

nissal
NEWMET



ALD 2100 SYSTEM

ALD 2100 // 2016

	tehnički opis	technical description
A	prateći materijal	accessories
B	pregled profila	structural elements overview
C	profili	profiles
D	detalji	details
E	pregled mogućnosti prihvatanja ispune	overview of the possibilities of filling accepting
F	univerzalna presa ručna	universal hand presses

tehnički opis

technical description

ALD 2100

Kompletan sistem sa termički prekinutim aluminijumskim profilima, obložen profilima od punog drveta, okovom i gumenim profilima moguće je primeniti kod:

- nagibno-zaokretnih prozora i balkonskih vrata,
- nagibnih prozora i balkonskih vrata,
- zaokretnih prozora i balkonskih vrata,
- klizno-uskočnih prozora i balkonskih vrata
- fiksnih prozora.

TEHNIČKI OPIS SISTEMA:

Profili:

- Presovani od legure AlMgSi0.5, minimalne prekidne čvrstoće F 22, prema standardu DIN 1748 (JUS C3220) i u svemu prema evropskim normama.

Tip Al. profila:

- Termoizolovan sa tri komore.
- Termički prekid među profilima postiže se poliamidnim trakama, armiranim sa 25% fiber glasa.
- Posebnim postupkom, pomoću sistema valjaka, vrši se povezivanje poliamidnih sa aluminijumskim profilima.
- Širina poliamidnih profila je konstantna d=20 mm.

Ispuna:

- Bez vidljivih veznih sredstava kombinacijom aluminijumskih profila, drvenih lajsni i gumenih profila, moguće je prihvatanje termoizolacione ispune u rasponu od 23 – 40 mm debljine.

The complete system, with thermal break, full wood covers, fittings and EPDM profiles is applicable with:

- *tilt-turn windows and balcony doors*
- *tilt windows and balcony doors*
- *turn windows and balcony doors*
- *slide windows and balcony doors*
- *fixed windows*

TECHNICAL DESCRIPTION OF THE SYSTEM:

Profiles:

- *Pressed from alloy AlMgSi 0,5, according to DIN 1748 standard, and with every European normative compliance.*

Al. profile type:

- *Thermo-insulated with 3 chambers.*
- *Thermo insulation accomplished with implementation of polyamide profiles armored with 25% of glass-fiber.*
- *Width of polyamide bar is 20 mm*

Glazing:

- *Without visible binding, but only with combination of Al. profiles, wooden battens and EPDM profiles. System can accept thermo insulated glazing of 23 – 40 mm in width.*

ALD 2100

Termoizolacija:

- Termoizolacija u sistemu projektovana je u istoj ravni za termo staklo, profil krila, EPDM profil i profil štoka, što obezbeđuje niski koeficijent provodljivosti toplote.

Dihtovanje:

Dihtovanje kod otvarajućih krila ostvaruje se EPDM profilima u tri ravni:

- na spoljnoj strani Al. profila (smanjuje prodor vode u drenažnu komoru štoka i odvodi van prozora dreniranu vodu iz krila prozora).
- u termoizolacionoj zoni, specijalno oblikovanim EPDM profilom sa dve komore u masi profila (odvodi u drenažnu komoru vodu koja prodre sa spoljne strane)
- na unutrašnjoj strani u zoni drvenih profila.

Gumeni profili:

Svi gumeni profili izrađeni su od EPDM materijala i koriste se za:

- zastakljivanje /spolja, unutra/
- dihtovanje /štoka i krila prozora/
- dihtovanje /štoka i zida/

Drveni profili:

Služe kao enterijerska obloga termoizolovanih aluminijumskih profila.

Drveni profili su ravnih ivica, čistih formi i u izgledu pozicije dominira jedan profil kao ram stakla.

Kit lajsna je "utopljena" u dimenziju vidnog rama i kod otvarajućeg krila montira se zajedno sa oblogom.

Thermo-insulation:

- Thermal-insulation of the system is designed in the same level for thermo-insulated glass, sash profile, EPDM profile and frame profile, which provides a low heat-conductivity coefficient.

Water-tightness:

Water-tightness with opening sashes is realized through EPDM profiles set in 3 planes:

- on the outer side of Al. profiles (reduces water penetration in a drainage chamber of the frame)
- in the thermo-insulated area of the system with a specially molded EPDM profile with 2 chambers inside the profile
- on the inner, wooden profiles, area

EPDM profiles:

Used for:

- glazing from exterior and interior
- providing water-tightness between frame and sash
- providing water-tightness between frame and wall

Wooden profiles:

Are used as an interior covers of the thermo-insulated Al. profiles.

Profiles are with flat edges, clean form and with one dominant profile as glass frame.

Glazing bead is sunk within visible frame and is mounted along with the wooden cover.

ALD 2100

Vezivanje drvenih za aluminijumske profile vrši se preko poliamidnih elemenata koji omogućuju nezavisno sklapanje ramova, dok specijalno oblikovani EPDM profili izoluju drvene od Al. Profila

Proizvode se isključivo od probranog prvoklasnog tvrdog drveta (hrast, parena bukovina, jasen, trešnja).

Širina drvenih profila je 16 – 18 mm.

Bojenje drveta sa ili bez predhodnog toniranja vrši se poliuretanskim lakom u tri sloja u komori za lakiranje.

POVRŠINSKA OBRADA:

Zaštita i završna obrada površine aluminijumskih profila vrši se bilo postupkom anodne oksidacije – eloksaže, bilo postupkom elektrostatičkog bojenja – lakiranjem.

NISSAL NEWMET vrši završnu obradu svojih profila uzpuno poštovanje evropskih standarda (QUALANOD za eloksažu i QUALICOAT za plastifikaciju).

Eloksaža u NISSAL NEWMET-u obavlja se sa potpuno obnovljenom i modernizovanom opremom kapaciteta 24.000A.

Eloksaža se vrši prema EUROCOLOR ton karti, počevši od prirodne boje aluminijuma, preko svetle bronzе, srednje bronzе i tamne bronzе do crne i zlatne.

Anodni sloj je debljine 20 mikrona. Boja eloksaže može biti različita počev od prirodne boje aluminijuma, preko svetle bronzе, do žute i crne.

Sloj poliesterskog praha ima debljinu od 60 do 80 mikrona na glavnim, vidljivim delovima profila.

Bonding of aluminum and wooden profiles is established with polyamide elements, while a specially designed EPDM profile provides thermal barrier amongst these profiles.

They are exclusively produced from first class hard wood (oak, steamed beech, ash, cherry tree).

Width of wooden profiles vary from 16 -18 mm

Painting of these profiles is done with polyurethane lacquer in 3 layers, with or without previous toning, in a lac chamber.

SURFACE PROTECTION:

Is carried out whether with process of anodizing or with process of powder coating. Both processes are carried out in compliance with strict European standards of "QUALANOD" for anodizing and "QUALICOAT" for powder coating.

Anodizing at NISSAL NEWMET is carried out, with a completely reconstructed and modernized equipment of 24 000A capacity.

Anodizing is carried out according to EUROCOLOR hue card starting with natural color of aluminum, through light bronze, medium bronze and dark bronze, to black and gold.

The thickness of anodic layer is 20 microns, which is necessary for outdoor application of aluminum profiles in civil engineering.

Polyester powder coating layer is 60 – 80 microns thick on the main, visible parts of the profile.

All colors from RAL hue card are available.

ALD 2100

KVALITET:

Kvalitet svih NISSAL NEWMET-ovih proizvoda je garantovan striktno propisanim proizvodnim procedurama – od presovanja aluminijumskih profila i poštovanja odgovarajućih dimenzija i tolerancija u skladu sa JUS C.C3.220, odnosno DIN 1748/4, preko procesa eloksiranja ili plastificiranja aluminijumskih profila u skladu sa evropskim QUALICOAT i QUALANOD standardima, pa do nabavke i ugradnje svih pratećih materijala (spojnica, EPDM zaptivki itd.) i okova od renomiranih evropskih proizvođača.

Kompletan proces, odnosno svaki segment, proizvodnje se pažljivo i detaljno prati i kontroliše, a kvalitet kompletnog procesa potvrđen je i znakom kvaliteta po standardu ISO 9001.

Sistem je sertifikovan od strane „IMS“ Instituta za ispitivanje materijala, zadovoljivši sledeće kriterijume:

Kategorija propuštanja vazduha (D)
Kategorija propuštanja vode (D)
Opšta kategorija (D)

Bulevar Svetog Cara Konstantina bb
18 000 Niš, Srbija :
tel:++381 18 502 504
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fax:++381 18 502 503

<http://www.nissal.co.rs>

Proizvodjač zadržava pravo vršenja
konstruktivnih izmena bez prethodne najave.

QUALITY:

All NISSAL NEWMET's products have a quality which is guaranteed through strictly determined procedures – from aluminum profiles extrusion in accordance with JUS C.C3.220 and DIN 1748/4 standard, through the process of anodization and electrostatic powder coating in accordance with European "QULANOD" and "QUALICOAT" standards, to supply of all accessories (corner joints, EPDM gaskets, fittings, etc.) from prominent European suppliers.

Complete process and every segment of production is carefully and in detail supervised and controlled, and the quality of complete process is validated with the sign of quality standard ISO 9001.

*The system have been certified by the "IMS" Institute for materials testing.
It have satisfied the criteria for the:*

*Air transmitting category (D)
Water transmitting category (D)
General category (D)*

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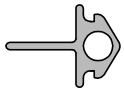
<http://www.nissal.co.rs>

NISSAL NEWMETa.d. holds a right of making
structural changes without prior nouncement.

segment A

prateći materijal

accessories

oznaka code	izgled design	opis description	veza sa connected to	jed. mere / pakovanje unit / pack
2100 G1		centralna guma / central gasket <i>materijal/material: EPDM</i>	03 32 41	$\frac{m'}{x}$
2100 G2		prednja zaptivka štoka i krila / front sash - frame gasket <i>materijal/material: EPDM</i>	03 32 41	$\frac{m'}{x}$
2100 G3		prednji naslon za staklo / front glass support <i>materijal/material: EPDM</i>	03 21 31 32	$\frac{m'}{x}$
2100 G4		oslonac za drveni profil štoka / wooden profile support <i>materijal/material: EPDM</i>	03 32 41	$\frac{m'}{x}$
2100 G5		unutrašnja zaptivka krila i štoka / rear sash - frame gasket <i>materijal/material: EPDM</i>	D3	$\frac{m'}{x}$
2100 G6		unutrašnji oslonac drvenog profila krila / rear sash wooden profile gasket <i>materijal/material: EPDM</i>	D3	$\frac{m'}{x}$
2100 G7		zaptivka izmedju štoka i zida / frame and wall gasket <i>materijal/material: EPDM</i>	03	$\frac{m'}{x}$

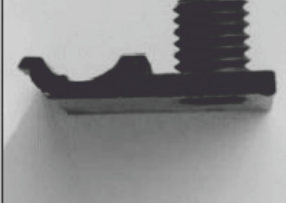
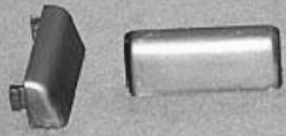
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TopTherm

A

2



oznaka code	izgled design	opis description	veza sa connected to	jed. mere / pakovanje unit / pack
2100 G8		zadnji naslon za staklo / rear glass support <i>materijal/material: EPDM</i>	KL	$\frac{m'}{x}$
2100 G9		zaptivka srednje dopune / central rabbet gasket <i>materijal/material: EPDM</i>	41	$\frac{m'}{x}$

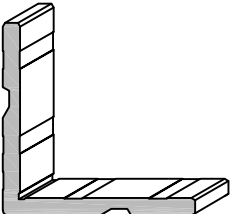
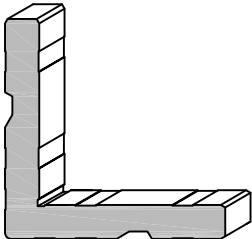
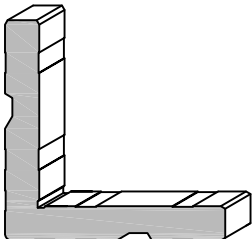
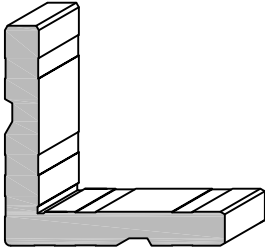
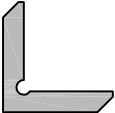
oznaka code	izgled design	opis description	veza sa connected to	jed. mere / pakovanje unit / pack
2100 P1		oslonac stakla / glass support <i>materijal/material:</i> <i>poliamid / polyamide</i>	Za sva krila i štokove For all sashes & frames	$\frac{\text{kom/pcs}}{x}$
2100 P2		žabica kit lajsne / glazing bead clip <i>materijal/material:</i> <i>polipropilen /</i> <i>polypropylene</i>	KL	$\frac{\text{kom/pcs}}{x}$
2100 P3		razupirač / distnacer <i>materijal/material:</i> <i>poliamid / polyamide</i>	Za sve štokove For all frames	$\frac{\text{kom/pcs}}{x}$
2100 P4		zatvarač srednje dopune / central rabbet cap <i>materijal/material:</i> <i>poliamid / polyamide</i>	41	$\frac{\text{kom/pcs}}{x}$
2100 P5		veza drvenog i aluminijumskog rama / wooden and aluminum frame connector <i>materijal/material:</i> <i>poliamid / polyamide</i>	Za sve profile For all profiles	$\frac{\text{kom/pcs}}{x}$
PO		maska drenažnog otvora / drainage hole cap <i>materijal/material:</i> <i>polipropilen /</i> <i>polypropylene</i> <i>boja-colour:</i> <i>cmo, belo, bronz, srebrno</i> <i>black, white, bronze, silver</i>	Za sve štokove For all frames	$\frac{\text{kom/pcs}}{x}$

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A

4



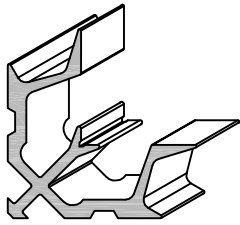
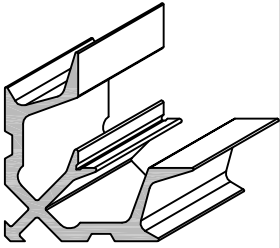
oznaka code	izgled design	opis description	veza sa connected to	jed. mere / pakovanje unit / pack
S 6 - 8		spojnica (M 4862) / extruded corner joint (M 4862) L=8.0 mm <i>materijal/material:</i> aluminijum/ aluminum	21	$\frac{\text{kom/pcs}}{20}$
S 11 - 8		spojnica (M 4861) / extruded corner joint (M 4861) L=8.0 mm <i>materijal/material:</i> aluminijum/ aluminum	03	$\frac{\text{kom/pcs}}{20}$
S 11 - 12		spojnica (M 4861) / extruded corner joint (M 4861) L=12.3 mm <i>materijal/material:</i> aluminijum/ aluminum	03	$\frac{\text{kom/pcs}}{20}$
S 11 - 35		spojnica (M 4861) / extruded corner joint (M 4861) L=35.3 mm <i>materijal/material:</i> aluminijum/ aluminum	21	$\frac{\text{kom/pcs}}{20}$
U 1.1		uglić / corner alignment <i>materijal/material:</i> čelik / steel	03 21	$\frac{\text{kom/pcs}}{80}$

ALD 2100
TopTherm

A

5

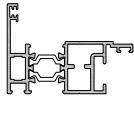
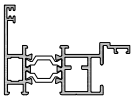
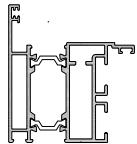
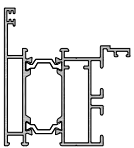
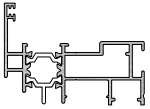
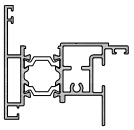
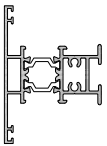
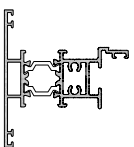


oznaka code	izgled design	opis description	veza sa connected to	jed. mere / pakovanje unit / pack
S 40 -8		ugaona spojnica (M 4954) / extruded corner joint (M 4954) L=8,0 mm <i>materijal/material:</i> <i>aluminijum/aluminum</i>	2101 15	$\frac{\text{kom/pcs}}{20}$
S 40 - 12		ugaona spojnica (M 4954) / extruded corner joint (M 4954) L=12,3 mm <i>materijal/material:</i> <i>aluminijum/aluminum</i>	2101 15	$\frac{\text{kom/pcs}}{20}$

segment B

pregled profila

structural elements
overview

oznaka code	izgled design	opis description	G Kg/m	I_x / I_y cm ⁴	Pakovanje sadrži šipke od 6 m Package contains 6 m bars	strana page
2100 11	 1:4	štok frame	1.362	$I_x = 6.8154$ $I_y = 21.5283$	$\frac{\text{kom/pcs}}{2}$	C1
2100 03		štok frame	1.342	$I_x = 6.4324$ $I_y = 21.2016$	$\frac{\text{kom/pcs}}{2}$	C1
2100 13		štok frame	1.950	$I_x = 28.9460$ $I_y = 31.9074$	$\frac{\text{kom/pcs}}{2}$	C2
2100 15		štok frame	1.920	$I_x = 26.8013$ $I_y = 30.4811$	$\frac{\text{kom/pcs}}{2}$	C2
2100 21		krilo sash	1.538	$I_x = 7.7308$ $I_y = 40.7479$	$\frac{\text{kom/pcs}}{2}$	C3
2101 41		srednja dopuna central rabbet	1.599	$I_x = 12.0166$ $I_y = 26.1814$	$\frac{\text{kom/pcs}}{2}$	C3
2100 31		"T" profile / "T" profile	1.513	$I_x = 12.3045$ $I_y = 18.7225$	$\frac{\text{kom/pcs}}{2}$	C4
2100 32		"T" profile / "T" profile	1.631	$I_x = 12.7155$ $I_y = 24.7282$	$\frac{\text{kom/pcs}}{2}$	C4

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B

2



oznaka code	izgled design 1:4	opis description	G Kg/m	$\frac{I_x}{I_y}$ cm ⁴	Pakovanje sadrži šipke od 6 m Package contains 6 m bars	strana page
2101 KL		kit lajsna glazing bead	0.224		$\frac{\text{kom/pcs}}{6}$	C5
2100 KL1	 (1:2)	kit lajsna glazing bead	0.218		$\frac{\text{kom/pcs}}{6}$	C5
2100 NO	 (1:2)	nosač okapnice drain profile bearer	0.196		$\frac{\text{kom/pcs}}{6}$	C5

segment C

profili

profiles

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TopTherm

C

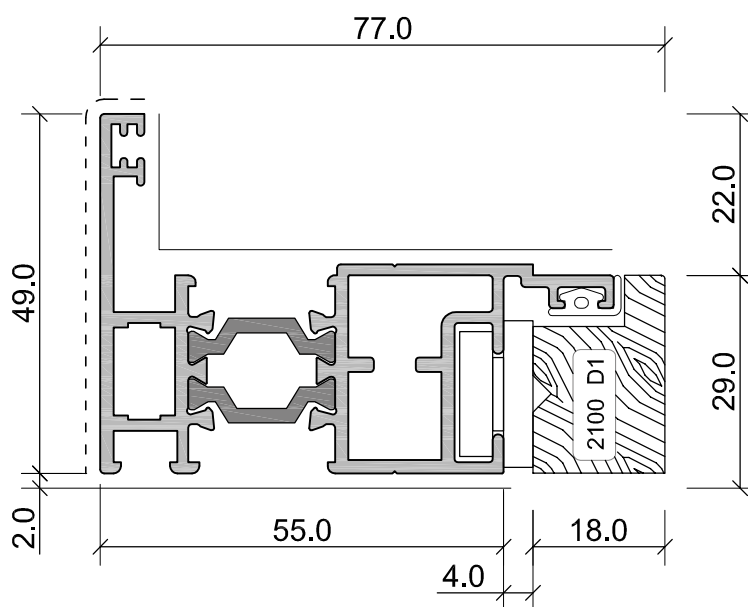
1



2100 11

Štok / Frame
1.362 Kg/m'

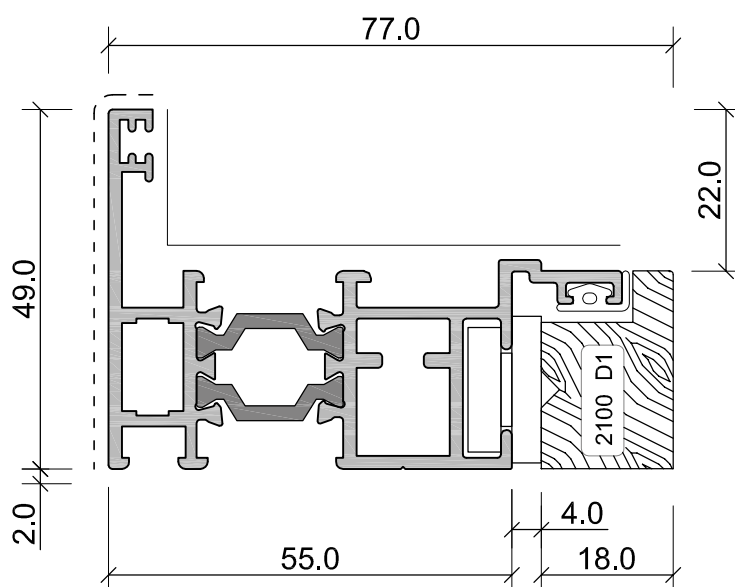
PO ZAHTEVU KUPCA
on demand



2100 03

Štok / Frame
1.342 Kg/m'

PO ZAHTEVU KUPCA
on demand



----- vidna površina /visible surface

ALD 2100
TopTherm

C

2



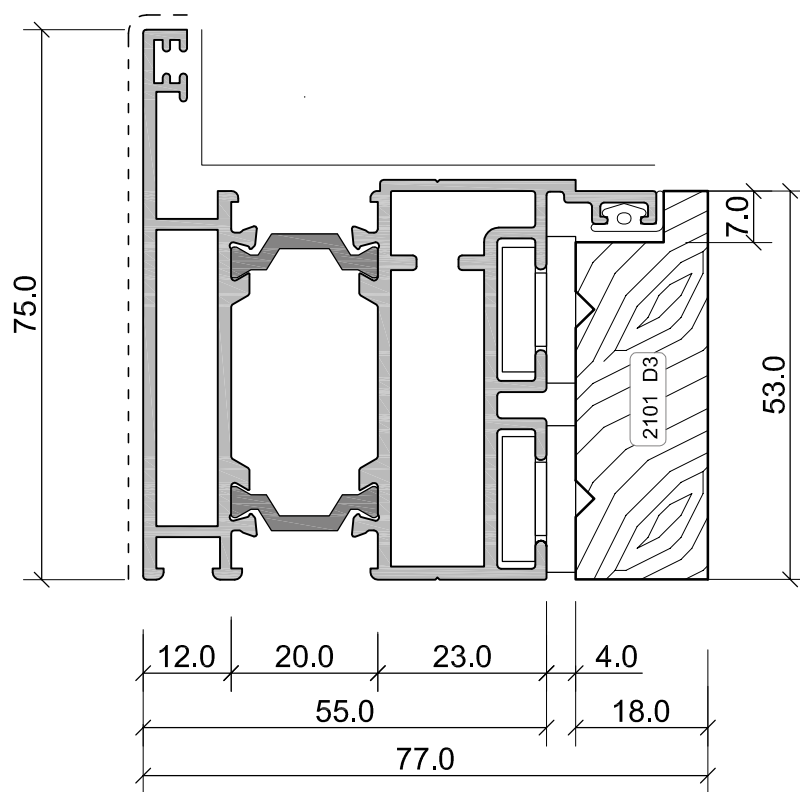
2100 13

Štok / Frame

1.950 Kg/m'

PO ZAHTEVU KUPCA

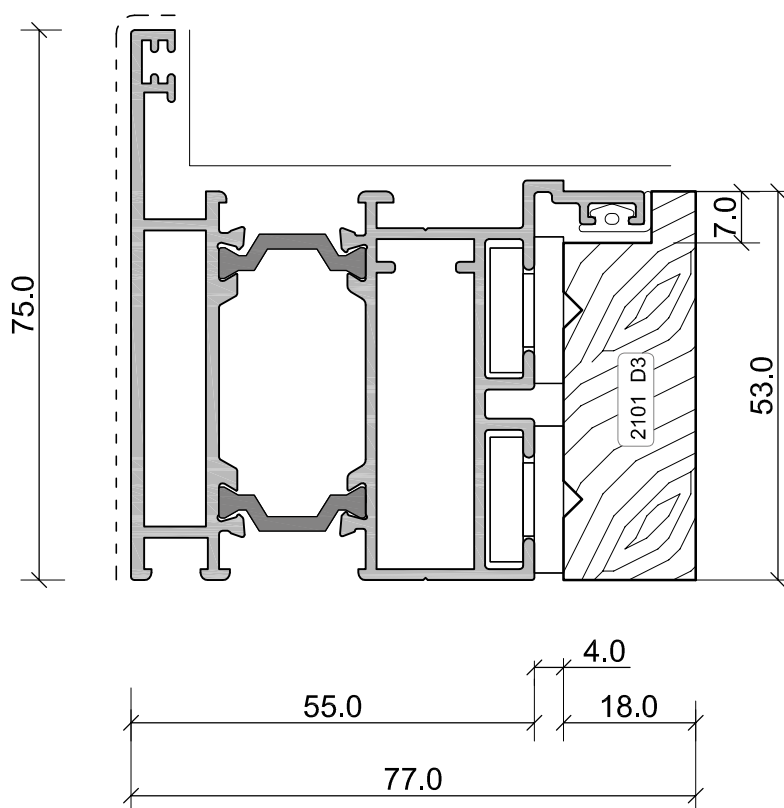
on demand



2100 15

Štok / Frame

1.920 Kg/m'



----- vidna površina /visible surface

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TopTherm

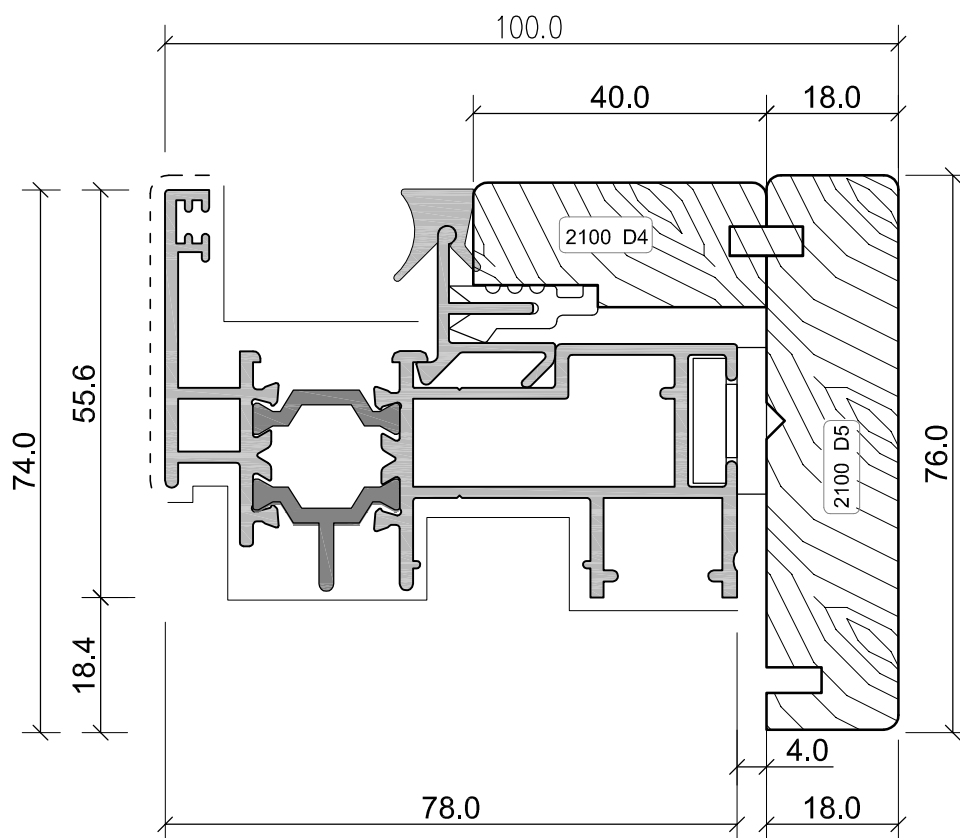
C

3



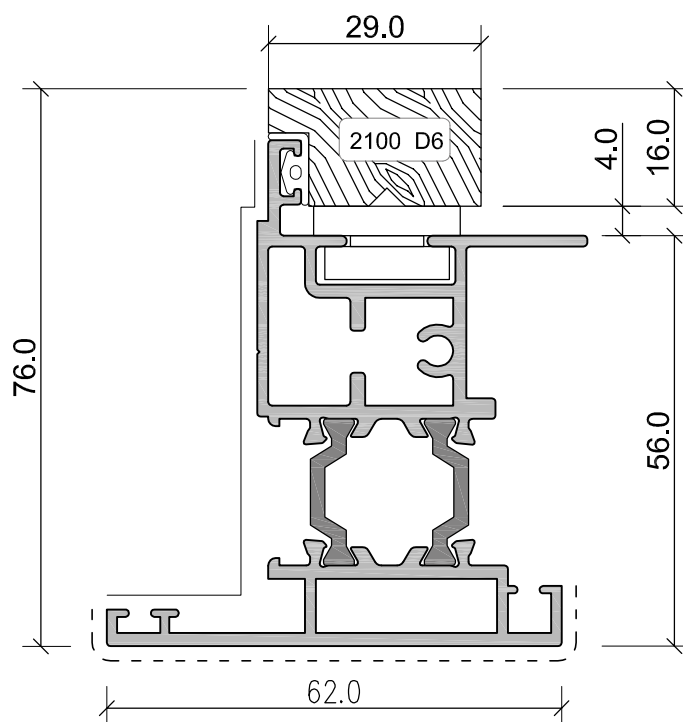
2100 21

Krilo / Sash
1.538 Kg/m'



2101 41

Srednja dopuna /
Central rabbet
1.599 Kg/m'



----- vidna površina /visible surface

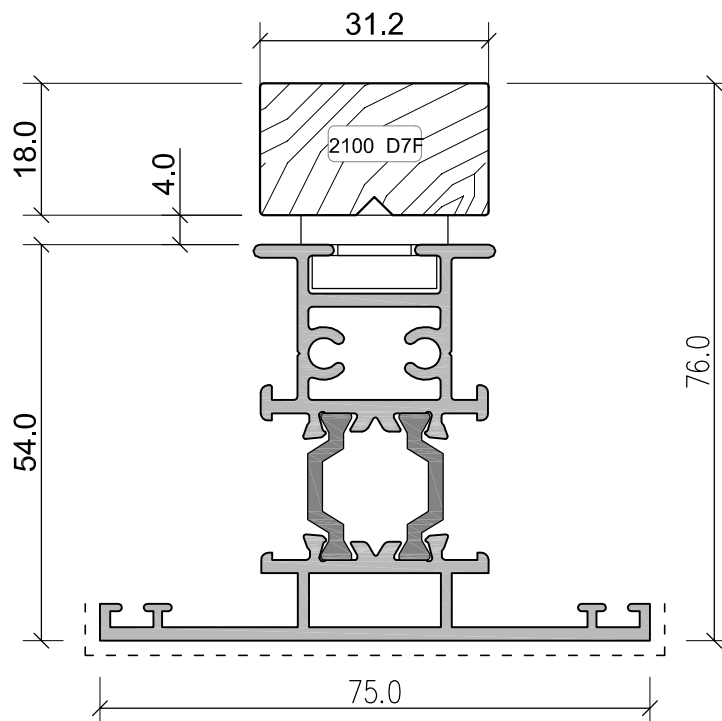
2100 31

"T" profil / "T" profile

1.513 Kg/m'

PO ZAHTEVU KUPCA

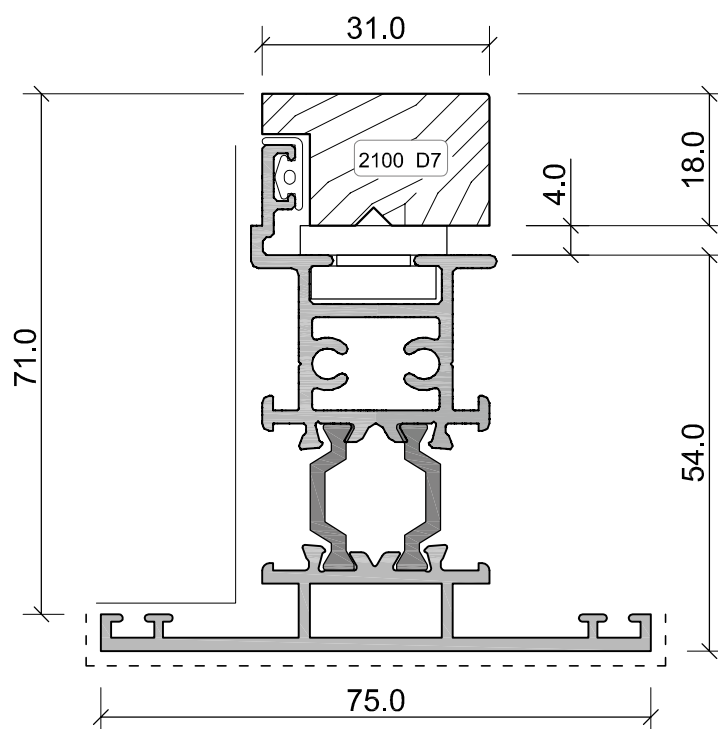
on demand



2100 32

"T" profil / "T" profile

1.631 Kg/m'



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C

5

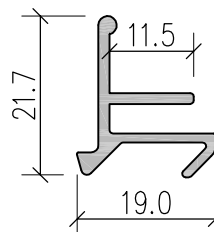


2101 KL

(M 4857)

Kit lajsna /
Glazing bead

0.224 Kg/m'

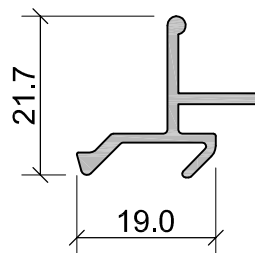


2101 KL1

(M 5050)

Kit lajsna /
Glazing bead

0.218 Kg/m'

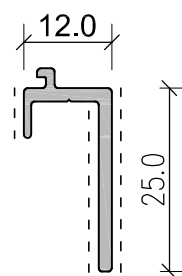


2101 NO

(M 4868)

Nosač okapnice /
Drain profile bearer

0.196 Kg/m'



----- vidna površina /visible surface

ALD 2100
TopTherm

C

6



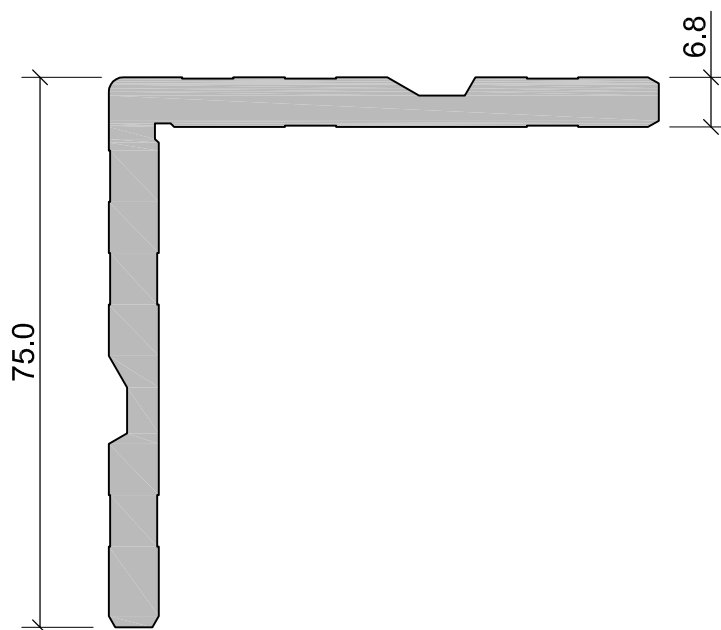
S 6

(M 4862)

Spojnica /
Corner joint alingment

2.453 Kg/m'

S 6 - 8



S 11

(M 4861)

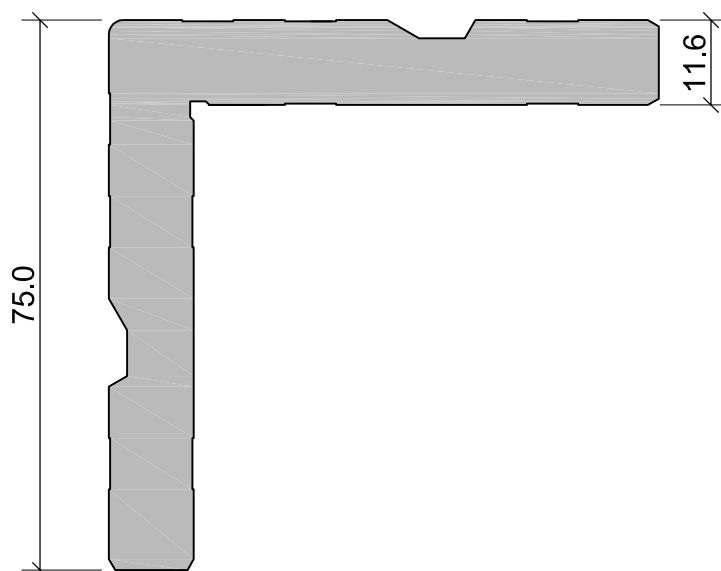
Uloska /
Corner joint alingment

4.159 Kg/m'

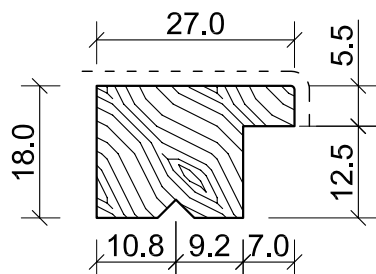
S 11 - 8

S 11 - 12

S 11 - 35

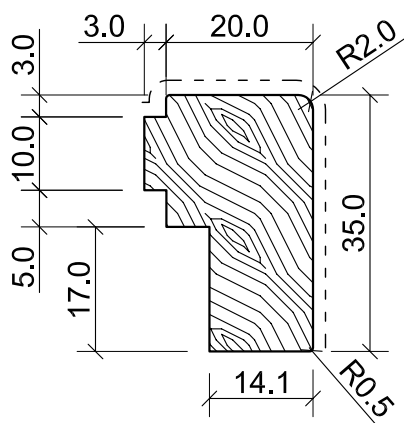
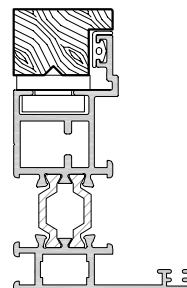


----- vidna površina /visible surface



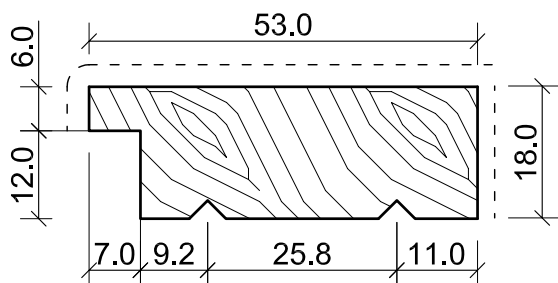
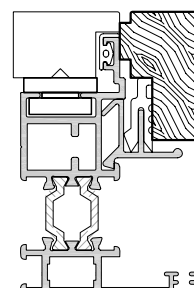
2100 D1

DRVENI PROFIL
WOODEN PROFILES



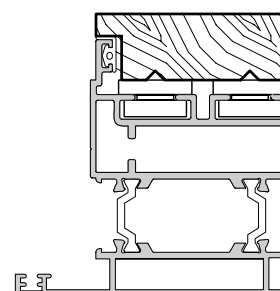
2100 D2

DRVENI PROFIL
WOODEN PROFILES

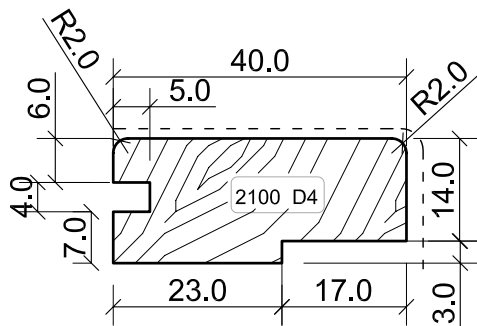


2100 D3

DRVENI PROFIL
WOODEN PROFILES

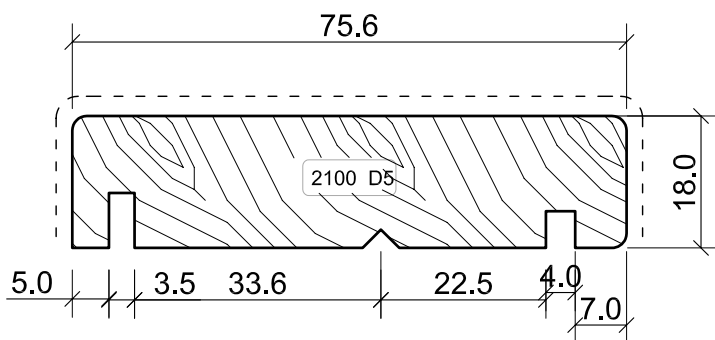
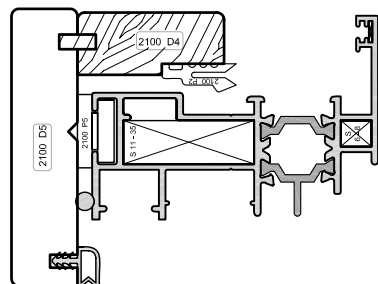


----- vidna površina / visible surface



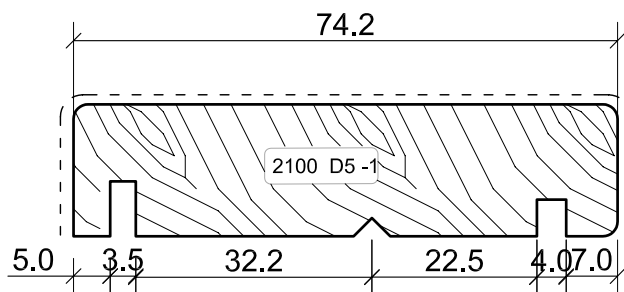
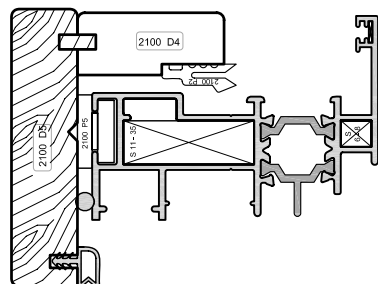
2100 D4

DRVENI PROFIL
WOODEN PROFILES



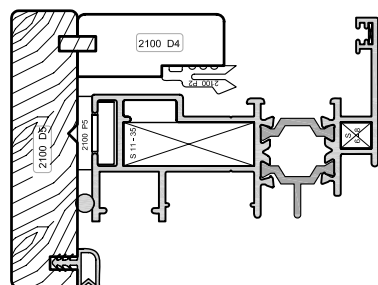
2100 D5

DRVENI PROFIL
WOODEN PROFILES



2100 D5-1

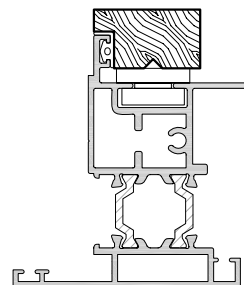
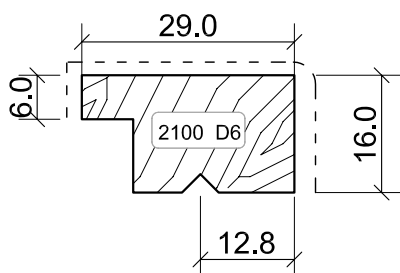
DRVENI PROFIL
WOODEN PROFILES



ALD 2100
TopTherm

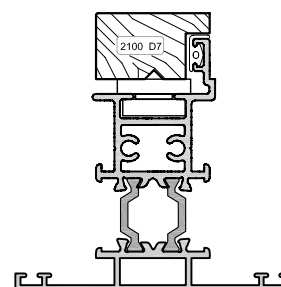
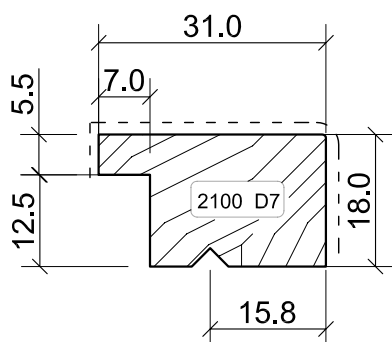
C

9



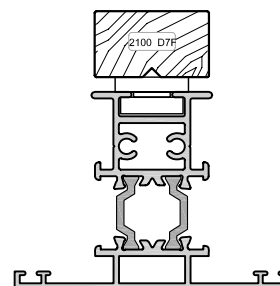
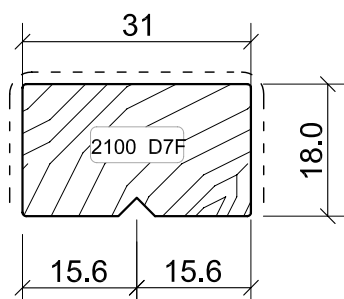
2100 D6

DRVENI PROFIL
WOODEN PROFILES



2100 D7

DRVENI PROFIL
WOODEN PROFILES



2100 D7F

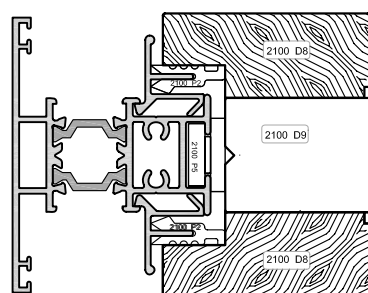
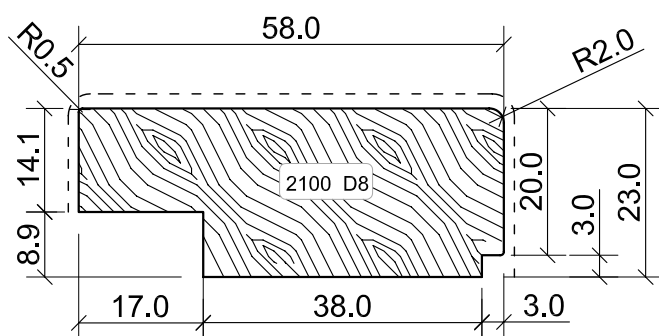
DRVENI PROFIL
WOODEN PROFILES

----- vidna površina /visible surface

ALD 2100
TopTherm

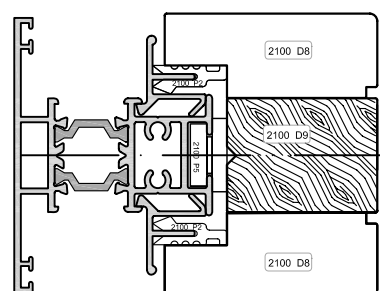
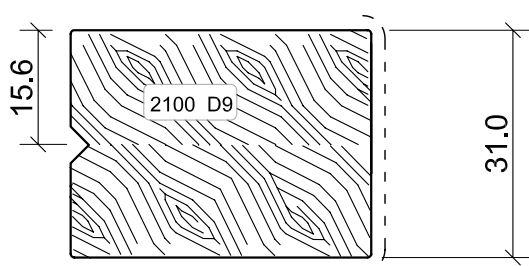
C

10



2100 D8

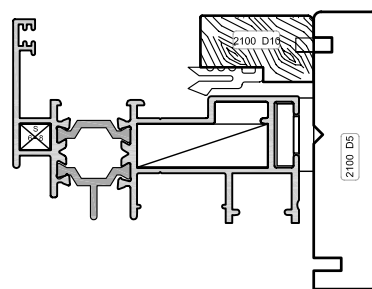
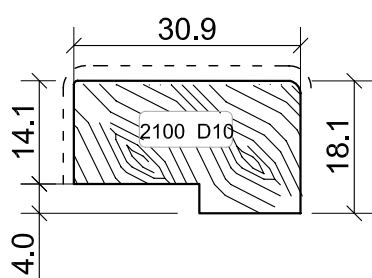
DRVENI PROFILI
WOODEN PROFILES



2100 D9

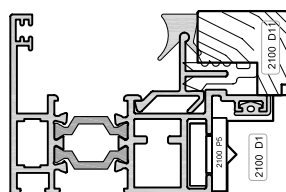
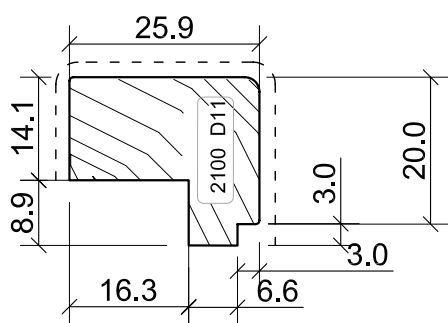
DRVENI PROFILI
WOODEN PROFILES

----- vidna površina /visible surface



2100 D10

DRVENI PROFILI
WOODEN PROFILES



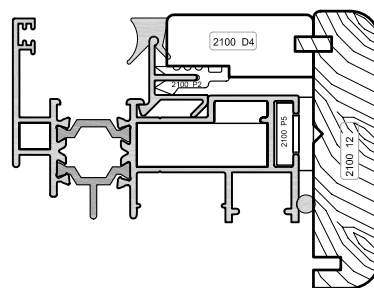
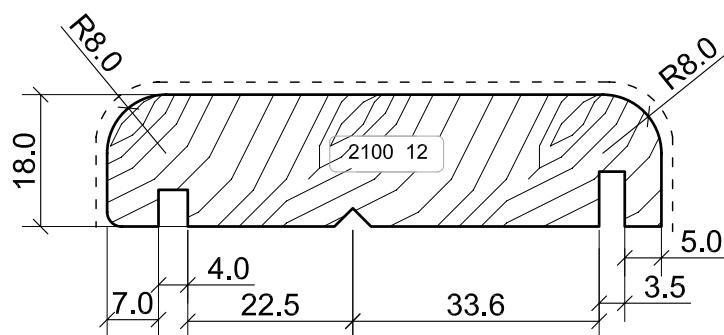
2100 D11

DRVENI PROFILI
WOODEN PROFILES

ALD 2100
TopTherm

C

12



2100 D12

DRVENI PROFILI
WOODEN PROFILES

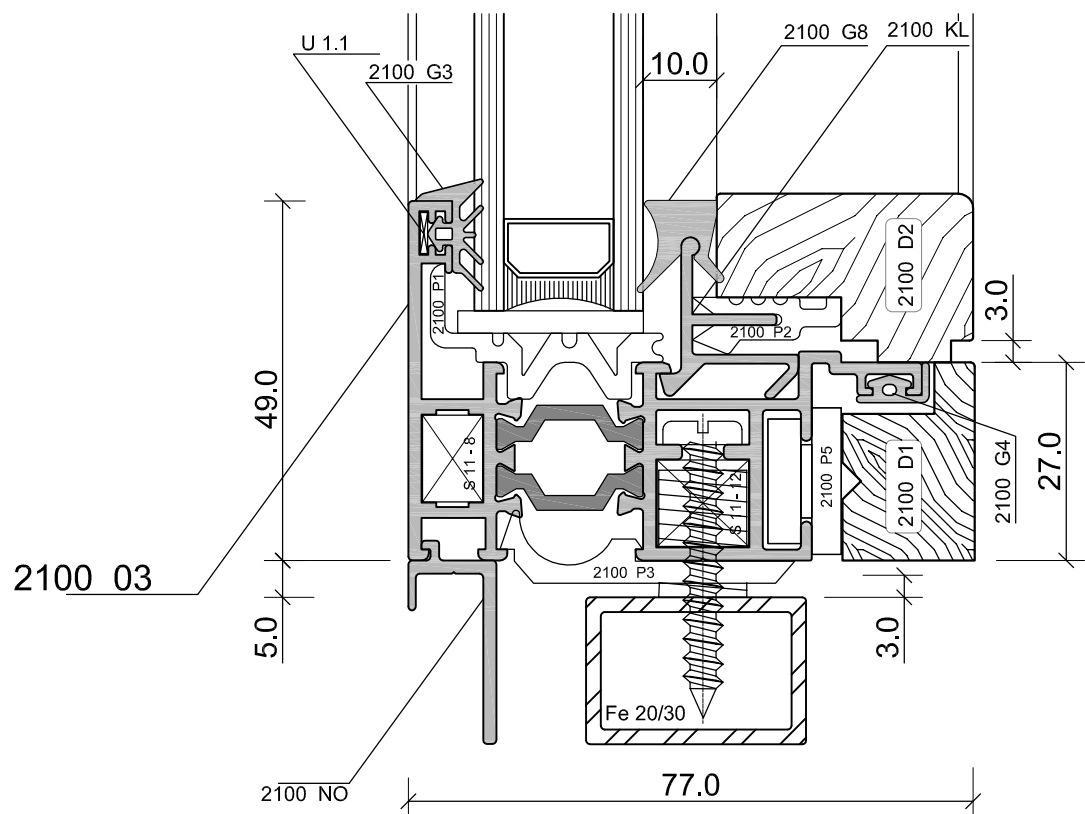
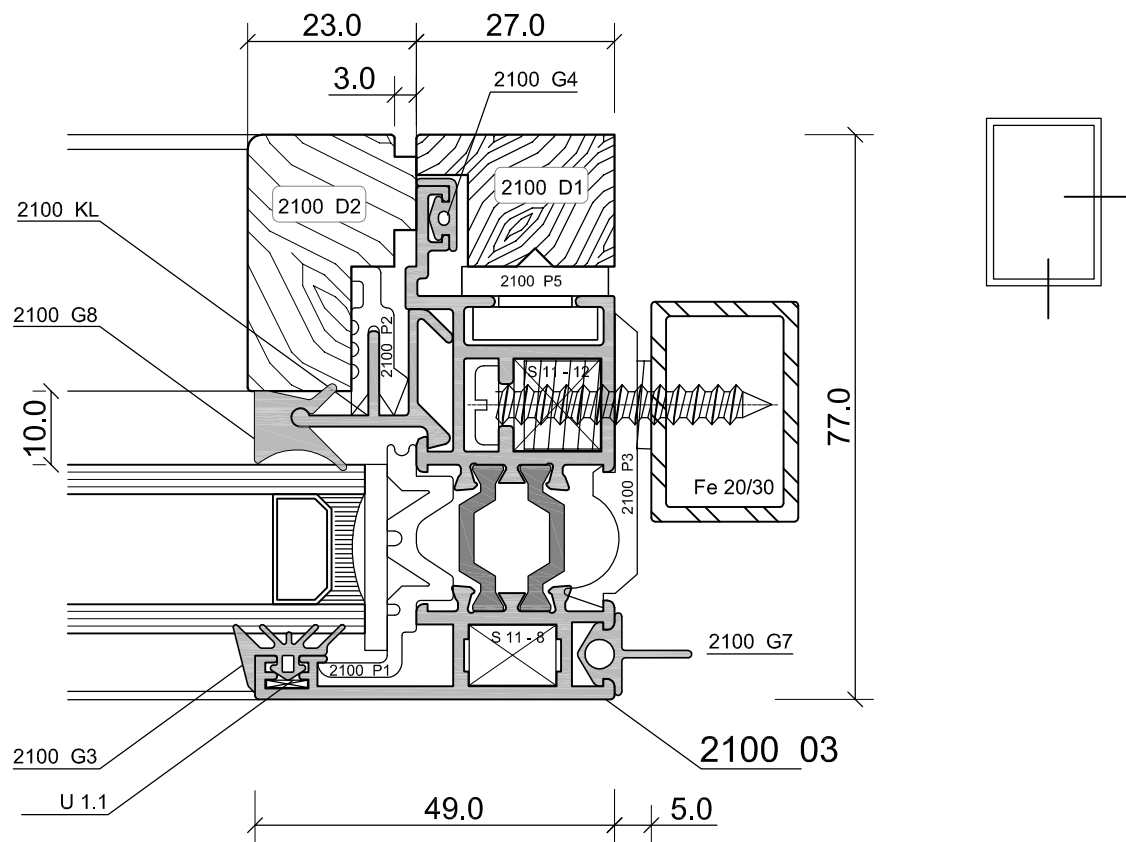
----- vidna površina /visible surface

segment D

detalji

details

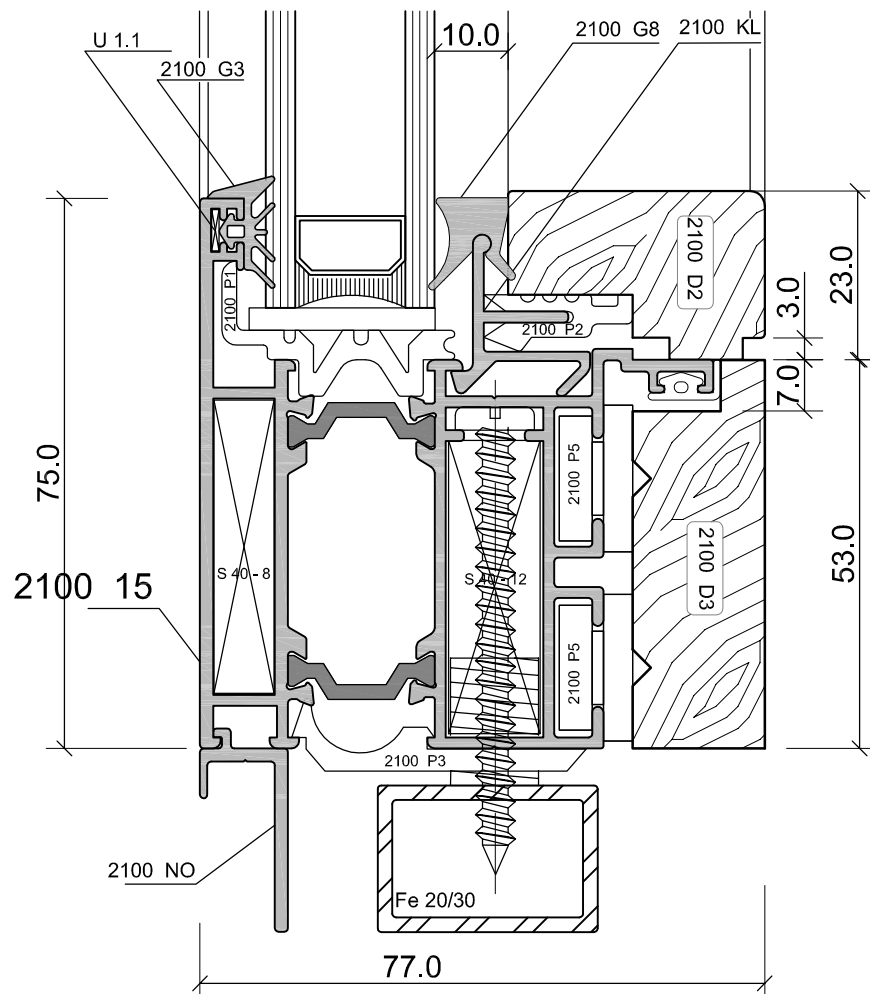
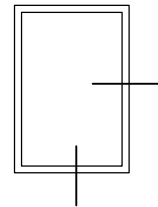
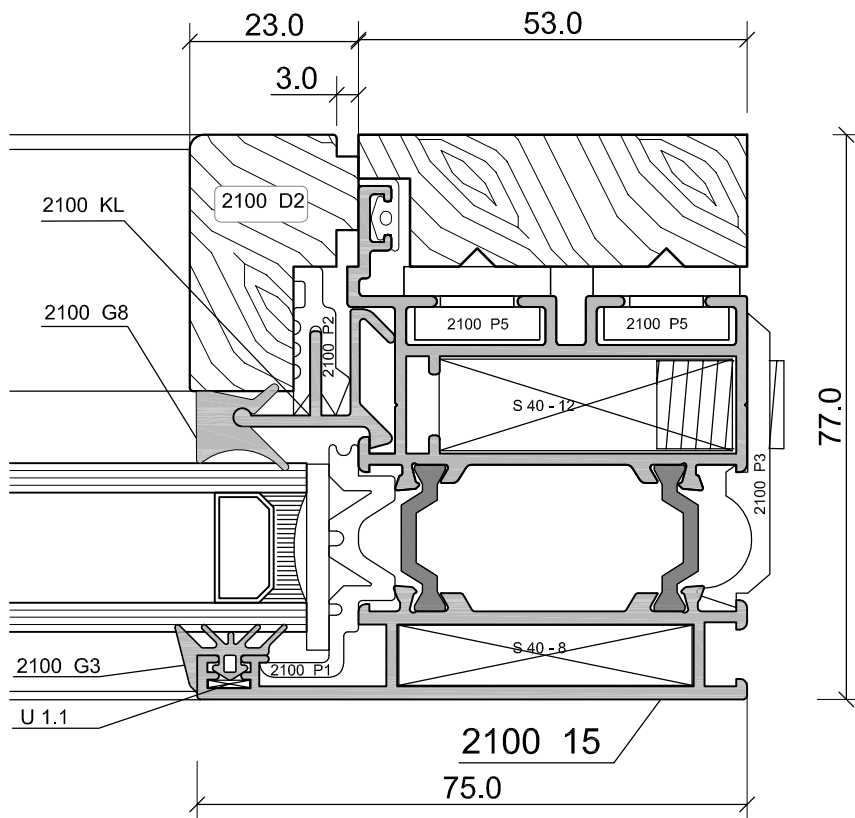
1



ALD 2100
TopTherm

D

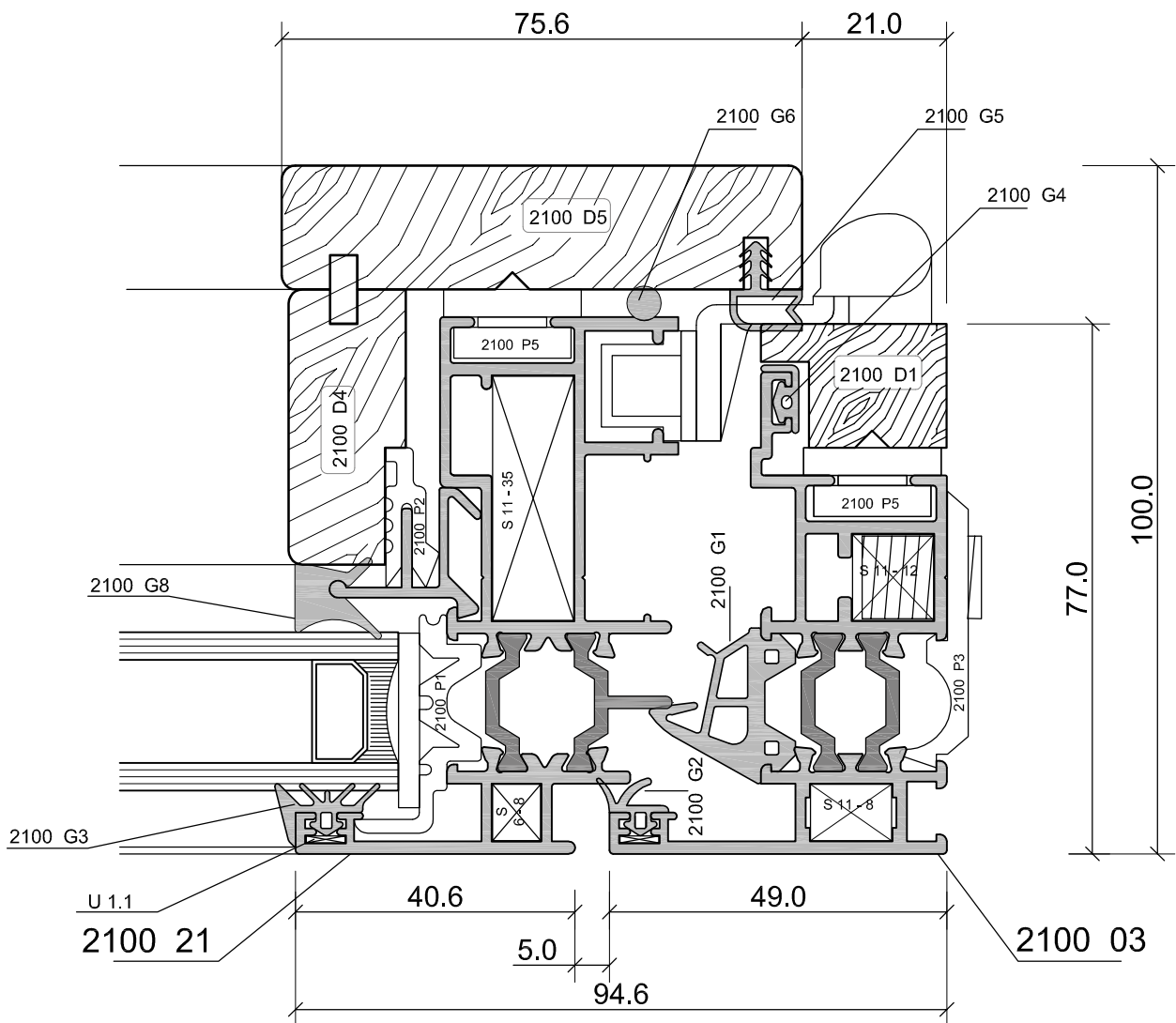
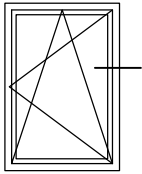
2



ALD 2100
TopTherm

D

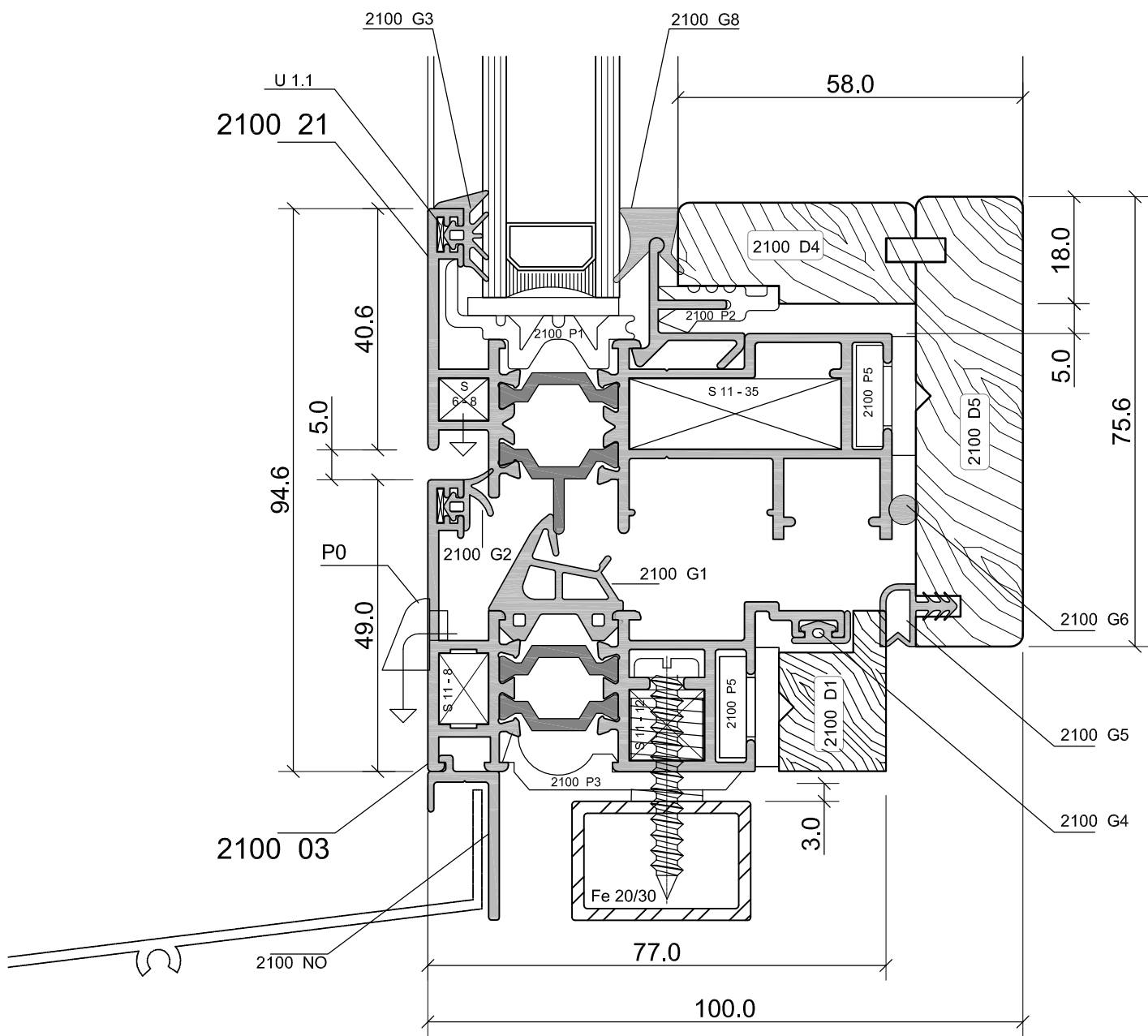
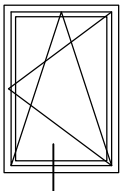
3



ALD 2100
TopTherm

D

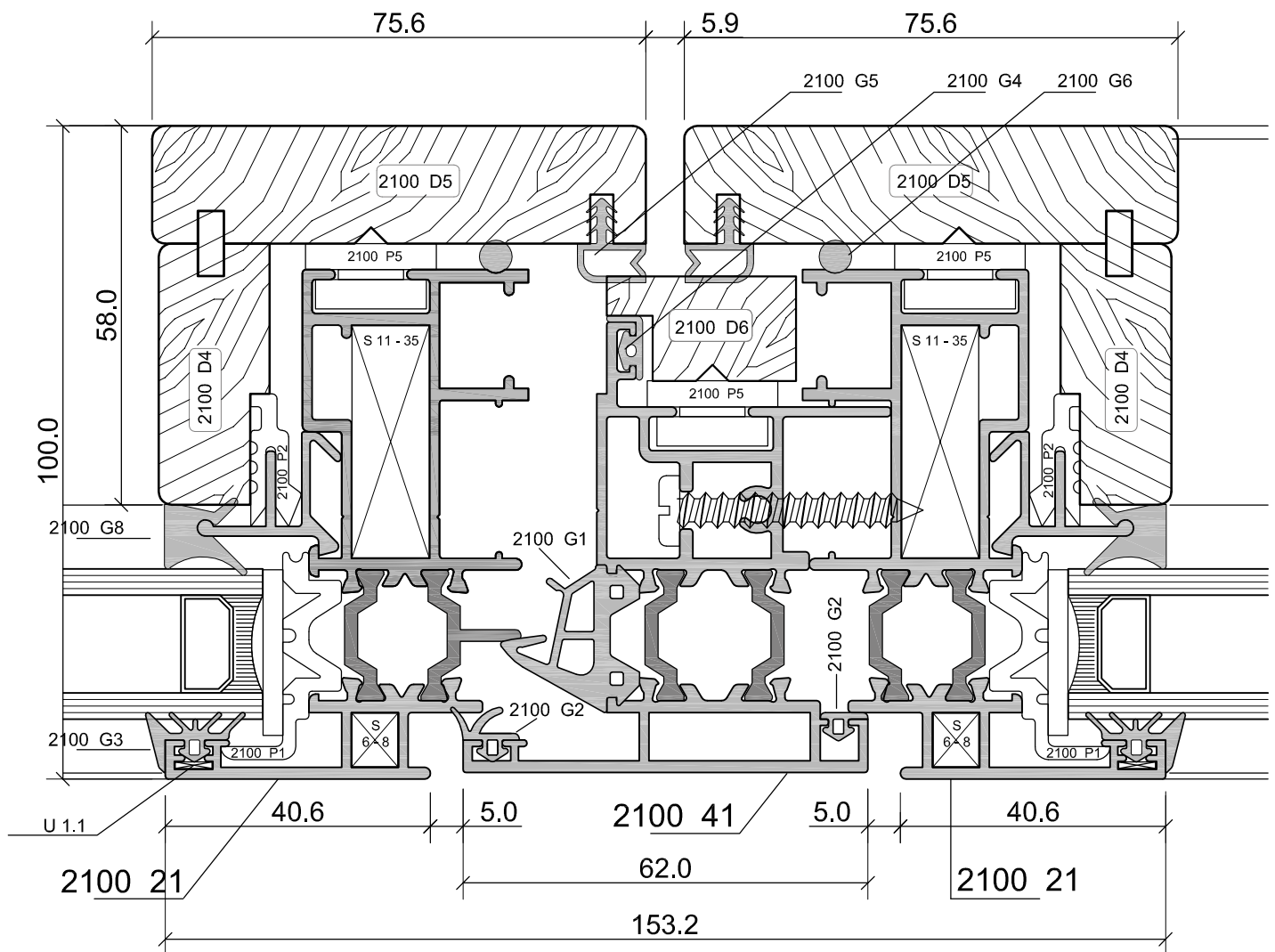
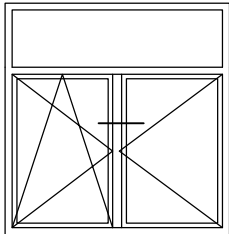
4



ALD 2100
TopTherm

D

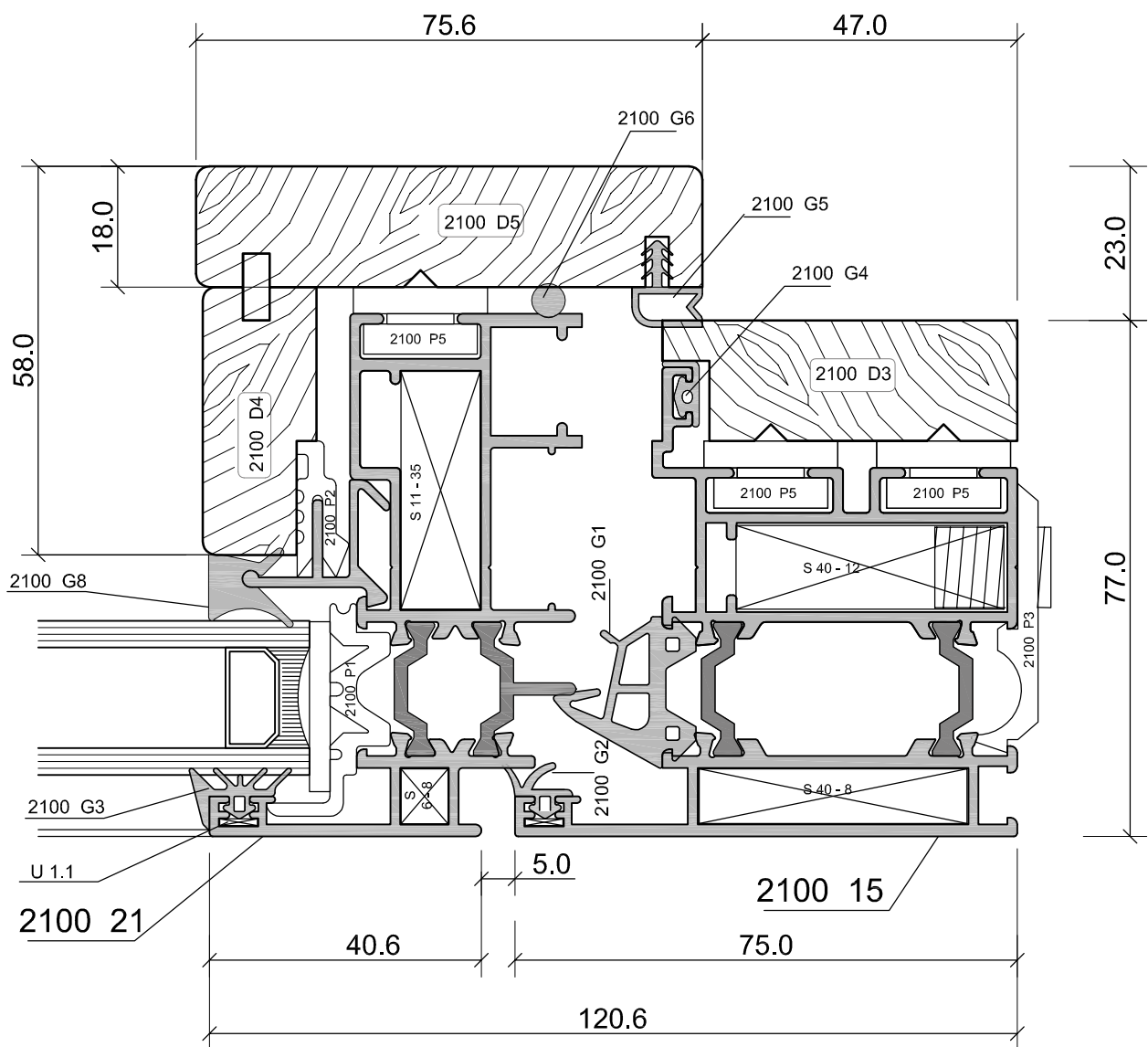
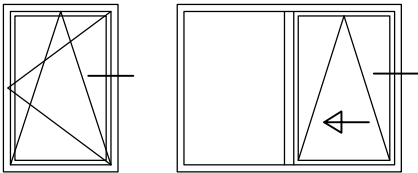
5



ALD 2100
TopTherm

D

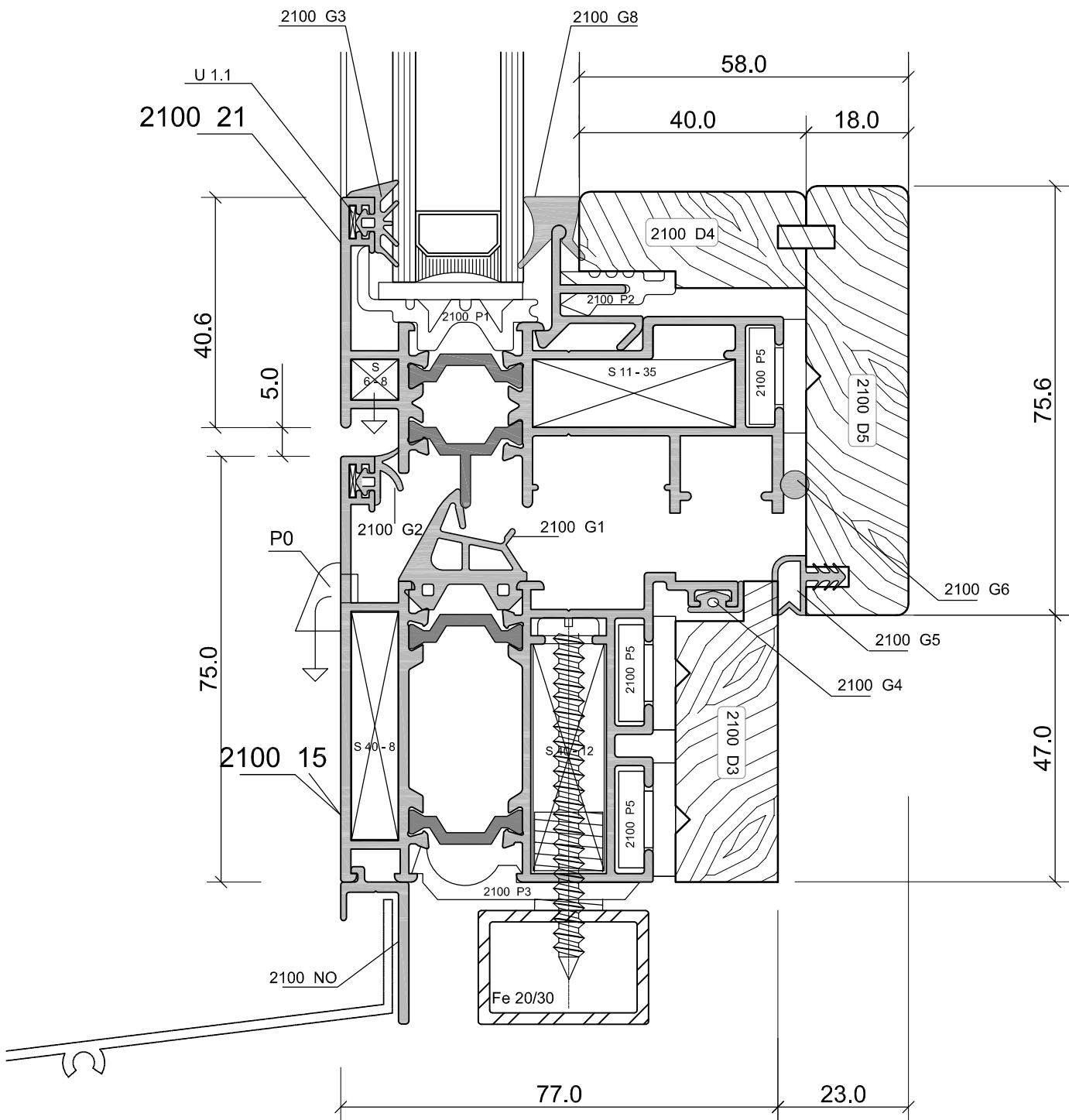
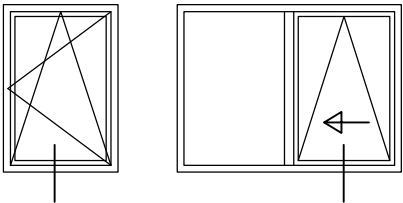
6



ALD 2100
TopTherm

D

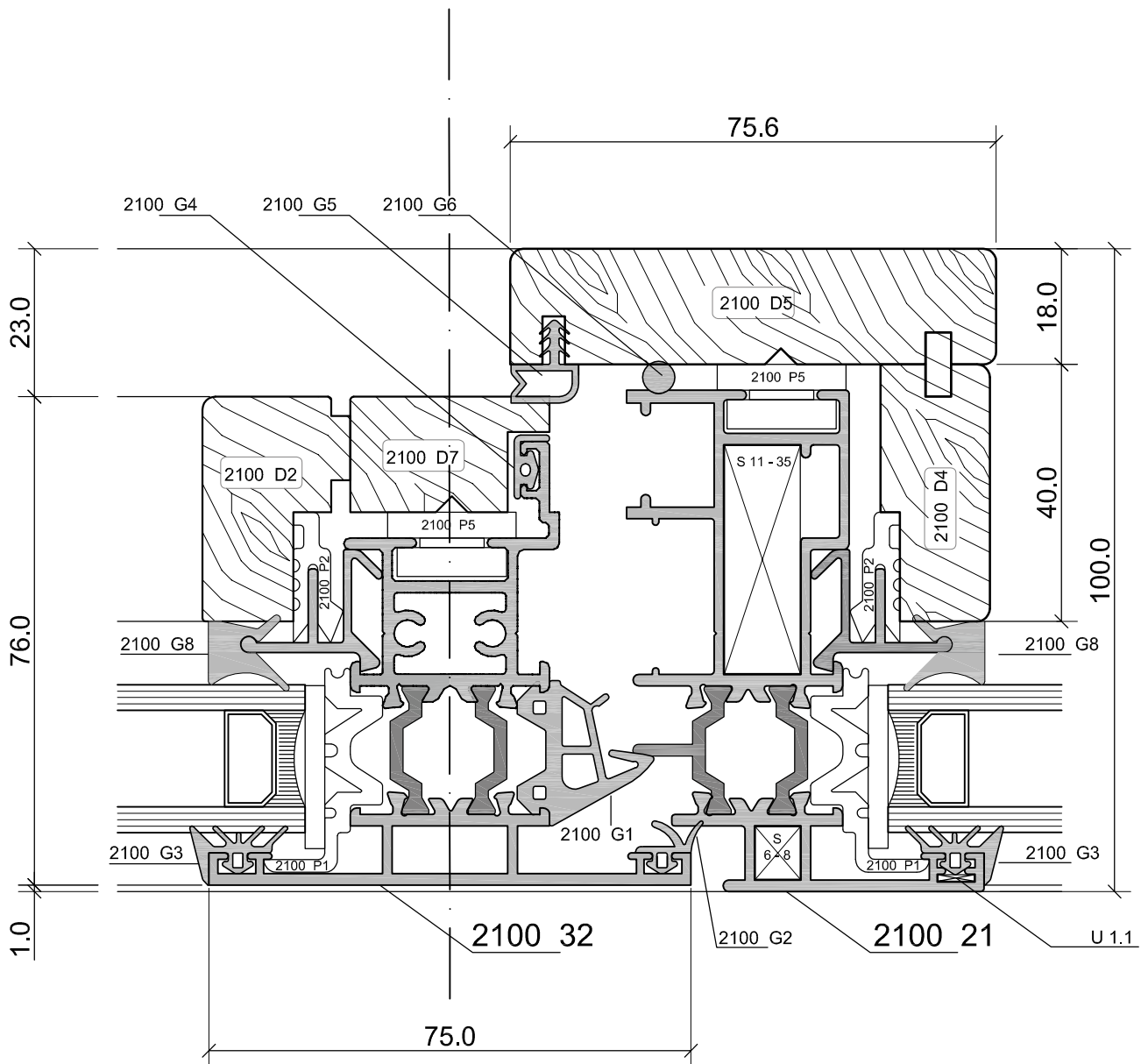
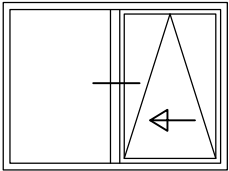
7



ALD 2100
TopTherm

D

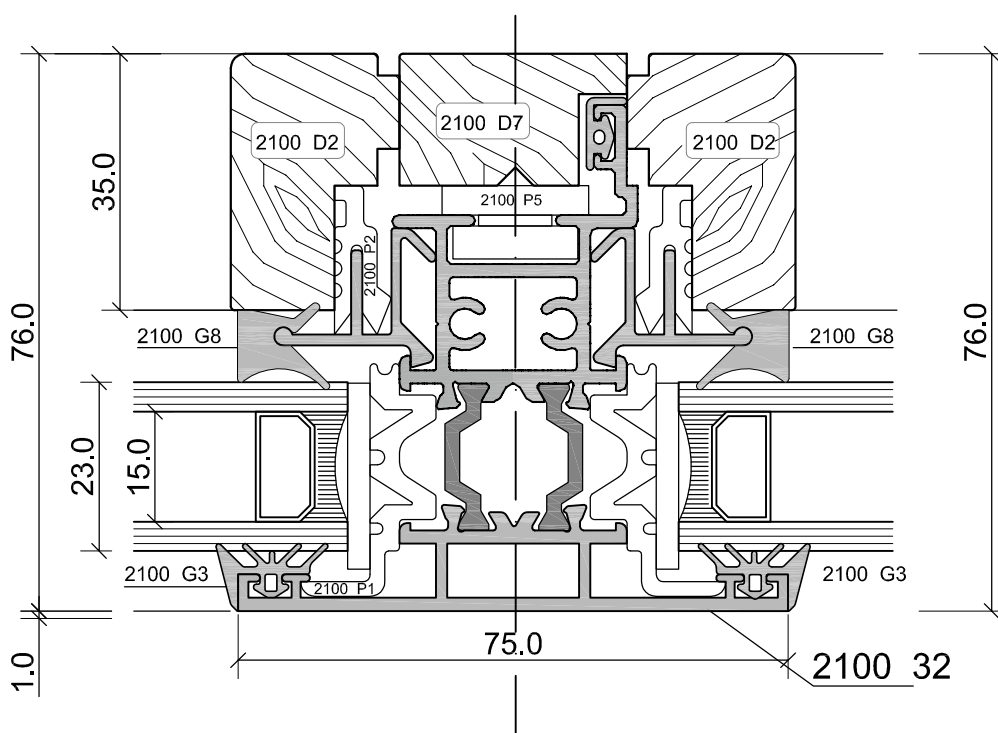
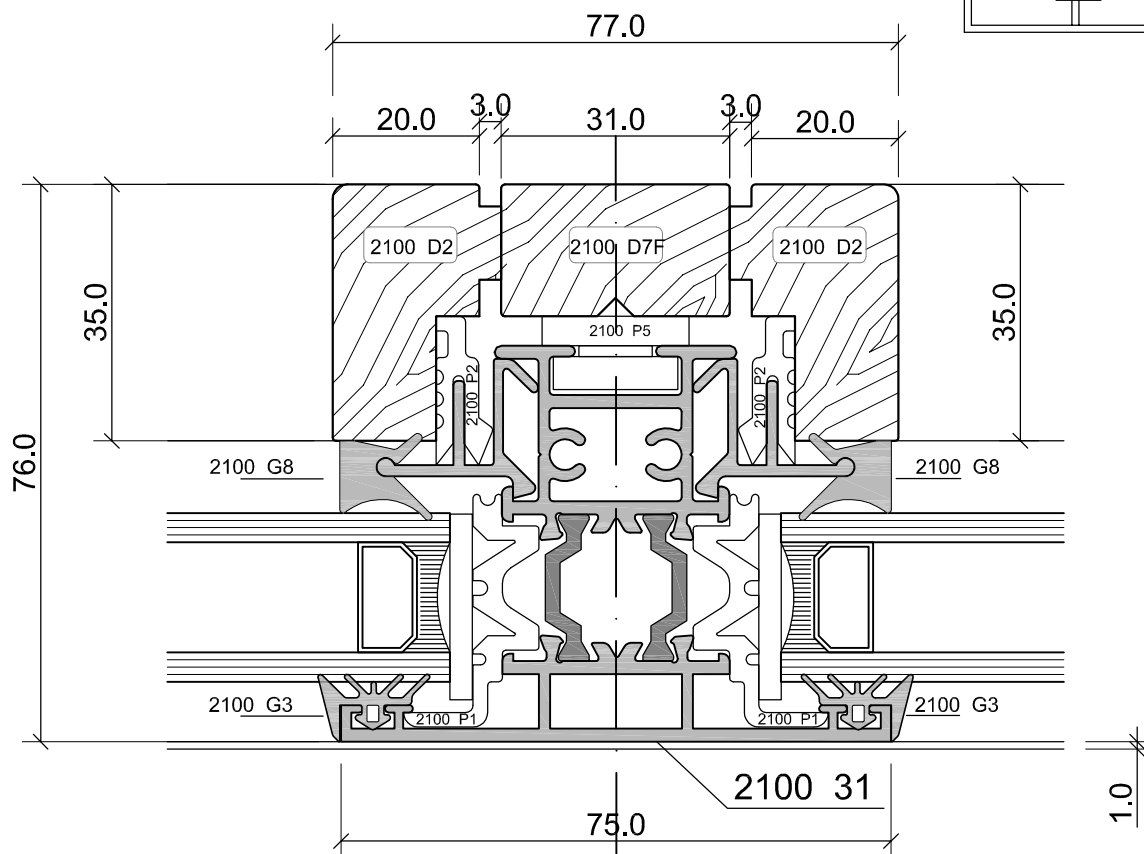
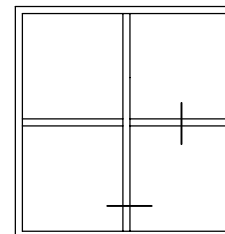
8



ALD 2100
TopTherm

D

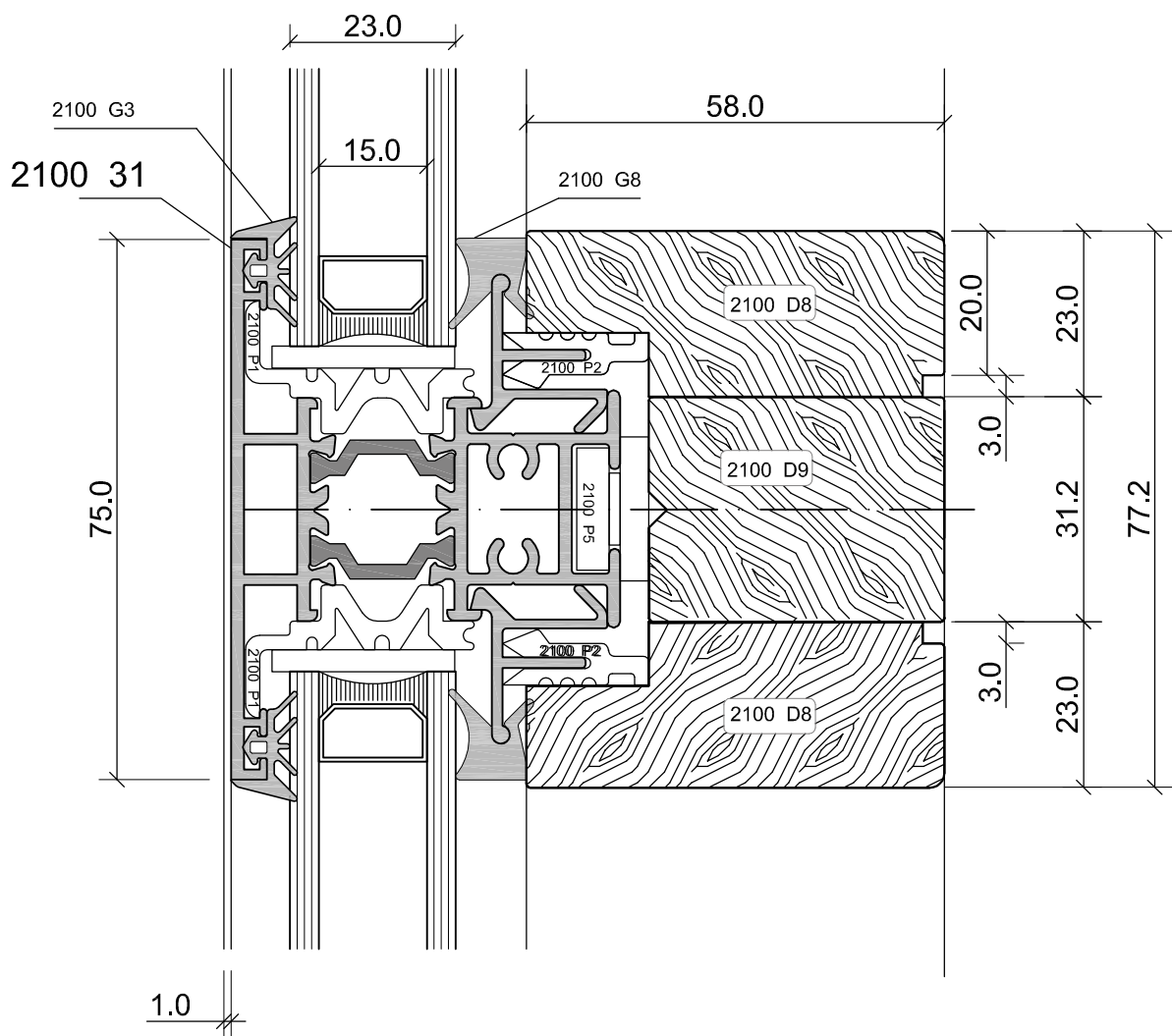
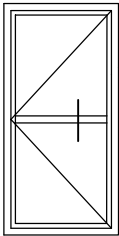
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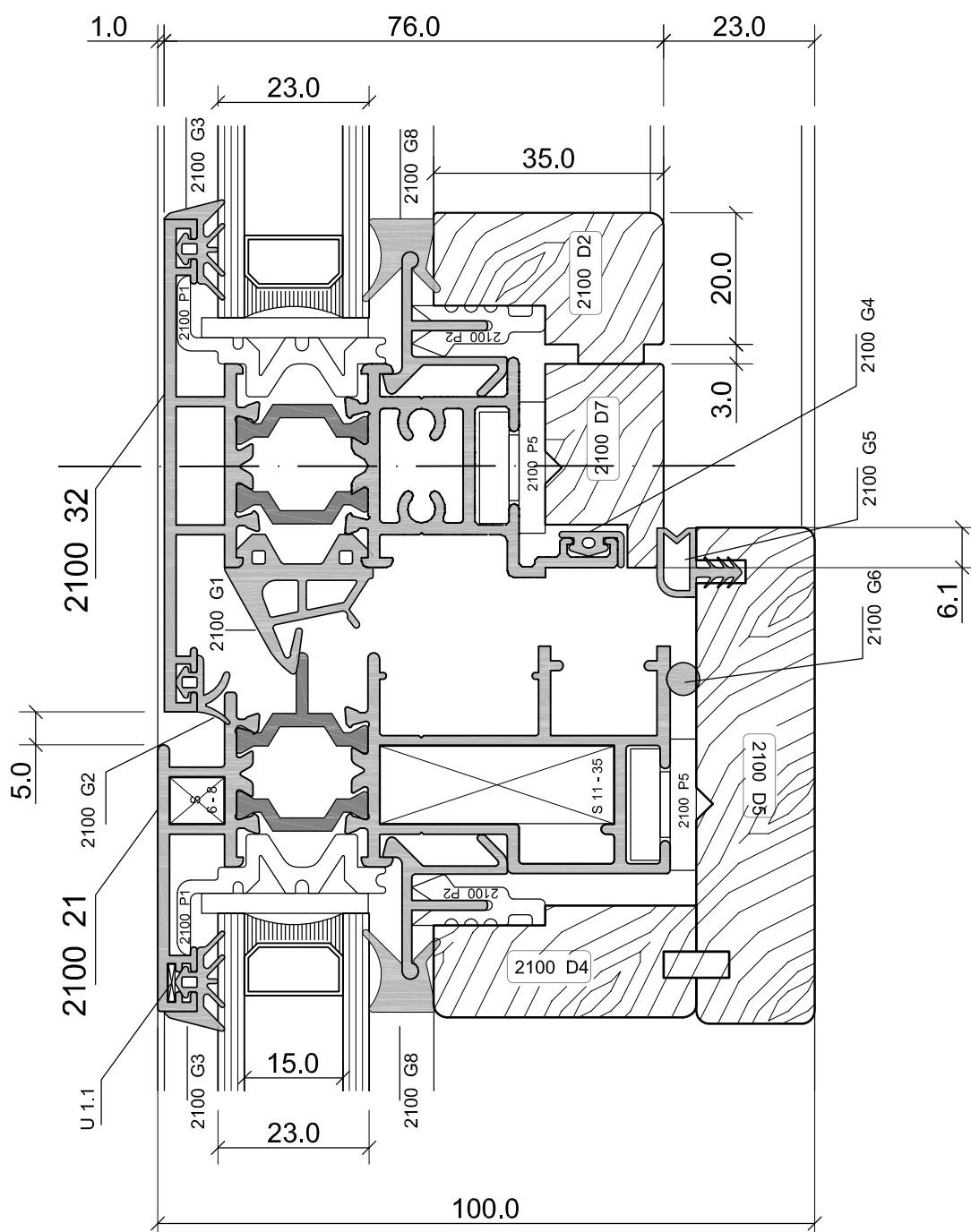
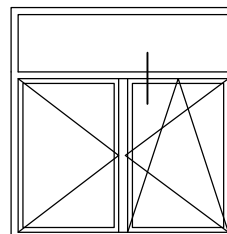
ALD 2100
TopTherm

D

10



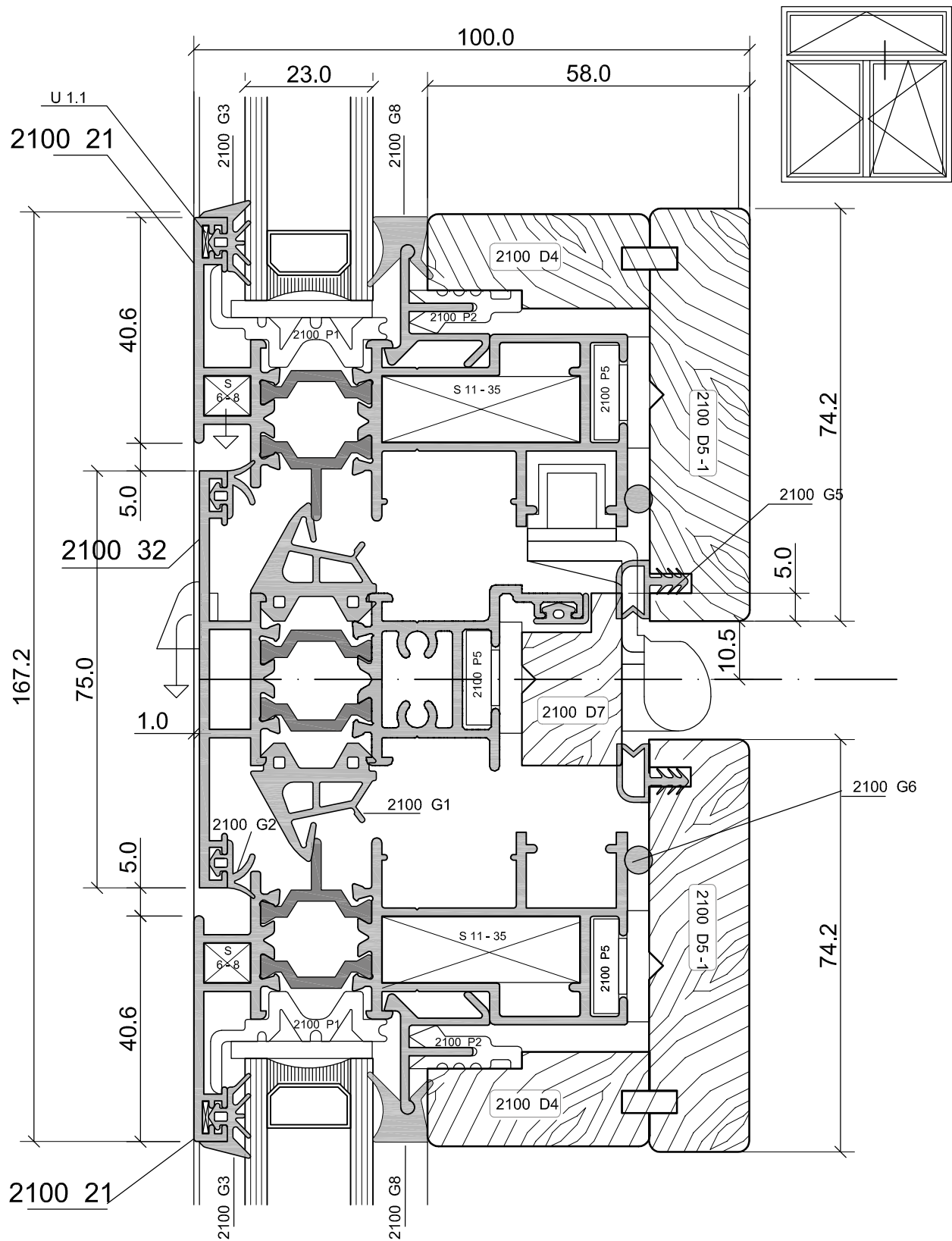
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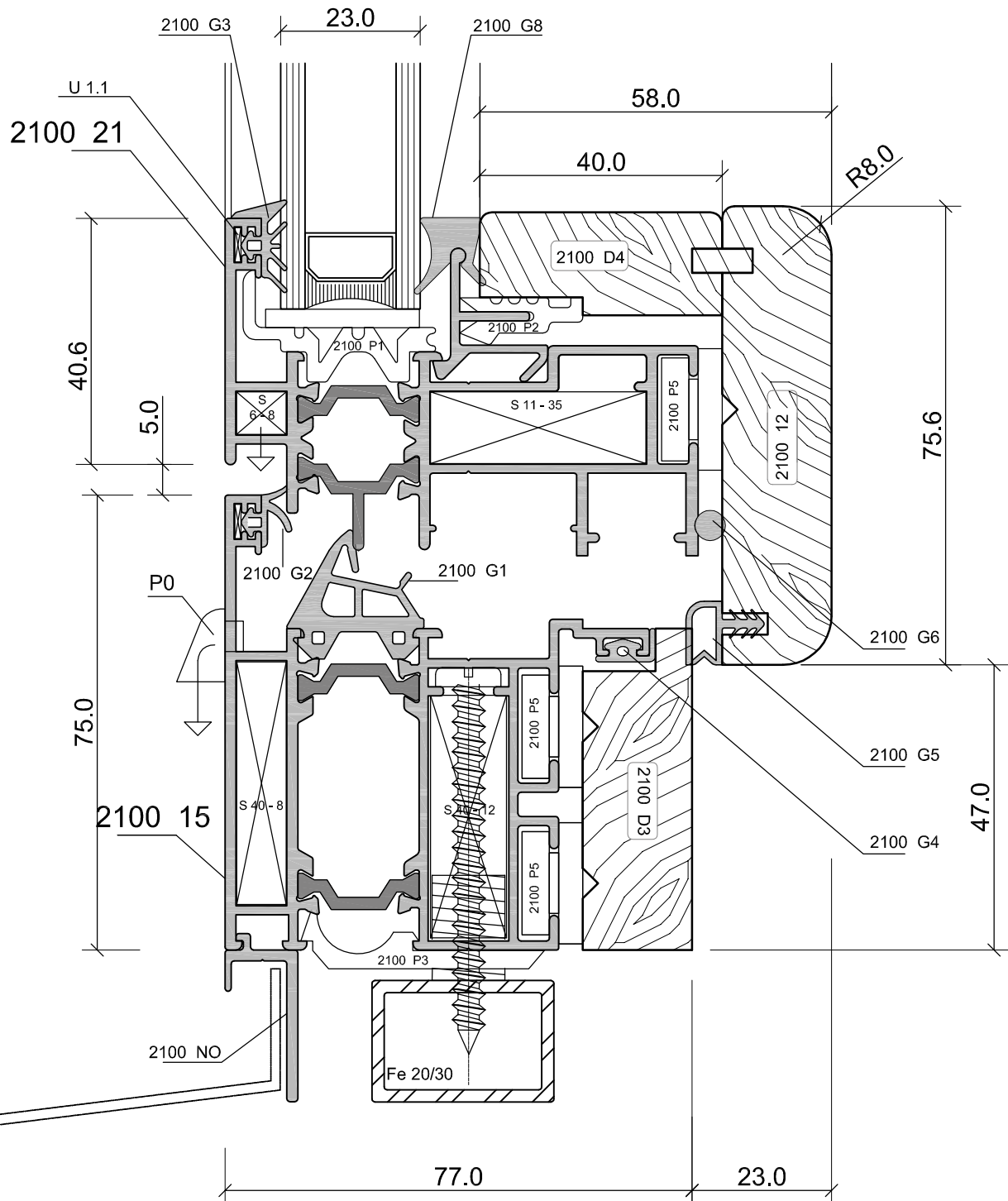
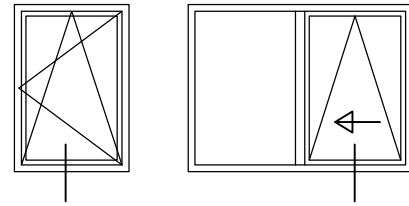
ALD 2100
TopTherm

D

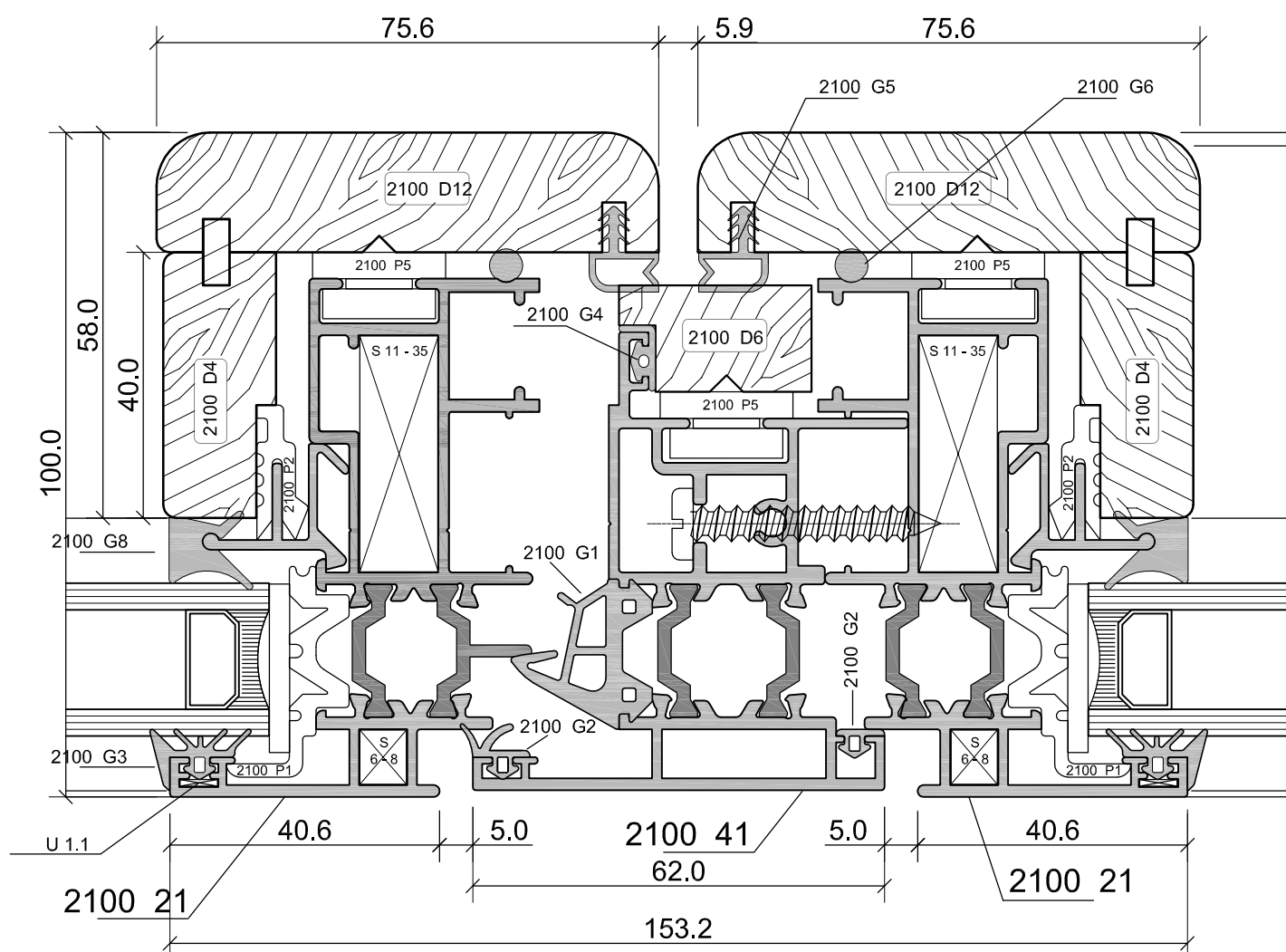
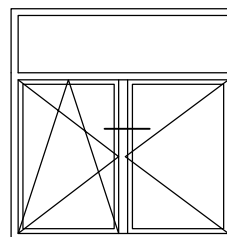
12



13



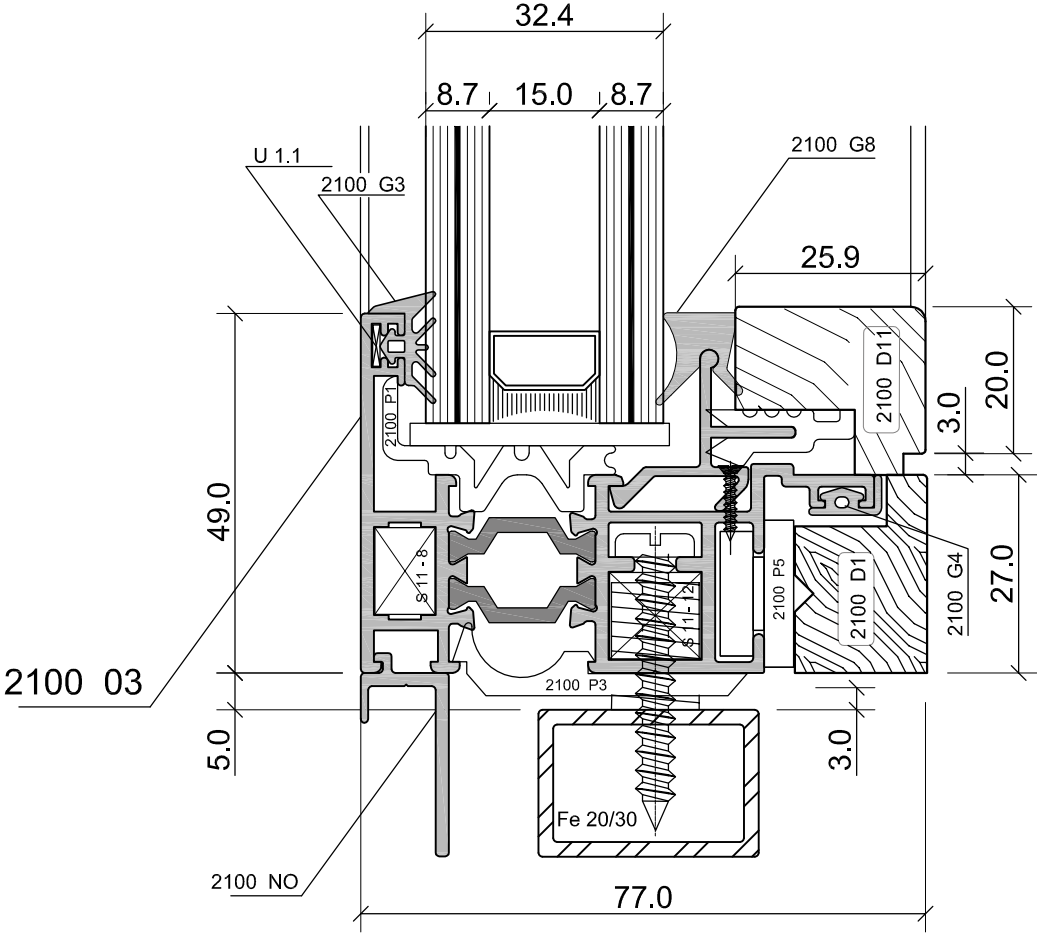
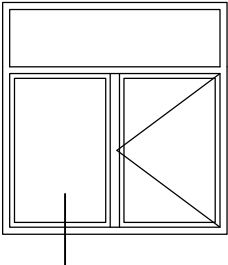
14



ALD 2100
TopTherm

D

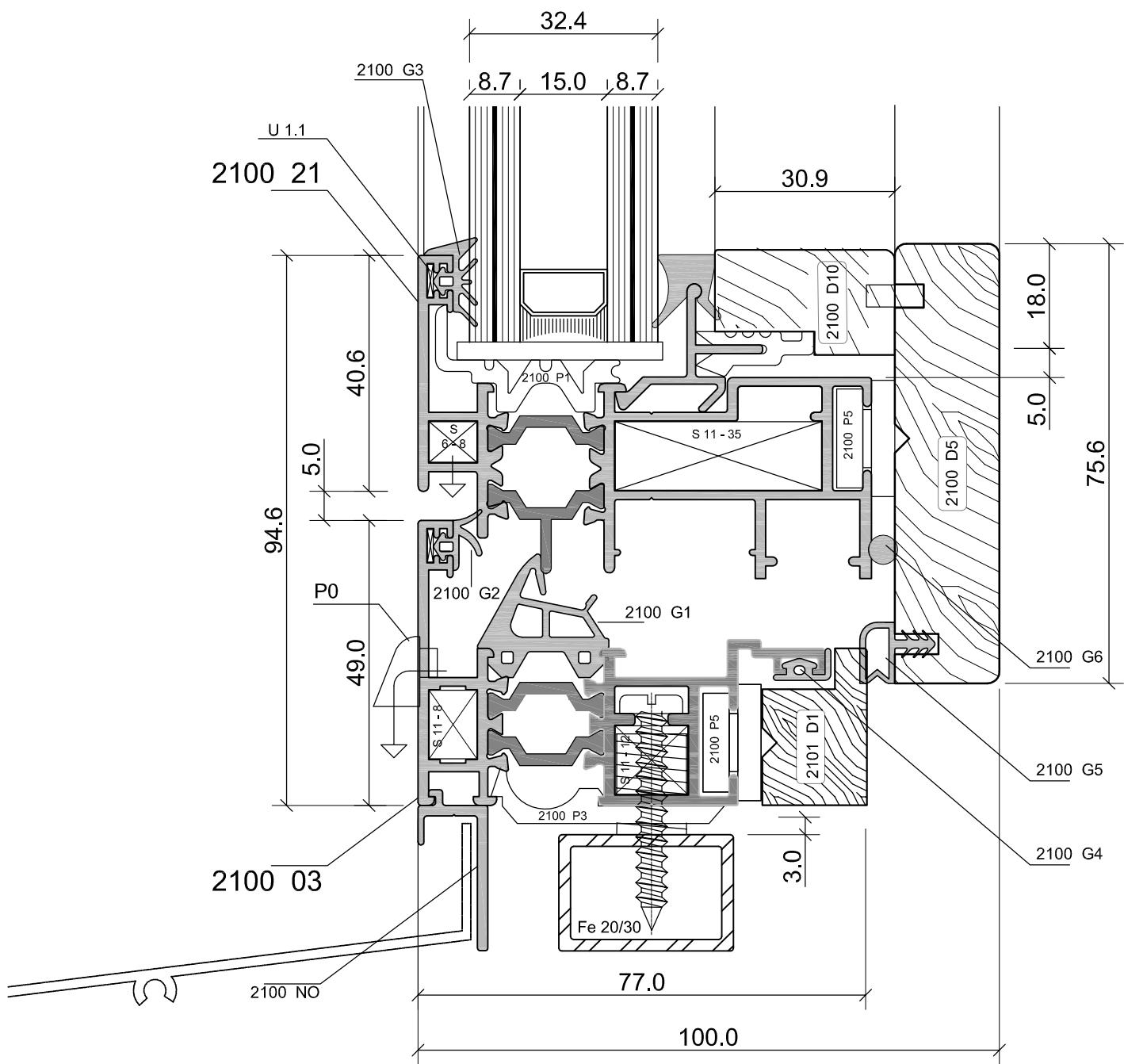
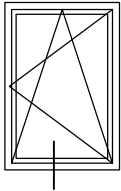
15



ALD 2100
TopTherm

D

16



segment E

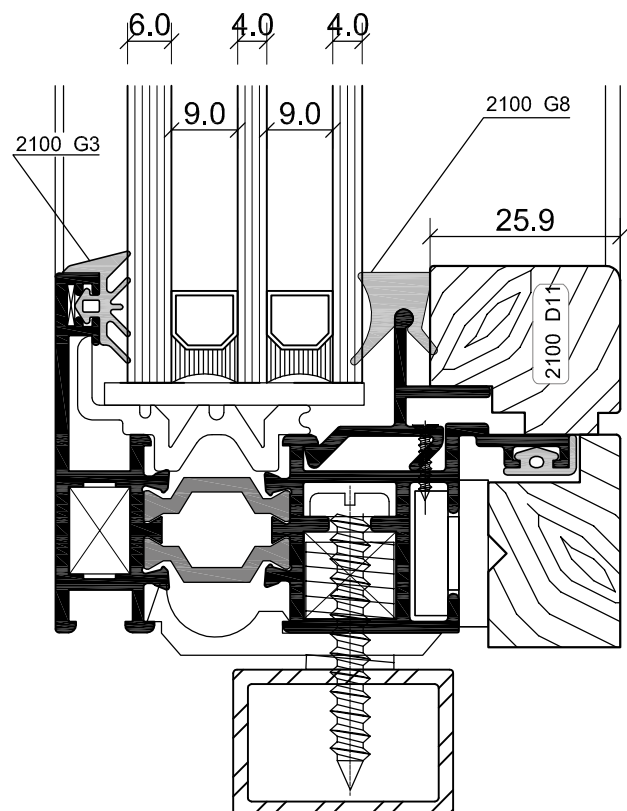
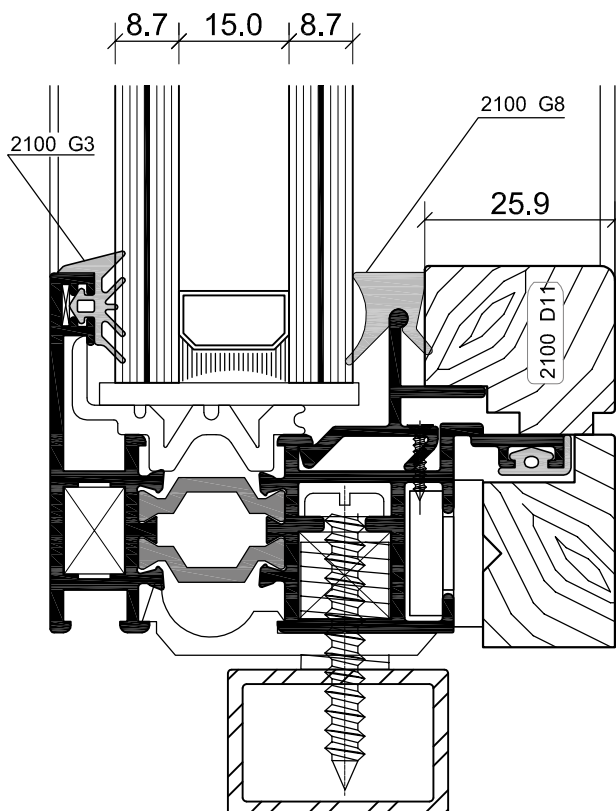
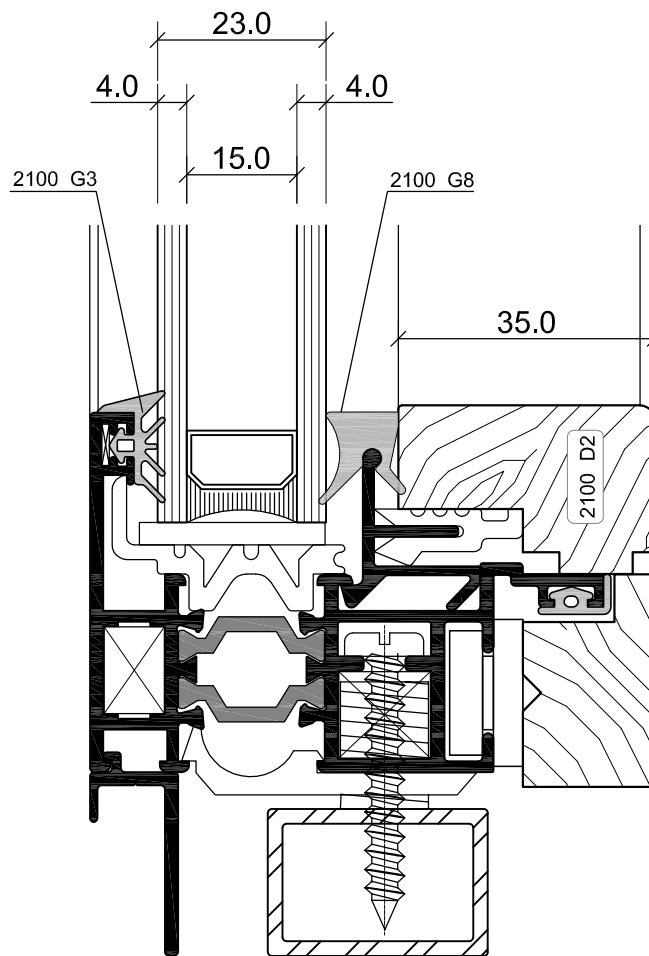
pregled možnosti
prihvatanja ispune

overview of the possibilities
of filling accepting

ALD 2100
TopTherm

E

1



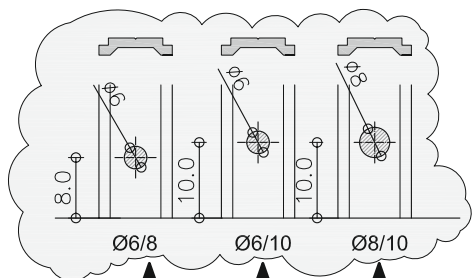
segment F

univerzalna presa
ručna

universal hand
presses

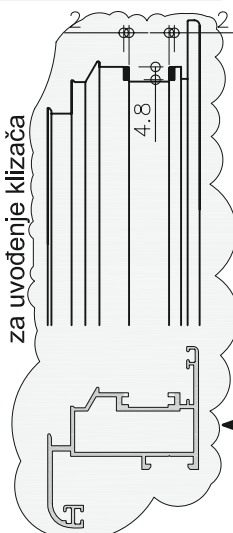
ALS 57 (K1)
ALT 55 (K1)
ALT 68 (K1)

otvor na klizaču



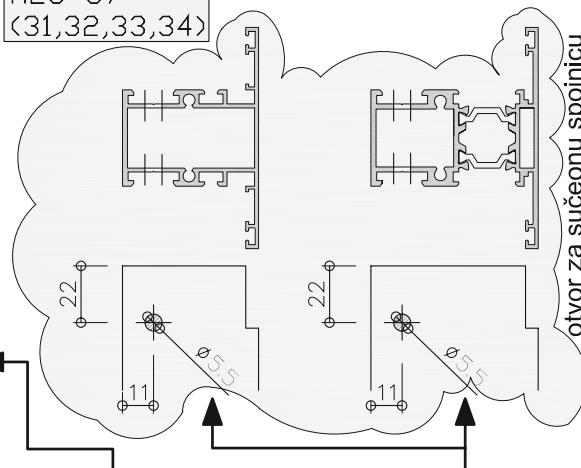
ALS 57 (21,22,23)
ALT 55 (21,23,24)
ALT 68 (21,23,24)

podsecanje krila
za uvođenje klizača

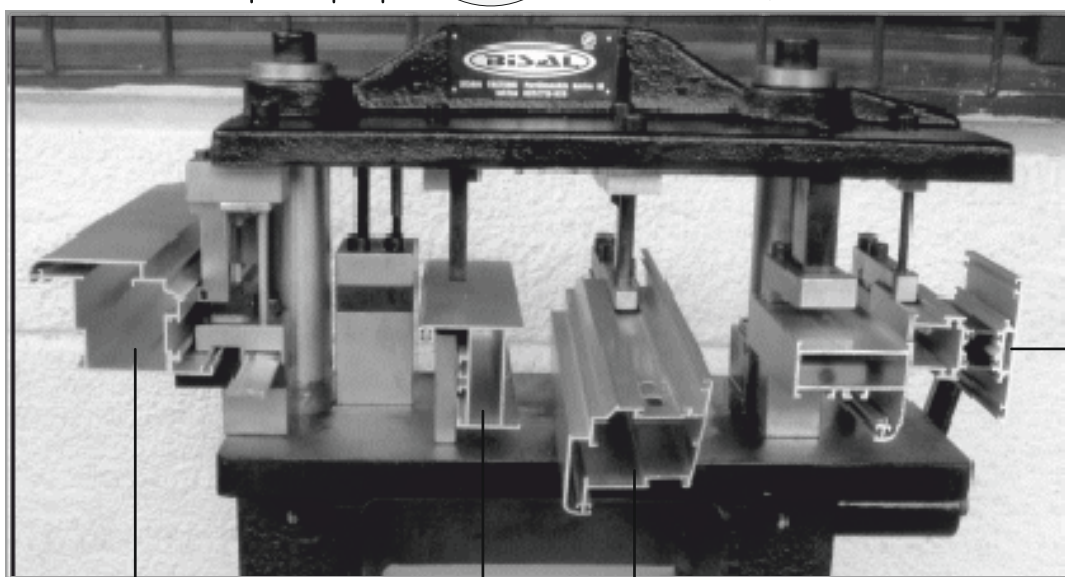


ALS 57
(31,32,33,34)

ALT 55 (31,33)
ALT 68 (32,33,34,35)



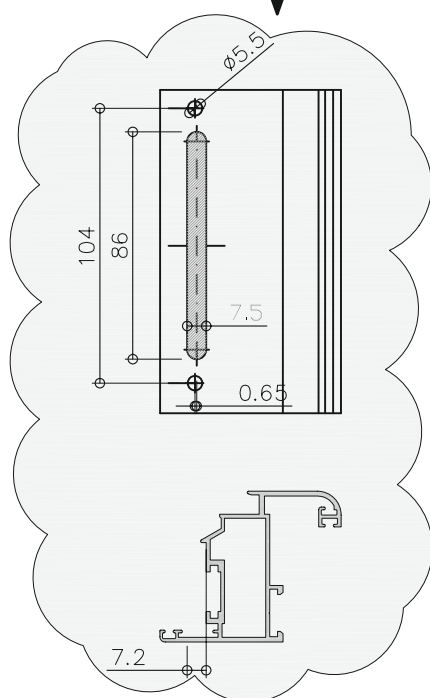
otvor za sučeonu spojnicu



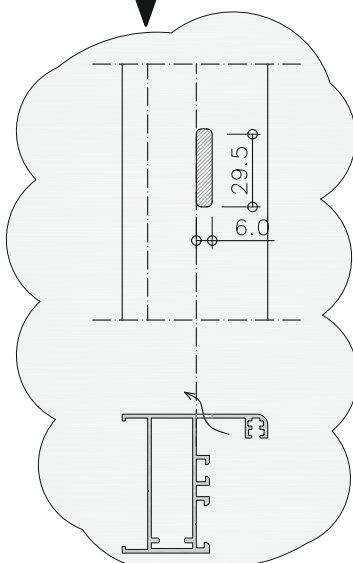
otvor za ručicu

otvor za drenažu

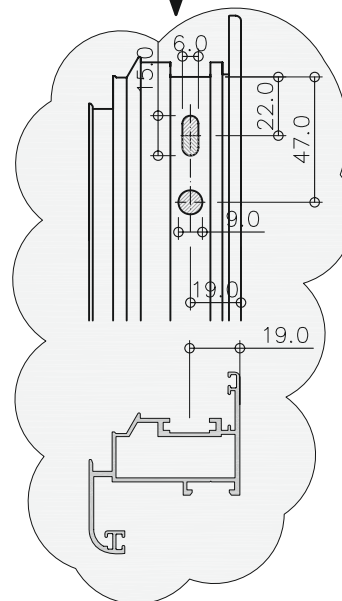
otvor za montažnu
ugaonu spojnicu



ALS 57 (21,22)
ALT 55 (21,23,24)
ALT 68 (21,23)



ALS 57 (11,12)
ALT 55 (11)
ALT 68 (11,12,13)
ALD 2100 (11,12)
ALD 2101 (03)



ALS 57 (11,12,13,21,22,23)
ALT 55 (11,21,23,24)
ALT 68 (11,12,13,21,23,24)

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