Prüfzentrum für Bauelemente

12.02.2024 CW Version 1.en

T E S T R E P O R T No. 2024-01-0036-B1

Initial type testing (ITT) according to DIN EN 14351-1 : 2016-12 “Windows and doors – Product standard, performance characteristics – Part 1: Windows and external pedestrian doorsets; German version EN 14351-1:2006+A2:2016”

Project No.	2024-01-0036
Applicant	Emre Alüminyum Yapı San. Tic. A.Ş İshaklı Mahallesi Serinsu Caddesi Beykoz / İstanbul Turkey
Conducted tests	Verification of mandated characteristics - Air permeability - Watertightness - Resistance to wind load
Type	4-leaf balcony glazing (1 hinged door and 3 sliding units), made of thermally separated aluminium profiles, with single glazing sealed with silicone, two sealing levels of brush seals all round, EPDM seals in certain sections
Product designation	**Huun Balcony Glazing Single**
Tested by	C. Würfel (personnel supplied: Y. ALTUĞ)

This test report comprises 6 pages and the following attachments:
- Attachment 1: Data sheets (3 pages)
- Attachment 2: Photos (13 pages)
- Attachment 3: Technical documentation according to Section 2.2 (28 pages)
- Attachment 4: Change index (1 page)

PfB GmbH & Co. Prüfzentrum für Bauelemente KG
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Geschäftsführung:
Matthias Demmel, Dr. Christoph Sinder

Prüfstelle nach EN ISO/IEC 17025
Zertifizierungsstelle nach EN ISO/IEC 17065
PÜZ-Stelle nach
Landesbauordnung BAY 33
Notified Body No. 1644

DAkkS Deutsche Akkreditierungsstelle D-PL-17012-01-00

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Attachments

1 Scope

With the delivery of the test sample the applicant commissioned the **PfB** "Prüfzentrum für Bauelemente" to test the applicant's sample for the characteristics listed on page 1 under "Conducted Tests".

2 Test samples

2.1 Sampling

The required test sample was delivered by the producer to "PfB Yapı Malzemeleri Test Laboratuvar Hiz.San. ve Tic.Ltd.Sti." in Turkey. The sample was delivered mounted in a four-sided subframe.

2.2 Technical documentation

The following technical documents of the test sample were submitted to the **PfB**. They have been provided with a **PfB** endorsement and are attached to this test report. The applicant is responsible for the correctness and accuracy of the data and information provided. The information and data provided were reviewed by the **PfB** on a random basis.

- Checklist sampling report (1 page)
- Checklist technical documentation (3 pages)
- Technical drawings (24 pages)

2.3 Technical data of the test sample

Sample No. 2024-01-0036-P1

Type	4-leaf balcony glazing (1 hinged door and 3 sliding units), made of thermally separated aluminium profiles, with single glazing sealed with silicone.
Dimensions	Frame (W x H): up to 2500 x 1800 mm
Hardware	2 hinges on door 2 guiding rollers locked per sliding units 2 guide rollers per sliding units Roto door handle
Locking condition	Closed, fastened, locked
Gaskets	two sealing levels of brush seals all round, EPDM seals in certain sections

Details according to Section 2.2 Technical documentation.

2.3.1 Documentation of the test sample

Digital photos were taken to document the sample. The photos will be retained at the **PfB** for ten years.

3 Test and measuring equipment

Test and measuring equipment used for testing, see also data sheets Attachment 1.

- Window test rig 000442
- Transportable air permeability/ watertightness/wind load test unit 000436

Due to the selection, accuracies and measurement uncertainties of the test and measuring equipment used, the tolerances specified for the standard measurement values are complied with. Measurement uncertainties are not used for correcting the measurement results obtained, the values obtained are not subject to uncertainty of measurement considerations. The test and measuring equipment is subject to the calibration cycle.

4 Test

4.1 Test period

The tests were conducted at "PfB Yapı Malzemeleri Test Laboratuvar Hiz.San. ve Tic.Ltd.Sti." laboratories in Turkey on 29.01.2023.

4.2 Test procedure and test results

4.2.1 Applicable standards

Requirements and classification standards

DIN EN 12207 : 2017-03	"Windows and doors – Air permeability – Classification"
DIN EN 12208 : 2000-06	"Windows and doors – Watertightness – Classification"
DIN EN 12210 : 2016-10	"Windows and doors – Resistance to wind load – Classification"

Test and calculation standards

DIN EN 1026 : 2016-09	"Windows and doors – Air permeability – Test method"
DIN EN 1027 : 2016-09	"Windows and doors – Watertightness – Test method"
DIN EN 12211 : 2016-10	"Windows and doors – Resistance to wind load – Test method"

4.2.2 Air permeability test acc. to DIN EN 1026

Air permeability was tested in accordance with the requirements of DIN EN 1026.

The air permeability of the samples was tested according to the above standard up to a pressure of 600 Pa, first at positive pressure in the test chamber and then at negative pressure in the test chamber. The air volumes measured at the different pressure steps are documented in the attached data sheet “Air permeability according to DIN EN 1026”. All modifications and all measures taken are indicated in the a.m. data sheet.

For the tables given in the a.m. data sheet, the air permeability values measured for the positive and negative pressures in accordance with DIN EN 1026 have been converted to standard conditions (293 K / 101.3 kPa) for each pressure step specified in the standard.

The averages determined in the tests at positive and negative pressures were calculated relating to the joint length and relating to the surface area of the test sample. They are given as numerical values in the table of the data sheet and in the corresponding diagrams.

The air permeability repeat test conducted after the wind load resistance test did not show any significant deviation of the results as compared to the initial test.

4.2.3 Watertightness test acc. to DIN EN 1027

Watertightness was tested in accordance with the requirements of DIN EN 1027.

Watertightness was tested up to the specified test pressure or the test pressure at which repeated or continuous water leakage to the area to be protected was observed. Water leakage or achievement of the specified test pressure without water leakage were recorded.

The test results for the sample are documented in the attached data sheets: “Watertightness test according to DIN EN 1027” data sheet. All modifications and all measures taken are indicated in the a.m. data sheet.

4.2.4 Test of resistance to wind load according to DIN EN 12211

Resistance to wind load was tested in accordance with the requirements of DIN EN 12211. The test results are documented in the attached “Resistance to wind load according to DIN EN 12211” data sheet. All modifications and all measures taken are indicated in the a.m. data sheet.

No damage to the sample was observed when subjected to the repeated pressure test. The final safety test (= 1.5 x test pressure P1) was performed on the samples. The test pressures applied were documented in the aforementioned data sheet.

5 Summary

EN 1026	Air permeability tested to	600 Pa
EN 1027	Watertightness tested up to and including 150 Pa	100 Pa
EN 12211	Resistance to wind load tested up to max. rel. deformation	800 Pa 1/170

Locking condition: closed, fastened, locked

6 Classification of the test results

The classification is carried out in the classification reports stated in the cover sheet. Measurement uncertainties were not included in the classification. Classification is based only on the values obtained.

7 Scope

In accordance with Annex E of DIN EN 14351-1 “Determination of characteristics”, the test results determined for the tested samples can be applied directly to construction products of similar design (see also Section 3.4 of the standard in conjunction with Annex A) and of equal or smaller size (e.g. resistance to wind load).

The air permeability and watertightness characteristics are exceptions to the above general rule. In this case, the classes achieved also apply to assemblies of the same type of opening with smaller sizes and larger sizes up to + 50% of the size tested.

However, this only applies if neither the distances of the locking points to the corners nor the distances between the locking points are substantially changed.

However, this extension in size does not apply to the characteristic of resistance to wind load.

8 General requirements

This test report is intended for the applicant only and must not be published, wholly or in part, without the prior permission by both the applicant and the **PfB**.

The classification reports stated on the cover sheet are intended for publication.

The document was digitized and sent to the applicant as a signed PDF file. The PDF file remains stored in the **PfB** for documentation purposes.

This document was written in German and translated into English. In case of any discrepancies between the two language versions, the German version shall prevail.

The test results apply only to the tested sample. A transfer of the test results of this test report to other products from the applicant's tested product family is only permitted if their design and materials correspond to the tested sample and comply with the specifications of this test report.

This test report is issued without prejudice to any rights of third parties, in particular intellectual property rights. The **PfB** shall not be liable for any recourse claims arising from or in connection with the issuance of this test report.

Validity Valid for the validity period of EN 14351-1 : 2006+A2:2016

signiert von: Christoph Geiger am: 12.02.2024 mit: digiSeal® by secrypt

signiert von: Cornelius Würfel am: 12.02.2024 mit: digiSeal® by secrypt

Dipl.-Ing. (FH) Christoph Geiger Head of Notified Test Body	Stephanskirchen 12.02.2024	Cornelius Würfel B.Eng. Responsible Official

Data sheet 1: Air permeability acc. to DIN EN 1026

Sample: 4-leaf balcony glazing, made of aluminium Profiles (1 swing door and 3 slide Elements) with single glazing
Date of test: 29.01.2024

Sample No.: 2024-01-0036-P1 Delivery condition

Overall dim. [mm] :
Frame width: 2500 mm
Frame height: 1800 mm
Unit width: 590 mm
Unit height: 1670 mm
Casement width:
Casement height:

Atmospheric pressure: 1003 hPa
Temperature: 15 °C
Rel. air humidity: 44 %
Joint length L: 13,07 m
Surface area A: 4,50 m²

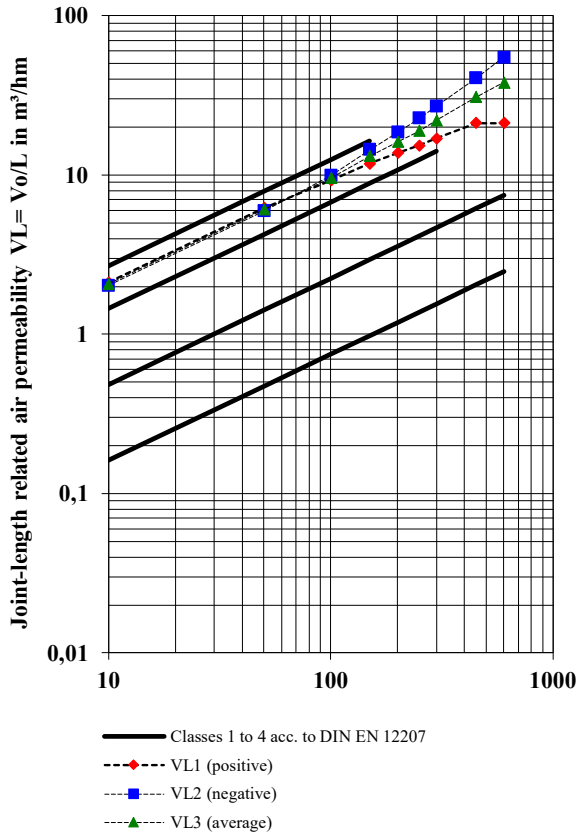
Measuring devices:
Leakage rate test chamber: at 600 Pa, 1m³/h - air volume
For total leakage rates <3m³/h (chamber and test sample together) the chamber leakage rate must be determined.

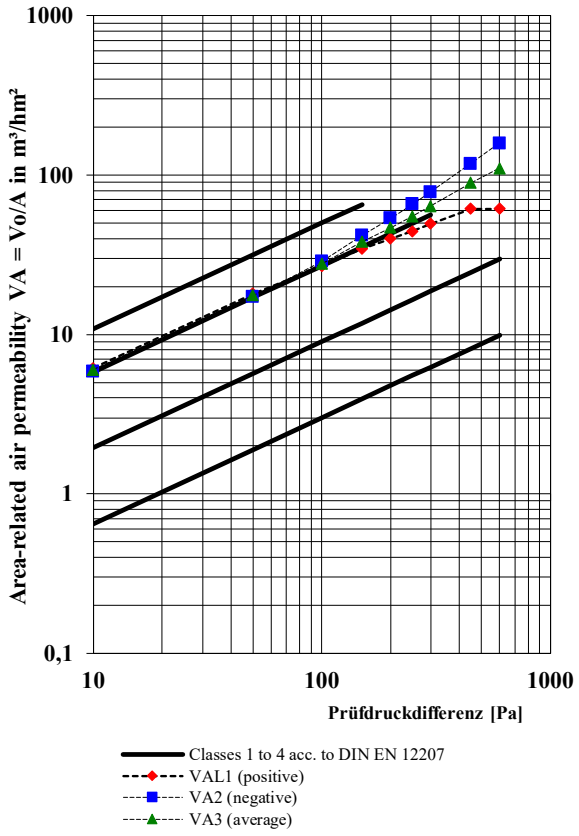
Locking condition: Closed, fastened and locked
3 pressure pulses: Applied

Table : Air permeability V_0 (corrected to standard conditions: 293 K, 101,3 kPa)

Test pressure difference (Pa)		**10**	**50**	**100**	**150**	**200**	**250**	**300**	**450**	**600**
V1 (positive)	(m³/h)	27,7	81,0	120,7	154,3	179,8	200,2	222,1	276,9	276,9
V2 (negative)	(m³/h)	26,5	77,5	129,0	188,5	241,2	295,9	353,3	530,4	715,5
V3 (average)	(m³/h)	27,1	79,3	124,8	171,4	210,5	248,0	287,7	403,7	496,2
Air permeability relating to joint length L of the element										
V_L1 (positive)	(m³/hm)	2,12	6,20	9,23	11,81	13,76	15,32	16,99	21,19	21,19
V_L2 (negative)	(m³/hm)	2,03	5,93	9,87	14,42	18,45	22,64	27,03	40,58	54,75
V_L3 (average)	(m³/hm)	2,07	6,06	9,55	13,12	16,11	18,98	22,01	30,89	37,97
Air permeability relating to surface area A of the complete element										
V_L1 (positive)	(m³/hm²)	6,16	18,01	26,81	34,30	39,96	44,50	49,35	61,54	61,54
V_L2 (negative)	(m³/hm²)	5,89	17,22	28,66	41,89	53,59	65,74	78,52	117,87	159,01
V_L3 (average)	(m³/hm²)	6,02	17,61	27,74	38,09	46,78	55,12	63,93	89,71	110,27

Notes: Values for 10 Pa test pressure were extrapolated





Data sheet 2: Watertightness acc. to DIN EN 1027

Sample: 4-leaf balcony glazing, made of aluminium Profiles (1 swing door and 3 slide Elements) with single glazing — Date of test: 29.01.2024

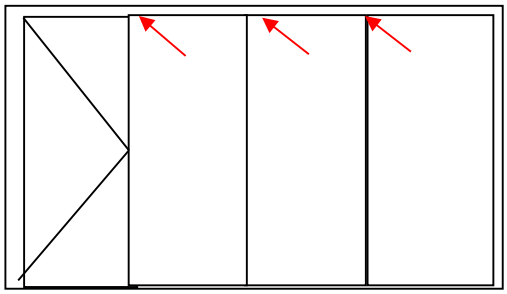
Sample No.: 2024-01-0036-P1

Overall dim. [mm] :	Frame width:	2500 mm	Atmospheric pressure:	952 hPa
	Frame height:	1800 mm	Temperature:	18 °C
	Unit width:	590 mm	Rel. air humidity:	44 %
	Unit height:	1670 mm	Joint length L:	13,07 m
			Surface area A:	4,50 m²
Measuring devices:			No. of nozzles:	4
			No. of spray tubes:	1
Closing condition:	closed, fastened and locked		Total no. of nozzles:	7
3 pressure pulses:	yes		Spray method:	1A

Table 1:

Spray method	**1A** (exposed)				4 nozzles per spray tube	Date of test: 29.01.2024
Test pressure (Pa)	0	50	100	150		
Time t (min)	15	5	5	5		
Pass? Yes-ja / no-nein	ja	ja	ja	nein		
Remark:						
Water leakage:	at 150 Pa from top of the sashes at the joints, flowing input shell behind gasket top crosswise, down sideways & out bottom crosswise					
Modifications:	None, tested as supplied					

Elevation drawing: Test 1 and 2



→ = position of water leakage

Data sheet 3: Resistance to wind load acc. to DIN EN 12211

Sample: 4-leaf balcony glazing, made of aluminium Profiles (1 swing door and 3 slide Elements) with single glazing — Date of test: 29.01.2024

Sample No.: 2024-01-0036-P1

Overall dim. [mm] :				
	Frame width:	2500 mm	Atmospheric pressure:	1003 hPa
	Frame height:	1800 mm	Temperature:	15 °C
	Unit width:	590 mm	Joint length L:	13,07 m
	Unit height:	1670 mm	Surface area A:	4,50 m²

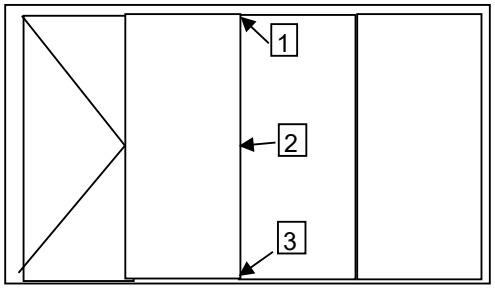
Measuring devices:

Locking condition: closed, fastened and locked

3 pressure pulses: yes

Elevation drawing:

Span width L
1640 mm



→ = position of meas. point
1 = serial No. of meas. point

Table 1 Test of frontal deflection

	Frontal displacement of meas. points in [mm] under pos. pressure				Frontal displacement of meas. points in [mm] under neg. pressure			
Pos. / neg. press. [Pa]	**Meas pt. 1**	**Meas pt. 2**	**Meas pt. 3**	**f**	**Meas pt. 1**	**Meas pt. 2**	**Meas pt. 3**	**f**
400	1,00	5,26	0,93	4,30	1,28	5,72	0,69	4,74
800	1,90	10,39	1,84	8,52	2,52	11,62	1,40	9,66
1200	3,00	15,91	2,81	13,01	3,91	17,40	2,07	14,41
1600				0,00				0,00
2000				0,00				0,00
Limit values	A (L/150)	B (L/200)	C (L/300)		A (L/150)	B (L/200)	C (L/300)	
DIN EN 12210	10,9	8,2	5,5		10,9	8,2	5,5	

max. rel. deformation	**1/192**	**1/170**

Alternating load P2 = P1 * 0,5
P2 = 400 Pa
50 cycles ± 400 Pa without damage

Safety load P3 = P1 x 1.5
P3 = 1200
± 1200 Pa without damage

Photo 1:
Sample No 2024-01-0036 -P1

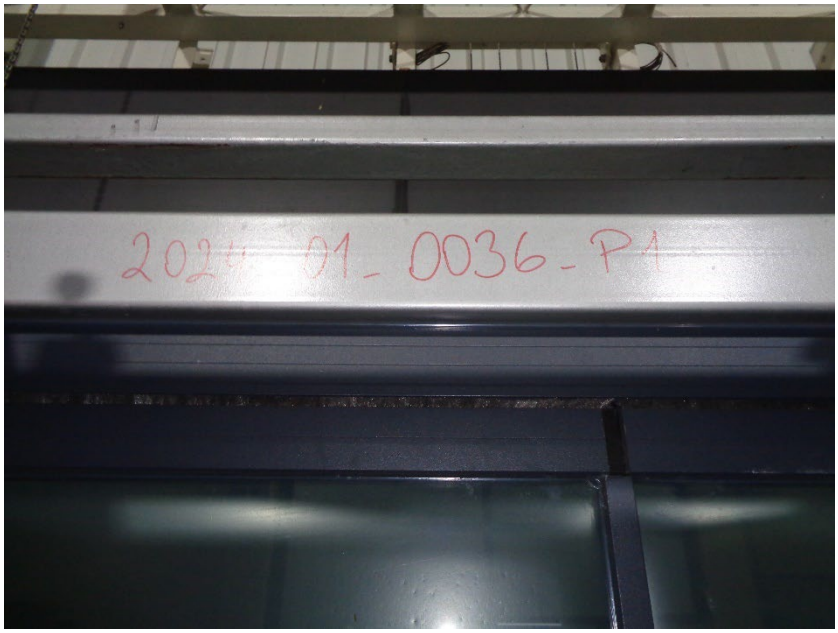


Photo 2:
Sample No. 2024-01-0036 -P1

Photo 3:
Sample No. 2024-01-0036 -P1

Photo 4:
Sample No. 2024-01-0036 -P1

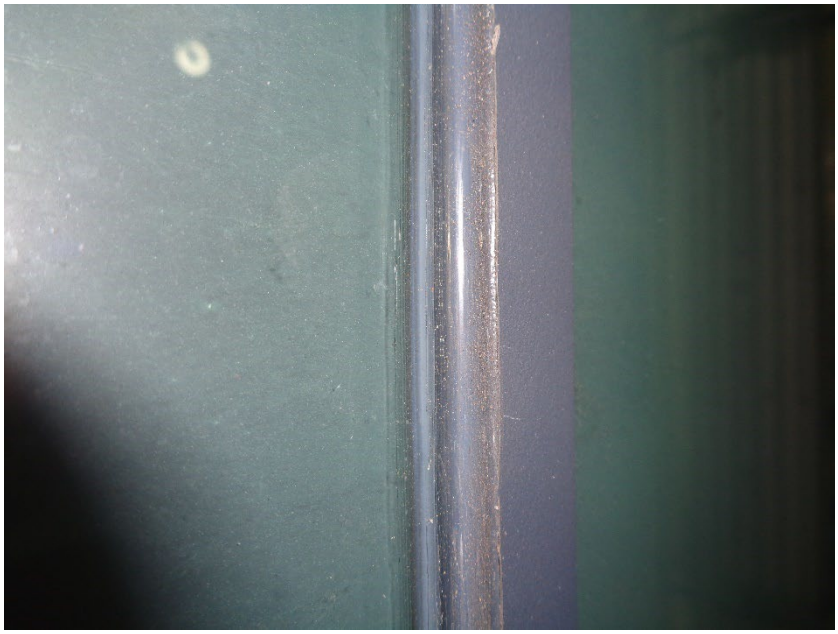


Photo 5:
Sample No. 2024-01-0036 -P1

Photo 6:
Sample No. 2024-01-0036 -P1

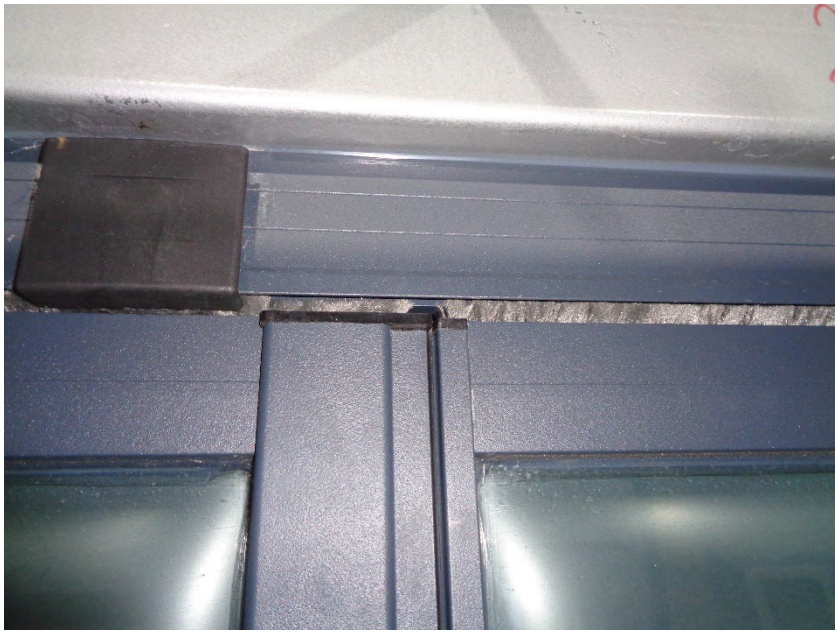


Photo 7:
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Photo 8:
Sample No. 2024-01-0036 -P1

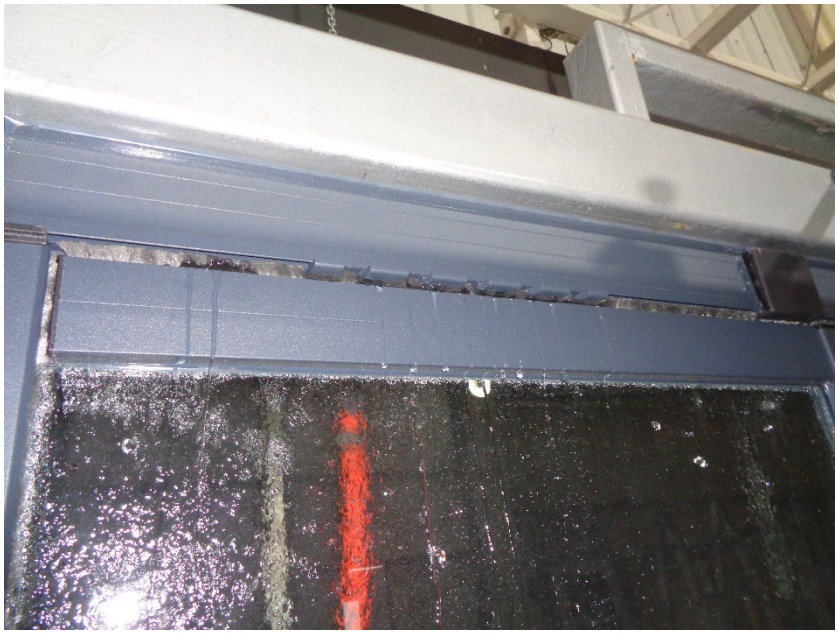


Photo 9:
Sample No. 2024-01-0036 -P1

Photo 10:
Sample No. 2024-01-0036 -P1

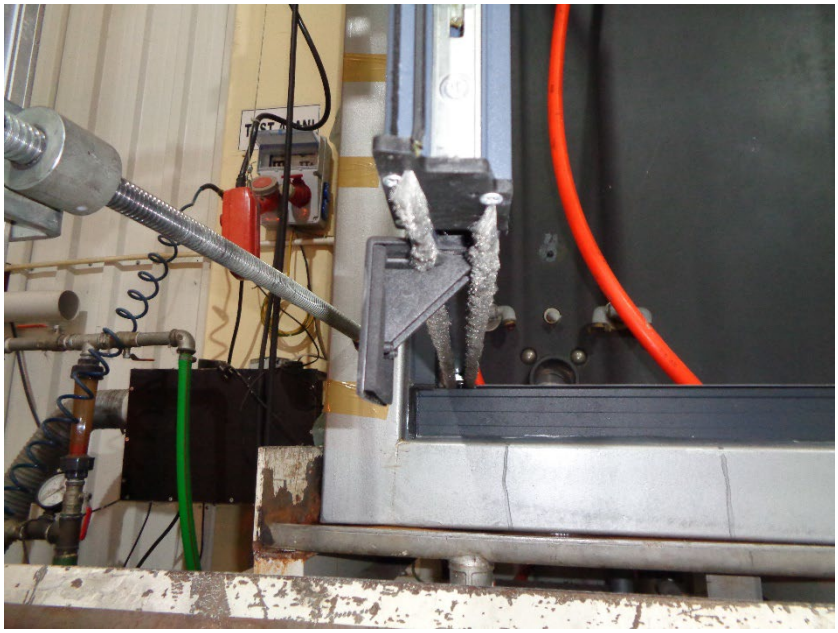
Photo 11:
Sample No. 2024-01-0036 -P1

Photo 12:
Sample No. 2024-01-0036 -P1

Photo 13:
Sample No. 2024-01-0036 -P1

Photo 14:
Sample No. 2024-01-0036 -P1

Photo 15:
Sample No. 2024-01-0036 -P1



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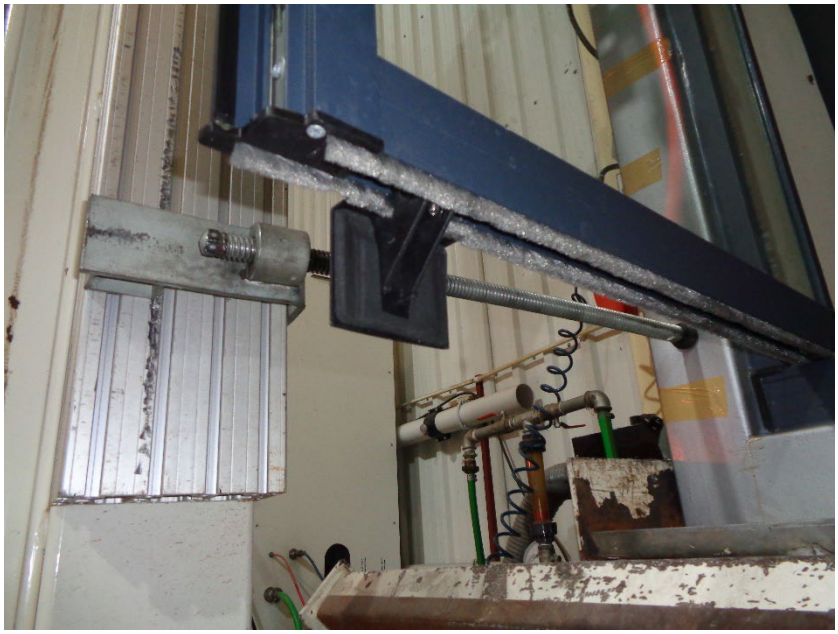


Photo 17:
Sample No. 2024-01-0036 -P1

Photo 18:
Sample No. 2024-01-0036 -P1

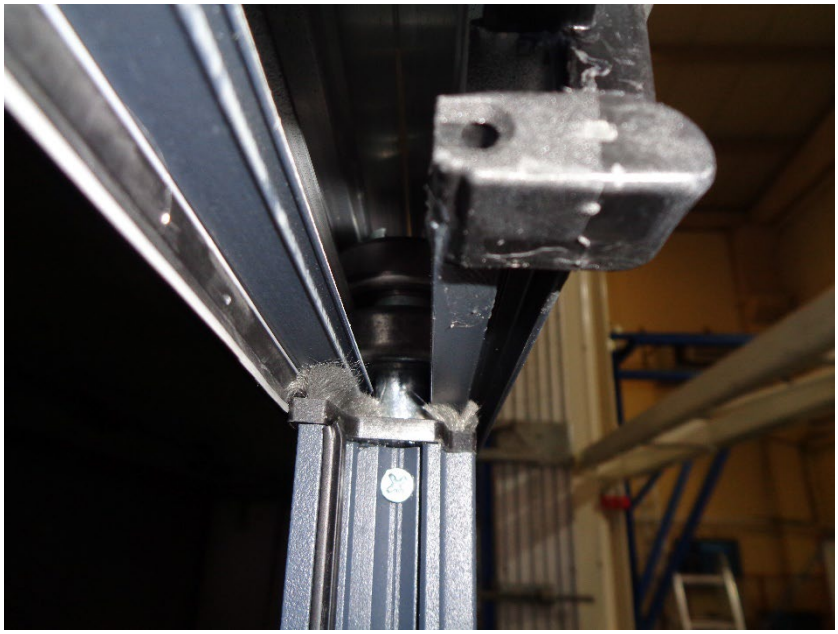
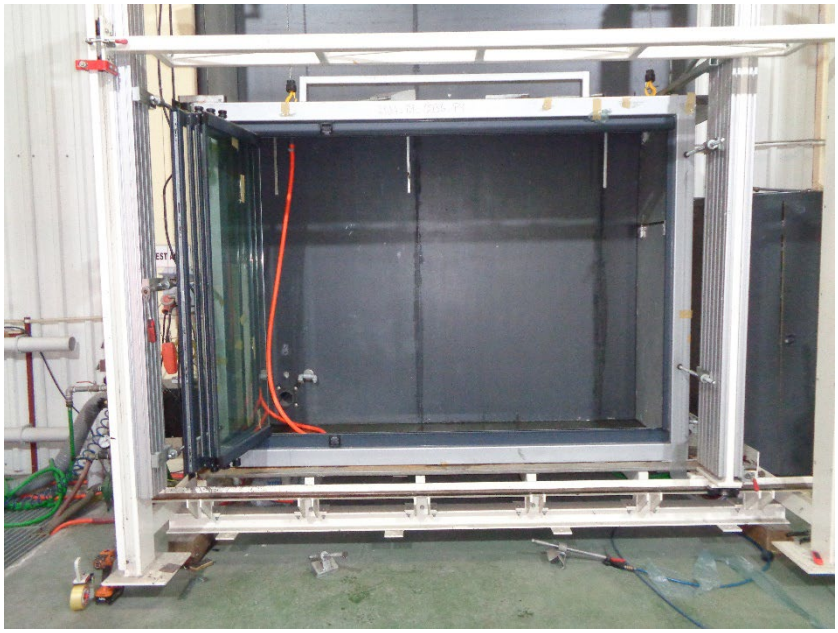


Photo 19:
Sample No. 2024-01-0036 -P1

Photo 20:
Sample No. 2024-01-0036 -P1

Photo 21:
Sample No. 2024-01-0036 -P1



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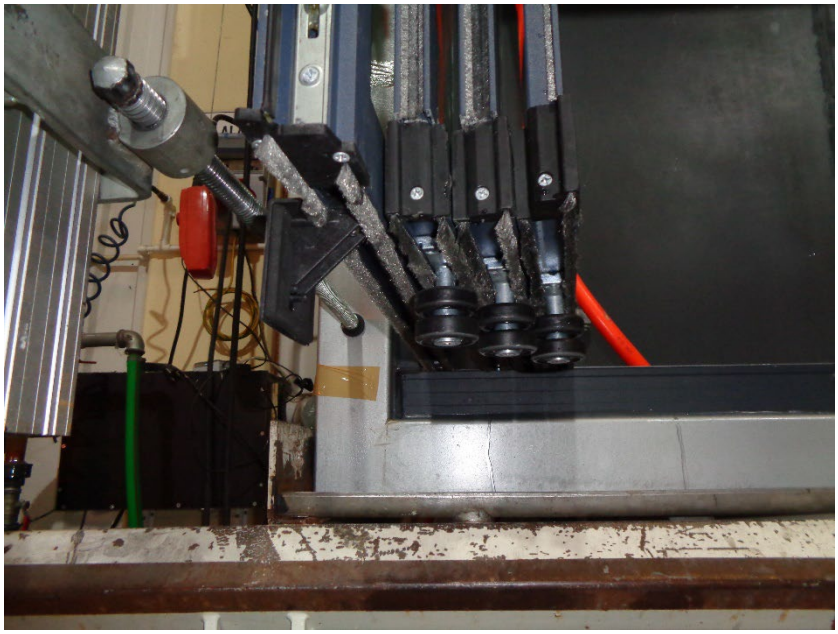


Photo 23:
Sample No. 2024-01-0036 -P1

Photo 24:
Sample No. 2024-01-0036 -P1

Photo 25:
Sample No. 2024-01-0036 -P1

Photo 26:
Sample No. 2024-01-0036 -P1

	QM Checklist	Prüfzentrum für Bauelemente Page 1 of 1

CL004 Sampling report

All information is for internal use of PfB only and will not be disclosed to third parties.

Please fill out all fields that apply to your product.

	Applicant	Manufacturer (if different from the applicant)
Company	Emre Alüminyum Yapı San. Tic. A.Ş	
Street	İshaklı Mahallesi Serinsu Caddesi	
Postcode/place	Beykoz / İstanbul	

Aim of the test
(E.g. specification of the class of the performance to be tested)

Type of test or tests to be performed
(E.g.: standard specification, guideline, performance characteristic to be tested)

Description of the test specimen(s)
(Example: Single-leaf door made of wood-based materials with steel frame with P4A light cut-out)

Details of the specimen(s)

Quantity of specimens	
Stack/batch/lot indicator	
Name of the product / product designation of the test specimen(s) (E.g. assignment of a check number)	
Building project (optional)	

Labelling of the specimen(s) by the applicant

Labelling of the specimen(s)	
Place of sampling (Manufacturing plant)	
Date	
Person responsible for sampling	

CL004 Version 2.1

	QM Checklist	Prüfzentrum für Bauelemente Seite 1 von 3

CL004b Checklist technical documentation of windows

Product name	Huun Balcony Glazing Single
Element type (like 1-leaf or 2-leaf)	4 leaf

Measurements

Total size incl. subframe	2700x100 mm
Sash dimensions (W x H)	706x1656 , 621x1656 , 587x1656 , 600x1656
Frame dimensions (W x H)	2500x1800
Clear opening dimension (W x H)	2257x1667

Sash frame

Material	Aluminium Profile
Profile system	Sash profile + Glass H profile + Lock Profile + Lock Opposite Profile
Profile section (W x H)	32x52 + 22x20 + 62x40 + 40x35
Handle height	900 mm
Sash frame connection - design (tenon, plug-in connection, welded....)	with screws
Other	

Frame

Material	Aluminium Profile
Profile system	Frame + Pillar
Profile section (W x H)	Frame: 48 x 65 / Pillar: 46 x 35
Handle height	-
Sash frame connection - design (tenon, plug-in connection, welded....) with screws + pvc	

Rebate

Gap dimensions	
top	
down	
lateral	
forend	

Glazing / Filling

Material (e.g. float)	Tempered Glass
Structure (glass thicknesses/SZR)	10 mm
Outer dimension (W x H)	606x1619 , 621x1619 , 590x1619 , 607x1619
Visible dimension (W x H)	624x1551, 600x1551 , 560x1551 , 575x1551
glass deuce	-
spacer	-

Structure of non-transparent fillings (from inside to outside)

Top layer (inside)	Weather Strip - 9 mm
Insert	
Frame	TPU seal + EPDM seal
Reinforcement	PVC / PA6+GF30
Top layer (outside)	Weather Strip - 9 mm

Filling installation

Gasket	
Inside	Weather strip
outside	TPU seal + EPDM seal

Glass retaining strips / panel retaining strips

Material	Aluminium Profile
Profile section (W x H)	10,5x36 mm glass space
Mounting type (screwed, glued)	silicon + pin
Mounting distances incl. screw dimensions	PVC pin 5 cm from case

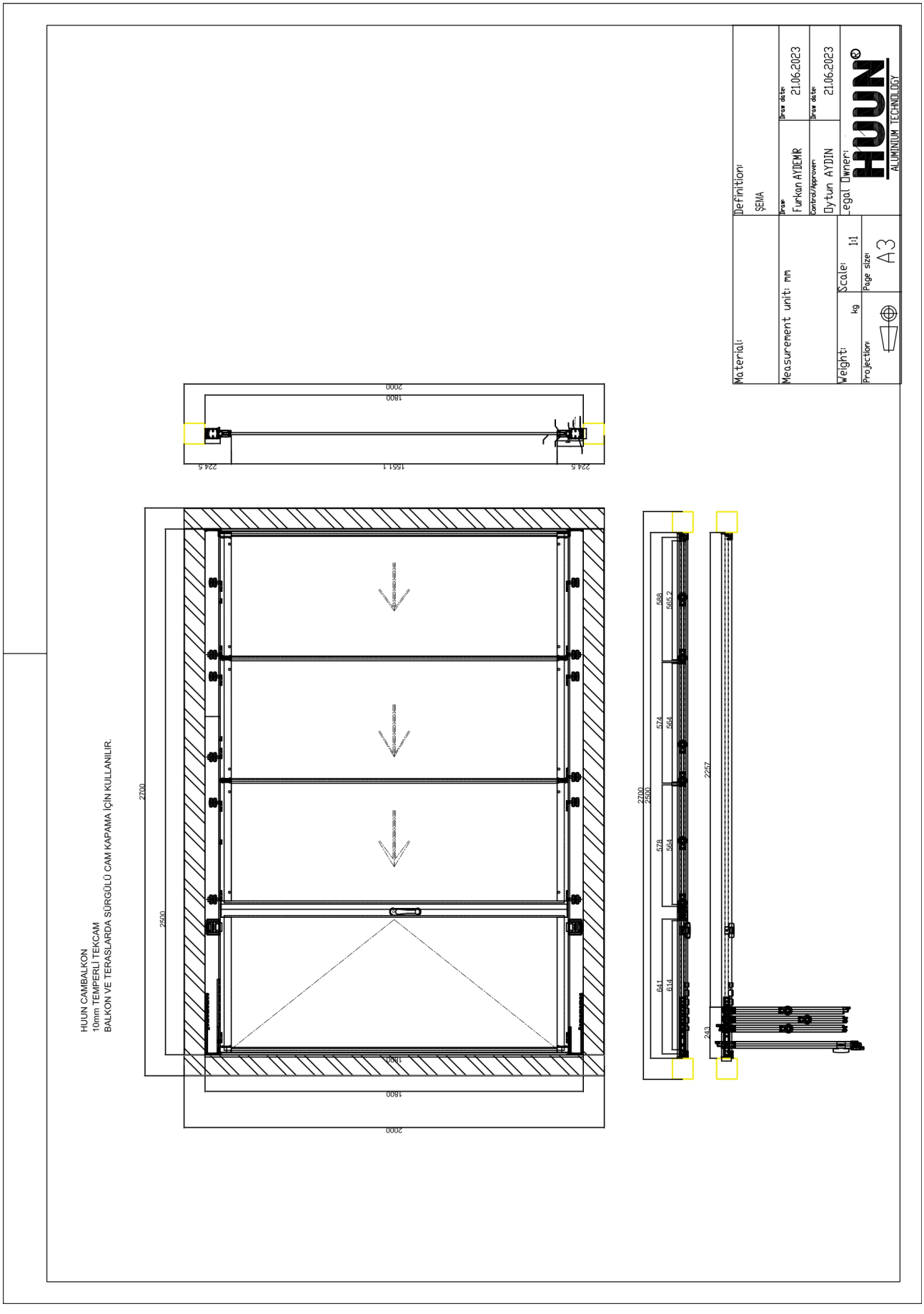
Fitting and striker

Type/Designation/Manufacturer	
Mounting/screw type	DIN7982-YHB
Number of screws	34
Pin design	
Number of locking pins/latches	4 Pim
Gearbox mounting	
Screw dimensions	3,9x25
Number of screws	

Gaskets

Type/Designation/Manufacturer	
Material	EPDM + TPU + Weatherstrip
Number of sealing levels	20

other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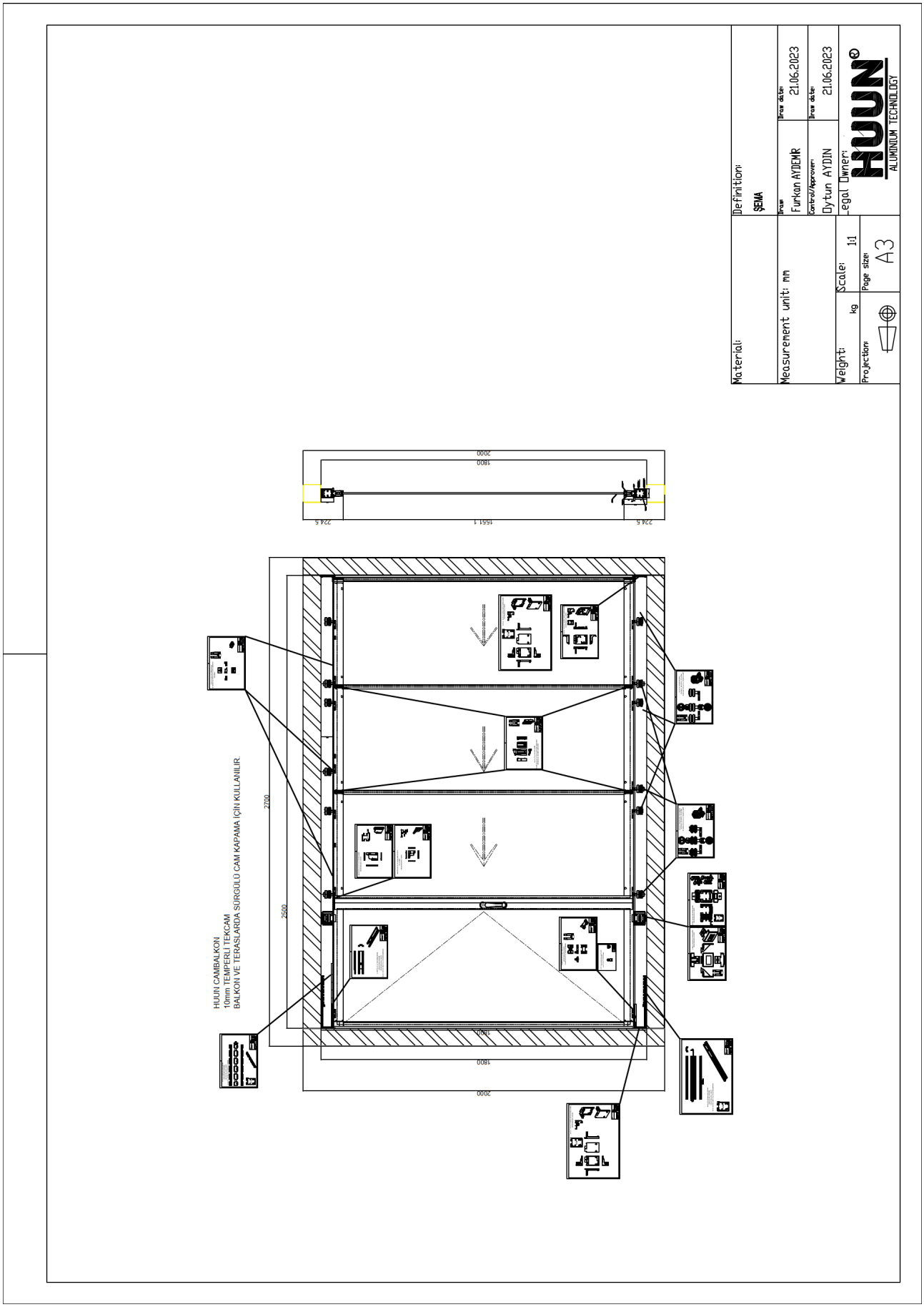
Material:
Measurement unit: mm
Weight: kg
Scale: 1:1
Page size A3
Projection
Drawn 21.06.2023
Furkan AYDEMİR
Control/Approven 21.06.2023
Dytun AYDIN
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY
HUUN CAMBALKON
10mm TEMPERLİ TEKCAM
BALKON VE TERASLARDA SÜRGÜLÜ CAM KAPAMA İÇİN KULLANILIR.
2000
1800
1551.1
224.5
2700
2500
588
565.2
574
564
578
564
641
614
2257
243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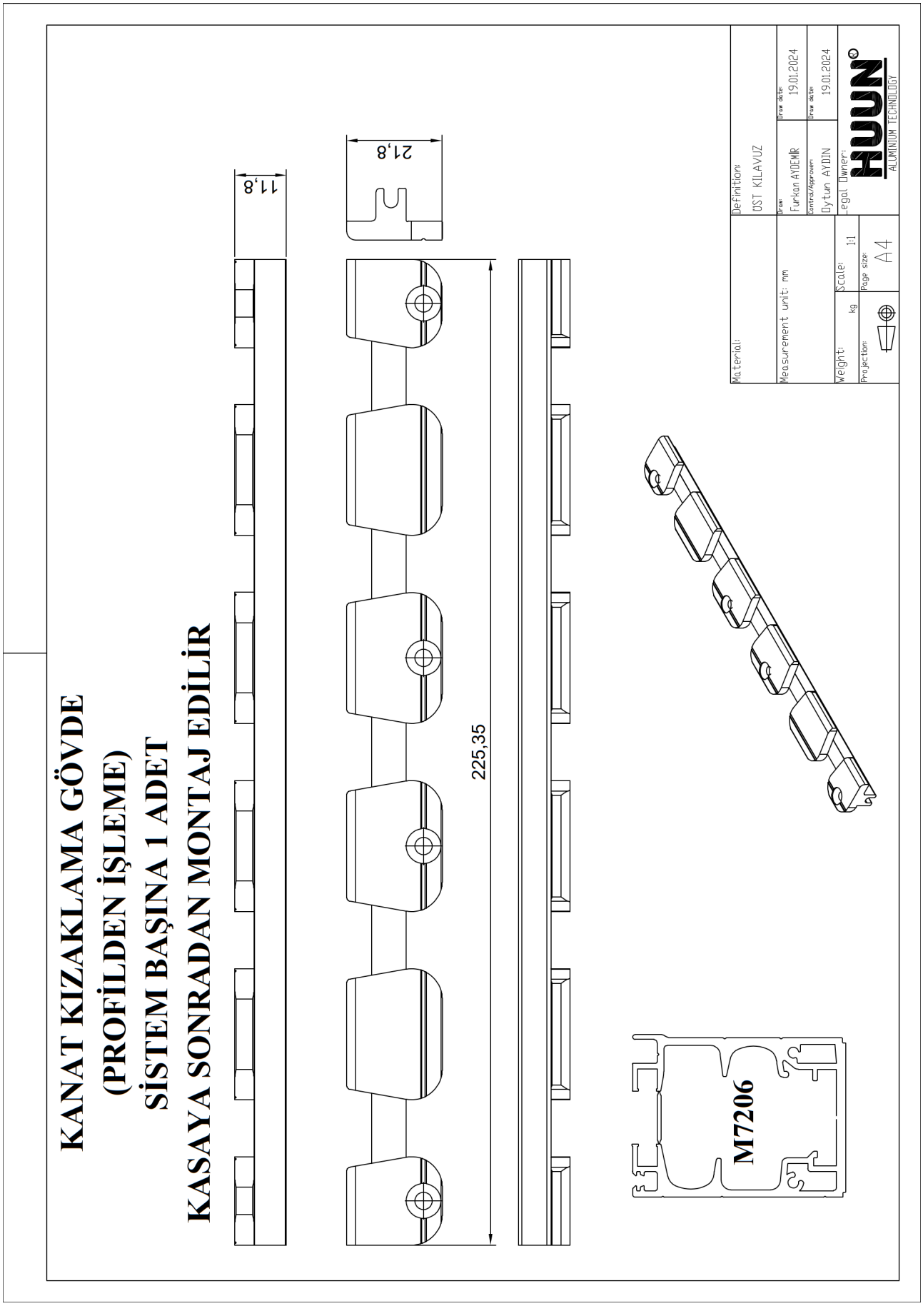
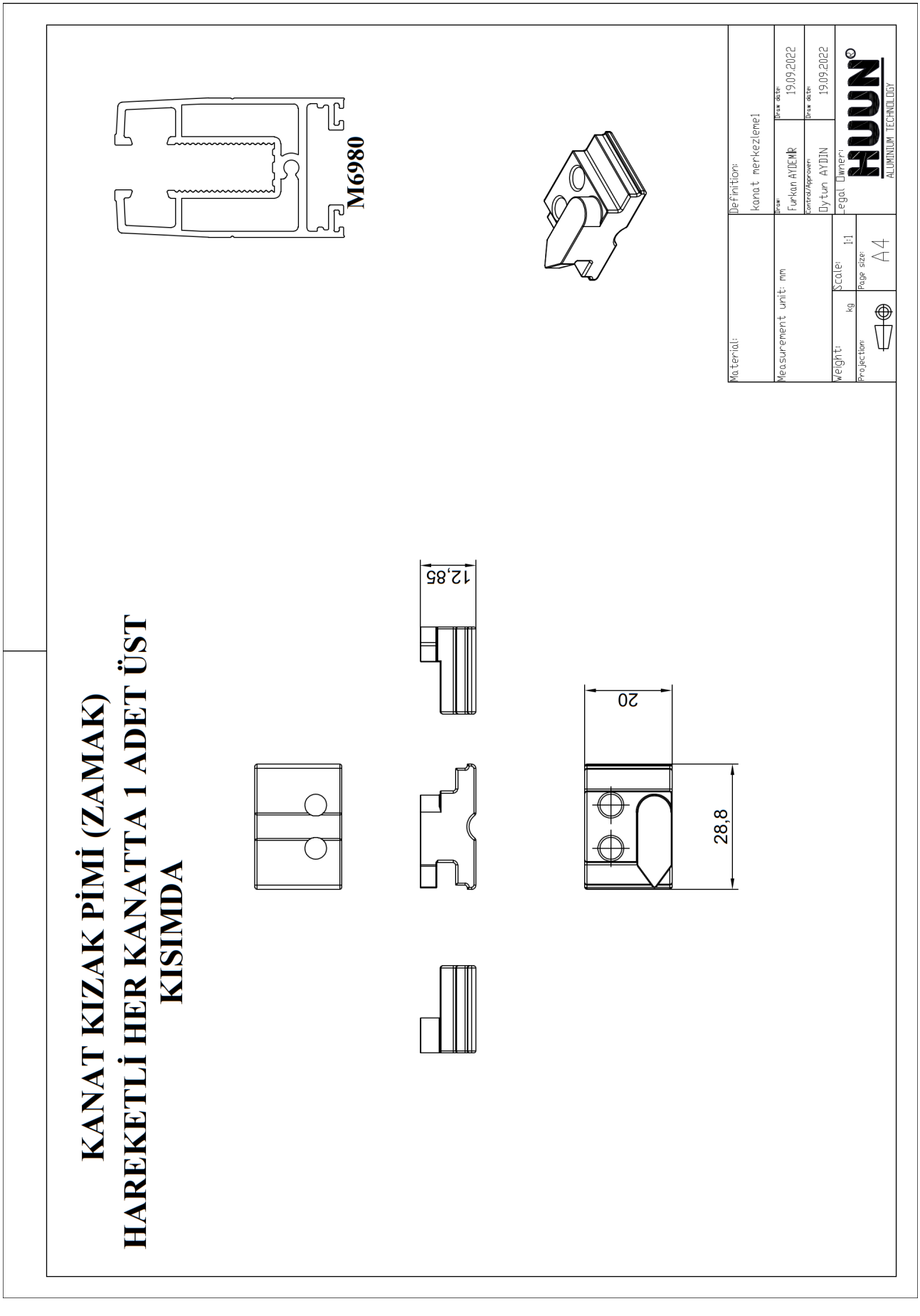
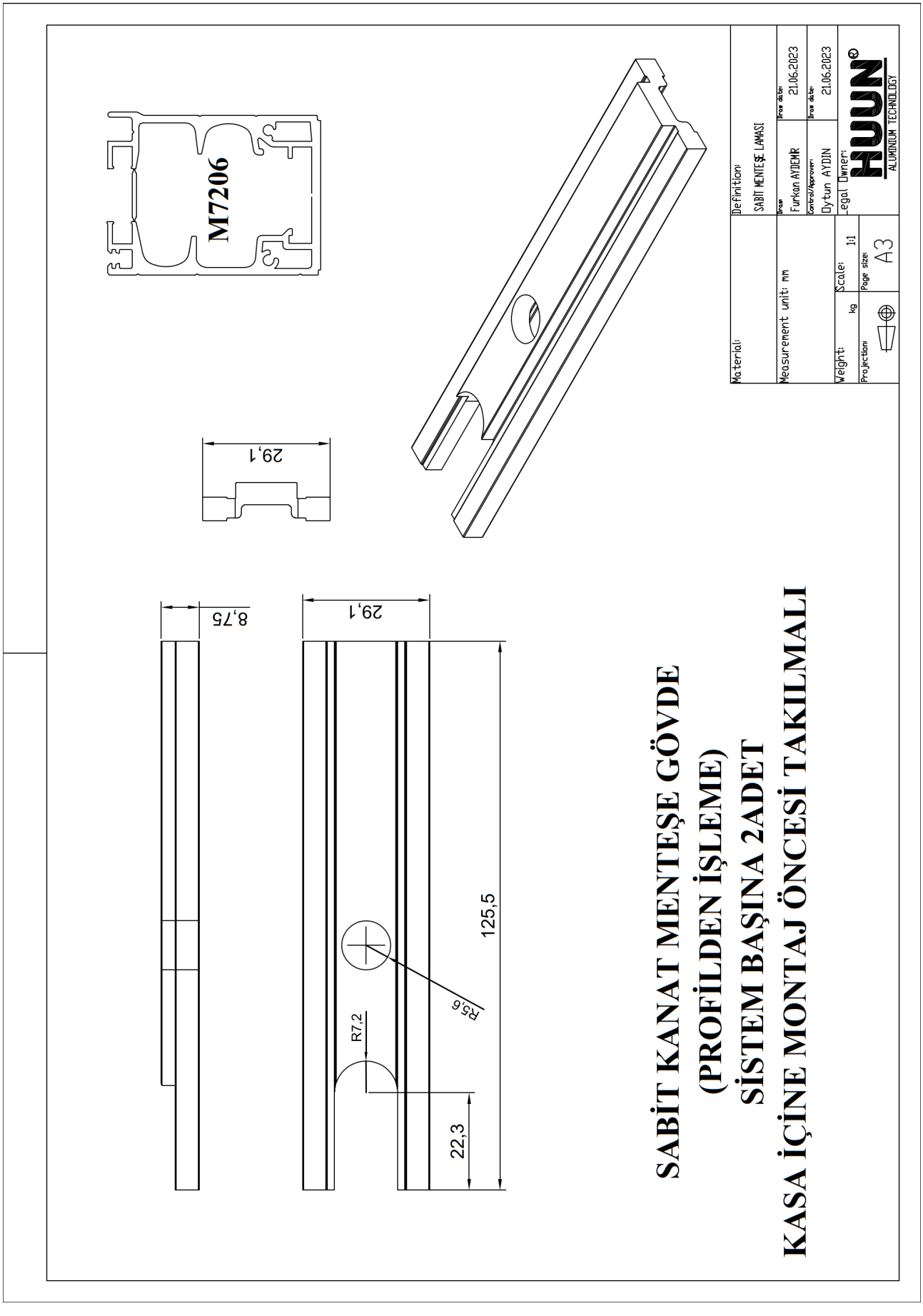
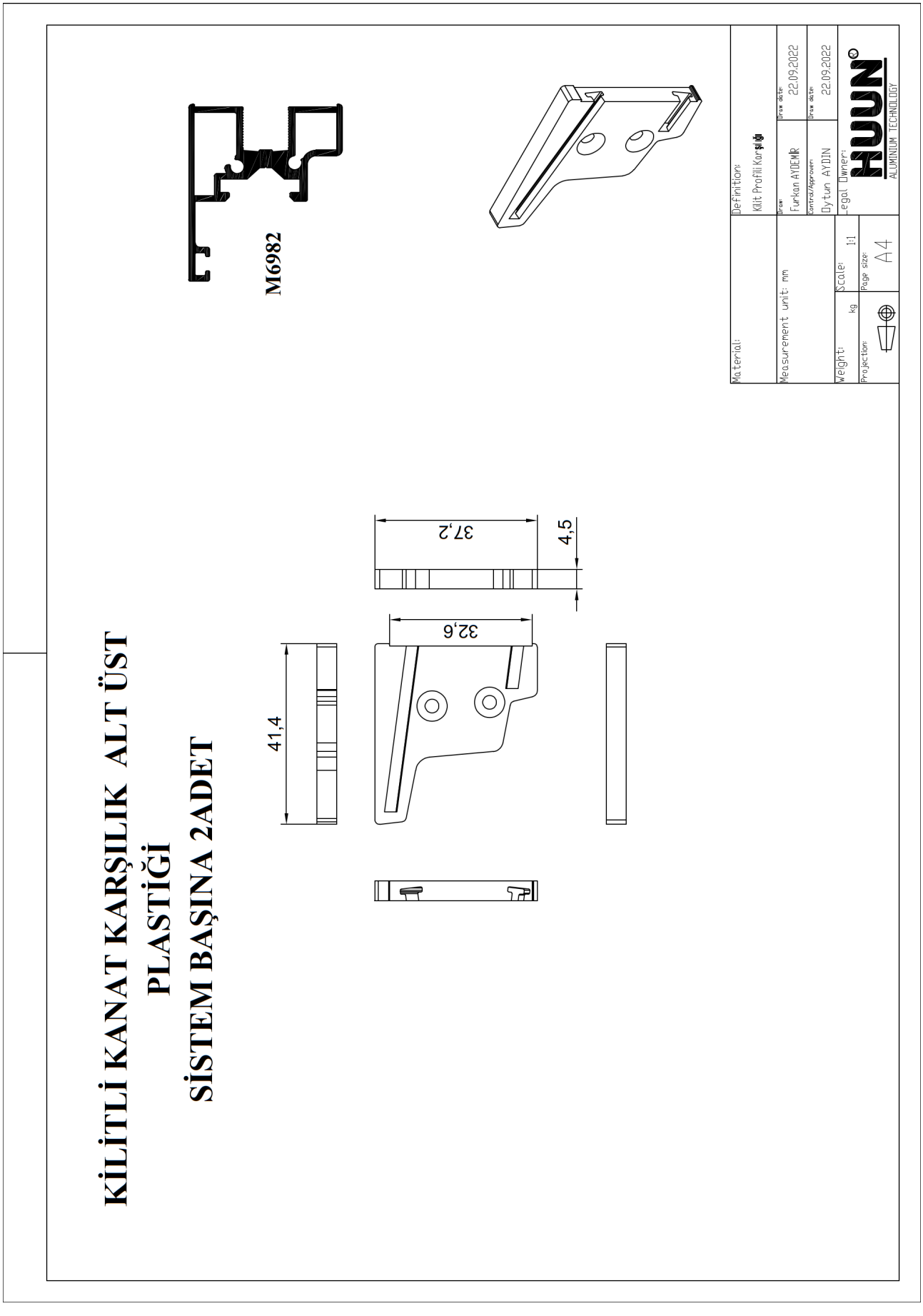
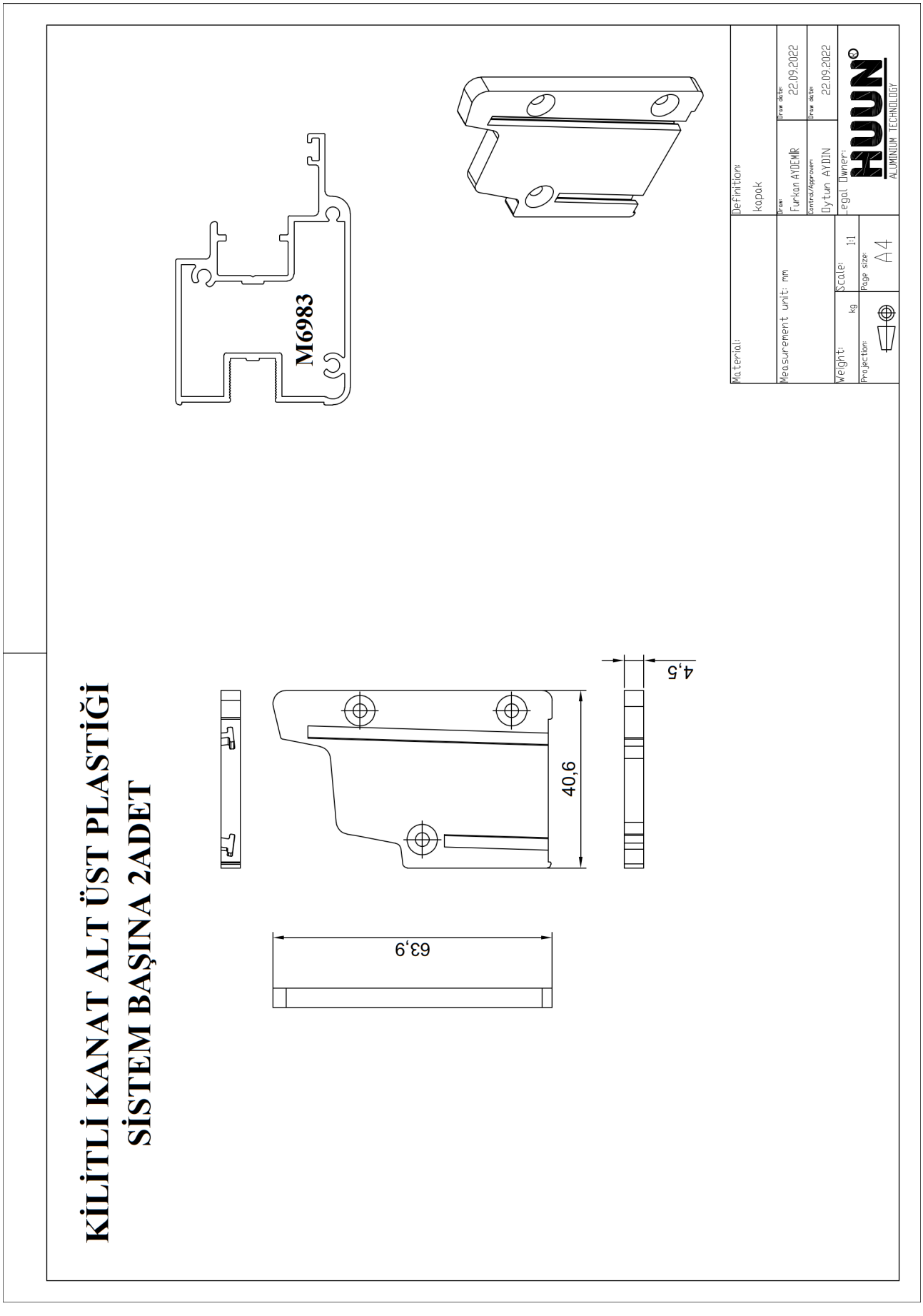
Measurement unit: mm
Weight: kg
Projection:
Scale: 1:1
Page size: A3
Drawn: Furkan AYDEMİR
Drew date: 21.06.2023
Control/Approver: Dytun AYDIN
Drew date: 21.06.2023
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY
HUUN CAMBALKON
10mm TEMPERLİ TEKCAM
BALKON VE TERASLARDA SÜRGÜLÜ CAM KAPAMA İÇİN KULLANILIR.
2700
2500
1800
2000

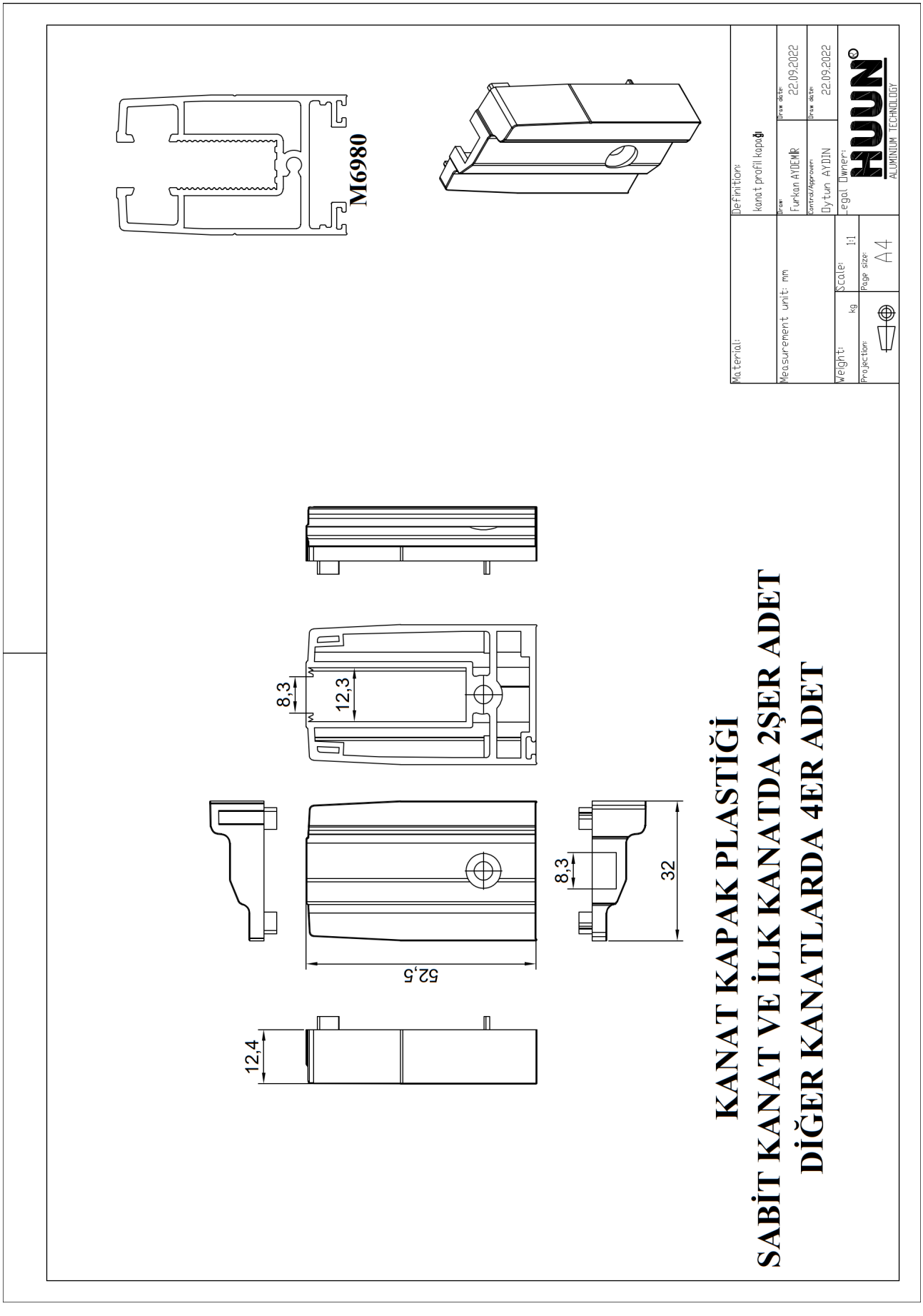

KANAT KIZAKLAMA GÖVDE
(PROFİLDEN İŞLEME)
SİSTEM BAŞINA 1 ADET
KASAYA SONRADAN MONTAJ EDİLİR
11,8
21,8
225,35
M7206
Definition: UST KILAVUZ
Material:
Measurement unit: mm
Weight: kg
Scale: 1:1
Page size: A4
Projection:
Draw: Furkan AYDEMİR
Draw date: 19.01.2024
Control/Approver: Dytun AYDIN
Draw date: 19.01.2024
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY

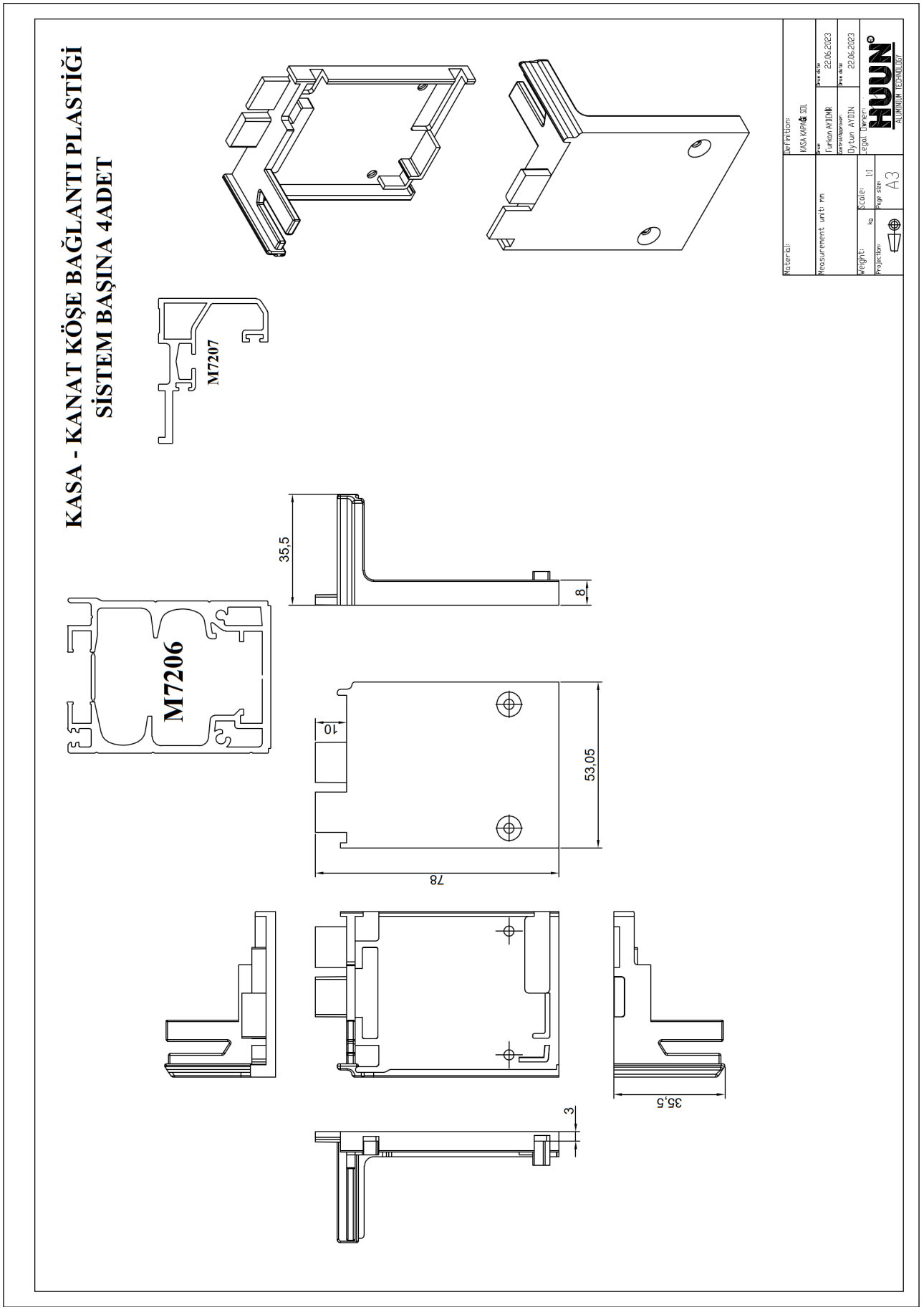

M6980
KANAT KIZAK PİMİ (ZAMAK)
HAREKETLİ HER KANATTA 1 ADET ÜST
KISIMDA
12,85
20
28,8
Definition: kanat merkezleme1
Material:
Measurement unit: mm
Draw: Furkan AYDEMİR
Draw date: 19.09.2022
Control/Approver: Dytun AYDIN
Draw date: 19.09.2022
Legal Owner:
Weight: kg
Scale: 1:1
Page size: A4
Projection:
HUUN
ALUMINIUM TECHNOLOGY

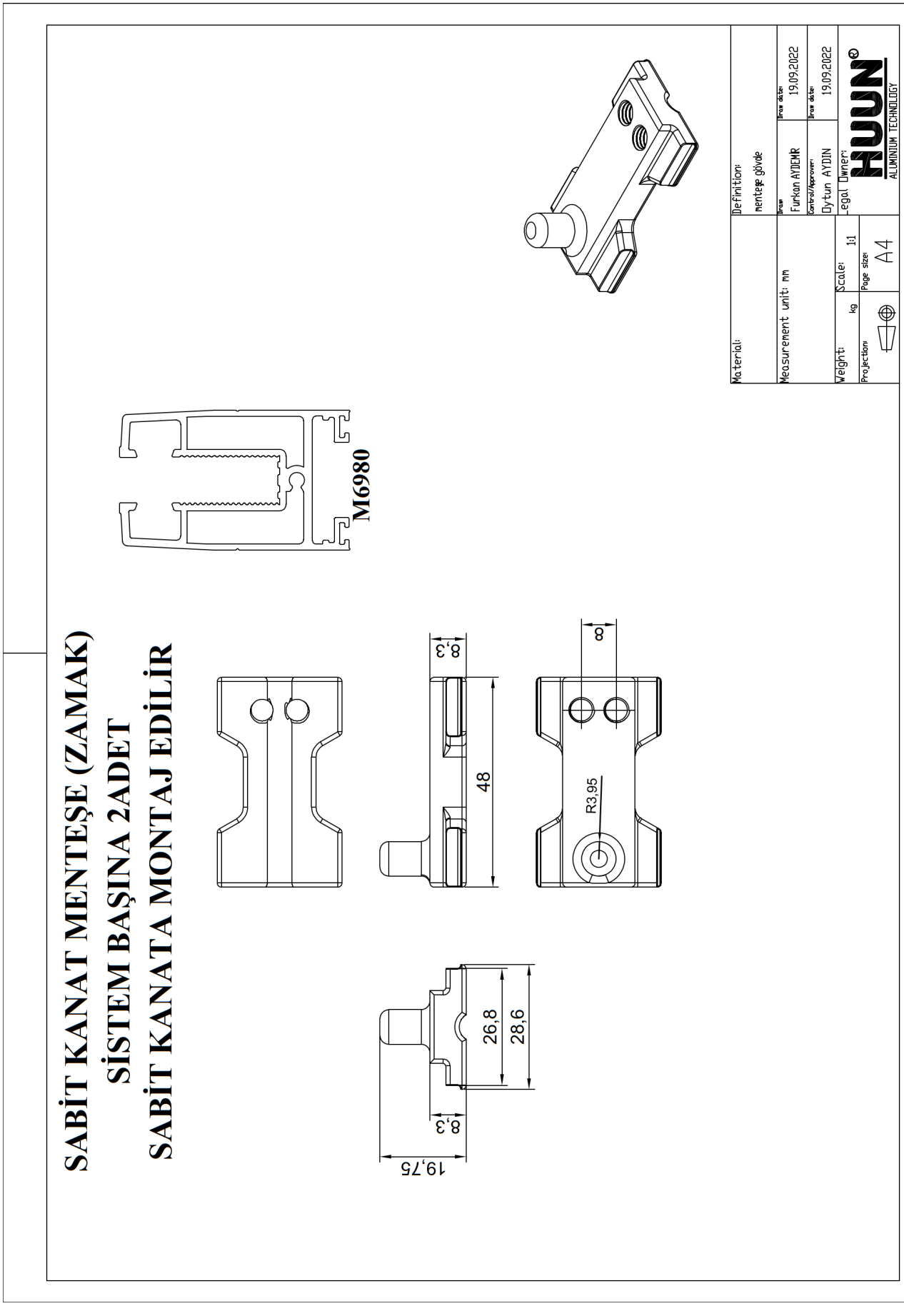

M7206
29,1
8,75
29,1
125,5
R5,6
R7,2
22,3
SABİT KANAT MENTEŞE GÖVDE
(PROFİLDEN İŞLEME)
SİSTEM BAŞINA 2ADET
KASA İÇİNE MONTAJ ÖNCESİ TAKILMALI
Definition: SABİT MENTEŞE LAMASI
Material:
Measurement unit: mm
Weight: kg
Scale: 1:1
Page size: A3
Projection:
Drew: Furkan AYDEMİR
Drew date: 21.06.2023
Control/Approver: Dytun AYDIN
Drew date: 21.06.2023
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY

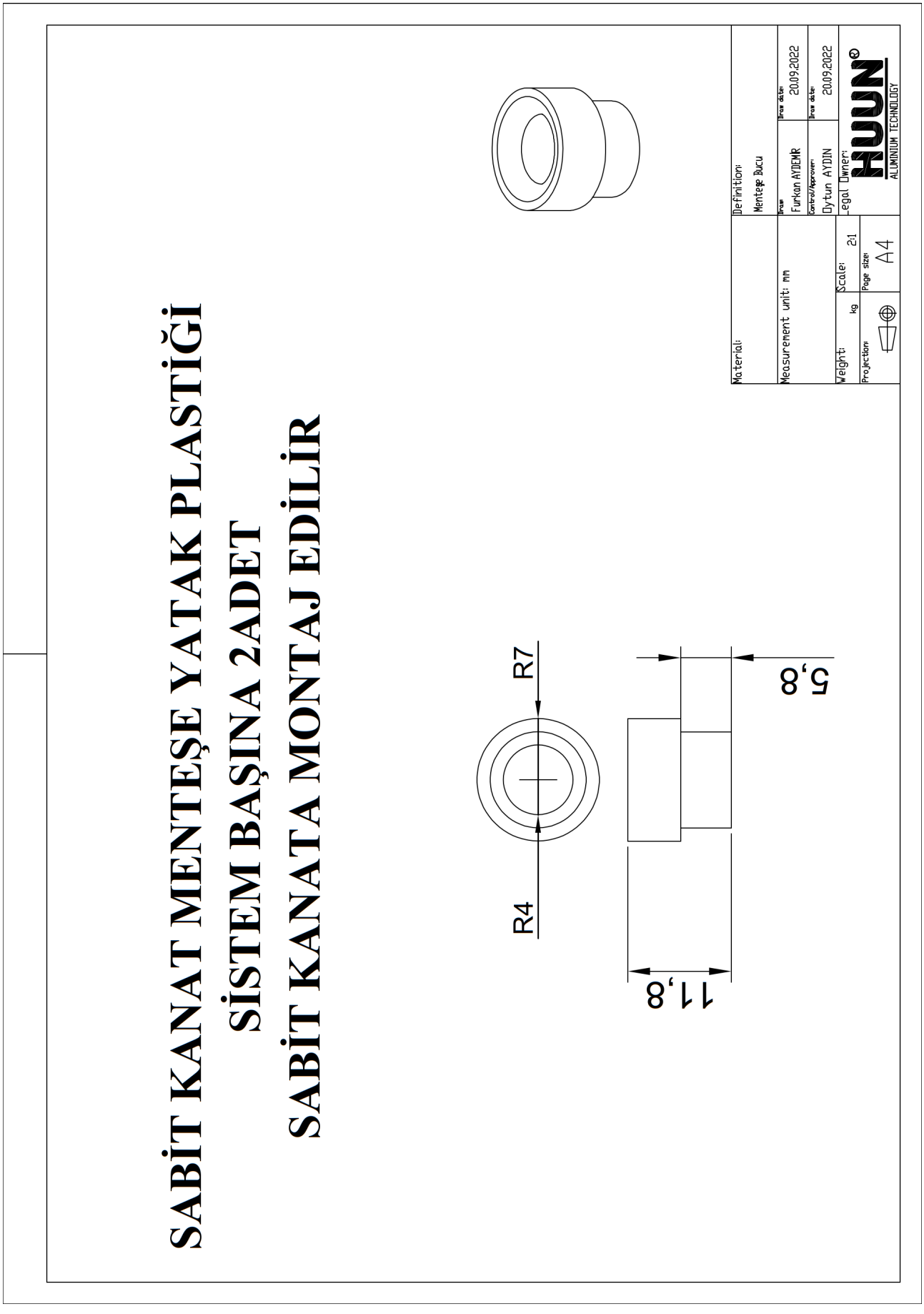

M6982
Definition: Kilit Profili Kar
Draw: Furkan AYDEMİR
Draw date: 22.09.2022
Control/Approver: Aytun AYDIN
Draw date: 22.09.2022
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY
Material:
Measurement unit: mm
Weight: kg
Scale: 1:1
Projection:
Page size: A4
37,2
4,5
32,6
41,4
KİLİTLİ KANAT KARŞILIK ALT ÜST
PLASTİĞİ
SİSTEM BAŞINA 2ADET

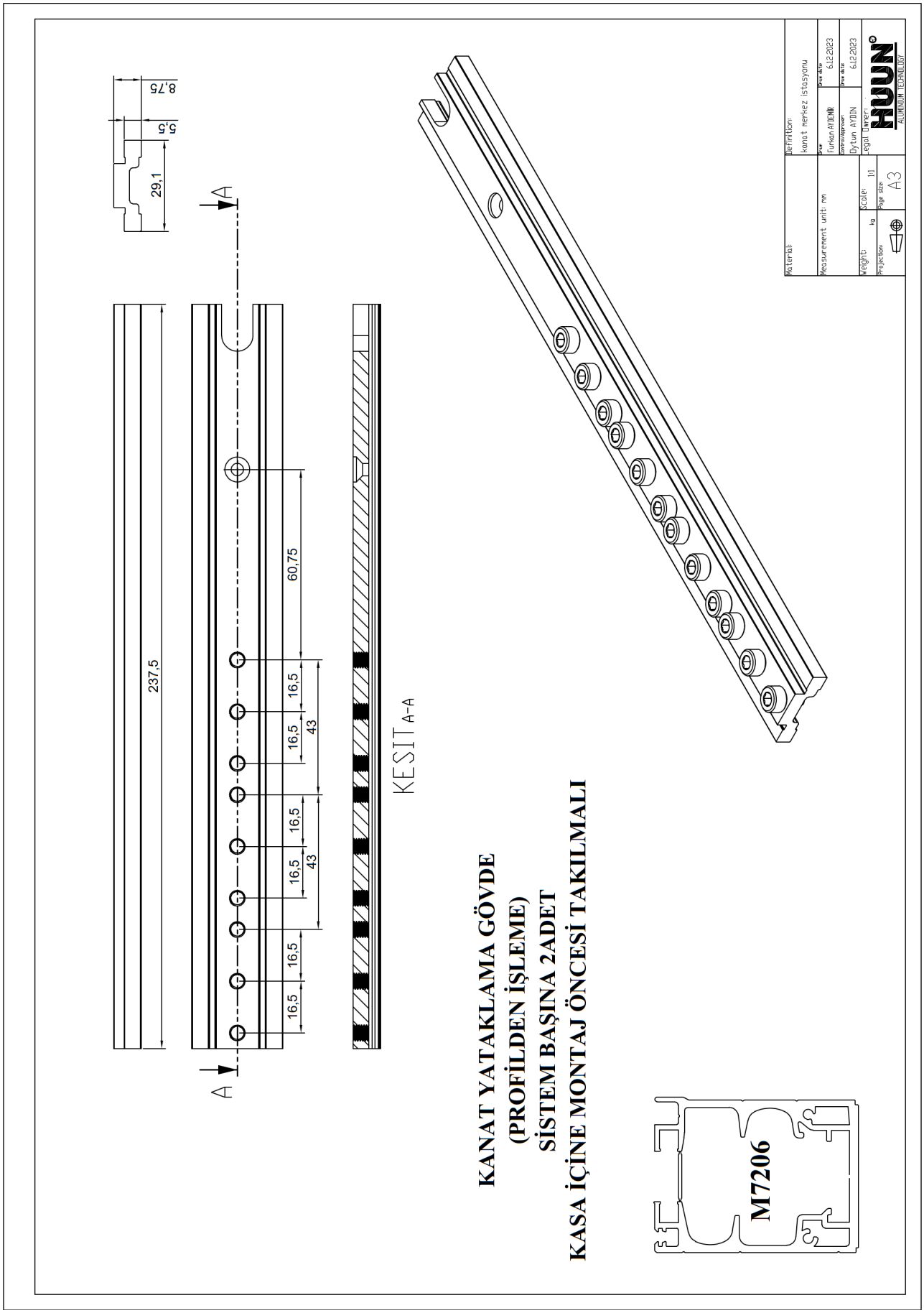

KİLİTLİ KANAT ALT ÜST PLASTİĞİ
SİSTEM BAŞINA 2ADET
M6983
40,6
4,5
63,9
Definition: kapak
Material:
Measurement unit: mm
Draw: Furkan AYDEMİR
Draw date: 22.09.2022
Control/Approver: Dytun AYDIN
Draw date: 22.09.2022
Legal Owner:
HUUN
ALUMINUM TECHNOLOGY
Weight: kg
Scale: 1:1
Page size: A4
Projection:


M6980
Definition: kanat profil kapağı
Material:
Measurement unit: mm
Weight: kg
Scale: 1:1
Page size: A4
Projection:
Draw: Furkan AYDEMİR
Draw date: 22.09.2022
Control/Approver: Aytun AYDIN
Draw date: 22.09.2022
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY
8,3
12,3
52,5
8,3
32
12,4
KANAT KAPAK PLASTİĞİ
SABİT KANAT VE İLK KANATDA 2ŞER ADET
DİĞER KANATLARDA 4ER ADET

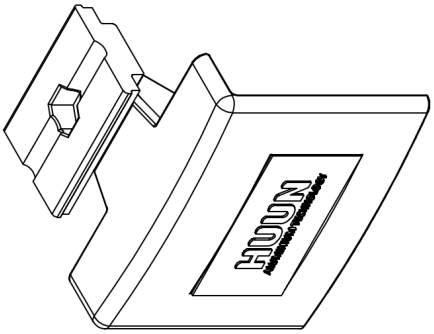

KASA - KANAT KÖŞE BAĞLANTI PLASTİĞİ
SİSTEM BAŞINA 4ADET
M7207
M7206
35,5
8
10
53,05
78
35,5
3
HUN
ALUMINIUM TECHNOLOGY
Definition:
KASA KAPAĞI KÖŞE
Measurement units: mm
Material:
Weight:
Scale: 1:1
Page size: A3
Projection:
Legal Owner:
Dytun AYDIN
Control/Approver:
Furkan AYDENİR
Date: 22.06.2023
Date: 22.06.2023


SABİT KANAT MENTEŞE (ZAMAK)
SİSTEM BAŞINA 2ADET
SABİT KANATA MONTAJ EDİLİR
M6980
8,3
48
8
R3,95
26,8
28,6
8,3
19,75
Definition: mentese gövde
Material:
Measurement unit: mm
Weight: kg
Scale: 1:1
Page size: A4
Projection:
Draw Funkan AYDEMİR
Draw date 19.09.2022
Control/Approver Aytun AYDIN
Draw date 19.09.2022
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY

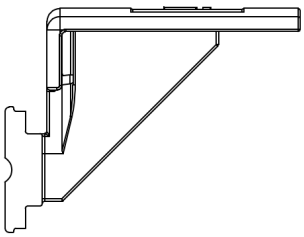

SABİT KANAT MENTEŞE YATAK PLASTİĞİ
SİSTEM BAŞINA 2ADET
SABİT KANATA MONTAJ EDİLİR
R7
R4
11,8
5,8
Definition: Menteşe Bucu
Material:
Measurement unit: mm
Weight: kg
Scale: 2:1
Page size: A4
Projection:
Drawn: Furkan AYDEMİR
Drawn date: 20.09.2022
Control/Approver: Aytun AYDIN
Drawn date: 20.09.2022
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY

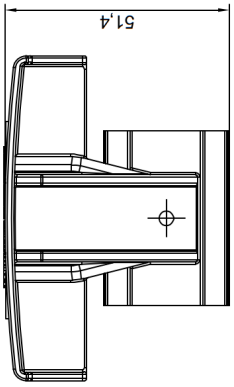

KANAT YATAKLAMA GÖVDE
(PROFİLDEN İŞLEME)
SİSTEM BAŞINA 2ADET
KASA İÇİNE MONTAJ ÖNCESİ TAKILMALI
M7206
KESIT A-A
237,5
60,75
16,5
43
29,1
5,5
8,75
A
Definition: Kanat merkez istasyonu
Measurement units: mm
Material:
Weight: kg
Scale: 1:1
Page size: A3
Projection
Drawn: Furkan AYDEMİR
Date: 6.12.2023
Control/Approver: Uytun AYDIN
Date: 6.12.2023
Legal Owner:
HUUN
ALUMINUM TECHNOLOGY

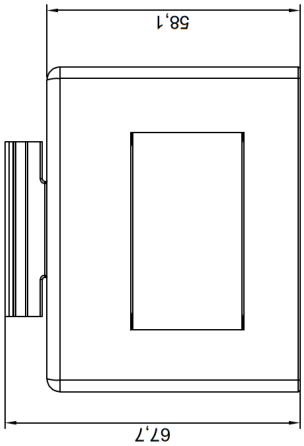
ÇIKIŞ AĞZI KANAT PLASTİĞİ
SİSTEM BAŞINA 2ADET

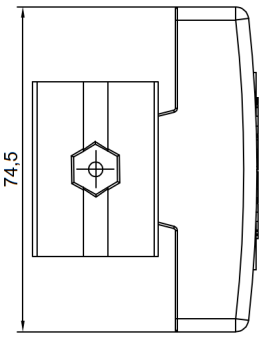


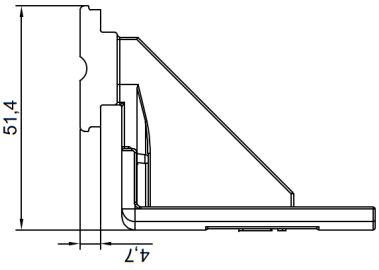
Definition: KANAT GİRİS KAPAGI		Date: 6.12.2023	HUUN ALUMINIUM TECHNOLOGY
Material:	Measurement unit: mm	Control/Approver: Dytun AYDIN	Date: 6.12.2023
		Legal Owner:	
Weight: kg	Scale: 1:1	Page size: A3	
Projection:			

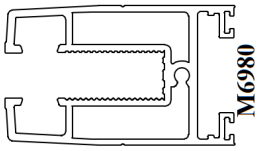


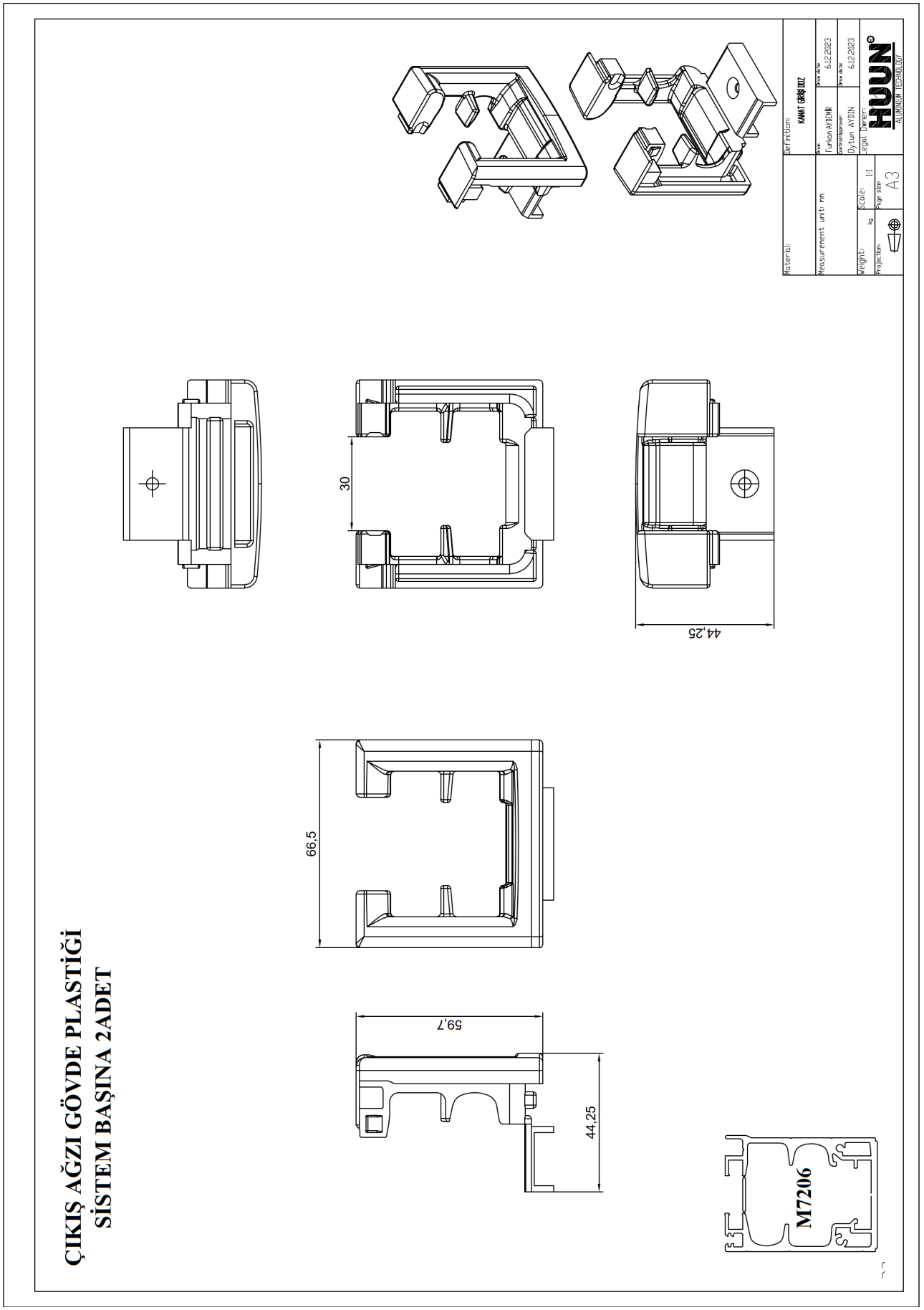




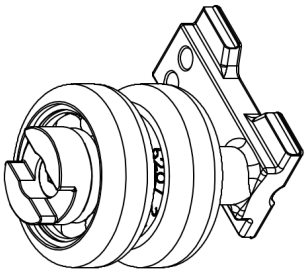


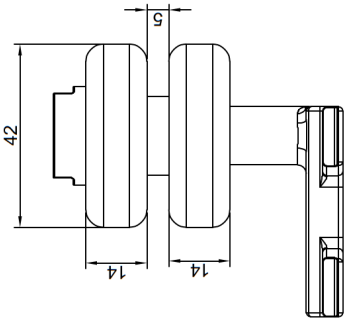


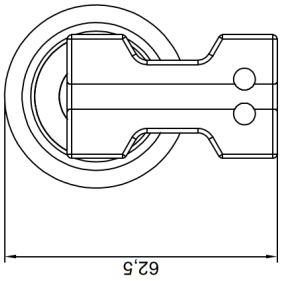


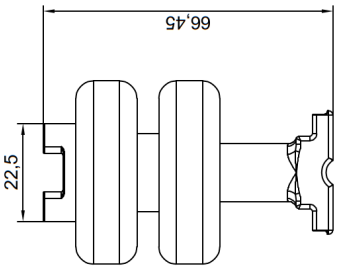

ÇIKIŞ AĞZI GÖVDE PLASTİĞİ
SİSTEM BAŞINA 2ADET
30
44,25
66,5
59,7
44,25
M7206
HUN
ALUMINIUM TECHNOLOGY
Definition:
KANAT GRUBU DIZ
Material:
Measurement unit: mm
Weight:
Scale: 1:1
Page size: A3
Projection
Legal Owner:
Dytun AYDIN
6.12.2023
Funkon AYDEMİR
6.12.2023

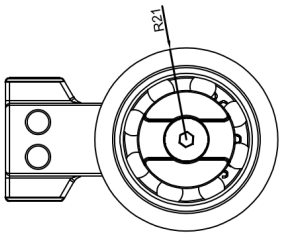
KANAT TEKER RULMAN KİLİTLİ
(ZAMAK + RULMAN+ PLASTİK)
HAREKETLİ KANAT BAŞINA 2 ADET

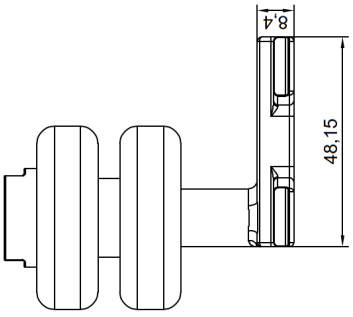


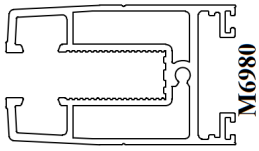




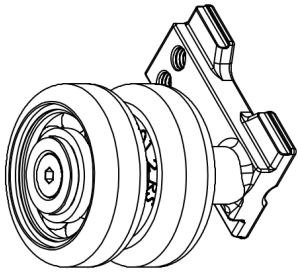


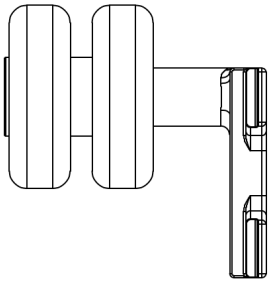


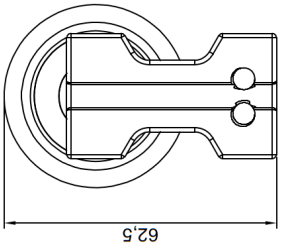


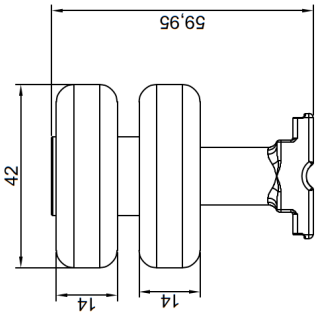


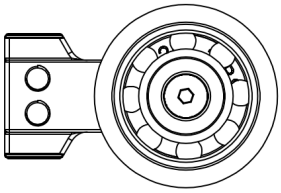
KANAT TEKER RULMAN
(ZAMAK + RULMAN+ PLASTİK)
HAREKETLİ KANAT BAŞINA 2 ADET

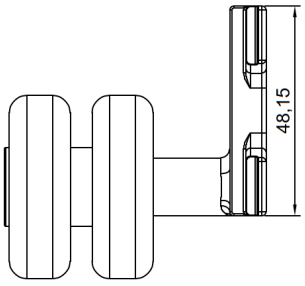


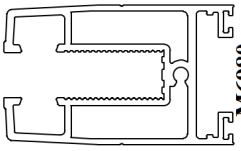


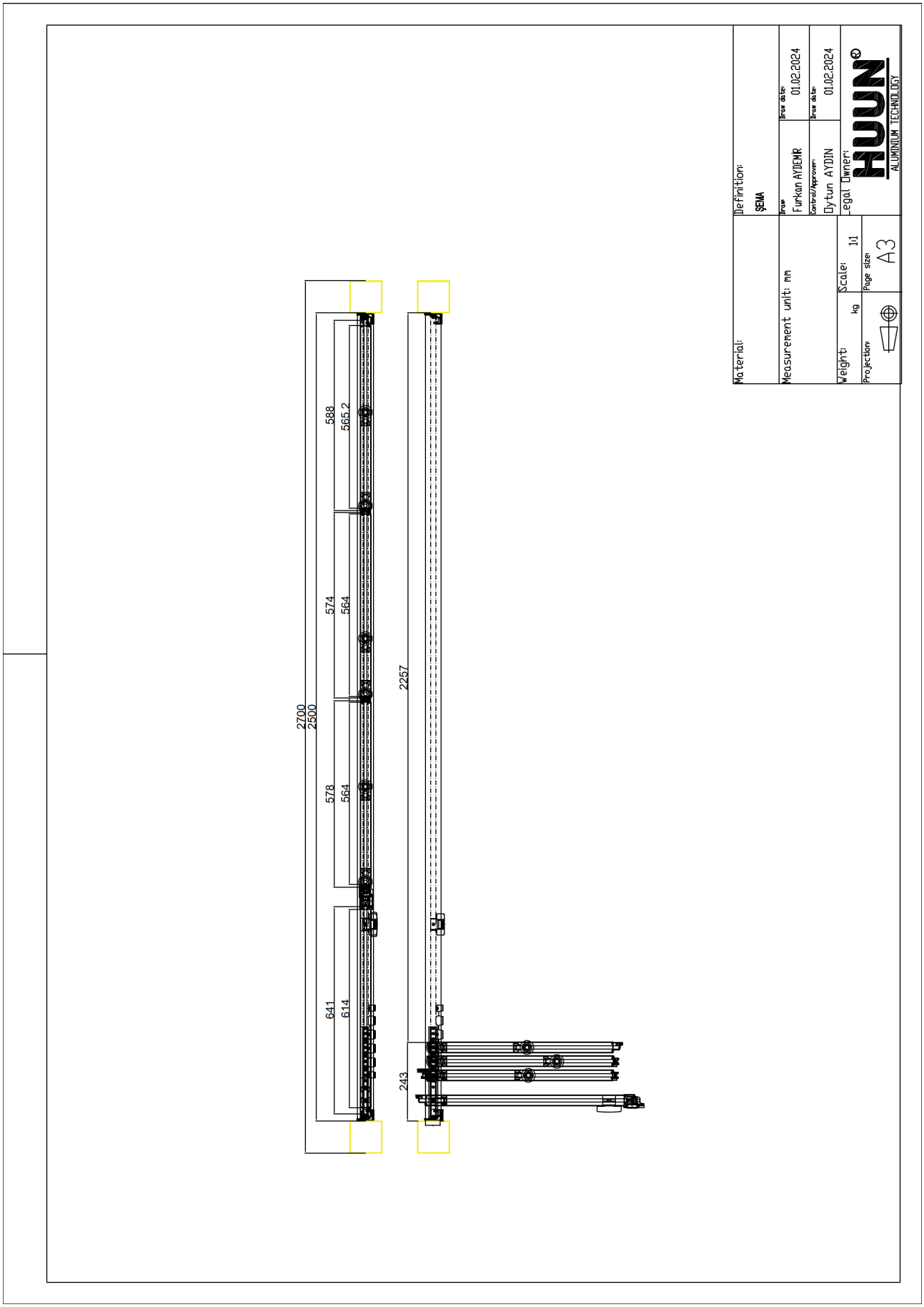











Definition:
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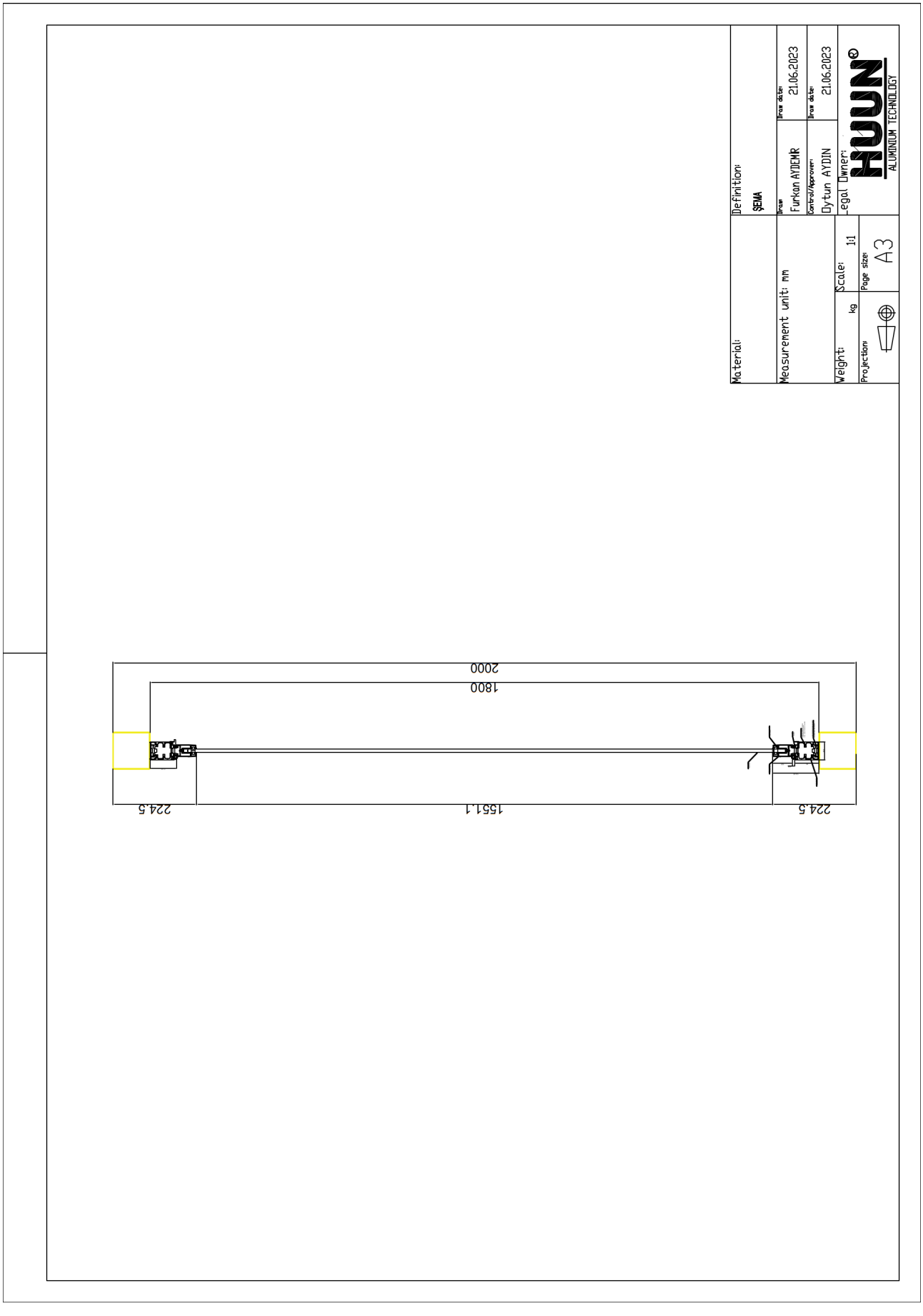
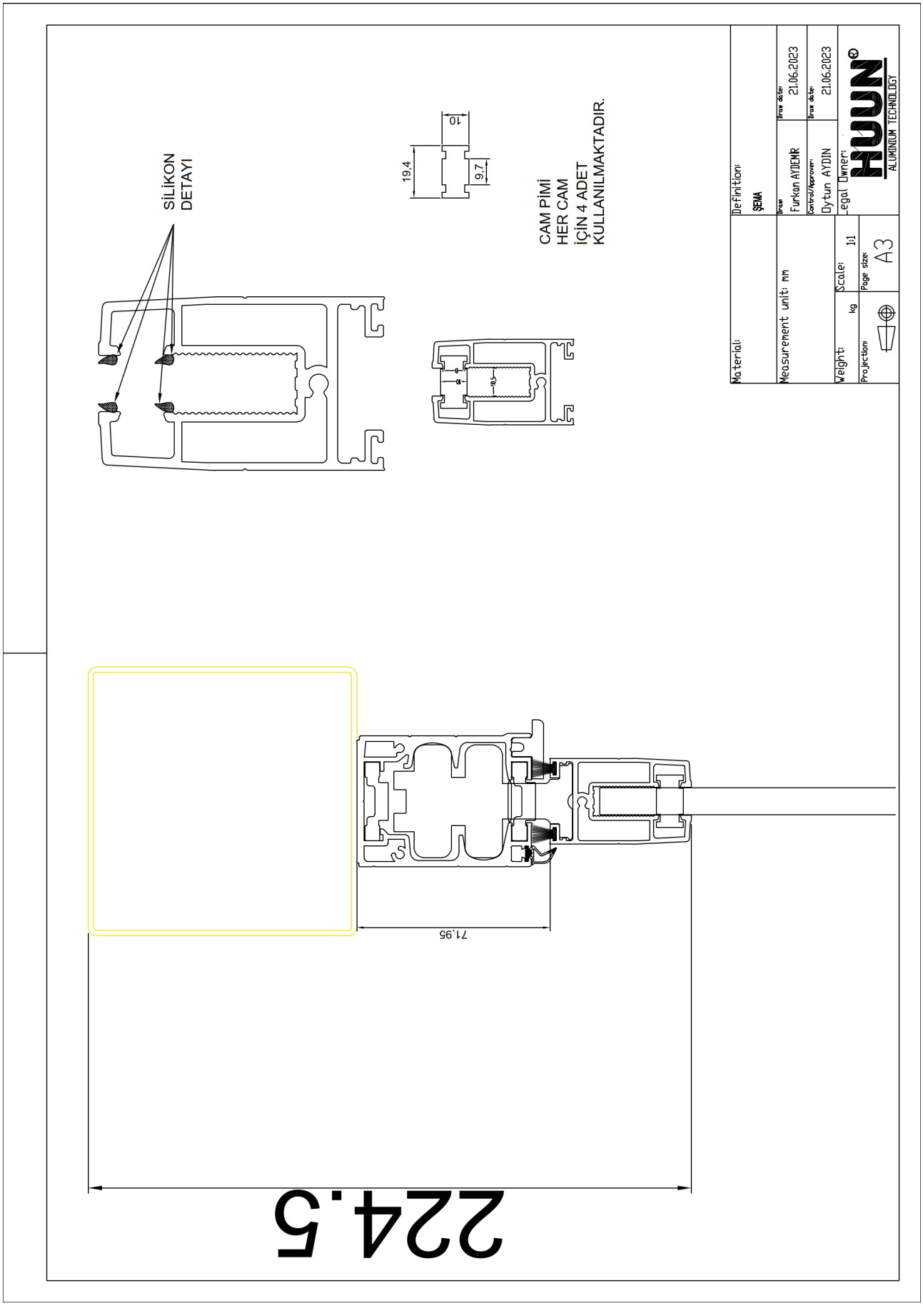
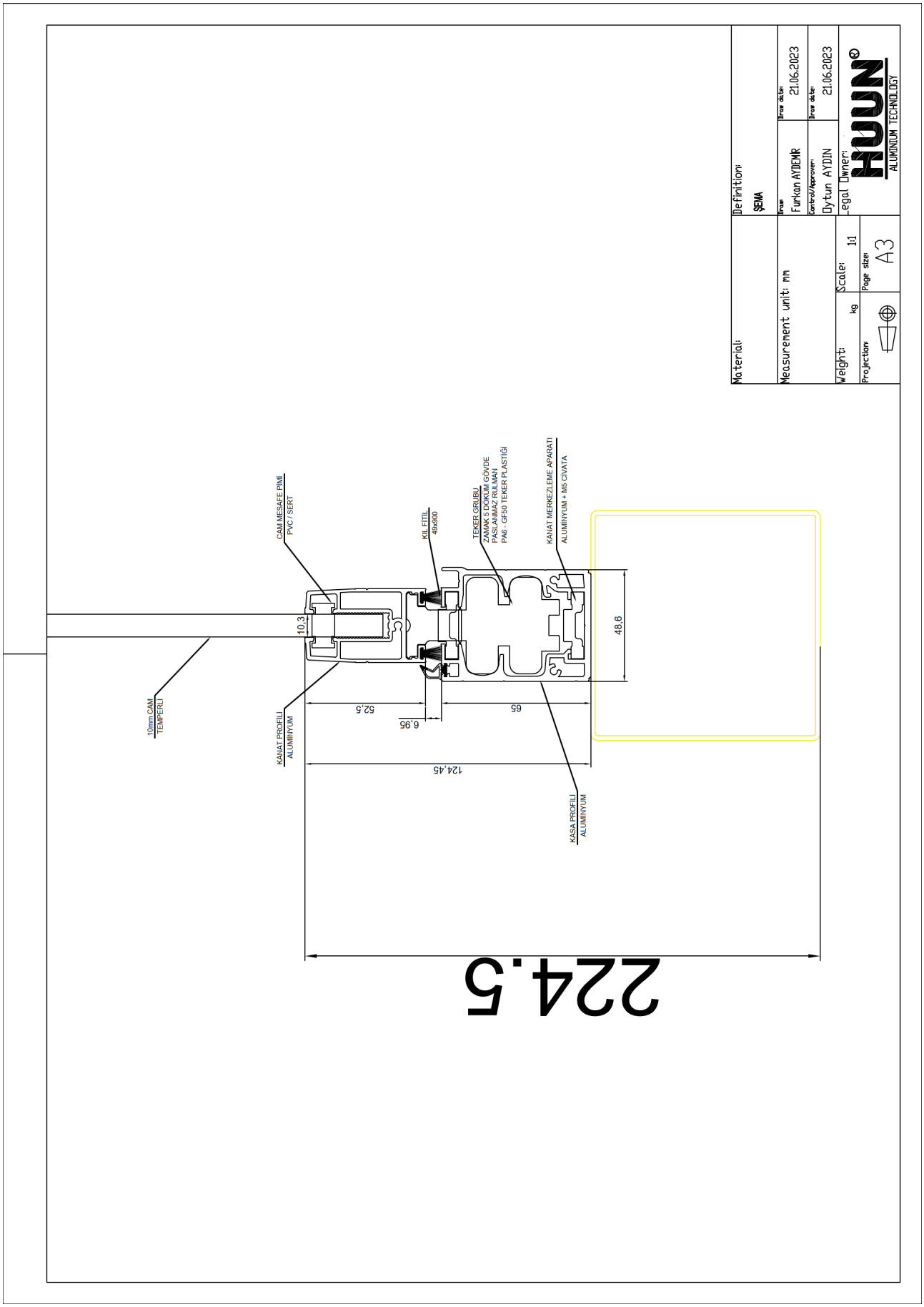
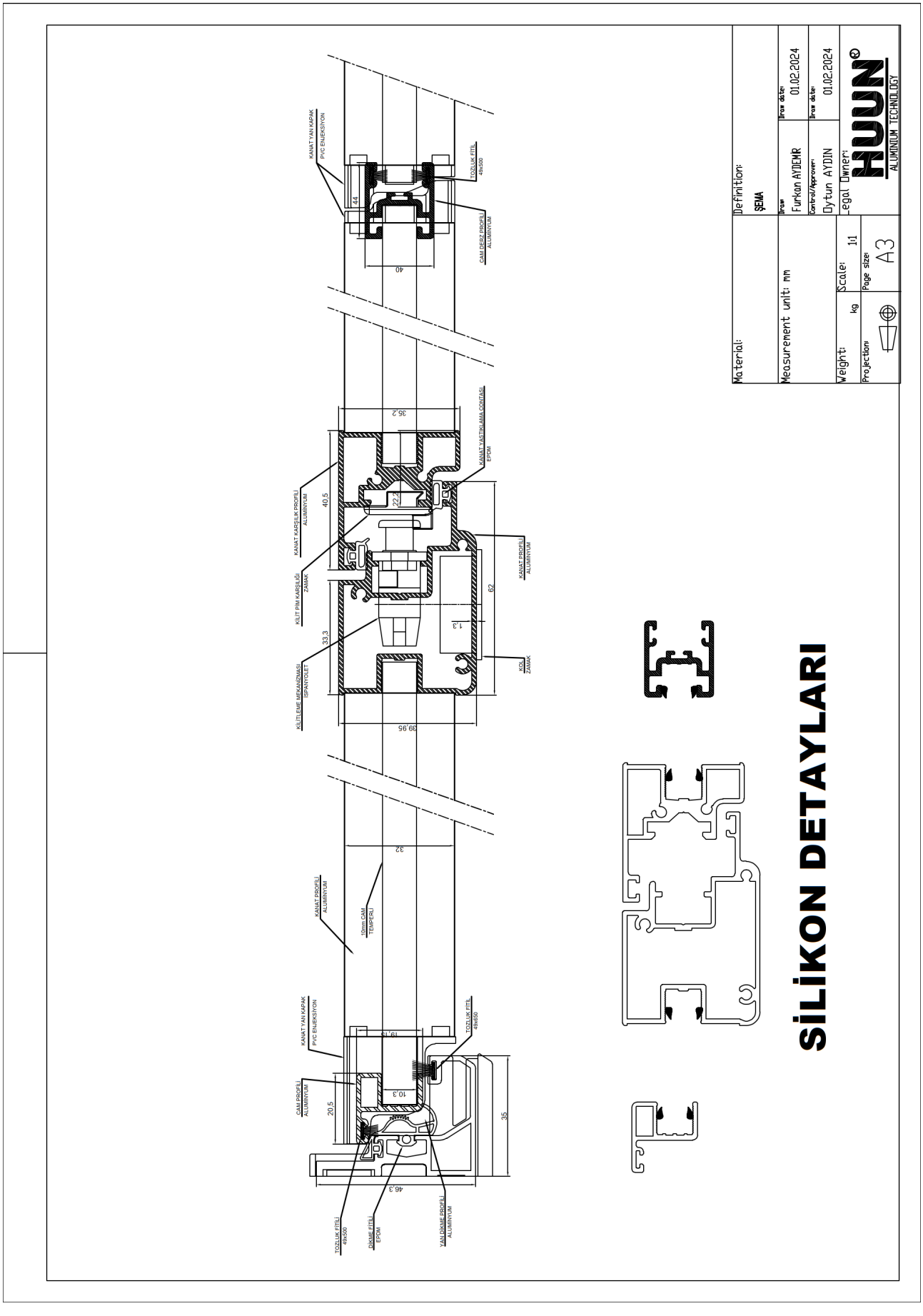
Material:
Measurement unit: mm
Weight: kg
Scale: 1:1
Page size A3
Projection
Drawn
Furkan AYDEMİR
01.02.2024
Control/Approver
Dytun AYDIN
01.02.2024
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY
588
565.2
574
564
578
564
641
614
2700
2500
2257
243


Definition:
ŞEMA
Material:
Measurement unit: mm
Weight: kg
Projection:
Scale: 1:1
Page size: A3
Drawn
Funkan AYDEMİR
21.06.2023
Control/Approver
Dytun AYDIN
21.06.2023
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY
2000
1800
224.5
1551.1
224.5


SİLİKON
DETAYI
10
19.4
9.7
CAM PİMİ
HER CAM
İÇİN 4 ADET
KULLANILMAKTADIR.
Definition:
ŞEMA
Material:
Measurement unit: mm
Weight: kg
Scale: 1:1
Page size: A3
Projection:
Draw Funkan AYDEMİR
Draw date: 21.06.2023
Control/Approver: Aytun AYDIN
Draw date: 21.06.2023
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY
71.95
224.5


Definition:
ŞEMA
Material:
Measurement unit: mm
Weight: kg
Projection:
Scale: 1:1
Page size: A3
Draw: Furkan AYDEMİR
Draw date: 21.06.2023
Control/Approver: Aytun AYDIN
Draw date: 21.06.2023
Legal Owner:
HUUN
ALUMINIUM TECHNOLOGY
CAM MESAFE PİMİ
PVC / SERT
KIL FİTİL
40x900
TEKER GRUBU
ZAMAK 5 DÖKÜM GÖVDE
PASLANMAZ RULMAN
PA6 - GF50 TEKER PLASTİĞİ
KANAT MERKEZLEME APARATI
ALUMİNYUM + M5 CIVATA
10,3
48,6
10mm CAM
TEMPERLİ
KANAT PROFİLİ
ALUMİNYUM
52,5
6,95
65
124,45
KASA PROFİLİ
ALUMİNYUM
224,5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Drawn date: 01.02.2024
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Drawn date: 01.02.2024
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AÇIL ZAMAK
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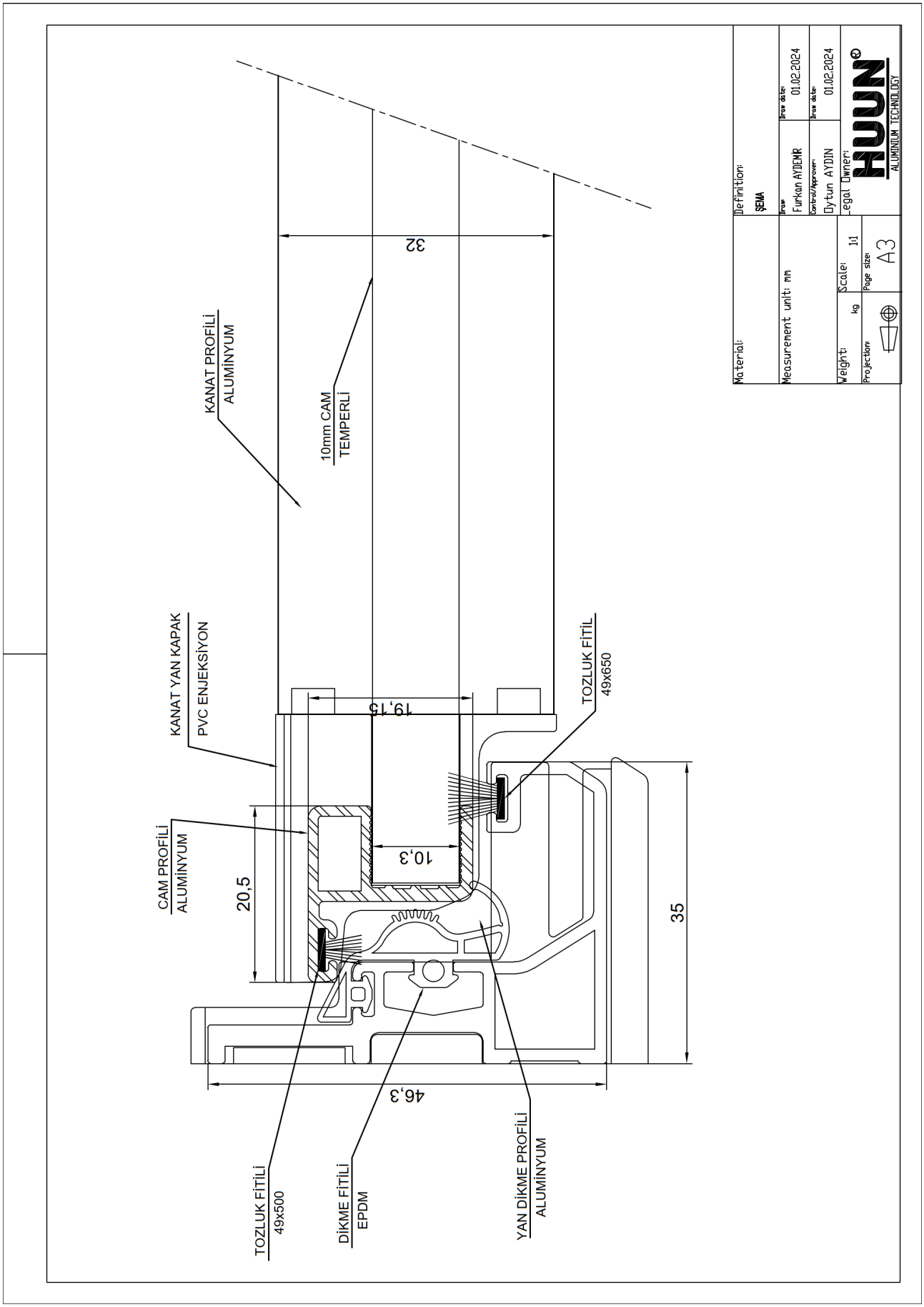
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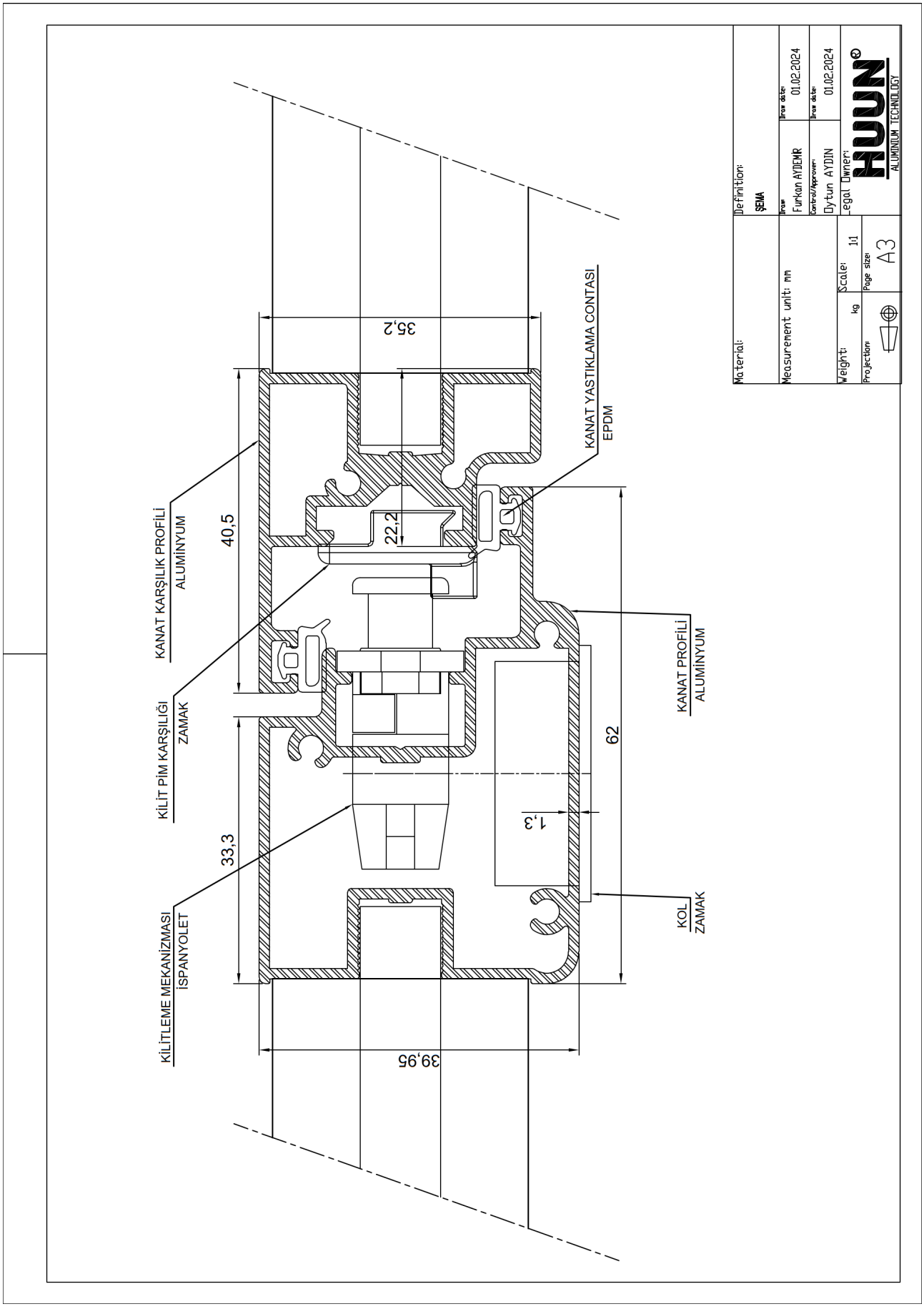
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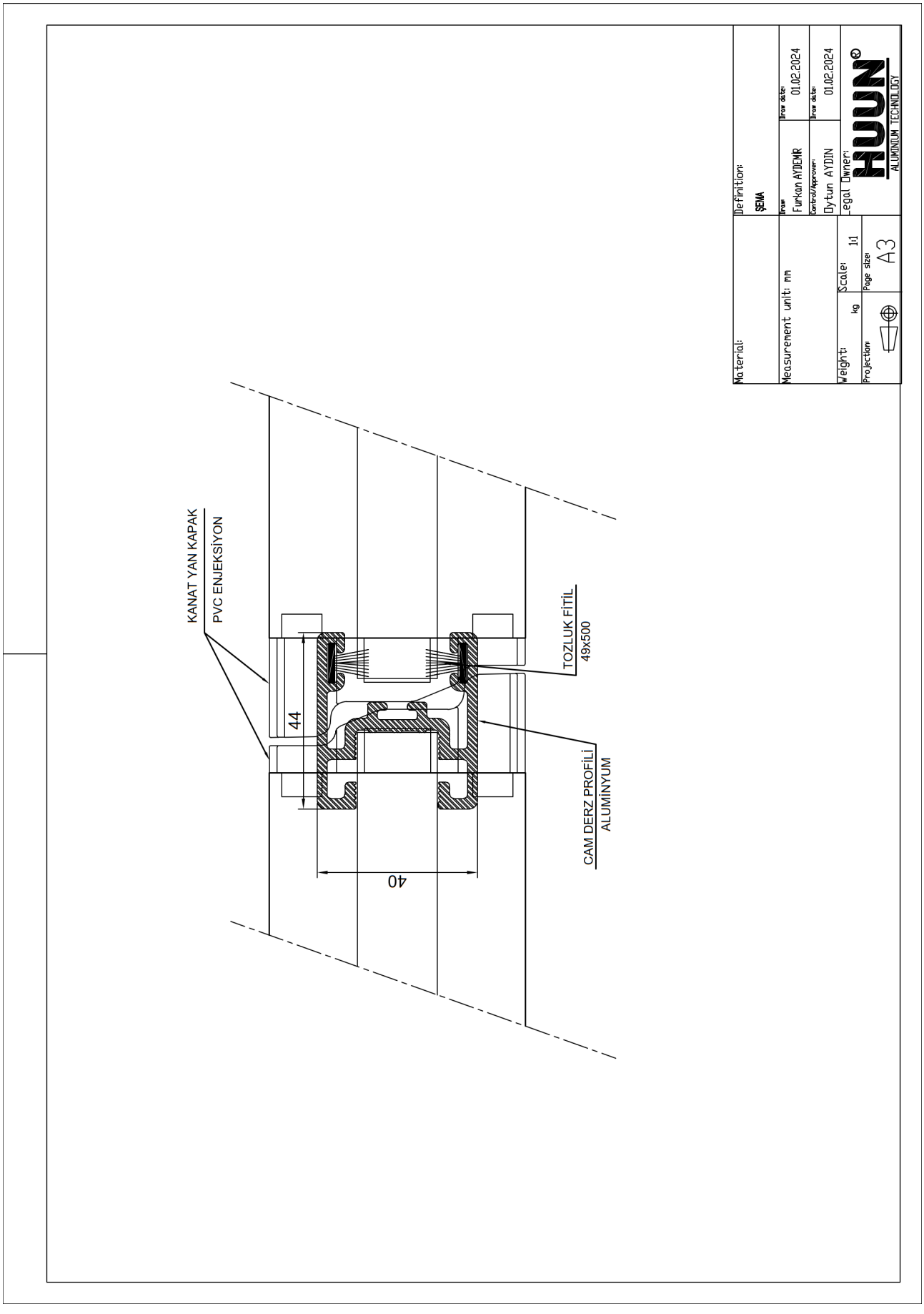
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The last document replaces the previous documents.