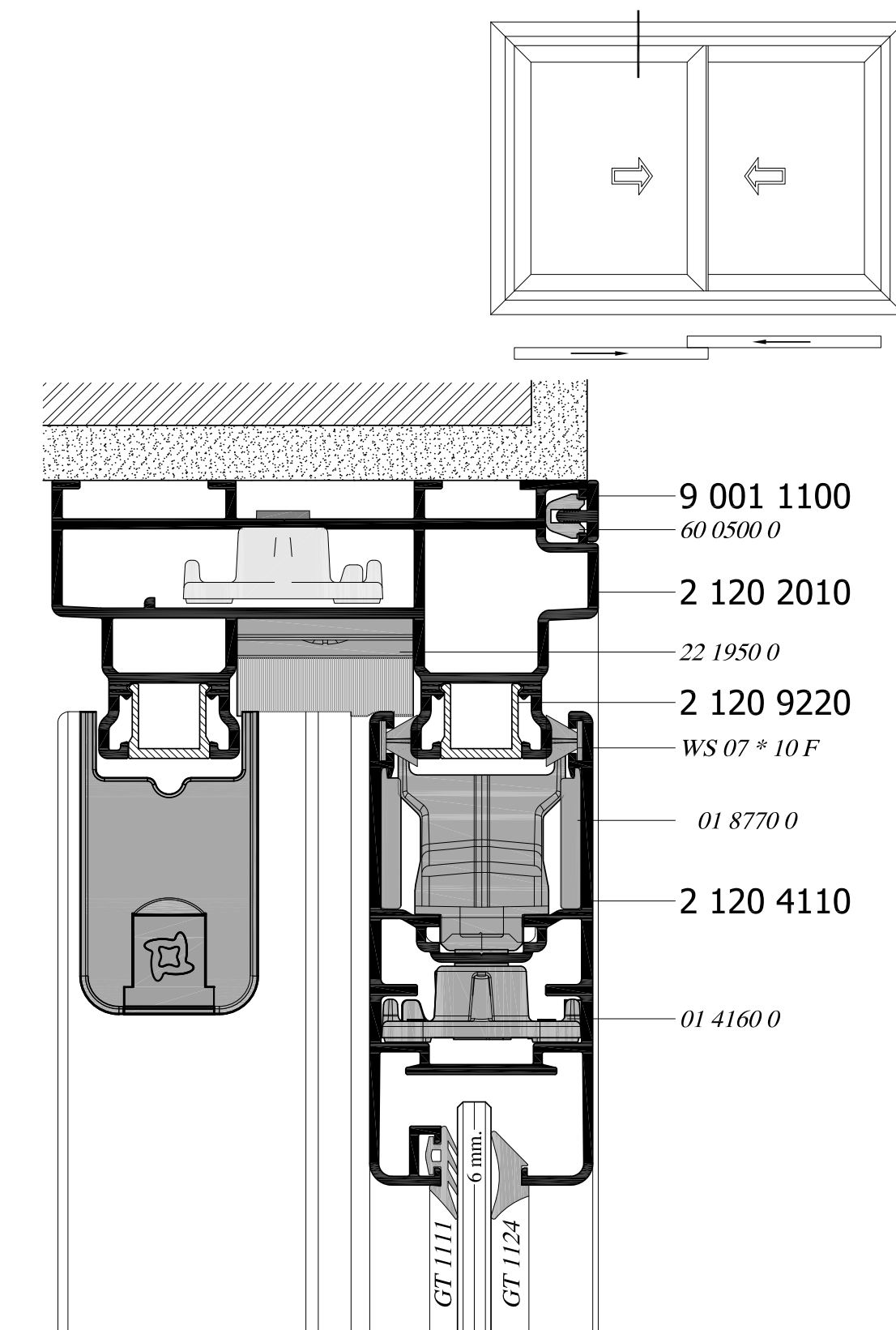
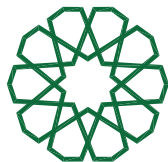


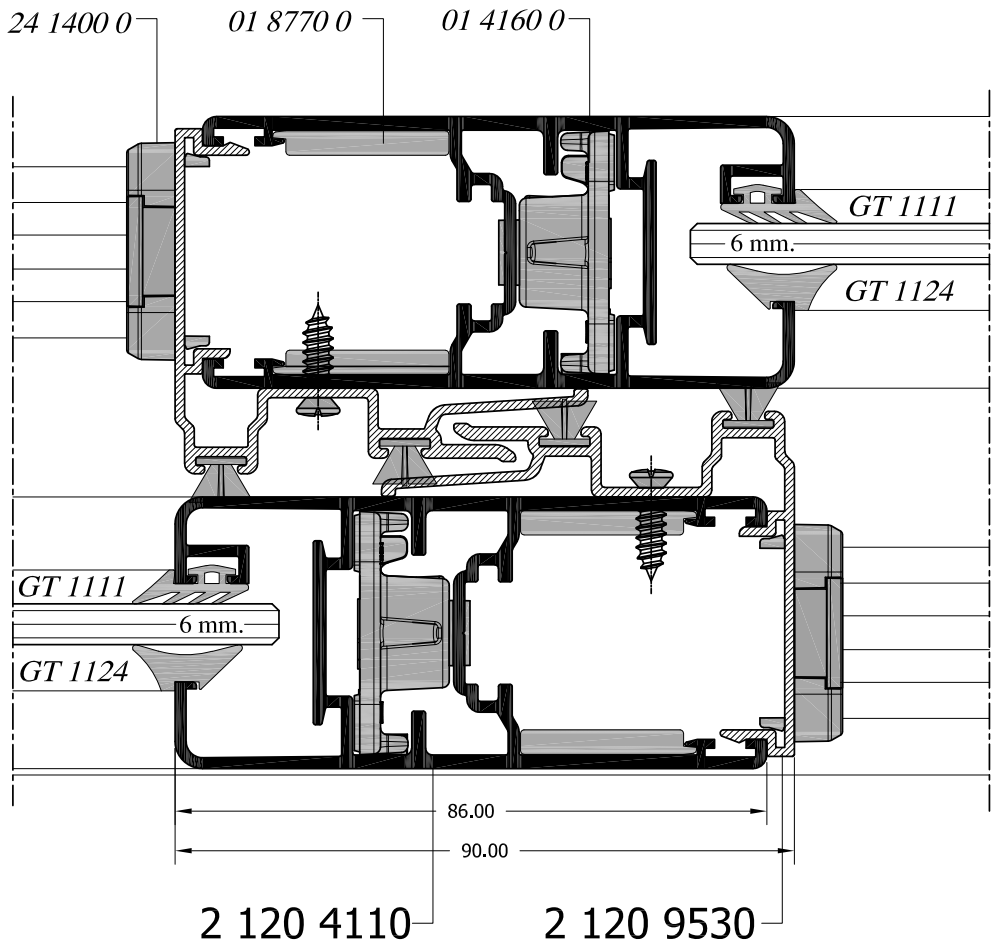
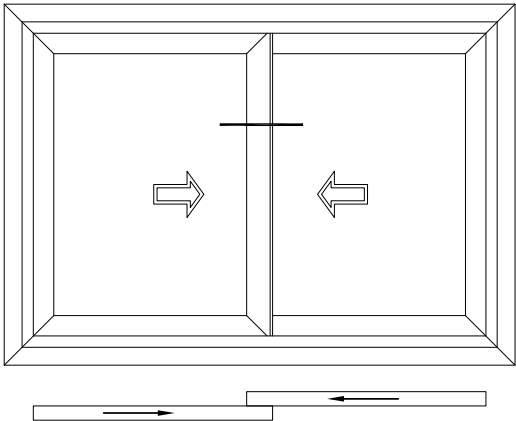
9 001 1702
0.473 Kg./ml.

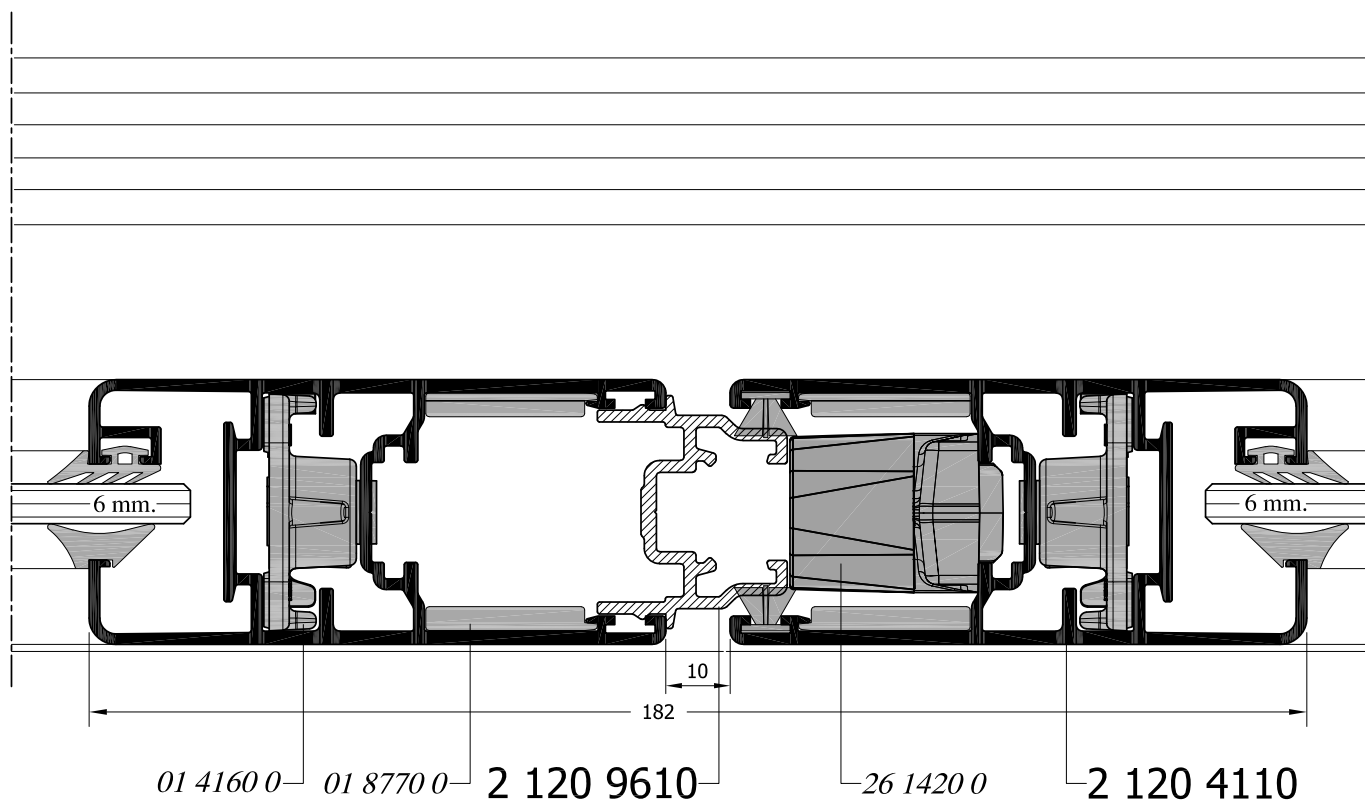
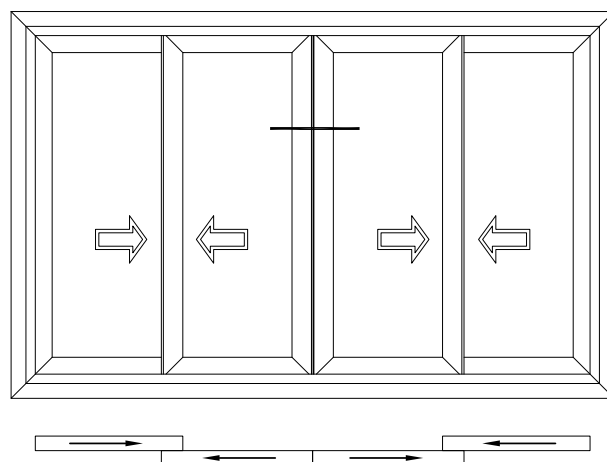
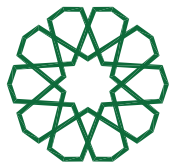


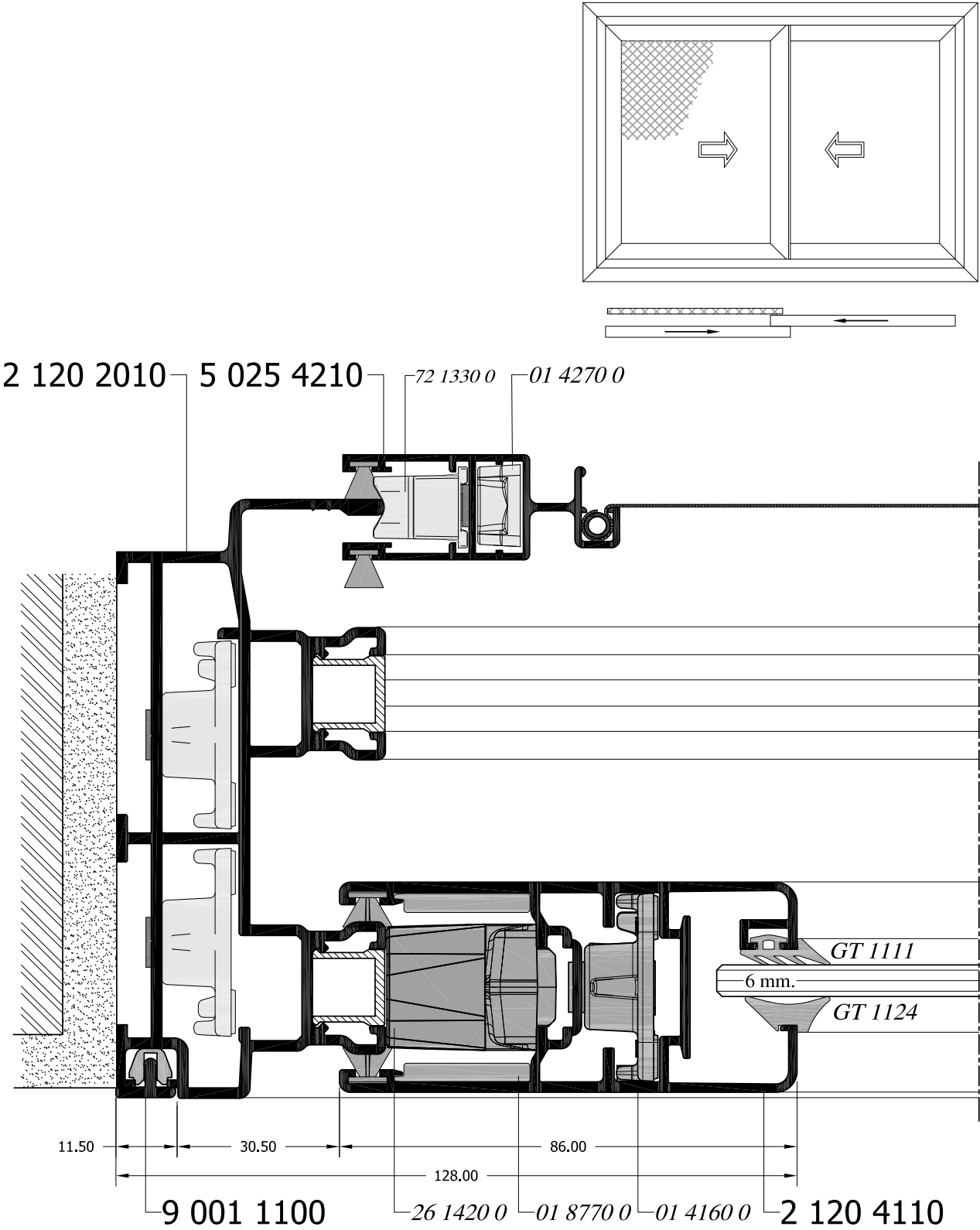


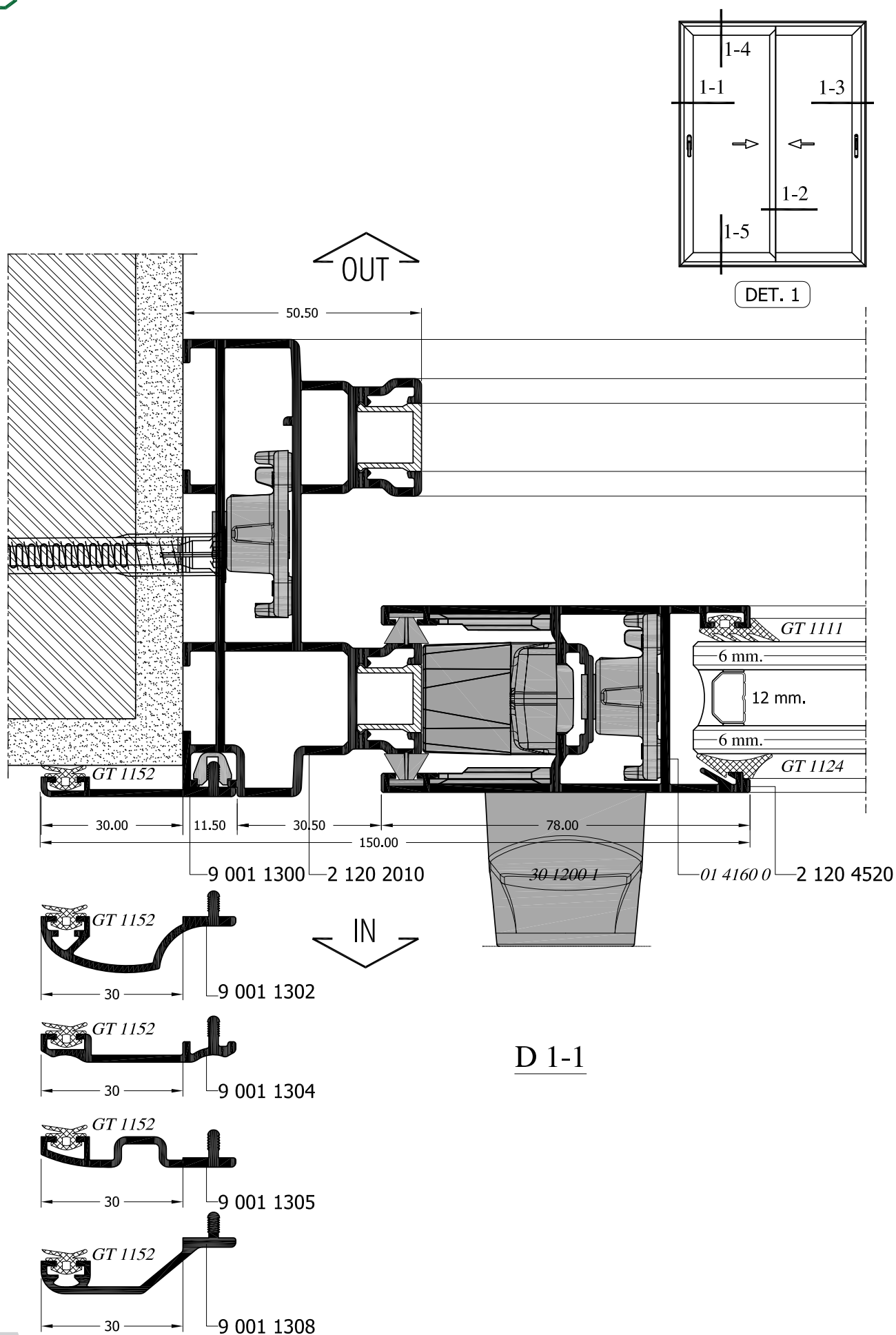
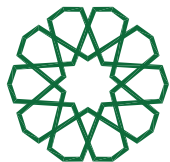


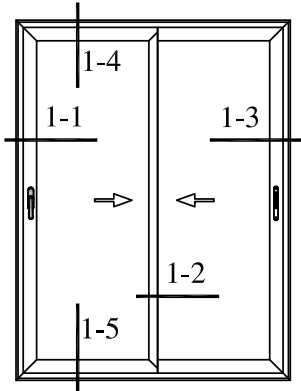




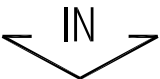
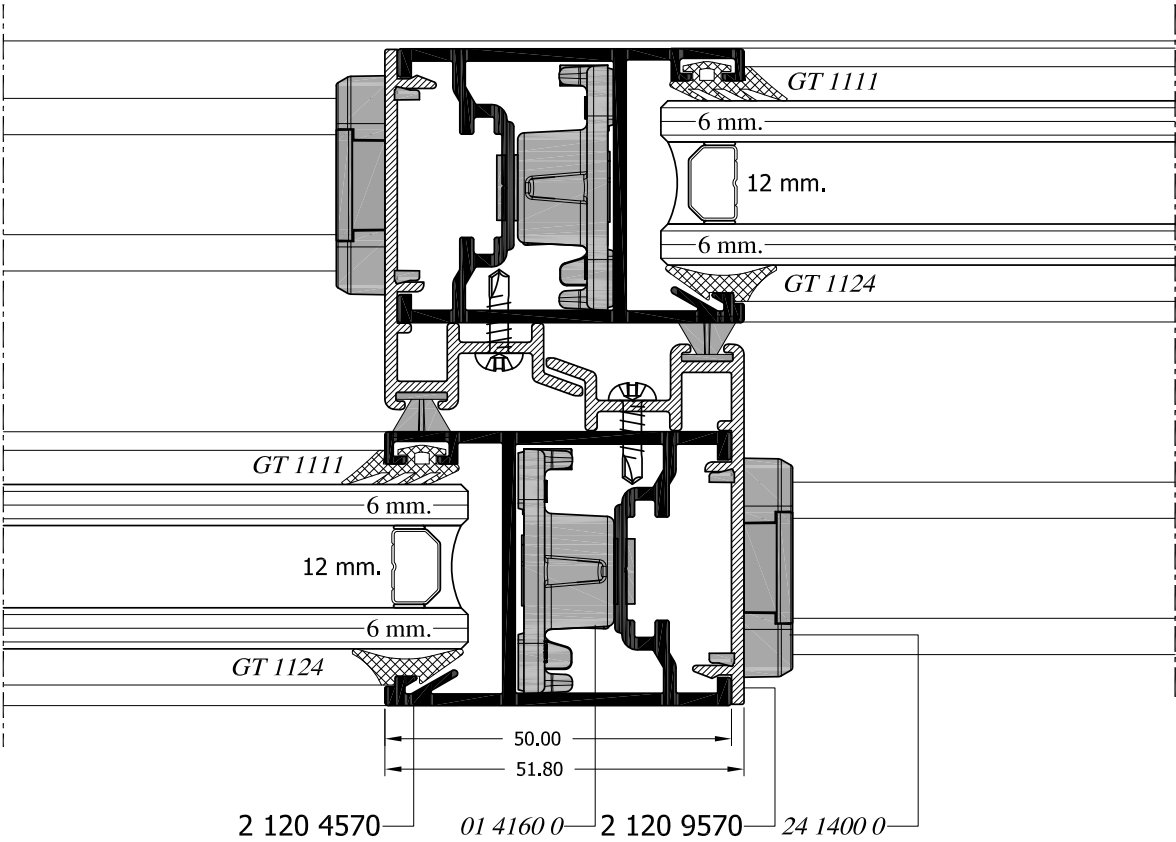




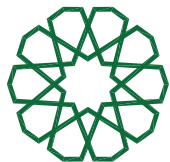




DET. 1

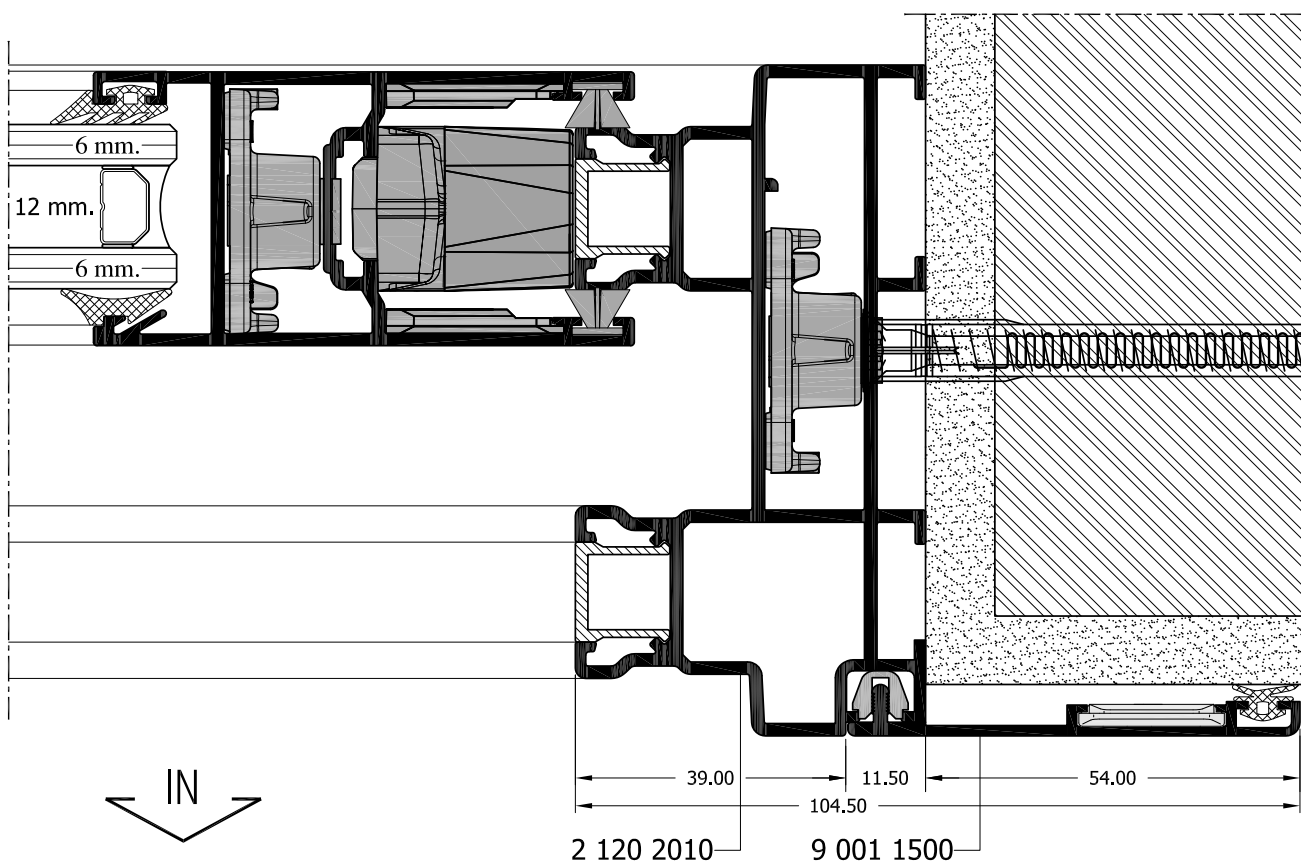
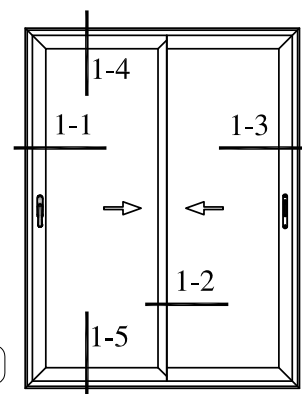


D 1-2

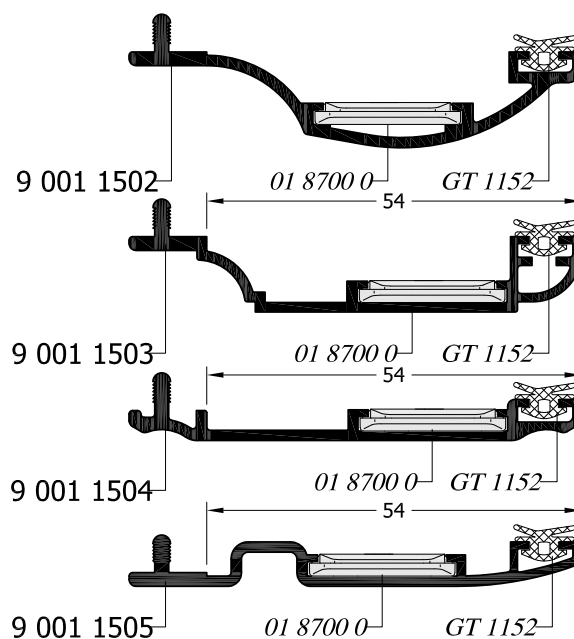


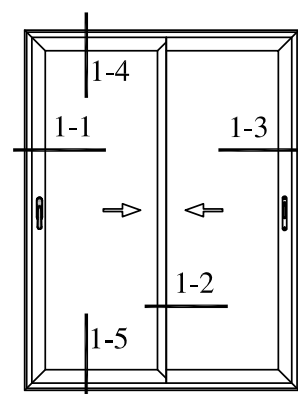
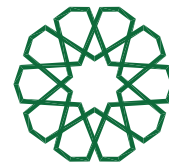
OUT

DET. 1

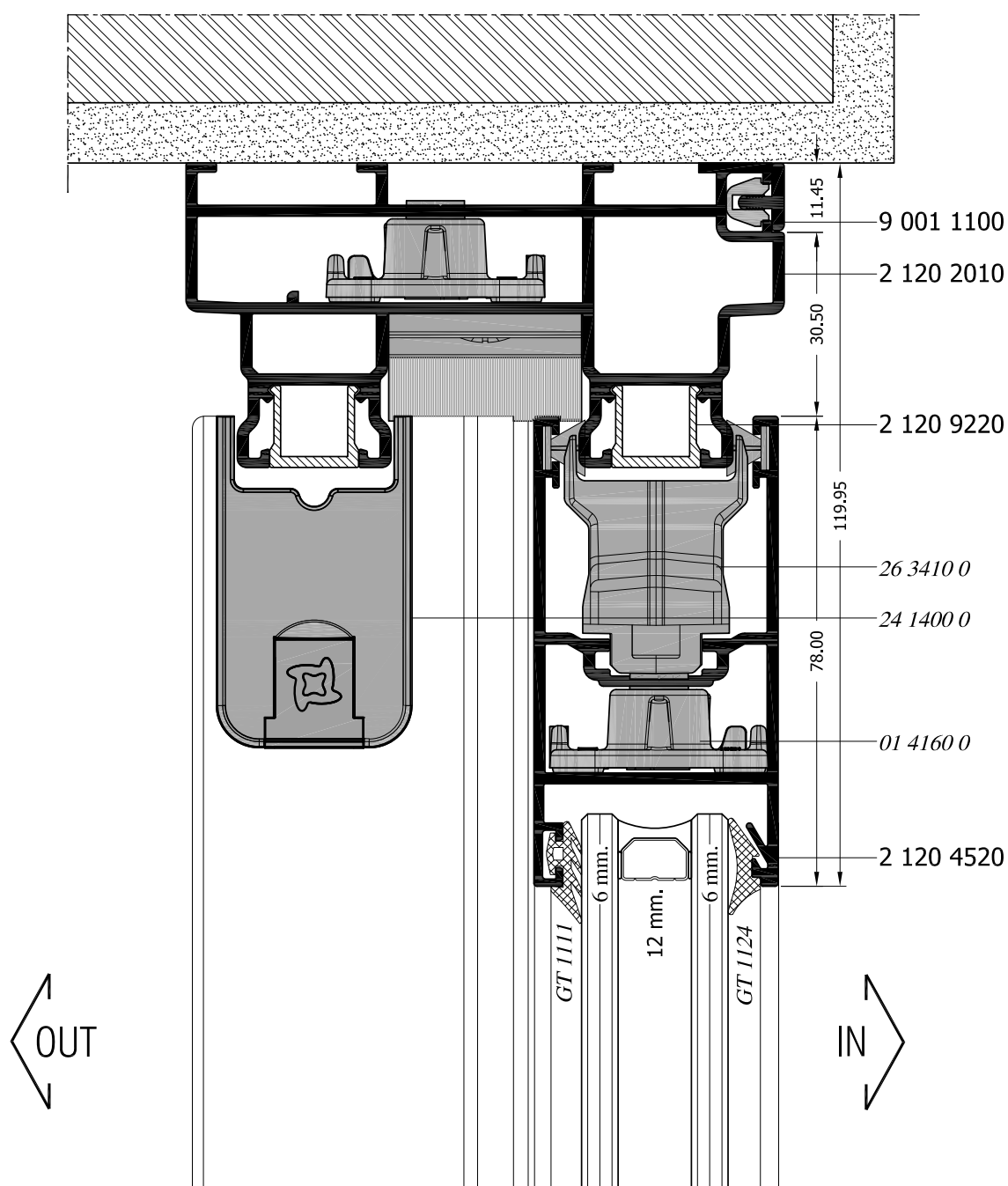


D 1-3

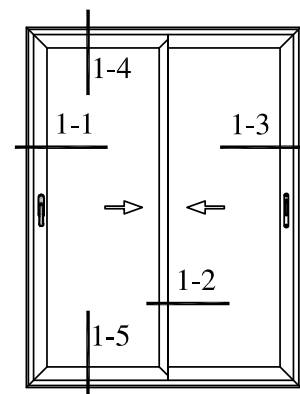
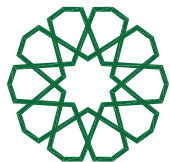




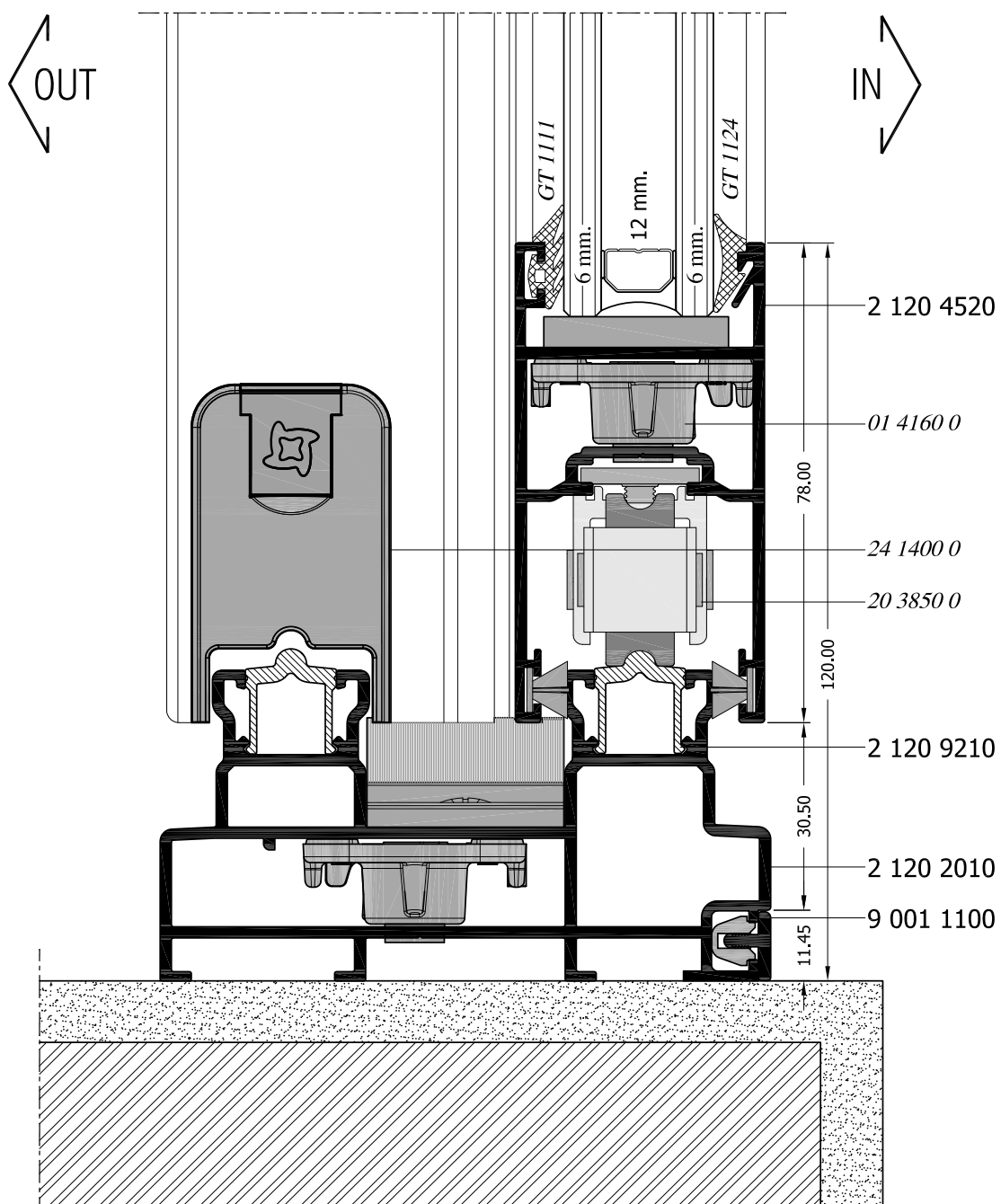
DET. 1



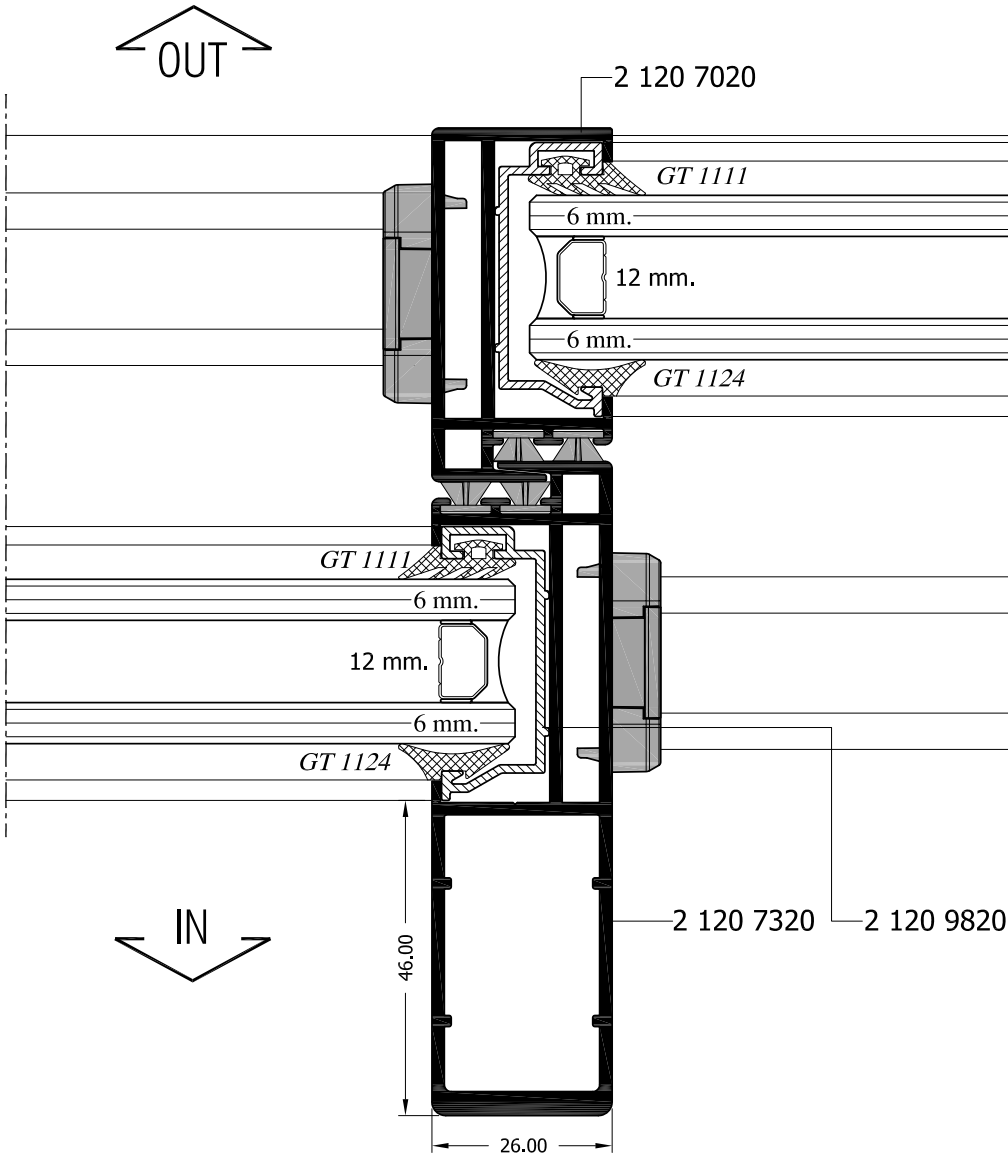
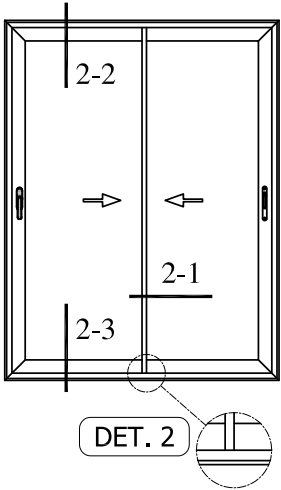
D 1-4



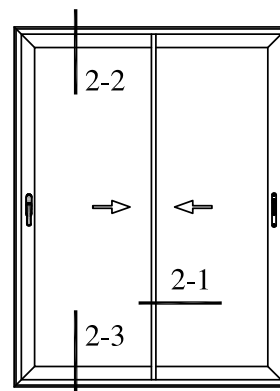
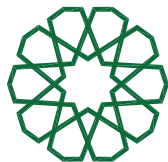
DET. 1



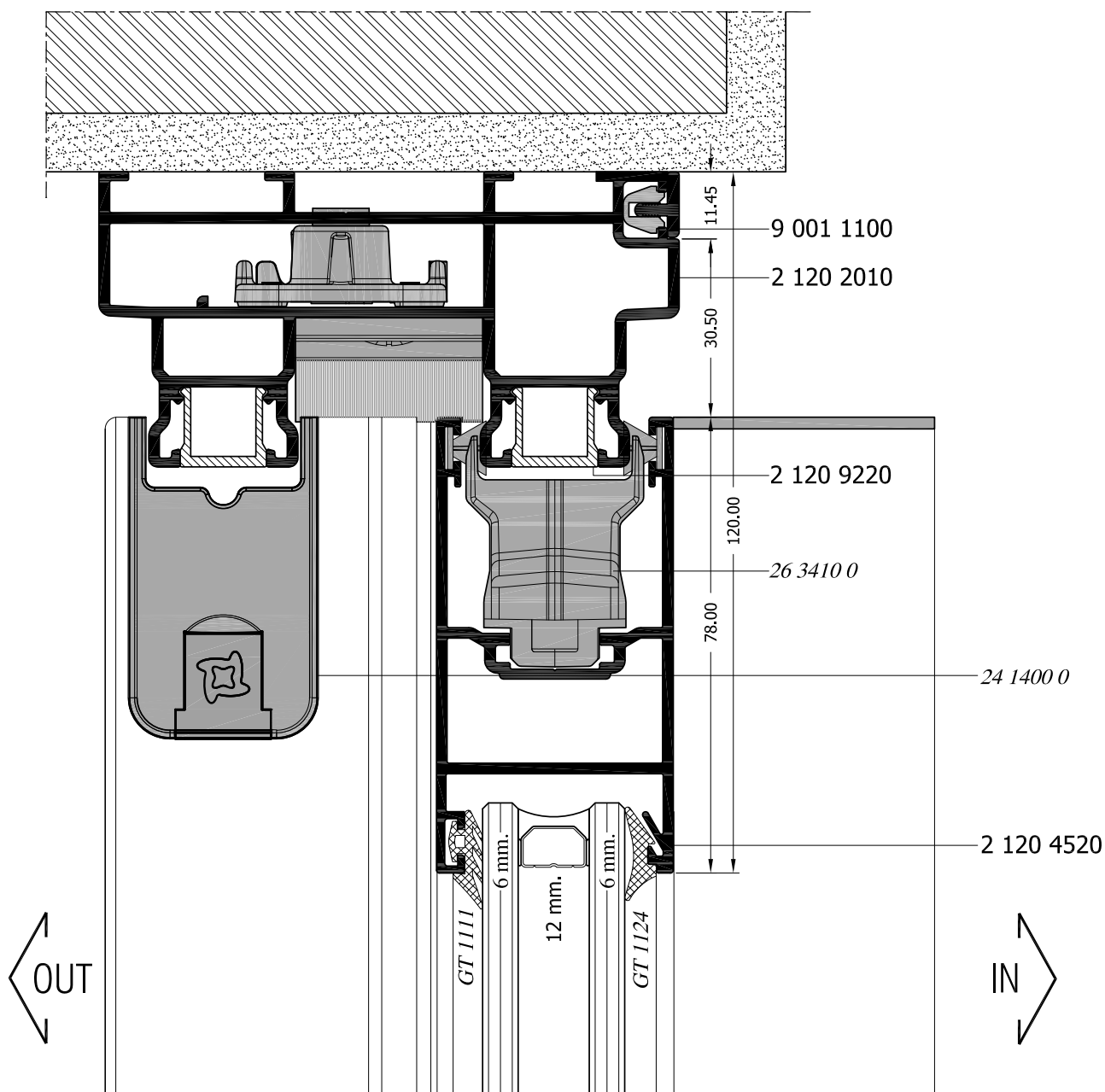
D 1-5



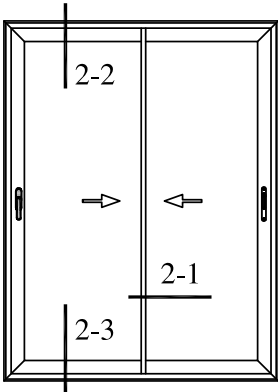
D 2-1



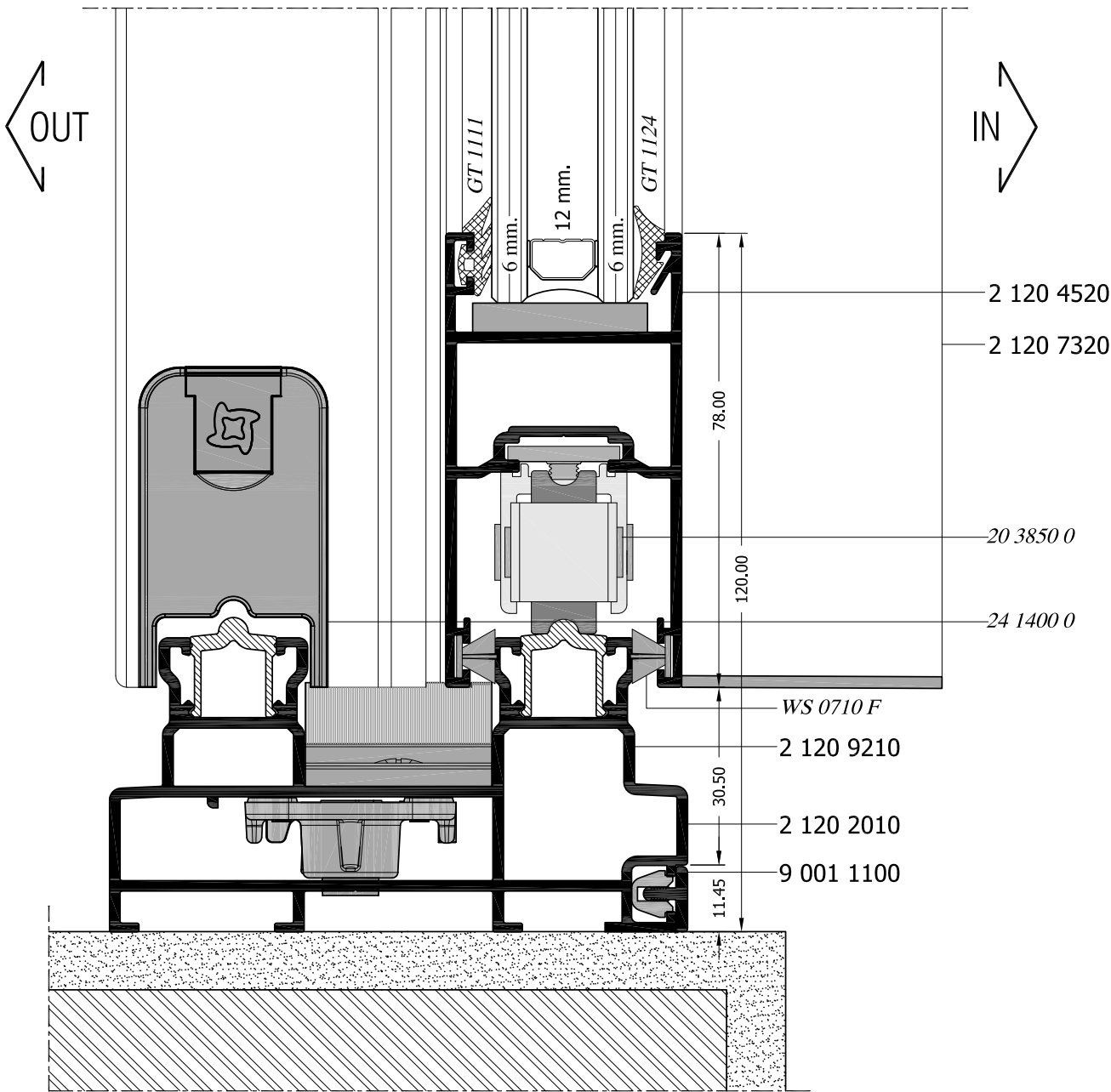
DET. 2



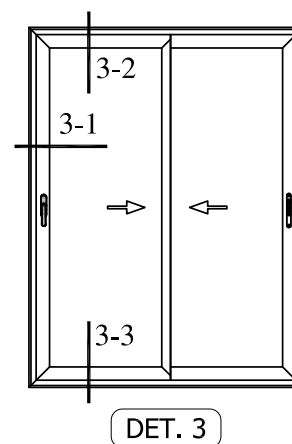
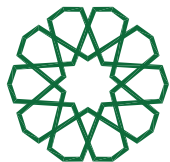
D 2-2



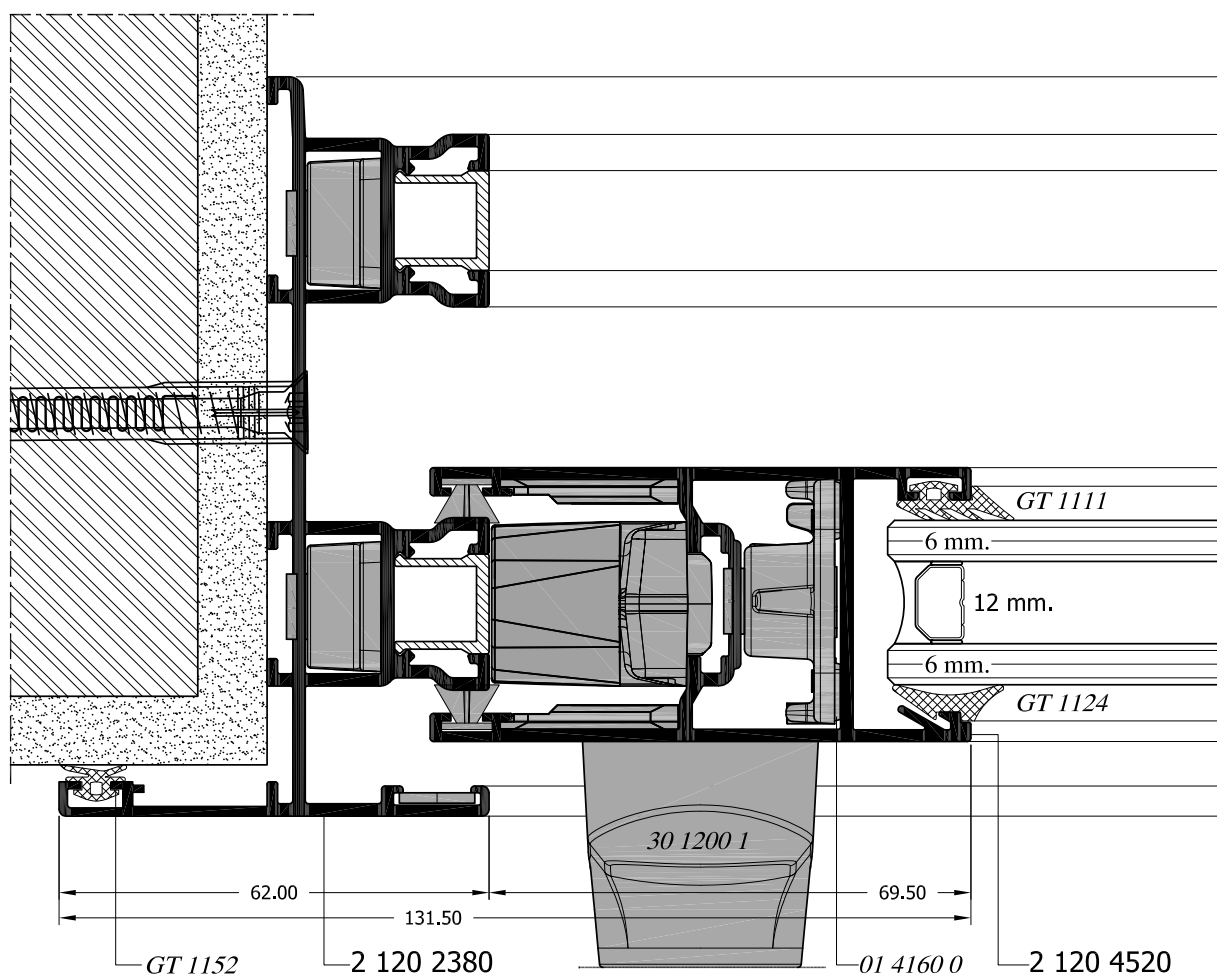
DET. 2



D 2-3

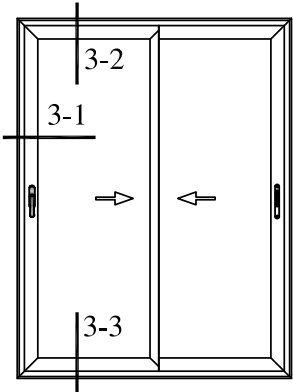


OUT

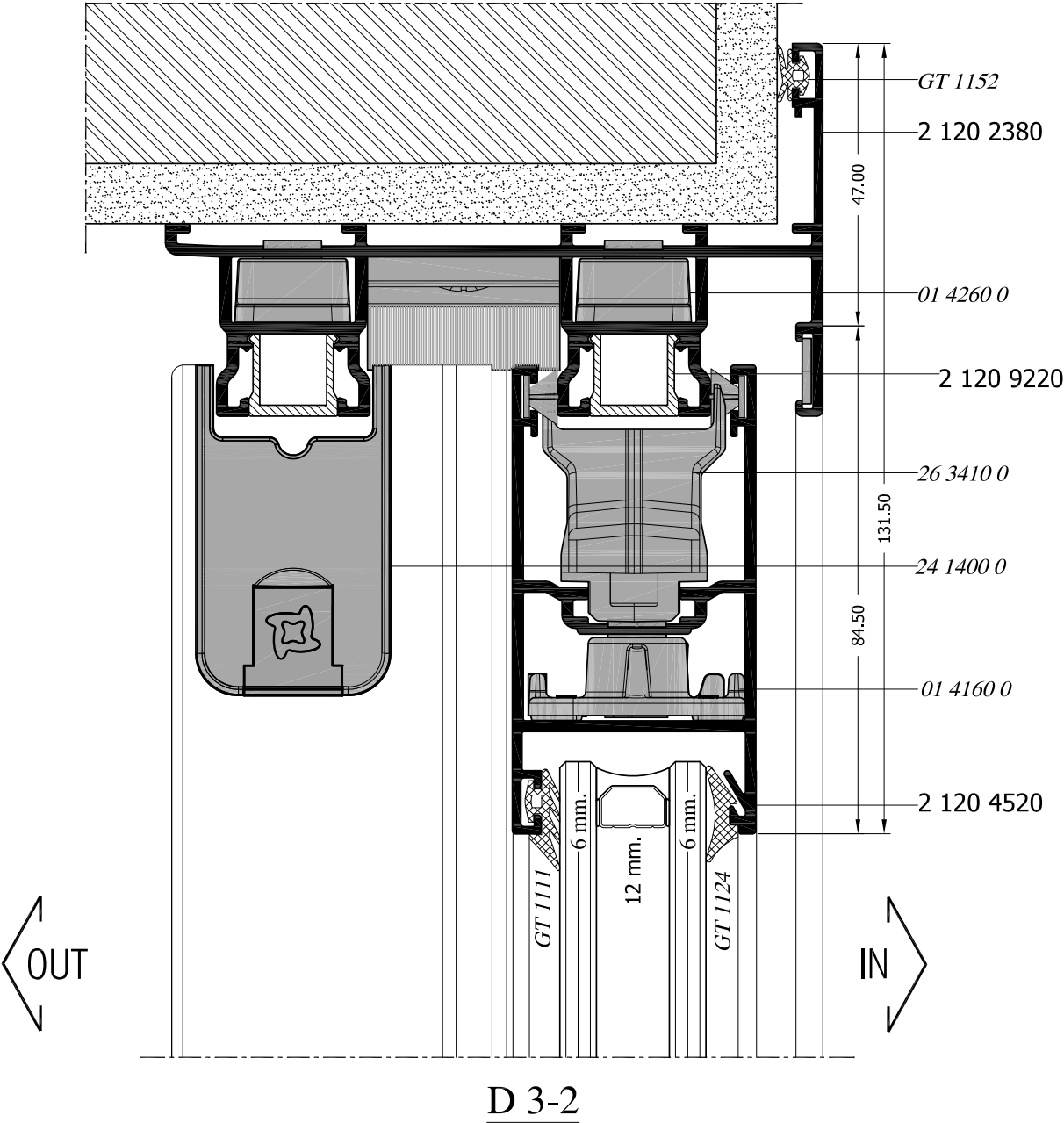


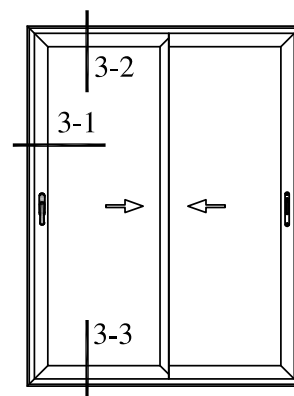
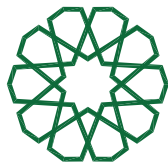
IN

D 3-1

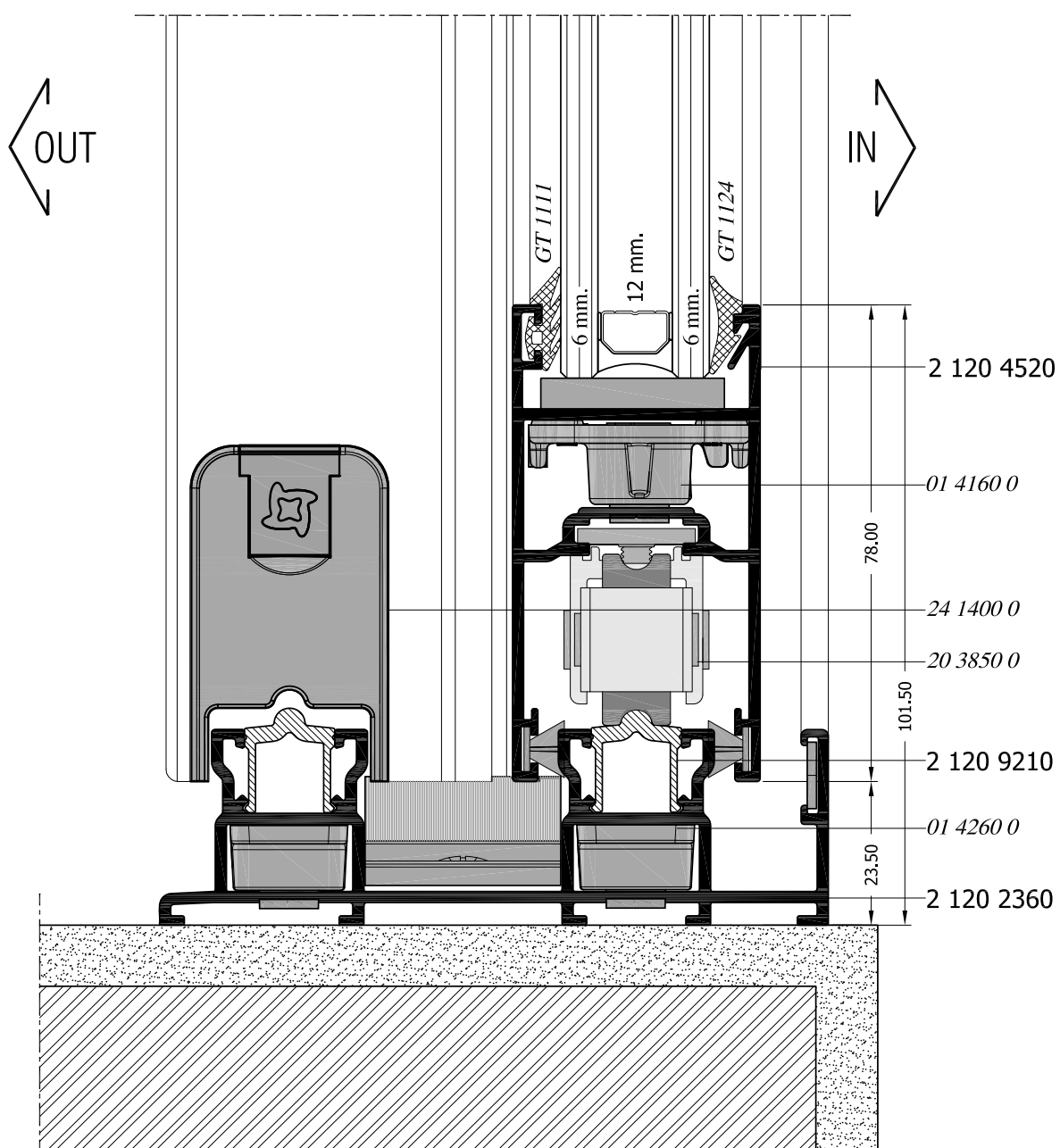


DET. 3

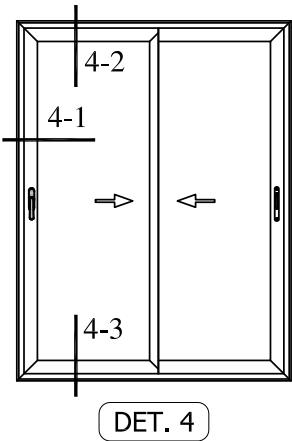




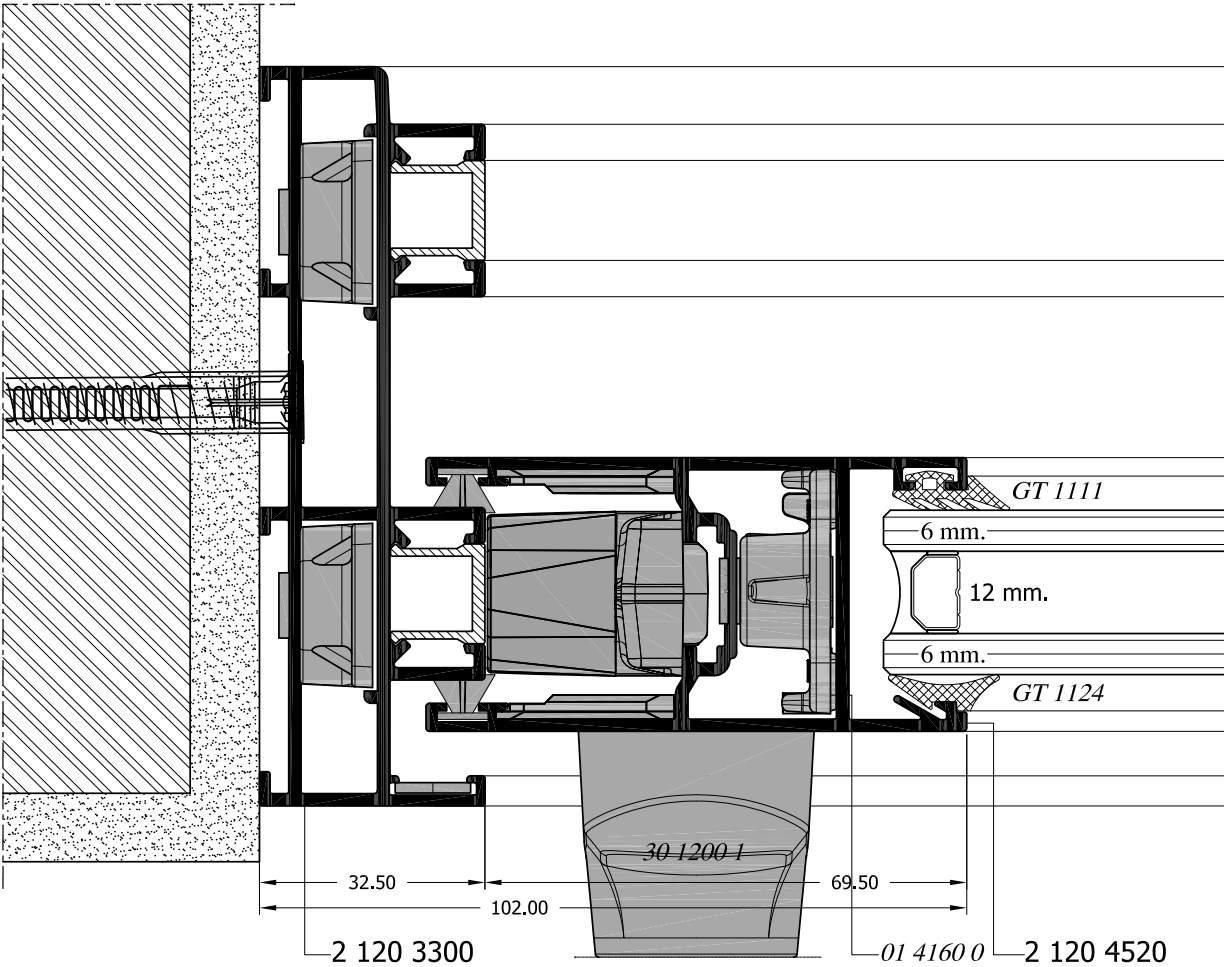
DET. 3



D 3-3

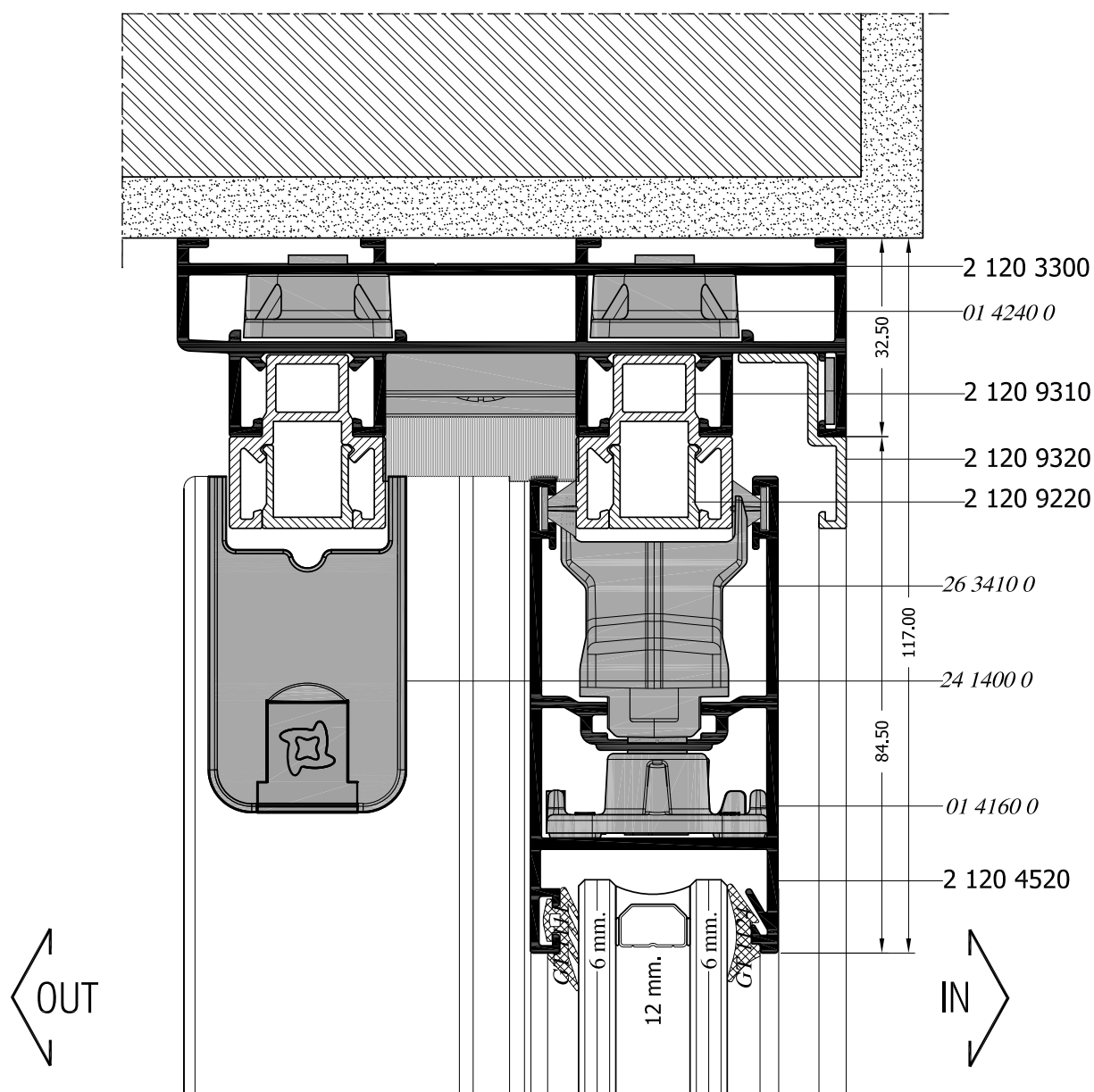
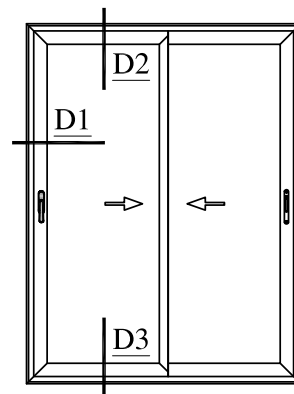
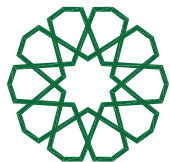


OUT

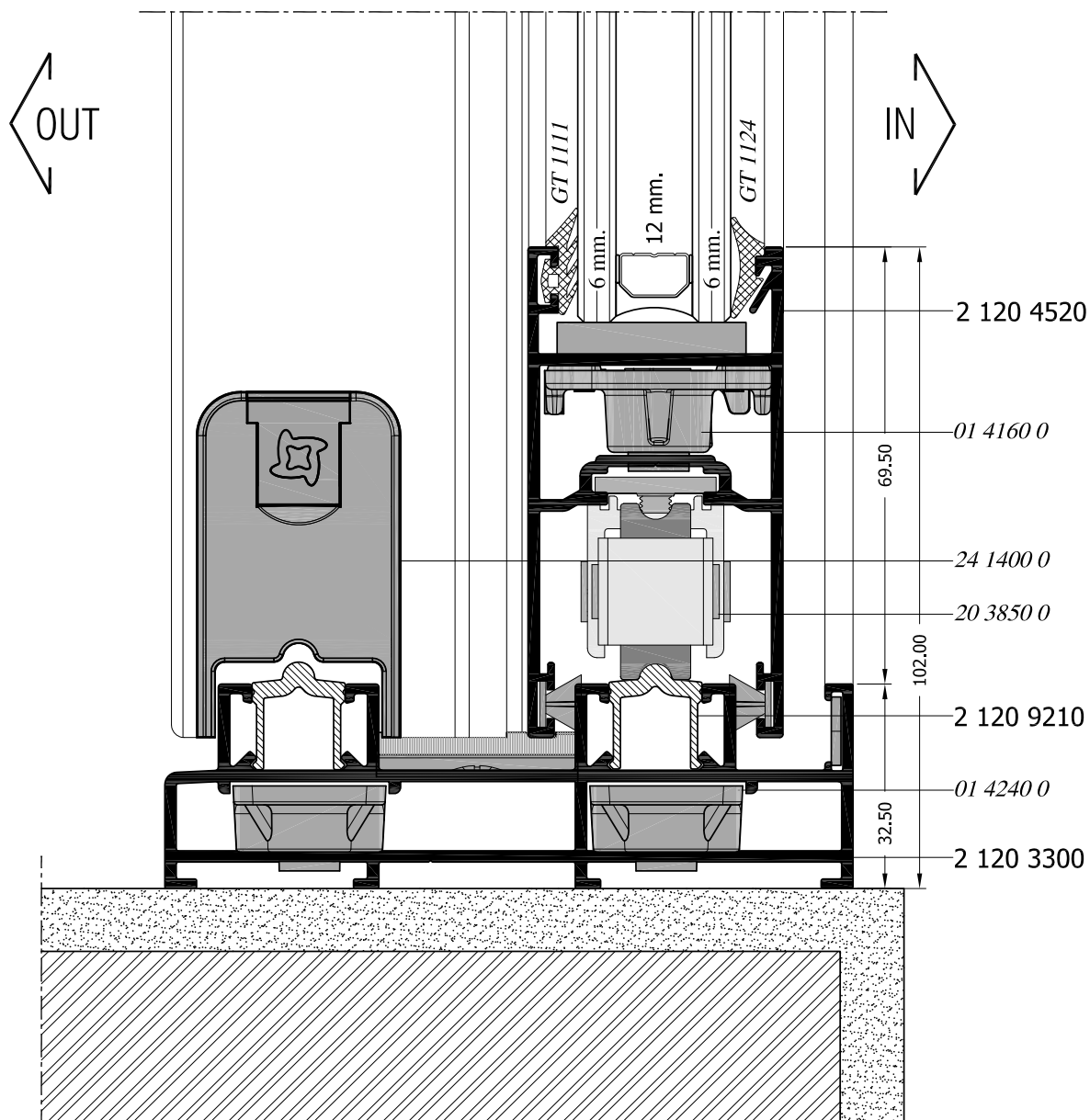
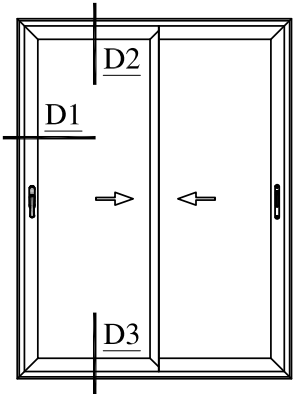


IN

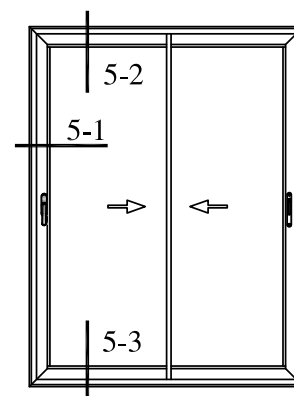
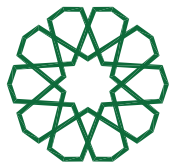
D 4-1



D 4-2

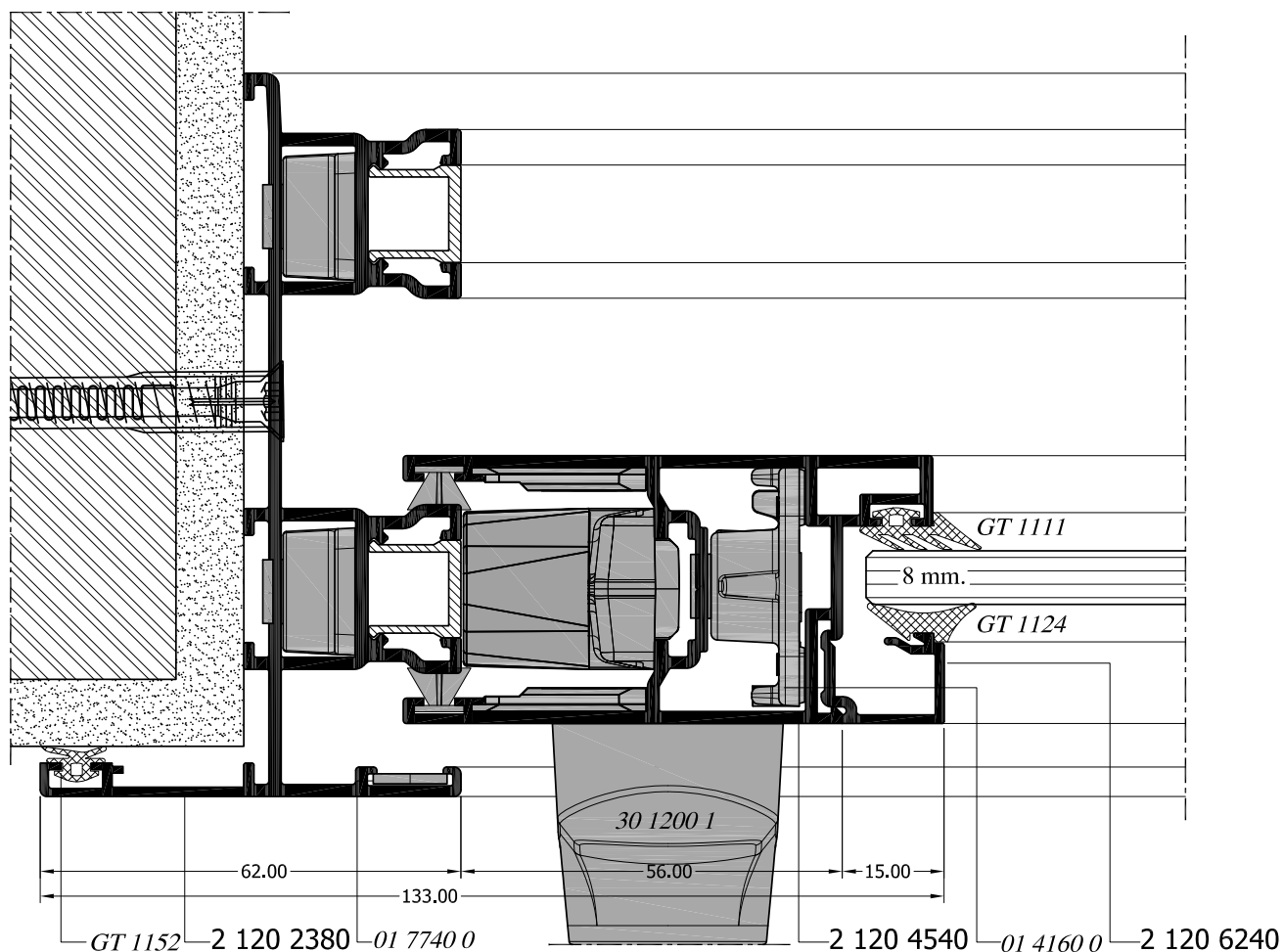


D 4-3



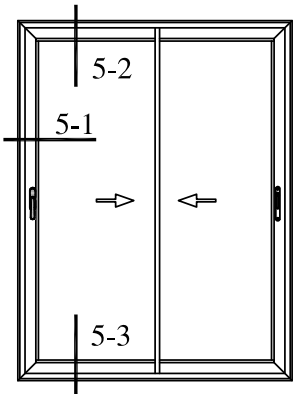
DET. 5

OUT

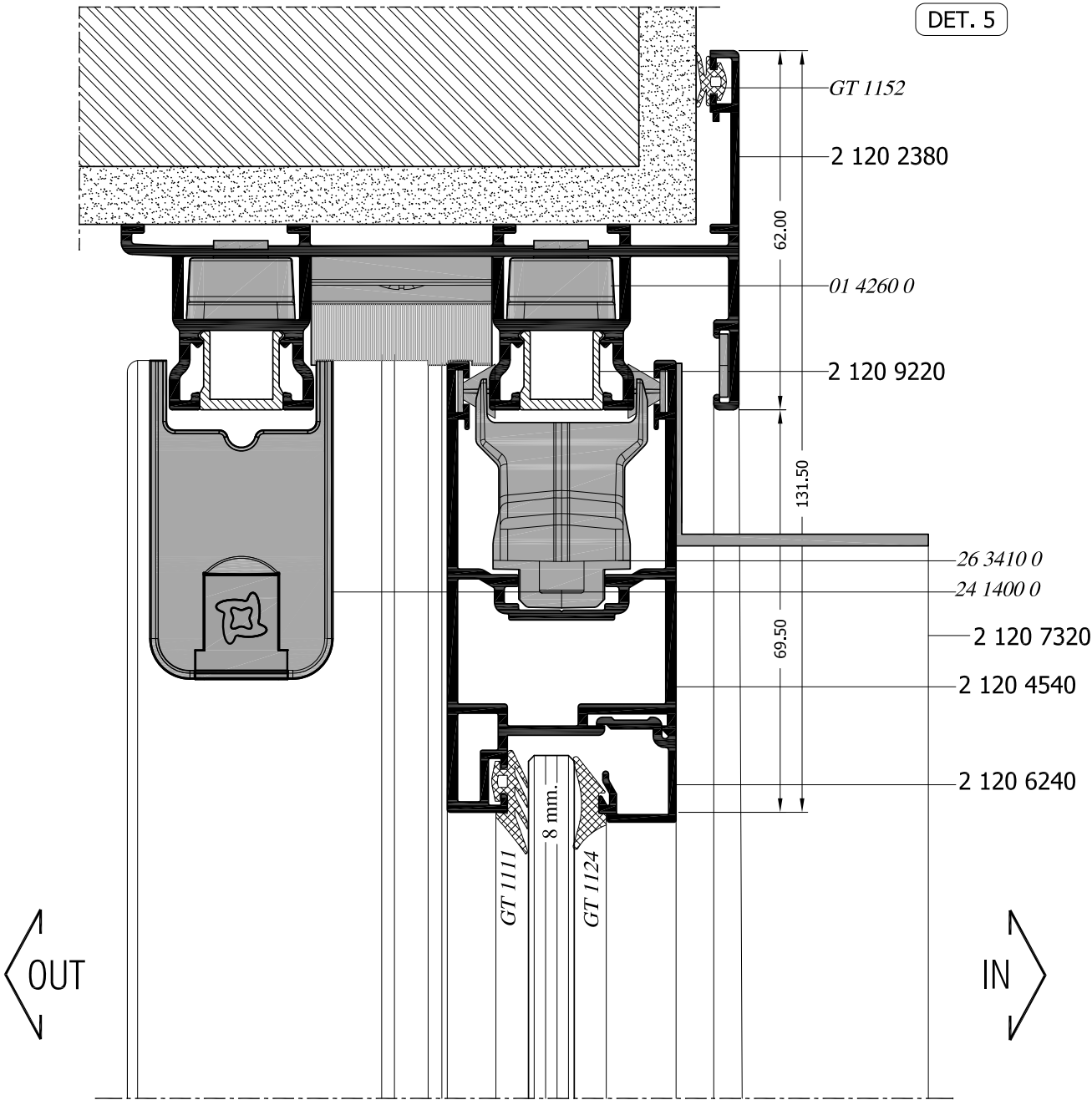


IN

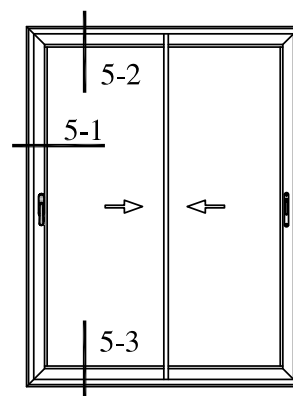
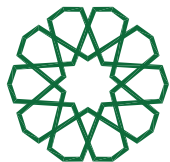
D 5-1



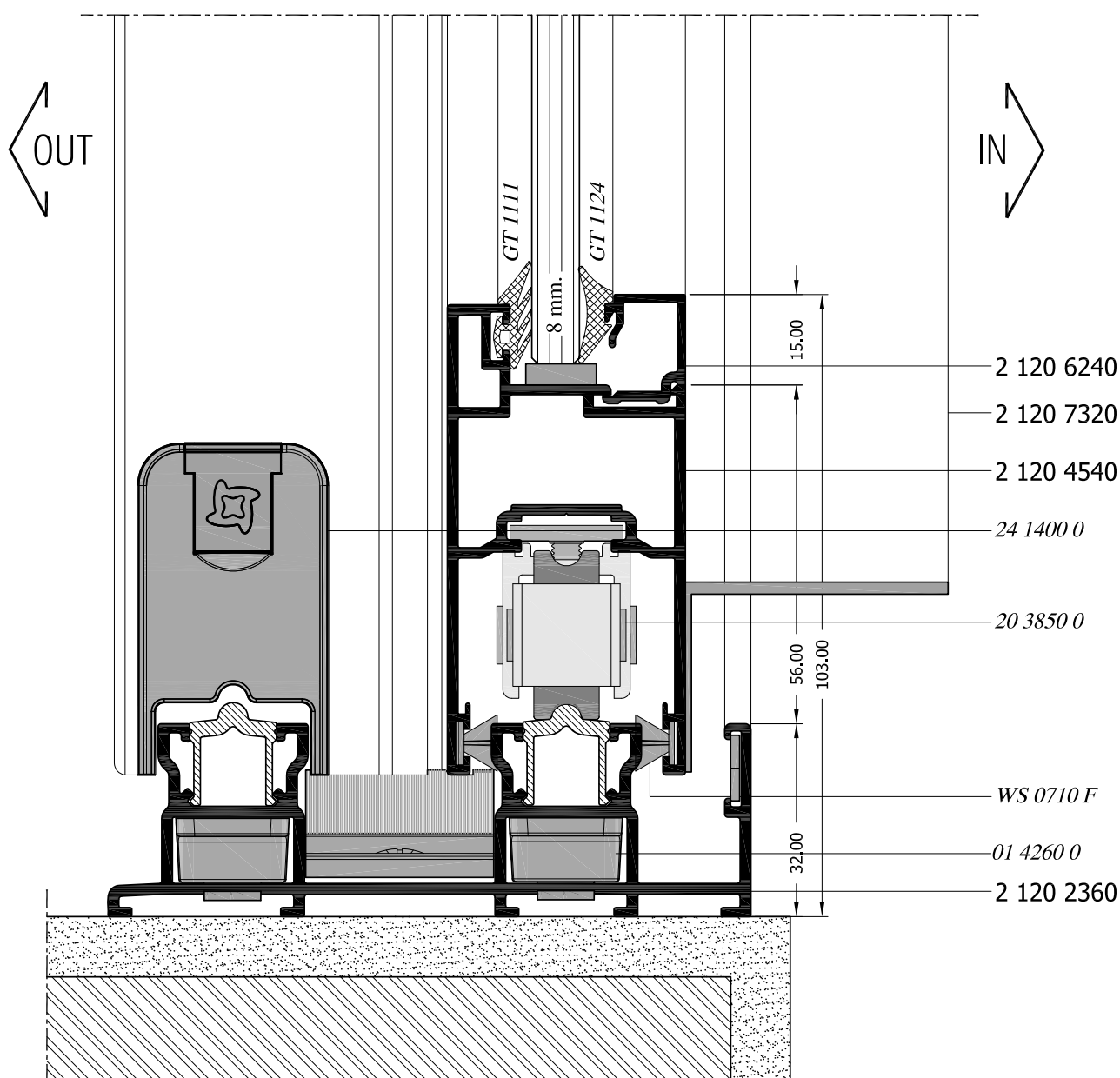
DET. 5



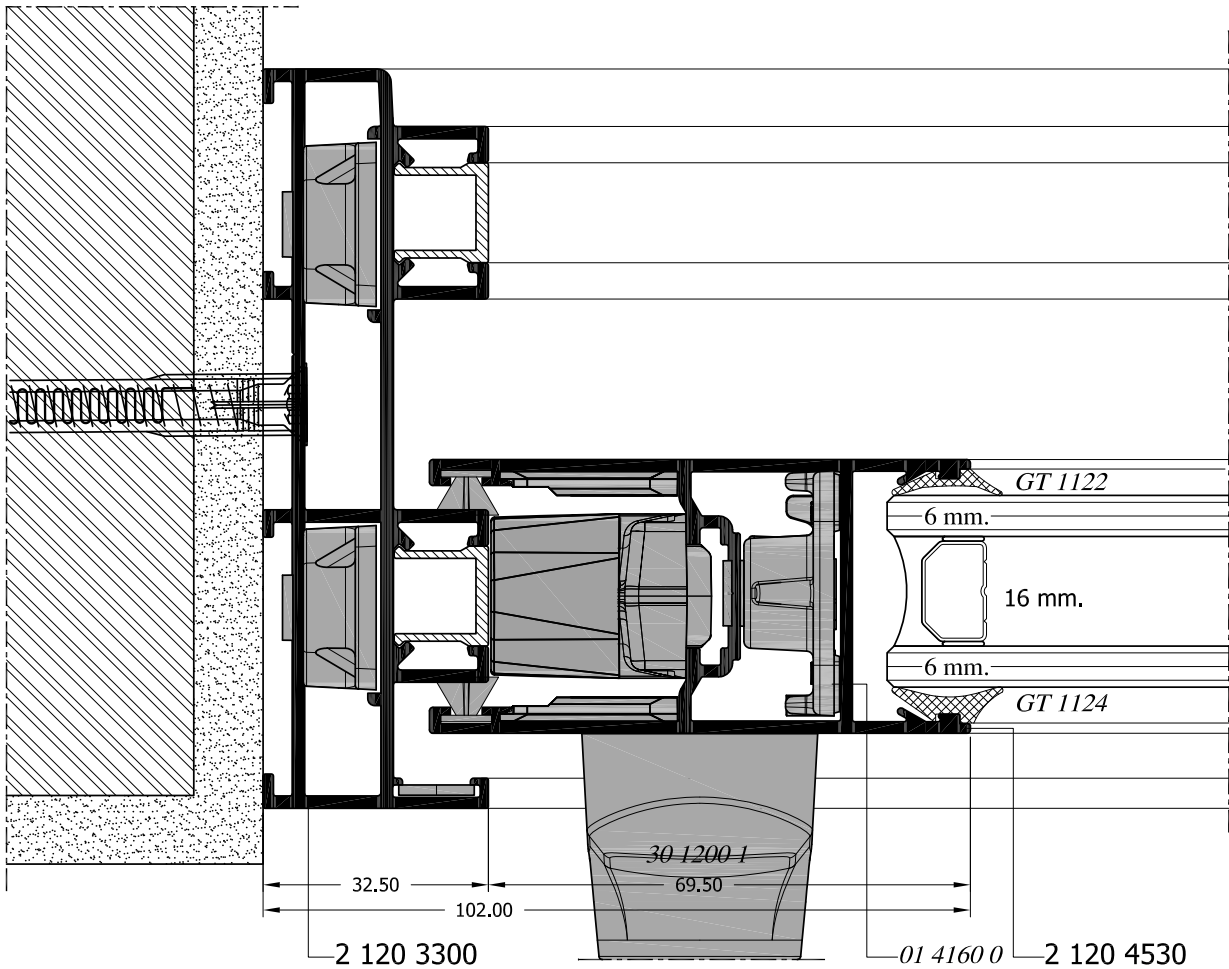
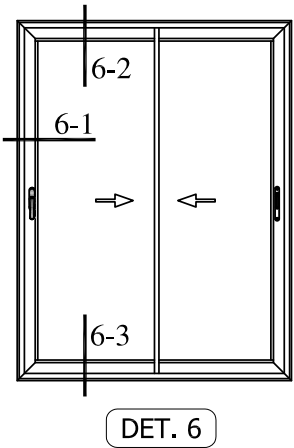
D 5-2



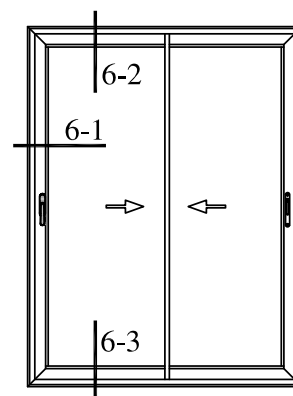
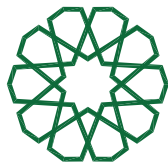
DET. 5



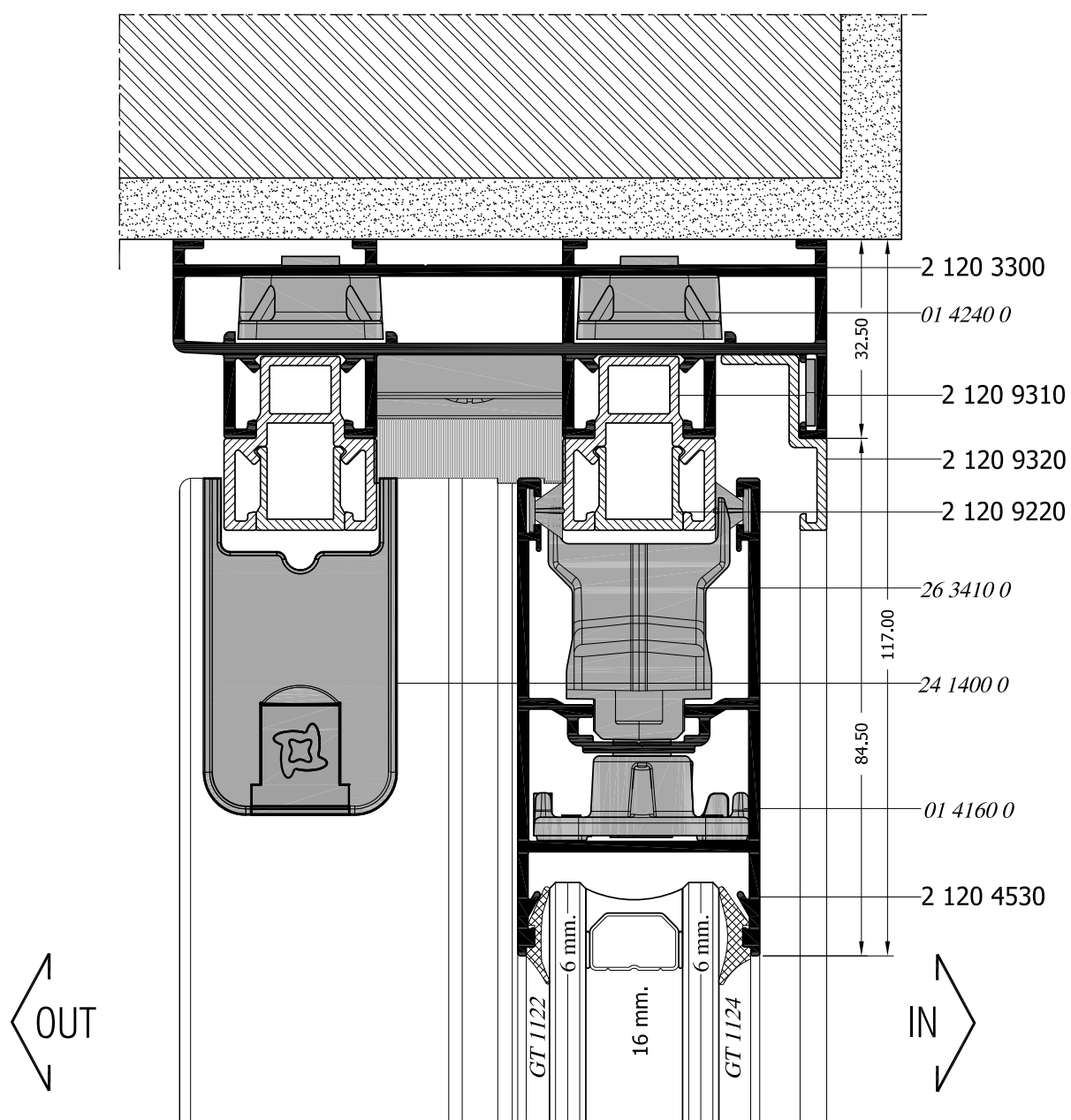
D 5-3



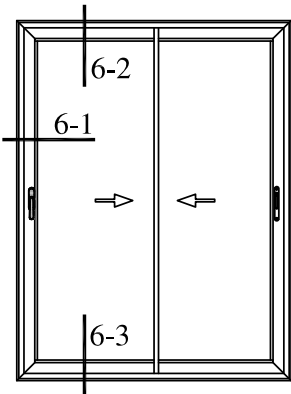
D 6-1



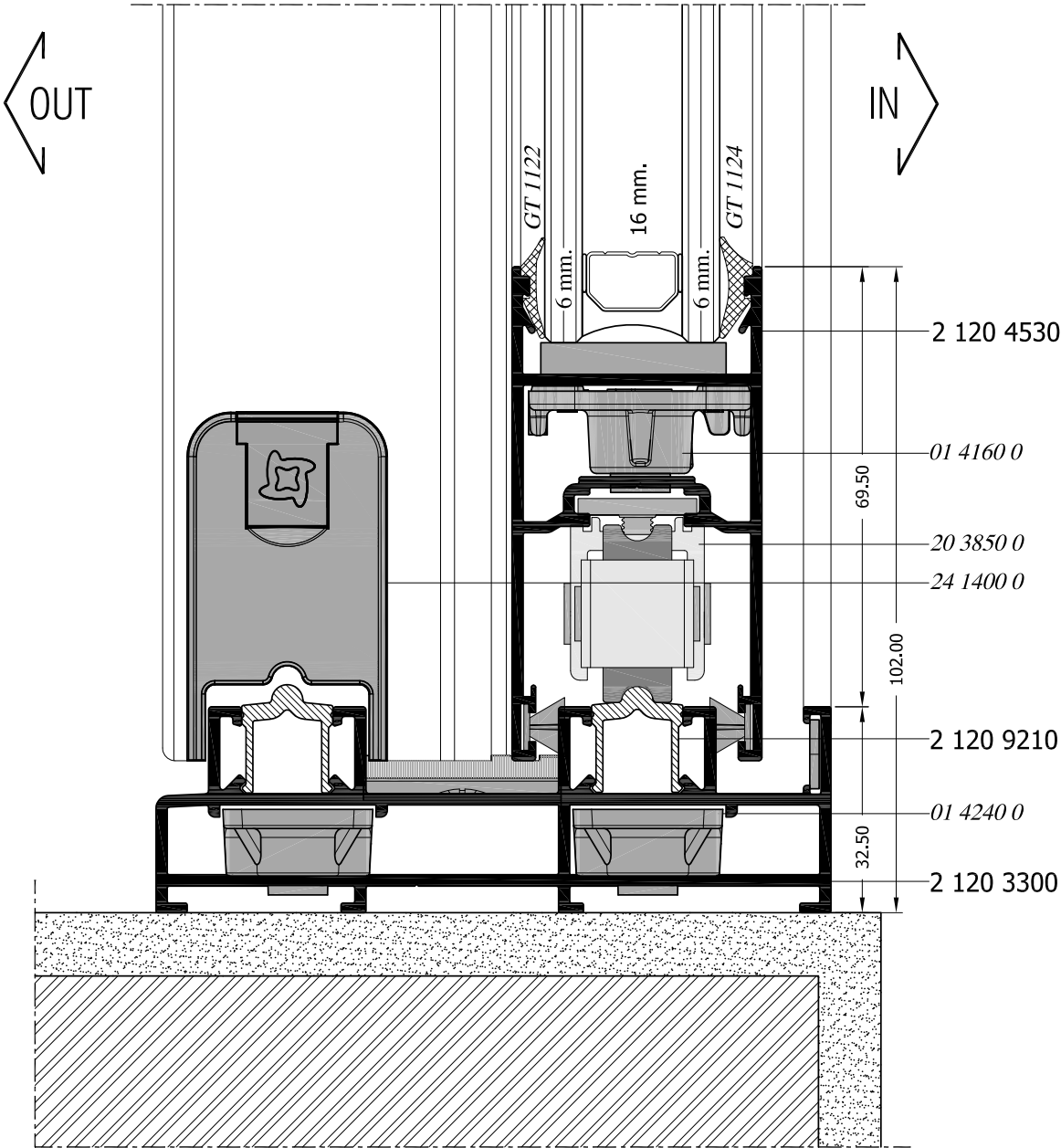
DET. 6



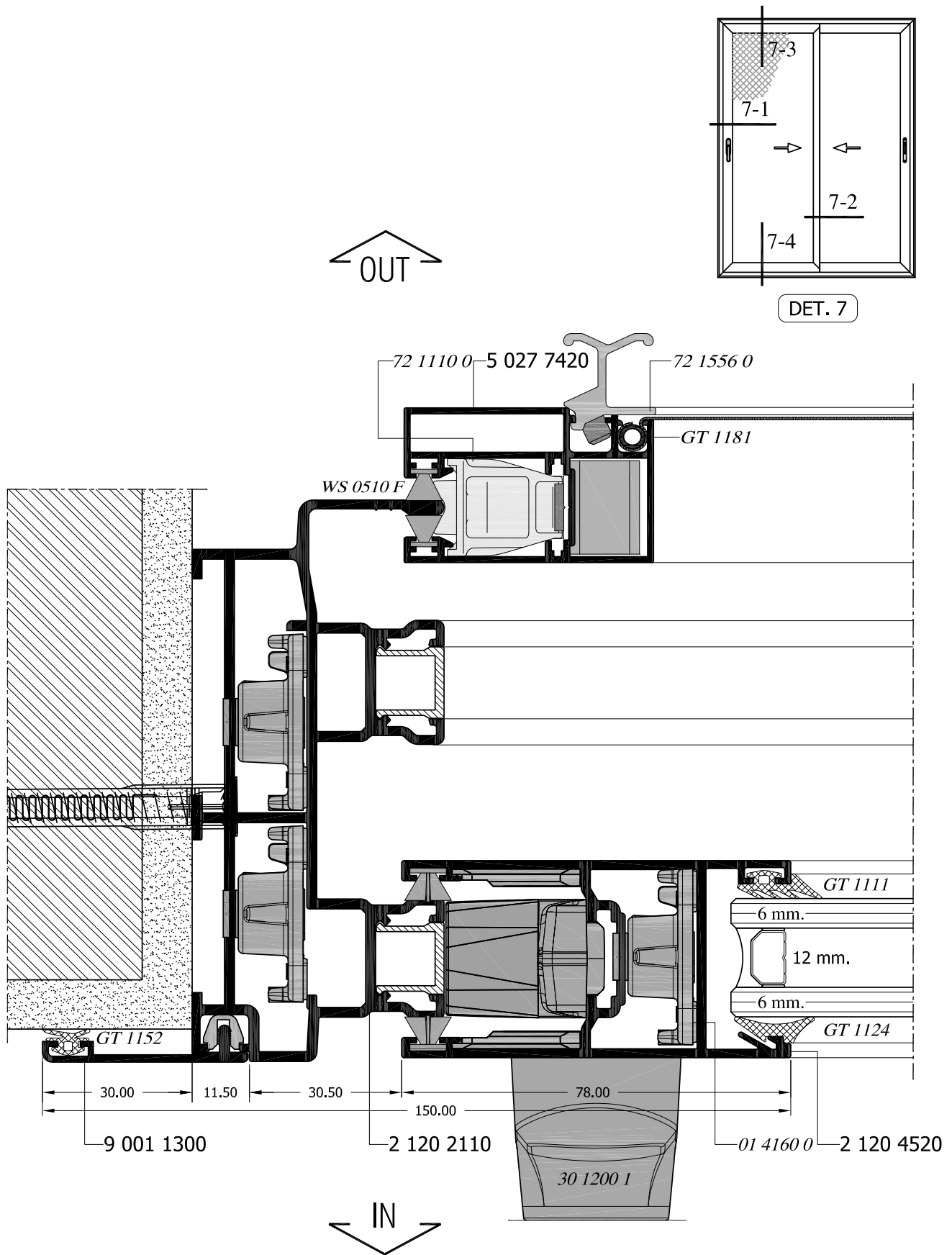
D 6-2



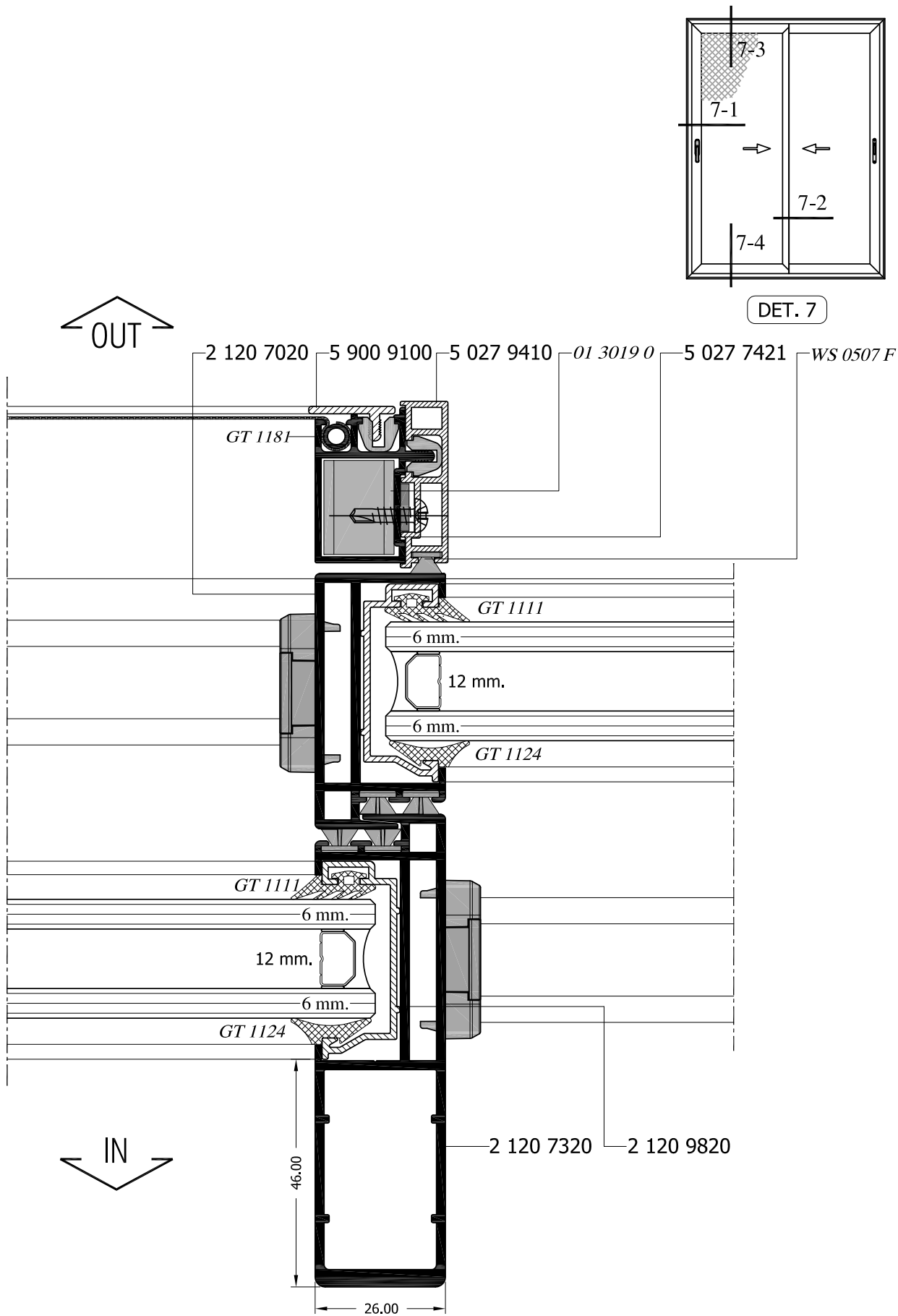
DET. 6



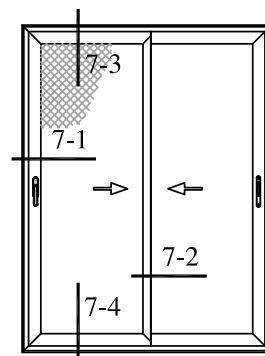
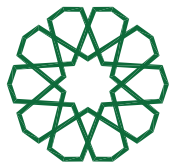
D 6-3



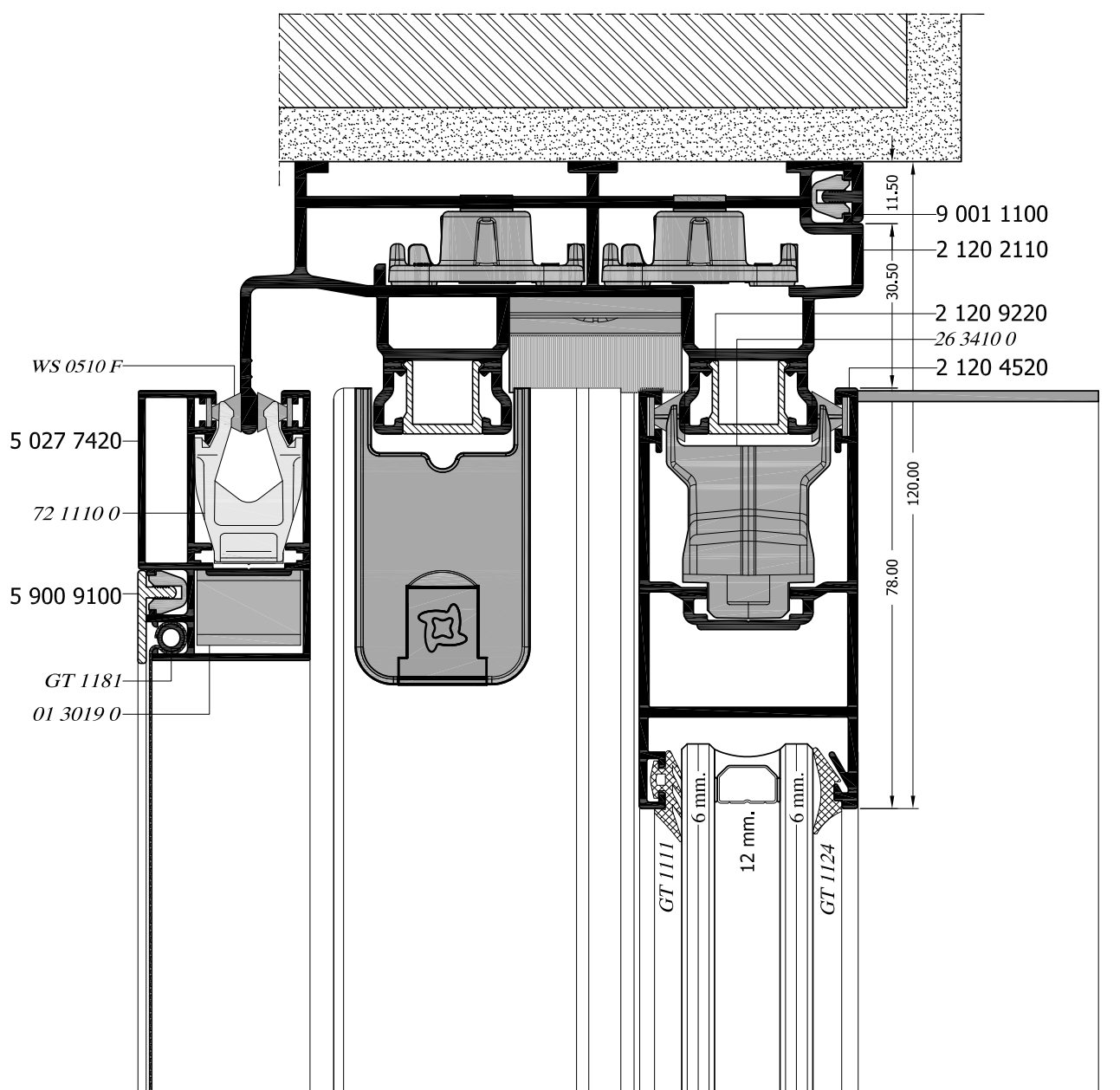
D 7-1



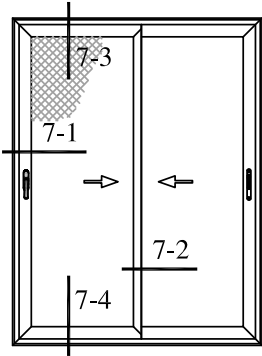
D 7-2



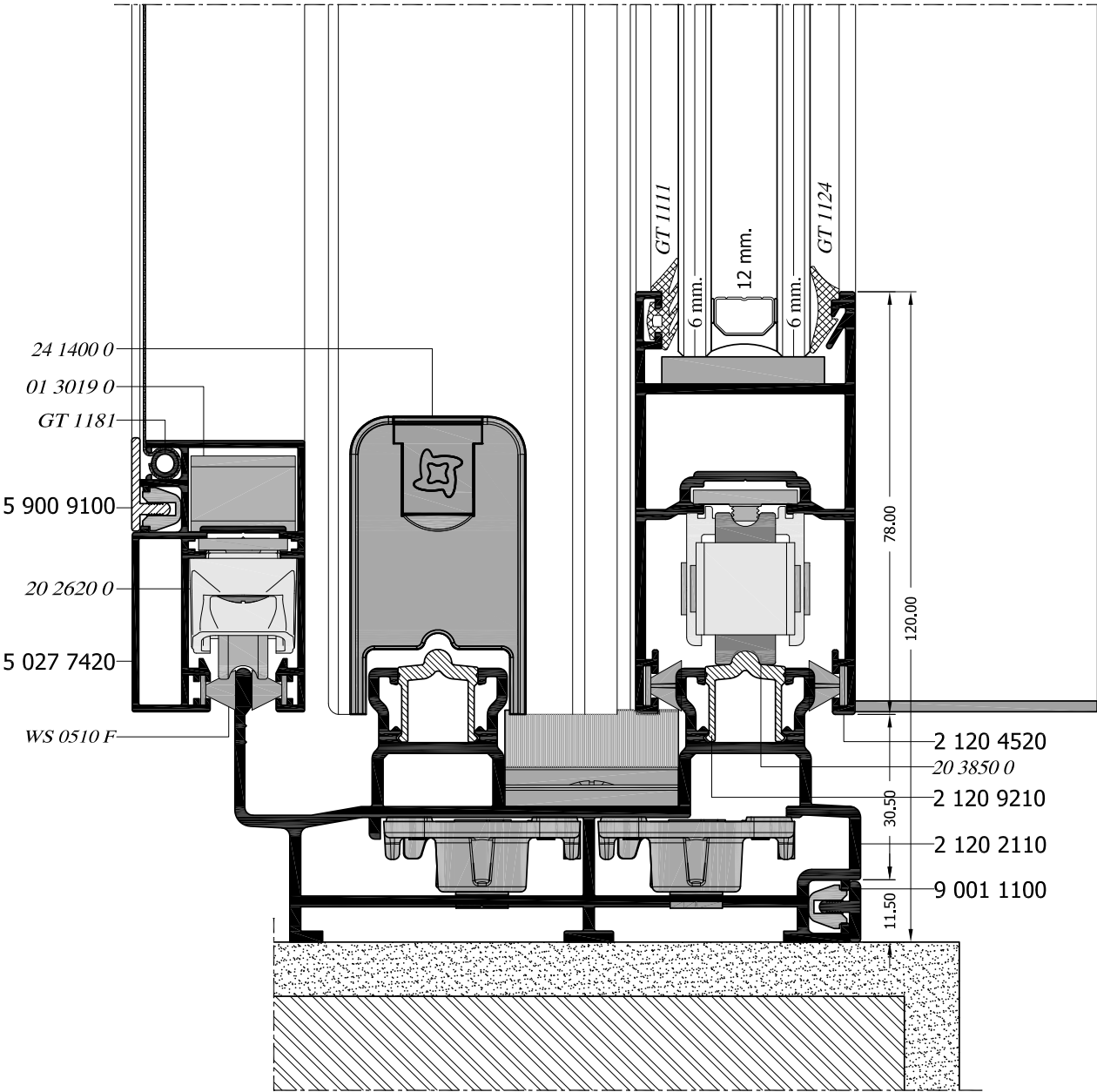
DET. 7



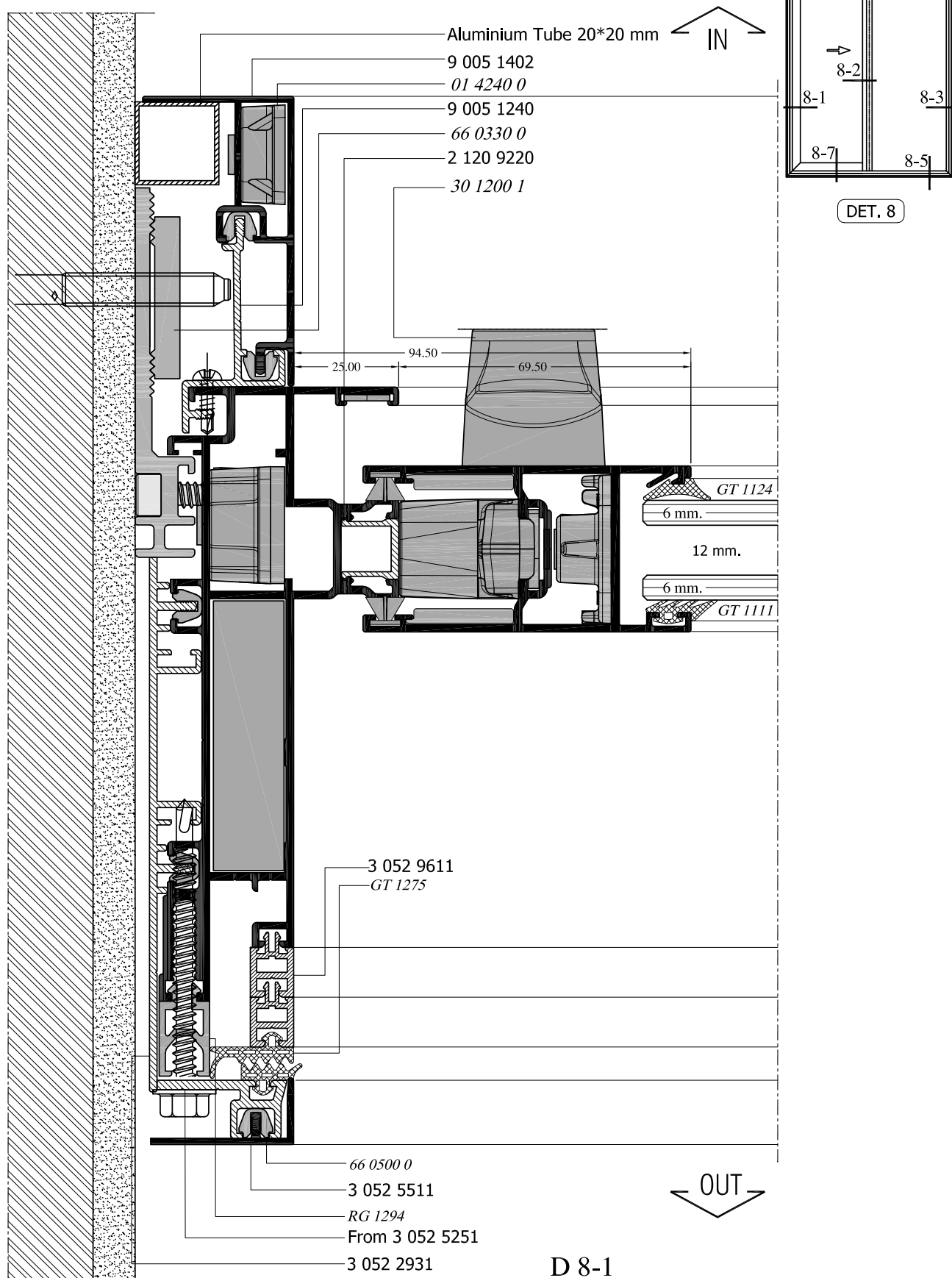
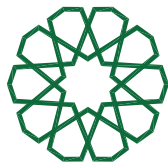
D 7-3

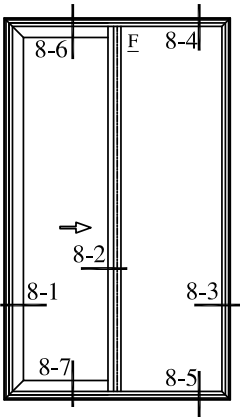
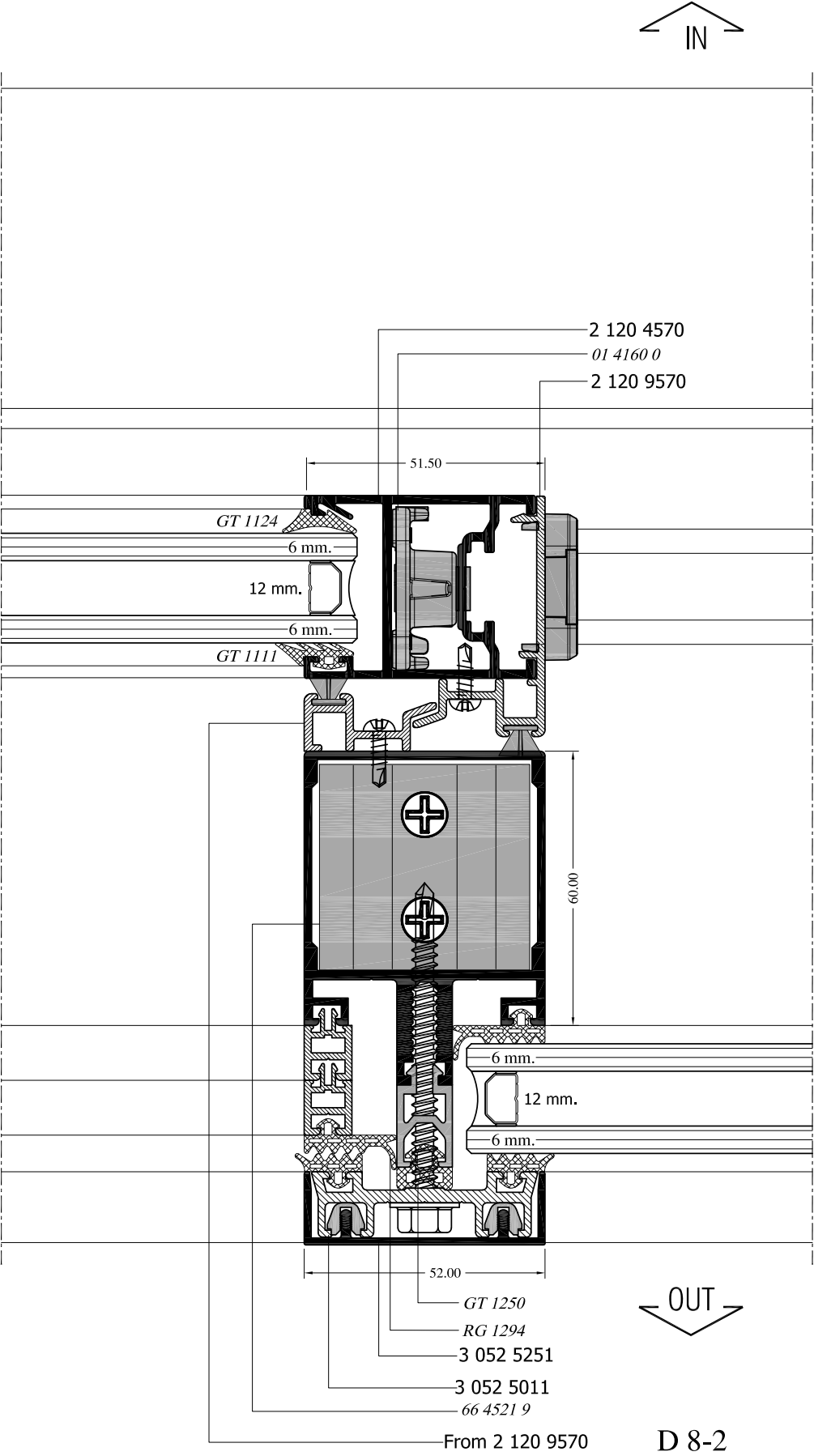


DET. 7



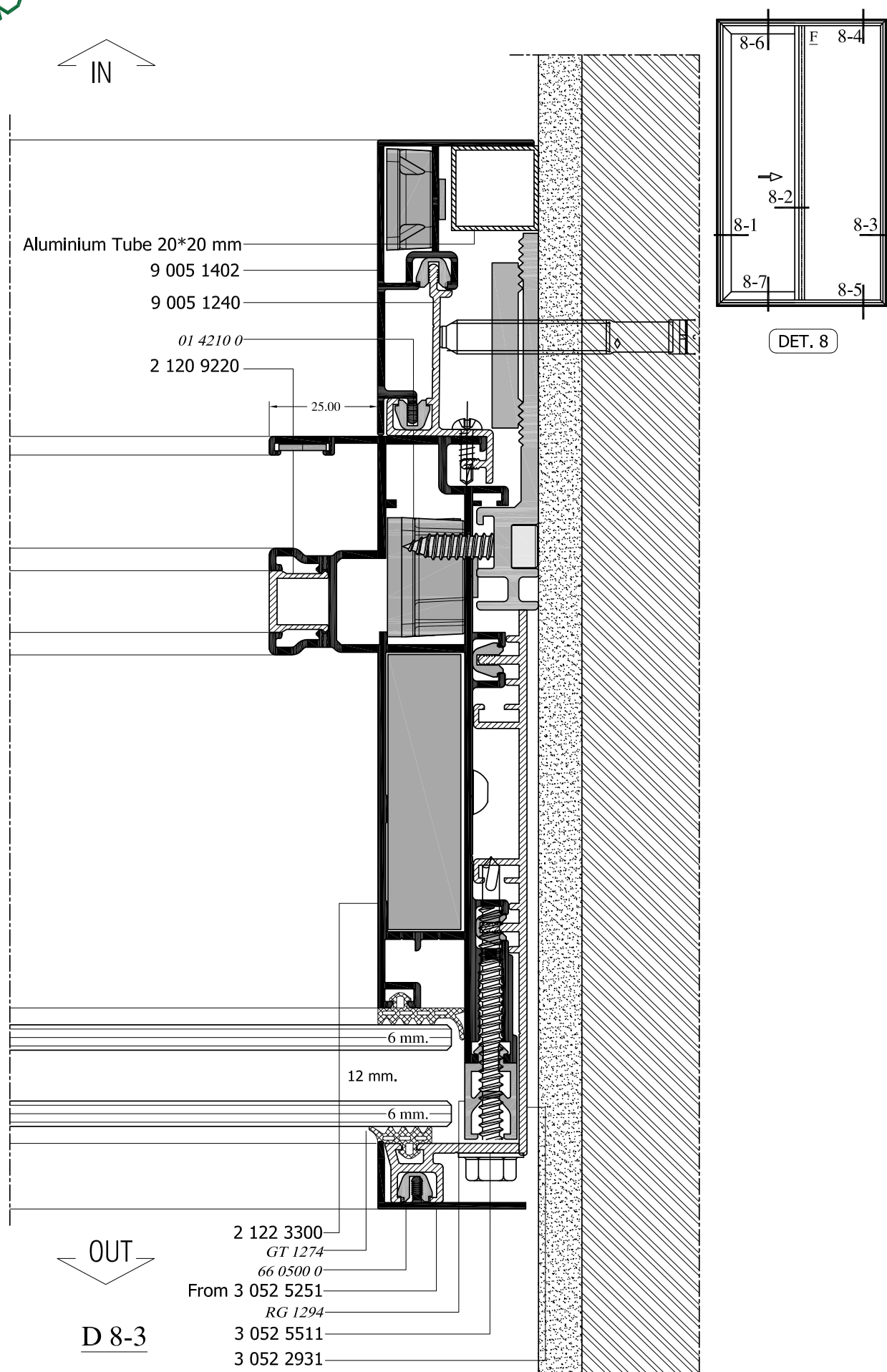
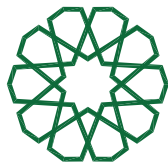
D 7-4

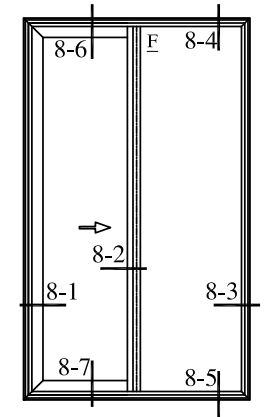
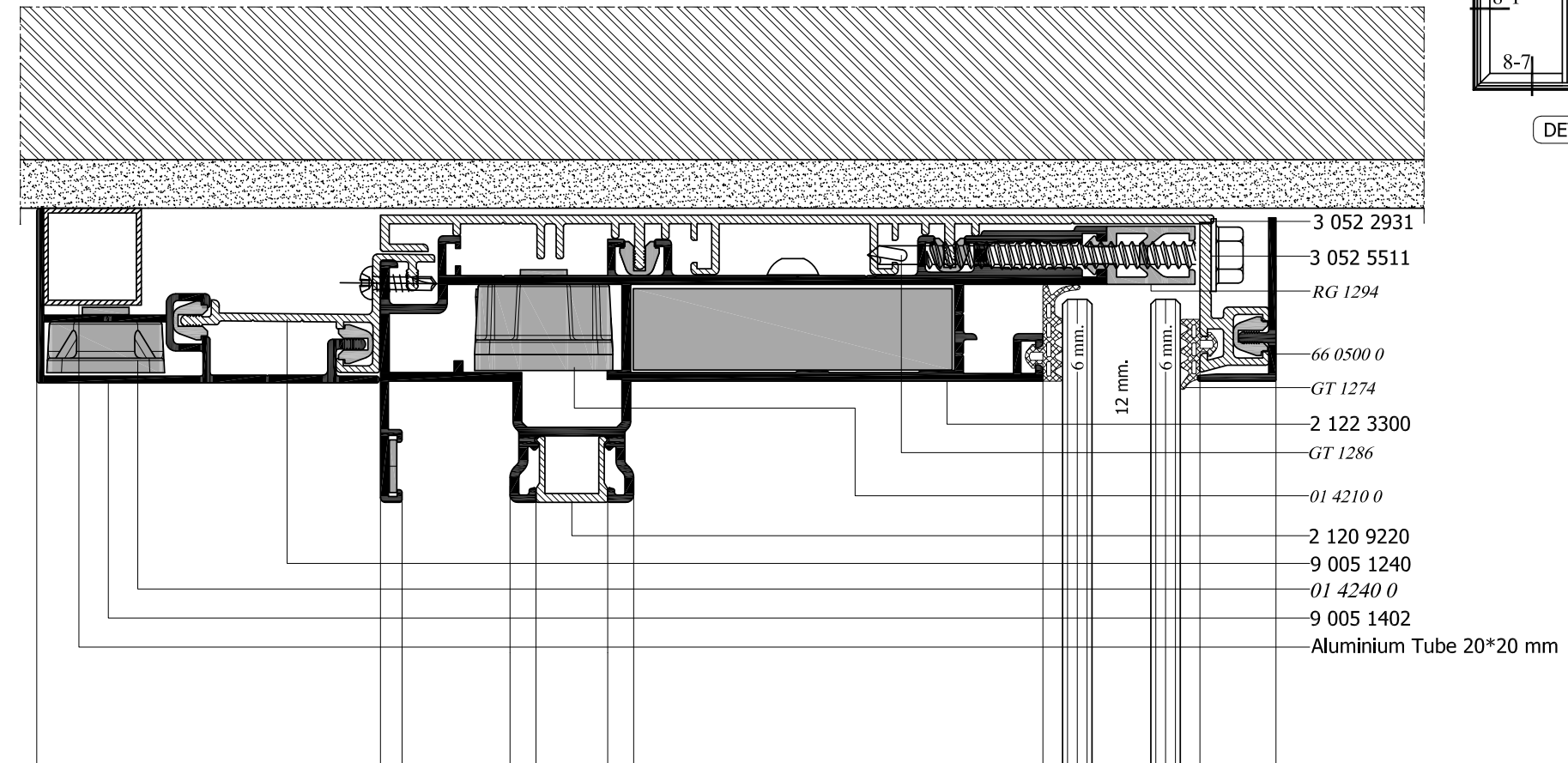
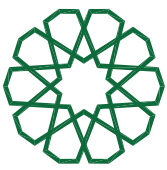




DET. 8

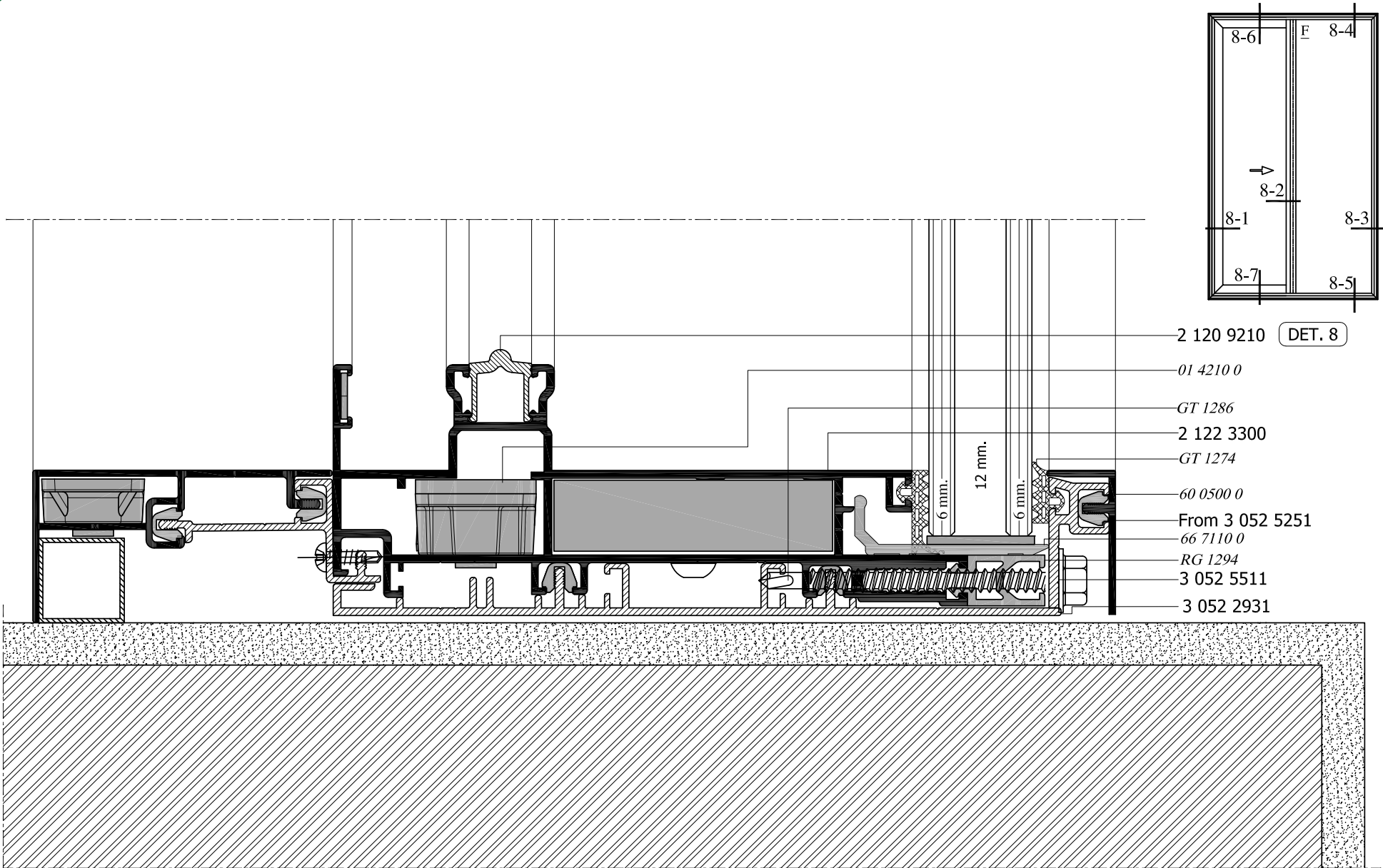
D 8-2



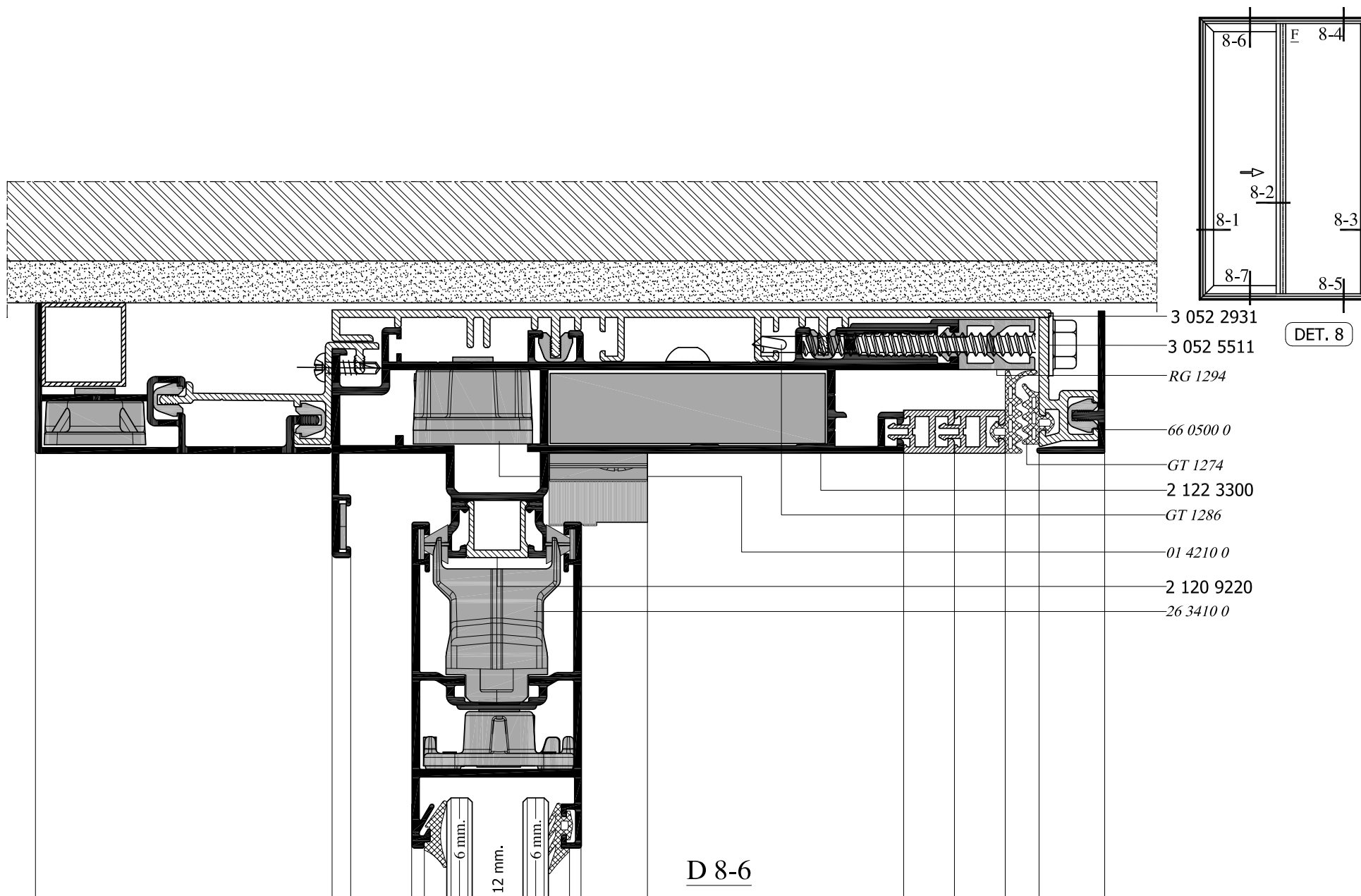


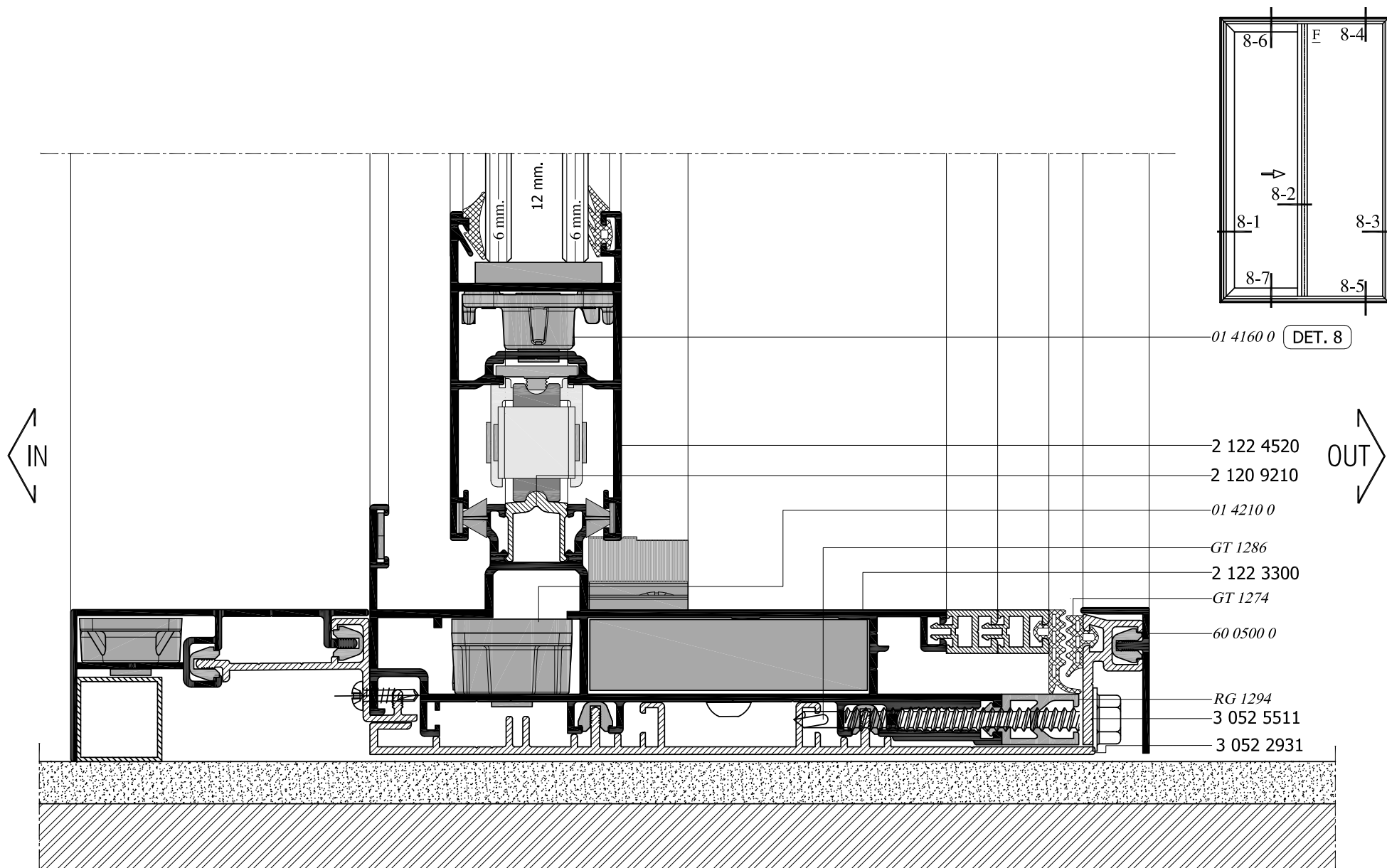
DET. 8

D 8-4



D 8-5





D 8-7

All profiles are registered as the property of

Machines & Aluminium Center -2026

122, Mohiy Al-Din Abu Al-Ezz st. , Dokki , Giza. P.O Box: 329 Dokki 12411

Tel: 20 (2) 33363658 - 33363657 - 33360568+ Fax: +20 (2) 33356237

Email: info@machalum.com

