

Test Report



Number	23-002574-PR01 (PB 01-E01-02-en-01)
Owner (Client)	ALUMINCO S.A. Megali Rahi 32011 Inofita Viotias Greece
Product	Pergola Awning
Designation	System: PERGOLA BIOCLIMATIC
Details	Shipping name: BIOCLIMATE PERGOLA ROOFTOP Manufacturer ift Hellas P.C., Oreokastro; Material Aluminium; Overall dimensions (W x H) 2,595 mm x 3,200 mm; Clear opening 2,460 mm x 2,850 mm; Cross section (L x W) 2,440 mm x 215 mm; Cross section (H x D) 50 mm x 215 mm; Drive Motor
Special features	Fixed slats, non-retractable pergola awning
Order	Resistance to snow loads - shutters
Contents	The test report contains a total of 6 pages and annexes (9 pages)
Note	The test report shall only be published in its unabbreviated form. The "Guidance Sheet for the Use of ift Test Documents" applies.

1 Execution

1.1 Sampling and product description

The following details have been presented to ift:

Sampler: ALUMINCO S.A., 32011 Inofita Viotias (Greece)
Sampling date: 05.09.2023
Evidence: A sampling report has been presented to ift.
Date of delivery: 11.12.2023
Description: For product identification the specimen tested is described/represented in the Annex. Material specifications, item numbers and other company-specific descriptions are details provided by the client and will be checked for plausibility by ift.

ift-No. of test specimen (PK): 23-002574-PK01 / WE: 59894-001

1.2 Basic documents *) of the procedures

EN 12833:2001 - 10

Skylight and conservatory roller shutters - Resistance to snow load - Test method

*) and the relevant national versions, e.g. DIN EN

1.3 Short description of the procedures

Resistance to snow loads in general accordance to EN 12833:2001-10

Method of loading "vertical position" was applied as specified by the standard.

For testing the test specimens were mounted to the window and facade test rig, and for application of the requested static pressure a film was attached over the complete surface of the test specimen.

Testing was performed with the nominal load and/or the safety load. The relevant test pressure depending on the snow load was applied in a jolt-free manner for 5 minutes each. During the testing of the nominal load the deflection was measured at each pressure level.

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Resistance to snow loads - shutters

2 Detailed results

Resistance to wind loads in general accordance to EN 12833:2001-10

Project-No. 23-002574-PR01
 Basis EN 12833:2001-10
 Skylight and conservatory roller shutters - Resistance to snow load - Test method
 Test equipment EPst/026691 - Window - Facade test rig
 Test specimen Pergola awning
 Test specimen No. 59894-001
 Date of test 11.12.2023
 Test engineer in charge Alexandros Simeonidis
 Test engineer Alexandros Simeonidis

Implementation of tests

Deviations There have been no deviations from the test method as specified in the standard/basis.

Ambient conditions Temperature 15.4 °C Air humidity 61 %

The ambient conditions are in accordance with the standard/basis requirements.

Measurement data/Results

Overall size W x H 2595 x 3200 mm
 Venetian blind size W x H 2460 x 2850 mm
 Area of test specimen 7.01 m²
 Distance film/lamella (x) 200 mm

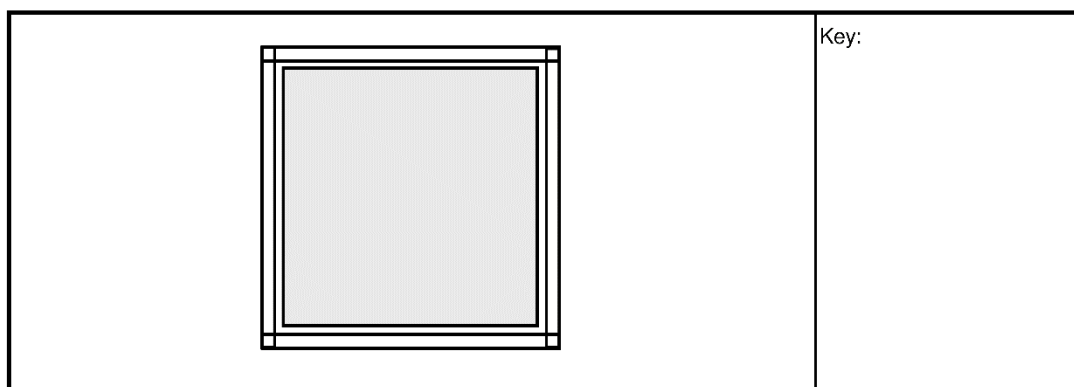


Fig. 1 test specimen

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Resistance to snow loads - shutters



Calculation nominal load: $F_N = (p + p_0) \times L \times H$

Table 1 Conversion test loads nominal load

Nominal test pressure p_N [N/m ²]		1214	2014				
Nominal load F_N [N]		8511	14120				

Calculation safety load: $F_S = \gamma \times F_N$

Safety factor γ :

Table 2 Conversion test loads, safety load

Safety test pressure p_S [N/m ²]		1821					
Safety load F_S [N]		12767					

Requirements:

No damage that can be dangerous to persons
(by breaking or slipping from the mounting or guiding devices)

Calculation film size:

$$H_f = H + 1250 + 2x$$

$$H_f = 4500 \text{ mm}$$

$$L_f = L + 1000 + 2x$$

$$L_f = 3860 \text{ mm}$$

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Resistance to snow loads - shutters



1.1 Direct nominal load (positive pressure)

Table 3 Reference distance

Reference distance without pre load [mm]	D_0	0
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Table 4 Test results horizontal shift at measurement point D

Test load $-p_N$ [Pa] (5 min.)	Horizontal shift under load [mm]				Observation
1214	D_1	5,36	D_1-D_0	5	-/-
2014	D_1	10,97	D_1-D_0	11	-/-

1.2 Direct safety load

Table 7 Test results direct safety load, horizontal shift at measurement point D

Test load p_S [Pa] (5 min.)	Horizontal shift under load [mm]				Sliding out	Breakage	Observation
1821	D_2	9,026	D_2-D_0	9	No	No	-/-
3021	D_2	19,31	D_2-D_0	19	No	No	-/-

Note

Permanent deformation of the fixed slat after the safety test of 3000 Pa
 Recovery of the fixed slat after operation

3 Summary

3.1 Result

The test results are shown in the measuring data sheet, see item "Detailed results".

3.2 Instructions for use

This test/evaluation does not allow any statement to be made on further characteristics of the present structure regarding performance and quality, in particular the effects of weathering and ageing.

The test was performed in order to standard and the details for identification of the test specimen are complete.

ift Rosenheim

22.12.2023



Thomas Stefan, Dipl.-Ing. (FH)
Head of Testing Department
Building Component Testing



Alexandros Simeonidis, B.Eng.
Operating Testing Officer
Building Component Testing

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Die Beschreibung des geprüften Probekörpers dient der normkonformen Identifizierung des Produkttyps, für den die festgestellten Werte gelten. Alternativ zur vorgegebenen tabellarischen Datenerfassung kann die Beschreibung auch in Form von technischen Zeichnungen, Verarbeitungsrichtlinien, Stücklisten etc. erfolgen. Zusätzliche Produktdetails bitte ergänzen.

Die *Mindest-Angaben sind Voraussetzung für die Erstellung eines ift-Nachweises. Nur bei Angabe aller in diesem Dokument angeforderten Daten ist ggf. eine nachträgliche Gutachtliche Stellungnahme möglich. Alle *Mindest-Angaben des Auftraggebers werden vom ift auf Plausibilität geprüft; ggf. festgestellte Abweichungen und/oder ergänzende Feststellungen werden dokumentiert.

The description of the specimen to be tested serves to identify, in conformity with the standards, the product type, for which the values determined will apply. Alternatively to the specified tabulated data collection, the description may also be made by technical drawings, processing instructions, parts lists, etc. Please supplement additional product details.

The *minimum details are the precondition for issuing the "ift-Nachweis". Only upon provision of all requested data subsequently requested Expert Statements may be issued. All *minimum details provided by the client will be checked for plausibility by ift, any deviations observed and/or additional findings will be documented.

* Mindestangaben

* minimum details

Alle Maßangaben in mm

All dimensions in mm

Nicht Zutreffendes bitte löschen.

Please delete non-appropriate.

Wareneingang-Nr.: 59894-001

ID of goods received :

ift Mitarbeiter: asi

ift staff member :

Eigenschaft Characteristic	Angaben des Auftraggebers (unverändert) Information provided by client (unchanged)
Produkt Product	* BIOCLIMATIC PERGOLA
Hersteller Manufacturer	* ALUMINCO S.A.
Bezeichnung / Typ / Art.-Nr. Designation / type / item no.	* BIOCLIMATE PERGOLA ROOFTOP
System System	* PERGOLA BIOCLIMATIC
Probekörper 1 (B _{zul} x H _{max}) Test specimen 1 (W _{permitted} x H _{max})	*
Elementgröße (B x H) Element size (W x H)	2,595 mm x 3,200 mm
Charakterisierte Größe (B x H) Characterized size (W x H)	2,460 mm x 2,850 mm
Herstelldatum Date of manufacture	05.09.2023
Rollladenpanzer Roller curtain	
Material Material	ALUMINIUM 6063-T66
Profilnummer Profile no.	PS20-200 APS20-1101 PS20-300, fixed slat PS20-301, fixed slat
Profilquerschnitte (BxD) Profile cross sections (W x T)	215 mm x 50 mm

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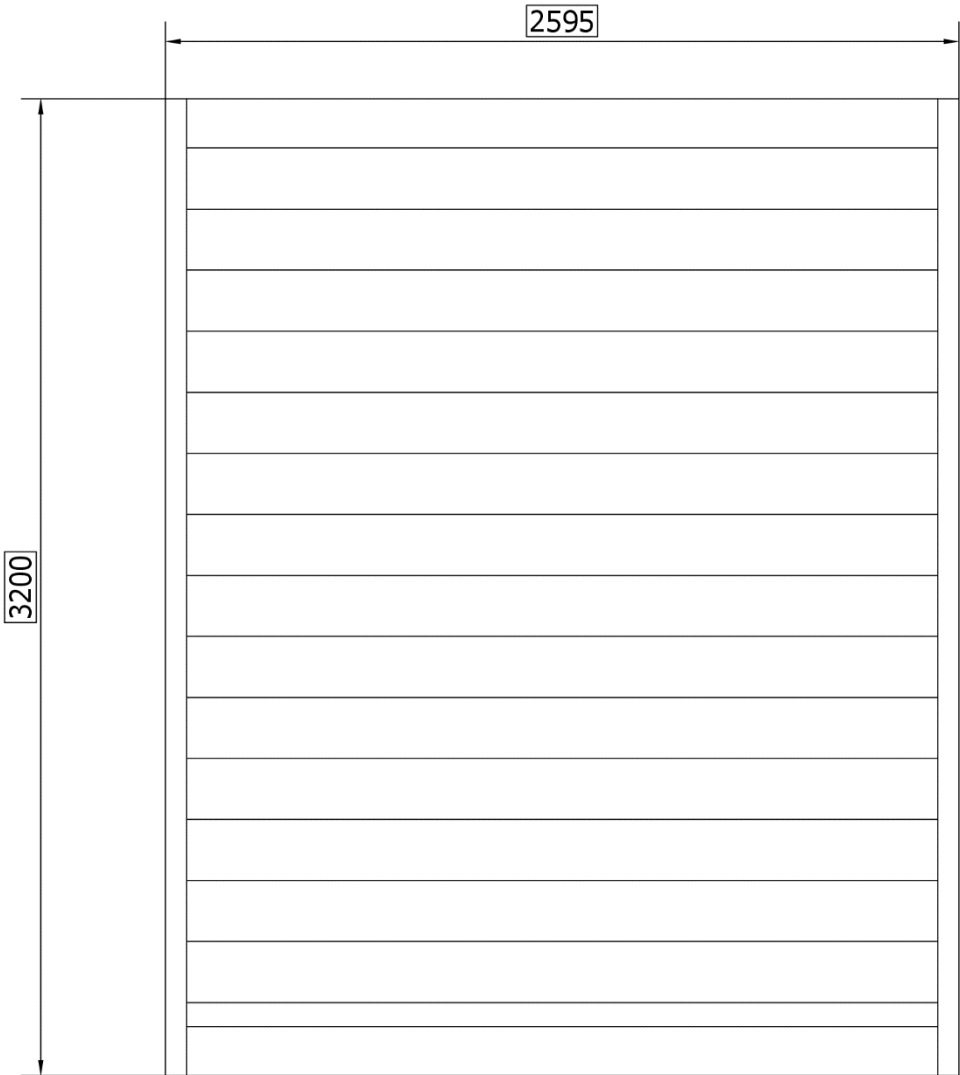
Owner (client) ALUMINCO S.A., 32011 Inofita Viotias (Greece)



Eigenschaft Characteristic	Angaben des Auftraggebers (unverändert) Information provided by client (unchanged)
Einstand des Panzers in den Führungsnuten Lateral end-cap	N/A
Spiel des Panzers in den Führungsschienen Sealing of lamella	A410-019
Lamellenbreite Louvers width	2,440 mm
Antrieb/Bedienungsart Drive unit / mode of operation	LINEAR MOTOR 24V 2500N 300MM STROKE – Ø37MM
Hersteller Manufacturer	SOMFY-TELECO
Bezeichnung / Typ / Art.-Nr. Designation / type / item no.	LINEAR MOTOR
Untersetzungsverhältnis Reduction ratio	2500N – 300MM STROKE
Führungsschiene Guide track	
Material Material	ALUMINIUM 6063-T66
Profilnummer Profile no.	PS20-100 PS20-304, additional profile 902-200, cover profile, on PS20-304
Nutabmessung (T x B) Groove dimensions (D x W)	51 mm x 53.5 mm

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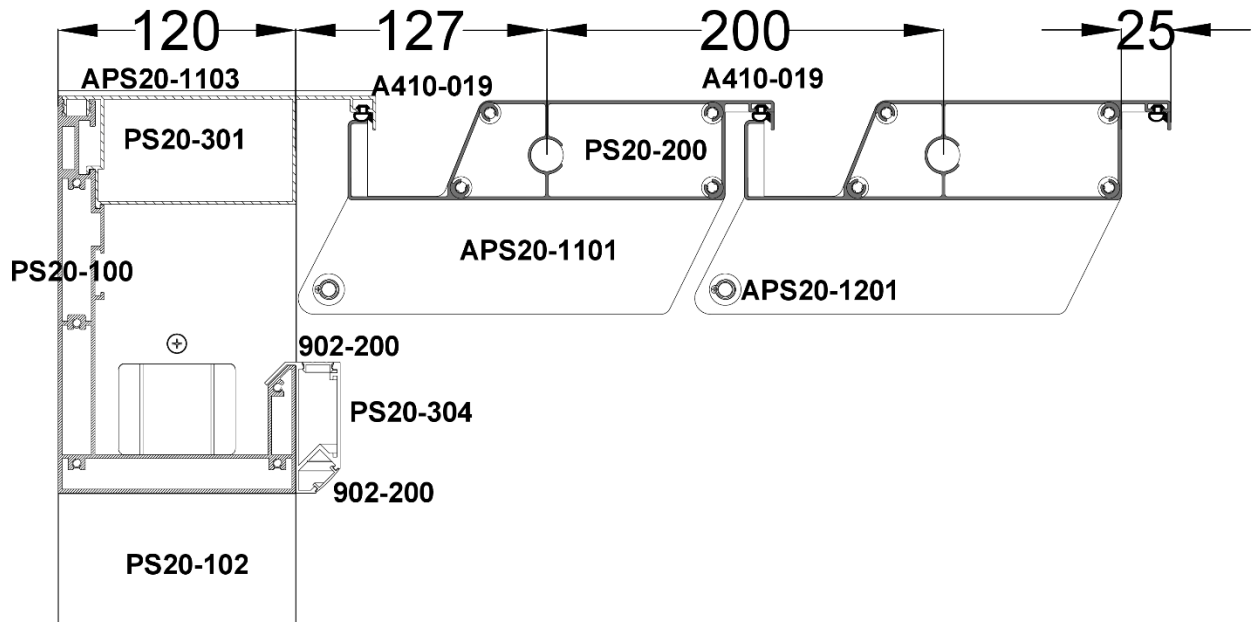


Picture 1 View of test specimen

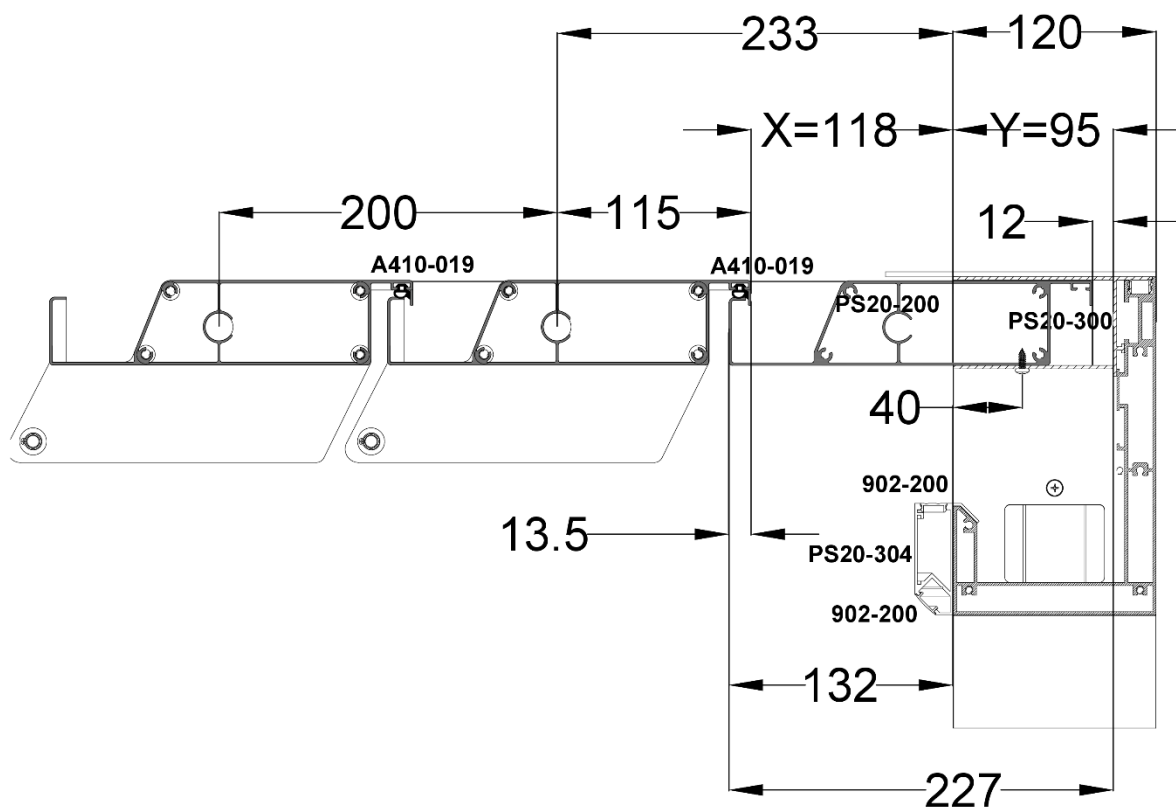
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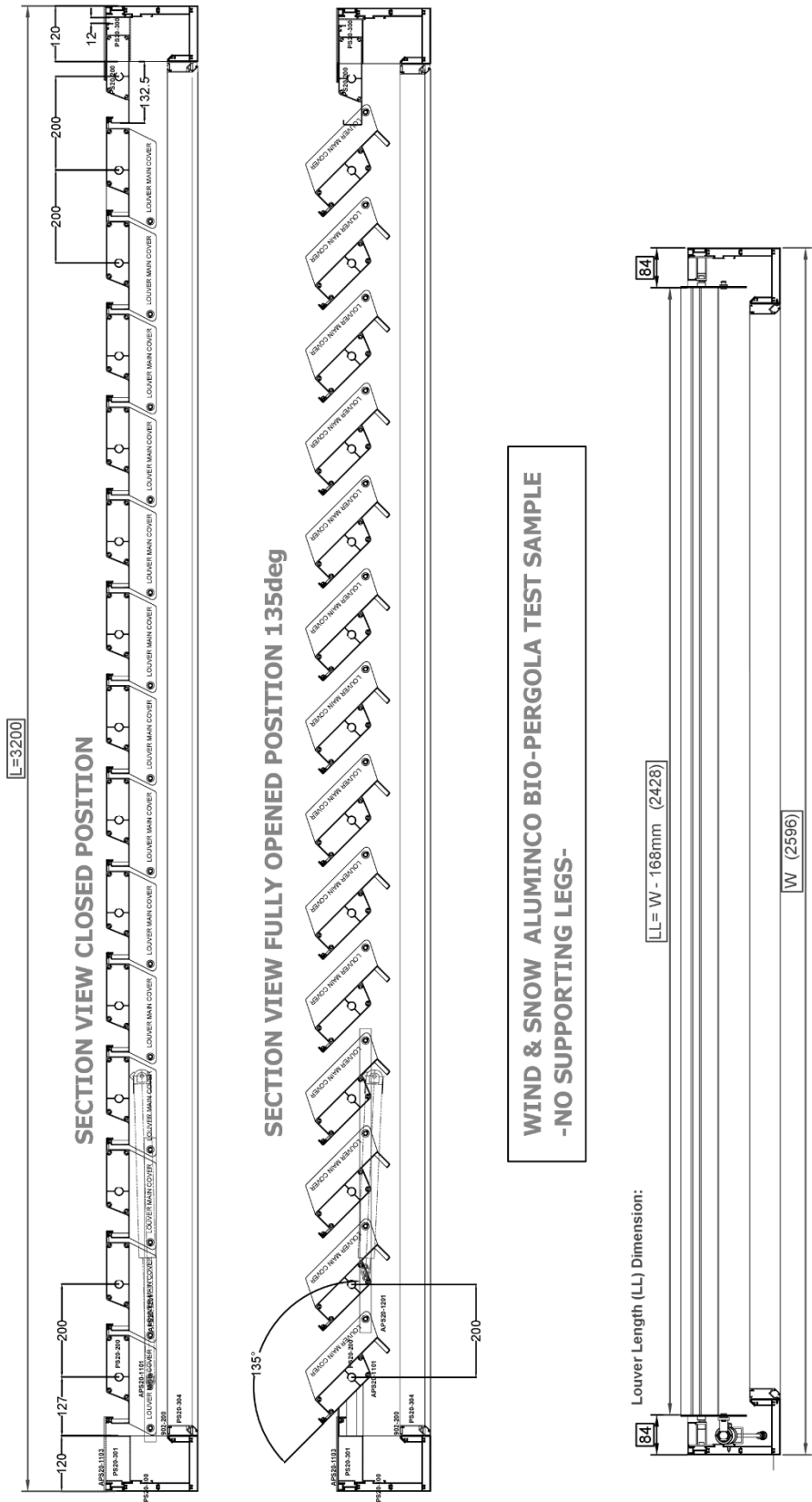
Picture 2 Vertical section



Picture 3 Vertical section

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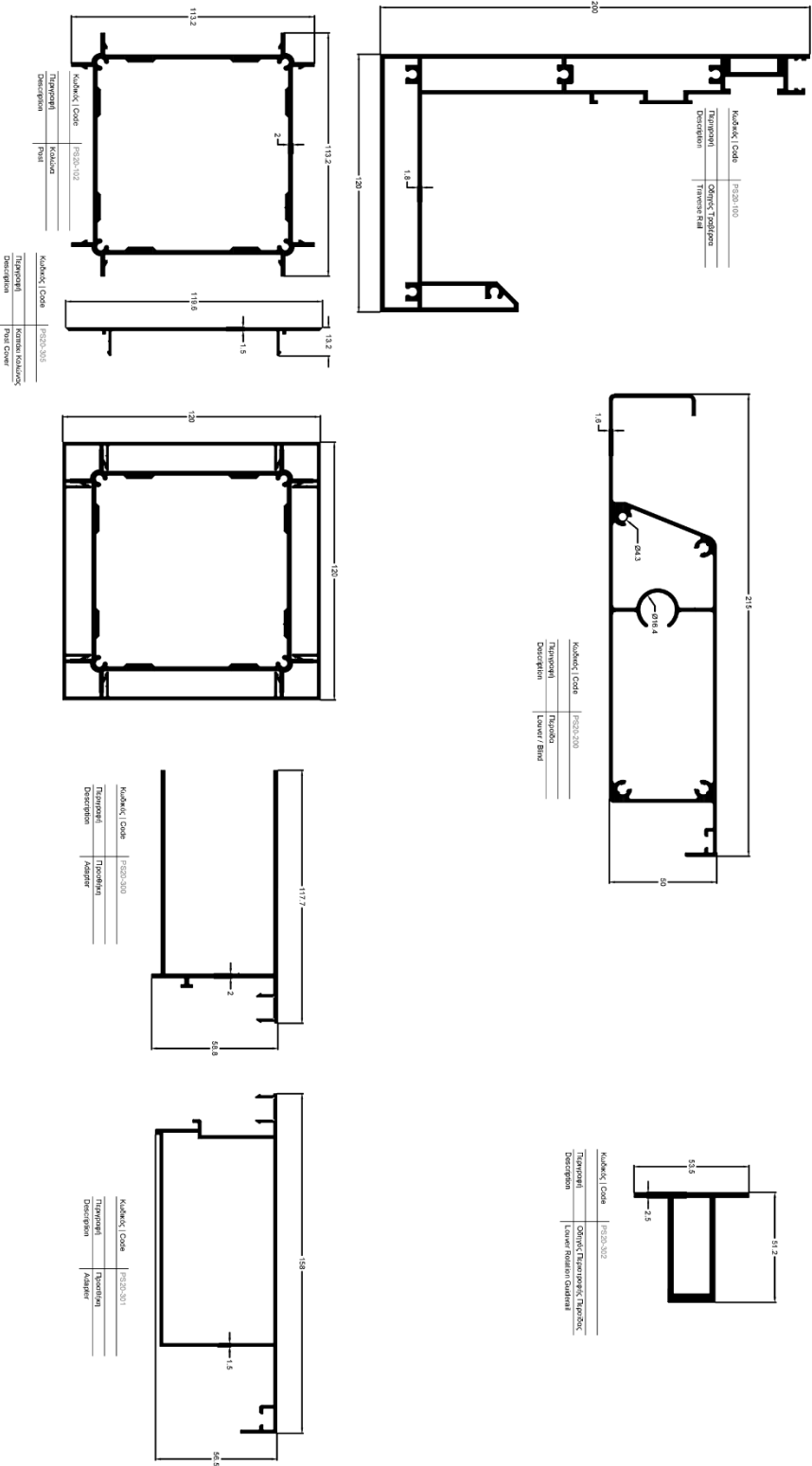
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Picture 4 Horizontal and vertical sections

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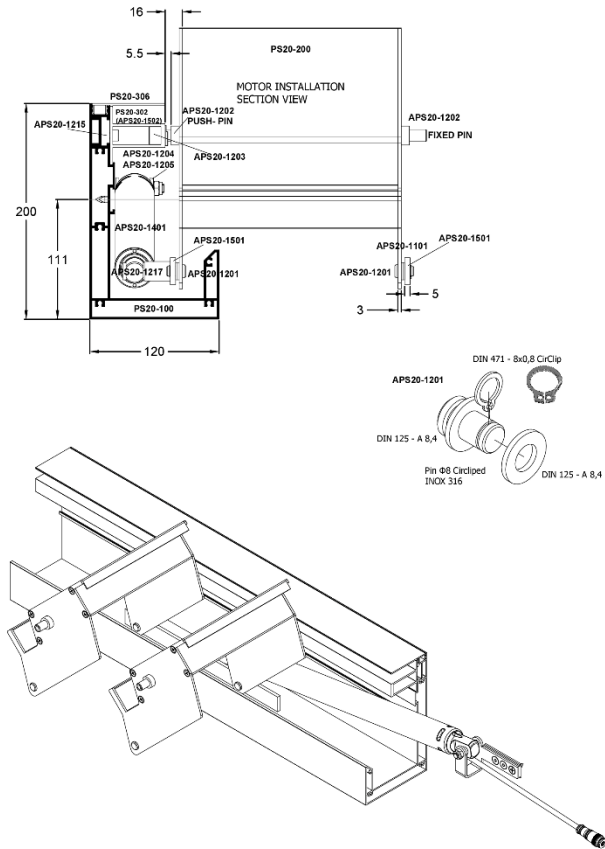


Picture 5 Profiles

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Picture 6

Motor fixation



Picture 1 External view



Picture 2 Internal view



Picture 3 Corner of test specimen



Picture 4 Louvre profile



Picture 5 Louvre sealing gasket



Picture 6 Louvre mechanism



Picture 7 Louvre, opening view



Picture 8 Fixed slat at the operation,
after safety test



Picture 9 Fixed slat at the operation,
after safety test



Picture 10 Fixed slat at the operation,
after safety test