

QALEX

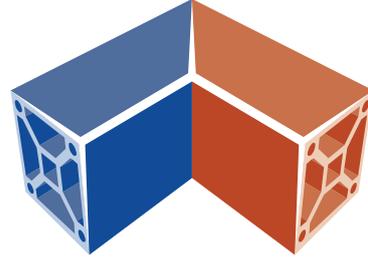
الشركة القطرية لسحب الألمنيوم

QATAR ALUMINIUM EXTRUSION CO.

REINDEER SLIDING SYSTEM

**QALEX SYSTEM
TECHNICAL CATALOGUE**

QATAR ALUMINIUM EXTRUSION COMPANY



QALEX

الشركة القطرية لسحب الألمنيوم

QATAR ALUMINIUM EXTRUSION CO.

REINDEER SLIDING SYSTEM

QALEX SYSTEM TECHNICAL CATALOGUE

P.O. Box: 201698, New Industrial Area, Area No. 81, Street No. 12,
Gate No.132, Pink Zone, Doha - Qatar.
Phone: (+974) 44 333 555/541/540, Fax: (+974) 44 333 500,
Mail: info@qalex.com.qa
www.qalex.com.qa

COMPANY PROFILE



QALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

REINDEER



COMPANY PROFILE:

Qatar Aluminium Extrusion Company is the brainchild of QIMC (Qatar industrial Manufacturing company) jointly hosted along with other business tycoons of Qatar, viz. Salam International Investment Ltd, Alutec, Qatar Real Estate Investment Co., Aluminium Gulf Ray, Qatar Oman Investment Co. & Qatar Belgium Aluminium Co.

Multi Million project proudly designed and built with state of art technology plant & equipment majestically located at the pink zone of new industrial area. The plot of 28,000 sq mtrs aesthetically landscaped and engulfing a steel structure of 13,000 sq mtrs which houses modern extrusion production facilities.

CAPABILITIES & FACILITIES:

We are equipped with the following world class equipment.

- Japan origin 2250 MT Extrusion Press with 4S (Stem Shift Short Stroke) technology with an annual capacity of 8,000 MT to 10,000 MT.
- US origin Hot Log Shear which allows to reduce both material inventory and scrap generation because it cuts the billets to correct length as needed targeting maximum yield.
- US Origin log oven with designed capacity of 4,000 Kgs of output per hour.
- US Origin taper quench unit of billets for achieving quality extrusion by maintaining constant extrude temperature and very much essential for aluminium extrusions.
- US Origin Intense run our cooling system for both hard & architectural alloys.
- US Origin Double puller operation for improved productivity & short idle time.
- US Origin Stretcher which deliver precise accurate stretching which enhances profile quality and keeps scrap to a minimum.
- US Origin Precision profile cutting finish saw delivers a highly accurate cut with accuracy, safety and easy to use and with maximum cutting length up to 8,500 mm & extendable further on special cases.



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- US Origin Ageing oven are designed to deliver rapid complete ageing of profile in every batch which translates into maximum profile quality.
- Die ovens are engineered for quick and uniform heating resulting in less strain on the press and better quality for extrusion.
- Fluidized Nitriding furnace to enhance the surface quality of the products.

OUR PRODUCTS:

A) MILL FINISH

- Mill Finish.
- Architectural Alloys i.e. 6063.
- Structural Alloys i.e. 6061 & 6082.
- Other 6000 series alloys on availability.
- Minimum cut length 1,500 mm.
- Maximum cut length of 8,500 mm.
- Excess cut length in mill finish can be considered on special request and to a whopping 16m for some sections.
- With different temper like T4, T6 etc.
- Large number of profile forms and shapes can be developed on request.

B) POWDER COATING

- Powder Coating in many RAL colour.
- Maximum profile length of 7,500 mm.
- Equipped laboratory to test coating quality.
- 70 to 80 microns international standard coating thickness.
- Minimum 60 microns confirmed coating thickness.
- Powder for international renowned brand.
- Regionally accepted guarantee period for coating.



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الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

REINDEER



QALEX ADVANTAGES FOR QATAR:

- Locally based company with easy & economical accessibility.
- Technical assistance is available at hand reach.
- Immediate response to quality related issues.
- No border hassle for documental procedure.
- No bulk import and naturally no revenue block.
- Less inventory and so reduced storage space and no cash block.
- Quicker supply time which helps for quicker mock up work.
- Everything is in JIT basis (Just in Time).
- Flexible terms and condition on sales / shipment.

QATARI ESSENCE IN QALEX:

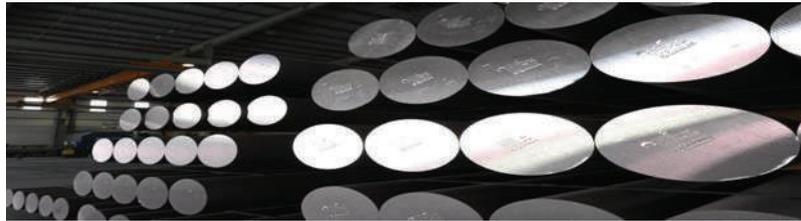
- Hosted by Qatar Industrial Manufacturing Company.
- Aply co – hosted and supported by Salam International Investment Limited, Alutec, Aluminium Gulf Ray, Qatar Real Estate Investment Co., Qatar Oman Investment Co., and Qatar Belgium Aluminium Co., (All are Qatar based Company).
- The Products are procured, manufactured & fabricated in QATAR.
- Added value as raw material is produced by QATALUM.
- Powder supplied by KAHRAMAA, a Qatari Government Corp.
- Gas produced by QP & distributed by WOQOD.
- Reduced material wastages, which are totally recycled.



SOURCE OF RAW MATERIAL SUPPLY

ALUMINIUM LOGS:

- Aluminium Logs supplied by QATALUM, A Qatari Government Company.



- Architectural Alloys i.e. 6005 & 6063 ,6060.
- Structural Alloys i.e. 6082 & 6061.
- Other 6000 series alloys on availability.

POWDER COATING:

- Powder coating supplied by JOTUN POWDER COATINGS & AKZONOBEL.



- Powder coating available in many RAL colour.

ALUMINIUM EXTRUSION DIE & TOOLINGS HAS BEEN OUT SOURCED FROM MANY SUPPLIERS ACROSS EUROPIEN REGION:

- ALUTOOL, UK.
- EROGA, UK.
- ELITE, UK.
- EKSENAL, TURKEY.
- Many more.



CERTIFICATES

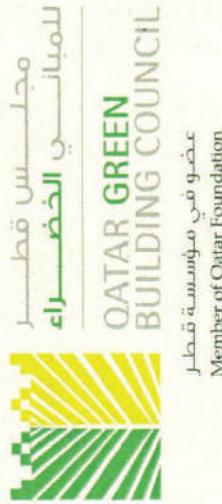


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الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

Certificates



Together,
let's build
a sustainable
tomorrow

Certificate of Membership

This to certify that

Qatar Aluminium Extrusion Co.

is an Organization Member of Qatar Green Building Council
and is committed to promote sustainable building practices

Membership No: O-1116 Membership effective: 1st Jan 2017 to 31st Dec 2017


Mesher Mohammed Al-Shamari
Director
Qatar Green Building Council



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الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



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Certificates



QATAR ALUMINIUM EXTRUSION CO.

USGBC MEMBER SINCE NOV 15, 2020

Is an active member of the U.S. Green Building Council, the foremost coalition of leaders working to transform the way buildings and communities are designed, built and operated. Our vision is that buildings and communities will regenerate and sustain the health and vitality of all life within a generation.

This membership was awarded on Nov 15, 2020.

Mahesh Ramanujam

MAHESH RAMANUJAM
President & CEO



USGBC
MEMBER

SILVER

CERTIFICATE

for a **COATING APPLICATOR**



SEASIDE

hereby authorises

QATAR ALUMINIUM EXTRUSION COMPANY

Street No 12, Zone No 81, Building No. 132, Pink Zone
New Industrial Area, P.O. Box 201698
Doha
Qatar

to use the quality label in conformity with the
QUALICOAT 2022 Specifications, applicable from 1 January 2022

Licence No.: 4203

Date of Granting: 10.04.2013

Valid until: 31.12.2022

Zurich, 1 January 2022

QUALICOAT

Ivo Vermeeren
President



Sue C. C. Paredi
Managing Director





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الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

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المجلس الخليجي للألمنيوم
GULF ALUMINIUM COUNCIL

We hereby certify

that

Qatar Aluminium Extrusion Company
Doha, Qatar

is an *Associate Member of*
Gulf Aluminium Council

Effective from 1st of January 2013

Mahmood Daylami
Secretary General



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الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

Certificates



intertek
Total Quality. Assured.

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

QATAR ALUMINIUM EXTRUSION COMPANY

Main Site: New Industrial Area, Area No.81, Gate No.132, Street No. 12, Pink Zone, P.O.BOX201698, Doha, Qatar

Additional Site: QATAR ALUMINIUM EXTRUSION COMPANY, Zone- 92, Street - 709 , Building No. - 11, P.O. Box-201698, Mesaieed Light Industrial Area, Qatar

has been registered by Intertek as conforming to the requirements of:

ISO 9001:2015

The management system is applicable to:

Manufacturing and Supply of Aluminium Extruded Profiles in different finishes (Mill Finish, Anodizing, Powder coating) for Architectural and Industrial Application.

Certificate Number:
0111973

Initial Certification Date:
07 June 2018

Date of Certification Decision:
27 March 2021

Issuing Date:
27 March 2021

Valid Until:
06 June 2024



Calin Moldovean
President, Business Assurance

Intertek Certification Limited, 10A Victory Park,
Victory Road, Derby DE24 8ZF, United Kingdom

Intertek Certification Limited is a UKAS
accredited body under schedule of
accreditation no. 014.



In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at certificate.validation@intertek.com or by scanning the code to the right with a smartphone. The certificate remains the property of Intertek, to whom it must be returned upon request.





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QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

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CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

QATAR ALUMINIUM EXTRUSION COMPANY

Main Site: New Industrial Area, Area No.81, Gate No.132, Street No. 12,
Pink Zone, P.O.BOX201698, Doha, Qatar

Additional Site: QATAR ALUMINIUM EXTRUSION COMPANY, Zone- 92,
Street – 709 , Building No. – 11, P.O. Box-201698, Mesaieed Light
Industrial Area, Qatar

has been registered by Intertek as conforming to the requirements of:

ISO 14001:2015

The management system is applicable to:

Manufacturing and Supply of Aluminium Extruded Profiles in different
finishes (Mill Finish, Anodizing, Powder coating) for Architectural and
Industrial Application.

Certificate Number:

0111974

Initial Certification Date:

07 June 2018

Date of Certification Decision:

27 March 2021

Issuing Date:

27 March 2021

Valid Until:

06 June 2024



Intertek



Calin Moldovean

President, Business Assurance

Intertek Certification Limited, 10A Victory Park,
Victory Road, Derby DE24 8ZF, United Kingdom

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Licence: 4203

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intertek
Total Quality. Assured.

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:

QATAR ALUMINIUM EXTRUSION COMPANY

Main Site: New Industrial Area, Area No.81, Gate No.132, Street No. 12, Pink Zone, P.O.BOX201698, Doha, Qatar

Additional Site: QATAR ALUMINIUM EXTRUSION COMPANY, Zone- 92, Street – 709 , Building No. – 11, P.O. Box-201698, Mesaieed Light Industrial Area, Qatar

has been registered by Intertek as conforming to the requirements of:

ISO 45001:2018

Certified to OHSAS 18001:2007 from 07.06.2018 to 19.03.2021

The management system is applicable to:

Manufacturing and Supply of Aluminium Extruded Profiles in different finishes (Mill Finish, Anodizing, Powder coating) for Architectural and Industrial Application.

Certificate Number:

0111976

Initial Certification Date:

07 June 2018

Date of Certification Decision:

27 March 2021

Issuing Date:

27 March 2021

Valid Until:

06 June 2024



Intertek



Calin Moldovean

President, Business Assurance

Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8ZF, United Kingdom

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MEMBERSHIP CERTIFICATION

This is to certify that

QATAR ALUMINIUM EXTRUSION CO.

P.O. BOX 201698, DOHA, QATAR

Membership Ref.: A031

is a member of the Quali Middle East Association and is a signatory to the policies and procedures related to the membership of the Association.

Period of validity of the certificate: until 31.12.2022

Dubai, 31 December 2021

QUALI MIDDLE EAST ASSOCIATION

Nasir Fahmeed
General Secretary



Mailing address: Quali Middle East Association
c/o Dubai Association Centre, Office 207 (16), Level 2
Building 2 at One Central, Dubai World Trade Centre
Dubai, United Arab Emirates

P.O. Box 23070, Dubai-UAE
Phone: +971 4 516 3052-3
E-Mail: admin@qualimiddleeast.com
Internet: www.qualimiddleeast.com



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Licence: 4203

Certificates



مجلس قطر
للبناء الأخضر
QATAR GREEN
BUILDING COUNCIL
مجلس قطر للبناء الأخضر
Member of Qatar Foundation

TECHNOFORM

CERTIFICATE OF QUALITY

This is to certify that

Qatar Aluminium Extrusion Co.

fulfils the requirements set by Technoform in the assembly of quality Thermal Break Systems.
The aforementioned company possesses adequate technical know-how, and uses only genuine polyamide strips made of PA66/GF25, in compliance with Technoform's standards.



Certified till December, 2019

TECHNOFORM MEIA
Managing Director



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الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

Certificates



Authorization to use the quality sign



This is to certify that

QATAR ALUMINIUM EXTRUSION COMPANY

New Industrial Area, Area No. 81, Street No 12
Gate No. 132, Pink Zone, P.O. Box 201698
QA – Doha

Licence number: 3801

is authorized to use the quality sign which is shown above, according to the regulations for the use of the quality label for ARCHITECTURAL ANODISING as described in the current edition of the Specifications for the QUALANOD quality label for sulfuric acid-based anodizing of aluminium (Edition 01.01.2021). Architectural anodizing is one of the four types of anodizing covered by the Specifications.

Date of issue of the licence:

19.09.2018

Period of validity of the licence:

until 31.12.2022

Zurich, 10 December 2021

QUALANOD

Dr. Metin Yilmaz
President

CERTIFICATION BODY

Monica Gerber
General Secretary



Mailing address:
QUALANOD, P.O. Box, CH-8027 Zurich

Domicile:
QUALANOD
c/o ARCO Association Management AG
(certification body)
Tödistrasse 42, CH-8002 Zurich

Website: www.qualanod.net

E-Mail: info@qualanod.net // Phone: +41 (0)43 305 09 77 / 81



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Licence: 4203

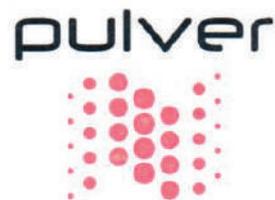
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QATAR ALUMINIUM EXTRUSION CO. (GALEX)

Fulfills the requirements of the quality management of
Pulver Architectural Powder Coatings Standards
pre-treatment and the application procedures.

Hakan Akbal
EXPORT MANAGER



This certificate is valid until 31.03.2021



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الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

Certificates



Certificate of Approval

Qatar Aluminium Extrusion Co.

is certified as an **Approved Applicator to coat**

Jotun Facade

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.



January 01, 2021

(Certificate valid for one year from date above)

Authorised Signatory
Jotun Powder Coatings UAE (LLC)



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Certificate of Approval

Qatar Aluminium Extrusion Co.

is certified as an **Approved Applicator** to coat

Jotun Super Durable

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.



January 01, 2021

(Certificate valid for one year from date above)

Authorised Signatory
Jotun Powder Coatings UAE (LLC)



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QATAR ALUMINIUM EXTRUSION CO.



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Certificates



Certificate of Approval

Qatar Aluminium Extrusion Co.

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.



January 01, 2021

(Certificate valid for one year from date above)

Authorised Signatory
Jotun Powder Coatings UAE (LLC)



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Certificates



Interpon
powder coatings
EVERY COLOR IS GREEN

AkzoNobel

Interpon D Approved Applicator



Interpon D1000 Series

Qatar Aluminium Extrusion Co
P.O. Box 201698, New Ind Area, Doha
QATAR

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

01 January 2021 to 31 December 2021

Approved for Aluminium Alloys AA 6063

Approved for Pre-treatment Type Chrome-free

António Balsinha
Business Manager
Powder Coatings – Middle East

Date: 29/12/2020

Certification number N° QAT03D1

AkzoNobel U.A.E. Paints L.L.C.



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QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

Certificates



Interpon
powder coatings
EVERY COLOR IS GREEN

AkzoNobel

Interpon D Approved Applicator



Interpon D2000 Series

Qatar Aluminium Extrusion Co
P.O. Box 201698, New Ind Area, Doha
QATAR

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

01 January 2021 to 31 December 2021

Approved for Aluminium Alloys AA 6063

Approved for Pre-treatment Type Chrome-free

António Balsinha
Business Manager
Powder Coatings – Middle East

Date: 29/12/2020

Certification number N° QAT03D2

AkzoNobel U.A.E. Paints L.L.C.



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QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

Certificates



Interpon[®]
powder coatings
EVERY COLOR IS GREEN

AkzoNobel

Interpon D Approved Applicator

Interpon D3000 Series

Qatar Aluminium Extrusion Co
P.O. Box 201698, New Ind Area, Doha
QATAR

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

27 April 2021 to 26 April 2022

Approved for Aluminium Alloys AA 6063

Approved for Pre-treatment Type Chrome-free

António Balsinha
Business Manager
Powder Coatings – Middle East

Date: 23/04/2021
Certification number N° QAT03D3

AkzoNobel U.A.E. Paints L.L.C.



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الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

Certificates






Certificate of conformity

CE

This is to Certify that the Product

Aluminum Extruded Profiles

*Type & Model: Aluminum Extruded Profiles in different finishes
(Mill finish, Anodizing, Powder Coating)*

Manufactured by

Qatar Aluminium Extrusion Company

P.O. Box 201696, New Industrial Area, Area No. 81, Gate No. 132, Street No. 12, Pink Zone, Doha, Qatar

Has been independently assessed and is compliant
With the requirements of

Directive of Construction Products 89/106/EEC Regulation No 305/2011

Standards Applied: EN 15088:2005, EN 573-3:2013

A technical documentation is completely available. For the compilation of all technical documents is authorized.

Certificate No: CE890-19
Issue Date: 23 July 2019
Expiry Date: 10 July 2022




Accredited Certification
CAS # M1532567AB



President



This certificate certifies the original certificate issued and is valid as long as it is displayed as an electronic copy at www.iqs-cert.com and certificate holder and certificate's content.

International Quality Service IQS S.A. (England registered)



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الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

Certificates



www.eurocert.gr

CERTIFICATE

of Conformity of the Factory
Production Control

Certificate No.: 1128-CPR-0148

In compliance with Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction products:

COATED & UNCOATED ALUMINIUM EXTRUDED PROFILES AND COATED & UNCOATED ALUMINIUM PRECISION PROFILES

PRODUCT	GENERAL PROVISIONS / ASSESSMENT AND TEST METHODS	REQUIREMENTS FOR SPECIFIC PROPERTIES (REFERENCED IN PRODUCT STANDARDS)	
		MECHANICAL PROPERTIES	TOLERANCES
EXTRUDED PROFILES	EN 755-1	EN 755-2	EN 755-9
PRECISION PROFILE	EN 12020-1	EN 755-2	EN 12020-2

TABLE 1 – REQUIREMENTS AND GENERAL PROVISIONS “EN 15088:2005”

Placed on the market under the name or trade mark of:

« QATAR ALUMINIUM EXTRUSION COMPANY »

New Industrial Area Street No 12, Plot No 8101 and 8102, Pink Zone, Doha, Qatar

and produced in the manufacturing plant:

New Industrial Area Street No 12, Plot No 8101 and 8102, Pink Zone, Doha, Qatar

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standards:

EN 15088 : 2005

under system 2+ are applied and that the factory production control is assessed to be in conformity with the applicable requirements.

This certificate was first issued on **2020-02-06** and will remain valid until **2023-02-06** as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the Notified Factory Production Control Certification Body

For the Notified Body

Briskolas George
Managing Director

Date of 1ST issue: 2020-02-06



The validity of this certificate is subject to annual surveillances.
Check the validity of the certificate from our website using the password **56DK4vJT**
Lack of fulfillment of the conditions set out in the CPR.0148 contract may render this certificate invalid.



Product Certification
CERT.No.21

89, Chlois & Lykovriseos str., 14452, Metamorfosi - Greece
T +30 210 62.52.495, 30 210 62.53.927. F +30 210 62.03.018. M info@eurocert.gr



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الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

REINDEER



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Sector A

General information



GENERAL NOTES

Profile weight

The weight indicated is the theoretical one and may vary according to the thickness and dimensional tolerances of the profiles (Standard EN 12020-2).

Profile dimensions

The dimensions indicated are the theoretical ones and may therefore vary according to the dimensional tolerances of extrusion (Standard EN 12020-2).

This variability, which affects all the profiles, can influence, even if minimally, the dimensions of even painting, by increasing the thickness, helps to vary the dimensions of the profiles and, in particular, reduces the space in the seats for inserting gaskets and accessories.

Cutting size

The theoretical cutting dimensions indicated in this catalogue are exact. In some cases, in practice, they will have to be rounded according to the precision and type of setting of the measurements in the machines supplied to your workshop.

Construction of windows

It is advisable in the first works or before building large quantities of windows, to make a sample in real size in order to check the assembly, the performance against atmospheric agents and the mechanical characteristics of the accessories.

Installation

It is a good idea to install the window on job site at last, in order to avoid problems that may occur on site. Have the window frame installed by specialized personnel, because installation is important for proper operation.

Measurement references

The reference of dimensions W and H shown in the catalogue corresponds to that set in the computer program for the automatic processing of estimates and cutting lists.

Schemes, sections

The diagrams, sections and wall connections shown in the catalogue do not have a limiting value but only as examples of some of the situations that are most commonly found in reality and an advisable solution.

Accessories

For a good functioning of the window, it is advisable to follow the technology and use the accessories and gaskets listed in the technical catalogue.



Use

Qalex is not liable for any use of the system other than that provided in this catalogue.

Painting

In painted profiles, the small slots, in particular those of the gaskets, can be reduced by the thickness of the paint itself. To limit the filiform corrosion process, certain rules must be followed such as: seal the cut parts (see 90° and 45 ° cut), avoid condensation stagnating inside the window frame (ventilation). The coated thermal break profiles must undergo a baking heat treatment of the paint at a temperature of 180 ° (-0 ° + 20 °) for about 20 minutes. Throughout the painting process, the profiles must be supported in such a way as to maintain the initial straightness and not undergo deformation.

Sealants

Only sealants with characteristics that comply with the requirements of the European reference standards UNI 36521998, UNI ISO 11600: 2003 must be used. UNI 9611: 1990.

Additional information

All sections, couplings, assemblies, processes and assemblies shown in the drawings and in the Qalex catalogues correspond to the current state of the art and have been defined with care and competence.

They represent a free service that makes proposals and suggestions to the manufacturer without obligation.

The manufacturer must check directly, at the time of use, if the proposals correspond and if they are applicable to the case in question since the many possibilities encountered in practice cannot all be documented in the catalogues.

- The profiles, accessories and gaskets shown in this catalogue are patented.
- All the data shown in this catalogue are indicative and do not bind Qalex.
- Qalex reserves the right to make any changes it deems appropriate at any time in order to improve its products.
- What is illustrated in this catalogue is the exclusive property of Qalex.

The system has been designed as a whole of profiles, gaskets and accessories according to the construction and application technology reported in the technical catalogue and in compliance with the standards, prescriptions and recommendations currently existing in Europe which have also determined the dimensional limits reported.

On this basis, laboratory tests were carried out and the indicated results were obtained.

Therefore, it is absolutely essential that original Qalex profiles, gaskets and accessories are used and that the construction and application procedures indicated are carried out, using original Qalex equipment.

The non-use, even partial, of the original Qalex products excludes any possibility of recourse against the same, which will only recognize the replacement of those of its products that were originally defective.



SURFACE TREATMENT AND PROTECTION

The protection and finishing of the profiles will be made by the normal surface treatments, anodic oxidation in conformity with the quality label "Qualanod" or by means of thermosetting polyester powder coating and oven cured at temperatures between 185°C and 195°C, in accordance with the quality label "Qualicoat".

Laying

It is very important to get a good functioning of the frame, meticulously take care of the verticality and leveling of the frame, and then perform the sealing mastics using neutral following the advice of the example below, also check that the openings are loaded sufficiently (shimming the 1-2 mm of glass out of the frame), so that, with the settling of the materials will not occur intolerance of operation over time.

Maintenance of aluminum surfaces

As a result of high rates of pollution now achieved in all countries, especially in large urban centers and coastal areas windswept sea, it is very important that the aluminum surfaces in contact with the atmosphere, are regularly cleaned. Our aim is to sensitize the manufacturer of windows and doors so that you can advise reflection of the client in the best way .

The cleaning product is important that it is neutral, the wrong product could spoil the different materials that make up a frame, (gaskets, sealants, marble, etc...) and cause damage that could compromise the functionality and durability of the same.

In the absence of a neutral product is best to use warm water with a non-abrasive cloth.

For proper installation, maintenance and cleaning of windows, please also refer to the instructions given on the following technical notes UNICMI.

UX 42 guide to installation of windows.

UX 10 surface cleaning of windows and curtain walls.

Anodizing

Anodic oxidation must possess the properties required by ISO 7599 (Anodizing of aluminum and its alloys. General specifications for the anodic oxide layer) and will be performed on the profiles that have been pretreated on the surface by mechanical brushing or chemical satin finishing.

The control of the thickness of the anodic oxide will be carried out according to the ISO 2360 standard (Non-conducting coatings on non-magnetic base metals. Measurement of the thickness of coatings - induced current method).

The quality of the fixing of the anodic oxide layer will be evaluated according to the ISO 3210 standard (Anodization of aluminum and its alloys. Evaluation of the quality of the fixing of the anodic oxide layer, by measuring the weight loss after immersion in phosphochromic solution).

The treatments must be guaranteed with the QUALANOD quality mark and be performed by an ISO 9001:2000 certified company.

The type of color and thickness of the anodic oxide will be chosen by the customer, oxide thickness class 10, 15, 20 microns.

Fixing can be done hot or cold.



Painting

The painting must possess the properties required by the directives of the QUALICOAT quality mark and be of the powder type in the color chosen by the D.L. RAL color chart.

Before painting, the surface of the profiles must be treated with the following pre-treatment operations by means of a cycle comprising:

- acid degreasing at 50°C;
- double washing with demineralized water alkaline pickling at 50°C;
- double washing with demineralized water;
- acid deoxidation;
- double washing with demineralized water;
- chromating at 30°C;
- washing with demineralized water;
- specific washing with demineralized water;
- drying;
- painting with polyester powders applied electrostatically polymerization in an oven at a temperature of 180 DC - 200 DC.

To guarantee the durability and resistance to atmospheric agents of the paint film, checks must be carried out during the painting cycle to verify its quality. Among these the most important controls are:

- Control of the polymerization temperature;
- Adherence check, according to EN ISO 2409 (grid cut test);
- Bending resistance test, according to EN ISO 1519 (bending test with cylindrical mandrel);
- Control of resistance to drawing, according to EN ISO 1520 (drawing test);
- Impact resistance test, according to ASTM D 2794 (impact resistance test);
- Gloss degree control, according to ISO 2813 (measurement of gloss of non-metallic paints at 20°, 60°, 85°);
- Hardness control, according to ISO 2815 (Buchholz hardness);
- Evaluation of wet adhesion with Machu Test (UNI 9983)

The painting must be carried out by applying the following documents in full:

“Directives of the QUALICOAT quality mark of painted aluminum (with liquid or powder products) used in architecture”.

The color will be chosen by the client based on samples provided by the supplier of the products.

The surface treatment must be performed by plants that have received the certification of QUALANOD quality marks for anodic oxidation and QUALICOAT for painting and be carried out by an ISO 9001 certified company.

The powders used must be QUALICOAT approved and be produced by ISO 9001 certified companies.

Surface finishing checks can be carried out in compliance with the provisions of the QUALICOAT and QUALANOD brand directives.



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



Licence: 4203

REINDEER



TECHNICAL DESCRIPTION FOR SPECIFICATIONS

Doors and windows constructed with EN AW 6063 extruded aluminium alloy profiles with the physical state of delivery T5 (some special sections T6).

The fixed frame will have a total depth of 130mm, the assembly must be performed with a 90° cut and corner fixing by self-tapping screws

The mobile frame will have a total depth of 53 mm, the assembly must be performed with a 90° fixed by self-tapping (polyamide bars H32mm), mobile frame 45° cut fixing by crimping corner joint with structural glue.

The thermal break must be obtained by inserting strips in polyamide reinforced with fibre glass (Pa 6.6 GF 25), of the depth total of 32mm fixed frame, 32mm mobile frame 90° and 28mm mobile frame 45°.

Their locking will be mechanical with rolling from the outside, after knurling the aluminum seats to avoid sliding of the profile itself, compliant with the technical guide (UEQTC) for windows with metal profiles with improved thermal performance.

In the lower fixed frame, slots must be made for water drainage, the same will provide for the carriage sliding guide in polyamide reinforced with fibre glass or the guide in aluminium oxide silver colour with the possibility of replacement for both.

The cut of the corners of the fixed frame and of the mobile frame must be sealed with suitable material to guarantee the seal.

Ventilation slots must be made in the mobile frame.

The tightness will be ensured by special EPDM or opposite brush seals, housed along the perimeter of the mobile frame or fixed frame.

The movement of the doors will be carried out with sliding equipment.

The accessories and gaskets must be the original ones designed and produced for the system.

The doors and windows must have performances of air permeability, water tightness and resistance to wind loads in accordance with the standards EN 12207 - 12208 - 12210 and EN 1026 - 1027 - 12211.



TECHNICAL DESCRIPTION OF THE SYSTEM

Profiles:	Extruded aluminium alloy profiles EN AW 6063
Delivery condition:	T5 and T6
Dimensional tolerances:	EN 12020/2

Basic system dimensions

Fixed frames: 130mm

Openable frames: 53mm

Glass bead height: 19mm sash 90°-20mm sash 45°

Glass range: 5mm to 40mm

Type of profiles and frames:

- 90° frame double insulation;
- 90° frame single insulation 90° frame;
- 90° sash with Pa insulation H32mm;
- 45° sash with Pa insulation H28mm;
- 90° frame without insulation;
- 90° sash without insulation;
- 45° sash without insulation.

Types provided

Windows with sliding opening, 2 sash, 3 sash, 4 sash, 1 sash with fixed frame.

Accessories

- Trolley capacity 90kg;
- Flush handle single lock;
- Assembly of 90° frames with self-tapping screws;
- Assembly of 90° sash with self-tapping screws;
- Assembly of 45° sash with crimping corner joints.

Architectural style

Modern lines with the visible surfaces of aluminium are reduced to increase the illuminating area.



ISTEDIL

Regulation (EU) No 305/2011 - Notified Body n.0529, as test laboratory for "windows and external pedestrian doors" (UNI EN 14351-1)

TEST REPORT n° 464/2021

Guidonia M. 20/07/2021

Result of physical test performed, on 14/07/2021, on a two sash sliding window, delivered on 15/06/2021.

Geometric and structural characteristics of the sample are shown in the attached description sheet, provided by the Customer, which is an integral part of this test report.

Customer : QATAR ALUMINIUM EXTRUSION



DECLARED DATA

Product name : REINDEER SLIDING SYSTEM
Opening type : sliding
Frame : aluminium with thermal break
Dimensions (mm) : 2400 x 2150 (totali) ; 2320 x 2040 (apribili)

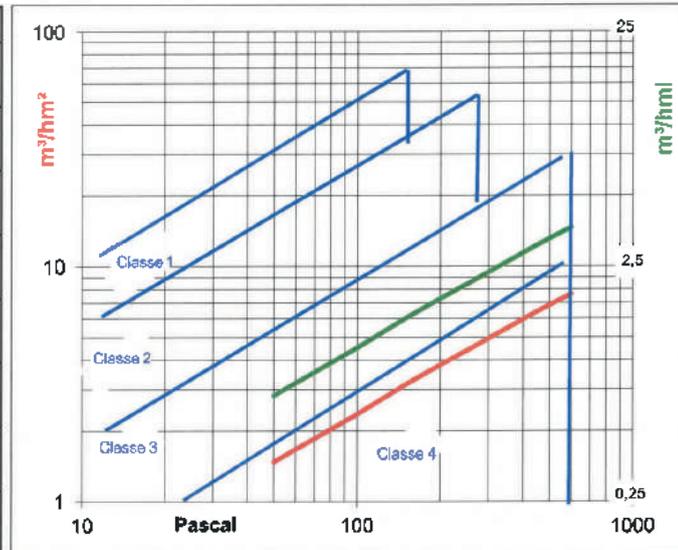
TEST METHOD AND TEST RESULT

Environmental conditions : 28 °C 66 % U.R.

AIR PERMEABILITY (EN 1026)

Area totale m² 5,16 Giunti apribili ml 10,76

Pascal	m ³ /h	m ³ /hm ²	m ³ /hml
50	7,6	1,5	0,7
100	12,1	2,3	1,1
150	16,2	3,1	1,5
200	19,6	3,8	1,8
250	22,6	4,4	2,1
300	25,4	4,9	2,4
450	33,0	6,4	3,1
600	39,3	7,6	3,7



Classification according to UNI EN 12207

Class 4

WATERTIGHTNESS (UNI EN 1027 - Metodo A)

One minute after reaching the test pressure of 600 Pa, water infiltration from the lower edge appeared.

Classification according to UNI EN 12208

Class 8A

pag. 1/2



Regulation (EU) No 305/2011 - Notified Body n.0529, as test laboratory for "windows and external pedestrian doors" (UNI EN 14351-1)

TEST REPORT n° 464/2021

pag. 2/2

RESISTANCE TO WIND LOAD (UNI EN 12211)

Deflection test (P1)

Length of the most deformable element (mm) : 2150

Displacement measure (mm)	Pressure P1 (Pa)					
	0	1200	0	0	-1200	0
	Ao	Ap	A residual	Ao	Ap	A residual
	0,0	2,5	0,0	0,0	-2,0	0,0
Mo	Mp	M residual	Mo	Mp	M residual	
0,0	6,9	0,0	0,0	-4,9	0,0	
Bo	Bp	B residual	Bo	Bp	B residual	
0,0	1,9	0,0	0,0	-2,1	0,0	
Frontal deflection (mm)	Fp			Fp		
	4,70			-2,85		
Relative frontal deflection	1/ 457			1/ -754		
CLASS	A		B		C	
Limits of relative frontal deflection (mm)	<1/150	14,3	<1/200	10,8	<1/300	7,2

Repeated pressure test (P2)

50 cycles were applied, including negative and positive pressures, at 600 Pascal; at the end, the functionality of the window was unaltered.

The air permeability, carried out after tests P1 and P2, did not undergo variations > 20% with respect to the maximum admissible air for the air permeability class obtained.

Safety test (P3)

A negative and positive test pressure cycle of 1800 Pascal was applied; at the end, the functionality of the frame was unaltered.

Classification according to UNI EN 12210

Class **C3**

TEST OPERATOR

Geon. Danilo Massi

DIRECTOR

Camillo Orsi





Result of thermal transmittance calculation of a two sash sliding window.

Geometric and structural characteristics of the sample are shown in the attached description sheet, provided by the Customer, which is an integral part of this test report.

Customer : QATAR ALUMINIUM EXTRUSION

DECLARED DATA

Product name : REINDEER SLIDING SYSTEM
Opening type : two-sash sliding
Dimensions (B x H) : 2400 x 2150 mm
Frame : aluminum with thermal break
Glass : $U_g = 1,3 \text{ W/m}^2\text{K}$; $\psi_g = 0,05 \text{ W/m K}$
 $U_g = 0,7 \text{ W/m}^2\text{K}$; $\psi_g = 0,031 \text{ W/m K}$

TEST METHOD
UNI EN ISO 10077-1

TEST RESULTS

$U_w = (A_g U_g + A_f U_f + L_g \psi_g) / (A_g + A_f)$ [Thermal transmittance of window]
 $A_g = 4,06 \text{ m}^2$ [Glazed surface]
 $A_f = 1,10 \text{ m}^2$ [Frame area]
 $U_f = 2,67 \text{ W/m}^2 \text{ K}$ [Thermal transmittance of frame]
 $L_g = 11,90 \text{ m}$ [Total perimeter of the glazed part]
 $\psi_g = 0,036 \text{ W/m K}$ [Linear thermal transm. of the frame-glazing joint]

Type of glass		$U_g = 1.3 \text{ W/m}^2\text{K}$	$U_g = 0.7 \text{ W/m}^2\text{K}$
U_w (Thermal transmittance of window)	W / m ² K	1.71	1.19

TEST OPERATOR
Geom. Danilo Maesi





Regulation (EU) No 305/2011 - Notified Body n.0529. as test laboratory for "windows and external pedestrian doors" (UNI EN 14351-1)

TEST REPORT n° 464/2021-C

Guidonia M. 30/08/2021

Result of impact test performed, on 30/08/2021, on a two-sash sliding window delivered on 15/06/2021.

Geometric and structural characteristics of the sample are shown in the attached description sheet, provided by the Customer, which is an integral part of this test report.

Customer : QATAR ALUMINIUM EXTRUSION

DECLARED DATA

Product name : REINDEER SLIDING SYSTEM
Opening type : two-sash sliding
Dimensions (B x H) : 2400 x 2150 mm
Frame : aluminum with thermal break
Glass : 44.2 / 16 / 44.2 mm



● Impact points

TEST METHOD

The tests were carried out, according to the EN 13049 standard, on the impact points indicated in EN 14019.

Used impactor has a mass of 50 kg and it complies with EN 12600.

Impact point	1	2	3
Target side	internal	internal	external

TEST RESULT

Classification attributed to the window:

Impact from inside	CLASS I3	Impact from outside	CLASS E3
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TEST OPERATOR
Geom. Danilo Massil



Material data sheet

Insulating strips of PA 66 GF25,
dry impact resistant

Insulating profiles
for windows, doors,
and facades.

Material data sheet

**Insulating strips of PA 66 GF25,
dry impact resistant**

Characteristic	Reference standard	Unit	Samples prepared from extruded insulating strips		Injection-moulded samples
			Dry ⁽¹⁾	Equilibrium moisture content ⁽²⁾	Dry ⁽¹⁾
melting temperature	EN ISO 11357-3	°C	min. 250 ⁽³⁾	min. 250 ⁽³⁾	min. 250 ⁽³⁾
density	EN ISO 1183-1 or -3	g/cm ³	1.3 +/- 0.05	1.3 +/- 0.05	1.3 +/- 0.05
annealing residue (glass fibre content)	EN ISO 1172	%	25 +/- 2.5	25 +/- 2.5	25 +/- 2.5
shore hardness D	EN ISO 868	-	82 +/- 4 ⁽⁴⁾	78 +/- 4 ⁽⁴⁾	84 +/- 4
impact strength	EN ISO 179-1	kJ/m ²	min. 30 or without break ⁽⁵⁾	min. 40 or without break ⁽⁵⁾	min. 35 ⁽⁶⁾
tensile strength	EN ISO 527-2 and -4	N/mm ²	min. 80 ⁽⁷⁾	min. 50 ⁽⁷⁾	min. 110 ⁽⁸⁾
Young's modulus	EN ISO 527-2 and -4	N/mm ²	min. 4500 ⁽⁷⁾	min. 2000 ⁽⁷⁾	min. 6000 ⁽⁸⁾
elongation at break	EN ISO 527-2 and -4	%	min. 3 ⁽⁷⁾	min. 7 ⁽⁷⁾	min. 3 ⁽⁸⁾

- 1) Sample water content less than 0.2 % by weight
- 2) Fast conditioning acc. to EN ISO 1110 (23 °C / 50 %)
- 3) Maximum temperature 300 °C
- 4) Specimen thickness 2 mm, unstacked
- 5) Specimen 2fU (50 mm x 10 mm x 2 mm)
- 6) Specimen 1fU (80 mm x 10 mm x 4 mm)
- 7) Specimen Type 1BA
- 8) Specimen Type 1A

In case of specific questions we gladly offer you our individual support.

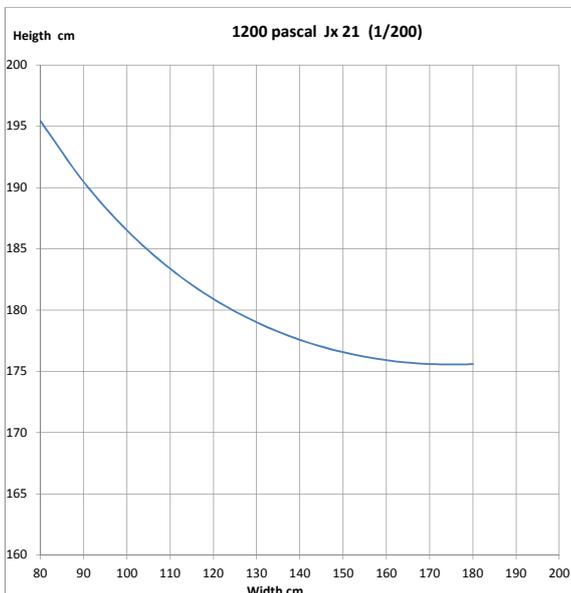
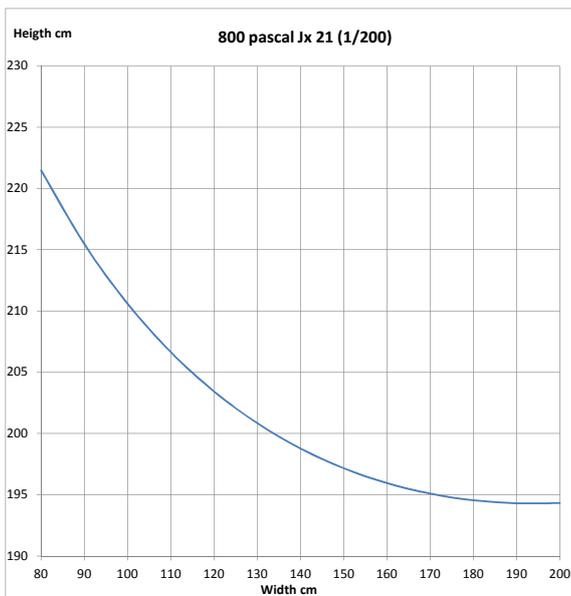
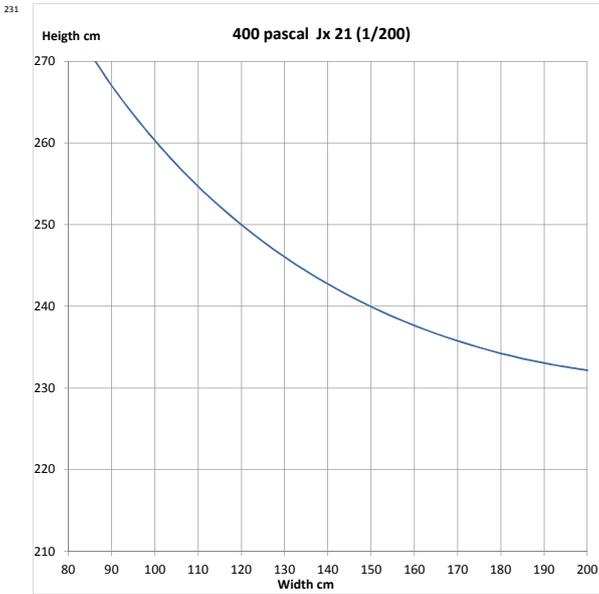
Insulating profiles for windows, doors, and facades.

Sector B

Wind charts



WIND CHART



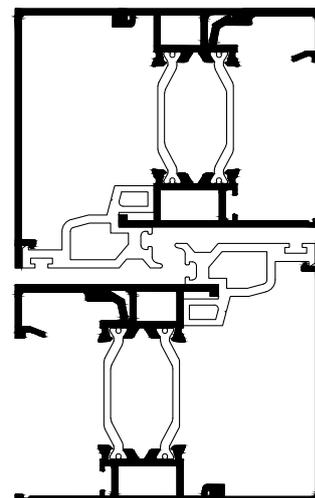
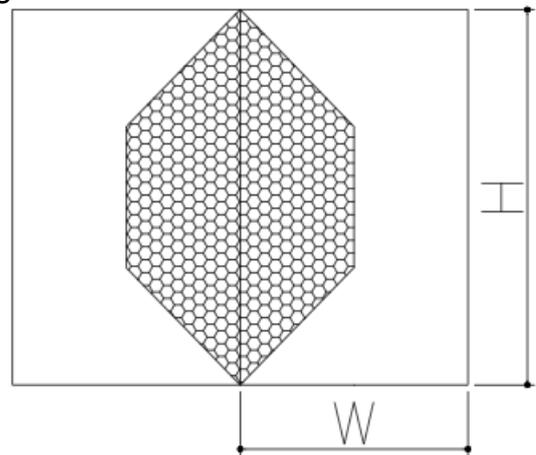
The sizing resulting from the graph is indicative only.

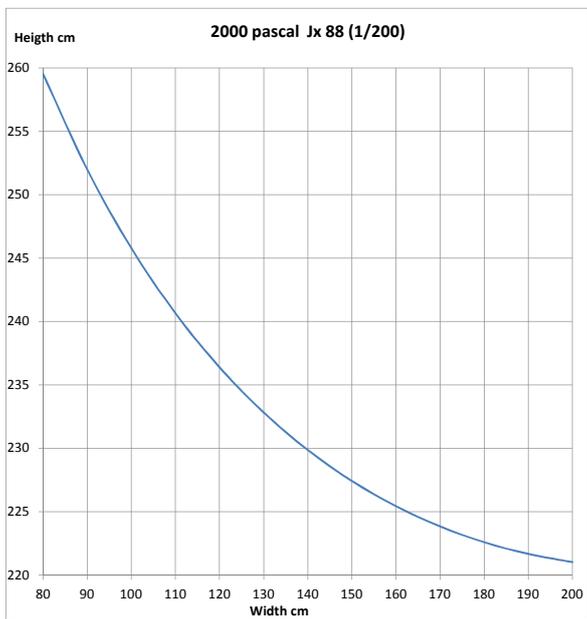
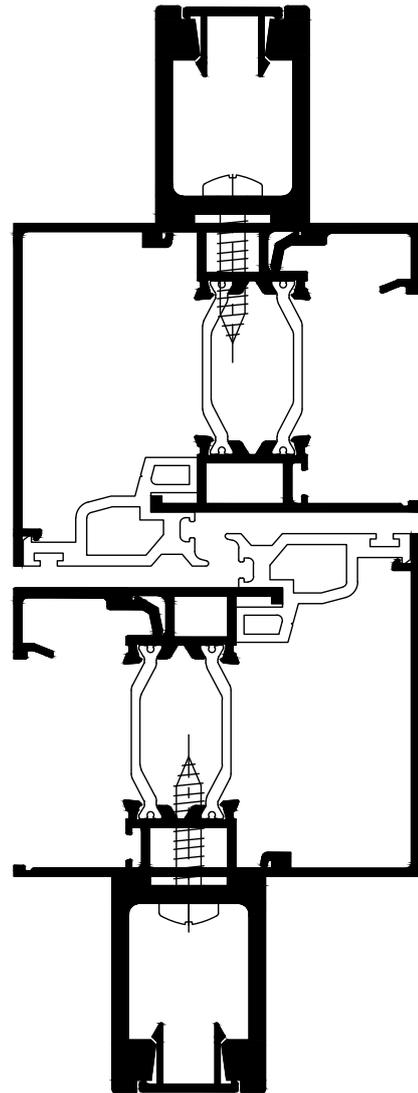
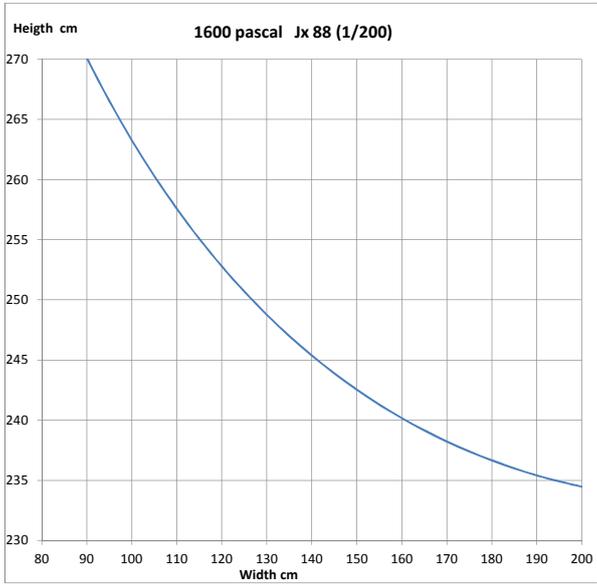
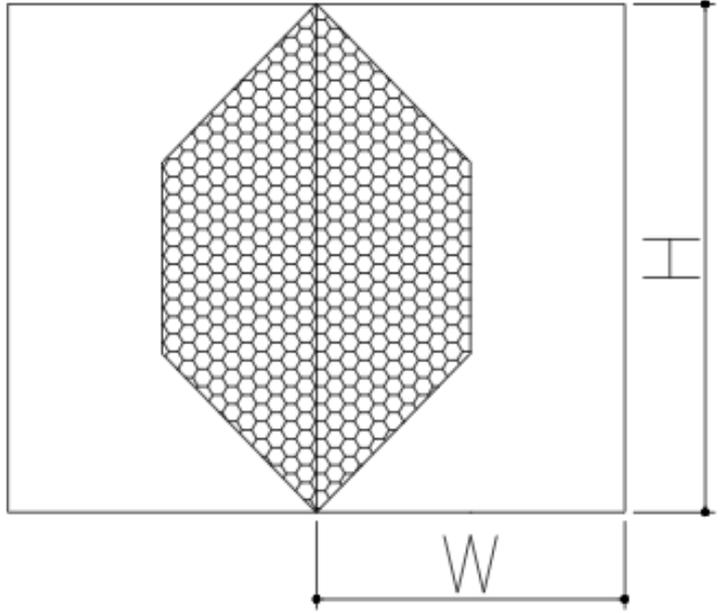
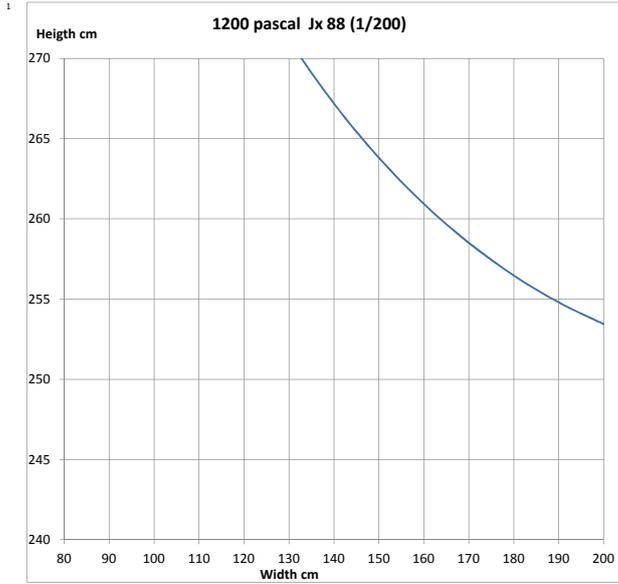
The designer in determining the maximum dimensions of the frames, will have to consider and evaluate, besides the dimensions and the moment of inertia of the profiles, also the applicative and meteorological characteristics such as the height from the ground, the exposure to the rain and the speed of winds in the area. For these data we advise to consult and follow the "UNCSAAL"

Recommendations" elaborated on the basis of the UNI, UNI-EN and UNI-CNR standards in existence.

The window is considered to have 2 equal sash.

The curves are calculated on the basis of the elastic deformation of 1/200 of the height of the window.

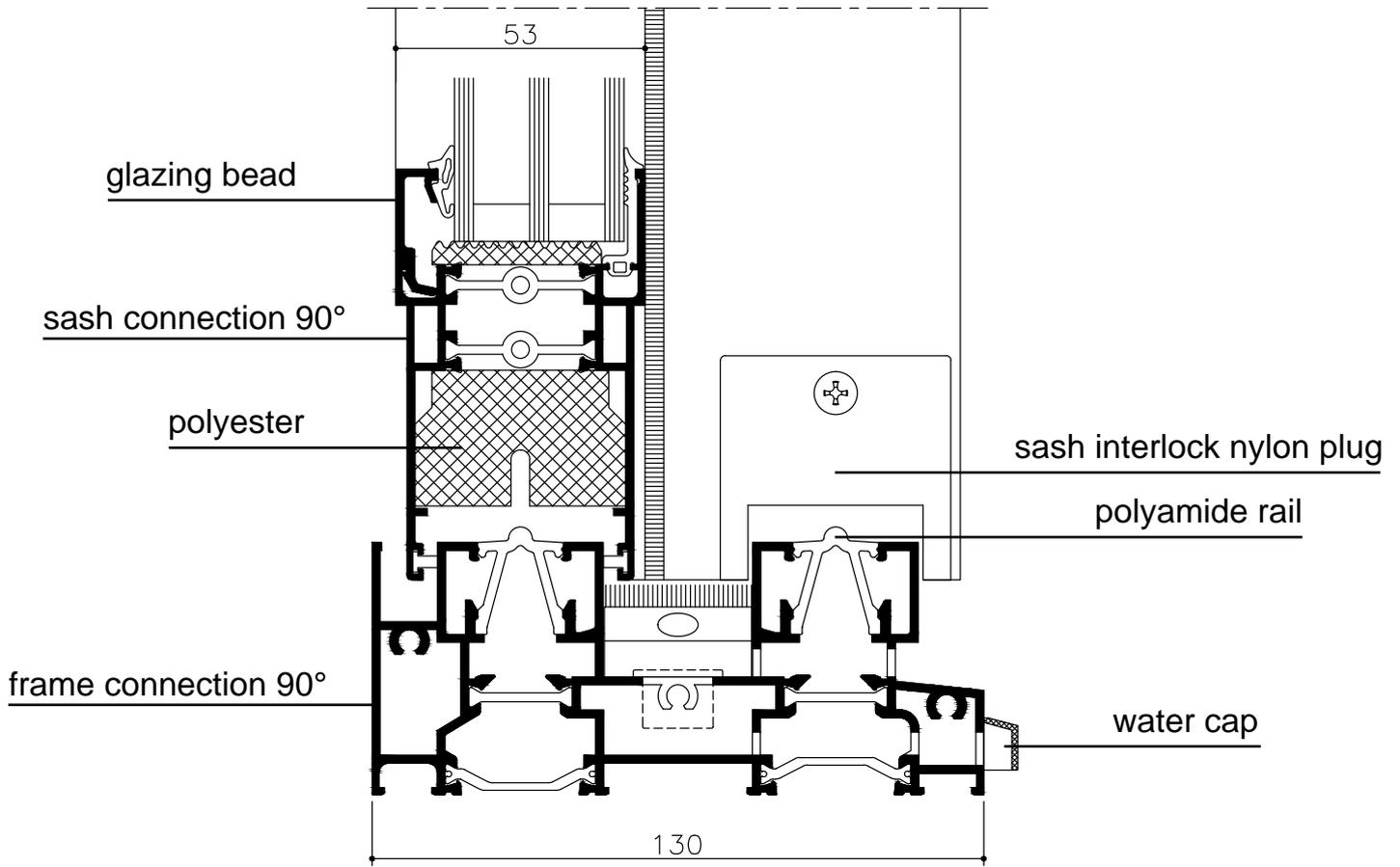




Sector C Highlights



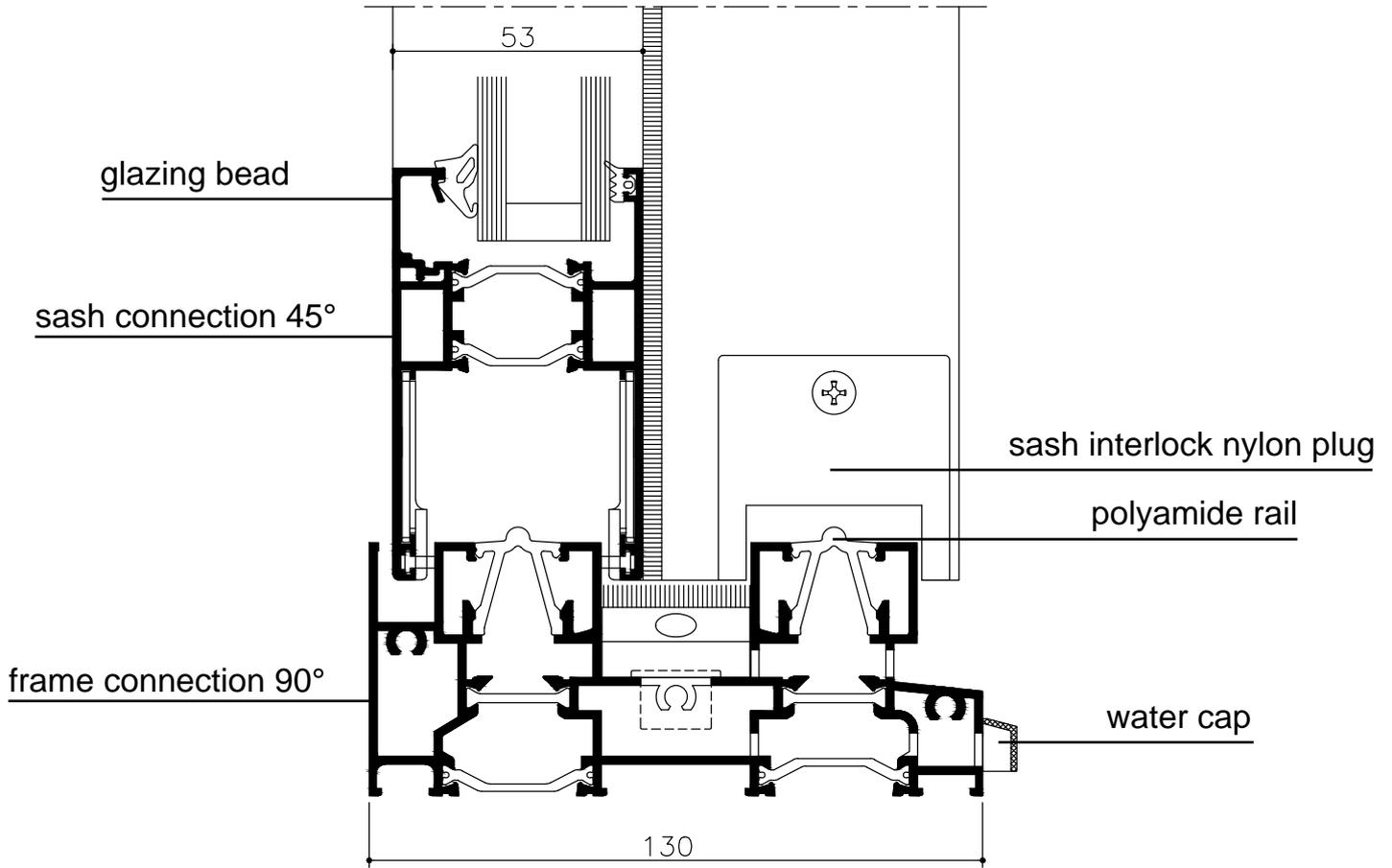
90T2A



Frame dimension	130mm
Frame with fly screen dimension	148mm
Frame 3 panels dimension	197mm
Frame 3 panels with fly screen dimension	215mm
Frame polyamide thickness	22-32mm
Frame connections	90°
Sash dimension	53mm
Sash polyamide thickness	32mm
Sash connection	90°
Glass thickness	40mm
Glazing bead height	19mm
Horizontal frame with double polyamide section	X
Horizontal frame with single polyamide section	



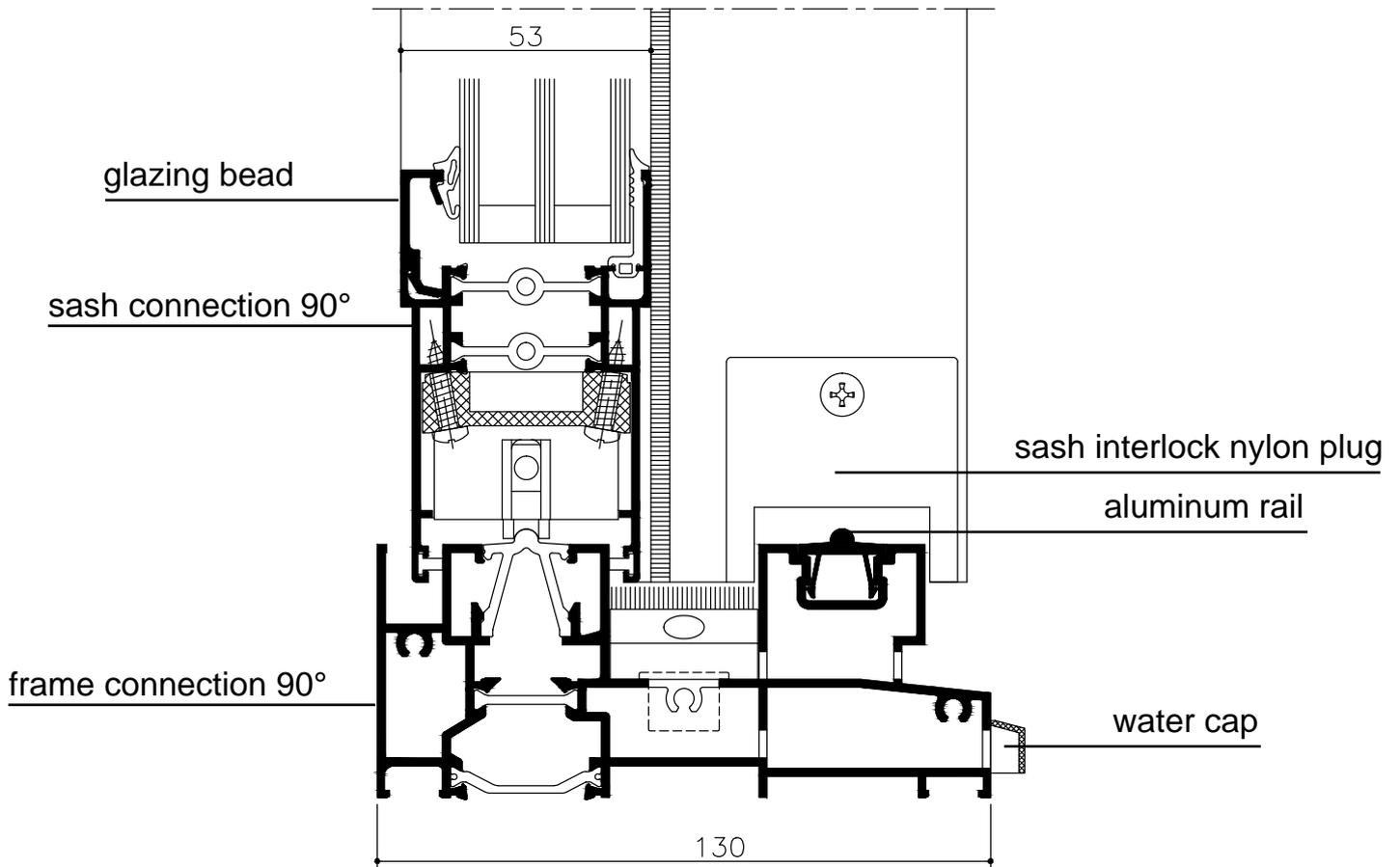
45T2A



Frame dimension	130mm
Frame with fly screen dimension	148mm
Frame 3 panels dimension	197mm
Frame 3 panels with fly screen dimension	215mm
Frame polyamide thickness	22-32mm
Frame connections	90°
Sash dimension	53mm
Sash polyamide thickness	28mm
Sash connection	45°
Glass thickness	40mm
Glazing bead height	20mm
Horizontal frame with double polyamide section	X
Horizontal frame with single polyamide section	



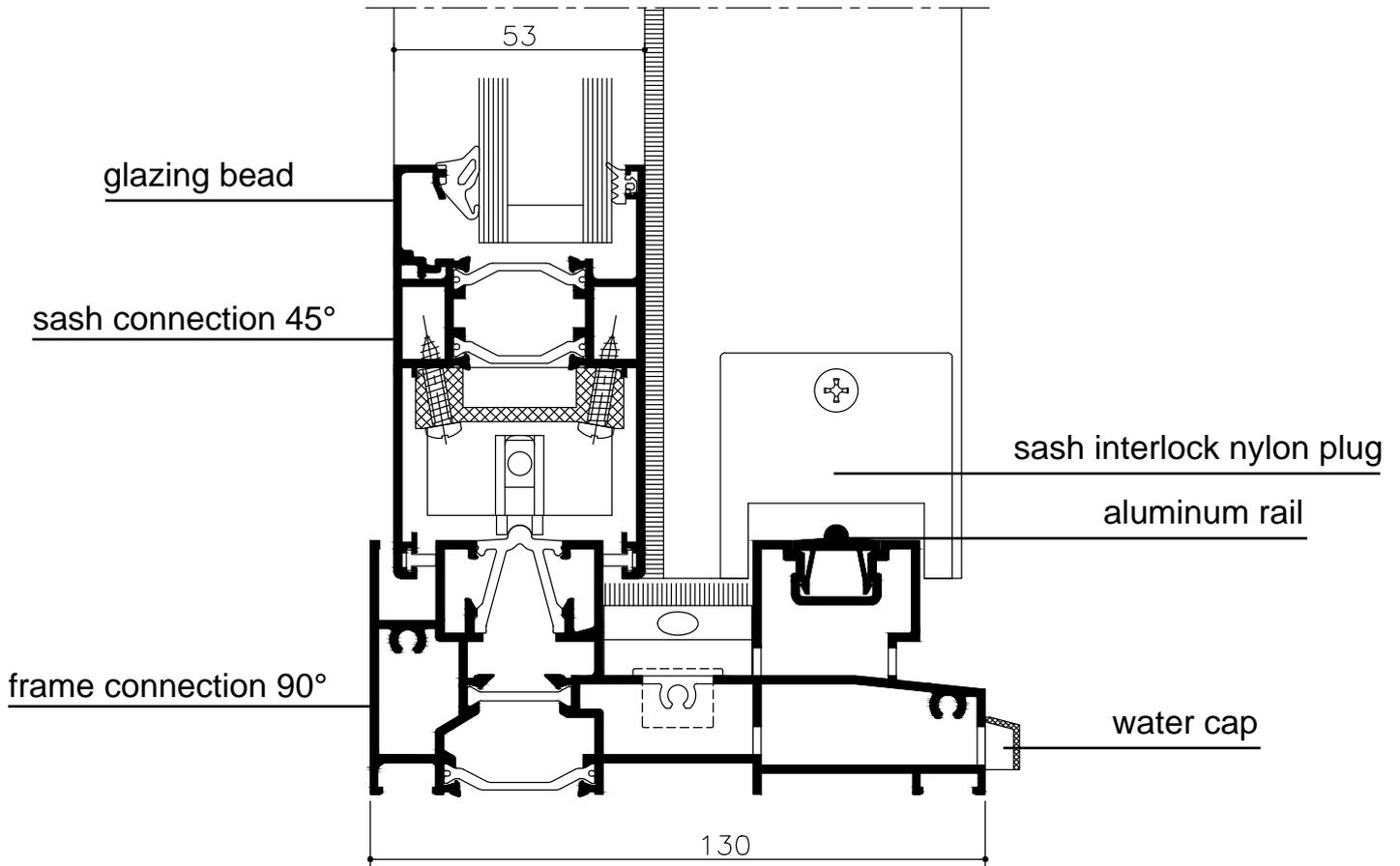
90T1A



Frame dimension	130mm
Frame with fly screen dimension	148mm
Frame 3 panels dimension	197mm
Frame 3 panels with fly screen dimension	215mm
Frame polyamide thickness	22-32mm
Frame connections	90°
Sash dimension	53mm
Sash polyamide thickness	32mm
Sash connection	90°
Glass thickness	40mm
Glazing bead height	19mm
Horizontal frame with double polyamide section	
Horizontal frame with single polyamide section	X



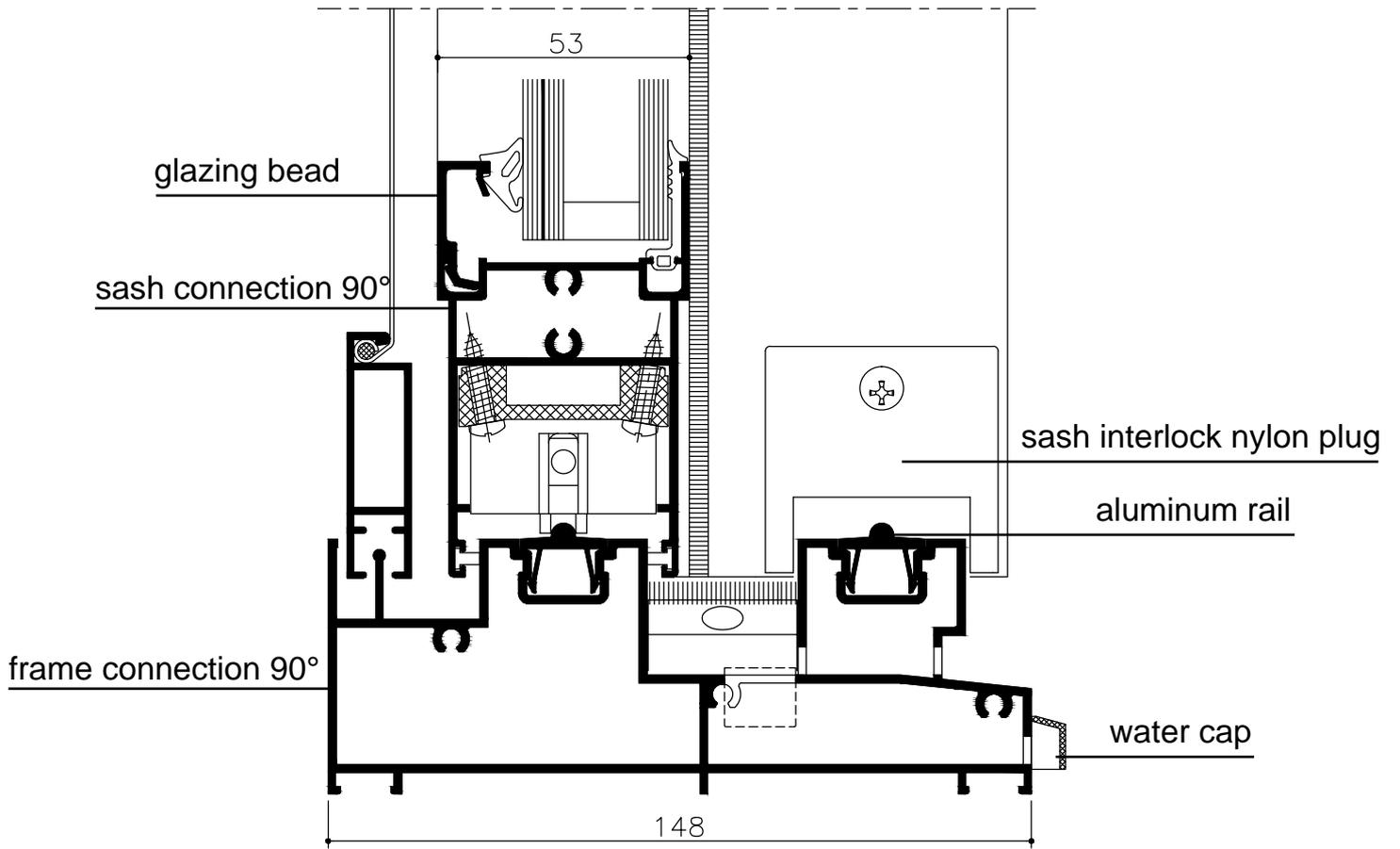
45T1A



Frame dimension	130mm
Frame with fly screen dimension	148mm
Frame 3 panels dimension	197mm
Frame 3 panels with fly screen dimension	215mm
Frame polyamide thickness	22-32mm
Frame connections	90°
Sash dimension	53mm
Sash polyamide thickness	28mm
Sash connection	45°
Glass thickness	40mm
Glazing bead height	20mm
Horizontal frame with double polyamide section	
Horizontal frame with single polyamide section	X



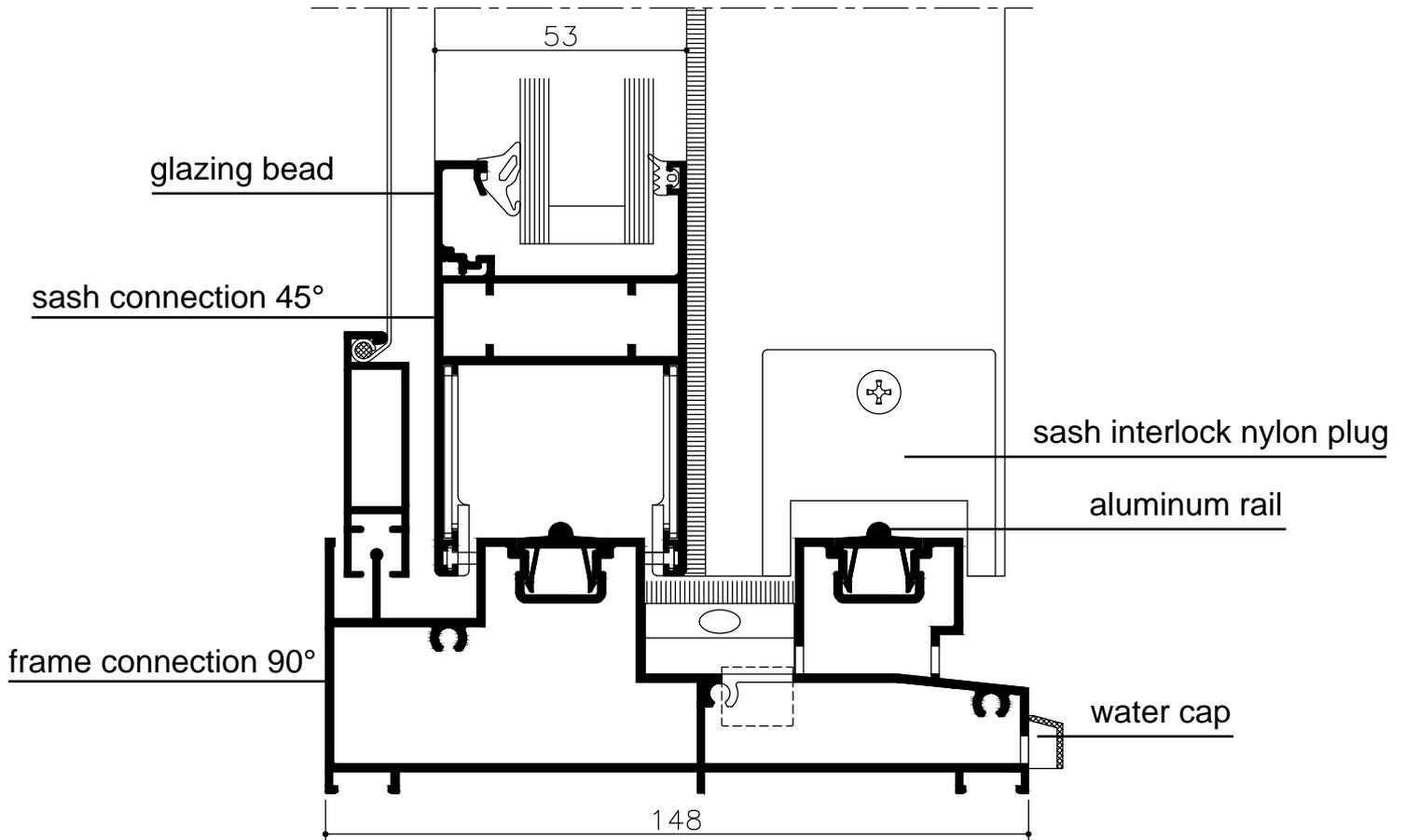
F90A2



Frame with fly screen dimension	148mm
Frame 3 panels with fly screen dimension	215mm
Frame connections	90°
Sash dimension	53mm
Sash connection	90°
Glass thickness	40mm
Glazing bead height	19mm



F45A2



Frame with fly screen dimension	148mm
Frame 3 panels with fly screen dimension	215mm
Frame connections	90°
Sash dimension	53mm
Sash connection	45°
Glass thickness	40mm
Glazing bead height	20mm

Sector D
Uf values



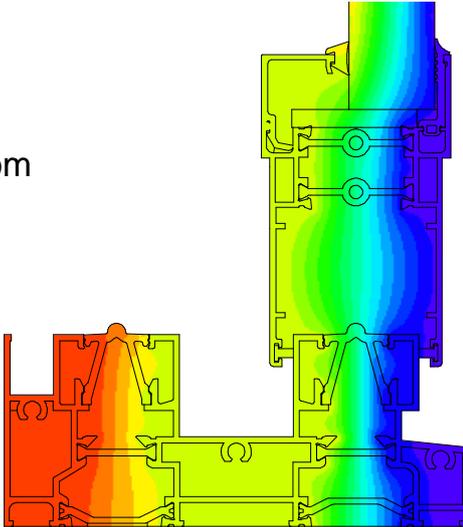
External bottom
with polystyrene
 $U_f=2,23$



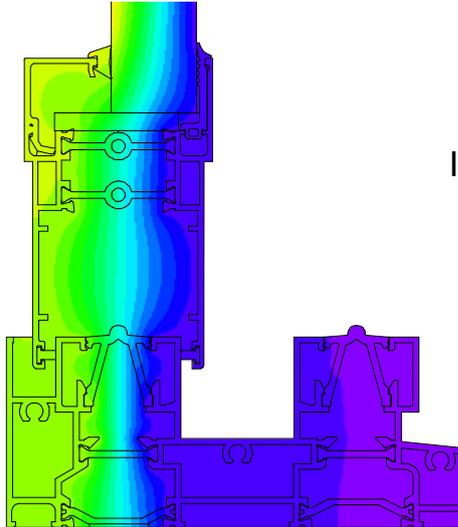
Internal bottom
with polystyrene
 $U_f=2,12$



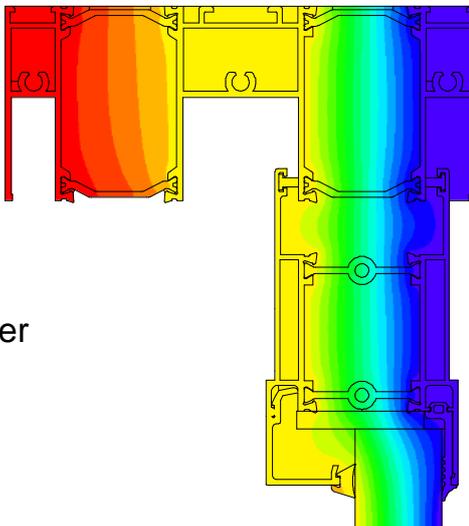
External bottom
 $U_f=2,85$



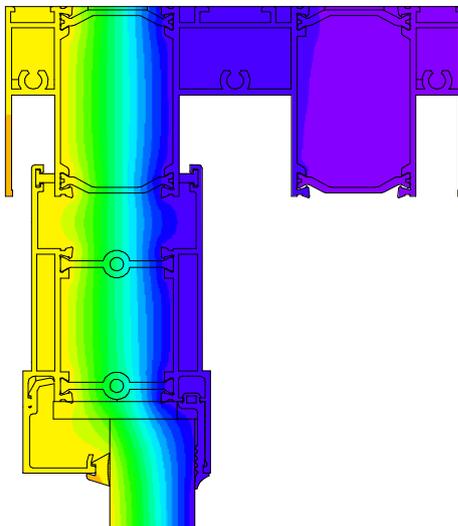
Internal bottom
 $U_f=2,75$



External upper
 $U_f=2,29$

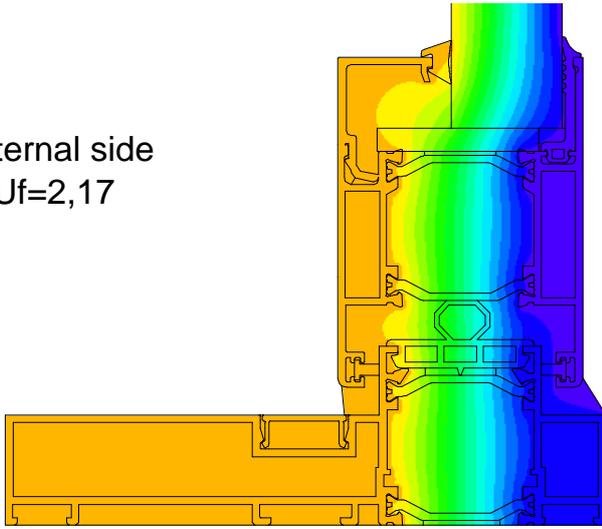


Internal upper
 $U_f=2,44$

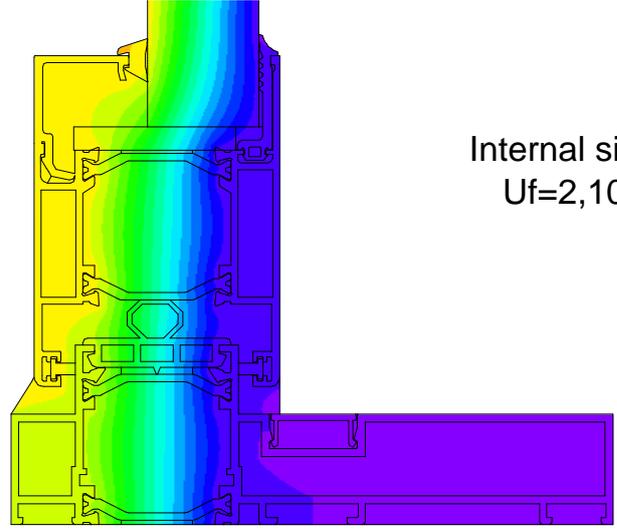




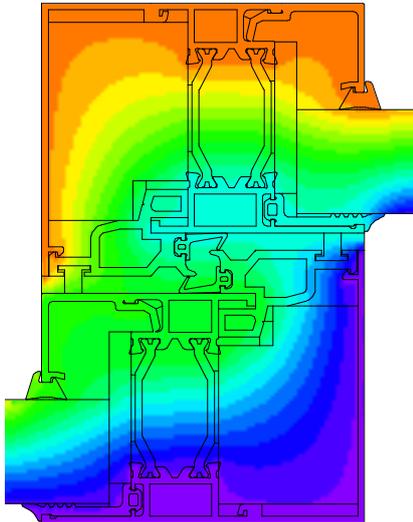
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Uf=2,17



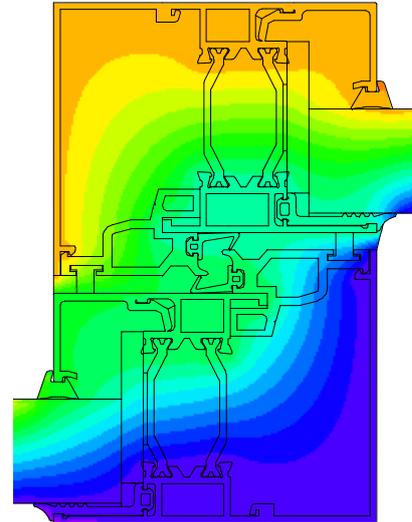
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Uf=2,10



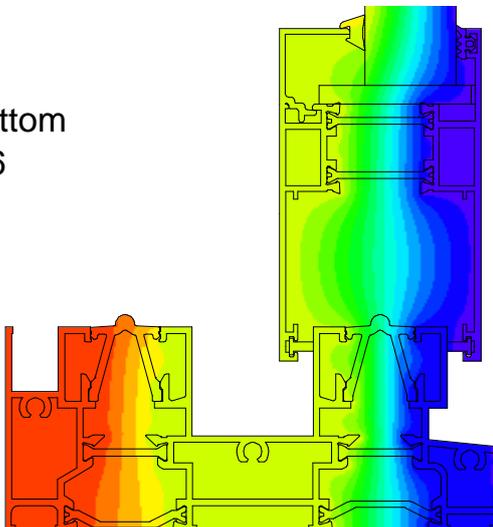
Interlock with
polystyrene
Uf=2,69



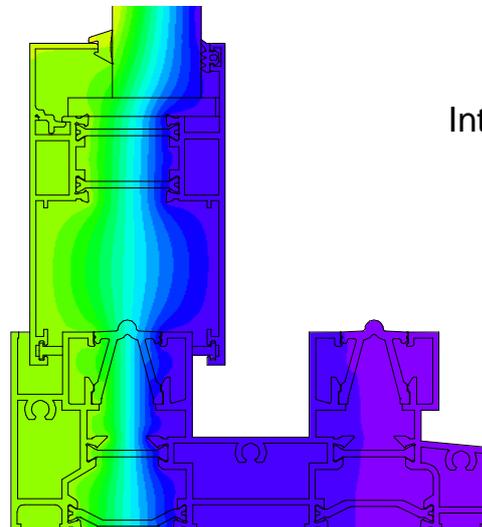
Interlock
Uf=3,38

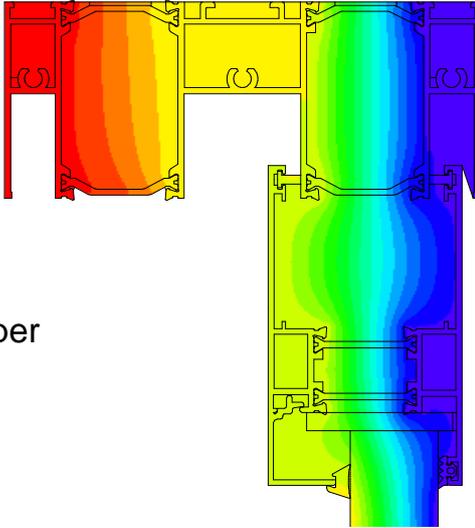


External bottom
Uf=2,96

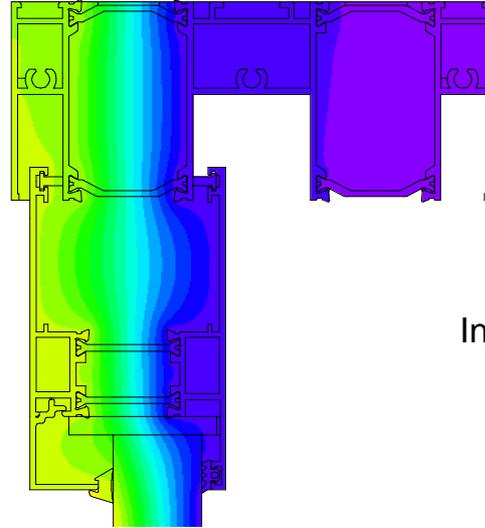


Internal bottom
Uf=2,77

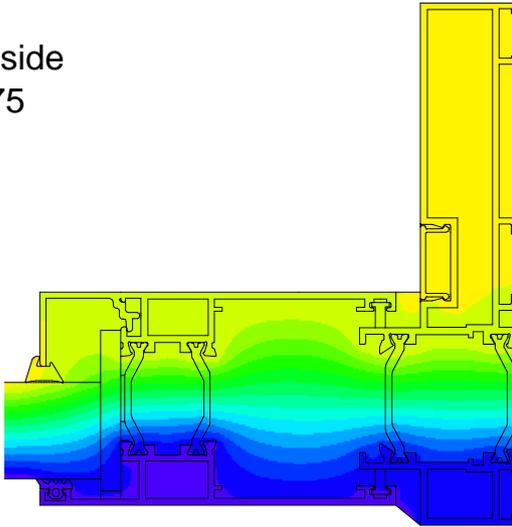




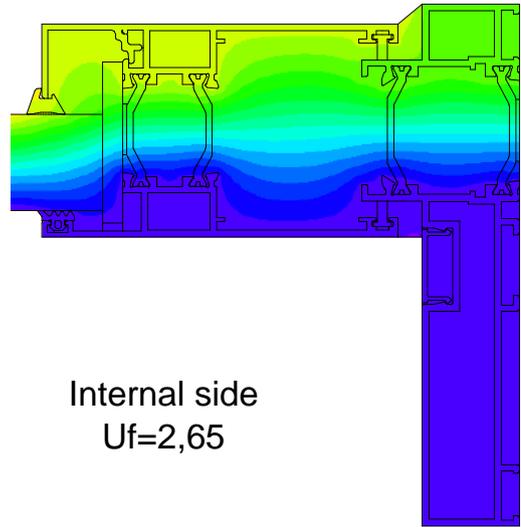
External upper
 $U_f=2,65$



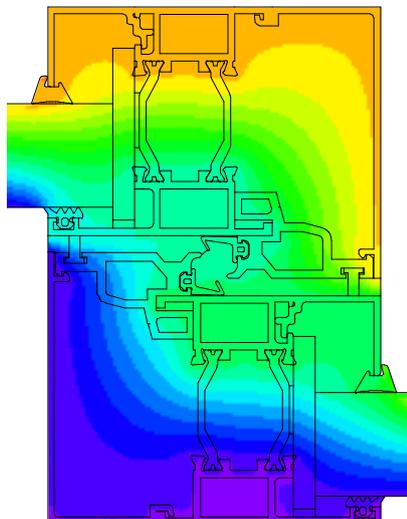
Internal upper
 $U_f=2,56$



External side
 $U_f=2,75$



Internal side
 $U_f=2,65$



Interlock
 $U_f=3,48$

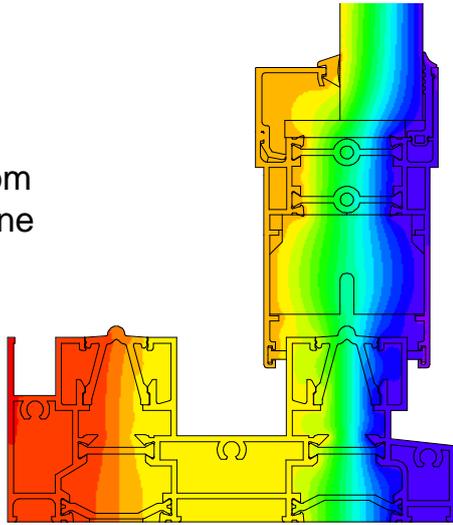


TOP PERFORMANCE SYSTEM

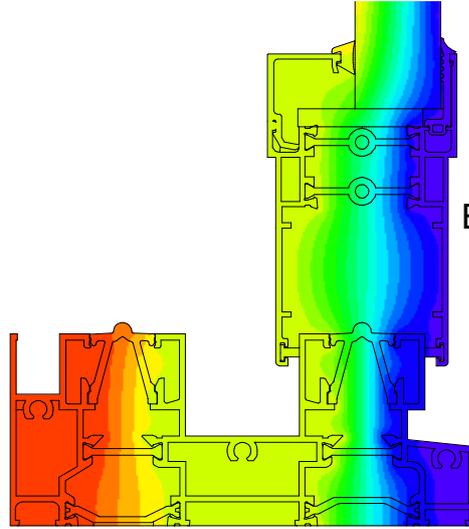
POLYSTYRENE VERSION

STANDARD VERSION

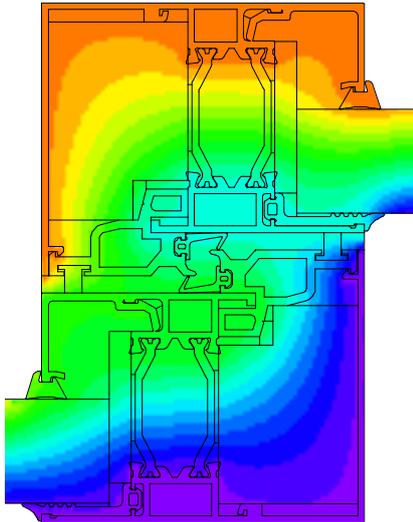
External bottom
with polystyrene
 $U_f=2,23$



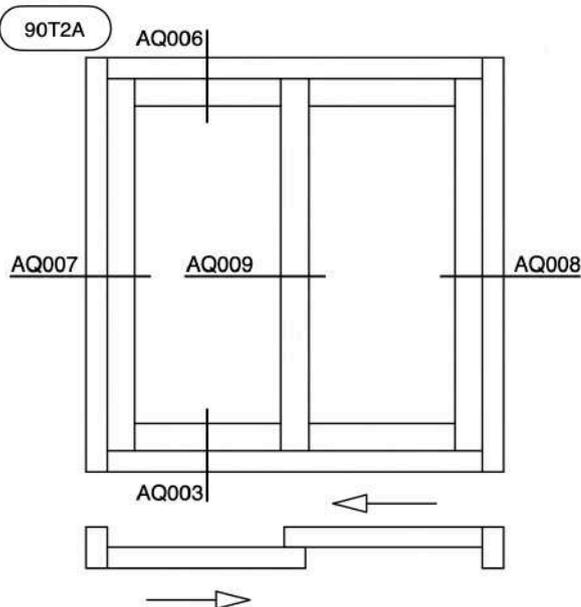
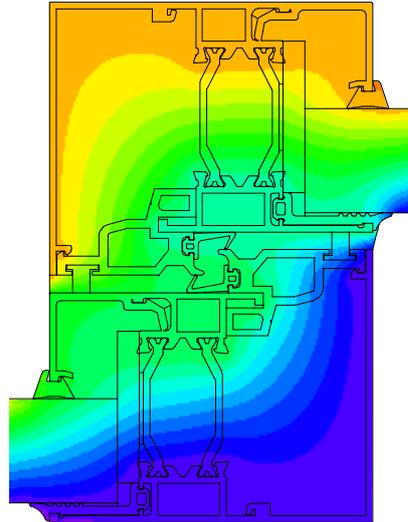
External bottom
 $U_f=2,85$



Interlock with
polystyrene
 $U_f=2,69$



Interlock
 $U_f=3,38$



Uw performance			
dimensions	width	2500mm	
	height	2180mm	
standard version (no polystyrene)	glass Ug	1,3	Uw: 1,68
	warm edge	0,05	
polystyrene version	glass Ug	0,6	Uw: 1,04
	warm edge	0,031	

90T2A is composed of assembled sections in standard version, polystyrene is optional.

Sector E

Sections list



CODE		DESCRIPTION	WEIGHT kg/m	Jx cm ⁴	Jy cm ⁴	SURFACE Ox mm
906580458		Upper frame transom	2,853	151,97	23,96	346
906005601		Lower frame transom	3,255	152,92	24,96	198
906060958		Upper frame fixed	2,737	131,54	19,11	243
906060701		Lower frame fixed	2,673	124,54	18,20	207
906360458		Upper frame transom fly screen	3,153	209,68	26,44	398
906355601		Lower frame transom fly screen	3,510	202,32	27,61	349
9065837		Upper frame transom 1PA	2,653	150,17	26,66	388
9060057		Lower frame transom 1PA	3,130	151,69	27,16	301
906474958		Upper frame fixed fly screen	3,054	183,47	20,37	331
906474801		Lower frame fixed fly screen	3,225	176,91	19,71	295



CODE		DESCRIPTION	WEIGHT kg/m	Jx cm ⁴	Jy cm ⁴	SURFACE Ox mm
9063637		Upper frame transom fly screen	2,953	207,57	29,15	535
9063557		Lower frame transom fly screen	3,385	261	37,53	349
90658040458		Upper 3 tracks transom	3,358	450,21	34,11	438
90600565601		Lower 3 tracks transom	4,737	485,38	35,63	407
90658040436		Upper 3 tracks transom fly screen	4,658	565,37	36,59	485
90601565635		Lower 3 tracks transom fly screen	4,992	584,20	38,28	455
906360437		Upper 3 tracks transom fly screen 2 PA	4,158	585,28	40,52	527
906355657		Lower 3 tracks transom fly screen 2 PA	4,867	561,08	39,44	455
906580437		Upper frame 3 tracks 2PA	4,889	585,28	40,52	480
906005657		Lower frame 3 tracks 2PA	4,250	561,08	39,44	407



CODE		DESCRIPTION	WEIGHT kg/m	Jx cm ⁴	Jy cm ⁴	SURFACE Ox mm
9060302		Frame mullion	1,924	84,72	6,60	162
9063902		Frame mullion	1,848	84,47	6,77	181
9061011		Fixed frame mullion	2,057	88,88	9,27	140
9065051		Fixed frame mullion fly screen	2,264	139,88	8,51	245
9063303		Frame mullion fly screen right	2,251	131,83	8,63	245
9063402		Frame mullion fly screen left	2,229	122,85	10,46	167
9061302		Mullion 3 tracks	3,477	273,10	8,59	210
9063313		Mullion 3 tracks fly screen	3,036	373,81	10,72	293
9065502		Mullion 3 tracks fly screen	3,016	386,95	10,60	293
9061200		Frame 45°	1,976	82,01	7,76	156



CODE		DESCRIPTION	WEIGHT kg/m	Jx cm ⁴	Jy cm ⁴	SURFACE Ox mm
9065412		Frame 45° fly screen	2,227	118,19	8,98	178
9062221		Upper sash 90°	1,521	16,80	20,53	226
9061920		Lower sash 90°	1,398	16,00	19,73	278
9062324		Mullion side sash 90°	1,321	16,21	12,30	189
9062625		Interlock mullion sash 90°	0,950	10,58	3,07	81
9061514		Sash 45°	1,488	19,26	23,76	294
9061617		Sash interlock 45°	1,082	11,60	4,53	88
9063130		Fixed interlock mullion	1,112	13,41	4,72	82
9063130A		Fixed interlock mullion fly screen	1,092	10,68	4,72	82
9062929		4 panels interlock mullion	0,652	4,48	0,97	60



CODE		DESCRIPTION	WEIGHT kg/m	Jx cm ⁴	Jy cm ⁴	SURFACE Ox mm
90605		Mullion cover clip	0,098			18
90628		Interlock clip movable sash	0,394	6,56	1,05	88
90632		Interlock clip fixed panel fly screen	0,397	7,67	0,71	89
90653		Interlock clip fixed panel	0,378	6,26	0,70	84
90652		Lower cover section fly screen	0,796			106
90608		Lower cover section	0,769			112
90638		Bottom rail	0,195			22
90646		Glazing bead 90° 5mm	0,198			24
90645		Glazing bead 90° 9mm	0,211			28
90644		Glazing bead 90° 13mm	0,227			32



CODE		DESCRIPTION	WEIGHT kg/m	Jx cm ⁴	Jy cm ⁴	SURFACE Ox mm
90864		Glazing bead 90° 17mm	0,243			36
90627		Glazing bead 90° 21mm	0,259			40
90643		Glazing bead 45° 3mm	0,149			23
90642		Glazing bead 45° 7mm	0,178			27
90641		Glazing bead 45° 11mm	0,195			31
90863		Glazing bead 45° 15mm	0,211			35
90618		Glazing bead 45° 19mm	0,227			39
90640		Architrave	0,238			37
90700		Upper frame transom	3,035	270,49	31,32	458
90701		Lower frame transom	2,927	237,96	31,04	348



CODE		DESCRIPTION	WEIGHT kg/m	Jx cm ⁴	Jy cm ⁴	SURFACE Ox mm
90716		Upper 3 tracks transom fix panel	4,584	708,46	44,70	582
90718		Lower 3 tracks transom	4,541	657,38	43,96	455
90709		Upper transom fix panel	2,754	230,45	22,71	363
90710		Lower transom fix panel	2,786	213,42	22,44	294
90702		Mullion frame	2,469	188,74	12,00	344
90711		Mullion frame fix panel	2,003	150,14	10,39	167
90717		Mullion transom 3 tracks	3,715	539,58	14,55	391
90715		Frame 45°	1,998	146,00	9,21	178
90703		Sash mullion 90°	1,059	17,88	12,96	223
90704		Sash interlock 90°	0,794	11,96	3,37	81

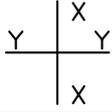


CODE		DESCRIPTION	WEIGHT kg/m	Jx cm ⁴	Jy cm ⁴	SURFACE Ox mm
90705		Sash transom 90°	1,293	18,69	21,29	311
90708		Clip interlock	0,637	14,03	3,14	110
90707		Sash 45°	1,306	22,94	23,39	322
90706		Sash interlock 45°	0,899	13,37	4,79	87
90712		Interlock fixed mullion	0,945	12,95	4,82	85
90713		Cover clip interlock fix panel	0,629	13,37	2,96	106
90714		Interlock panel 90°	0,672	5,67	1,50	107
90854		Glazing 4mm	0,214			26
90846		Glazing 8mm	0,234			30
90845		Glazing 12mm	0,237			34



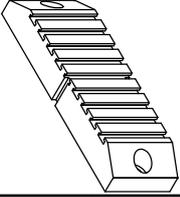
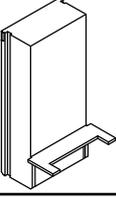
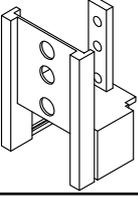
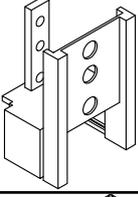
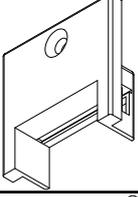
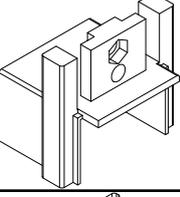
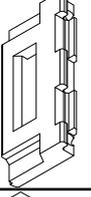
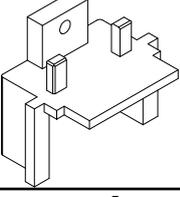
CODE		DESCRIPTION	WEIGHT kg/m	Jx cm ⁴	Jy cm ⁴	SURFACE Ox mm
90844		Glazing 16mm	0,268			38
90803		Glazing 20mm	0,284			42
90855		Glazing 24mm	0,291			46
90856		Glazing 28mm	0,298			50
90857		Glazing 32mm	0,309			54
90858		Glazing 36mm	0,324			58
90859		Glazing 40mm	0,338			62
90860		Glazing 44mm	0,348			66
90861		Glazing 48mm	0,362			70
90862		Interlock reinforcement	1,087	7,26	4,80	90



CODE		DESCRIPTION	WEIGHT kg/m	Jx cm ⁴	Jy cm ⁴	SURFACE Ox mm
90863		Cover interlock reinforcement	0,139			22

Sector F Fittings list



CODE		DESCRIPTION
QXA0500		Nylon plug brush horizontal frame
QXA0501		Nylon plug side frame mullion
QXA0502		Side sash plug right
QXA0503		Side sash nylon plug left
QXA0504		Nylon plug clip interlock
QXA0505		Internal nylon plug interlock
QXA0506		Lock counter plate zamak
QXA0507		Nylon plug 4 panel interlock
QXA0508		Nylon plug side mullion frame cover clip

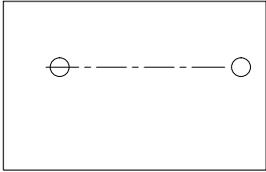
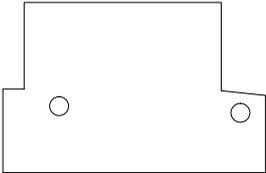
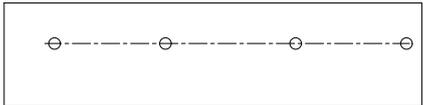
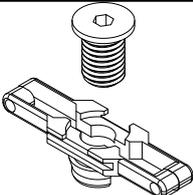
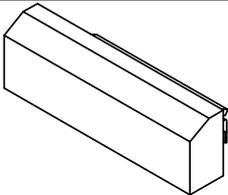
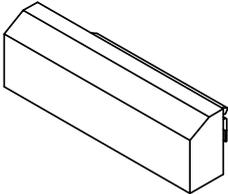
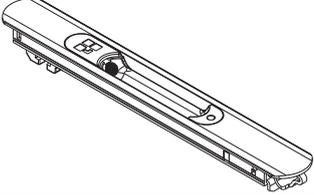


CODE		DESCRIPTION
QXA0509		Nylon corner joint sash 45°
QXA0510		Nylon connector interlock for sash 45°
QXA0511		Nylon plug brush for horizontal fixed frame
QXA0512		Adaptor with screws for GIESSE roller
QXA0517		Self tapping screw ø4,8x75
QXA0518		Self tapping screw ø4,8x38
QXA0519		Steel lower corner fixing plate
QXA0520		Steel upper corner fixing plate
QXA0521		Corner joint for sash 45°

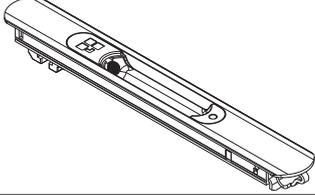
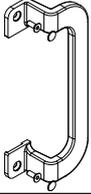
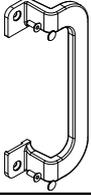
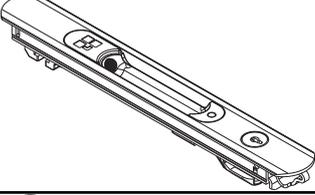
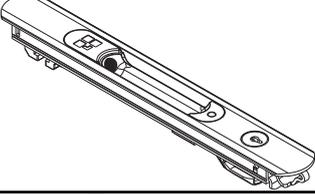
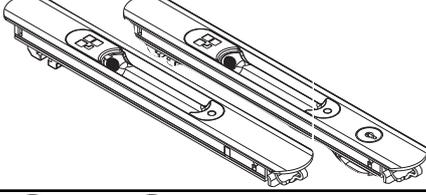
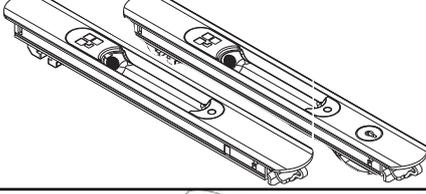
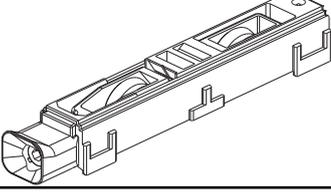


CODE		DESCRIPTION
QXA0522		Corner joint for fixed frame
QXA0523		Corner joint for fixed frame
QXA0524		T joint
QXA0525		Lower sponge 130
QXA0526		Upper sponge 130
QXA0527		Upper sponge 197
QXA0528		Lower sponge 197
QXA0529		Lower sponge 148
QXA0530		Upper sponge 148

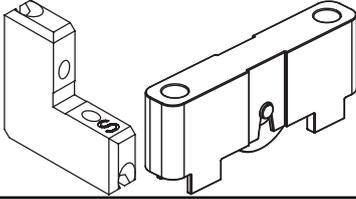
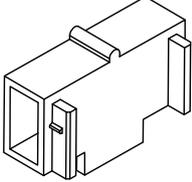


CODE		DESCRIPTION
QXA0531		Upper sponge 83
QXA0532		Lower sponge 83
QXA0533		Lower sponge 215
QXA0534		Upper sponge 215
QXA0513		Adjusting block nylon plate and screw
QXA0514		Water drain cap
QXA0515		Water drain cap with valve
QXA0516		Water cap with ball valve
QXA0535		Flush handle white



CODE		DESCRIPTION
QXA0536		Flush handle black
QXA0537		Pull handle white
QXA0538		Pull handle black
QXA0539		Flush handle white with internal key
QXA0540		Flush handle black with internal key
QXA0541		Double flush handle with external key white
QXA0542		Double flush handle with external key black
QXA0544		Pull handle black
QXA0545		Trolley



CODE		DESCRIPTION
QXA0546		Fly screen set
QXA0636		Side track water channel

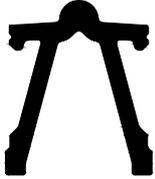
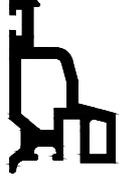
Sector G

Gaskets list

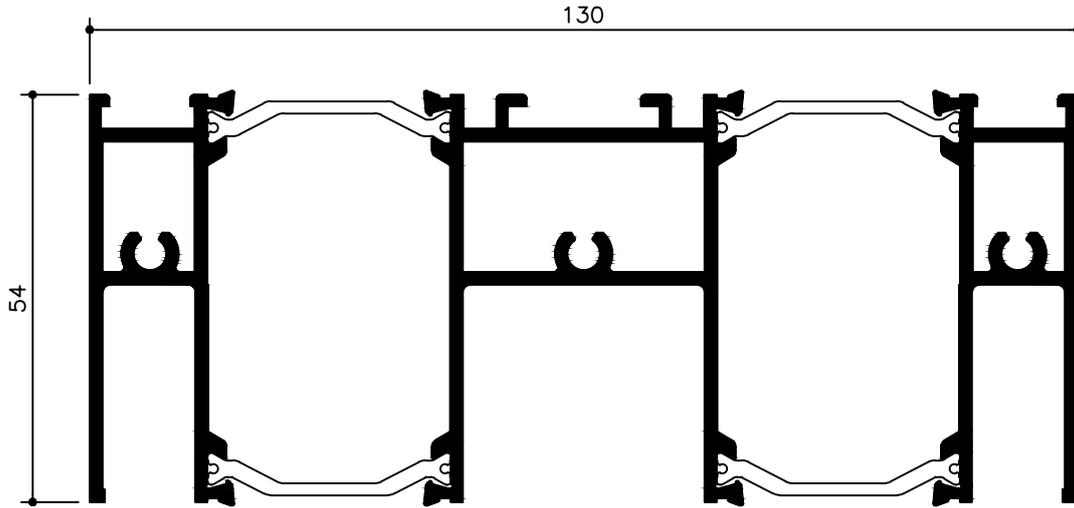


CODE		DESCRIPTION
QXG0500		External glass gasket fixed frame (casement)
QXG0503		External glass gasket (sash 90°)
QXG0504		Bottom gasket
QXG0505		Vertical side mullion gasket
QXG0509		Interlock gasket
QXG0511		Internal glass gasket big
QXG0512		Internal glass gasket medium
QXG0513		Internal glass gasket slim
QXB0500		Brush fin seal 4,8x6

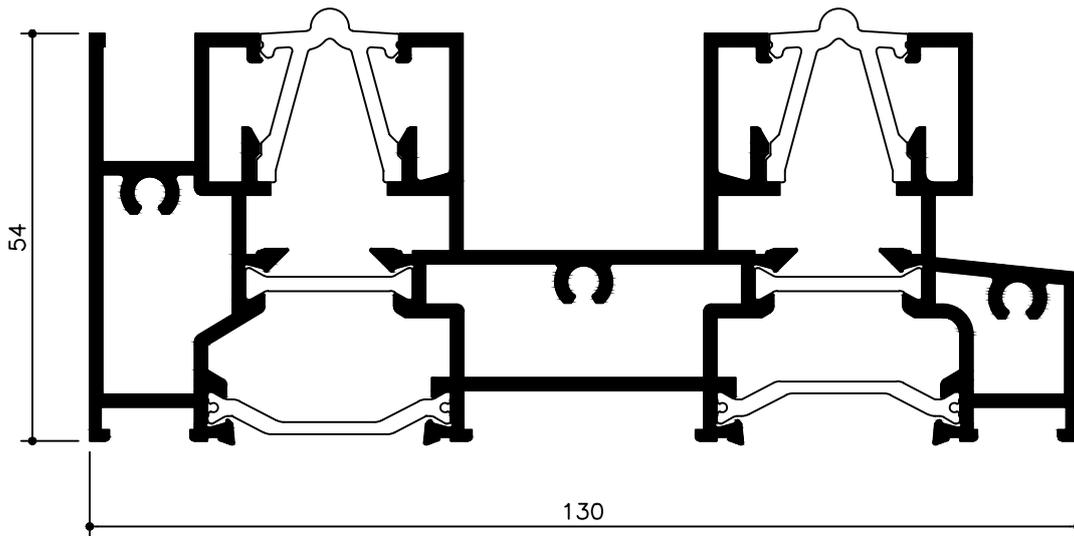


CODE		DESCRIPTION
QXB0501		brush fin seal 4,8x7
QXP0501		Rail
QXP0500		Clip interlock

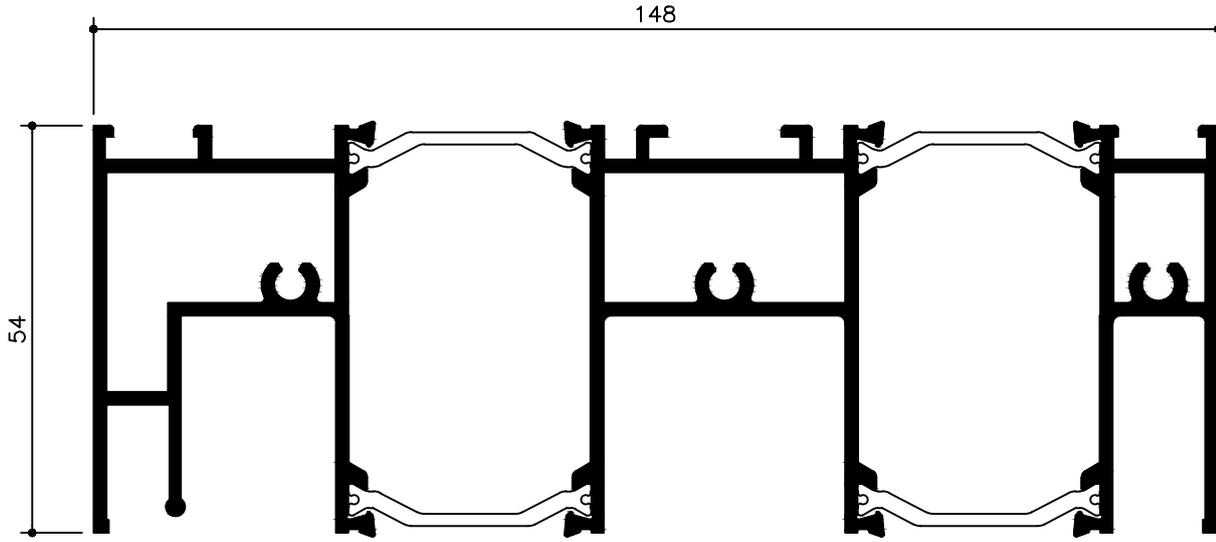
Sector H
Sections scale 1:1



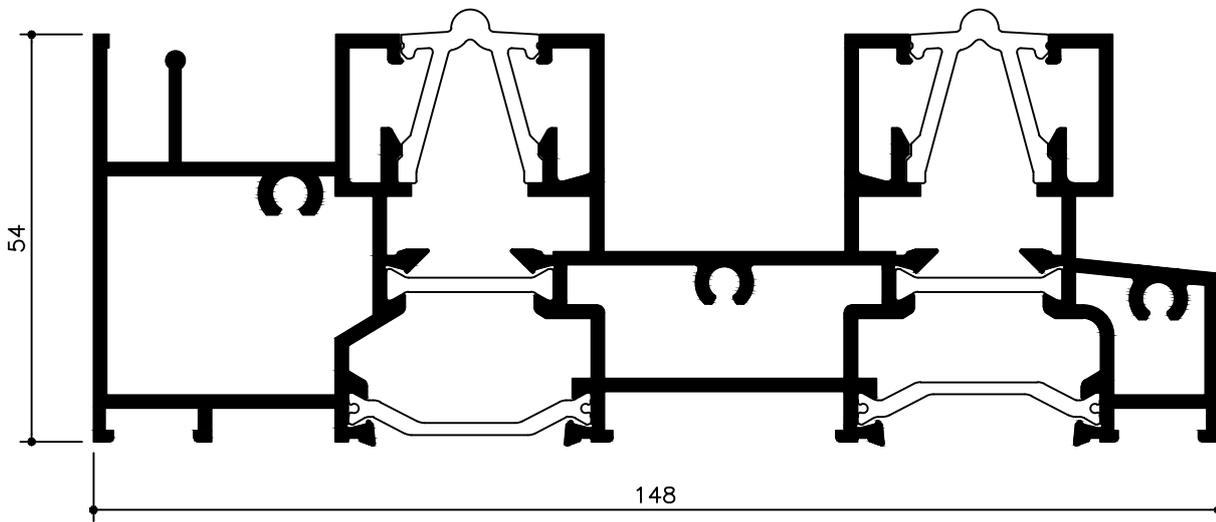
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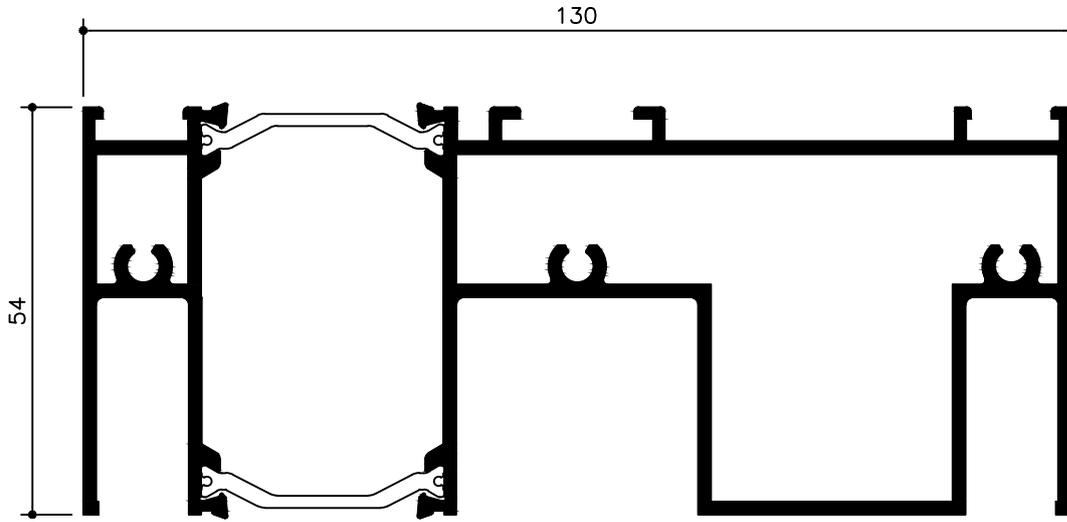
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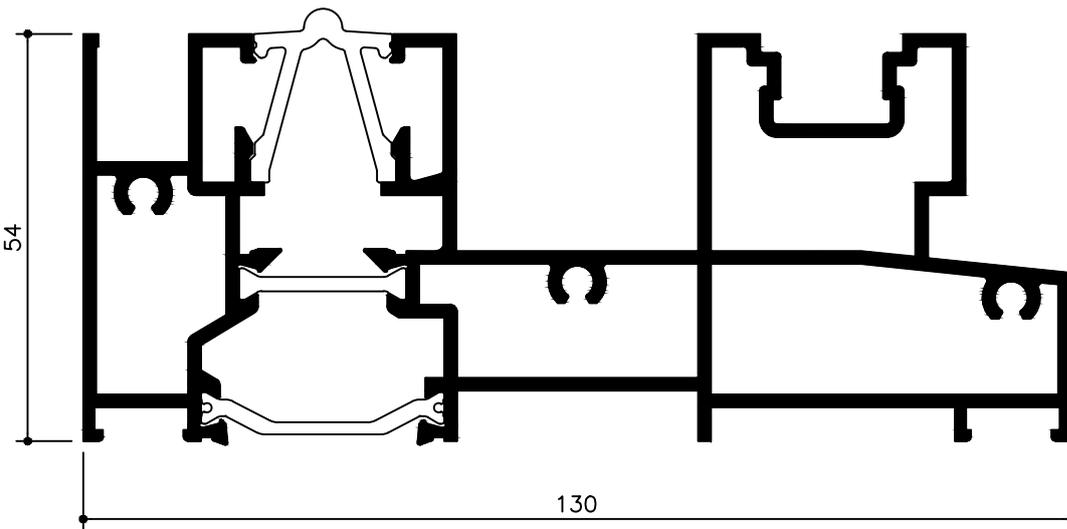
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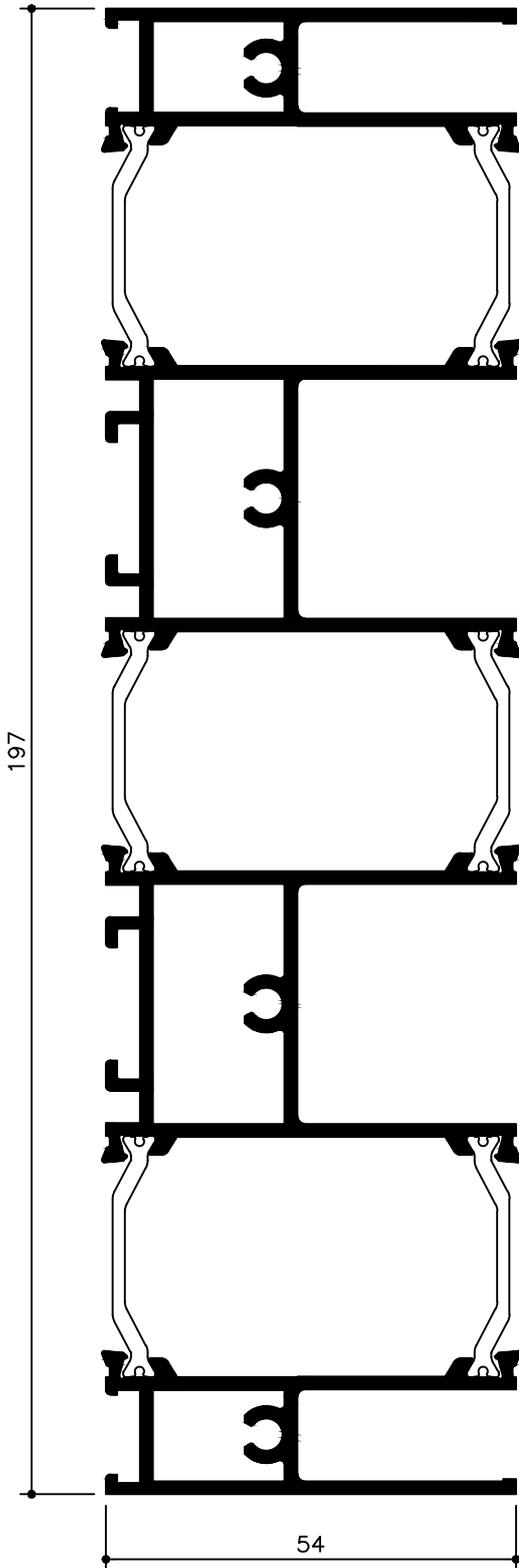
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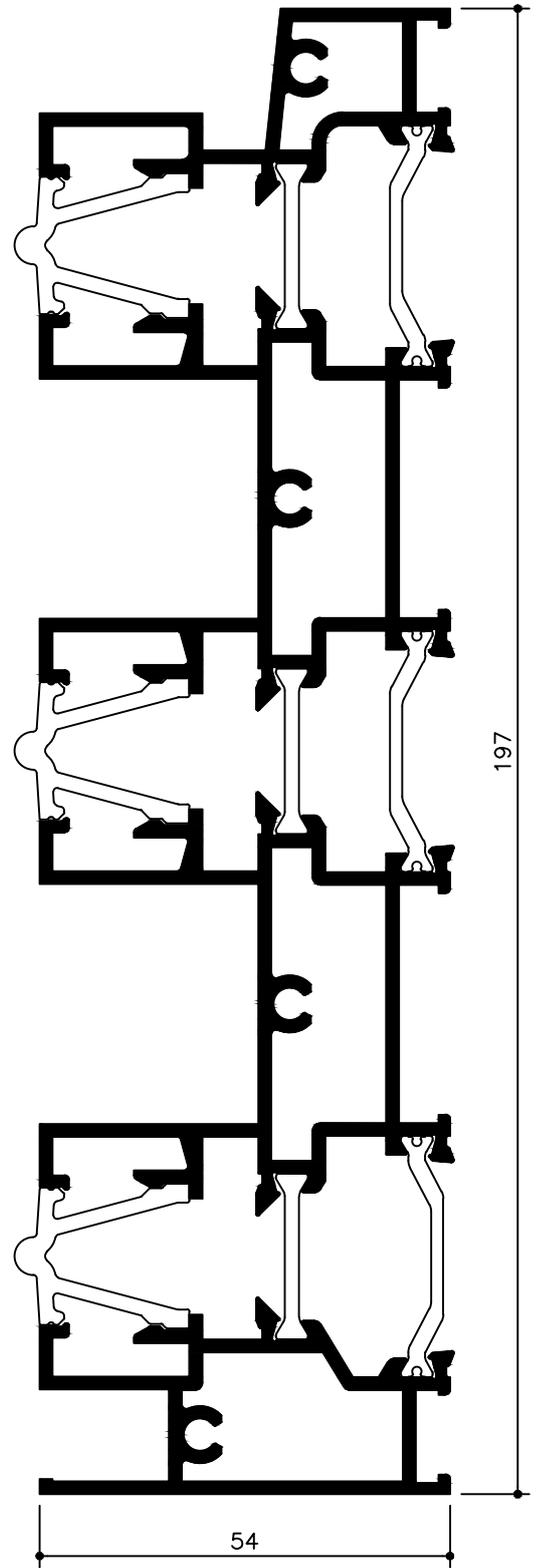
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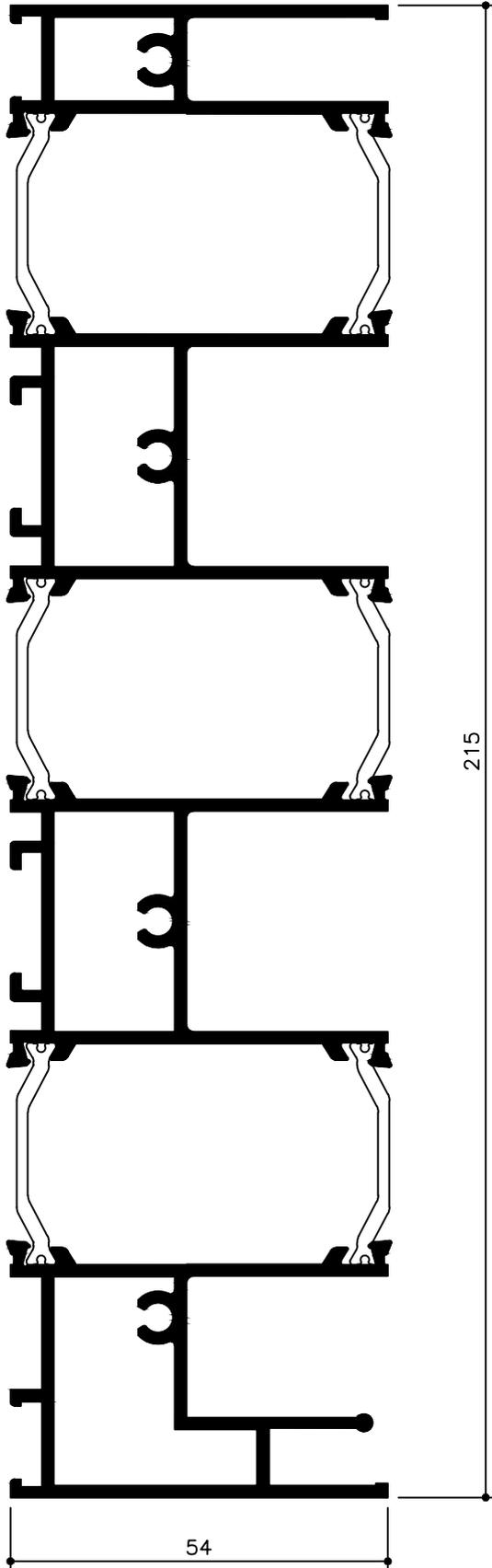


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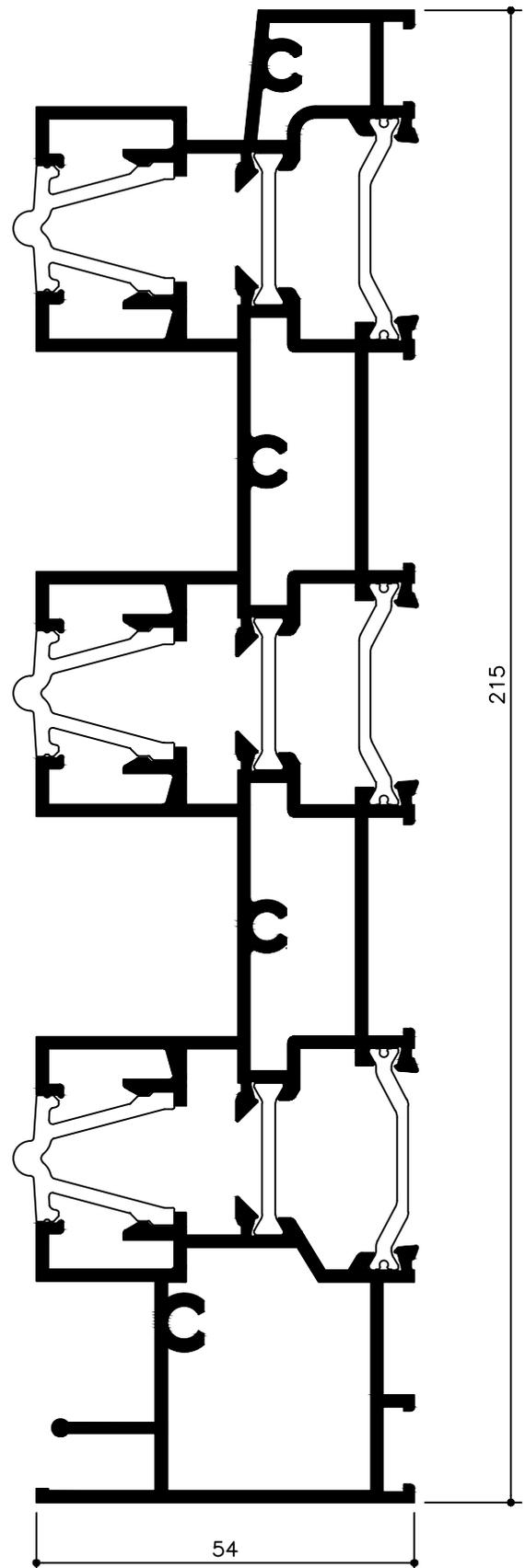




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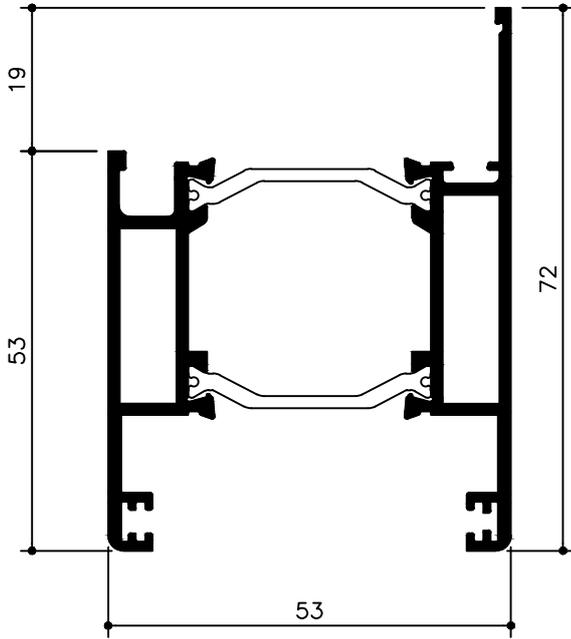


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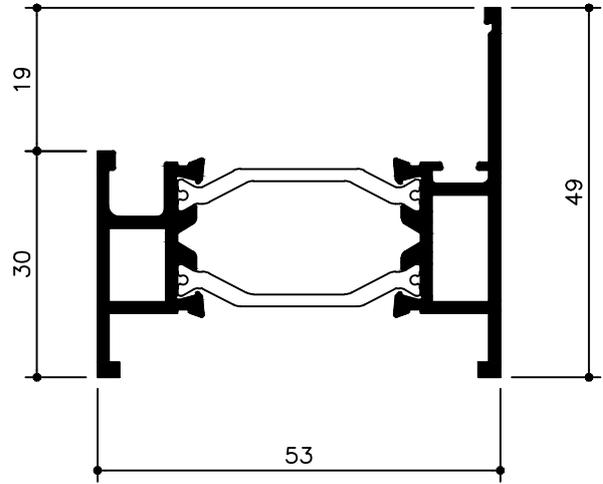




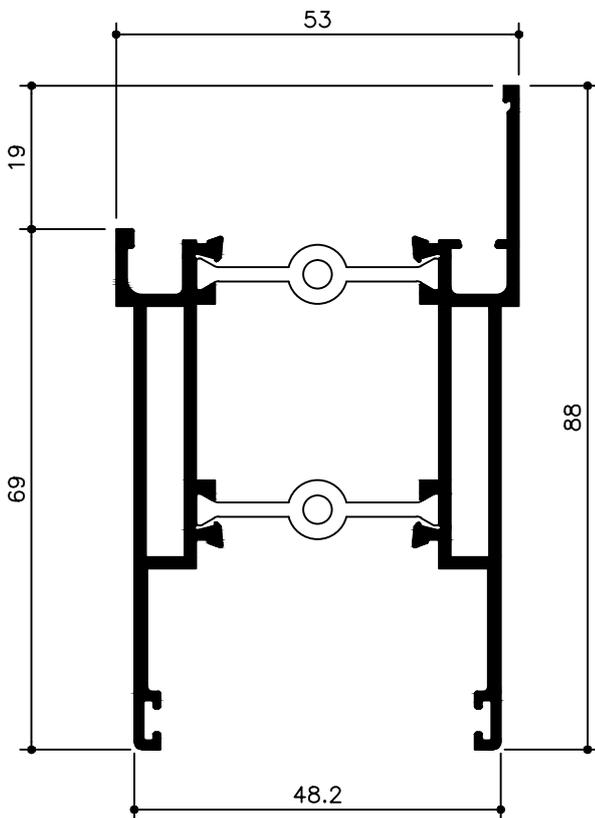
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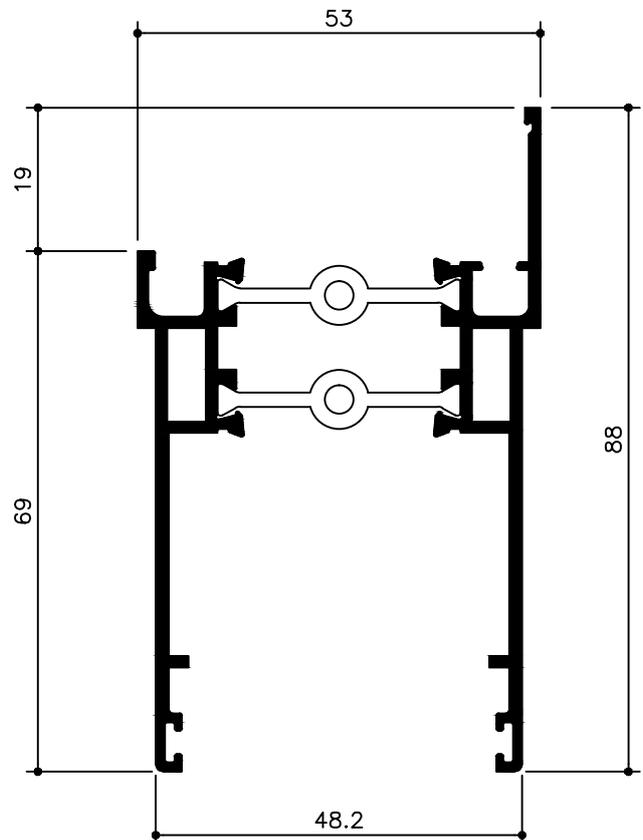
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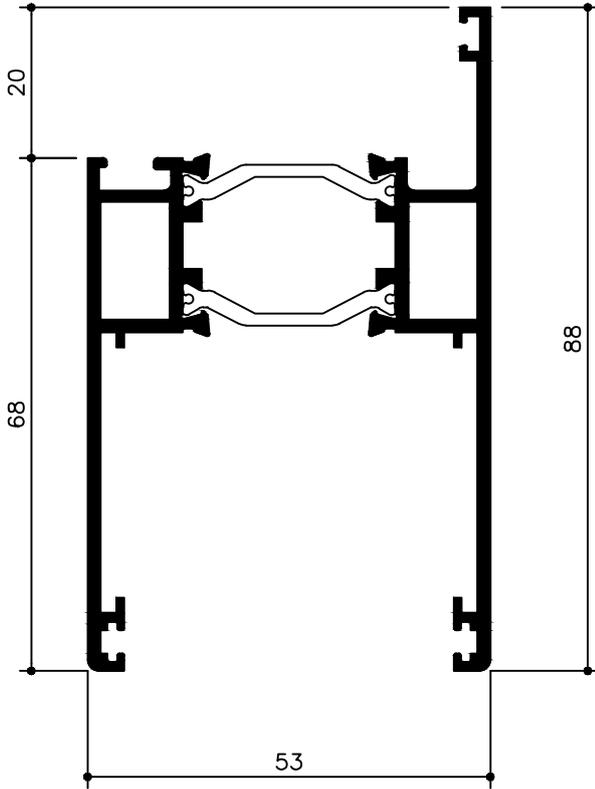


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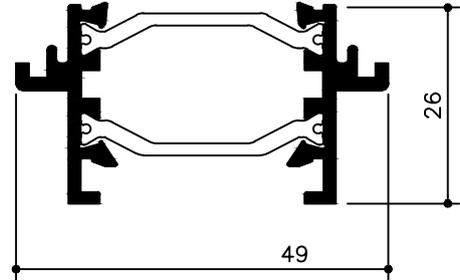




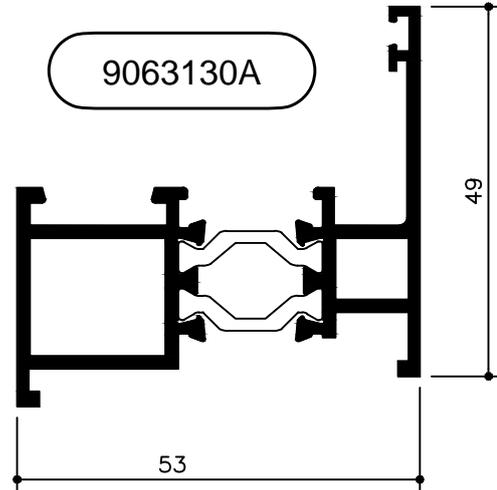
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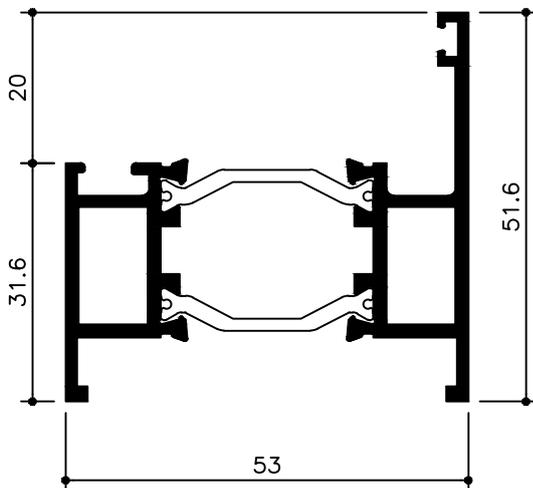
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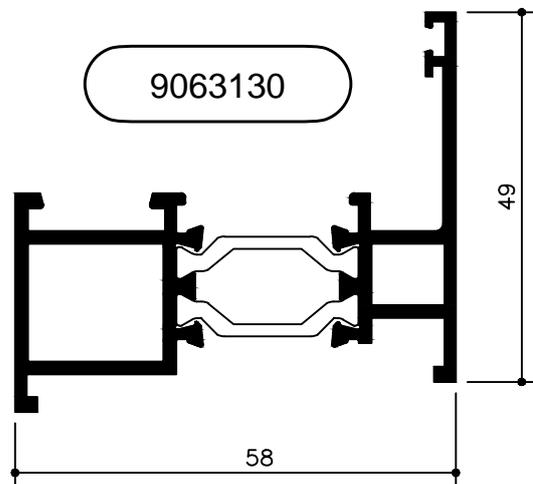
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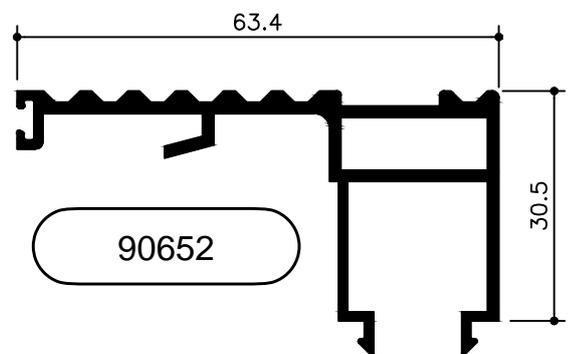
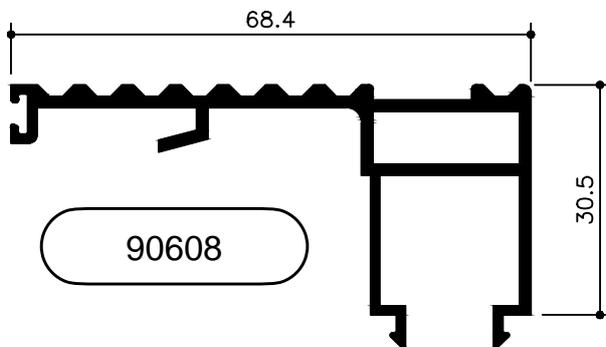
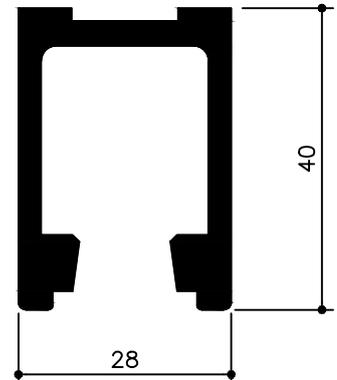
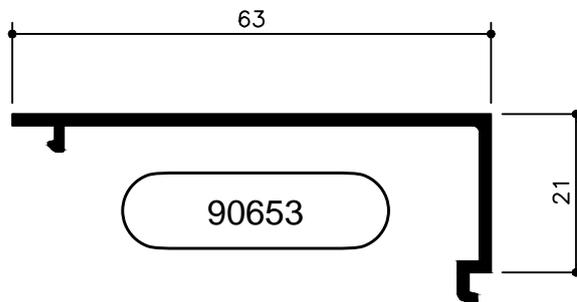
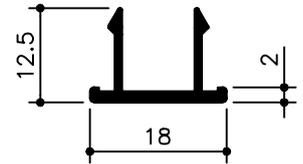
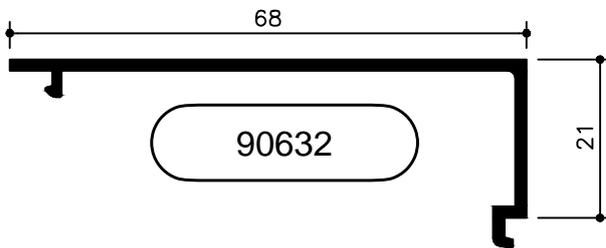
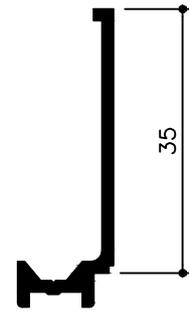
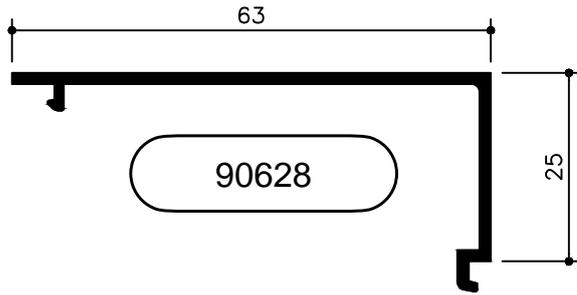


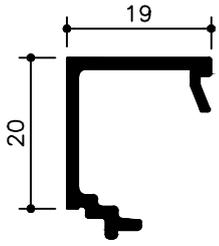
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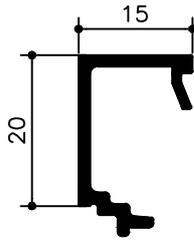
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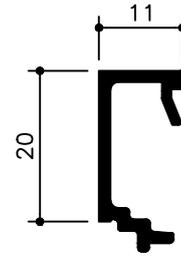




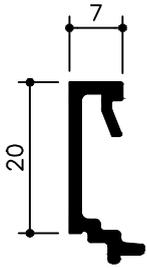
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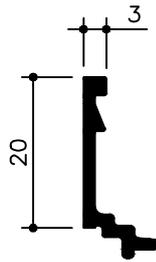
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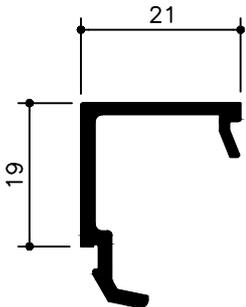
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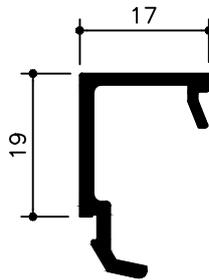
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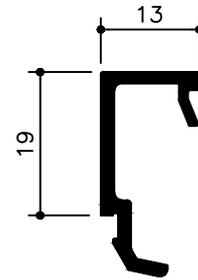
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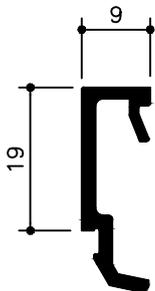
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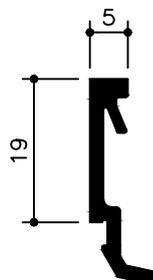
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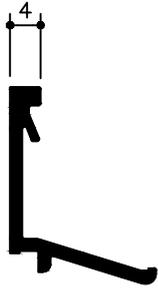
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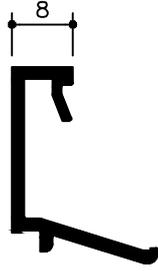
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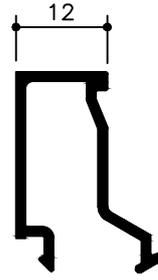
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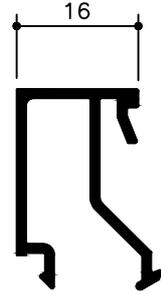
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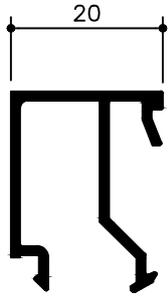
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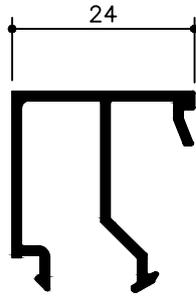
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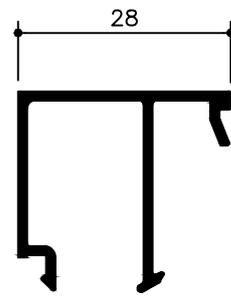
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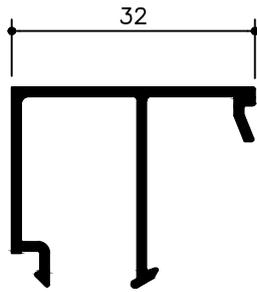
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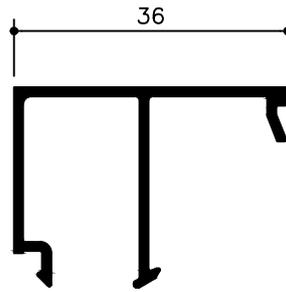
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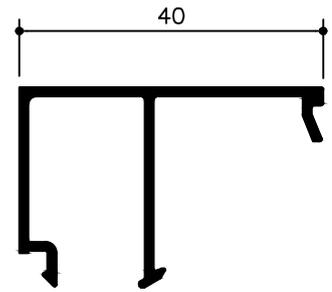
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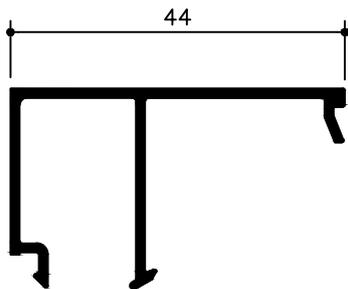
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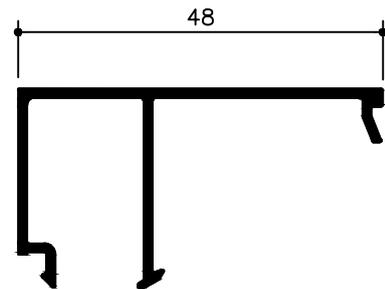
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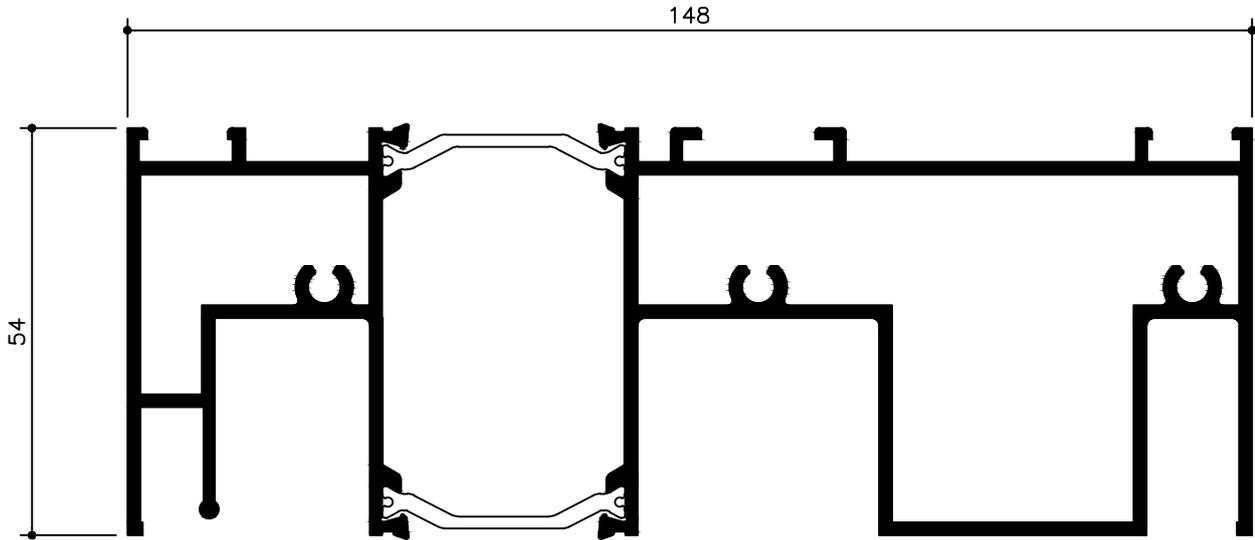
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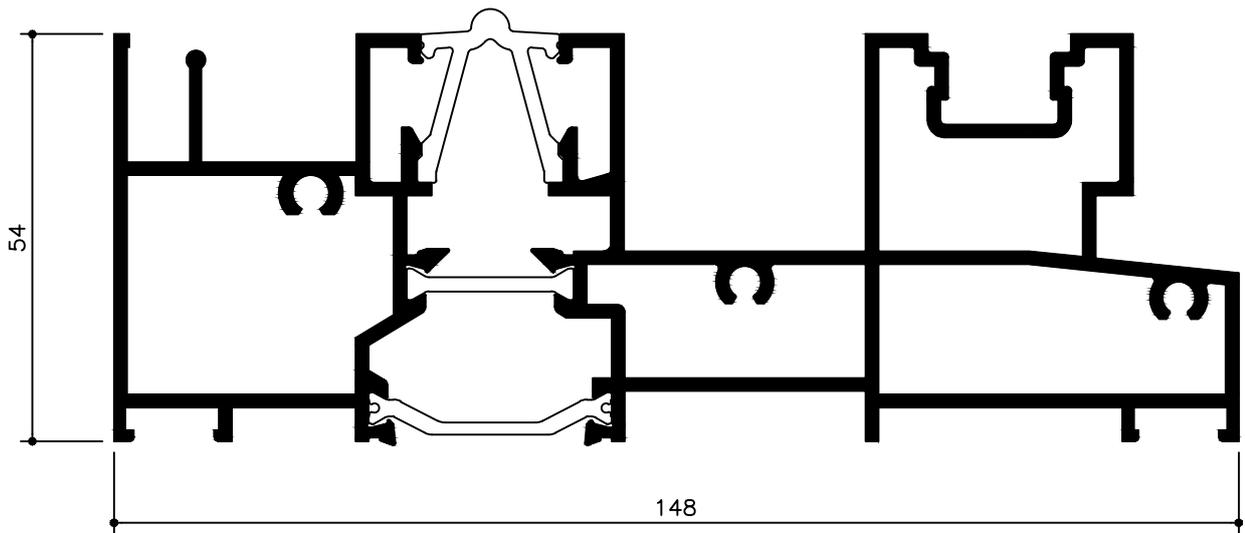
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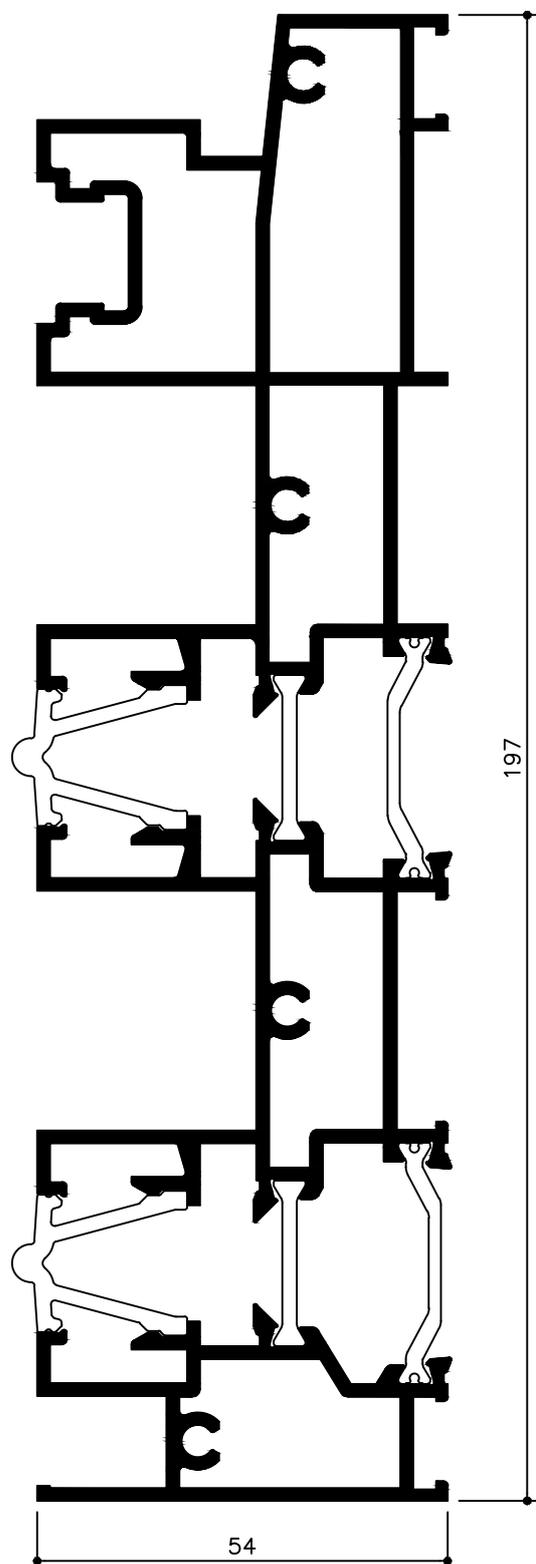
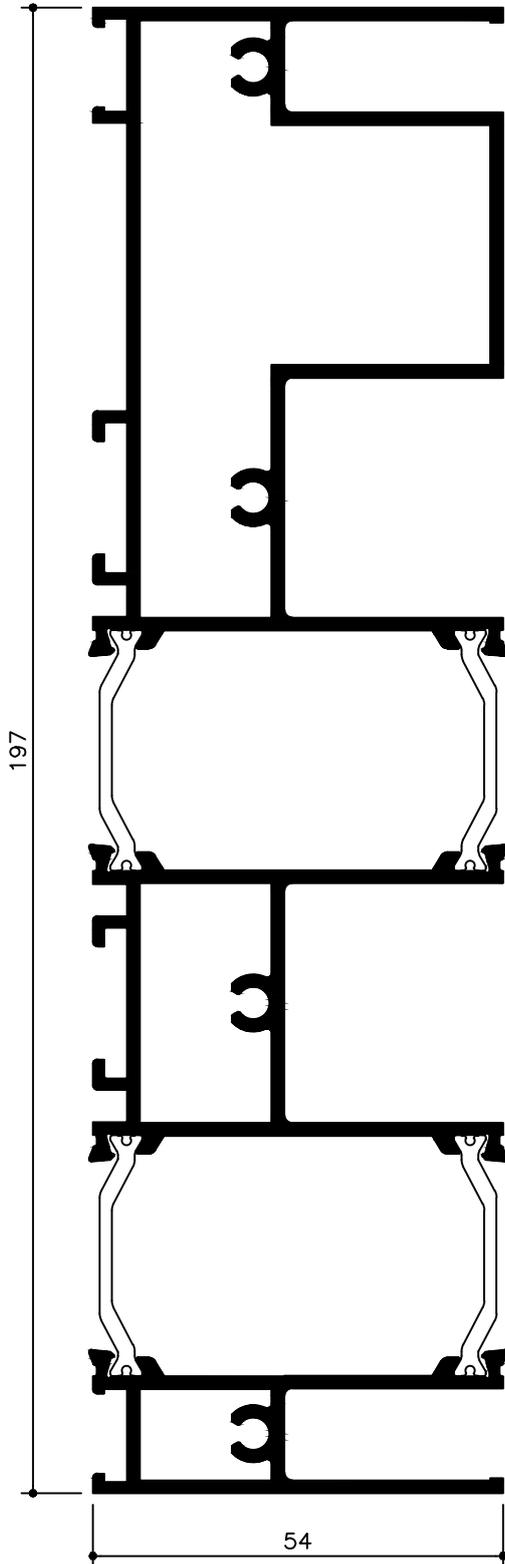


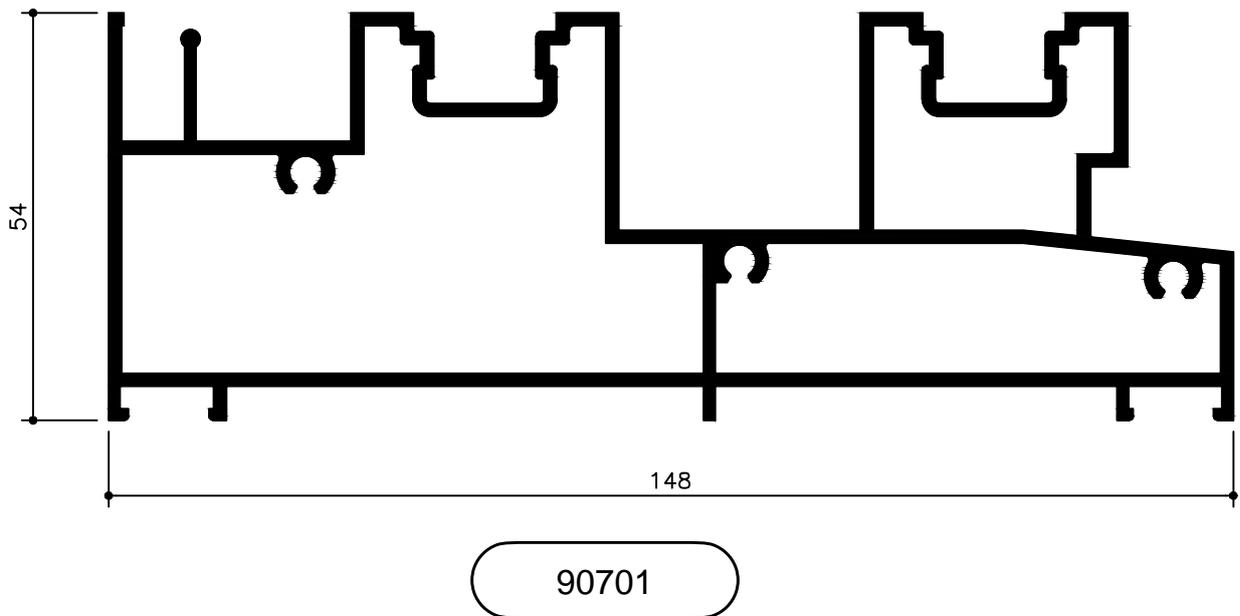
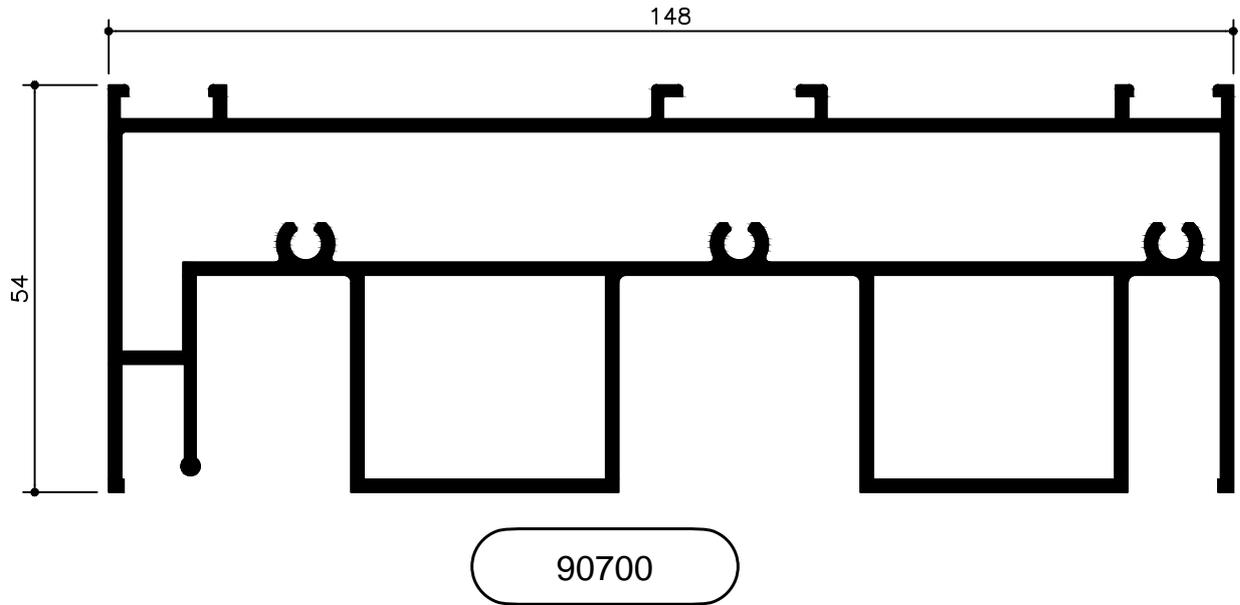
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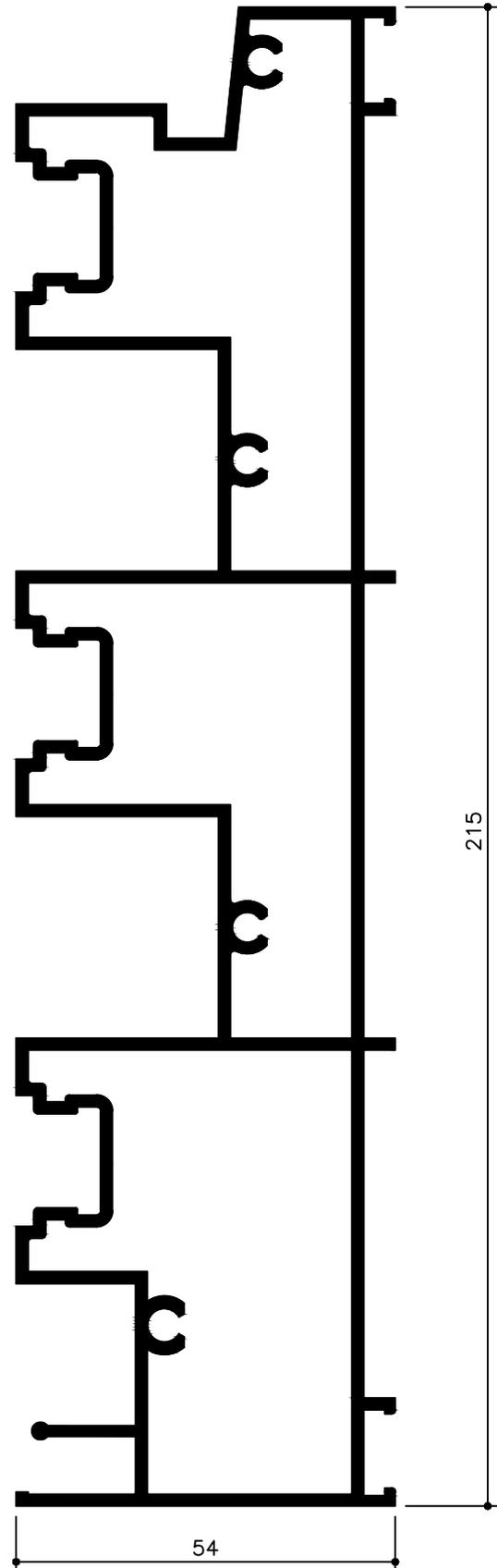
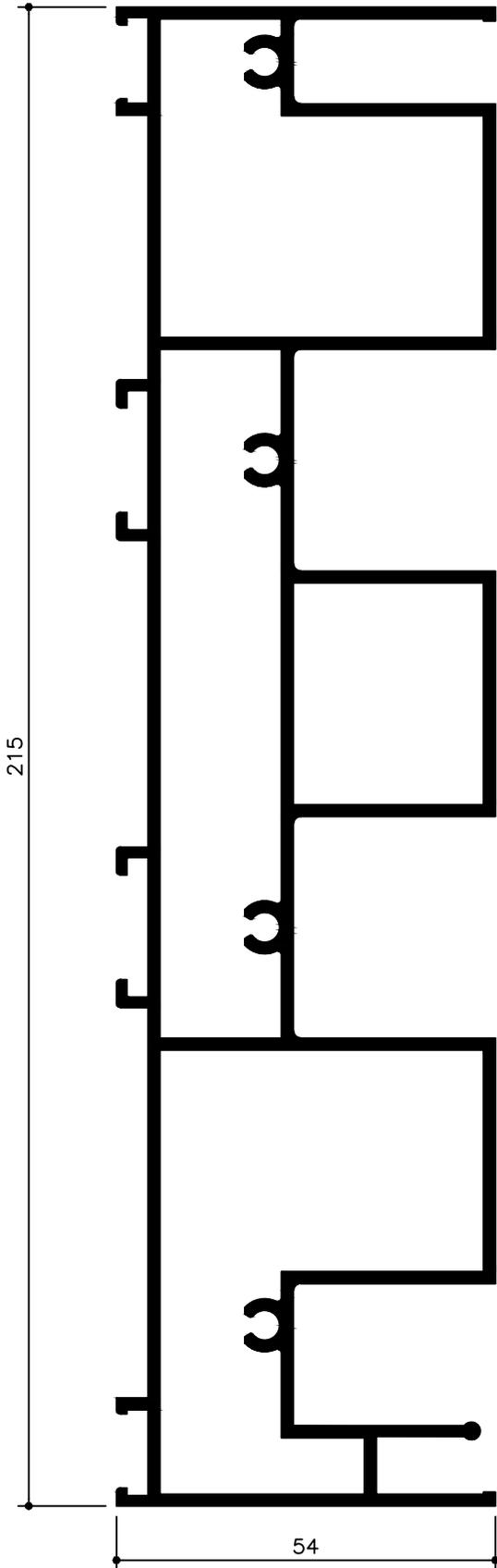


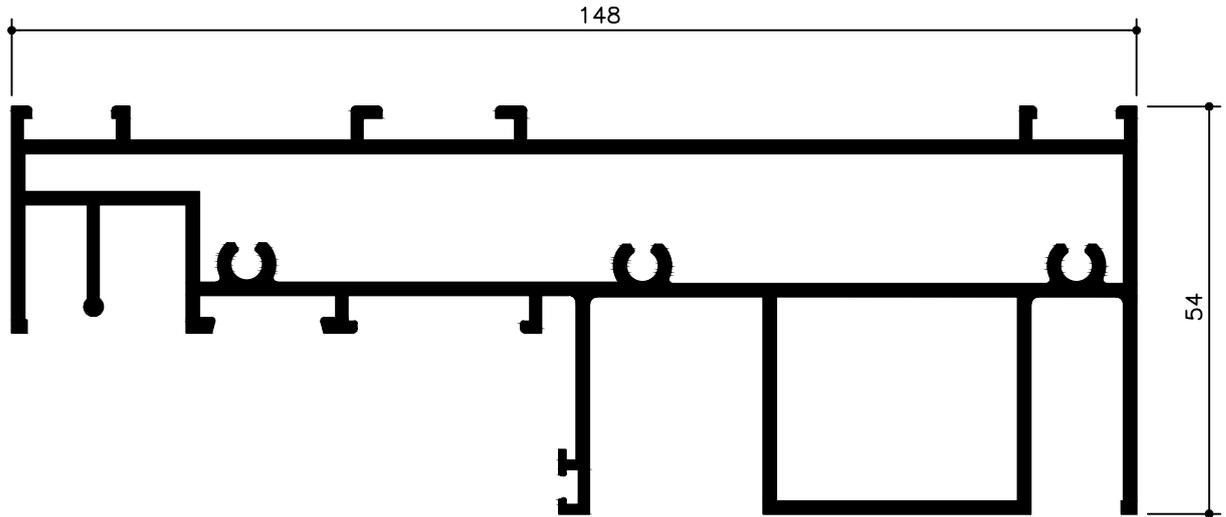




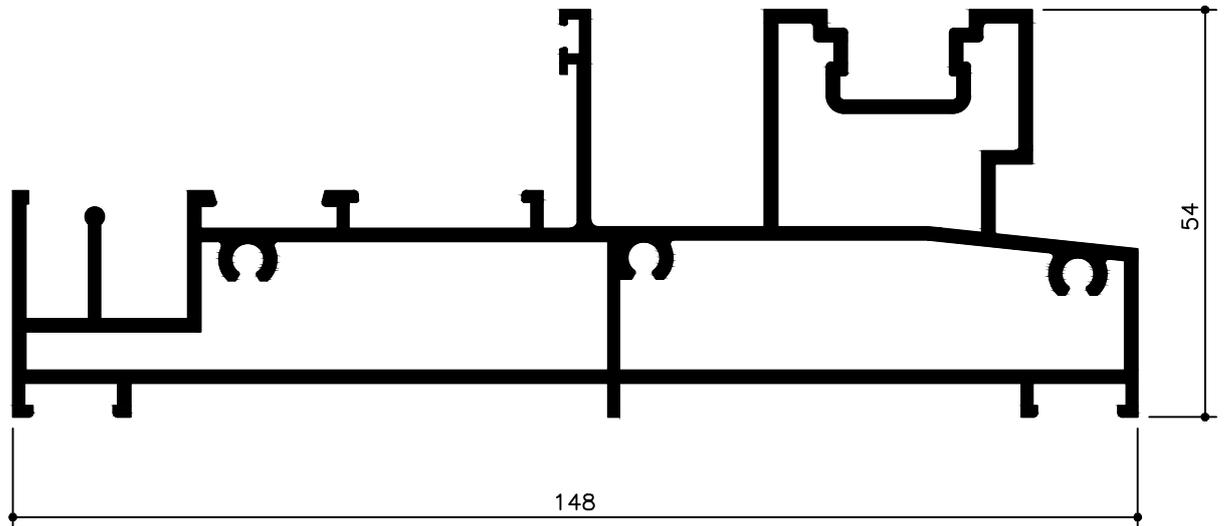
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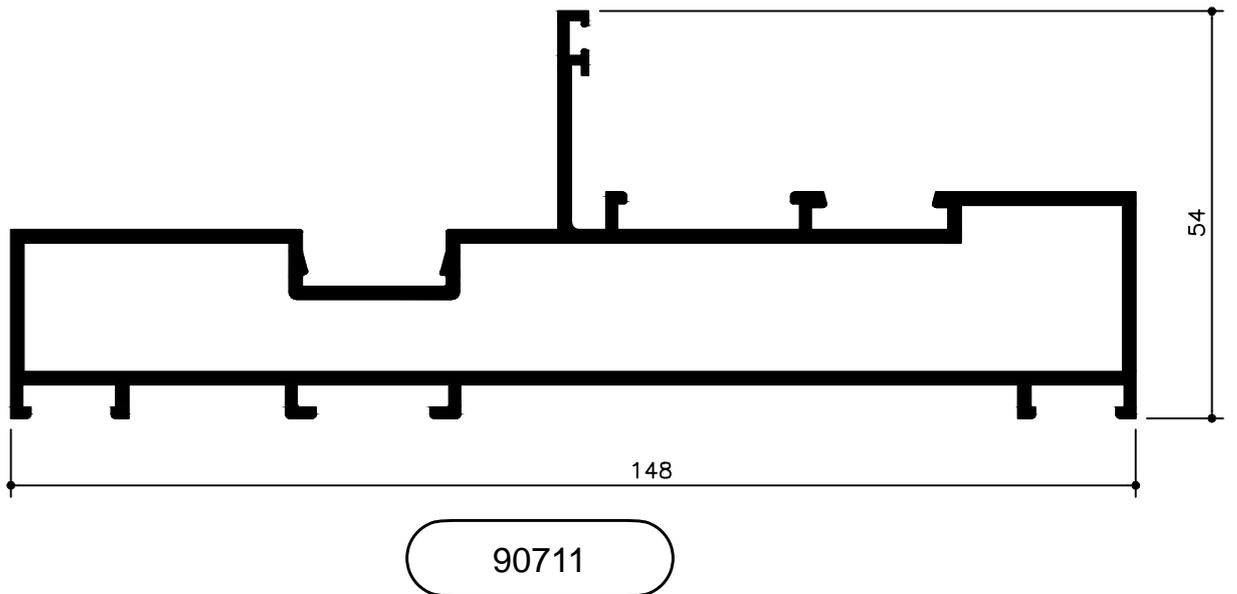
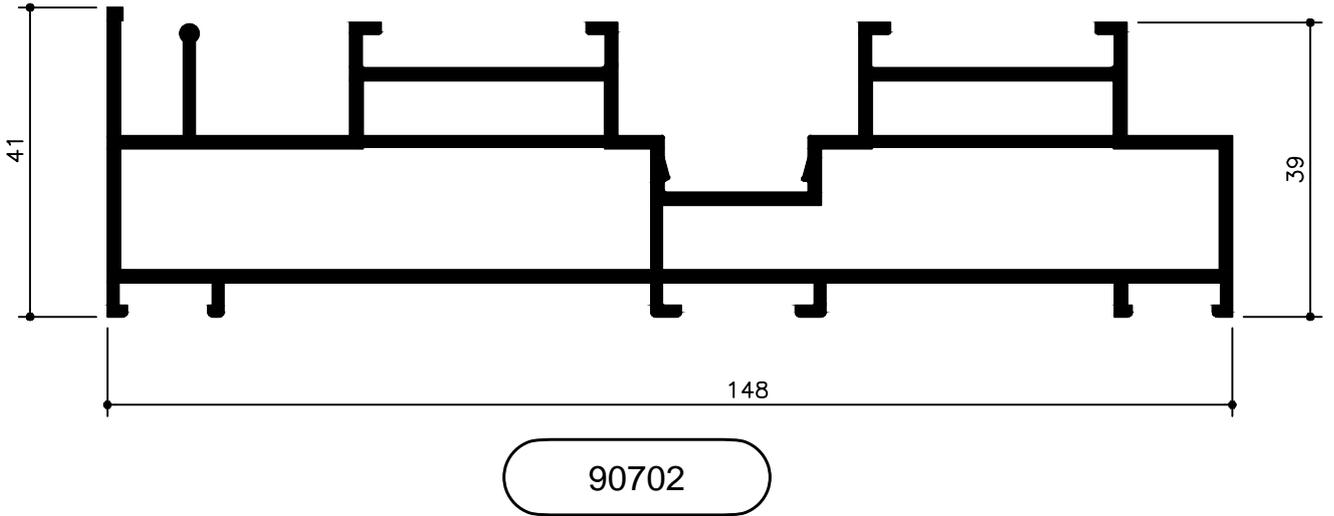


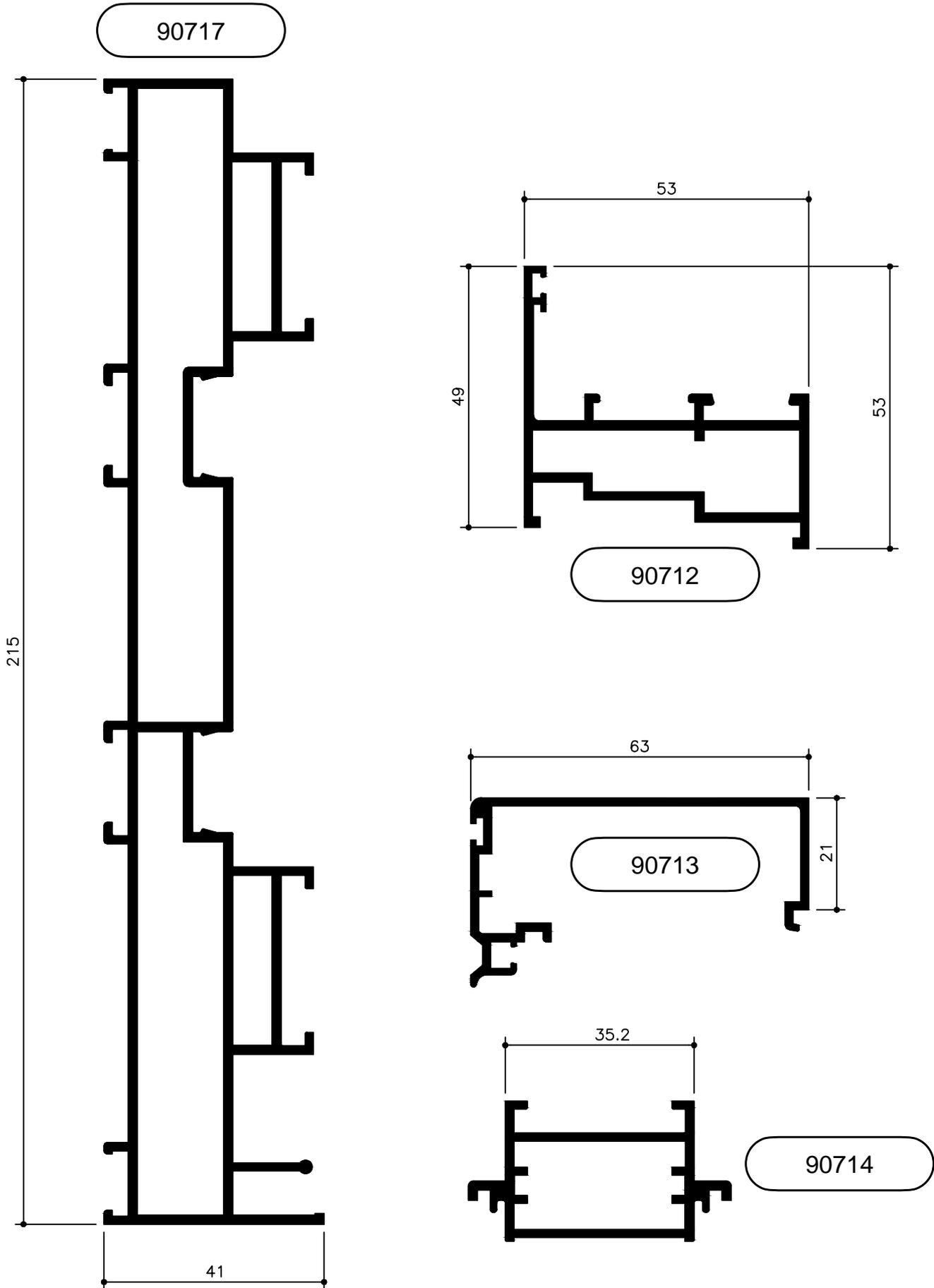


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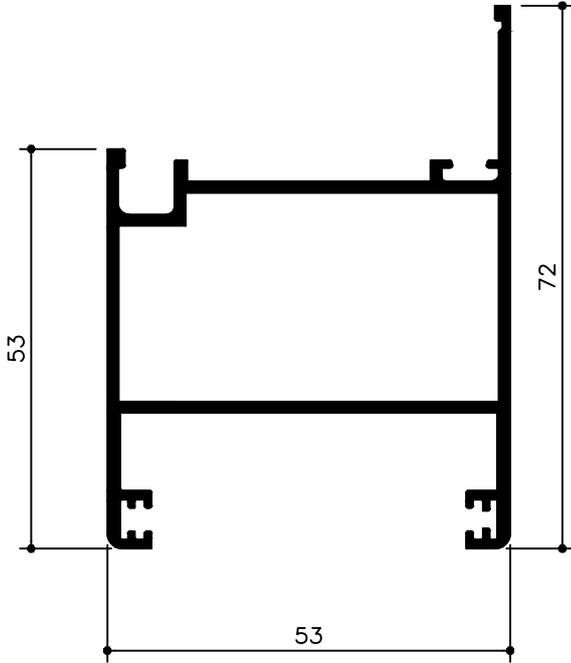
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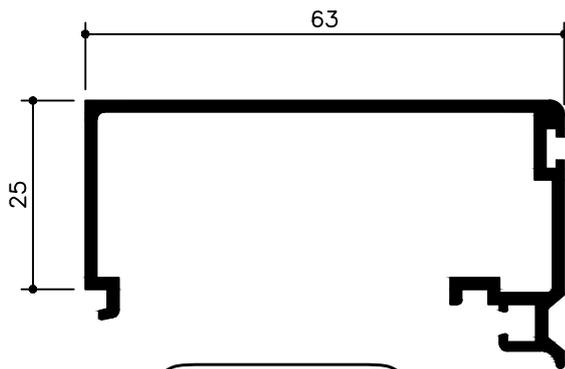
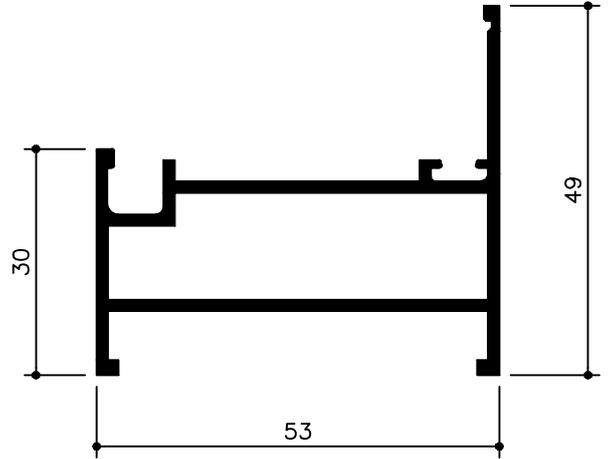




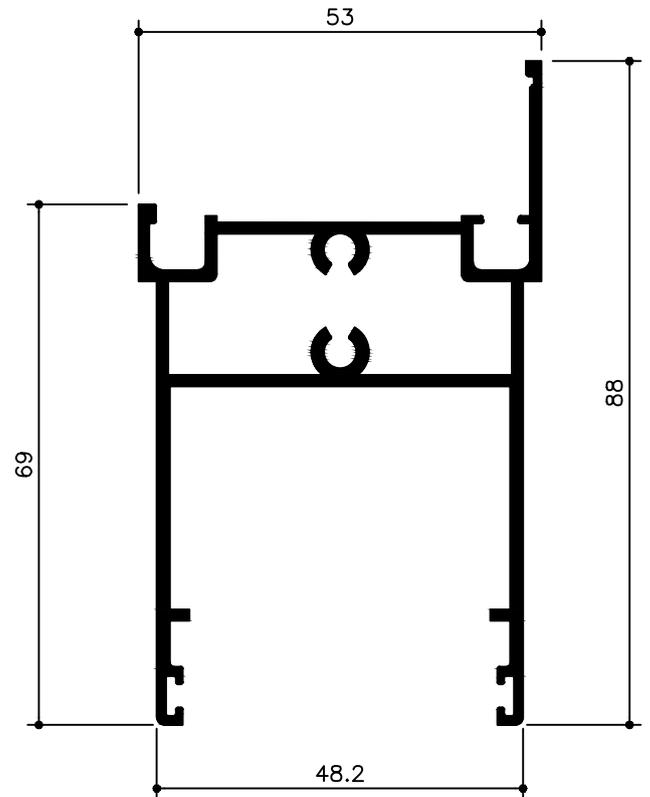
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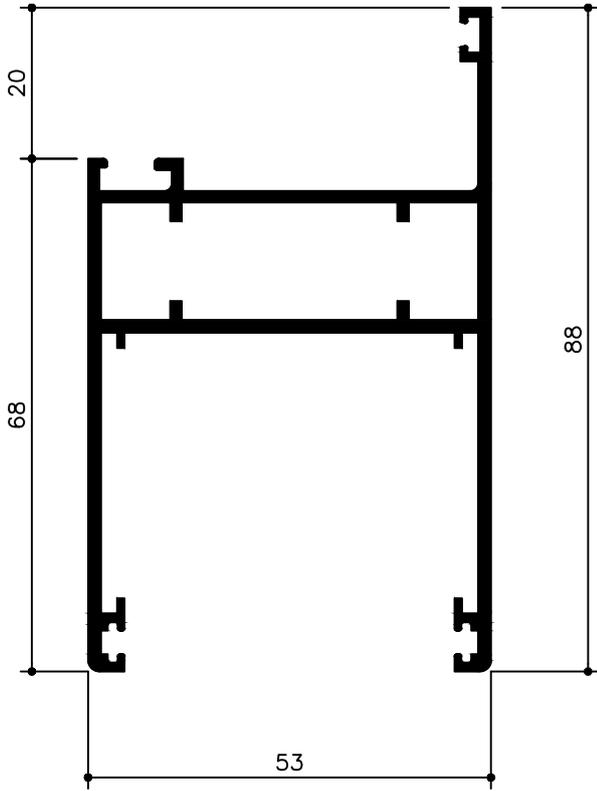
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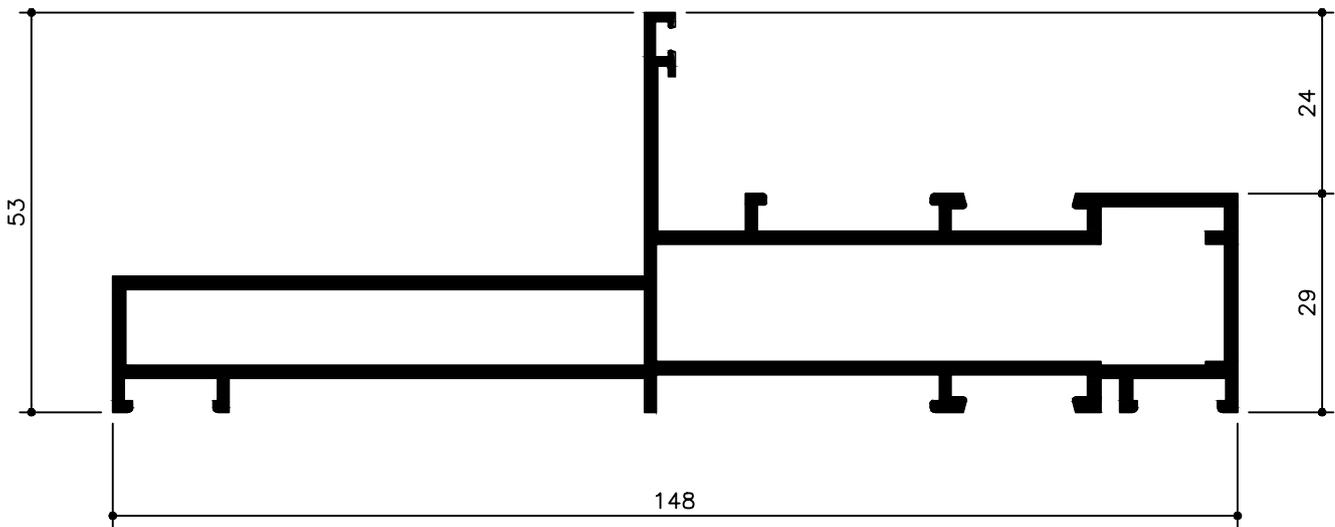
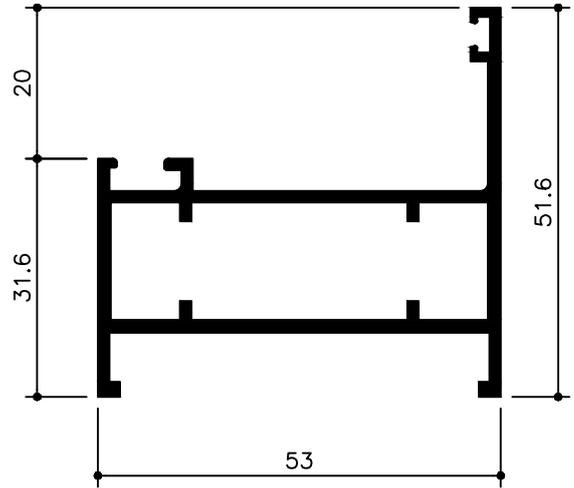
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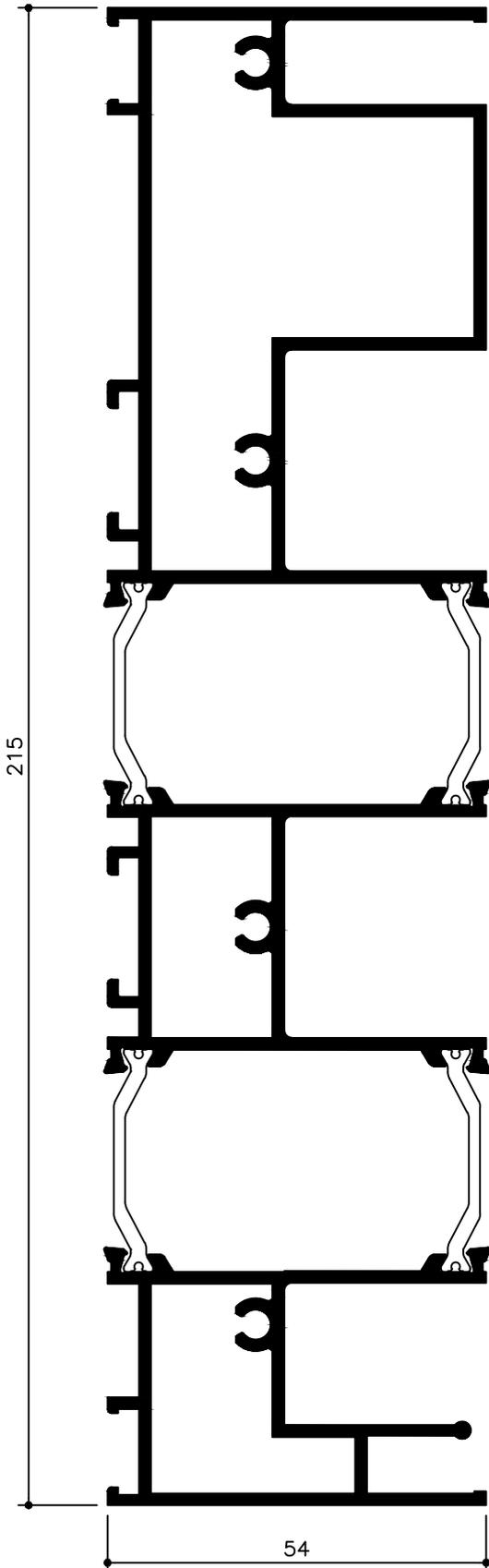
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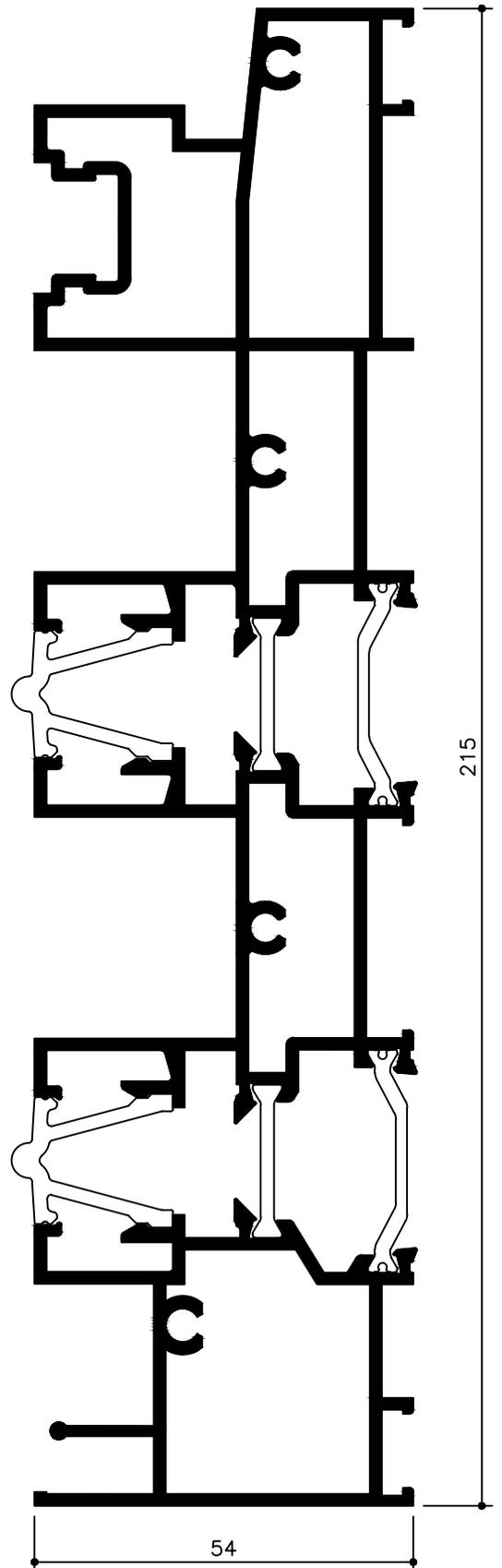
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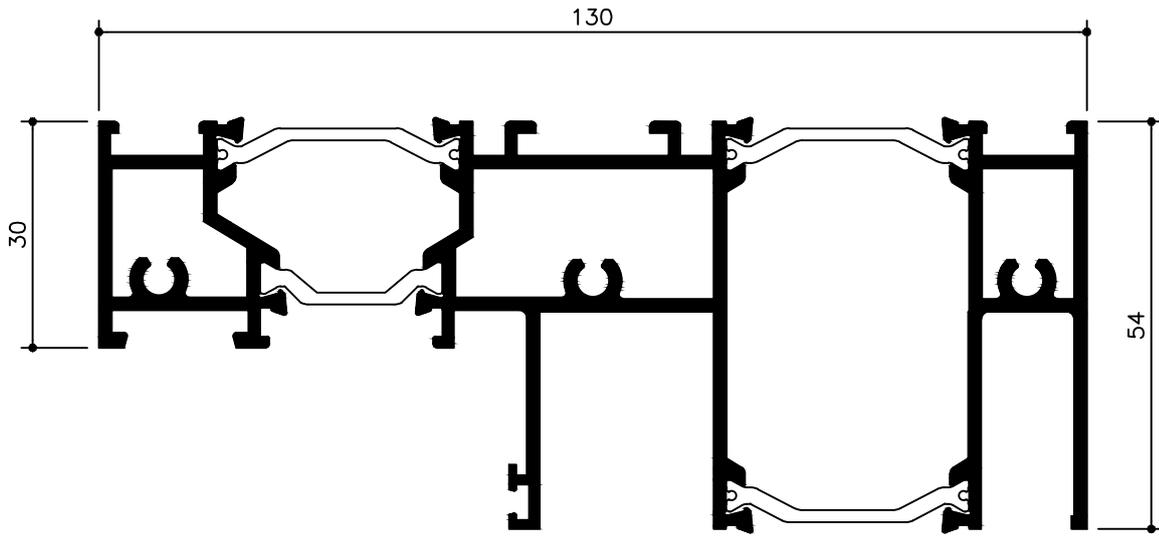


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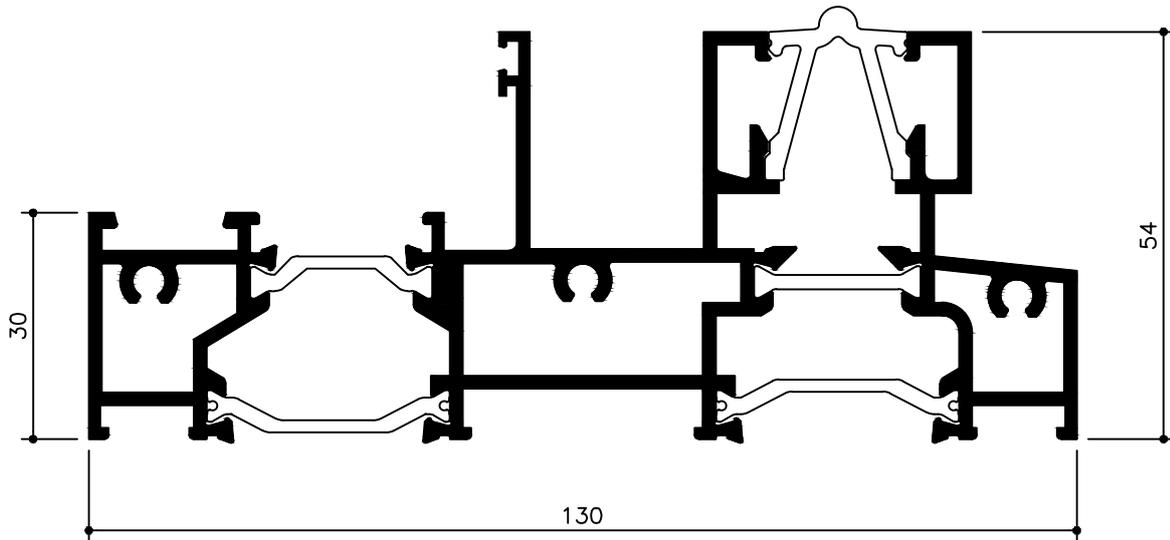


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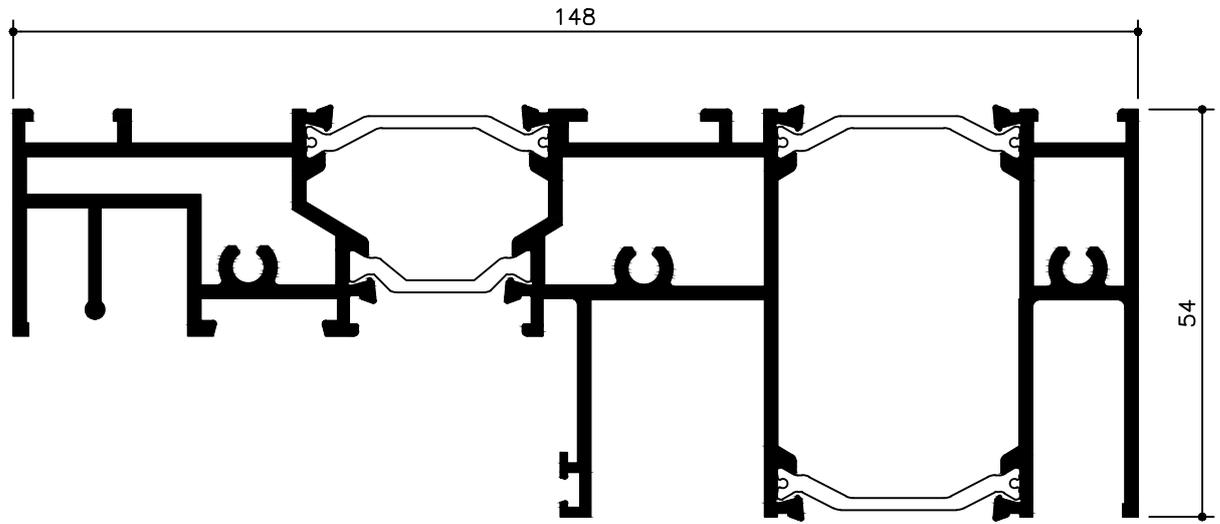




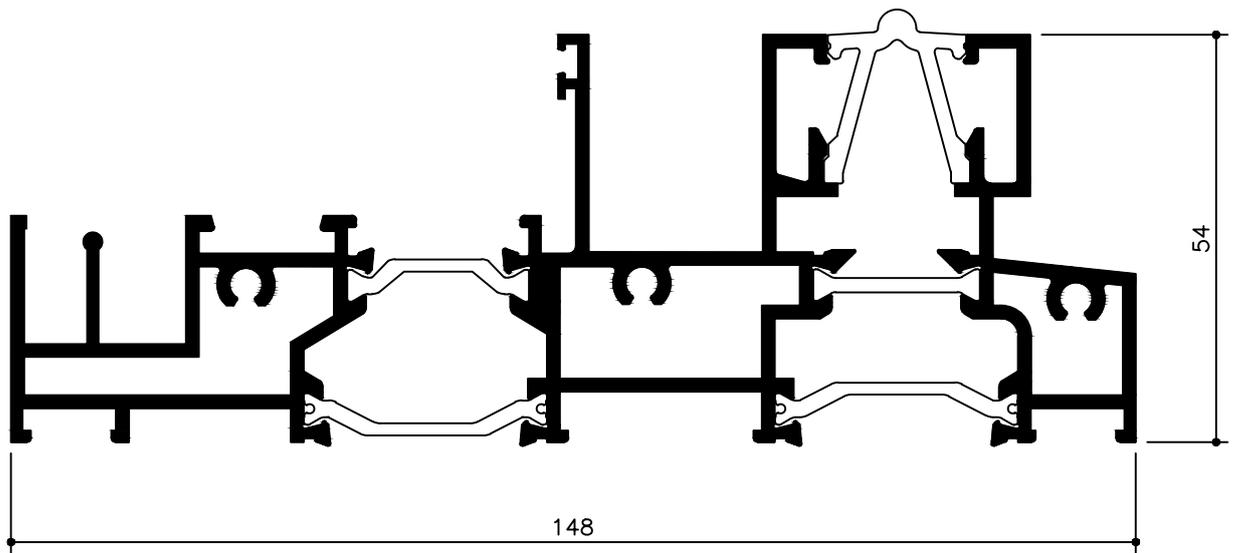
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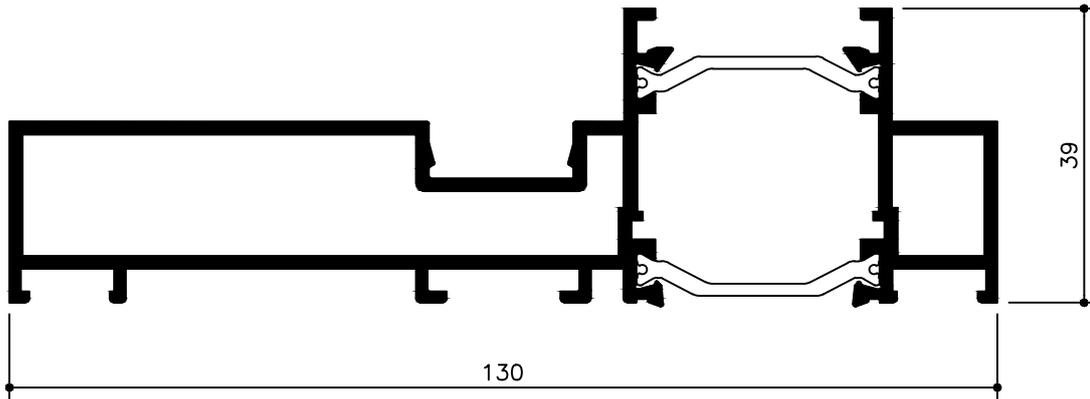


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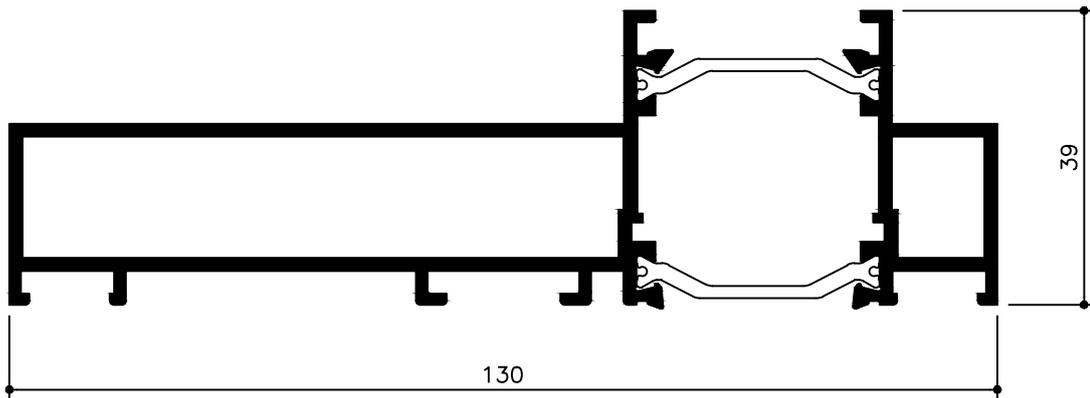
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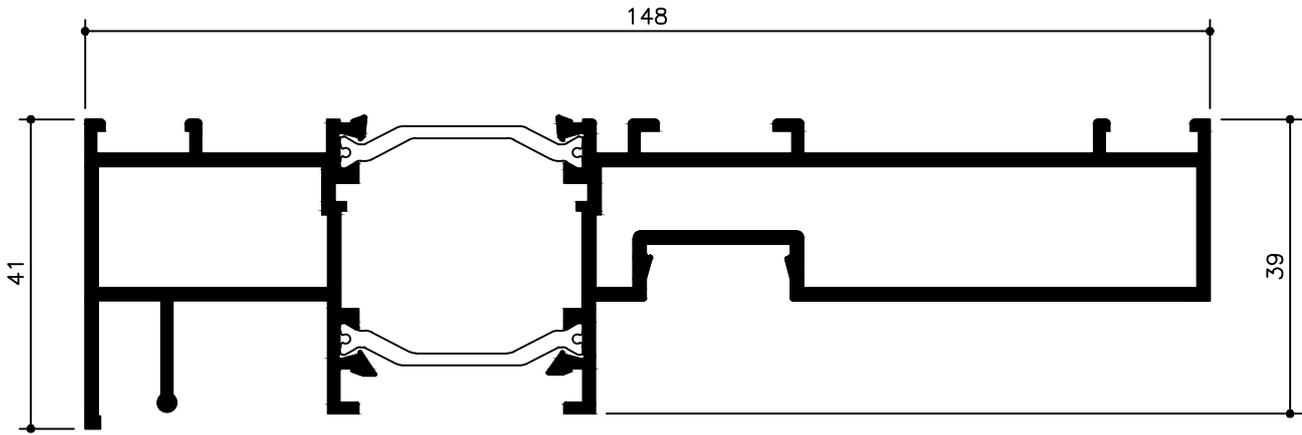
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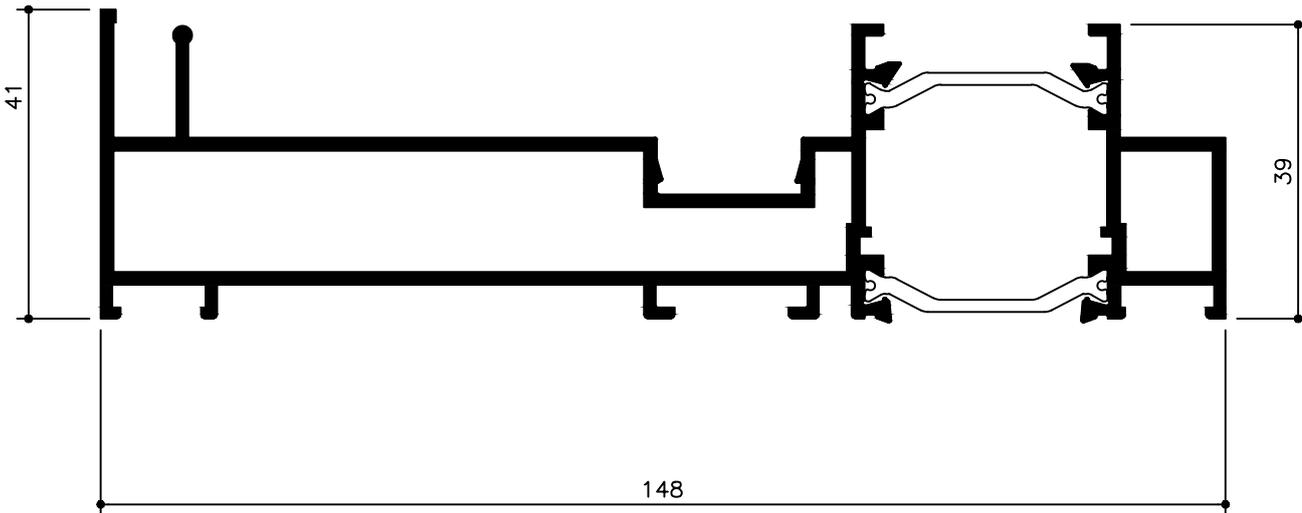
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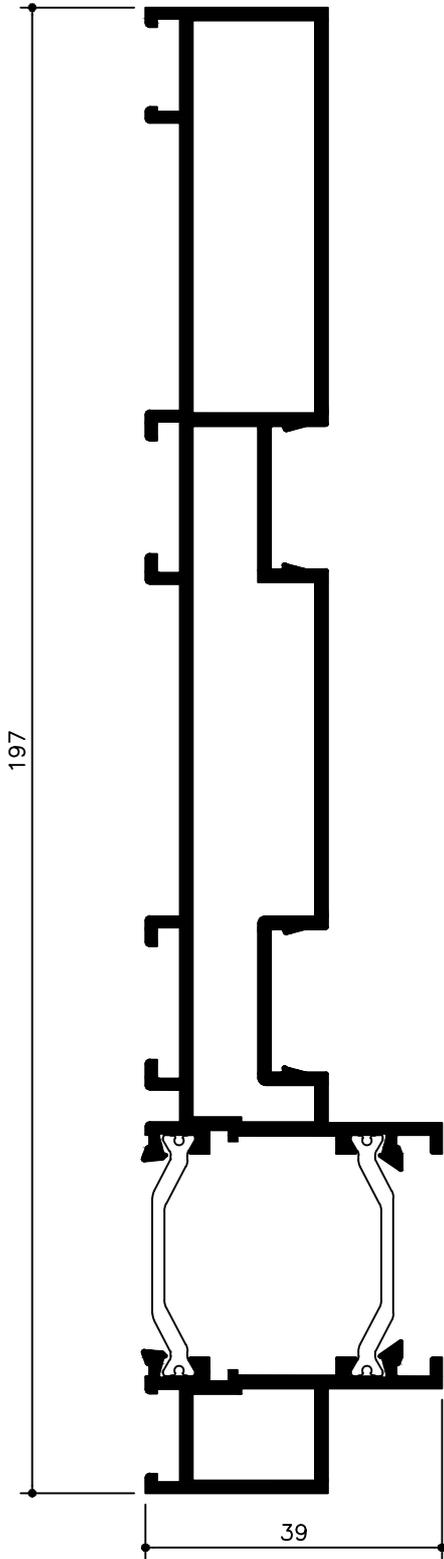
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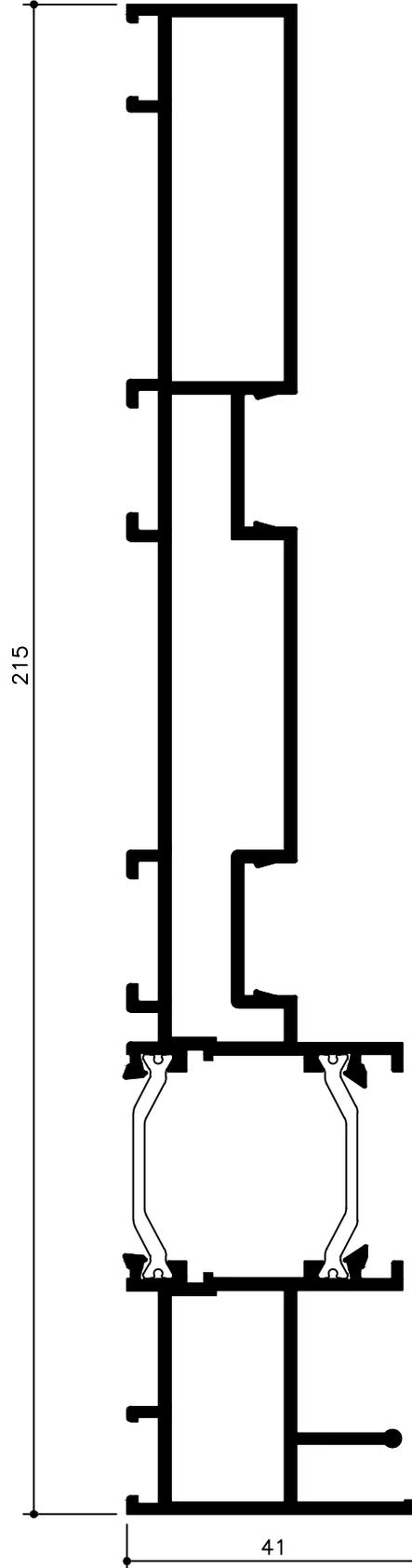
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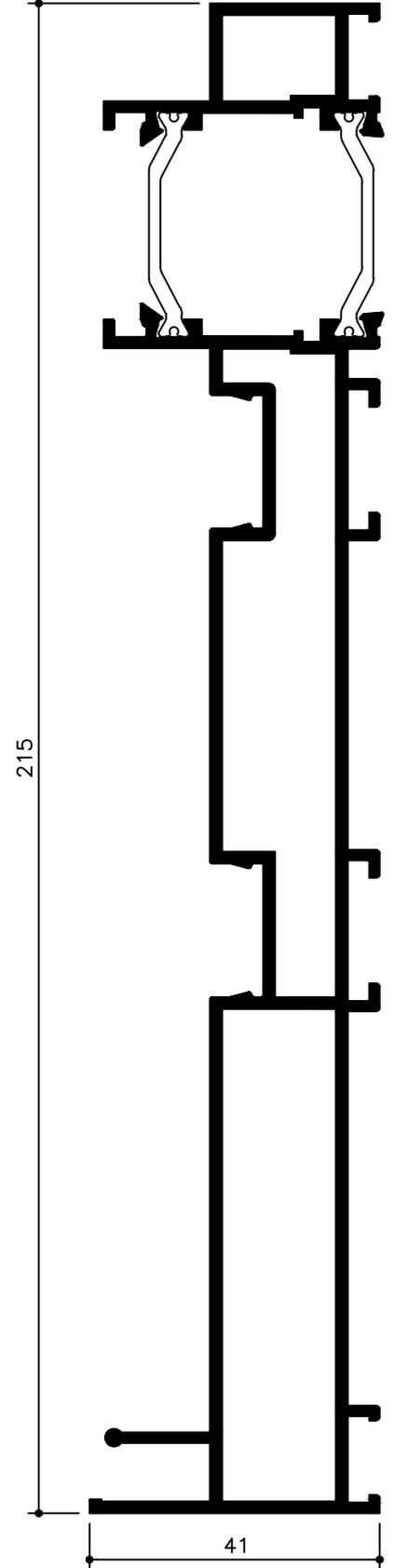
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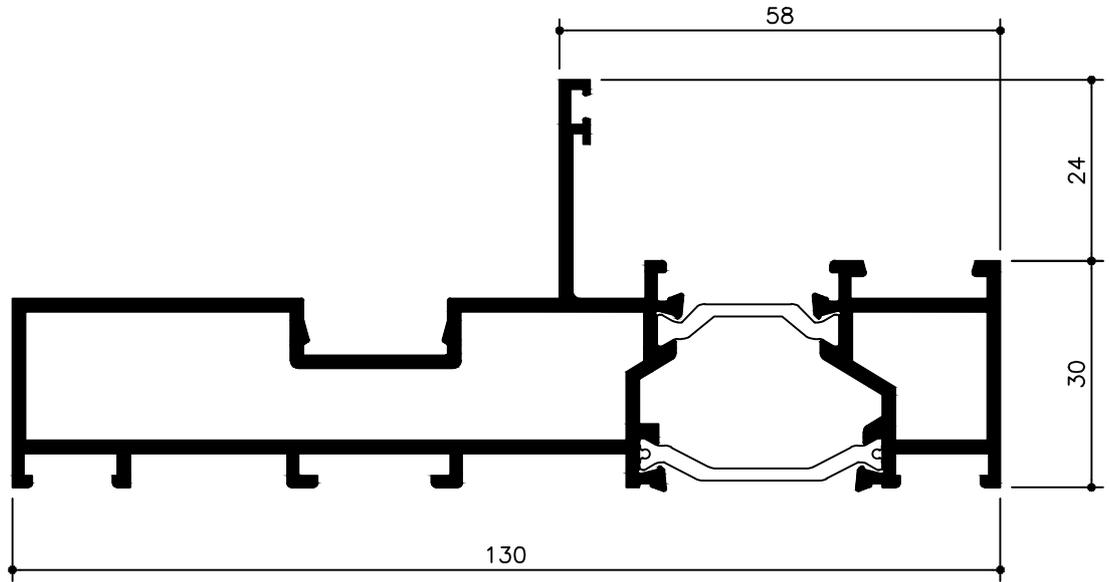


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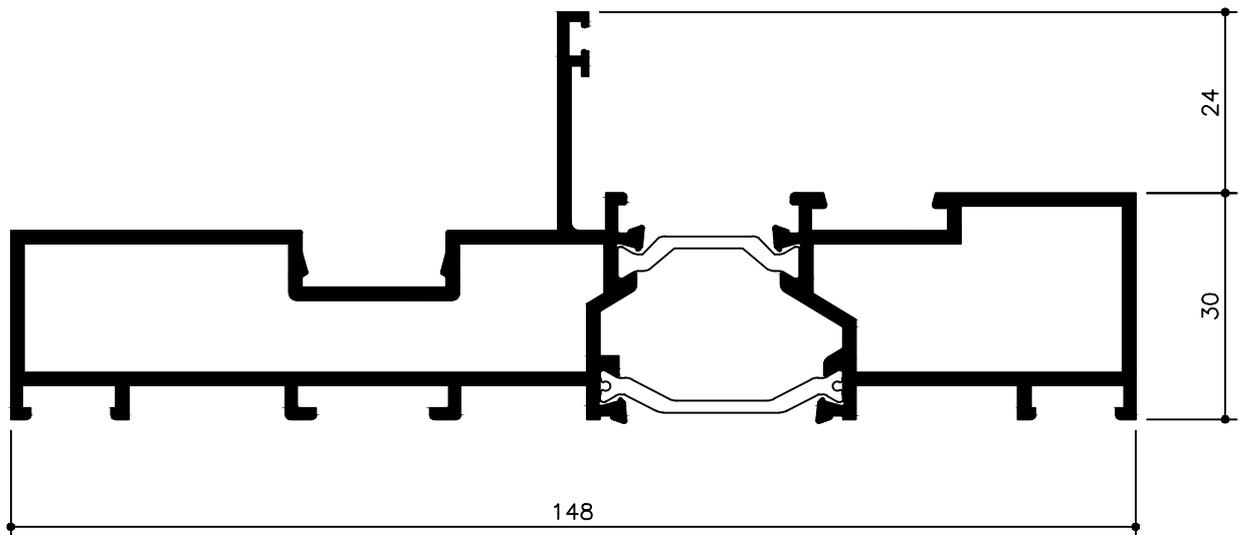


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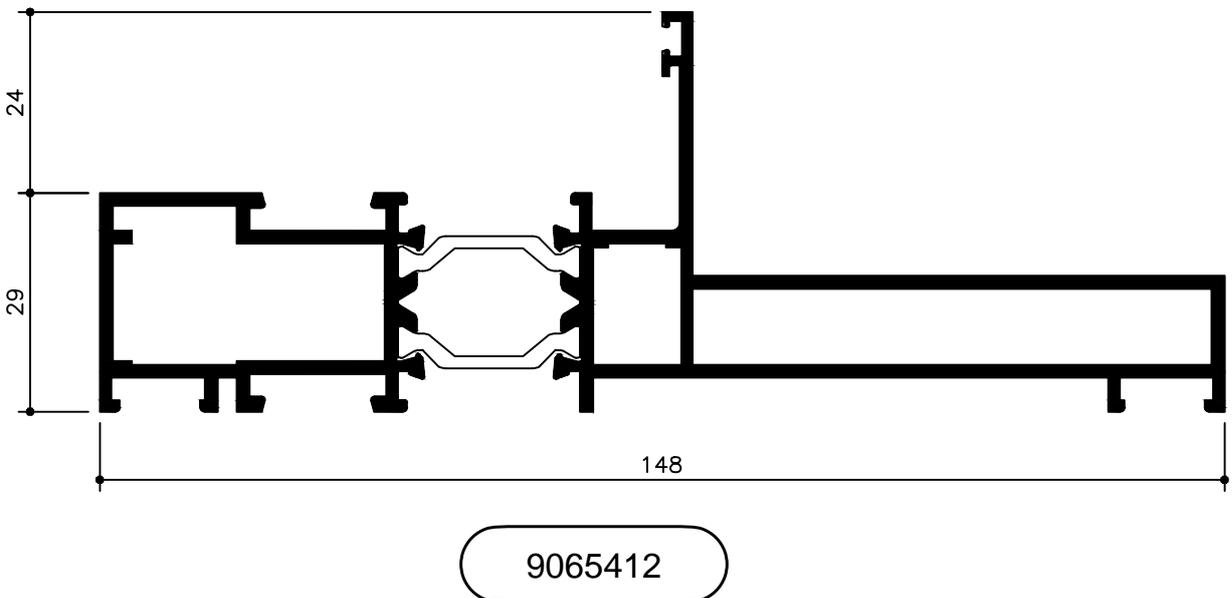
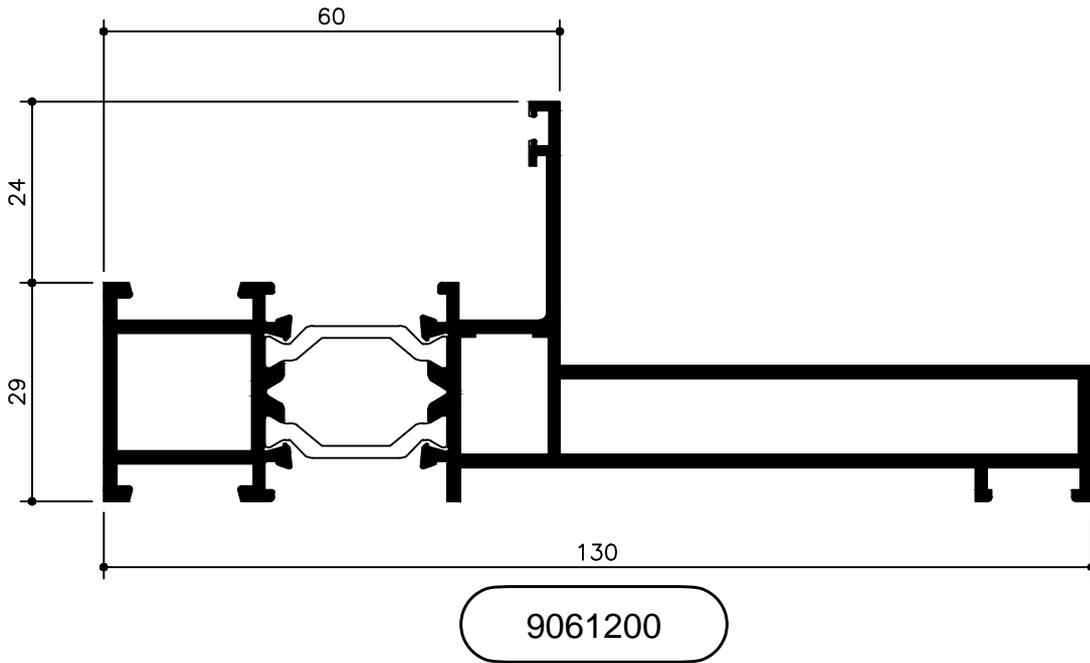




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Sector I

Assembled sections



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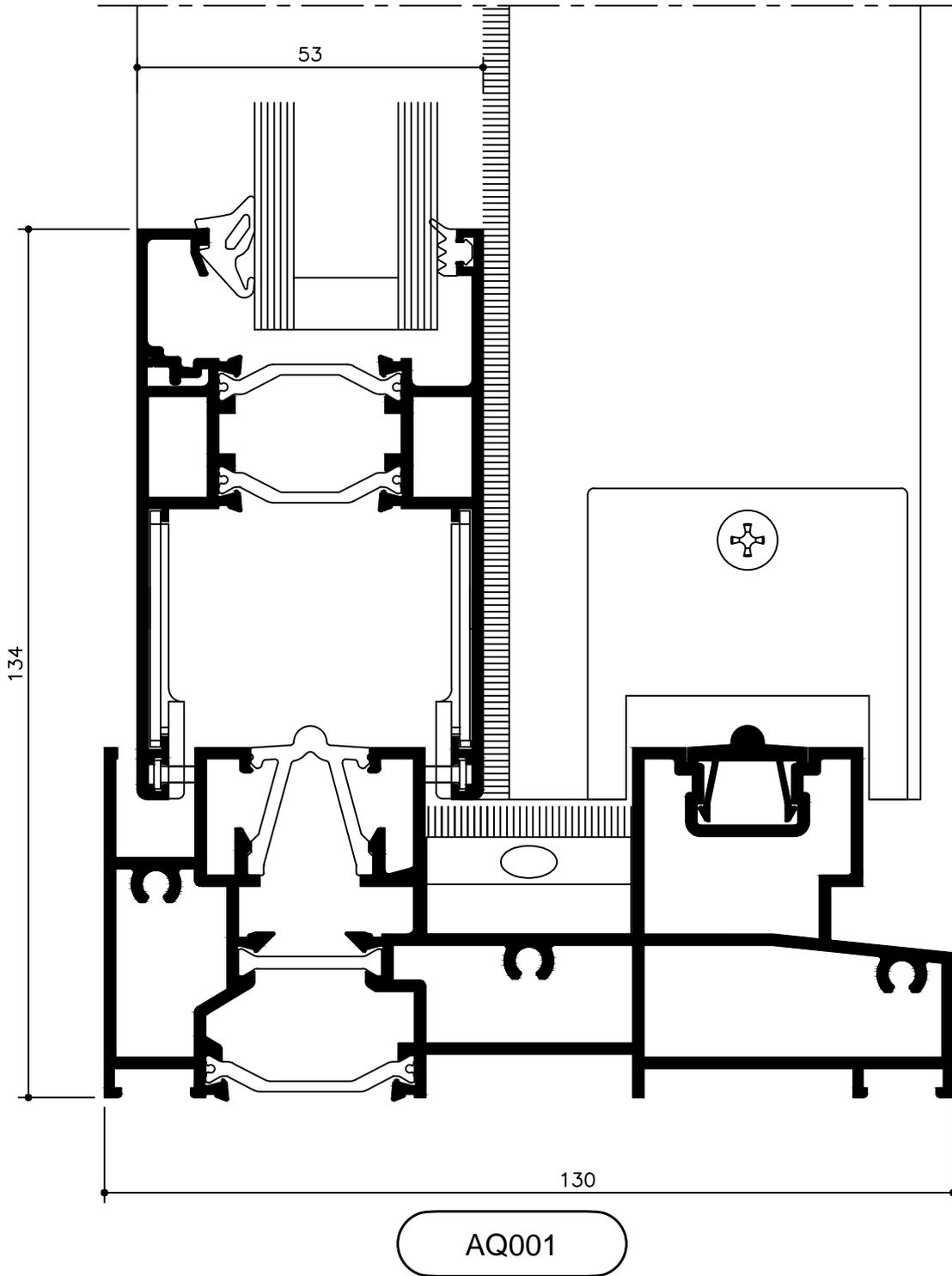
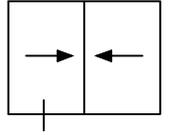


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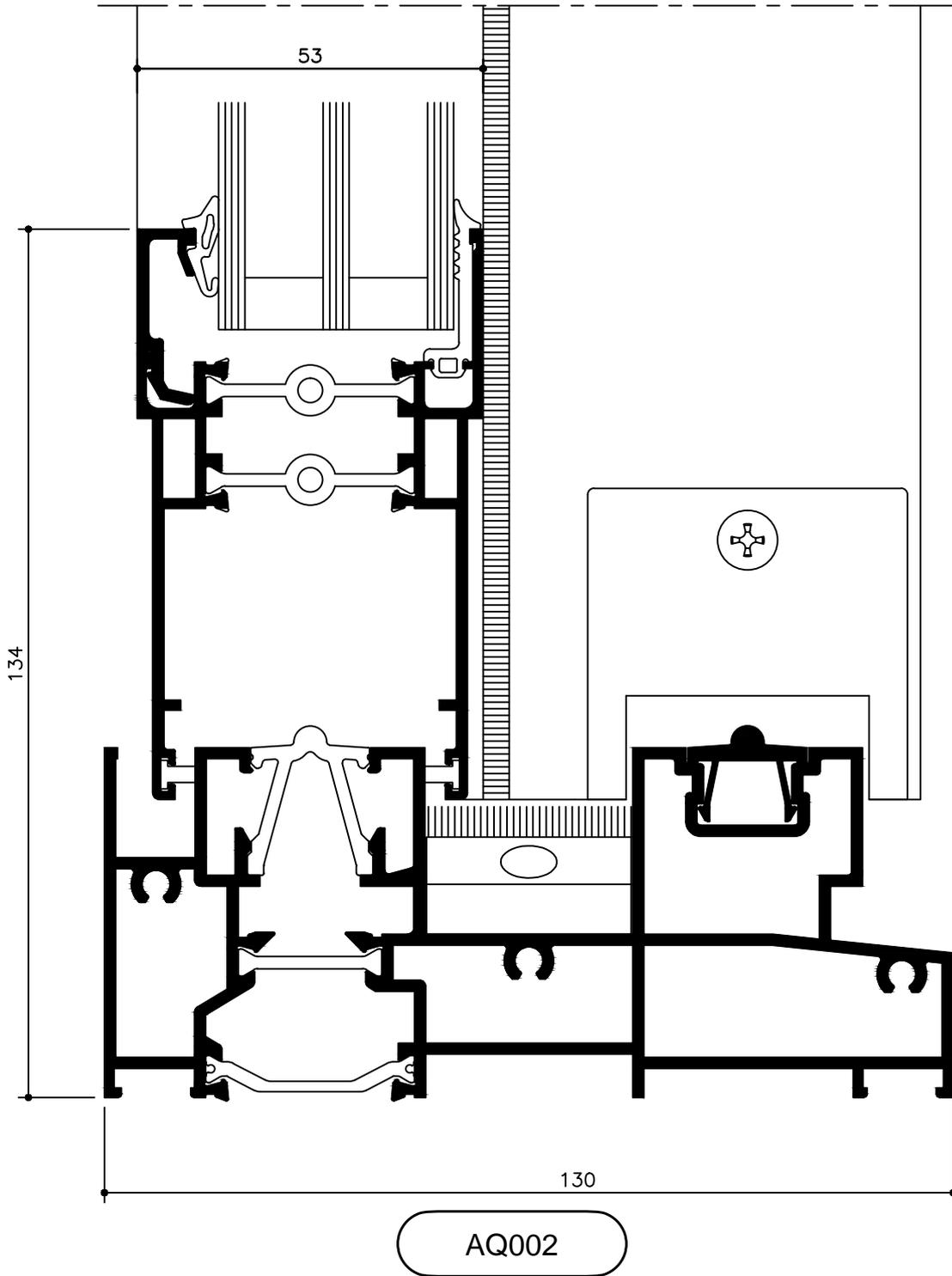
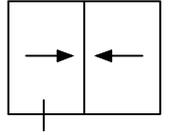
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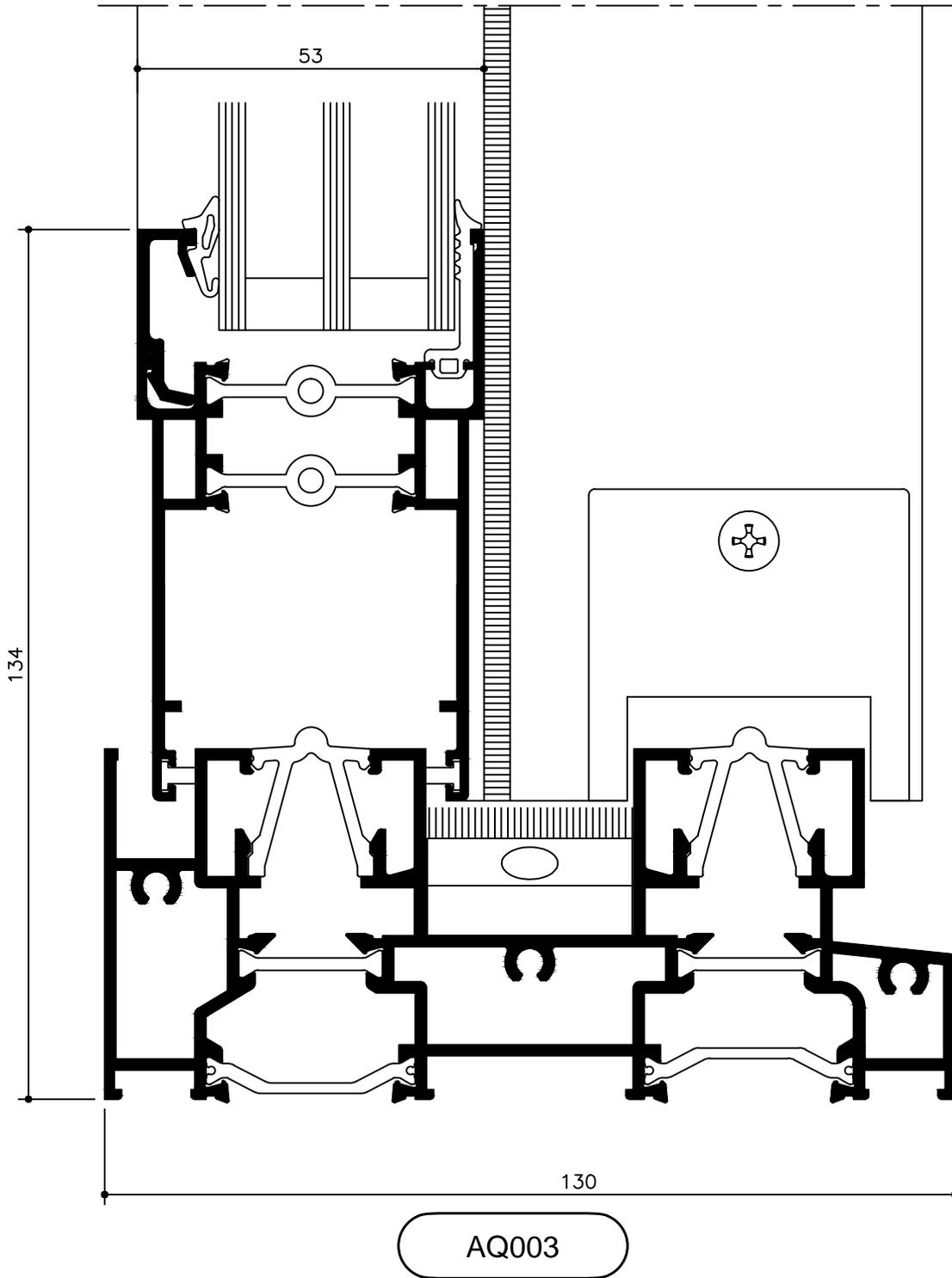
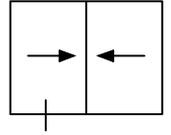


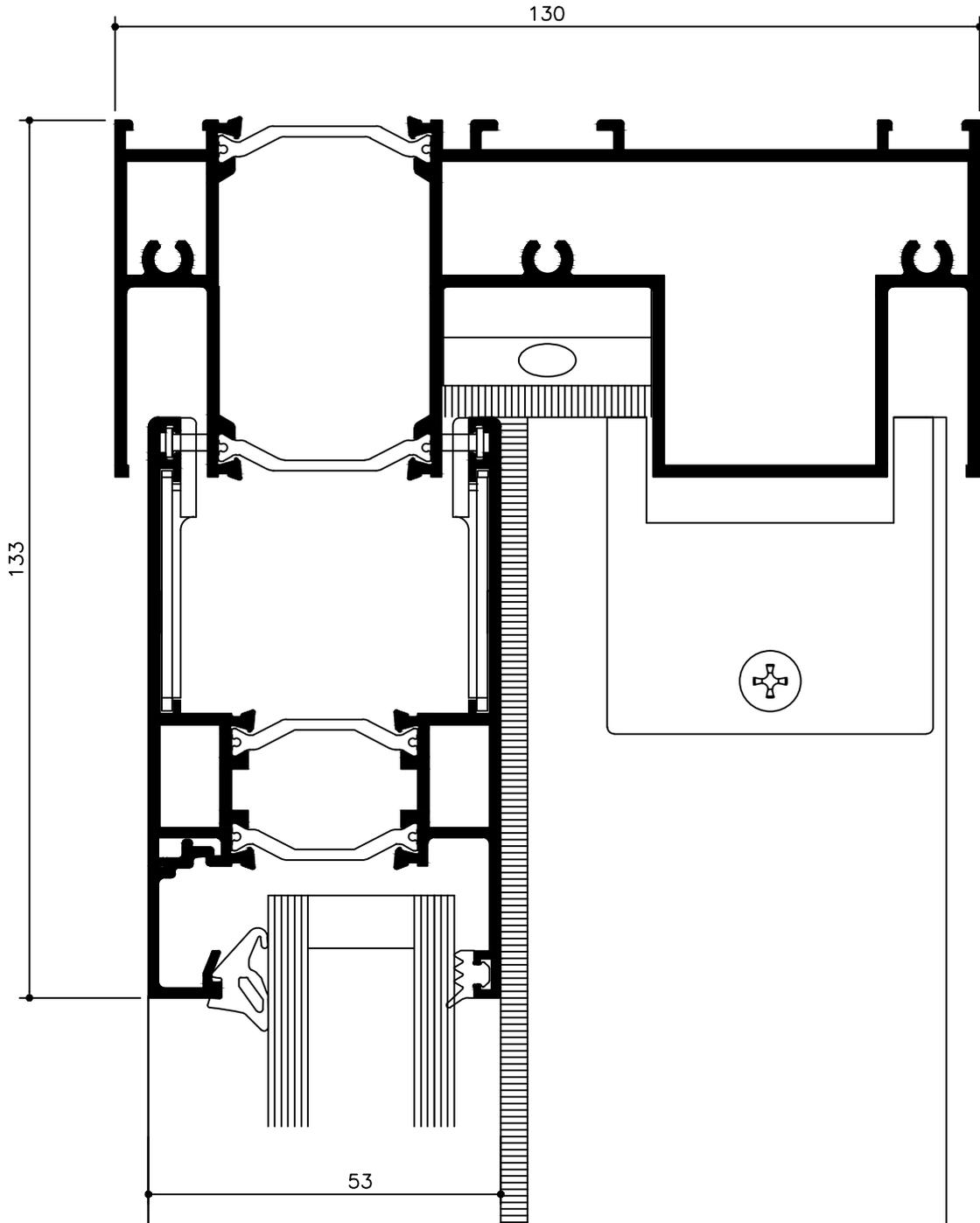
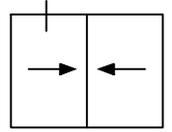
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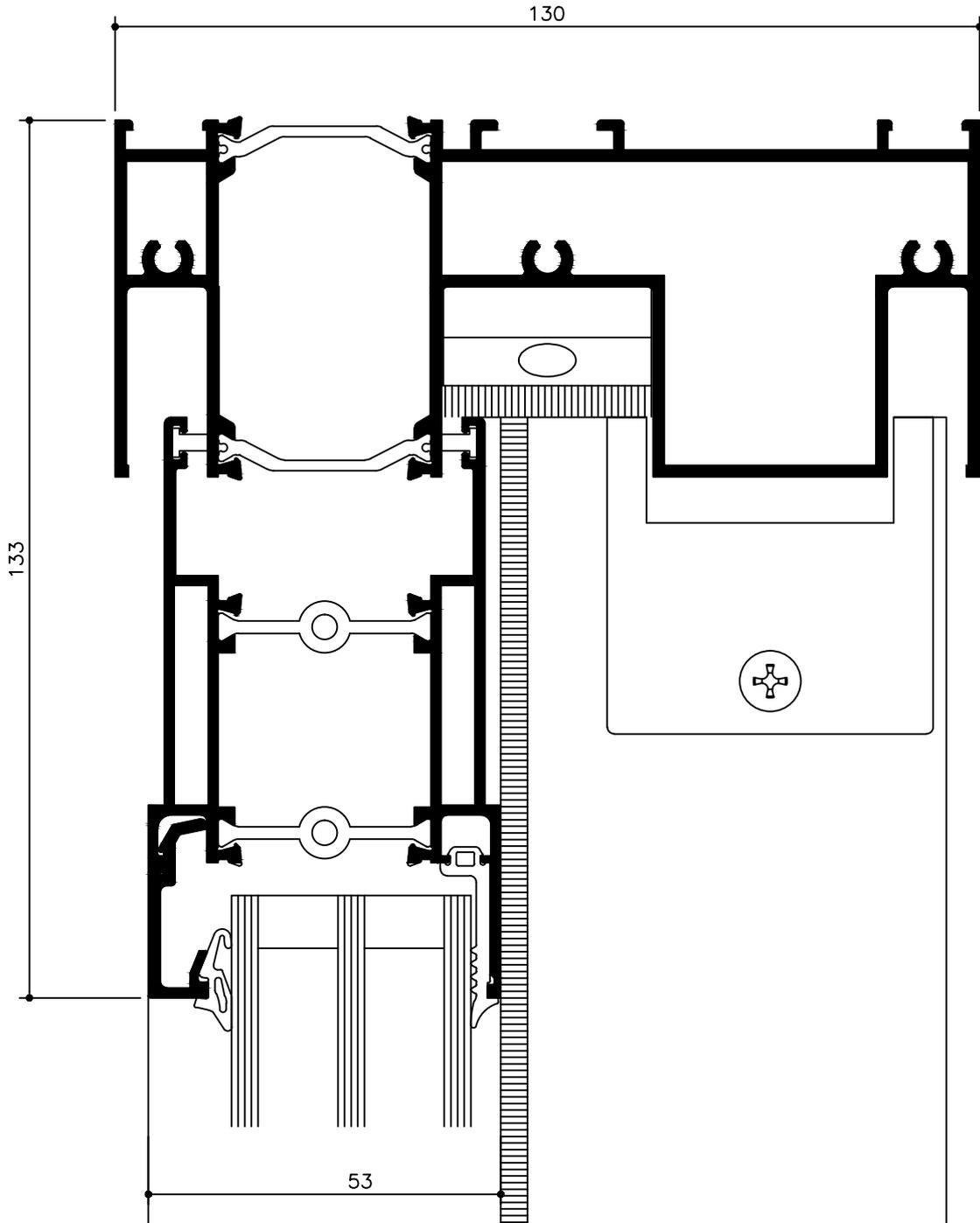
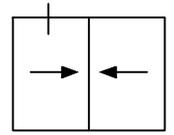
SECTOR I.1



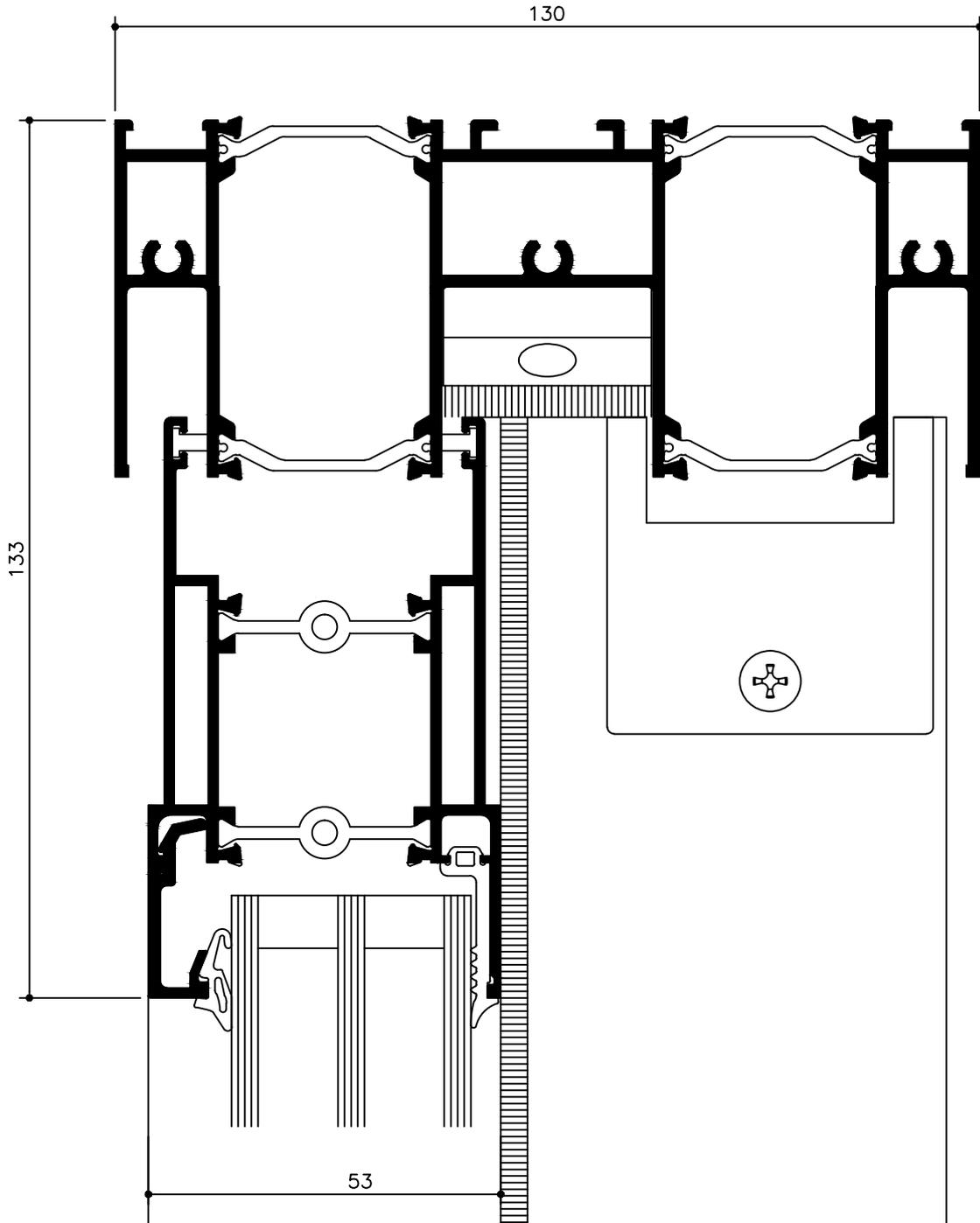
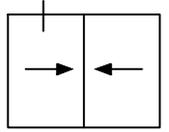




AQ004



AQ005



AQ006



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

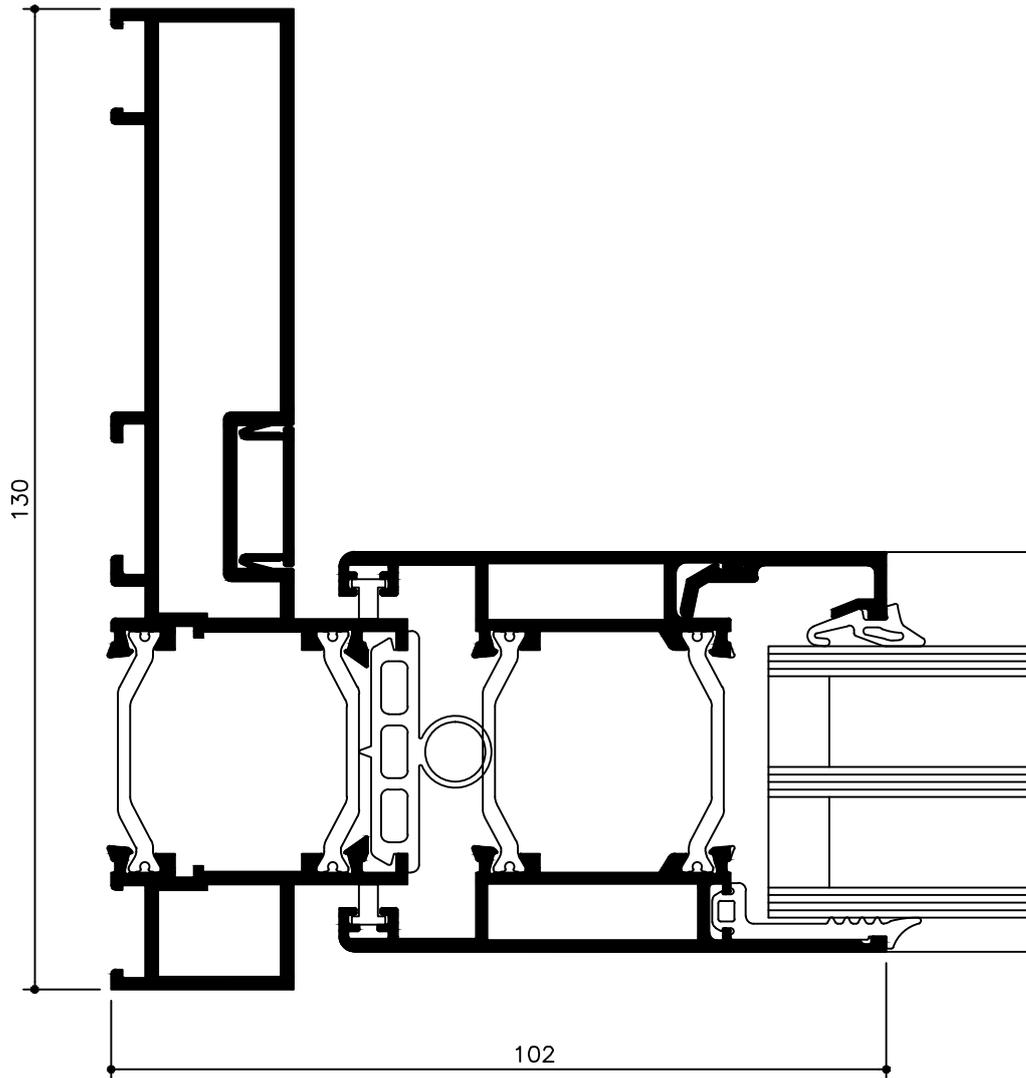
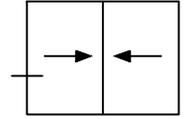


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AQ007

SECTOR I.7



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

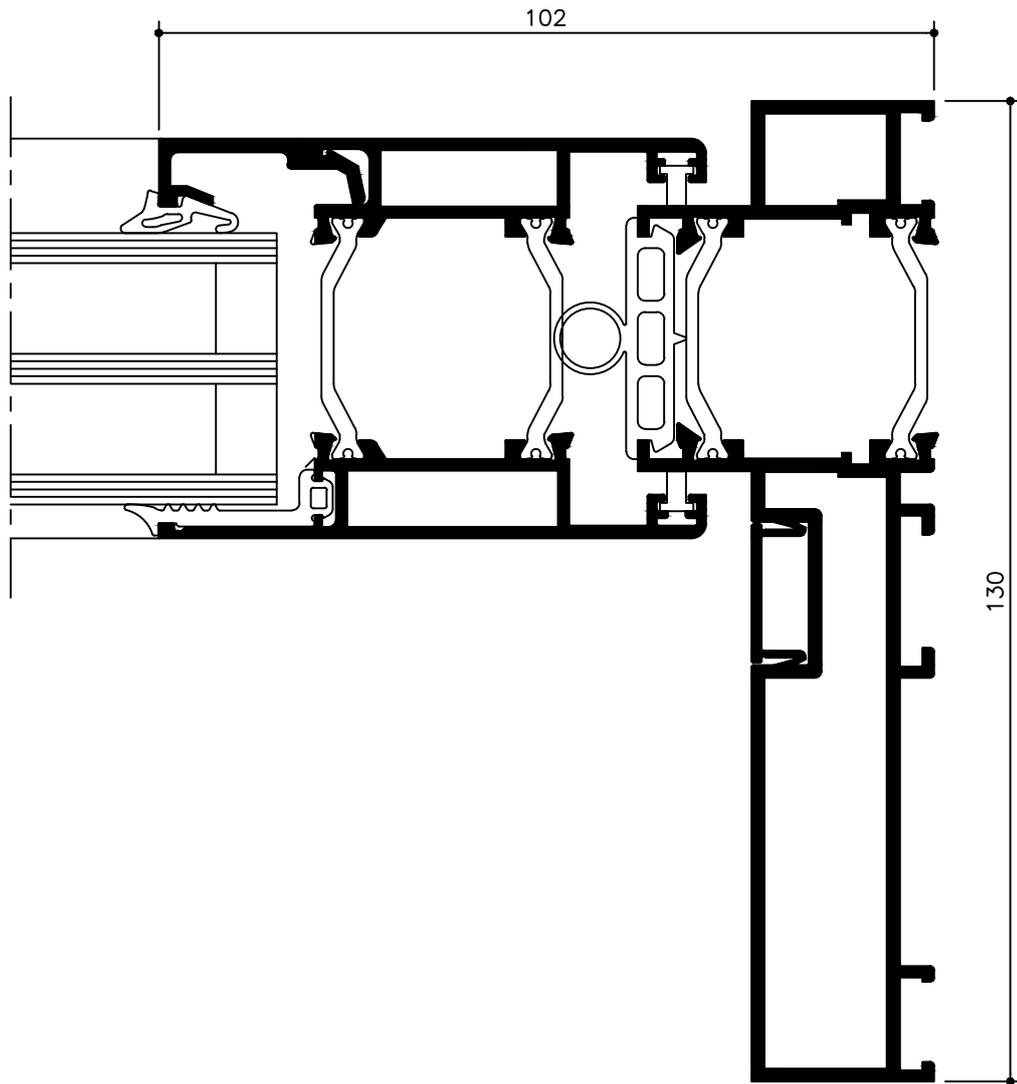
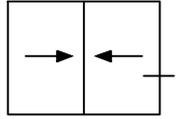


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AQ008

SECTOR I.8



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

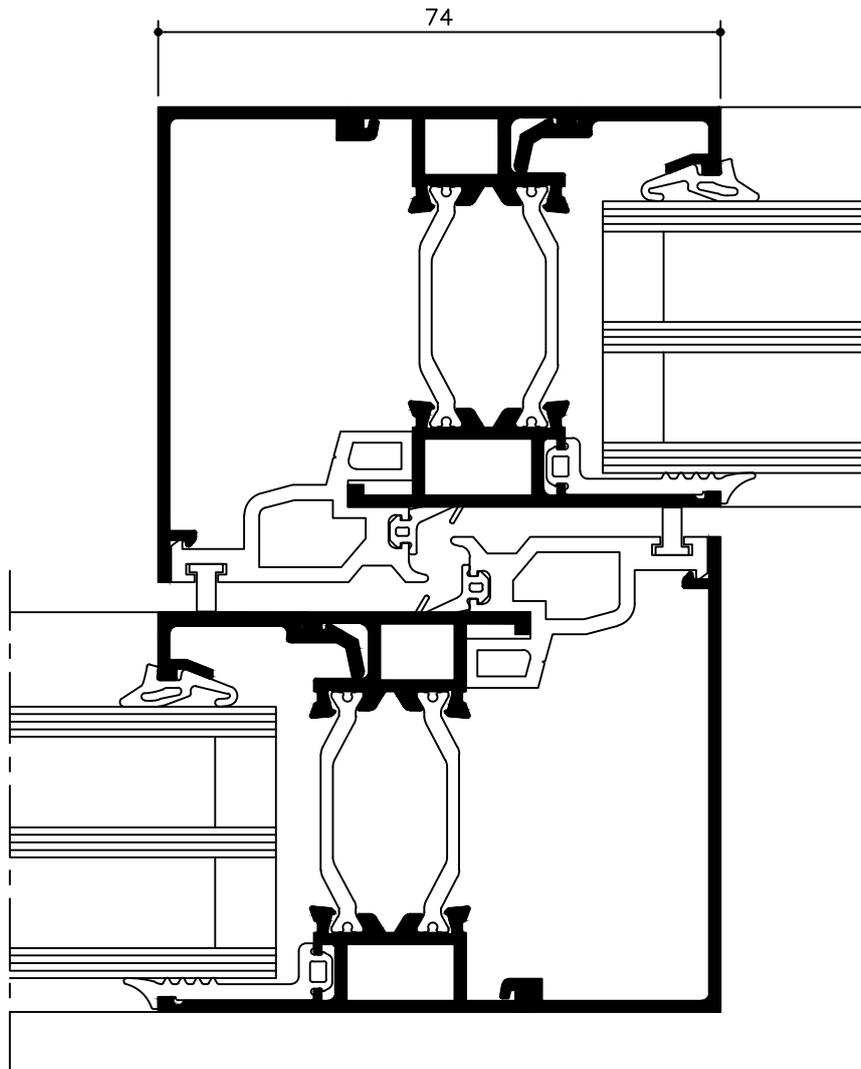
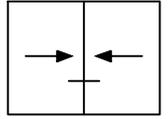


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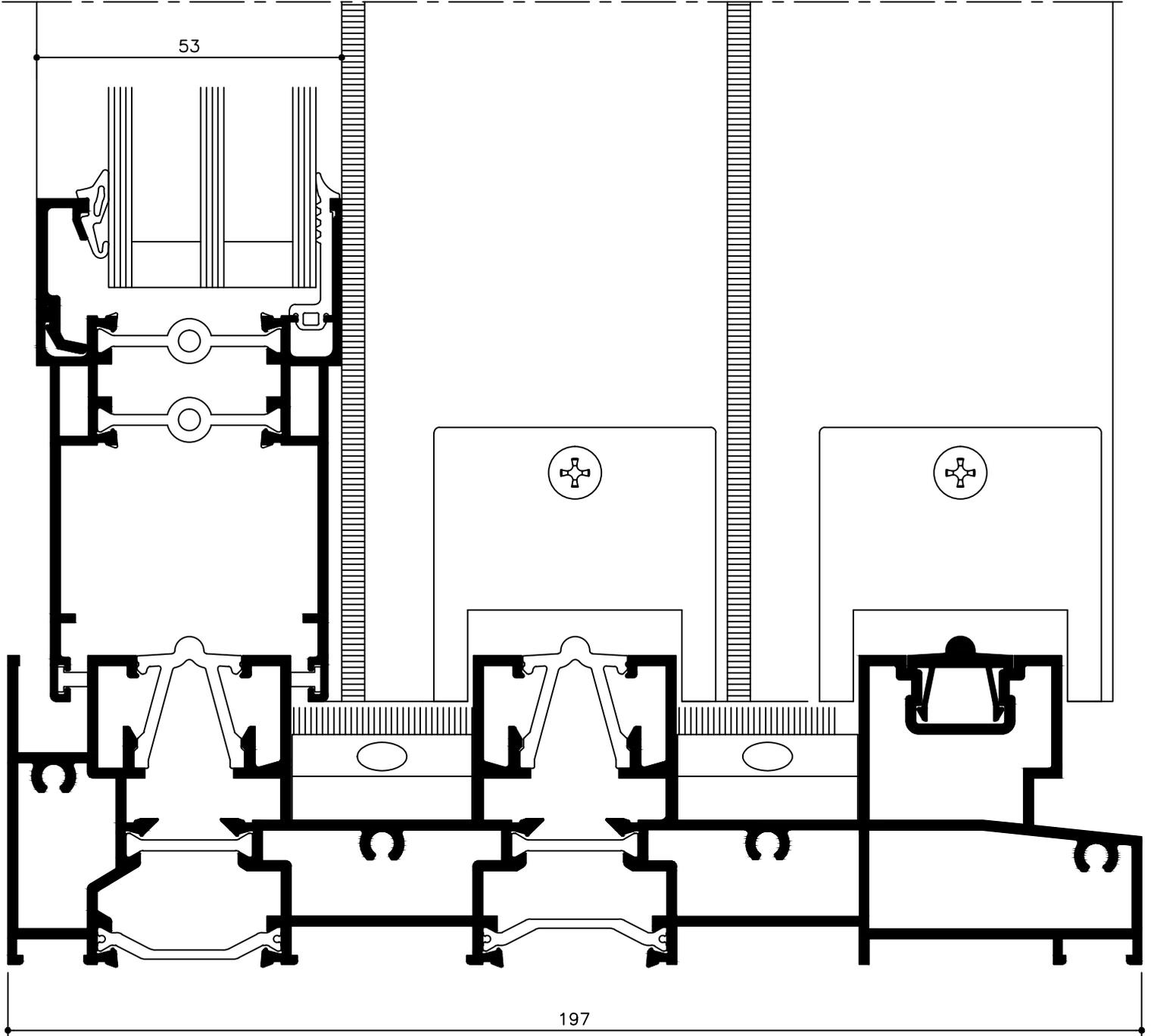
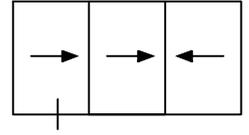
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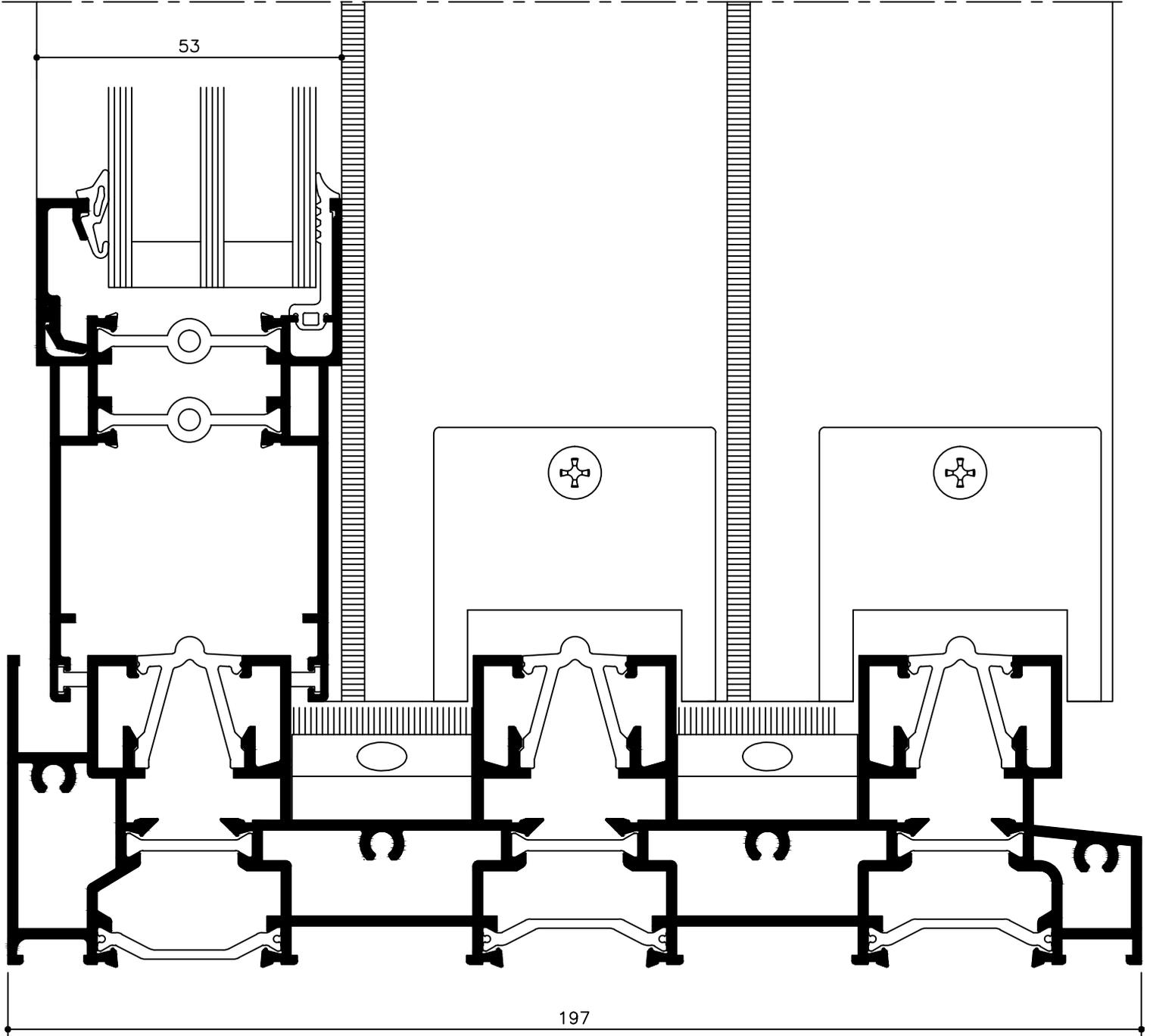
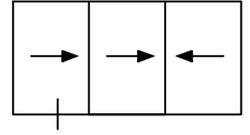
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مجالس قطر
للبناء الأخضر
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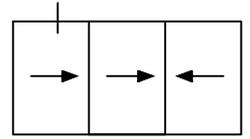
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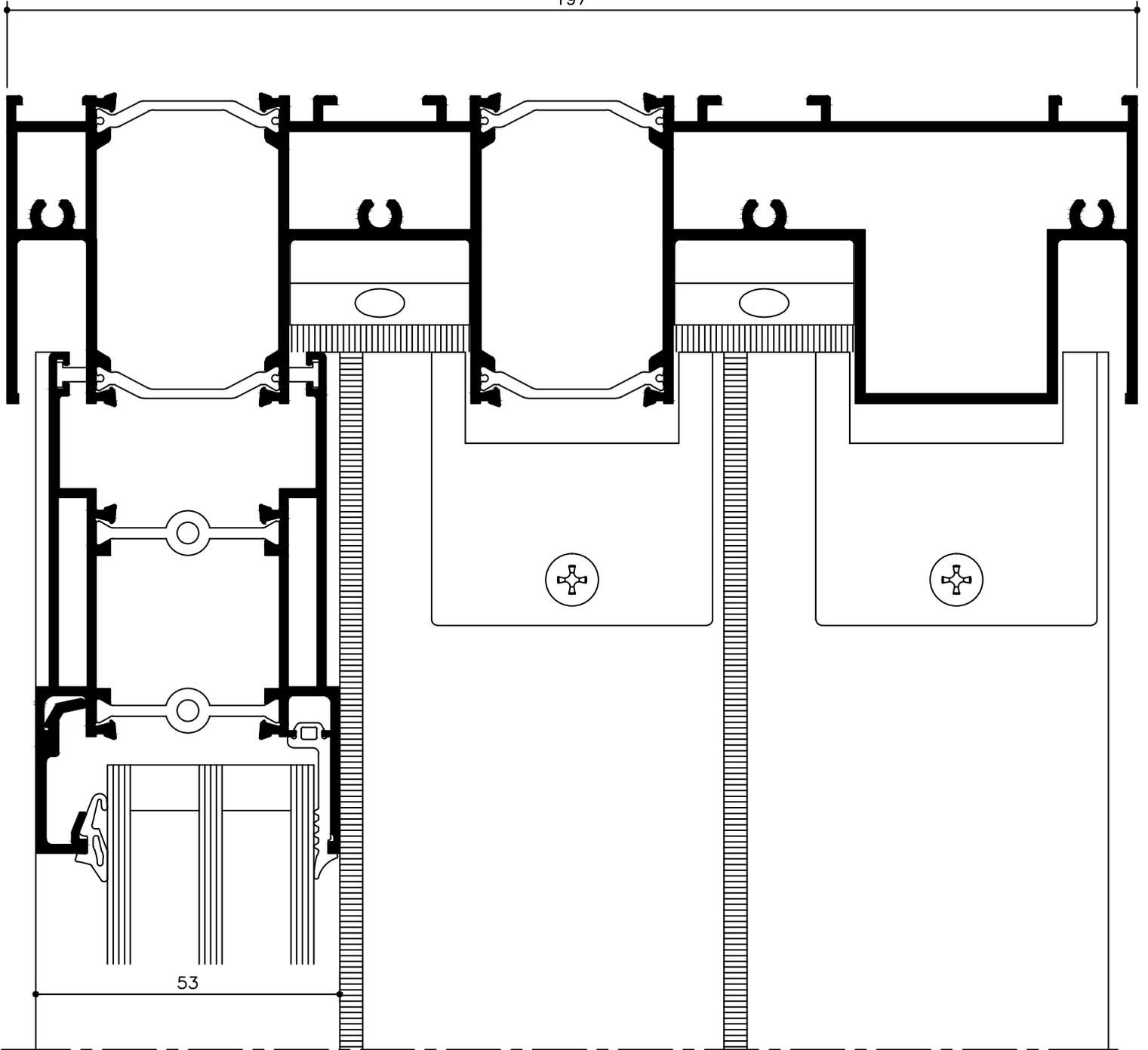
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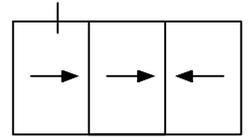
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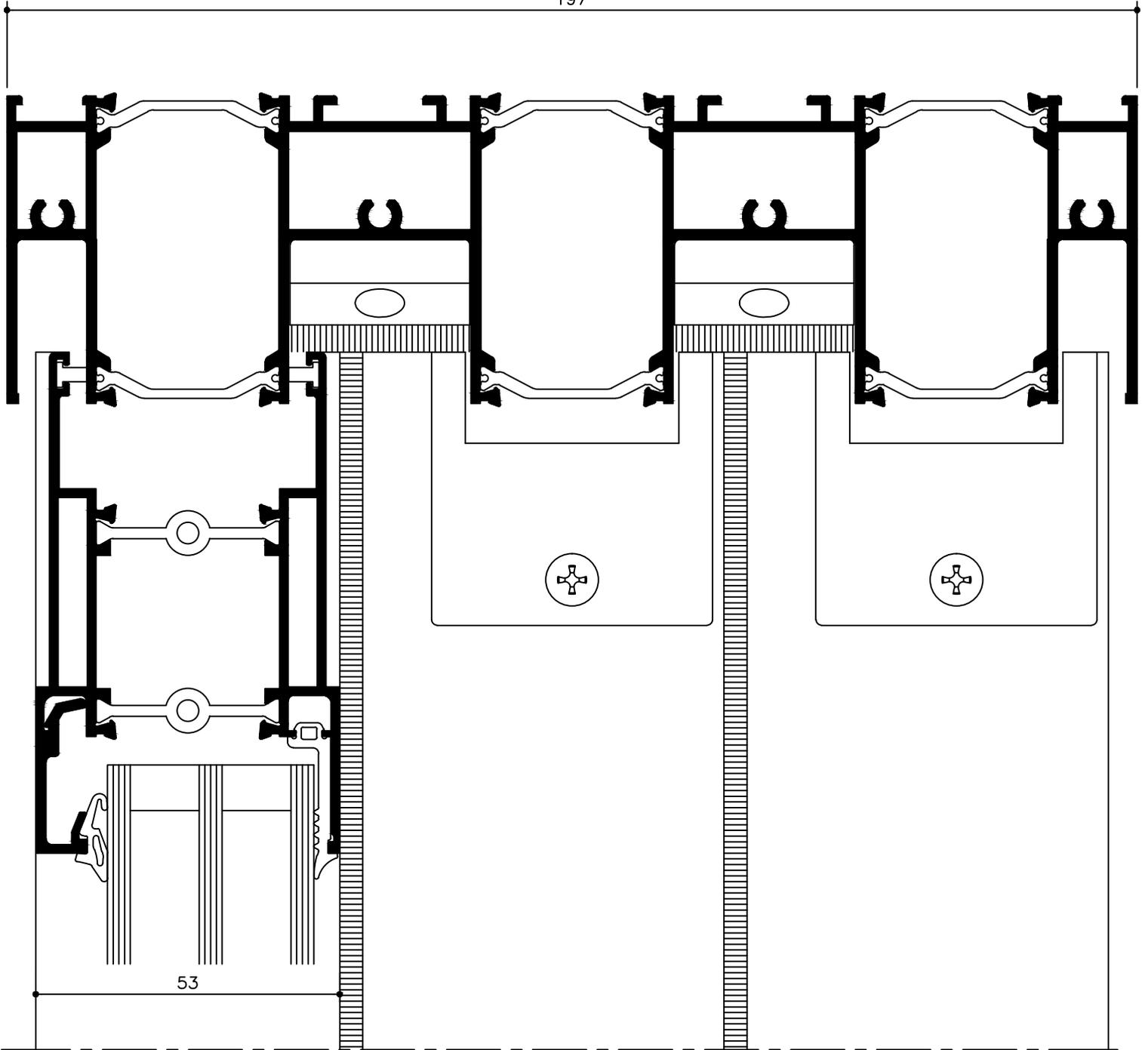
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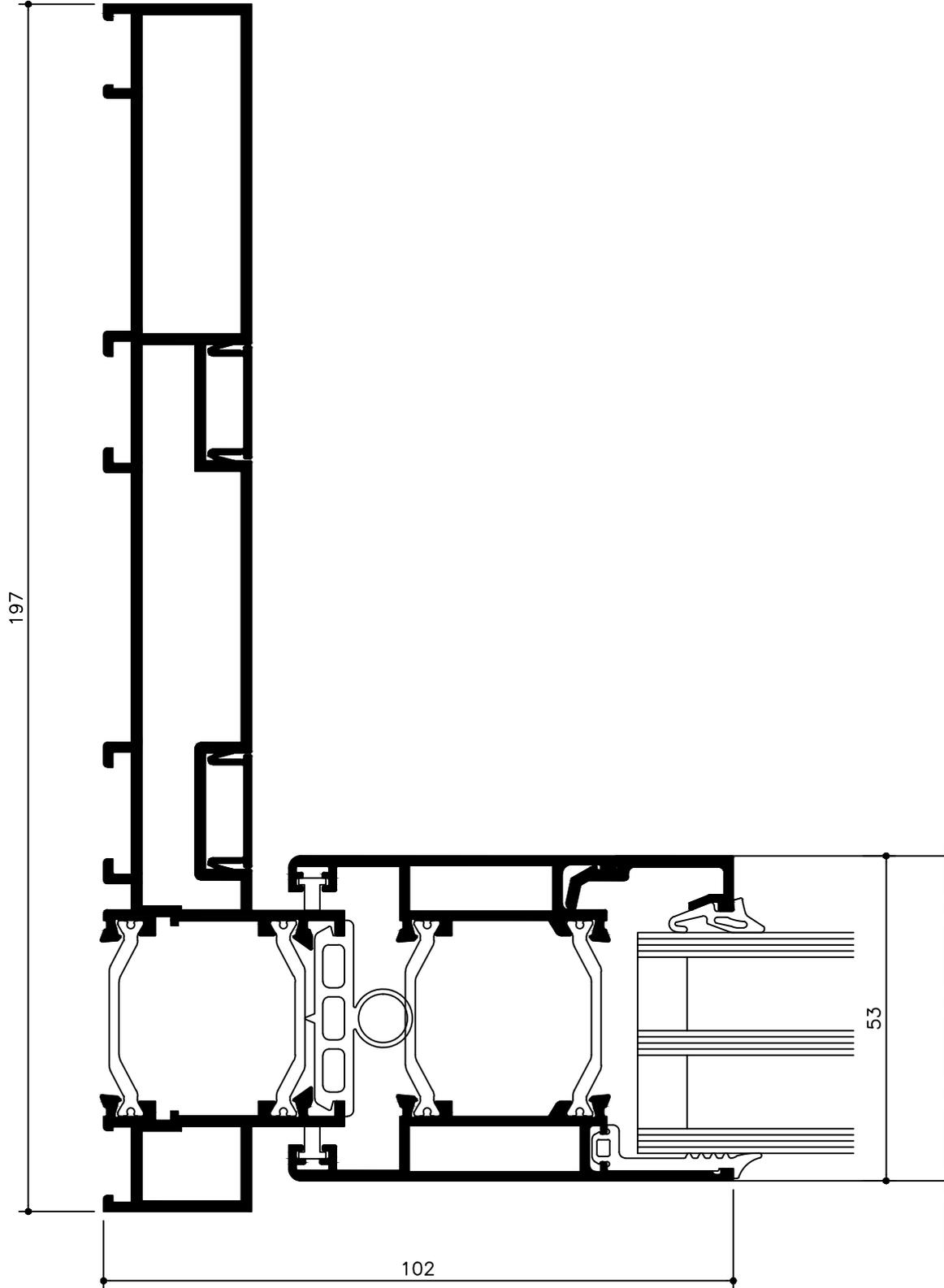
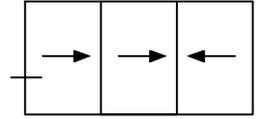
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197

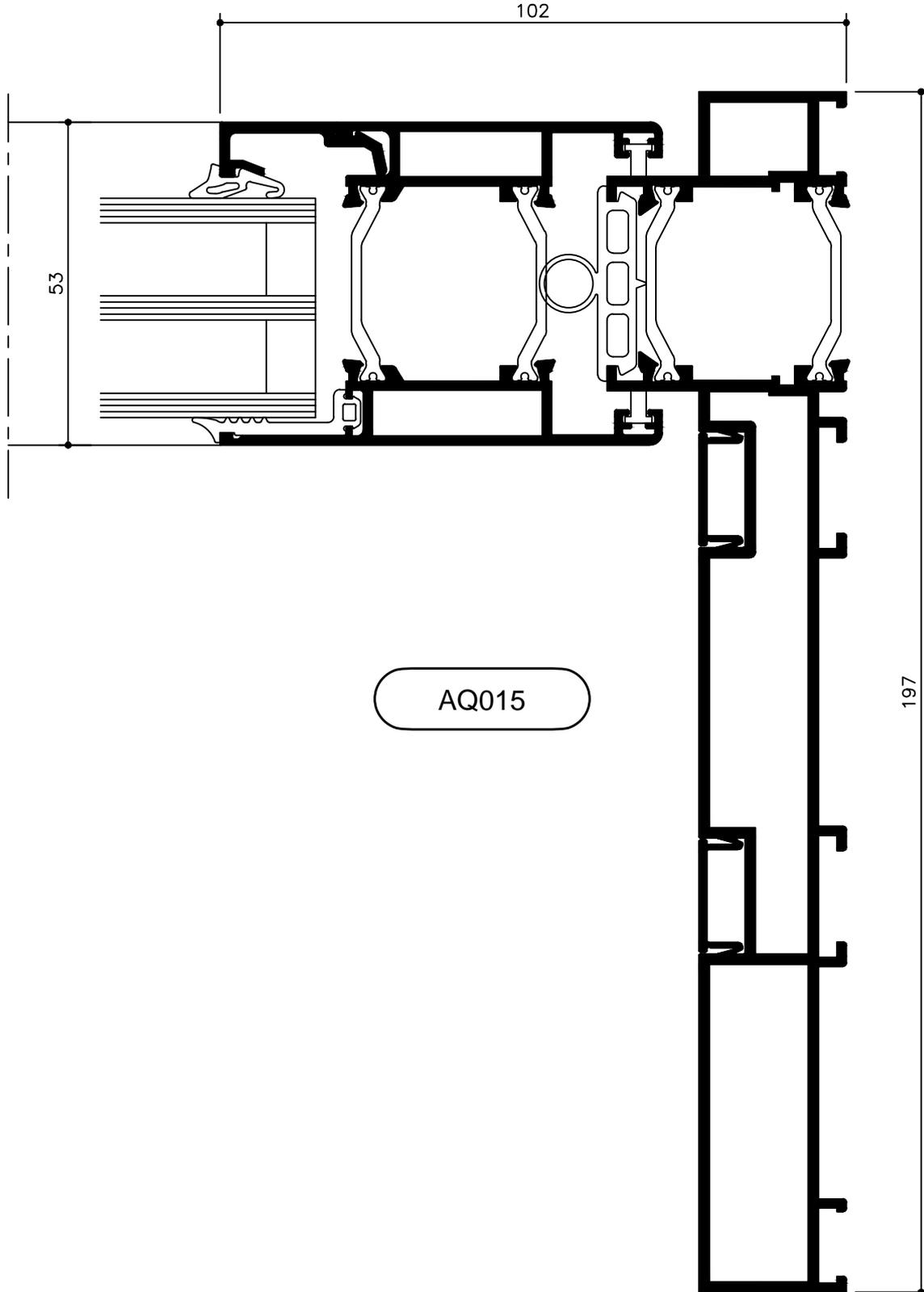
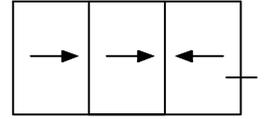


AQ013



AQ014

SECTOR I.14





GALEX
 الشركة القطرية لسحب الألمنيوم
 QATAR ALUMINIUM EXTRUSION CO.

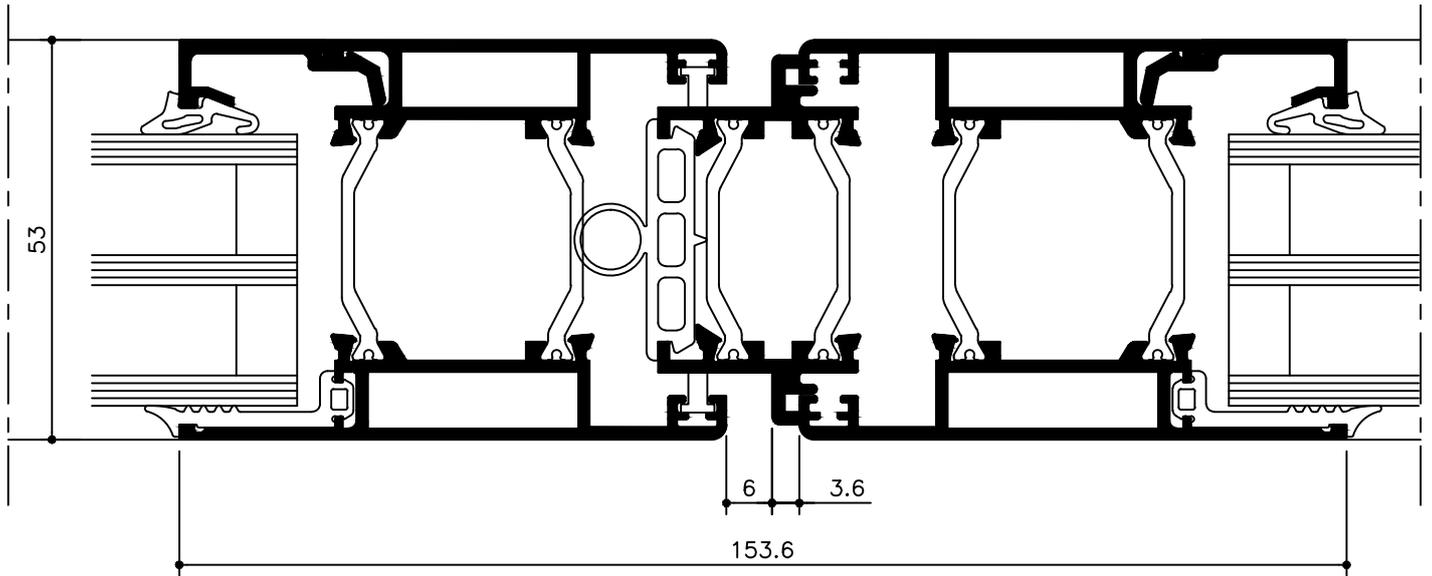
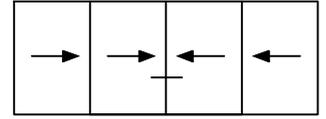


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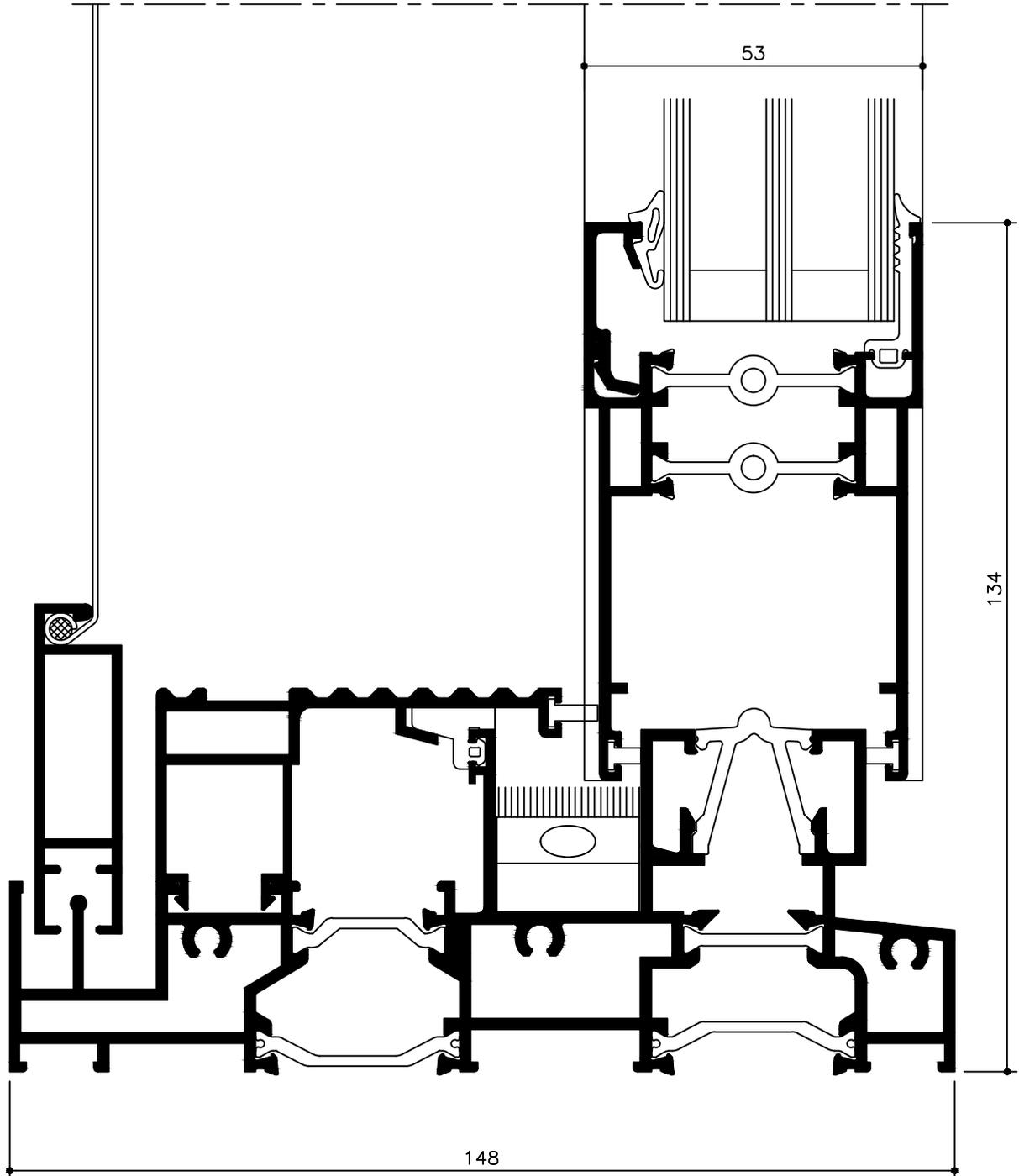
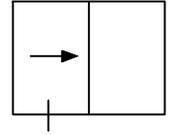
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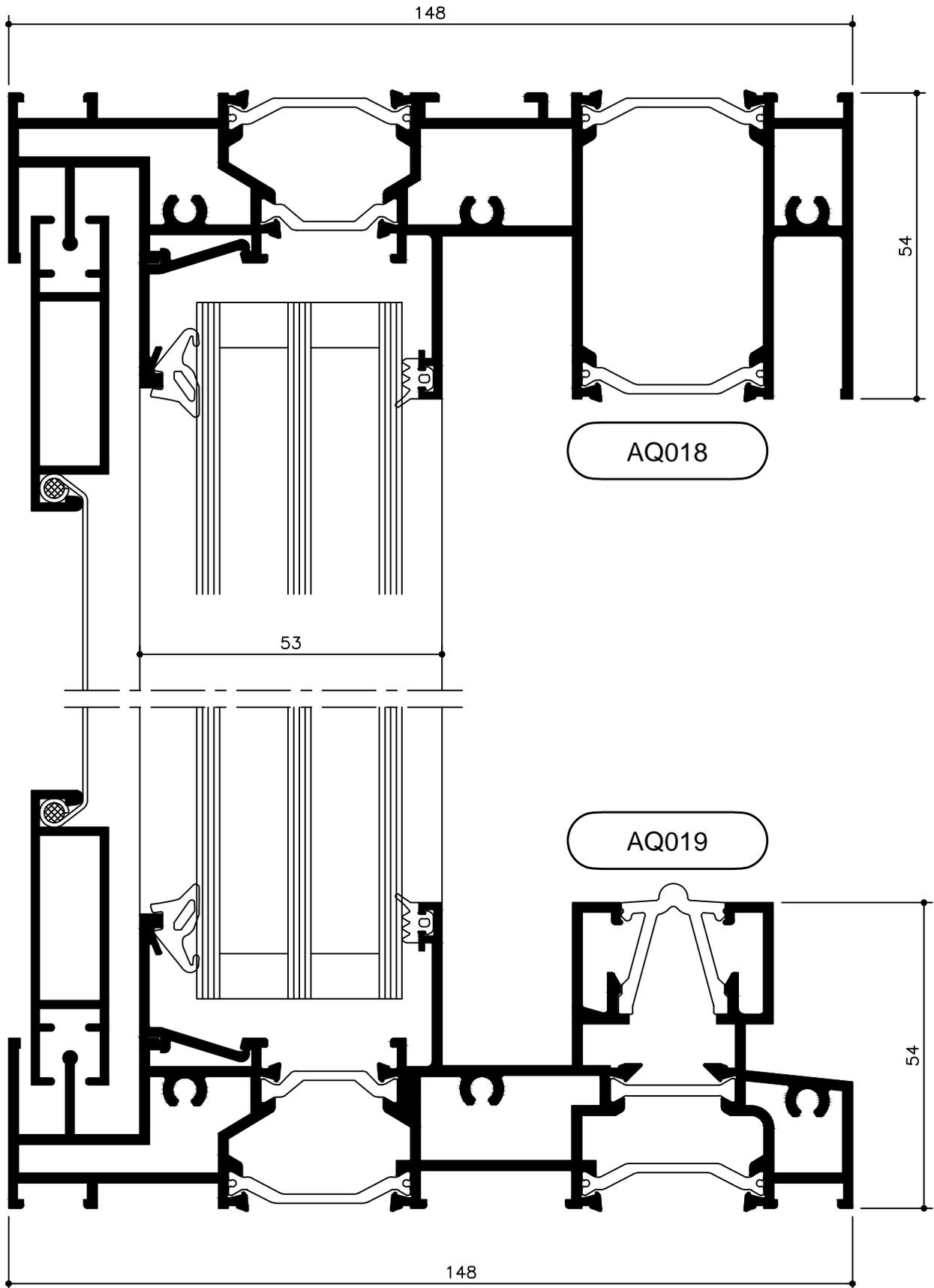
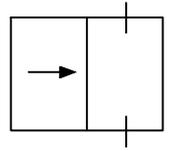


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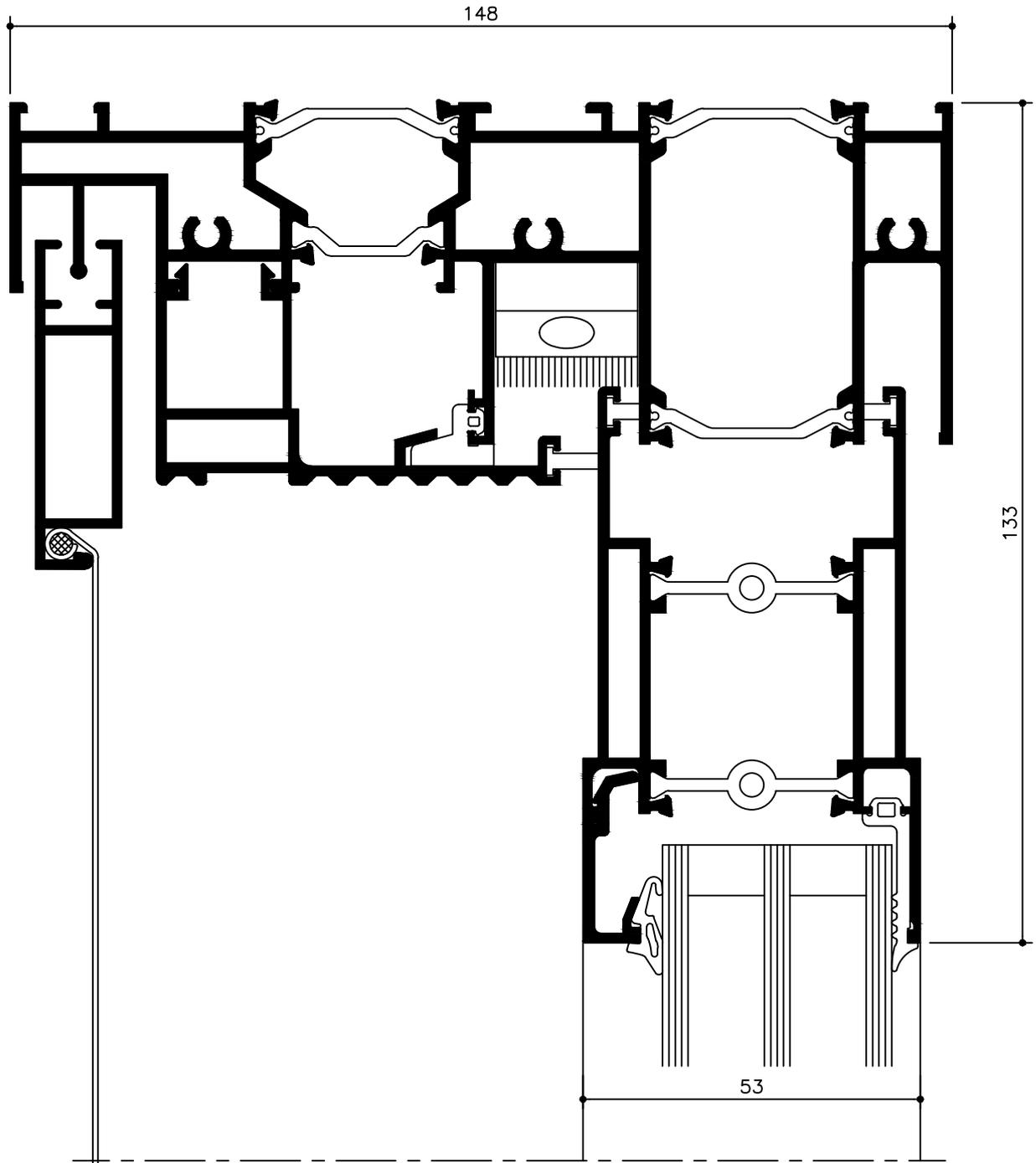
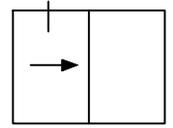


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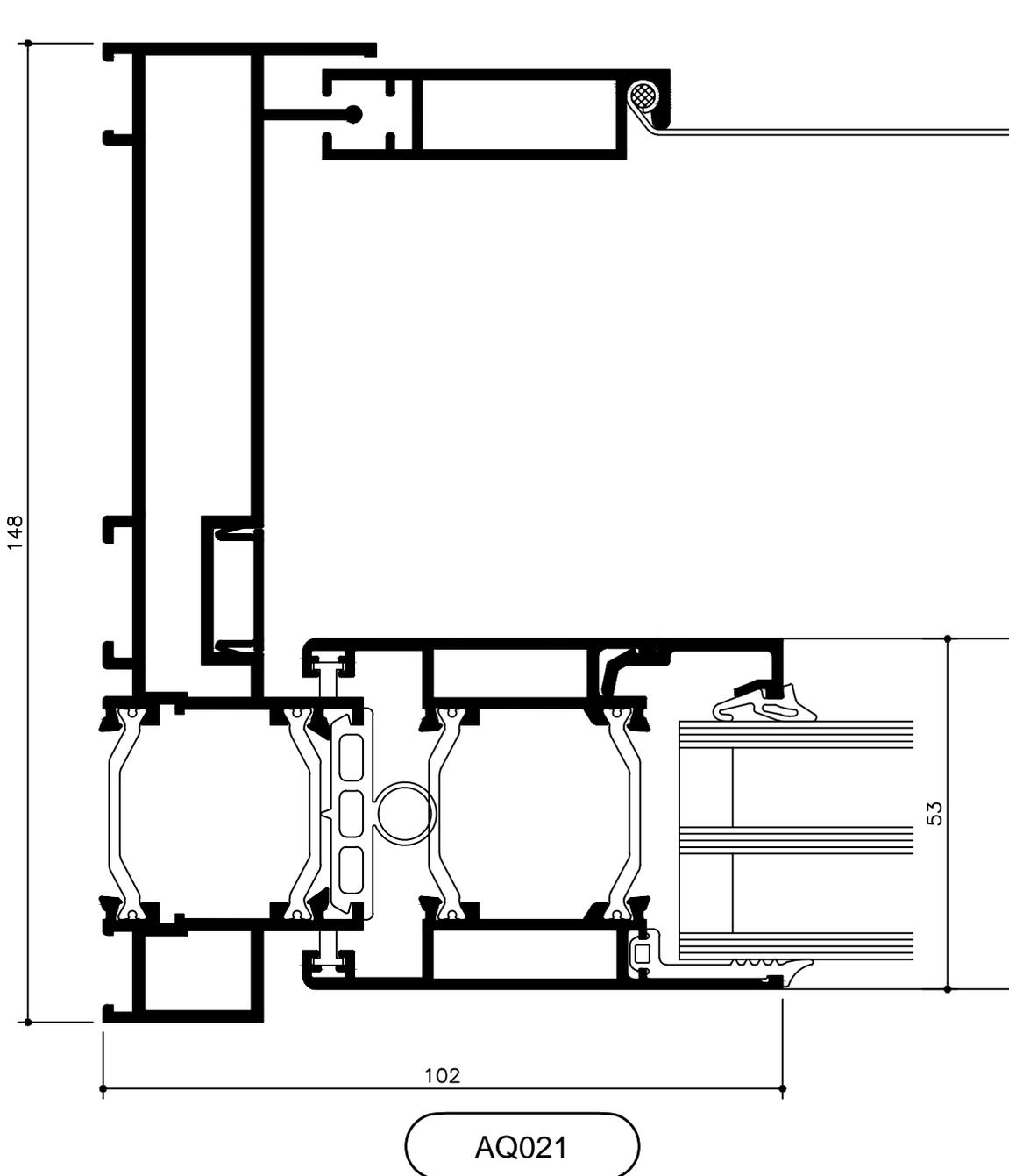
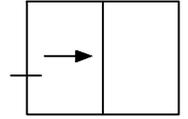
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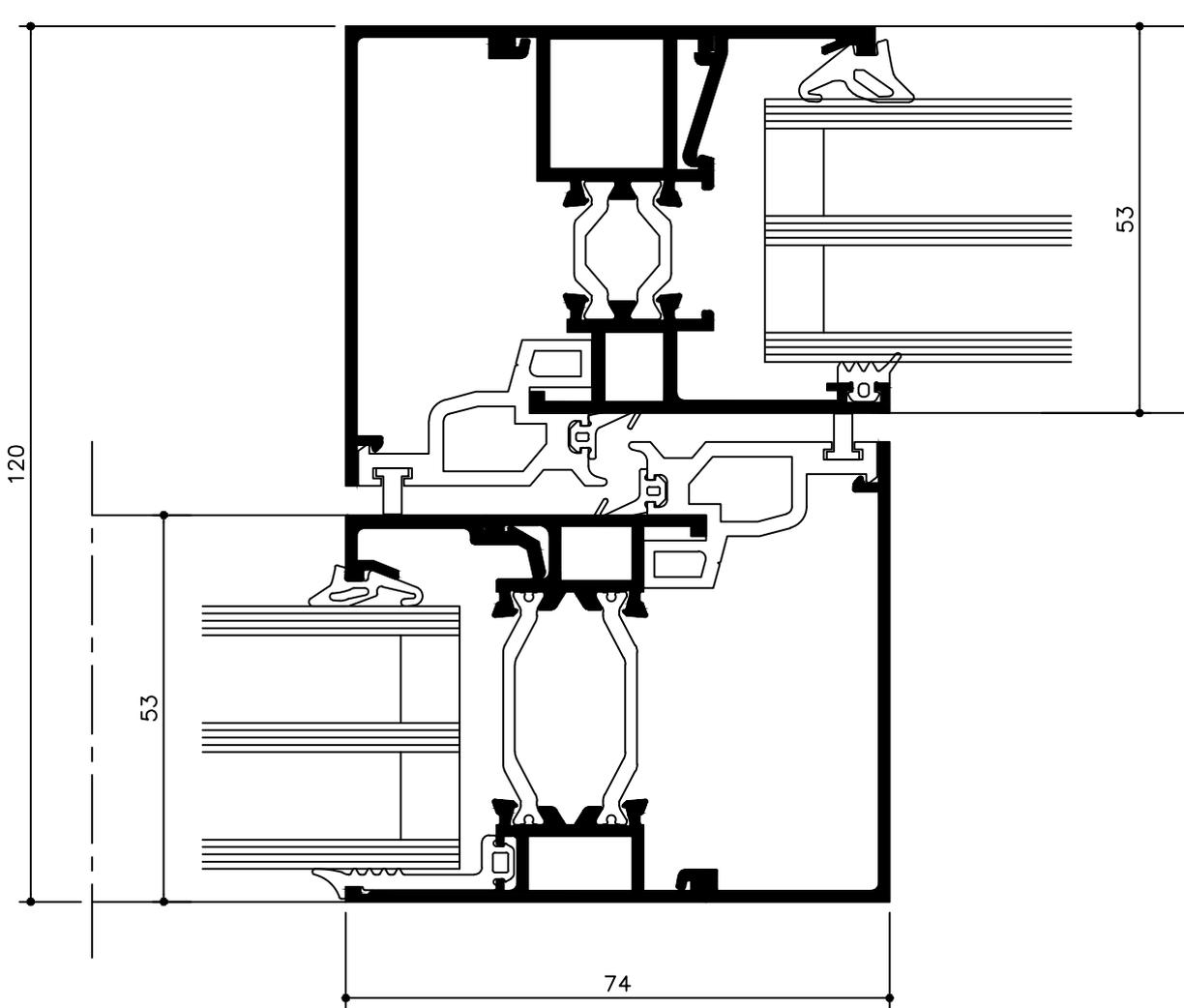
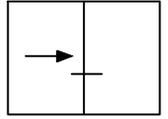


SECTOR I.18

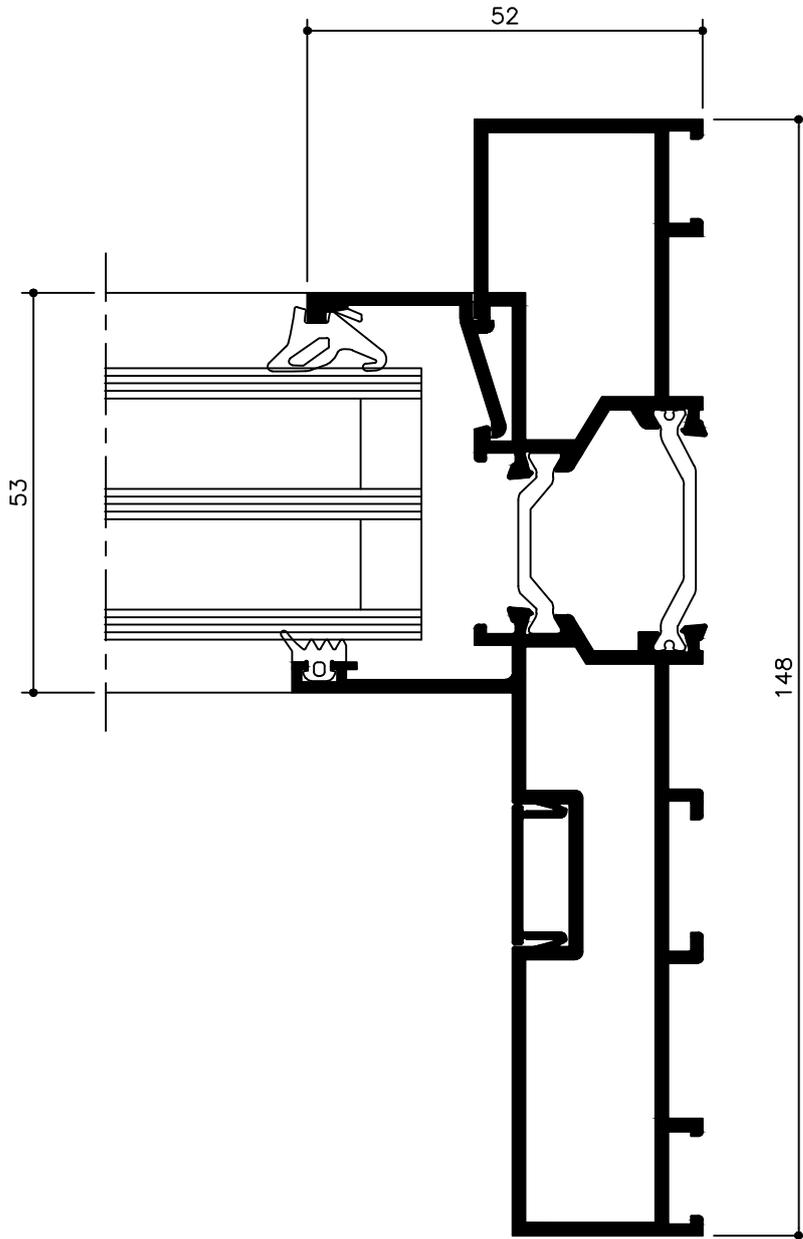
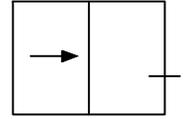


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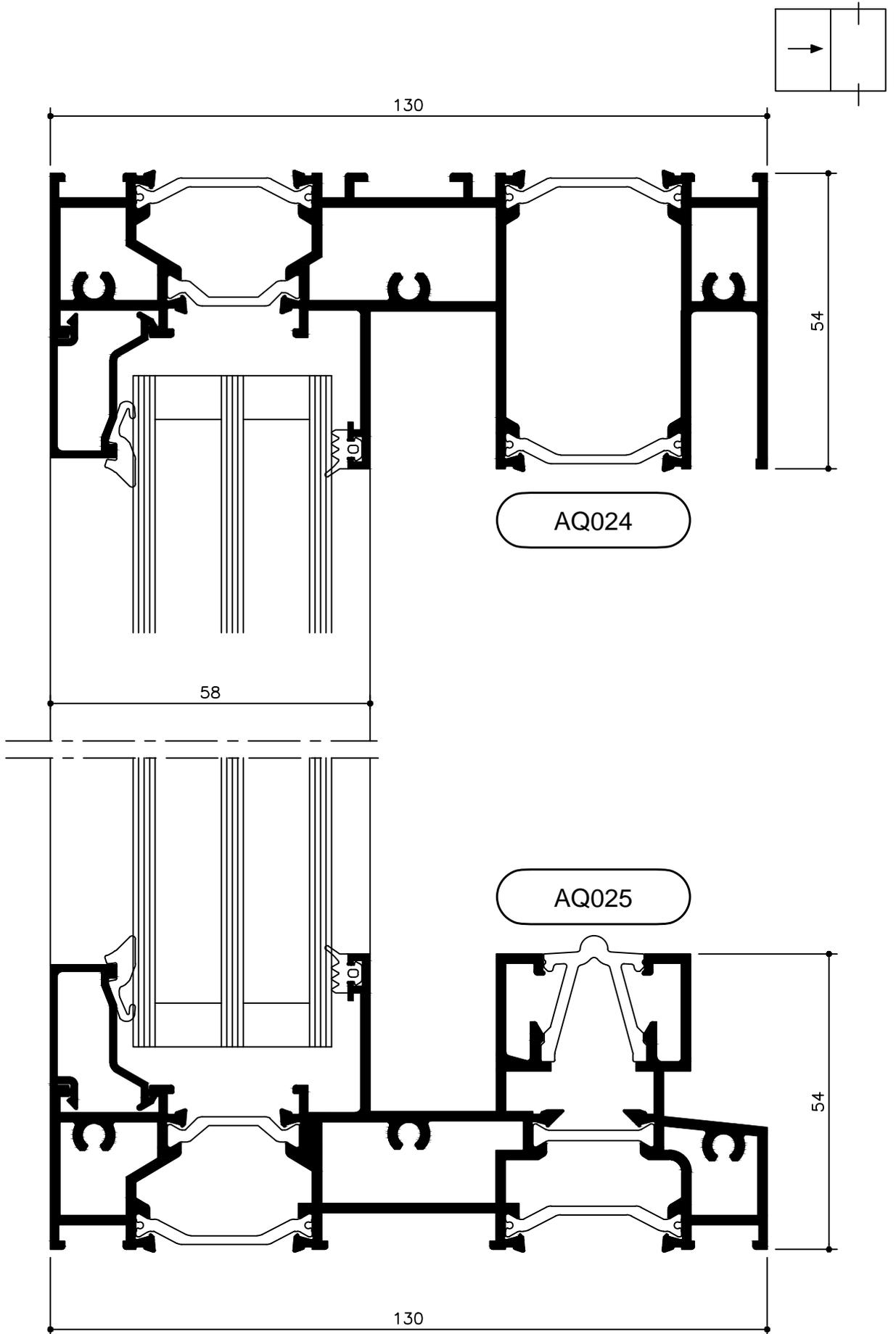


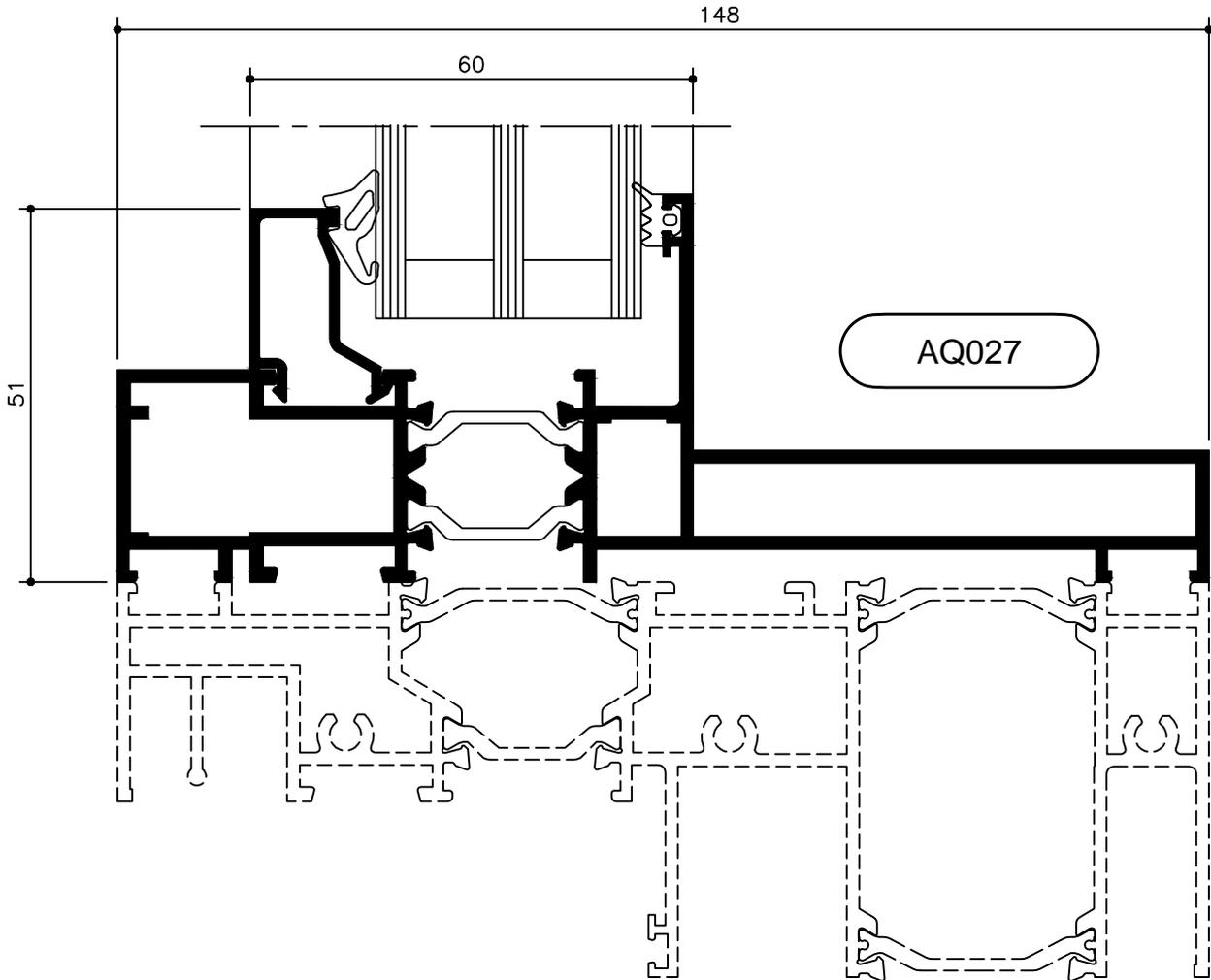
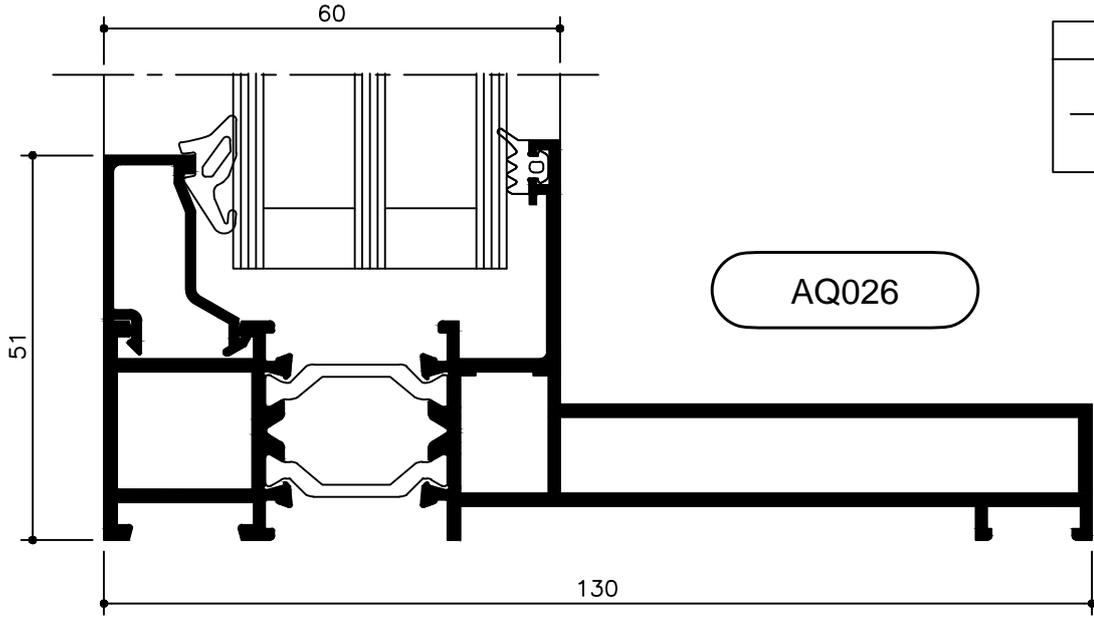


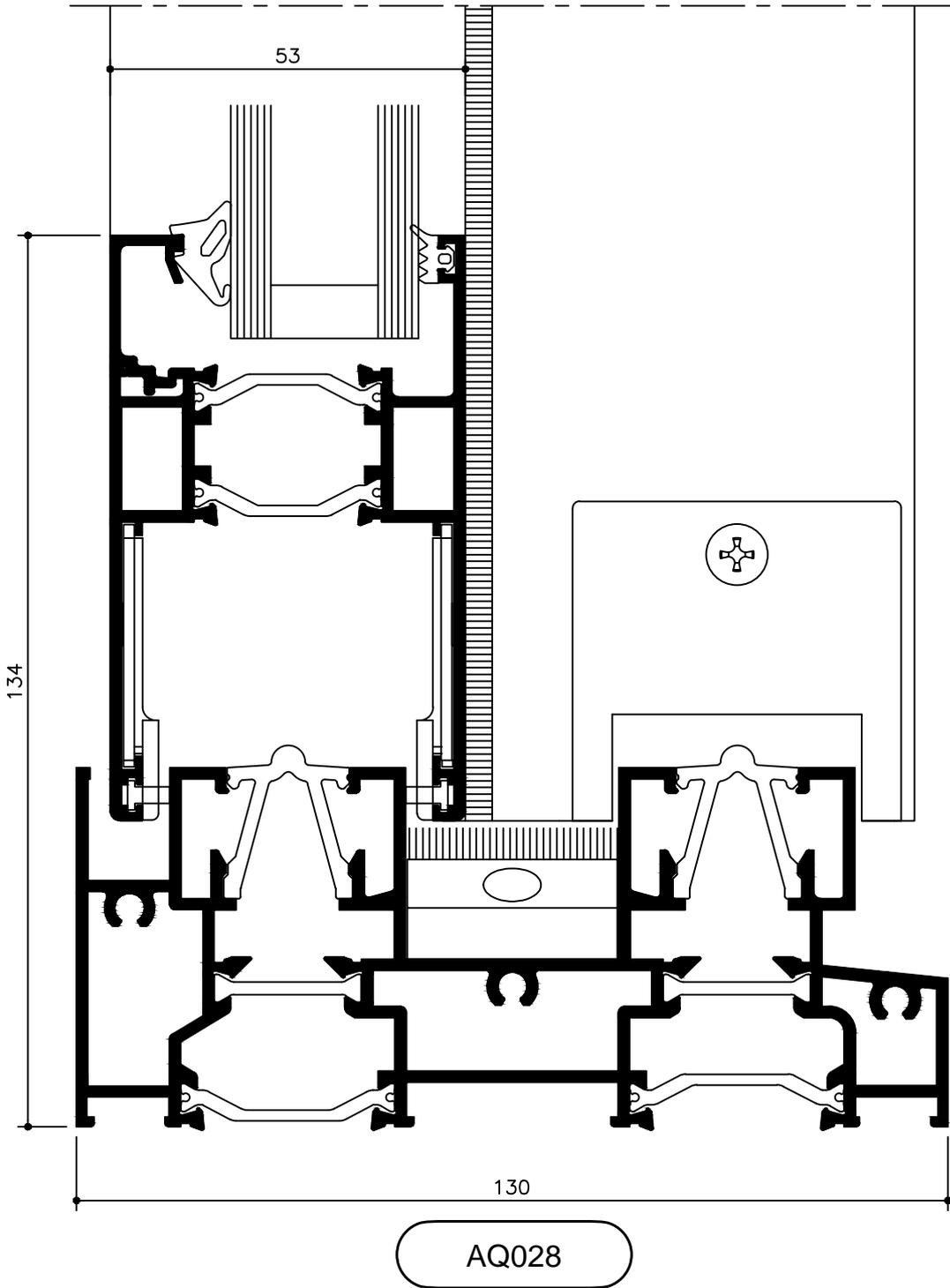
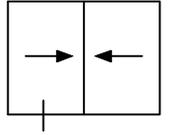
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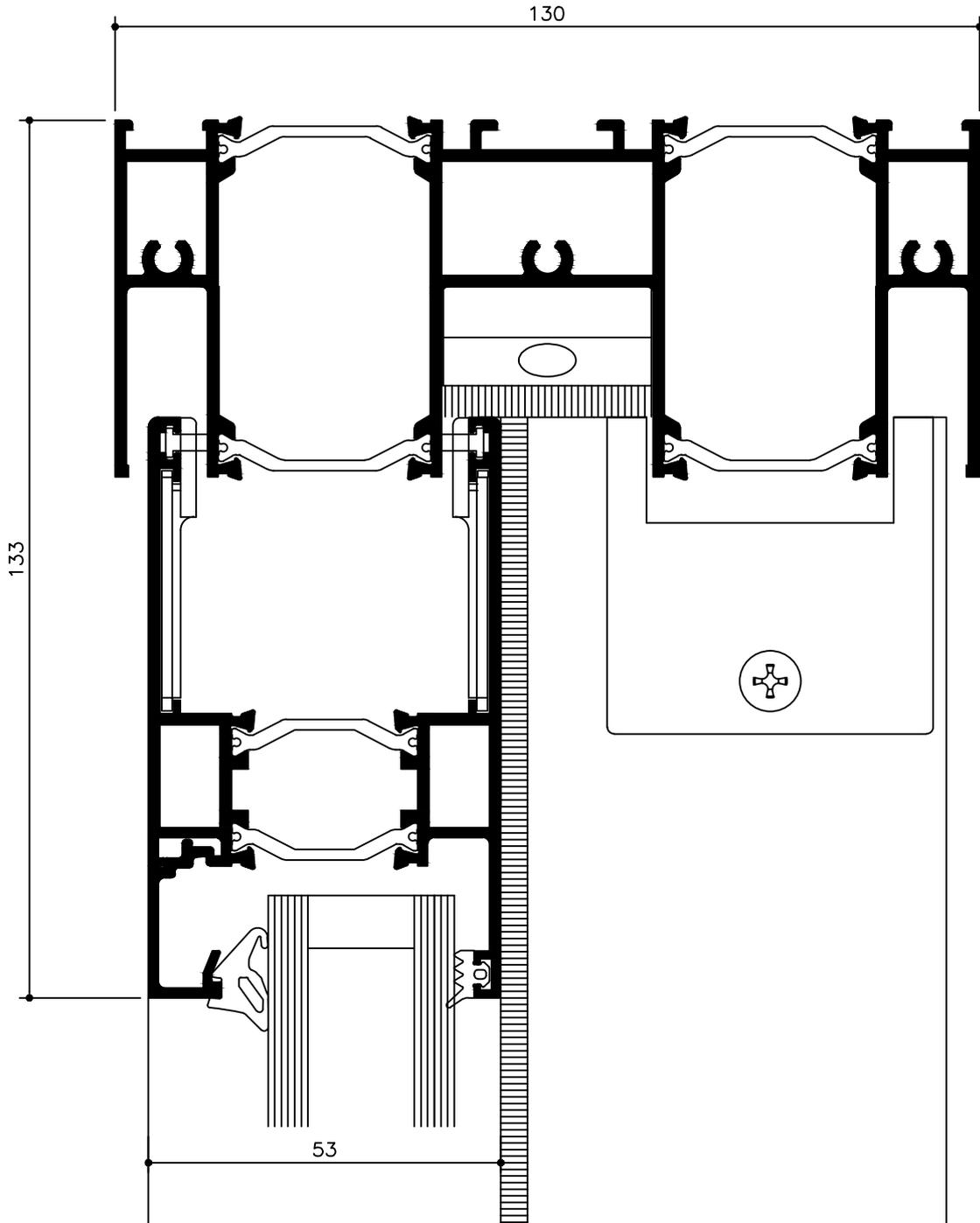
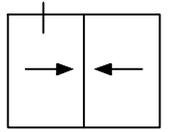


AQ023









AQ029



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

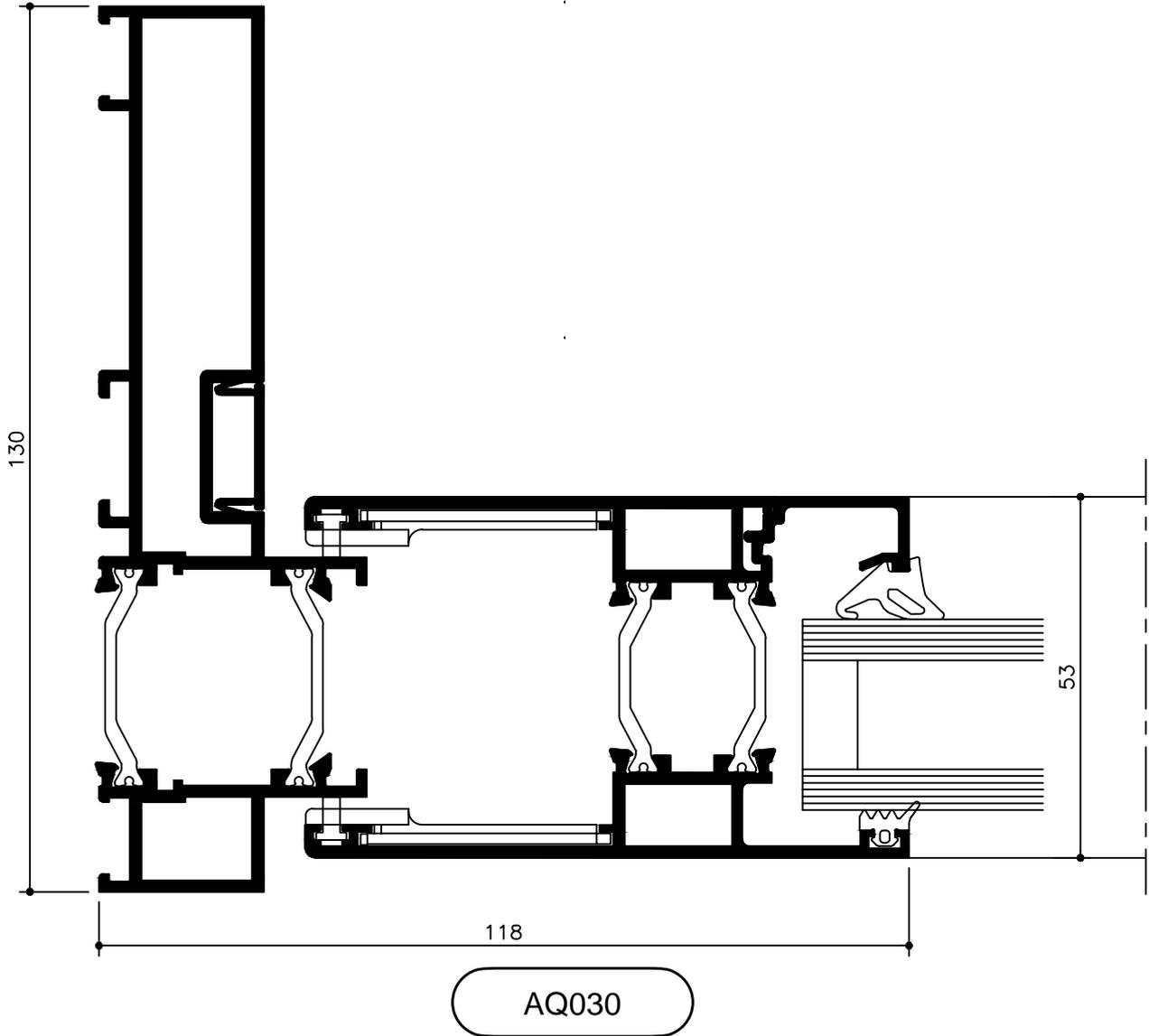
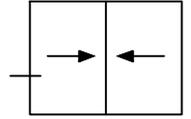


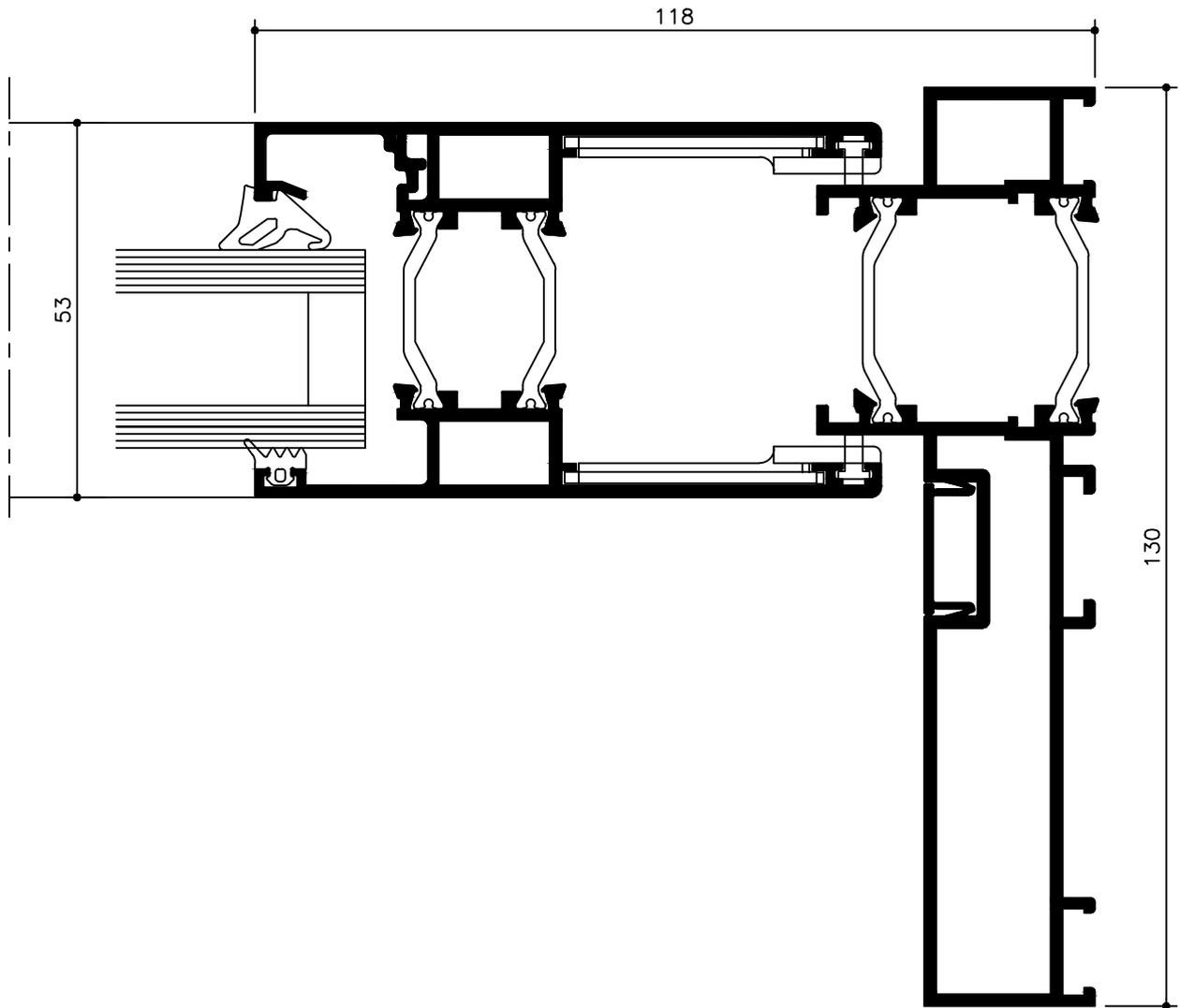
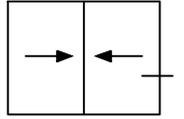
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AQ031



GALEX
الشركة القطرية لسحب الألمنيوم
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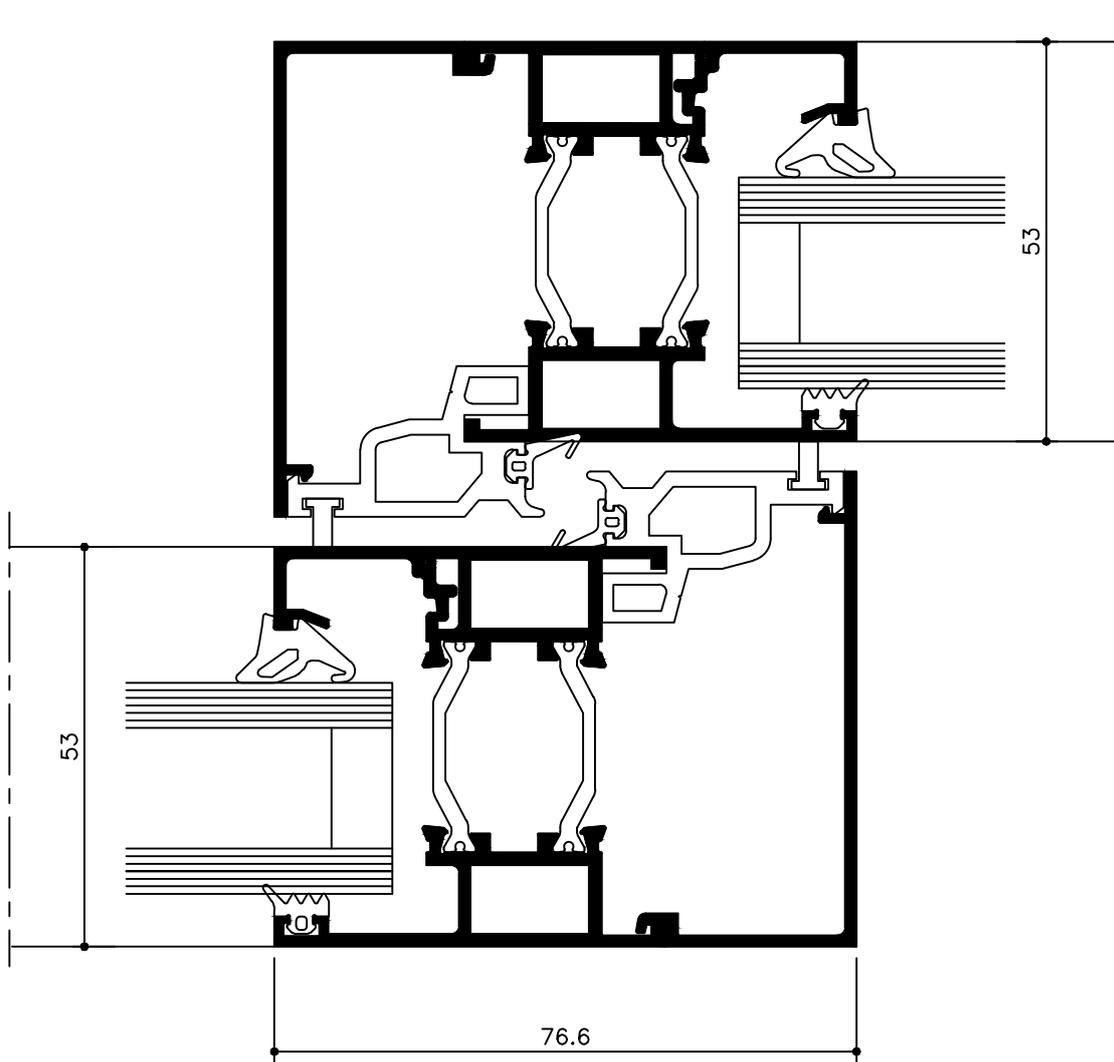
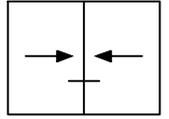


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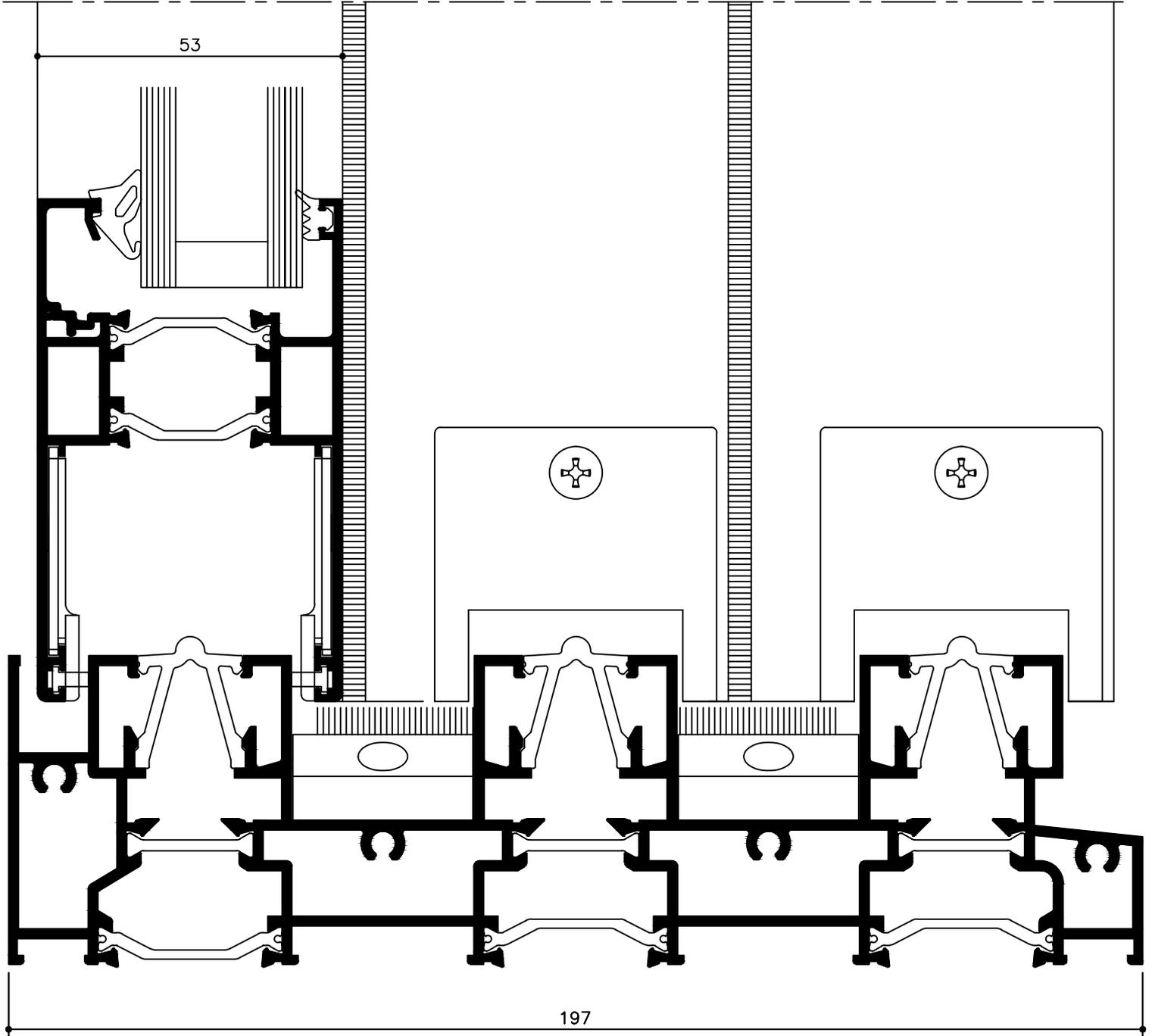
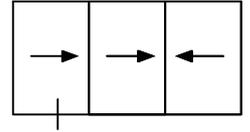
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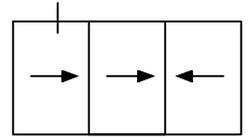
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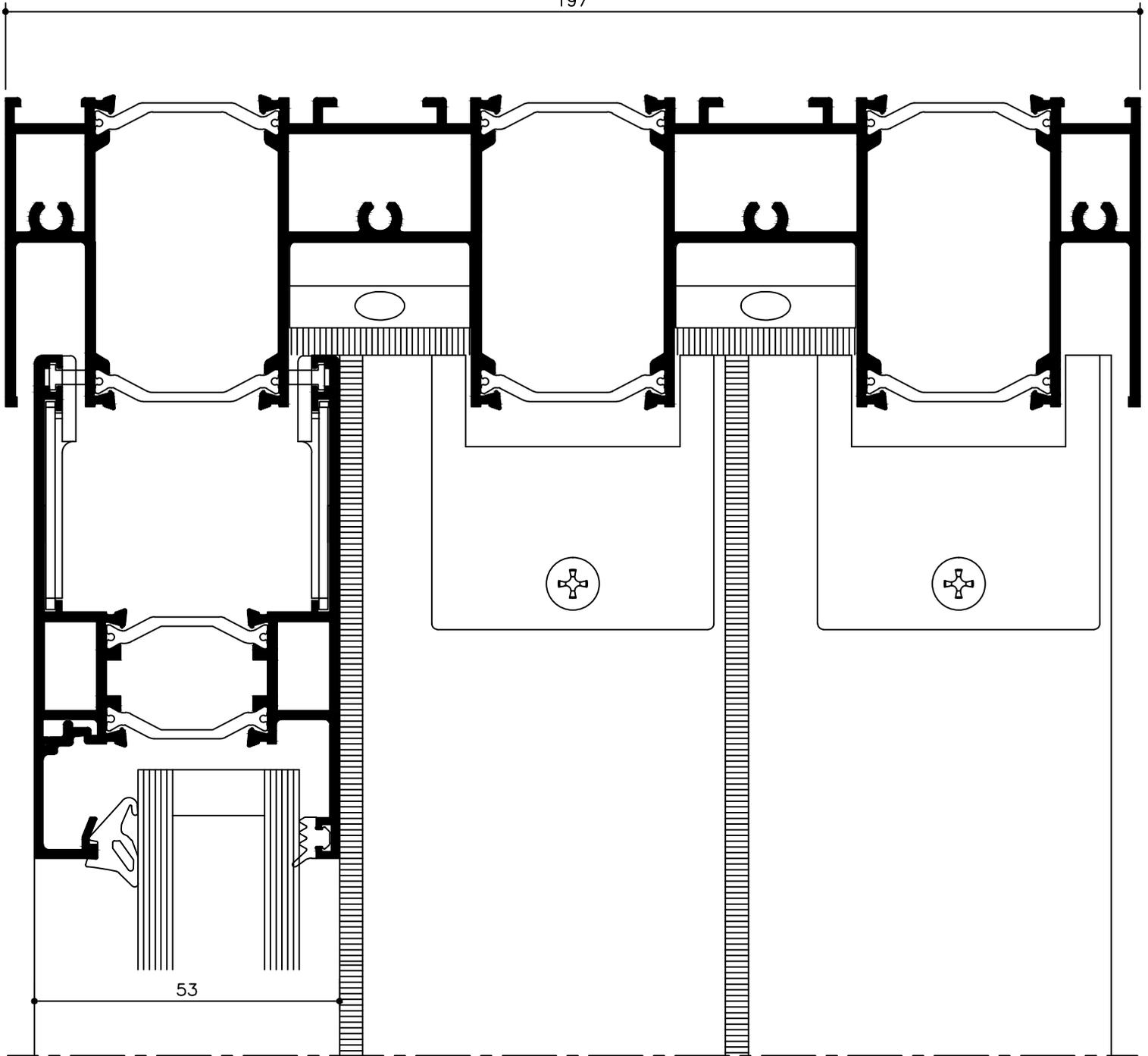
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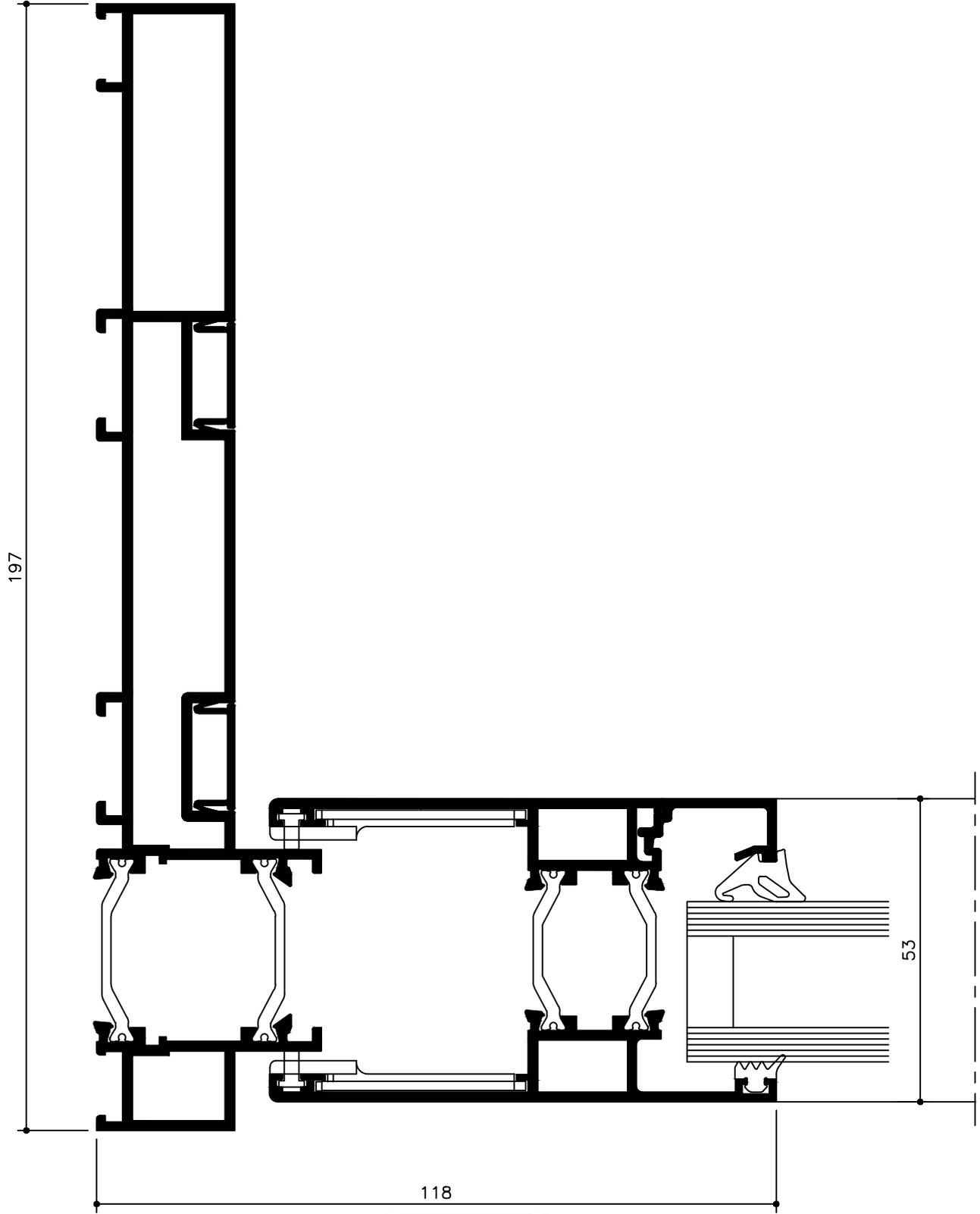
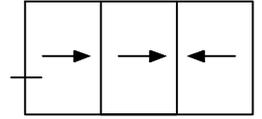
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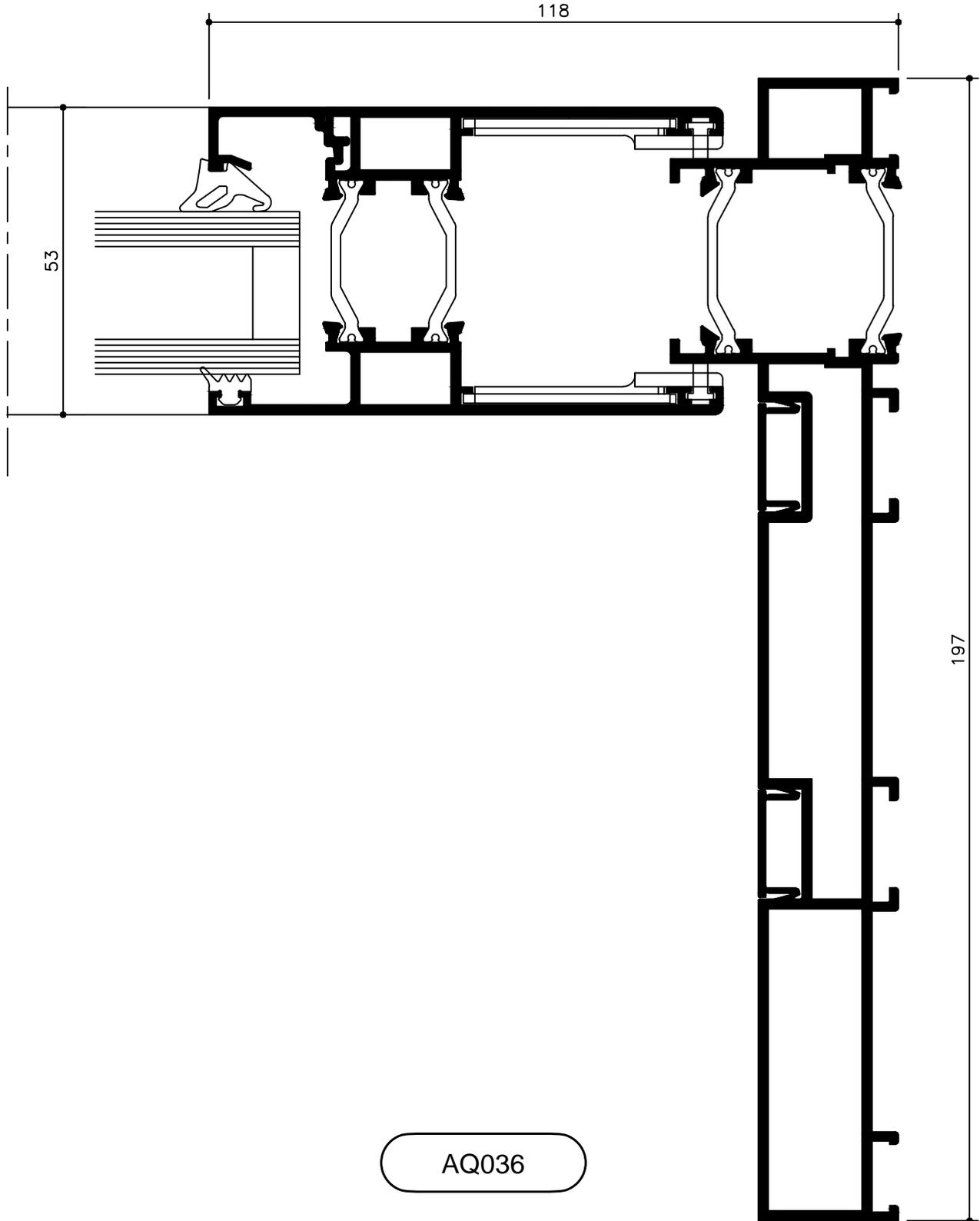
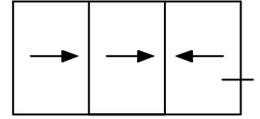


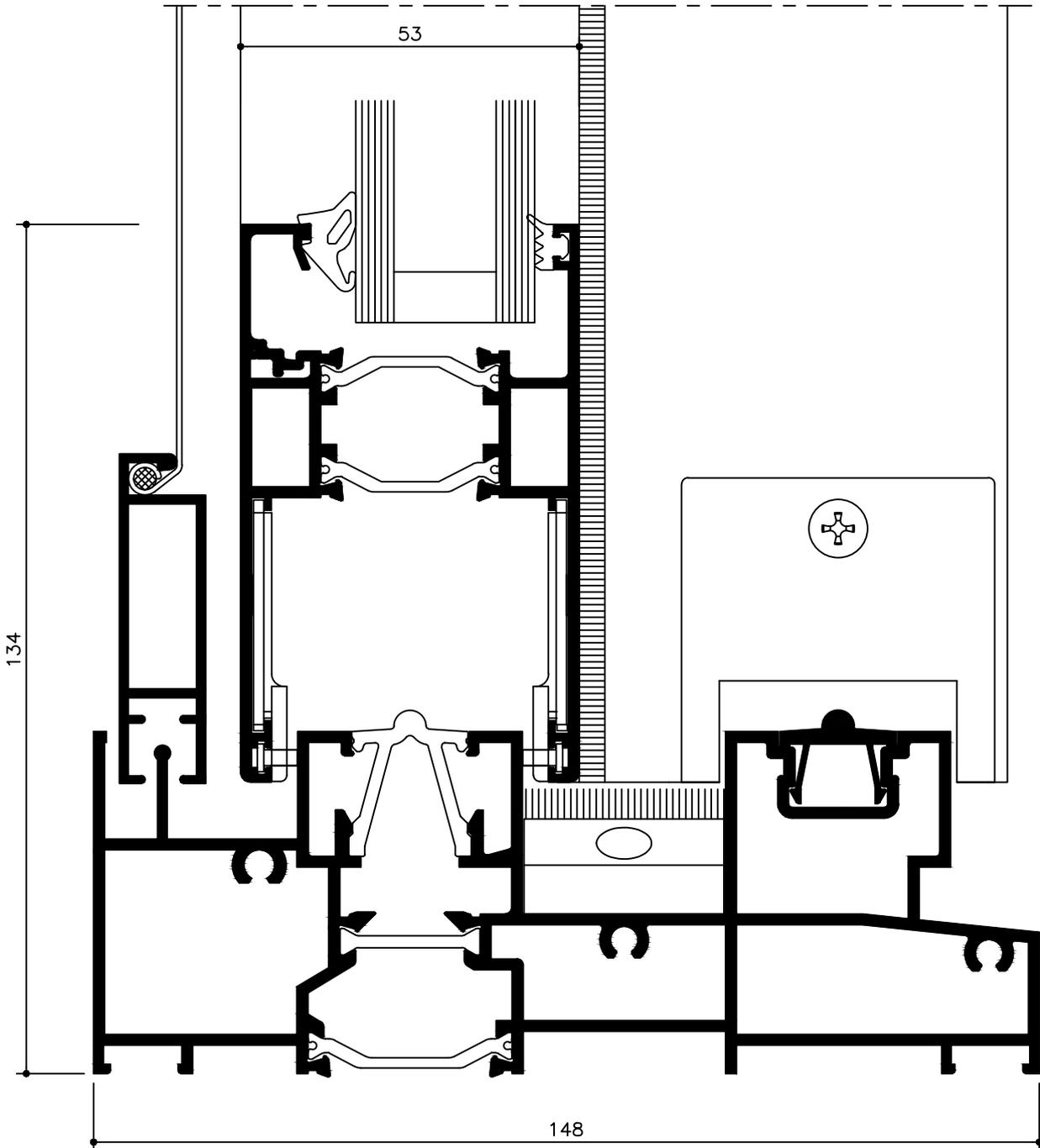
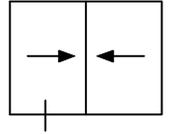
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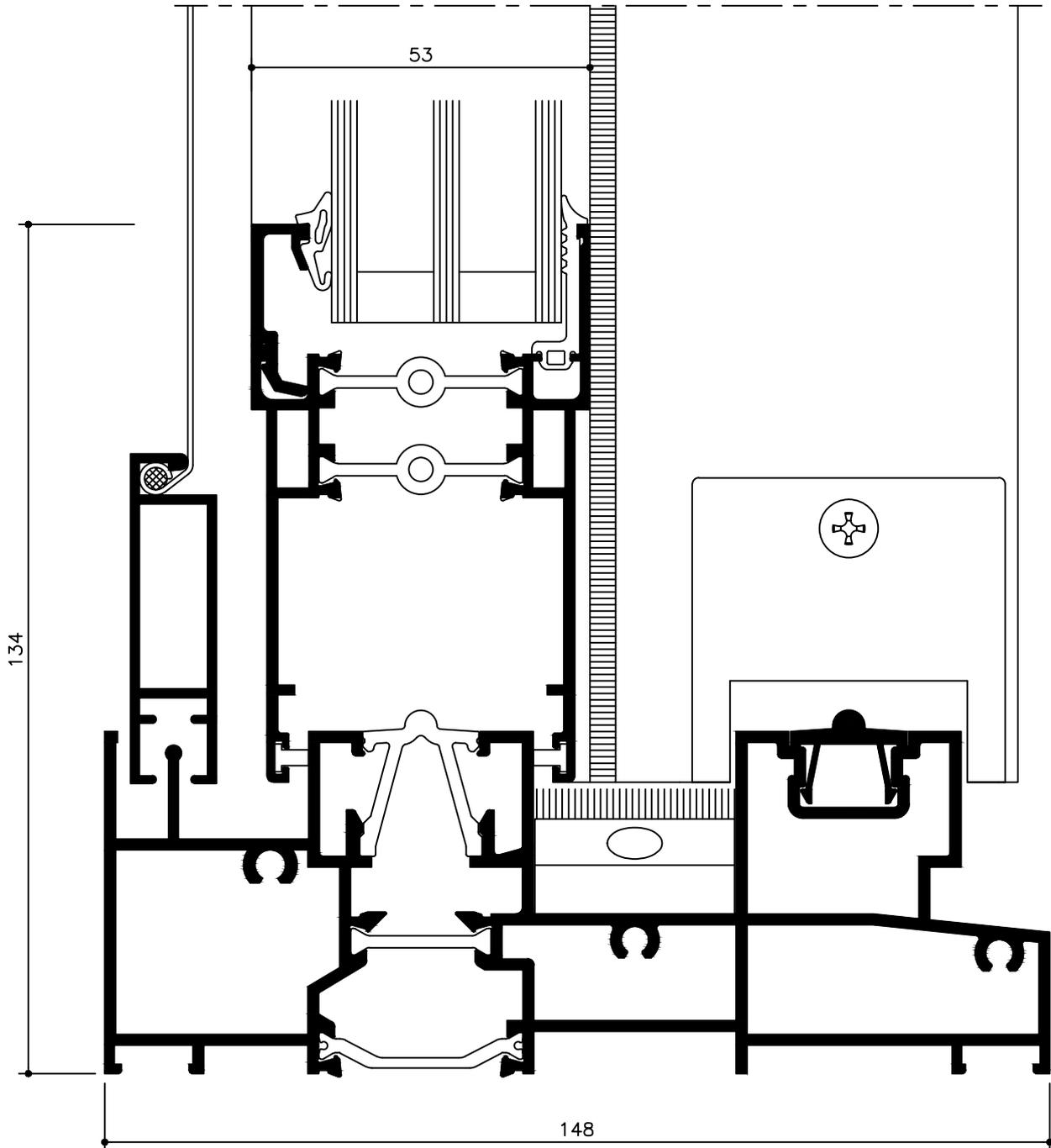
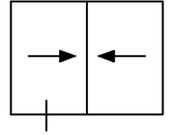
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SECTOR I.32

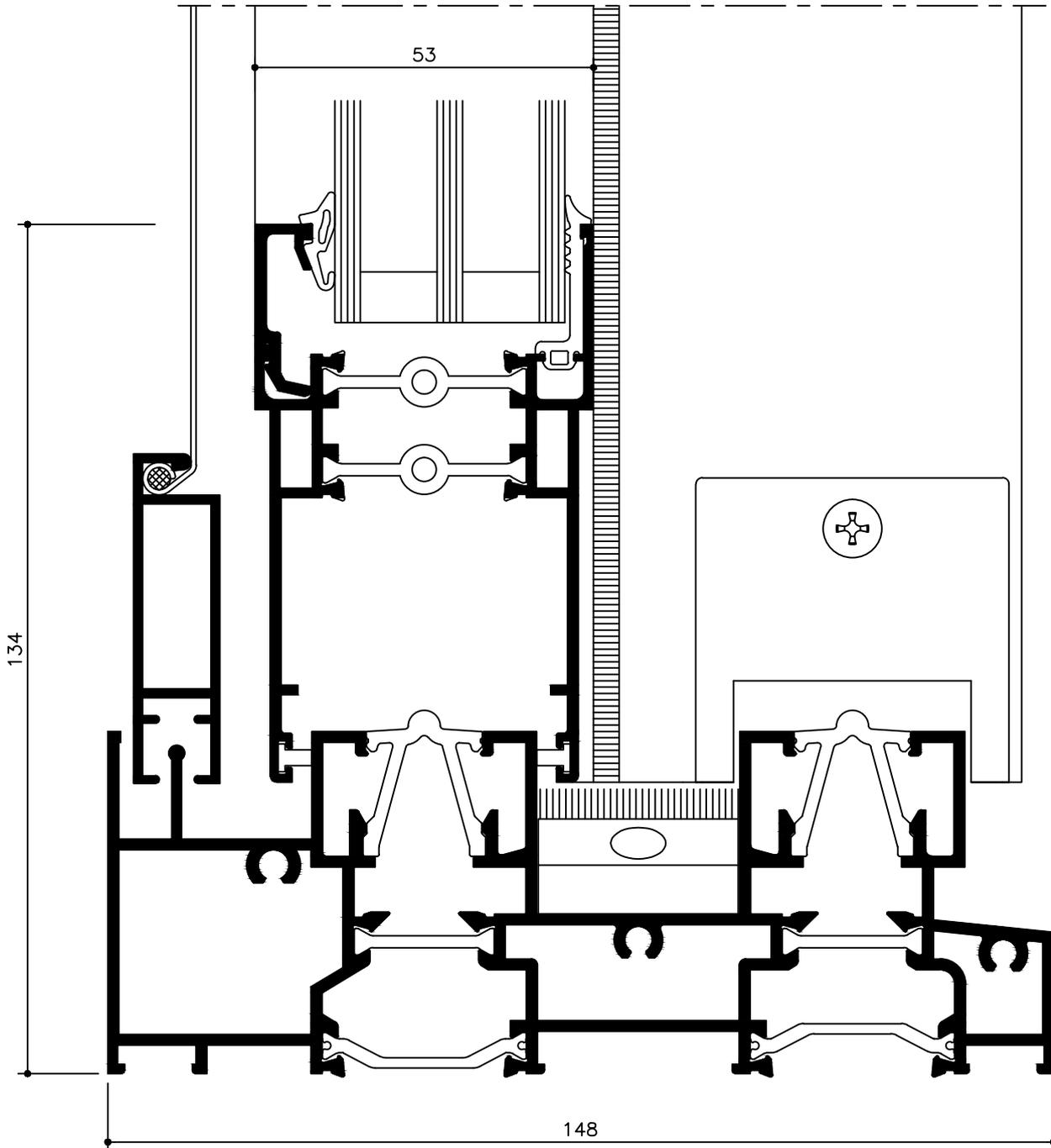
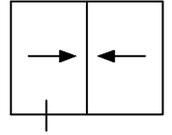




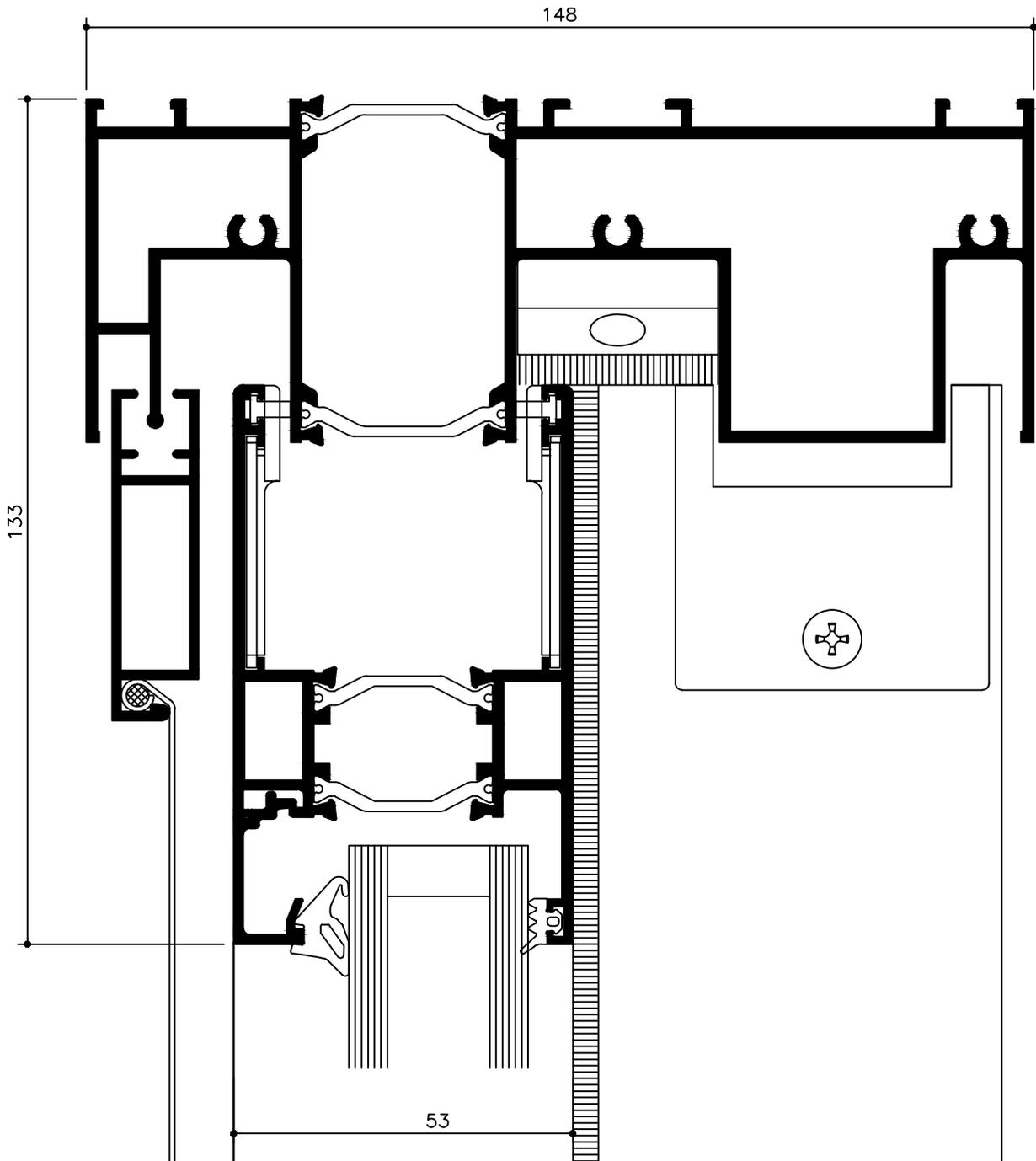
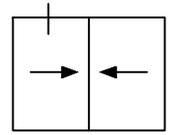
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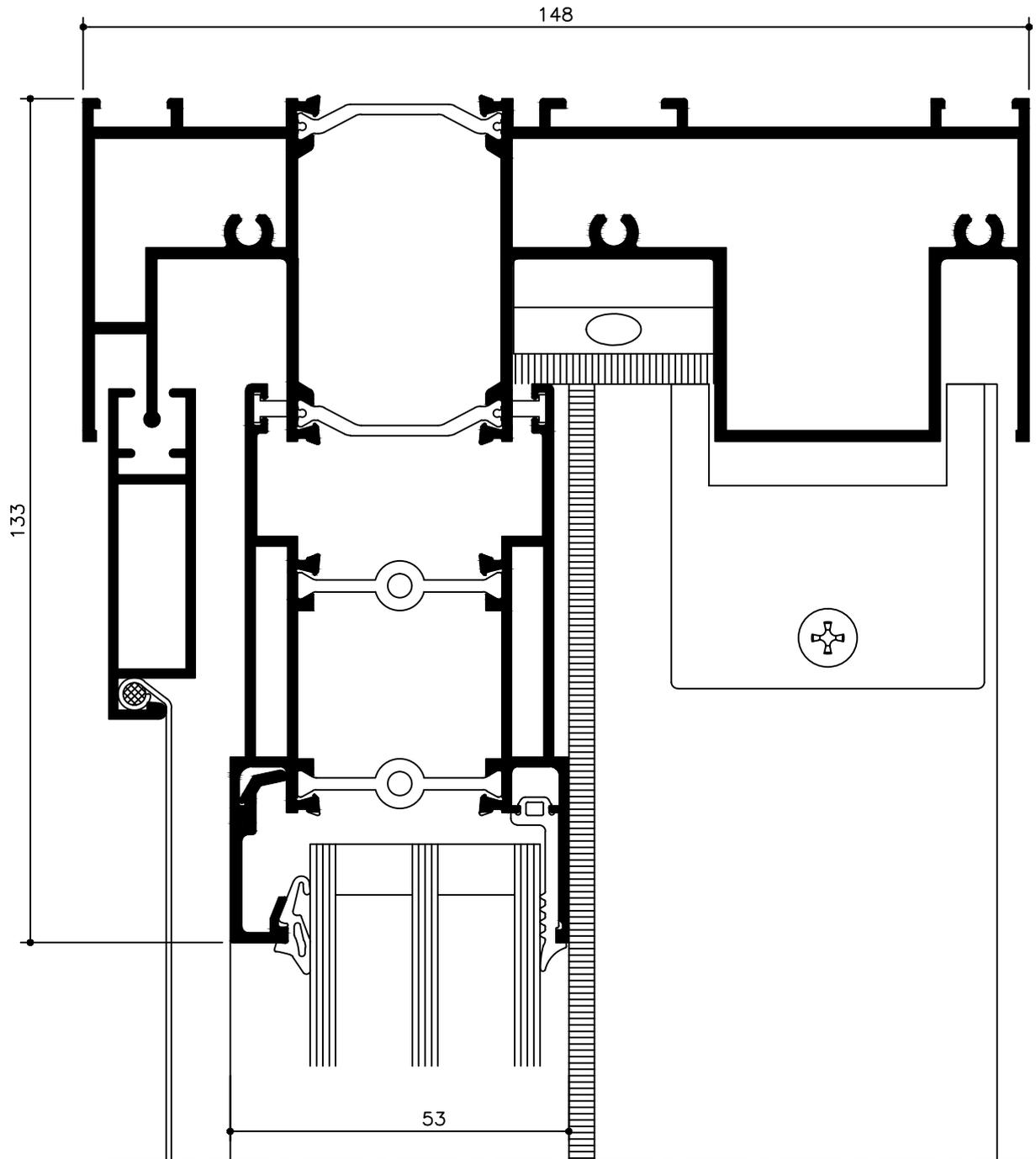
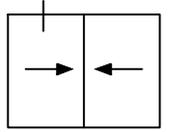
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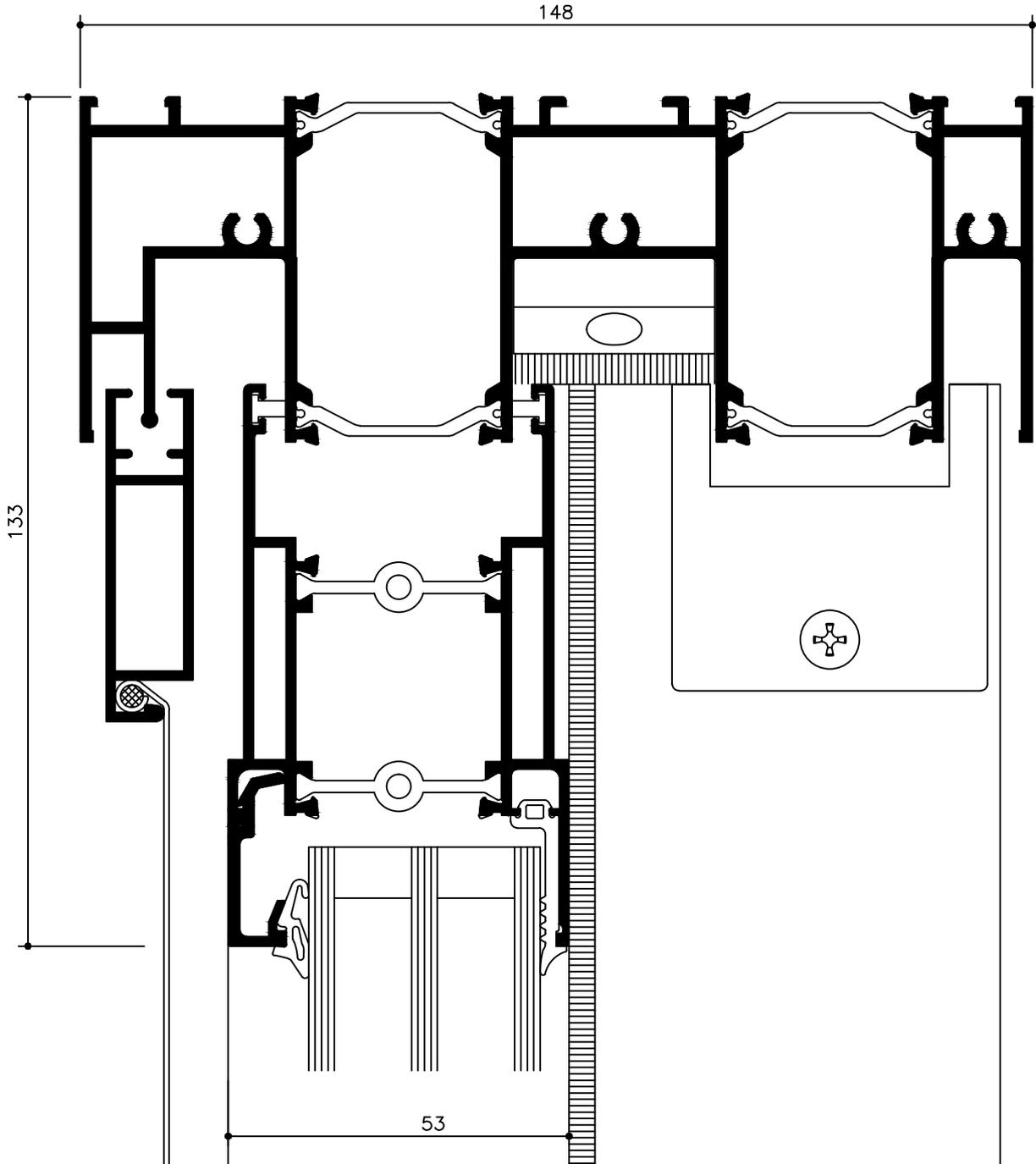
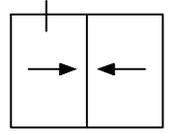
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AQ040



AQ041



AQ042



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

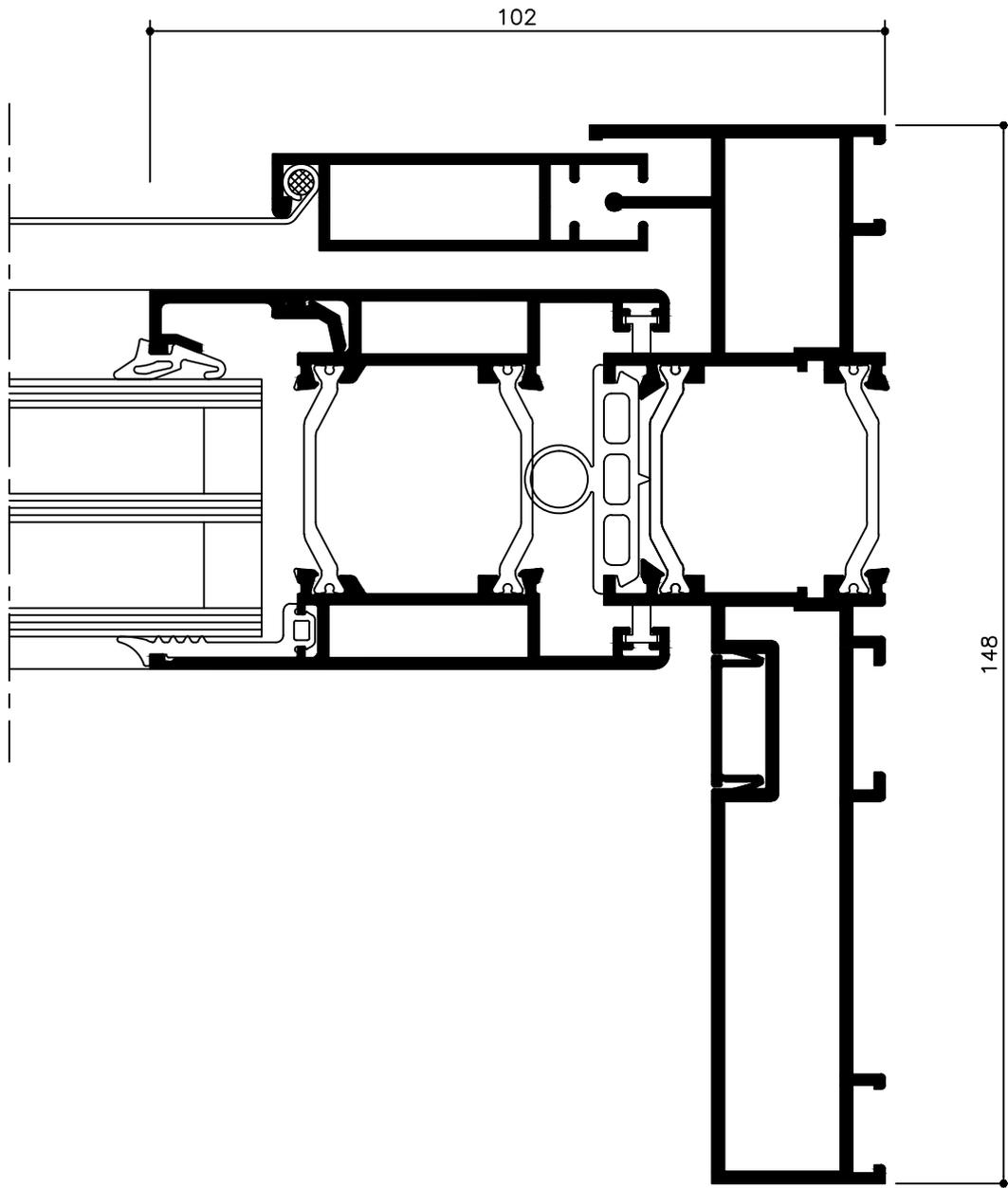
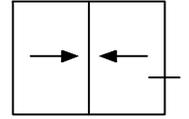


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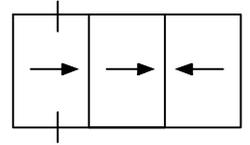


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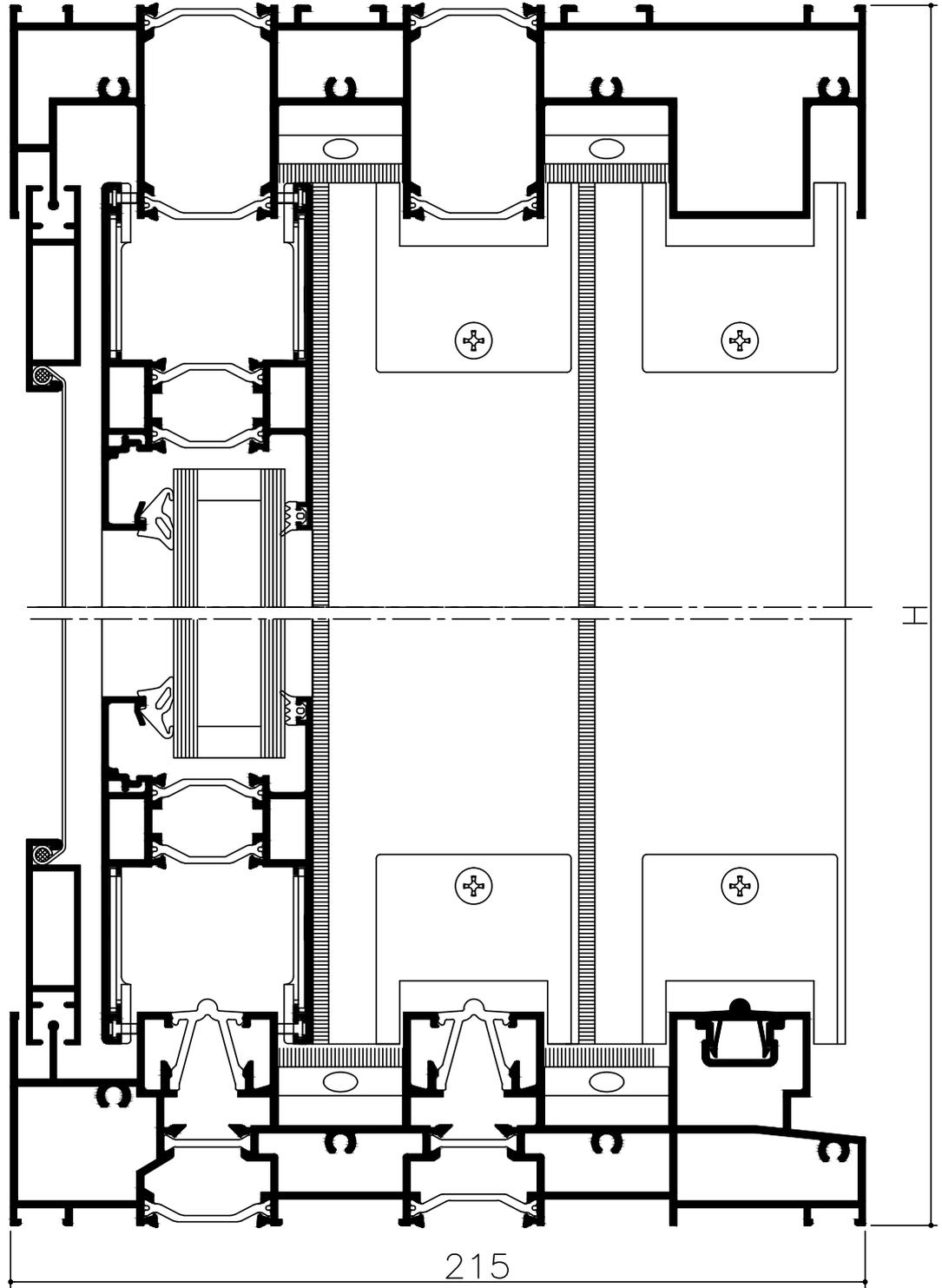
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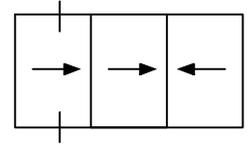
SECTOR I.40



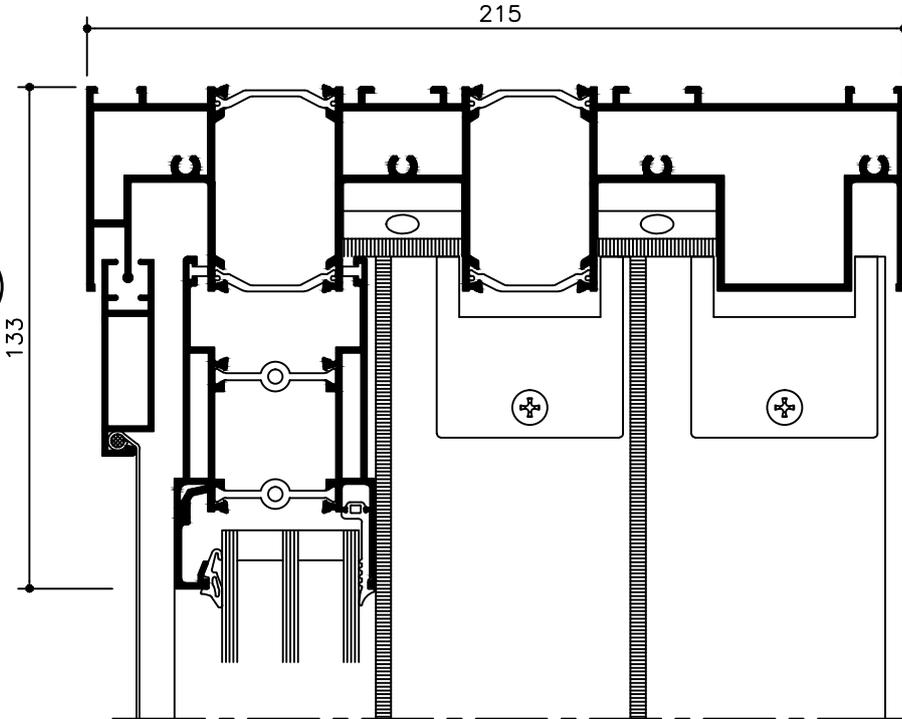
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AQ045

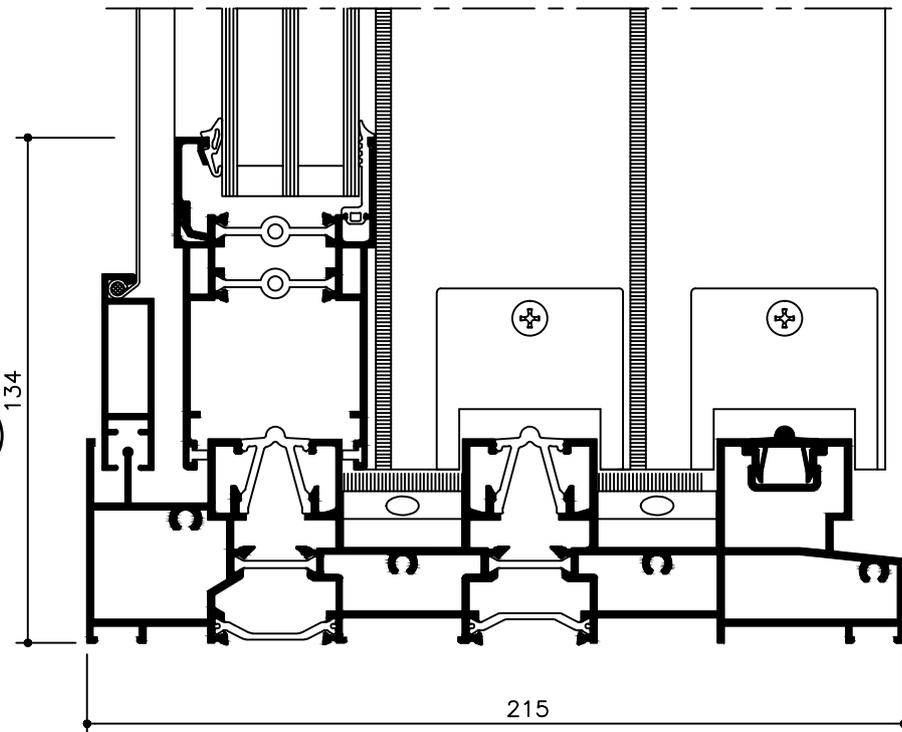


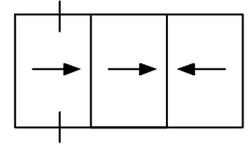


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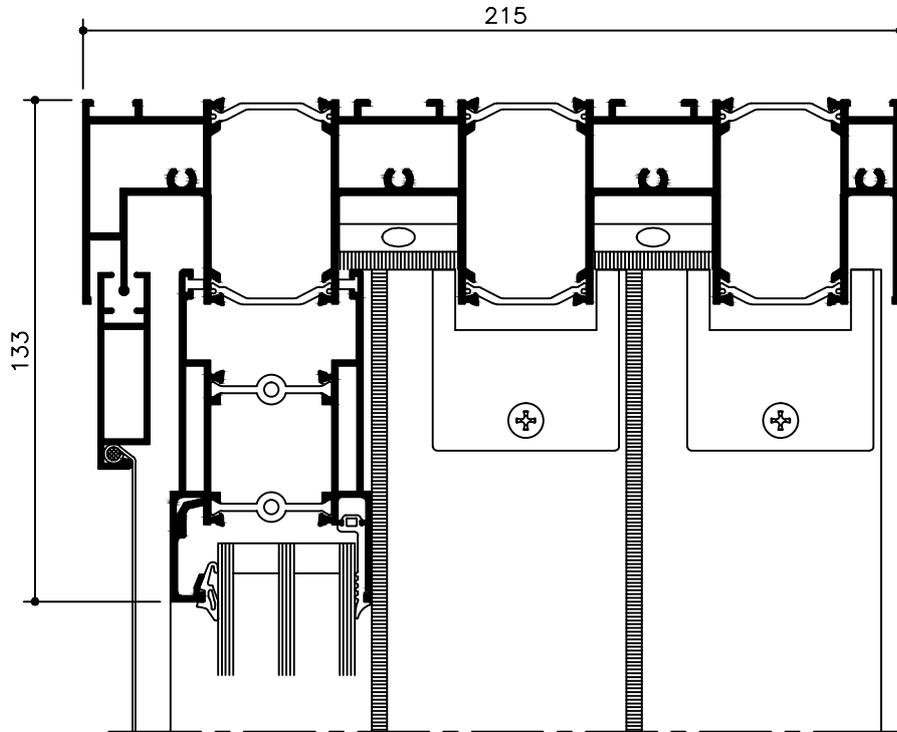


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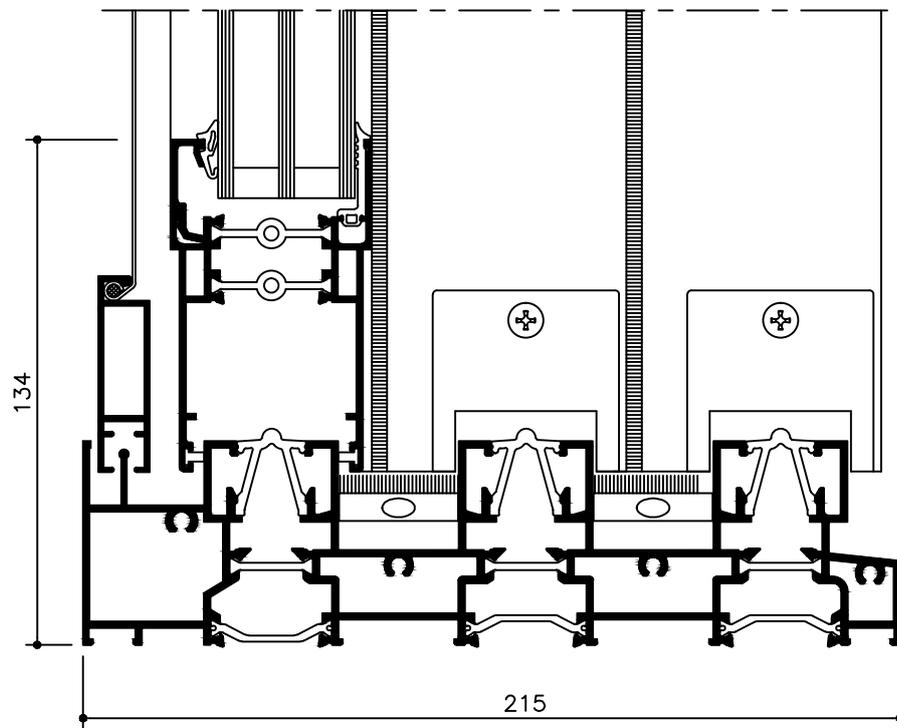


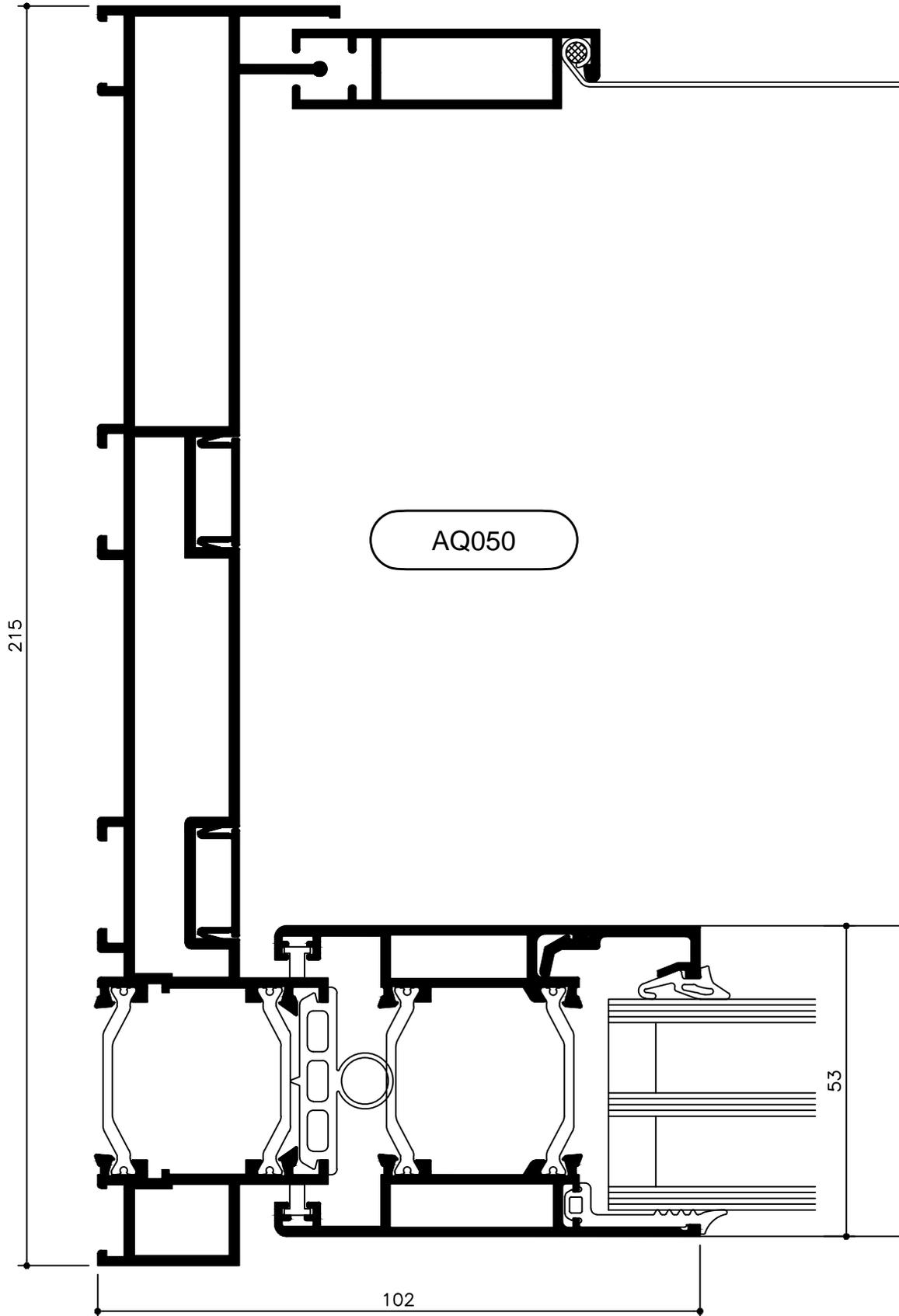
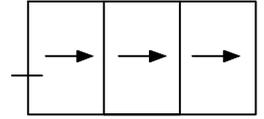


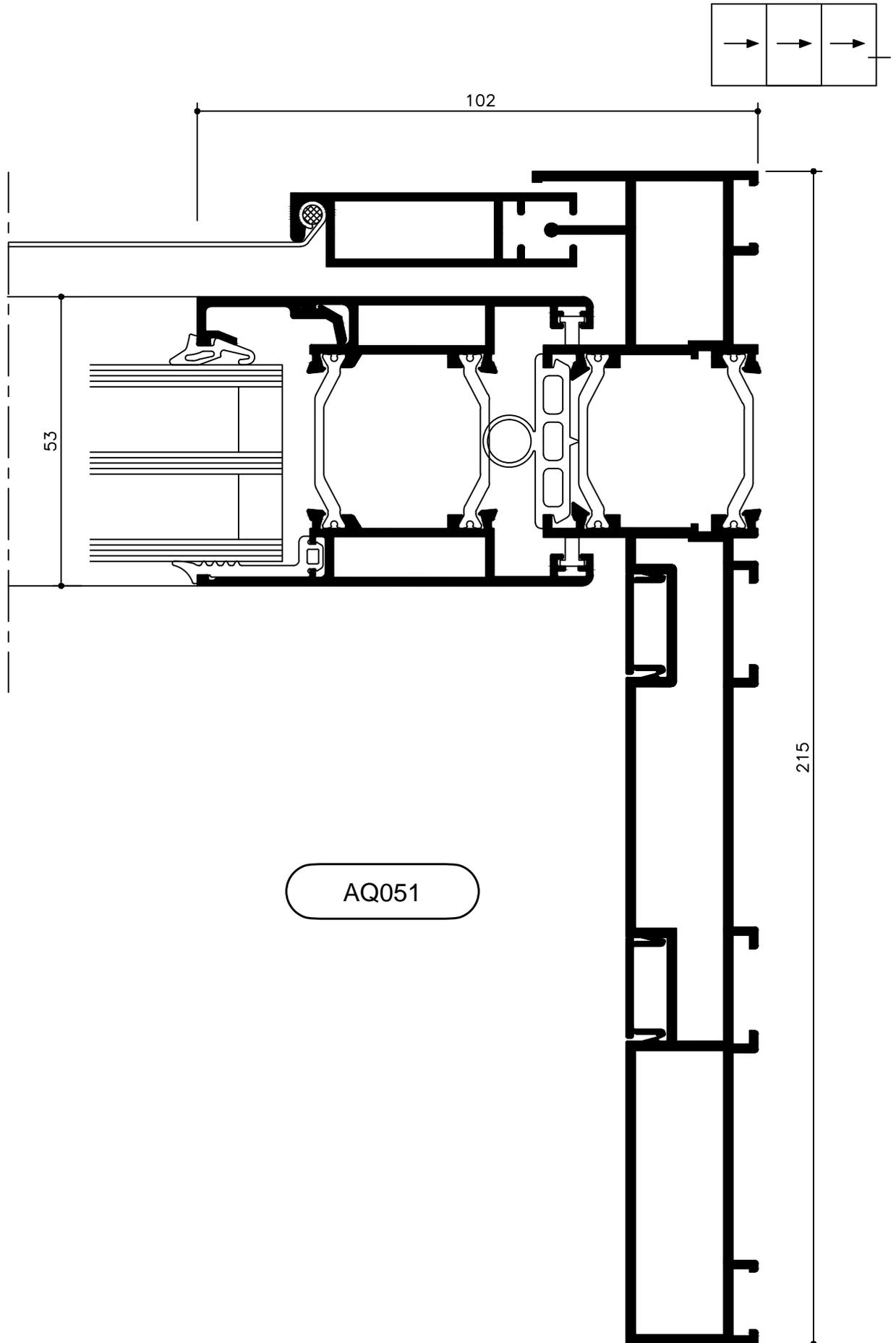
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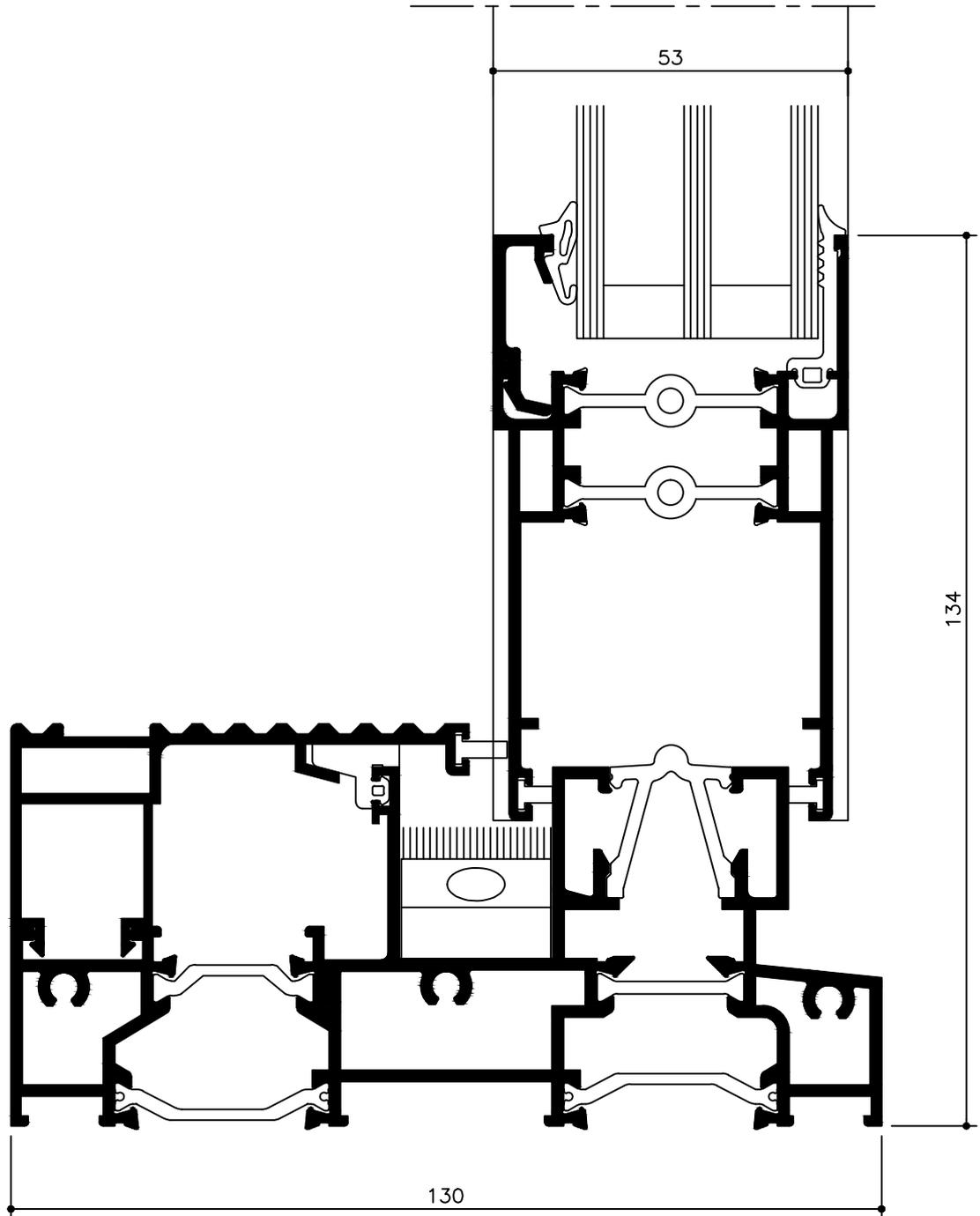
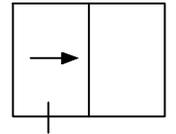


AQ048









AQ052



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

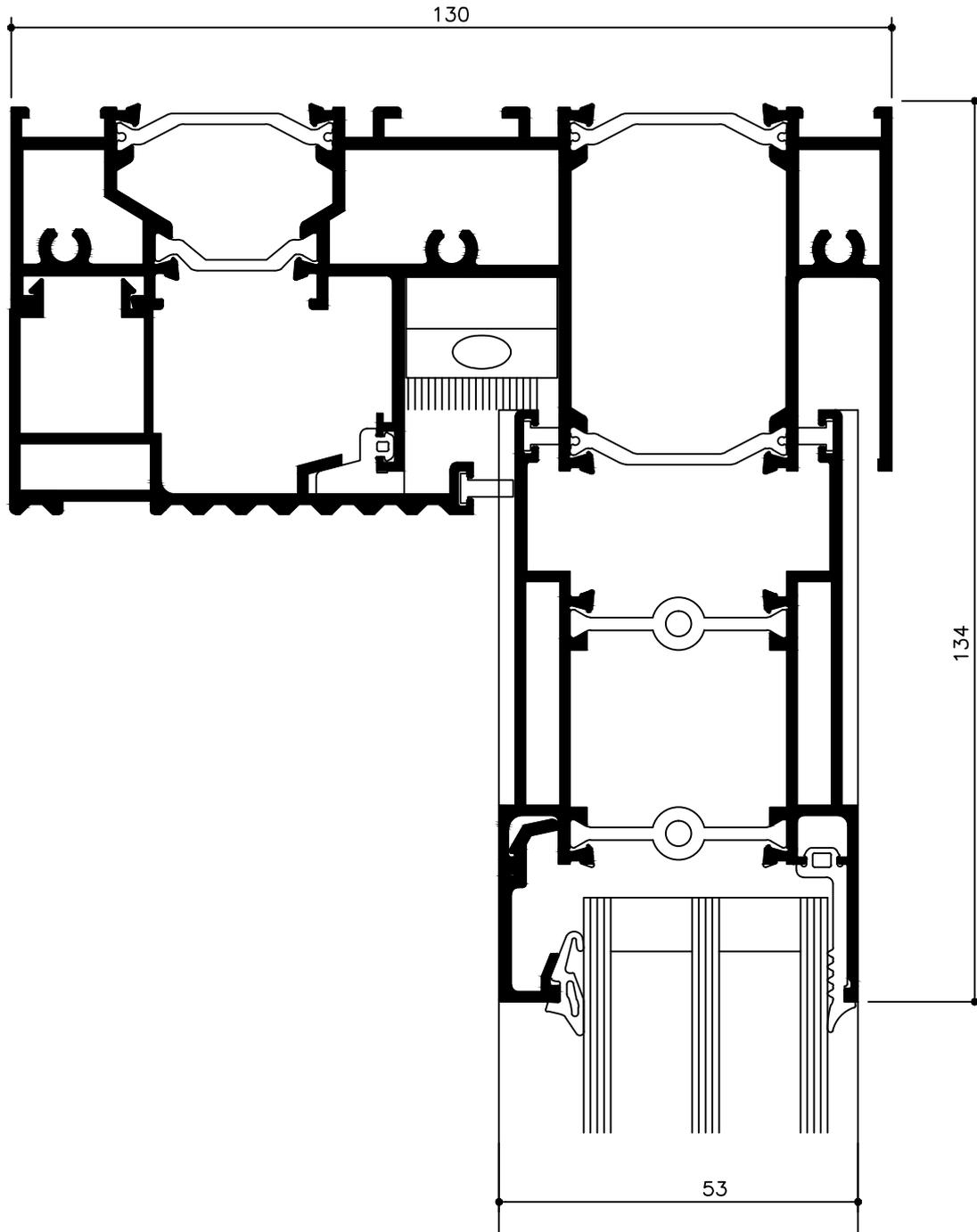
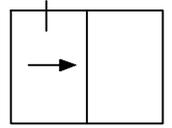


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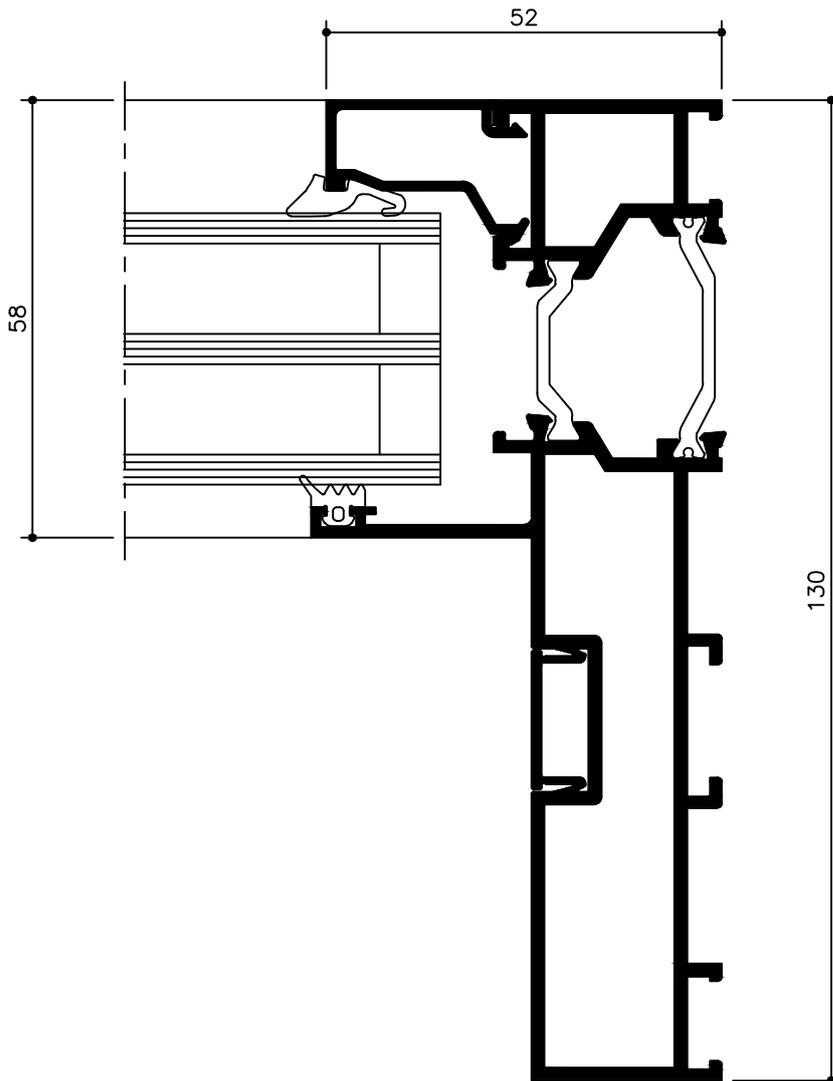
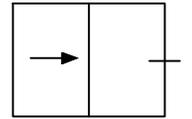


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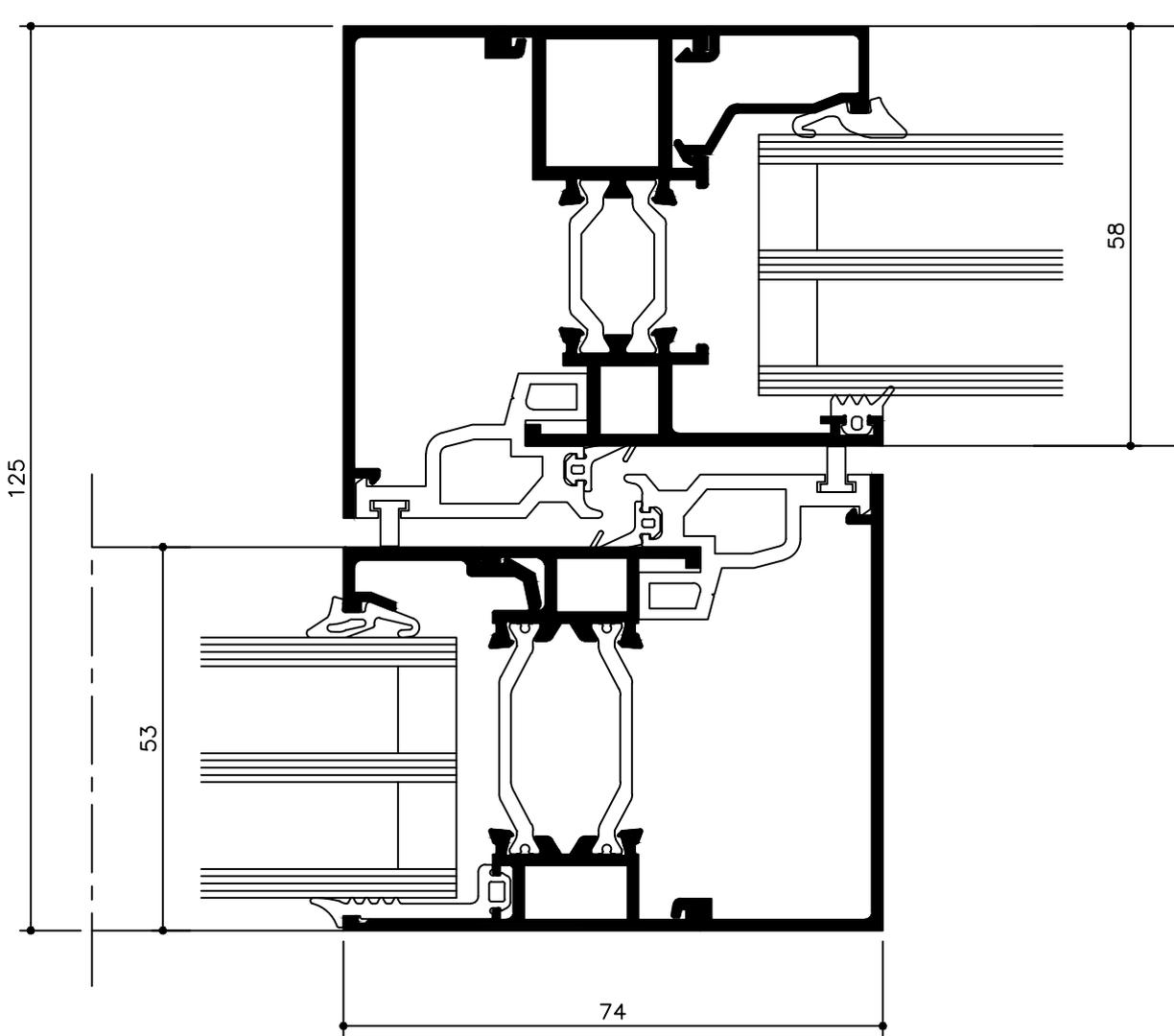
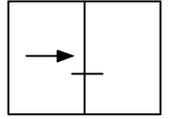


AQ053

SECTOR I.47



AQ054



AQ055



GALEX
 الشركة القطرية لسحب الألمنيوم
 QATAR ALUMINIUM EXTRUSION CO.

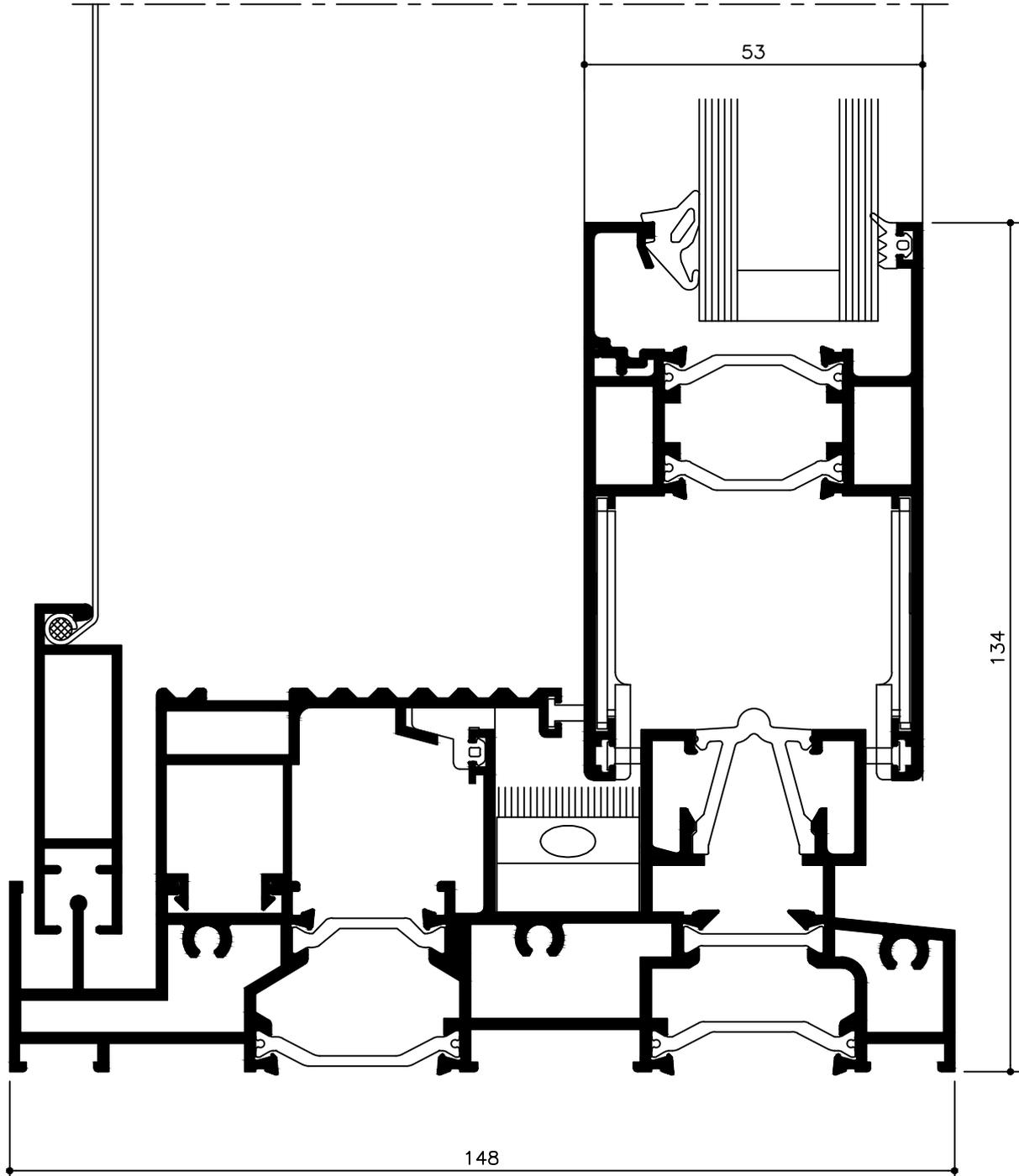
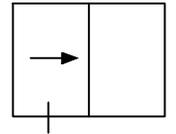


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REINDEER

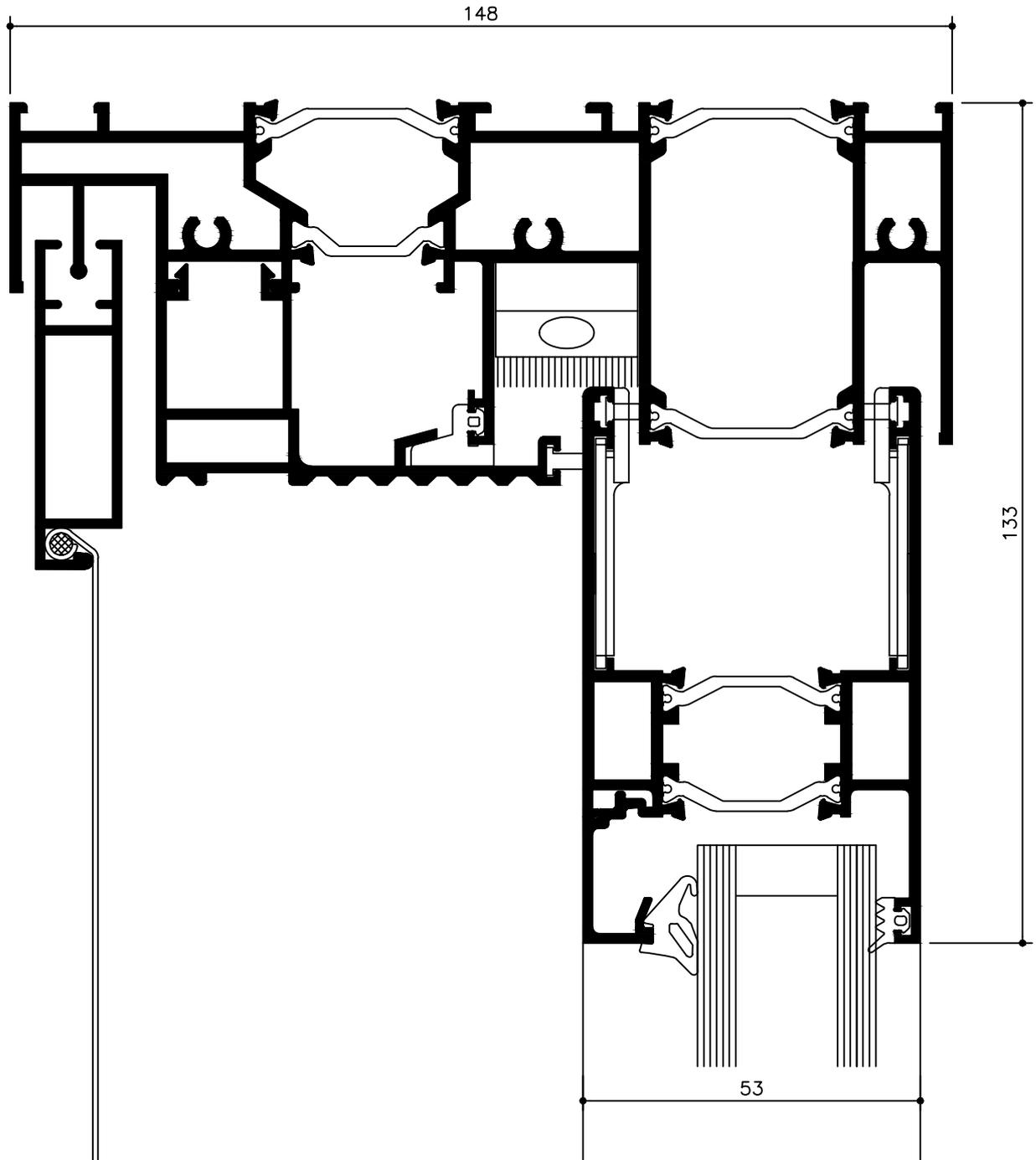
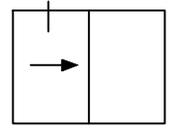


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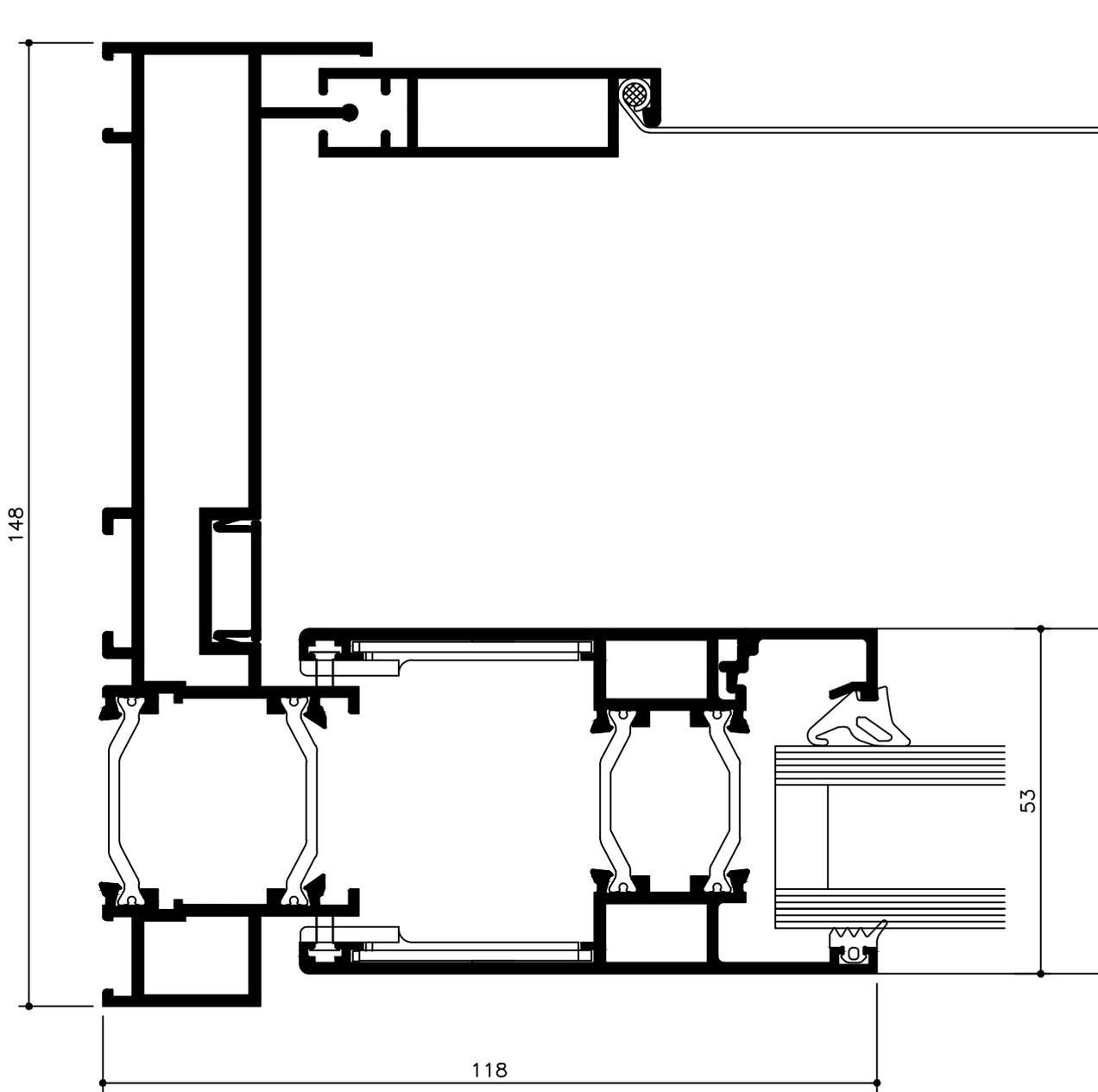


AQ056

SECTOR I.50



AQ057



AQ058



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

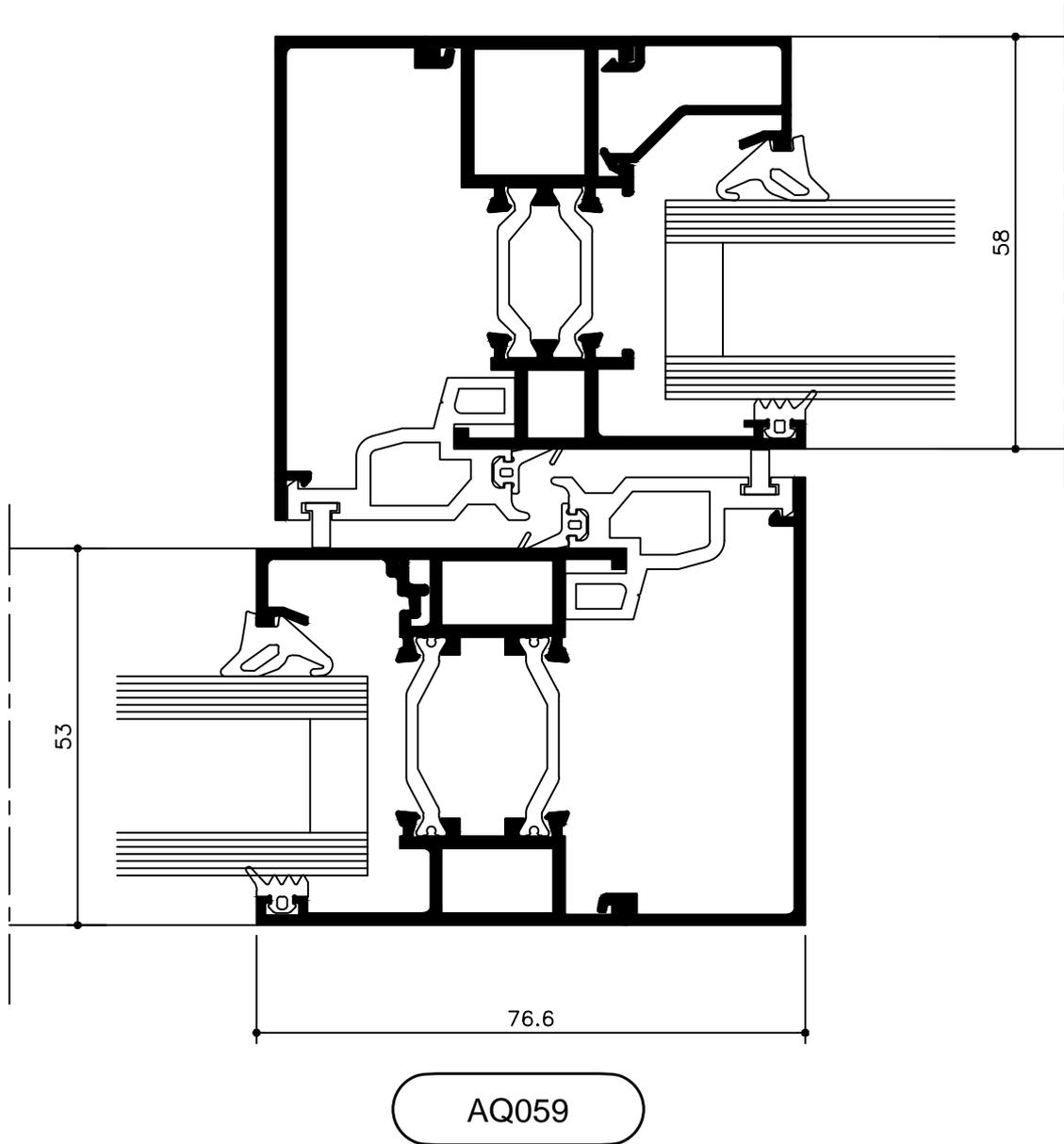
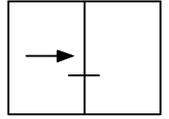


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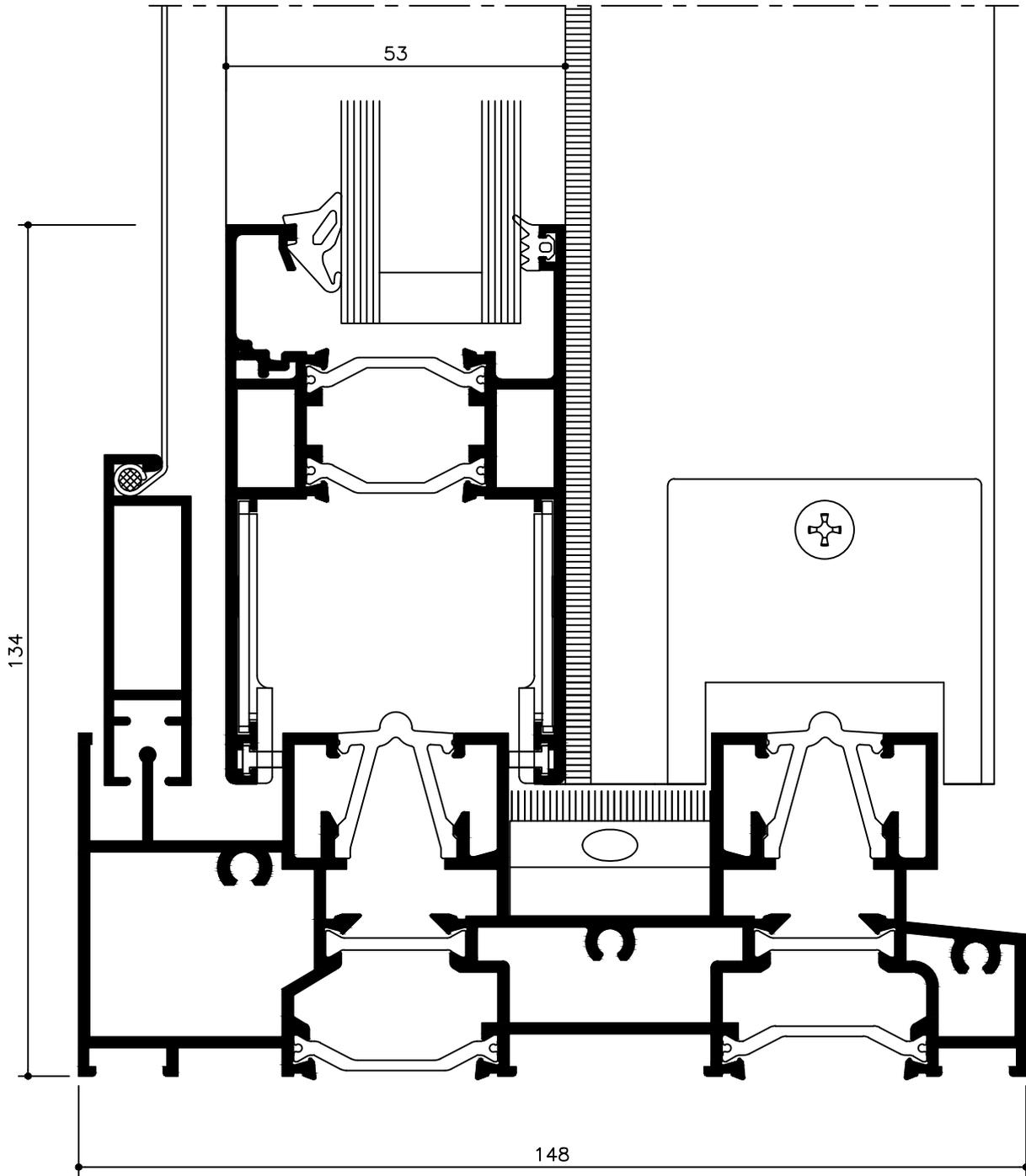
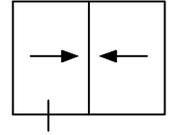
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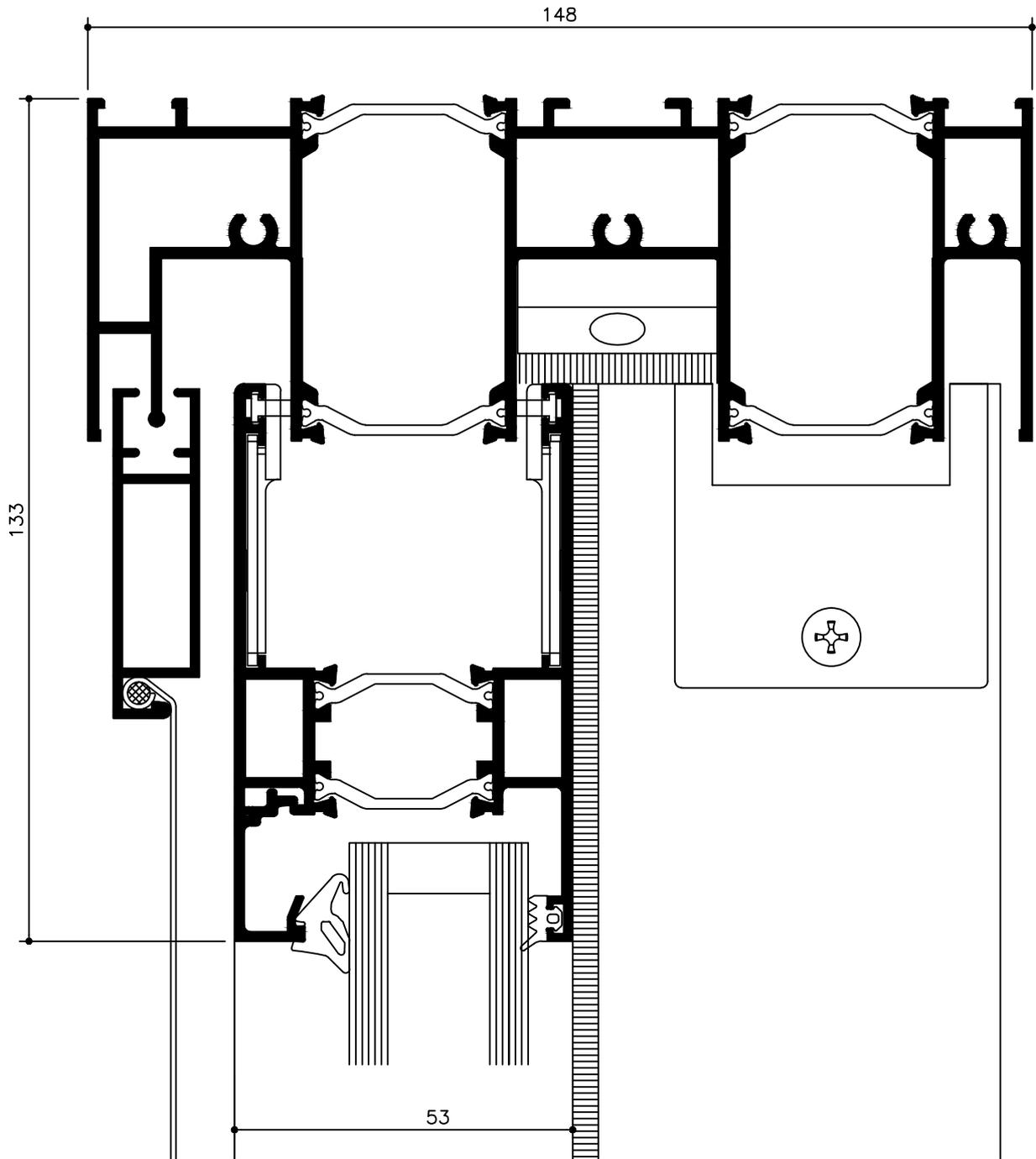
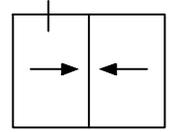
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QATAR GREEN
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مجالس قطر
للبناء الأخضر
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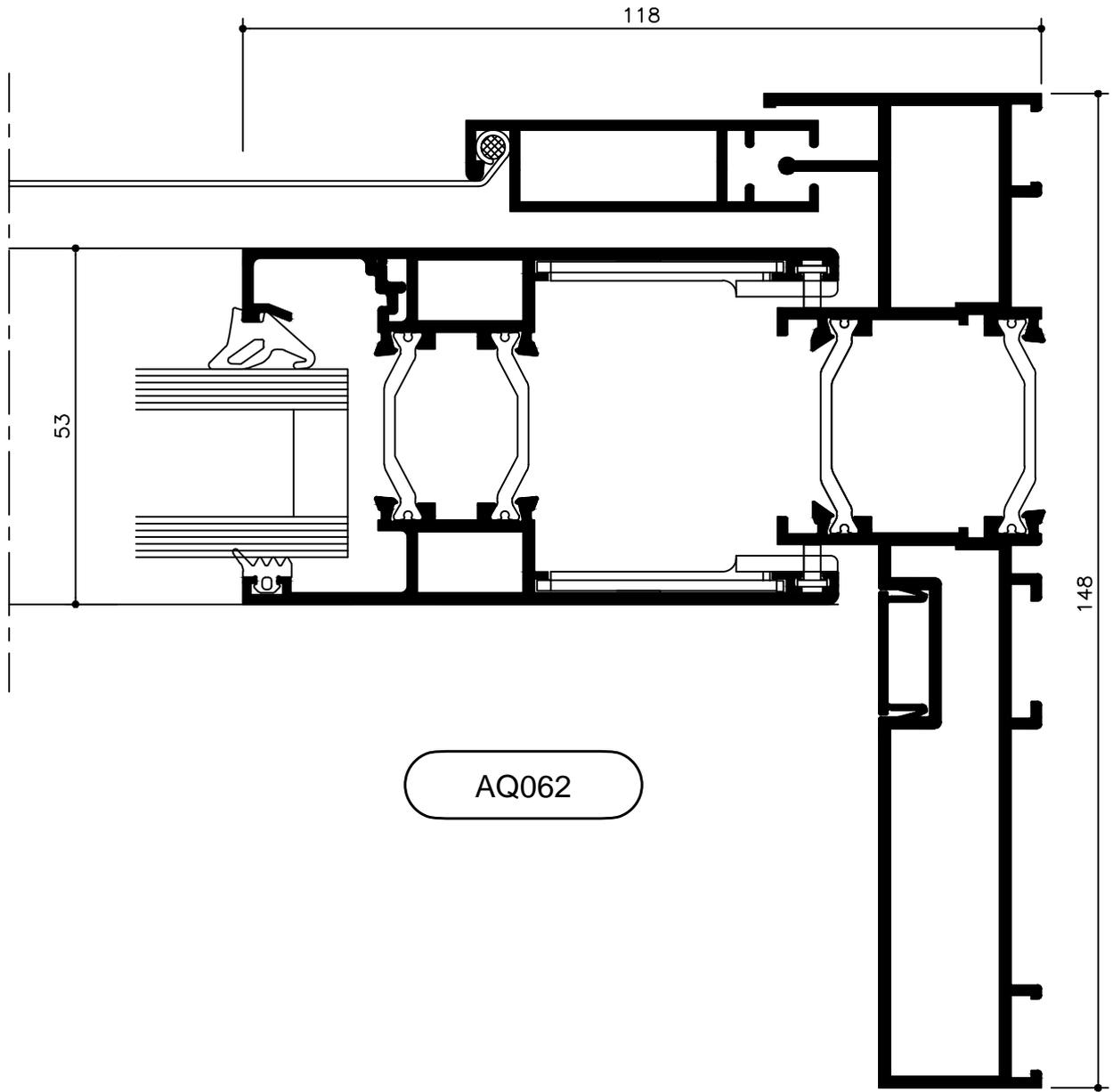
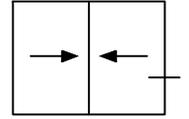
SECTOR I.53



AQ060



AQ061





GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

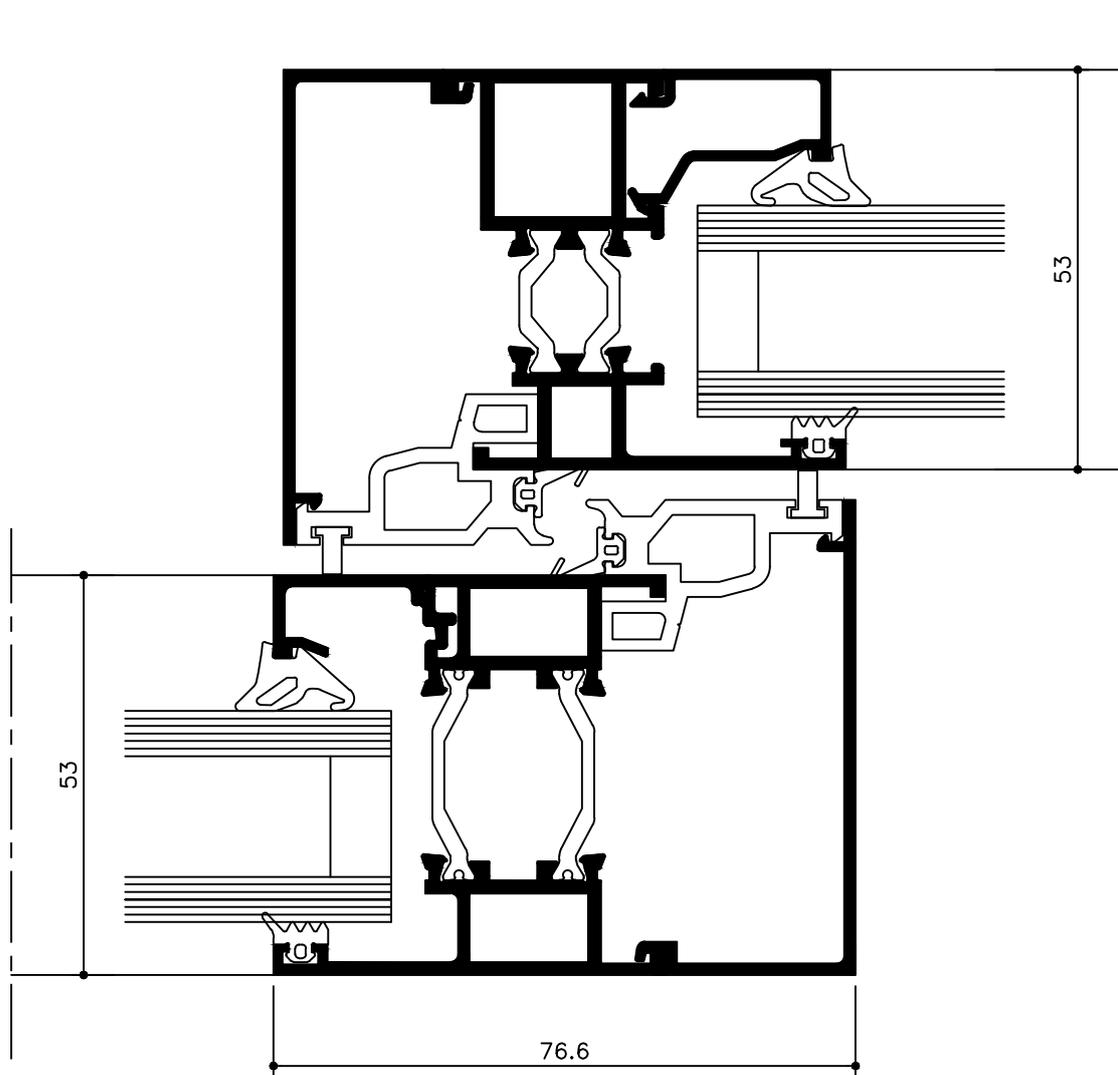
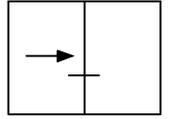


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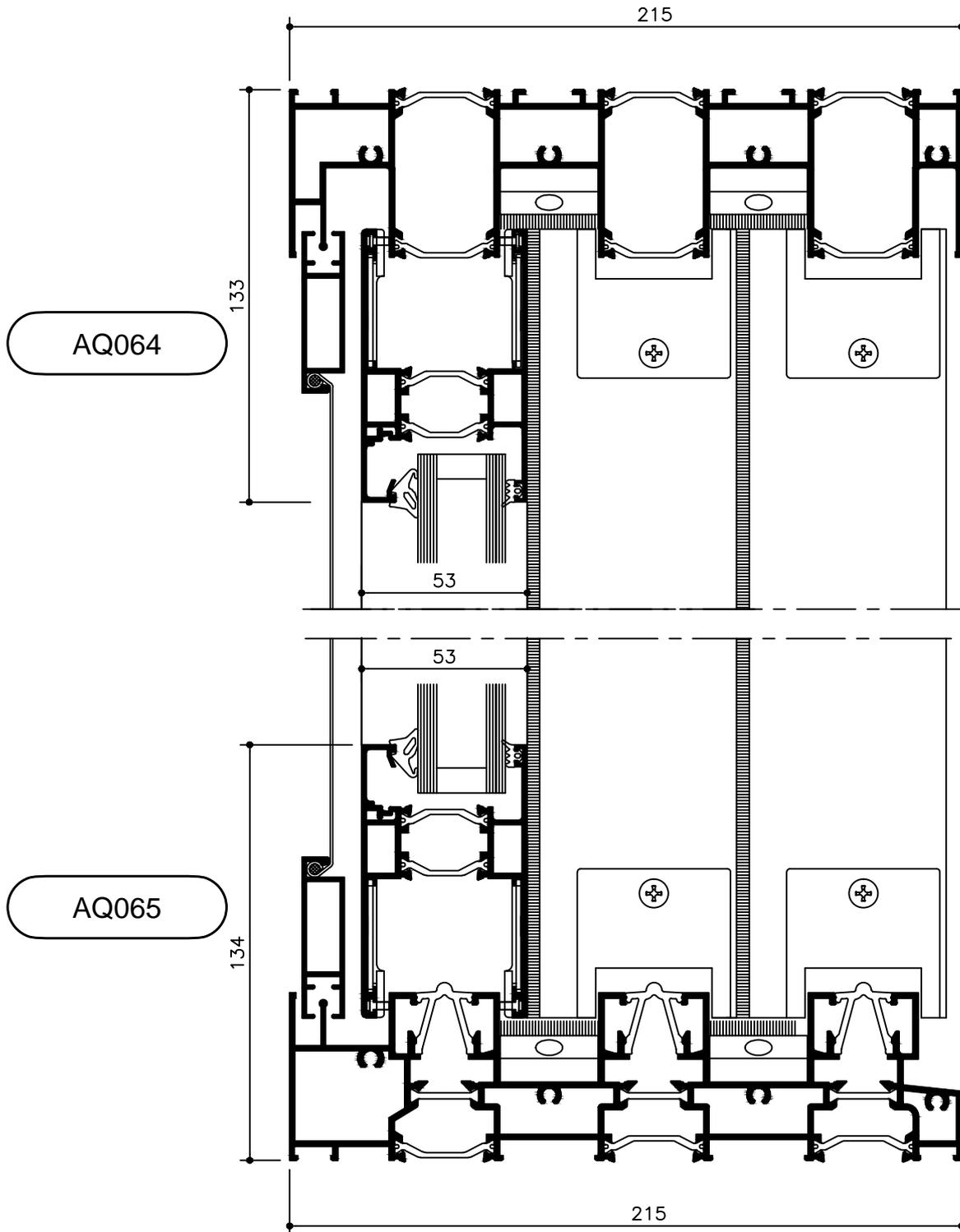
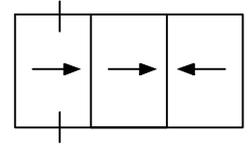


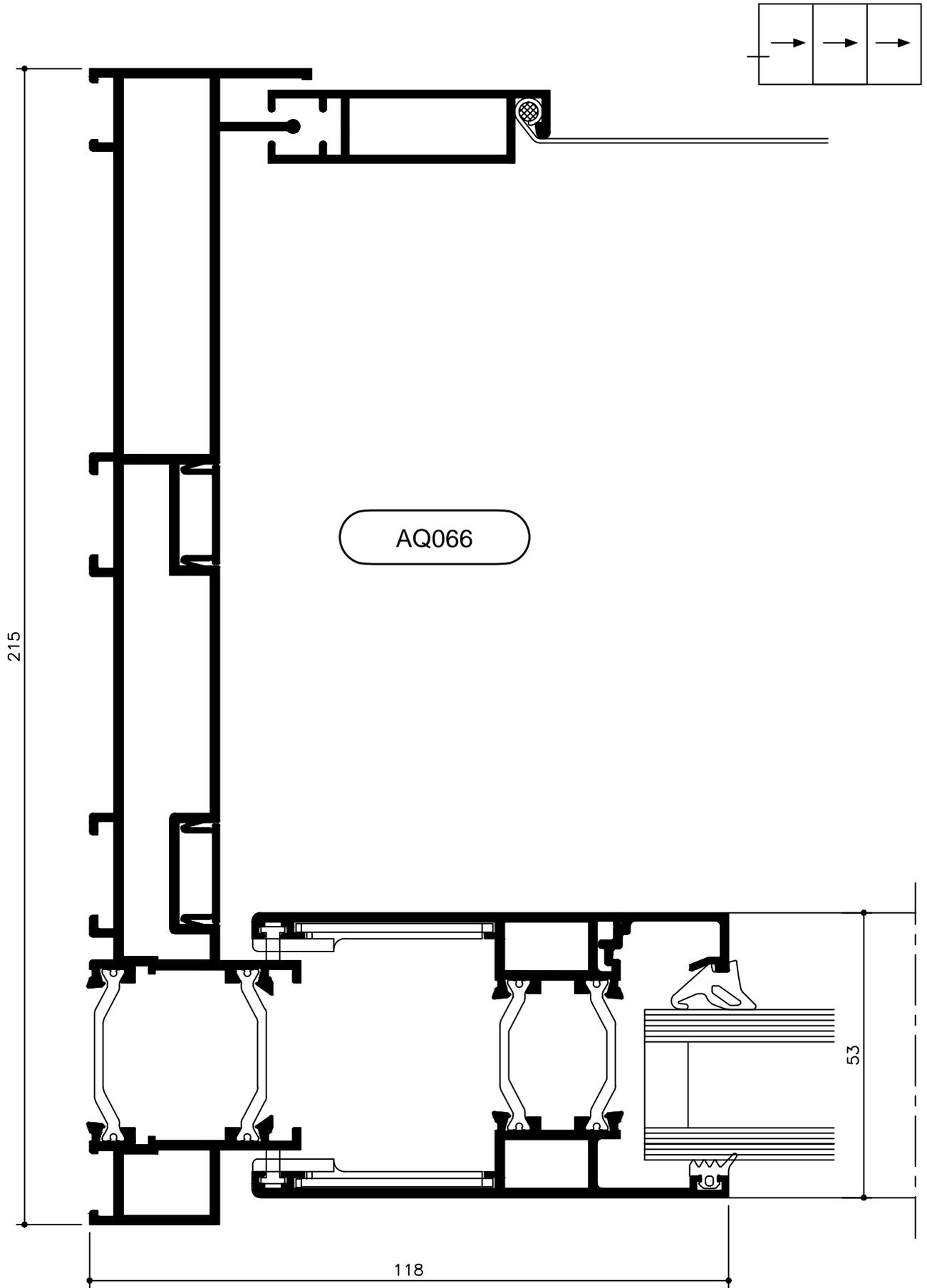
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QATAR GREEN
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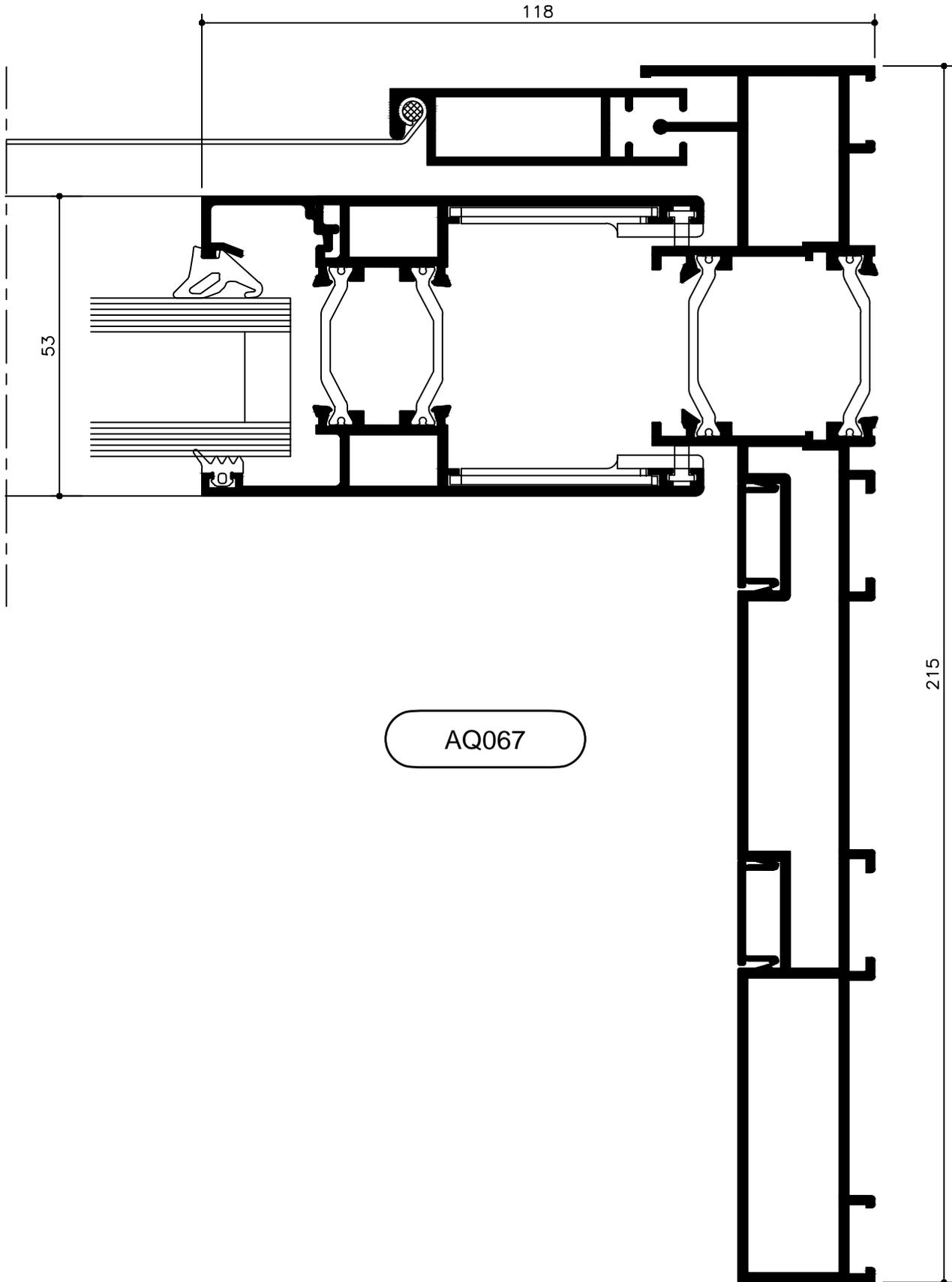
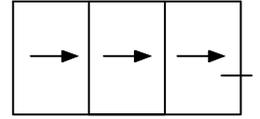
AQ063

SECTOR I.57





SECTOR I.59





GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

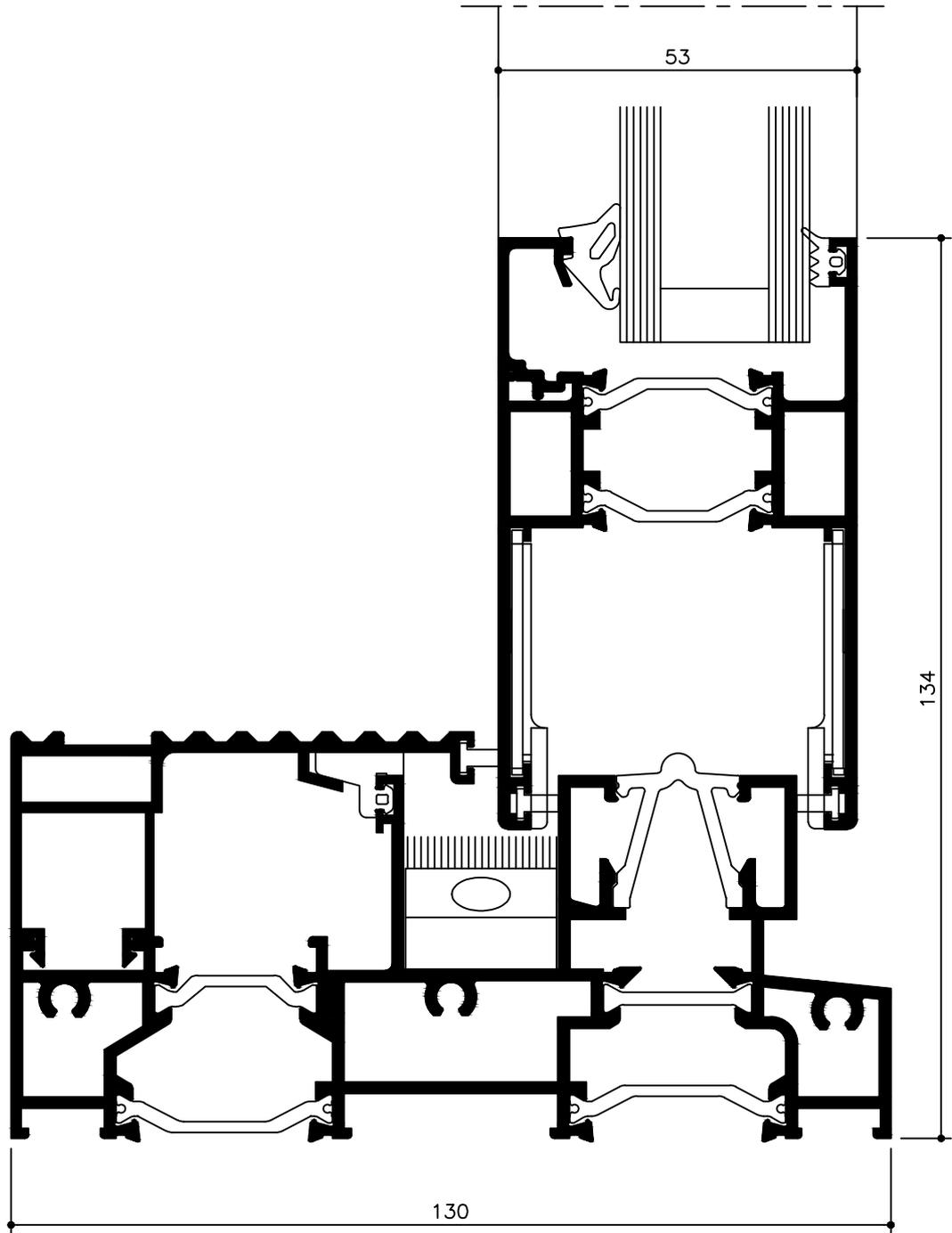
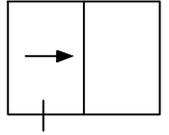


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AQ068

SECTOR I.61



GALEX
 الشركة القطرية لسحب الألمنيوم
 QATAR ALUMINIUM EXTRUSION CO.

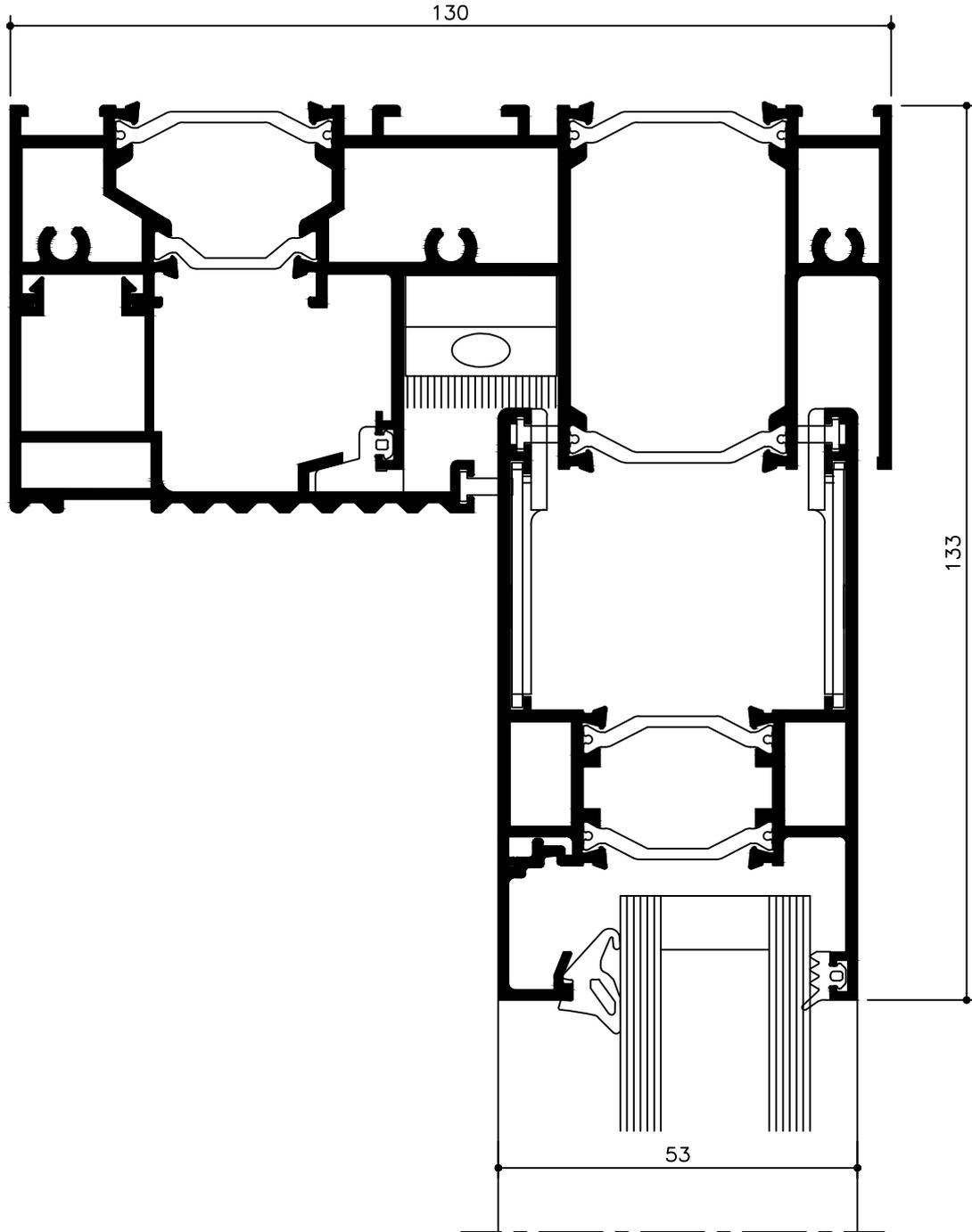
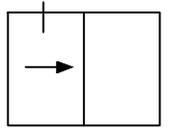


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AQ069

SECTOR I.62



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

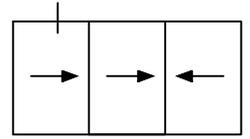


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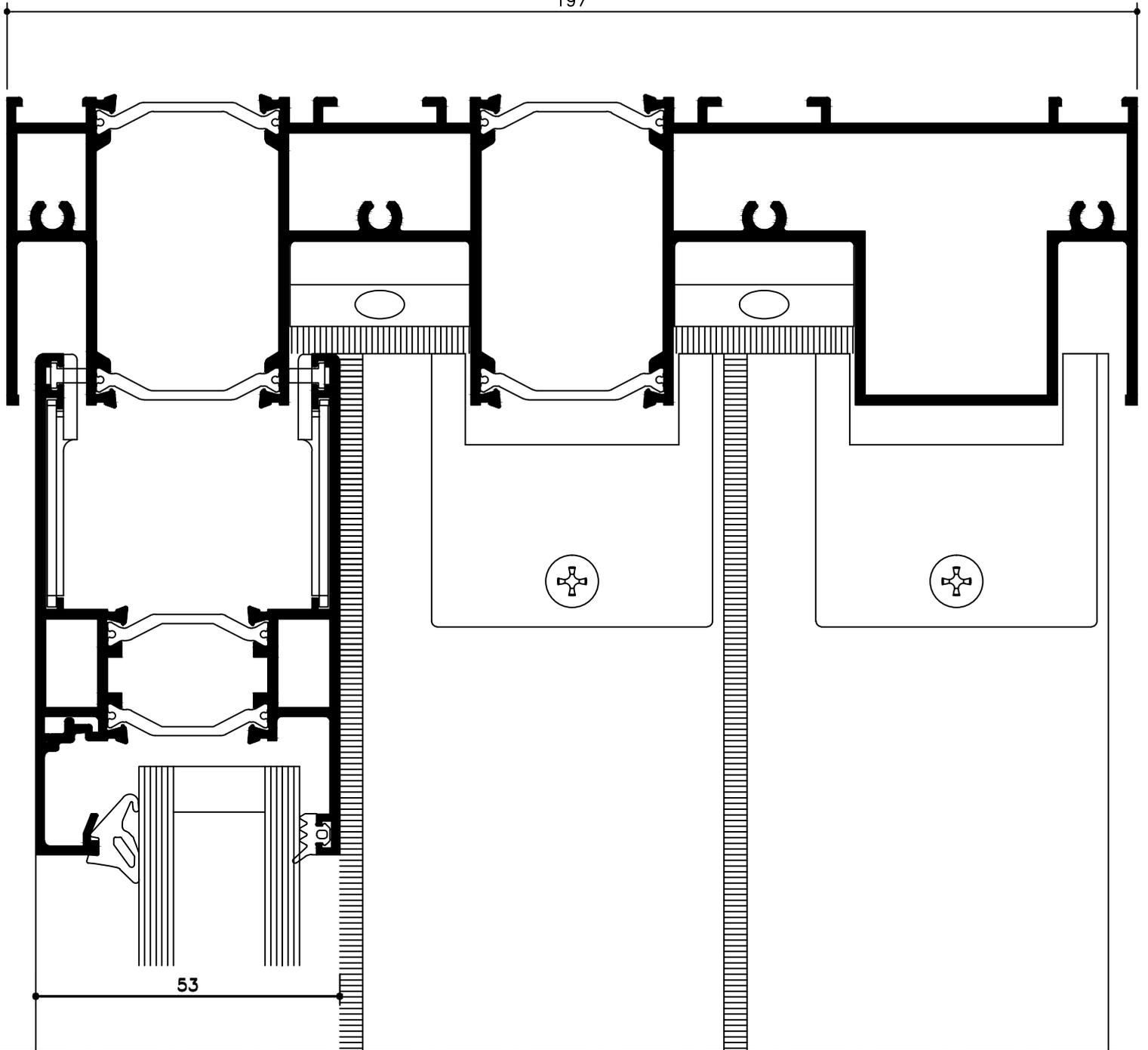
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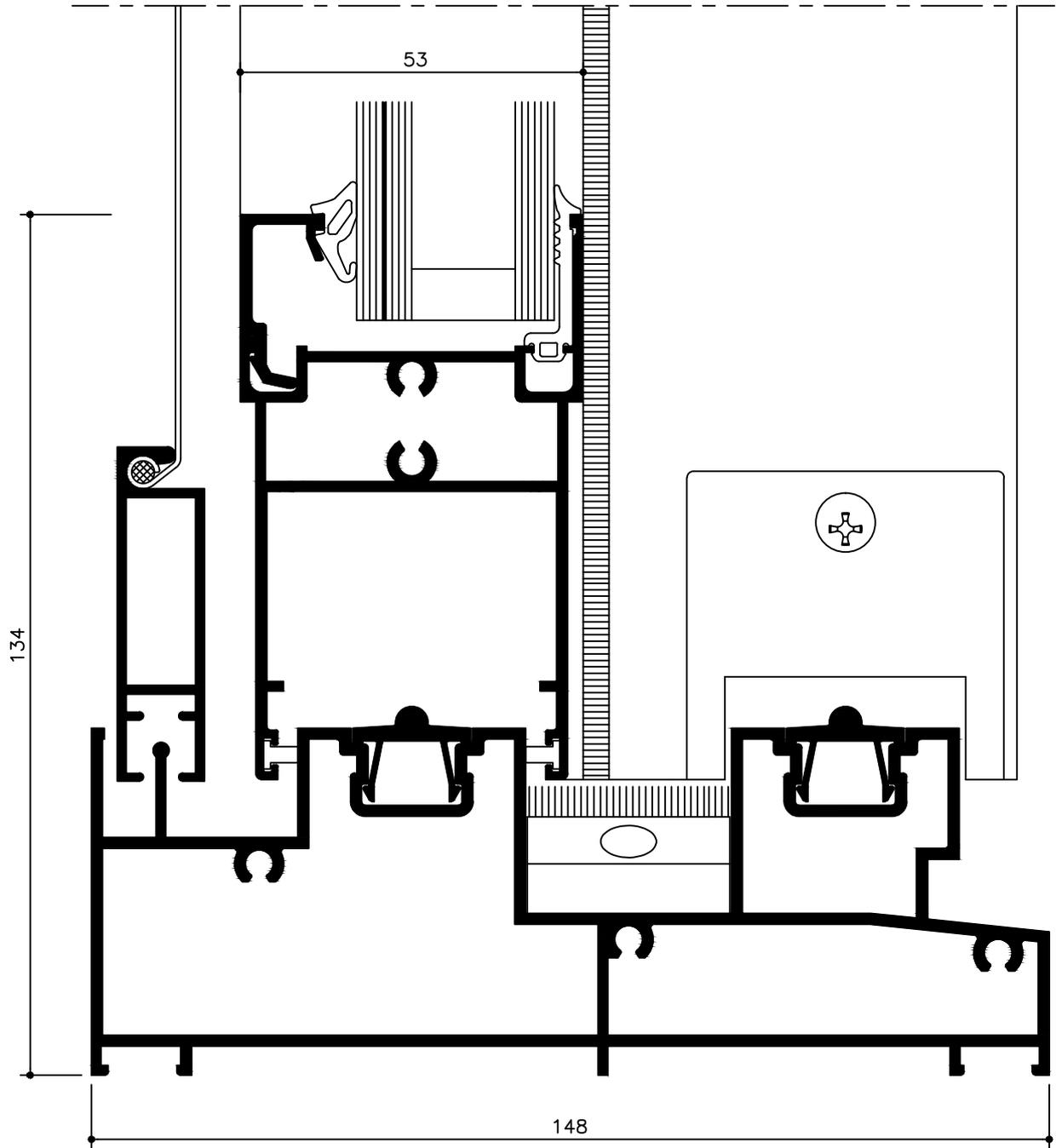


197

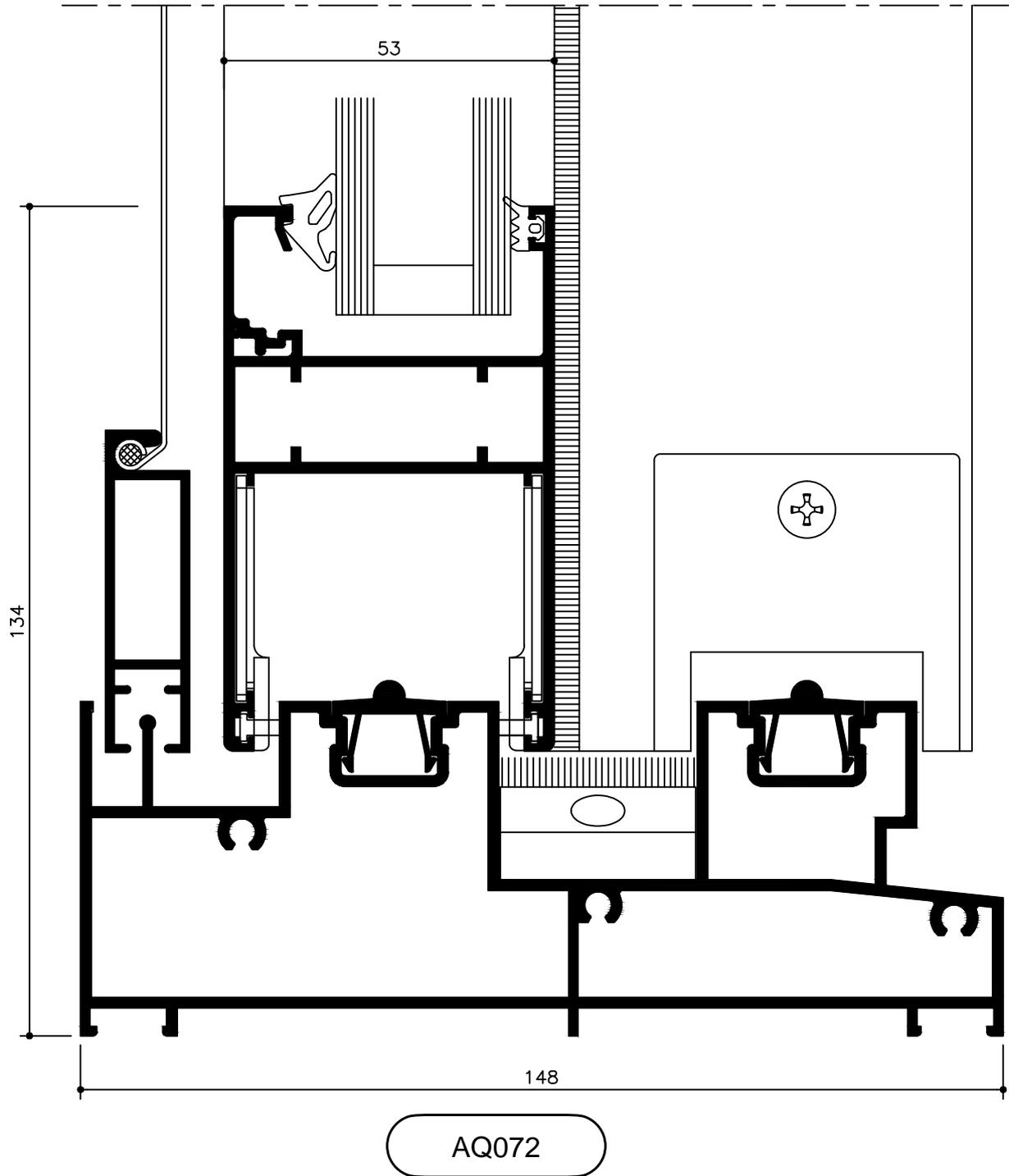


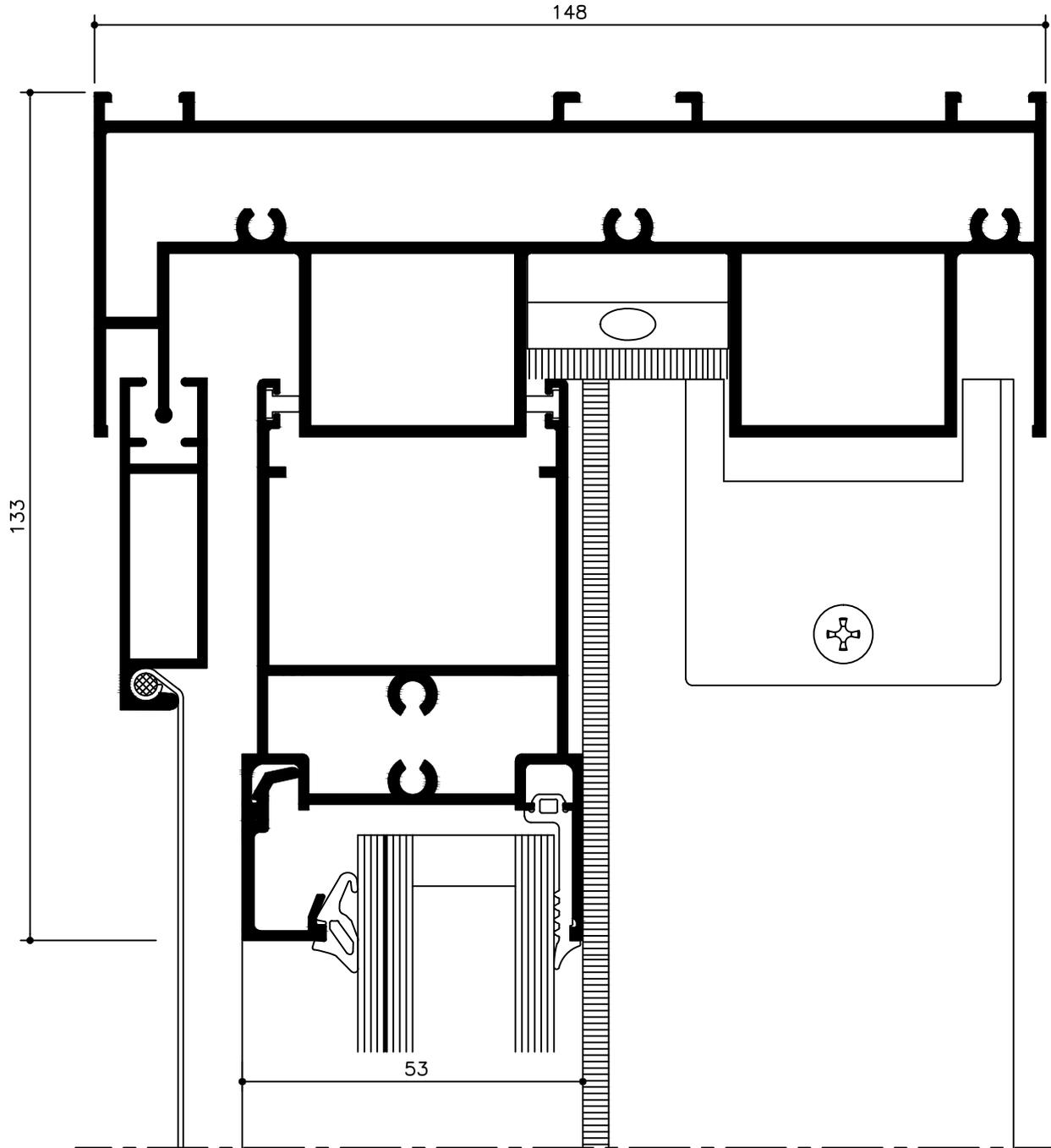
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SECTOR I.63

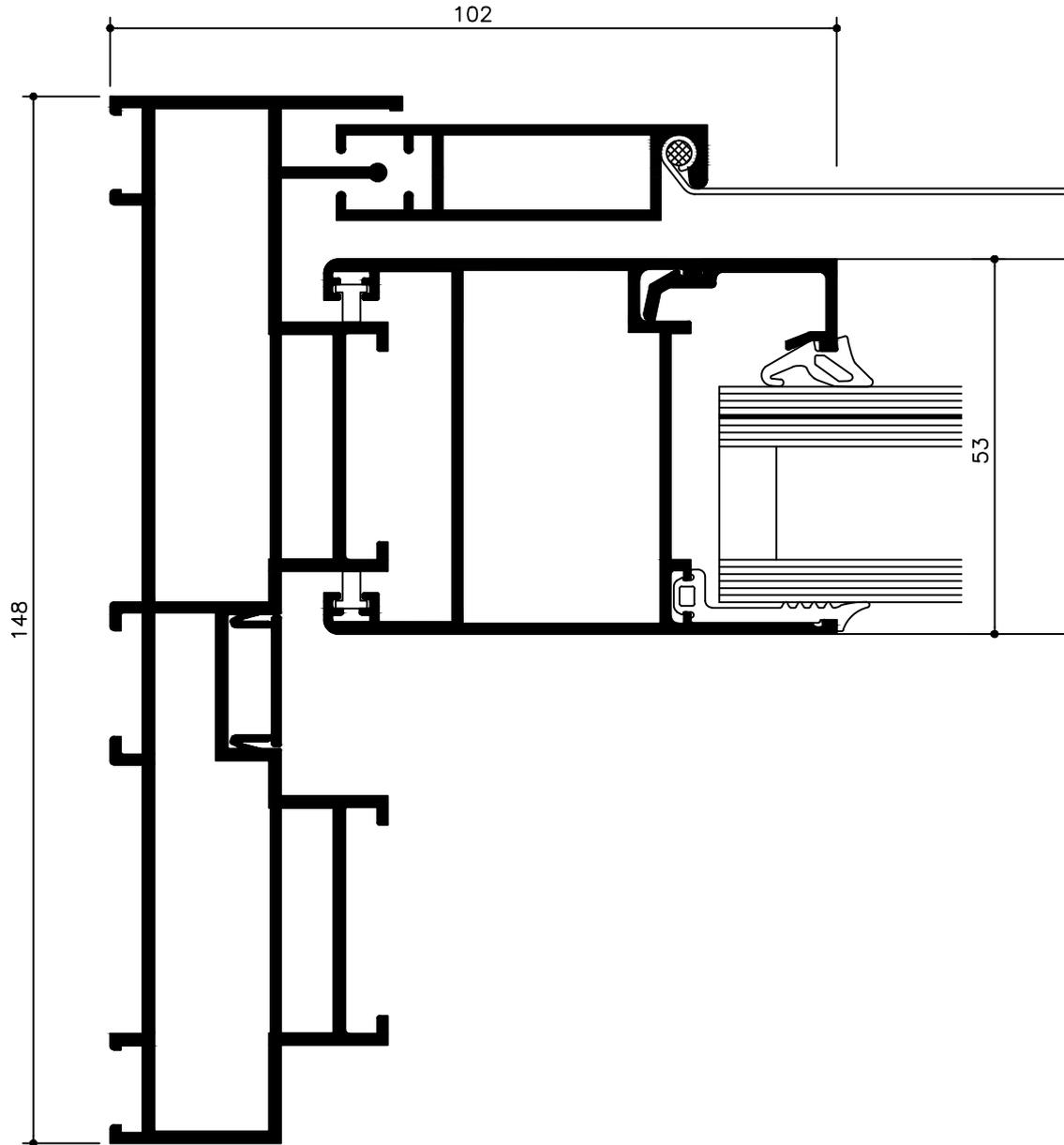


AQ071

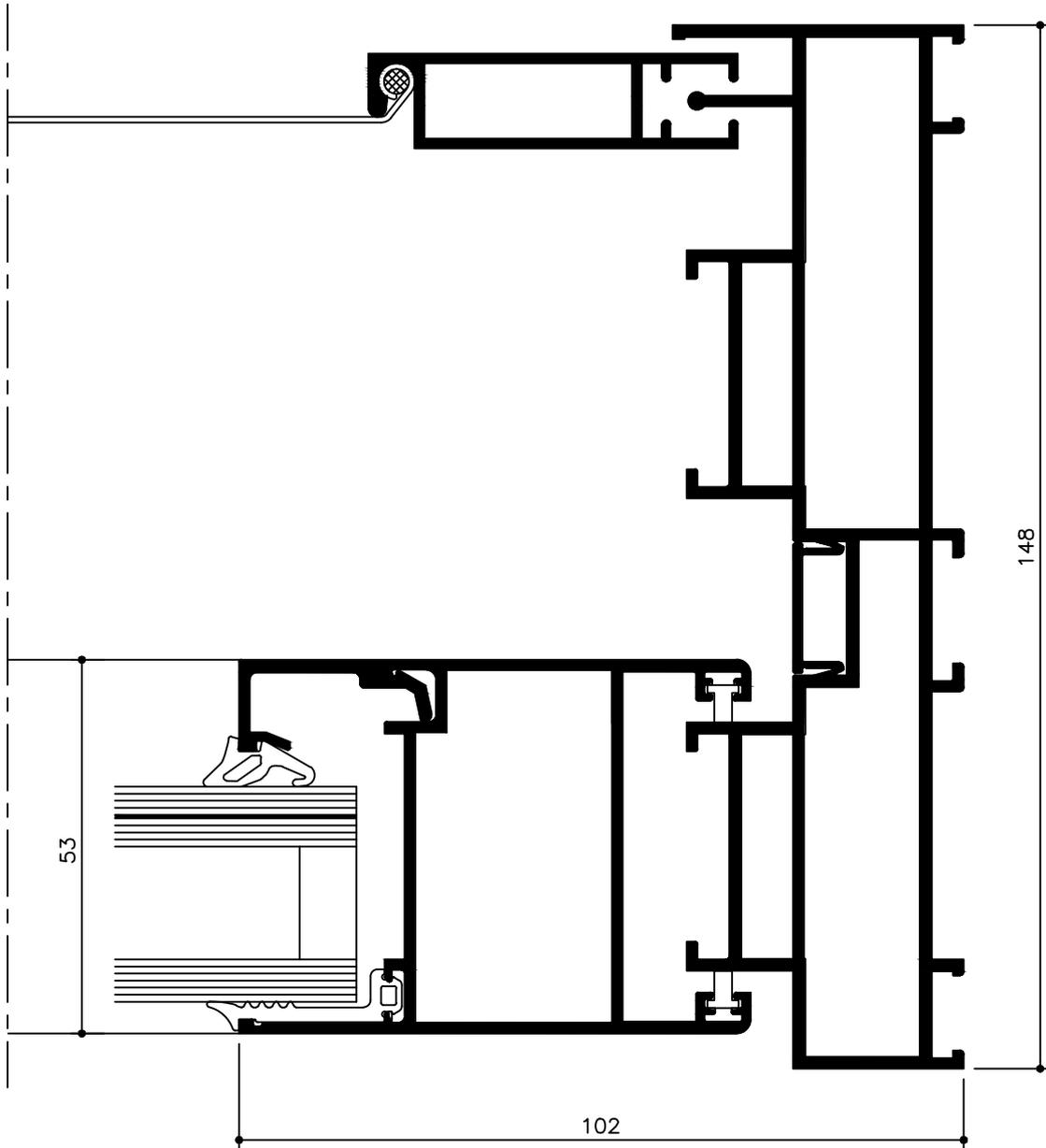




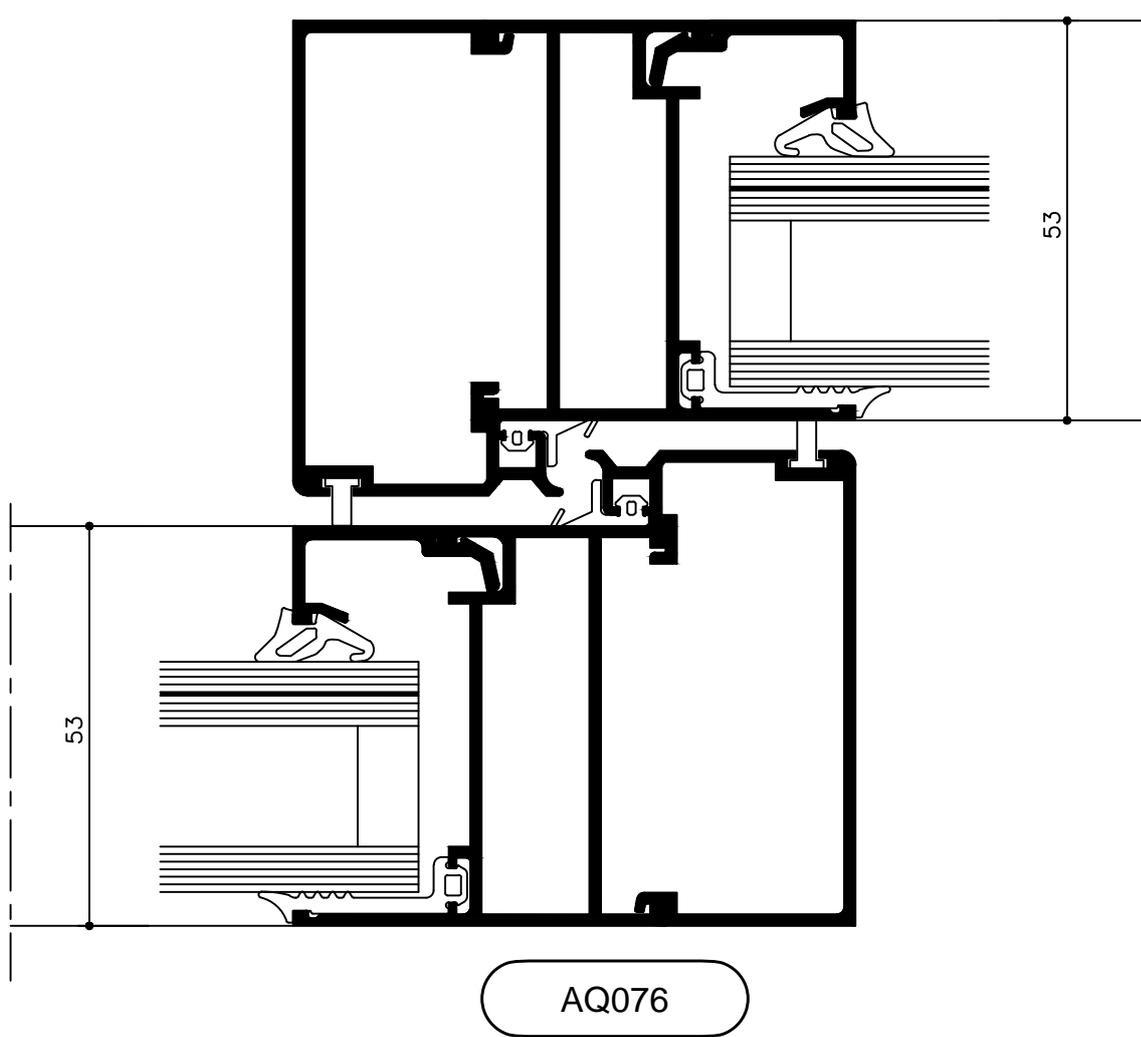
AQ073



AQ074



AQ075





GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

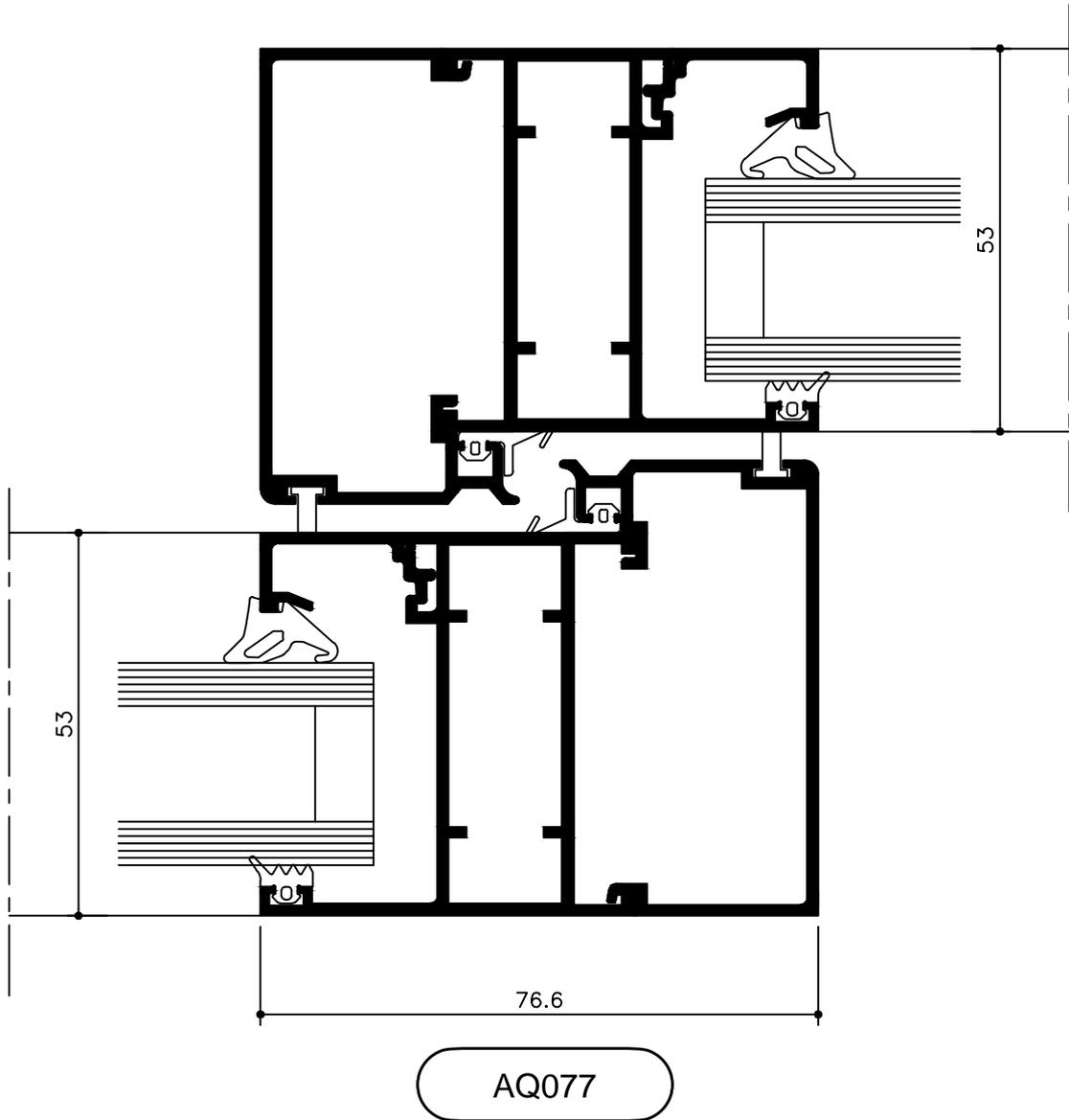
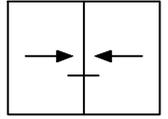


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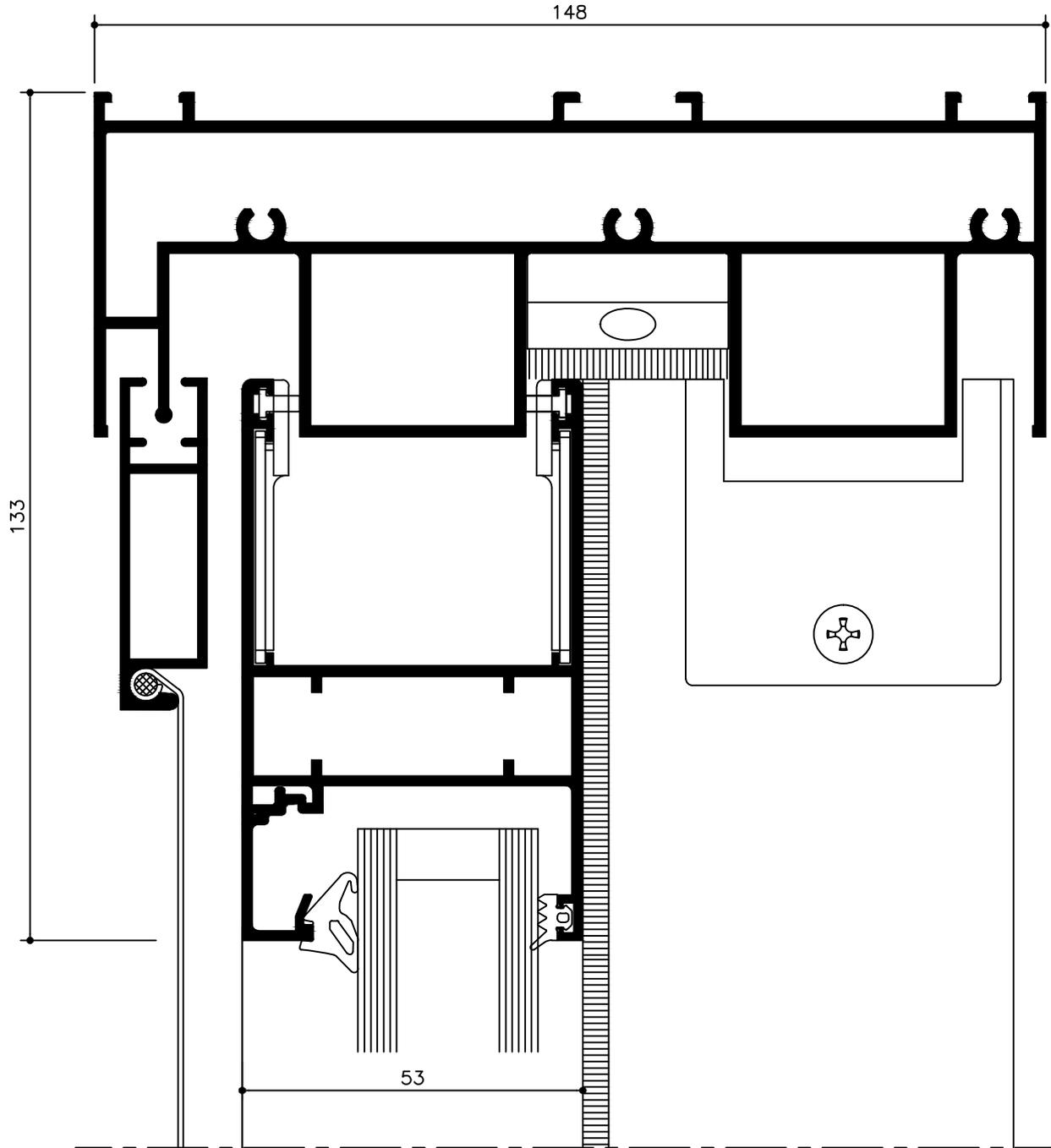
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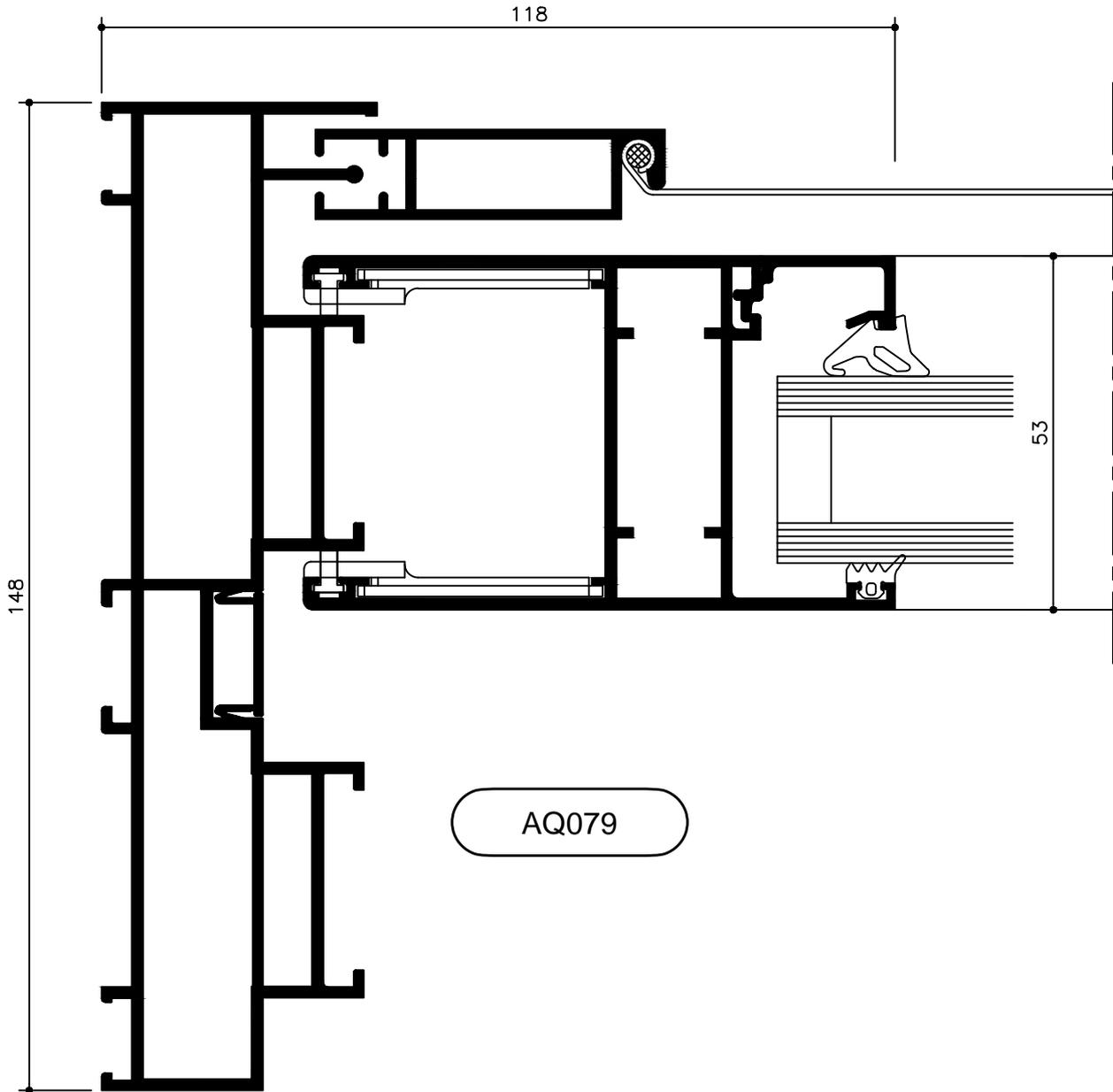
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SECTOR I.70



AQ078





GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

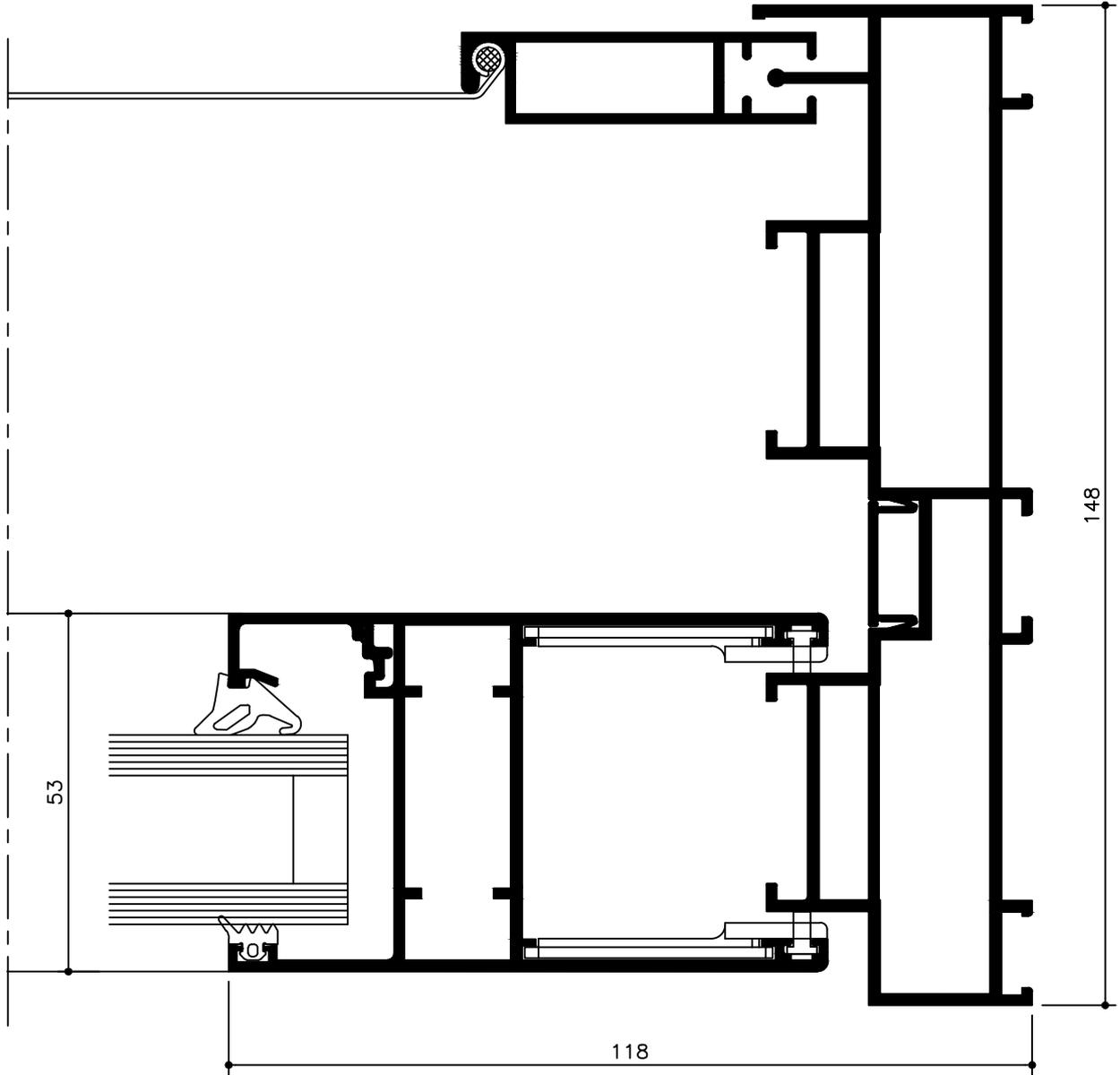


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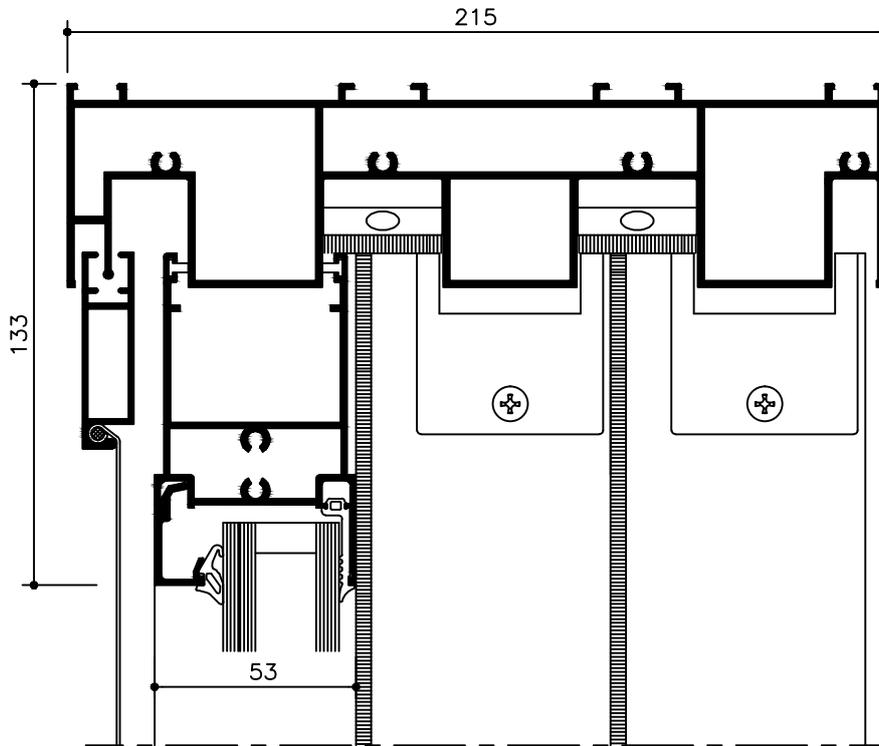


AQ080

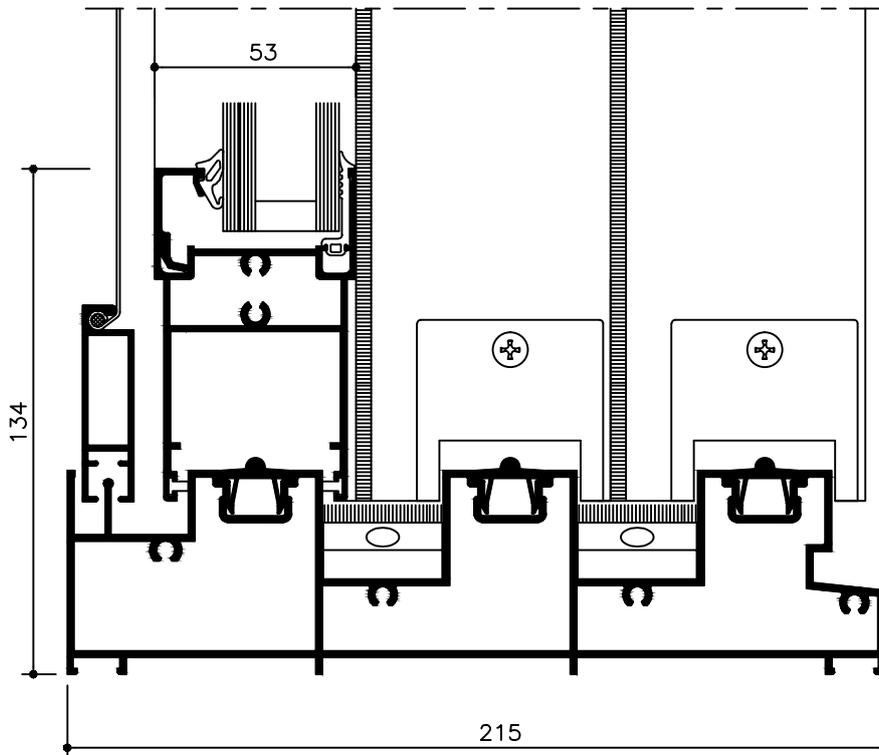
SECTOR I.73

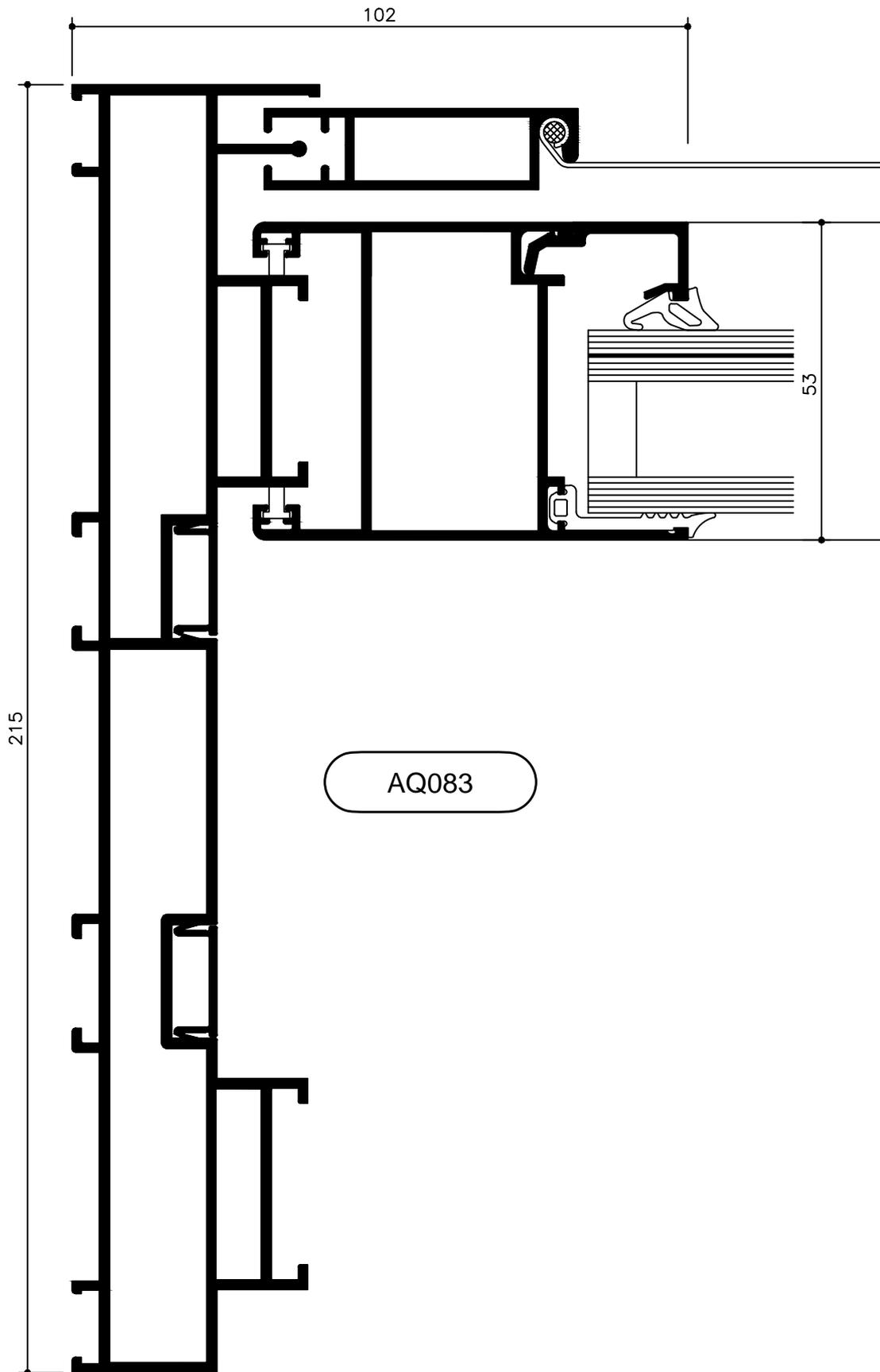


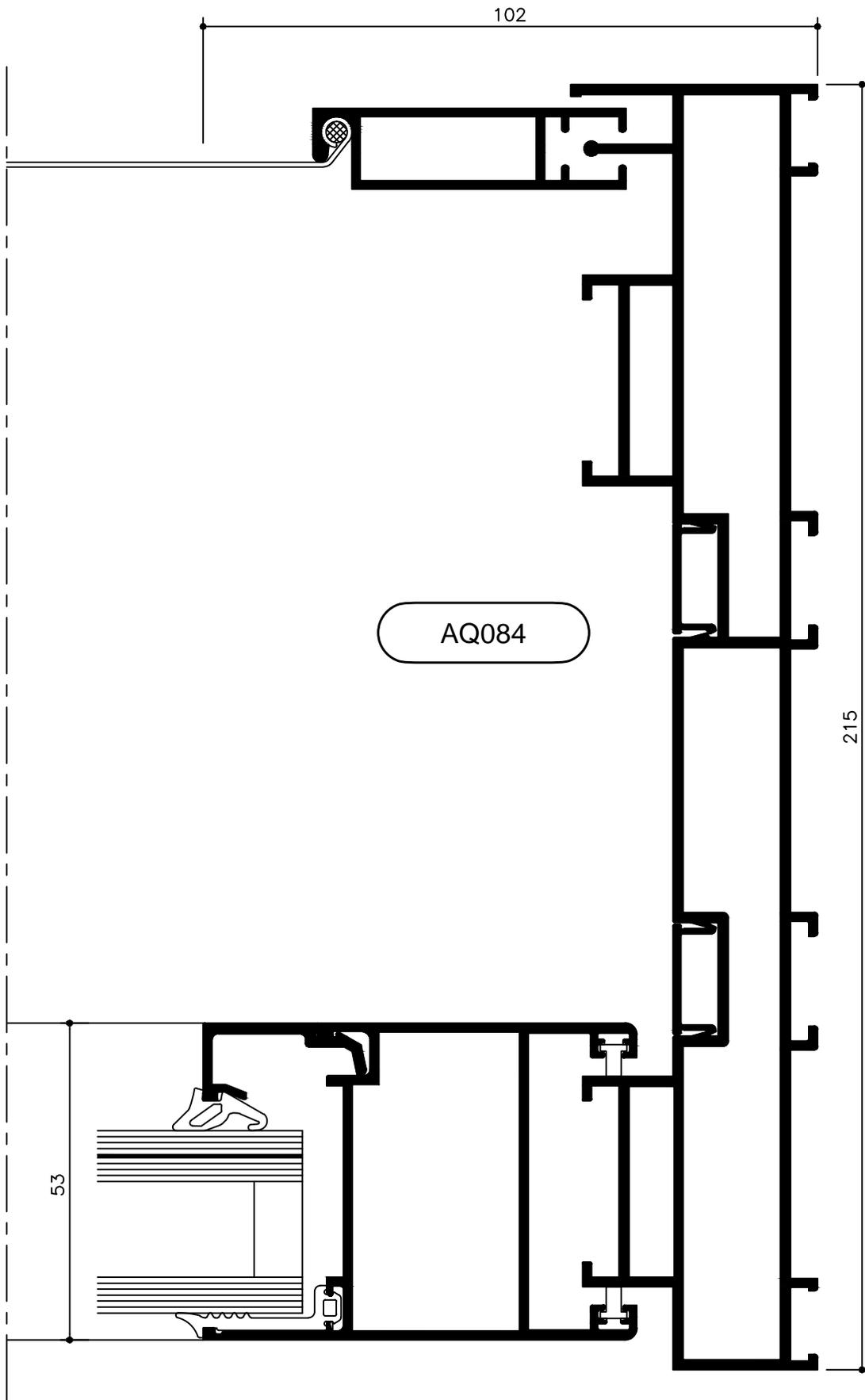
AQ081



AQ082

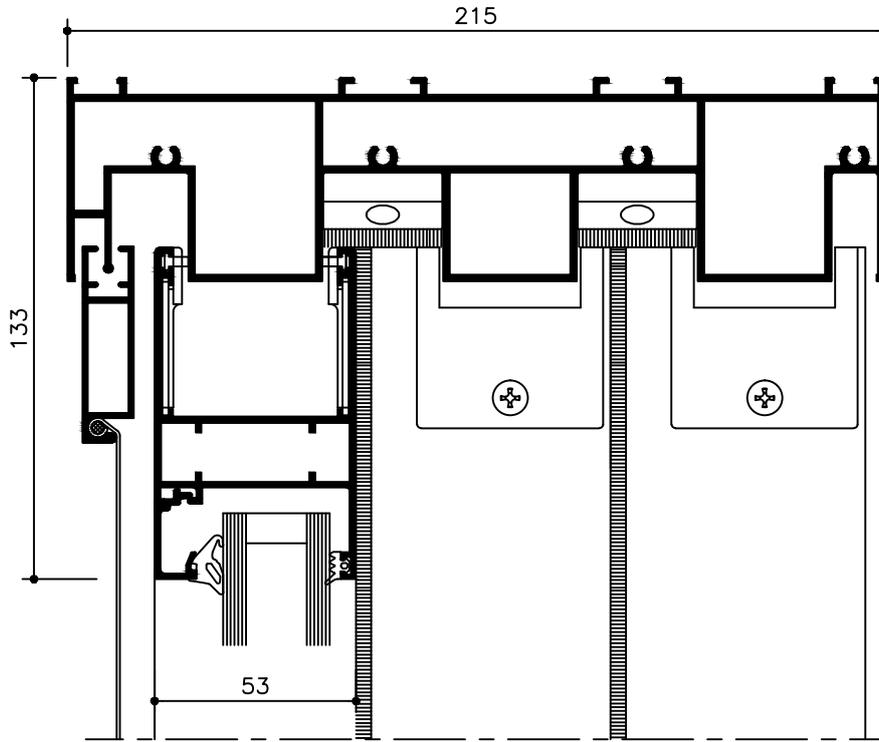




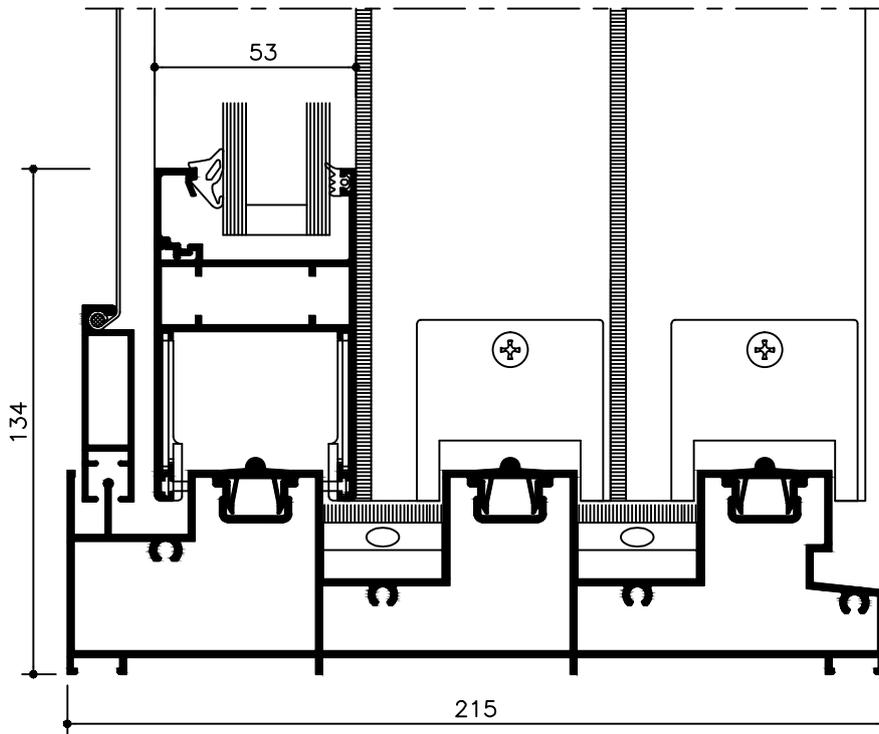


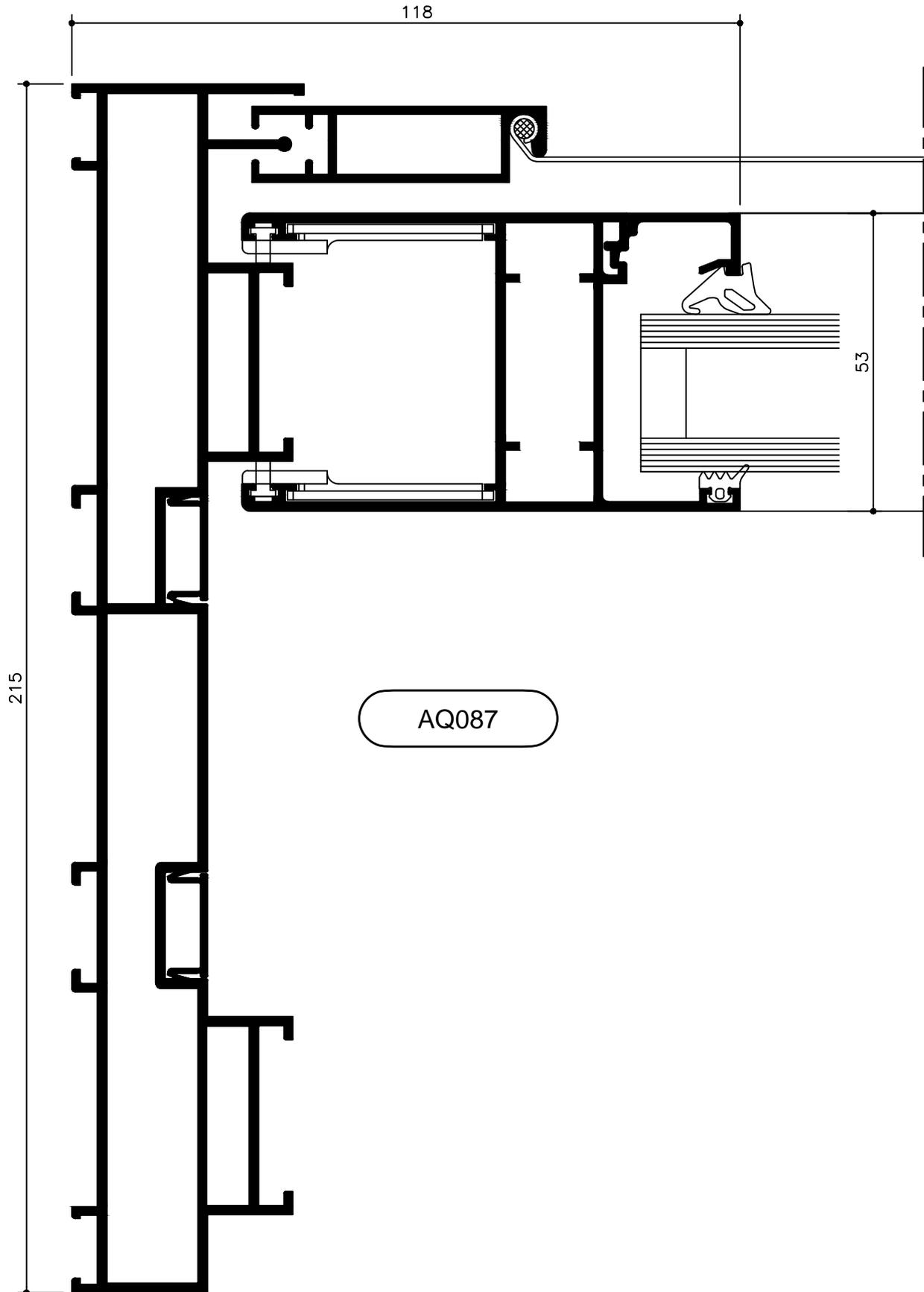


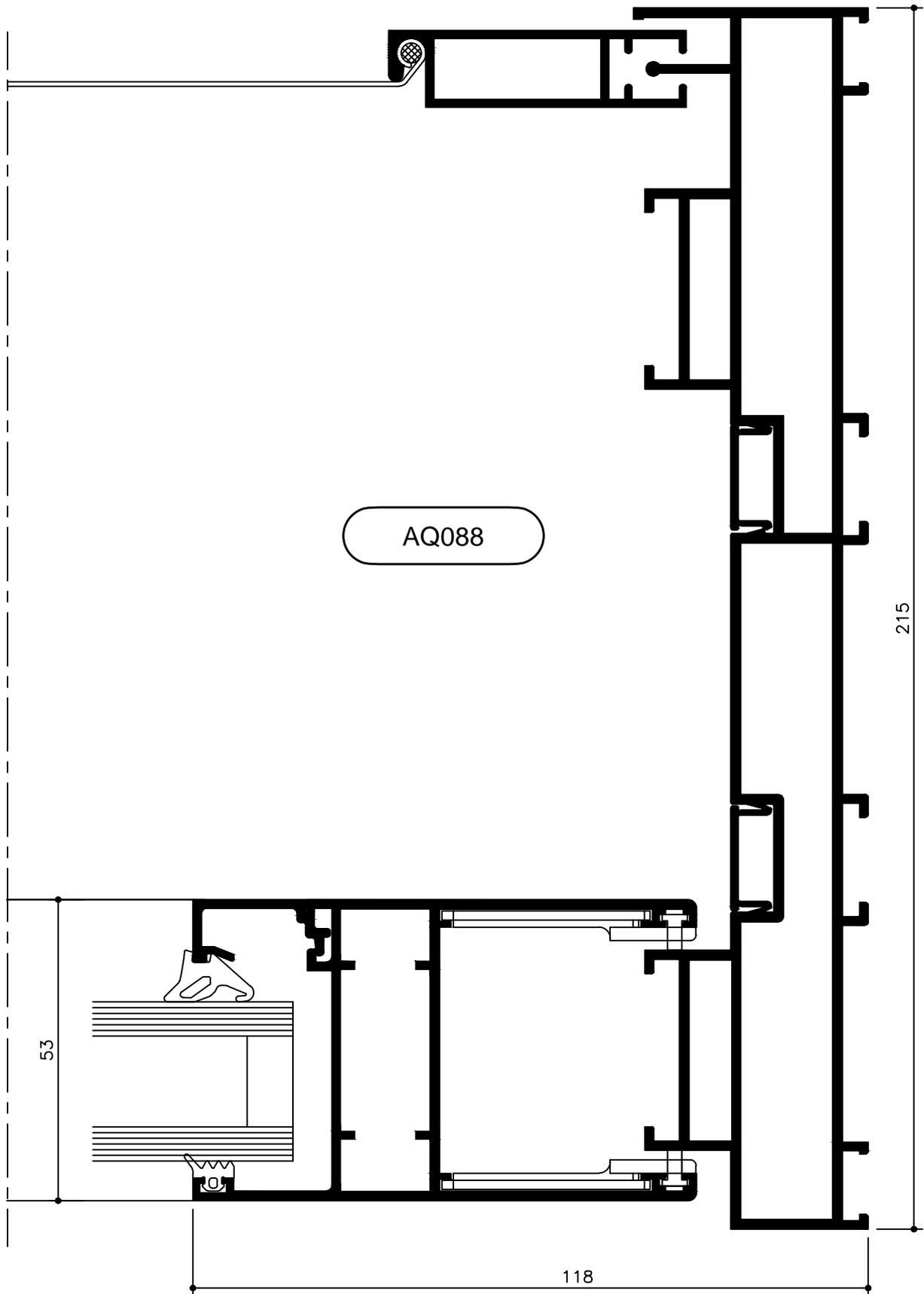
AQ085



AQ086







SECTOR I.79

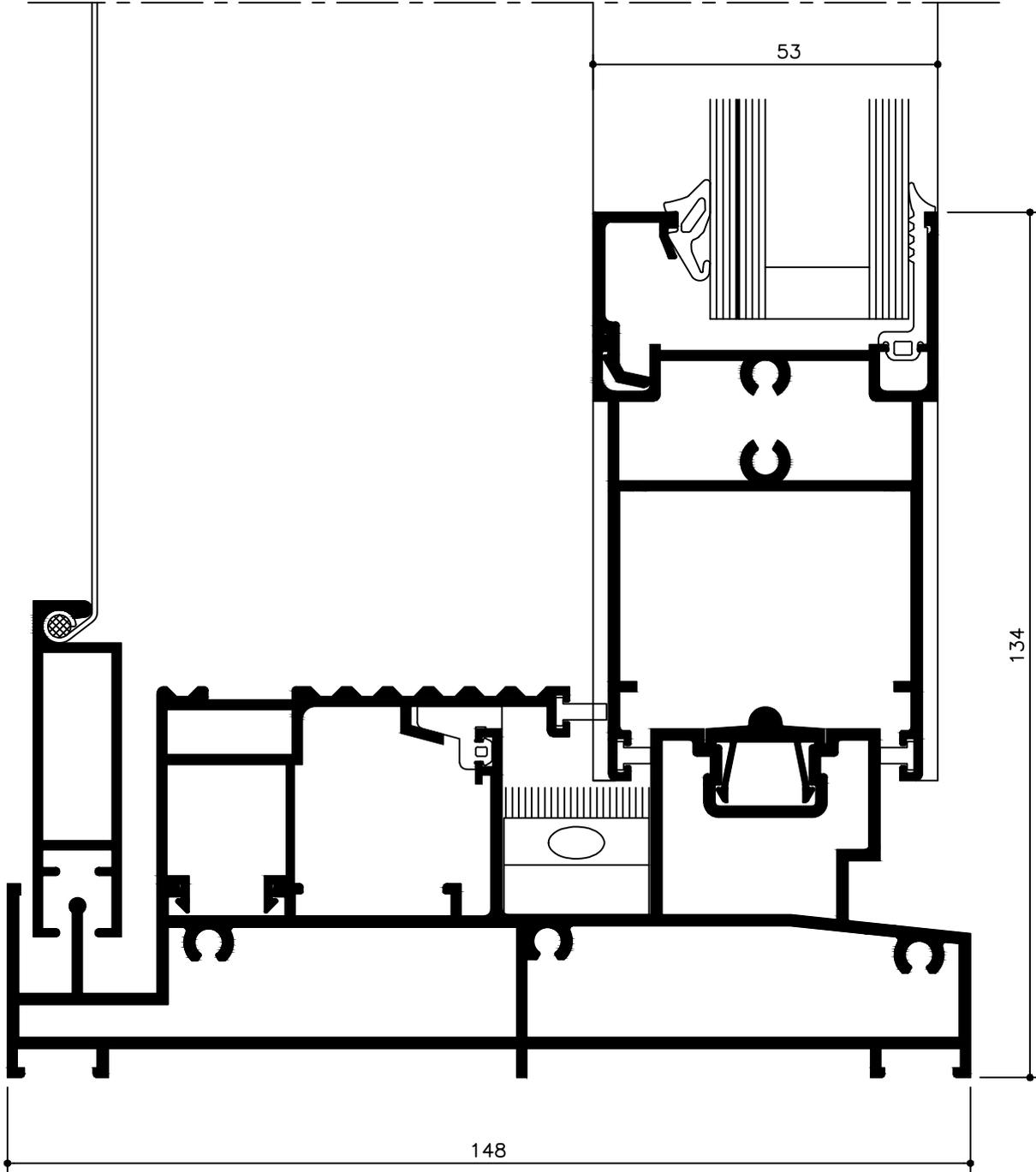


GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.



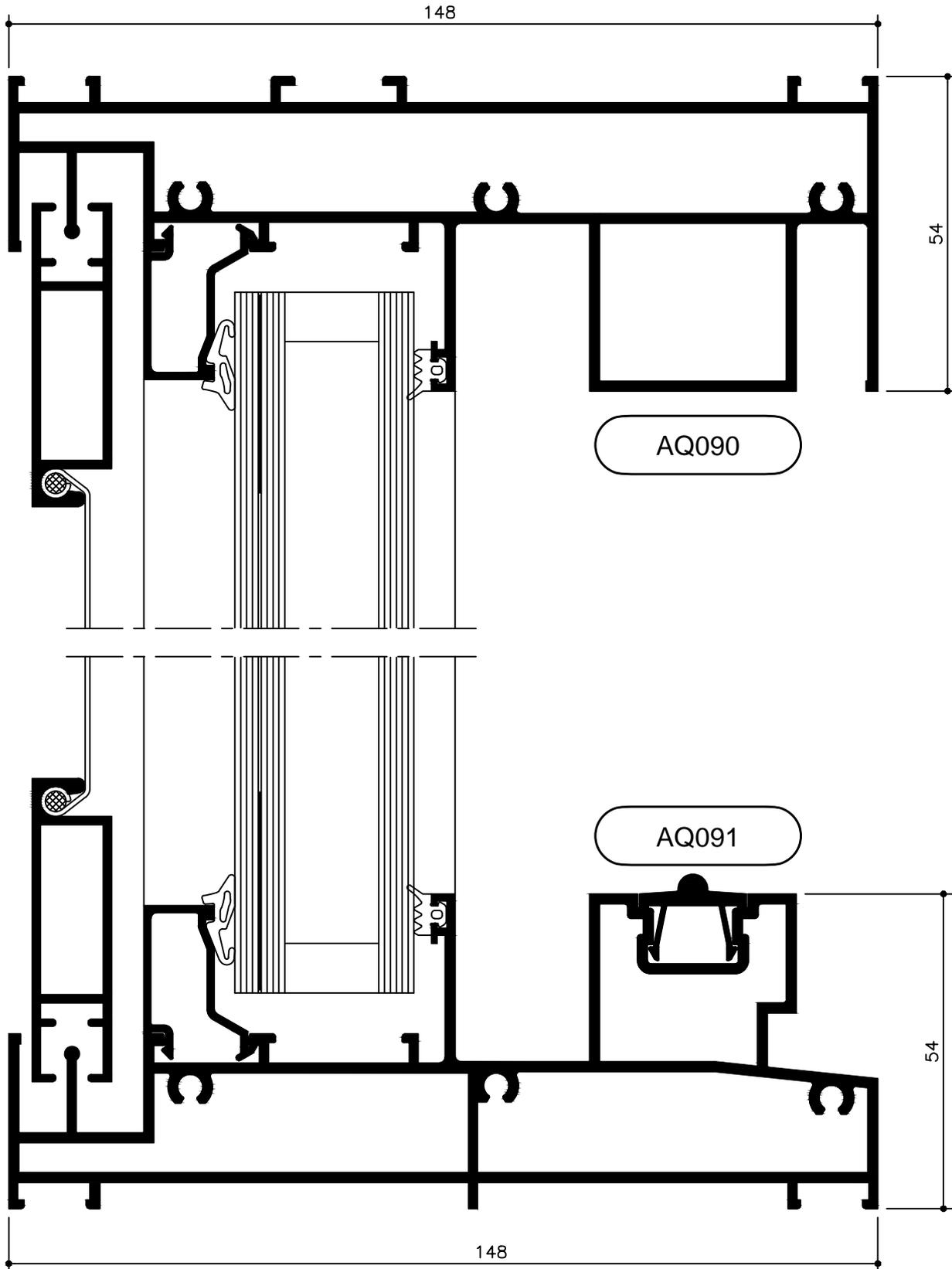
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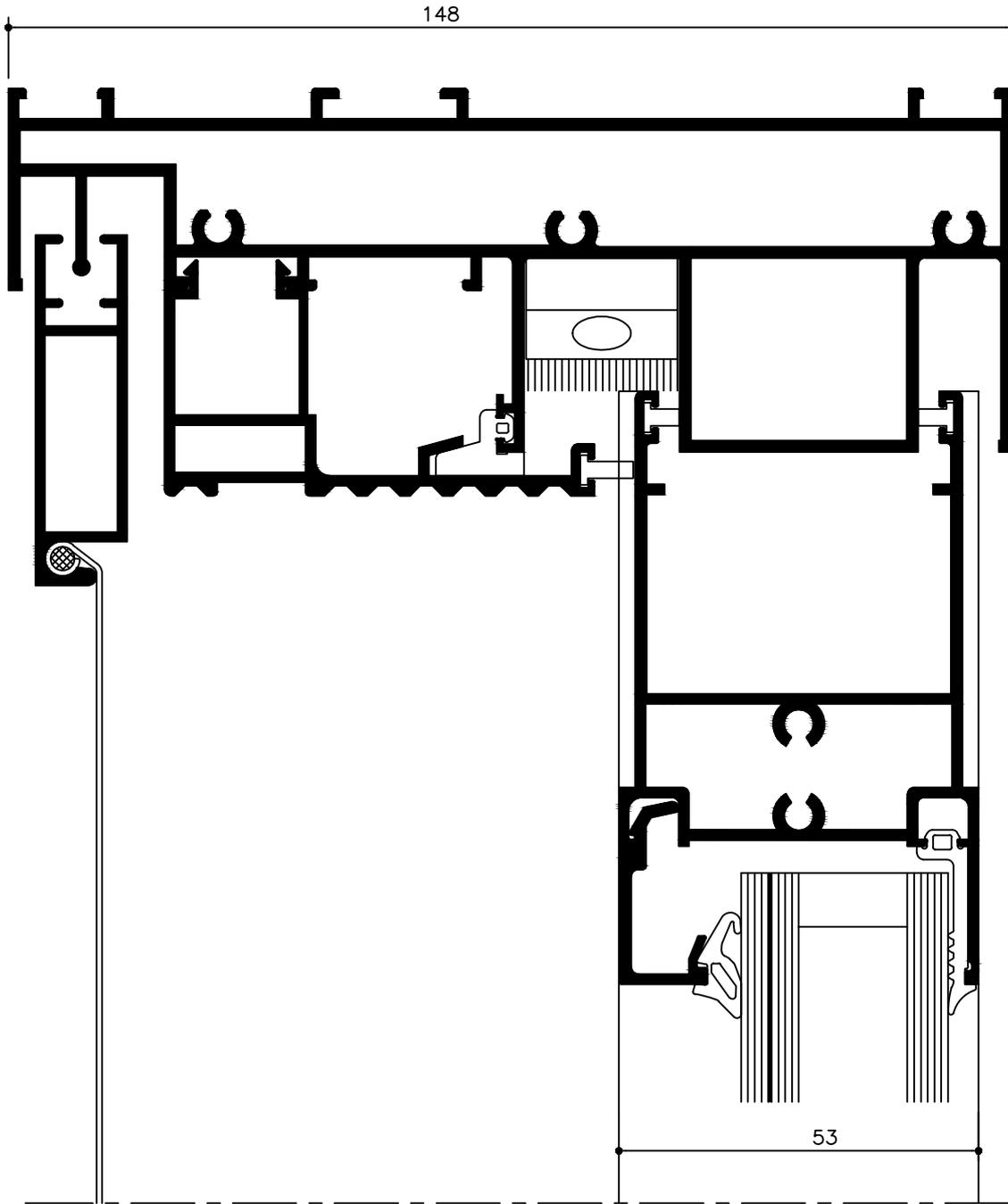
REINDEER



AQ089

SECTOR I.80





AQ092



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

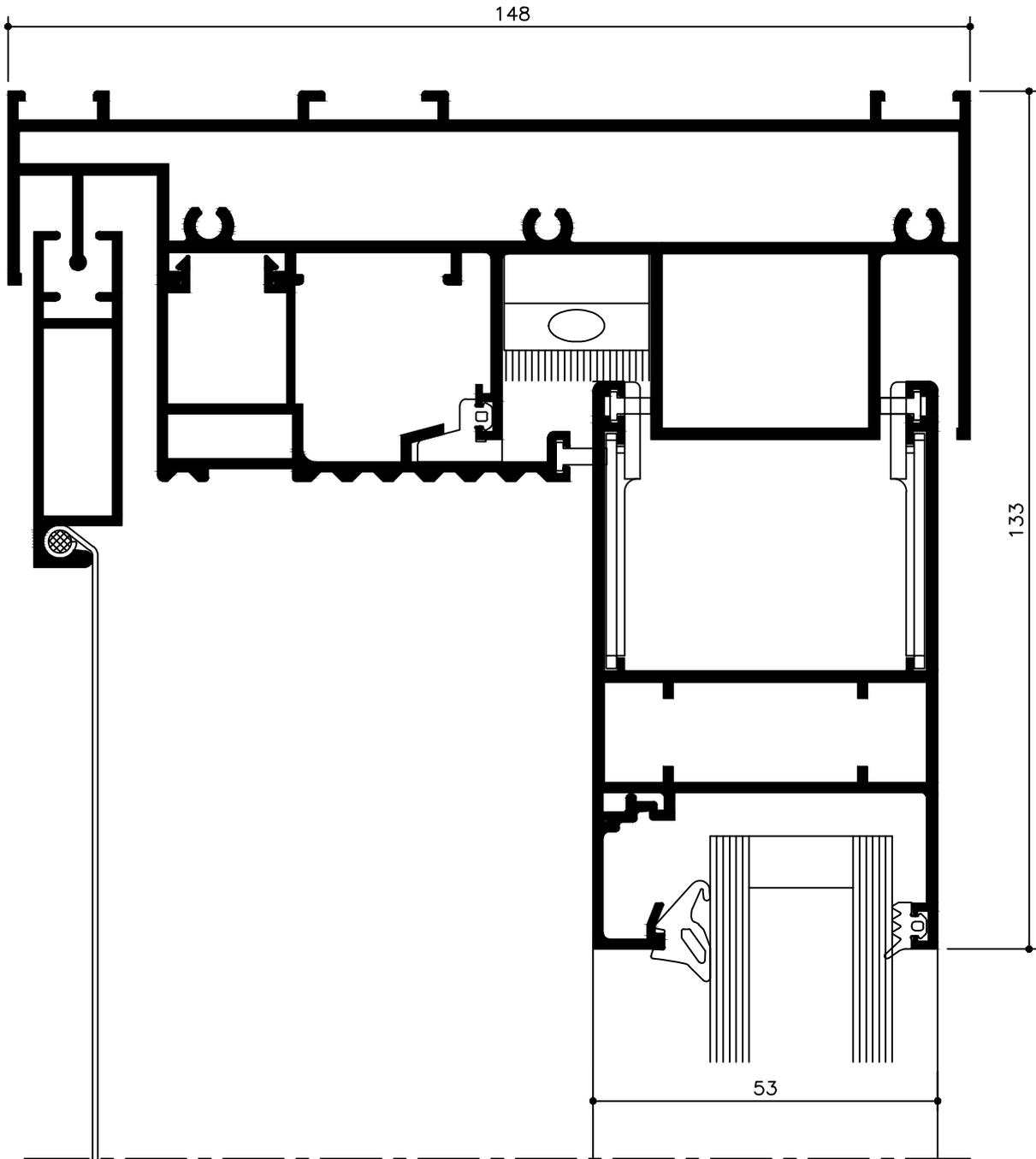


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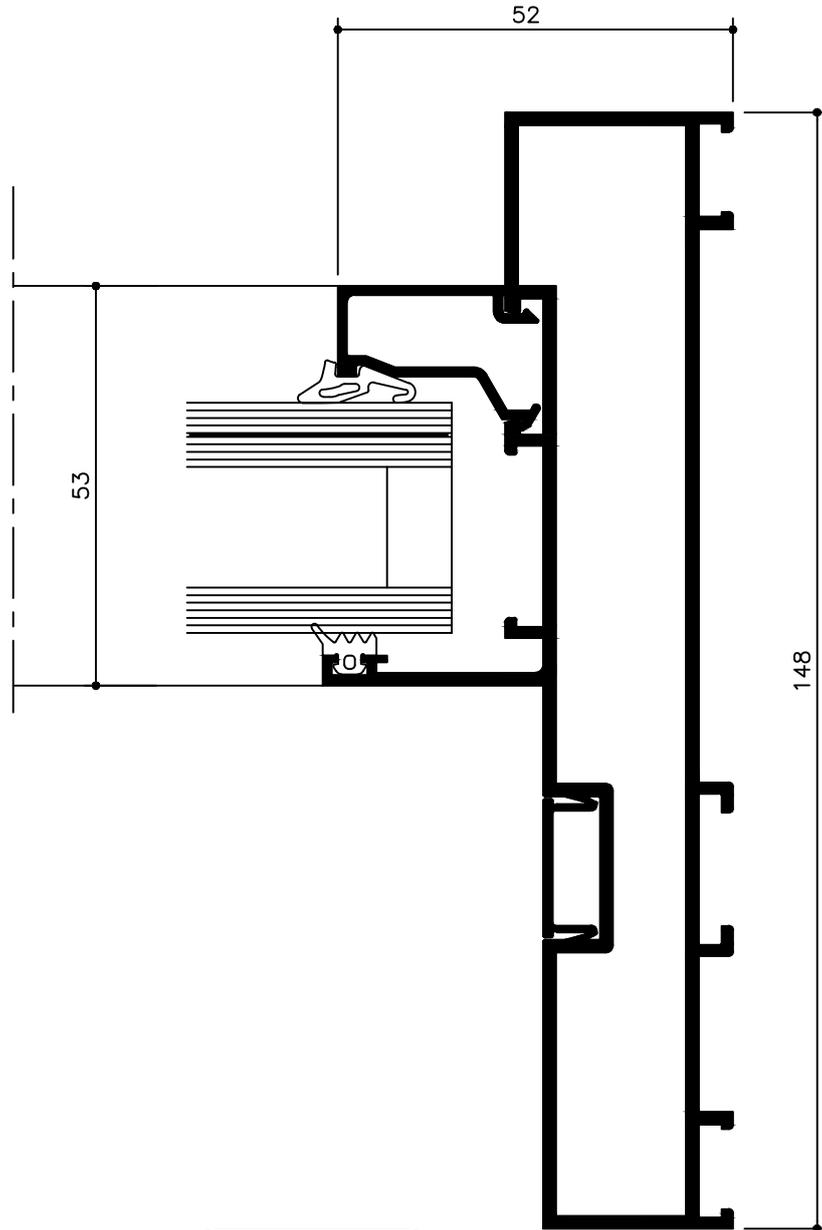


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AQ093

SECTOR I.83



AQ094



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

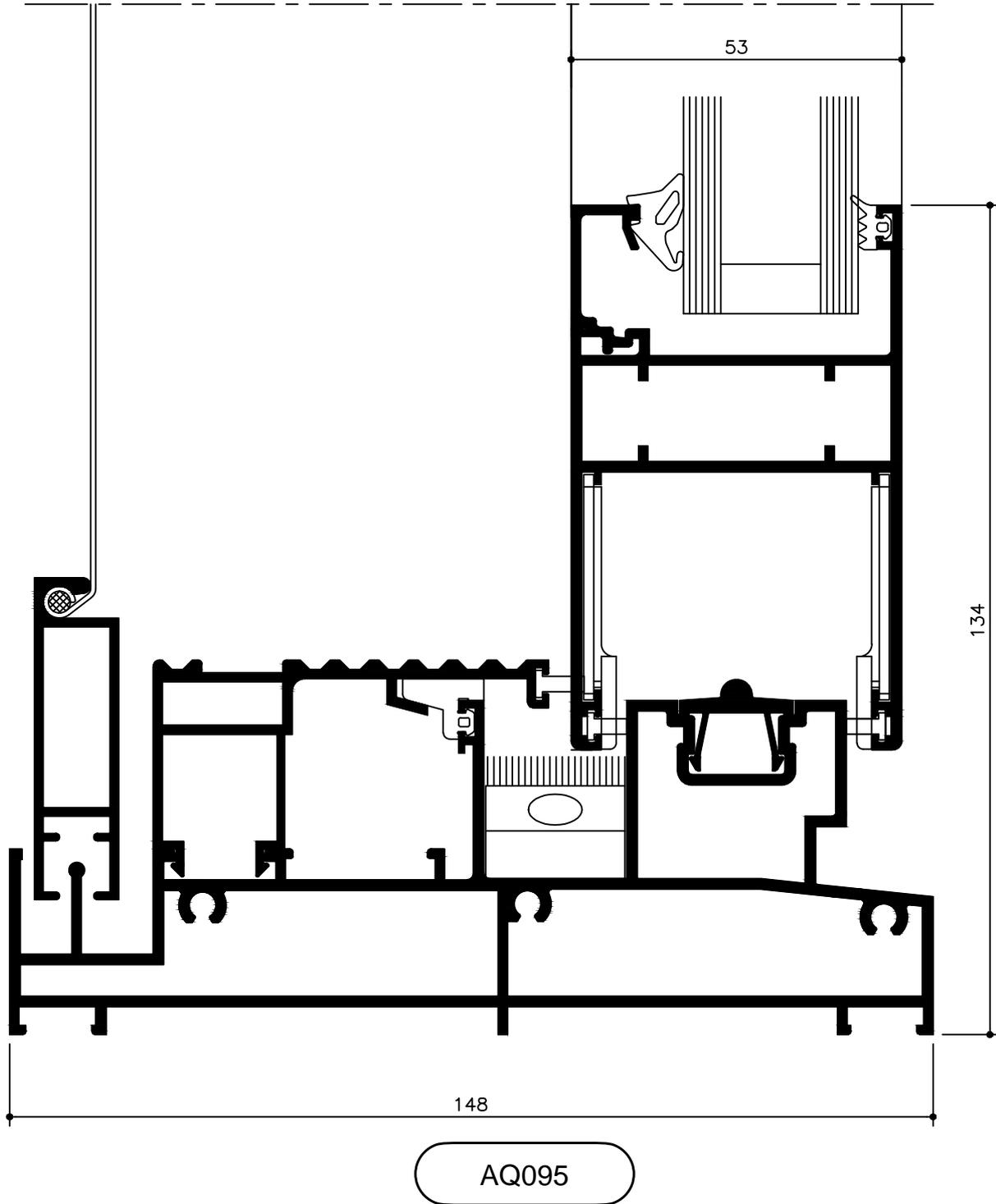


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SECTOR I.85



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

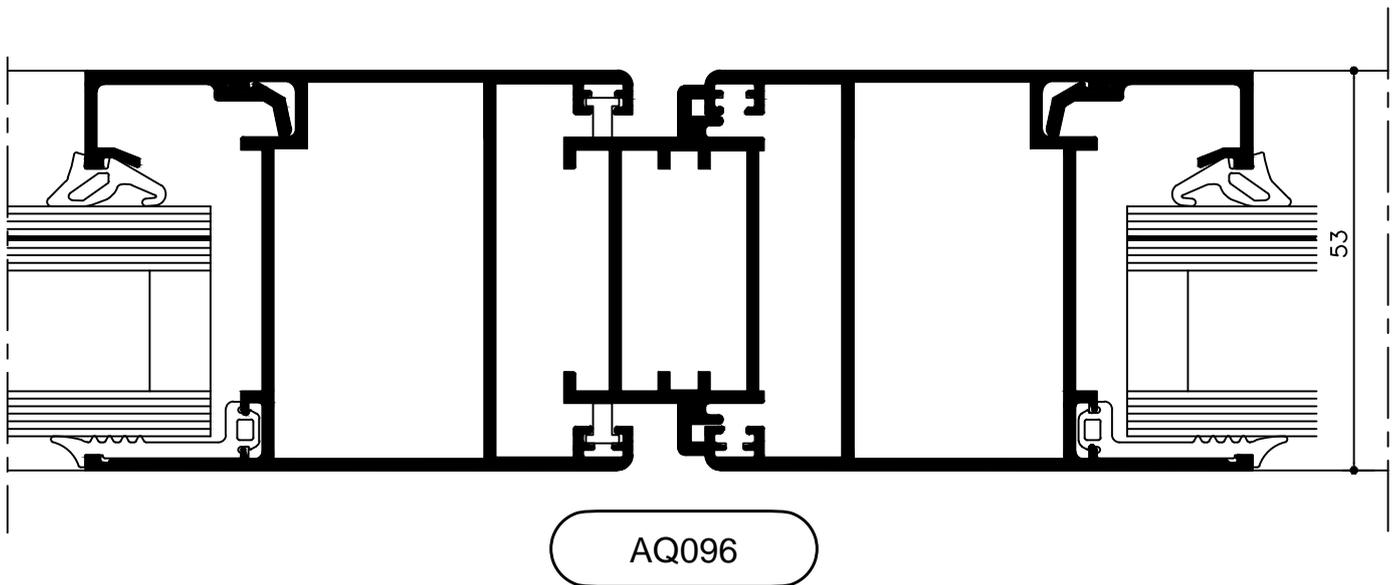


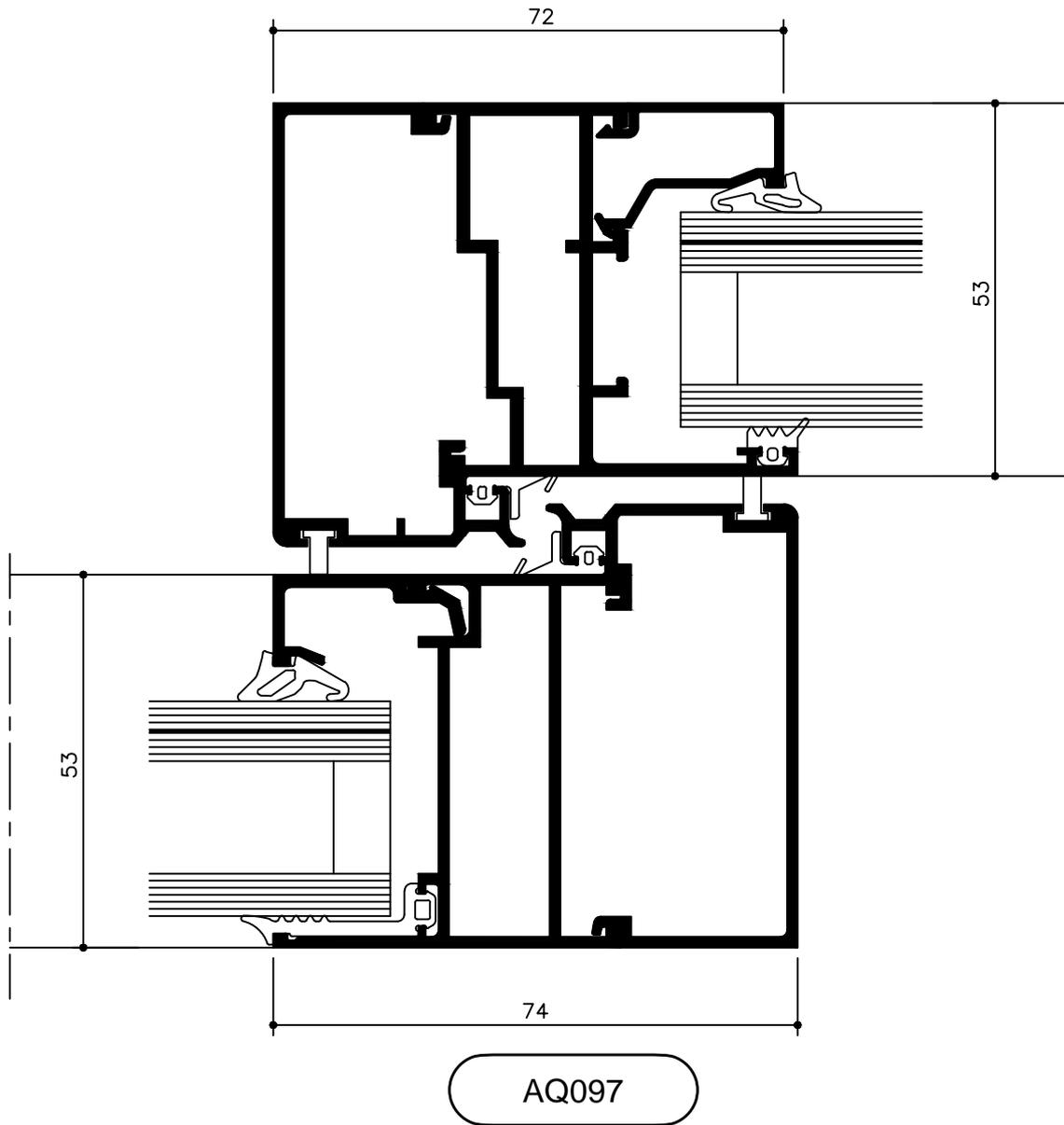
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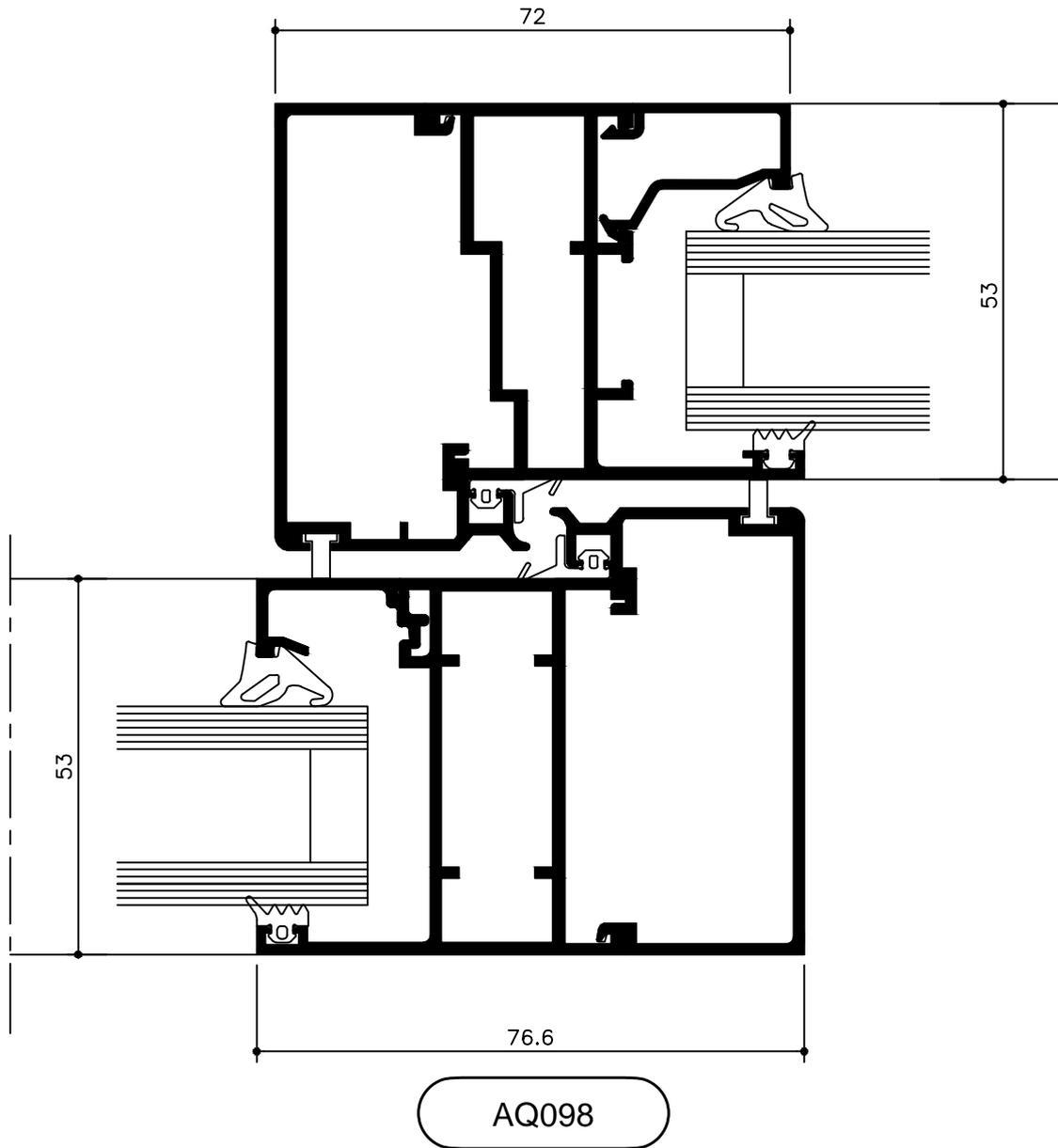
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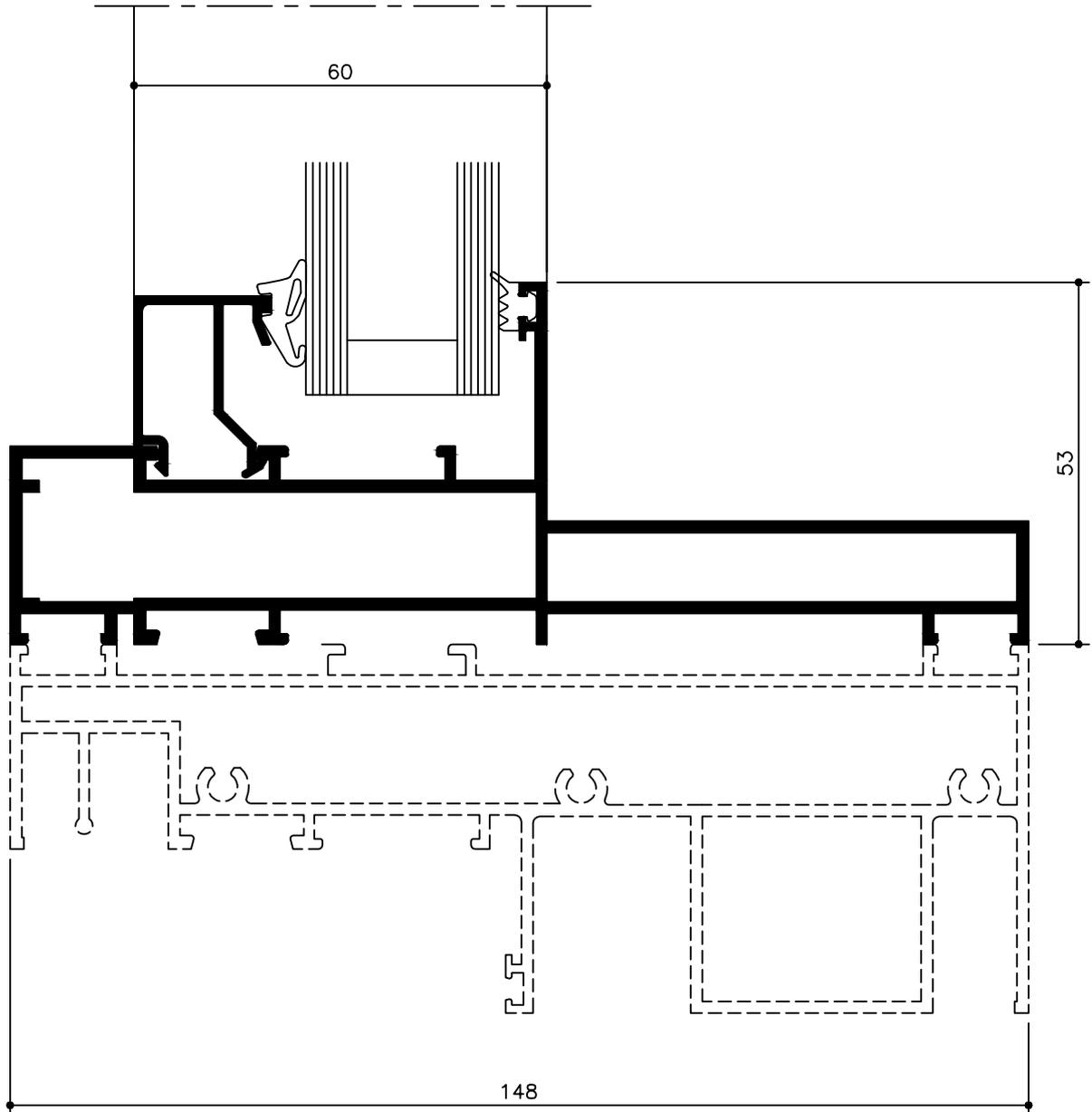


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AQ099



GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

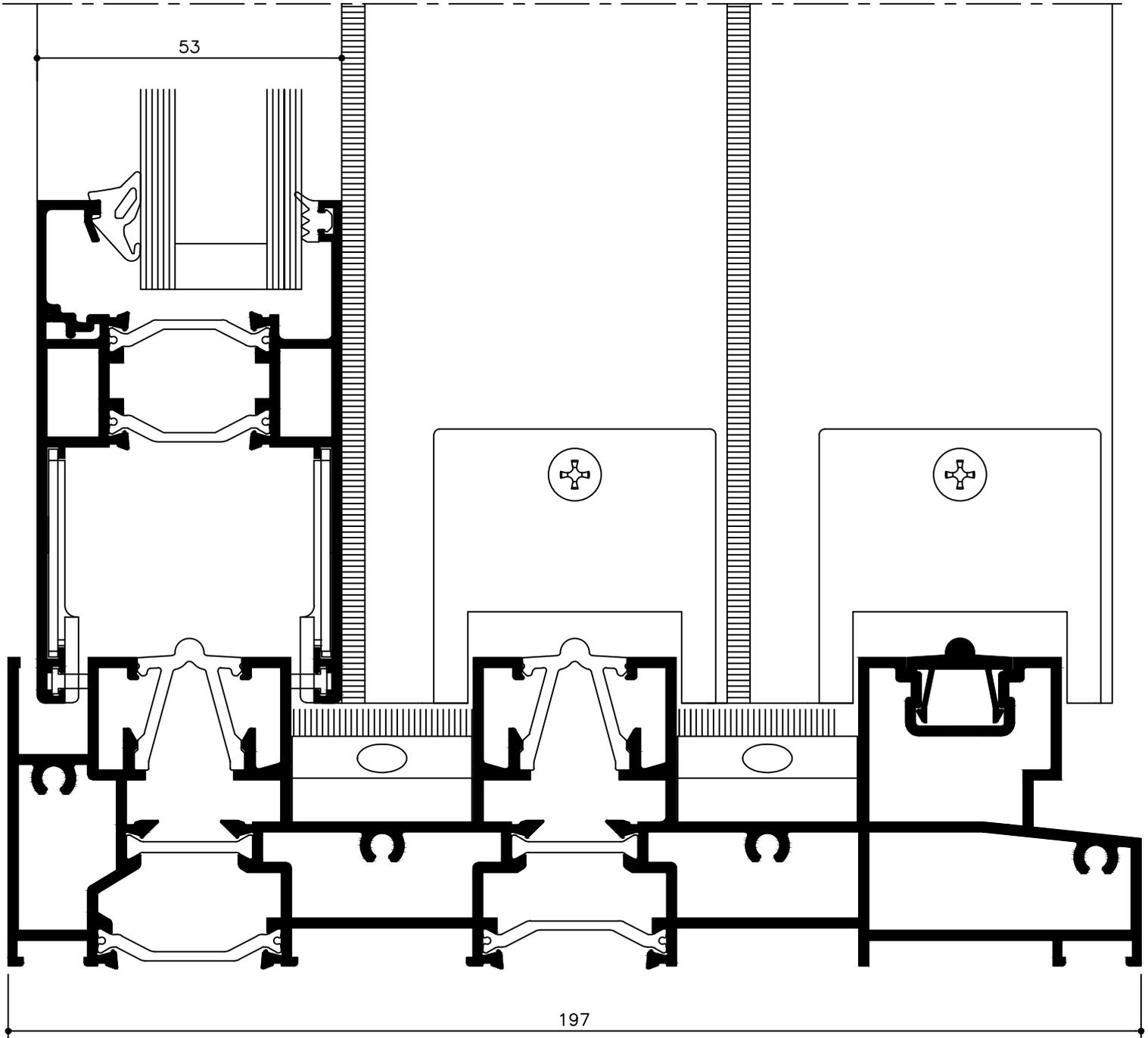
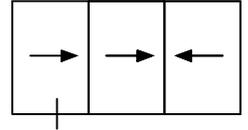


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REINDEER



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AQ100

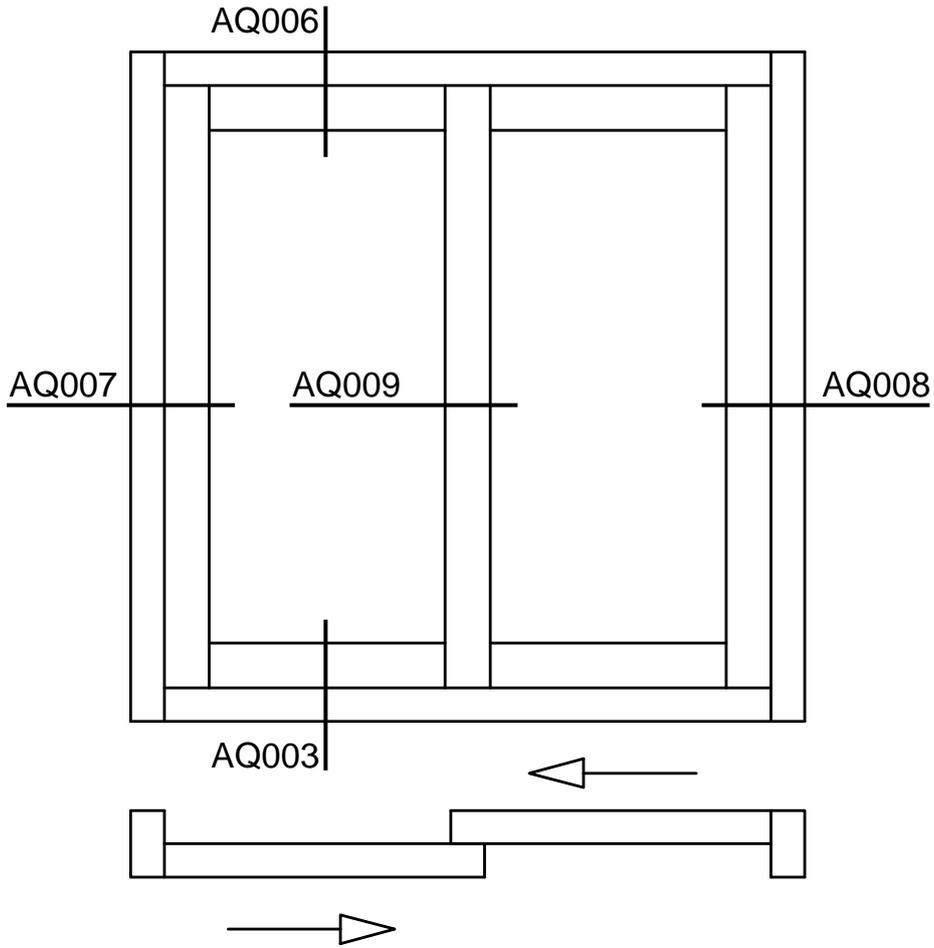
SECTOR I.90

Sector L

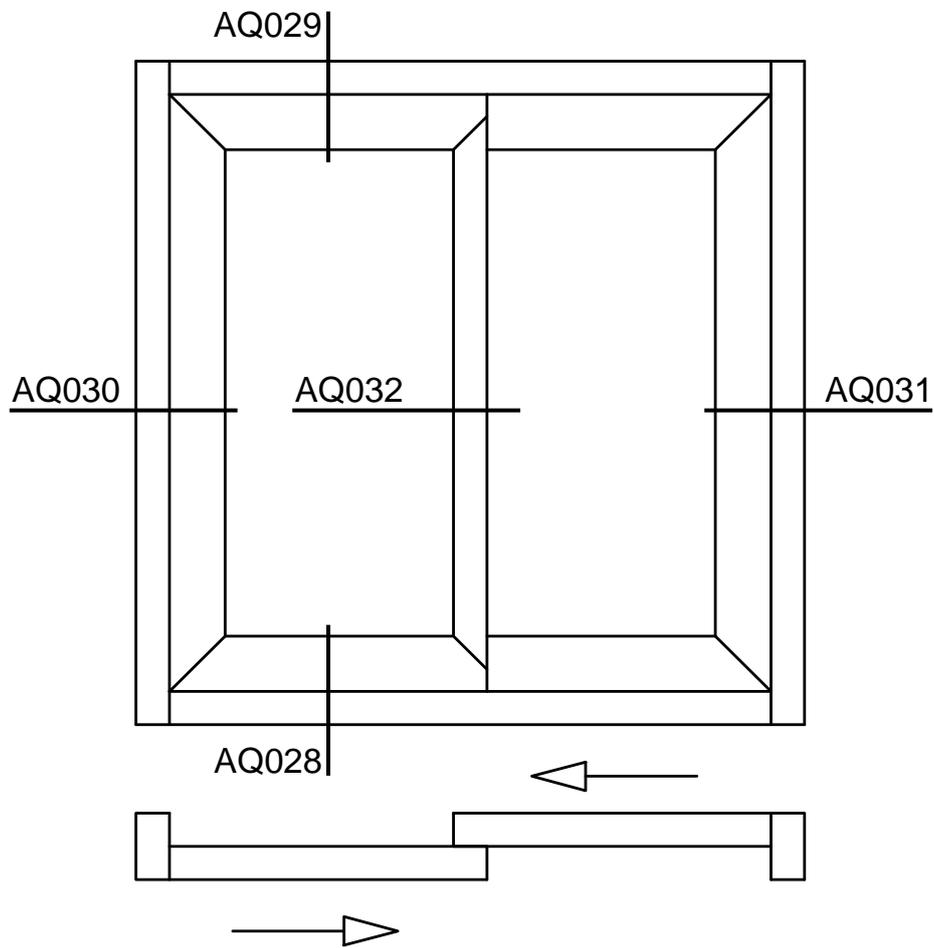
Typologies composition



90T2A

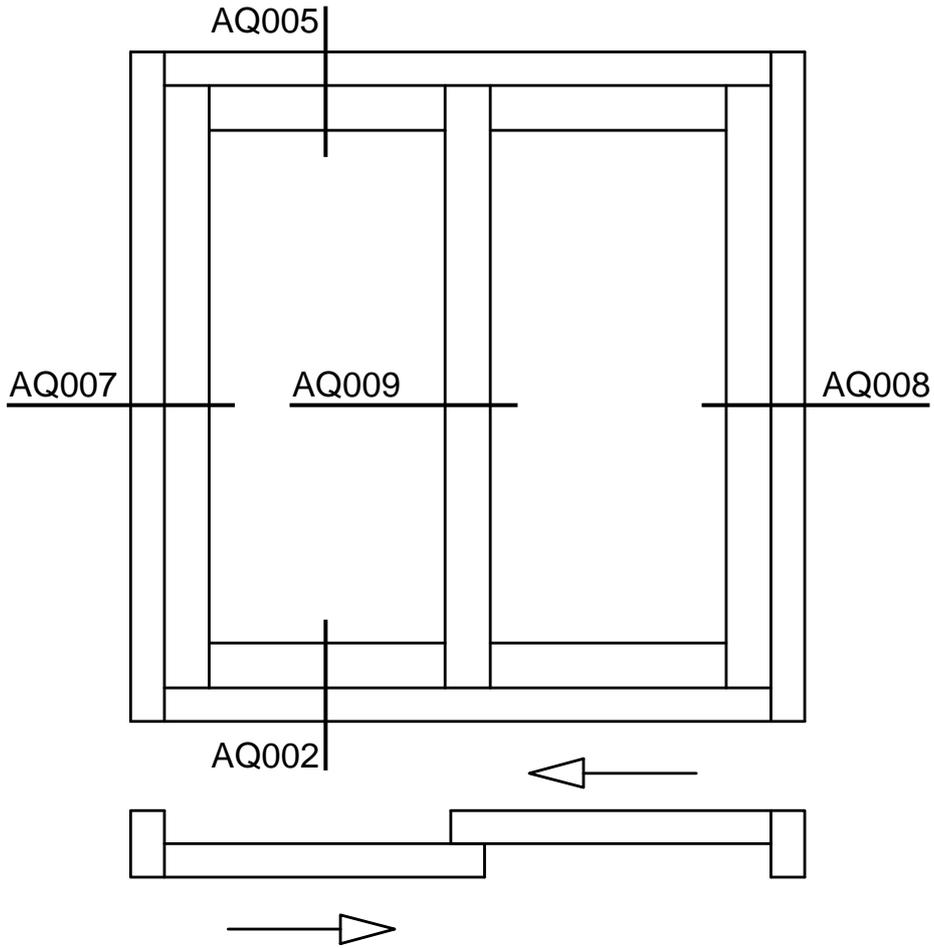


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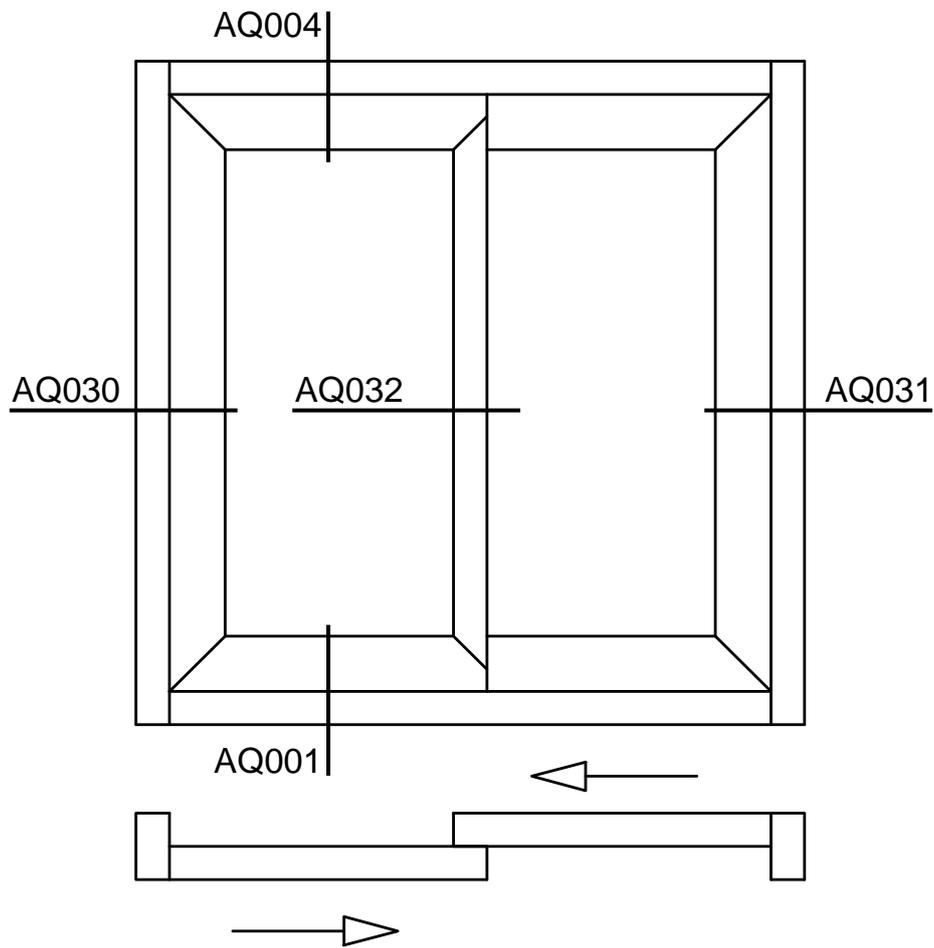




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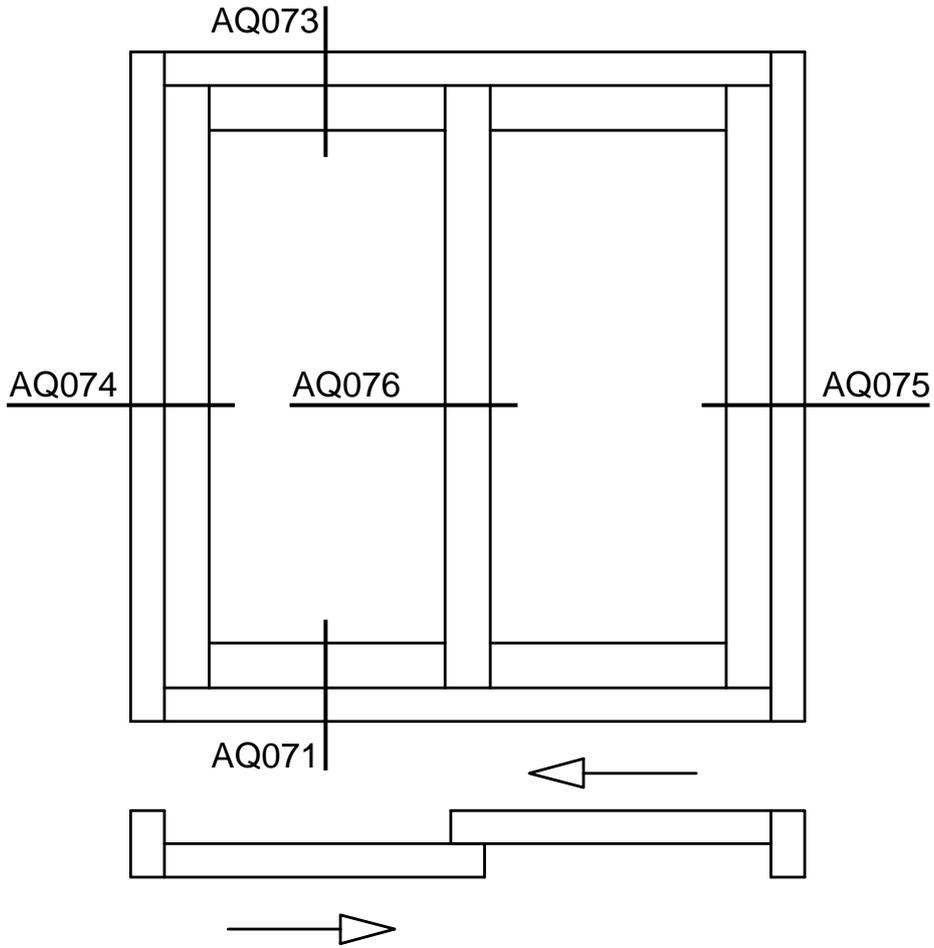


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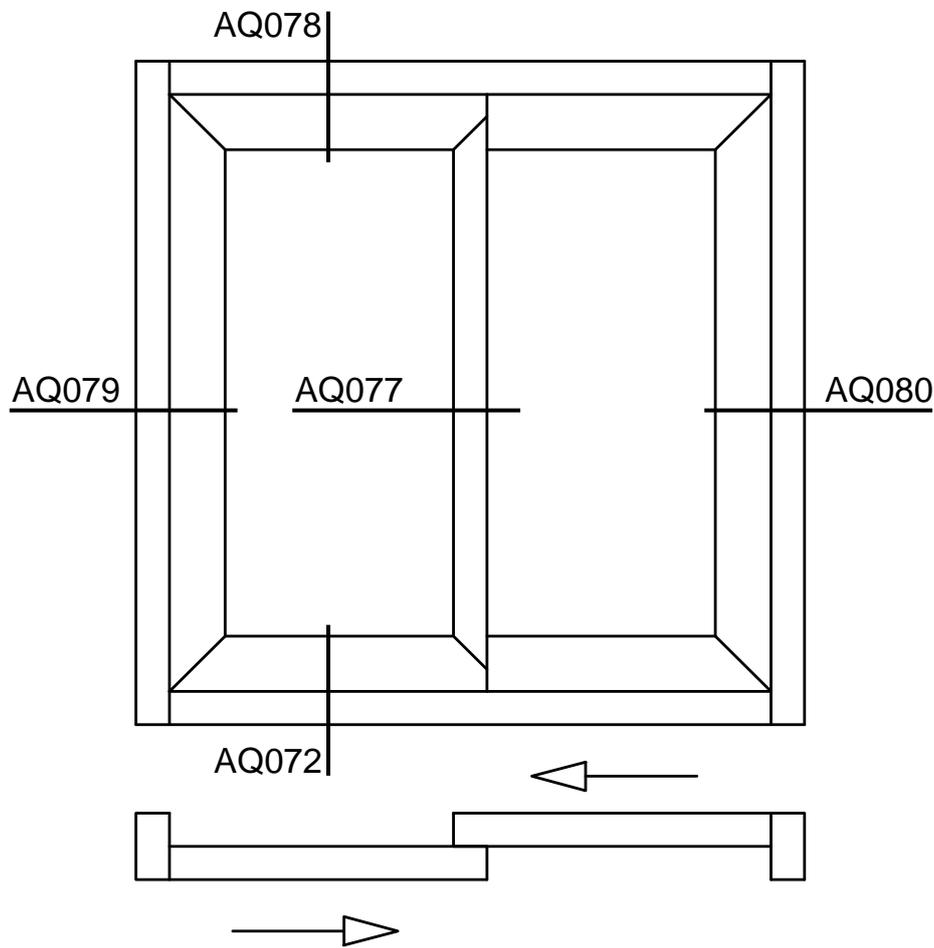




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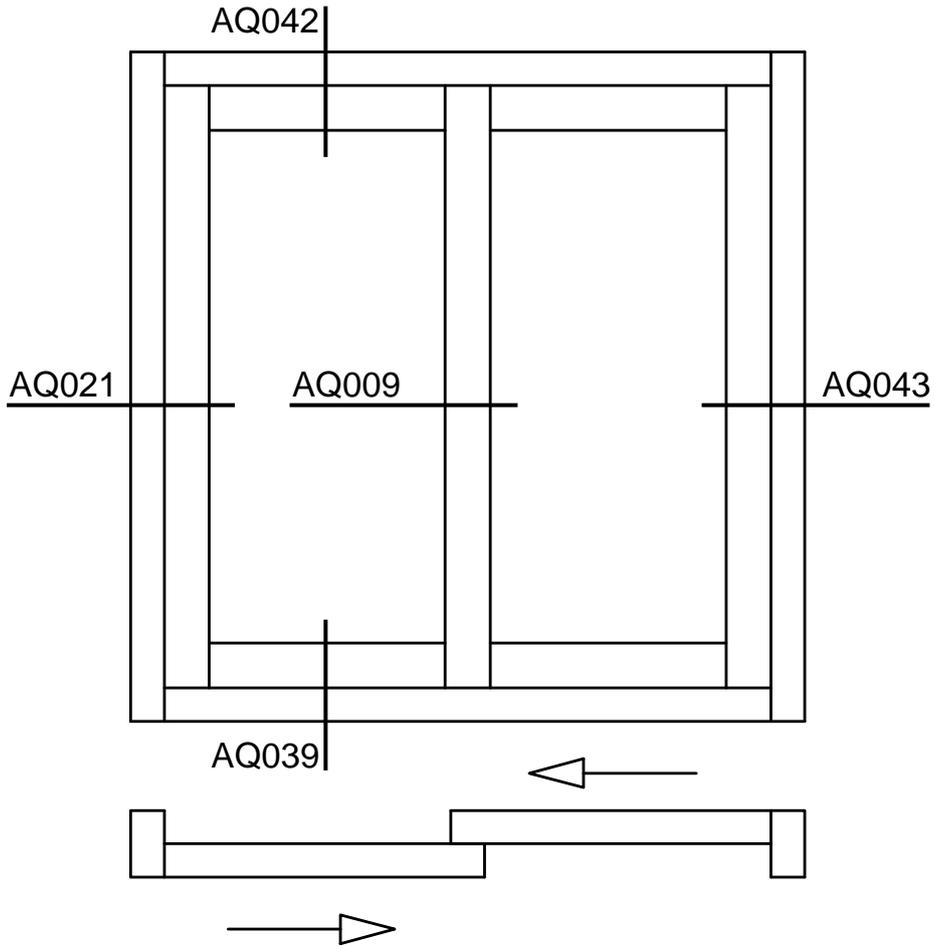


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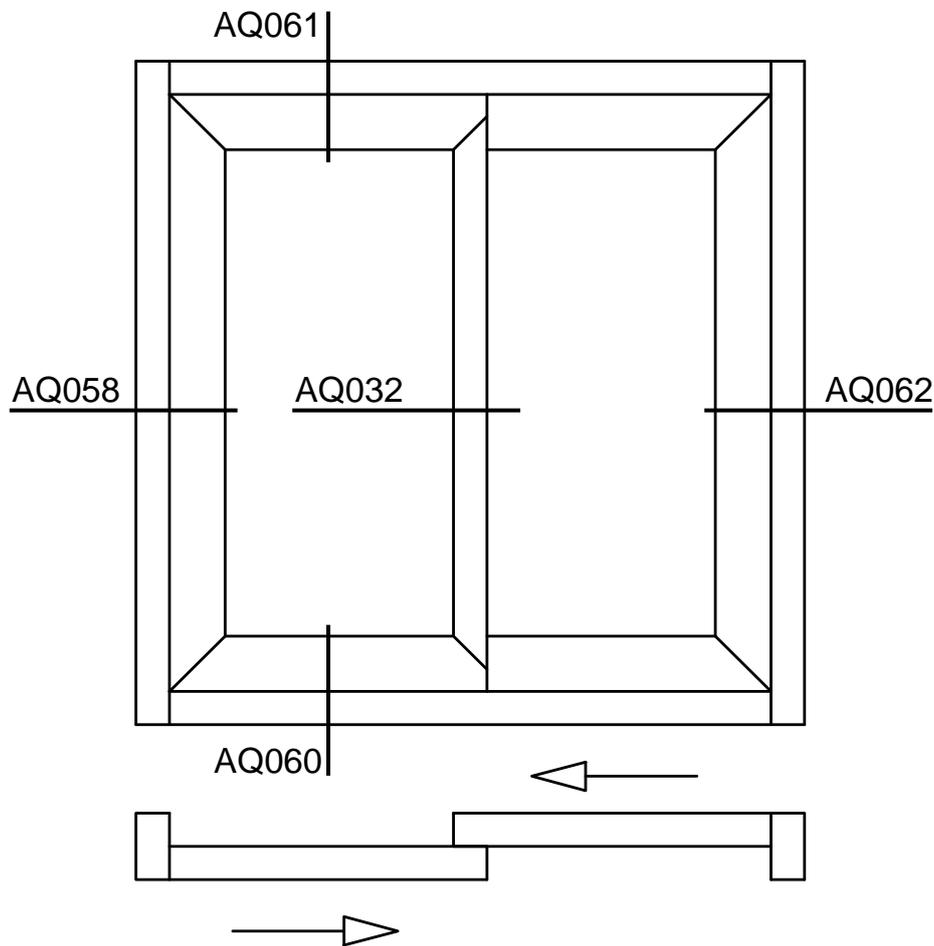




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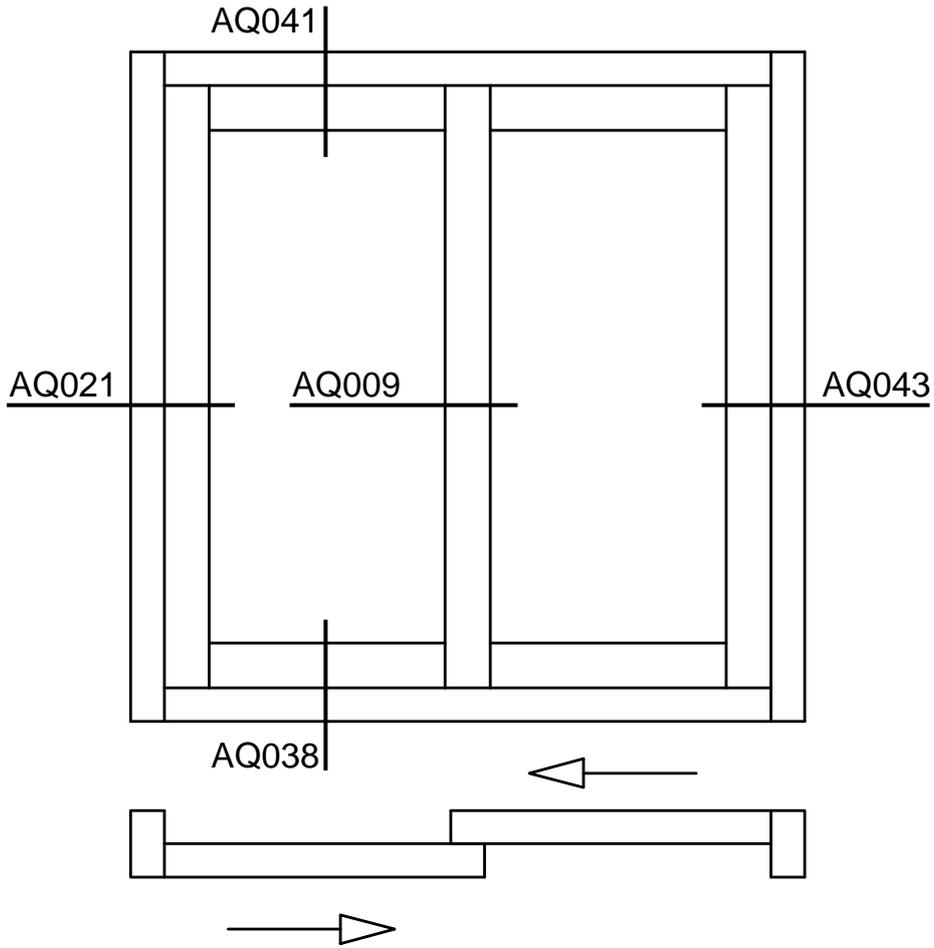


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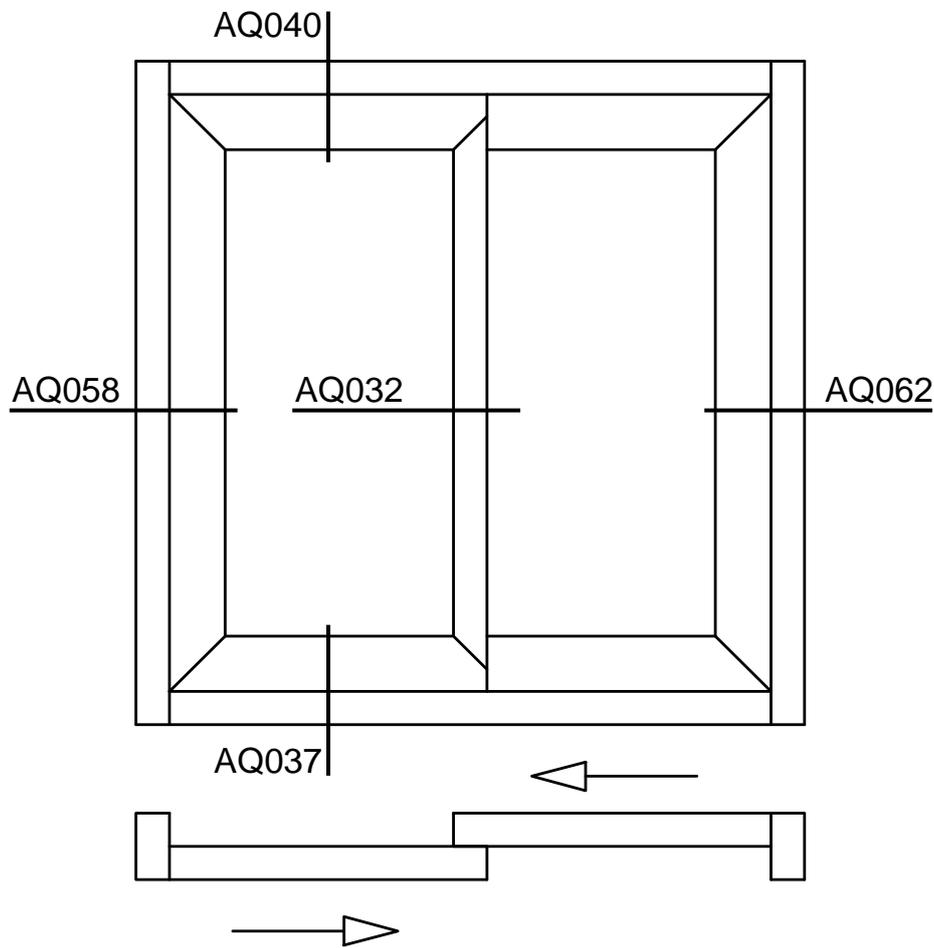




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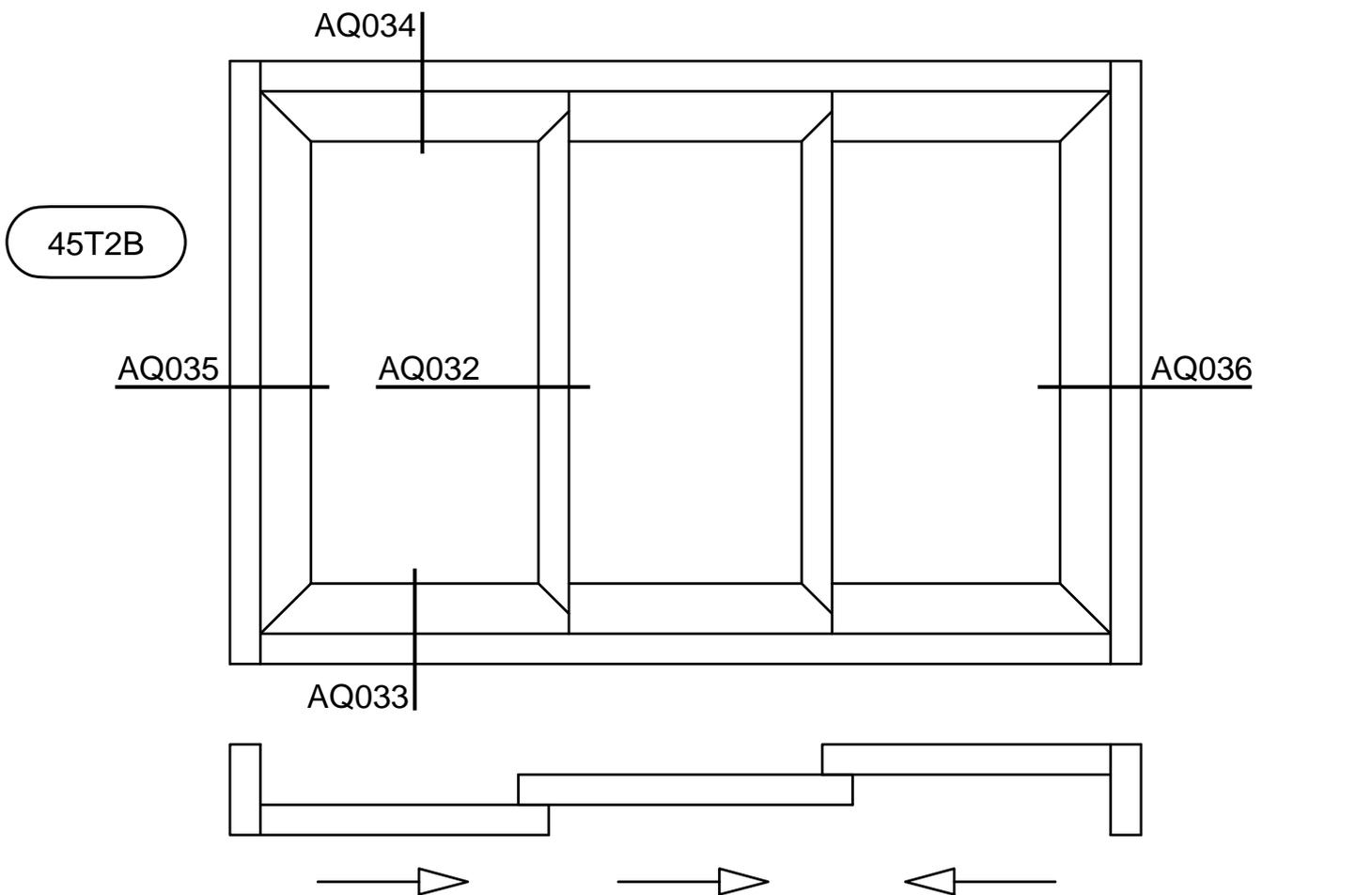
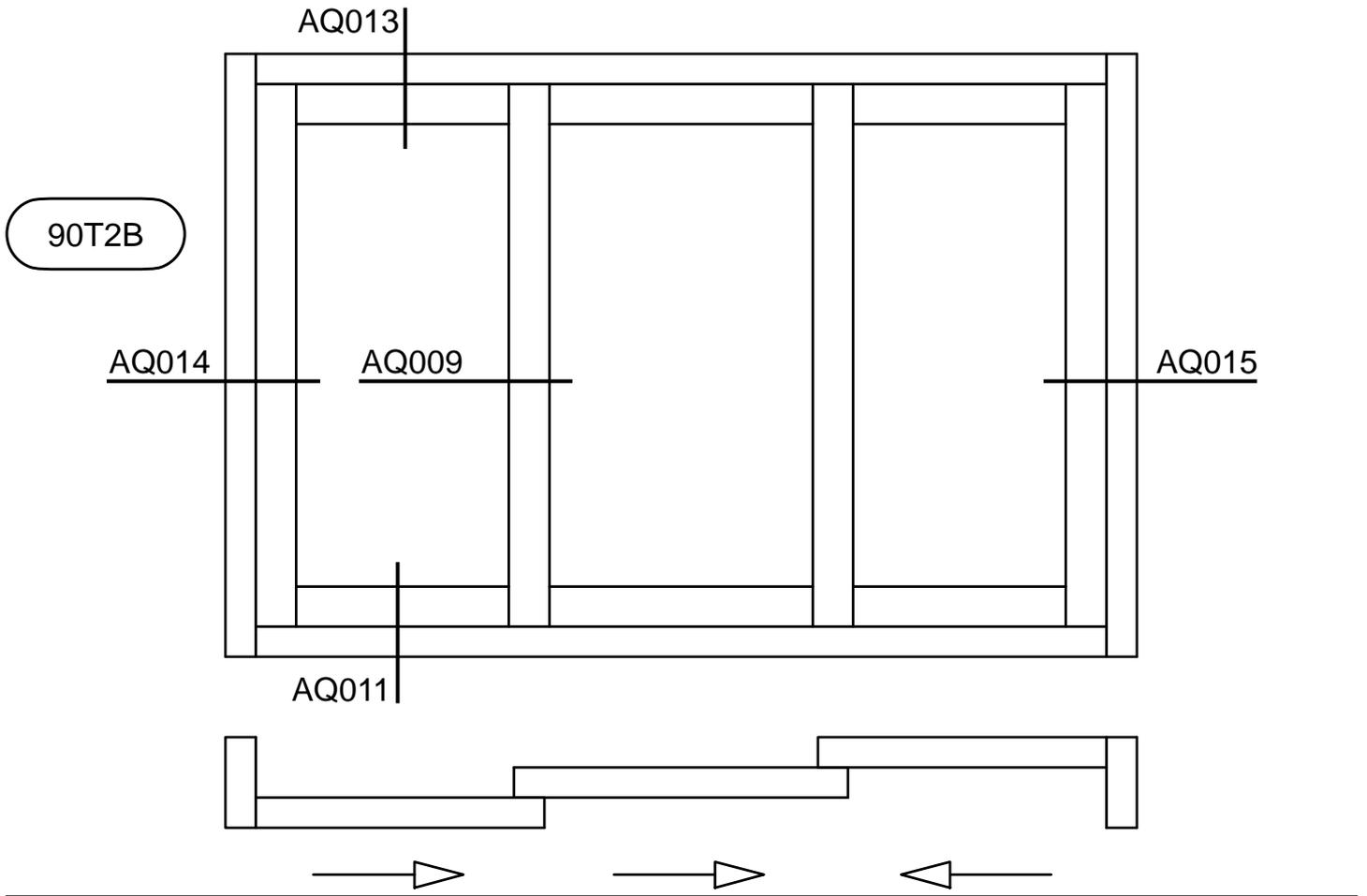


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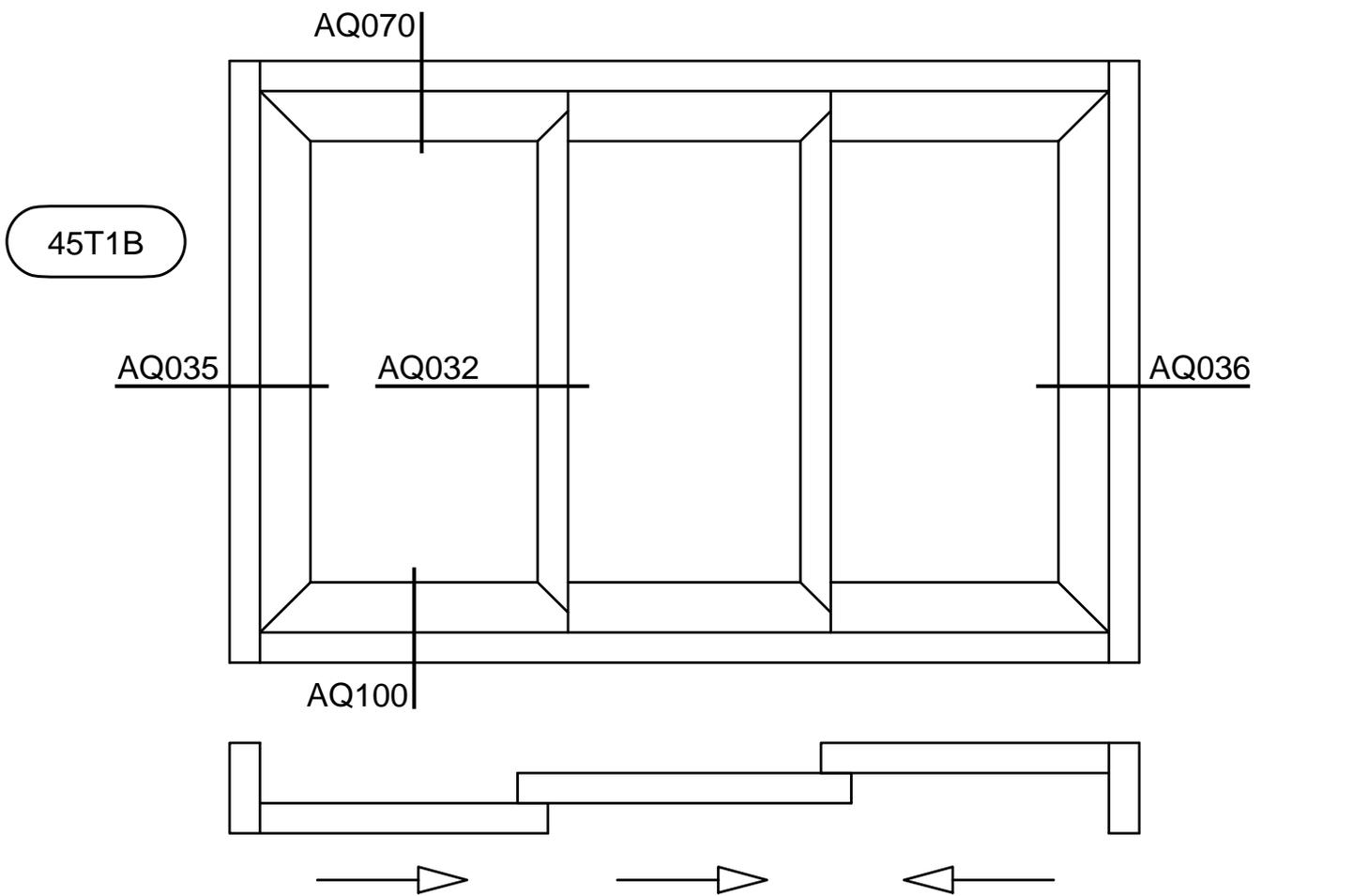
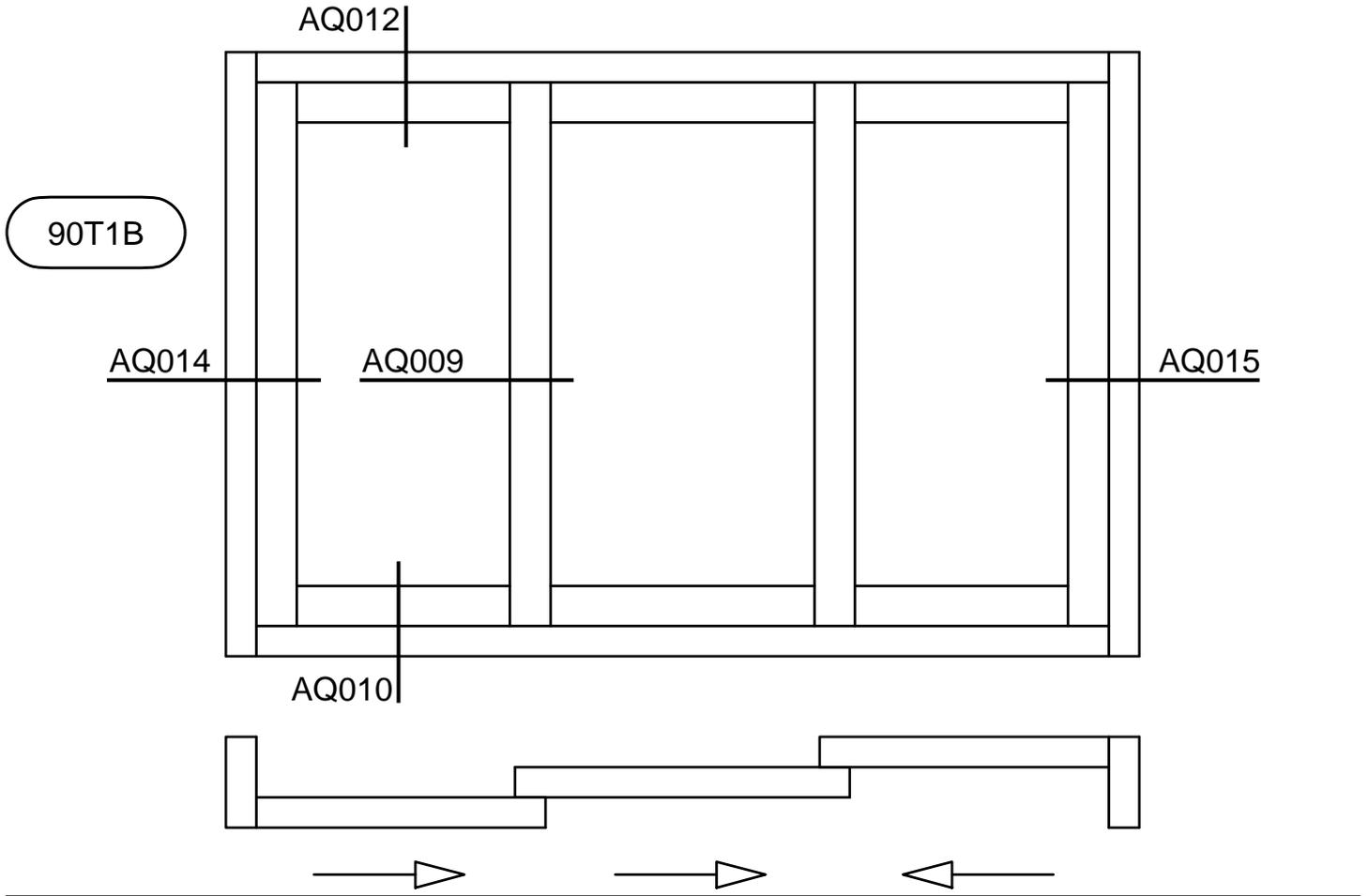


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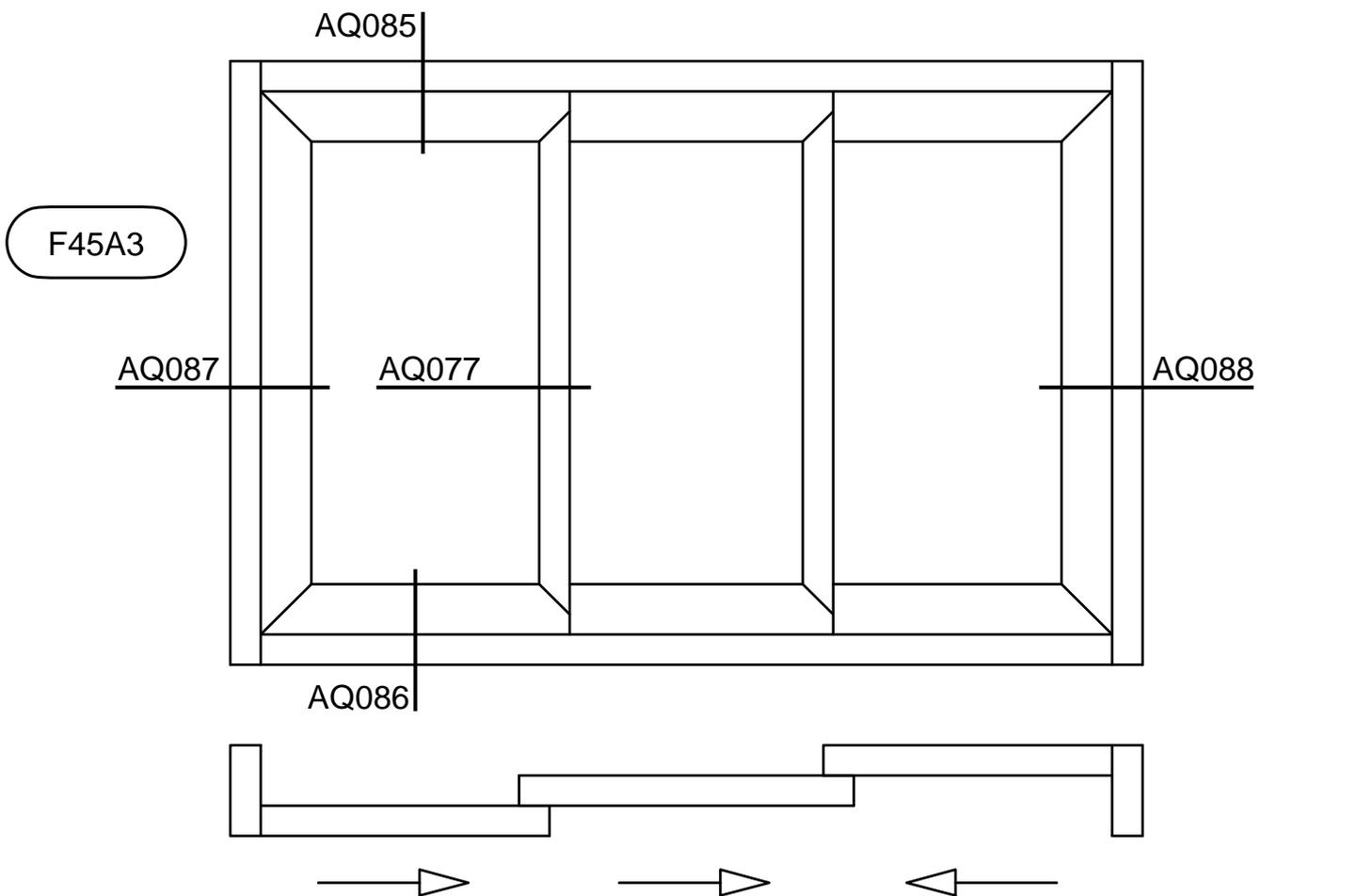
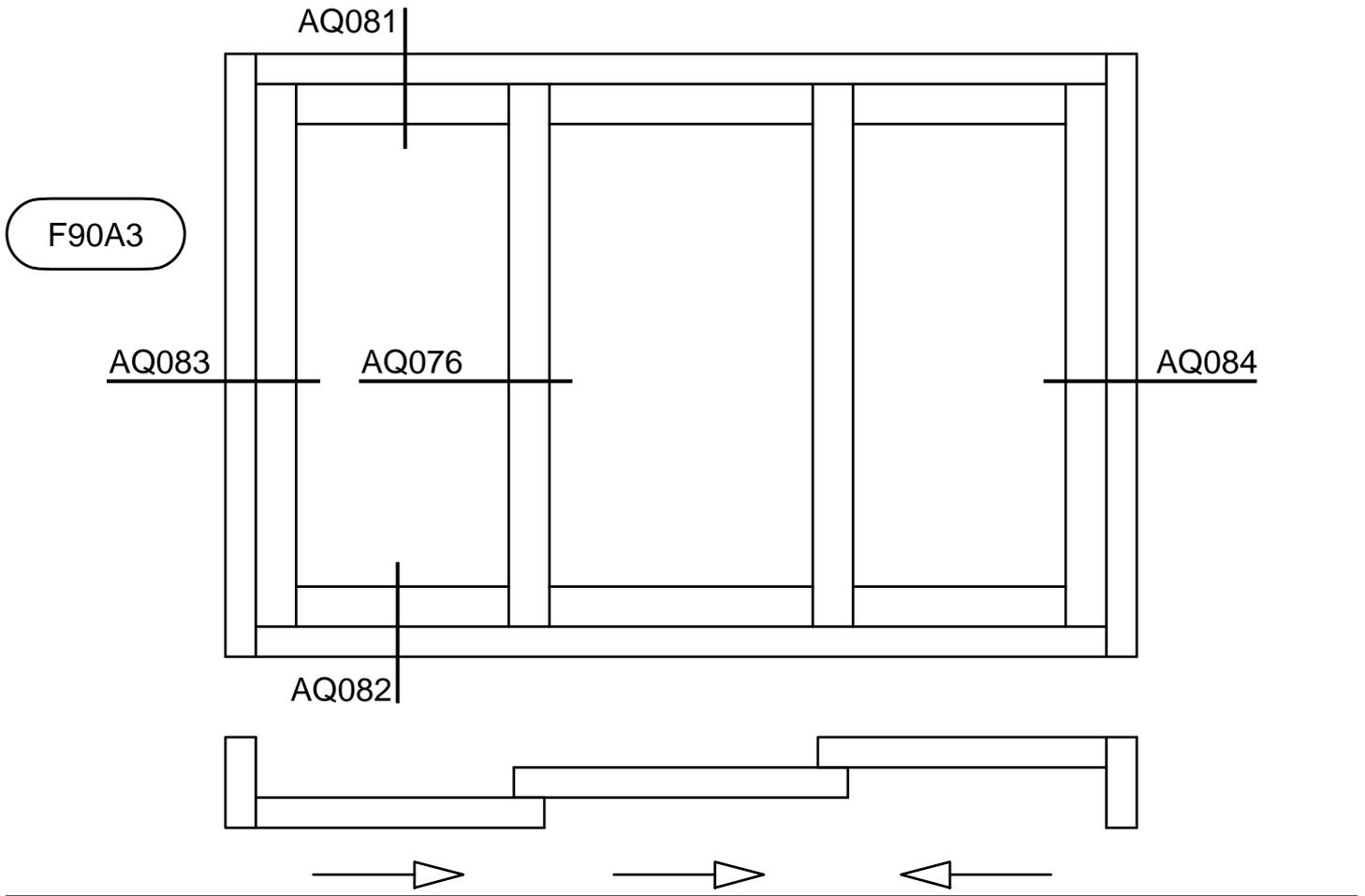


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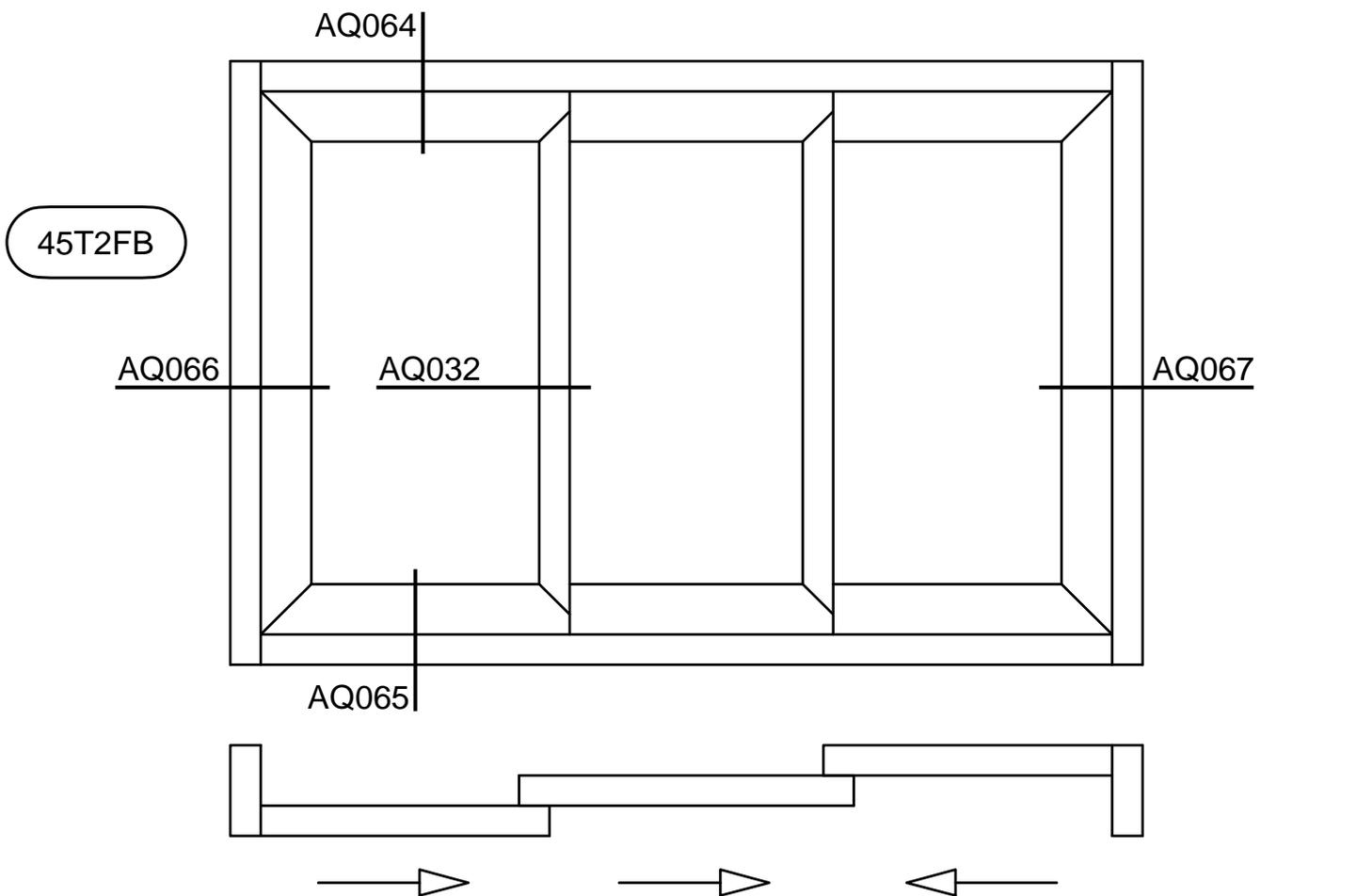
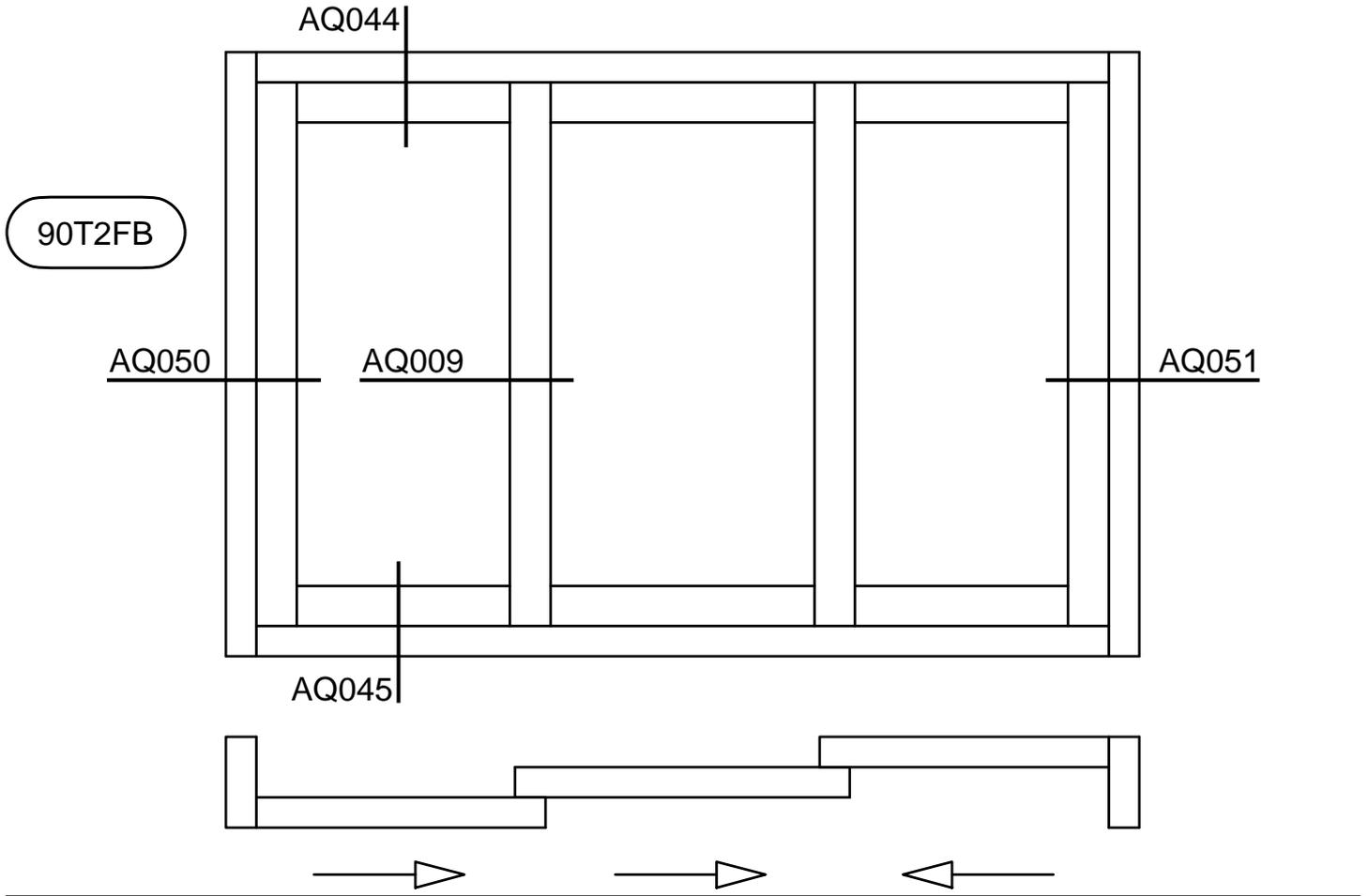
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SECTOR L.8

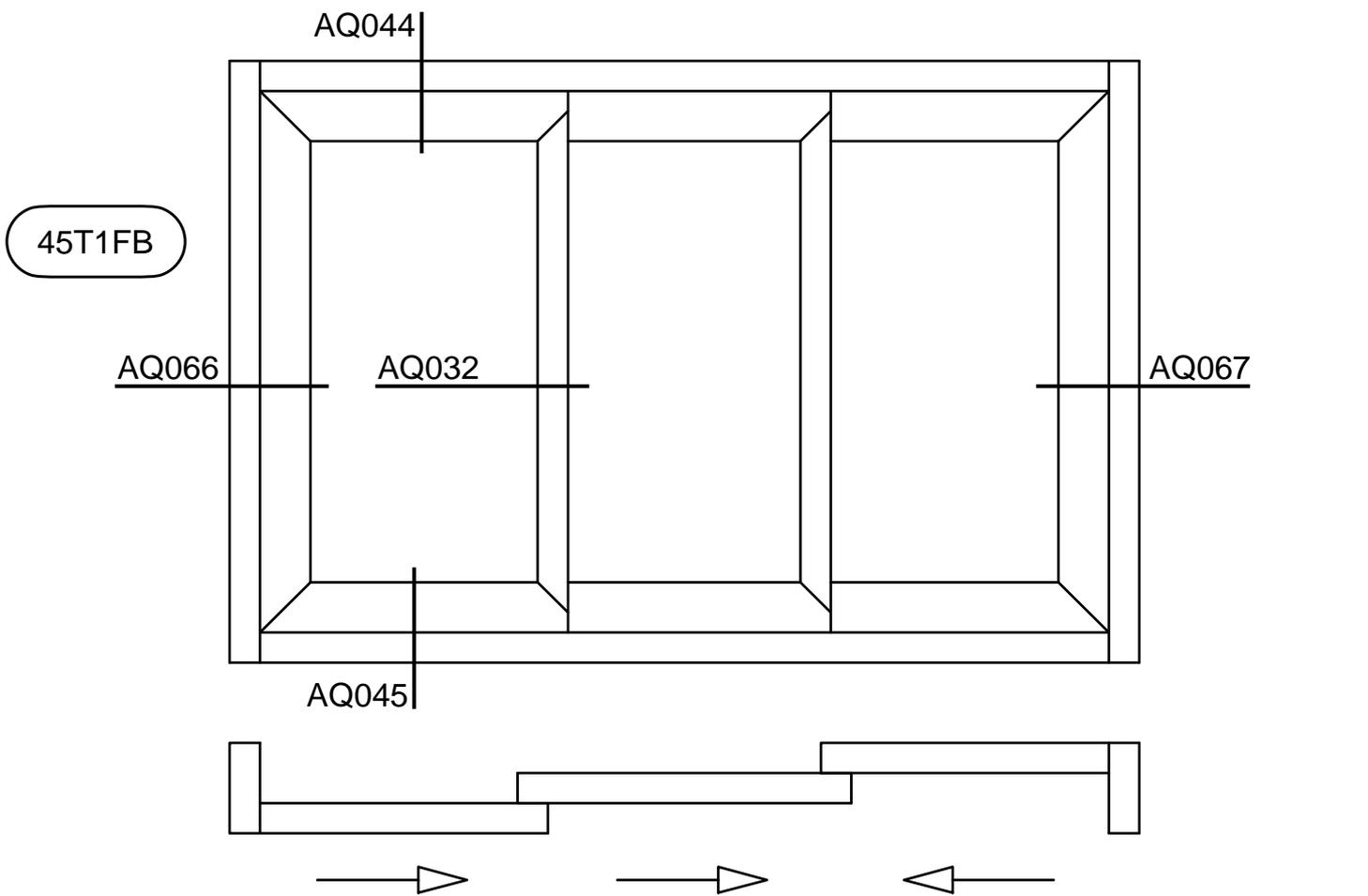
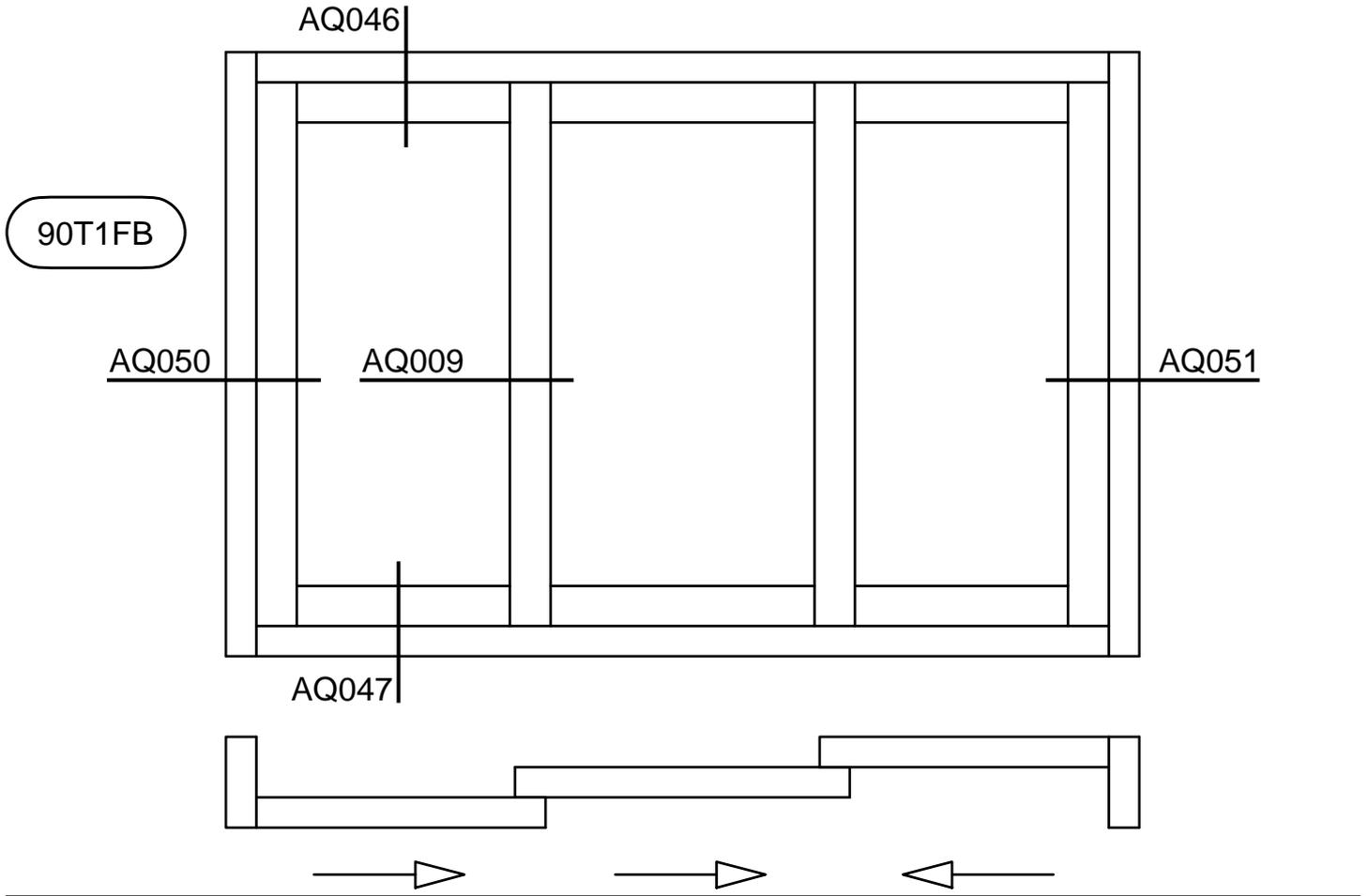


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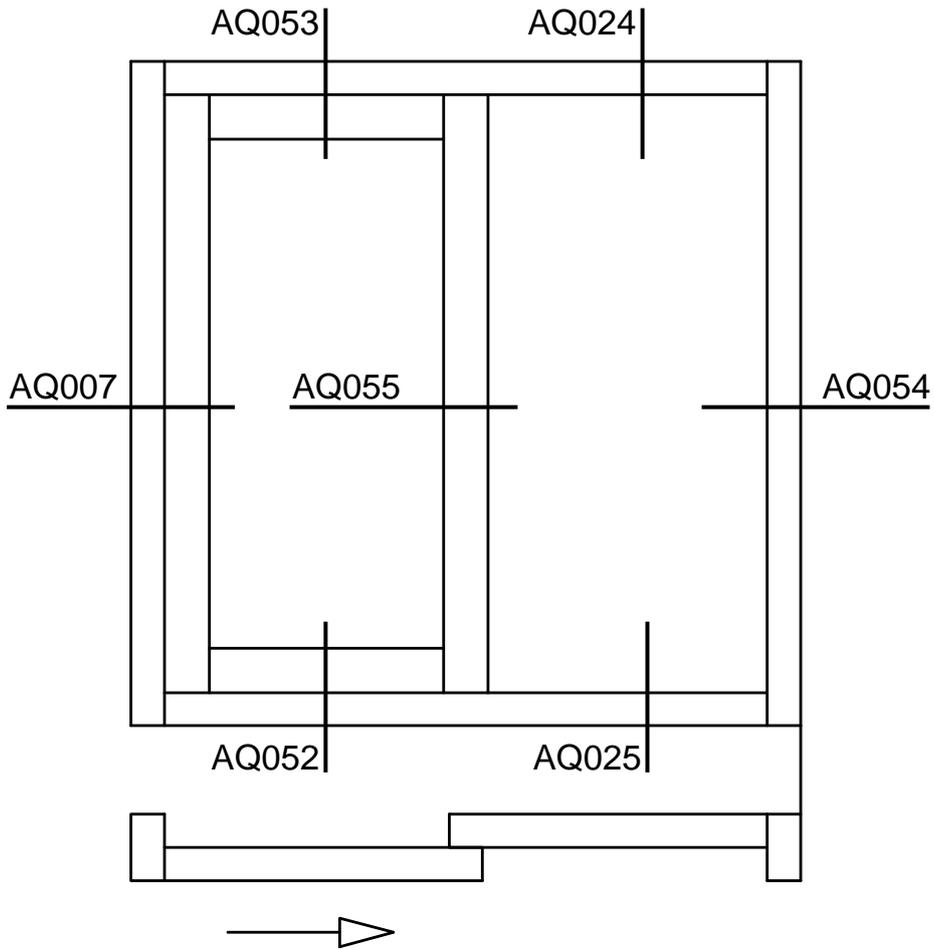


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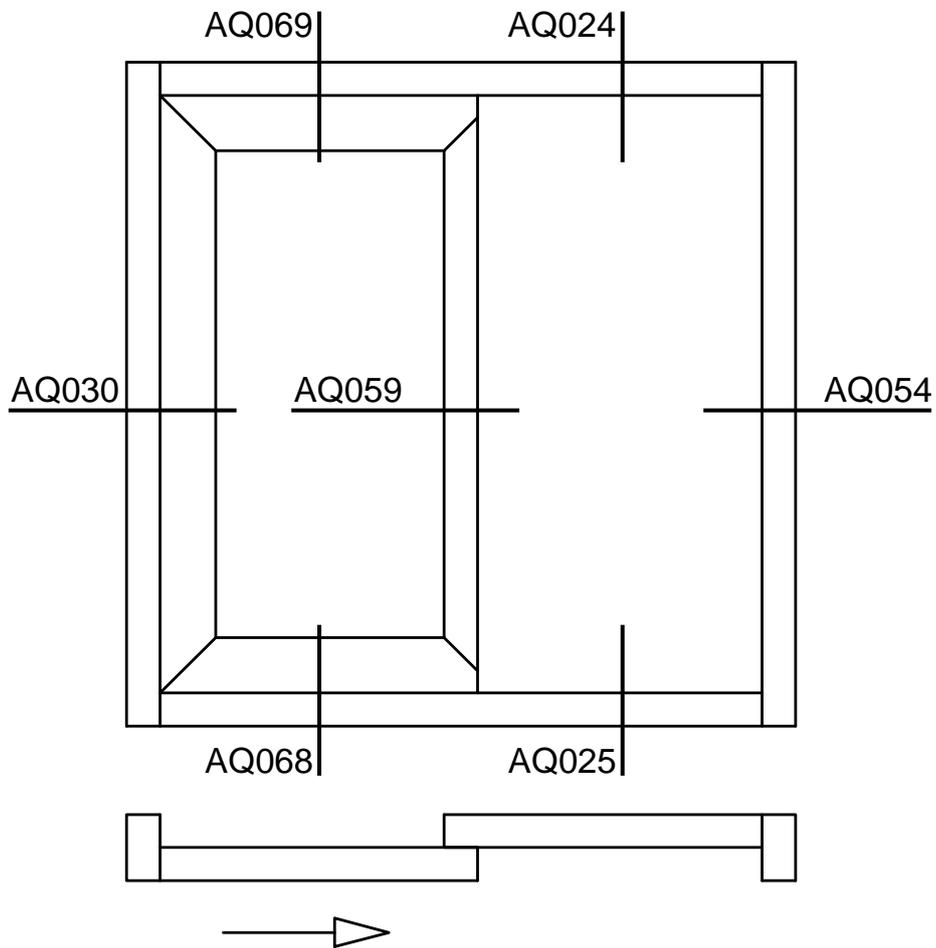




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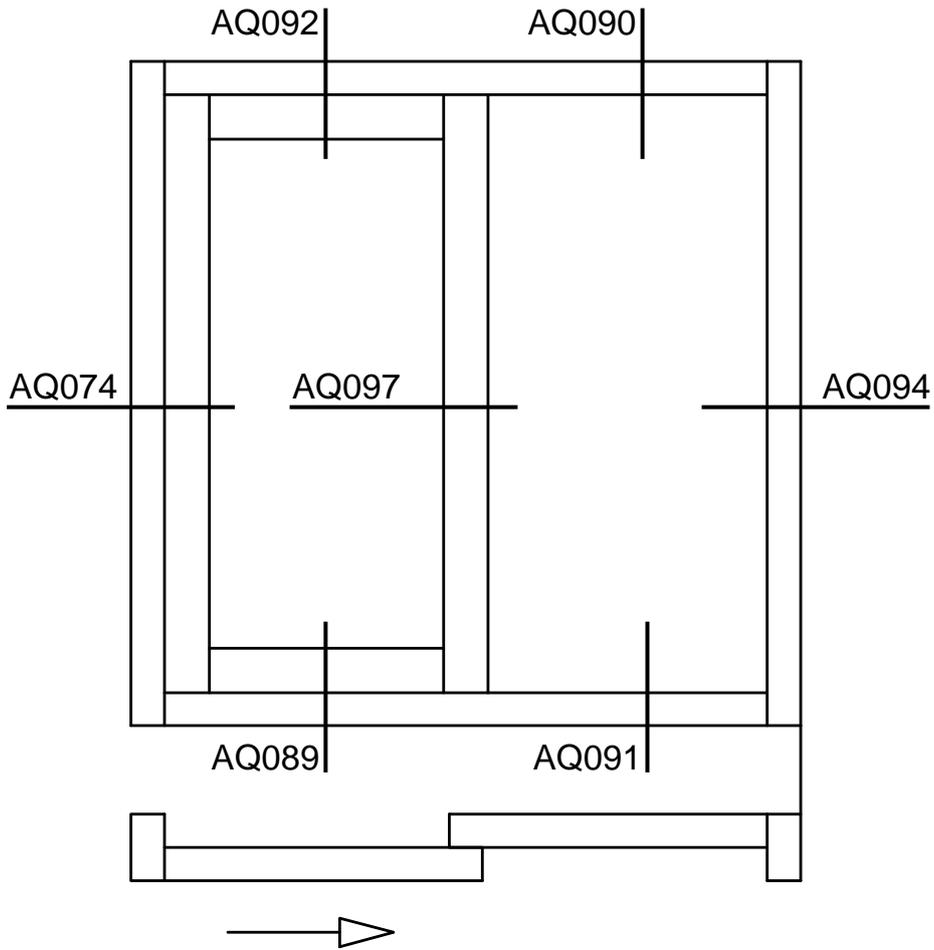


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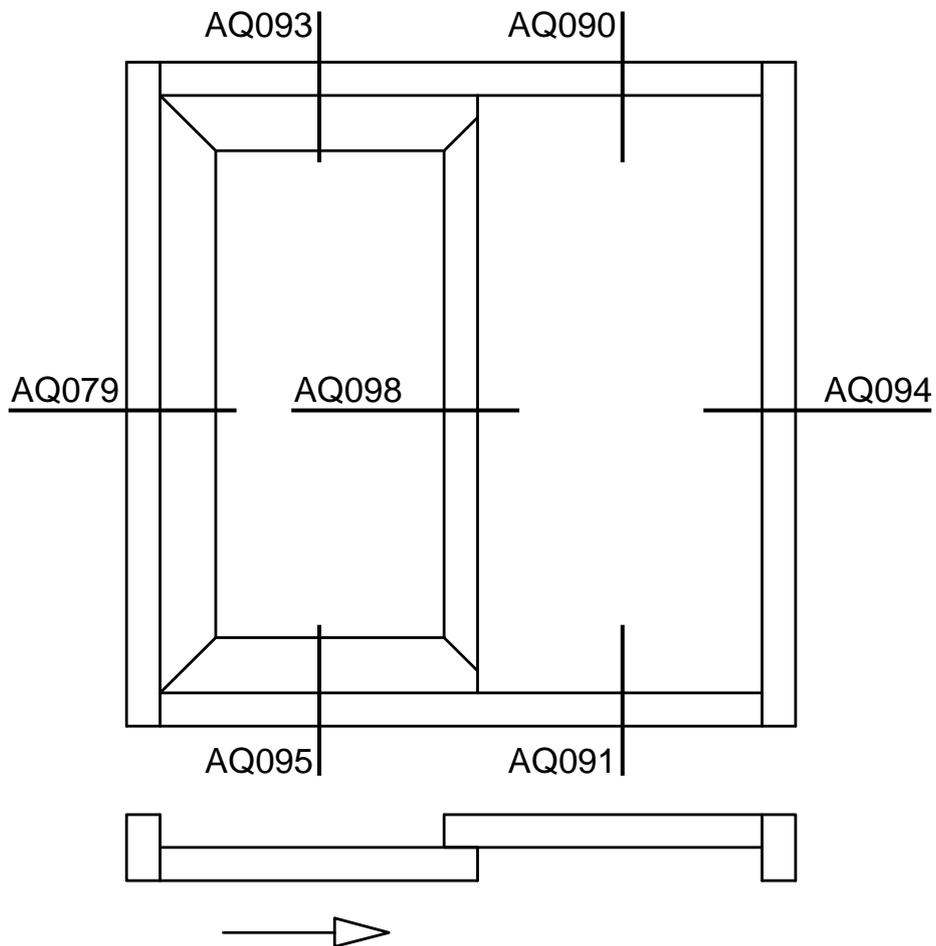




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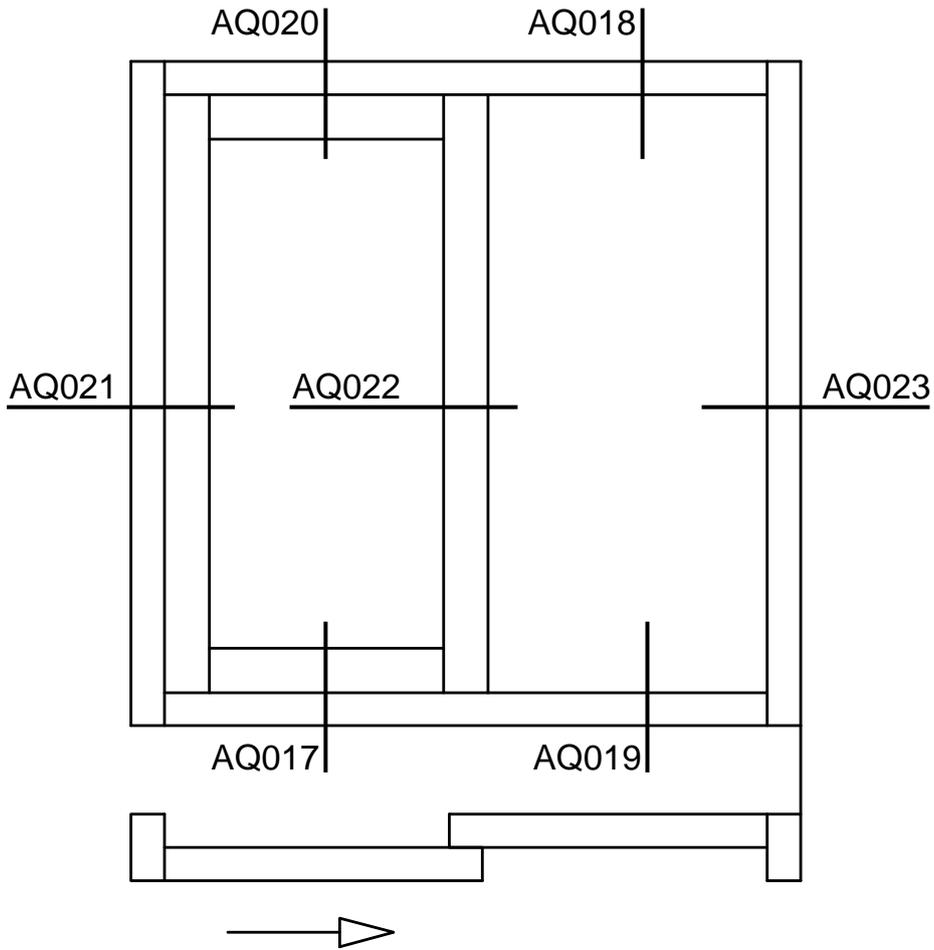


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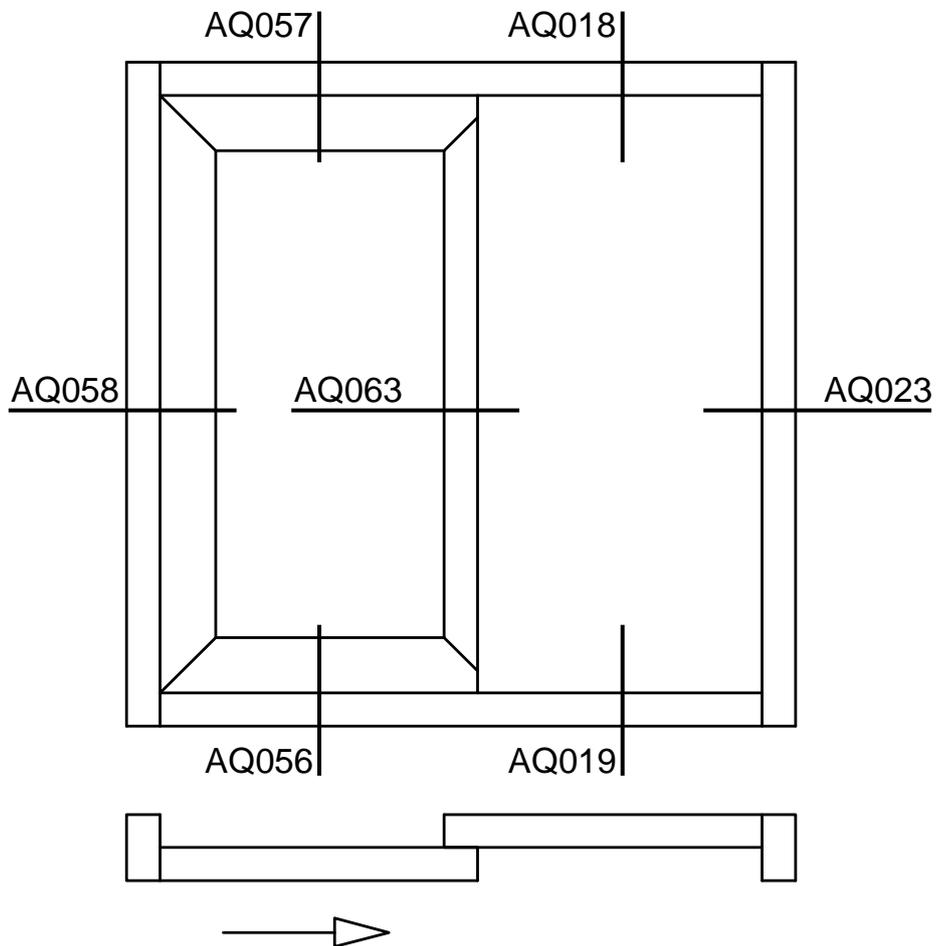




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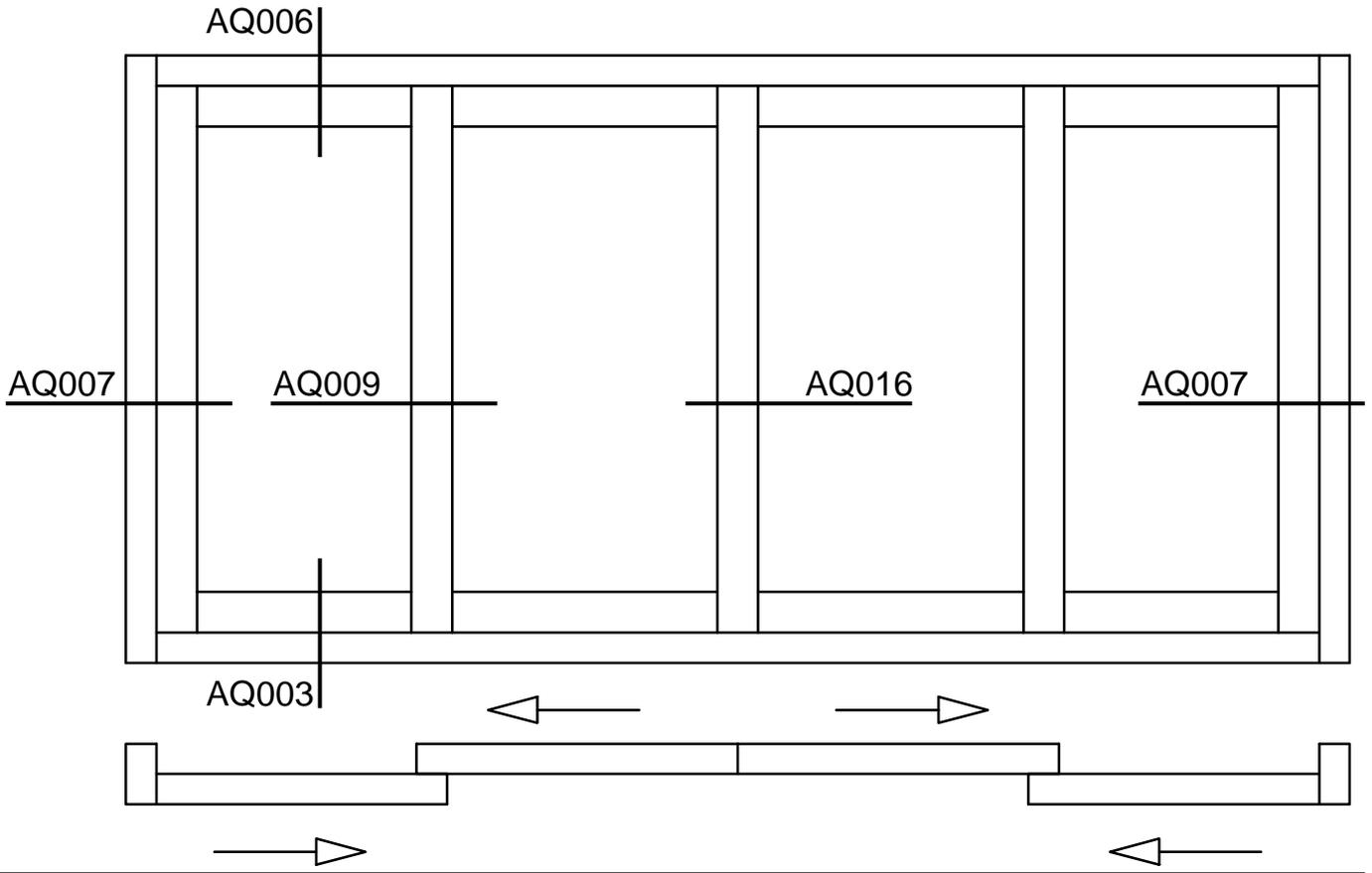


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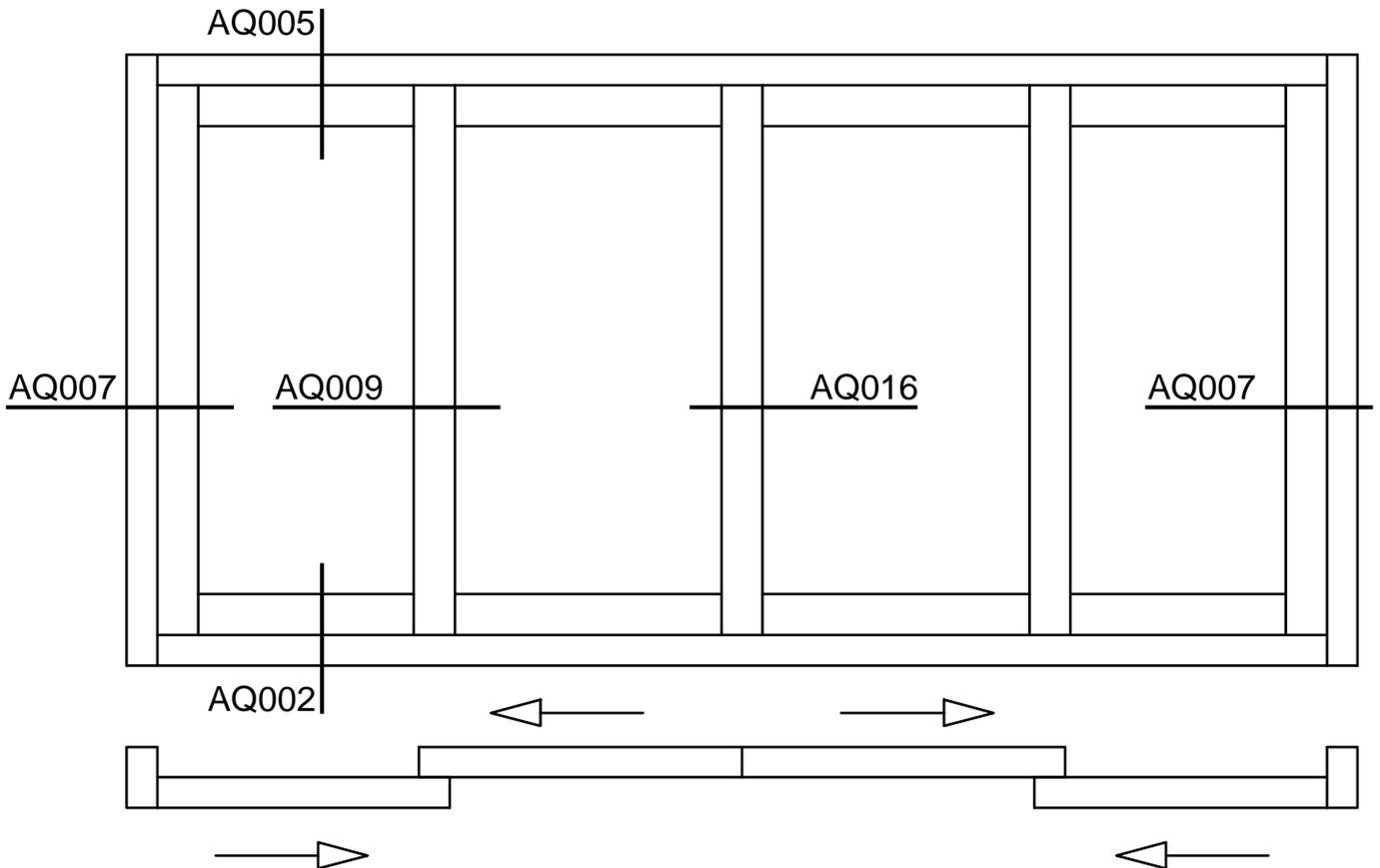




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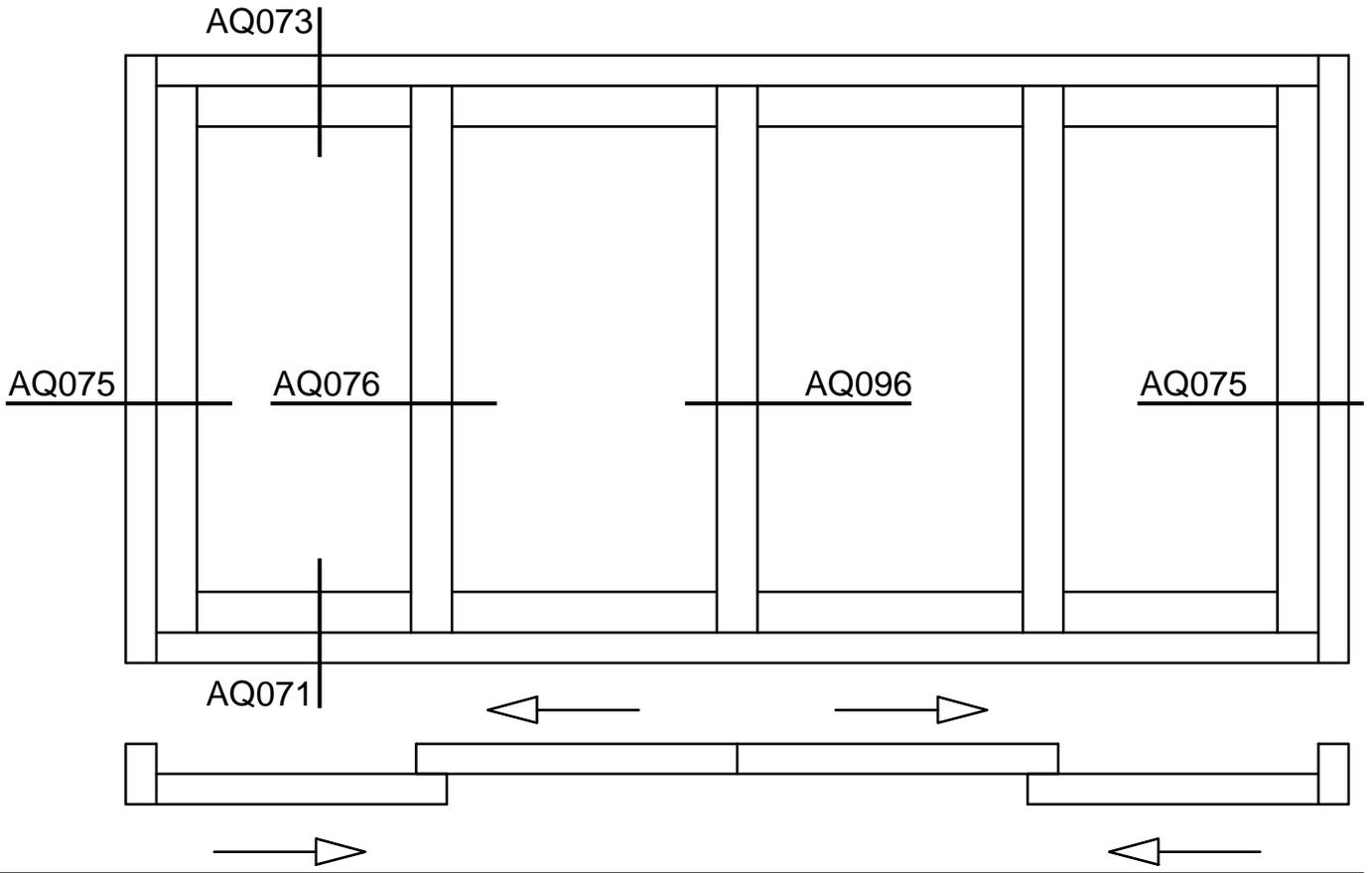


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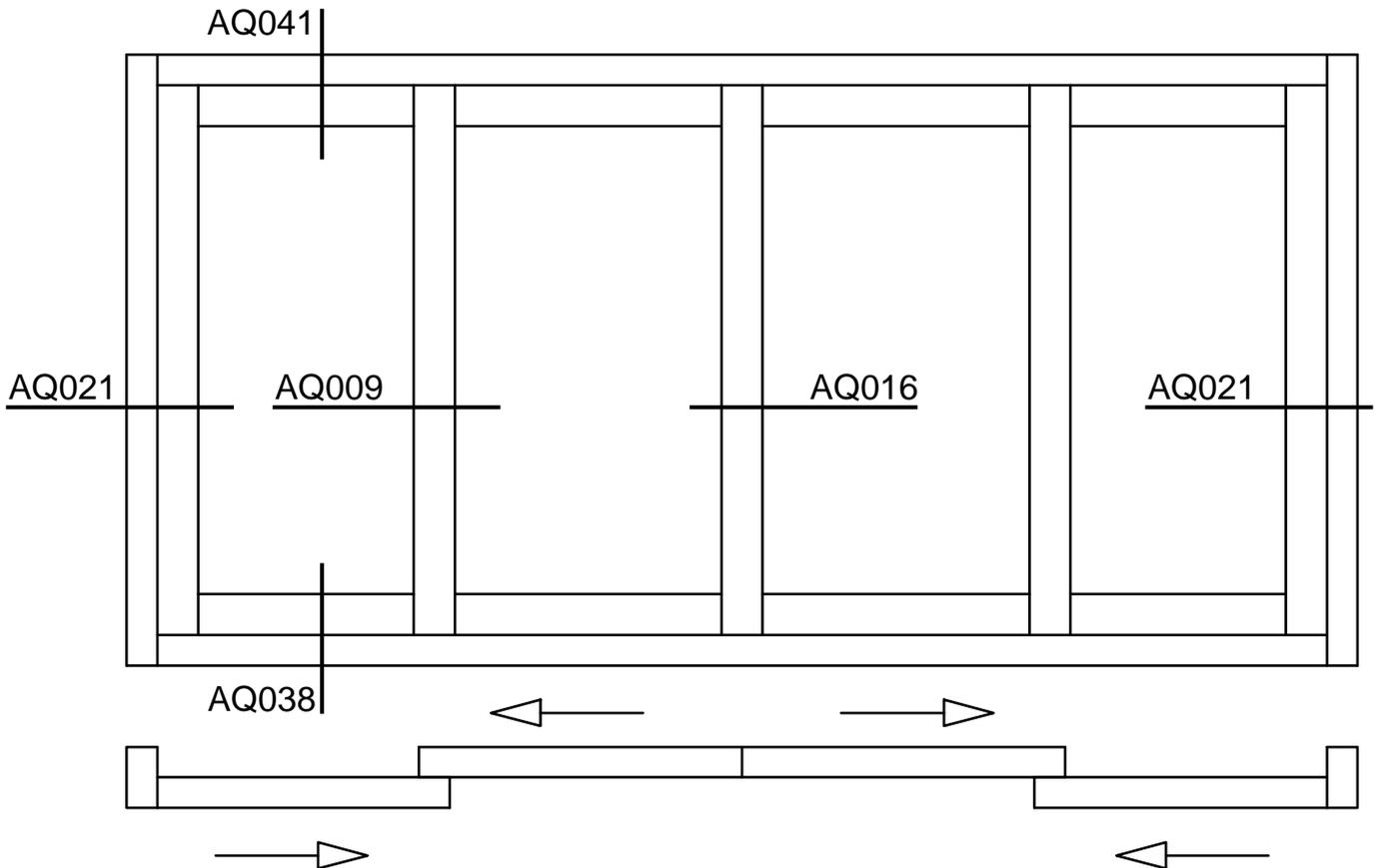




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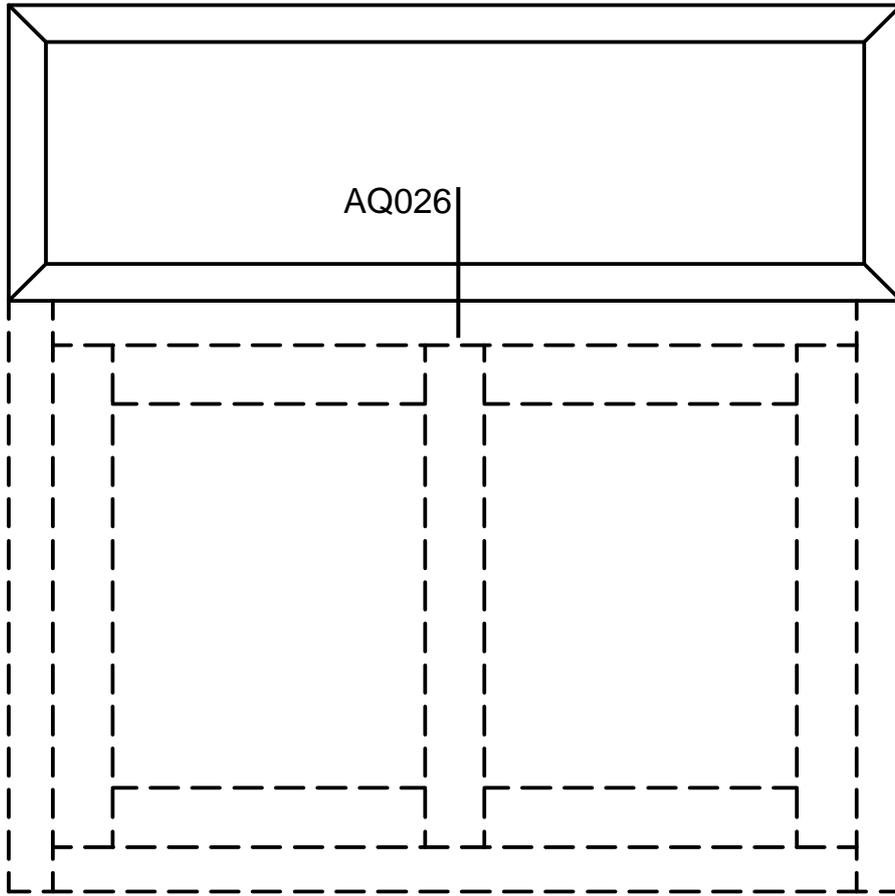


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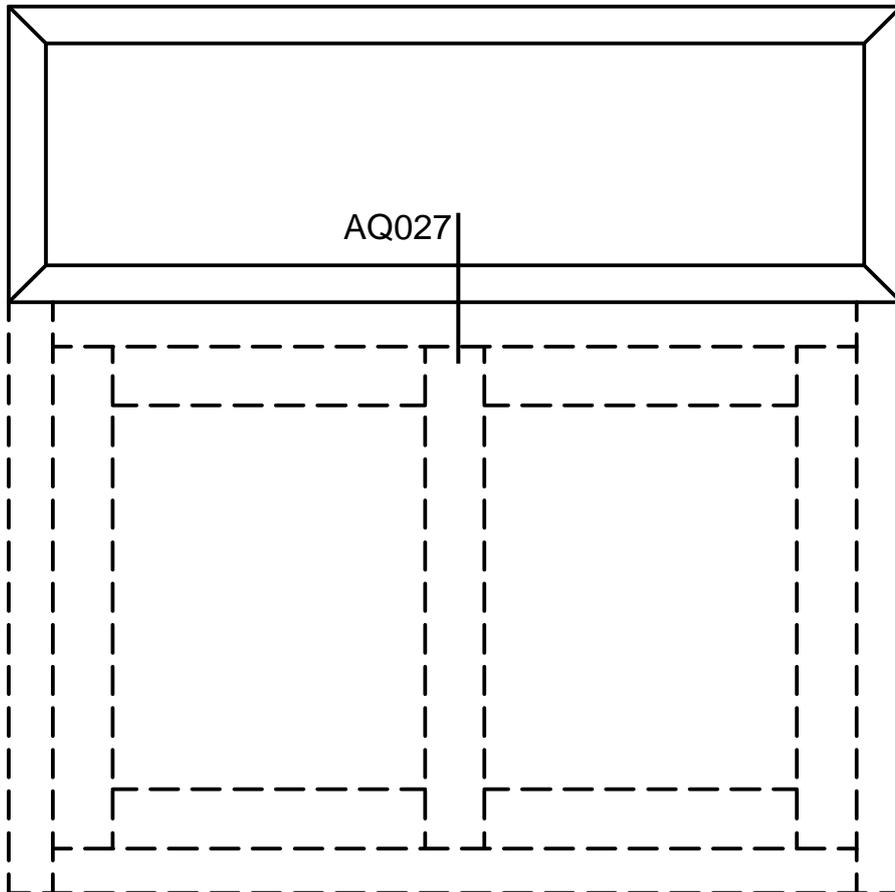




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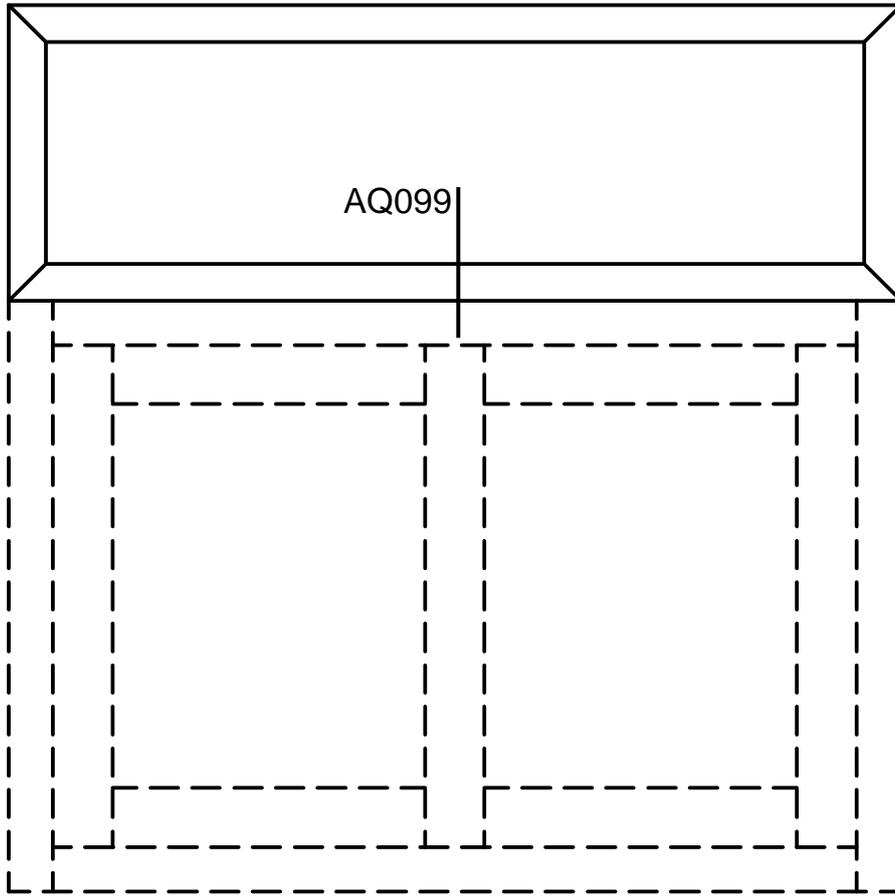


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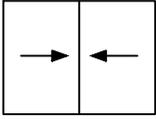




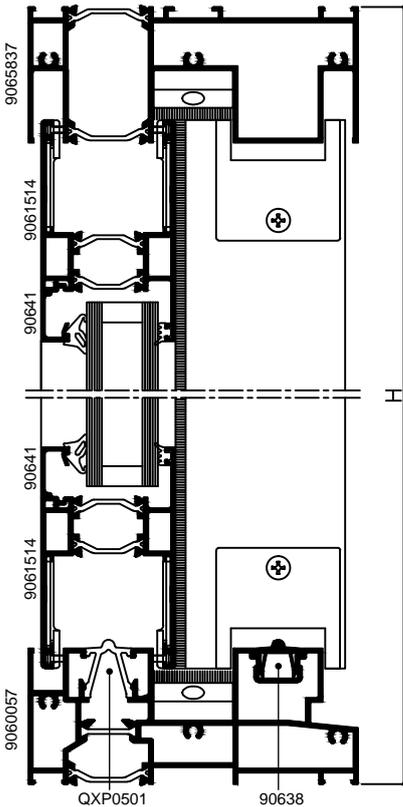
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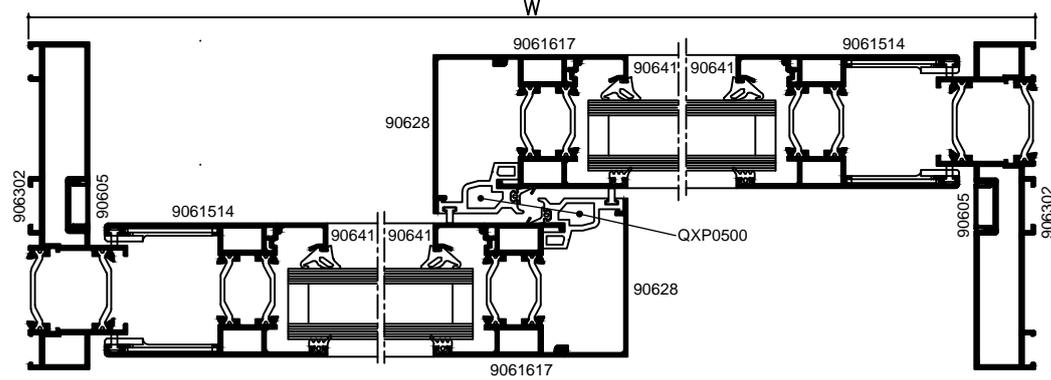
Sector M Cutting lists



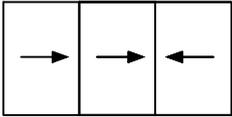
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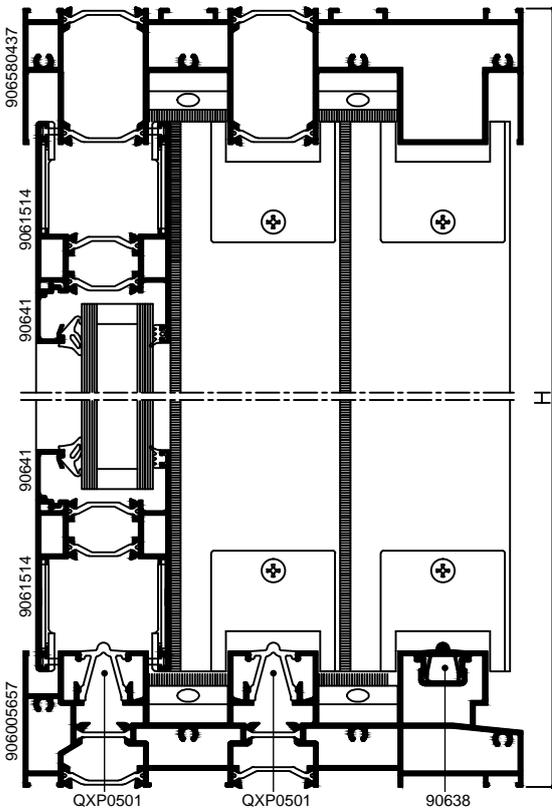
SECTIONS				
Code	Description	Pieces	Dimension	Cut angle
9060057	lower frame	1	W-48	90-90
9065837	upper frame	1	W-48	90-90
9060302	frame mullion	2	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061514	transom sash	4	W/2+19,7	45-45
9061514	side sash mullion	2	H-91	45-45
9061617	central sash mullion	2	H-163,8	45-45
90628	interlock sash	2	H-91	90-90
90638	aluminum rail	1	W-50	90-90
90641	glazing bead horizontal	4	W/2-116,5	90-90
90641	glazing bead vertical	4	H-267	90-90
QXP0500	hard pvc	2	H-91	90-90
QXP0501	polyamide rail	1	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	2		
QXA0501	nylon plug side frame mullion	4		
QXA0504	nylon plug clip interlock	4		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0509	nylon corner joint sash 45°	8		
QXA0510	nylon connector interlock sash 45°	4		
QXA0512	nylon roller adaptor	4		
QXA0518	self tapping screw D.4,8x38	12		
QXA0521	corner joint for sash 45°	16		
QXA0525	lower sponge 130	2		
QXA0526	upper sponge 130	2		
QXA0535	flush handle white	2		
QXA0545	trolley	4		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimension		
QXG0500	external glass gasket	2W+4H		
QXG0512	internal glass gasket	2W+4H		
QXG0509	interlock gasket	2H		
QXB0501	brush	4W+6H		
GLASS				
GLASS	pieces 2	W/2-126 x H-237		



SECTOR M.1

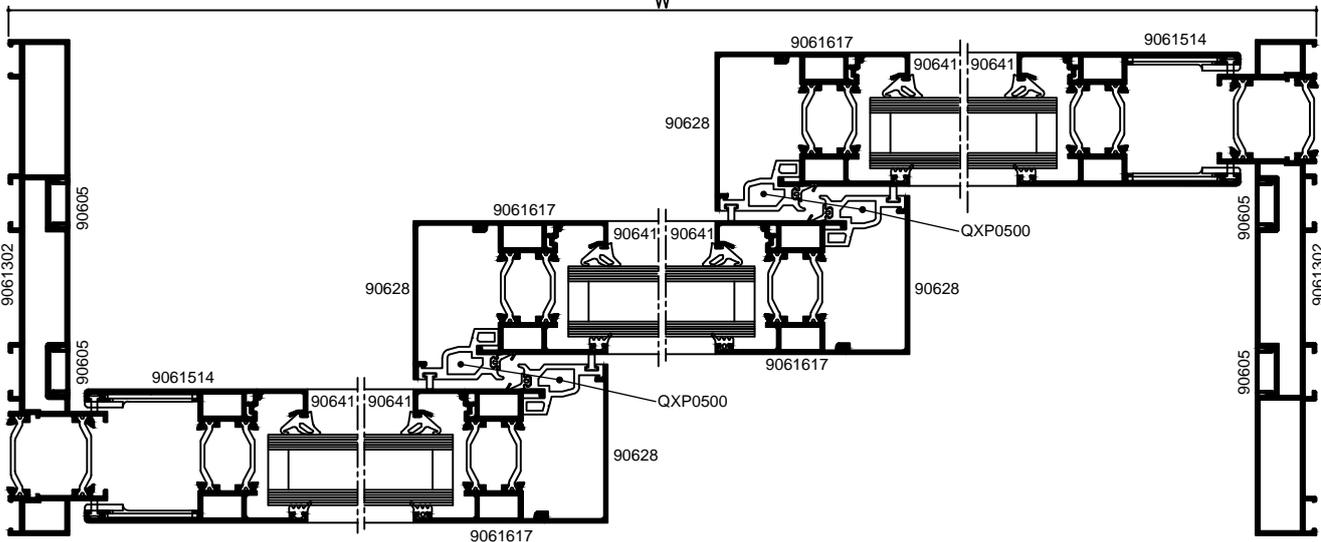


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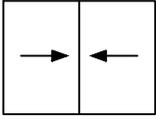


SECTIONS				
Code	Description	Pieces	Dimension	Cut
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906580437	upper frame	1	W-48	90-90
9061302	frame mullion	2	H	90-90
90605	clip frame mullion	4	H-52	90-90
9061514	transom sash	6	W/3+46,3	45-45
9061514	side sash mullion	2	H-91	45-45
9061617	central sash mullion	4	H-163,8	45-45
90628	interlock sash	4	H-91	90-90
90638	aluminum rail	1	W-50	90-90
90641	glazing bead horizontal	6	W/3-90	90-90
90641	glazing bead vertical	6	H-267	90-90
QXP0500	hard pvc	4	H-91	90-90
QXP0501	polyamide rail	2	W-60	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	4		
QXA0501	nylon plug side frame mullion	4		
QXA0504	nylon plug clip interlock	8		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	8		
QXA0509	nylon corner joint sash 45°	8		
QXA0510	nylon connector interlock sash 45°	8		
QXA0512	nylon roller adaptor	6		
QXA0518	self tapping screw D.4,8x38	16		
QXA0521	corner joint for sash 45°	24		
QXA0527	upper sponge 197	2		
QXA0528	lower sponge 197	2		
QXA0535	flush handle white	2		
QXA0543	Steel hook	2		
QXA0545	trolley	6		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
QXA0636	Side track water channel	1		
GASKETS				
Code	Description	Dimension		
QXG0500	external glass gasket	2W+6H		
QXG0512	internal glass gasket	2W+6H		
QXG0509	interlock gasket	4H		
QXB0500	brush	4W+8H		
GLASS				
GLASS	pieces 3	W/3-100 x H-237		

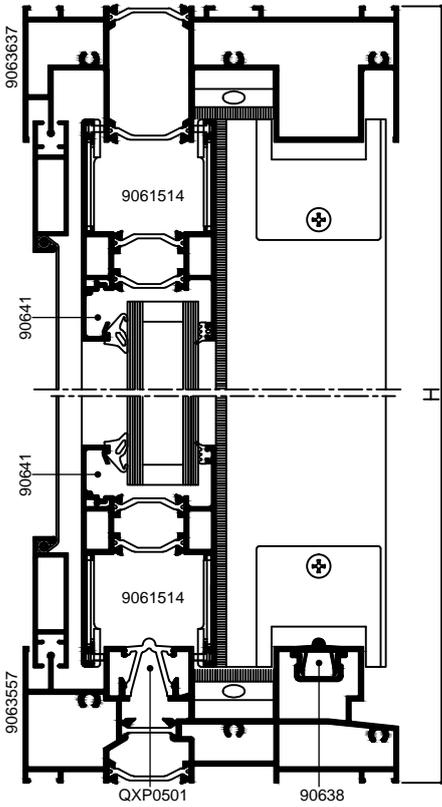
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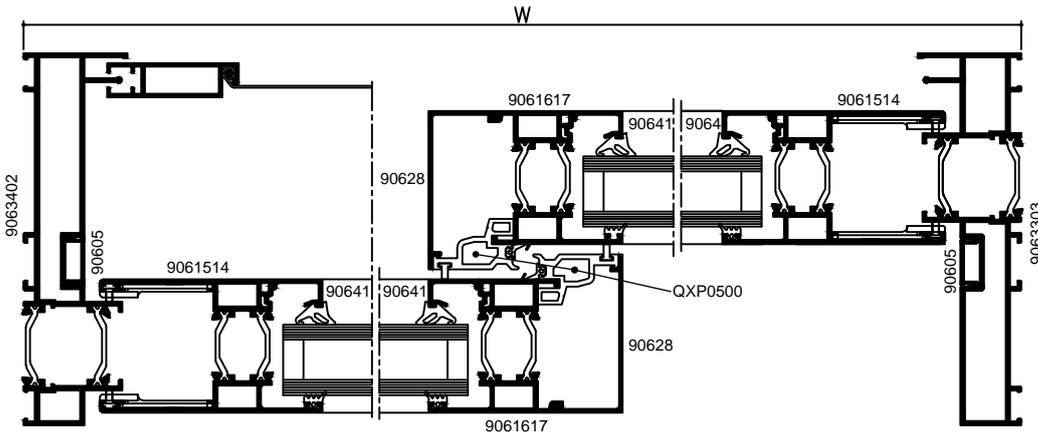
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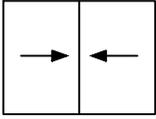
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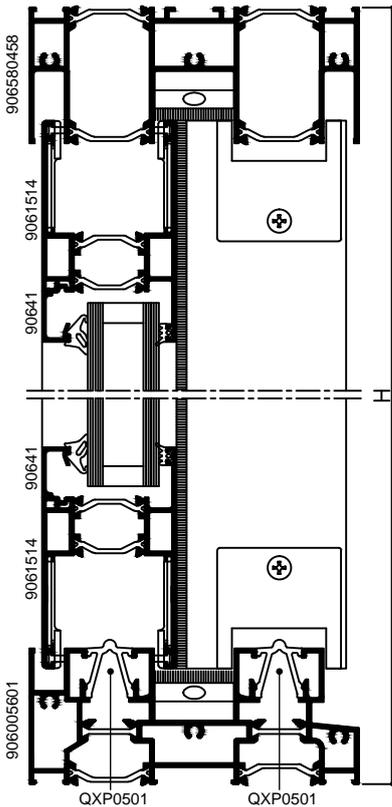
SECTIONS				
Code	Description	Pieces	Dimension	Cut
9063557	lower frame	1	W-48	90-90
9063637	upper frame	1	W-48	90-90
9063303	frame mullion right	1	H	90-90
9063402	frame mullion left	1	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061514	transom sash	4	W/2+19,7	45-45
9061514	side sash mullion	2	H-91	45-45
9061617	central sash mullion	2	H-163,8	45-45
90628	interlock sash	2	H-91	90-90
90638	aluminum rail	1	W-50	90-90
90641	glazing bead horizontal	4	W/2-116,5	90-90
90641	glazing bead vertical	4	H-267	90-90
QXP0500	hard pvc	2	H-91	90-90
QXP0501	polyamide rail	1	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	2		
QXA0501	nylon plug side frame mullion	4		
QXA0504	nylon plug clip interlock	4		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0509	nylon corner joint sash 45°	8		
QXA0510	nylon connector interlock sash 45°	4		
QXA0512	nylon roller adaptor	4		
QXA0518	self tapping screw D.4,8x38	12		
QXA0521	corner joint for sash 45°	16		
QXA0529	lower sponge 148	2		
QXA0530	upper sponge 148	2		
QXA0535	flush handle white	2		
QXA0545	trolley	4		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimen		
QXG0500	external glass gasket	2W+4		
QXG0512	internal glass gasket	2W+4		
QXG0509	interlock gasket	2H		
QXB0501	brush		4W+6H	
GLASS				
GLASS	pieces 2		W/2-126 x H-237	



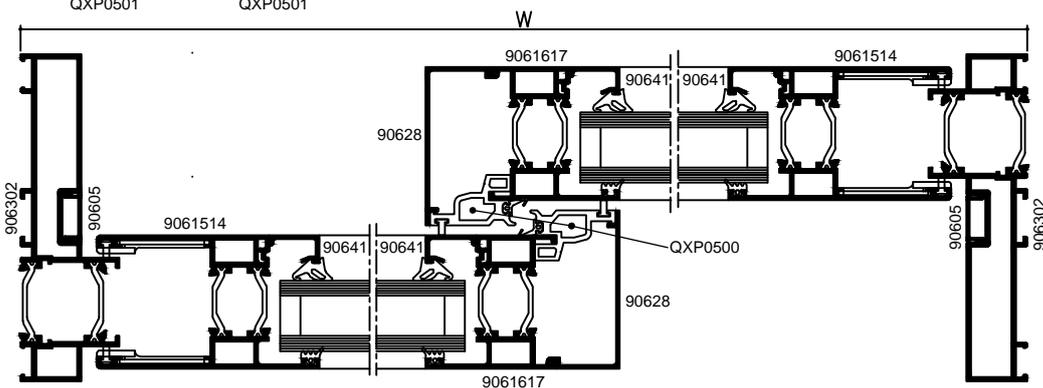
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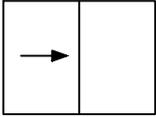
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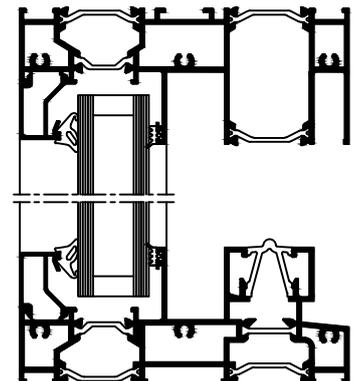
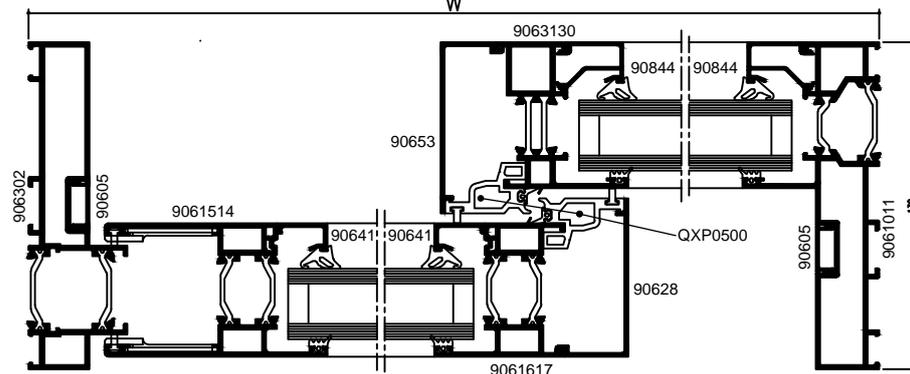
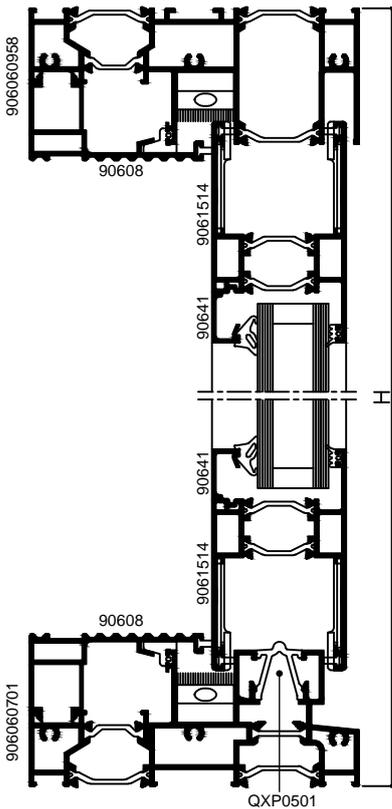
SECTIONS				
Code	Description	Pieces	Dimension	Cut
906005601	lower frame	1	W-48	90-90
906580458	upper frame	1	W-48	90-90
9060302	frame mullion	2	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061514	transom sash	4	W/2+19,7	45-45
9061514	side sash mullion	2	H-91	45-45
9061617	central sash mullion	2	H-163,8	45-45
90628	interlock sash	2	H-91	90-90
90641	glazing bead horizontal	4	W/2-116,5	90-90
90641	glazing bead vertical	4	H-267	90-90
QXP0500	hard pvc	2	H-91	90-90
QXP0501	polyamide rail	2	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	2		
QXA0501	nylon plug side frame mullion	4		
QXA0504	nylon plug clip interlock	4		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0509	nylon corner joint sash 45°	8		
QXA0510	nylon connector interlock sash 45°	4		
QXA0512	nylon roller adaptor	4		
QXA0518	self tapping screw D.4,8x38	12		
QXA0521	corner joint for sash 45°	16		
QXA0525	lower sponge 130	2		
QXA0526	upper sponge 130	2		
QXA0535	flush handle white	2		
QXA0545	trolley	4		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimension		
QXG0500	external glass gasket	2W+4H		
QXG0512	internal glass gasket	2W+4H		
QXG0509	interlock gasket	2H		
QXB0501	brush	4W+6H		
GLASS				
GLASS	pieces 2	W/2-126 x H-237		



SECTOR M.5

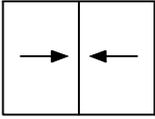


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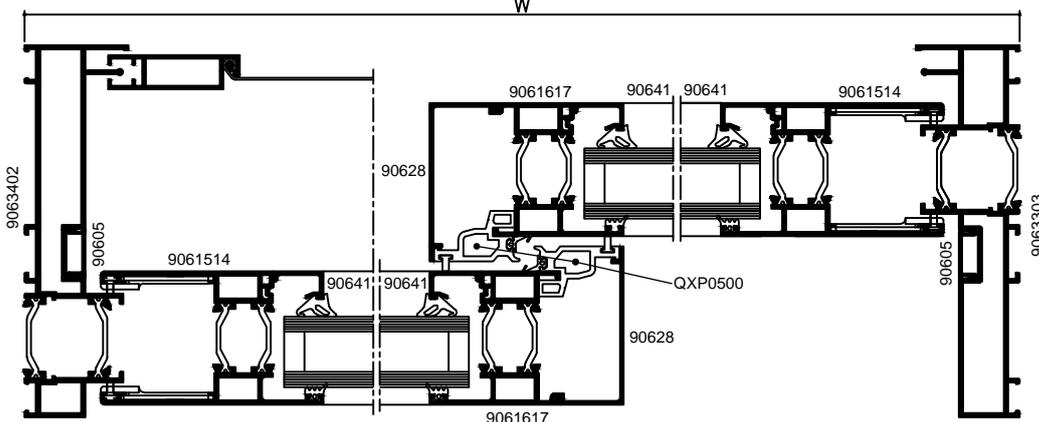
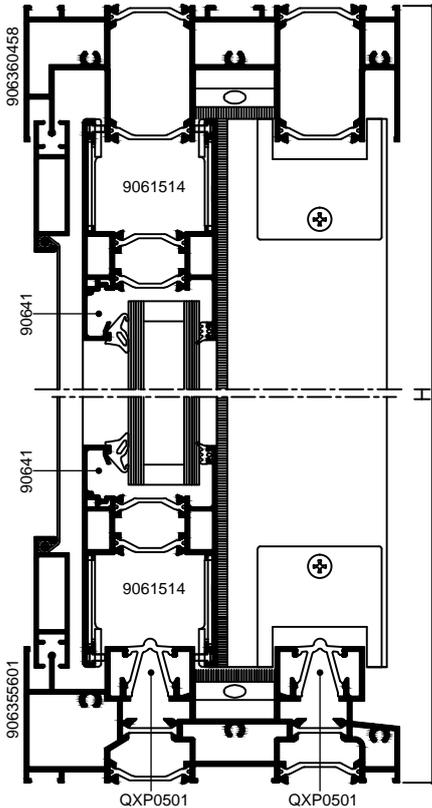


SECTOR M.7

SECTIONS				
Code	Description	Pieces	Dimension	Cut
906060701	lower frame	1	W-49	90-90
906060958	upper frame	1	W-49	90-90
9060302	frame mullion	1	H	90-90
9061011	fixed frame mullion	1	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061514	transom sash	2	W/2+55	45-45
9061514	sash side mullion	1	H-91	45-45
9061617	central sash mullion	1	H-91	45-45
90628	interlock sash	1	H-91	90-90
9063130	central fixed mullion	1	H-52	90-90
90653	interlock fixed clip	1	H-60	90-90
90608	horizontal cover clip	2	W/2-28	90-90
90641	glazing bead horizontal	2	W/2-81	90-90
90641	glazing bead vertical	2	H-267	90-90
90844	glazing bead horizontal	2	W/2-77	90-90
90844	glazing bead vertical	2	H-104	90-90
QXP0500	hard pvc	2	H-91	90-90
QXP0501	polyamide rail	1	W-50	90-90
FITTINGS				
QXA0501	nylon plug side frame mullion	2		
QXA0504	nylon plug clip interlock	2		
QXA0506	lock counter plate zamak	1		
QXA0508	nylon plug side mullion frame clip	4		
QXA0509	nylon corner joint sash 45°	4		
QXA0510	nylon connector interlock sash 45°	2		
QXA0511	nylon plug horizontal fixed frame	2		
QXA0512	nylon roller adaptor	2		
QXA0518	self tapping screw D.4,8x38	12		
QXA0521	corner joint for sash 45°	8		
QXA0524	T joint	2		
QXA0525	lower sponge 130	2		
QXA0526	upper sponge 130	2		
QXA0535	flush handle white	1		
QXA0545	trolley	2		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimension		
QXG0500	external glass gasket	W+2H		
QXG0500	external glass gasket fixed panel	W+2H		
QXG0512	internal glass gasket	2W+4H		
QXG0504	bottom gasket	W/2		
QXG0509	interlock gasket	2H		
QXB0501	brush	2W+4H		
GLASS				
GLASS	pieces 1	W/2-91 x H-237		
GLASS	pieces 1	W/2-91 x H-74		

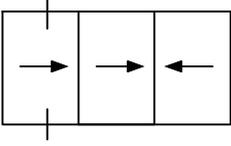


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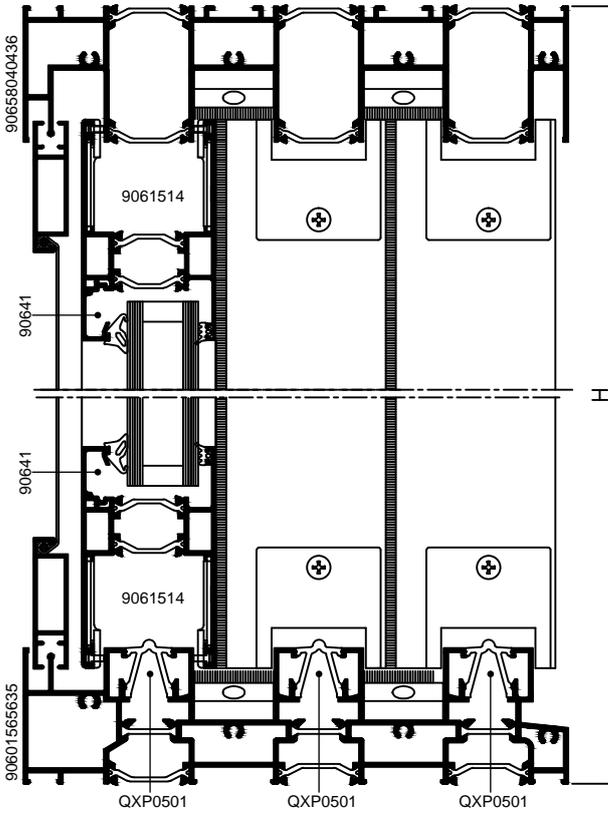


SECTIONS				
Code	Description	Pieces	Dimension	Cut
906355601	lower frame	1	W-48	90-90
906360458	upper frame	1	W-48	90-90
9063303	frame mullion right	1	H	90-90
9063402	frame mullion left	1	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061514	transom sash	4	W/2+55	45-45
9061514	side sash mullion	2	H-91	45-45
9061617	central sash mullion	2	H-163,8	45-45
90628	interlock sash	2	H-91	90-90
90641	glazing bead horizontal	4	W/2-116,5	90-90
90641	glazing bead vertical	4	H-267	90-90
QXP0500	hard pvc	2	H-91	90-90
QXP0501	polyamide rail	2	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	2		
QXA0501	nylon plug side frame mullion	4		
QXA0504	nylon plug clip interlock	4		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0509	nylon corner joint sash 45°	8		
QXA0510	nylon connector interlock sash 45°	4		
QXA0512	nylon roller adaptor	4		
QXA0518	self tapping screw D.4,8x38	12		
QXA0521	corner joint for sash 45°	16		
QXA0529	lower sponge 148	2		
QXA0530	upper sponge 148	2		
QXA0535	flush handle white	2		
QXA0545	trolley	4		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description		Dimension	
QXG0500	external glass gasket		2W+4H	
QXG0512	internal glass gasket		2W+4H	
QXG0509	interlock gasket		2H	
QXB0501	brush		4W+6H	
GLASS				
GLASS	pieces 2		W/2-126 x H-237	

SECTOR M.8

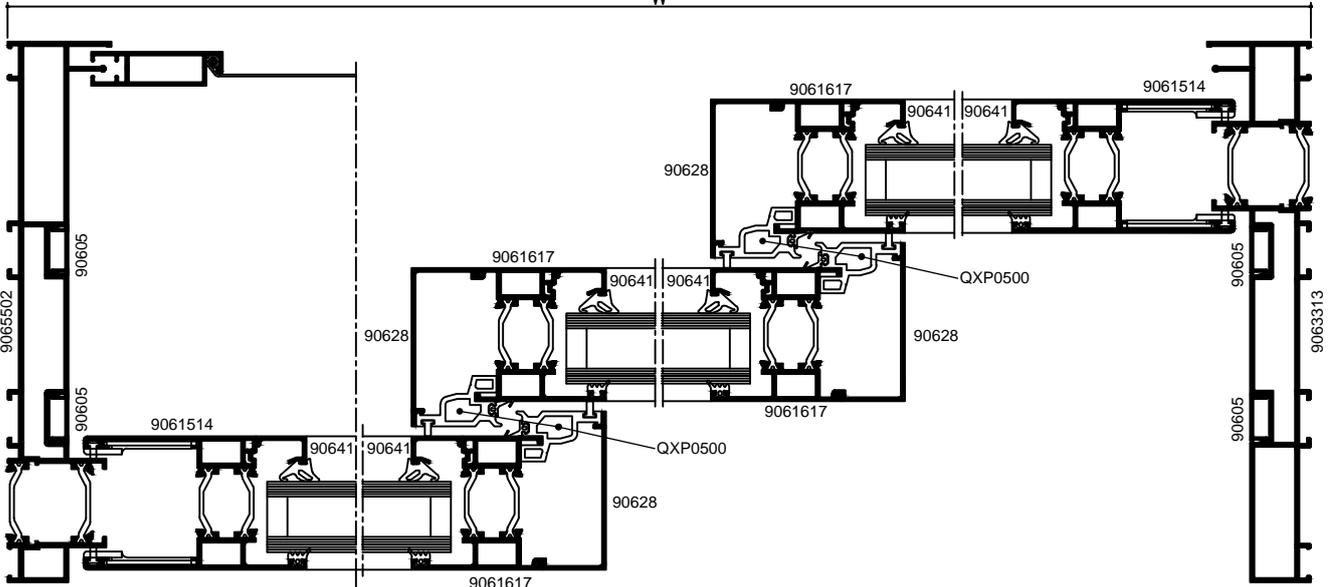


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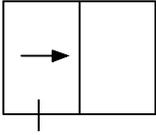


SECTIONS				
Code	Description	Pieces	Dimension	Cut
90601565635	lower frame	1	W-48	90-90
90658040436	upper frame	1	W-48	90-90
9063313	frame mullion right	1	H	90-90
9065502	frame mullion right	1	H	90-90
90605	clip frame mullion	4	H-52	90-90
9061514	transom sash	6	W/3+46,3	45-45
9061514	side sash mullion	2	H-91	45-45
9061617	central sash mullion	4	H-163,8	45-45
90628	interlock sash	4	H-91	90-90
90641	glazing bead horizontal	6	W/3-90	90-90
90641	glazing bead vertical	6	H-267	90-90
QXP0500	hard pvc	4	H-91	90-90
QXP0501	polyamide rail	3	W-60	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	4		
QXA0501	nylon plug side frame mullion	4		
QXA0504	nylon plug clip interlock	8		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	8		
QXA0509	nylon corner joint sash 45°	8		
QXA0510	nylon connector interlock sash 45°	8		
QXA0512	nylon roller adaptor	6		
QXA0518	self tapping screw D.4,8x38	16		
QXA0521	corner joint for sash 45°	24		
QXA0533	lower sponge 215	2		
QXA0534	upper sponge 215	2		
QXA0535	flush handle white	2		
QXA0543	Steel hook	2		
QXA0545	trolley	6		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
QXA0636	Side track water channel	1		
GASKETS				
Code	Description	Dimension		
QXG0500	external glass gasket	2W+6H		
QXG0512	internal glass gasket	2W+6H		
QXG0509	interlock gasket	4H		
QXB0501	brush	4W+8H		
GLASS				
GLASS	pieces 3		W/3-100 x H-237	

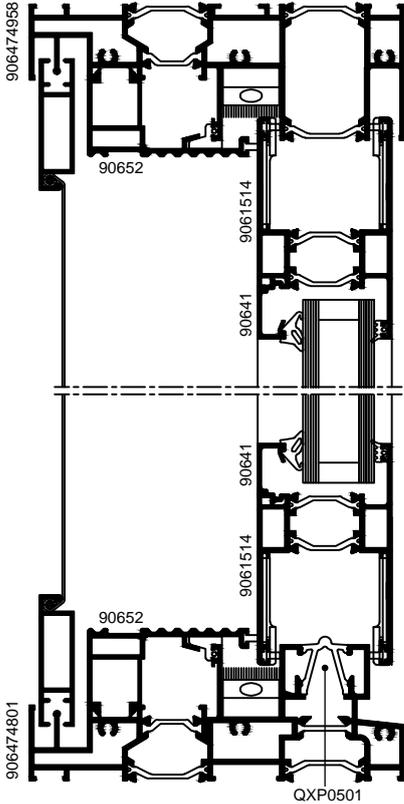
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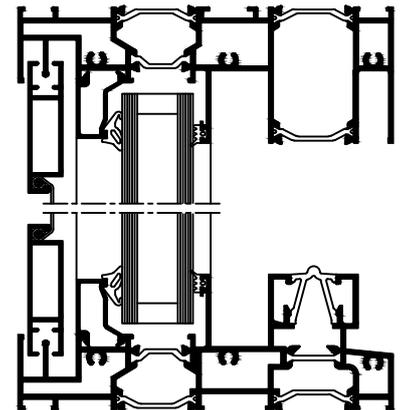
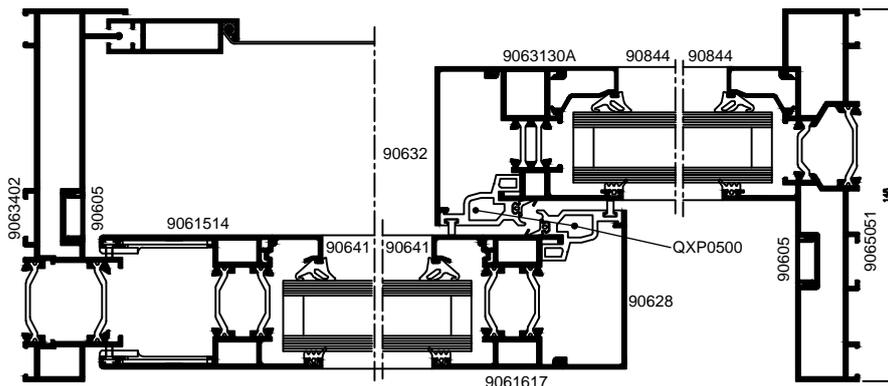
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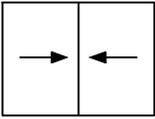
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SECTIONS				
Code	Description	Pieces	Dimension	Cut
906474801	lower frame	1	W-49	90-90
906474958	upper frame	1	W-49	90-90
9063402	frame mullion left	1	H	90-90
9065051	fixed frame mullion	1	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061514	transom sash	2	W/2+55	45-45
9061514	sash side mullion	1	H-91	45-45
9061617	central sash mullion	1	H-91	45-45
90628	interlock sash	1	H-91	90-90
9063130A	central fixed mullion	1	H-52	90-90
90632	interlock fixed clip	1	H-60	90-90
90652	horizontal cover clip	2	W/2-28	90-90
90641	glazing bead horizontal	2	W/2-81	90-90
90641	glazing bead vertical	2	H-267	90-90
90844	glazing bead horizontal	2	W/2-77	90-90
90844	glazing bead vertical	2	H-104	90-90
QXP0500	hard pvc	2	H-91	90-90
QXP0501	polyamide rail	1	W-50	90-90
FITTINGS				
QXA0501	nylon plug side frame mullion	2		
QXA0504	nylon plug clip interlock	2		
QXA0506	lock counter plate zamak	1		
QXA0508	nylon plug side mullion frame clip	4		
QXA0509	nylon corner joint sash 45°	4		
QXA0510	nylon connector interlock sash 45°	2		
QXA0511	nylon plug horizontal fixed frame	2		
QXA0512	nylon roller adaptor	2		
QXA0518	self tapping screw D.4,8x38	12		
QXA0521	corner joint for sash 45°	8		
QXA0524	T joint	2		
QXA0529	lower sponge 148	2		
QXA0530	upper sponge 148	2		
QXA0535	flush handle white	1		
QXA0545	trolley	2		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimension		
QXG0500	external glass gasket	2W+4H		
QXG0512	internal glass gasket	2W+4H		
QXG0504	bottom gasket	W/2		
QXG0509	interlock gasket	2H		
QXB0501	brush	3W+4H		
GLASS				
GLASS	pieces 1	W/2-91 x H-237		
GLASS	pieces 1	W/2-91 x H-74		

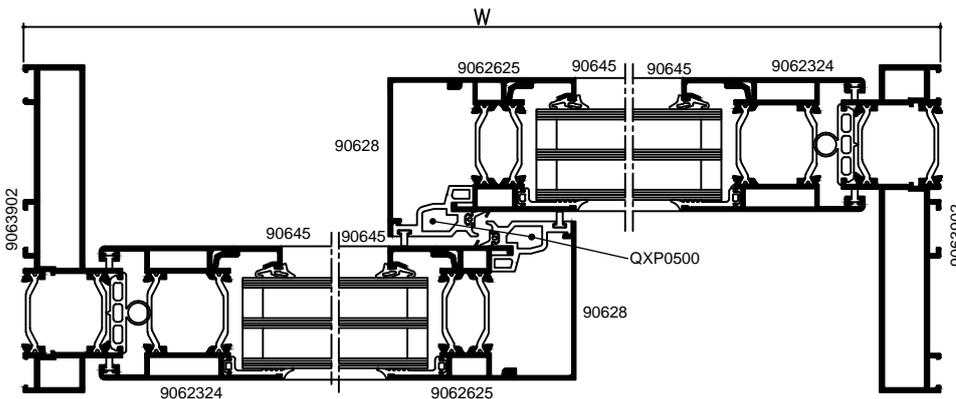
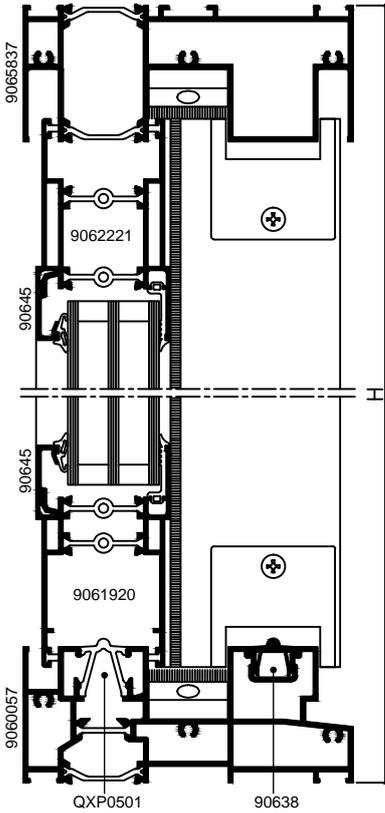


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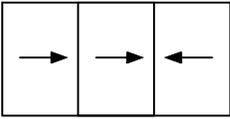


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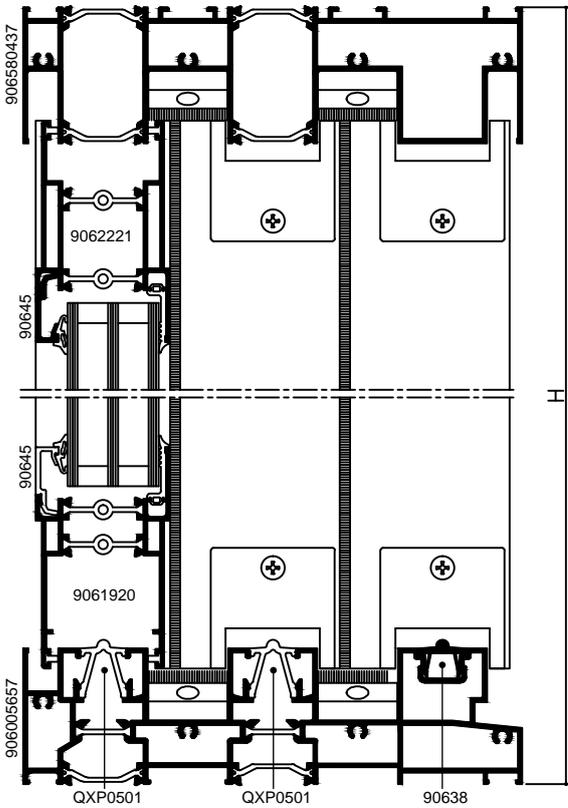
SECTIONS				
Code	Description	Pieces	Dimension	Cut
9060057	lower frame	1	W-48	90-90
9065837	upper frame	1	W-48	90-90
9063902	frame mullion	2	H	90-90
9061920	lower transom sash	2	W/2-84,4	90-90
9062221	upper transom sash	2	W/2-84,4	90-90
9062324	sash side mulliom	2	H-91	90-90
9062625	central sash mullion	2	H-91	90-90
90628	interlock sash	2	H-91	90-90
90638	aluminum rail	1	W-50	90-90
90645	glazing bead horizontal	4	W/2-101	90-90
90645	glazing bead vertical	4	H-267	90-90
QXP0500	hard pvc	2	H-91	90-90
QXP0501	polyamide rail	1	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	2		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash nylon plug right	2		
QXA0503	side sash nylon plug left	2		
QXA0504	nylon plug clip interlock	4		
QXA0505	internal nylon plug interlock	4		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0512	nylon roller adaptor	4		
QXA0517	self tapping screw D.4,8x75	16		
QXA0518	self tapping screw D.4,8x38	12		
QXA0519	steel lower corner fixing plate	4		
QXA0520	steel upper corner fixing plate	4		
QXA0525	lower sponge 130	2		
QXA0526	upper sponge 130	2		
QXA0535	flush handle white	2		
QXA0545	trolley	4		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimension		
QXG0503	external glass gasket	2W+4H		
QXG0505	vertical side mullion gasket	2h		
QXG0512	internal glass gasket	2W+4		
QXG0509	interlock gasket	2H		
QXB0500	brush	4W+4		
QXB0501	brush interlock	2H		
GLASS				
GLASS	pieces 2	W/2-109 x H-237		



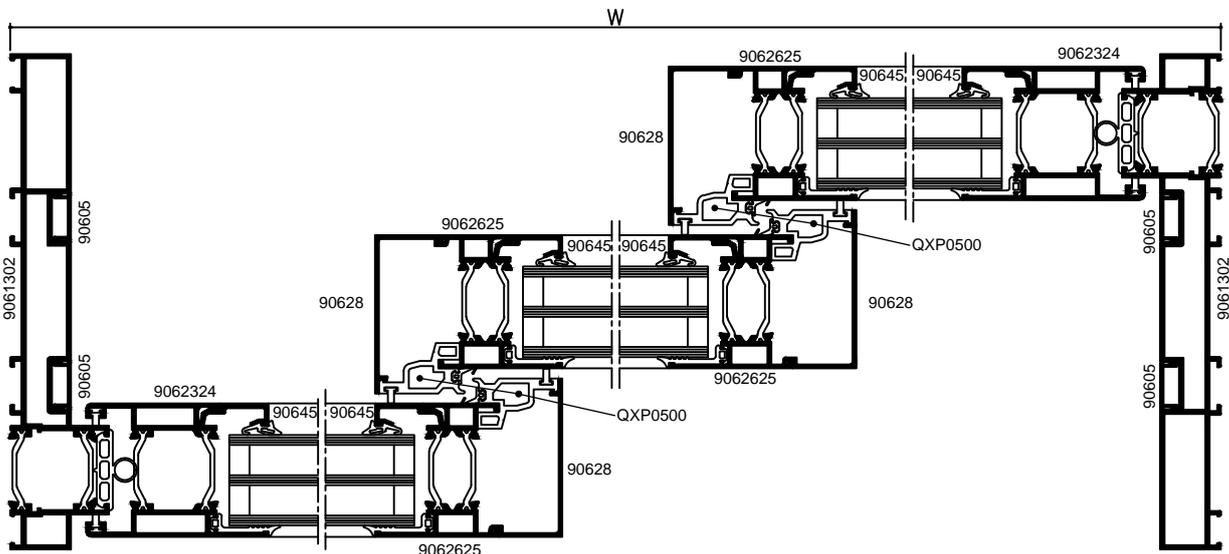
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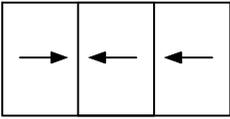
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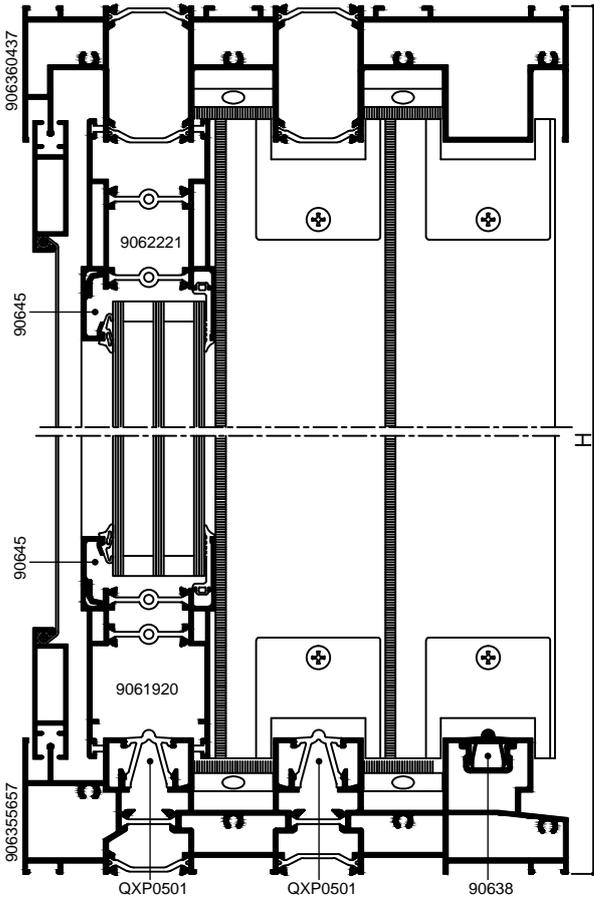
SECTIONS				
Code	Description	Pieces	Dimension	Cut
906005657	lower frame	1	W-48	90-90
906580437	upper frame	1	W-48	90-90
9061302	frame mullion right	2	H	90-90
90605	clip frame mullion	4	H-52	90-90
9061920	lower transom sash	3	W/3-62,9	90-90
9062221	upper transom sash	3	W/3-62,9	90-90
9062324	sash side mullion	2	H-91	90-90
9062625	central sash mullion	4	H-91	90-90
90628	interlock sash	4	H-91	90-90
90638	aluminum rail	1	W-50	90-90
90645	glazing bead horizontal	6	W/3-79,5	90-90
90645	glazing bead vertical	6	H-267	90-90
QXP0500	hard pvc	4	H-91	90-90
QXP0501	polyamide rail	2	W-60	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	4		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash nylon plug right	2		
QXA0503	side sash nylon plug left	2		
QXA0504	nylon plug clip interlock	8		
QXA0505	internal nylon plug interlock	8		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	8		
QXA0512	nylon roller adaptor	6		
QXA0517	self tapping screw D.4,8x75	24		
QXA0518	self tapping screw D.4,8x38	16		
QXA0519	steel lower corner fixing plate	6		
QXA0520	steel upper corner fixing plate	6		
QXA0527	upper sponge 197	2		
QXA0528	lower sponge 197	2		
QXA0535	flush handle white	2		
QXA0543	Steel hook	2		
QXA0545	trolley	6		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
QXA0636	Side track water channel	1		
GASKETS				
Code	Description	Dimension		
QXG0503	external glass gasket	2W+6H		
QXG0512	internal glass gasket	2W+6H		
QXG0509	interlock gasket	4H		
QXB0500	brush	4W+4H		
QXB0501	brush interlock	4H		
QXG505	vertical side mullion gasket	2H		
GLASS				
GLASS	pieces 3	W/3-87,5 x H-237		



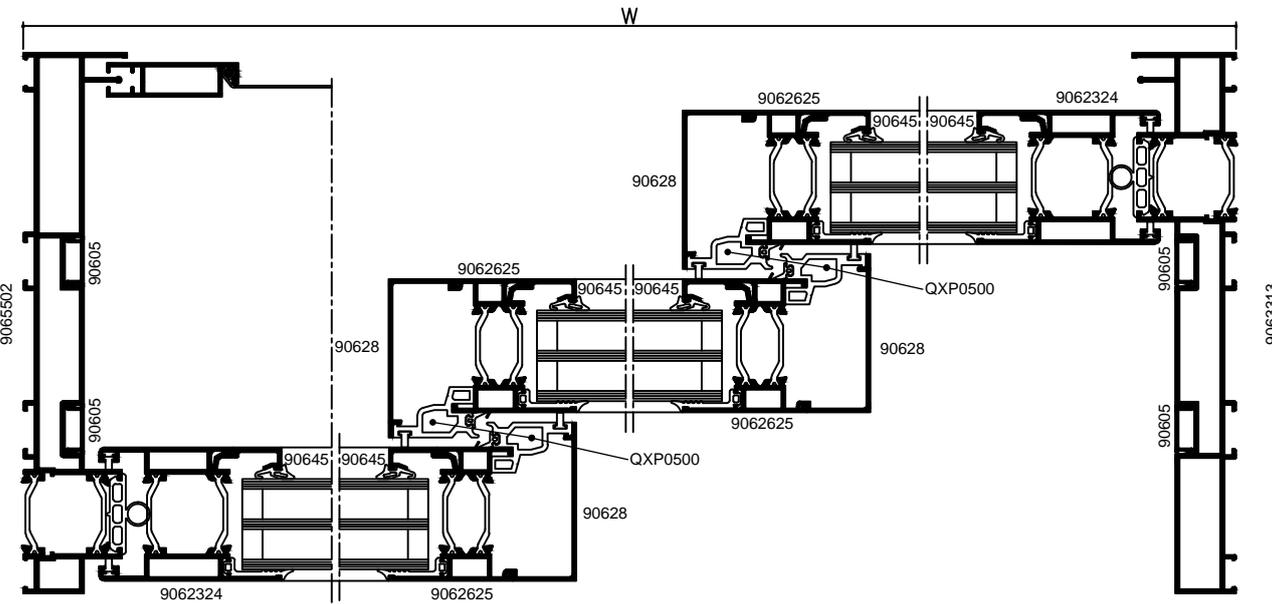
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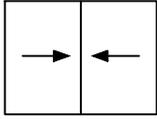
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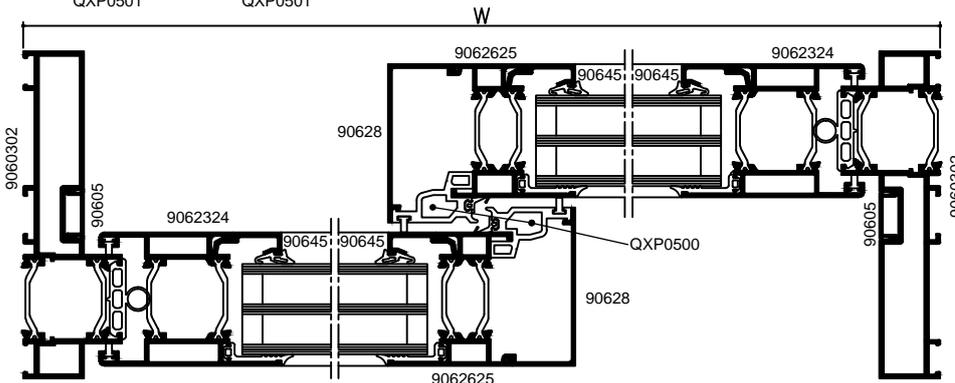
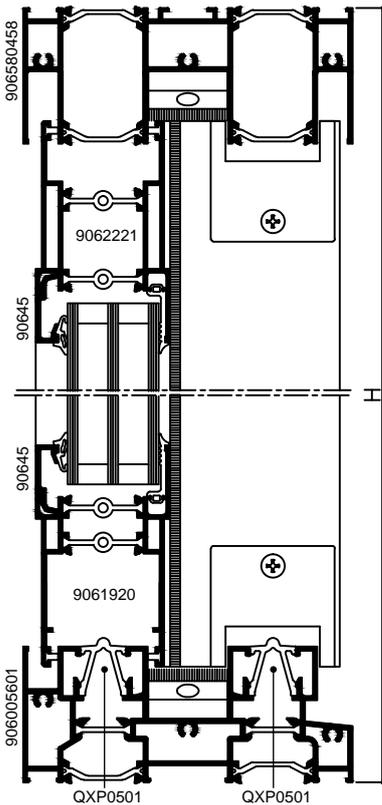
SECTIONS				
Code	Description	Pieces	Dimension	Cut
906355657	lower frame	1	W-48	90-90
906360437	upper frame	1	W-48	90-90
9063313	frame mullion right	1	H	90-90
9065502	frame mullion left	1	H	90-90
90605	clip frame mullion	4	H-52	90-90
9061920	lower transom sash	3	W/3-62,9	90-90
9062221	upper transom sash	3	W/3-62,9	90-90
9062324	sash side mullion	2	H-91	90-90
9062625	central sash mullion	4	H-91	90-90
90628	interlock sash	6	H-91	90-90
90638	alumiun rail	1	W-50	90-90
90645	glazing bead horizontal	6	W/3-79,5	90-90
90645	glazing bead vertical	6	H-267	90-90
QXP0500	hard pvc	4	H-91	90-90
QXP0501	polyamide rail	2	W-60	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	4		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash plug right	2		
QXA0503	side sash nylon plug left	2		
QXA0504	nylon plug clip interlock	8		
QXA0505	internal nylon plug interlock	8		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	8		
QXA0512	nylon roller adaptor	6		
QXA0517	self tapping screw D.4,8x75	24		
QXA0518	self tapping screw D.4,8x38	16		
QXA0519	steel lower corner fixing plate	6		
QXA0520	steel upper corner fixing plate	6		
QXA0533	lower sponge 215	2		
QXA0534	upper sponge 215	2		
QXA0535	flush handle white	2		
QXA0543	Steel hook	2		
QXA0545	trolley	6		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
QXA0636	Side track water channel	1		
GASKETS				
Code	Description	Dimen		
QXG0503	external glass gasket	2W+6		
QXG0512	internal glass gasket	2W+6		
QXG0509	interlock gasket	4H		
QXB0500	brush	4W+4		
QXB0501	brush interlock	4H		
QXG505	vertical side mullion gasket		2H	
GLASS				
GLASS	pieces 3		W/3-87,5 x H-237	



SECTOR M.14

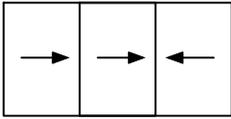


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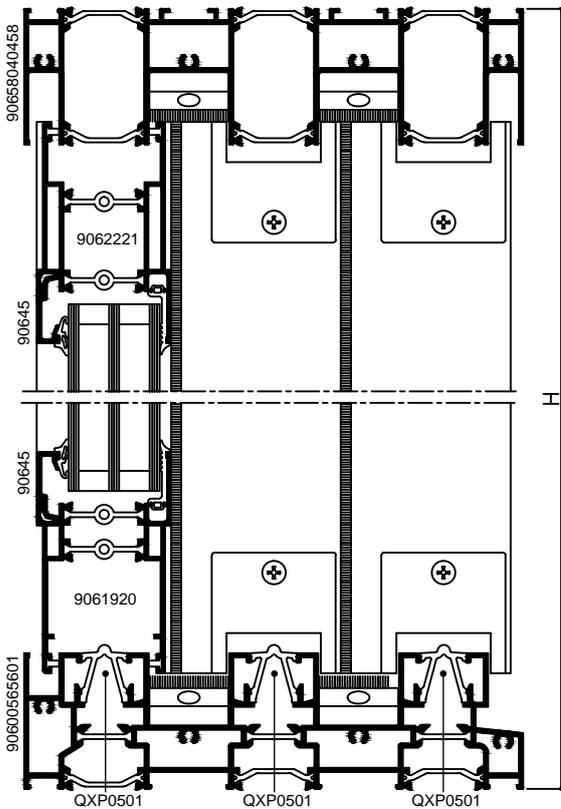


SECTIONS				
Code	Description	Pieces	Dimension	Cut
906005601	lower frame	1	W-48	90-90
906580458	upper frame	1	W-48	90-90
9060302	frame mullion	2	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061920	lower transom sash	2	W/2-84,4	90-90
9062221	upper transom sash	2	W/2-84,4	90-90
9062324	sash side mulliom	2	H-91	90-90
9062625	central sash mullion	2	H-91	90-90
90628	interlock sash	2	H-91	90-90
90645	glazing bead horizontal	4	W/2-101	90-90
90645	glazing bead vertical	4	H-267	90-90
QXP0500	hard pvc	2	H-91	90-90
QXP0501	polyamide rail	2	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	2		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash nylon plug right	2		
QXA0503	side sash nylon plug left	2		
QXA0504	nylon plug clip interlock	4		
QXA0505	internal nylon plug interlock	4		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0512	nylon roller adaptor	4		
QXA0517	self tapping screw D.4,8x75	16		
QXA0518	self tapping screw D.4,8x38	12		
QXA0519	steel lower corner fixing plate	4		
QXA0520	steel upper corner fixing plate	4		
QXA0525	lower sponge 130	2		
QXA0526	upper sponge 130	2		
QXA0535	flush handle white	2		
QXA0545	trolley	4		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimension		
QXG0503	external glass gasket	2W+4H		
QXG0512	internal glass gasket	2W+4H		
QXG0505	vertical side mullion gasket	2H		
QXG0509	interlock gasket	2H		
QXB0500	brush	4W+4H		
QXB0501	brush interlock	2H		
GLASS				
GLASS	pieces 2	W/2-109 x H-237		

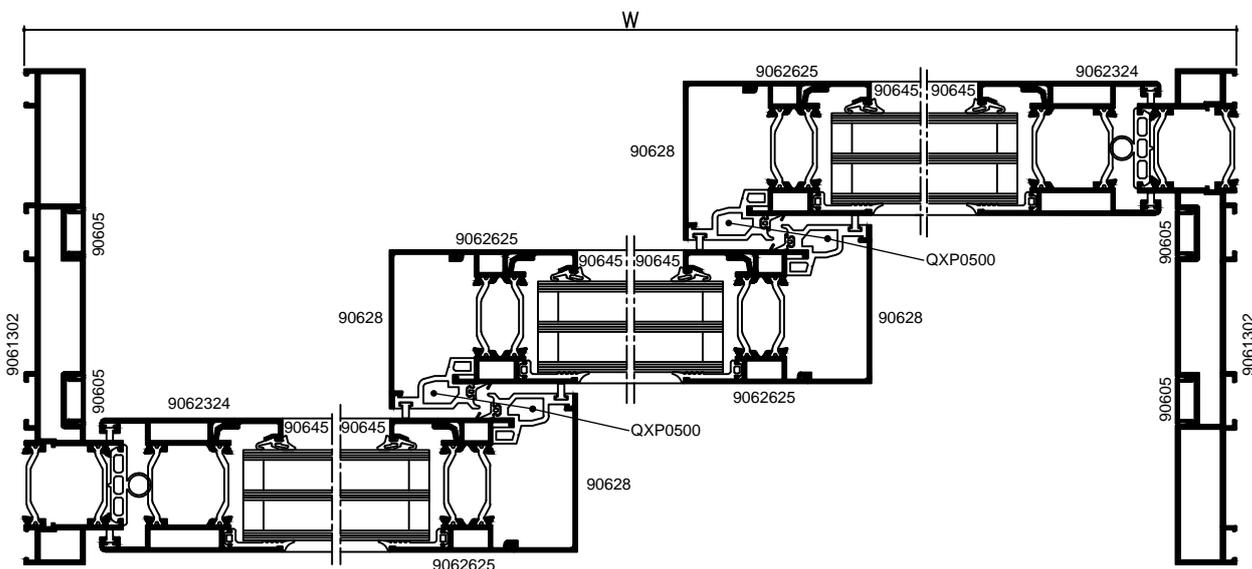
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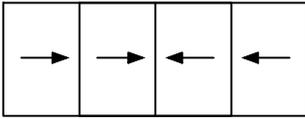
90T2B



SECTIONS				
Code	Description	Pieces	Dimension	Cut
90600565601	lower frame	1	W-48	90-90
90658040458	upper frame	1	W-48	90-90
9061302	frame mullion right	2	H	90-90
90605	clip frame mullion	4	H-52	90-90
9061920	lower transom sash	3	W/3-62,9	90-90
9062221	upper transom sash	3	W/3-62,9	90-90
9062324	sash side mullion	2	H-91	90-90
9062625	central sash mullion	4	H-91	90-90
90628	interlock sash	4	H-91	90-90
90645	glazing bead horizontal	6	W/3-79,5	90-90
90645	glazing bead vertical	6	H-267	90-90
QXP0500	hard pvc	4	H-91	90-90
QXP0501	polyamide rail	3	W-60	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	4		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash nylon plug right	2		
QXA0503	side sash nylon plug left	2		
QXA0504	nylon plug clip interlock	8		
QXA0505	internal nylon plug interlock	8		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	8		
QXA0512	nylon roller adaptor	6		
QXA0517	self tapping screw D.4,8x75	24		
QXA0518	self tapping screw D.4,8x38	16		
QXA0519	steel lower corner fixing plate	6		
QXA0520	steel upper corner fixing plate	6		
QXA0527	upper sponge 197	2		
QXA0528	lower sponge 197	2		
QXA0535	flush handle white	2		
QXA0543	Steel hook	2		
QXA0545	trolley	6		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
QXA0636	Side track water channel	1		
GASKETS				
Code	Description	Dimension		
QXG0503	external glass gasket	2W+6H		
QXG0512	internal glass gasket	2W+6H		
QXG0505	vertical side mullion gasket	2H		
QXG0509	interlock gasket	4H		
QXB0500	brush	4W+4H		
QXB0501	brush interlock	4H		
GLASS				
GLASS	pieces 3	W/3-87,5 x H-237		

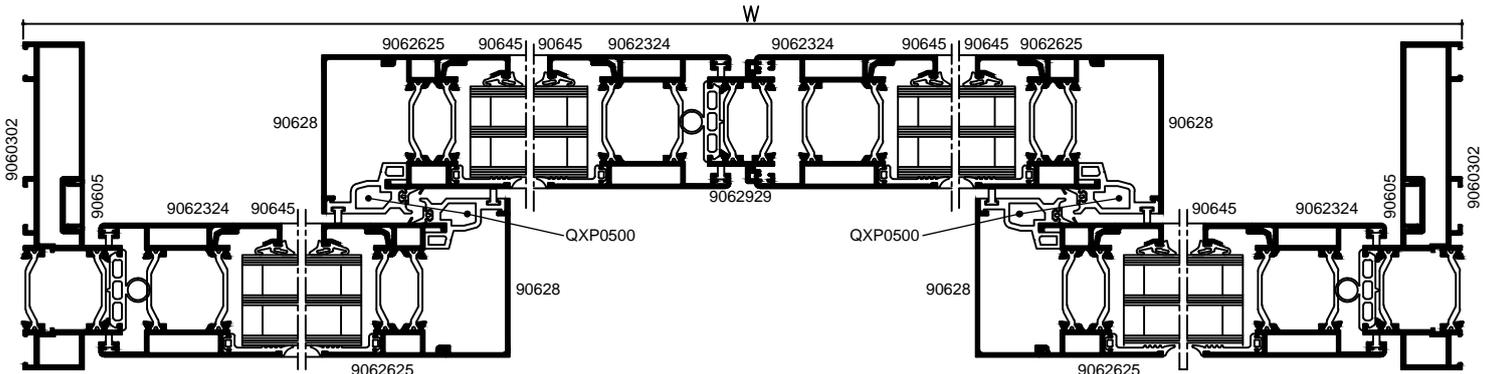
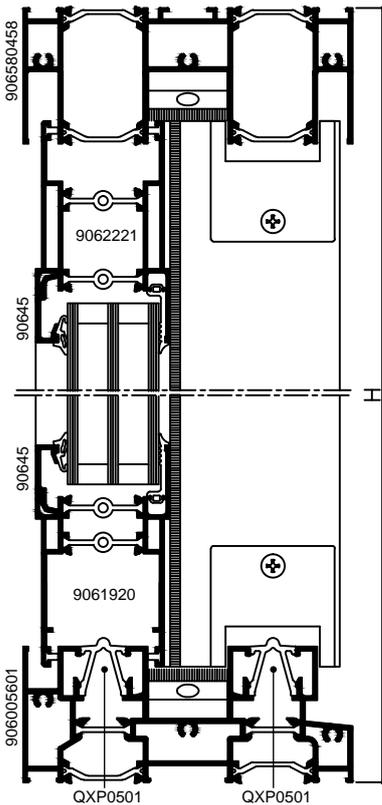


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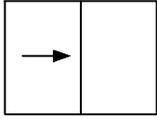


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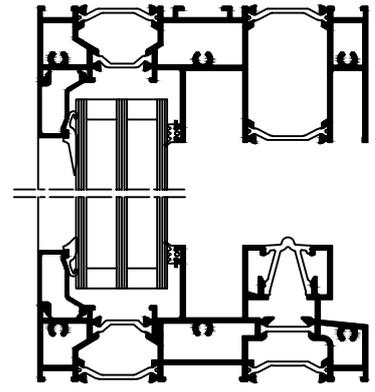
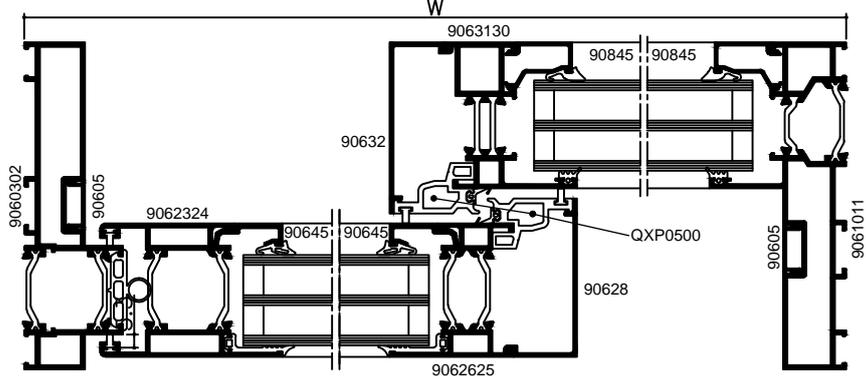
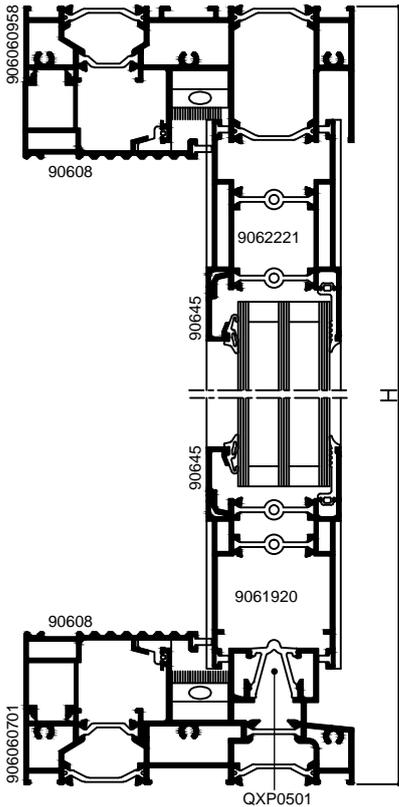
SECTIONS				
Code	Description	Pieces	Dimension	Cut
906005601	lower frame	1	W-48	90-90
906580458	upper frame	1	W-48	90-90
9060302	frame mullion	2	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061920	lower transom sash	4	W/4-71,8	90-90
9062221	upper transom sash	4	W/4-71,8	90-90
9062324	sash side mullion	4	H-91	90-90
9062625	central sash mullion	4	H-91	90-90
90628	interlock sash	4	H-91	90-90
9062929	middle interlock	1	H-145	90-90
90645	glazing bead horizontal	8	W/4-88,4	90-90
90645	glazing bead vertical	8	H-267	90-90
QXP0500	hard pvc	4	H-91	90-90
QXP0501	polyamide rail	2	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	4		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash plug right	4		
QXA0503	side sash nylon plug left	4		
QXA0504	nylon plug clip interlock	8		
QXA0505	internal nylon plug interlock	8		
QXA0506	lock counter plate zamak	3		
QXA0507	nylon plug 4 panel interlock	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0512	nylon roller adaptor	8		
QXA0517	self tapping screw D.4,8x75	32		
QXA0518	self tapping screw D.4,8x38	12		
QXA0519	steel lower corner fixing plate	8		
QXA0520	steel upper corner fixing plate	8		
QXA0529	lower sponge 148	2		
QXA0530	upper sponge 148	2		
QXA0535	flush handle white	3		
QXA0545	trolley	8		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description		Dimension	
QXG0503	external glass gasket		2W+8H	
QXG0512	internal glass gasket		2W+8H	
QXG0505	vertical side mullion gasket		3H	
QXG0509	interlock gasket		4H	
QXB0500	brush		4W+6H	
QXB0501	brush interlock		4H	
GLASS				
GLASS	pieces 4		W/4-96,4 x H-237	



SECTOR M.17

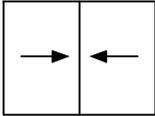


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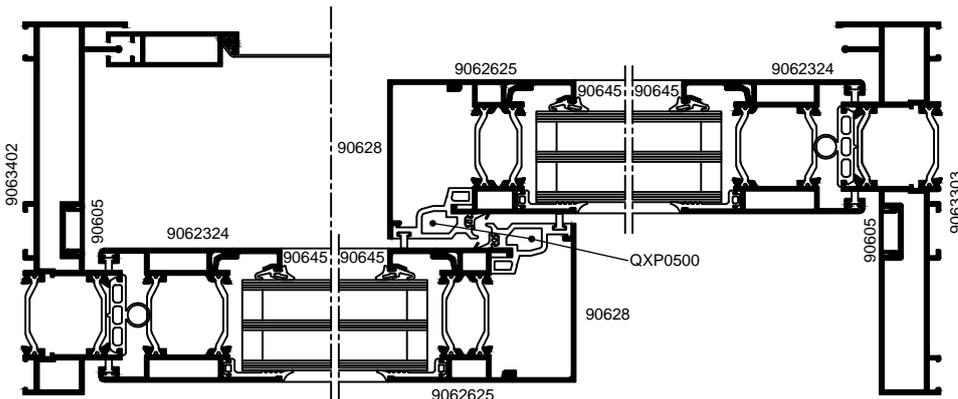
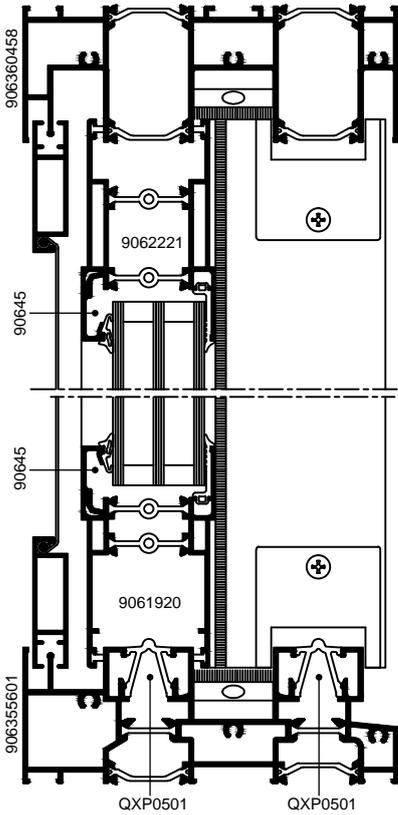


SECTIONS				
Code	Description	Pieces	Dimension	Cut
906060701	lower frame	1	W-49	90-90
906060958	upper frame	1	W-49	90-90
9060302	frame mullion	1	H	90-90
9061011	fixed frame mullion	1	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061920	lower transom sash	1	W/2-58,4	90-90
9062221	upper transom sash	1	W/2-58,4	90-90
9062324	sash side mullion	1	H-91	90-90
9062625	central sash mullion	1	H-91	90-90
90628	interlock sash	1	H-91	90-90
9063130	central fixed mullion	1	H-52	90-90
90632	interlock fixed clip	1	H-60	90-90
90608	horizontal cover clip	2	W/2-36	90-90
90645	glazing bead horizontal	2	W/2-75	90-90
90645	glazing bead vertical	2	H-267	90-90
90845	glazing bead horizontal	2	W/2-69	90-90
90845	glazing bead vertical	2	H-104	90-90
QXP0500	hard pvc	2	H-91	90-90
QXP0501	polyamide rail	1	W-50	90-90
FITTINGS				
QXA0501	nylon plug side frame mullion	2		
QXA0502	side sash plug right	1		
QXA0503	side sash nylon plug left	1		
QXA0504	nylon plug clip interlock	2		
QXA0505	internal nylon plug interlock	2		
QXA0506	lock counter plate zamak	1		
QXA0508	nylon plug side mullion frame clip	4		
QXA0511	nylon plug horizontal fixed frame	2		
QXA0512	nylon roller adaptor	2		
QXA0517	self tapping screw D.4,8x75	8		
QXA0518	self tapping screw D.4,8x38	12		
QXA0519	steel lower corner fixing plate	2		
QXA0520	steel upper corner fixing plate	2		
QXA0524	T joint	2		
QXA0525	lower sponge 130	2		
QXA0526	upper sponge 130	2		
QXA0535	flush handle white	1		
QXA0545	trolley	2		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimension		
QXG0503	external glass gasket	W+2H		
QXG0500	external glass gasket fixed panel	W+2H		
QXG0512	internal glass gasket	2W+4H		
QXG0504	bottom gasket	W/2		
QXG0505	vertical side mullion gasket	H		
QXG0509	interlock gasket	2H		
QXB0500	brush	2W+2H		
QXB0501	brush interlock	W+2H		
GLASS				
GLASS	pieces 1	W/2-83 x H-237		
GLASS	pieces 1	W/2-83 x H-74		

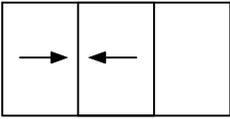
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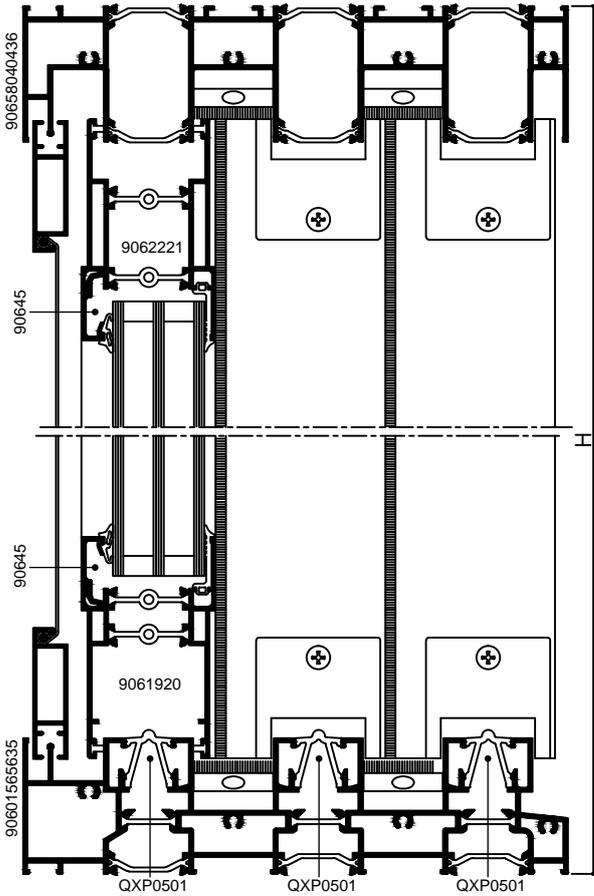
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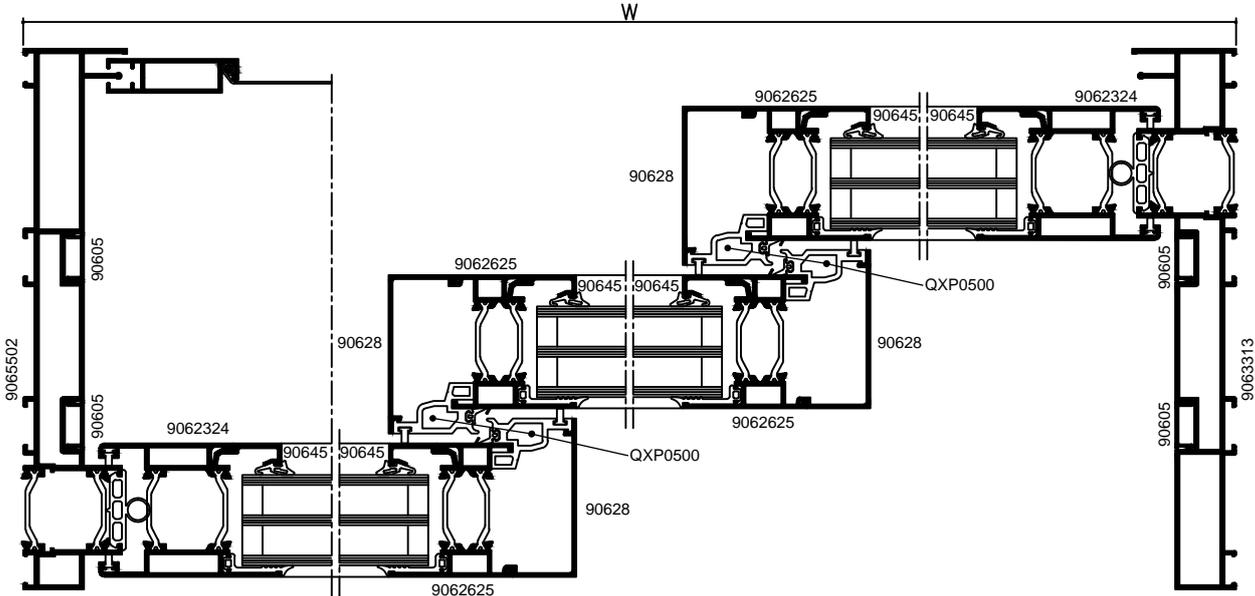
SECTIONS				
Code	Description	Pieces	Dimension	Cut
906355601	lower frame	1	W-48	90-90
906360458	upper frame	1	W-48	90-90
9063303	frame mullion righth	1	H	90-90
9063402	frame mullion left	1	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061920	lower transom sash	2	W/2-84,4	90-90
9062221	upper transom sash	2	W/2-84,4	90-90
9062324	sash side mullion	2	H-91	90-90
9062625	central sash mullion	2	H-91	90-90
90628	interlock sash	2	H-91	90-90
90645	glazing bead horizontal	4	W/2-101	90-90
90645	glazing bead vertical	4	H-267	90-90
QXP0500	hard pvc	2	H-91	90-90
QXP0501	polyamide rail	2	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	2		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash nylon plug right	2		
QXA0503	side sash nylon plug left	2		
QXA0504	nylon plug clip interlock	4		
QXA0505	internal nylon plug interlock	4		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0512	nylon roller adaptor	4		
QXA0517	self tapping screw D.4,8x75	16		
QXA0518	self tapping screw D.4,8x38	12		
QXA0519	steel lower corner fixing plate	4		
QXA0520	steel upper corner fixing plate	4		
QXA0529	lower sponge 148	2		
QXA0530	upper sponge 148	2		
QXA0535	flush handle white	2		
QXA0545	trolley	4		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimen		
QXG0503	external glass gasket	2W+4		
QXG0512	internal glass gasket	2W+4		
QXG0505	vertical side mullion gasket	2H		
QXG0509	interlock gasket	2H		
QXB0500	brush	4W+4		
QXB0501	brush interlock		2H	
GLASS				
GLASS	pieces 2		W/2-109 x H-237	



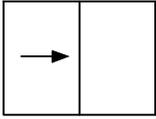
90T2FB



SECTIONS				
Code	Description	Pieces	Dimension	Cut
90601565635	lower frame	1	W-48	90-90
90658040436	upper frame	1	W-48	90-90
9063313	frame mullion right	1	H	90-90
9065502	frame mullion left	1	H	90-90
90605	clip frame mullion	4	H-52	90-90
9061920	lower transom sash	3	W/3-62,9	90-90
9062221	upper transom sash	3	W/3-62,9	90-90
9062324	sash side mullion	2	H-91	90-90
9062625	central sash mullion	4	H-91	90-90
90628	interlock sash	4	H-91	90-90
90645	glazing bead horizontal	6	W/3-79,5	90-90
90645	glazing bead vertical	6	H-267	90-90
QXP0500	hard pvc	4	H-91	90-90
QXP0501	polyamide rail	3	W-60	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	4		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash plug right	2		
QXA0503	side sash nylon plug left	2		
QXA0504	nylon plug clip interlock	8		
QXA0505	internal nylon plug interlock	8		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	8		
QXA0512	nylon roller adaptor	6		
QXA0517	self tapping screw D.4,8x75	24		
QXA0518	self tapping screw D.4,8x38	16		
QXA0519	steel lower corner fixing plate	6		
QXA0520	steel upper corner fixing plate	6		
QXA0533	lower sponge 215	2		
QXA0534	upper sponge 215	2		
QXA0535	flush handle white	2		
QXA0543	steel hook	2		
QXA0545	trolley	6		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
QXA0636	side track water channel	1		
GASKETS				
Code	Description		Dimension	
QXG0503	external glass gasket		2W+6H	
QXG0512	internal glass gasket		2W+6H	
QXG0505	vertical side mullion gasket		2H	
QXG0509	interlock gasket		4H	
QXB0500	brush		4W+4H	
QXB0501	brush interlock		4H	
GLASS				
GLASS	pieces 3		W/3-87,5 x H-237	

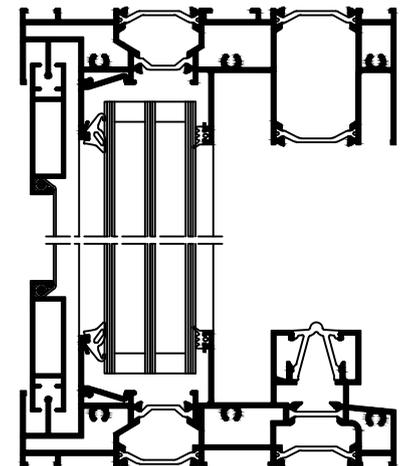
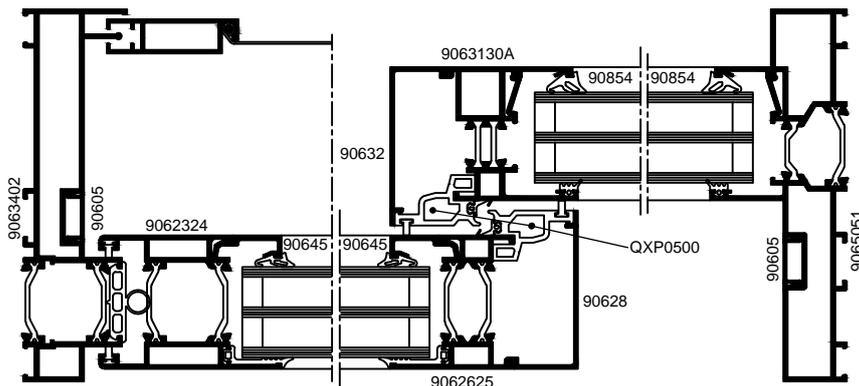
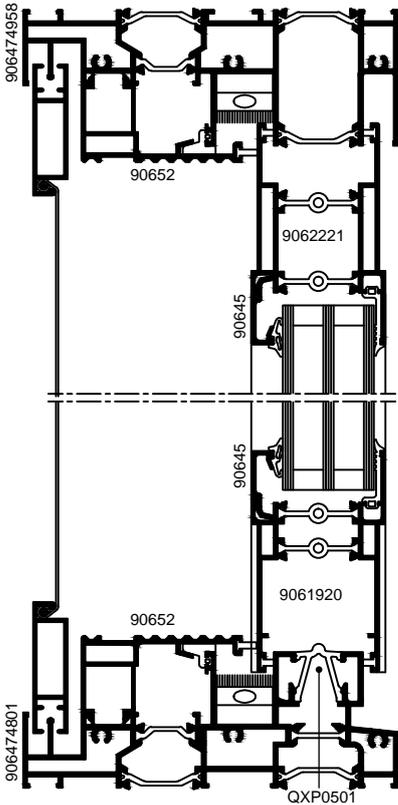


SECTOR M.20



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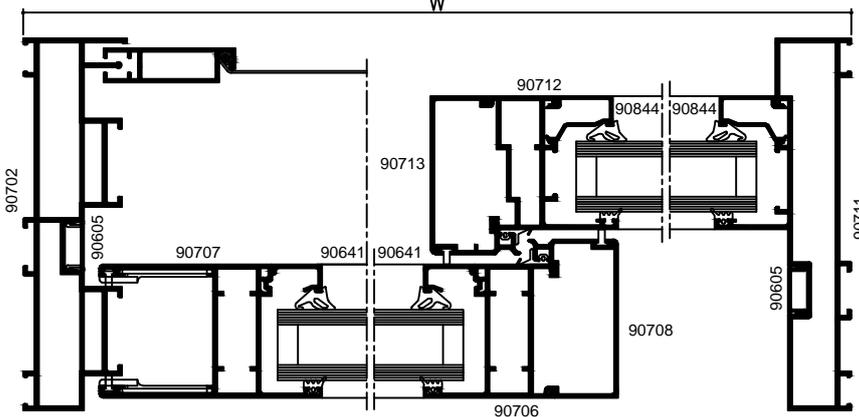
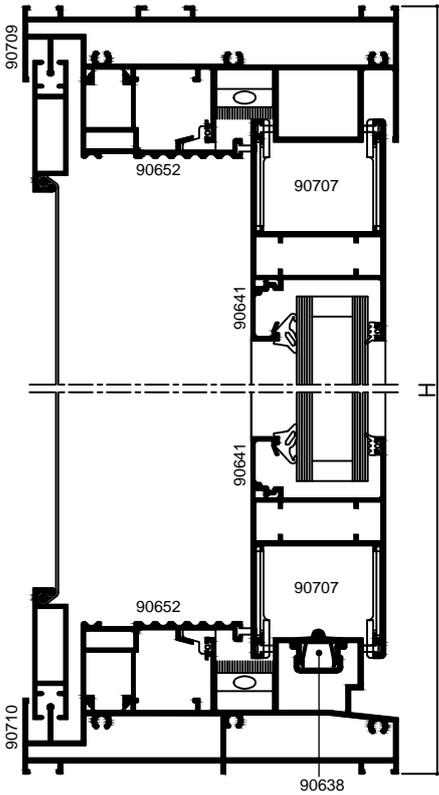
SECTIONS				
Code	Description	Pieces	Dimension	Cut
906474801	lower frame	1	W-49	90-90
906474958	upper frame	1	W-49	90-90
9063402	frame mullion left	1	H	90-90
9065051	fixed frame mullion	1	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061920	lower transom sash	1	W/2-58,4	90-90
9062221	upper transom sash	1	W/2-58,4	90-90
9062324	sash side mullion	1	H-91	90-90
9062625	central sash mullion	1	H-91	90-90
90628	interlock sash	1	H-91	90-90
9063130A	central fixed mullion	1	H-52	90-90
90632	interlock fixed clip	1	H-60	90-90
90652	horizontal cover clip	2	W/2-36	90-90
90645	glazing bead horizontal	2	W/2-75	90-90
90645	glazing bead vertical	2	H-267	90-90
90854	glazing bead horizontal	2	W/2-69	90-90
90854	glazing bead vertical	2	H-104	90-90
QXP0500	hard pvc	2	H-91	90-90
QXP0501	polyamide rail	1	W-50	90-90
FITTINGS				
QXA0501	nylon plug side frame mullion	2		
QXA0502	side sash plug right	1		
QXA0503	side sash nylon plug left	1		
QXA0504	nylon plug clip interlock	2		
QXA0505	internal nylon plug interlock	2		
QXA0506	lock counter plate zamak	1		
QXA0508	nylon plug side mullion frame clip	4		
QXA0511	nylon plug horizontal fixed frame	2		
QXA0512	nylon roller adaptor	2		
QXA0517	self tapping screw D.4,8x75	8		
QXA0518	self tapping screw D.4,8x38	12		
QXA0519	steel lower corner fixing plate	2		
QXA0520	steel upper corner fixing plate	2		
QXA0524	T joint	2		
QXA0529	lower sponge 148	2		
QXA0530	upper sponge 148	2		
QXA0535	flush handle white	1		
QXA0545	trolley	2		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimen		
QXG0503	external glass gasket	W+2H		
QXG0500	external glass gasket fixed panel	W+2H		
QXG0512	internal glass gasket	2W+4		
QXG0504	bottom gasket		W/2	
QXG0505	vertical side mullion gasket	H		
QXG0509	interlock gasket	2H		
QXB0500	brush		2W+2H	
QXB0501	brush interlock		W+2H	
GLASS				
GLASS	pieces 1		W/	
GLASS	pieces 1		W/2-83 x H-74	



SECTOR M.22

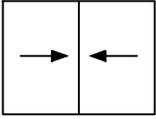


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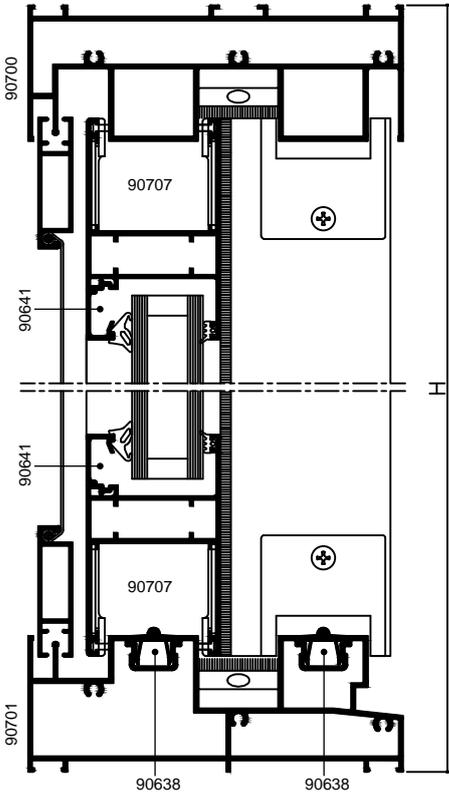


SECTIONS				
Code	Description	Pieces	Dimension	Cut
90710	lower frame	1	W-49	90-90
90709	upper frame	1	W-49	90-90
90702	frame mullion	1	H	90-90
90711	fixed frame mullion	1	H	90-90
90605	clip frame mullion	2	H-52	90-90
90707	transom sash	2	W/2+55	45-45
90707	sash side mullion	1	H-91	45-45
90706	central sash mullion	1	H-91	45-45
90708	interlock sash	1	H-91	90-90
90712	central fixed mullion	1	H-52	90-90
90713	interlock fixed clip	1	H-60	90-90
90652	horizontal cover clip	2	W/2-28	90-90
90641	glazing bead horizontal	2	W/2-81	90-90
90641	glazing bead vertical	2	H-267	90-90
90844	glazing bead horizontal	2	W/2-77	90-90
90844	glazing bead vertical	2	H-104	90-90
90638	aluminum rail	1	W-50	90-90
FITTINGS				
QXA0501	nylon plug side frame mullion	2		
QXA0504	nylon plug clip interlock	2		
QXA0506	lock counter plate zamak	1		
QXA0508	nylon plug side mullion frame clip	4		
QXA0509	nylon corner joint sash 45°	4		
QXA0510	nylon connector interlock sash 45°	2		
QXA0511	nylon plug horizontal fixed frame	2		
QXA0512	nylon roller adaptor	2		
QXA0518	self tapping screw D.4,8x38	12		
QXA0521	corner joint for sash 45°	8		
QXA0524	T joint	2		
QXA0529	lower sponge 148	2		
QXA0530	upper sponge 148	2		
QXA0535	flush handle white	1		
QXA0545	trolley	2		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimen		
QXG0500	external glass gasket	2W+4		
QXG0512	internal glass gasket	2W+4		
QXG0509	interlock gasket	2H		
QXG0504	bottom gasket	W/2		
QXB0501	brush	2W+4H		
GLASS				
GLASS	pieces 1	W/		
GLASS	pieces 1	W/2-91 x H-74		

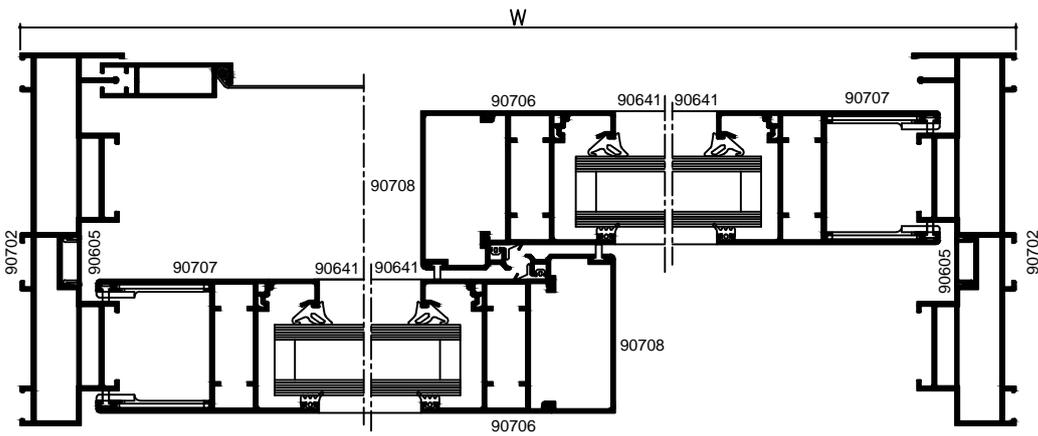
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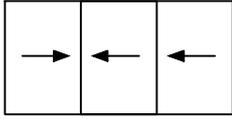
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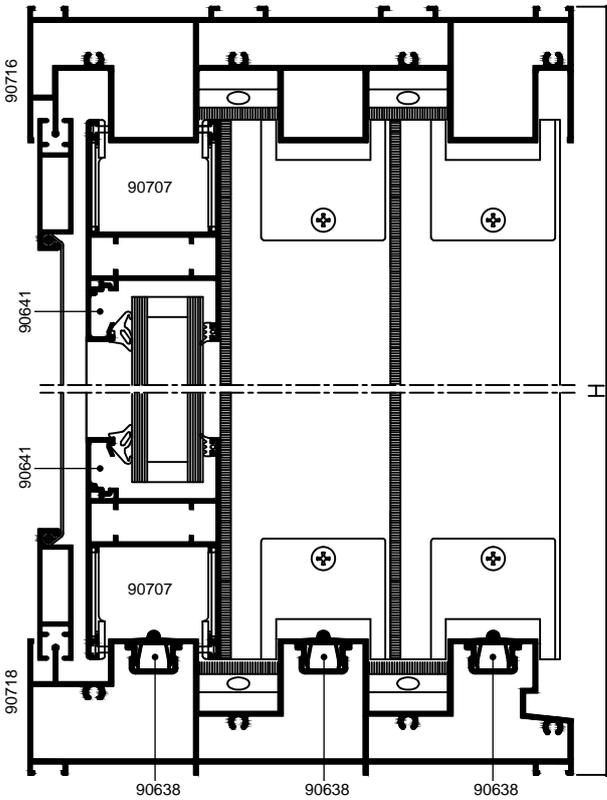
SECTIONS				
Code	Description	Pieces	Dimension	Cut
90701	lower frame	1	W-48	90-90
90700	upper frame	1	W-48	90-90
90702	frame mullion	2	H	90-90
90605	clip frame mullion	2	H-52	90-90
90707	transom sash	4	W/2+55	45-45
90707	side sash mullion	2	H-91	45-45
90706	central sash mullion	2	H-163,8	45-45
90708	interlock sash	2	H-91	90-90
90641	glazing bead horizontal	4	W/2-116,5	90-90
90641	glazing bead vertical	4	H-267	90-90
90638	aluminum rail	2	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	2		
QXA0501	nylon plug side frame mullion	4		
QXA0504	nylon plug clip interlock	4		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0509	nylon corner joint sash 45°	8		
QXA0510	nylon connector interlock sash 45°	4		
QXA0512	nylon roller adaptor	4		
QXA0518	self tapping screw D.4,8x38	12		
QXA0521	corner joint for sash 45°	16		
QXA0529	lower sponge 148	2		
QXA0530	upper sponge 148	2		
QXA0535	flush handle white	2		
QXA0545	trolley	4		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimen		
QXG0500	external glass gasket	2W+4		
QXG0512	internal glass gasket	2W+4		
QXG0509	interlock gasket	2H		
QXB0501	brush		4W+6H	
GLASS				
GLASS	pieces 2		W/2-126 x H-237	



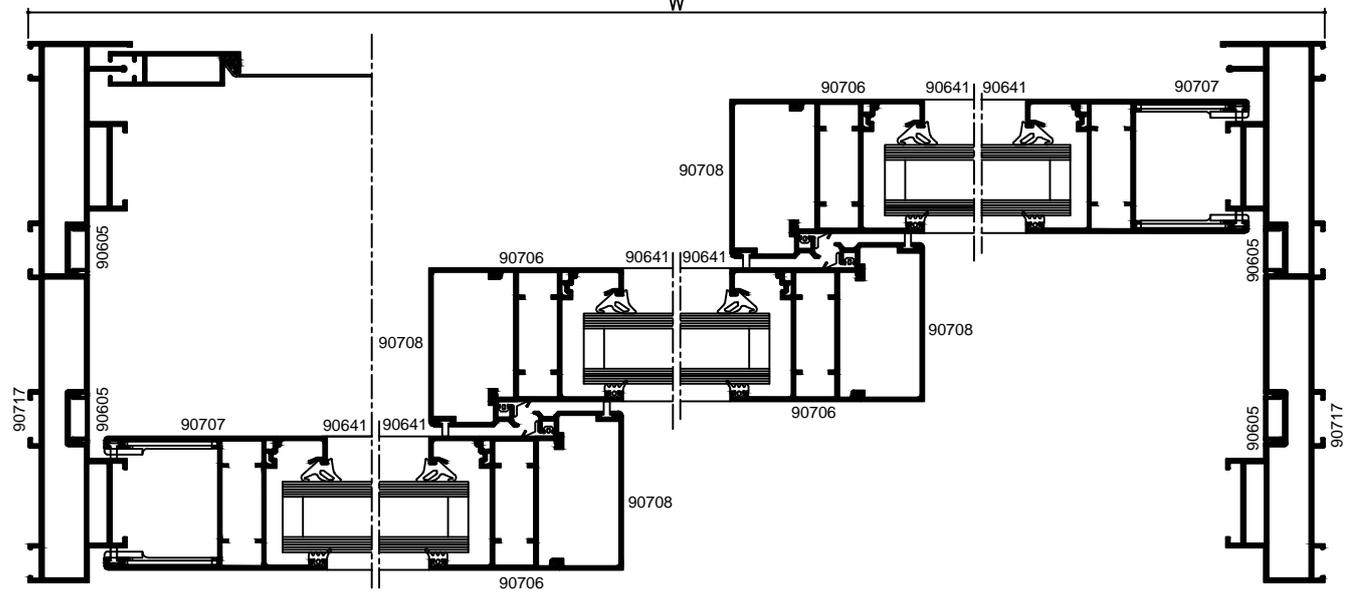
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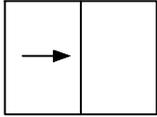
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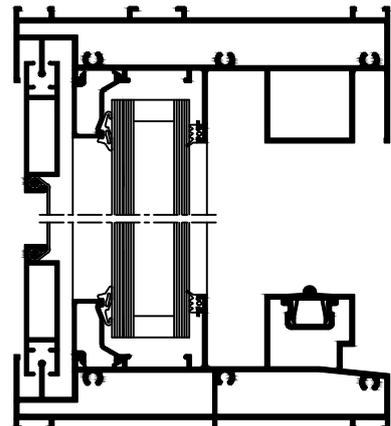
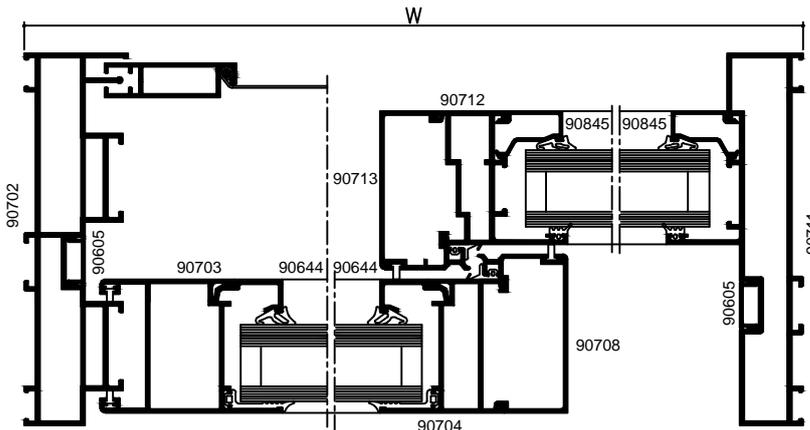
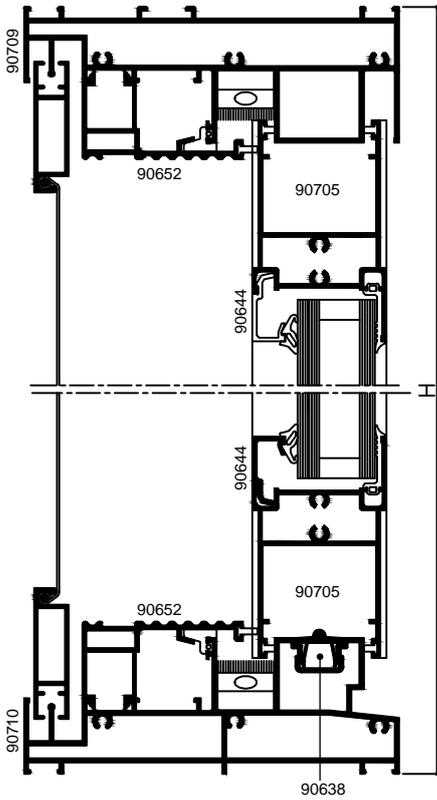
SECTIONS				
Code	Description	Pieces	Dimension	Cut
90718	lower frame	1	W-48	90-90
90716	upper frame	1	W-48	90-90
90717	frame mullion	2	H	90-90
90605	clip frame mullion	4	H-52	90-90
90707	transom sash	6	W/3+46,3	45-45
90707	side sash mullion	2	H-91	45-45
90706	central sash mullion	4	H-163,8	45-45
90708	interlock sash	4	H-91	90-90
90641	glazing bead horizontal	6	W/3-90	90-90
90641	glazing bead vertical	6	H-267	90-90
90638	aluminum rail	3	W-60	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	4		
QXA0501	nylon plug side frame mullion	4		
QXA0504	nylon plug clip interlock	8		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	8		
QXA0509	nylon corner joint sash 45°	8		
QXA0510	nylon connector interlock sash 45°	8		
QXA0512	nylon roller adaptor	6		
QXA0518	self tapping screw D.4,8x38	16		
QXA0521	corner joint for sash 45°	24		
QXA0533	lower sponge 215	2		
QXA0534	upper sponge 215	2		
QXA0535	flush handle white	2		
QXA0543	steel hook	2		
QXA0545	trolley	6		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
QXA0636	side track water channel	1		
GASKETS				
Code	Description	Dimen		
QXG0500	external glass gasket	2W+6		
QXG0512	internal glass gasket	2W+6		
QXG0509	interlock gasket	4H		
QXB0501	brush	4W+8		
QXG505	vertical side mullion gasket		2H	
GLASS				
GLASS	pieces 3		W/3-100 x H-237	



SECTOR M.25

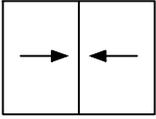


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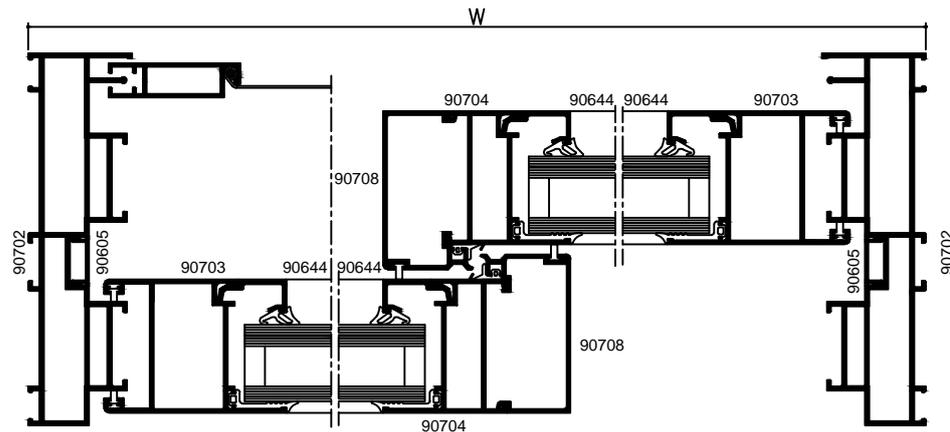
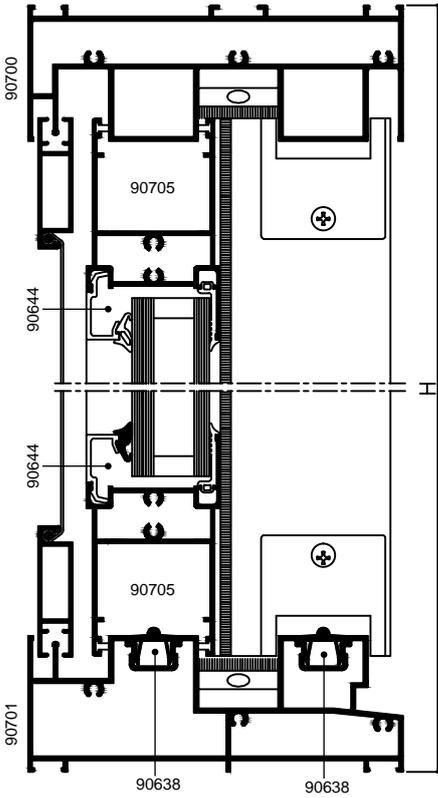


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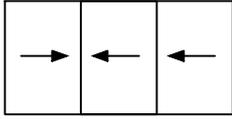
SECTIONS				
Code	Description	Pieces	Dimension	Cut
90710	lower frame	1	W-49	90-90
90709	upper frame	1	W-49	90-90
90702	frame mullion right	1	H	90-90
90711	fixed frame mullion	1	H	90-90
90605	clip frame mullion	2	H-52	90-90
90705	transom sash	2	W/2-58,4	90-90
90703	sash side mulliom	1	H-91	90-90
90704	central sash mullion	1	H-91	90-90
90708	interlock sash	1	H-91	90-90
90712	central fixed mullion	1	H-52	90-90
90713	interlock fixed clip	1	H-60	90-90
90652	horizontal cover clip	2	W/2-36	90-90
90644	glazing bead horizontal	2	W/2-75	90-90
90644	glazing bead vertical	2	H-267	90-90
90845	glazing bead horizontal	2	W/2-69	90-90
90845	glazing bead vertical	2	H-104	90-90
90638	aluminum rail	1	W-50	90-90
FITTINGS				
QXA0501	nylon plug side frame mullion	2		
QXA0502	side sash plug right	1		
QXA0503	side sash nylon plug left	1		
QXA0504	nylon plug clip interlock	2		
QXA0505	internal nylon plug interlock	2		
QXA0506	lock counter plate zamak	1		
QXA0508	nylon plug side mullion frame clip	4		
QXA0511	nylon plug horizontal fixed frame	2		
QXA0512	nylon roller adaptor	2		
QXA0517	self tapping screw D.4,8x75	8		
QXA0518	self tapping screw D.4,8x38	12		
QXA0524	T joint	2		
QXA0529	lower sponge 148	2		
QXA0530	upper sponge 148	2		
QXA0535	flush handle white	1		
QXA0545	trolley	2		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimen		
QXG0503	external glass gasket	W+2H		
QXG0500	external glass gasket fixed panel	W+2H		
QXG0512	internal glass gasket	2W+4		
QXG0504	bottom gasket	W/2		
QXG0509	interlock gasket	2H		
QXB0500	brush		2W+2H	
QXB0501	brush interlock		W+2H	
GLASS				
GLASS	pieces 1		W/	
GLASS	pieces 1		W/2-83 x H-74	



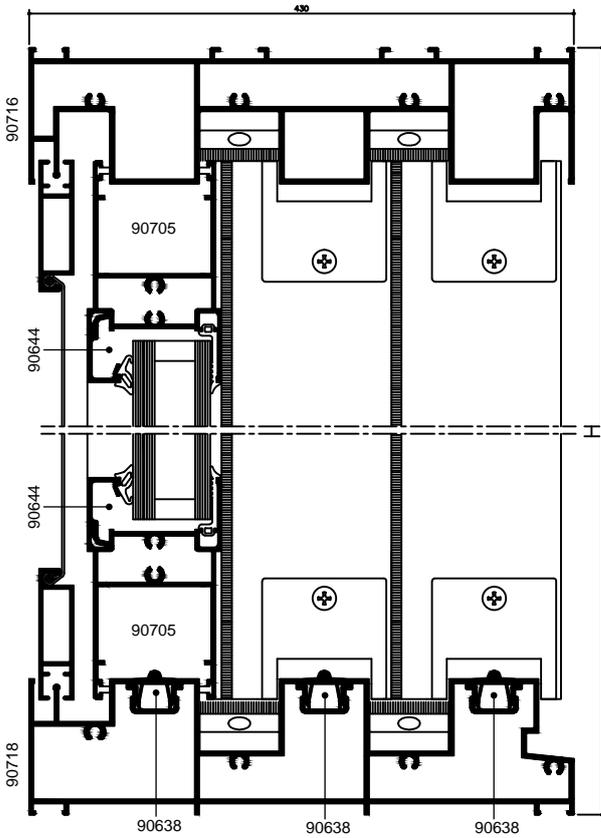
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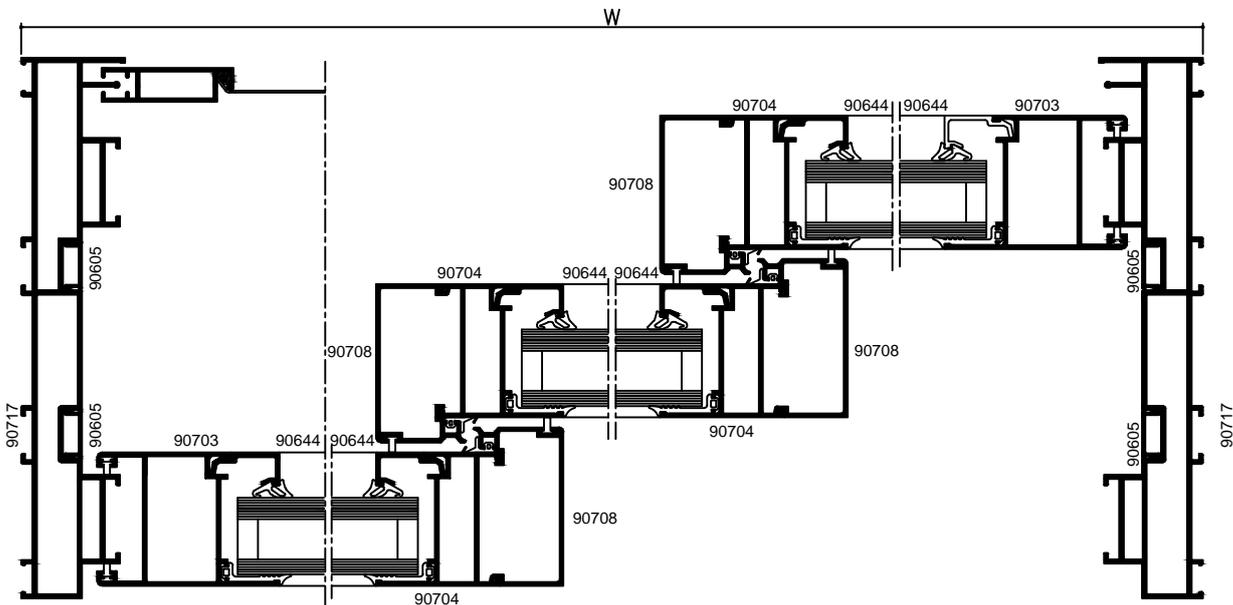
SECTIONS				
Code	Description	Pieces	Dimension	Cut
90701	lower frame	1	W-48	90-90
90700	upper frame	1	W-48	90-90
90702	frame mullion	2	H	90-90
90605	clip frame mullion	2	H-52	90-90
90705	transom sash	2	W/2-84,4	90-90
90703	sash side mulliom	2	H-91	90-90
90704	central sash mullion	2	H-91	90-90
90708	interlock sash	2	H-91	90-90
90644	glazing bead horizontal	4	W/2-101	90-90
90644	glazing bead vertical	4	H-267	90-90
90638	aluminum rail	2	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	2		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash nylon plug right	2		
QXA0503	side sash nylon plug left	2		
QXA0504	nylon plug clip interlock	4		
QXA0505	internal nylon plug interlock	4		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0512	nylon roller adaptor	4		
QXA0517	self tapping screw D.4,8x75	16		
QXA0518	self tapping screw D.4,8x38	12		
QXA0529	lower sponge 148	2		
QXA0530	upper sponge 148	2		
QXA0535	flush handle white	2		
QXA0545	trolley	4		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimen		
QXG0503	external glass gasket	2W+4		
QXG0512	internal glass gasket	2W+4		
QXG0509	interlock gasket	2H		
QXB0500	brush	4W+4		
QXB0501	brush interlock		2H	
GLASS				
GLASS	pieces 2		W/2-109 x H-237	



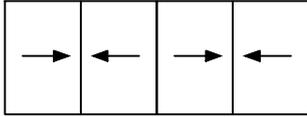
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SECTIONS				
Code	Description	Pieces	Dimension	Cut
90718	lower frame	1	W-48	90-90
90716	upper frame	1	W-48	90-90
90717	frame mullion	2	H	90-90
90605	clip frame mullion	4	H-52	90-90
90705	transom sash	6	W/3-62,9	90-90
90703	sash side mullion	2	H-91	90-90
90704	central sash mullion	4	H-91	90-90
90708	interlock sash	4	H-91	90-90
90644	glazing bead horizontal	6	W/3-79,5	90-90
90644	glazing bead vertical	6	H-267	90-90
90638	aluminum rail	3	W-60	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	4		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash plug right	2		
QXA0503	side sash nylon plug left	2		
QXA0504	nylon plug clip interlock	8		
QXA0505	internal nylon plug interlock	8		
QXA0506	lock counter plate zamak	2		
QXA0508	nylon plug side mullion frame clip	8		
QXA0512	nylon roller adaptor	6		
QXA0517	self tapping screw D.4,8x75	24		
QXA0518	self tapping screw D.4,8x38	16		
QXA0533	lower sponge 215	2		
QXA0534	upper sponge 215	2		
QXA0535	flush handle white	2		
QXA0543	steel hook	2		
QXA0545	trolley	6		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
QXA0636	side track water channel	1		
GASKETS				
Code	Description	Dimen		
QXG0503	external glass gasket	2W+6		
QXG0512	internal glass gasket	2W+6		
QXG0509	interlock gasket	4H		
QXB0500	brush	4W+4		
QXB0501	brush interlock		4H	
GLASS				
GLASS	pieces 3		W/3-87,5 x H-237	

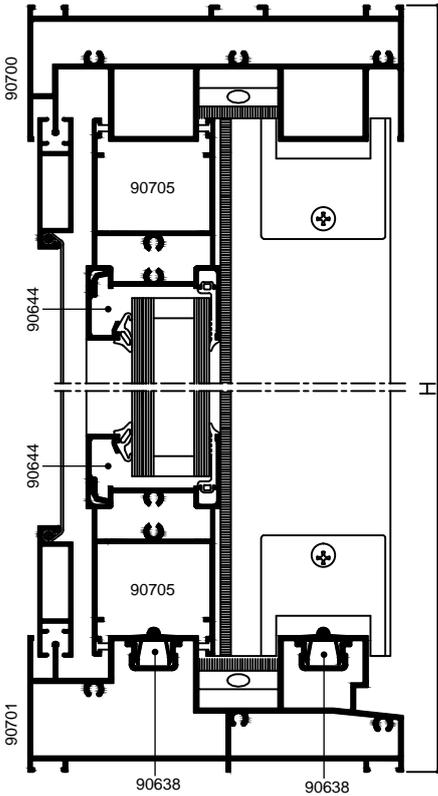


SECTOR M.28

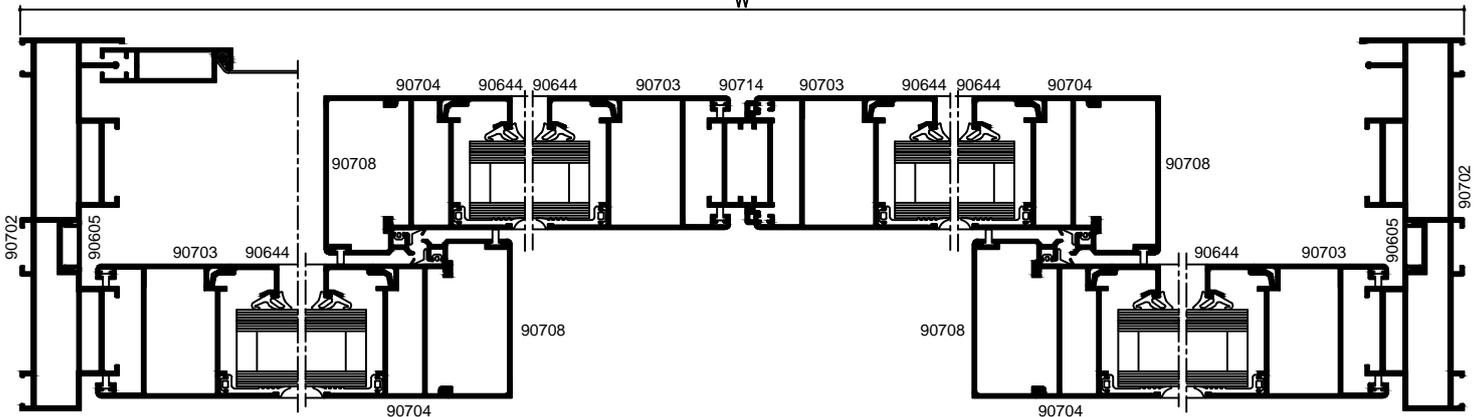


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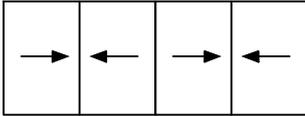
SECTIONS				
Code	Description	Pieces	Dimension	Cut
90701	lower frame	1	W-48	90-90
90700	upper frame	1	W-48	90-90
90702	frame mullion	2	H	90-90
90605	clip frame mullion	2	H-52	90-90
90705	transom sash	8	W/4-71,8	90-90
90703	sash side mulliom	4	H-91	90-90
90704	central sash mullion	4	H-91	90-90
90708	interlock sash	4	H-91	90-90
90714	middle interlock	1	H-145	90-90
90644	glazing bead horizontal	8	W/4-88,4	90-90
90644	glazing bead vertical	8	H-267	90-90
90638	aluminium rail	2	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	4		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash plug right	4		
QXA0503	side sash nylon plug left	4		
QXA0504	nylon plug clip interlock	8		
QXA0505	internal nylon plug interlock	8		
QXA0506	lock counter plate zamak	3		
QXA0507	nylon plug 4 panel interlock	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0512	nylon roller adaptor	8		
QXA0517	self tapping screw D.4,8x75	32		
QXA0518	self tapping screw D.4,8x38	12		
QXA0525	lower sponge 130	2		
QXA0526	upper sponge 130	2		
QXA0535	flush handle white	3		
QXA0545	trolley	8		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimen		
QXG0503	external glass gasket	2W+8		
QXG0512	internal glass gasket	2W+8		
QXG0509	interlock gasket	4H		
QXB0500	brush	4W+6		
QXB0501	brush interlock		4H	
GLASS				
Code	Description	Dimen		
QXG0503	external glass gasket	2W+8		
QXG0512	internal glass gasket	2W+8		
QXG0509	interlock gasket	4H		
QXB0500	brush	4W+6		
QXB0501	brush interlock		4H	



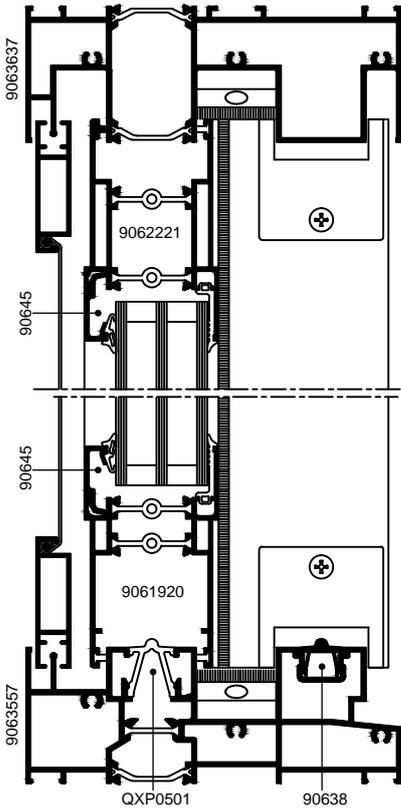
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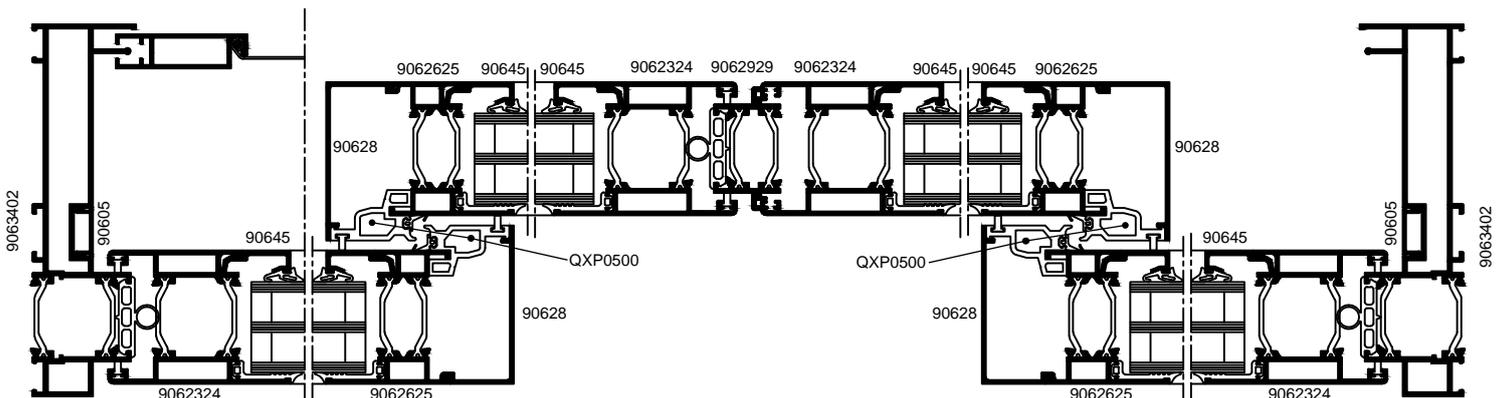
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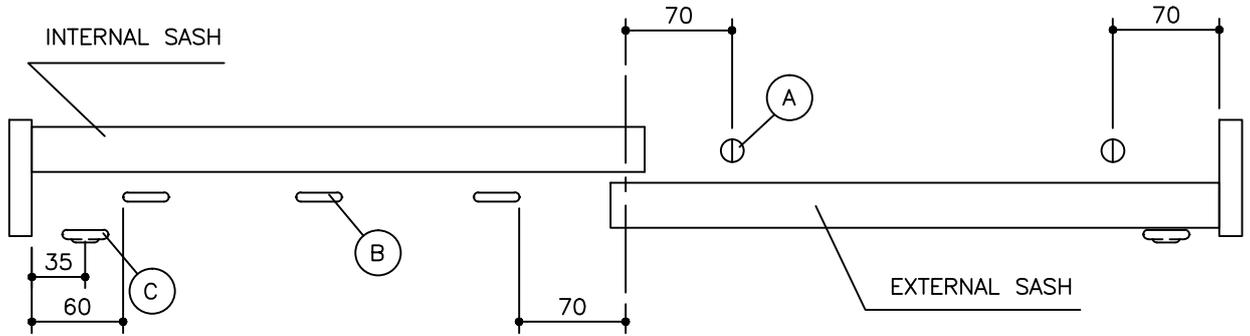
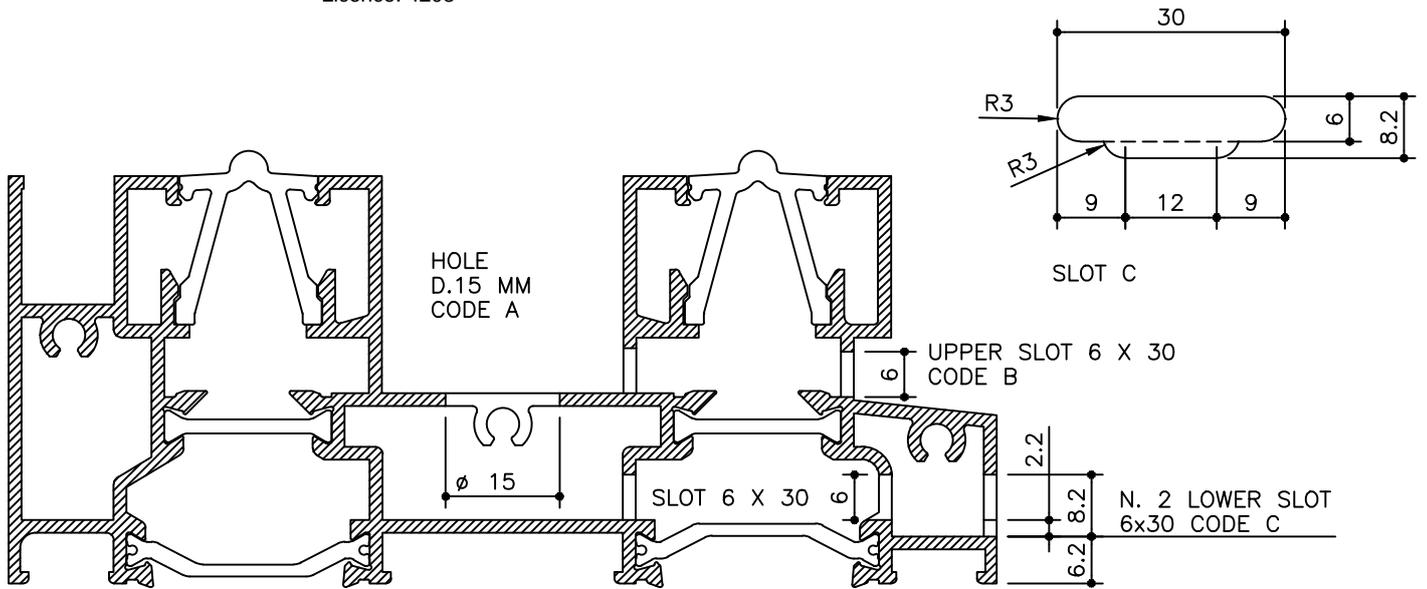
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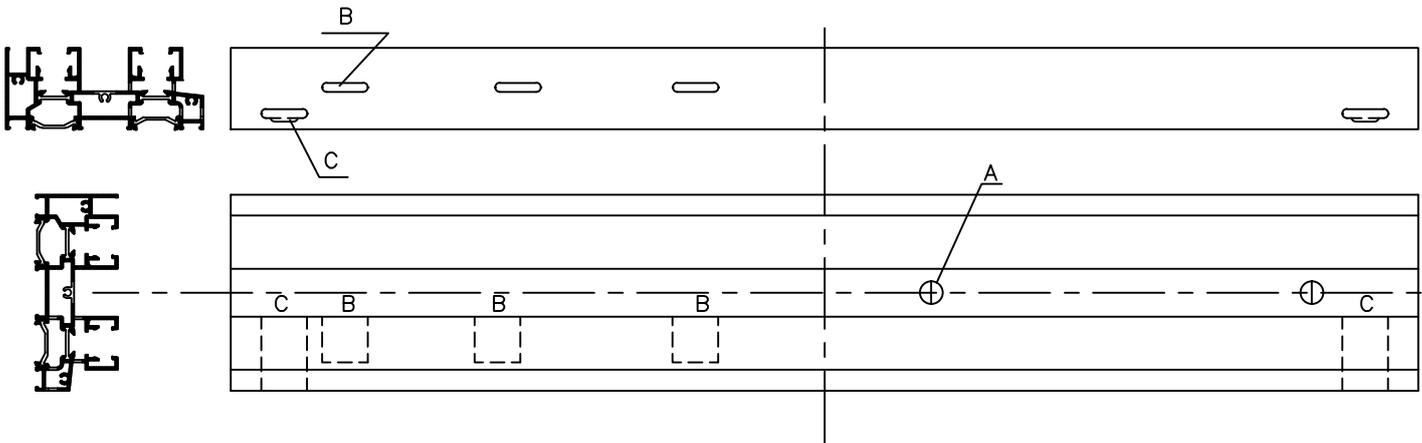
SECTIONS				
Code	Description	Pieces	Dimension	Cut
9063557	lower frame	1	W-48	90-90
9063637	upper frame	1	W-48	90-90
9063402	frame mullion left	2	H	90-90
90605	clip frame mullion	2	H-52	90-90
9061920	lower transom sash	4	W/4-71,8	90-90
9062221	upper transom sash	4	W/4-71,8	90-90
9062324	sash side mulliom	4	H-91	90-90
9062625	central sash mullion	4	H-91	90-90
90628	interlock sash	4	H-91	90-90
9062929	middle interlock	1	H-145	90-90
90645	glazing bead horizontal	8	W/4-88,4	90-90
90645	glazing bead vertical	8	H-267	90-90
90638	aluminum rail	1	W-50	90-90
QXP0500	hard pvc	4	H-91	90-90
QXP0501	polyamide rail	1	W-50	90-90
FITTINGS				
QXA0500	nylon plug brush horizontal frame	4		
QXA0501	nylon plug side frame mullion	4		
QXA0502	side sash plug right	4		
QXA0503	side sash nylon plug left	4		
QXA0504	nylon plug clip interlock	8		
QXA0505	internal nylon plug interlock	8		
QXA0506	lock counter plate zamak	3		
QXA0507	nylon plug 4 panel interlock	2		
QXA0508	nylon plug side mullion frame clip	4		
QXA0512	nylon roller adaptor	8		
QXA0517	self tapping screw D.4,8x75	32		
QXA0518	self tapping screw D.4,8x38	12		
QXA0519	steel lower corner fixing plate	8		
QXA0520	steel upper corner fixing plate	8		
QXA0525	lower sponge 130	2		
QXA0526	upper sponge 130	2		
QXA0535	flush handle white	3		
QXA0545	trolley	8		
QXA0546	fly screen set	1		
QXA0513	adjusting block		according frame size	
QXA0515	water cap with valve 31x6		according frame size	
QXA0516	water cap with ball valve		according frame size	
GASKETS				
Code	Description	Dimen		
QXG0503	external glass gasket	2W+8		
QXG0512	internal glass gasket	2W+8		
QXG0505	vertical side mullion gasket	3H		
QXG0509	interlock gasket	4H		
QXB0500	brush	4W+6		
QXB0501	brush interlock		4H	
GLASS				
GLASS	pieces 4		W/4-96,4 x	H-237

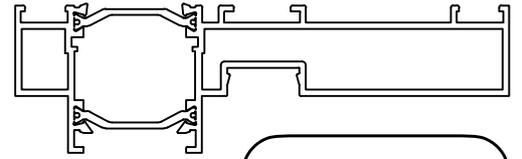


Sector N Machining

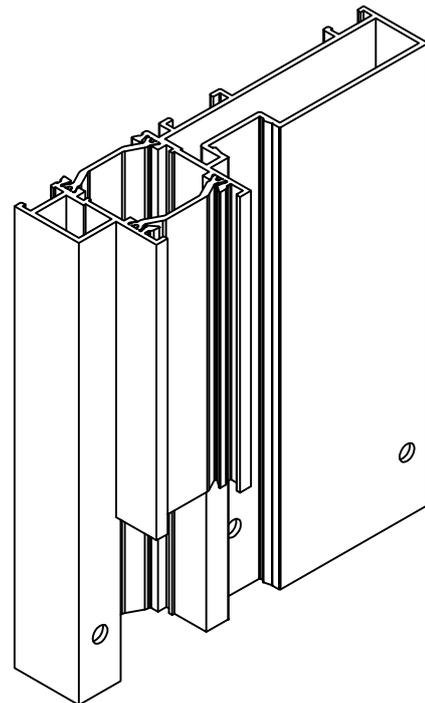
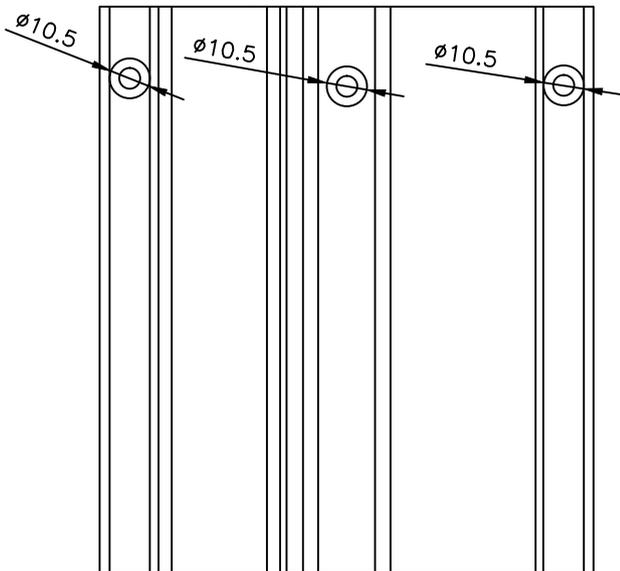
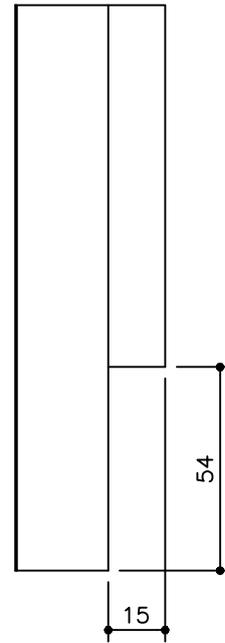
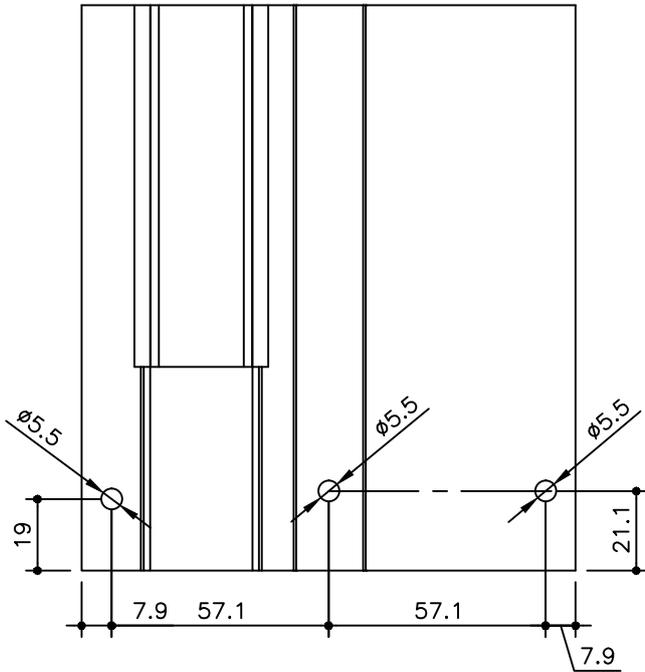


HOLE CODE A HAS TO BE DONE EVERY 500 MM SASH WIDTH DIMENSION, IN ANY CASE NOT LESS THAN 2.
SLOT CODE B HAS TO BE DONE EVERY 300 MM SASH WIDTH DIMENSION, IN ANY CASE NOT LESS THAN 3.
SLOT CODE C HAS TO BE DONE 2 UNTIL WINDOW AREA 2,5 SQM, ADD ADDITIONAL SLOT EVERY 2 SQM





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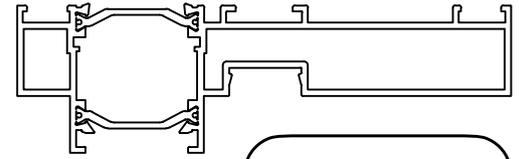


GALEX
الشركة القطرية لسحب الألمنيوم
QATAR ALUMINIUM EXTRUSION CO.

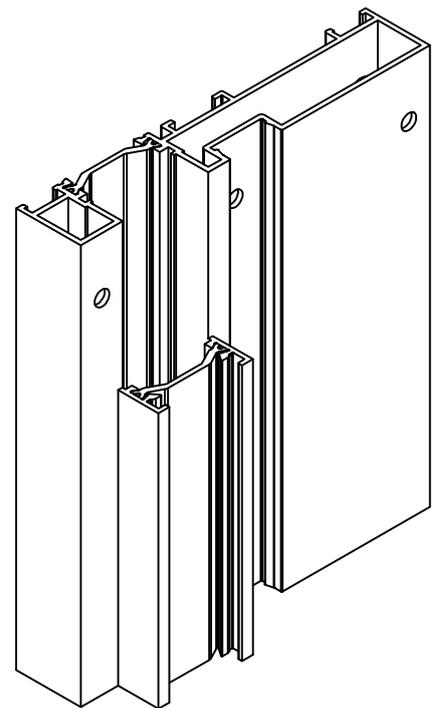
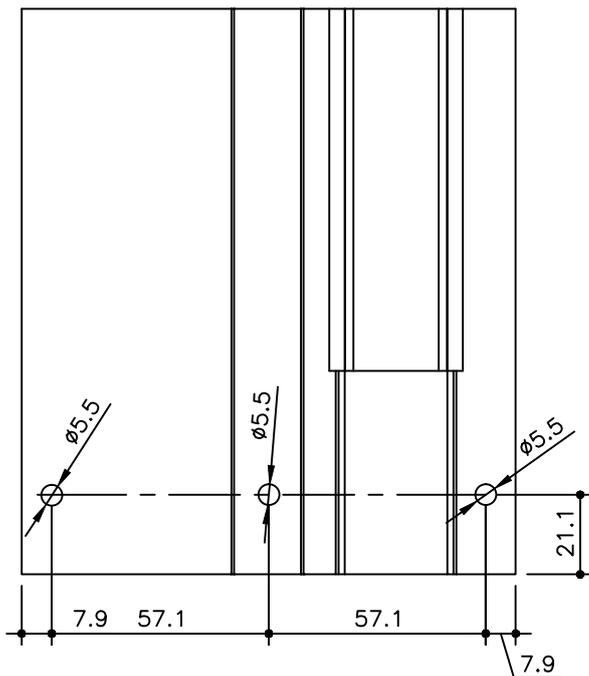
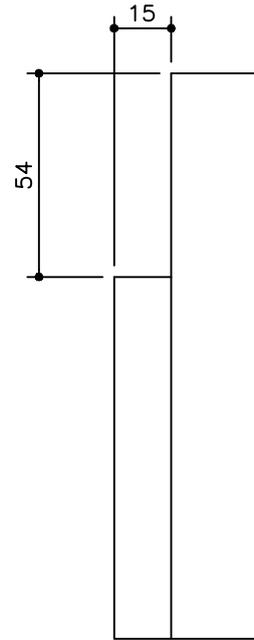
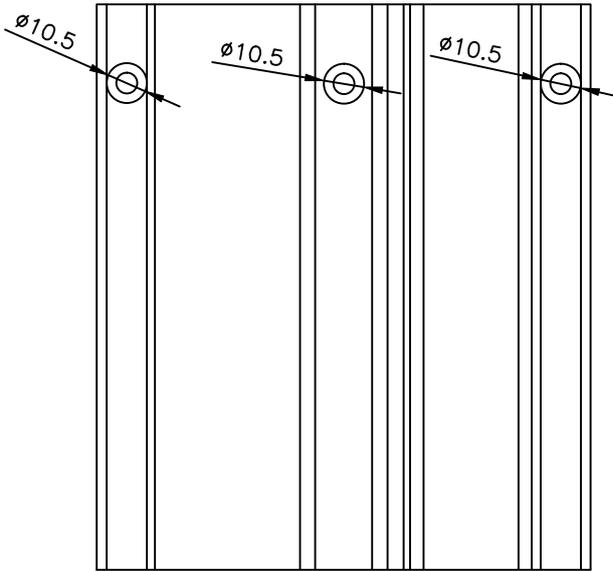


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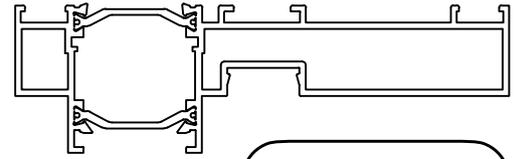
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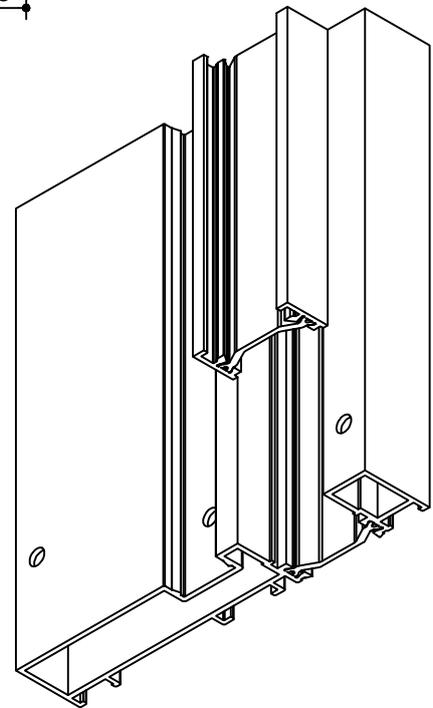
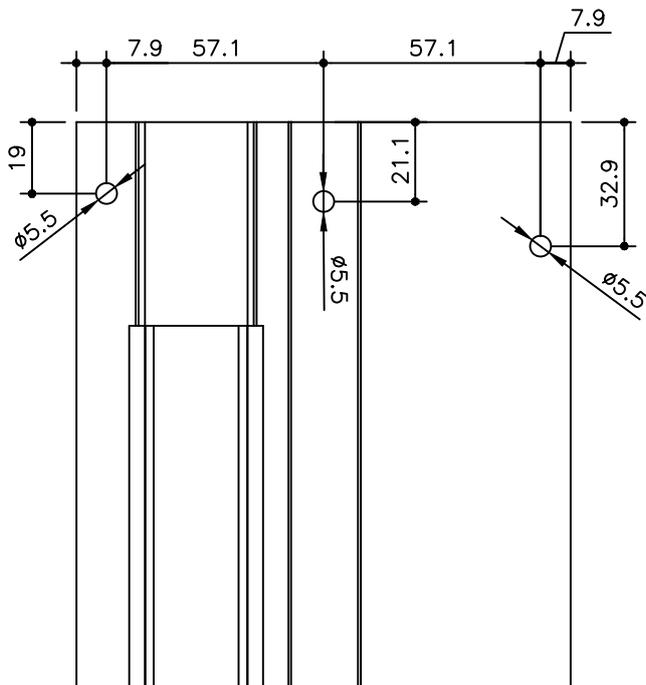
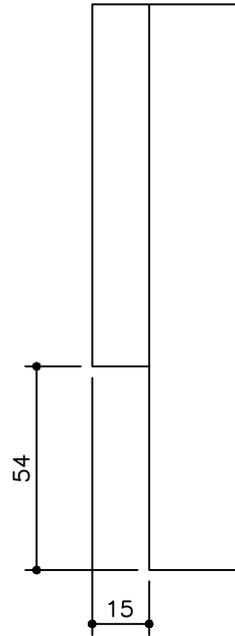
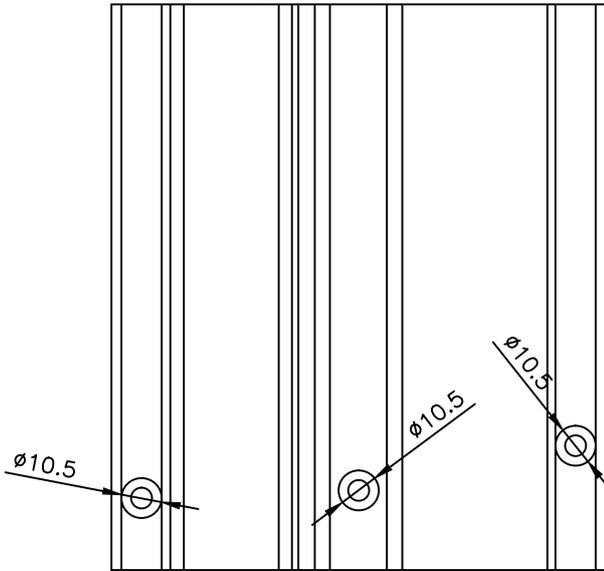
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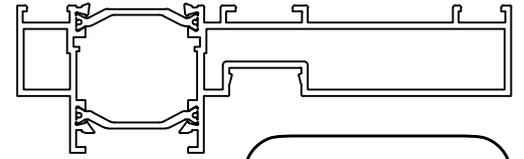


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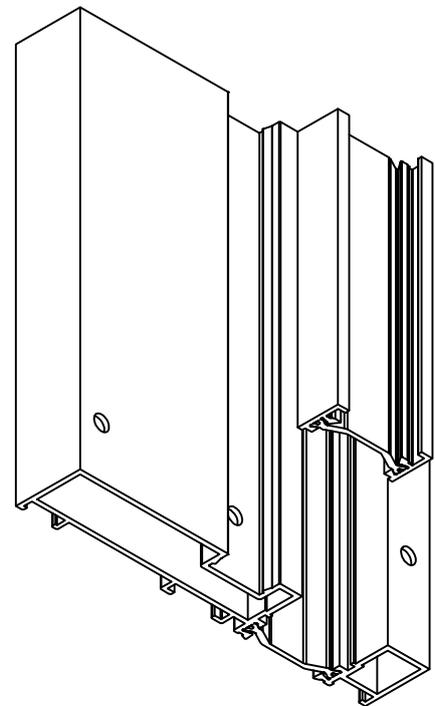
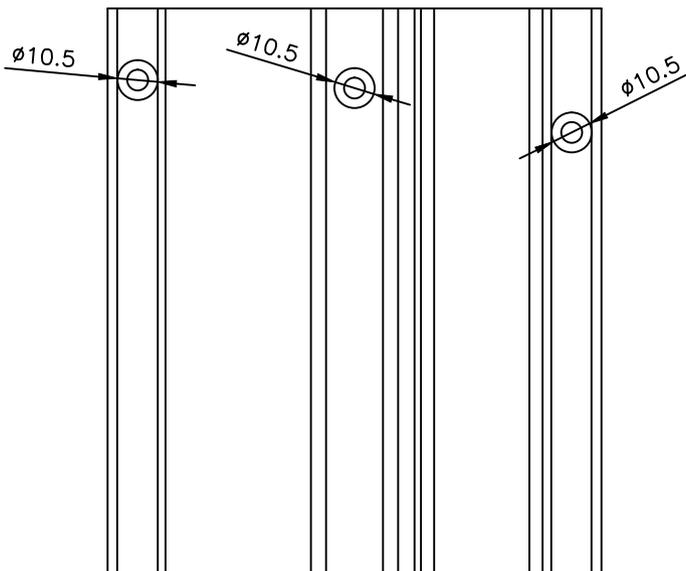
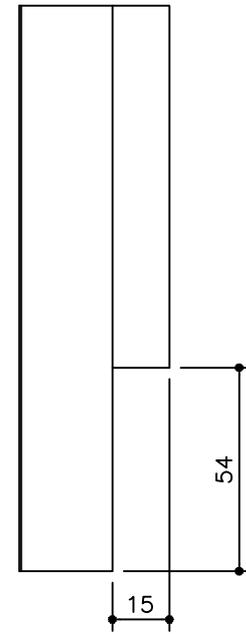
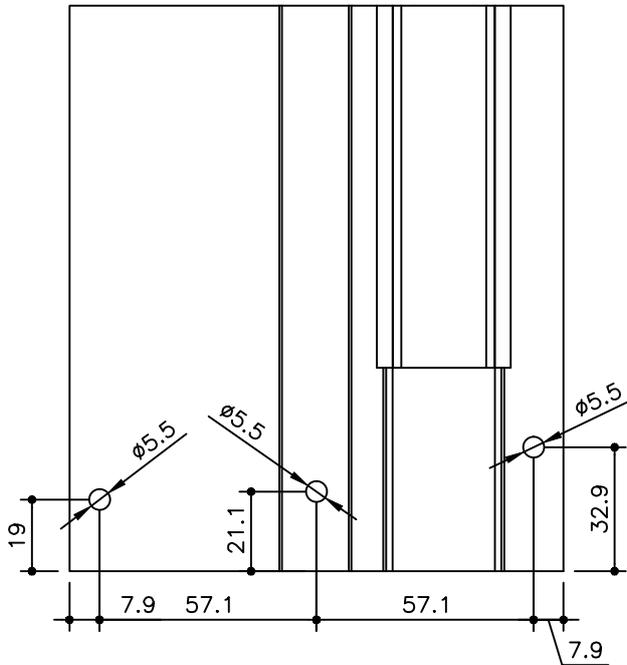


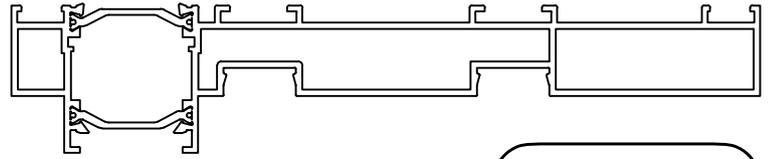
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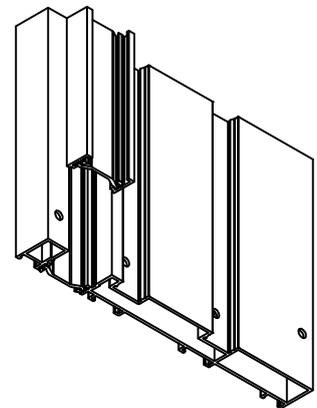
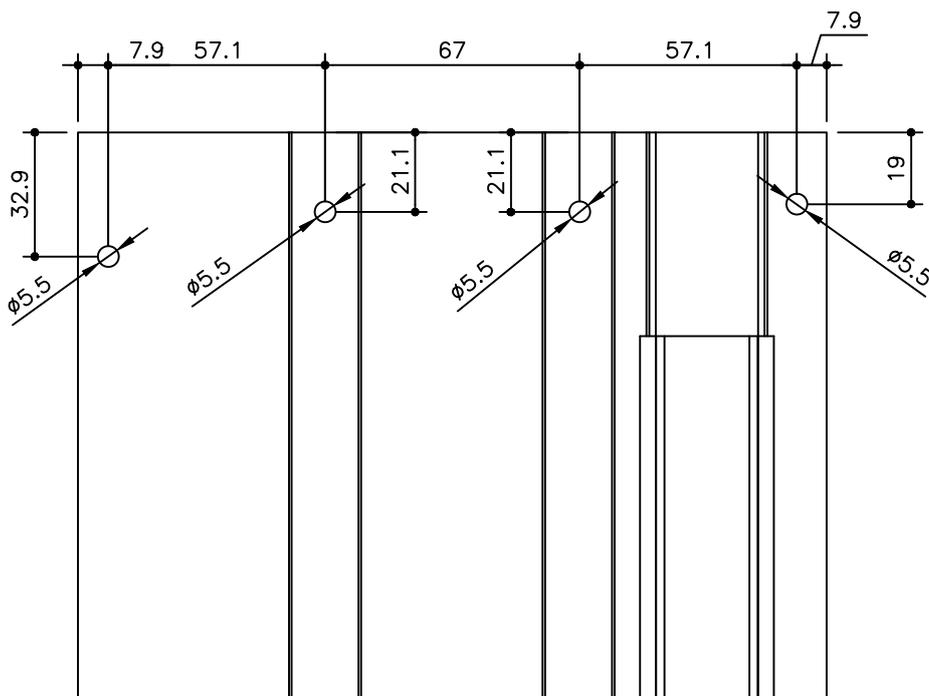
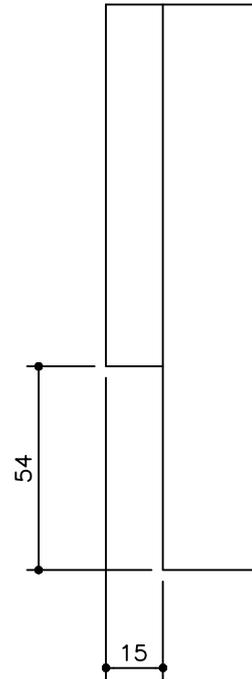
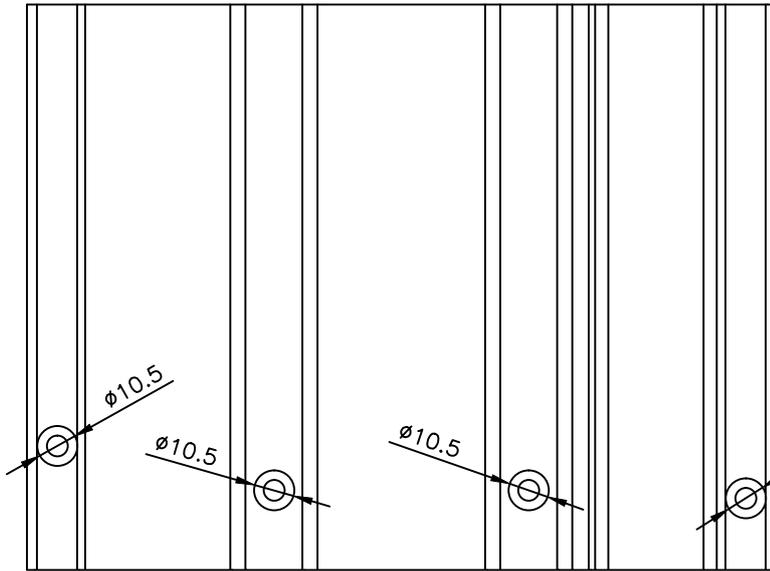


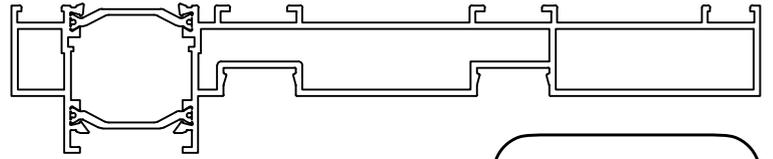
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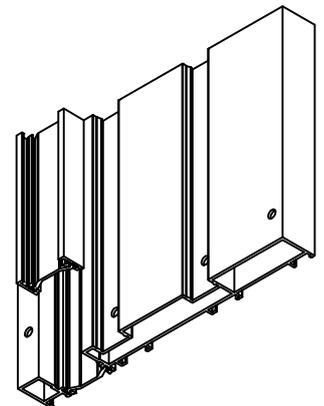
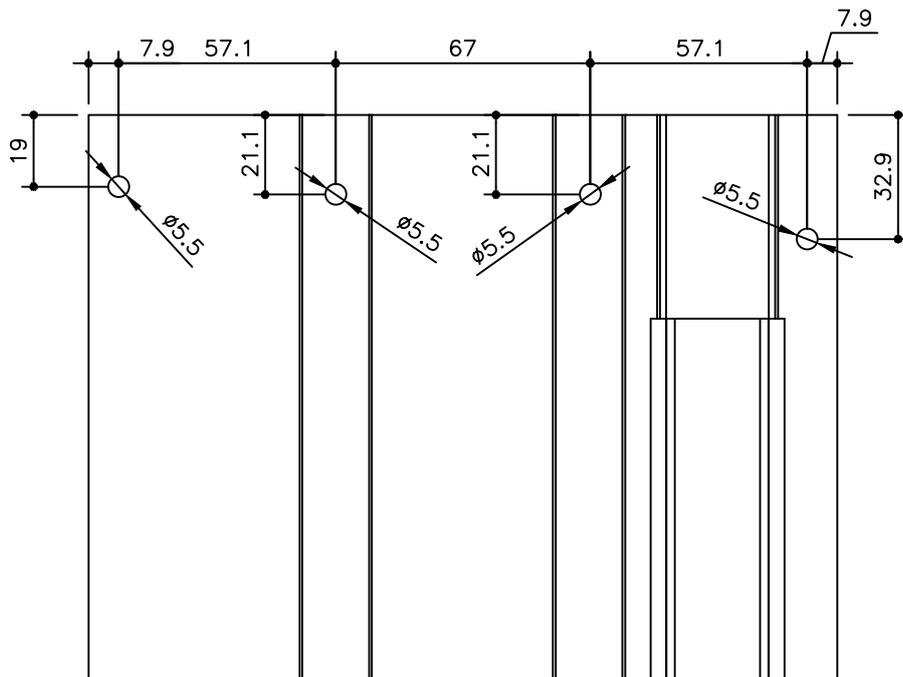
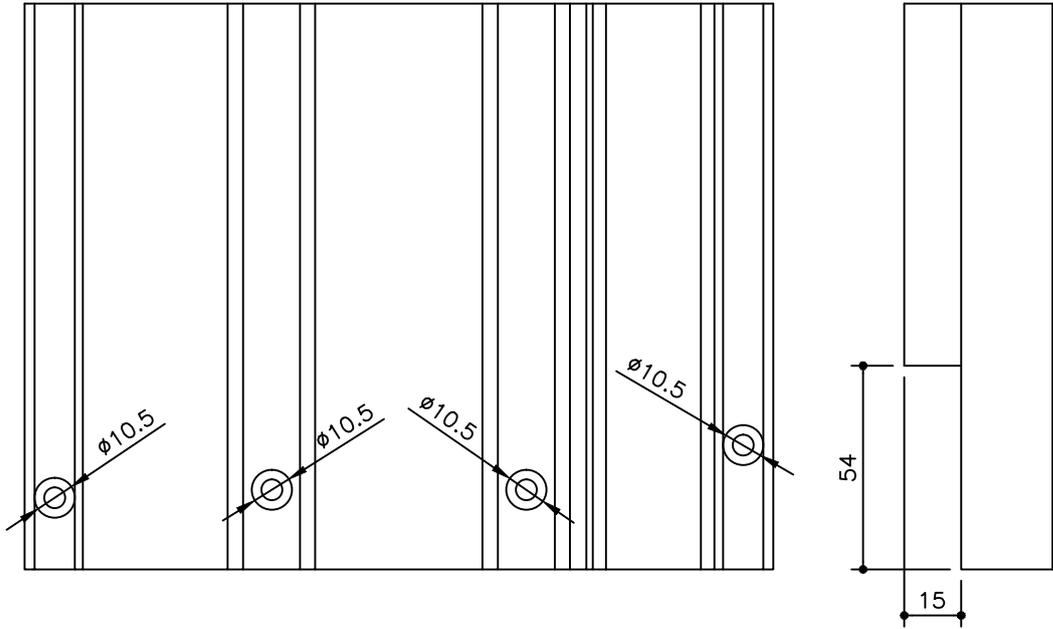


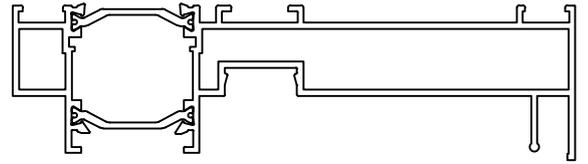
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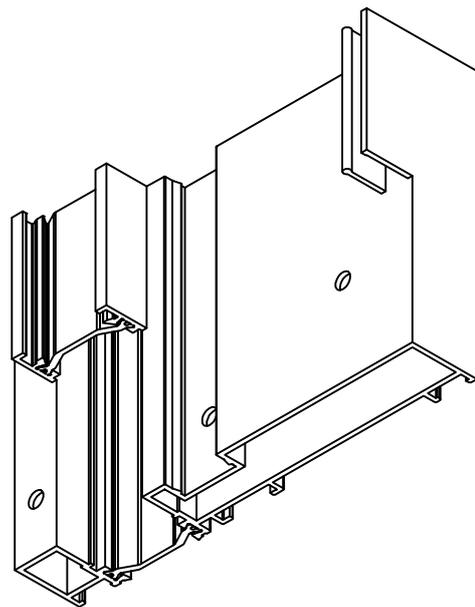
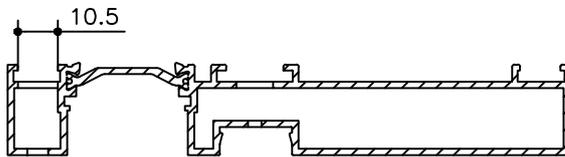
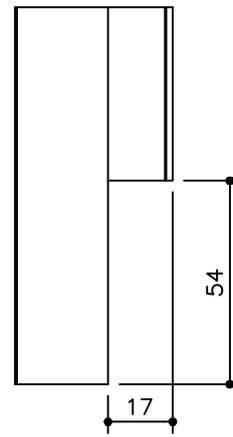
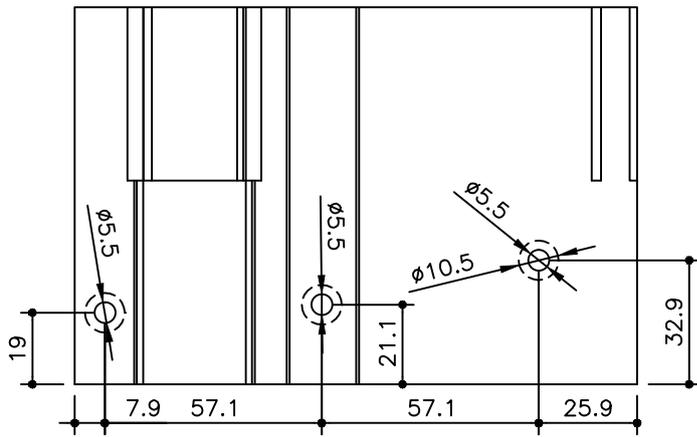


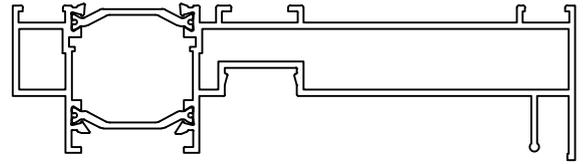
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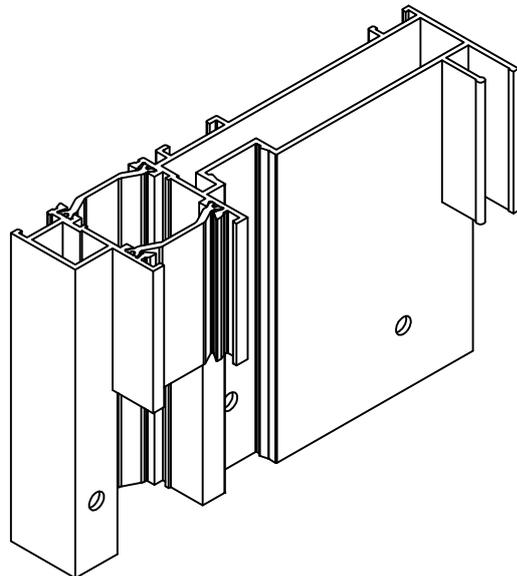
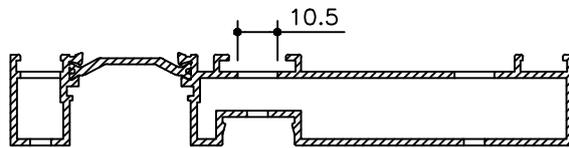
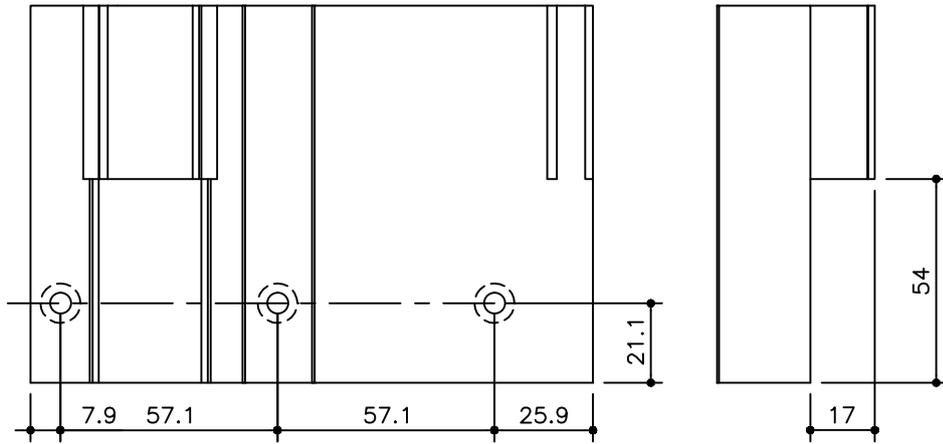


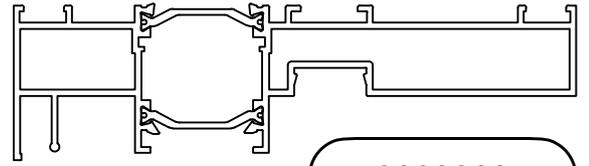
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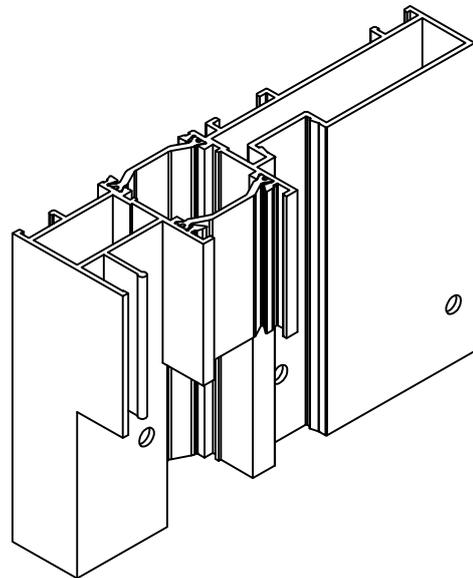
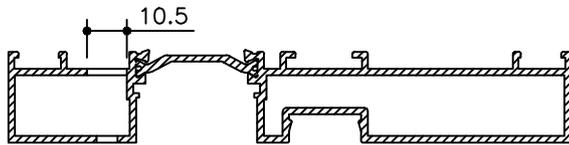
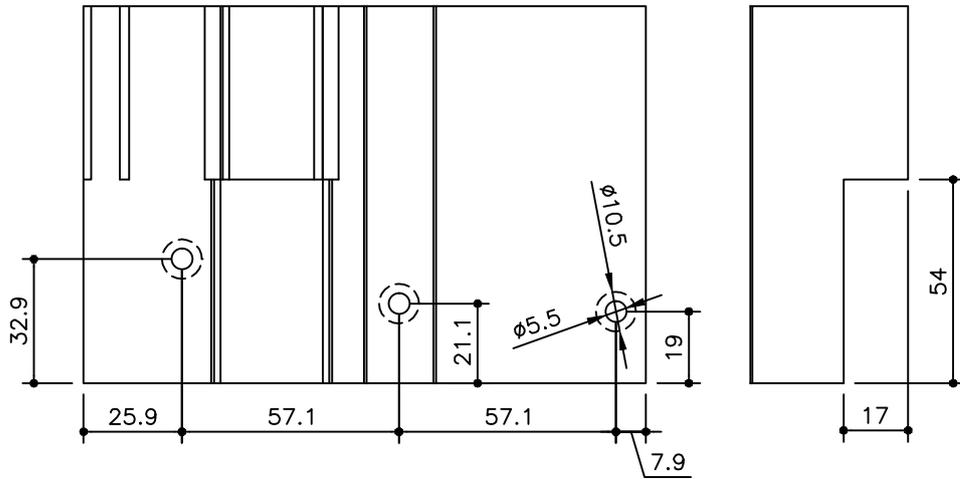


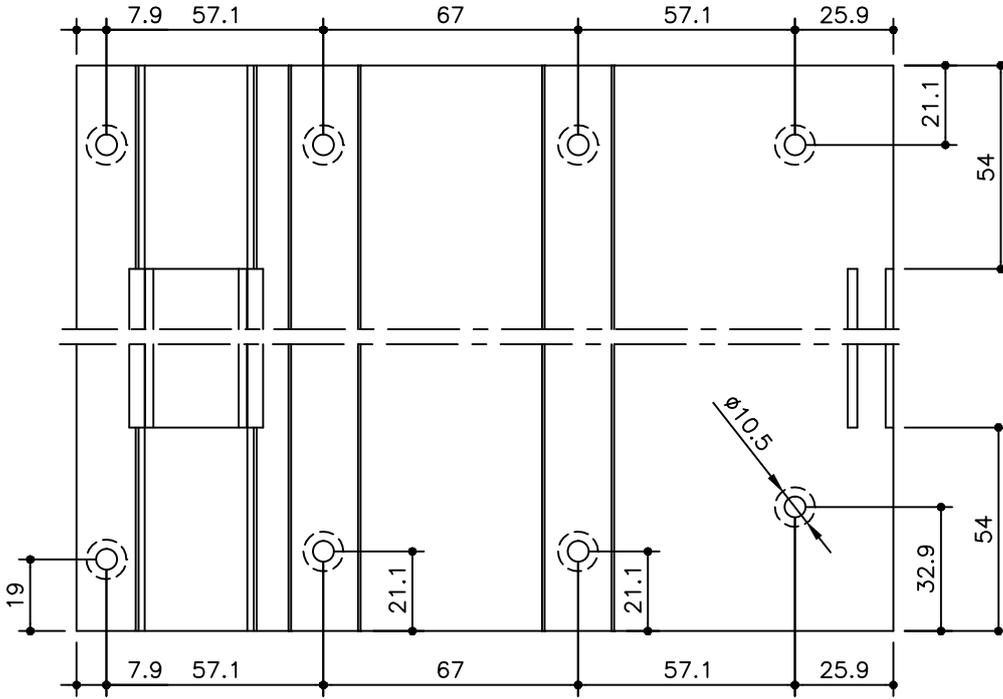
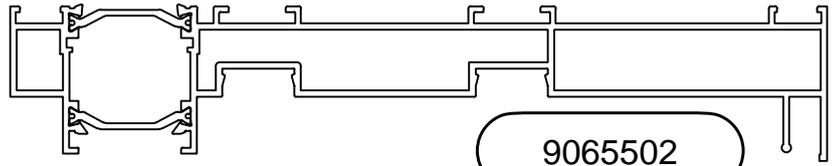
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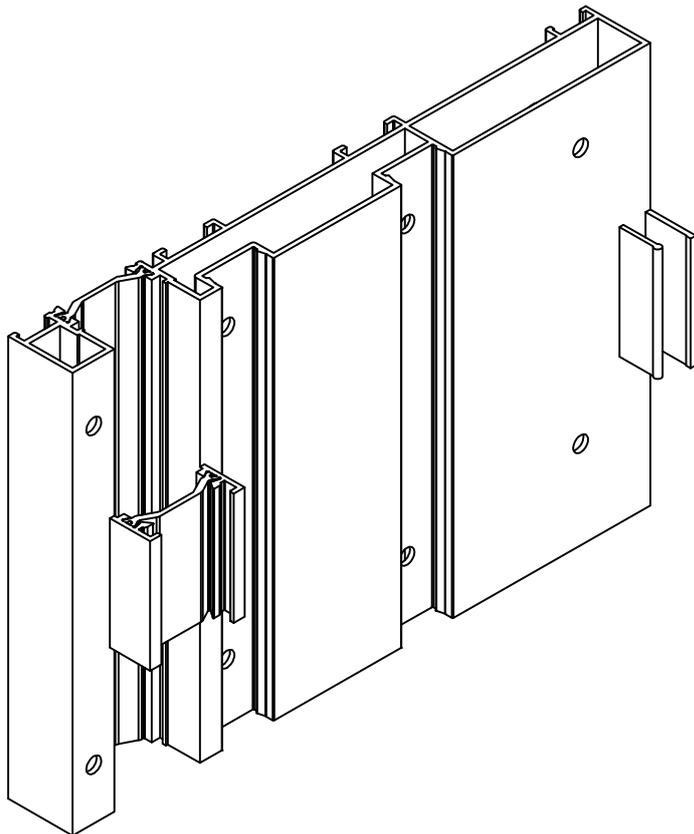
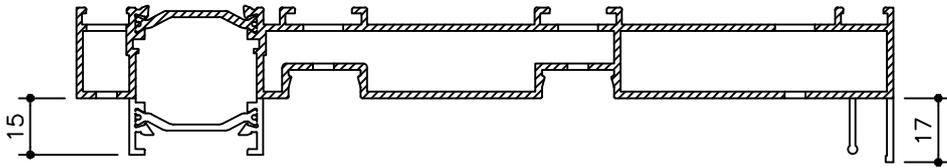
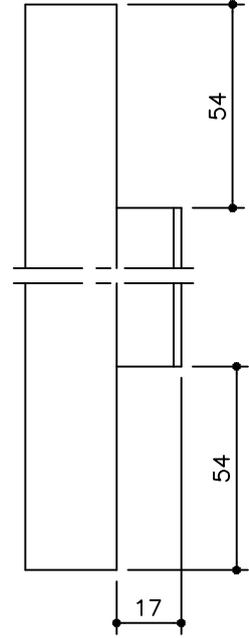


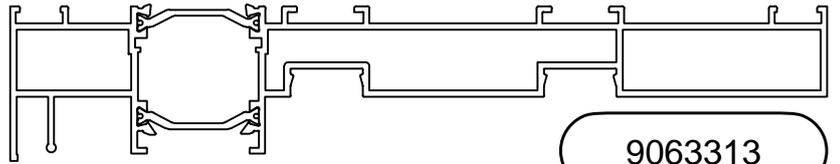
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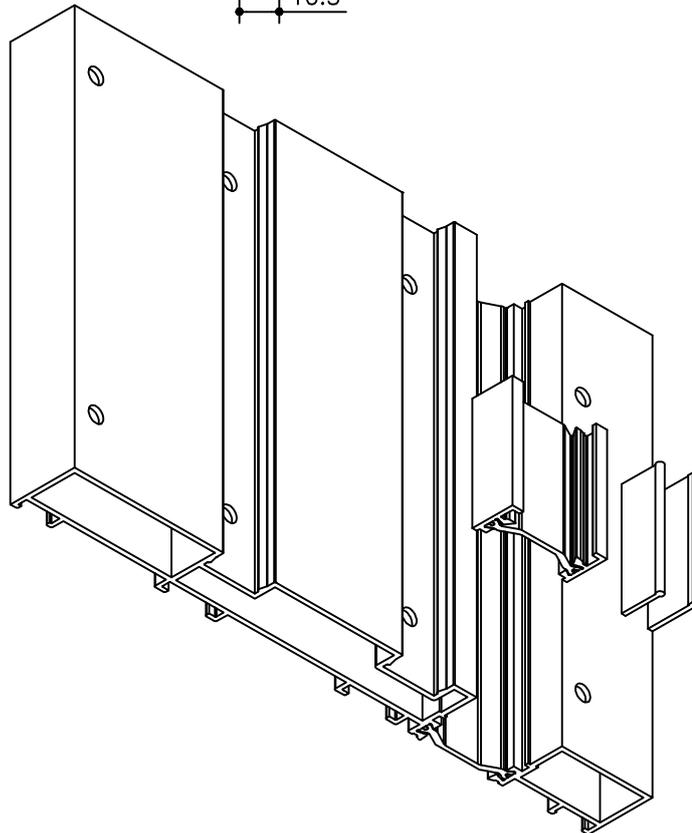
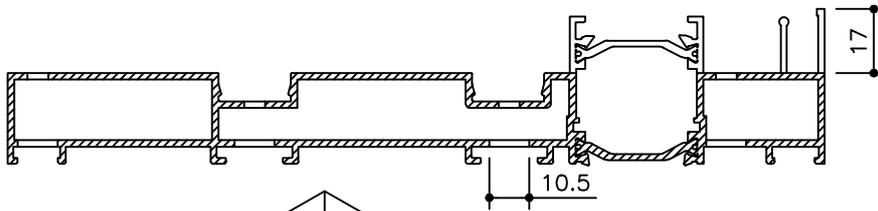
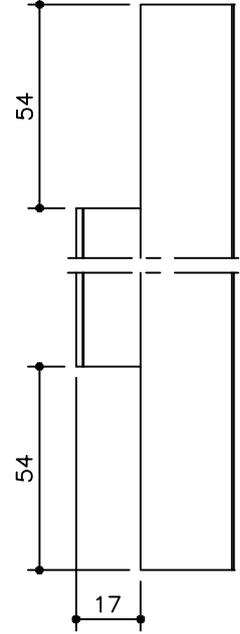
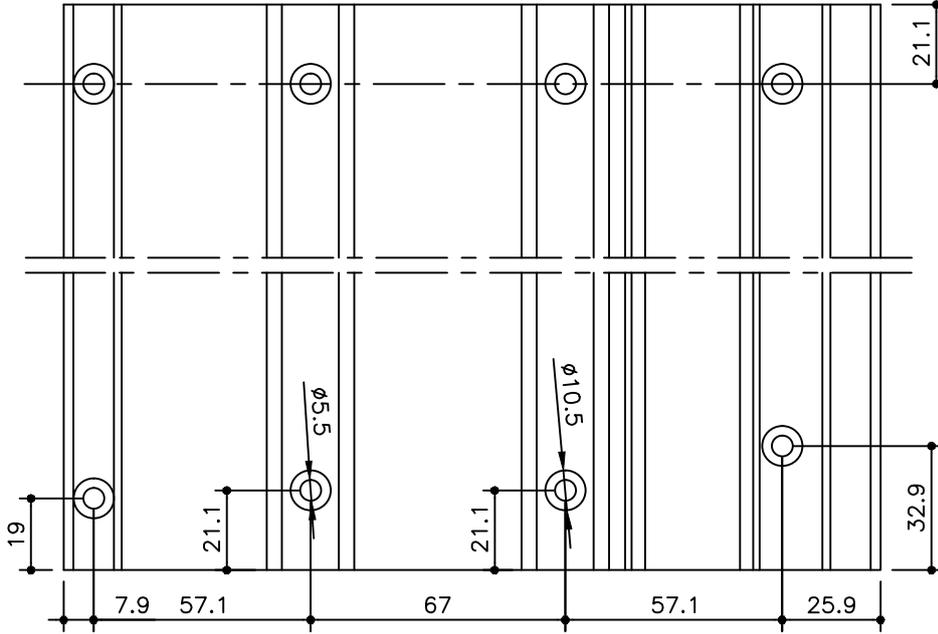


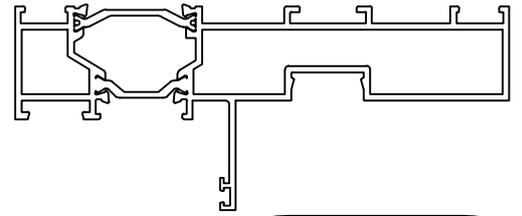
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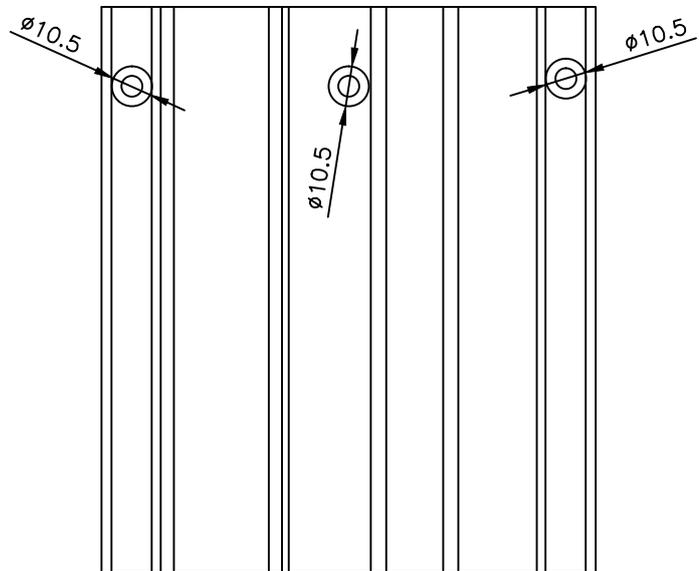
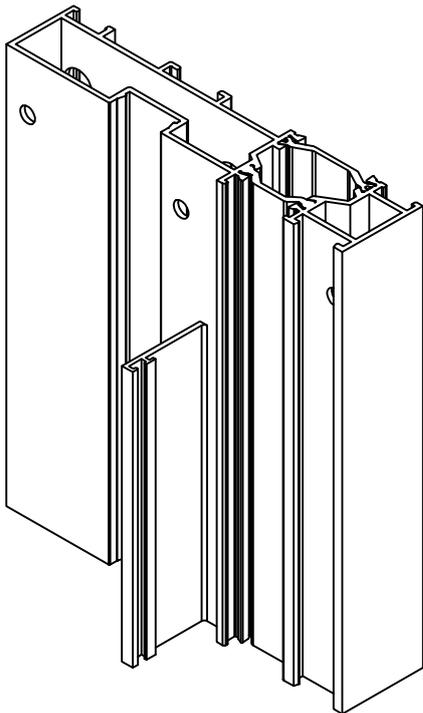
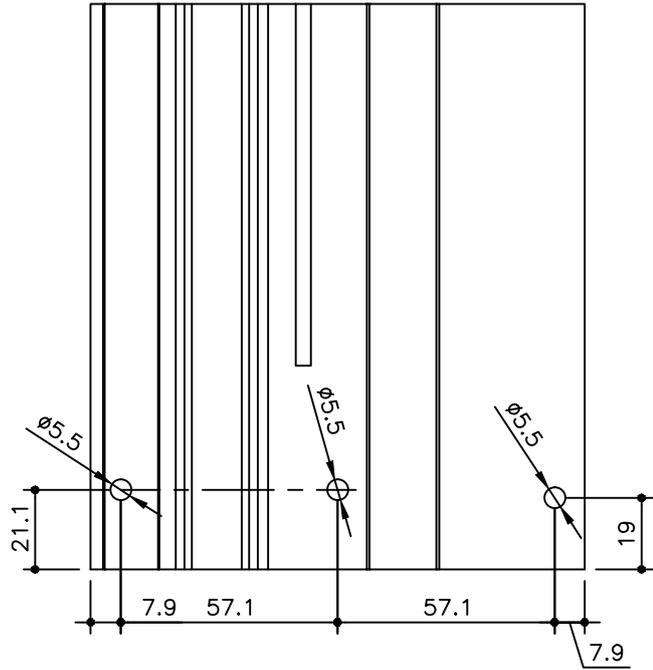
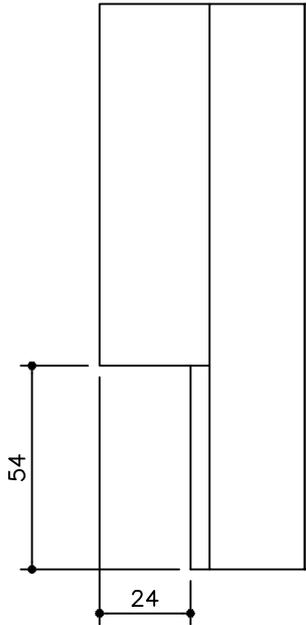


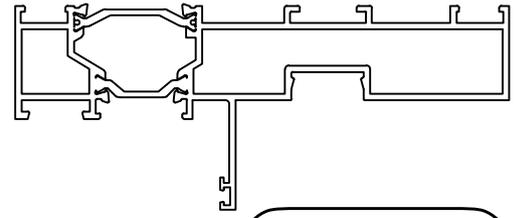
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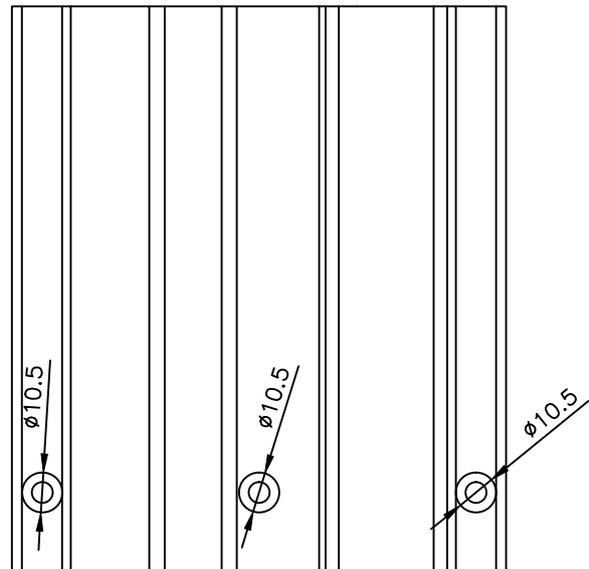
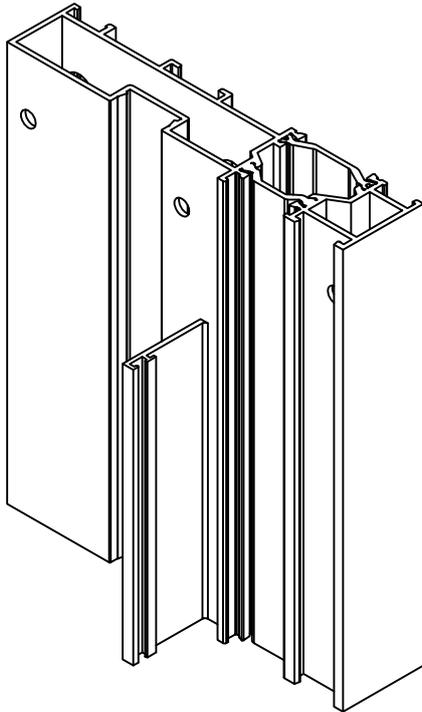
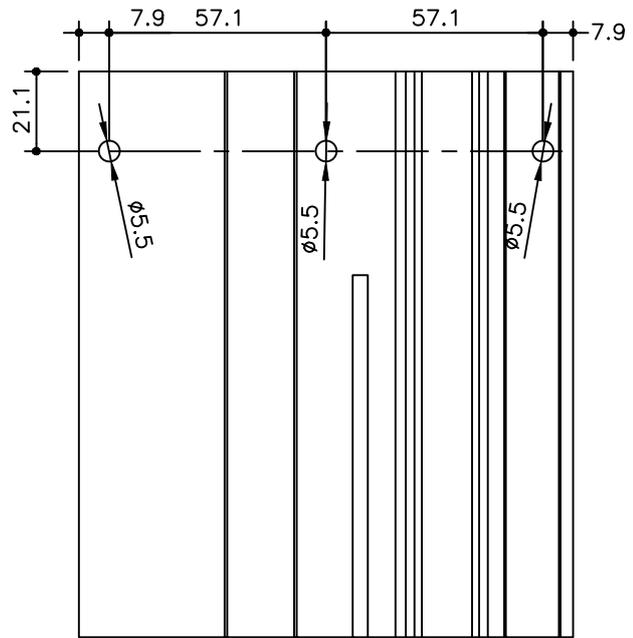
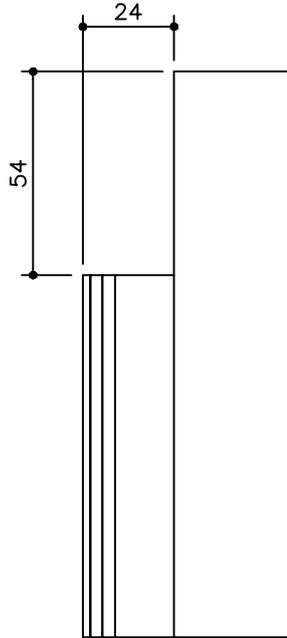


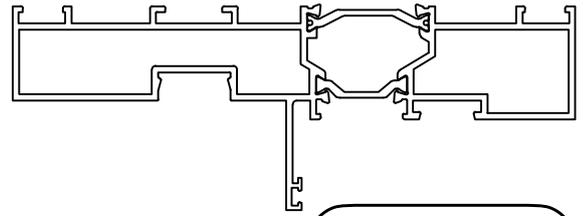
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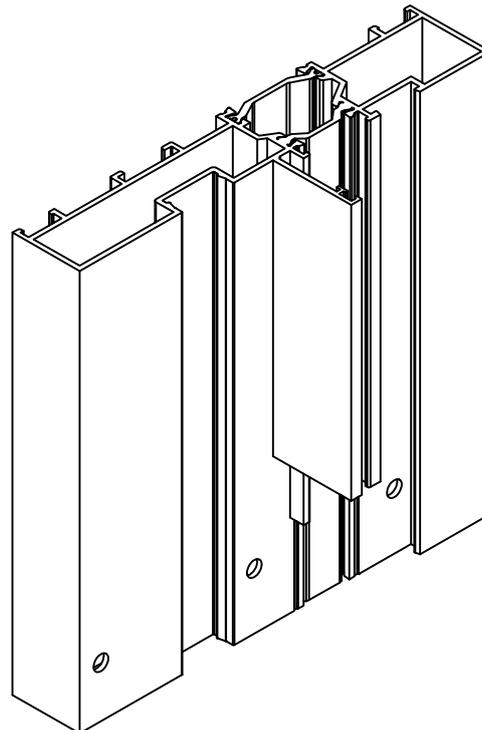
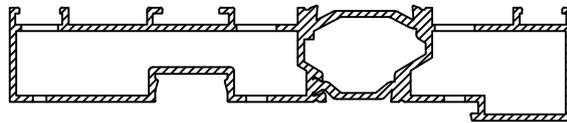
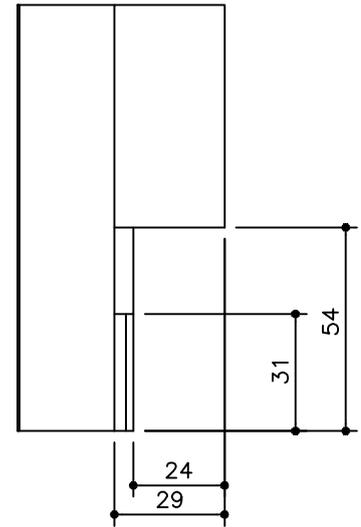
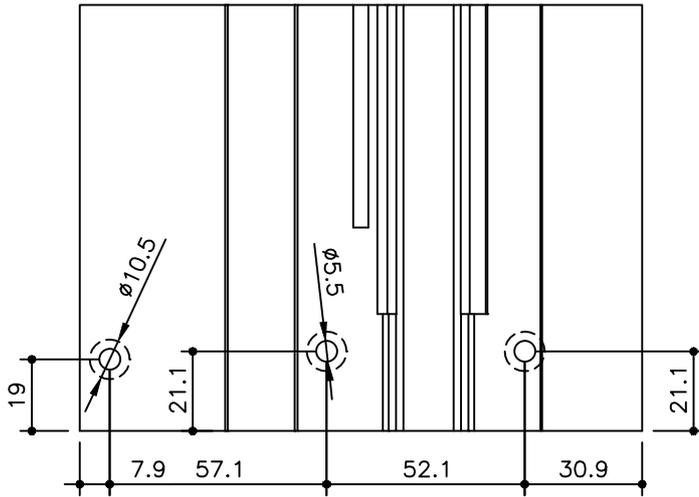


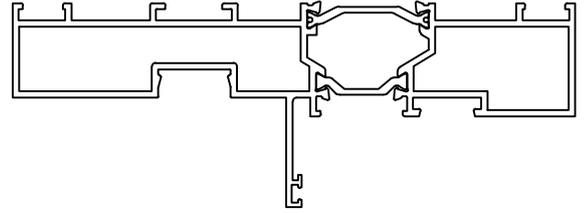
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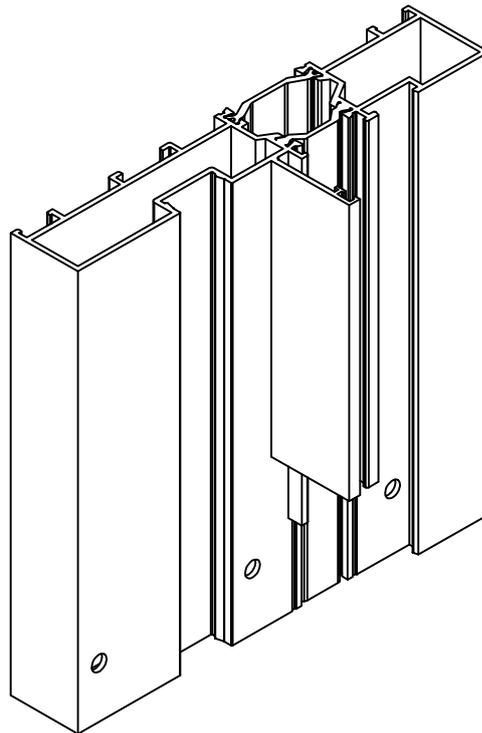
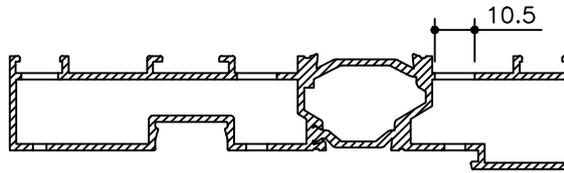
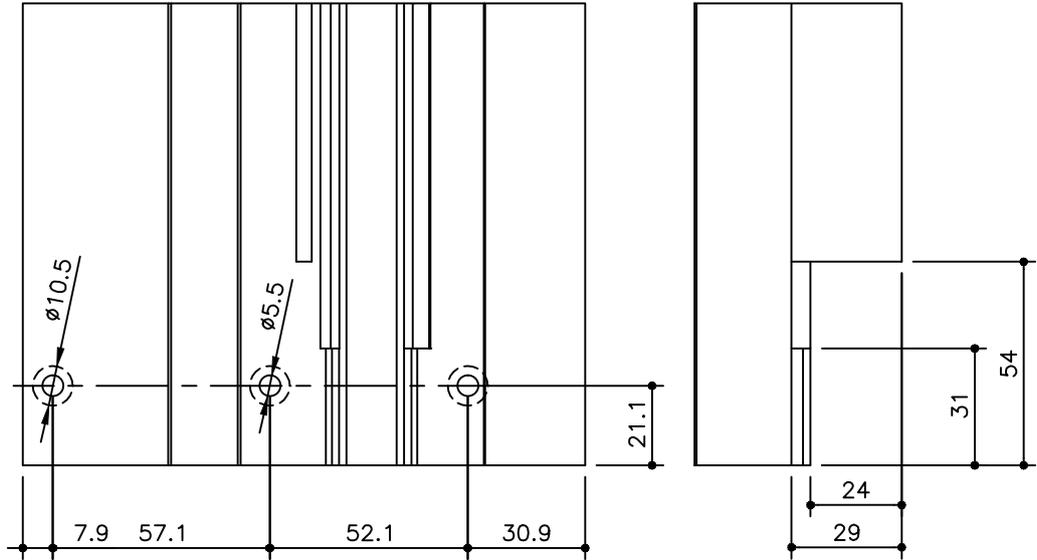


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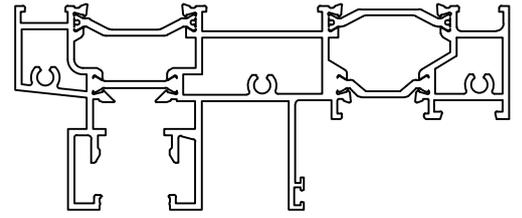




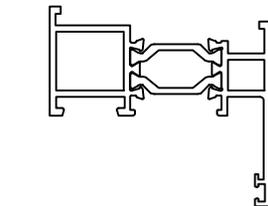
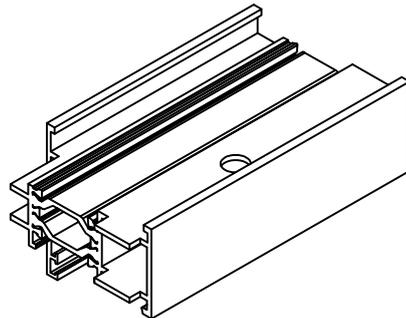
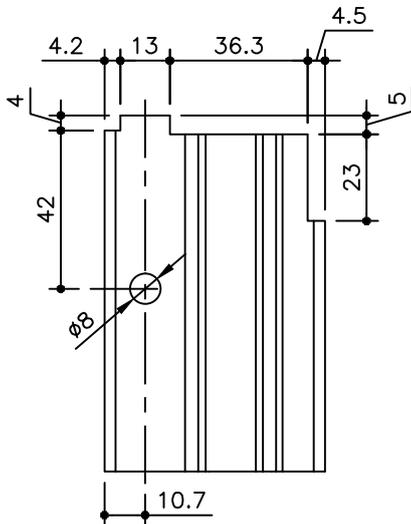
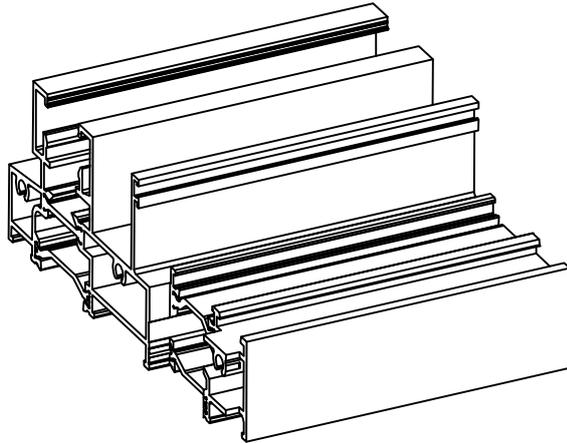
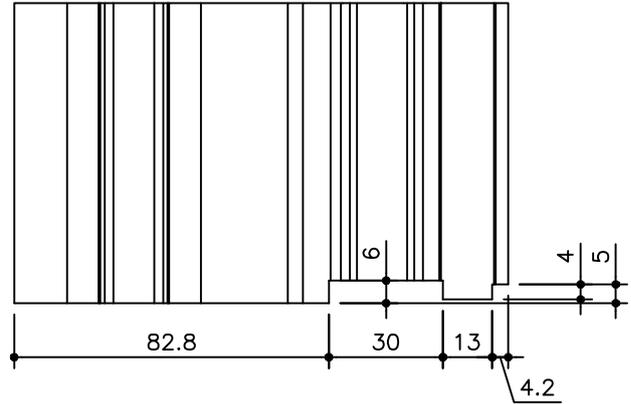
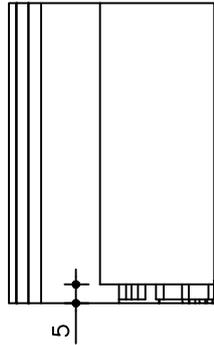
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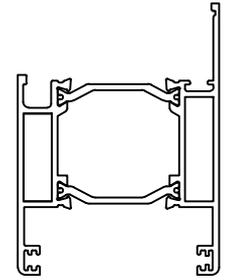
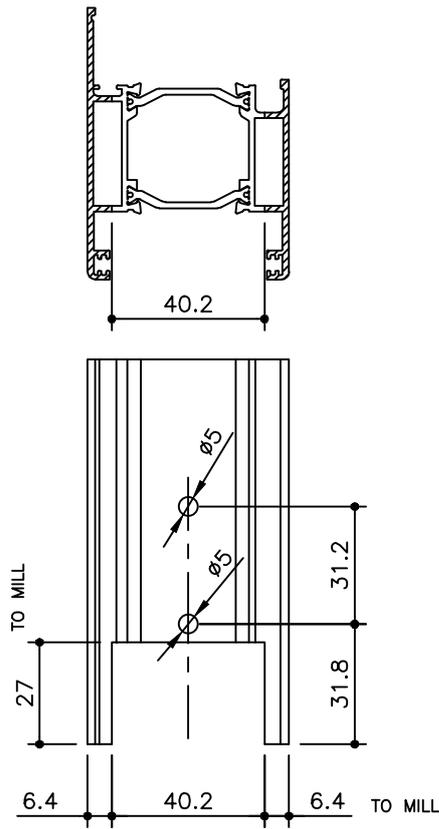
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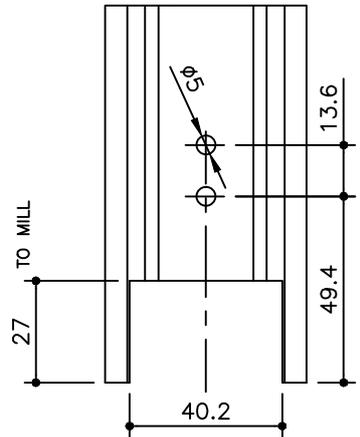
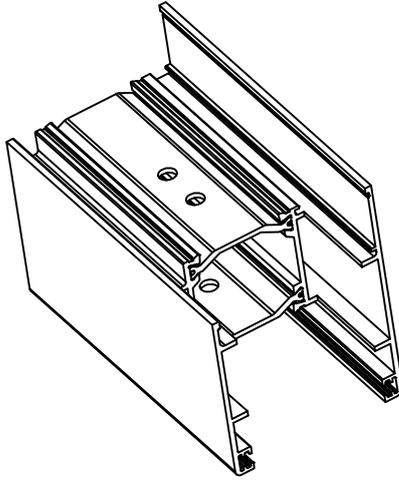
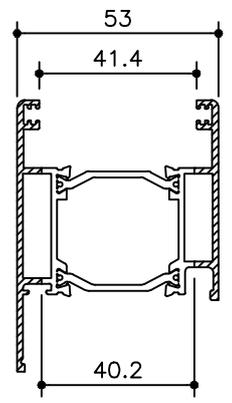
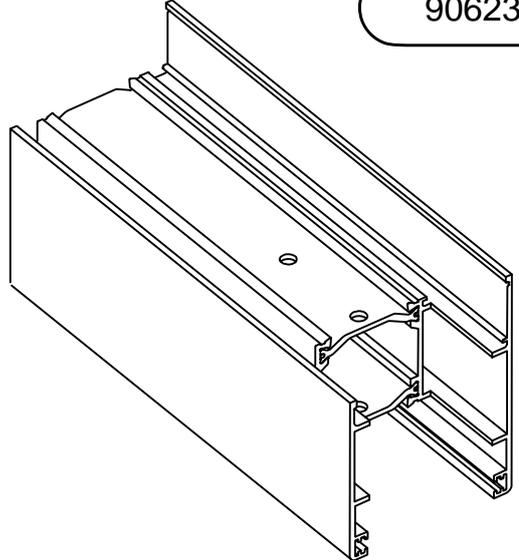
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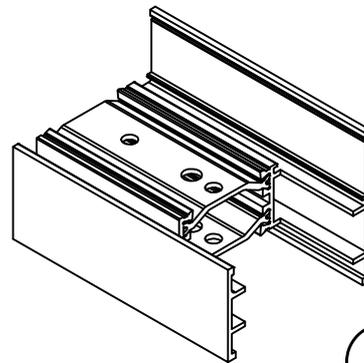
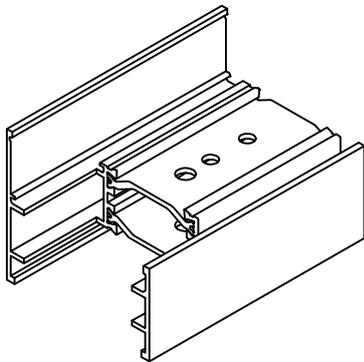
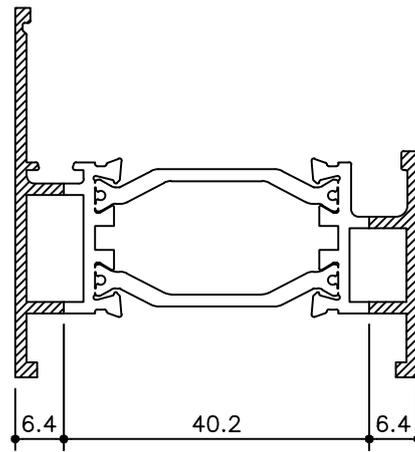
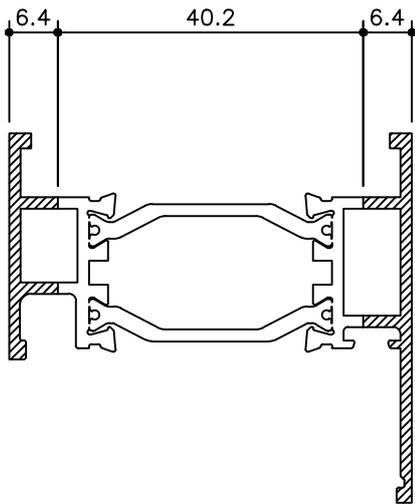
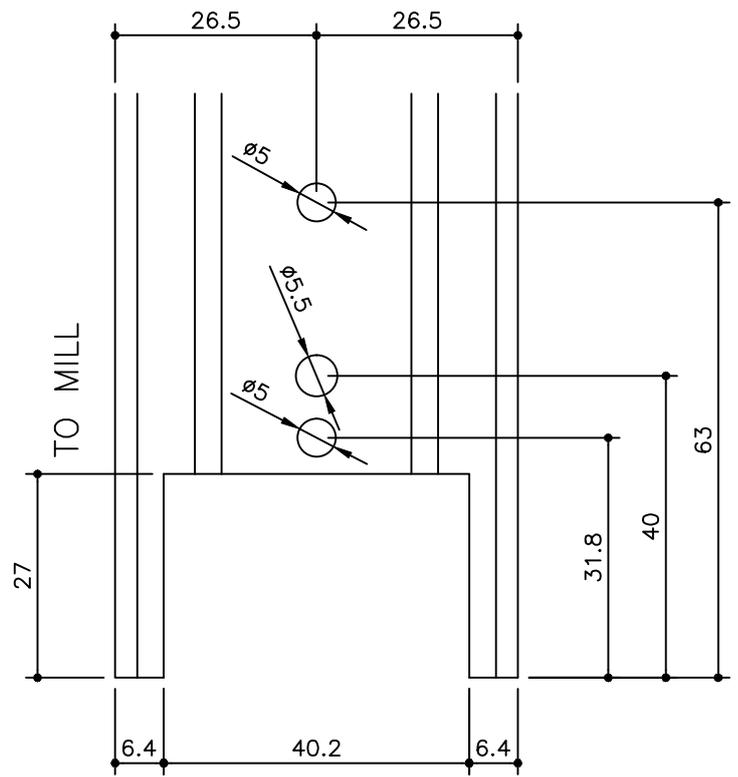
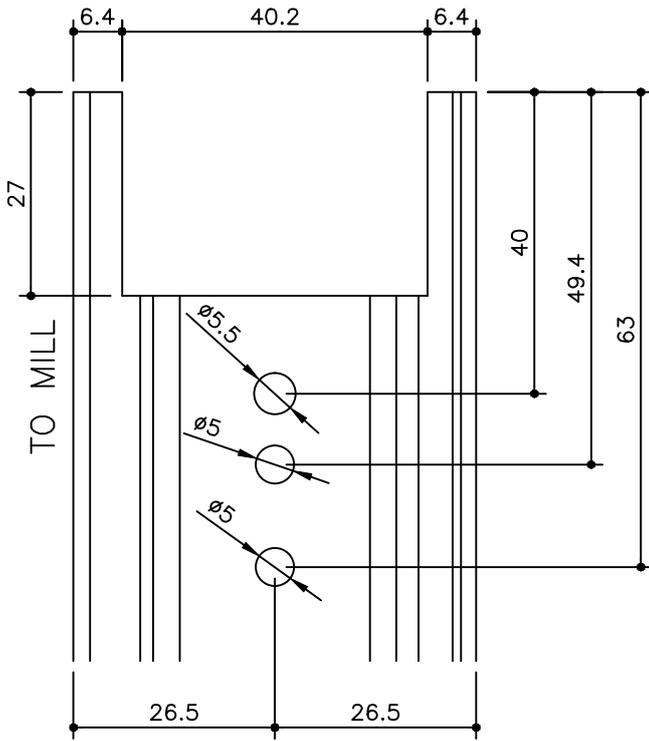


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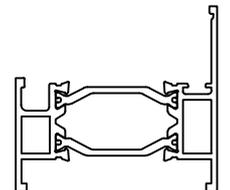




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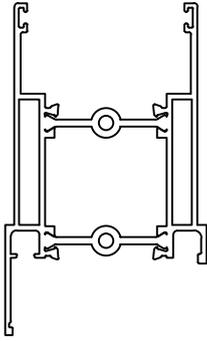


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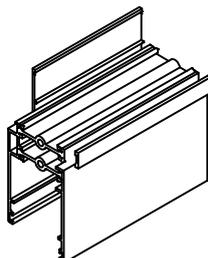
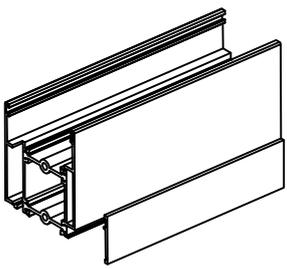
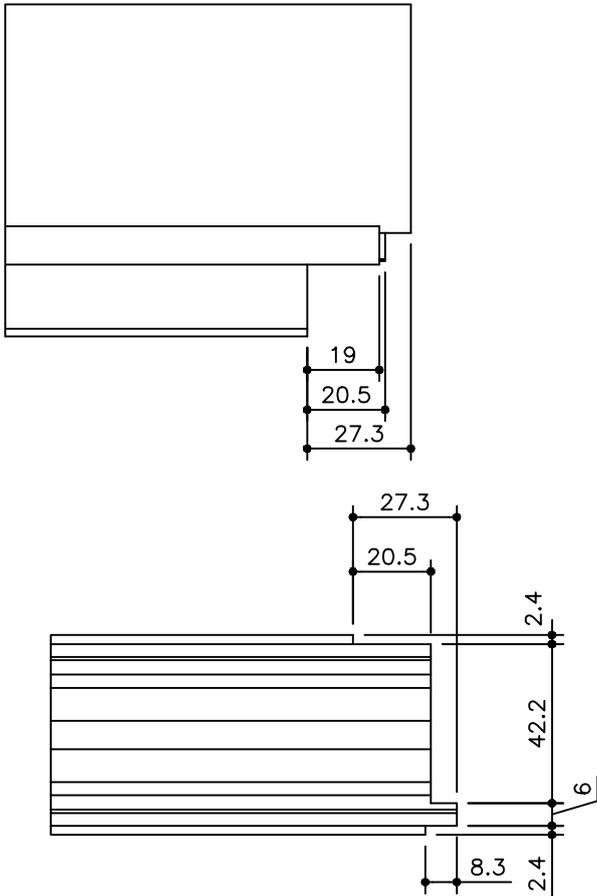
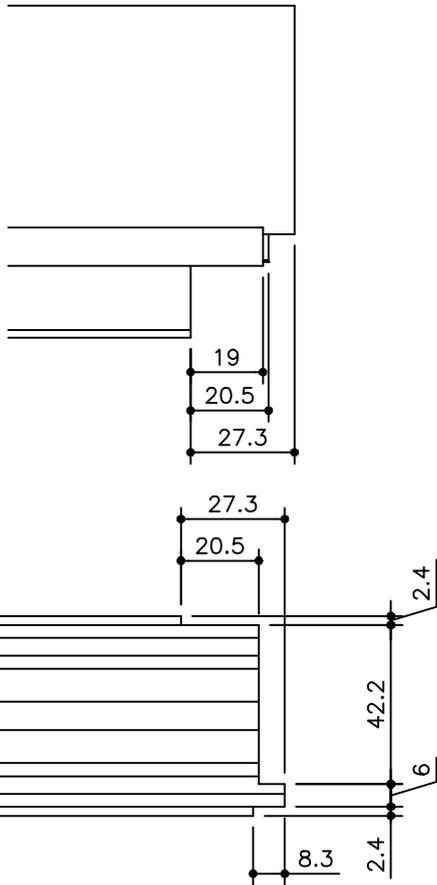
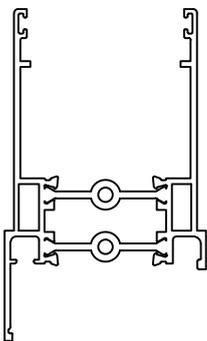


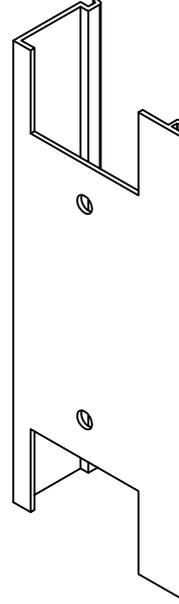
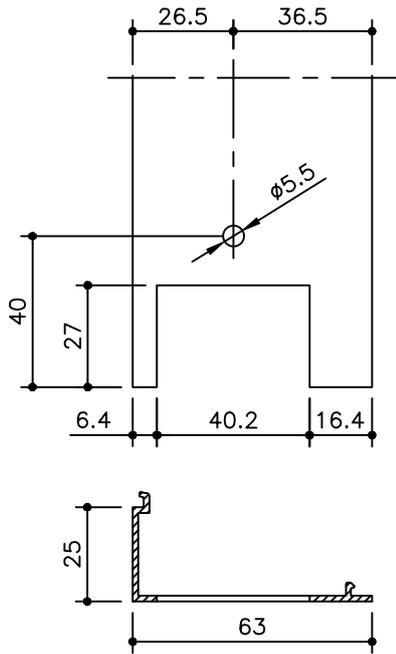


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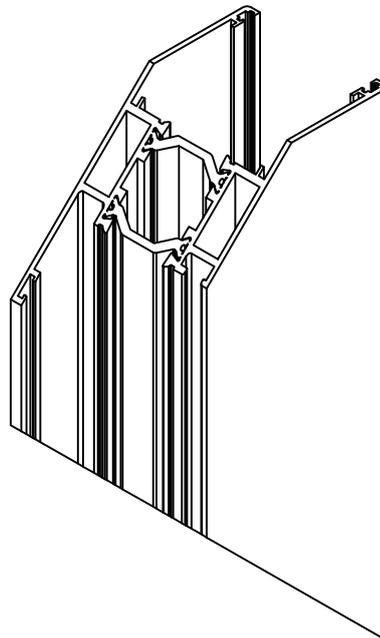
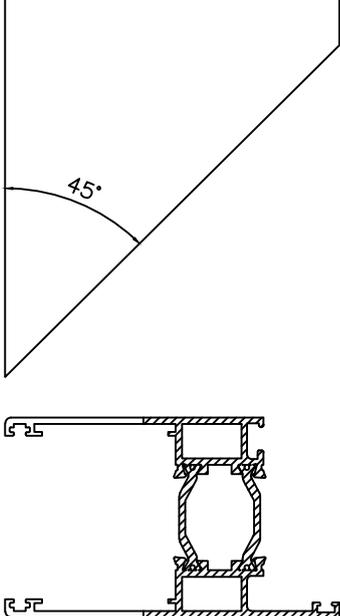
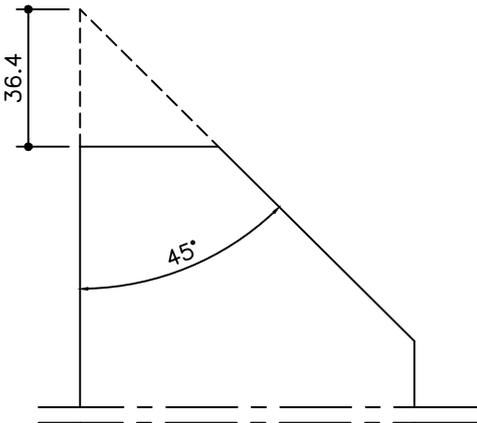


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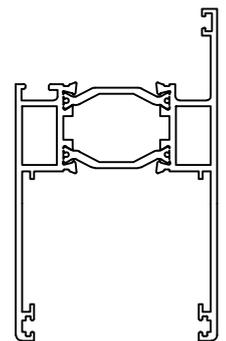


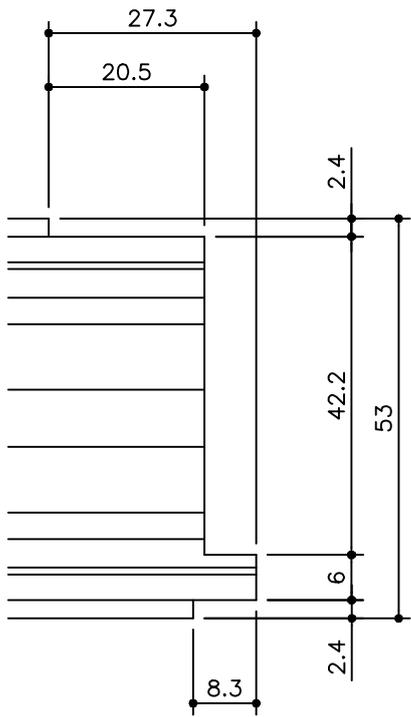


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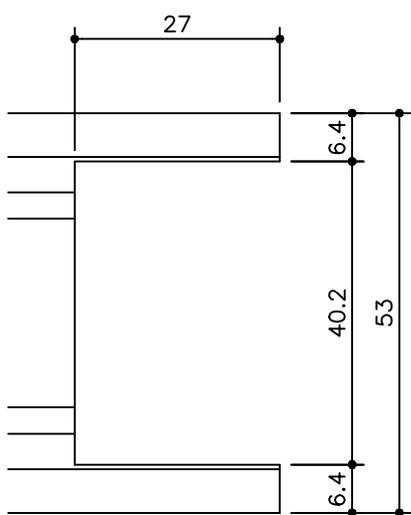
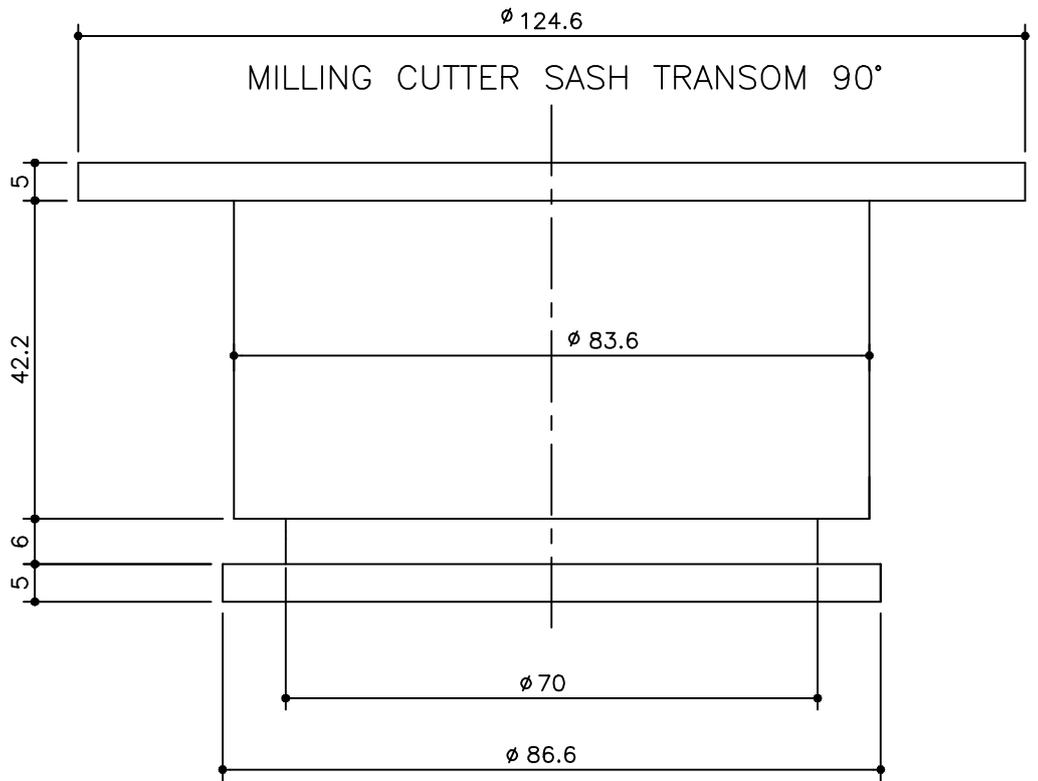


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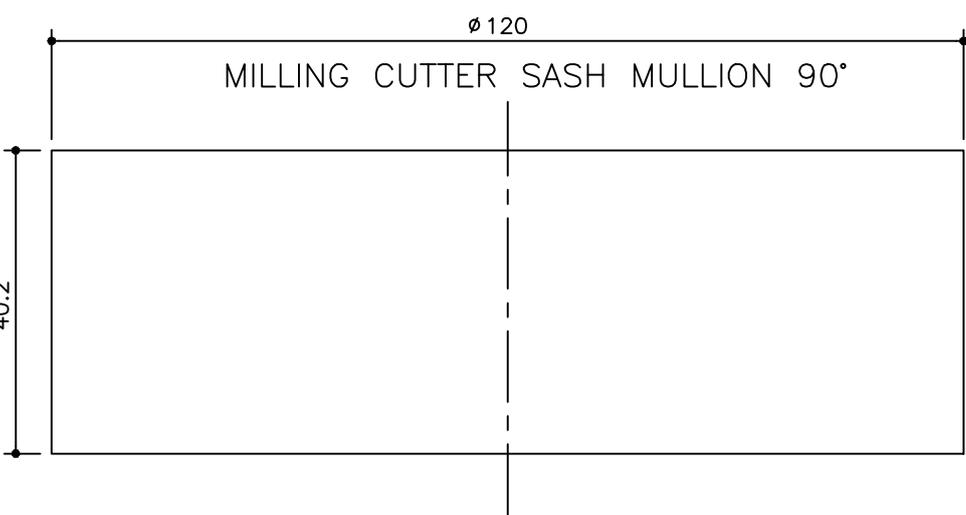




Milling machine tool



Milling machine tool





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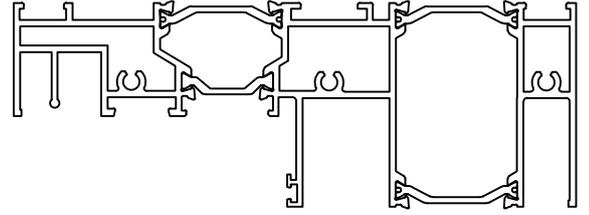


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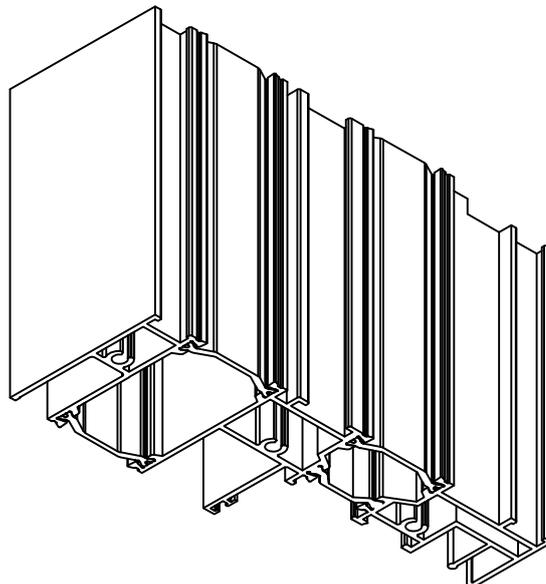
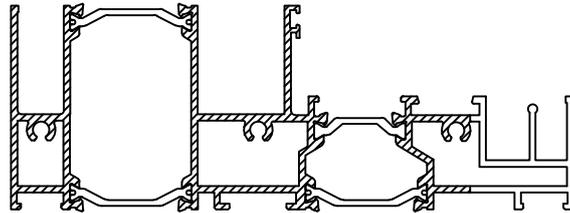
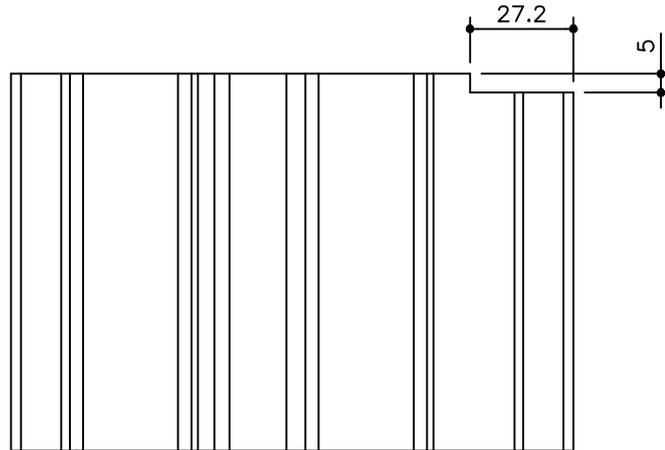
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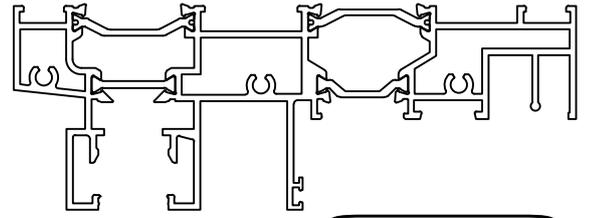
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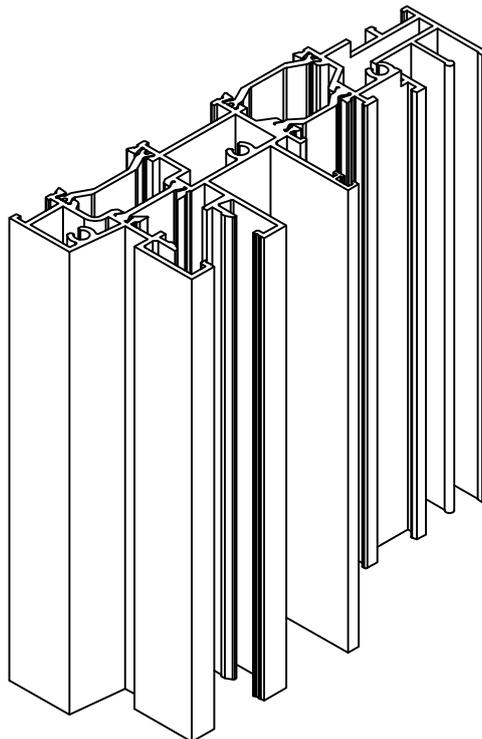
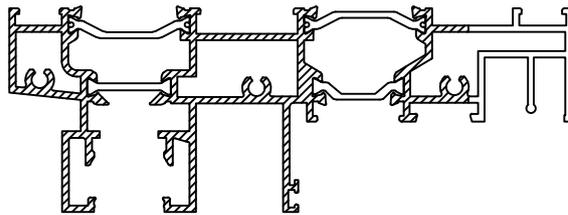
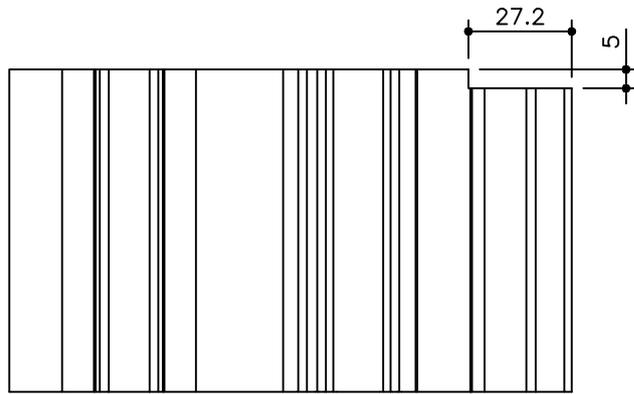
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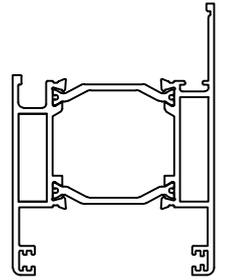


SECTOR N.23

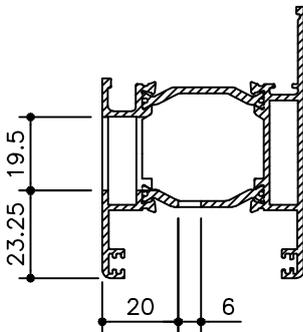
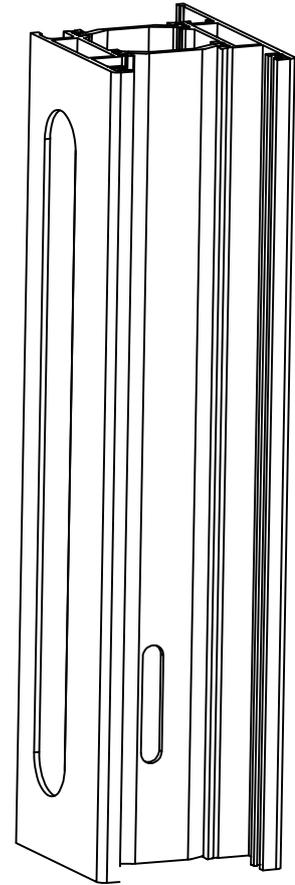
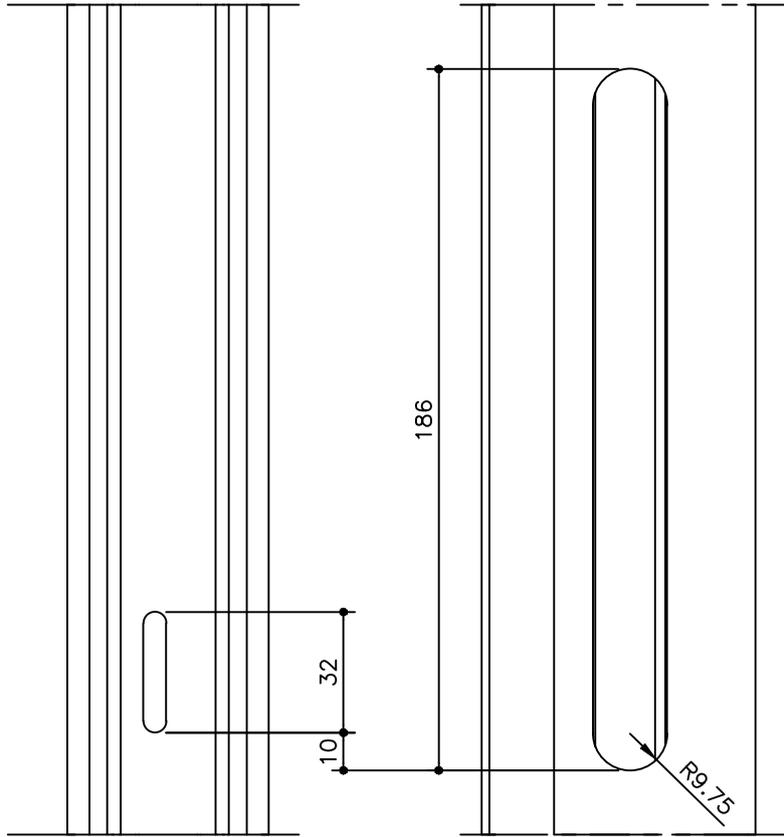


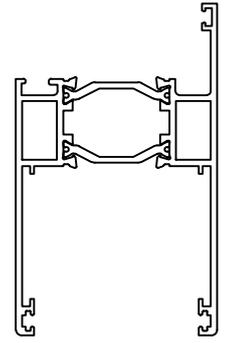
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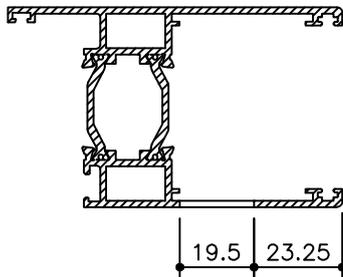
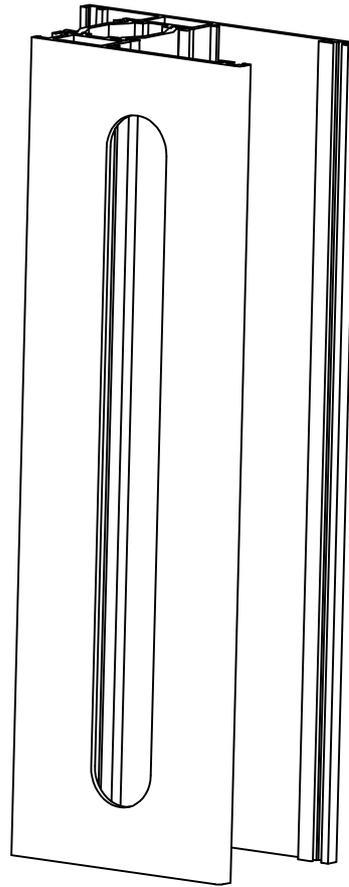
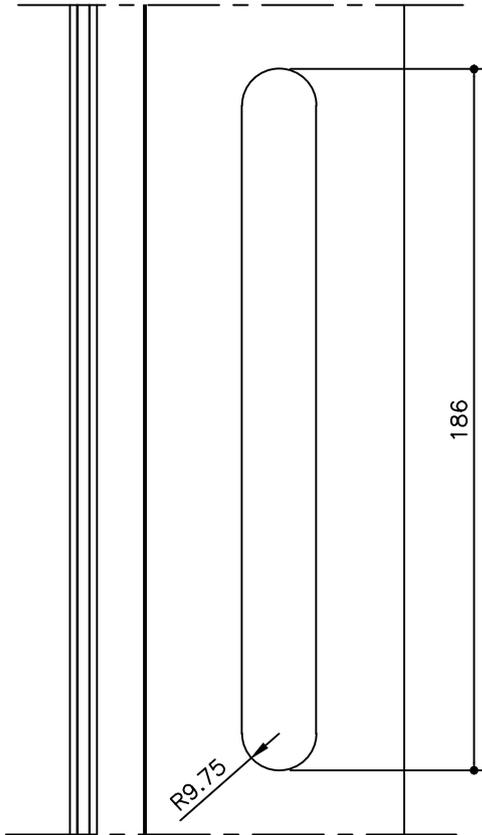


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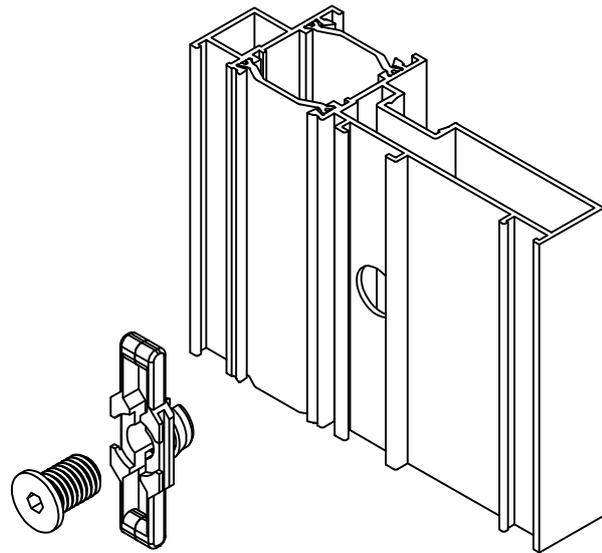
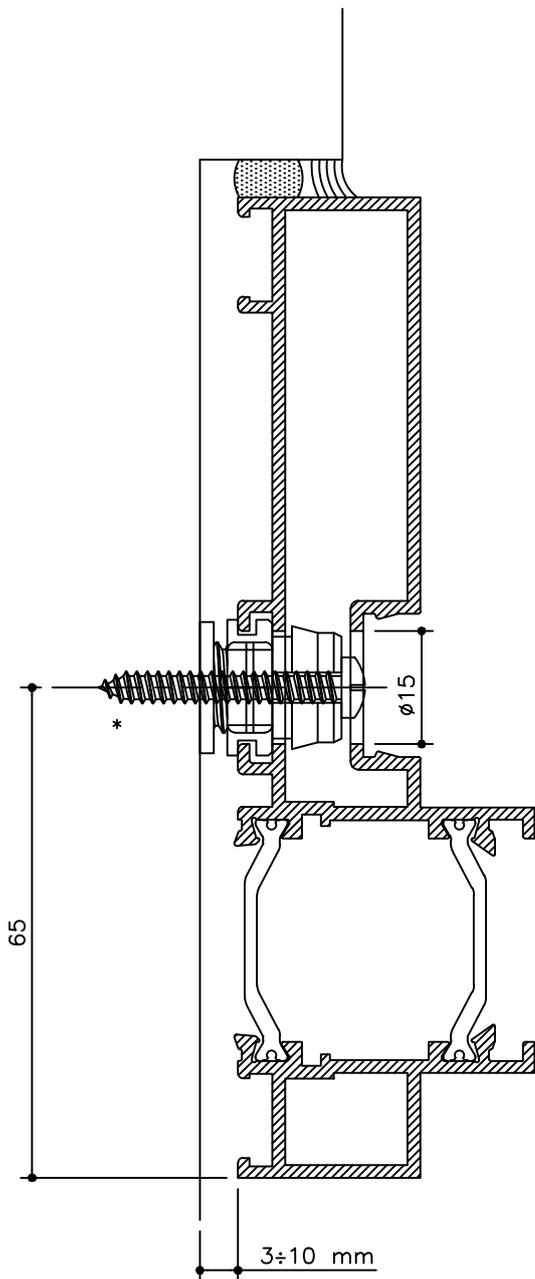
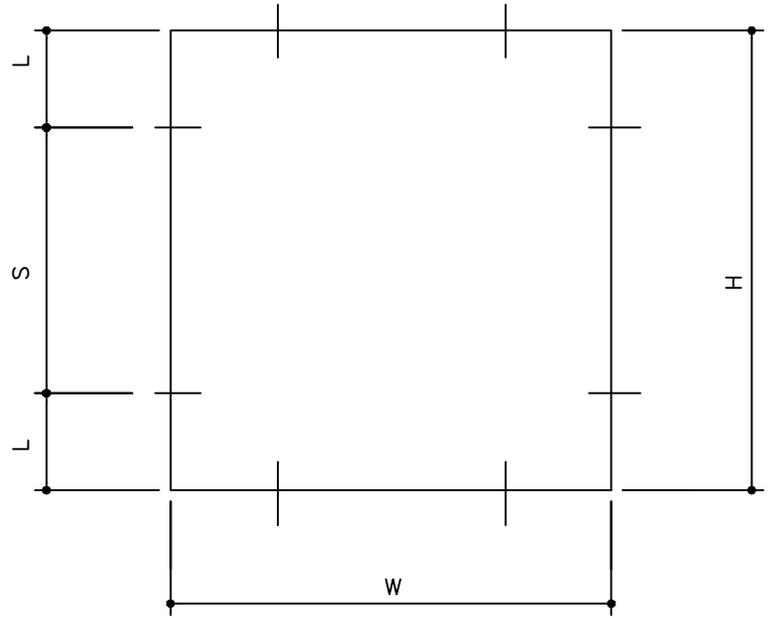




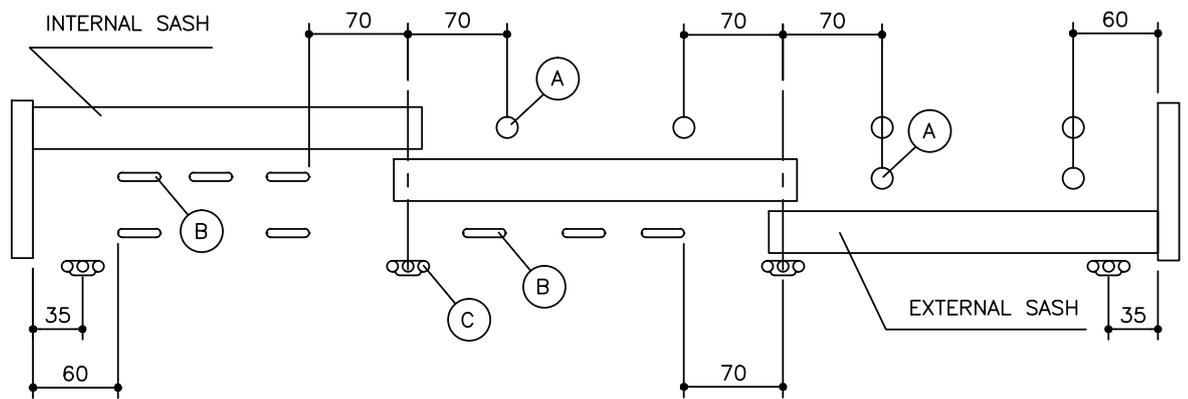
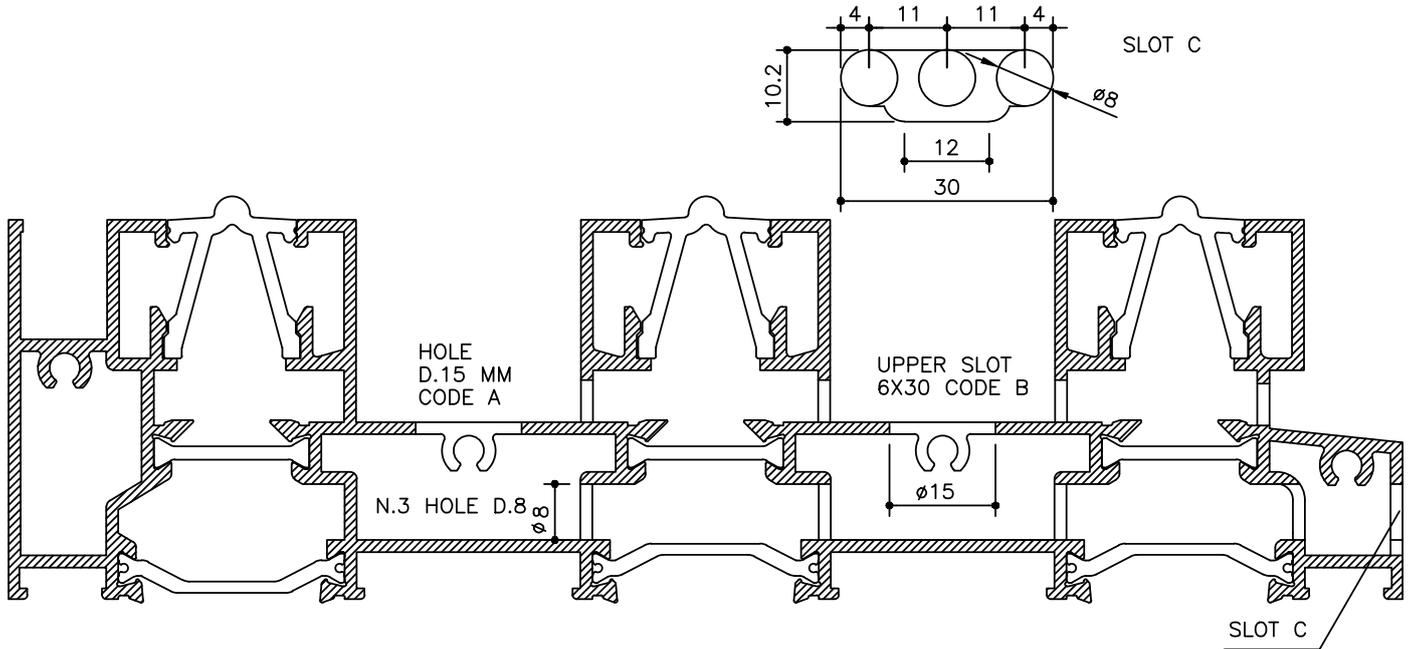
$$S \leq 650 \text{ mm}$$

$$L = 150 \div 250 \text{ mm}$$

* TAPPING SCREW $\varnothing 4,8$



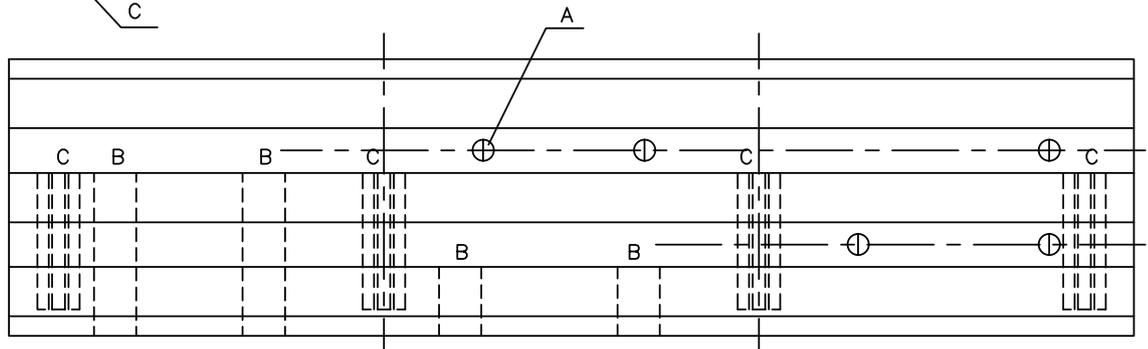
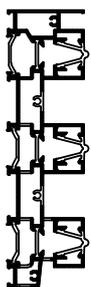
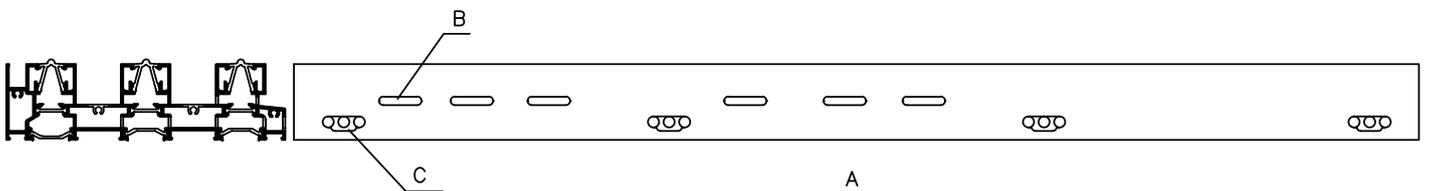
Adjusting block



HOLE CODE A HAS TO BE DONE EVERY 500 MM SASH WIDTH DIMENSION

SLOT CODE B HAS TO BE DONE EVERY 300 MM SASH WIDTH DIMENSION, IN ANY CASE NOT LESS THAN 3&6.

SLOT CODE C HAS TO BE DONE 4 UNTIL WINDOW AREA 2,5 SQM, ADD ADDITIONAL SLOT EVERY 2 SQM





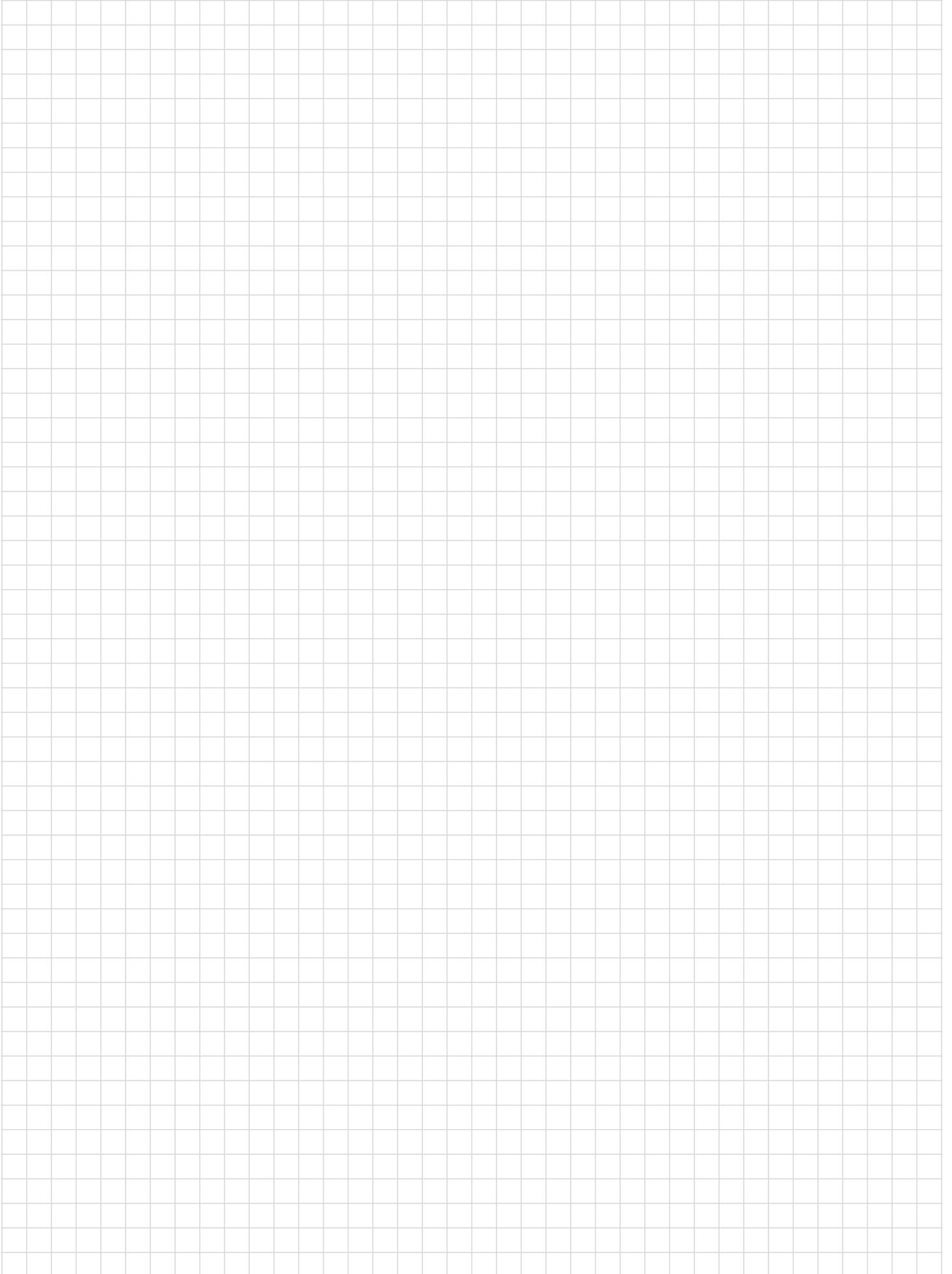
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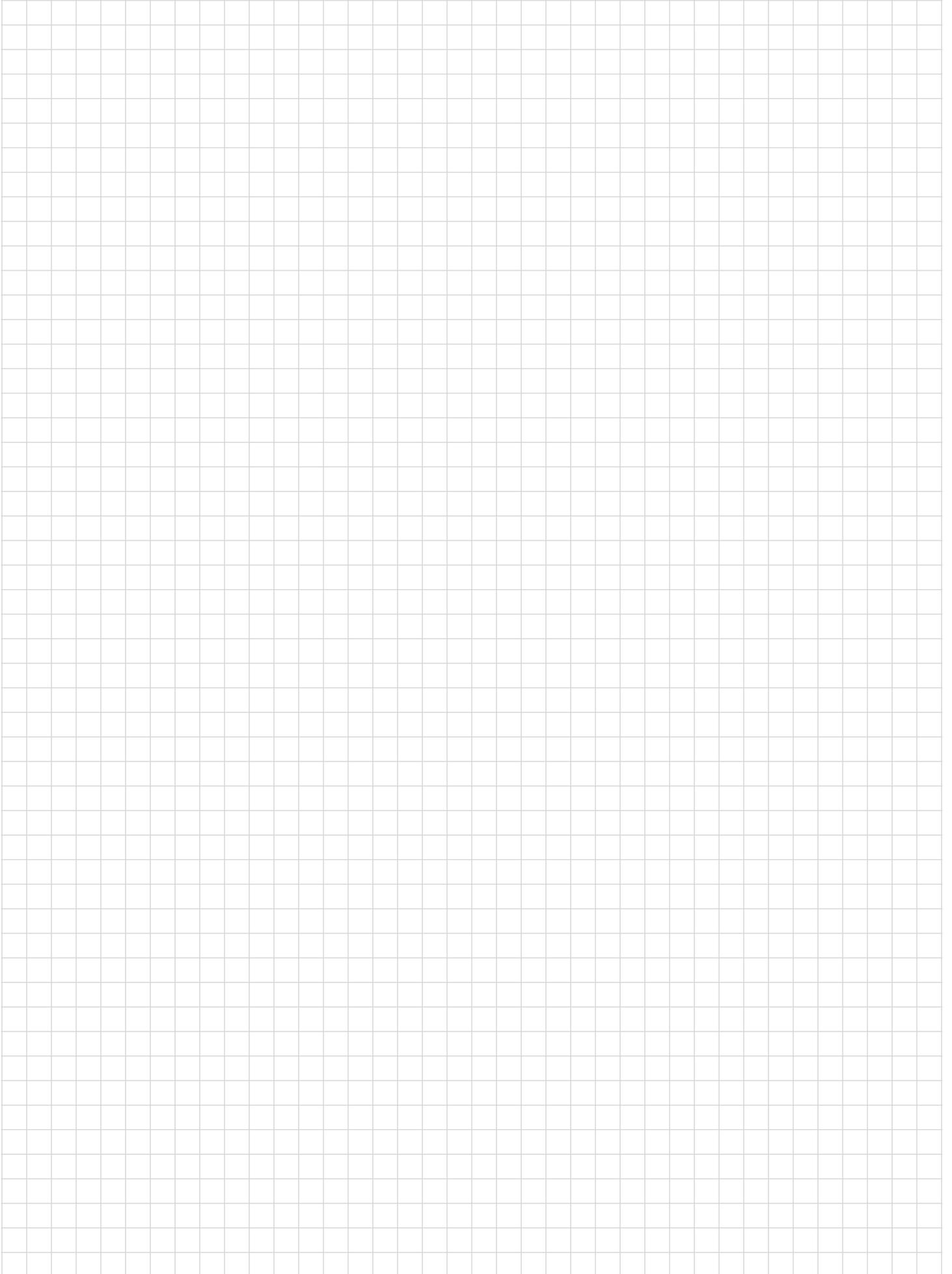
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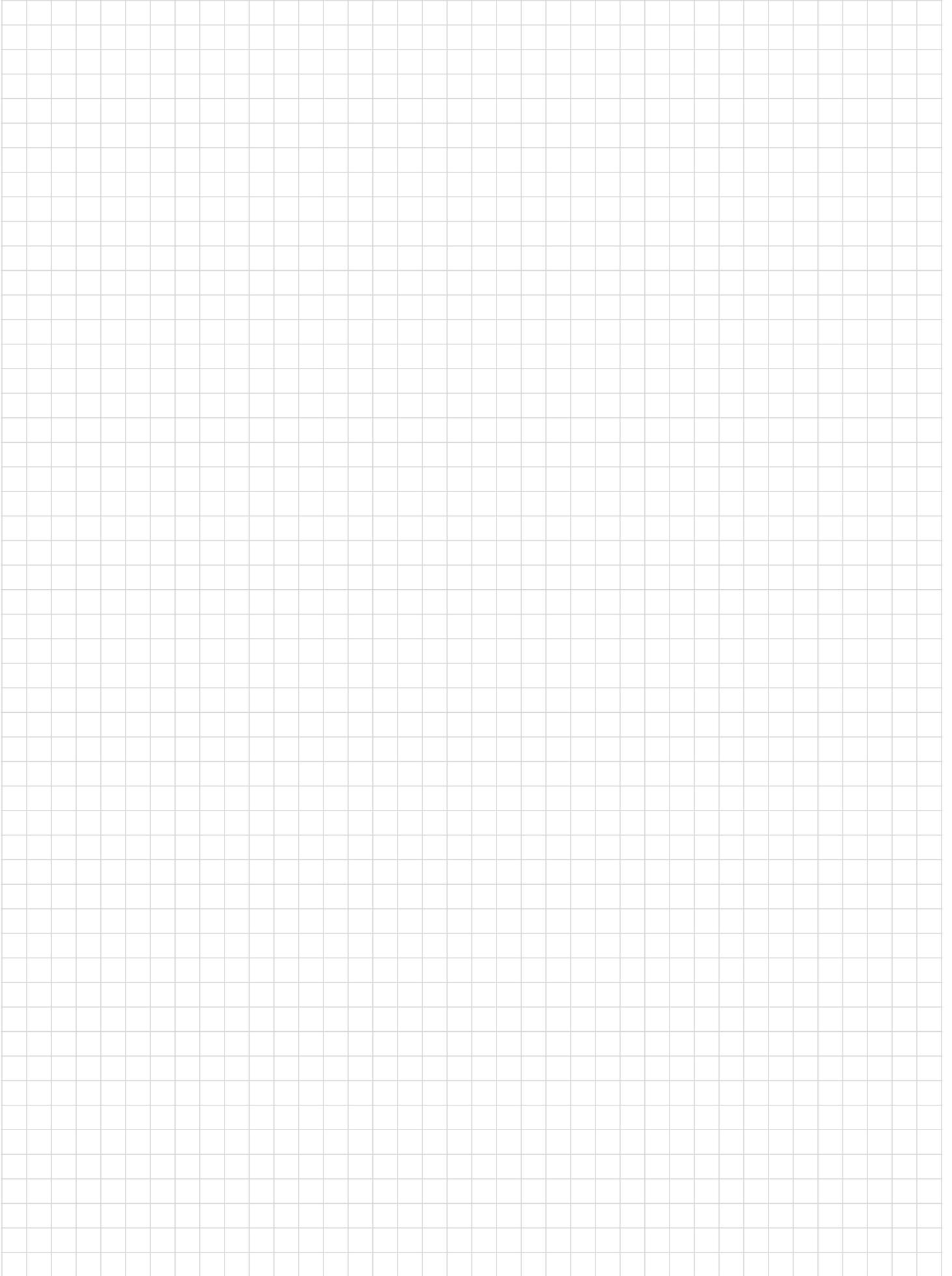


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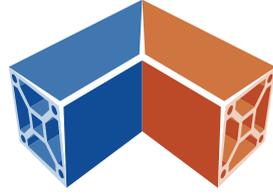


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QATAR ALUMINIUM EXTRUSION CO.

P.O. Box: 201698, New Salwa Industrial Area, Doha - QATAR.
Phone: (+974) 44 333 555 / 541 / 540, Fax: (+974) 44 333 500,
Mail: info@qalex.com.qa
www.qalex.com.qa



